

# Farenhyt<sup>™</sup> Series

Technical Submittal Project Name: Consultant:

Constant of the

Technical & Commercial Proposal Project Name:



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Honeywell Introduction

Honeywell is building a smarter, safer, and more sustainable world.

### THAT'S THE POWER OF **CONNECTED**. THAT'S THE POWER OF **HONEYWELL**.

Connected Aircraft | Connected Automobile | Connected Home | Connected Building Connected Plant | Connected Supply Chain | Connected Worker



This document contains certain statements that may be deemed "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical fact, that address activities, events or developments that we or our management intends, expects, projects, believes or anticipates will or may occur in the future are forward-looking statements. Such statements are based upon certain assumptions and assessments made by our management in light of their experience and their perception of historical factors affecting our operations, expected future developments and other factors they believe to be appropriate. The forward-looking statements included in this release are also subject to a number of material risks and uncertainties, including but not limited to economic, competitive, governmental, and technological factors affecting our operations, markets, products, services and prices. Such forward-looking statements are not guarantees of future performance, and actual results, developments and business decisions may differ from those envisaged by such forward-looking statements. We identify the principal risks and uncertainties that affect our performance in our Form 10-K and other filings with the Securities and Exchange Commission.

# **Honeywell Overview**

**\$39.4B Sales (2017)** ~1,300 sites ~131,000 employees Morris Plains, N.J. headquarters Fortune 100



### **Unmatched Scope of** Offerings

- Mechanical, Cockpit (Autopilot), and Software Offerings From Nose to Tail
- Apps, Services, Maintenance, Subscriptions
- **End-to-End Connectivity Solutions** From Hardware to Airtime
- Turbochargers for Fuel Efficiency



**Performance Materials** Home and Building **Technologies** \$10.7B \$9.3B Sales Sales 20.0° evohome Experion<sup>®</sup> Orion Console **Connecting Homes and** Buildings Security and Fire

- Environmental & Combustion Controls
- Connecting Homes With Lyric<sup>™</sup>
- **Open Software Connecting** "Internet Of Things" in Buildings

# and Technologies



# Winning Technology

- **Refining and Petrochemical Catalysts**
- Gas Processing Modular Offerings
- Solstice<sup>®</sup> LGWP Materials
- SmartLine Transmitters
- Asset Optimization Software



### **Connecting Workers**

- Industry Safety (Industrial & Commercial Gas detectors)
- Keeping Workers Safe (Safety Equipment)
- Sensing and Productivity Solutions
- Barcode scanners, Voice, Mobility, Data Analytic Solutions for Workers
- Warehouse Automation

**Aligned to Key Global Macro Trends** 

# **Technology and Innovation**

23,000 engineers worldwide

**11,000** software

developers

150

research and engineering facilities

**38,000** patents granted or pending Honeywell is building a smarter, safer, and more sustainable world. That's the **Power of Connected.** That's the **Power of Honeywell.** 



**100%** Compatible with CMMI Maturity Level 5



# HONEYWELL IN THE MIDDLE EAST

Making Middle Eastern homes, offices and industrial facilities safer, more secure, energy efficient and productive for more than 40 years.



- Honeywell has a legacy of 60 years in the Middle East
- ~1,800 employees across KSA, Egypt, UAE, Bahrain, Qatar, Iraq, Libya, Oman and Kuwait
- 1 manufacturing and 1 R & D unit in KSA



High Level Archtechtures

#### **Level System Architecture**



Figure 1 FAS Networking Schematic Drawing



Figure 2 FAS Schematic Drawing



Figure 3 FFT Schematic Drawing

3. Refrecnce List & Case Studies

#### Honeywell Middle East FZE

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Honeywell (Northford & System Sensors) Project List

| Project name                        | Country |
|-------------------------------------|---------|
| ARAMCO Wasit Gas Plant - Khobar     | KSA     |
| RC Namareg Projects                 | KSA     |
| Ma'aden                             | KSA     |
| Capital Market Authority Tower      | KSA     |
| Rabig PP-2                          | KSA     |
| Rabig PP-10                         | KSA     |
| King Abdullah Financial City        | KSA     |
| Mekka Metro                         | KSA     |
| SABIC Industries - Core Plant       | KSA     |
| SABIC Industries - Port Sabtank     | KSA     |
| Yanbu Export Refinery               | KSA     |
| Marrafiq Yanbu                      | KSA     |
| SWCC Jeddah Plant                   | KSA     |
| SWCC Shouqaiq Plant                 | KSA     |
| SEC Western Substations             | KSA     |
| Jeddah Sea Port                     | KSA     |
| Haramein Metro                      | KSA     |
| Sabic Jubail - ARRAZI entire plant  |         |
|                                     | KSA     |
| Sabic Jubail - IBN ZAHR Plant       | KSA     |
| Saudi Kayan Project                 | KSA     |
| Sabic - Petrokemya                  | KSA     |
| North Park- Aramco                  | KSA     |
| Ma'aden Aluminum Smelter            |         |
| Administration and other buildings. |         |
|                                     | KSA     |
| Sipchem EA & Port project           | KSA     |
| Sipchem EVA Plant                   | KSA     |
| Port Logistic project of SABIC      | KSA     |
| Ibn Rusahid PET II project          | KSA     |
| Ma'aden Rolling Mill                | KSA     |
| 380 SS of SCECO at Raz Al Khair     | KSA     |
| Sabic Marketing Warehouses          |         |
| Rivadh, Dammam & Jeddah             | KSA     |
| SAUDI KAYAN - FAS                   | KSA     |
| Al-Bayroni - SAMAD                  | KSA     |
|                                     |         |
| SABIC - Petrokemya FAS Upgrade      | KSA     |
| Aramco Building - 345               | KSA     |
| ARAMCO RASTANURA                    | KSA     |

|   | NJA                  |
|---|----------------------|
| Yanbu Petrochemical complex project   | KCA                  |
|   | KSA                  |
| SAUDI PAPER   | KSA                  |
| Saudi Chevron Plant Jubail  | KSA                  |
| Project   | Region               |
| Cairo Metro Lines 1, 2 and 3  | Egypt                |
| Cairo Int'l Monitoring Tower  | Egypt                |
| Cairo Airport Satelite Stations   | Egypt                |
| Queen Aalia Airport Jordan  | Jordan               |
| Jomo Kenyata Int'l Airport  | Kenya                |
| Mekka Metro   | KSA                  |
| Jeddah Sea Port   | KSA                  |
| Haramein Metro  | KSA                  |
| Tripoli Monitoring Tower  | Libva                |
| Tripoli Old Terminal  | Libya                |
| Murtalla Muhammad Int'l Airport   | Nigoria              |
|   | Nigeria              |
| Muscat International Airport  | Oman                 |
| Ata-Turk Int'l Airport  | Turkey               |
| Dubai VIP Terminal  | United Arab Emirates |
| Mar del Plata Airport, Mar del Plata,   | <b>.</b>             |
| Buenos Aires  | Argentina            |
| Pistarini Airport Receiving Plant, Ezelza,  | Argonting            |
| Distarini Airport Transmission Plant  | Argentina            |
| $F_{2}$   | Argentina            |
| Pistarini Airport Radar Plant Ezeiza  | Aigentina            |
| Buenos Aires  | Argentina            |
| El Calafate International Airport, El   |                      |
| Calafate, Santa Cruz  | Argentina            |
| Barracks of the Royal Australian Navy   |                      |
| in Cresswell and Lavarack   | Australia            |
| Tugan and North-South Bypass (NSBT)   |                      |
| Tunnels, Queensland   | Australia            |
| Belem International Airport   | Brazil               |
| Palmas International Airport  | Brazil               |
| Recife International Airport  | Brazil               |
| Brasilia International Airport  | Brazil               |
| Canada Line, 20 computerized stations   |                      |
| of the line between Vancouver   |                      |
| and the Vancouver International   |                      |
| Airport   | Canada               |
| Edmonton International Airport  | Canada               |
| St. John's Airport, Newfoundland  | Canada               |
|   | Canada               |
| Moncton Airport, New Brunswick  | Canada               |
| Moncton Airport, New Brunswick<br>Ningbo International Airport. Zheijang  | China                |
| Moncton Airport, New Brunswick<br>Ningbo International Airport, Zhejiang<br>Beijing Capital International Airport | China                |



# LUXURY CONDOMINIUM COMPLEX UPGRADES FIRE ALARM SYSTEM FOR MORE RELIABLE PROTECTION

Honeywell Farenhyt Series IFP-2000

#### The Needs

More accurate alarm location: When the old, conventional system registered an alarm, a sounder only indicated the building the alarm was triggered in, so guards often had to waste time searching for the source floor by floor.

Tamper-proof technology: Over the years, many condo owners hired private contractors to renovate their units, frequently removing smoke detectors or notification devices in the process. These modifications went undetected by the old system, putting people in danger and creating potentially expensive liability issues.

Fiber optic cable: For monitoring purposes, systems in individual buildings were connected to a main fire alarm control panel via underground copper wiring, making the outdated system highly vulnerable to lightning strikes, which occur frequently in this coastal Florida location.

#### **The Solution**

Gulf and Bay Club is a condominium complex comprised of 6 apartment buildings, each with as many as 70 individual residences and several out-buildings, located in Sarasota, Florida. The newly upgraded fire system, installed by Sarasota-based Fire Brigade Alarm Systems, consists of 12 Farenhyt IFP-2000 fire alarm control panels from Silent Knight, networked together with fiber optic cable for improved performance.

The addressable system's immediate identification of alarm locations and ease of monitoring have enhanced maintenance and management – ultimately providing better protection for condo residents. Using an Internet Protocol (IP) line for reporting fire alarm signals to a central monitoring station also helps reduce costs while increasing the system's communications reliability.

Connie Bittle, General Manager of Gulf and Bay Club, and her team were so happy with the results that Fire Brigade extended the system to include 5 additional buildings. The Farenhyt IFP-2000 can connect with as many as 16 fire alarm control panels using fiber optics, so expanding the system was simple.



Farenhyt<sup>™</sup> Series



IFP-2000

"We're happy with it. We have better devices, better access to information, and better control in terms of what unit contractors are doing."

Connie Bittle, General Manager, Gulf and Bay Club

#### **Benefits**

- The new system delivers individual point identification for each of the facility's more than 800 smoke detectors, providing guards with an exact location of each device in alarm.
- The new system sends a trouble signal if anyone removes a smoke detector or tampers with other devices on the network.
- Using fiber optic cable rather than copper wiring for communications helps prevent common transient power issues typically caused by lightning. The telemetry for this operation is also being handled over the fiber optic network, avoiding lightning issues and creating a supervised method of telemetry.
- The Gulf and Bay Club has access to real-time fire alarm information and a historical log of events, so the team can proactively address alarm and trouble events.
- The new system communicates signals to a central monitoring station over a cable modem internet connection, using a single phone line for backup instead of 2 phone lines. This reduces costs and allows the central station to be alerted faster.

Call Honeywell to discover how we can help you with your fire-safety needs.

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#### **Honeywell Fire Solutions**

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### Honeywell



# A CHARTER SCHOOL DISTRICT LOOKS TO THE FUTURE WITH HONEYWELL FARENHYT BLACK

Honeywell Farenhyt Series IFP-2100

The Charter School located in Mesa, Arizona, is home to 800 elementary and middle school students. The campus includes a large 2-story main building (75 class rooms), a gymnasium, cafeteria and two computer labs. The charter school's district long ago established Honeywell Farenhyt<sup>™</sup> as their standardized fire safety system across all schools.

#### **The Needs**

- A simple, yet comprehensive out-ofthe-box Farenhyt fire safety system
- A life safety system that could communicate beyond fire events
- Ability to move away from land lines as sole communications option
- Emergency coverage for portable buildings

#### The Challenge

As a new-build project in 2018, the school requested a forward-thinking, fire security system that could provide maximum emergency coverage, advanced communication options, and be scalable for future campus expansions.

The school wanted a comprehensive, out-of-the-box Farenhyt system that could address not only current emergency needs, but also grow as the telecommunications, campus size, and school district grew. While current Farenhyt fire systems are well suited to protect students and staff from fire events, they require an equipment upgrade to provide non-fire emergency communication capabilities. This meant no verbal commands could be deployed for non-fire emergencies, such as active shooter scenarios, unless additional voice-activation side cars were installed. This would incur additional equipment and labor costs.



Farenhyt<sup>™</sup> Series

In addition, current stand-alone Farenhyt panels relied on land-based phone lines, which would limit the school's ability to modernize into digital or VOIP. Looking into the future, the charter school wanted the ability to expand and upgrade key features, including potential wireless detection for some of the portable buildings.

#### Solution

Intelligrated Communications Inc. (ICI) of Arizona, an authorized Engineered Systems Distributor (ESD) of Honeywell fire safety systems, saw an ideal opportunity to integrate the new Farenhyt Series Black into the charter school's existing fire system. ICI chose the IFP2100ECS panels for their ability to combine an intelligent analog/addressable fire alarm control panel with an emergency communications system.

The IFP2100ECS can store 15 recordable messages, mapped to eight ECS buttons. ECS messages can be prioritized of fire when needed. This would allow the charter school to pre-program their emergency response messages appropriate for fire and non-fire events, and deploy whichever was necessary.

To further enhance communications, the panels feature built-in dual phone line digital alarm communicator/transmitter (DACT), with IP and optional cellular technology. This would allow the school to move away from land lines, when ready, and adopt a fully digitized communications system.

"This panel has the Alarmnet already built in, so the school can switch from phone to internet anytime," states Mat Amerman, president and CEO of ICI. "There will eventually be no need for dedicated phone lines. This saves money... it's future proofing!"

ICI also chose the new IFP2100ECS panels for their ability to integrate with SWIFT<sup>™</sup> wireless fire alarm detectors. SWIFT is a Class A, commercial wireless fire detection system using a robust, self healing mesh technology for a stronger and more reliable network. SWIFT sensors detect fire, just like their wired counterparts, while providing the installation flexibility of a wireless format. This solution was ideal for the school's plans for expansion requiring portable structures. SWIFT detectors could simply be adhered to the structure, then removed or relocated when necessary. No unnecessary and costly wire installations would be required to accommodate temporary facilities.

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#### **Honeywell Security & Fire**

12 Clintonville Road Northford, CT 06472 800-328-0103 www.honeywell.com The IFP2100ECS panels can be expanded up to 2,100 points per panel, making it the largest in the Farenhyt Black Series, and ideal for the 90,500 sq ft campus.

"The new IFP2100ECS comes with almost everything you need in one box. That makes it incredibly easy to provide customers with a fast, turnaround solution for upgrading their fire systems," comments Mat. He continues, "this school district has standardized Farenhyt as their system of choice, and this new option will make upgrades much simpler

#### **Benefits**

- Reduced installation costs through latest Farenhyt fire panels with built-in ECS
- Future ability to integrate digital and VOIP communications
- Cost savings through wireless coverage option for portable buildings
- Discreet, black fire panels that blend in

### Honeywell



# SYSTEM UPGRADE SETS STAGE FOR UNIVERSITY FIRE PROTECTION

Honeywell Farenhyt Series IFP-1000ECS

#### The Needs

- Addressability when something happens, staff members need to be able to identify the location of the event and determine severity.
- The integration of multiple features into one system to simplify design and installation.
- A system capable of outfitting the building's domed ceiling, reaching 52 feet at its peak, with speakers and speaker strobes.

#### **The Solution**

At 26,000 square-feet, the newly renovated Prather Coliseum at Louisiana's Northwestern State University (NSU) is the largest facility in its parish (county). When the building's fire alarm system was found to have unrepairable issues, the facilities team turned to Fire Tech Systems, a fire protection consultant, for some much-needed updates. It started as a quick fix, but the project quickly transformed into a large-scale system expansion and overhaul.

Since NSU was in the process of renovating the facility and increasing its seating capacity, the team decided to upgrade its fire protection and voice evacuation system at the same time. Fire Tech Systems chose System Sensor's integrated mass notification system to get the massive job done – in only two months.

"We like the panel's ease of installation and programming, capability to expand, and user-friendliness for the operator," states Ronald J. Case, Senior Project Manager of Fire Tech Systems. "The three-year warranty was another big plus."

Not only did the new system bring NSU's fire protection up to code, but the coliseum went from only 6 pull stations and 2 horns, to more than 175 notification devices, 73 detectors, 16 pull stations, and 85 modules for integration into other building equipment.



### Farenhyt<sup>™</sup> Series



"We have a long-running relationship with System Sensor and have never found anything comparable to the sound quality. In addition, they're economical products and we can pass those savings down to our end-user." *Ronald J. Case, Senior Project Manager, Fire Tech Systems* 

**Benefits** 

- An economical system that can be easily upgraded as code requirements or facility changes transpire.
- Smart placement of speakers reduces distortion during an emergency event.
- The IFP-1000ECS is fully-supervised, so if a speaker or detector is in need of repair or completely offline, the central monitoring station and NSU facility management are automatically notified.
- Relays are incorporated into the addressable duct detectors for HVAC shutdown and heat detectors are installed outside the shower area to keep humidity from tripping smoke detectors, minimizing false alarms.
- The modern fire alarm and emergency communications system, combined with expanded seating and a new hardwood floor, give the coliseum a fresh, new look.

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#### **System Description**

#### **FP-2100HV Fire Alarm Control Panel**

The Honeywell Farenhyt Series is your turnkey solution for fire protection, emergency communications and CO detection all in one easy to use package. From the top floor to the bottom line, Honeywell Farenhyt Series continue to lead with innovative and feature-rich products, and they are simultaneously affordable. Honeywell Farenhyt Series has always focused on functionality and flexibility, which is why its products are routinely found in educational institutions, hospitals and health care facilities, commercial complexes, commercial living spaces, and government buildings around the world.

The IFP Series of fire products offers flexible, easy-to-use and maintain fire and CO alarm control systems, with the power of choice to select the right size and accessories for the project.

IFP-2100 has the interconnection capability for up to 32 panels. The system has two modes of operation, multiple panels covering one larger building, or multiple independent buildings.



#### Features:

- Built-in support for up to 159 IDP/SK detectors and 159 IDP/SK modules or 127 SD SLC devices.
- Four-line LCD display with 40 characters per line
- Four programmable function keys
- Network card allows copper network connection with a multi-mode or single-mode fiber connection option.
- Built-in dual phone line, digital alarm communicator/transmitter (DACT), IP or optional cellular technologies.
- Jump Start Auto Programming® feature for easy programming.
- Built in USB interface for programming
- Supports up to four SWIFT wireless gateways. Each gateway can have up to 49 wireless devices
- Supports Class B (Style 4) and Class A (Style 6 or Style 7 configuration for SLC and SBUS.

#### IFP-2100ECS Fire Alarm Control Panel

The IFP-2100ECS (red) and IFP-2100ECSB (black) are intelligent analog/ addressable Fire Alarm Control Panels combined with an Emergency Communication System (ECS). When the ECS features are enabled, they are integrated with the fire alarm and voice evacuation functions of the control panel.

The IFP-2100ECS panel and accessories provide features to meet the requirements for Mass Notification Systems as described in UL 2572.

This state of the art fire alarm control panel allows you to choose one of three SLC protocols per system. The IFP-2100ECS panel contains one built in signaling line circuit (SLC), which can support 159 IDP/SK sensors and 159 IDP/SK modules per loop. Additional SLC loops can be added using the model 6815 SLC expander for IDP/SK devices to increase the overall point capacity to a maximum of 2100 points per panel.

IFP-2100ECS has the interconnection capability for up to 32 panels. The system has two modes of operation, multiple panels covering one larger building, or multiple independent buildings. A separate network can be used for voice paging across all panels.



#### Features:

- Single enclosure for both Fire and Emergency Control System components.
- Can select ECS message as priority over fire.
- Network support for up to 32 Sites.
- Four-line LCD display with 40 characters per line.
- Separate network support for voice paging.
- 15 Recordable one minute messages that can be mapped to eight ECS buttons.
- Support for up to 16 SBUS addressable amplifiers using a combination of ECS-50W, ECS-125W, ECS-INT50W or ECS-DUAL50W for a maximum of 2000 Watts

#### **IFP-NET-3 Graphical Monitoring Workstation.**

IFP-Net is a Microsoft® Windows® based graphic user interface linking selected fire alarm control panels together to a PC to easily monitor them. The PC operator would receive real-time information about a system with details showing right where the event is occurring.

The IFP-Net-3 consists of a Honeywell Farenhyt Series FACP connected to a Gateway via a 5824 module, which is plugged into a TCP/IP Ethernet port and communicates with a PC (PC not included) with the IFP-Net-3 software. No dedicated wire or fiber connection is required with this system the existing Ethernet infrastructure is utilized.



The IFP-Net-3 supports up to 200 Gateway's per system, which can be connected to a compatible Honeywell Farenhyt or Silent Knight FACPs.

- Support of IFP-Series devices with IFPN-GW-Kit installation package
- Auto-navigation automatically locates and zooms to the device related to an alarm or event based on the

priority of the event

- Configurable windows provide flexibility to display information as desired
- Dynamically generated sizable key map
- New and Acknowledged Event boxes display all off-normal events, simultaneously with graphic screens
- Operator log with response tracking
- History Manager records operator, event, and response (with time and date stamp) to disk
- Powerful search filters for custom reporting of all events
- Screen database with screens for all sites.
- Definable function keys, functional buttons, and navigational buttons
- Floor plans can be zoomed in and out to any level
- Devices can be placed at any zoom level
- Import vector.dfx, wmf, .bmp, .jpg or .gif
- Full linked multimedia (text, audio, video, and bitmaps) to any device, all-definable by the administrator.

#### **RA-2000 Display Remote Annunciator.**

The RA-2000 red remote annunciator can be used to operate and program the IFP-2000 or RPS-2000 FACP. The RA-2000's keypad and display match the builtin annunciator of the IFP- 2000 control panel. The remote annunciator connects to the control panel via the RS-485 SBUS. When the system is in normal operation and has AC power, the Power LED is lit and all other LEDs are off. The other LEDs turn on as alarms, supervisors, troubles, and system silenced occur. The RA-2000 can be surface or flush mounted and is also available in gray color as RA-2000GRAY

|     | BUTERNSONY | TROOPLE          | 84.04029             | POALS |
|-----|------------|------------------|----------------------|-------|
| 1   |            |                  | 0                    | 88    |
| Hor | neywell™   | Model F<br>REMOT | 8A-2000<br>TE ANNUNC |       |

- 160-character backlit LCD display (4 lines with 40 characters each).
- Operation and appearance is identical to IFP-2000 built-in annunciator.
- Tactile/audible feedback when key is pressed on annunciator
- RS-485 SBUS interface to panel.
- Can be flush or surface mounted. Trim ring (P/N RA-100TR or RA-2000GRAYTR) available for surface mounting.
- Five Status LEDs for; alarms, supervisory, trouble, silence and AC power indications.
- Four programmable function keys.

- Available in red or gray color
- Wiring lengths up to 6000 ft. from the control panel.
- UL listed, complies with NFPA 72 and FM Approved.

#### **ECS-50W Intelligent 50 Watt Amplifier**

The ECS-50W (red cabinet) or ECS-50WB (black cabinet) are intelligent 50 watt amplifiers for use with the IFP-100ECS, IFP-300ECS, IFP-1000ECS, IFP-2000ECS and IFP-2100ECS. The ECS-50W or ECS-50WB are used to amplify the audio message for distribution throughout the facility. Since it is designed as a self-contained distributed amplifier it can be conveniently located near the area of protection to reduce wiring demands.

Each ECS-50W/ECS-50WB is capable of producing 50-watts of audio power. Up to eight ECS-50W's can be used on the voice evacuation system.

#### Features:

- SBUS addressable, up to eight ECS-50Ws per system for total of 400 watts.
- Each ECS-50W is supervised and has four onboard audio circuits expandable to eight with the ECS-CE4 for a system total of 64 audio circuits
- Selectable for 25V or70.7V operation.
- Six-wire connection to ECS system: Two-wires for the VBUS and four-wires for the SBUS connections.
- The ECS-50W/ECS-50WB can be surface or flush mounted

#### ECS-DUAL50WB Intelligent 50 Watt Amplifier

The ECS-DUAL50W (red) and ECS-DUAL50WB (black) are intelligent 50 /100 watt amplifier for use with the IFP-100ECS, IFP-300ECS, IFP- 1000ECS, IFP-2000ECS or IFP-2100ECS. The ECS-DUAL50W is used to amplify audio message for distribution throughout a facility. The ECS-DUAL50W is capable of producing up to 100 watts of audio power. The ECS-DUAL50W has its own power supply with battery backup and eight speaker circuits. The ECS-DUAL50W is fully supervised by the main panel for trouble conditions.

- Amplifier is compatible as: 50W with 50W as backup
- 100 W single channel
- Dual channel using 50W for each channel





- Dual channel 50 W each channel with 50 W backup using ECS-50WBU
- Amplifier Bandwidth 400Hz to 4000Hz

#### **IFP-FFT Fire Fighter Telephone Control Systems**

The IFP-FFT is a Fire Fighters Telephone communication system. The IFP-FFT Fire Fighter Telephone System provides supervision, annunciation, and control for local and remote telephone handsets. The IFP-FFT with keypad, provides indications of phone activation, and corresponding trouble conditions. The FFT-24 expander board lets you add additional zones to the IFP-FFT. The IFP-FFT can use up to two FFT-24s for a total of 72 zones. Each zone consists of one addressable monitor module (IDP-Minimon) and a minimum of one Fire Fighter Telephone Jack (FFT-FPJ).



#### Features:

- IFP-FFT Fire Fighter Telephone module for control and annunciation of up to 72 remote telephone jacks
- A maximum of 10 Fire Fighter Remote Handsets (FFT-RHS) can be used at one time to communicate over the telephone circuit connected to the IFP-FFT.
- Single telephone station mount comes in a lockable cabinet containing one remote handset. Available in Recessed mount (FFT-STSR) or surface mount (FFT-STSS).
- System Status LEDs
- Supports two FFT-24 zone expanders

#### IDP-PHOTO Intelligent Plug-In Photoelectric Smoke Detectors

The IDP-PHOTO is a photoelectric smoke detector and the IDP-PHOTO-T is a photoelectric smoke detector with thermal. These plug-in smoke detectors, with integral communication, provide features that surpass conventional detectors and are for use with the Honeywell Farenhyt Series fire alarm control panels (FACPs). Detector sensitivity can be programmed from the FACP software. Sensitivity is continuously monitored and reported to the FACP. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.



IDP-Photo and IDP-Photo-T have a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources.

- Sleek, low-profile design
- Reliable analog communications for trouble-free operation
- Superior EMI resistance for reliability
- Simple field cleaning for code compliance
- Dual LED indicators for 360° visibility

#### IDP-FIRE-CO Advanced Multi-Criteria Fire/CO Detector

The IDP-FIRE-CO is a plug-in, addressable device that provides both fire and carbon monoxide (CO) detection. For fire, the detector combines four separate sensing elements in one unit (smoke, CO, light/flame, and heat) to sense multiple components of a fire. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulate. For CO, the detector's electrochemical sensing cell creates a separate signal for life safety CO detection. Released through the incomplete burning of various fuels, CO is a colorless, odorless and deadly gas that is virtually impossible to detect with the human senses. Because the potential exists for dangerous levels of CO to accumulate in almost any building, legislation mandating the use of CO detection.



in commercial spaces continues to increase across the U.S. and Canada. The IDP-FIRE-CO is listed to the UL 2075 standard for system-connected life safety carbon monoxide monitoring.

- Unique ability to detect all four major elements of a fire:
  - o Smoke
  - Carbon Monoxide (CO)
  - o Light/flame
  - o Heat
- Separate CO detection signal
- Highest nuisance alarm immunity
- Automatic drift compensation of smoke sensor and CO cell
- Uses only one address on the SLC
- RealTest® CO testing capability
- UL 268 and UL 2075 listed
- Separates audible signal for fire or CO alarm when used with B200S base
- CO cell end-of-life warning and fault

#### **10 IDP-Heat-HT Intelligent Plug-In Thermal Detectors**

The IDP-Heat, IDP-Heat-HT, and IDP-Heat-ROR are plug in thermal detectors, with integral communication, that provide features that surpass conventional detectors. These thermal detectors are for use with Honeywell Farenhyt series fire alarm control panels (FACPs). Detector sensitivity can be programmed from the FACP software. Sensitivity is continuously monitored and reported to the FACP. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels IDP-Heat is a fixed temperature thermal detector that uses a thermistor sensing circuit to produce 135°F (57°C) fixed thermal detection.



#### Features:

- Sleek, low-profile design
- Reliable analog communications for trouble-free operation
- Superior EMI resistance for reliability
- Simple field cleaning for code compliance
- Dual LED indicators for 360° visibility
- Dual electronic thermistor design on the IDP-Photo-T

#### **Detector Bases**

The B501 4" mounting base and B200S Sounder base are plug in detector bases for IDP style detectors intended for use with Honeywell Farenhyt Series fire alarm control panels (FACPs).

The B200S sounder base series is designed for new and existing commercial dwelling unit applications. It offers maximum flexibility in installation, configuration, and operation to meet or exceed UL 268 and UL 464 requirements.

The sounder base "listens in" to the communication between the attached sensor head and the fire alarm control panel (FACP) to adopt the same address as the



detector, but as a unique device type on the loop. The FACP can then use that address to command an individual sounder or a group of sounders to activate. In addition, the FACP's will enable custom tone patterns.

The B200S series sounder bases recognize the System Sensor® synchronization protocol.

- Plug-in mounting provides ease of installation
- Tamper-proof feature prevents removal of the detector without the use of a tool
- B200S Includes a pre-wire mounting plate fits various junction box sizes
- B200S Supports Continuous, ANSI Temporal 3, ANSI Temporal 4, and March Time tone
- B200S has the ability to synchronize with other System Sensor notification devices
- UL Listed

#### **DNR Duct Smoke Detector**

The DNR Intelligent non-relay photoelectric duct smoke detector housing and DNRW watertight non-relay photoelectric duct smoke detector housing (head not included) are for use with Honeywell Farenhyt Series fire alarm control panels (FACPs). The DNR and DNRW feature a pivoting housing that is flexible enough to fit configurations from square to rectangular. They feature low-flow technology that enables duct smoke detection



throughout a broad range of airflow environments. Many difficult to solve HVAC applications occur in low airflow duct applications where reliable smoke detection is critical. These duct detectors can detect smoke at air speed velocities of 100 feet per minute or greater, while continuing the same reliable performance to 4000 feet per minute.

#### Features:

- Photoelectric integrated low-flow technology
- Air velocity rating from 100 to 4000 feet per minute (0.5 to 20.32 meters per second)
- Support for Class B or Class A wiring
- Patented sampling tube installs from front or back of the detector with no tools required
- Provides trouble signal in the event the sensor cover is removed or improperly installed.
- UL 268A listed.
- Remote testing capability

#### IDP-PULL-DA Addressable Double Action Pull station

The IDP-PULL-DA is a dual action pull station requiring two motions to active the station. Both pull stations are designed to work with Honeywell Farenhyt series fire alarm control panels (FACPs). The IDP-PULL-SA and IDP-



PULL-DA can be surface mounted to an SB-I/O surface back box or semi-flush mounted on a standard single-gang with a minimum depth of 2.13"(5.40 cm) or double gang or 4" (10.61 cm) square electrical box. You can also use the optional (System Sensor® PN BG-TR) trim ring if the station is being semi-flush mounted.

#### Features:

- Installer can open station without causing an alarm condition
- Dual-color LED is visible through handle of station blinks green to indicate normal operation and remains steady red in an alarm condition
- Key operated test and reset lock using lock plate actuator
- Key matches compatible FACP locks
- Meets ADA requirement for 5 lbs maximum pull force to active

#### **IDP-CONTROL Addressable Notification Module**

The IDP-CONTROL is an addressable notification module for use with Honeywell Farenhyt Series fire alarm control panels (FACPs). The IDPCONTROL gives you the flexibility to add notification circuits wherever they are needed on a Farenhyt FACP signaling line circuit (SLC) loop. The IDP-CONTROL provides supervised monitoring of wiring to load devices that require an external power supply to operate, such as bells, horns, and strobes. It is capable of Class B and Class A supervision.

#### Features:

- Flexible solution for adding notification circuits where needed
- Support for Class B (style Y) or Class A (style Z) wiring
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Polling LED visible through the cover plate
- Rotary address switches for fast installation

#### 6.A.4.15 IDP-MONITOR Addressable Monitor Module

The IDP-MONITOR is an addressable monitor module for use with Honeywell Farenhyt Series fire alarm control panels (FACPs). The IDP-MONITOR acts as an interface to contact devices, such as woterflow switches and pull stations. The IDP-MONITOR supports Class A supervised or Class B supervised witing to the load device. Conventional 4-wire detectors can be monitored for alarm and trouble conditions.







#### Features:

- Support for Class B (style Y) or Class A (style Z) wiring
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Polling LED visible through the cover plate
- Rotary address switches for fast installation

#### **IDP-ISO Line Isolator Module**

The IDP-ISO is a SLC loop line isolator module for use with the Honeywell Farenhyt Series fire alarm control panels (FACPs).

The IDP-ISO acts as an automatic switch that opens when the line voltage on the signaling line circuit (SLC) loop drops below four volts. Isolator modules should be spaced between groups of sensors or modules in a loop to protect the rest of the loop. If a short occurs between any two isolators, then both isolators immediately switch to an open circuit state and isolate the devices between them. The remaining units on the SLC loop continue to fully operate. No more than 25 devices are recommended for each group.



#### Features:

- Isolates short circuits on an SLC loop
- Protects the modules on the SLC loop so other devices continue to operate
- Panel controlled status LED that flashes green in normal state and is solid red in alarm

#### **P2RL Indoor Horn and Strobe**

The L-Series audible visible notification products offer the most versatile and easyto-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.



#### Features:

- Updated Modern Aesthetics.
- Offers small profile devices for horns and horn strobes.
- Automatic selection of 12- or 24-volt.
- Uses field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, 185

#### **PC2RL Indoor Horn and Strobe**

The L-Series audible visible notification products offer the most versatile and easy-touse line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.



#### Features:

- Listed for ceiling mounting only.
- Features a plug-in design with minimal intrusion into the back Box.
- Designed with tamper-resistant construction.
- Field-selectable candela settings on ceiling units: 15, 30, 75, 95, 115, 150, 177
- Compatible with System Sensor synchronization protocol

#### **HRL Indoor Selectable Horn**

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation.

All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.



#### Features:

- Updated Modern Aesthetics.
- Small profile devices for Horns and Horn Strobes
- Tamper-resistant construction
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185.
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Horns listed for wall or ceiling use

#### **SCRL Indoor Strobe Ceiling**

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation.

All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed

#### Features:

- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Field-selectable candela settings on ceiling units: 15, 30, 75, 95, 115, 150, and 177
- Listed for ceiling mounting only
- Universal mounting plate for ceiling units

#### SPCRL Ceiling speaker

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation.

All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.



To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed

#### Features:

- Plug-in design and protective cover reduce ground faults
- No extension ring required
- Rotary switch simplifies field selection of speaker voltage (25 and 70.7 Vrms) and power settings (¼, ½, 1 and 2 watts).
- Speakers offer high fidelity and high volume sound output
- 520 Hz +/- 10% square wave tone capable with compatible FACP

#### SPSRL speaker with strobe

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation.

All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed

#### Features:

- Plug-in design and protective cover reduce ground faults
- Universal mounting plate with an onboard shorting spring tests wiring continuity before installation
- Field selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, 185
- Rotary switch simplifies field selection of speaker voltage (25 and 70.7 Vrms) and power settings (¼, ½, 1 and 2 watts)
- Speakers offer high fidelity and high volume sound output
- 520 Hz +/- 10% square wave tone capable with compatible FACP

#### **Aspirating Detection**





The FAAST XT aspirating smoke detector combines advanced particle separation with unique dual source optical smoke detection technology to provide highly sensitive Very Early Warning Fire Detection while providing enhanced immunity to false alarms. This technology enables FAAST XT to accurately detect incipient fire conditions as early as 60 minutes before a fire actually starts when set for Early Warning and Very Early Warning Fire Detection in applications ranging from mission critical to harsh and extreme environments.

An installed FAAST XT device can protect up to 28,800 sq. ft. (2,676 sq. m) in standard coverage type applications and can be monitored in several different ways, including: Serial or TCP Modbus, Ethernet over a



LAN or a direct connection, or via FAAST XT's onboard USB. When connected to a LAN, FAAST XT's email server can provide email event notification to Appropriate December. FAAST XT also communicates alarm and notifications via form C relays

#### Features:

- Approved for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations
- Provides Very Early Warning Fire Detection, as precise as 0.00029%/ft obscuration
- Five alarm levels and three sensitivity modes provide application flexibility
- A single device covers up to 28,800 square feet.
- Dual source optical detection chamber with enhanced algorithms provide high sensitivity with greater immunity to nuisance conditions
- TCP and Serial modbus for easy integration with building management systems.
- Easy configuration via USB interface, no external power needed

#### 6.A.4.24 FSL100-UV Flame Detector

The range consists of UV, UV/IR and IR3 flame detectors. All utilize sophisticated sensing and signal analysis to detect fires quickly while also rejecting false alarms.

The FSL100 may be small and lightweight for easy installation but it is designed to work in tough indoor/outdoor environments, as well as potentially explosive atmospheres with a large field of view it can detect a range of different types of fire including hydrocarbon and non-hydrocarbon sources. Available in UV, UV/IR and 3IR we have your application covered.

#### Features:

• Suitable for indoor applications; for example fume hoods and hydrogen storage areas


- Effective solution for materials burning with low temperatures, e.g. Sulphur.
- Alarms to fires from heavy hydrocarbons (wood, paper, petroleum, etc.), light hydrocarbons (methanol, methane, etc.), and hydrogen
- Good resistance against the influences of:
  - o Direct and reflected sunlight
  - Artificial light, such as fluorescent tubes and glass covered halogen lamps

### **RPS-1000 Aux Power Supply**

RPS-1000 intelligent distributed power module adds 6.0 amps of power, six Flexput<sup>™</sup> I/O circuits, and two Form C relay circuits to a compatible Farenhyt addressable system.

RPS- 1000 connects to the FACP via the RS-485 system bus allowing up to an additional 6,000 feet of wiring. Each RPS- 1000 is optically isolated providing ground loop isolation and transient protection. RPS-1000 supports its own backup battery and monitors the AC power.

The Flexput circuits can be programmed as notification appliance circuits, continuous, resettable, or door holder power, or as conventional initiation circuits for 2 or 4-wire smoke detectors and contact devices (e.g. pull stations).



### Features:

- Six onboard Flexput circuits programmable for:
- Notification appliance circuits (Class B/Style Y & Class A/Style Z)
- Conventional initiation circuits (Class B/Style B & Class A/Style D) both 2- and 4-wire.
- Auxiliary power (for door holders, continuous power, or resettable power)
- 6.0 amps output power
- Supports Class A (Style 6) and Class B (Style 4) configuration of the SBUS
- Up to 6,000 foot wiring distance from the RPS-1000
- Battery charging capacity is 35 Ah

### FM Series Electromagnetic Door Holder

FM Series electromagnetic door holders are designed for virtually any remote door release application. They are primarily used to hold fire and smoke barrier doors open until released by a remote smoke detector or other switching device. The complete assembly consists of: an armature contact plate with adjustable pivot mounting for installation in the door, and a heavy-duty electromagnet, in a durable plastic enclosure, mounted on the wall or floor behind the door. A separate closing device is required.



### Features:

- All models support 12 VDC, 24 VAC/VDC, or 120 VAC.
- Improperly applied voltage does not damage the unit.
- 25 to 40 pounds (11.3 kg) holding power.
- Magnet protected against transients and surges up to 600 volts (AC models).
- Fail-safe operation; power failure releases door to close.
- Positive release button initiates closing motion.
- Floor- and wall-mount models

### List of Devices:

### List of devices proposed

|   | Product code | Description  |
|---|--------------|--|
|   | Loop Panel   |  |
| 1 | IFP-2100HV   | Farenhyt 2100 point Addressable Fire Panel, 4 line LCD display with 40 characters per line, One SLC loop card inbuilt, 159 Detectors and 159 Modules per loop, Additional Loop cards can be expanded through 5815RMK (Remote mounting Kit which accommodates 2 SLC Cards (6815)), Network up to 32 panels, in build eight on-board Flexput <sup>™</sup> circuits, Built in USB interface for programming, Four programmable function keys, 240VAC @ 50/60Hz, 2.8A, UL Listing and FM Approved, Black Cabinet |
| 2 | 6815         | SLC Loop Expander which supports 159 Detectors and 159 Modules   |
| 3 | 5815RMK      | Remote Mounting Kit  |
| 4 | SK-NIC       | Network Interface Card   |
| 5 | SK-FSL       | Network Interface Card   |
| 6 | BB-55F       | BATTERY BOX, HOLDS UP TO TWO BAT-12260 (26 AH) OR BAT-12550 (55 AH)  |
| 7 |              |  |

| 18 | IFP-2100HV  | Farenhyt 2100 point Addressable Fire Panel, 4 line LCD display with 40 characters per line, One SLC loop card inbuilt, 159 Detectors and 159 Modules per loop, Additional Loop cards can be expanded through 5815RMK (Remote mounting Kit which accommodates 2 SLC Cards (6815)), Network up to 32 panels, inbuilt eight on-board Flexput <sup>™</sup> circuits, Built in USB interface for programming, Four programmable function keys, 240VAC @ 50/60Hz, 2.8A, UL Listing and FM Approved, Black Cabinet |  |
|----|---|---|--|
| 19 | 6815  | SLC Loop Expander which supports 159 Detectors and 159 Modules  |  |
| 20 | 5815RMK   | Remote Mounting Kit   |  |
| 21 | SK-NIC  | Network Interface Card  |  |
| 22 | SK-FSL  | Network Interface Card  |  |
| 24 | ECS-<br>DUAL50WHV                                     | Amplifier 50/100 Watt Dual Channel / Back-up Amp -high Voltage 220vac 50<br>Hz  |  |
| 25 | Farenhyt Series Panels Software GUI/Accessories       |   |  |
| 26 | IFP-NET-3   | Software and key (a key is required on each PC in system)   |  |
| 27 | IFPN-GW-KIT   | Installation packages includes Gateway interface, Cabinet, and 5824 Serial/Parallel printer interface   |  |
| 28 | Annunciator Panel                                     |   |  |
| 29 | RA-2000   | 4 X 40 Display Remote Annunciator. Red  |  |
| 30 | Aux Power Supply                                      |   |  |
| 31 | 5495 6 Amp Conventional Power Supply - 4 NAC Circuits |   |  |
| 32 | IDP-MONITOR   | Addressable Monitor Module  |  |
| 33 | SMB500  | Optional Surface Mount Back box   |  |
| 34 |   | Addressable fire alarm optical smoke detectors  |  |
| 35 | IDP-PHOTO   | Intelligent Addressable Photoelectric Detector  |  |
| 36 | B501  | 4" Mounting Base  |  |
| 37 |   | Addressable fire alarm optical smoke detector with sounder  |  |
| 38 | IDP-PHOTO   | Intelligent Addressable Photoelectric Detector  |  |
| 39 | B200S   | Intelligent Sounder Base High/low Volume Output W/ANSI Temporal 3 Or Temporal 4, Continuous, March Or Custom Tone   |  |
| 40 |   | carbon monoxide detector  |  |
| 41 | IDP-FIRE-CO   | Advanced Multi-Criteria Fire/CO Detector  |  |
| 42 | B501  | 4" Mounting Base  |  |
| 43 |   | Smoke Raise Floor   |  |
| 44 | IDP-PHOTO   | Intelligent Addressable Photoelectric Detector  |  |
| 45 | B501  | 4" Mounting Base  |  |
| 46 | RA100Z  | Remote LED. Mounts to single gang box.  |  |
| 47 | Manual station double                                 |   |  |
| 48 |   |   |  |
| 49 | IDP-PULL-DA   | Addressable Manual Dual Action Pull Station   |  |
| 50 | Smoke Above Ceiling                                   |   |  |
| 51 | IDP-PHOTO   | Intelligent Addressable Photoelectric Detector  |  |
| 52 | B501  | 4" Mounting Base  |  |

| 53 | RA100Z                               | Remote LED. Mounts to single gang box.   |  |
|----|--------------------------------------|--|--|
| 54 | Duct detector                        |  |  |
| 55 | IDP-PHOTOR                           | Intelligent Photoelectric Replacement Smoke Detector remote test capable, for use with DNR (W) duct smoke detector                         |  |
| 56 | DNR                                  | InnovairFlex intelligent duct detector, non-relay, does not include head   |  |
| 57 | ST-5                                 | Detector sampling tube, 4-8' ducts   |  |
| 58 | P48-21-00                            | Replacement End Cap for Metal  |  |
| 60 | RTS151KE                             | Key-Activated Remote Test station  |  |
| 61 | Beam Detector                        |  |  |
| 62 | IDP-BEAM                             | Intelligent Addressable Beam Smoke Detector  |  |
| 63 | BEAMMMK                              | Projected Beam Smoke Detector Multi-Mount Kit, Wall or Ceiling.  |  |
| 64 | BEAMLRK                              | Projected Beam Smoke Detector Long Range Kit, Increases Distance.  |  |
| 65 | RTS151                               | Remote Test Station.   |  |
| 66 | Multi detector                       |  |  |
| 67 | IDP-<br>ACCLIMATE                    | Intelligent Addressable Multi-criteria Photoelectric Smoke Detector (Smoke with Thermal (Base Not Included)                                |  |
| 68 | B501                                 | 4" Mounting Base   |  |
| 69 | Aspirating                           |  |  |
| 70 | 9400X                                | FAAST XT 4 CHANNEL   |  |
| 71 | 761520.1                             | Pipe (ABS), length 3 m, 25 mm PU 10 pcs. Total 30 m.   |  |
| 72 | 761525.1                             | Sleeve (ABS) for 25 mm pipe PU 10 pcs.   |  |
| 73 | 761523.1                             | 45° angle (ABS) for 25 mm PU 10 pcs.   |  |
| 74 | 761522.1                             | 90° angle (ABS) for 25 mm PU 10 pcs.   |  |
| 75 | 761526.1                             | End cap (ABS) for 25 mm pipe PU 10 pcs.  |  |
| 76 | 761542.1                             | Suctions hose set for 25 mm  |  |
| 77 | HLSPS25                              | Power supply   |  |
| 78 | 761524.1                             | T-piece (ABS) for 25 mm pipe PU 10 pcs.  |  |
| 79 |                                      | FIRE ALARM CONTROL MODULE  |  |
| 80 | IDP-<br>CONTROL                      | Addressable Control Module   |  |
| 81 |                                      | Fixed Heat detector  |  |
| 82 | IDP-HEAT                             | Intelligent Addressable Thermal Detector Fixed Temp 135 (Base Not Included)  |  |
| 83 | B501                                 | 4" Mounting Base   |  |
| 84 | Heat ROR detector with isolator base |  |  |
| 85 | IDP-HEAT-<br>ROR                     | Intelligent Addressable Thermal Detector with Rate-of-Rise feature   |  |
| 86 | B501                                 | 4" Mounting Base   |  |
| 87 | Heat Sounder                         |  |  |
| 88 | IDP-HEAT-<br>ROR                     | Intelligent Addressable Fixed temperature and rate-of rise thermal detector (Rate-of-rise detection 15°F/min (9°C/min) (Base Not Included) |  |
| 89 | B200S                                | Intelligent Sounder Base High/low Volume Output W/ANSITemporal 3 Or Temporal 4, Continuous, March Or Custom Tone                           |  |

| 90         | FLAME Detector  |   |  |
|------------|---|---|--|
| 91         | FSL100-UV   | UVIR flame detector RED, ATEX FM EN54   |  |
| 92         | Heat Linear   |   |  |
| 93         | S2000A  | Sensor cable  |  |
| 94         | N4387B-006  | LHD   |  |
| 95         | A2403A  | Steel Clamp   |  |
| 96         | FTT   |   |  |
| 97         | IFP-FFT   | Farenhyt Fire Fighter Telephone Control Panel   |  |
| 98         | FFT-24  | 24 Zone Expander  |  |
| 99         | FFT-FPJ   | Fire Fighter Phone Jack   |  |
| 100        | FFT-STSS  | Single Telephone Station Surface Mount. A lockable cabinet containing one remote handset. |  |
| 101        | IDP-<br>MINIMON   | Intelligent Addressable Mini Monitor Module, Supervised, Single Contact                   |  |
| 102        | AUX POWER   |   |  |
| 103        | RPS-1000HV  | High voltage (240V) Intelligent Distributed Power Module                                  |  |
| 104        | door Holder   |   |  |
| 105        | FM980   | FM-980, 12 VDC, 24 VAC/VDC, 120/250 VAC, surface floor mount, single door.                |  |
| 106        |   | sounder and speakers  |  |
| 107        |   |   |  |
| 108        | SRL   | STROBE RED WALL   |  |
| 109        | HRL   | HORN RED WALL   |  |
| 110        | P2RL  | HORN STROBE 2W RED WALL   |  |
| 111        | SCRL  | STROBE RED CEILING  |  |
| 112        | SPCRL   | SPEAKER RED CEILING   |  |
| 113        | SPSRL   | SPEAKER STROBE RED WALL   |  |
| 114        |   |   |  |
| 115        | CO SYSTEM   |   |  |
| 116        | S2396GP   | DETECTOR GAS SMART  |  |
| 117        |   | ISOLATOR MODULE   |  |
| 118        | IDP-ISO   | Fault Isolator Module   |  |
| 119        | FIRE ALARM MONITOR MODULE                                     |   |  |
| 120        | IDP-<br>MONITOR   | Addressable Monitor Module  |  |
| * Refer to | * Refer to product datasheets for more technical information. |   |  |

Table 3 List of Devices

### manufacturer catalogue provided

Please refer to next page

# **The Power of Choice**

The Honeywell Farenhyt Series is your turnkey solution for fire protection, emergency communications and CO detection all in one easy to use package. From the top floor to the bottom line, Honeywell Farenhyt Series continues to lead with innovative and feature-rich products, and they are simultaneously affordable. Honeywell Farenhyt Series has always focused on functionality and flexibility, which is why its products are routinely found in educational institutions, hospitals and health care facilities, commercial complexes, commercial living spaces, and government buildings around the world.

The Honeywell Farenhyt Series provides end-to-end fire alarm solutions that are known to not only provide power and control, but choice as well.

## **Emergency Control System Application**



# **Emergency Communications Systems**

### **Integrated Systems**

Analog addressable fire alarm controls combined with integrated Emergency Communications Systems. The seamless combination of fire detection and emergency communication simplifies operation and programming of the entire system. Fire alarm, CO alarm, and ECS combined in one easy to operate system in your choice of red or black cabinet.



### IFP-2100ECSHV/IFP-2100ECSHVB

- Fire Alarm and ECS combined in one easy to program system
- Supports up to 16 addressable amplifiers for a maximum of 2,000W per system
- Up to 2100 addressable SLC points
- Up to 64 audio switches that can be mapped to 128 speaker circuits
- 15 recordable messages that can be mapped to 8 Emergency Communication System (ECS) buttons
- Supports up to 15 ECS-LOC's (Local Operators Console)
- Programmable inputs from an external mass notification (MNS) source, such as a Monaco System, to either the internal Voice Communication Module (VCM), Remote Voice Module (RVM), or our LED Driver I/O Module, the 5880. Up to 8 inputs available on each 5880 module.
- Separate networks for control and voice paging
- Built-in DACT and IP communicator with up/download capability. Optional cellular communicator.
- Dual channel capable with backup amplifier option using the ECS-DUAL50W
- UL listed Low Frequency alert tone capable using the ECS-DUAL50W or ECS-INT50W amplifiers

# **ECS Series–Emergency Communications Systems**

### **Integrated Distributed Amplifiers**

Intelligent distributed amplifiers can be remotely mounted significantly reducing the speaker wire run distance. Each speaker circuit is fully programmable to deliver the correct message based on event.

Analog addressable fire alarm controls combined with integrated Emergency Communications Systems. The seamless combination of fire detection and emergency communication simplifies operation and programming of the entire system.



### ECS-DUAL50WHV/ECS-DUAL50WHVB

- Amplifier can be configured as
  - 50 watts with 50 watts as backup
  - 100 watt single channel
  - 100 watt single channel with 50 watts backup using ECS-50WBU
  - Dual channel 50 watts for each channel
- UL listed for 520Hz signaling when used with compatible speakers
- Eight built-in speaker circuits
- Selectable 25 or 70.7 Vrms





### ECS-50WHV/ECS-50WHVB

- 50 watts total
- Four built-in speaker circuits expandable to eight
- Selectable 25 or 70.7 Vrms

### ECS-INT50W

- One built-in 50 watt single channel circuit
- Conveniently mounts inside ECS/Fire alarm control unit
- UL listed for 520Hz signaling when used with compatible speakers
- Selectable 25 or 70.7 Vrms

## **SWIFT Wireless Addressable Devices**



SWIFT wireless addressable devices provide secure, reliable communication to the fire alarm control panel (FACP) across a Class A mesh network. Great for applications where it is costly, obtrusive, or possibly dangerous to use traditional wired devices.

WIDP-PHOTO Wireless Photoelectric Smoke Detector WIDP-ACCLIMATE Wireless Multi-Criteria Smoke Detector WIDP-HEAT Wireless 135°F Thermal Detector WIDP-HEAT-ROR Wireless Rate-Of-Rise Thermal detector

WAV-RL Wireless AV Base Wall, Red WAV-WL Wireless AV Base Wall, White WAV-CRL Wireless AV Base Ceiling, Red WIDP-MONITOR Wireless Monitor Module WIDP-RELAY Wireless Relay Module WIDP-PULL-DA Wireless Pull Station

WIDP-WGI Wireless SLC Gateway Module W-USB Wireless USB radio/antenna dongle

## **Addressable Fire Fighter Telephone System**



### IFP-FFT Fire Fighter Telephone System

- The most flexible and reliable fire telephone control system for fire fighters use with fire alarm systems, providing supervision, annunciation and control for local and remote telephone handsets
- Control and annunciate up to 72 remote telephone jacks
- Up to 10 Fire Fighter Remote Handsets (FFT-RHS) can be used to communicate over the circuit

## **Addressable Fire Alarm Control Panels**



| Feature            | IFP-2100HV |
|--------------------|------------|
| Addressable Points |            |
| IDP                | 2,100      |
| NAC                | 8 Flexputs |
| Power Supply       | 9A         |
| Function Keys      | 4          |
| Number of SBUS's   | 2          |

### IFP-2100HV

The IFP Series of fire products offers flexible, easy-to-use and maintain fire and CO alarm control systems, with the power of choice to select the right size and accessories for the project.

- Analog controls for detector sensitivity, day/night thresholds, drift compensation and pre-trouble maintenance alert
- User friendly software provides access to programming, up/ downloading, event history, detector status, test reports, and much more
- Choose one of three available protocols per panel. (IDP, SK or SD)
- Built-in DACT and IP communicator with optional cellular module.
- Supports up to four SWIFT gateways capable of up to 49 SWIFT wireless devices each
- Network support for up to 32 Honeywell Farenhyt fi re alarm control panels and Emergency Communication/Voice Evacuation panels



Flexput<sup>\*</sup> Circuits - Flexible input or output circuit that you can conveniently program to be used for Notification Appliance Circuits, Auxiliary Power, or as a conventional input circuit. With auxiliary power, it can be selected as constant power, door power, or resettable smoke power. The Flexput circuits provide the utmost versatility without the added expense of additional modules, a perfect fit for retrofitting an existing conventional system when budgets are a concern.

## Networking

**IFP-Series Black Networking Options** 



## **IFP-Net-3 Graphic Monitoring System**

The IFP-Net is Graphic Monitoring System software used to monitor up to 200 addressable control panels (nodes) with accessories. Running on a standard PC workstation and Microsoft<sup>®</sup> Windows<sup>®</sup> Operating System, the IFP-Net presents the user with an easy-to-use and attractive graphic user interface. It is fully customizable to adapt to a wide variety of monitoring situations and supports multiple operators monitoring all or a portion of local sites.

### IFP-Net-3 Features

- Monitors panels over IP Network
- System Administrator-definable profiles allow for extremely flexible definition of operator accounts
- Plug-in architecture
- Event printing from workstation or on the network
- Autonavigation (selectable for each device) automatically locates and zooms to the device related to an alarm or event, based on the priority of the event

- Utilizes existing building drawings exported to .wmf or .dxf formats
- Dynamically generated sizeable key map linked to main screen
- Monitor up to 200 Farenhyt Series Addressable Fire Alarm Control Panels



## **Addressable Power Supplies**



## The intelligent way to distribute power throughout your installation.

Both power supplies have:

- 6A of output power
- Notification Appliance Circuit (NAC)
- Auxiliary power
- Built-in synchronization for System Sensor, Wheelock, Gentex, and Faraday

### RPS-1000HV/RPS-1000B

- 6 programmable Flexput I/O circuits for ease and flexibility in programming
- Additional SBUS for simplifying remote accessory connection
- 2 programmable relays
- Conventional input

### 5496

• 4 programmable output circuits

## **Detectors**



### IDP Devices

• Save time with code wheel addressing

• Proprietary to IFP Series Fire Alarm Control Panels



### **FAAST Aspiration Detection**

- Very early warning fire detection using air sampling and dual sensing technology
- Protect high value assets, mission critical operations, and reduce false alarms
- Works with all Farenhyt Series Fire Alarm Control Panels

### **Gas and Flame Detection**

- Flammable, toxic and combustible gas detection
- Flame detection by UV and IR
- Works with all Farenhyt Series Alarm Control Panels

## **Notification Appliances**



### **L-Series Notification Devices**

The System Sensor L-Series product line is the industry's most refined series of audible/visible notification appliances that simplify the specification, configuration and installation of fire systems.

The L-Series provides lower current draw, with a modern sleek design and has a variety of accessories including coloured lenses, bezel kits for alternate marking, surface mount back boxes and trim rings.



## **Proven Applications**





### **Education: Schools and Universities**

### Fire Alarm Systems That Work for Your Schools

- Cost effective non-proprietary systems for retrofit or new construction as existing wiring can be used
- Systems that grow with schools and campuses
- All-in-one Fire and Emergency Communication Systems for one simple on the wall solution

### Hospitality: Hotels, Entertainment and Restaurants

### Effective Fire Protection for Guest Safety

- Ease of programming reduces installation time for small and large projects
- Distributed power supplies enable more effective use of power for notification
- Protect room with just one or two devices on the wall providing low frequency notification, smoke, carbon monoxide detection and voice evacuation
- From a single 75 point panel to a 32 node network with thousands of points

### Health Care Facilities: Clinics, Senior Living, and Hospitals

### Superior Life Safety for Healthcare Facilities

- Integrated Emergency Communications System in the fire alarm control panel simplifies installation and operation
- Safe solutions for individual rooms offer flexibility and confidence
- Minimized nuisance alarms with utmost detection accuracy using advanced detection solutions
- With Farenhyt's large point capacity systems you can have complete coverage of your facility and maintain ADA compliance.

### Places of Assembly: Religious, Community, and Sports Centers

### The Right Emergency Systems for the Gathered Community

- Emergency Communications capabilities integrated with the fire alarm controls ensures the right message gets to the occupants
- Functional systems design allows flexibility to meet current and future facility needs
- Highly reliable fire alarm system
- The ECS control panel uses distributed amplifiers, enabling location of the amplifiers where the speaker circuits are located, eliminating long wire runs.

### For more information

www.farenhyt.com

### Honeywell Security & Fire

Emaar Business Park Building 2, Level 2, Office 201 Sheikh Zayed Road P.O. Box 232362, Dubai, U.A.E. Tel : +971 4 450 5800 www.hls-mea.com

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### Honeywell



## **Technical Data/Operating Instructions**

Technical Data Sheets provided

Farenhyt<sup>™</sup> Series

# IFP-2100ECS / IFP-2100ECSB

Scalable Analog/Addressable Fire Alarm Control System

Honeywell

THE POWER OF CONNECT

The IFP-2100ECS (red) and IFP-2100ECSB (black) are intelligent analog/ addressable Fire Alarm Control Panels combined with an Emergency Communication System (ECS). When the ECS features are enabled, they are integrated with the fire alarm and voice evacuation functions of the control panel. The IFP-2100ECS panel and accessories provide features to meet the requirements for Mass Notification Systems as described in UL 2572.

This state of the art fire alarm control panel allows you to choose one of three SLC protocols per system. The IFP-2100ECS panel contains one built in signaling line circuit (SLC), which can support 159 System Sensor® IDP/SK sensors and 159 IDP/SK modules or 127 Hochiki® SD devices per loop. Additional SLC loops can be added using the model 6815 SLC expander for IDP/SK devices or model 5815XL for SD devices to increase the overall point capacity to a maximum of 2100 points per panel.

IFP-2100ECS has the interconnection capability for up to 32 panels. The system has two modes of operation, multiple panels covering one larger building, or multiple independent buildings. A separate network can be used for voice paging across all panels.

The IFP-2100ECS supports a variety of devices, including RA-2000, RA-1000 or RA-100 remote annunciator, 5824 serial/parallel printer interface module (for printing system reports), RPS-1000 power module, and IDP, SK or SD devices.



#### IFP-2100ECSB

### COMPATIBILITY

The IFP-2100ECS is compatible with the following ECS components:

- ECS-50W, ECS-125W, ECS-INT50W or ECS-DUAL50W Amplifier
- ECS-RVM: Remote voice module
- ECS-SW24: 24 switch expander (max 2)
- ECS-NVCM: Network Voice Control Module (included)
- ECS-LOC: Local Operator Console
- ECS-LOC2100: Local Operator Console
- ECS-LOC2100B: Local Operator Console. Black
- ECS-RPU: Remote Paging Unit

- Single enclosure for both Fire and Emergency Control System components
- Can select ECS message as priority over fire
- Network support for up to 32 Sites
- Built-in support for up to 159 IDP/SK detectors and 159 IDP/SK modules or 127 SD SLC devices

- Four line LCD display with 40 characters per line
- Available in a red or black cabinet
- Separate network support for voice paging
- Built-in USB interface for programming
- Four programmable function keys
- Built-in dual phone line, digital alarm communicator/ transmitter (DACT), IP or optional cellular technologies
- JumpStart AutoProgramming<sup>®</sup> feature for easy programming
- Capable of producing 520 Hz tones to meet NFPA 72 requirements
- 15 Recordable one minute messages that can be mapped to eight ECS buttons
- Firmware can be upgraded in the field
- Supports up to four SWIFT wireless gateways. Each gateway can have up to 49 wireless devices
- Support for up to 16 SBUS addressable amplifiers using a combination of ECS-50W, ECS-125W, ECS-INT50W or ECS-DUAL50W for a maximum of 2000 watts per system and up to 128 mappable speaker circuits
- On-board supervised microphone

### IFP-2100ECS Technical Specifications

### PHYSICAL

Overall Dimensions: 21.59"W x 28.10"H x 5.05"D Shipping Weight: 53 lbs. Color: Red or Black

### ENVIRONMENTAL

**Operating Temperature:**  $32^{\circ}F$  to  $120^{\circ}F$  (0°C to  $49^{\circ}C$ )

Humidity: 0 to 93% relative humidity (noncondensing)

### ELECTRICAL:

IFP-2100ECS AC: 120V @ 50/60Hz, 4.5A total accessory load: 9A @ 27.4VDC power-limited IFP-2100ECSHV AC: 240V @ 50/60Hz, 2.8A Total Accessory Load

Standby Current: 230mA

Alarm Current: 415mA

Battery Charging Capacity: 7 to 55AH

**Battery Size:** 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

Six Conductor Wiring: Two voice bus & four SBUS

### FLEXPUT CIRCUITS

Eight circuits that can be programmed individually as:

Notification Circuits: 3A per circuit @ 27.4VDC, power limited

Auxiliary Power Circuits: 3A per circuit @ 27.4VDC, power limited.

### APPROVALS

### NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA

72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service UL Listing; CSFM 7165-0559:0505; FDNY COA# 6251; Seismic (CA) (pending), FM approved

#### **COMPATIBLE DEVICES**

### See the data sheets listed below for a complete listing of the IDP, SK, SWIFT or SD devices.

350361: IDP Device Protocol data sheet 53623: SK Device Protocol data sheet 350360: SD Device Protocol data sheet 350615 & 350617: SWIFT devices data sheet

### **ORDERING INFORMATION**

### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

### Honeywell Farenhyt

12 Clintonville Road Northford, CT 06472 800-328-0103 **IFP-2100ECS:** Emergency Communication System with FACP. Red Cabinet.

IFP-2100ECSB: Emergency Communication System with FACP. Black Cabinet. IFP-2100ECSHV: High Voltage (240V) Emergency Communication System with FACP. Red Cabinet. IFP-2100ECSHVB: High Voltage (240V) Emergency Communication System with FACP. Black Cabinet

### ECS ACCESSORIES

ECS-50W: 50 Watt Amplifier ECS-125W: 125 Watt Amplifier ECS-DUAL50W: 50 Watt Dual Amplifier ECS-DUAL50WB: 50 Watt Dual Amplifier, Black ECS-50WB: 50 Watt Amplifier, Black ECS-125WB: 125 Watt Amplifier, Black ECS-INT50W: 50 / Watt Internal Amplifier ECS-50WBU: External Backup Amplifier ECS-CE4: Provides 4 additional audio circuits ECS-RVM: Remote voice module ECS-SW24: 24 Switch Expander **ECS-NVCM:** Network Voice Control Module ECS-LOC: Local Operator Console ECS-LOC2100: Local Operators Console, Red ECS-LOC2100B: Local Operator Console, Black ECS-RPU: Remote Paging Unit. Red

#### SBUS ACCESSORIES

#### RA-2000, RA-1000, RA-1000R, RA-100, RA-2000GRAY: Remote annunciators

6815: Signal Line Circuit (SLC) Expander for IDP or SK devices
5815XL: Signal Line Circuit (SLC) Expander for SD devices
RPS-1000/B: Power Supply. Red or Black
5496: NAC Expander
5824: Serial/Parallel Module
5880: LED I/O Module
5865-3 or 5865-4: LED Annunciator

5883: Relay Interface

### MISCELLANEOUS ACCESSORIES

HFSS: Software Suite. Provides programming, upload/download and event reporting RBB: Remote Battery Box Cabinet. Use for backup batteries up to 35 AH. Dimensions: 16" W x 10" H x 6" D

SK-SCK: Seismic Compliance Kit SK-NIC: Network Interface Card SK-FML: Multi Mode Fiber Card SK-FSL: Single Mode Fiber Card CELL-MOD: Cellular Communicator in Plastic Enclosure CELL-CAB-SK: Cellular Communicator in Metal Enclosure with lock and key For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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For Technical Support, call 800-446-6444.

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Farenhyt<sup>™</sup> Series

# IFP-2100 / IFP-2100B / RFP-2100 / RFP-2100B

Scalable Analog/Addressable Fire Alarm Control System

The IFP-2100 (red) and IFP-2100B (black) are intelligent analog/ addressable Fire Alarm Control Panels (FACP). The basic IFP-2100 panel contains one built in signaling line circuit (SLC), which can support 159 System Sensor® IDP/SK sensors and 159 IDP/SK modules or 127 Hochiki® SD devices per loop. Additional SLC loops can be added using the model 6815 SLC expander for IDP/SK devices to increase the overall point capacity to 2100 or model 5815XL for SD devices to increase the overall point capacity to a maximum to 2032 points per panel.

IFP-2100 has the interconnection capability for up to 32 panels. The system has two modes of operation, multiple panels covering one larger building, or multiple independent buildings. The RFP-2100 (red) or RFP-2100B (black) can be used in a networked system where at least one IFP-2100 is in the system. It is the same as the IFP-2100 without the display.

IFP-2100 has eight on-board Flexput<sup>™</sup> circuits that can be configured for auxiliary power, notification outputs, or for conventional smoke detector inputs (Class A or Class B). The FACP also has a Built in dual phone line digital alarm communicator/transmitter (DACT), IP or optional cellular technologies, Form C trouble relay, and two programmable Form C relays. IFP-2100 has powerful features such as detector sensitivity, day/night thresholds, drift compensation, pre-trouble maintenance alert, and calibration trouble alert



IFP-2100B



RFP-2100B

- RFP-2100 or RFP-2100B can be used in a networked system where at lease one IFP-2100 is in the system
- Network support for up to 32 Sites
- Built-in support for up to 159 IDP/SK detectors and 159 IDP/SK modules or 127 SD SLC devices
- Four line LCD display with 40 characters per line
- Available in a red or black cabinet
- IFP-2100 or RFP-2100 can be surface or flush mounted
- Four programmable function keys
- Network card allows copper network connection with a multi-mode or single-mode fiber connection option
- Built-in dual phone line, digital alarm communicator/ transmitter (DACT), IP or optional cellular technologies
- JumpStart AutoProgramming<sup>®</sup> feature for easy programming
- Renewable license on downloading software helps inhibit unauthorized programming
- Built in USB interface for programming
- Supports up to four SWIFT wireless gateways. Each gateway can have up to 49 wireless devices
- Supports Class B (Style 4) and Class A (Style 6 or Style 7 configuration for SLC, and SBUS.

### IFP-2100 / RFP-2100 Technical Specifications

### PHYSICAL

**Overall Dimensions:** 26.4"H × 16.4"W × 4.11"D **Shipping Weight:** 33 lbs. **Color:** Red or Black

### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C)

Humidity: 0 to 93% relative humidity (noncondensing)

### ELECTRICAL

IFP-2100 Primary AC: 120VAC @ 50/60Hz, 4.5A IFP-2100HV AC: 240VAC @ 50/60Hz, 2.8A

Total Accessory Load: 9A @ 24VDC power-limited Standby Current: 230mA

Alarm Current: 415mA

#### Battery Charging Capacity: 17 to 55AH

**Battery Size:** 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

Six Conductor Wiring: Two voice bus & four SBUS

### FLEXPUT CIRCUITS

Eight circuits that can be programmed individually as:

Notification Circuits: 3A per circuit @ 24VDC, power limited

Auxiliary Power Circuits: 3A per circuit @ 24VDC, power limited.

Initiation Circuit: 100mA per circuit @ 24VDC, power-limited

### AGENCY LISTINGS AND APPROVALS

### NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA

**72:** Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service

UL Listing CSFM 7165-0559:0505 FDNY COA# 6251 Seismic (CA) (pending) FM approved

### **APPROVED RELEASING SOLENOIDS**

Asco T8210A107 Asco 8210G207

### 24 VDC 3 A max 0 Hz 24 VDC 3 A max 0 Hz

### **COMPATIBLE DEVICES**

See the data sheets listed below for a complete

### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com>

### Honeywell Farenhyt

12 Clintonville Road Northford, CT 06472 800-328-0103

### listing of the IDP, SK, SWIFT or SD devices.

3350361: IDP Device Protocol data sheet
53623: SK Device Protocol data sheet
350360: SD Device Protocol data sheet
350615 & 350617: SWIFT devices data sheet

### **ORDERING INFORMATION**

**IFP-2100:** Intelligent Fire Alarm Control Panel. Red Cabinet.

IFP-2100B: Intelligent Fire Alarm Control Panel. Black Cabinet.

**IFP-2100HV:** High Voltage (240V) Intelligent Fire Alarm Control Panel. Red Cabinet

IFP-2100HVB: High Voltage (240V) Intelligent Fire Alarm Control Panel. Black Cabinet

**RFP-2100:** Remote Fire Alarm Panel without built in display. Red Cabinet.

**RFP-2100B:** Remote Fire Alarm Panel without built in display. Black Cabinet.

**RFP-2100HV:** High Voltage (240V) Remote Fire Alarm Panel without built in display. Red Cabinet. **RFP-2100HVB:** High Voltage (240V) Remote Fire Alarm Panel without built in display. Black Cabinet.

### **SBUS ACCESSORIES**

#### RA-2000, RA-1000, RA-1000R, RA-100, RA-2000GRAY: Remote annunciators

**6815:** Signal Line Circuit (SLC) Expander for IDP or SK devices

**5815XL:** Signal Line Circuit (SLC) Expander for SD devices

**RPS-1000/B:** Power Supply. Red or Black Cabinet **5496:** NAC Expander

5824: Serial/Parallel Module

5880: LED I/O Module

5865-3 or 5865-4: LED Annunciator

5883: Relay Interface

### MISCELLANEOUS ACCESSORIES

HFSS: Software Suite. Provides programming, upload/download and event reporting RBB: Remote Battery Box Cabinet. Use for backup batteries up to 35AH. Dimensions: 16"W x 10"H x 6"D

**SK-SCK:** Seismic Compliance Kit **SK-NIC:** Network Interface Card **SK-FML:** Multi Mode Fiber Card

SK-FSL: Single Mode Fiber Card

**CELL-MOD:** Cellular Communicator in Plastic Enclosure

**CELL-CAB-SK:** Cellular Communicator in Metal Enclosure with lock and key

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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## Honeywell



# RPS-1000 / RPS-1000B

6 Amp Intelligent Distributed Power Module

RPS-1000 is an intelligent distributed power module that adds 6.0 amps of power, six Flexput<sup>™</sup> I/O circuits, and two Form C relay circuits to a compatible Honeywell Farenhyt Series addressable system. The RPS-1000 is available in a red (RPS-1000) or black (RPS-1000B) cabinet. The RPS- 1000 connects to the FACP via the RS-485 system bus allowing up to an additional 6,000 feet of wiring. Each RPS- 1000 is optically isolated providing ground loop isolation and transient protection. RPS-1000 supports its own backup battery and monitors the AC power.

The Flexput circuits can be programmed as notification appliance circuits, continuous, re-settable, or door holder power, or as conventional initiation circuits for 2 or 4-wire smoke detectors and contact devices (e.g. pull stations).Installation.

### Compatibility

The RPS-1000 and RPS-1000B are compatible with the following Farenhyt Series FACP's:

- IFP-2100ECS / IFP-2100ECSB (63 max per panel)
- IFP-2100 / IFP-2100B / RFP-2100 / RFP-2100B (63 max per panel)
- IFP-2000 / RPS-2000 / IFP-2000ECS (63 max per panel)
- IFP-300 / IFP-300B / IFP-300ECS / IFP-300ECSB (16 max per panel)
- IFP-1000 / IFP-1000ECS (8 max per panel)
- IFP-100 / IFP-100ECS (8 max per panel)
- IFP-50 (8 max per panel)

- 6.0 amps output power
- Supports Class A (Style 6) and Class B (Style 4) configuration of the SBUS
- Two Form C programmable relays rated at 2.5A @ 24 VDC
- Ground loop isolation and transient protection
- Provides SBUS optical isolation and re-conditions the RS- 485 signal
- Built-in synchronization for appliances from System Sensor<sup>\*</sup>, AMSECO, Gentex<sup>\*</sup>, and Wheelock<sup>\*</sup>
- Up to 6,000 foot wiring distance from the RPS-1000
- Battery charging capacity is 35AH
- Large cabinet size can house two 18AH backup batteries or RBB accessory cabinet can house battery sizes larger that 18AH
- Room to mount two 6815 or 5815XL SLC expander modules
- Six onboard Flexput circuits programmable for:
- Notification appliance circuits (Class B/Style Y & Class A/Style Z)
- Conventional initiation circuits (Class B/Style B & Class A/Style D) both 2- and 4-wire
- Auxiliary power (for door holders, continuous power, or resettable power)



**RPS-1000B** 

### RPS-1000 / RPS-1000B Technical Specifications

### PHYSICAL

Mounting Dimensions: 14.5"W x 24.75"H x 3.9"D (36.8 cm W x 62.9 cm H x 9.8 cm D) Overall Dimensions: 16.1"W x 26.4"H x 4.1"D (40.6 cm W x 67 cm H x 11.8 cm D) Color: Red or Black

#### ENVIRONMENTAL

**Operating Temperature:** 32°F-120°F (0°C -49°C) **Humidity:** 10%-93% non-condensing

#### ELECTRICAL

Primary AC: 120 V, 50 or 60Hz, 2.5A, or 240V, 50 or 60Hz, 1.4A Total Accessory Load: 6A @ 24VDC Current Standby: 40mA Alarm: 160mA SBUS Standby & Alarm: 10mA Flexput Circuits: Notification: 3amps per circuit (6A system total) Initiation: 100mA power limited @ 24VDC

#### **ORDERING INFORMATION**

**RPS-1000:** Intelligent Distributed Power Module, Red

**RPS-1000B:** Intelligent Distributed Power Module, Black

RPS-1000HV: High voltage (240V) Intelligent Distributed Power Module

#### ACCESSORIES

**RBB:** Remote Battery Box Accessory Cabinet. 16" W x 10" H x 6" D (406 mm W x 254 mm H x 152 mm D) **AB-55:** Remote Battery Box Accessory Cabinet. 20"W x 12" H x 7.5" D

6815: SLC Expander Module for IDP or SK devices 5815XL: SLC Expander Module for SD devices SK-SCK: Seismic Compliance Kit

### AGENCY LISTING AND APPROVALS

NFPA 13, NFPA 70, NFPA 72, UL 2572, UL 1711 & UL 864: Local Protective Signalling Systems; UL Listed CSFM

City of New York: 429-92-E Vol IX

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

#### **Honeywell Security & Fire**

12 Clintonville Road Northford, CT 06472 800-328-0103





Farenhyt<sup>™</sup> Series

# <mark>RA-2000</mark> / RA-2000GRAY

Remote Annunciator

The RA-2000 or RA-2000GRAY remote annunciators can be used to operate and program the Honeywell Farenhyt Series FACPs. The RA-2000 has a large 160 character, 4 x 40 display and four programmable buttons. These features provide more options for set-up and operation when compared to similar remote annunciators.

The RA-2000 comes in a locked, key controlled cabinet - combining security with easy access. It does not require a code or firefighter's key to silence or reset a panel, and also has convenient separate scroll buttons for alarm, supervisory and trouble conditions. The remote annunciator communicates with the main fire alarm control panel through an RS-485 connection.

The RA-2000 can be surface or flush mounted and is also available in gray color as RA-2000GRAY.

### COMPATIBILITY

The RA-2000 or RA-2000GRAY are compatible with the following Honeywell Farenhyt Series FACPs:

- IFP-2000/ECS
- IFP-2100/ECS
- IFP-75
- IFP-300/ECS
- RPS-2000
- RFP-2100
- ECS-LOC

### FEATURES & BENEFITS

- Four line LCD display with 40 characters per line
- Tactile/audible feedback when key is pressed on annunciator
- RS-485 SBUS interface to panel
- Initiate and end fire drills with a single key press
- Can be flush or surface mounted. Trim ring (P/N RA-100TR or RA-2000GRAYTR) available for surface mounting
- Multi-panel displays can display the status and event history of all the panels they are assigned in a network
- Multi-panel annunciators will sound the highest priority tone from the panel it is assigned to
- View current status by alarms, supervisories, or troubles
- On-board piezo sounder audibly indicates alarms, troubles, and supervisories
- Five Status LEDs for; alarms, supervisory, trouble, silence and AC power indications
- Four programmable function keys

- Available in red or gray color
- Wiring lengths up to 6000 ft. from the control panel
- UL listed, complies with NFPA 72

Farenhyt<sup>™</sup> Series

RA-2000

### RA-2000 Technical Specifications



### **RA-2000 FEATURES**

### PHYSICAL

Flush Mount Outside wall: 12.25"W x 11.5"H x 7/8"D (31.1W x 29.2H x 2.2D cm) Inside wall: 9-3/8"W x 8-3/8"H x 2"D (23.8W x 21.3H x 5.1D cm) Surface Mount: (Including Trim Ring) 12.25"W x 11.5"H x 3"D (31.1W x 29.2H x 2.2D cm)

### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C)

 $\begin{array}{l} \textbf{Humidity:} 0 \text{ to } 93\% \text{ relative humidity (noncondensing)} \end{array}$ 

### ELECTRICAL

Operating Voltage: 24VDC Standby Current: 25mA Alarm Current: 50mA

### **ORDERING INFORMATION**

RA-2000: Remote Annunciator. Red RA-2000GRAY: Remote Annunciator. Gray

#### **OPTIONAL ACCESSORIES**

RA-100TR: Red surface mount trim ring RA-2000GRAYTR: Gray surface mount trim ring

### AGENCY LISTINGS AND APPROVALS

UL listed CSFM approved NFPA 72 FM approved FDNY COA#: 6162 For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### **Honeywell Security & Fire**

12 Clintonville Road Northford, CT 06472 800-328-0103

### Honeywell



# ECS-DUAL50W/ ECS-DUAL50WB

Honeywell

THE POWER OF CONNECTED

50/100 Watt Dual Channel Amplifier with optional Backup Amplifier

The ECS-DUAL5OW (red) and ECS-DUAL5OWB (black) are intelligent 50 / 100 watt amplifier for use with the IFP-100ECS, IFP-300ECS, IFP-1000ECS, IFP-2000ECS or IFP-2100ECS. The ECS-DUAL5OW is used to amplify audio message for distribution throughout a facility.

The ECS-DUAL50W is capable of producing up to 100 watts of audio power. The ECS-DUAL50W has its own power supply with battery backup and eight speaker circuits. The ECS-DUAL50W is fully supervised by the main panel for trouble conditions.

### Installation

The ECS-DUAL50W can be surface or flush mounted.

### Compatibility

The ECS-DUAL50W is compatible with the following voice evacuation components:

- IFP-100ECS
- IFP-300ECS
- IFP-1000ECS
- IFP-2000ECS
- IFP-2100ECS

Note: Dual channel is only compatible with IFP-2000ECS, IFP-300ECS or IFP-2100ECS

- Amplifier is compatible as: 50W with 50W as backup
- 100 W single channel
- 100 W single channel with 50 W backup using ECS-50WBU
- Dual channel using 50W for each channel (IFP-2000ECS or IFP-2100ECS only)
- Dual channel 50 W each channel with 50 W backup using ECS-50WBU
- Amplifier Bandwidth 400Hz to 4000Hz
- Built in backup amplifier test feature allows you to physically test that the backup amplifers are operating properly
- The ECS-DUAL50W has it's own power supply and backup battery
- Can be mounted up to 6000 feet away from ECS-Series control panel
- 120VAC or 240VAC operation
- Available in a red or black cabinet

- UL 864 and UL 2572
- UL listed for 520Hz signaling when used with compatible speakers
- Up to 16 amplifiers per IFP-2000ECS or ECS-2100ECS system for a maximum of 1600 watts
- Distributed between up to 128 audio circuits



ECS-DUAL50WB

### ECS-DUAL50W Technical Specifications

### PHYSICAL

Flush Mount Dimensions: 14.5"W x 24.75"H x 3.4"D (36.8 W x 62.9 H x 8.7 D cm) Overall Dimensions: 16.1"W x 26.5"H x 4.1"D (40.64 W x 66.7 H x 10.5 D cm) Color: Red or Black

### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C)

Humidity:10% to 93% relative humidity (non-condensing)

### ELECTRICAL

Primary AC: 120VAC @ 60Hz ECS-DUAL50W 25V: 190mA standby current ECS-DUAL50W 70V: 190mA standby current ECS-DUAL50W 25V: 2380mA alarm current ECS-DUAL50W 70V: 2470mA alarm current

Primary AC: 240V @50Hz

ECS-DUAL50WHV 25V: 200mA standby current ECS-DUAL50WHV 70V: 200mA standby current ECS-DUAL50WHV 25V: 1260mA alarm current ECS-DUAL50WHV 70V: 1310mA alarm current Total Power: 100 W @ 25 VRMS or 70.7 VRMS

• Circuit 1-4: 50W max.

• Circuit 5-8: 50W max

### Main ECS Panel SBUS Standby & Alarm: 10mA Battery Charging Capacity: 7 – 35AH

**Battery Size:** 18AH max allowed in cabinet. Use RBB accessory cabinet for larger batteries up to 35AH per system.

### Voice Integration Wiring:

Six conductor Two voice bus Four SBUS

#### **ORDERING INFORMATION**

ECS-DUAL50W: Intelligent 50 Watt Amplifier, Red ECS-DUAL50WB: Intelligent 50 Watt Amplifier, Black

**ECS-DUAL50WHV:** High Voltage (240VAC) 50/100 Watt Dual Channel Amplifier.

### ACCESSORIES

ECS-50WBU: External Backup Amp. **RBB:** RBB Remote Battery Box Cabinet. Use for backup batteries up to 35AH. 16" W x 10" H x 6" D

#### AGENCY LISTINGS

### NFPA 13, NFPA 70, NFPA 72, UL 2572, UL 1711 &

UL 864: Local Protective Signalling Systems UL Listed

CSFM: 7165-0559:0174 FDNY COA: (pending)

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### **Honeywell Security & Fire**

12 Clintonville Road Northford, CT 06472 800-328-0103





Farenhyt™ Series

# **Intelligent 50 Watt Amplifier**

ECS-50W/ECS-50WB

The ECS-50W (red cabinet) or ECS-50WB (black cabinet) are intelligent 50 watt amplifiers for use with the IFP-100ECS, IFP-300ECS, IFP-1000ECS, IFP-2000ECS and IFP-2100ECS. The ECS-50W or ECS-50WB are used to amplify the audio message for distribution throughout the facility. Since it is designed as a self-contained distributed amplifier it can be conveniently located near the area of protection to reduce wiring demands.

Each ECS-50W/ECS-50WB is capable of producing 50-watts of audio power. Up to eight ECS-50W's can be used on the voice evacuation system.

The ECS-50W/ECS-50WB has its own power supply with battery backup and four speaker circuits which can be expanded to eight speaker circuits with the optional ECS-CE4. The ECS-50W/ECS-50WB is fully supervised by the main panel for trouble conditions.

### Compatibility

The ECS-50W / ECS-50WB are compatible with the following Honeywell Farenhyt Series voice evacuation components:

- IFP-100ECS
- IFP-300ECS / IFP-300ECSB
- IFP-1000ECS
- IFP-2000ECS
- IFP-2100ECS / IFP-2100ECSB

- SBUS addressable, up to eight ECS-50Ws per system for a total of 400 watts
- Each ECS-50W is supervised and has four onboard audio circuits expandable to eight with the ECS-CE4 for a system total of 64 audio circuits.
- ECS-50W uses an easy to install wire harness to connect the ECS-CE4 audio circuit expander
- Can be mounted up to 6000 feet away from ECS-Series panel
- The ECS-50W has it's own power supply and backup battery
- Selectable for 25V or 70.7V operation
- Six-wire connection to ECS system: Two-wires for the voice bus and four-wires for the SBUS connections
- UL 864 and UL 2572
- Available in a red or black cabinet
- The ECS-50W/ ECS-50WB can be surface or flush mounted
- 120 VAC or 240 VAC operation



ECS-50W

### ECS-50W / ECS-50WB Technical Specifications

### PHYSICAL:

Flush Mount Dimensions: 14.5"W × 24.75"H × 3.4"D (36.8 W × 62.9 H × 8.7 D cm) Overall Dimensions: 16"W × 26.25"H × 4.1"D (40.6 W × 66.7 H × 10.5 D cm) Color: Red or Black

### ENVIRONMENTAL

Operating Temperature: 32°F to 120°F (0°C to 49°C)

**Humidity:** 10% to 93% relative humidity (non-condensing)

### ELECTRICAL

| Module     | Voltage | Standby | *Alarm  |
|------------|---------|---------|---------|
|            |         | Curent  | Current |
| ECS-50W,   | 120V    | 350mA   | 1100mA  |
| 25V        | 60HZ    |         |         |
| ECS-50WHV, | 240V    | 200mA   | 600mA   |
| 25V        | 50HZ    |         |         |
| ECS-50W,   | 120V    | 350mA   | 1200mA  |
| 70V        | 60HZ    |         |         |
| ECS-50WHV, | 240V    | 200mA   | 600mA   |
| 70V        | 50HZ    |         |         |

### \*Fully loaded system

Main ECS Panel SBUS: Standby & Alarm: 10mA Speaker Circuit: 50 watts @ 25Vrms or 70.7Vrms max.

### Battery Charging Capacity: 7 – 35AH

**Battery Size:** 18AH max allowed in cabinet. Use RBB accessory cabinet for larger batteries up to 35AH per system and AB-55 for larger batteries up to 55AH.

### Voice Integration Wiring:

Six conductor Two voice bus Four SBUS

### **ORDERING INFORMATION**

**ECS-50W:** Intelligent 50 Watt Amplifier, Red **ECS-50WB:** Intelligent 50 Watt Amplifier, Black **ECS-50WHV:** High Voltage (204VAC) 50 Watt Amplifier

### ACCESSORIES

ECS-CE4: Audio Circuit Expander RBB: Remote Battery Box accessory cabinet. Use for backup batteries batteries up to 35AH and too large to fit into ECS-50W cabinet AB-55: Remote Battery Box accessory cabinet Use for back batteries up to 35AH

SK-SCK: Seismic Compliance Kit

### AGENCY LISTINGS AND APPROVALS

NFPA 13, NFPA 70, NFPA 72, UL 2572, UL 1711 & UL 864: Local Protective Signalling Systems UL Listed CSFM 7300-0559:0173 City of New York For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### **Honeywell Security & Fire**

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## Honeywell



## **IFP-Net-3** GRAPHICAL MONITORING WORKSTATION

IFP-Net is a Microsoft<sup>®</sup> Windows<sup>®</sup> based graphic user interface linking selected fire alarm control panels together to a PC to easily monitor them. The PC operator would receive real-time information about a system with details showing right where the event is occurring. For example, if a pull station was activated a graphic of the floor of that building would zoom in onto the location of the pull station and provide the operator with specific instructions on what to do or who to call.

The IFP-Net-3 consists of a Honeywell Farenhyt Series FACP connected to a Gateway via a 5824 module, which is plugged into a TCP/IP Ethernet port and communicates with a PC (PC not included) with the IFP-Net-3 software. No dedicated wire or fiber connection is required with this system the existing Ethernet infrastructure is utilized.

The IFP-Net-3 supports up to 200 Gateway's per system, which can be connected to a compatible Honeywell Farenhyt or Silent Knight FACPs.



IFP-NET-3

### **PC REQUIREMENTS**

The following are the minimum requirements for a IFP-Net-3 workstation that is used on a PC provided by the customer.

- Intel i5 Processor or better
- Standard mouse and keyboard
- Microsoft® Windows 10, 64 bit
- 1024 x768 display resolution
- Sound Card and Speakers
- 4 GB RAM or greater
- Ethernet

- Support of IFP-Series devices with IFPN-GW-Kit installation package
- Autonavigation automatically locates and zooms to the device related to an alarm or event based on the priority of the event
- System Administratordefinable security profiles allow for extremely flexible definitions for operator accounts
  - Configurable windows provide flexibility to display information as desired
  - Dynamically generated sizable key map
- New and Acknowledged Event boxes display all off-normal events, simultaneously with graphic screens
- Operator log with response tracking
- History Manager records operator, event, and response (with time and date stamp) to disk
- Powerful search filters for custom reporting of all events
- Screen database with screens for all sites.
- Administratordefinable macros for device communication
- Definable function keys, functional buttons, and navigational buttons
- Floor plans can be zoomed in and out to any level
- Devices can be placed at any zoom level
- Import vector.dfx, wmf, .bmp, .jpg or .gif
- Full linked multimedia (text, audio, video, and bitmaps) to any device, all-definable by the administrator

### IFP-NET-3 Technical Specifications

### **ORDERING INFORMATION**

IFP-NET-3: Software and key (a key is required on each PC in system)

IFPN-GW-EM-3: Gateway Interface board

**IFPN-GW-KIT:** Installation packages includes Gateway interface, Cabinet, and 5824 Serial/ Parallel printer interface

IFPN-CAB1: Gateway/5824/NION router cabinet IFP-4: IFP-NET verion 4 Software KeyBit (Required for Version 4)

IFP-MM: Adds floatable/Dockable Windows option (to support dual monitors) to IFP-NET

### Compatibility

- IFP-2100/IFP-2100ECS/IFP-2100HV
- IFP-2000 / IFP-2000ECS / IFP-2000HV
- 5700
- 5808
- 6808
- 5820XL/5820XL-EVS
- IFP-50
- IFP-75
- IFP-100/IFP-100ECS
- IFP-1000/IFP-1000ECS

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### Honeywell Farenhyt

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# **FFT-STSS** and FFT-STSR

Fire Fighters Telephone Trim Ring, Plate, Door and Backbox

The FFT-STSS and FFT-STSR are compatible with the Fire Fighters Telephone communication system. The FFT-STSS is a surface mount door with keylock. The FFT-STSR is a recessed mount door with keylock.

### COMPATIBILITY

The FFT-STSS or FFT-STSR are compatible with IFP-FFT

### INSTALLATION

Either recessed or surface enclosures may be used with these Emergency Telephone Stations. If a recessed enclosure is used, the telephone assembly must be a model designed for recessed enclosures. The same is true of surface enclosures.



FFT-STSS

- Single Telephone Station Mount comes in a lockable cabinet containing one remote handset. Available in Recessed mount (FFT-STSR) or surface • Red baked-enamel mount (FFT-STSS).
  - Heavy-duty construction
  - Doors fit either recessed or surface enclosures
  - finish

### FFT-STSS / FFT-STSR Technical Specifications



PHYSICAL

**Flush Mount Dimensions:** 9.5" W x 16.25" H x 3.5" D (24.1 W x 41.3 H x 8.9 D cm)

Surface Mount Dimensions: 8.5" W x 15" H x 3.5" D (21.6 W x 38.1 H x 8.9 D cm) Color: Red

### ORDERING INFORMATION

FFT-STSR: Single Telephone Station Recessed. A lockable cabinet containing one remote handset. FFT-STSS: Single Telephone Station Surface Mount. A lockable cabinet containing one remote handset.

FFT-BGK: Break Glass Kit for FFT-STS.

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### **Honeywell Farenhyt**

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Honeywell

THE POWER OF CONNECTED

Advance Multi-Criteria Fire/CO Detector

The IDP-FIRE-CO is a plug-in, addressable device that provides both fire and carbon monoxide (CO) detection. For fire, the detector combines four separate sensing elements in one unit (smoke, CO, light/flame, and heat) to sense multiple components of a fire. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulate. For CO, the detector's electrochemical sensing cell creates a separate signal for life safety CO detection.

Released through the incomplete burning of various fuels, CO is a colorless, odorless and deadly gas that is virtually impossible to detect with the human senses. Because the potential exists for dangerous levels of CO to accumulate in almost any building, legislation mandating the use of CO detection in commercial spaces continues to increase across the U.S. and Canada. The IDP-FIRE-CO is listed to the UL 2075 standard for systemconnected life safety carbon monoxide monitoring.

The IDP-FIRE-CO should be used in conjunction with the B200S/B200S-LF intelligent sounder base (sold separately), which can generate either a Temp 3 pattern for fire or a Temp 4 pattern for CO alarm indication. With each sounder base carrying a unique address, the FACP can then command an individual sounder, or a group of sounders, to activate. The command set from the panel can be tailored to the specific event, allowing selection of tone, and group.

IDP-FIRE-CO can also be used with the B210LP 6" standard base, the B200SR sounder base or the B224RB relay base.



**IDP-FIRE-CO** 

- Unique ability to detect all four major elements of a fire, smoke, carbon monoxide (CO), light/ flame, heat
- Separate CO detection signal
- Highest nuisance alarm immunity
- Automatic drift compensation of smoke sensor and CO cell
- Uses only one address on the SLC
- RealTest<sup>®</sup> CO testing capability
- UL 268 and UL 2075 listed
- Separates audible signal for fire or CO alarm when used with B200S/B200S-LF base
- CO cell end-of-life warning and fault
- CSFM listed

### IDP-FIRE-CO Technical Specifications

### PHYSICAL

**Diameter:** 6.875" (17.46 cm) installed in a B200S base

Height: 3.46" (8.79 cm) installed in B200S base Shipping Weight: 4.6 oz Color: Ivory

### ENVIROMENTAL

Temperature Range: 32° F to 100° F (0° C to 38° C) Humidity: 15 to 90% relative humidity (noncondensing) Air Velocity: 0 to 4,000 ft/min (0 to 20 m/sec)

### ELECTRICAL

Operating Voltage: 15 to 32VDC SLC Standby and Alarm Current:  $300\mu A$ 

#### SENSITIVITY SETTINGS

Sensitivity settings are programmable through zone programming.

**Low:** 4% per foot (30.48 cm) of smoke. Used in equipment rooms, kitchens, paint shop.

**Medium:** 3% per foot (30.48 cm) of smoke. Moderately clean environments: Used in hotel rooms, dorm rooms.

**High:** 2% per foot (30.48 cm) of smoke. Clean environments: Used in offices.

**Warning:** After the CO cell has reached the end-of-life, the CO sensor no longer provides life safety protection. However, when the fire detector enters Photo, Thermal, Infrared (PTIR) mode, the following sensitivities apply:

Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments- Used in laboratories. Level 2: 2% per foot (30.48 cm) of smoke. Clean

environments - Used in offices.

**Level 5:** 3% per foot (30.48 cm) of smoke. Moderately clean environments- Used in hotel rooms, dorm rooms.

Level 6: Thermal alarm at 135° F (57° C).

CO Monitoring UL Standard Reference - Alarm Thresholds are as follows:

| Parts Per Million | Detector Response Time |
|-------------------|------------------------|
| 70 ± 5 ppm        | 60-240 min             |
| 150±5ppm          | 10-50 min              |
| 400 ± 10 ppm      | 4-15 min               |

### For more information

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### **Honeywell Security & Fire**

12 Clintonville Road Northford, CT 06472 800-328-0103 **Note:** Per UL Standard 2075, the IDP-FIRE-CO has been tested to the sensitivity limits defined in UL Standard 2034.

### **ORDERING INFORMATION**

(IDP-FIRE-CO: Multi-Criteria CO Detector (base not included).

Note: Due to the unique nature of this detector, please consult your fire alarm control panel manufacturer for the specific model and compatibility.

### **OPTIONAL ACCESSORIES**

B200S: Intelligent sounder base B200S-LF: Low Frequency Intelligent sounder base B210LP: 6" mounting base B200SR: Sounder base B224RB: Relay base M02-04-01: Detector test magnet M02-09-01: Telescoping test magnet

### COMPATIBILITY

The IDP-FIRE-CO is compatible with the following FACPs programmed for System Sensor protocol: (Firmware version 13.0 or higher for IFP-100 & IFP-1000. Firmware version 4.0 or higher for IFP-2000).

- IFP-75/IFP-75B
- IFP-300/IFP-300B
- IFP-300ECS / IFP-300ECSB
- IFP-2100 / IFP-2100B / RFP-2100
- IFP-2100ECS / IFP-2100ECSB
- IFP-2000 / RPS-2000 / IFP-2000ECS
- IFP-1000/ECS
- IFP-100/ECS
- IFP-50

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Fire Fighters Telephone Phone Jack

TThe FFT-FPJ remote Firefighter Phone Jack provides a quick connect to the IFP-FFT fire fighter telephone system using a FFT-RHS remote handset.

The FFT-FPJ are wired to the IFP-FFT Fire Fighter Telephone System audio circuit. A monitor module detects the connection and its address will turn on the corresponding IFP-FFT zone LED and PZT will sound. Pressing the answer switch will connect the local handset to the phone circuit allowing communication with the remote handset

### COMPATIBILITY

The FFT-FPJ is compatible with the IFP-FFT. Firefighters Telephone System.

### INSTALLATION

The FFT-FPJ Fire Fighter Phone Jack mounts to a single-gang electrical box (4" x 2-1/8" x 21/2") or when the addressable mini-monitor module is installed with it, a deep single-gang electrical box ( $4^{\circ} \times 2-1/8^{\circ} \times 3^{3}/4^{\circ}$ ). For detailed installation instructions see IFP-FFT installation manual P/N 54708.



FFT-FPJ

### FEATURES & BENEFITS

• Single Telephone Station Mount comes in a lockable cabinet containing one remote enable fast and handset. Available in Recessed mount (FFT-STSR) or surface mount (FFT-STSS).

• Color coded wires, 6 inches long, are prewired to the jack to accurate wiring to the system.

### FFT-FPJ Technical Specifications

### PHYSICAL

**Dimensions:** 4% " W x 2% " H x 1% " D (12.065 x 6.985 x 3.81 cm)

### ENVIRONMENTAL

**Operating Temperature:** 32°F-120°F (0°C – 49°C) **Humidity:** 10% – 93% noncondensing

#### ELECTRICAL

The FFT-FPJ is a passive device that does not draw current

#### AGENCY LISTINGS AND APPROVALS

UL: Listed CSFM: 7300-0559:0167

### **ORDERING INFORMATION**

IFP-FFT: Fire Fighters Telephone IDP-Minimon: Mini-Monitor module IDP-ISO: Fault Isolator module

### **MISCELLANEOUS ACCESSORIES**

FFT-24: 24 Zone Expander FFT-FPJ: Remote Phone Jack FFT-RHS : Fire Fighters Remote Hand Set FFT-HSC: Fire Fighters Handset Cabinet. Holds up to 10 remote handsets FFT-STSR: Single Telephone Station Recessed. A lockable cabinet containing one remote handset.

**FFT-STSS:** Single Telephone Station Surface Mount. A lockable cabinet containing one remote handset.

**FFT-BGK:** Break Glass Kit for FFTSTS **VIP-TR:** Flush Mount Trim Ring

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#### **Honeywell Farenhyt**

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Fire Fighters Telephone Control System

The IFP-FFT is a Fire Fighters Telephone communication system. The IFP-FFT Fire Fighter Telephone System provides supervision, annunciation, and control for local and remote telephone handsets. The IFP-FFT with keypad, provides indications of phone activation, and corresponding trouble conditions. The FFT-24 expander board lets you add additional zones to the IFP-FFT.

The IFP-FFT can use up to two FFT-24s for a total of 72 zones. Each zone consists of one addressable monitor module (IDP-Minimon) and a minimum of one Fire Fighter Telephone Jack (FFT-FPJ).

### INSTALLATION

The IFP-FFT can be surface or flush mounted. Use VIP-TR Trim Ring for flush mounting.

### COMPATIBILITY

The IFP-FFT is compatible with the following FACPs:

- IFP-2100ECS / IFP-2100ECSB (120V or 240V)
- IFP-2100 / IFP-2100B / RFP-2100 / RFP-2100B (120V or 240V)
- IFP-2000 / RPS-2000 / IFP-2000ECS (120V or 240V)
- IFP-300 / IFP-300B / IFP-300ECS / IFP-300ECSB
- IFP-1000 / IFP-1000ECS (120V or 240V)
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50
- RPS-1000

- IFP-FFT Fire Fighter Telephone module for control and annunciation of up to 72 remote telephone jacks
- A maximum of 10 Fire Fighter Remote Handsets (FFT-RHS) can be used at one time to communicate over the telephone circuit connected to the IFP-FFT
- Fire Fighter Phone Jack (FFT-FPJ) provides a plug-in location for the FFT-RHS
- Single telephone station mount comes in a lockable cabinet containing one remote handset. Available in Recessed mount (FFT-STSR) or surface mount (FFT-STSS).
- Fire Fighter Handset Cabinet (FFT-HSC) is used to store ten fire fighter handsets (FFT-RHS)
- System Status LEDs
- Supports two FFT-24 zone expanders
- The IFP-FFT supports up to 72 IDP-Minimon devices on one FFT system
- Simplified installation by using single loop design
- JumpStart<sup>®</sup> auto-programming
- For retrofit projects, IFP-FFT is compatible with any UL listed 24V regulated power supply



IFP-FFT
### IFP-FFT Technical Specifications

### PHYSICAL

Flush Mount Dimensions:  $20\frac{4}{7}W \times 26\frac{3}{4}H \times 2.5^{n} - 3^{n}D (51.4 W \times 68 H \times 6.4 - 7.6 D cm)$ Overall Dimensions:  $20^{n}W \times 26\frac{1}{2}H \times 4.6^{n}D (50.75 W \times 67.3 H \times 11.8 D cm)$ Weight: 53 lbs. Color: Red

#### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C) **Humidity:** 10 to 93% relative humidity (non-condensing)

#### ELECTRICAL:

Voltage for the IFP-FFT must be a power-limited, filtered, non resettable nominal 24 VDC source. The voltage source must be within the range of 17-29 VDC. Active Current: 230 mA

Standby Current: 120 mA SLC Circuit: 32V; 150mA Audio Circuits: 17V; 53mA

AGENCY LISTINGS AND APPROVALS

**UL** Listed

### ORDERING INFORMATION

(FP-FFT; Fire Fighters Telephone IDP-Minimon: Mini monitor module IDP-ISO: Fault Isolator Module

### ECS ACCESSORIES

FFT-24: 24 Zone Expander FFT-FPJ: Remote Phone Jack FFT-RHS: Fire Fighters Remote Hand Set FFT-HSC: Fire Fighters Handset Cabinet. Holds up to 10 remote handsets FFT-STSR: Single Telephone Station Recessed. A lockable cabinet containing one remote handset. FFT-STSS: Single Telephone Station Surface Mount. A lockable cabinet containing one remote

handset. **FFT-BGK:** Break Glass Kit for FFT-STS

VIP-TR: Flush Mount Trim Ring

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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For Technical Support, call 800-446-6444.

### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

#### **Honeywell Farenhyt**



## L-Series Indoor Horns, Strobes, and Horn Strobes

Honeywell

THE POWER OF CONNECTE

The L-Series audible visible notification products offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.



INDOOR SELECTABLE-OUTPUT HORNS, STROBES, AND HORN STROBES FOR WALL APPLICATIONS

- Updated Modern Aesthetics
- Offers small profile devices for horns and horn strobes
- Color lens attachments for use with clear lens wall or ceiling strobe
- Designed with tamper-resistant construction

- Meets DoD specification requirements
- Features a plug-in design with minimal intrusion into the back box
- Horn rated at 88+ dBA at 16 volts
- Supports rotary switch for horn tone and two volume selections
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Uses field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, 185
- Mounting plate for all standard and all compact wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Supports electrically compatible with existing SpectrAlert and SpectAlert Advance devices
- Compatible with System Sensor synchronization protocol
- Listed for wall mounting only

### L-SERIES SPECIFICATIONS ARCHITECT/ENGINEER SPECIFICATIONS

#### GENERAL

L-Series standard horns, strobes, and horn strobes shall mount to a standard 2 x 4 x 1 7/8-inch back box, 4 × 4 × 1½-inch back box, 4-inch octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 × 4 × 1 7/8-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products for all standard models and a separate universal mounting plate shall be used for mounting wall compact models. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a noncoded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, and 185.

#### STROBE

The strobe shall be a System Sensor L-Series Model \_\_\_\_\_\_ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

#### HORN STROBE COMBINATION

The horn strobe shall be a System Sensor L-Series Model \_\_\_\_\_\_ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The horn on horn strobe models shall operate on a coded or non-coded power supply.

### SYNCHRONIZATION MODULE

The module shall be a System Sensor Sync•Circuit model MD L3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize L-Series strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4 11/16 × 4 11/16 × 2 1/8-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

#### PHYSICAL

32 mm D) Compact Horn Dimensions: 5.25" L x 3.45" W x 1.25" D (133mm L x 88mm W x 32mm D)

### **ELECTRICAL SPECIFICATIONS**

Strobe Flash Rate: 1 flash per second Nominal Voltage Regulated: 12VDC or regulated 24DC/FWR1 Operating Voltage Range<sup>2</sup>: 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal) Operating Voltage Range (MDL3) Sync Module: 8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24V nominal)

Input Terminal Wire Gauge: 12 to 18 AWG

### ENVIRONMENTAL

**Standard Operating Temperature:** 32°F to 120°F (0°C to 49°C) **Humidity Range:** 10 to 93% non-condensing

### Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.

2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 30 cd.

### AGENCY LISTINGS AND APPROVALS

UL: Listed FM: Approved CSFM: Listed

### UL MAX HORN CURRENT DRAW ( mA RMS)

| SOUND PATTERN        | DB   | 8-17.5V | 16-33V |     |
|----------------------|------|---------|--------|-----|
|                      |      | DC      | DC     | FWR |
| Temporal             | High | 39      | 44     | 54  |
| Temporal             | Low  | 28      | 32     | 54  |
| Non-Temporal         | High | 43      | 47     | 54  |
| Non-Temporal         | Low  | 29      | 32     | 54  |
| Non-Temporal         | Low  | 29      | 32     | 54  |
| 3.1 KHz Temporal     | High | 39      | 41     | 54  |
| 3.1 KHz Temporal     | Low  | 29      | 32     | 54  |
| 3.1 KHz Non-Temporal | High | 42      | 43     | 54  |
| 3.1 KHz Non-Temporal | Low  | 28      | 29     | 54  |
| Coded                | High | 43      | 47     | 54  |
| 3.1 KHz Coded        | High | 42      | 43     | 54  |

| <b>UL MAX STROBI</b> | <b>CURRENT DRAV</b> | ( mA RMS) |
|----------------------|---------------------|-----------|
|----------------------|---------------------|-----------|

|         | CANDELA | 8-17.5V |     | 16-33V |
|---------|---------|---------|-----|--------|
|         |         | DC      | DC  | FWR    |
| CANDELA | 15      | 88      | 43  | 60     |
| RANGE   | 30      | 143     | 63  | 83     |
|         | 75      | N/A     | 107 | 136    |
|         | 95      | N/A     | 121 | 155    |
|         | 110     | N/A     | 148 | 179    |
|         | 135     | N/A     | 172 | 209    |
|         | 185     | N/A     | 222 | 257    |

### UL MAX CURRENT DRAW (mA RMS), 2-WIRE HORN STROBE, CANDELA RANGE (15-115 CD)

|                 | 8-17.5V |      | 16-33V |      |       |       |       |       |       |
|-----------------|---------|------|--------|------|-------|-------|-------|-------|-------|
| DC INPUT        | 15CD    | 30CD | 15CD   | 30CD | 75CD  | 95CD  | 110CD | 135CD | 185CD |
| EM Temp Hi      | 98      | 158  | 54     | 74   | 121   | 142   | 162   | 196   | 245   |
| EM Temp Low     | 93      | 154  | 44     | 65   | 111   | 133   | 157   | 184   | 235   |
| EM Cont Hi      | 106     | 166  | 73     | 94   | 139   | 160   | 182   | 211   | 262   |
| EM Cont Low     | 93      | 156  | 51     | 71   | 119   | 139   | 162   | 190   | 239   |
| 3.1K Temp Hi    | 93      | 156  | 53     | 73   | 119   | 140   | 164   | 190   | 242   |
| 3.1K Temp Low   | 91      | 154  | 45     | 66   | 112   | 133   | 160   | 185   | 235   |
| 3.1K Cont Hi    | 99      | 162  | 69     | 90   | 135   | 157   | 175   | 208   | 261   |
| 3.1K Cont Low   | 93      | 156  | 52     | 72   | 119   | 138   | 162   | 192   | 242   |
|                 | 16VFWR  |      |        |      |       |       |       |       |       |
| SWITCH POSITION | 15CD    | 30CD | 75CD   | 95CD | 110CD | 135CD | 185CD |       |       |
| EM Temp Hi      | 83      | 107  | 156    | 177  | 198   | 234   | 287   |       |       |
| EM Temp Low     | 68      | 91   | 145    | 165  | 185   | 223   | 271   |       |       |
| EM Cont Hi      | 111     | 135  | 185    | 207  | 230   | 264   | 316   |       |       |
| EM Cont Low     | 79      | 104  | 157    | 175  | 197   | 235   | 283   | ]     |       |
| 3.1K Temp Hi    | 81      | 105  | 155    | 177  | 196   | 234   | 284   |       |       |
| 3.1K Temp Low   | 68      | 90   | 145    | 166  | 186   | 222   | 276   |       |       |
| 3.1K Cont Hi    | 104     | 131  | 177    | 204  | 230   | 264   | 326   | ]     |       |
| 3.1K Cont Low   | 77      | 102  | 156    | 177  | 199   | 234   | 291   |       |       |

### HORN AND HORN STROBE OUTPUT (DBA)

|                 |                      |      | 8-17.5V | 16-33V | FWR |
|-----------------|----------------------|------|---------|--------|-----|
| SWITCH POSITION | SOUND PATTERN        | DB   | DC      | DC     |     |
| 1               | Temporal             | High | 84      | 89     | 89  |
| 2               | Temporal             | Low  | 75      | 83     | 83  |
| 3               | Non-Temporal         | High | 85      | 90     | 90  |
| 4               | Non-Temporal         | Low  | 76      | 84     | 84  |
| 5               | 3.1 KHz Temporal     | High | 83      | 88     | 88  |
| 6               | 3.1 KHz Temporal     | Low  | 76      | 82     | 82  |
| 7               | 3.1 KHz Non-Temporal | High | 84      | 89     | 89  |
| 8               | 3.1 KHz Non-Temporal | Low  | 77      | 83     | 83  |
| 9               | Coded                | High | 85      | 90     | 90  |
| 10              | 3.1 KHz Coded        | High | 84      | 89     | 89  |

#### **L-SERIES DIMENSIONS**



1.91

1.25

Compact Strobe / Horn Strobe



Strobe / Horn Strobe

### L-SERIES ORDERING INFORMATION WALL HORN STROBES

P2RL: 2-Wire, Horn Strobe, Red P2WL: 2-Wire, Horn Strobe, White P2GRL: 2-Wire, Compact Horn Strobe, Red P2GWL: 2-Wire, Compact Horn Strobe, White P2RL-P: 2-Wire, Horn Strobe, Red, Plain P2WL-P: 2-Wire, Horn Strobe, White, Plain P2RL-SP: 2-Wire, Horn Strobe, Red, FUEGO P2WL-SP: 2-Wire, Horn Strobe, White, FUEGO

### WALL STROBES

SRL; Strobe, Red SWL: Strobe, White SGRL: Compact Strobe, Red SGWL: Compact Strobe, White SRL-P: Strobe, Red, Plain SWL-P: Strobe, White, Plain SRL-SP: Strobe, Red, FUEGO SWL-CLR-ALERT: Strobe, White, ALERT

#### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

### **Honeywell Security & Fire**

12 Clintonville Road Northford, CT 06472 800-328-0103



Compact Horn



HORNS

HRL: Horn, Red HWL: Horn, White HGRL: Compact Horn, Red HGWL:Compact Horn, White

#### ACCESSORIES

TR-2: Universal Wall Trim Ring Red TR-2W: Universal Wall Trim Ring, wht SBBRL: Wall Surface Mount Back Box, Red SBBWL: Wall Surface Mount Back Box, White SBBGRL: Compact Wall Surface Mount Back Box, Red SBBGWL: Compact Wall Surface Mount Back Box, White Note:

All - P models having a plain housing (no"FIRE marking on cover.

All-SP models have "FUEGO" marking on cover All -ALERT models have "ALERT" marking on cover For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### Honeywell

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Farenhyt<sup>™</sup> Series

## IFP-2100ECS / IFP-2100ECSB

Scalable Analog/Addressable Fire Alarm Control System

The IFP-2100ECS (red) and IFP-2100ECSB (black) are intelligent analog/ addressable Fire Alarm Control Panels combined with an Emergency Communication System (ECS). When the ECS features are enabled, they are integrated with the fire alarm and voice evacuation functions of the control panel. The IFP-2100ECS panel and accessories provide features to meet the requirements for Mass Notification Systems as described in UL 2572.

This state of the art fire alarm control panel allows you to choose one of three SLC protocols per system. The IFP-2100ECS panel contains one built in signaling line circuit (SLC), which can support 159 System Sensor® IDP/SK sensors and 159 IDP/SK modules or 127 Hochiki® SD devices per loop. Additional SLC loops can be added using the model 6815 SLC expander for IDP/SK devices or model 5815XL for SD devices to increase the overall point capacity to a maximum of 2100 points per panel.

IFP-2100ECS has the interconnection capability for up to 32 panels. The system has two modes of operation, multiple panels covering one larger building, or multiple independent buildings. A separate network can be used for voice paging across all panels.

The IFP-2100ECS supports a variety of devices, including RA-2000, RA-1000 or RA-100 remote annunciator, 5824 serial/parallel printer interface module (for printing system reports), RPS-1000 power module, and IDP, SK or SD devices.



#### IFP-2100ECSB

### COMPATIBILITY

The IFP-2100ECS is compatible with the following ECS components:

- ECS-50W, ECS-125W, ECS-INT50W or ECS-DUAL50W Amplifier
- ECS-RVM: Remote voice module
- ECS-SW24: 24 switch expander (max 2)
- ECS-NVCM: Network Voice Control Module (included)
- ECS-LOC: Local Operator Console
- ECS-LOC2100: Local Operator Console
- ECS-LOC2100B: Local Operator Console. Black
- ECS-RPU: Remote Paging Unit

- Single enclosure for both Fire and Emergency Control System components
- Can select ECS message as priority over fire
- Network support for up to 32 Sites
- Built-in support for up to 159 IDP/SK detectors and 159 IDP/SK modules or 127 SD SLC devices

- Four line LCD display with 40 characters per line
- Available in a red or black cabinet
- Separate network support for voice paging
- Built-in USB interface for programming
- Four programmable function keys
- Built-in dual phone line, digital alarm communicator/ transmitter (DACT), IP or optional cellular technologies
- JumpStart AutoProgramming<sup>®</sup> feature for easy programming
- Capable of producing 520 Hz tones to meet NFPA 72 requirements
- 15 Recordable one minute messages that can be mapped to eight ECS buttons
- Firmware can be upgraded in the field
- Supports up to four SWIFT wireless gateways. Each gateway can have up to 49 wireless devices
- Support for up to 16 SBUS addressable amplifiers using a combination of ECS-50W, ECS-125W, ECS-INT50W or ECS-DUAL50W for a maximum of 2000 watts per system and up to 128 mappable speaker circuits
- On-board supervised microphone

### IFP-2100ECS Technical Specifications

### PHYSICAL

Overall Dimensions: 21.59"W x 28.10"H x 5.05"D Shipping Weight: 53 lbs. Color: Red or Black

### ENVIRONMENTAL

**Operating Temperature:**  $32^{\circ}F$  to  $120^{\circ}F$  (0°C to  $49^{\circ}C$ )

Humidity: 0 to 93% relative humidity (noncondensing)

### ELECTRICAL:

IFP-2100ECS AC: 120V @ 50/60Hz, 4.5A total accessory load: 9A @ 27.4VDC power-limited IFP-2100ECSHV AC: 240V @ 50/60Hz, 2.8A Total Accessory Load

Standby Current: 230mA

Alarm Current: 415mA

Battery Charging Capacity: 7 to 55AH

**Battery Size:** 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

Six Conductor Wiring: Two voice bus & four SBUS

### FLEXPUT CIRCUITS

Eight circuits that can be programmed individually as:

Notification Circuits: 3A per circuit @ 27.4VDC, power limited

Auxiliary Power Circuits: 3A per circuit @ 27.4VDC, power limited.

Initiation Circuit: 100mA per circuit @ 27.4VDC, power-limited

### APPROVALS

### NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA

72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service UL Listing; CSFM 7165-0559:0505; FDNY COA# 6251; Seismic (CA) (pending), FM approved

#### **COMPATIBLE DEVICES**

### See the data sheets listed below for a complete listing of the IDP, SK, SWIFT or SD devices.

350361: IDP Device Protocol data sheet 53623: SK Device Protocol data sheet 350360: SD Device Protocol data sheet 350615 & 350617: SWIFT devices data sheet

### **ORDERING INFORMATION**

### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

### Honeywell Farenhyt

12 Clintonville Road Northford, CT 06472 800-328-0103 **IFP-2100ECS:** Emergency Communication System with FACP. Red Cabinet.

IFP-2100ECSB: Emergency Communication System with FACP. Black Cabinet.

**IFP-2100ECSHV:** High Voltage (240V) Emergency Communication System with FACP. Red Cabinet. **IFP-2100ECSHVB:** High Voltage (240V) Emergency Communication System with FACP. Black Cabinet

### ECS ACCESSORIES

ECS-50W: 50 Watt Amplifier ECS-125W: 125 Watt Amplifier ECS-DUAL50W: 50 Watt Dual Amplifier ECS-DUAL50WB: 50 Watt Dual Amplifier, Black ECS-50WB: 50 Watt Amplifier, Black ECS-125WB: 125 Watt Amplifier, Black ECS-INT50W: 50 / Watt Internal Amplifier ECS-50WBU: External Backup Amplifier ECS-CE4: Provides 4 additional audio circuits ECS-RVM: Remote voice module ECS-SW24: 24 Switch Expander ECS-NVCM: Network Voice Control Module ECS-LOC: Local Operator Console ECS-LOC2100: Local Operators Console, Red ECS-LOC2100B: Local Operator Console, Black ECS-RPU: Remote Paging Unit. Red

#### SBUS ACCESSORIES

### RA-2000, RA-1000, RA-1000R, RA-100,

RA-2000GRAY: Remote annunciators
6815: Signal Line Circuit (SLC) Expander for IDP or SK devices
5815XL: Signal Line Circuit (SLC) Expander for SD devices
RPS-1000/B: Power Supply. Red or Black
5496: NAC Expander

5824: Serial/Parallel Module

5880: LED I/O Module

5865-3 or 5865-4: LED Annunciator 5883: Relay Interface

### **MISCELLANEOUS ACCESSORIES**

HFSS: Software Suite. Provides programming, upload/download and event reporting RBB: Remote Battery Box Cabinet. Use for backup batteries up to 35 AH. Dimensions: 16" W x 10" H x 6" D

**SK-SCK:** Seismic Compliance Kit **SK-NIC:** Network Interface Card

**SK-FML:** Multi Mode Fiber Card

SK-FSL: Single Mode Fiber Card

**CELL-MOD:** Cellular Communicator in Plastic

Enclosure

**CELL-CAB-SK:** Cellular Communicator in Metal Enclosure with lock and key

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For Technical Support, call 800-446-6444.





Farenhyt<sup>™</sup> Series

## IFP-2100 / IFP-2100B / RFP-2100 / RFP-2100B

Scalable Analog/Addressable Fire Alarm Control System

The IFP-2100 (red) and IFP-2100B (black) are intelligent analog/ addressable Fire Alarm Control Panels (FACP). The basic IFP-2100 panel contains one built in signaling line circuit (SLC), which can support 159 System Sensor® IDP/SK sensors and 159 IDP/SK modules or 127 Hochiki® SD devices per loop. Additional SLC loops can be added using the model 6815 SLC expander for IDP/SK devices to increase the overall point capacity to 2100 or model 5815XL for SD devices to increase the overall point capacity to a maximum to 2032 points per panel.

IFP-2100 has the interconnection capability for up to 32 panels. The system has two modes of operation, multiple panels covering one larger building, or multiple independent buildings. The RFP-2100 (red) or RFP-2100B (black) can be used in a networked system where at least one IFP-2100 is in the system. It is the same as the IFP-2100 without the display.

IFP-2100 has eight on-board Flexput<sup>™</sup> circuits that can be configured for auxiliary power, notification outputs, or for conventional smoke detector inputs (Class A or Class B). The FACP also has a Built in dual phone line digital alarm communicator/transmitter (DACT), IP or optional cellular technologies, Form C trouble relay, and two programmable Form C relays. IFP-2100 has powerful features such as detector sensitivity, day/night thresholds, drift compensation, pre-trouble maintenance alert, and calibration trouble alert



IFP-2100B



RFP-2100B

- RFP-2100 or RFP-2100B can be used in a networked system where at lease one IFP-2100 is in the system
- Network support for up to 32 Sites
- Built-in support for up to 159 IDP/SK detectors and 159 IDP/SK modules or 127 SD SLC devices
- Four line LCD display with 40 characters per line
- Available in a red or black cabinet
- IFP-2100 or RFP-2100 can be surface or flush mounted
- Four programmable function keys
- Network card allows copper network connection with a multi-mode or single-mode fiber connection option
- Built-in dual phone line, digital alarm communicator/ transmitter (DACT), IP or optional cellular technologies
- JumpStart AutoProgramming<sup>®</sup> feature for easy programming
- Renewable license on downloading software helps inhibit unauthorized programming
- Built in USB interface for programming
- Supports up to four SWIFT wireless gateways. Each gateway can have up to 49 wireless devices
- Supports Class B (Style 4) and Class A (Style 6 or Style 7 configuration for SLC, and SBUS.

### IFP-2100 / RFP-2100 Technical Specifications

### PHYSICAL

Overall Dimensions: 26.4"H × 16.4"W × 4.11"D Shipping Weight: 33 lbs. Color: Red or Black

### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C)

Humidity: 0 to 93% relative humidity (noncondensing)

### ELECTRICAL

IFP-2100 Primary AC: 120VAC @ 50/60Hz, 4.5A IFP-2100HV AC: 240VAC @ 50/60Hz, 2.8A

Total Accessory Load: 9A @ 24VDC power-limited Standby Current: 230mA

Alarm Current: 415mA

#### Battery Charging Capacity: 17 to 55AH

**Battery Size:** 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

Six Conductor Wiring: Two voice bus & four SBUS

### FLEXPUT CIRCUITS

Eight circuits that can be programmed individually as:

Notification Circuits: 3A per circuit @ 24VDC, power limited

Auxiliary Power Circuits: 3A per circuit @ 24VDC, power limited.

Initiation Circuit: 100mA per circuit @ 24VDC, power-limited

### AGENCY LISTINGS AND APPROVALS

NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA

**72:** Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service

UL Listing CSFM 7165-0559:0505 FDNY COA# 6251 Seismic (CA) (pending) FM approved

### **APPROVED RELEASING SOLENOIDS**

- Asco T8210A107 Asco 8210G207
- 24 VDC 3 A max 0 Hz 24 VDC 3 A max 0 Hz

### **COMPATIBLE DEVICES**

See the data sheets listed below for a complete

### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com>

### Honeywell Farenhyt

12 Clintonville Road Northford, CT 06472 800-328-0103

### listing of the IDP, SK, SWIFT or SD devices.

3350361: IDP Device Protocol data sheet
53623: SK Device Protocol data sheet
350360: SD Device Protocol data sheet
350615 & 350617: SWIFT devices data sheet

### **ORDERING INFORMATION**

**IFP-2100:** Intelligent Fire Alarm Control Panel. Red Cabinet.

IFP-2100B: Intelligent Fire Alarm Control Panel. Black Cabinet.

**IFP-2100HV**; High Voltage (240V) Intelligent Fire Alarm Control Panel. Red Cabinet

IFP-2100HVB: High Voltage (240V) Intelligent Fire Alarm Control Panel. Black Cabinet

**RFP-2100:** Remote Fire Alarm Panel without built in display. Red Cabinet.

**RFP-2100B:** Remote Fire Alarm Panel without built in display. Black Cabinet.

**RFP-2100HV:** High Voltage (240V) Remote Fire Alarm Panel without built in display. Red Cabinet. **RFP-2100HVB:** High Voltage (240V) Remote Fire Alarm Panel without built in display. Black Cabinet.

### **SBUS ACCESSORIES**

#### RA-2000, RA-1000, RA-1000R, RA-100, RA-2000GRAY: Remote annunciators

6815: Signal Line Circuit (SLC) Expander for IDP or SK devices

**5815XL:** Signal Line Circuit (SLC) Expander for SD devices

**RPS-1000/B:** Power Supply. Red or Black Cabinet **5496:** NAC Expander

5824: Serial/Parallel Module

5880: LED I/O Module

5865-3 or 5865-4: LED Annunciator

5883: Relay Interface

### MISCELLANEOUS ACCESSORIES

HFSS: Software Suite. Provides programming, upload/download and event reporting RBB: Remote Battery Box Cabinet. Use for backup batteries up to 35AH. Dimensions: 16"W x 10"H x 6"D

SK-SCK: Seismic Compliance Kit

SK-NIC: Network Interface Card

SK-FML: Multi Mode Fiber Card

SK-FSL: Single Mode Fiber Card

**CELL-MOD:** Cellular Communicator in Plastic Enclosure

**CELL-CAB-SK:** Cellular Communicator in Metal Enclosure with lock and key

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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Farenhyt<sup>™</sup> Series

# 6815

### Signaling Line Circuit Expander

The 6815 is a signaling line circuit (SLC) expander for use with the Farenhyt Series IFP-300/ECS or IFP-2100/ECS analog/addressable fire alarm control panel (FACP). Use the 6815 to add more SLC devices of the same protocol to the IFP-2100/ECS or IFP-300/ECS control panel.

Additional 6815;s support 159 IDP or SK devices, and 159 IDP or SK modules for a maximum of 2100 points per IFP-2100/ECS or 300 points per IFP-300/ECS. The number of 6815's used is limited by the number of SBUS devices. 6815 will support IDP, SK or SWIFT devices.

The 6815 communicates with the FACP via an RS 485 system bus. A green LED on the 6815 board blinks to indicate good communication. If an addressable device on a 6815 fails, the loop communicates the failure to the FACP and continues to operate normally

6815

### Compatibility

The 6815 is compatible with the following Farenhyt Series FACP's:

- IFP-2100/ECS
- IFP-2100/ECSB
- RFP-2100
- RFP-2100B
- IFP-300/ECS
- FP-300/ECSB

- Adds support for up to 159 IDP/SK sensors and 159 IDP/SK modules per IFP-300/ ECS or IFP-2100/ECS panel
- Communicates with the FACP via RS 485 system bus
- LED indicates good communication
- House up to two 6815s in the IFP-2100/ECS, RFP-2100, IFP-300/ ECS, RPS-1000 cabinets, or in the 5815RMK remote mounting kit
- SLC wiring used standard wire. Twisted pair or shield cable are not required
- UL 864 listed, complies with NFPA 72 and 101
- Support for IDP, SK or SWIFT devices

### 6815 Technical Specifications

### PHYSICAL

**Dimensions:** 4.2"H x 4.8"" W (10.7 x 12.2 cm) **Shipping Weight:** 5.6oz (159 g).

#### ELECTRICAL

Standby & Alarm Current: 78mA max

### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C) **Humidity:** 0 to 93% non-condensing

### SYSTEM CAPACITY

IFP-2100/ECS FACP supports 63 6815s (but a maximum of 2100 SLC devices per system) IFP-300/ECS FACP supports 63 5815XLs (but a maximum of 300 SLC devices per system) 6815 Capacity: 159 IDP or SK sensors and 159 IDP or SK modules per loop

#### **ORDERING INFORMATION**

6815: Signaling Line Circuit Expander.

### ACCESSORIES

**RPS-1000:** Intelligent Power Module. Cabinet holds two 6815s.

**5815RMK:** Remote Mounting Kit Cabinet holds two 6815s. Red cabinet

**5815RMKB:** Remote Mounting Kit Cabinet holds two 6815s. Black cabinet.

**SK-NIC-KIT:** Remote Mounting Kit Cabinet. holds one 6815. 10-3.8" W x 10-3/16" H x 3" D

#### AGENCY LISTIINGS AND APPROVALS NFPA 13. NFPA 15. NFPA 16. NFPA 70. &

NFPA 72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signalling services. UL listed

CSFM listed FDNY COA 6245 FM approved For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com>

#### **Honeywell Farenhyt**







Honeywell

THE POWER OF CONNECTE

Network Interface Card

The SK-NIC, Network Interface Card, is an optional component of the Honeywell Farenhyt Series fire alarm control panels. It allows the subassemblies to connect to the Broadband network from remote locations:

The SK-NIC card comes standard with network connections using unshielded, twisted-pair, copper wire. The following optional fiber-optic network connections using add-on modules are available.

- SK-FML multi-mode fiber module (optional)
- SK-FSL single-mode fiber module (optional)

### INSTALLATION

The SK-NIC is adaptable for an installation in the standard Honeywell Farenhyt Series cabinets. Typically, the SK-NIC card is mounted on standoffs under the motherboard. (Except with the IFP-75). For instructions on the installation of the SK-NIC, refer to the following documents:

- P/N: LS10172-001SK-E SK-NIC Installation Instruction
- P/N: LS10178-001SK-E Fiber Modules Installation Instruction

### COMPATIBILITY

The SK-NIC is compatible with the following Farenhyt Series FACP's:

- IFP-2100/ECS or IFP-2100/ECSB
- IFP-300/ECS or IFP-300/ECSB
- IFP-75 or IFP-75B

### FEATURES & BENEFITS

- Listed under UL<sup>®</sup> Standard 864, 9th Edition
- Provides the capability for networked FACPs to connect in Styles 4 or 7 configurations
- Offers standard unshielded, twistedpair copper wire network connections.
- Provides add-on fiber-optic modules that allow the network connection through single or multi-mode fiber-optic cables
- SK-NIC can be mounted within the FACP cabinet. (Except with IFP-75)
- SK-NIC-KIT accessory kit is available if you want to install the SK-NIC outside of the FACP cabinet

• Has 625K baud

ARCNET Repeater



SK-NIC

### SK-NIC Technical Specifications



### SPECIFICATIONS

#### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C)

Humidity: 0 to 93% relative humidity (noncondensing)

### ELECTRICAL:

Operating Voltage: 24VDC Standby Current: 21mA Alarm Current: 21mA

#### WIRING SPECIFICATIONS:

**Copper Wire:** 16 to 18 AWG twisted-pair, unshielded

### Up to 3,000 ft. (914.4 m) between each node.

**Fiber-Optic Cable:** (SK-FML only) Up to 200 microns optimized for 62.5/125 microns. Up to 8 dB loss between nodes.

Fiber-Optic Cable: (SK-FSL only) Optimized for 9/125 micrometer cable @ 1310 nm. Up to 30dB loss between nodes.

### ORDERING INFORMATION

SK-NIC: Network Interface Card

### ACCESSORIES

**SK-NIC-KIT:** Accessory kit for installing the SK-NIC outside of the FACP cabinet. Includes one SK-NIC Network Card. **SK-FML:** Fiber Module, multi-mode

SK-FSL: Fiber Module, single-mode

### AGENCY LISTINGS AND APPROVALS

UL listed CSFM approved NFPA 72 FM approved FDNY COA#: 6162 For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### Honeywell

Farenhyt™ Series



Fiber Optic Modules

Honeywell

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The Honeywell SK-FML (Fiber-Optic Multi-Mode) and SK-FSL (Fiber-Optic Single-Mode) are plug-in fiber loop modules. These work as one channel to transmit or receive communications with the SK-NIC (Network Interface Card) ARCNET communication circuit.

The SK-FML module allows multimode fiber to connect network nodes. It features ST-style connectors with a maximum attenuation of 8db with 62.5/125 micrometer cable. The SK-FSL module allows single mode fiber to connect network nodes. It features LC-style connectors with a maximum attenuation of 30db with 9/125 micrometer cable.

Each fiber loop module can Transmit (TX) or Receive (RX) fiber-optic cable connecting to the SK-NIC. Up to two fiber loop cards can be added to the SK-NIC, and both cards may be combined in the same configuration. Both modules are listed per ANSI/UL Standard 864, 9th addition.

Use these two modules with the SK-NIC to create a common communications and annunciation link on a fiber-optic network of up to 17 panels. A designated panel is configured as the communicator for all panels in the link for convenient single-point communications. Note that panels can also be connected in this way using copper wire.

### Compatibility

The SK-FSL and SK-FML are compatible with the following Honeywell Farenhyt Series FACPs:

- IFP-2100/ECS or IFP-2100/ECSB
- IFP-300/ECS or IFP-300/ECSB
- IFP-75 or IFP-75B

- Listed per ANSI/UL® Standard 864 9th edition
- SK-FML features ST-style connectors with a maximum attenuation of 8 dB with 62.5/125 micrometer cable
- SK-FSL features LC-style connectors with a maximum attenuation of 30db with 9/125 micrometer cable
- Offers the option to combine single and multi-mode modules on the same network card
- Simple plug-in card installation



**SK-FML (MULTI MODE FIBER)** 



SK-FSL (SINGLE MODE FIBER)

### SK-FML AND SK-FSL Technical Specifications



#### INSTALLATION

The SK-FML and SK-FSL modules are designed to plug into their designated spots on the SK-NIC card.

#### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C)

**Humidity:** 0 to 93% relative humidity (non condensing)

|                  | SK-FML      | SK-FSL      |
|------------------|-------------|-------------|
| Connection:      | ST syle     | LC style    |
| Cable Type:      | 62.5/125    | 9/125       |
|                  | micrometers | micrometers |
| Standby Current: | 0.053A      | 0.079A      |
| Alarm Current:   | 0.053A      | 0.079A      |
|                  |             |             |

#### **ORDERING INFORMATION**

**SK-FML:** Fiber Module, multi-mode **SK-FSL**; Fiber Module, single-mode

### ACCESSORIES

**SK-NIC:** Network Interface Card **SK-NIC-KIT:** Accessory kit for installing the SK-NIC outside of the FACP cabinet (required for 6700 panel installation). Includes one SK-NIC Network Card.

### AGENCY LISTINGS AND APPROVALS

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### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

### **Honeywell Security & Fire**







### Intelligent Sounder Base

### General

The B200S sounder base series is designed for new and existing commercial dwelling unit applications. It offers maximum flexibility in installation, configuration, and operation to meet or exceed UL 268 and UL 464 requirements.

The sounder base "listens in" to the communication between the attached sensor head and the fire alarm control panel (FACP) to adopt the same address as the detector, but as a unique device type on the loop. The FACP can then use that address to command an individual sounder — or a group of sounders — to activate. In addition, the FACP's will enable custom tone patterns.

The B200S series sounder bases recognize the System Sensor® synchronization protocol. This enables it to be used as a component of the general evacuation signal – along with other System Sensor horns, horn strobes, and chimes – when connected to a FACP output programmed as sounder base power.

### Installation

The B200S series sounder bases can be mounted directly to 4" (10.16 cm) square, 4" (10.16 cm) octagon, 3 1/2" (8.9 cm) octagon, single-gang or double-gang junction boxes.



B200S

- Programs the addressability for maximum configuration flexibility
- Supports Continuous, ANSI Temporal 3, ANSI Temporal 4, and March Time tone
- Custom tone capability with some FACP models
- Ability to synchronize with other System Sensor notification devices
- UL 268 and UL 464 compliant
- Includes a pre-wire mounting plate fits various junction box sizes
- Uses a mechanical locking feature that prevents the removal of the attached sensor head
- No external relays and input modules needed to supervise the Aux power
- Produces multiple event-driven tone outputs
- 520 Hz +/- 10% square wave tone (B200S-LF)

### **B200S** Technical Specifications

### PHYSICAL

Height: 2.0" (5.08 cm) less sensor Width: 6.875" (17.46 cm) Shipping Weight: B200S 0.50 lb. (227 gm)

### ENVIRONMENTAL

**Operating Temperature:** 32°F to 120°F (0°C to 49°C) **Humidity:**10% to 93% relative humidity (noncondensing)

### ELECTRICAL

Aux power voltage: 16 to 33 VDC (VFWR) Aux power standby current: .50mA max. Aux power alarm current: 35mA max. SLC operating voltage: 15 to 32 VDC SLC Standby/Alarm Current: 300 mA max (base only)

### SOUND OUTPUT

Volume Greater than 85 dBA minimum measured in a UL reverberant room at 10 feet, 24 Volts (in continuous tone).

### **ORDERING INFORMATION**

**B200S-WH**: Intelligent Sounder Base. White **B200S-IV**: Intelligent Sounder Base. Ivory

### ACCESSORIES

M02-04-01: Detector Test Magnet M02-09-01: Telescoping Test Magnet

### COMPATIBILITY

The B200S is compatible with the following IDP series detectors:

IDP-Photo: Photoelectric smoke detector

IDP-Photo-T: Photoelectric smoke detector with thermal IDP-Acclimate: Multicriteria Photoelectric smoke detector

IDP-Heat: Fixed temperature thermal detector IDP-Heat-ROR: Rate-of-Rise detector with thermal IDP-Heat-HT: Fixed high temperature thermal detector IDP-FIRE-CO: Multi criteria CO and smoke sensor

The B200S is compatible with the following Farenhyt Series FACPs:

IFP-2100 / IFP-2100ECS / RFP-2100 IFP-2000 / IFP-2000ECS / RPS-2000 IFP-1000 / IFP-1000ECS IFP-300 / IFP-300ECS IFP-100 / IFP-100ECS IFP-75 IFP-50

### AGENCY LISTINGS AND APPROVALS

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status. UL Standards: UL 268; UL 464 CSFM: Listed For a complete listing of all compliance approvals and certifications, please visit: www.Farenhyt.com

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Honeywell Fire Solutions 12 Clintonville Road

12 Clintonville Road Northford, CT 06472-1610 203.484.7161



## **IDP-CONTROL**

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Addressable Notification Module

The IDP-CONTROL is an addressable notification module for use with Honeywell Farenhyt Series fire alarm control panels (FACPs). The IDP-CONTROL gives you the flexibility to add notification circuits wherever they are needed on an Farenhyt FACP signaling line circuit (SLC) loop.

The IDP-CONTROL provides supervised monitoring of wiring to load devices that require an external power supply to operate, such as bells, horns, and strobes. It is capable of Class B and Class A supervision.

Upon command from the FACP, the IDP-CONTROL will disconnect the supervision and connect the external power supply across the load device. The disconnection of the supervision provides a positive indication to the panel that the control relay actually turned on. The external power supply is always relay isolated from the SLC loop, so that a trouble condition on the power supply will never interfere with the rest of the system.



IDP-CONTROL

### INSTALLATION

The IDP-CONTROL mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Honeywell.

### COMPATIBILITY

The IDP-CONTROL is compatible with the following Farenhyt Series FACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300/IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50

### FEATURES & BENEFITS

- Flexible solution for adding notification circuits where needed
- Support for Class B (style Y) or Class A (style Z) wiring
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Polling LED visible through the cover plate
- Rotary address switches for fast installation
- SEMS screws for easy wiring
- UL Listed
- CSFM Listed

 MEA Listed 386-02-E Vol. II

### IDP-CONTROL Technical Specifications

### PHYSICAL

Dimensions: 4.5" H x 4"W x 1.25" D Shipping Weight: 6.3oz (196g)

#### **ELECTRICAL RATINGS**

Operating Voltage: 15 to 32VDCStandby & Alarm Current:  $350 \,\mu\text{A}$ End-of-Line Resistance:  $47k\Omega$ SLC Loop Impedance:  $40\Omega$ 

### ENVIRONMENTAL

**Operating Temperature:** 32°-120°F (0°C – 49°C) **Humidity:** 10 to 93% non-condensing)

#### **ORDERING INFORMATION**

**IDP-CONTROL:** Notification module

#### ACCESSORIES

**SMB500:** 4" Square Surface Mount Electrical Box **CB500:** Module Barrier. Used to separate power limited and non-power limited wiring in a junction box.

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### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

### **Honeywell Security & Fire**





Farenhyt<sup>™</sup> Series

## IDP-HEAT/ IDP-HEAT-HT/ IDP-HEAT-ROR

Intelligent Thermal and Rate of Rise Thermal Detectors

The IDP-Heat, IDP-Heat-HT, and IDP-Heat-ROR are plug in thermal detectors, with integral communication, that provide features that surpass conventional detectors. These thermal detectors are for use with Honeywell Farenhyt series fire alarm control panels (FACPs).

Detector sensitivity can be programmed from the FACP software. Sensitivity is continuously monitored and reported to the FACP. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

IDP-Heat is a fixed temperature thermal detector that uses a thermistor sensing circuit to produce 135°F (57°C) fixed thermal detection.

IDP-Heat-HT is a variable high temperature detector that provides high temperature detection at  $135^{\circ}F - 190^{\circ}F (57^{\circ}C - 88^{\circ}C)$ .

IDP-Heat-ROR is a fixed temperature and rate-of-rise thermal detector that uses a thermistor sensing circuit to produce 135°F (57°C) thermal protection..



**IDP-HEAT ( BASE NOT INCLUDED)** 

- Sleek, low-profile design
- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Innovative thermistor sensing circuit
- Superior EMI resistance for reliability
- Variety of mounting options to meet any application
- Dual LED indicators for 360° visibility
- Detector transmits signal to indicate maintenance is required
- Plug-in mounting provides ease of installation
- Optional remote LED annunciator (System Sensor<sup>®</sup> PN RA100Z)
- Tamper-proof feature available on mounting bases
- Rotary address switches for fast installation
- UL Listed
- CSFM Listed
- MEA Listed 383-02-E Vol. VI

### IDP-HEAT, IDP-HEAT-HT and IDP-HEAT-ROR Technical Specifications

### PHYSICAL

Height: 2.0" (5.08cm) Diameter: 4.1" (10.4CM) installed in B501 base. 6.1" installed in B210LP base Shipping Weight: 4.8oz

### **ELECTRICAL RATINGS**

Operating Voltage: 15-32 VDC SLC Standby and Alarm Current:  $300\,\mu\text{A}$ 

### ENVIRONMENTAL

Operating Temperature IDP-Heat & IDP-Heat-ROR: -4°F - 100 °F (-20°C - 38°C) IDP-Heat-HT: -4°F - 150 °F (-20°C - 66°C) Humidity: 10 to 93% non-condensing)

#### THERMAL RATINGS

**IDP-Heat:** Fixed temperature setpoint 135°F (57°C)

IDP-Heat-HT: High temperature heat 135°F – 190°F (57°C – 88°C)

IDP-Heat-ROR: Rate-of-rise detection 15°F/min (9°C/min)

### **ORDERING INFORMATION**

**IDP-Heat:** Fixed temperature thermal detector **IDP-Heat-HT:** Fixed high temperature thermal detector

**IDP-Heat-ROR**; Fixed temperature and rate-ofrise thermal detector

#### ACCESSORIES

**RA100Z:** Remote LED Annunciator. **XR2B:** Detector Removal Tool. A removal and replacement tool for IDP plug-in detectors. Includes the T55-127-000.

M02-04-01: Detector test magnet

**M02-09-00:** Test Magnet with telescoping handle **XP-4:** Extension pole for XR2B. Extends from 5 – 15 ft

T55-127-000: Detector removal head.

**BCK-200B:** Black detector kit. For IDP-series detectors.

\* Unless otherwise noted, specifications apply to IDP thermal detectors.

### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

### **Honeywell Security & Fire**

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### COMPATIBILITY

The IDP-HEAT, IDP-HEAT-HT, and IDP-HEAT-ROR are compatible with the following IDP series bases:

- B210LP 6" Mounting Base
- B501 4" Mounting Base
- B224BI 6" Isolator Base
- B224RB 6" Relay Base
- B200SR 6" Sounder Base

The IDP-HEAT, IDP-HEAT-HT, and IDP-HEAT-ROR are compatible with the following Farenhyt Series FACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300/IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50

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### Honeywell





Line Isolator Module

The IDP-ISO is a SLC loop line isolator module for use with the Honeywell Farenhyt Series fire alarm control panels (FACPs). The IDP-ISO acts as an automatic switch that opens when the line voltage on the signaling line circuit (SLC) loop drops below four volts. Isolator modules should be spaced between groups of sensors or modules in a loop to protect the rest of the loop. If a short occurs between any two isolators, then both isolators immediately switch to an open circuit state and isolate the devices between them. The remaining units on the SLC loop continue to fully operate. No more than 25 devices are recommended for each group.



The IDP-ISO mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Honeywell.

### COMPATIBILITY

The IDP-ISO is compatible with the following Farenhyt Series FACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300/IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50

- Isolates short circuits on an SLC loop
- Protects the modules on the SLC loop so other devices continue to operate
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Standard 4 inch electrical box mounting
- SEMS screws for easy wiring
- UL Listed
- CSFM Listed
- MEA Listed 427-91-E Vol. X



IDP-ISO

### IDP-ISO Technical Specifications

### PHYSICAL

**Dimensions:** 4.5" H x 4" W x .25 D ( 11.4 x 10.2 x .6cm) **Shipping Weight:** 6.3oz (196g?

### ELECTRICAL RATINGS

Operating Voltage: 15 – 32 VDC Standby Current: 450 μA max (not isolating; relay closed) Isolation Current: 5mA max Fault Detection Delay: 250ms min. Fault Detection Threshold: 4V Line Restoration Threshold: 7V

### ENVIRONMENTAL

**Operating Temperature:** 32°-120°F (0°C – 49°C) **Humidity:** 10 to 93% non-condensing)

### **ORDERING INFORMATION**

IDP-ISO: Line Isolator Module

### ACCESSORIES

SMB500: 4" Square Surface Mount Electrical Box

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### Honeywell



Farenhyt<sup>™</sup> Series

## **IDP-MONITOR-2**

Addressable Dual Monitor Module

The IDP-MONITOR-2 is an addressable monitor module with two initiating circuits for use with Honeywell Farenhyt Series fire alarm control panels (FACPs). The IDP-MONITOR-2 acts as an interface to contact devices, such as waterflow switches and pull stations.

The IDP-MONITOR-2 supports Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions.

Because the IDP-MONITOR-2 is capable of monitoring two separate Class B circuits, it is ideal for waterflow tamper switch and flow switch monitoring.



**IDP-MONITOR-2** 

### Installation

The IDP-MONITOR-2 mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Honeywell.

### COMPATIBILITY

The IDP-MONITOR-2 is compatible with the following Honeywell Farenhyt Series FACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300 / IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50

- Monitor two circuits, with unique addresses, simultaneously
- Support for Class B wiring
- Fully supervised
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Rotary address switches for fast installation
- SEMS screws for easy
  - wiring
- UL Listed
- CSFM Listed
- MEA Listed 457-99-E Vol. V

### IDP-MONITOR-2 Technical Specifications

### PHYSICAL

Dimensions: 4.5" H x 4" W x 1.3 D ( 11.4 x 10.2 x 3.2cm) Shipping Weight: 6.3oz (196g)

### **ELECTRICAL RATINGS**

Operating Voltage: 15 - 32VDCMaximum Current Draw: 6.4mA (LED on) SLC Standby & Alarm Current:  $750\mu A max @ 24$ VDC (one communication every sec with 47k EOL) End of Line Resistance:  $47k\Omega$ 

### ENVIRONMENTAL

**Operating Temperature:** 32°-120°F (0°C – 49°C) **Humidity:** 10 to 93% non-condensing)

### **ORDERING INFORMATION**

IDP-MONITOR-2: Dual Monitoring Module

### ACCESSORIES

SMB500: 4" Square Surface Mount Electrical Box

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### For more information

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### **Honeywell Security & Fire**



## **IDP-MONITOR**

Honeywell

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Addressable Monitor Module

The IDP-MONITOR is an addressable monitor module for use with the Honeywell Farenhyt Series fire alarm control panels (FACPs). The IDP-MONITOR acts as an interface to contact devices, such as waterflow switches and pull stations.

The IDP-MONITOR supports Class A supervised or Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions.

### INSTALLATION

The IDP-MONITOR mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Honeywell.

### COMPATIBILITY

The IDP-MONITOR is compatible with the following Honeywell Farenhyt Series FACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300/IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50

### FEATURES & BENEFITS

- Isolates short circuits on an SLC loop
- Protects the modules on the SLC loop so other devices continue to operate
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Standard 4 inch electrical box mounting
- SEMS screws for easy wiring

- UL Listed
- CSFM Listed
- MEA Listed 427-91-E Vol. X

<section-header>

**IDP-MONITOR** 

### IDP-MONITOR Technical Specifications

### PHYSICAL

4.5" H x 4" W x 1.25 D ( 11.4 x 10.2 x 3cm) Shipping Weight: 6.3oz (196g?

### **ELECTRICAL RATINGS**

Operating Voltage: 15 - 32VDC Current Draw (LED on): 5.0mA max Operating Current (LED flashing):  $375\mu$ A Standby Current:  $400 \mu$ A max @ 24 VDC (one communication every 5 sec with 47K EOL);  $550 \mu$ A max @ 24 VDC (one communication every 5 sec with EOL <1K) 5.5 mA (with LED latched on) LED Current: 5.5 mA (with LED latched on) End-of-Line Resistance: 47K  $\Omega$ 

Initiating Device Circuit Wiring Resistance: 1,500  $\Omega$  max SLC Loop Resistance: 40  $\Omega$  max.

#### ENVIRONMENTAL

**Operating Temperature:** 32°-120°F (0°C – 49°C) **Humidity:** 10 to 93% non-condensing)

### **ORDERING INFORMATION**

IDP-MONITOR: Monitoring Module

### ACCESSORIES

SMB500: 4" Square surface mount electrical box

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### **Honeywell Security & Fire**



Farenhyt™ Series

## IDP-PULL-SA / IDP-PULL-DA

Addressable Single Action and Dual Action Pull Stations

The IDP-PULL-SA is a single action pull station requiring only one motion to activate the station. The IDP-PULL-DA is a dual action pull station requiring two motions to active the station. Both pull stations are designed to work with Honeywell Farenhyt series fire alarm control panels (FACPs).

### INSTALLATION

Honeywell

THE POWER OF CONNECTE

The IDP-PULL-SA and IDP-PULL-DA can be surface mounted to an SB-I/O surface back box or semi-flush mounted on a standard single-gang with a minimum depth of 2.13"(5.40 cm) or double gang or 4" (10.61 cm) square electrical box. You can also use the optional (System Sensor® PN BG-TR) trim ring if the station is being semi-flush mounted.

### COMPATIBILITY

The IDP-PULL-SA and IDP-PULL-DA are compatible with the following Honeywell Farenhyt Series FACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300/IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50



IDP-PULL-SA



IDP-PULL-DA

- Installer can open station without causing an alarm condition
- Dual-color LED is visible through handle of station blinks green to indicate normal operation and remains steady red in an alarm condition
- Key operated test and reset lock using lock plate actuator
- Key matches compatible FACP locks
- Meets ADA requirement for 5 lbs maximum pull force to active
- Meets the Americans with Disabilities Act Accessibility Guidelines (ADAAG) controls and operating mechanisms guidelines (Section 4.1.3[13])
- Shell, door, and handle molded from durable LEXAN\*
- Reliable analog communications for trouble-free operation
- Braille text on station handle
- Rotary address switches for fast installation
- Handle latches in down position and the word Activated appears, clearly indicating the station has been pulled
- UL Listed, including UL 38, Standard of Manually Actuated Signaling System
- CSFM Listed
- MEA Listed

### IDP-PULL-SA and IDP-PULL-DA Technical Specifications



#### SPECIFICATIONS\*

**Physical:** 5.5" H x 4" D ( 14cm x 10.2cm) **Shipping Weight:** 5.4oz

Housing Material: LEXAN polycarbonate resin Bi-Colored LED:

Blinking Green: Normal Steady Red: Alarm

**Switch:** Single pole, single throw (SPST) normally open (N/O) switch which closes upon activation of the pull station

### ELECTRICAL RATINGS

Operating Voltage: 15 - 32VDC SLC Standby and Alarm Current:  $350\mu$ A Wire Gauge: Up to 12AWG (3.1 mm<sup>2</sup>)

### ENVIRONMENTAL

**Operating Temperature:** 32°-120°F (0°C – 49°C) **Humidity:** 10 to 93% non-condensing)

### ORDERING INFORMATION

IDP-Pull-SA: Single Action Pull Station IDP-Pull-DA: Dual Action Pull Station

### ACCESSORIES

**BG-TR:** Optional trim ring. **SB-I/O**: Surface backbox, indoor/outdoor. \* Unless otherwise noted, specifications apply to IDP-Pull-SA and IDP-Pull-DA For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

### **Honeywell Security & Fire**

12 Clintonville Road Northford, CT 06472 800-328-0103

### Honeywell



## **IDP-MINIMON**

Addressable Monitor Module

The IDP-MINIMON is a compact and light weight addressable monitor module for use with Honeywell Farenhyt Series fire alarm control panels (FACPs). The IDP-MINIMON acts as an interface to contact devices, such as waterflow switches and pull stations.

The IDP-MINIMON supports Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions.

### INSTALLATION

The IDP-MINIMON can be mounted in a single gang junction box directly behind the monitored device. Its small size and light weight allow it to be installed without rigid mounting requirements.

### COMPATIBILITY

The IDP-Minimon compatible with the following Farenhyt SeriesFACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300 / IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50

### FEATURES & BENEFITS

- Single contact monitor
- Small and lightweight size allows for flexible mounting options
- Support for Class B wiring
- Fully supervised
- Rotary address switches for fast installation
- Analog communications
- UL Approved
- CSFM Listed
- MEA Listed 457-99-E Vol. V



**IDP-MINIMON** 

### IDP-MINIMON Technical Specifications

#### PHYSICAL

**Dimensions:** 1.3" H x 2.8" W x .5" D (3.3 x 7x 1.3 cm) **Shipping Weight:** 1.2oz (37 g)

### ENVIRONMENTAL

**Operating Temperature:** 32°F - 120 °F (0°C - 49°C) **Humidity:** 10 to 93% non-condensing)

### ELECTRICAL RATINGS

Operating Voltage: 15 - 32VDC SLC Standby and Alarm Current:  $350\mu$ A End-of-Line Resistance: 47K  $\Omega$ Initiating device circuit wiring resistance:  $1,500\Omega$  max SLC loop resistance:  $40\Omega$  max. Wire Length: 6" min.

#### **ORDERING INFORMATION**

IDP-MINIMON: Mini monitoring module

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### **Honeywell Security & Fire**





Farenhyt<sup>™</sup> Series

## **IDP-PHOTO / IDP-PHOTO-T / IDP-PHOTOR**

Intelligent Photoelectric Smoke Detector and Photoelectric Smoke Detector with Thermal

The IDP-PHOTO is a photoelectric smoke detector and the IDP-PHOTO-T is a photoelectric smoke detector with thermal. These plug in smoke detectors, with integral communication, provide features that surpass conventional detectors and are for use with the Honeywell Farenhyt Series fire alarm control panels (FACPs).

Detector sensitivity can be programmed from the FACP software. Sensitivity is continuously monitored and reported to the FACP. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

IDP-Photo and IDP-Photo-T have a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources. In the IDP-Photo-T, dual electronic thermistors add 135°F (57°C) thermal technology to maximize detection.

The IDP-PhotoR is a remote test capable detector for use with the DNR (W) duct smoke detectors. It is UL 268A listed when used with the DNR (W) duct smoke detector.

### Installation

The IDP-Photo and IDP-Photo-T plug into a compatible IDP-series detector base. The IDP-PhotoR is a remote test capable detector for use with the DNR (W) duct smoke detector.

### FEATURES & BENEFITS

- Sleek, low-profile design
- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Dual electronic thermistor design on the IDP-Photo-T
- Superior EMI resistance for reliability
- Simple field cleaning for code compliance
- Variety of mounting options to meet any application
- Dual LED indicators for 360° visibility
- Detector transmits signal to indicate maintenance is required
- Optional remote LED annunciator (System Sensor<sup>®</sup> PN RA100Z)
- Plug-in mounting provides ease of installation
- Tamper-proof feature available on mounting bases
- Listed for use in duct applications
- Rotary address switches for fast installation
- UL Listed
- FM Approved
- CSFM Listed



**IDP-PHOTO (BASE NOT INCLUDED)** 

- MEA Listed 225-02-E Vol V

### IDP-PHOTO, IDP-PHOTOR and IDP-PHOTO-T Technical Specifications

### PHYSICAL

Height: 2.0" (5.08cm) less sensor Diameter: 4.1" (10.4CM) installed in B501 base

#### ENVIRONMENTAL

**Operating Temperature: IDP-PHOTO:** 32°F - 120 °F (0°C - 49°C) **IDP-PHOTO-T:** 32°F - 100 °F (0°C - 38°C)

Humidity: 10 to 93% non-condensing)

### ELECTRICAL RATINGS

Operating Voltage: 15-32 VDC SLC Standby and Alarm Current:  $300 \, \mu\text{A}$ 

### **OTHER RATINGS**

**IDP-PHOTO-T Thermal:** Fixed temperature set point 135°F (57°C)

**Velocity:** 0 - 4000 fpm (0 - 20 m/sec) (suitable for installation in ducts)

IDP-PHOTO Insect Screen Hole Size: 0.016" (0.41 mm)nominal

### **ORDERING INFORMATION**

**IDP-PHOTO:** Photoelectric Smoke Detector **IDP-PHOTO-T:** Photoelectric Smoke Detector with Thermal (135°F)

**IDP-PHOTOR:** Photoelectric Smoke Detector, remote test capable, for use with DNR (W) duct smoke detector

#### ACCESSORIES

**RA100Z**: Remote LED Annunciator. **XR2B:** Detector Removal Tool. A removal and replacement tool for IDP plug-in detectors. Includes the T55-127-000.

M02-04-01: Detector Test Magnet

M02-09-00: Test Magnet with Telescoping Handle XP-4: Extension Pole for XR2B. Extends from 5 – 15 ft.

T55-127-000: Detector Removal Head.

**BCK-200B:** Black Detector Kit. For IDP-series detectors.

\* Unless otherwise noted, specifications apply to IDP-Photo and IDP-Photo

### COMPATIBILITY

The IDP-PHOTO, IDP-PHOTO-T and IDP-PHOTOR are compatible with the following IDP series detector bases:

- B210LP 6" Mounting Base
- B501 4" Mounting Base
- B224BI 6" Isolator Base
- B224RB 6" Relay Base
- B200SR 6" Sounder Base

The IDP-PHOTO, IDP-PHOTO-T and IDP-PHOTOR are compatible with the following Farenhyt Series FACPs:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000/IFP-1000ECS
- IFP-300/IFP-300ECS
- IFP-100/IFP-100ECS
- IFP-75
- IFP-50

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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### For more information

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### **Honeywell Security & Fire**





## **CO1224 Series Carbon Monoxide Detectors** with RealTest<sup>®</sup> **Technology**

The System Sensor CO1224T, CO1224TR, and CO1224A (Canada) Carbon Monoxide (CO) Detectors use a highly accurate and reliable electrochemical sensing cell to provide early warning of dangerous CO levels.

### Features

- A 10-year end-of-life timer
- RealTest® enables a functional test using canned CO
- A code-required trouble relay
- Wiring supervision with SEMS terminals
- 12/24 VDC
- A low current draw of 20 mA in standby and 40 mA in alarm
- Versatile mounting for wall and ceiling
- Accurate and reliable electrochemical sensing technology
- Optional CO-PLATE CO Detector Replacement Plate to upgrade previously installed competitor detectors to the CO1224T or CO1224A.
- CO1224T tested up to 12,000 feet above sea level



**When dangerous amounts of CO are detected,** the CO1224 Series CO detectors alert residents by sounding and flashing a temp 4 signal alarm. With 24/7 central station monitoring, residents are guaranteed protection whether they are away from home, sleeping, or already suffering from the effects of CO.

The CO1224 Series detectors are designed for system operation. These detectors are fully listed to UL 2075 (US models only) and CSA 6.19-01 (Canada model only) and offer a code-required trouble relay to send a sensor failure or end-of-life signal to the control panel and the central station. The CO1224 Series detectors also use SEMS-type terminal Philips head screws for quicker and more positive wiring connections and code-required wiring supervision. With a low current draw, these detectors enable more devices to be connected to the panel, limiting the need to purchase extra power supplies or more expensive panels. As 12/24 VDC detectors, the CO1224 Series detectors will operate on most industry security and fire alarm control panels.

With RealTest® technology, the CO gas sensing cell used in the CO1224 Series CO detectors can be tested using a CO gas agent, fully meeting the requirements of NFPA 720: 2009 (US models only). Simply put the detector into RealTest mode, spray a small amount of CO into the detector per the installation instructions, and within seconds the detector will alarm, indicating successful gas entry. (See the reverse page or the user manual for complete instructions.)

### Agency Listings





Note: CO1224T & CO1224TR are in full compliance with UL 2075 and CO1224A is in full compliance with ULC CSA 6.19-01.

### CO1224 Series Detectors Carbon Monoxide Detector Specifications

### Architectural/Engineering Specifications

Carbon monoxide (CO) detector shall be a system-connected System Sensor model number CO1224T or CO1224TR listed to Underwriters Laboratories UL 2075 for Gas and Vapor Detectors and Sensors. The Canadian model CO1224A, is ULC listed to CSA 6.19-01, for residential carbon monoxide alarm devices. The detector shall be equipped with a sounder and a trouble relay. The detector's base shall be able to mount to a single-gang electrical box or direct (surface) mount to the wall or ceiling. Wiring connections shall be made by means of SEMS screws. The detector shall provide dual-color LED indication that blinks to indicate normal standby, alarm, or end-of-life. When the sensor supervision is in a trouble condition, the detector shall send a trouble signal to the panel. When the detector gives a trouble or end-of-life signal, the detector shall be replaced. The detector shall provide a means to test CO gas entry into the CO sensing cell. The detector shall provide this with a test mode that accepts CO gas from a test agent and alarms immediately upon sensing CO entry. For the CO1224T only, the detector shall perform in the detection of CO up to 12,000 feet above sea level and alarm within the time specified by ANSI/UL 2034 for CO concentrations of 70, 150 and 400 parts per million (ppm), as verified by a Nationally Recognized Test Laboratory.

| Electrical Specifications   |  |
|-----------------------------|--|
| Operating Voltage           | 12/24 VDC  |
| Audible Signal              | 85 dB in alarm   |
| Standby Current             | 20 mA  |
| Alarm Current               | 40 mA (75 mA test)   |
| Alarm Contact Ratings       | 0.5 A @ 30 VDC   |
| Trouble Contact Ratings     | 0.5 A @ 30 VDC   |
| Physical Specifications     |  |
| Size: CO1224T & CO1224A     | Length: 5.1 in (130 mm), Width: 3.3 in (84 mm), Height: 1.3 in (33 mm) |
| Size: CO1224TR              | Diameter: 6.0 in (152 mm), Height: 1.3 in (33 mm)                      |
| Approximate Weight          | CO1224T & CO1224A: 7 oz (198 g); CO1224TR: 11 oz (312 g)               |
| Operating Temperature Range | 32°F to 104° F (0°C to 40° C)  |
| Operating Humidity Range    | 22 to 90% RH   |
| Input Terminals             | 14 to 22 AWG   |
| Mounting                    | Single-gang back box; surface mount to wall or ceiling                 |
| Ou swetten Madea            |  |

### **Operation Modes**

| Operation Mode   | Green LED          | Red LED                 | Sounder                 |
|------------------|--------------------|-------------------------|-------------------------|
| Normal (standby) | Blink 1 per minute | —                       | _                       |
| Alarm            |                    | Blink in temp 4 pattern | Sound in temp 4 pattern |

### Alarm

RealTest® Feature:

NOTE: Check with local codes and the AHJ to determine if a functional gas test is desired for an installation.

Hush Feature:

CO-PLATE:

Trouble Feature:

End-of-Life Timer:



Push and hold the Test/Hush button for two seconds to enter RealTest mode. The green LED will flash once every second to indicate RealTest mode has started



Spray canned CO agent into the detector



Verify CO sensing at the control panel. The detector will automatically exit RealTest alarm mode after about 20-60 seconds.

|   | 6        |
|---|----------|
|   |          |
| _ | CO-PLATE |

### **Ordering Information**

| Part No. | Description  |
|----------|--|
| CO1224T  | 12/24 volt, 6-wire system-monitored carbon monoxide detector with RealTest® Technology (US only)                 |
| CO1224TR | 12/24 volt, 6-wire system-monitored round carbon monoxide detector with RealTest® Technology (US only)           |
| CO1224A  | 12/24 volt, 6-wire system-monitored carbon monoxide detector with RealTest® Technology (Canada only)             |
| CO-PLATE | CO detector replacement plate to cover the footprint of previously installed competitive detectors (US & Canada) |

Pushing the Test/Hush button will silence the sounder for 5 minutes (except in RealTest mode).

After the detector's internal sensor has reached the end of its life, a trouble signal will be sent to the panel to indicate it is time to replace the detector. An electrochemical CO detector lifespan is about ten years.

System Sensor also offers the CO-PLATE CO Detector Replacement Plate to cover the footprint (when necessary)

When the detector is in a trouble condition, it will send a trouble signal to the panel.

The detector must be replaced by the date marked on the inside of the product.

of previously installed competitive carbon monoxide detectors that require replacement.



US: 3825 Ohio Avenue St Charles II 60174 800-SENSOR2 systemsensor.com

Canada: 6581 Kitimat Rd, Unit 6 Mississauga, Ontario L5N 3T5 800-SENSOR2 systemsensor.ca

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### **Operating Instructions.**

Please refer to next pages
## Section 10 System Operation

Operation of the control panel is user friendly. Menus guide you step-by-step through operations. This section of the manual is an overview of the operation menus. Please read this entire section carefully before operating the panel.

Note: See Section 6.2.5 for information on how to modify user access code profiles.

## **10.1 Default User and Installer Codes**

Installer Code: Factory-programmed as 123456.

Multi-site Installer Code: Factory-programmed as 654321.

## **10.2 Annunciator Description**

Figure 10-1 shows the annunciator that is part of the control panel board assembly. Five LEDs indicate system status.

160 character LCD. Messages display OVER Four lines. Up to 40 characters per line. Silence alarms and trouble SUPERVISORY TROUBLE ALARM SILENCED POWER Single Key BACK BACK SILENCE ACK ACK RESET DRILL **Reset alarms** 2 and troubles  $\wedge$  $\rightarrow$  $\left| \leftarrow \right|$  $\checkmark$ 0 # F4Arrow keys are for moving through the menus. ENTER key accepts selections.

For entering numeric data (\* and # keys currently not used).

Figure 10-1 Control Panel Annunciator

### 10.2.1 LCD Display

The control panel LCD displays system messages, annunciates alarms, supervisories and troubles, provides status information, and prompts for input. These messages can be up to 160 characters, displaying over four lines of 40 characters each. Annunciator keys beep when they are pressed.

### 10.2.2 Banner

The banner is the message that displays on the control panel when the system is in normal mode (no alarm or trouble condition exists and menus are not in use). A customize message can be created that will display instead of the internal (default) message. See Section 9.7 for information on editing the banner.



Figure 10-2 Banner Display Examples

### 10.2.2.1 Single Key Acknowledge

This feature allows the user to press the ACK and display the oldest un-acknowledged event in the system. Pressing ACK again will acknowledge the event, then display the next oldest un-acknowledged event without pressing the arrow keys.

## 10.3 Menu System

The control panel is easy to operate from the Main Menu. To view the Main Menu press the ENTER or right arrow key on the control panel or remote annunciator. The Main Menu will appear as shown in Section 10.3.1. Select the desired option. You will be prompted for as access code if required.

The control panel supports up to 20 access codes. The profile for each access code (or user) can be modified through the network programming option (see Section 6.2.5 for access code programming).

### 10.3.1 Main Menu Overview

The chart below is a brief overview of the Main Menu. These options are described in greater detail throughout this section of the manual.

| Main Menu Options  | Description   |
|--------------------|---|
| 1- System Tests    | Access to Fire Drill, Indicator Test, Walk Tests, Communicator Test, Clear History Buffer, Manual<br>AlarmNet Registration and Manual Communicator Reset. |
| 2- Point Functions | Enable/disable points, Point Status, SLC Single Device Locator, SLC Multiple Device Locator, and I/O Point Control.                                       |
| 3- Event History   | Display event history on the LCD. See Section 10.4.3 for more information.  |

| Main Menu Options      | Description   |
|------------------------|---|
| 4- Set Time & Date     | Set time and date for the system.   |
| 5- Network Diagnostics | Ping Panel, Data Network Status and Voice Network Status.   |
| 6- Network Programming | Access Learn Network, Edit Network Names, Edit Panel ID, Computer Access, Access Codes,<br>Communicator Options, Voice Options, Sync Network Options.       |
| 7- Panel Programming   | Brings up a set of menus for programming the panel. These options are described in detail in Section 9.   |
| 8- System Information  | Menus to view information about the panel such as model, ID, serial number, revision, send or receive firmware updates and feature registration activation. |

#### 10.3.2 Using the Menus

| To move through the menus: | Use the up or down arrow key to move through the options in a menu.                       |
|----------------------------|---|
| To select an option:       | Enter the number of the option, OR press ENTER if the option has the = symbol next to it. |
| Exit Menu                  | Left arrow  |

### **10.4 Basic Operation**

#### 10.4.1 Setting Time and Date

- 1. Select 4 for Set Date & Time.
- 2. Make changes in the fields on the screen. Use right arrow to move through the fields. Use the up or down arrow key to select options in the fields.
- 3. When the date and time are correct, press ENTER.

#### 10.4.2 Disable / Enable a Point

- 1. Select 2 for Point Functions.
- 2. Select 1 for Disable/Enable Point.

#### 10.4.2.1 Disable / Enable NACs by Template

- 1. Press 1 for Disable NACs by Template, or press 2 to Enable NACs by Template.
- 2. Use the up or down arrow key to move through the list of templates. Press ENTER to select the current template.

### 10.4.2.2 Disable / Enable NACs by Group

- 1. Press 3 to Disable NACs by Group, or press 4 to Enable NACs by Group.
- 2. Use the up or down arrow key to move through the list of groups. Press ENTER to select the group highlighted.

#### 10.4.2.3 Disable / Enable Zone Points

1. Press 5 to Disable Zone Points, press 6 to Enable Zone Points.

2. Use the up or down arrow key to move through the list of zones. Press ENTER to select the zone high-lighted.

#### 10.4.2.4 Disable / Enable Point

- 1. Press 7 to Disable /Enable Point.
- 2. Choose Module.
- 3. Use the up or down arrow key to choose point and press ENTER.
- 4. Press right arrow to disable or enable point.

### 10.4.2.5 Inhibit Output Group

Inhibiting an output group prevents the group from being utilized by system mapping. While inhibited no event in the system can activate the output group.

- 1. Press 8 to inhibit output group.
- 2. Use the up or down arrow key to select the group to be inhibited.
- 3. Press right arrow to inhibit the group.
- 4. Press right arrow again to enable the group.

### 10.4.3 View Event History

Use the View Event History feature to display events on LCD. From the Main Menu, press 3 to select Event History. Events will begin displaying with most recent events first.

The panel can store up to 1000 events. When it reaches its 1000-event capacity, it will delete the oldest events to make room for the new events as they occur. In networked setups, each panel stores up to 1000 of its own events. When viewing Event History in the panel, the newest 500 events from every panel in the site will be displayed. When using HFSS Honeywell Fire Software Suite, all 1000 events from every panel in the network will be uploaded.

On multi-site displays, pressing ENTER or right arrow brings you directly into View Event History and allows you to view the Event History from every panel in each of the sites that the multi-site display is assigned to.

#### 10.4.3.1 To clear the event history

From the Installer menu select 1 for System Tests. From the test menu select 6 Clear History Buffer. In network systems, this clears the History Buffer of all panels in the site.

### 10.4.4 Conduct a Fire Drill

This system test initiates a Fire Drill alarm and activates Fire Drill mapping for 10 minutes or until a user manually exits the fire drill.

- 1. From the Main Menu, press 1 for System Tests.
- 2. Press 1 for Fire Drill. You will be prompted to press ENTER.
- 3. The drill will begin immediately after you press ENTER.
- 4. Press any key to end the drill. (If you do not press any key to end the fire drill manually, it will time out automatically after ten minutes.)

If a fire drill switch has been installed, activating the switch will begin the drill; deactivating the switch will end

the drill.

#### 10.4.5 Conduct an Indicator Test

The indicator test checks the annunciator LEDs, PZT, and LCD display.

- 1. From the Main Menu, press 1 for System Tests.
- 2. Press 2 for Indicator Test. The system turns on each LED several times, beeping the PZT as it does so. At the same time it scrolls each available character across the LCD. A problem is indicated if any of the following occurs:
- An LED does not turn on.
- You do not hear a beep.
- All four lines of the LCD are not full.

This test will run for approximately 15 minutes or until the user manually exits. You can press any key to end manually while the test is still in progress. When the test ends, you will be returned to the <Test Menu>.

### 10.4.6 Conduct a Walk Test

Walk Test is a feature which allows one person to test the fire alarm system. The Walk Test will run for 4 hours or until the user manually exits. If an alarm or pre-alarm condition is occurring in the system, you will not be able to enter the walk test. A walk test may only be initiated if the test is enabled in the user profile.

1. From the Main Menu, press 1 for System Tests.

#### Important

If any alarm verification zones are being used, the user will be asked if they wish to disable alarm verification during walk test. This occurs for either walk test option.

 Select 3 for Walk Test-No Report. The LCD will display "WALK TEST STOPPED" on Line 1 and "ENTER = start test" on Line 3. Enter the time period you wish the NAC circuit to be active for each alarm (06 to 180 second), if you select this option, central station reporting will be disabled while the test is in progress.

Select 4 for Walk Test-with Report. The LCD will display "WALK TEST STOPPED" on Line 1 and "ENTER = start test" on Line 3. Enter the time period you wish the NAC circuit to be active for each alarm (06 to 180 seconds) If you select this option, central station reporting will occur as normal during the walk test.

The panel generates a TEST report to the central station when the walk test begins. During a walk test, the panel's normal fire alarm function is completely disabled, placing the panel in a local trouble condition. All zones respond as 1-Count zones (respond when a single detector is in alarm) during a walk test. Each alarm initiated during the walk test will be reported and stored in the event history buffer.

- 3. Press ENTER to end the walk test. The system will reset. The panel will send a "TEST RESTORE" report to the central station.
- *Note:* The panel does not do a full 30 second reset on resettable power outputs. As soon as the device is back to normal, the panel is ready to go to the next device.

### **10.4.7** Conduct a Communicator Test

1. From the Main Menu, press 1 for System Tests.

- 2. Select 5 for Communicator Test. The screen will display "Manual communicator test started". When the test is completed, you will be returned to the <Test Menu>. A manual communicator test requires that at least one daily test in the network be enabled in communicator programming.
- 3. The Manual communicator test will be communicated out both Phone Lines and Ethernet/Cellular paths if they are all programmed. Each manual communicator test will alternate between one of the Phone Line paths and one of the AlarmNet paths.

#### 10.4.8 Manual AlarmNet Registration

- 1. From the Main Menu, press 1 for System Tests.
- 2. Select 8 for Register AlarmNet. The screen will display and ask for confirmation. Feedback will be given if the command was sent or not.

#### 10.4.9 Silence Alarms or Troubles

Press SILENCE to turn off silenceable outputs and annunciator PZTs. If an external silence switch has been installed, activating the switch will silence alarms or troubles. If you are already using system menus when you press SILENCE, you will not need to enter your code.

- Note: Alarm and trouble signals that have been silenced, but the detector remains un-restored, will un-silence every 4 or 24 hours depending on user selection (see section 9.6.4.6) until the detector is restored.
- Note: Multi-Site displays do not allow for silencing multiple sites. Pressing SILENCE will only locally silence the PZT built into the annunciator. To silence a site, enter a multi-site access password, select a site, and then press SILENCE.
- Note: For ECS systems, pressing silence at an LOC will only silence the System in Control. See Section 10.5.1.

#### 10.4.10 Reset Alarms

Press RESET to perform a control panel reset. If an external reset switch has been installed, activating the switch will reset fire alarms.

- Note: Multi-Site displays do not allow for resetting multiple sites. To reset a site, enter a multi-site access password, select a site, and then press RESET.
- *Note:* For ECS systems, pressing reset at an LOC will prompt the user for which system they desire to reset. See Section 10.5.1.

#### 10.4.10.1 Reset Communicator

This options allows the user to Reset the communicator. The LCD will display:

"Resetting Communicator ... Please Wait"

You will be returned to the Main Menu when the reset is complete.

The communicator is not allowed to be reset when alarms or supervisories are active. Communicator reset is not allowed if any of the following are active:

- Fire Alarm
- Fire Supervisory
- Fire Pre-Alarm
- CO Alarm
- CO Supervisory
- ECS Alarm
- ECS Supervisory

#### 10.4.11 Check Detector Sensitivity Through Point Status

The control panel constantly monitors smoke detectors to ensure that sensitivity levels are in compliance with NFPA 72. Detectors are sampled every three hours.

If sensitivity for a detector is not in compliance, the panel goes into trouble, generating a Calibration Trouble condition. A detector enters a Calibration Maintenance state to indicate that it is approaching an out of compliance condition (but is currently still in compliance).

When a Calibration Trouble condition occurs, the central station receives a detector trouble report ("373" + Zone # for Contact ID format; "FT" + Zone # in SIA format).

To check sensitivity for an individual detector, follow the steps below.

- 1. From the Main Menu, press 2 for Point Functions.
- 2. Press 2 for Point Status.
- 3. Select the module where the point you want to check is located.
- 4. Enter the number of the point you want to check and press ENTER.
- 5. A screen similar to those shown in Figure 10-3 will display.



#### Figure 10-3 Checking Detector Sensitivity Compliance

You can print detector status by uploading the detector status to and printing from HFSS Honeywell Fire Software Suite.

#### 10.4.12 View Status of a Point

1. From the Main Menu, press 2 for Point Status.

2. From the list that displays, press ENTER to select the module where this point is located. The screen that displays will show you if the point has a trouble and will provide sensitivity compliance information. (See Section 10.4.11 for complete information about detector sensitivity compliance.)

#### 10.4.13 View Alarms or Troubles

When the system is in alarm or trouble, you can press down arrow to view the location of an alarm or trouble.

#### 10.4.14 System Information

1. From the Main Menu, press 8 to access the System Information menu.

#### About Panel

Press 1 to access About Panel to view the panel model, serial number and system version number and date.

#### Send/Receive firmware updates

The IFP-2100/ECS or RFP-2100 has the ability to be updated in the field. The latest IFP-2100/ECS or RFP-2100 Firmware Update Utility can be downloaded from the Farenhyt Web Site. Once a panel has been updated using the Firmware Update Utility, you can use Send/Receive firmware updates to propagate the firmware to the other panels in the network.

- 1. Press 2 to send a firmware update or press 3 to receive a firmware update from the System Information menu. Available panels are listed in the menu.
- 2. Use the up or down arrow key to select a panel to send/receive an update to/from. Press ENTER to start the update process.

#### **Feature Activation**

This menu is used to activate/register additional features.

- 1. Press 4 from the System Information menu. This will bring up the Feature Activation menu.
- 2. Press 1 to enter a six digit activation code or press 2 to review features already activated in this panel.

#### **Ethernet Info**

1. Press 5 from the System Information menu for Ethernet Information.

```
>Ethernet Info>
MAC Address 00-D0-2D-20-68-94 MAC CRC0000
IP:000.000.000.000 Sub: 000.000.000.000
GW:000.000.000.000 DHCP: Y
```

#### AlarmNet Info

- 1. Press 6 from the System Information menu for AlarmNet Info
- 2. Cell Strength: 0 to 100%
- 3. Status: Registered/Not Registered

#### AlarmNet Temporary PIN

1. Press 7 from the System Information menu for AlarmNet Temporary PIN. This is used in case the FACP is replaced on the CCP.

## 10.5 Event Priority

This section goes over how event activations are handled by the control panel with regards to priority.

### 10.5.1 System Control

The IFP-2100/ECS control panel integrates both a fire and emergency system into one. When events are active from both systems the control panel makes intelligent decisions to determine which system should be controlling outputs. This is called System Control. This manual will refer to the fire or emergency systems having System Control, this means that the system has an active alarm or supervisory event that has a higher event priority than an active alarm or supervisory event from the other system. For this consideration, the control panel looks at the highest priority event active on each system. When both systems are active, the system with control will activate System Override. System Override is activated on the lower priority, non-System Control panel system (fire or emergency system.)

### 10.5.2 System Override

System Override temporarily disengages output group activations from the system being overridden. This is done to not provide conflicting messages and signaling and help with reducing confusion of the building occupants.

When output groups are supposed to be active but are not because System Control has activated System Override, they are re-activated every 30 seconds for 2-3 seconds to indicate to the building occupants that there is still an event active. This will only occur when the system with System Control is not using the output group. The System Override option is programmable for non-voice output groups on a per output group basis through the panel output group programming menus and in HFSS Honeywell Fire Software Suite. In these places the option is called Allow System Override and defaults to YES. It is also possible to not reactivate the output groups every 30 seconds when System Override is active on a per system basis. This option is programmable in HFSS.

There are times when you would not want to allow System Override for an output group. For example: fire is programmed to an elevator relay to bring the elevator to the bottom floor for fire only. If fire and ECS are active with ECS being the higher priority event, you still need the elevator to move to the bottom floor and only audible and visual notification appliances must be overridden. In this case, the output group assigned to the relay would be set to NO on the Allow System Override setting. See Section 9.4.1.2 to edit group properties.

### 10.5.3 Event Priority

Each event type (see Table 10-1) has a priority level assigned to it. When more than one event type is active, the panel uses the Event Priority Table to determine which event mapping to use to control output groups. The Event Priority Table can be modified using HFSS Honeywell Fire Software Suite. It is strongly recommended that before each installation a risk analysis is done by the stake holders (property owners, AHJ, occupants, etc...) to determine which events take precedence over others.

The Emergency LOC Alarm entry in the Event Priority Table encompasses all ECS Alarm Events that can be activated from an LOC (LOC Mic Triggered ECS Alarm and LOC ECS 1 Alarm through LOC ECS 8 Alarm). By default, these events do not have a priority - they can be activated in any order. A programming option in HFSS exists to force a priority scheme for the LOC ECS Alarm Events. When this option is enabled, the lower numbered the ECS event is, the higher priority it has (e.g. LOC ECS 1 Alarm is higher priority than LOC ECS 8 Alarm). With this priority scheme, once a higher priority ECS Event has been activated, an ECS reset must be performed before a lower priority ECS Event can be activated.

The Event Priority Table contains the following events for modification:

| Fire System                  | Emergency System            |
|------------------------------|-----------------------------|
| Fire Manual Pull Alarm       | Emergency LOC Alarm         |
| Fire Detector Alarm          | Emergency 1 Point Alarm     |
| Fire Water Flow Alarm        | Emergency 2 Point Alarm     |
| Fire Interlock Release Alarm | Emergency 3 Point Alarm     |
| Fire Zone Aux 1 Alarm        | Emergency 4 Point Alarm     |
| Fire Zone Aux 2 Alarm        | Emergency 5 Point Alarm     |
| Fire System Aux 1 Alarm      | Emergency 6 Point Alarm     |
| Fire System Aux 2 Alarm      | Emergency 7 Point Alarm     |
|                              | Emergency 8 Point Alarm     |
|                              | Emergency Voice Aux 1 Alarm |
|                              | Emergency Voice Aux 2 Alarm |
|                              | Emergency Voice Aux 3 Alarm |
|                              | Emergency Voice Aux 4 Alarm |
| CO Alarm                     |                             |
| Fire Pre-Alarm               |                             |
| Fire Interlock Alert         |                             |
|                              | Emergency Supervisory       |
| Fire Supervisory             |                             |
| CO Supervisory               |                             |
| Trouble                      |                             |
| Site F Key Status            |                             |
| System Status                |                             |

Table 10-1: Event Priority Table

Note: Status Points, Status Voice Aux 1, Status Voice Aux 2, and Background Music are contained within the System Status event priority.

Note: All fire, emergency and system troubles are prioritized into the Trouble event priority.

#### 10.5.4 Priority Rules

- 1. Event priorities can be changed only within, not between, priority levels (defined by bold lines in Table 10-1).
- 2. Emergency LOC Alarm must always higher than Emergency 1-8 Point Alarm and Emergency Voice Aux 1-4 Alarm.
- 3. ECS events do not need to be in order by ECS number.

#### 10.5.5 Other Priority Considerations

There are other considerations to take into account when the same event is acting on the same output group (an event being mapped to an output group.) These are prioritized in order of appearance:

- For voice system utilizing dual channel, normal mapping takes priority over alert mapping. Example: Zone 1 Manual Pull is mapped to Voice Group 1 as an Alert 1 mapping and Zone 2 Manual Pull is mapped to Voice Group 1 as a normal mapping. If Zone 1 and Zone 2 Manual Pull events are active, Voice Group 1 will annunciate the Fire Alarm message defined in the Voice Settings for the panel's assigned site.
- Event priority is considered here based on the Event Priority Table.
- If an output group is mapped both directly and through an output group template to an event, the direct map

gets priority. Example: Template 1 Contains Group 1. Zone 1 Manual Pull is mapped to Template 1 and Group 1 using constant and ANSI patterns respectively. If Zone 1 Manual Pull is active, Group 1 will output ANSI.

- When an event is mapped to an output group from multiple zones, the lower numbered zone gets priority. Example: Zone 1 Manual Pull and Zone 2 Manual Pull are mapped to Group 1 using constant and ANSI patterns respectively. If Zone 1 and Zone 2 Manual Pull events are active, Group 1 will output constant.
- Note: Status Points, Status Voice Aux 1, Status Voice Aux 2, and Background Music are contained within the System Status event priority.

Note: All fire, emergency and system troubles are prioritized into the Trouble event priority.

## **10.6 Operation Mode Behavior**

The control panel can be in one or more of seven conditions at any given moment: Normal, Alarm, Prealarm, Supervisory, Trouble, Silenced, and Reset. Table 10-2 describes the behavior of the panel in each of these modes.

When looking at the LCD, the screen will display FS for the "Fire System", or CO for the "CO System". The highest priority event will display first and include the event count (see Figure 10-4).

Press the down arrow to view the location and type of alarm supervisory or trouble. If the panel is programmed to Auto Display Event, information describing the highest priority active event will display on the first two lines.

| FIRE:                  | ALARM      | SUPERVISORY | TROUBLE |
|------------------------|------------|-------------|---------|
| CO:                    | ALARM      | SUPERVISORY |         |
| EMERGENCY:             | ALARM      | SUPERVISORY |         |
| <pre><pre></pre></pre> | ress 🖬 for | status>     |         |

Figure 10-4 Highest Priority Event Display



Figure 10-5 Event Display after Two Minutes Sitting idle

| Operation<br>Mode | Occurs When   | System Behavior  | In This Mode You Can   |
|-------------------|---|--|--|
| Normal            | No alarm or<br>trouble condition<br>exists and<br>menus are not in<br>use.            | SYSTEM POWER LED is on.<br>The All Systems Normal display indicates that<br>the system is in normal mode.<br>The current date and time display on the last<br>line of the LCD.   | Enter the appropriate code to activate the User or<br>Installer Menu.  |
| Alarm             | A smoke<br>detector goes<br>into alarm or a<br>pull station is<br>activated.          | The system seizes control and will the central station.<br>The on-board annunciator will sound loud, steady beeps to distinguish Alarm signals. For Fire Alarm, the sequence is a loud steady beep.(Any notification devices attached to the system will also sound). For ECS Alarm, the sequence is four seconds on, one second off. GENERAL ALARM LED is on.<br>The LCD displays a screen similar to this one.<br>Site 1<br>FIRE: ALARM<br>EMERGENCY: ALARM<br><press for="" i="" status=""><br/>Press the down arrow to view the type and location of alarm. (Message alternates with the date/time display).</press> | Press the down arrow to view the alarm. A screen<br>similar to this one displays.<br>Module name<br>Site 1 Panel 1<br>FIRE ALARM: Waterflow Sw<br>95/27/16 01:45:52PM 1 of 1<br>Time/Date<br>Press SILENCE to silence the annunciator (and<br>any notification devices attached to the system).<br>When the alarm condition clears, press RESET to<br>restore the panel to normal. |
|                   | If more than 3<br>categories are<br>active at a single<br>time and ECS is<br>enabled. | FIRE: ALARM SUPERVISORY TROUBLE<br>CO: ALARM SUPERVISORY<br>EMERGENCY: ALARM SUPERVISORY<br>SYSTEM: TROUBLE  |  |

#### Table 10-2: Operations Mode Behavior

| Operation<br>Mode | Occurs When  | System Behavior  | In This Mode You Can   |
|-------------------|--|--|--|
| Supervisory       | The system<br>detects a<br>supervisory<br>condition.   | The system seizes control and will the central station.<br>The on-board annunciator sounds a loud, pulsing beep to distinguish supervisory signals. For Fire Supervisory the sequence is two seconds on, two seconds off. For ECS Supervisory, the sequence is two seconds on, three seconds off.<br>SUPERVISORY LED is on.<br>The LCD displays a screen similar to this one.<br>Site 1<br>FIRE: SUPERVISORY<br> | Press down arrow to view the fire supervisory<br>condition. A screen similar to this one displays.<br>Device type<br>Site 1 Panel 1<br>FIRE SUPERVISORY: Supervisory Sw<br>SBUS 97 MODULE 32<br>6/17/16 12:54:10PM 1 of 1<br>Press SILENCE to silence the annunciator. |
|                   | A Supervisory<br>with a CO<br>detector.  | Site 1<br>CO:SUPERVISORY<br><press for="" i="" status=""></press>  |  |
|                   | CO Detector<br>goes into Alarm   | The system seizes control and will the central station.<br>The on-board annunciator sounds a loud, pulsing beep in the sequence <sup>3</sup> / <sub>4</sub> of second on, eight seconds off.<br>SYSTEM TROUBLE LED is on.<br>The LCD displays a screen similar to this one   | Press down arrow to view the fire trouble. A<br>screen similar to this one displays.<br>Site 1 Panel 1<br>FIRE TROUBLE: Supervisory Sw<br>SBUS 97 MODULE 32<br>06/17/16 01:16:15PM   |
| Trouble           | A system trouble condition occurs.   | Site 1<br>FIRE: TROUBLE<br><press arrow="" down="" the="" to="" view<br="">the type and location of fire trouble<br/>condition. (This message alternates<br/>with the date / time display.)</press>  | Press SILENCE to silence the annunciator.<br>Once the trouble condition has been fixed, the<br>system will restore itself automatically.   |
|                   | A trouble<br>condition with a<br>CO detector.  | Site 1<br>CO: TROUBLE<br><press for="" i="" status=""><br/>Press the down arrow to view<br/>the type and location of fire trouble<br/>condition. (This message alternates<br/>with the date / time display.)</press>   |  |
| Prealarm          | A single detector<br>trips in a 2-Count<br>zone. (2-Count<br>means two<br>detectors must<br>trip before an<br>alarm is<br>reported.) | Touchpad PZT beeps.<br>The LCD displays a screen similar to this one.<br>Site 1<br>FIRE: PREALARM<br><press for="" i="" status=""><br/>Press the down arrow to view the type and<br/>location of prealarm. (This message<br/>alternates with the date / time display.)</press>   | Press down arrow to view the Prealarm. A screen<br>similar to this one.<br>Site 1 Panel 2<br>FIRE PREALARM: Det-Photo<br>SBUS_97 SENSOR_33<br>06/13/16 12:54:10PM 1 of 1<br>All system operations are available in this mode.  |

#### Table 10-2: Operations Mode Behavior

| Operation<br>Mode | Occurs When  | System Behavior  | In This Mode You Can   |
|-------------------|--|--|--|
| Reset             | The RESET<br>button is pressed<br>followed by a<br>valid code, if<br>necessary.  | All LEDs are on briefly then the LCD displays<br>"RESET IN PROGRESS". If the reset process<br>completes normally, the date and time normal<br>mode screen displays.  | Menus are not available during the reset process.  |
| Silenced          | An alarm or<br>trouble condition<br>has been<br>silenced but still<br>exists. To silence<br>alarms and<br>troubles, press<br>SILENCE<br>followed by the<br>Installer or User<br>Code, if<br>necessary. | SYSTEM SILENCE LED is on. SYSTEM<br>TROUBLE, SUPERVISORY and/or GENERAL<br>ALARM LED (depending on condition) is on.<br>The annunciator (and any notification devices<br>attached to the system) will be silenced. | Press down arrow to view the location of the<br>alarm, supervisory or trouble. When the condition<br>no longer exists, the SYSTEM SILENCED and<br>SYSTEM TROUBLE LED, SUPERVISORY and/or<br>GENERAL ALARM LEDs turn off. |

#### Table 10-2: Operations Mode Behavior

### 10.6.1 Multi-Site Annunciator and Multi-Site User Access

Multi-site Annunciators are unique as they can display the status and event history of all sites they are assigned to. These displays can be especially useful in guard shacks or security centers. A multi-site display is indicated by the words "Multi-Site Display" at the top of the idle screen.

- 1. The ACK, DRILL, RESET and F-Macro keys are disabled until a multi-site user access code has been entered and a specific site has been selected.
- 2. Multi-site Annunciator silencing rules:
  - If any of the assigned sites are silenced, the Silenced LED will be lit.
  - Silence key will only silence the sound from the multi-site annunciator on which the silence key was pressed. This is called being Locally Silenced. If Locally Silenced is enabled on a multi-site annunciator, it will be indicated by a blinking Silenced LED.
  - If any new troubles, supervisory, pre-alarms, or alarms are triggered in any assigned sites, Locally Silenced annunciator will resound.
  - If a multi-site annunciator is locally silenced for 4 or 24 hours depending on user selection (see section 9.6.4.6), the locally silenced annunciator will resound.
- 3. The IFP-2100/ECS menu system is disabled on a multi-site annunciator. Pressing the Right or Enter keys will bring you straight into event history for assigned sites. To get into the menu system, a multi-site user password must be entered and then a site must be selected from the site selection menu. Once this is done you will have access to the idle screen of that site and the annunciator will temporarily act like a single site annunciator.
- 4. A multi-site annunciator will sound the highest priority tone from the sites it is assigned to.
- *Note: A multi-site display is created in Module programming in the edit properties menu for an annunciator. See section 9.2.1.*
- *Note: An annunciator cannot be programmed as a multi-site display when it is associated with an ECS-VCM, NVCM or RVM in a ECS system.*
- Note: Status Points, Status Voice Aux 1, Status Voice Aux 2, and Background Music are contained within the Sys-

tem Status event priority.

*Note: All fire, emergency and system troubles are prioritized into the Trouble event priority.* 

## 10.7 Releasing Operations

The control panel supports two types of releasing: Double Interlock Zone, and Single Interlock Zone. The Double Interlock Zone operation requires an interlock switch input in the system, and the Single Interlock Zone does not. An interlock switch is typically a dry-contact pressure switch.

When Single or Double Interlock Zone releasing is selected using HFSS Honeywell Fire Software Suite, the software suite will automatically default the following system parameters:

Note: The defaults created can be modified through programming if desired.

- Output Group 2 is created. Output Group 2 will be defaulted as a "Detector Alarm" output group for all releasing zones. NAC [98:001] is assigned to Output Group 2.
- Output Group 3 is created. Output Group 3 will be defaulted as a "Interlock Release Alert" output group for all releasing zones. NAC [98:002] is assigned to Output Group 3.
- Output Group 4 is created. Output Group 4 will be defaulted as "Interlock Release Alarm" output group for all releasing zones. NAC circuit [98:003] is assigned to Output Group 4.

*Note:* The installer must define which input points will be used for detectors, manual release switches, or interlock/pressure switches.

Note: For manual release operation, Installer must use an FM approved/UL listed releasing manual station.

| Manufacturer      | Part Number     | Rated Voltage,<br>DC | Rated Current,<br>Milliamp |  |  |
|-------------------|-----------------|----------------------|----------------------------|--|--|
|                   | T8210A107       | 24 VDC               | 700                        |  |  |
|                   | 8210G207        | 24 VDC               | 442                        |  |  |
| Asco              | HV2740607       | 24 VDC               | 375                        |  |  |
|                   | HV2838521       | 24 VDC               | 375                        |  |  |
|                   | HV2740608       | 24 VDC               | 375                        |  |  |
| Honeywell/Skinner | 701X7028        | 24 VDC               | 917                        |  |  |
| Barnbrook System  | EA45            | 24 VDC               | 200                        |  |  |
|                   | 890181          | 24 VDC               | 2000                       |  |  |
| Kiddo Eopwal      | 486500          | 24 VDC               | 290                        |  |  |
| Kidde Fenwai      | 895630          | 24 VDC               | 2000                       |  |  |
|                   | 897494          | 24 VDC               | 1500                       |  |  |
|                   | 88 7363         | 24 VDC               | 1040                       |  |  |
| Minimax           | 88 5738         | 24 VDC               | 1040                       |  |  |
|                   | 88 9323         | 24 VDC               | 500                        |  |  |
| Nohmi Bosai       | R85M10          | 24 VDC               | 1200                       |  |  |
| Parker Hannifin   | 70610006        | 24 VDC               | 417                        |  |  |
|                   | 10610707        | 24 VDC               | 417                        |  |  |
| Span tito         | 2823A-2NB-A4F6  | 24 VDC               | 458                        |  |  |
| Shap-lite         | 2823A-2NB-A4F5  | 12 VDC               | 917                        |  |  |
| TLX               | PA0036-A        | 24 VDC               | 600                        |  |  |
| Versa Valves      | CGS-4232-NB3-S2 | 24 VDC               | 438                        |  |  |
| Victaulic         | 753E            | 24 VDC               | 364                        |  |  |
|                   | 767             | 24 VDC               | 364                        |  |  |

Table 10-3: Approved Releasing Solenoids

|        | 11591   | 24 VDC | 417 |
|--------|---------|--------|-----|
| Viking | 11595   | 24 VDC | 417 |
| VIKING | 11592NC | 24 VDC | 416 |
|        | 16360   | 24VDC  | 500 |

Any NAC can be used







\*When ordering, order as P/N 7641-L8

### 10.7.1 Single Interlock Zone Releasing

A single interlock zone utilizes a minimum of two addressable detectors and a designated manual release switch.



#### Conditions Required for an Interlock Release Alert Output Activation

If any single addressable detector is activated, the "Interlock Release Alert" output will activate. This alerts the user that the initial stages required for a release condition are present. (Also refer to Table 10-4).

# Conditions required for a Detector Alarm and Interlock Release Alarm Output Activation

If two or more addressable detectors, or a manual release switch activate, the "Detector Alarm" and "Interlock

Release Alarm" outputs will activate. (Also refer to Table 10-4).

| Inputs                   |        | Output Results          |                         |  |  |  |  |  |  |  |  |
|--------------------------|--------|-------------------------|-------------------------|--|--|--|--|--|--|--|--|
| 1st Addressable Detector |        | Х                       |                         | X  |  | X  |  | X  |  |  |  |
| 2nd Addressable Detector |        |                         | X                       | Х  |  |  | X  | Х  |  |  |  |
| Manual Release Station   |        |                         |                         |  | X  | Х  | X  | Х  |  |  |  |
|                          | Normal | Interlock Release Alert | Interlock Release Alert | nterlock Release Alarm<br>and Detector Alarm |  |  |  |

#### Table 10-4: Single Interlock Zone Operation

#### 10.7.2 Double Interlock Zone Releasing

A Double Interlock Zone uses a minimum of two addressable detectors, a designated manual release switch, and an interlock switch input. An interlock switch is typically a dry-contact pressure switch and will be referred to as an interlock/pressure switch in this document.

#### Important!

Only addressable detectors can be used. No conventional detectors can be used.

Each Double Interlock Zone input requires at least one Interlock/pressure switch and at least one manual release switch.

#### Conditions Required for a Interlock Release Alert Output Activation

If any single addressable detector is activated, the "Interlock Release Alert" output will activate. This alerts the user that the initial stages required for a release condition are present. (Also refer to Table 10-5).

#### **Conditions Required for a Detector Alarm Output Activation**

If two addressable detectors, a manual release switch is activated, or an interlock switch is active, the "Interlock Release Alert", and "Detector Alarm" outputs will activate.

#### Conditions Required for a Interlock Release Alarm Output Activation

Any release requires the activation of an interlock switch, and either a manual release switch or 2 activated addressable detectors. When these conditions are met, the "Interlock Release Alarm" and "Detector Alarm" outputs will activate, and the "Interlock Release Alert" outputs will deactivate.

| Inputs                      | Output Results |   |   |  |   |   |   |  |   |   |   |  |   |   |   |
|-----------------------------|----------------|---|---|--|---|---|---|--|---|---|---|--|---|---|---|
| 1st Addressable<br>Detector | X              |   | X |  | X |   | X |  | Х |   | X |  | Х |   | Х |
| 2nd Addressable<br>Detector |                | x | X |  |   | X | X |  |   | Х | Х |  |   | Х | Х |

#### Table 10-5 Double Interlock Zone Operation

| Inputs                        | Output Results |                         |                         |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------|----------------|-------------------------|-------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Manual Release<br>Station     |                |                         |                         |  | X  | Х  | X  | X  |  |  |  |  | X  | X  | X  | Х  |
| Interlock/<br>Pressure Switch |                |                         |                         |  |  |  |  |  | Х  | Х  | X  | Х  | X  | Х  | Х  | Х  |
|                               | Normal         | Interlock Release Alert | Interlock Release Alert | Interlock Release Alert and Detector Alarm | Interlock Release Alarm and Detector Alarm |

#### Table 10-5 Double Interlock Zone Operation

## 10.8 Smoke Alarm Verification

Figure 10-7 illustrates how the Smoke Alarm Verification cycle operates.

| Reset<br>Period | Restart Period | Confirmation Period            |  |  |  |
|-----------------|----------------|--------------------------------|--|--|--|
| 12 Sec.         | 16 Sec.        | 60-250 Seconds<br>Programmable |  |  |  |

#### Figure 10-7 Smoke Verification Cycle

During the Confirmation Period if there is no alarm indication then the system will return to normal operation.

## **10.9 Function Keys**

The function keys on the IFP-2100/ECS have multiple features. Their macro key functionality can simplify the disabling, activating, or inhibiting points or groups respectively. They can also be used as a status type activation event and for activating Map Inhibit. Each F-Key macro can hold 50 events.

#### To access the F-Key Recording menu:

- 1. From the idle screen, press and hold the F-Key for 5 seconds.
- 2. Enter a PIN with F-Key macro recording privileges, if prompted.

#### 10.9.1 Recording an F-Key Macro

- 1. Access the F-Key Recording menu and select the 'Start FKEY Recording' option.
- 2. The panel will return to the idle screen. Notice the 4th line on the display now alternates with <F# Key Recording>, where # is the number of the F-Key being recorded.
- 3. Any Disabling or Activating of points, output groups, or templates from the site at this point will be programmed into the macro. Do this by going to any annunciator within the site and entering Main Menu -> Point Functions and use Disable/Enable Point or use I/O Point Control to: disable output groups or individual points, or activate individual points.
- 4. Once you are finished with disabling or activating points/output groups, enter the F-Key Recording Menu again and select the 'End F-KEY Recording' option.
- 5. The panel will return to the idle screen.

### 10.9.2 Aborting an F-Key Macro Recording Session

- 1. After an F-Key macro recording session has been started, the session can be canceled at any time by accessing the F-Key Recording menu and selecting 'Abort F-KEY Recording' option.
- 2. The panel will return to the idle screen.

#### 10.9.3 Erasing an F-Key Macro

- 1. If an F-Key macro has already been recorded, you can erase it by accessing the F-Key Recording menu and selecting the 'Erase F-KEY Macro' option.
- 2. The panel will return to the idle screen.

### 10.9.4 Using a Recorded F-Key Macro

- 1. From the idle screen on any annunciator in the site, press the F-Key you want to activate.
- 2. Once finished, to de-activate the macro press the F-Key again.

### 10.9.5 F-Key Status Event

When an F-Key is enabled, it activates its corresponding F-Key Active event. This is a status type event that can activate outputs without showing any status on annunciator displays. This should be used for ancillary purposes only.

### 10.9.6 F-Key Map Inhibit

The F-Keys have the ability to disable event - output group mapping for the purpose of simulating that the map doesn't exist. This can be setup to allow for testing purposes where notification of an entire building is not desired during the test. This option is programmable for each output group map through HFSS Honeywell Fire Software Suite.

When an F-Key is active and a map in the system is set to be disable by Map Inhibit, the system will show a trouble event indicating it as such.

## Section 11 Emergency Communication System Operation

## 11.1 Overview

The IFP-2100/ECS control panel and accessories provides features to meet the requirements for a Mass Notification Systems as described in NFPA 72 and is compliant with the UL 2572 standard. The ECS (Emergency Communication System) is integrated with the fire alarm and voice evacuation functions of the control panel. In a networked panel system, only one panel can be chosen to be the voice evacuation/ECS panel for the site.

There are two ways for activating ECS in the IFP-2100/ECS panel:

#### **ECS Point Activations**

ECS Point Activation involves using pre-determined ECS Alarm input points to activate ECS Alarm events. These events cause output areas to activate based on mapping that is programmed into the system at installation. This is very similar to the traditional mapping that the fire system has utilized to date.

#### **Manual LOC Activations**

Manual LOC Activation involves using the LOC ECS interface to activate ECS Events, choose output areas, and speak through a microphone. These selections are not pre-determined and allow the user to make system functionality decisions when the event is actually happening. This requires the activation of Manual ECS State which bypasses ECS Point Activations. See section 11.2.3.

## **11.2 LOC Functionality**

An LOC (Local Operating Console) consists of either the ECS series panel (ECS-VCM Voice Control Module, or ECS-NVCM Network Voice Control Module, and the Alarm Control Panel), or the ECS-LOC Local Operating Console (ECS-RVM Remote Voice Module and its associated RA-2000 keypad.) An LOC is created by adding a VCM, NVCM or RVM to the system and associating a keypad to it. The LOC provides eight buttons for activating the ECS messages, a button to gain and request ECS Control, and a microphone for live paging. There can be up to 16 LOC devices in the system. In a networked panel system, all of the LOCs must be connected through SBUS to the panel that includes the VCM or NVCM.

### 11.2.1 Keys and LEDs

This section outlines the functionality of the keys and LEDs on the ECS-VCM or ECS-NVCM and ECS-RVM expander modules.

### 11.2.1.1 ECS Control Key

Pressing the ECS Control Key will do one of two things:

- 1. Enter Message Mode of the LOC ECS interface (including trying to gain ECS Control if the user doesn't have it already).
- 2. Relinquish ECS Control if pressed while in Message Mode.

### 11.2.1.2 ECS Control LED

The ECS Control LED is used to indicate the status of ECS Control in the system. When the LED is on solid, the LOC has ECS Control within the system. When the LED is blinking, another LOC has gained ECS Control in the system.

### 11.2.1.3 ECS Message Keys

ECS Message Keys are used in Message Mode to select which ECS Message is to be played. If pressed when the LOC does not have ECS Control, the system will automatically try to gain ECS Control before allowing the ECS Event to be activated. See section 11.2.2.

### 11.2.1.4 ECS Message LEDs

The red ECS Message LEDs indicate the active ECS Message and any previously active ECS messages. The green LEDs indicate the ECS Message was selected in message mode and that the LOC has ECS control.

- 1. For ECS Point Activation, the red ECS Message LEDs will illuminate on each LOC to indicate which ECS messages have been activated in automatic ECS state.
- 2. In Manual ECS State, the red ECS Message LEDs will indicate which ECS message has been activated at an LOC. See section 11.2.3.
- 3. The green ECS Message LEDs will activate for the LOC that activated the ECS Message.

### 11.2.1.5 Select Keys

The Select Keys are used to toggle which output areas are active.

- 1. If Message Mode is active (see Section 11.2.3), the Select Keys will activate output which areas for the active message to be played in (also activates the red Select Key LED).
- Note: For LOC activated emergency alarm events, if an area is programmed through mapping to be active that area is automatically selected and can not be deactivated using the Select Keys.
- 2. If Microphone Mode is active (see Section 11.2.3), the Select Keys will toggle which areas the microphone audio is distributed to (also toggles the green Select Key LED).

### 11.2.1.6 Select Key LEDs

The Select Key LEDs are used to indicate which output areas are active for a microphone page (see Section 11.7.4.1) or system events.

- 1. Green LEDs: active areas for microphone paging.
- Note: These are only active when the microphone PTT (Push To Talk) is engaged. Blinking indicates one or more associated network page destination panels are unable to output the page.
- 2. Red LEDs: active areas for system events.

Note: When system is Dual Channel Enabled, blinking indicates the area is active for an alert message.



Figure 11-1 ECS-VCM or ECS-NVCM / ECS-RVM Front View

### 11.2.2 Gaining ECS Control

When attempting to gain ECS Control, there are three things that govern whether or not ECS Control can be obtained:

- 1. LOC Priority.
- 2. LOC Lockout.
- 3. User profile access control.

### 11.2.2.1 LOC Priority

LOCs are assigned (through panel or HFSS Honeywell Fire Software Suite of the ECS-VCM, ECS-NVCM or ECS-RVM) an LOC priority of low, normal, or high. LOCs with a higher priority are always able to gain control from a lower priority LOC.

### 11.2.2.2 LOC Lockout

When LOCs are programmed to the same priority, the setting LOC lockout applies. LOC lockout will not allow an LOC to gain ECS Control from the LOC with ECS Control until one of three things happen:

1. The LOC lockout timer expires. Once the LOC lockout timer expires, an attempt to gain ECS Control can be made again.

Note: The lockout timer must be programmed to expire sometime other than Never.

- 2. The user at the second LOC requests ECS Control from the LOC with ECS Control and that LOC grants the request. (See Section 11.2.7). If the ECS lockout timer expires while an ECS Control request is in progress, the system will automatically pass ECS Control to the requesting LOC.
- 3. The user at the second LOC enters an access code with the ECS Super User profile option.

The LOC lockout timer can be set between immediate and 12 hours in increments of 1 second or it can be set to never expire. The default setting is 30 seconds. The LOC lockout timer is restarted upon any key press at the LOC with ECS control. The LOC lockout timer is cleared when ECS Control is relinquished.

### 11.2.2.3 User Profile Access Control

The user will need to enter an access code containing the ECS Control Request or ECS Super User profile option to gain ECS Control. ECS Control Request and ECS Super User profile options will be mutually exclusive to the system. If the access code has ECS Super User, the ECS Control Request is ignored and activations by that user are always as ECS Super User.

### 11.2.3 Manual ECS

After gaining ECS Control the system enters the LOC ECS interface which allows you to activate the Emergency System and allows for Emergency Paging. Once an emergency event has been activated the panel enters a Manual ECS State. In this state, all ECS Alarm programmed points that are currently in alarm in the system are changed to an active state. The display status screen reflects this when viewing the system for status. Any outputs that were activated by the ECS Alarm programmed points are deactivated until Manual ECS state is exited. Only an ECS Reset can exit the Manual ECS State. If a user gains ECS Control at an LOC and does not activate an ECS message, the system will automatically generate an ECS Supervisory indicating such. This prevents an LOC from being in an undesired state of ECS Control when an actual event emerges.

There are two modes for interacting with the LOC ECS interface when in Manual ECS State:

- 1. Message Mode
- 2. Microphone Mode

These two modes allow you to quickly toggle areas of output for a desired message or to speak to a microphone for ECS Paging.

After gaining ECS Control, the system is in Message Mode of the Manual ECS State.

#### 11.2.3.1 Switching between Microphone Mode and Message Mode

At any time while in ECS Control, you can switch between Microphone Mode and Message Mode. Microphone Mode is entered by simply engaging the microphone.

- 1. Message Mode: Use the ECS Message keys to toggle which message/event to output to the system. Use the Select Keys to toggle output areas to play the current ECS Message in. The Select Key's red LED will toggle on/off with the activation/deactivation of the area is now receiving the message. Any non-voice groups assigned to this Select Key will also toggle with their Activation Cadence. See Section11.2.3.2.
- 2. Microphone Mode: Use the Select Keys while the microphone is active to toggle which areas to do an ECS Microphone Page to. The Select Key's green LED will toggle on/off with the activation/deactivation of the ECS Microphone Page to the area.

### 11.2.3.2 Activating Output Groups Dynamically

This method allows the system to be setup with minimal or no system mapping. When in Manual ECS State and

operating in Message Mode the user can dynamically activate/deactivate output areas for system notification to take place in. The Select Key red LED will become lit and the circuits in the output group(s) will become active and play the currently active ECS event message when activated. When deactivated, the Select Key red LED will become unlit and the circuits in the output group(s) will become inactive. Non-voice output groups can also be assigned to Select Keys and will toggle on/off using the activation cadence assigned to it in output group programming. This is available in the panel and in HFSS Honeywell Fire Software Suite. See Section 9.4.1.2.

#### 11.2.4 Microphone Mode

Microphone Mode allows the user to press the Select Keys to toggle which output areas to speak to over the microphone. The green LEDs next to the Select Keys will activate or deactivate.

```
MICROPHONE MODE
SELECT KEYS: Toggle Output Areas
Microphone Active
Release Microphone for MESSAGE MODE
```

#### 11.2.5 Message Mode

In Message Mode, the user is able to press the ECS message Keys to choose a message and press the Select Keys to activate or deactivate which output areas the message will be played. This will activate or deactivate the green and red LEDs next to the ECS Message Keys and the red LEDs next to the Select Keys.

#### 11.2.6 Custom ECS Event

Custom ECS events allows the user to generate an ECS event and speak a custom message using the microphone. Once the user is done speaking the message, the tone and any associated strobes will continue to be active in the output areas.

To generate a Custom ECS Event:

- 1. Gain ECS Control using the ECS Control Key when there is not an ECS Event active.
- 2. Activate the microphone.
- 3. Choose desired output areas using the Select Keys.
- 4. Speak custom message into microphone.

### 11.2.7 Passing ECS Control

Passing of ECS Control is allowed when two LOCs have the same priority. When it is possible to pass control, a prompt (similar to Figure 11-2) will display in which the user can: request control from the LOC with ECS Control, enter an access code with the ECS Super User profile option to override the other LOC, or wait for the lockout timer to expire (if applicable).

GAIN ECS CONTROL OPTIONS MENU 1=Request ECS Control From LOC 2 Gain ECS Control as ECS Super User 3 Wait for Lockout Timer to Expire 30

#### Figure 11-2 Request ECS Control with Lockout Timer Active

When passing ECS Control between two ECS Super Users, the user is not shown the prompt screen. Instead, a

request for ECS Control is automatically made. Additionally, the lockout timer does not apply for ECS Super User.

When a request for ECS Control is made, the LOC with ECS Control will be shown a screen (similar to Figure 11-3), even when in another menu, except programming menus, indicating that another LOC is requesting ECS Control. The piezo buzzer on the LOC with ECS Control sound when an ECS Control request is active to alert a nearby operator of the request.

```
Another LOC is Requesting ECS Control:
ECS-LOC 01
1=Grant, Pass ECS Control
2 Deny, Keep ECS Control
```

#### Figure 11-3 ECS Control Request on LOC with ECS Control

Once ECS Control is passed to another LOC, the new user will assume the system AS IS. This means that the event that was set to be playing at the previous LOC and all output areas it was playing in do not change.

### 11.2.8 Exit ECS Control Menu

The user can exit the LOC ECS interface by pressing the left arrow key. The user will be returned to the idle screen which indicates that the LOC still has ECS control.

### 11.2.9 Relinquish ECS Control

Relinquishing ECS Control is accomplished by pressing the ECS Control Key from within Message Mode. A screen will be displayed to ensure the user wants to relinquish ECS Control. ECS Control will be automatically relinquished after a time-out on this screen. When ECS Control is relinquished, the system stays in the Manual ECS State. ECS Control can then be gained by another LOC or again at the same LOC.

```
Relinquish ECS Control
Automatic ECS Timer: 30
1=Cancel, Keep ECS Control
2 Accept, Relinquish ECS Control
```

#### Figure 11-4 Relinquish ECS Control Screen

#### 11.2.10 ECS Reset

An ECS reset is accomplished by pressing the RESET button from an LOC. The user will be prompted to reset either the fire system or emergency system. After an ECS reset, the LOC will automatically exit the LOC ECS interface.

*Note:* In order to perform an ECS reset, the display must be associated with the ECS-VCM or ECS-NVCM / ECS-RVM. See Section 11.6.2.2.

## 11.3 ECS Super User

The ECS Super User access code profile function provides the ability to override all ECS Control rules and gain ECS Control. The ECS Super User is the highest priority user in the system. The ECS Super User has several features that differ from the normal user:

- 1. Any alarm activated while under ECS Super User Control needs to be reset using an ECS Super User function enabled access code.
- 2. LOC priority and LOC lockout timer are ignored when passing ECS Control between ECS Super Users at LOCs. If another ECS Super User attempts to gain ECS Control from an LOC, an ECS Control request is presented to the ECS Super User at the LOC that currently has ECS Control.

## **11.4 ECS Point Functionality**

Any input point in the system can be configured as an ECS input. The Point ECS 1-8 Alarm input types can be used to trigger predetermined ECS events for output areas. ECS-VCM, ECS-NVCM or ECS-RVM points can be programmed to trigger Voice Aux events that can allow external audio to be played through the emergency system.

### 11.4.1 ECS Point Activations

ECS points can only activate outputs and be placed into an alarm state if the system is not in Manual ECS State. ECS points have no priority and all are allowed to be activated. If the ECS point is a higher priority than the Fire System, then the system will play the highest event message through all ECS mapped outputs.

For example: Emergency 1 Point Alarm is higher priority than Emergency 2 Point Alarm. Emergency 1 Point Alarm has message 1 mapped to through groups 1 and 2. Emergency 2 Point Alarm has message 2 playing through groups 2 and 3. If a point for Emergency 1 Point Alarm and a point for Emergency 2 Point Alarm are both active, the system will play message 1 through groups 1, 2, and 3.

Once Manual ECS State is active, points in Alarm state switch to an Active state. When the points are changed to the Active state, they do not activate any system mapping or turn any outputs on. Any points that are activated while in Manual ECS are also placed into the Active state and are not allowed to activate any mapping. The system idle screen will show an ECS Alarm for any points in the Active state, and the detailed description of the point will show the point as Active.

After an ECS Reset, any ECS points that are still active will again be put into Alarm.

### 11.4.2 ECS-VCM, ECS-NVCM & ECS-RVM Points

The ECS-VCM, ECS-NVCM & ECS-RVM modules contain two programmable input points. These can be programmed as any conventional switch input type. These also have the ability to be programmed as a trigger for bringing external audio into the system. These special point types are: ECS Voice Aux In 1-4 Alarm, Voice Aux In 1-2 Status, Background Music. When activated if the event has the highest Event Priority of all activated events, it will activate the Aux In input to all outputs defined by the respective event program mapping.

*Note:* Background Music is only allowed to be mapped to circuit 8 of the ECS-DUAL50W amplifiers to ensure correct active supervision.

## 11.5 Amplifier Programming

### 11.5.1 Adding an Amplifier

To add a new amplifier to the system, follow these steps:

- 1. Enter the installer code. The panel will automatically go to the main menu.
- 2. Select 7 for Panel Programming menu.
- 3. Press 1 to enter Module menu.
- 4. Press 2 to add a module.

5. From the next screen, add an ECS-AMP.

The screen will display "Adding module [#]..." for a few moments. You will be returned to the <New Module Type> screen where you can select another a name for the module(s) if desired.

You must save changes when you exit the Program Menu or the new module will not be added. For more information see section 9.2.2.

If you Add a Module that has not been physically connected, the panel will go into trouble after it re-initializes (when you exit the Program Menu with changes accepted). When the new module is attached, the trouble will restore automatically the next time you power up the FACP.

### 11.5.2 Editing an Amplifier

When editing AMPs, the features that may be edited are: module ID, module name, amplifier mod, ECS-CE4 installed (Yes or No), and output voltage. To edit an existing module:

- 1. Enter the installer code. The panel will automatically go to the main menu.
- 2. Select 7 for Program Menu.
- 3. Press 1 to enter module menu.
- 4. Press 1 to edit a module.
- 5. Use the up or down arrow key to select the module you wish to edit.
- 6. Press the right arrow key or ENTER to move to next selection.

## **11.6 LOC Programming**

LOC Priority is a programmable option for the following ECS devices:

- ECS-VCM
- ECS-NVCM
- ECS-RVM

### 11.6.1 Adding an LOC

To add new LOCs to the system, follow these steps:

- 1. Enter the installer code. The panel will automatically go to the main menu.
- 2. Select 7 for Panel Programming menu.
- 3. Press 1 to enter Module menu.
- 4. Press 2 to add a module.
- 5. From the next screen, add either an ECS-VCM or ECS-NVCM\* or ECS-RVM\*\*.
- \* Only 1 ECS-VCM or ECS-NVCM may be installed per site.
- \*\* Up to 15 ECS-RVMs may be installed per site.

The screen will display "Adding module [#]..." for a few moments. You will be returned to the <New Module Type> screen where you can select another a name for the module(s) if desired.

 Add a compatible LCD Annunciator, if desired, to associate with each ECS-VCM, ECS-NVCM or ECS-RVM.

You must save changes when you exit the Program Menu or the new module will not be added. For more information see section 9.2.2.

*Note:* If you Add a Module that has not been physically connected, the panel will go into trouble after it re-initializes (when you exit the Program Menu). When the new module is attached, the trouble will restore automatically the next time you power up the system.

### 11.6.2 Editing an LOC

Settings that are specific to an LOC are modified by editing the ECS-VCM, ECS-NVCM or ECS-RVM expander module of the LOC. These options may include: number of switch expanders installed, microphone type, microphone gain, auxiliary gain, tone gain, message gain, keypad priority, associated keypad, Port 1 used, Port 2 used, Select Switch, Panel, and Network Paging.

*Note:* An LOC specific name can also be editing using HFSS Honeywell Fire Software Suite. To edit an existing module:

- 1. Enter the installer code. The panel will automatically go to the main menu.
- 2. Select 7 for Program Menu.
- 3. Press 1 to enter module menu.
- 4. Press 1 to edit a module.
- 5. Use the up or down arrow key to select the module you wish to edit.
- 6. Press the right arrow key or ENTER to move to next selection.

### 11.6.2.1 LOC Priority

Each device is assigned a Priority level: Low, Normal, or High. This is modified by editing the LOC's ECS-VCM, ECS-NVCM or ECS-RVM module. By default, the ECS-VCM or ECS-NVCM has a high LOC priority. The ECS-RVM is defaulted to normal LOC priority.

### 11.6.2.2 LOC Association

In order to created an LOC, an annunciator must be associated to an ECS-VCM, ECS-NVCM or ECS-RVM. This done by editing the ECS-VCM, ECS-NVCM or ECS-RVM module and selecting the correct annunciator for the associated device. During JumpStart, the ECS-VCM or ECS-NVCM is automatically associated with the internal annunciator. The association for other LOCs in the system must be performed in programming.

## **11.7 Using the Microphone**

### 11.7.1 Microphone Functionality

Each microphone in the system is capable of providing convenience, fire or emergency paging. A convenience or fire page can be made anytime the emergency system does have System Control (see Section 10.5.1). When the emergency system has been activated and has System Control, the user must gain ECS Control to do an emergency page.

The microphones are housed within the ECS-Series panel enclosure and the ECS-LOC/ECS-RPU cabinets. A maximum of 16 microphones can be installed in the system.

### 11.7.2 Custom ECS Event

This event is activated by gaining ECS Control at a LOC and using the microphone without any ECS event already active in the Manual ECS State. In this case, the Mic Triggered ECS Alarm mapping and General ECS Alarm mapping will be activated and stay activated until a different ECS event is activated at the LOC or the user resets the Emergency Communication System.

### 11.7.3 Fire Page

A fire page can only occur when:

- 1. Only the fire system is active.
- 2. Both fire and the emergency systems are active and the highest priority active fire event is programmed to be of higher priority than the highest priority active emergency event.
- 3. Only the fire system is active, the user has gained ECS Control, and custom ECS event is a lower priority than the fire alarm.
- Note: If fire and emergency systems are active and emergency system is of a higher priority, a fire page is NOT allowed. An LOC must gain ECS Control in order to do any live voice.

### 11.7.4 Emergency Page

An emergency page can occur when:

- 1. Only the emergency system is active and the user has gained ECS Control.
- 2. Both fire and the emergency systems are active and the highest priority active emergency event is programmed to be of higher priority than the highest priority active fire event and the user has gained ECS Control.
- 3. Only fire system is active, the Emergency LOC Alarm priority is higher than the active fire system event and the user has gained ECS Control.
  - This will trigger the ECS system and enable mapping for 'Mic Triggered ECS Alarm' and 'General ECS Alarm'.

### 11.7.4.1 Paging

If there are no active emergency or fire system events, the microphone at an LOC can be used for paging by following these steps:

- 1. Push the PTT (push to talk) button on the microphone.
- 2. Use the Select Keys on the LOC to toggle the output areas to page to with the microphone (illuminates the green LEDs).

Note: The Ready to Talk LED will illuminate after an output area has been activated.

- 3. Speak into the microphone.
- 4. Release PTT button when finished.



## **11.8 Recording Custom Messages**

The ECS-Series VCM or ECS-NVCM comes with 15 recordable message slots. Message 1-15 can be recorded from: the microphone, Aux Input, or by using the ECS Message Management utility of HFSS Honeywell Fire Software Suite. All messages can be a maximum of one minute.



When in the record mode, the ECS-VCM or ECS-NVCM keys will function as follows:

| Key               | Function  |  |  |
|-------------------|---|--|--|
| ECS Message Key 1 | Select message slot to record to.                 |  |  |
| ECS Message Key 3 | Start and stop recording from Aux. Audio<br>Input |  |  |
| ECS Message Key 8 | Erase user message 1-15                           |  |  |
| Select Keys 1-15  | Message slot 1-15                                 |  |  |

While in the Local Record mode, Select Keys 1-15 will be used to reference message slots 1-15. The associated

green Select Key LED will indicate that a message is currently programmed in the corresponding slot. When there is no message recorded (or the message is erased), the associated green Select Key LED will be off. While recording a particular message, the associated red Select Key LED will turn on until recording is completed. The Select Key 1-15 will be used to playback a recorded message or to select the message slot to record to or erase.

When in the Local Record mode, the ECS-VCM or ECS-NVCM LEDs will function as follows:

| LED                           | LED State | Meaning   |  |  |  |  |
|-------------------------------|-----------|---|--|--|--|--|
| Select Key 1-15 Green LED     | On        | Message is currently programmed in this slot                      |  |  |  |  |
| Select Key 1-15 Red LED       | On        | Message recording is in progress                                  |  |  |  |  |
| Select Key 1-15 Green/Red LED | Off/Off   | Message slot is empty   |  |  |  |  |
| Select Key 1-15 Red LED       | Flashing  | Message is being played back or message is selected for recording |  |  |  |  |

Table 11-1: LED Functions During Programming

### 11.8.1 Recording Messages 1-15 Using Aux Audio Input

Recording messages from the Aux Audio Input enables you to load customized, pre-recorded messages into an ECS message location.

Follow these steps to record a user message using Aux Audio Input:

Note: Refer to section 9 for detailed programming information.

1. Wire a speaker cable with 1/8" mini plug to the Aux AUDIO GND and IN terminals. Refer to Figure 11-5.



#### Figure 11-5 Aux Audio Connection for Recording

- 2. Plug the mini plug into the Line Out/Headphone jack on a PC or laptop. See Figure 11-5.
- 3. Enter programming mode at main control panel.
- 4. Select 8 for Voice Options.
- 5. Select 1 for VCM Maintenance.
- 6. Select 2 Local Recording.

7. Select the amplifier and circuit for the audio to play through during programming. A user would generally pick the audio circuit that is in closest proximity to them.

Note: The VCM will light the green Select Key LED for message slots that are occupied. If a message is already stored in the desired slot, then you must erase the message first. (see Section 11.8.3).

- 8. Press ECS Message Key 1 to enter the message slot selection mode. Then, press the Select Key 1-15 that corresponds to the message slot that you wish to record to. The associated Select Key red LED will begin flashing, indicating that the message slot is ready for recording.
- 9. Simultaneously press ECS Message Key 3 and start playing the audio source on the PC or laptop.
- 10. When the audio file from the PC is finished playing, press ECS Message Key 3 again to stop the recording. The Select Key green LED will come on.
- 11. To playback the recorded message, press the Select Key 1-15 that was just recorded to.

#### **Recording with Aux Audio Input Example:**

The user wants to record into memory slot 2 via the Aux Audio Input channel.

Upon entering the Local Recording mode via the keypad menu, the VCM will light the Select Key green LEDs 1-15 for each occupied message slot.

If a message already exists in message slot 2, it must first be erased. Press ECS Message Key 8, then press Select Key 2, (see Section Figure 11.8.3 on page 15). When the message has been erased Select Key 2's green LED will turn off.

To record a message, press ECS Message Key 1, then press Select Key 2 (this will use message slot 2 for the recording). Select Key 2's red LED will begin flashing.

Press ECS Message Key 3 while simultaneously pressing play on the PC to start recording the Aux Audio Input. When the PC message is done, press ECS Message Key 3 to stop recording. Select Key 2's red LED will stay on until processing is completed. Select Key 2's green LED comes on after the recording is completed.



Pressing Select Key 2 will start a playback of the recorded message.

Figure 11-6 Aux Audio Input Example

#### 11.8.2 Recording Messages 1-15 Using the Microphone

Messages can be recorded into the ECS system by using the on-board microphone.

Follow these steps to use the microphone to record your message:

- 1. Enter programming mode at main control panel.
- 2. Select 8 for Voice Options.
- 3. Select 1 for VCM Maintenance.
- 4. Select 2 Local Recording.
- 5. Select the amplifier and circuit for the audio to play through during programming. A user would generally pick the audio circuit that is in closest proximity to them.
- Note: The VCM will light the green Select Key LED for message slots that are occupied. If a message is already stored in the desired slot, then you must erase the message first. (see Section 11.8.3).
- 6. Press ECS Message Key 1 to enter the message slot selection mode. Then, press the Select Key 1-15 that corresponds to the message slot that you wish to record to. The associated Select Key red LED will begin flashing, indicating that the message slot is ready for recording.
- 7. Press the push-to-talk (PTT) button on the microphone and speak your message.
- 8. Release the PTT button on the microphone to save your message. The Select Key green LED for this location will turn on.
- 9. To playback the recorded message, press the Select Key 1-15 that was just recorded to.
- 10. If you are not satisfied with the recorded message, erase it (see Section 11.8.3) and then repeat steps 1 through 7.

#### **Recording with Microphone Example:**

User wants to record a message to message slot 5 via the microphone.

Upon entering the Local Recording mode via the keypad menu, the VCM will light the Select Key green LEDs for 1-15 for each occupied message slot.

If a message already exists in message slot 5, it must first be erased. Press ECS Message key 8, then press Select Key 5, (see Section Figure 11.8.3 on page 15). When the message has been erased Select Key 5's green LED will turn off.

To record a message, press ECS Message Key 1, press Select Key 5 (this will use message slot 5 for the recording). Select Key 5's red LED will begin flashing.

Press the push-to-talk button on the microphone and speak your message. Release the PTT button to save your message. Select Key 5's red LED stays on until processing is completed. Select Key 5's green LED comes on after the recording is completed.



Pressing Select Key 5 will start a playback of the recorded message.

Figure 11-7 Recording with Microphone Example

#### 11.8.3 Erasing User Message

To erase the message stored in message slot 1-15, follow these steps:

- 1. Enter programming mode at main control panel.
- 2. Select 8 for Voice Options.
- 3. Select 1 for VCM Maintenance.

Note: The VCM will light the green Select Key LEDs for message slots that are occupied (can be erased).

- 4. Select 2 Local Recording.
- 5. Select the amplifier and circuit for the audio to play through during programming. A user would generally pick the audio circuit that is in closest proximity to them.
- 6. Press ECS Message Key 8 on the VCM, press the Select Key 1-15 that you wish to erase. The Select Key red LED will stay on until the erase is done. When erased, the Select Key green LED by corresponding to the message slot you erased will go off.

### 11.8.4 Using HFSS Voice Message Load Software

The HFSS Voice Message Load Software is a software support utility that is used to download recorded messages (in .SKE format stored on your PC hard drive) to the various message locations of the ECS-Series VCM or ECS-NVCM. Messages can be uploaded from the ECS-VCM or ECS-NVCM, stored, and used again in similar installations.

To read/write .SKE formatted messages to and from the main panel, follow these steps:

1. Make sure that panel is in Normal mode.

2. Connect the PC to the FACP USB port using a standard USB cable. ECS-NVCM will use the USB on the FACP (See Figure 11-8). ECS-VCM will use the USB port on the ECS-VCM.



Figure 11-8 USB Cable Connections

- 3. Run the Voice Message Load software.
- 4. Select "Read from Panel" to read a message and store onto your hard drive, or "Write to Panel" to transfer a .SKE formatted message to the panel.
- 5. Select the appropriate message location you wish to read/write.
- 6. Enter the file name you wish to transfer (Press "Browse" to display a list of files.)
- 7. Press "Start" to start the transfer.

## 11.9 Network Paging

For Network Paging Network paging allows live voice paging between panels across the network. The ECS-NVCM, Network Voice Control Module, is needed for network paging. For more information see ECS-Series installation manual P/N 151455.

The network paging source panel is the panel in the network that the microphone network paging audio is originating from. One panel in the network can be the source panel at a time.

A network paging destination panel is a panel in the network that is receiving the network paging. Many panels can be selected as a destination panel for the network paging. Network paging functions as an all call on the destination panel(s) - all speaker circuits will be activated with the network paging audio on a destination panel.the following need to be considered:

### 11.9.0.1 Priority

- 1. Local microphone is higher priority than network paging (a user can page from their local panel even if the local panel is currently receiving a network voice page).
- 2. Network Paging is higher priority than alarm and alert messages/tones
- 3. Network paging uses a VBus channel. In a dual channel system, network paging will use either VBus 1 or VBus 2. If both buses are in use, network paging will overtake one of them.

#### 11.9.0.2 Configuration

- 1. The ECS-NVCM Select Switches need to be programmed for network paging.
  - Program the switches to select one or more panels as destination panels.
  - Each switch can only be programmed for either output group activation or network paging activation.
- 2. To use network paging: Cue the microphone and press the Select Switch(es) that correspond to the panel(s) desired to receive network paging
  - Only one panel can source network paging at a time. The first panel to activate network paging is the source until that panel discontinues use of network paging
- 3. The panel that is the Network Paging source will continue to play any alarms that are active as long as the alarm circuits aren't outputting the microphone page
Smoke Control Management System

# (Smoke Control) 5883 Relay Interface Board + 5880 LED / IO Module



Each 5880 can control either 40 output LED's or Relays





# Each 5880 has 8 switch inputs

- 10 general purpose Form C relays
- Relays rated at 5.0A @ 30 VDC or 250 VAC resistive
- 5880 programmable LED outputs drive the relays (40 LED's)
- 8 Switch inputs on the 5880
- Up to four 5883s can be connected to the 5880 LED driver module

# Honeywell

# Manufacturer Recommendation

### **Recommended Cables**

#### **SLC Wiring requirement for IDP Modules**

| Wire Requirements  | Distance in Feet (meters)   | Wire Type  |
|--|---|--|
| <b>RECOMMENDED</b> : Twisted-unshielded pair, 12<br>to 18 AWG (3.31mm <sup>2</sup> to 0.82 mm <sup>2</sup> ). 50 ohms,<br>maximum per length of Style 6 & 7. 50 ohms<br>per branch maximum for Style 4 loop. | 12,500 ft. (3,810 m)<br>9,500 ft. (2895.6 m)<br>6,000 ft. (1,828.8 m)<br>3,700 ft. (1,127.76 m) | 12 AWG (3.31 mm <sup>2</sup> )<br>14 AWG (2.08 mm <sup>2</sup> )<br>16 AWG (1.31 mm <sup>2</sup> )<br>18 AWG (0.82 mm <sup>2</sup> ) |
| Untwisted, unshielded wire, in conduit or outside of conduit.  | 5,000 ft. (1,528 m)<br>3,700 ft. (,127.76 m)  | 12 to 16 AWG (3.31 <sup>2</sup> mm to 1.31 mm <sup>2</sup> )<br>18 AWG (0.82 mm)   |
| Twisted, shielded pair<br>Note:<br>• Shields must be isolated from ground<br>• Shields should be broken at each device   | 5,000 ft. (1524 m)<br>3,700 ft. (1,127.76 m)  | 12 to 16 AWG (3.31 mm <sup>2</sup> to 1.31 mm <sup>2</sup> )<br>18 AWG (0.82 mm <sup>2</sup> )                                       |
| <b>RECOMMENDED</b> : Twisted-unshielded pair, 12 to 18 AWG (3.31mm <sup>2</sup> to 0.82 mm <sup>2</sup> ). 50 ohms, maximum per length of Style 6 & 7. 50 ohms per branch maximum for Style 4 loop.          | 12,500 ft. (3,810 m)<br>9,500 ft. (2895.6 m)<br>6,000 ft. (1,828.8 m)<br>3,700 ft. (1,127.76 m) | 12 AWG (3.31 mm <sup>2</sup> )<br>14 AWG (2.08 mm <sup>2</sup> )<br>16 AWG (1.31 mm <sup>2</sup> )<br>18 AWG (0.82 mm <sup>2</sup> ) |

#### Table 4 SLC Wiring requirement for IDP Modules

#### Wire sizing for 6815 SLC circuit

The SLC requires use of a specific wire type, depending on mode of operation, to ensure proper circuit functioning. Wire size should be no smaller than 18 AWG (.075 mm) and no longer that 12 AWG (3.25 mm) wire. The wire size depends on the length of the SLC circuit. It is recommended that all wiring be twisted-pair to minimize the effects of electrical interference. Shield Termination

#### Wiring Distance for SBUS Modules

The IFP-2100/ECS panel has two SBUS circuits which can support up to 1.0A of module load per SBUS circuit.

When determining the type of wire and the maximum wiring distance that can be used, you will need to calculate loads for each SBUS to ensure that each SBUS does not exceed 1.0A.

After calculating the total worst case current draw, refer to the table below for the maximum distance the modules can be located from the panel on a single wire run.

| Wiring Distance: SBUS Modules to Panel  |          |          |            |            |  |  |  |  |  |  |
|---|----------|----------|------------|------------|--|--|--|--|--|--|
| Total Worst Case<br>Current Draw (amps) | 22 Gauge | 18 Gauge | 16 Gauge   | 14 Gauge   |  |  |  |  |  |  |
| 0.100                                   | 1852 ft. | 4688 ft. | * 6000 ft. | * 6000 ft. |  |  |  |  |  |  |
| 0.200                                   | 926 ft.  | 2344 ft. | 3731 ft.   | 5906 ft.   |  |  |  |  |  |  |
| 0.300                                   | 617 ft.  | 1563 ft. | 2488 ft.   | 3937 ft.   |  |  |  |  |  |  |
| 0.400                                   | 463 ft.  | 1172 ft. | 1866 ft.   | 2953 ft.   |  |  |  |  |  |  |
| 0.500                                   | 370 ft.  | 938 ft.  | 1493 ft.   | 2362 ft.   |  |  |  |  |  |  |
| 0.600                                   | 309 ft.  | 781 ft.  | 1244 ft.   | 1969 ft.   |  |  |  |  |  |  |
| 0.700                                   | 265 ft.  | 670 ft.  | 1066 ft.   | 1687 ft.   |  |  |  |  |  |  |
| 0.800                                   | 231 ft.  | 586 ft.  | 933 ft.    | 1476 ft.   |  |  |  |  |  |  |
| 0.900                                   | 206 ft.  | 521 ft.  | 829 ft.    | 1312 ft.   |  |  |  |  |  |  |
| 1.000 (Max)                             | 185 ft.  | 469 ft.  | 746 ft.    | 1181 ft.   |  |  |  |  |  |  |

Table 5 Wiring Distance for SBUS Modules to Panel.

## Note

Refer to the installation manual for more details and related calculations.

#### **Devices Wiring**

#### **IDP-PHOTO-R** Wiring



Figure 4 IDP-PHOTO-R Duct wiring

#### IDP-Photo / IDP-Photo-T and IDP-Acclimate Wiring:



Figure 5 IDP-PHOTO / IDP-PHTOT-T & IDP-Acclimate wiring

**IDP-Beam wiring:** 



IO NEXT DEVICE (+) PREVIOUS DEVICE SIGNAL LINE CIRCUIT (SLC) 32 VDC MAX. TWISTED PAIR IS RECOMMENDED NORMALLY CLOSED 2 TO NORMALLY OPEN 2 TO RELAY COMMON 1 TO NORMALLY OPEN 2 TO RELAY COMMON 1 TO NORMALLY CLOSED 1 TO TO NORMALLY CLOSED 1 TO TO NORMALLY OPEN 1 TO NORMALLY CLOSED 1 TO TO NORMALLY OPEN 1 TO NORMAL

MODULE DOES NOT SUPERVISE CONTROLLED CIRCUITS

Figure 7 IDP-Relay Module wiring

## **IDP-Relay Wiring**

#### **Isolator Module wiring**



Figure 8 Isolator Module wiring

**Pull Station wiring:** 



**Figure 9 Pull Station wiring** 

# RA2000 wiring:



Figure 10 RA2000 wiring

Note: All devices wiring are also available in related installation manuals24 [['; 7

2.

# 8. Calculation/Design Verification Report

# 8.1 Battery Calculation

Please refer to next page

| Honeywell<br>THE POWER OF CONNECTED<br>IFP-2100/ECS<br>Version | Farenhyt <sup>™</sup> Series<br>Calculations-IDP<br>n 04.16.18 |      | Proje<br>P<br>Pre | ect Name:<br>Project ID:<br>pared By:<br>Date: | SFMC<br>MB<br>1/10/2018 | ]                    | ] Stand<br>A<br>Derat<br>Voltage Di<br>Th | dby Hours:<br>larm Mins:<br>ing Factor:<br>rop Warning<br>preshold % : | 24<br>5<br>1.2<br>10 | ]          |
|--|--|------|-------------------|--|-------------------------|----------------------|---|--|----------------------|------------|
| Panel ID:<br>Location:   | FACP B06.02.04-2<br>Building B06                               |      | Model:<br>Volts:  | IFP-2100<br>24 VDC                             | ) Add. Fire Alarm Pa    | anel                 | Max NAG<br>Max Pane                       | C Current:<br>el Current:  | 3.0 Amps<br>9.0 Amps |            |
| Part.#   | Description  | Qty  | Currer<br>Standby | nt Draw<br>Alarm                               | Wire AWG<br>& Type      | Ohms Per<br>1000 Ft. | Length(ft)<br>One-Way                     | Actual<br>Ohms   | Volts @<br>EOL       | %Drop      |
| IFP-2100   | IFP-2100   | 1    | 0.230             | 0.415  | $\mathbf{N}$            |                      |   |  |                      |            |
| IDP-Photo, Photo-T, PhotoR                                     | Smoke detector   | 640  | 0.1920            | 0.1920   |                         |                      |   |  |                      |            |
|  | Fire-CO detector   | 40   | 0.0120            | 0.0072   |                         |                      |   |  | /                    |            |
| IDP-Ream, Ream-T   | Beam detector  | 00   | 0.0240            | 0.0240   |                         |                      |   |  |                      |            |
| DNR  | Duct housing   |      | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| IDP-IDP Acclimate  | IDP Acclimate  |      | 0.0000            | 0.0000   |                         | $\backslash$         |   | /  |                      |            |
| IDP-Photo W  | Photo W  |      | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| IDP-Photo-R-W  | Photo-R-W  |      | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| IDP-Heat-W   | Heat-W   |      | 0.0000            | 0.0000   |                         |                      | $\setminus$ /                             |  |                      |            |
| IDP-Heat-ROR-W   | Heat-ROR-W   |      | 0.0000            | 0.0000   |                         |                      | NA  |  |                      |            |
| IDP-Heat-HT-W  | Heat-HT-W  |      | 0.0000            | 0.0000   |                         |                      | Davies                                    |  |                      |            |
| IDP-Control  | Control  | 80   | 0.0300            | 0.0300   |                         | /                    |   |  |                      |            |
| IDP-Control-6  | Control-6<br>Manitar Miniman                                   | 40   | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| IDP-Monitor-2  | Monitor-2  | 40   | 0.0130            | 0.0130   |                         |                      |   |  |                      |            |
| IDP-Monitor-10   | Monitor-10   |      | 0.0000            | 0.0000   |                         |                      |   |  | $\backslash$         |            |
| IDP-Pull-SA, Pull-DA   | Pull-SA, Pull-DA   | 80   | 0.0300            | 0.0300   | /                       |                      |   |  |                      |            |
| IDP-Relay  | Relay  |      | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| IDP-Relay-6  | Relay-6<br>RelayMon 2  |      | 0.0000            | 0.0000   |                         |                      |   |  |                      | $\searrow$ |
| IDP-Zone   | Zone   |      | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| IDP-Zone-6   | Zone-6   |      | 0.0000            | 0.0000   |                         |                      |   |  |                      | $\sim$     |
| IDP-Iso (Isolator Module)                                      | Iso (Isolator Module)  | 80   | 0.0360            | 0.0360   | $\leq$                  |                      |   |  |                      |            |
| IDP-ISO-6  | ISO-6  |      | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| B224BI<br>B200S  | Isolator Base  | 40   | 0.0200            | 0.0200   |                         |                      |   | /  |                      |            |
| B200SR   | Sounder Base   | 240  | 0.0720            | 0.0720   |                         |                      |   |  |                      |            |
| B200S-LF   | Sounder Base LF  | 2.10 | 0.0000            | 0.0000   |                         |                      | $\succ$                                   |  |                      |            |
| B200SR-LF  | Sounder Base LF  |      | 0.0000            | 0.0000   |                         |                      | < \                                       | <u> </u>   |                      |            |
| B224RB   | Relay Base   |      | 0.0000            | 0.0000   |                         |                      |   |  |                      |            |
| RTS151<br>RTS151KEY  | Key Activated Test   |      | 0.000             | 0.0000   |                         |                      |   |  |                      |            |
| RA100Z   | Remote LED   |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| 6815   | SLC Expander   | 9    | 0.702             | 0.702  |                         |                      |   |  |                      |            |
| RA-2000  | LCD Remote Annunc  |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| RA-1000  | LCD Remote Annunc  |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| RA-100   | LCD Remote Annunc  |      | 0.000             | 0.000  |                         |                      |   |  | ,                    |            |
| 5496   | Power Expander   |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| RPS-1000   | Power Expander   |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| 5865-4   | LED Annunciator (4G)   |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| 5865-3   | LED Annunciator (3G)   |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| 5883   | Relay Module   |      | 0.000             | 0.000  |                         |                      |   | /  |                      |            |
| CELL-MOD   | Communicator   |      | 0.000             | 0.100  |                         |                      |   |  |                      |            |
| SK-NIC   | Network Interface Card   | 1    | 0.021             | 0.021  |                         |                      |   |  |                      |            |
| SK-FML   | Fiber Module   |      | 0.000             | 0.000  |                         | ,                    | $\setminus$ /                             | ,<br>  |                      |            |
| SK-FSL   | Fiber Module   | 1    | 0.021             | 0.021  |                         |                      |   |  |                      |            |
| WIDP-WG1   | Wireless Gateway   |      | 0.000             | 0.000  |                         |                      | NKA                                       |  |                      |            |
| ECS-NVCM   | Voice control  |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| ECS-SW24   | Zone Expander  |      | 0.000             | 0.000  |                         | /                    | / \                                       | $\backslash$   |                      |            |
| ECS-RPU  | Remote Paging Unit   |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| ECS-LOC  | Local Operating Console  |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| ECS-LOC2100  | Local Operating Console  |      | 0.000             | 0.000  |                         |                      |   | $\backslash$   | \                    |            |
| ECS-INT50W   | 50 Watt Internal Amp 25<br>volts                               |      | 0.000             | 0.000  | /                       |                      |   |  |                      |            |
| ECS-INT50W   | 50 Watt Internal Amp 70<br>volts                               |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| ECS-50W  | 50 Watt Amplifier  |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| ECS-125W   | 125 Watt Amplifier   |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| ECS-DUAL50W  | 50/100 Watt Amp  |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |
| ECS-50WBU  | 50 Watt Backup Amplifier                                       |      | 0.000             | 0.000  |                         |                      |   |  |                      |            |

Global Project Values

|            | Minimum Battery AmpHours Required   | 41     | 20<br>.50 | Configur                            | e Circuits |      | Print Page |       |       |
|------------|-------------------------------------|--------|-----------|-------------------------------------|------------|------|------------|-------|-------|
|            | Multiply Dy The Department Forstern |        | <u></u>   | -                                   |            |      |            |       |       |
|            | Total Combined AH Required          | 34     | 58        |                                     |            |      |            |       |       |
|            | Total Standby AH Required           | 34.440 | 0.143     | Total Alarm AH Reg                  | uired      |      | ]          |       |       |
|            | Standby Time In Hours               | 24     | 0.083     | Alarm Time In Minutes / 60 (5 Mins) |            |      |            |       |       |
|            | Total Standby Current (Amps)        | 1.435  | 1.715     | Total Alarm Current                 |            |      |            |       |       |
| PGM-I/O #8 | Notification Appl Circuit           | 0.000  | 0.000     | #12 Solid                           | 1.59       |      | 0.00       | 20.40 | 0.00% |
| PGM-I/O #7 | Notification Appl Circuit           | 0.000  | 0.000     | #12 Solid                           | 1.59       |      | 0.00       | 20.40 | 0.00% |
| PGM-I/O #6 | Notification Appl Circuit           | 0.000  | 0.000     | #12 Solid                           | 1.59       |      | 0.00       | 20.40 | 0.00% |
| PGM-I/O #5 | Notification Appl Circuit           | 0.000  | 0.000     | #12 Solid                           | 1.59       |      | 0.00       | 20.40 | 0.00% |
| PGM-I/O #4 | Notification Appl Circuit           | 0.000  | 0.000     | #12 Solid                           | 1.59       |      | 0.00       | 20.40 | 0.00% |
| PGM-I/O #3 | 0.000                               | 0.000  | #12 Solid | 1.59                                |            | 0.00 | 20.40      | 0.00% |       |
| PGM-I/O #2 | Notification Appl Circuit           | 0.000  | 0.000     | #12 Solid                           | 1.59       |      | 0.00       | 20.40 | 0.00% |
| PGM-I/O #1 | Notification Appl Circuit           | 0.000  | 0.000     | #12 Solid                           | 1.59       |      | 0.00       | 20.40 | 0.00% |

#### **Power Calculation**

Please refer to next page

| Related Fire Alarm Control Panel | : FACP B06.02.04-2 |
|----------------------------------|--------------------|
|                                  |                    |

| Power Source | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
|--------------|---------------|------------------|-------------------|---------------------------------------|-------|----------|--------------|----------------------|
| IFP-2100     | 9             | 2.541            | 28 %              |                                       |       |          |              |                      |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| NAC 1        | 3             | 0.362            | 12 %              |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 6            | 5495          | 6 Amp Conventi   | onal Power Supp   | 4 NAC Circuits                        | 0     | 0.18     | 0            | 0.18                 |
| 1            | P2RL          | L-Series, Red, W | all-Mountable, C  | Lens, 2-wire,                         | 0     | 0.182    | 0            | 0.182                |
| 1            | SBBRL         | Surface Mount I  | Back Box, Wall, R | · · · · · · · · · · · · · · · · · · · | 0     | 0        | 0            | 0                    |
| 1            | @ 110 Candela | Candela Rating   |                   |                                       | 0     | 0.182    | 0            | 0.182                |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| NAC 2        | 3             | 0.18             | 6 %               |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 6            | 5495          | 6 Amp Conventi   | onal Power Supp   | 4 NAC Circuits                        | 0     | 0.18     | 0            | 0.18                 |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| NAC 3        | 3             | 0.18             | 6%                |                                       |       |          |              |                      |
|              | 3             | 0.10             | 0,0               |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battory Alarm        |
| Quantity     | 5405          | 6 Amp Conventi   | onal Dowor Supr   | A NAC Circuits                        | 0     | 0.19     |              |                      |
| Circuit      | Max           | Used             | Borcont Used      |                                       | 0     | 0.18     | 0            | 0.10                 |
|              | IVIdX<br>2    | 0.19             |                   |                                       |       |          |              |                      |
| INAC 4       | 5             | 0.18             | 0 %               |                                       |       |          | Dettem: Nen  |                      |
| Quantita     | Dout Number   | Description      |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC NON-AI                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 6            | 5495          | 6 Amp Conventi   | onal Power Supp   | 4 NAC CIrcuits                        | 0     | 0.18     | 0            | 0.18                 |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| NAC 5        | 3             | 0.12             | 4 %               |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 4            | 5495          | 6 Amp Conventi   | onal Power Supp   | 4 NAC Circuits                        | 0     | 0.12     | 0            | 0.12                 |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| NAC 6        | 3             | 0.12             | 4 %               |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 4            | 5495          | 6 Amp Conventi   | onal Power Supp   | 4 NAC Circuits                        | 0     | 0.12     | 0            | 0.12                 |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| NAC 7        | 3             | 0.12             | 4 %               |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 4            | 5495          | 6 Amp Conventi   | onal Power Supp   | 4 NAC Circuits                        | 0     | 0.12     | 0            | 0.12                 |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| NAC 8        | 3             | 0.12             | 4 %               |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | <b>Battery Alarm</b> |
| 4            | 5495          | 6 Amp Conventi   | onal Power Supp   | 4 NAC Circuits                        | 0     | 0.12     | 0            | 0.12                 |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| SBUS 1       | 1             | 0.354            | 35 %              |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 4            | 6815          | SLC Expander M   | lodule            | (                                     | ).312 | 0.312    | 0.312        | 0.312                |
| 2            | 5815RMK       | Remote Mounti    | ng Kit            |                                       | 0     | 0        | 0            | 0                    |
| 1            | SK-NIC        | Network Interfa  | ce Card           | (                                     | 0.021 | 0.021    | 0.021        | 0.021                |
| 1            | SK-FSL        | Network Interfa  | ce Card           | (                                     | 0.021 | 0.021    | 0.021        | 0.021                |
| Circuit      | Max           | Used             | Percent Used      |                                       |       |          |              |                      |
| SBUS 2       | 1             | 0.39             | 39 %              |                                       |       |          |              |                      |
|              |               |                  |                   |                                       |       |          | Battery Non- |                      |
| Quantity     | Part Number   | Description      |                   | AC Non-Al                             | arm   | AC Alarm | Alarm        | Battery Alarm        |
| 5            | 6815          | SLC Expander M   | odule             |                                       | 0.39  | 0.39     | 0.39         | 0.39                 |
|              | 5815RMK       | Remote Mounti    | ng Kit            |                                       | 0     | 0.55     | 0.55         | 0.55                 |
| L            |               |                  |                   |                                       | 0     | 0        |              | 0                    |

| Circuit    | Max  | Used | Percent Used |
|------------|------|------|--------------|
| CELL-BUS 1 | 1    | 0    | 0 %          |
| SLC 1      | 0.15 | 0    | 0 %          |

|        |        |               |  |                      |                        |              |          | Battery Non- |               |
|--------|--------|---------------|--|----------------------|------------------------|--------------|----------|--------------|---------------|
| Qu     | antity | Part Number   | Description                              |                      |                        | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
|        | 96     | IDP-PHOTO     | Intelligent Addr                         | essable Photoele     | ectric Detector        | 0.0288       | 0.0288   | 0.0288       | 0.0288        |
|        | 60     | B501          | 4" Mounting Ba                           | se                   |                        | 0            | 0        | 0            | 0             |
|        | 36     | B200SR        | Sounder Base                             |                      |                        | 0.0108       | 0.0108   | 0.0108       | 0.0108        |
|        | 12     | IDP-PULL-DA   | Addressable Ma                           | nual Dual Action     | Pull Station           | 0.0042       | 0.0042   | 0.0042       | 0.0042        |
|        | 12     | SB-I/O        | Surface Backbox                          | Indoor/Outdoo        | r                      | 0            | 0        | 0            | 0             |
|        | 14     | IDP-CONTROL   | Addressable Cor                          | ntrol Module         |                        | 0.0049       | 0.0049   | 0.0049       | 0.0049        |
|        | 14     | SMB500        | Optional Surface                         | e Mount Backbo       | K                      | 0            | 0        | 0            | 0             |
|        | 6      | IDP-HEAT      | Intelligent Addr                         | essable Thermal      | Detector               | 0.0018       | 0.0018   | 0.0018       | 0.0018        |
|        | 6      | B501          | 4" Mounting Ba                           | se                   |                        | 0            | 0        | 0            | 0             |
|        | 6      | IDP-HEAT-ROR  | Intelligent Addr                         | essable Thermal      | Detector with Rate-of- | 0.0018       | 0.0018   | 0.0018       | 0.0018        |
|        | 6      | B224BI        | Intelligent Isolat                       | or Base              |                        | 0.0027       | 0.003    | 0.09         | 0.09          |
|        | 6      | IDP-FIRE-CO   | Advanced Multi-Criteria Fire/CO Detector |                      | 0.0018                 | 0.0018       | 0.0018   | 0.0018       |               |
|        | 6      | B501          | 4" Mounting Base                         |                      | 0                      | 0            | 0        | 0            |               |
|        | 12     | IDP-ISO       | Fault Isolator M                         | odule                |                        | 0.0054       | 0.204    | 0.0054       | 0.204         |
| _      | 12     | SMB500        | Optional Surface                         | e Mount Backbo       | x                      | 0            | 0        | 0            | 0             |
|        | 6      | IDP-MONITOR-2 | Addressable Du                           | al Monitor Modu      | ile                    | 0.0045       | 0.0045   | 0.0045       | 0.0045        |
|        | 6      | SMB500        | Optional Surface                         | e Mount Backbo       | ĸ                      | 0            | 0        | 0            | 0             |
|        | 6      | IDP-MONITOR   | Addressable Mo                           | nitor Module         |                        | 0.0021       | 0.0021   | 0.0021       | 0.0021        |
|        | 6      | SMB500        | Optional Surface                         | e Mount Backbo       | ĸ                      | 0            | 0        | 0            | 0             |
| Circui | t      | Max           | Used                                     | Percent Used         |                        |              |          |              |               |
| Acces  | sories | 0             | 0  | 0 %                  | -                      |              |          |              |               |
| SLC 2  |        | 0.15          | 0  | 0 %                  |                        |              |          |              |               |
|        |        |               |  |                      |                        |              |          | Battery Non- |               |
| Qu     | antity | Part Number   | Description                              |                      |                        | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
|        | 96     | IDP-PHOTO     | Intelligent Addr                         | essable Photoele     | ectric Detector        | 0.0288       | 0.0288   | 0.0288       | 0.0288        |
|        | 60     | 8501          | 4" Mounting Ba                           | se                   |                        | 0            | 0        | 0            | 0             |
|        | 36     | B200SR        | Sounder Base                             |                      |                        | 0.0108       | 0.0108   | 0.0108       | 0.0108        |
|        | 12     | IDP-PULL-DA   | Addressable Ma                           | nual Dual Action     | Pull Station           | 0.0042       | 0.0042   | 0.0042       | 0.0042        |
| _      | 12     | SB-I/U        | Surface Backbox                          | (Indoor/Outdoo       | r                      | 0            | 0        | 0            | 0             |
|        | 12     |               | Addressable Col                          | Accust Deckhor       |                        | 0.0042       | 0.0042   | 0.0042       | 0.0042        |
|        | 12     |               | Optional Surface                         |                      | K<br>Detector          | 0 0018       | 0 0018   | 0 0018       | 0.0018        |
|        | 6      |               | A" Mounting Ro                           |                      | Detector               | 0.0018       | 0.0018   | 0.0018       | 0.0018        |
|        | 6      |               | 4 Wounting Ba                            | se<br>Scablo Thormal | Dotactor with Pata of  | 0 0018       | 0 0018   | 0 0018       | 0 0018        |
|        | 6      |               | Intelligent kolat                        | or Pace              | Delector with Kale-or- | 0.0018       | 0.0018   | 0.0018       | 0.0018        |
|        | 6      |               | Advanced Multi                           | Oritoria Fire/CO     | Detector               | 0.0027       | 0.003    | 0.09         | 0.09          |
|        | 6      | B501          | Auvanceu Multi                           |                      | Detector               | 0.0018       | 0.0018   | 0.0018       | 0.0018        |
|        | 12     |               | Fault Isolator M                         | odulo                |                        | 0 0054       | 0 204    | 0.0054       | 0 204         |
|        | 12     | SMR500        | Ontional Surface                         | Mount Backhov        | <i>v</i>               | 0.0034       | 0.204    | 0.0034       | 0.204         |
|        | 6      |               | Addressable Mc                           | nitor Module         | <b>N</b>               | 0 0021       | 0 0021   | 0 0021       | 0 0021        |
|        | 6      | SMB500        | Optional Surface                         | Mount Backbo         | ĸ                      | 0.0021       | 0.0021   | 0.0021       | 0.0021        |
|        | 6      | IDP-MONITOR-2 | Addressable Du                           | al Monitor Modu      | ile                    | 0.0045       | 0.0045   | 0.0045       | 0.0045        |
|        | 6      | SMB500        | Optional Surface                         | e Mount Backbo       | K                      | 0            | 0        | 0            | 0             |
| Circui | t      | Max           | Used                                     | Percent Used         |                        |              |          |              |               |
| SLC 3  |        | 0.15          | 0  | 0%                   |                        |              |          |              |               |
|        |        |               |  |                      |                        |              |          | Battery Non- |               |
| Qu     | antity | Part Number   | Description                              |                      |                        | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
|        | 96     | IDP-PHOTO     | Intelligent Addr                         | essable Photoele     | ctric Detector         | 0.0288       | 0.0288   | 0.0288       | 0.0288        |
|        | 60     | B501          | 4" Mounting Ba                           | se                   |                        | 0            | 0        | 0            | 0             |
|        | 36     | B200SR        | Sounder Base                             |                      |                        | 0.0108       | 0.0108   | 0.0108       | 0.0108        |
|        | 12     | IDP-PULL-DA   | Addressable Ma                           | nual Dual Action     | Pull Station           | 0.0042       | 0.0042   | 0.0042       | 0.0042        |
|        | 12     | SB-I/O        | Surface Backbox                          | Indoor/Outdoo        | r                      | 0            | 0        | 0            | 0             |
|        | 12     | IDP-CONTROL   | Addressable Cor                          | ntrol Module         |                        | 0.0042       | 0.0042   | 0.0042       | 0.0042        |
|        | 12     | SMB500        | Optional Surface                         | e Mount Backbo       | ĸ                      | 0            | 0        | 0            | 0             |
|        | 6      | IDP-HEAT      | Intelligent Addr                         | essable Thermal      | Detector               | 0.0018       | 0.0018   | 0.0018       | 0.0018        |
|        | 6      | B501          | 4" Mounting Ba                           | se                   |                        | 0            | 0        | 0            | 0             |
|        | 6      | IDP-HEAT-ROR  | Intelligent Addr                         | essable Thermal      | Detector with Rate-of- | 0.0018       | 0.0018   | 0.0018       | 0.0018        |

|                          | 6   | B224BI  | Intelligent Isolat   | or Base  | 0.0027   | 0.003  | 0.09  | 0.09   |
|--------------------------|---|---|--|--|--|--|---|--|
|                          | 6   | IDP-FIRE-CO   | Advanced Multi-  | -Criteria Fire/CO Detector   | 0.0018   | 0.0018   | 0.0018  | 0.0018   |
|                          | 6   | B501  | 4" Mounting Bas  | se   | 0  | 0  | 0   | 0  |
|                          | 12  | IDP-ISO   | Fault Isolator M   | odule  | 0.0054   | 0.204  | 0.0054  | 0.204  |
|                          | 12  | SMB500  | Optional Surface   | e Mount Backbox  | 0  | 0  | 0   | 0  |
|                          | 6   | IDP-MONITOR-2   | Addressable Dua  | al Monitor Module  | 0.0045   | 0.0045   | 0.0045  | 0.0045   |
|                          | 6   | SMB500  | Optional Surface   | e Mount Backbox  | 0  | 0  | 0   | 0  |
|                          | 6   | IDP-MONITOR   | Addressable Mo   | nitor Module   | 0.0021   | 0.0021   | 0.0021  | 0.0021   |
|                          | 6   | SMB500  | Optional Surface   | Mount Backbox  | 0  | 0  | 0   | 0  |
| Circuit                  |   | Max   | Used   | Percent Used   |  |  |   |  |
| SLC 4                    |   | 0.15  | 0  | 0 %  |  |  |   |  |
|                          |   |   |  |  |  |  | Battery Non-  |  |
| Quar                     | ntity   | Part Number   | Description  |  | AC Non-Alarm   | AC Alarm   | Alarm   | Battery Alarm  |
|                          | 96  | IDP-PHOTO   | Intelligent Addre  | essable Photoelectric Detector   | 0.0288   | 0.0288   | 0.0288  | 0.0288   |
|                          | 60  | B501  | 4" Mounting Bas  | se   | 0  | 0  | 0   | 0  |
|                          | 36  | B200SR  | Sounder Base   |  | 0.0108   | 0.0108   | 0.0108  | 0.0108   |
|                          | 12  | IDP-PULL-DA   | Addressable Ma   | nual Dual Action Pull Station  | 0.0042   | 0.0042   | 0.0042  | 0.0042   |
|                          | 12  | SB-I/O  | Surface Backbox  | Indoor/Outdoor   | 0  | 0  | 0   | 0  |
|                          | 12  | IDP-CONTROL   | Addressable Cor  | ntrol Module   | 0.0042   | 0.0042   | 0.0042  | 0.0042   |
|                          | 12  | SMB500  | Optional Surface   | e Mount Backbox  | 0  | 0  | 0   | 0  |
|                          | 6   | IDP-HEAT  | Intelligent Addre  | essable Thermal Detector   | 0.0018   | 0.0018   | 0.0018  | 0.0018   |
|                          | 6   | B501  | 4" Mounting Bas  | se   | 0  | 0  | 0   | 0  |
|                          | 6   | IDP-HEAT-ROR  | Intelligent Addre  | essable Thermal Detector with Rate-of-   | 0.0018   | 0.0018   | 0.0018  | 0.0018   |
|                          | 6   | B224BI  | Intelligent Isolat   | or Base  | 0.0027   | 0.003  | 0.09  | 0.09   |
|                          | 6   | IDP-FIRE-CO   | Advanced Multi-  | -Criteria Fire/CO Detector   | 0.0018   | 0.0018   | 0.0018  | 0.0018   |
|                          | 6   | B501  | 4" Mounting Bas  | se   | 0  | 0  | 0   | 0  |
|                          | 12  | IDP-ISO   | Fault Isolator M   | odule  | 0.0054   | 0.204  | 0.0054  | 0.204  |
|                          | 12  | SMB500  | Optional Surface   | e Mount Backbox  | 0  | 0  | 0   | 0  |
|                          | 6   | IDP-MONITOR   | Addressable Mo   | nitor Module   | 0.0021   | 0.0021   | 0.0021  | 0.0021   |
|                          | 6   | SMB500  | Optional Surface   | e Mount Backbox  | 0  | 0  | 0   | 0  |
|                          | 6   | IDP-MONITOR-2   | Addressable Dua  | al Monitor Module  | 0.0045   | 0.0045   | 0.0045  | 0.0045   |
|                          | 6   | SMB500  | IOntional Surface  | Mount Backhox  | 0  | 01   | 0   |  |
|                          | 0   | 51410500  | optional Sanac   |  | 0  | U  | 0   | 0  |
| Circuit                  | 0   | Max   | Used   | Percent Used   | 0  | 0  | Ŭ   | 0  |
| Circuit<br>SLC 5         | 0   | Max<br>0.15   | Used<br>0  | Percent Used<br>0 %  |  |  | Pottory Non   | 0  |
| Circuit<br>SLC 5         | otity   | Max<br>0.15   | Used<br>0  | Percent Used<br>0 %  | AC Non-Alarm   | AC Alarm   | Battery Non-  | Battery Alarm  |
| Circuit<br>SLC 5<br>Quar | ntity   | Max<br>0.15<br>Part Number  | Used<br>0<br>Description   | Percent Used 0 %   | AC Non-Alarm   | AC Alarm   | Battery Non-<br>Alarm   | Battery Alarm  |
| Circuit<br>SLC 5<br>Quar | ntity<br>64   | Max           0.15           Part Number           IDP-PHOTO           B501   | Used<br>0<br>Description<br>Intelligent Addre  | Percent Used 0 % essable Photoelectric Detector  | AC Non-Alarm 0.0192  | AC Alarm 0.0192  | Battery Non-<br>Alarm<br>0.0192   | Battery Alarm  |
| Circuit<br>SLC 5<br>Quar | ntity<br>64<br>40   | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas   | Percent Used 0 % essable Photoelectric Detector se   | AC Non-Alarm 0.0192 0 0 0 0.0072   | AC Alarm 0.0192 0 0 0.0072   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072  | Battery Alarm<br>0.0192<br>0<br>0.0072   |
| Circuit<br>SLC 5<br>Quar | ntity<br>64<br>40<br>24   | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PUIL-DA  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base   | Percent Used 0 % essable Photoelectric Detector se nual Dual Action Pull Station   | AC Non-Alarm 0.0192 0 0 0.0072 0.0028  | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028  | Battery Alarm<br>0.0192<br>0<br>0.0072<br>0.0028   |
| Circuit<br>SLC 5<br>Quar | ntity<br>64<br>40<br>24<br>8  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Sounder Base<br>Addressable Ma<br>Surface Backbox   | Percent Used 0 % essable Photoelectric Detector se nual Dual Action Pull Station c Indoor/Outdoor  | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0  | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0   | Battery Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0  |
| Circuit<br>SLC 5<br>Quar | ntity<br>64<br>40<br>24<br>8<br>8<br>8  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor  | Percent Used 0% essable Photoelectric Detector se nual Dual Action Pull Station c Indoor/Outdoor ptrol Module  | AC Non-Alarm<br>0.0192<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028  | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0.0028  |
| Circuit<br>SLC 5         | ntity<br>64<br>40<br>24<br>8<br>8<br>8<br>8   | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface  | Percent Used 0% essable Photoelectric Detector se nual Dual Action Pull Station (Indoor/Outdoor htrol Module Mount Backbox   | AC Non-Alarm 0.0192 0.0072 0.0028 0 0 0.0028 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm<br>0.0192<br>0.0072<br>0.0028<br>0<br>0.0028  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028  | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0<br>0.0028   |
| Circuit<br>SLC 5         | 10000000000000000000000000000000000000  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HFAT   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre  | Percent Used 0% essable Photoelectric Detector se nual Dual Action Pull Station Indoor/Outdoor htrol Module Mount Backbox essable Thermal Detector   | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0 0.0028 0 0 0 0 0.0028 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0028  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0028   | Battery Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012   |
| Circuit<br>SLC 5         | 10000000000000000000000000000000000000  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Bas   | Percent Used 0% essable Photoelectric Detector se nual Dual Action Pull Station (Indoor/Outdoor ntrol Module Mount Backbox essable Thermal Detector se   | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0 0 0.0028 0 0 0.0028 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0<br>0<br>0.0012<br>0   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012  | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0  |
| Circuit<br>SLC 5         | 64<br>64<br>40<br>24<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>4<br>4<br>4<br>4  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Bas<br>Intelligent Addre  | Percent Used<br>0 %<br>essable Photoelectric Detector<br>se<br>nual Dual Action Pull Station<br>k Indoor/Outdoor<br>htrol Module<br>e Mount Backbox<br>essable Thermal Detector<br>se<br>essable Thermal Detector with Rate-of-  | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.0192<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0<br>0   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0<br>0<br>0.0012  | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0<br>0<br>0.0012  |
| Circuit<br>SLC 5         | 6<br>htity<br>64<br>40<br>24<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4   | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Addre  | Percent Used<br>0 %<br>essable Photoelectric Detector<br>se<br>nual Dual Action Pull Station<br>(Indoor/Outdoor<br>htrol Module<br>Mount Backbox<br>essable Thermal Detector<br>se<br>essable Thermal Detector with Rate-of-<br>or Base  | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0 0.0012 0 0 0.0012 0 0 0.0018 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.0192<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0<br>0.0012<br>0.002   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0<br>0<br>0.0012   | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0.0028<br>0.0012<br>0.0012<br>0.0012  |
| Circuit<br>SLC 5         | 6<br>htity<br>64<br>40<br>24<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4   | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI<br>IDP-FIRE-CO  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Bas<br>Intelligent Addre<br>Addressable Cor  | Percent Used<br>0 %<br>essable Photoelectric Detector<br>se<br>nual Dual Action Pull Station<br>a Indoor/Outdoor<br>htrol Module<br>e Mount Backbox<br>essable Thermal Detector<br>se<br>essable Thermal Detector with Rate-of-<br>or Base<br>-Criteria Fire/CO Detector   | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0.0018 0.0012  | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0<br>0.0012<br>0.002<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0.0028<br>0   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012  | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0.0028<br>0.0012<br>0.0012<br>0.0012  |
| Circuit<br>SLC 5         | 6<br>htity<br>64<br>40<br>24<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4   | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI<br>IDP-FIRE-CO<br>B501  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Base  | Percent Used<br>0 %<br>essable Photoelectric Detector<br>se<br>nual Dual Action Pull Station<br>a Indoor/Outdoor<br>ntrol Module<br>e Mount Backbox<br>essable Thermal Detector<br>se<br>essable Thermal Detector with Rate-of-<br>or Base<br>-Criteria Fire/CO Detector<br>se   | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0.0012 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012  | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0.0028<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012  |
| Circuit<br>SLC 5         | otity           64           40           24           8           8           8           8           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI<br>IDP-FIRE-CO<br>B501<br>IDP-ISO   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Addre<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Base<br>Intelligent Isolat   | Percent Used<br>0 %<br>essable Photoelectric Detector<br>se<br>nual Dual Action Pull Station<br>a Indoor/Outdoor<br>htrol Module<br>e Mount Backbox<br>essable Thermal Detector<br>se<br>essable Thermal Detector with Rate-of-<br>or Base<br>-Criteria Fire/CO Detector<br>se<br>odule  | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0<br>0.0012<br>0.0012<br>0.002<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.002<br>0.0012<br>0.002<br>0.0012<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0. | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012  | Battery Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012   |
| Circuit<br>SLC 5<br>Quar | o           ntity           64           40           24           8           8           8           4           4           4           4           4           4           4           8           8           8           8           8           8           8           8           8           8           8  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI<br>IDP-FIRE-CO<br>B501<br>IDP-FIRE-CO<br>B501<br>IDP-ISO<br>SMB500  | Used<br>0<br>Description<br>Intelligent Addred<br>4" Mounting Base<br>Addressable Ma<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addred<br>4" Mounting Base<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Base<br>Fault Isolator M<br>Optional Surface  | Percent Used<br>0 %<br>essable Photoelectric Detector<br>se<br>nual Dual Action Pull Station<br>(Indoor/Outdoor<br>ntrol Module<br>e Mount Backbox<br>essable Thermal Detector<br>se<br>essable Thermal Detector with Rate-of-<br>or Base<br>-Criteria Fire/CO Detector<br>se<br>odule<br>e Mount Backbox  | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0018 0.0012 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.0036 0.00036 0.00036 0.000 0.0036 0.00036 0.000 0.00036 0.000 0.00036 0.000 0.00036 0.000 0.00036 0.000 | AC Alarm 0.0192 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0.0012 0.0012 0.002 0.0012 0.0012 0 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | Battery Non-<br>Alarm<br>0.0192<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0036  | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0.0028<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0136<br>0.136   |
| Circuit<br>SLC 5<br>Quar | otity           64           40           24           8           8           8           8           4  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI<br>IDP-FIRE-CO<br>B501<br>IDP-FIRE-CO<br>B501<br>IDP-ISO<br>SMB500<br>IDP-MONITOR   | Used<br>0<br>Description<br>Intelligent Addred<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addred<br>4" Mounting Bas<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Bas<br>Fault Isolator M<br>Optional Surface<br>Addressable Mo   | Percent Used<br>0 %<br>essable Photoelectric Detector<br>se<br>nual Dual Action Pull Station<br>(Indoor/Outdoor<br>ntrol Module<br>e Mount Backbox<br>essable Thermal Detector<br>se<br>essable Thermal Detector with Rate-of-<br>or Base<br>-Criteria Fire/CO Detector<br>se<br>odule<br>e Mount Backbox<br>nitor Module  | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0018 0.0012 0.0012 0.0014   | AC Alarm 0.0192 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014  | Battery Non-<br>Alarm<br>0.0192<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0036<br>0.0036<br>0<br>0.0014   | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0.0028<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014  |
| Circuit<br>SLC 5         | otity           64           40           24           8           8           8           8           4  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI<br>IDP-FIRE-CO<br>B501<br>IDP-FIRE-CO<br>B501<br>IDP-ISO<br>SMB500<br>IDP-MONITOR<br>SMB500   | Used<br>0<br>Description<br>Intelligent Addred<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addred<br>4" Mounting Bas<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Bas<br>Fault Isolator M.<br>Optional Surface<br>Addressable Mo<br>Optional Surface  | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         k Indoor/Outdoor         http://docs.parket.com/outdoor         http://docs.parket.com/outdoor         http://docs.parket.com/outdoor         essable Thermal Detector         se         essable Thermal Detector with Rate-of-         or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         endure         e Mount Backbox         nitor Module         e Mount Backbox  | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0018 0.0012 0.0018 0.0014 0.0014 0.0014   | AC Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0036<br>0.0036<br>0.0014   | Battery Alarm<br>0.0192<br>0.0072<br>0.0072<br>0.0028<br>0.0028<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014<br>0.0014<br>0.0014  |
|                          | otity           64           40           24           8           8           8           8           4  | Max<br>0.15<br>Part Number<br>IDP-PHOTO<br>B501<br>B200SR<br>IDP-PULL-DA<br>SB-I/O<br>IDP-CONTROL<br>SMB500<br>IDP-HEAT<br>B501<br>IDP-HEAT-ROR<br>B224BI<br>IDP-FIRE-CO<br>B501<br>IDP-FIRE-CO<br>B501<br>IDP-FIRE-CO<br>SMB500<br>IDP-MONITOR<br>SMB500<br>IDP-MONITOR-2  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Bas<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Bas<br>Fault Isolator M<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Mo   | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         k Indoor/Outdoor         htrol Module         e Mount Backbox         essable Thermal Detector         se         criteria Fire/CO Detector         se         odule         e Mount Backbox         essable Thermal Detector with Rate-of-or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         nitor Module         e Mount Backbox         al Monitor Module   | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0018 0.0012 0.0018 0.0012 0.0036 0.0036 0.003   | AC Alarm 0.0192 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014 0 0.0014 0 0.003   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0036   | Battery Alarm<br>0.0192<br>0.0072<br>0.0028<br>0.0028<br>0.0028<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014<br>0.0014<br>0.0014<br>0.003   |
|                          | otity           64           40           24           8           8           8           8           4  | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-HEAT-ROR           B224BI           IDP-FIRE-CO           B501           IDP-ISO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR-2           SMB500  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Base<br>Fault Isolator M<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Dua<br>Optional Surface   | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         indoor/Outdoor         htrol Module         e Mount Backbox         essable Thermal Detector         se         criteria Fire/CO Detector         se         odule         e Mount Backbox         endult         e Mount Backbox         al Monitor Module         e Mount Backbox         al Monitor Module         e Mount Backbox   | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0.0012 0.0018 0.0012 0.0036 0 0 0.0036 0 0 0.003 0 0 0.003 0 0 0 0 0 0 0 0 0 0   | AC Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014 0 0 0.003 0.003 0 0 0 0 0 0 0 0 0 0 0 0  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0036<br>0.0036<br>0.00314<br>0.003   | Battery Alarm 0.0192 0.0072 0.0028 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014 0.0014 0.003 0.003   |
| Circuit                  | otity           64           40           24           8           8           8           4  | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-HEAT-ROR           B224BI           IDP-FIRE-CO           B501           IDP-ISO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR-2           SMB500  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Isolatt<br>Advanced Multi-<br>4" Mounting Base<br>Intelligent Isolatt<br>Advanced Multi-<br>4" Mounting Base<br>Fault Isolator Mo<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Dus<br>Optional Surface<br>Addressable Dus<br>Optional Surface<br>Addressable Dus   | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         a Indoor/Outdoor         ntrol Module         e Mount Backbox         essable Thermal Detector         se         criteria Fire/CO Detector         se         odule         e Mount Backbox         initor Module         e Mount Backbox         al Monitor Module         e Mount Backbox         al Monitor Module         e Mount Backbox         percent Used   | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0.0012 0.0018 0.0012 0 0 0.0036 0 0 0.0036 0 0 0.003 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014 0 0.0014 0 0.003 0 0  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014<br>0.0014<br>0.0014<br>0.003<br>0.003<br>0.003  | Battery Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  |
| Circuit<br>SLC 5         | otity           64           40           24           8           8           8           8           4  | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-HEAT-ROR           B224BI           IDP-FIRE-CO           B501           IDP-FIRESO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR-2           SMB500           IDP-MONITOR-2           SMB500  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Addre<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Base<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Base<br>Isolat<br>Advanced Multi-<br>4" Mounting Base<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isolat<br>Isol | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         a Indoor/Outdoor         ntrol Module         e Mount Backbox         essable Thermal Detector         se         essable Thermal Detector with Rate-of-or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         nitor Module         e Mount Backbox         a Mount Backbox         e Mount Backbox         e Mount Backbox         nitor Module         e Mount Backbox         a Monitor Module         e Mount Backbox         al Monitor Module         e Mount Backbox         al Monitor Module         e Mount Backbox         al Monitor Module         e Mount Backbox  | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0 0 0.136 0 0 0.0014 0 0 0.003 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014<br>0.0036<br>0.0031<br>0.003<br>0.003  | Battery Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  |
| Circuit<br>SLC 5         | otity           64           40           24           8           8           8           4  | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-HEAT-ROR           B224BI           IDP-FIRE-CO           B501           IDP-ISO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500   | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Addre<br>Intelligent Isolator<br>Advanced Multi-<br>4" Mounting Base<br>Intelligent Isolator Ma<br>Optional Surface<br>Addressable Dou<br>Optional Surface<br>Addressable Dou<br>Optional Surface<br>Used<br>0   | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         a Indoor/Outdoor         htrol Module         e Mount Backbox         essable Thermal Detector         se         essable Thermal Detector with Rate-of-or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         al Monitor Module         e Mount Backbox         al Monitor Module     < | AC Non-Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0 0 0.0012 0 0 0 0.0013 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0.0012 0 0 0.136 0 0 0.0014 0 0 0.003 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | Battery Non-<br>Alarm<br>0.0192<br>0<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0<br>0<br>0.0012<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0072<br>0<br>0.0072<br>0<br>0.0028<br>0<br>0<br>0<br>0.0028<br>0<br>0<br>0<br>0.0028<br>0<br>0<br>0<br>0<br>0.0028<br>0<br>0<br>0<br>0.0028<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Alarm 0.0192 0 0 0.0072 0.0028 0 0 0.0028 0 0 0.0012 0 0 0.0012 0 0 0.0012 0 0 0 0.0012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  |
| Circuit<br>SLC 5         | ntity<br>64<br>40<br>24<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>4<br>4<br>4<br>4<br>4<br>4<br>4   | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-HEAT-ROR           B224BI           IDP-FIRE-CO           B501           IDP-ISO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           SMB500           IDP-MONITOR-2           SMB500           Part Number  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Bas<br>Intelligent Addre<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Bas<br>Fault Isolator M<br>Optional Surface<br>Addressable Dua<br>Optional Surface<br>Addressable Dua<br>Optional Surface<br>0<br>Description  | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         a Indoor/Outdoor         htrol Module         e Mount Backbox         essable Thermal Detector         se         essable Thermal Detector with Rate-of-or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         al Monitor Module         e Mount Backbox         0 %   | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.00 0.0012 0.0012 0.0012 0.0012 0.0018 0.0018 0.0018 0.0014 0.0036 0 0.003 0.003 0.003 0.003  | AC Alarm 0.0192 0.0072 0.0072 0.0028 0 0 0.0012 0 0 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0 0.136 0 0 0.136 0 0 0.0014 0 0 0.003 0 0 AC Alarm   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0052<br>0<br>0.0052<br>0<br>0<br>0<br>0.0052<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.0192<br>0.0072<br>0.0072<br>0.0028<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0013<br>0.0014<br>0.0014<br>0.0014<br>0.0014<br>0.003<br>0.003<br>0.003  |
| Circuit<br>SLC 5         | ntity<br>64<br>40<br>24<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4   | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-FIRE-CO           B501           IDP-FIRE-CO           B501           IDP-ISO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR-2           SMB500           IDP-MONITOR-2           SMB500           IDP-MONITOR-2           SMB500           Part Number           IDP-PHOTO  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Bas<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Bas<br>Fault Isolator M.<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Dua<br>Optional Surface<br>Used<br>0<br>Description<br>Intelligent Addre  | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         k Indoor/Outdoor         htrol Module         e Mount Backbox         essable Thermal Detector         se         criteria Fire/CO Detector         se         odule         e Mount Backbox         or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         al Monitor Module         e Mount Backbox         al Monitor Module         e Mount Backbox         percent Used         0 %   | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0013 0.0036 0.003 0.003 0.003 0.003 0.003 0.003 0.003  | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0036<br>0.0036<br>0.0034<br>0.0034<br>0.0034<br>0.0034<br>0.0034<br>0.0034<br>0.0034<br>0.0034<br>0.0032  | Battery Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.001 0.0014 0.0014 0.0014 0.0014 0.003 0 |
| Circuit<br>SLC 5         | ntity<br>64<br>40<br>24<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4   | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-HEAT-ROR           B224BI           IDP-FIRE-CO           B501           IDP-ISO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR-2           SMB500           IDP-MONITOR-2           SMB500           IDP-MONITOR-2           SMB500           DP-MONITOR-2           SMB500           B501                                  | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Bas<br>Sounder Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Bas<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Bas<br>Fault Isolator M<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Dua<br>Optional Surface<br>Addressable Dua<br>Otional Surface<br>Otional Surface<br>Oti                                       | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         a Indoor/Outdoor         htrol Module         e Mount Backbox         essable Thermal Detector         se         criteria Fire/CO Detector         se         odule         e Mount Backbox         essable Thermal Detector with Rate-of-         or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         al Monitor Module         e Mount Backbox         o %   | AC Non-Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014 0.0036 0.003 0.00 | AC Alarm<br>0.0192<br>0<br>0.0072<br>0.0028<br>0<br>0.0028<br>0<br>0.0012<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0014<br>0<br>0.003<br>0<br>0.003<br>0<br>0<br>0.003<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0036<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0.0036<br>0<br>0<br>0.0036<br>0<br>0<br>0.0036<br>0<br>0<br>0.0036<br>0<br>0<br>0<br>0.0036<br>0<br>0<br>0<br>0.0012<br>0<br>0.0036<br>0<br>0<br>0.0036<br>0<br>0<br>0<br>0.0012<br>0<br>0.0036<br>0<br>0<br>0<br>0.0036<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Battery Alarm 0.0192 0.0072 0.0072 0.0028 0.0028 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014 0.0014 0.0014 0.003 0. |
| Circuit<br>SLC 5         | 0       64       40       24       8       8       8       8       4  < | Max           0.15           Part Number           IDP-PHOTO           B501           B200SR           IDP-PULL-DA           SB-I/O           IDP-CONTROL           SMB500           IDP-HEAT           B501           IDP-HEAT-ROR           B224BI           IDP-FIRE-CO           B501           SMB500           IDP-ISO           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR           SMB500           IDP-MONITOR-2           SMB500           IDP-MONITOR-2           SMB500           IDP-MONITOR-2           SMB500           B501           B200SR | Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base<br>Addressable Ma<br>Surface Backbox<br>Addressable Cor<br>Optional Surface<br>Intelligent Addre<br>4" Mounting Base<br>Intelligent Isolat<br>Advanced Multi-<br>4" Mounting Base<br>Fault Isolator M<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Dus<br>Optional Surface<br>Used<br>0<br>Description<br>Intelligent Addre<br>4" Mounting Base  | Percent Used         0 %         essable Photoelectric Detector         se         nual Dual Action Pull Station         indoor/Outdoor         htrol Module         e Mount Backbox         essable Thermal Detector         se         essable Thermal Detector with Rate-of-         or Base         -Criteria Fire/CO Detector         se         odule         e Mount Backbox         al Monitor Module         essable Photoelectric Detector         se  | AC Non-Alarm           0.0192           0           0.0072           0.0028           0           0.0028           0           0.0012           0.0012           0.0012           0.0012           0.0012           0.0012           0.0012           0.0013           0.0036           0.0031           0.0033           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.003           0.0192           0.0192           0.003  | AC Alarm 0.0192 0.0072 0.0028 0 0.0028 0 0 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0012 0.0014 0 0.0014 0 0 0.0014 0 0 0.003 0 0 0 AC Alarm 0.0192 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | Battery Non-<br>Alarm<br>0.0192<br>0<br>0<br>0.0072<br>0.0028<br>0<br>0<br>0.0028<br>0<br>0<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.0012<br>0.003<br>0<br>0.0034<br>0<br>0.0034<br>0<br>0.0034<br>0<br>0.0032<br>0<br>0  | Battery Alarm         0.0192         0         0.0072         0.0028         0         0.0028         0         0.0012         0.0012         0.0012         0.0012         0.0012         0.0012         0.0012         0.0012         0.0012         0.0012         0.0013         0.0014         0.0015         Battery Alarm         0.0192         0         0.0192         0         0.0192         0         0.0192         0         0.0192  |

| 8        | B IDP-PULL-DA  | Addressable Ma   | nual Dual Action  | Pull Station           | 0.0028                              | 0.0028                             | 0.0028                              | 0.0028                             |
|----------|--|--|---|------------------------|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|
|          | 3 SB-I/O   | Surface Backbox  | Indoor/Outdoor  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | B IDP-CONTROL  | Addressable Cor  | ntrol Module  |                        | 0.0028                              | 0.0028                             | 0.0028                              | 0.0028                             |
|          | 3 SMB500   | Optional Surface   | e Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | 1 IDP-HEAT   | Intelligent Addr   | essable Thermal [   | Detector               | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
|          | 4 B501   | 4" Mounting Ba   | se  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | 4 IDP-HEAT-ROR   | Intelligent Addr   | essable Thermal [   | Detector with Rate-of- | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
|          | 4 B224BI   | Intelligent Isolat   | or Base   |                        | 0.0018                              | 0.002                              | 0.06                                | 0.06                               |
|          | 4 IDP-FIRE-CO  | Advanced Multi   | -Criteria Fire/CO   | Detector               | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
| 4        | 4 B501   | 4" Mounting Ba   | se  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | B IDP-ISO  | Fault Isolator M   | odule   |                        | 0.0036                              | 0.136                              | 0.0036                              | 0.136                              |
|          | 8 SMB500   | Optional Surface   | e Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
| 4        | 1 IDP-MONITOR  | Addressable Mo   | nitor Module  |                        | 0.0014                              | 0.0014                             | 0.0014                              | 0.0014                             |
|          | 4 SMB500   | Optional Surface   | e Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | 4 IDP-MONITOR-2  | Addressable Dua  | al Monitor Modul  | le                     | 0.003                               | 0.003                              | 0.003                               | 0.003                              |
|          | 4 SMB500   | Optional Surface   | Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
| Circuit  | Max  | Used   | Percent Used  |                        |                                     |                                    |                                     |                                    |
| SLC 7    | 0.15   | 0  | 0 %   |                        |                                     |                                    |                                     |                                    |
|          |  |  |   |                        |                                     |                                    | Battery Non-                        |                                    |
| Quantity | Part Number  | Description  |   |                        | AC Non-Alarm                        | AC Alarm                           | Alarm                               | Battery Alarm                      |
| L 8      | B IDP-PULL-DA  | Addressable Ma   | nual Dual Action  | Pull Station           | 0.0028                              | 0.0028                             | 0.0028                              | 0.0028                             |
|          | 3 SB-I/O   | Surface Backbo>  | Indoor/Outdoor  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
| <u>ا</u> | B IDP-CONTROL  | Addressable Cor  | ntrol Module  |                        | 0.0028                              | 0.0028                             | 0.0028                              | 0.0028                             |
|          | B SMB500   | Optional Surface   | e Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
| 4        | 4 IDP-HEAT   | Intelligent Addro  | essable Thermal [   | Detector               | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
| <u>_</u> | 4 B501   | 4" Mounting Ba   | se  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
| 4        | 4 IDP-HEAT-ROR   | Intelligent Addro  | essable Thermal [   | Detector with Rate-of- | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
| <u>_</u> | 4 B224BI   | Intelligent Isolat   | or Base   |                        | 0.0018                              | 0.002                              | 0.06                                | 0.06                               |
| 4        | 4 IDP-FIRE-CO  | Advanced Multi   | -Criteria Fire/CO   | Detector               | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
| <u> </u> | 4 8501   | 4" Mounting Ba   | se  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | B IDP-ISO  | Fault Isolator M   | odule   |                        | 0.0036                              | 0.136                              | 0.0036                              | 0.136                              |
|          | SMB500   | Optional Surface   | Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          |  | Addressable Mo   | nitor Module  |                        | 0.0014                              | 0.0014                             | 0.0014                              | 0.0014                             |
| <u>'</u> |  | Optional Surface   | e Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
| <u> </u> |  | Addressable Du   | al Monitor Modul  | le                     | 0.003                               | 0.003                              | 0.003                               | 0.003                              |
|          |  |  | e Mount Backbox   | tuis Data ata a        | 0                                   | 0 0103                             | 0 0103                              | 0 0103                             |
|          |  | A" Mounting Do   |   |                        | 0.0192                              | 0.0192                             | 0.0192                              | 0.0192                             |
|          | 1 020050   | 4 WOULDIN Bas  | se  |                        | 0 0073                              | 0 0073                             | 0 0073                              | 0 0073                             |
| Circuit  | + B2003K   |  | Porcent Used  |                        | 0.0072                              | 0.0072                             | 0.0072                              | 0.0072                             |
|          | 0.15   | 0  |   |                        |                                     |                                    |                                     |                                    |
|          | 0.15   | 0  | 0 /0  |                        |                                     |                                    | Battery Non-                        |                                    |
| Ouantity | Part Number  | Description  |   |                        | AC Non-Alarm                        | AC Alarm                           | Alarm                               | Battery Alarm                      |
| 64       | 4 IDP-PHOTO  | Intelligent Addr   | essable Photoeled   | ctric Detector         | 0.0192                              | 0.0192                             | 0.0192                              | 0.0192                             |
| 4        | ) B501   | 4" Mounting Ba   | se  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
| 24       | 4 B200SR   | Sounder Base   |   |                        | 0.0072                              | 0.0072                             | 0.0072                              | 0.0072                             |
| [ _ {    | B IDP-PULL-DA  | Addressable Ma   | nual Dual Action  | Pull Station           | 0.0028                              | 0.0028                             | 0.0028                              | 0.0028                             |
| 3        | B SB-I/O   | Surface Backbox  | Indoor/Outdoor  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | BIDP-CONTROL   | Addressable Cor  | ntrol Module  |                        | 0.0028                              | 0.0028                             | 0.0028                              | 0.0028                             |
|          | 8 SMB500   | Optional Surface   | e Mount Backbox   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | 1 IDP-HEAT   | Intelligent Addre  | essable Thermal [   | Detector               | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
|          | 4 B501   | 4" Mounting Ba   | se  |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | 4 IDP-HEAT-ROR   | Intelligent Addr   | essable Thermal [   | Detector with Rate-of- | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
|          | 4 B224BI   | Intelligent Isolat   | or Base   |                        | 0.0018                              | 0.002                              | 0.06                                | 0.06                               |
|          | 4 IDP-FIRE-CO  | Advanced Multi   | -Criteria Fire/CO   | Detector               | 0.0012                              | 0.0012                             | 0.0012                              | 0.0012                             |
| 4        | 1 8501   | 4" Mounting Ba   |   |                        | 0                                   | 0                                  | 0                                   | 0                                  |
|          | ¥ 0501   |  | se  |                        | •                                   |                                    | 0                                   |                                    |
|          | BIDP-ISO   | Fault Isolator M   | se<br>odule   |                        | 0.0036                              | 0.136                              | 0.0036                              | 0.136                              |
|          | 3 IDP-ISO<br>3 SMB500  | Fault Isolator M<br>Optional Surface   | se<br>odule<br>e Mount Backbox  |                        | 0.0036                              | 0.136                              | 0.0036                              | 0.136                              |
|          | 3 IDP-ISO<br>3 SMB500<br>4 IDP-MONITOR   | Fault Isolator M<br>Optional Surface<br>Addressable Mo                                       | se<br>odule<br>e Mount Backbox<br>nitor Module  |                        | 0.0036<br>0.0014                    | 0.136<br>0<br>0.0014               | 0.0036<br>0.0014                    | 0.136<br>0<br>0.0014               |
|          | 3 IDP-ISO<br>3 SMB500<br>4 IDP-MONITOR<br>4 SMB500                                 | Fault Isolator M<br>Optional Surface<br>Addressable Mo<br>Optional Surface                   | se<br>odule<br>Mount Backbox<br>nitor Module<br>Mount Backbox                         |                        | 0.0036<br>0.0014<br>0.0014          | 0.136<br>0<br>0.0014<br>0          | 0.0036<br>0.0014<br>0.0014          | 0.136<br>0<br>0.0014<br>0          |
|          | 4 IDP-ISO<br>3 IDP-ISO<br>3 SMB500<br>4 IDP-MONITOR<br>4 SMB500<br>4 IDP-MONITOR-2 | Fault Isolator M<br>Optional Surface<br>Addressable Mo<br>Optional Surface<br>Addressable Du | se<br>odule<br>e Mount Backbox<br>nitor Module<br>e Mount Backbox<br>al Monitor Modul | le                     | 0.0036<br>0.0014<br>0.0014<br>0.003 | 0.136<br>0<br>0.0014<br>0<br>0.003 | 0.0036<br>0.0014<br>0.0014<br>0.003 | 0.136<br>0<br>0.0014<br>0<br>0.003 |

| Circuit       | Max             | Used             | Percent Used       |                   |             |          |              |                |
|---------------|-----------------|------------------|--------------------|-------------------|-------------|----------|--------------|----------------|
| SLC 9         | 0.15            | 0                | 0 %                |                   |             |          |              |                |
| SLC 10        | 0.15            | 0                | 0 %                |                   |             |          |              |                |
| NAC 9 (IDP-   | 3               | 0.182            | 6 %                |                   |             |          |              |                |
| -             |                 |                  |                    |                   |             |          | Battery Non- |                |
| Quantity      | Part Number     | Description      |                    | AC                | C Non-Alarm | AC Alarm | Alarm        | Battery Alarm  |
|               | I P2RL          | L-Series, Red, W | /all-Mountable, (  | ar Lens, 2-wire,  | 0           | 0.182    | 0            | 0.182          |
|               | I SBBRL         | Surface Mount    | Back Box, Wall, R  |                   | 0           | 0        | 0            | 0              |
|               | I @ 110 Candela | Candela Rating   |                    |                   | 0           | 0.182    | 0            | 0.182          |
| Circuit       | Max             | Used             | Percent Used       |                   |             |          |              |                |
| NAC 10 (IDP-  | 3               | 0.182            | 6 %                |                   |             |          |              |                |
|               |                 |                  |                    |                   |             |          | Battery Non- |                |
| Quantity      | Part Number     | Description      |                    | AC                | C Non-Alarm | AC Alarm | Alarm        | Battery Alarm  |
|               | I P2RL          | L-Series, Red, W | /all-Mountable, (  | ar Lens, 2-wire,  | 0           | 0.182    | 0            | 0.182          |
|               | I SBBRL         | Surface Mount    | Back Box, Wall, R  |                   | 0           | 0        | 0            | 0              |
|               | I @ 110 Candela | Candela Rating   |                    |                   | 0           | 0.182    | 0            | 0.182          |
| Circuit       | Max             | Used             | Percent Used       |                   |             |          |              |                |
| IDC 1 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 2 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 3 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 4 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 5 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 6 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 7 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 8 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 9 (4-     | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 10 (4-    | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 11 (4-    | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| IDC 12 (4-    | 0.04            | 0                | 0 %                |                   |             |          |              |                |
| NAC 11 (IDP-  | 2               | 0.182            | 9 %                |                   |             |          |              |                |
|               |                 |                  |                    |                   |             |          | Battery Non- |                |
| Quantity      | Part Number     | Description      |                    | AC                | C Non-Alarm | AC Alarm | Alarm        | Battery Alarm  |
|               | L P2RL          | L-Series, Red, W | /all-Mountable, (  | ar Lens, 2-wire,  | 0           | 0.182    | 0            | 0.182          |
|               | SBBRL           | Surface Mount    | Back Box, Wall, R  |                   | 0           | 0        | 0            | 0              |
|               | l @ 110 Candela | Candela Rating   |                    |                   | 0           | 0.182    | 0            | 0.182          |
| Circuit       | Max             | Used             | Percent Used       |                   |             |          |              |                |
| INAC 12 (IDP- | 2               | 0.182            | 9%                 |                   |             |          | Dellas No.   |                |
|               |                 |                  |                    |                   |             |          | Battery Non- | Della dia se   |
| Quantity      | Part Number     | Description      |                    | A                 | C Non-Alarm | AC Alarm | Alarm        | Battery Alarm  |
|               |                 | L-Series, Red, W | all-Mountable, C   | ar Lens, 2-wire,  | 0           | 0.182    | 0            | 0.182          |
|               | L SBBRL         | Surface Mount    | Back Box, Wall, R  |                   | 0           | 0 102    | 0            | 0 102          |
| Cincuit       | l @ 110 Candela | Candela Rating   | Demonstrational    |                   | 0           | 0.182    | 0            | 0.182          |
|               | Iviax           | Used             | Percent Used       |                   |             |          |              |                |
| INAC 13 (IDP- | 2               | 0.182            | 9%                 |                   |             | [        | Dettem: Nen  |                |
| Quantitu      | Dout Number     | Description      |                    |                   |             |          | Battery Non- |                |
| Quantity      |                 | Description      | all Mauntable (    | AL                |             | AC Alarm | Alarm        | Dattery Alarm  |
|               |                 | L-Series, Red, W |                    | ar Leris, Z-wire, | 0           | 0.182    | 0            | 0.182          |
|               | L SBBRL         | Surface Mount    | BACK BOX, WAII, P  |                   | 0           | 0 192    | 0            | 0 192          |
| Circuit       | Max             |                  | Dercent Lload      |                   | 0           | 0.162    | 0            | 0.162          |
|               | IVIAX           | 0.182            |                    |                   |             |          |              |                |
| INAC 14 (IDP- | 2               | 0.182            | 9%                 |                   |             |          | Pottom/ Non  |                |
| Quantity      | Dort Number     | Description      |                    |                   |             |          | Alarm        | Pottory Alarma |
| Quantity      |                 | L Sorios Rod M   | all Mountable      | AL                |             |          | AldIII       |                |
|               |                 | Surface Mount    |                    | ai Leiis, 2-Wile, | 0           | 201.0    | 0            | 0.182          |
|               | 1 DODRL         | Candola Datia -  | DALK DUX, WAII, K  |                   | 0           | 0 100    | 0            | 0 10 2         |
| Circuit       |                 |                  | Percent liced      |                   | U           | 0.182    | 0            | 0.182          |
|               | IVIdX           | Osed             |                    |                   |             |          |              |                |
| NAC 15 (IDP-  | 2               | 0 192            | 0 %                |                   |             |          |              |                |
| INAC 10 (IDP- | 2               | 0.182            | 5%                 |                   |             |          | Battom New   |                |
| Quantity      | Part Number     | Description      |                    |                   |             |          | Alarm        | Battery Alarm  |
| quantity      |                 | L Sorios Rod M   | all Mountable      | AL                |             |          | AldIII       |                |
|               | ורצתב           | L-Series, Rea, M | an-iviouritable, ( | ai Leiis, z-Wile, | U           | 0.182    | 0            | 0.182          |

|   | 1  | SBBRL   | Surface Mount I  | Back Box, Wall, R  | ed   | 0   | 0   | 0  | 0   |
|---|--|---|--|--|--|---|---|--|---|
|   | 1  | @ 110 Candela   | Candela Rating   |  |  | 0   | 0.182   | 0  | 0.182   |
| Circu   | it   | Max   | Used   | Percent Used   |  | - <u>I</u> I  | Į   | Į  |   |
| NAC   | 17 (IDP-   | 2   | 0.182  | 9%   |  |   |   |  |   |
|   |  |   |  |  |  |   |   | Battery Non-   |   |
| 0   | uantity  | Part Number   | Description  |  |  | AC Non-Alarm  | AC Alarm  | Alarm  | Battery Alarm   |
| ~   | 1  | P2RI  | L-Series Red W   | all-Mountable (  | lear Lens 2-wire   | 0   | 0 182   | 0  | 0 182   |
|   | 1  |   | E-Scries, ricu, W  |  | od   | 0   | 0.102   | 0  | 0.102   |
|   |  | SDBRL<br>@ 110 Candala  | Condolo Doting   | back DUX, Wall, K  | eu   | 0   | 0 192   | 0  | 0 192   |
| Circuit   | <u> </u>   | @ 110 Calificeia  |  | Deveent Llead  |  | 0   | 0.102   | 0  | 0.102   |
| Circu   |  | IVIAX   | Used   | Percent Used   |  |   |   |  |   |
| NAC :   | 18 (IDP-   | 2   | 0  | 0%   |  |   |   |  |   |
| NAC :   | 19 (IDP-   | 2   | 0.182  | 9%   |  |   |   | <b></b>  |   |
|   |  |   |  |  |  |   |   | Battery Non-   |   |
| Q   | uantity  | Part Number   | Description  |  |  | AC Non-Alarm  | AC Alarm  | Alarm  | Battery Alarm   |
|   | 1  | P2RL  | L-Series, Red, W   | all-Mountable, C   | lear Lens, 2-wire,   | 0   | 0.182   | 0  | 0.182   |
|   | 1  | SBBRL   | Surface Mount I  | Back Box, Wall, R  | ed   | 0   | 0   | 0  | 0   |
|   | 1  | @ 110 Candela   | Candela Rating   |  |  | 0   | 0.182   | 0  | 0.182   |
| Circu   | it   | Max   | Used   | Percent Used   |  |   |   |  |   |
| NAC   | 20 (IDP-   | 2   | 0.073  | 4 %  |  |   |   |  |   |
|   |  |   |  |  |  |   |   | Battery Non-   |   |
| Q   | uantity  | Part Number   | Description  |  |  | AC Non-Alarm  | AC Alarm  | Alarm  | Battery Alarm   |
|   | 1  | P2RL  | L-Series, Red, W   | all-Mountable, C   | lear Lens, 2-wire,   | 0   | 0.073   | 0  | 0.073   |
|   | 1  | SBBRL   | Surface Mount I  | Back Box, Wall, R  | ed   | 0   | 0   | 0  | 0   |
|   | 1  | @ 15 Candela  | Candela Rating   |  |  | 0   | 0.073   | 0  | 0.073   |
| Circu   | it   | Max   | Used   | Percent Used   |  |   |   | · · · · ·  |   |
| NAC 2   | 21 (IDP-   | 2   | 0.182  | 9 %  |  |   |   |  |   |
|   |  |   |  |  |  |   |   | Battery Non-   |   |
| 0   | uantitv  | Part Number   | Description  |  |  | AC Non-Alarm  | AC Alarm  | Alarm  | Battery Alarm   |
|   | 1  | P2RI  | L-Series Red W   | all-Mountable (  | lear Lens 2-wire   | 0   | 0 182   | 0  | 0.182   |
|   | 1  | SBBRI   | Surface Mount R  | Back Box Wall B  | ed   | 0   | 0.102   | 0  | 0.102   |
|   | 1  | @ 110 Candela   | Candola Pating   |  | cu   | 0   | 0 182   | 0  | 0 182   |
|   | 1 ±  |   | Canucia Nating   |  |  | U   | 0.1021  | 01   | 0.102   |
| Circui  | i+   | Max   | Lisod  | Percent Lised  |  |   | 1   | I  |   |
|   |  | Max   | Used   | Percent Used   |  | - <b>I</b> - <b>I</b>   |   | 1  |   |
| Circu<br>NAC 2  | it<br>22 (IDP-   | Max<br>2  | Used<br>0.182  | Percent Used<br>9 %  |  |   |   | Battery Non-   |   |
| Circui<br>NAC 2   | it<br>22 (IDP-   | Max<br>2  | Used<br>0.182  | Percent Used<br>9 %  |  | AC Non Alarm  | AC Alarm  | Battery Non-   | Rottony Alarm   |
| Circui<br>NAC 2   | it<br>22 (IDP-<br>uantity  | Max<br>2<br>Part Number   | Used<br>0.182<br>Description   | Percent Used<br>9 %  | loor Long 2 wire   | AC Non-Alarm  | AC Alarm  | Battery Non-<br>Alarm  | Battery Alarm   |
| Circui<br>NAC 2   | it<br>22 (IDP-<br>uantity<br>1   | Max<br>2<br>Part Number<br>P2RL   | Used<br>0.182<br>Description<br>L-Series, Red, W   | Percent Used<br>9 %<br>all-Mountable, C  | lear Lens, 2-wire,   | AC Non-Alarm  | AC Alarm<br>0.182   | Battery Non-<br>Alarm<br>0   | Battery Alarm<br>0.182  |
| Circui<br>NAC 2   | uantity  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R  | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R   | lear Lens, 2-wire,<br>ed   | AC Non-Alarm  | <b>AC Alarm</b><br>0.182<br>0   | Battery Non-<br>Alarm<br>0<br>0  | <b>Battery Alarm</b><br>0.182<br>0  |
| Circui<br>NAC 2   | uantity<br>1<br>1<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating  | Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R  | ilear Lens, 2-wire,<br>ed  | AC Non-Alarm<br>0<br>0  | <b>AC Alarm</b><br>0.182<br>0<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182  |
| Circui<br>NAC   | it<br>22 (IDP-<br>uantity<br>1<br>1<br>1<br>1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used  | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used   | ilear Lens, 2-wire,<br>ed  | <b>AC Non-Alarm</b><br>0<br>0   | AC Alarm<br>0.182<br>0<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182  |
| Circui<br>NAC 2<br>Qu<br>Circui<br>NAC 2  | it<br>22 (IDP-<br>1<br>1<br>1<br>23 (IDP-  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182   | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | ilear Lens, 2-wire,<br>ed  | AC Non-Alarm 0 0 0 0  | <b>AC Alarm</b><br>0.182<br>0<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182  |
| Circui<br>NAC 2<br>Qu   | it<br>22 (IDP-<br>1<br>1<br>1<br>23 (IDP-  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182   | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed   | AC Non-Alarm<br>0<br>0<br>0   | AC Alarm<br>0.182<br>0<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182  |
| Circui<br>NAC 2<br>Qu<br>Circui<br>NAC 2  | uantity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description  | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 AC Non-Alarm   | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm   |
| Circui<br>NAC 2<br>Circui<br>NAC 2  | it<br>22 (IDP-<br>1<br>1<br>1<br>23 (IDP-<br>23 (IDP-<br>uantity<br>1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W  | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>8<br>attery Non-<br>Alarm<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182  |
|   | uantity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I   | Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0   |
| Circui<br>NAC   | uantity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating   | Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182  |
| Circui<br>NAC 2<br>Qu<br>Circui<br>NAC 2<br>Qu<br>Circui                          | it<br>22 (IDP-<br>1<br>1<br>1<br>1<br>1<br>23 (IDP-<br>uantity<br>1<br>1<br>1<br>1<br>1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used   | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>attery Non-<br>Alarm<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182  |
| Circui<br>NAC 2<br>Circui<br>NAC 2<br>Qu  | it<br>22 (IDP-<br>22 (IDP-<br>1<br>1<br>1<br>1<br>23 (IDP-<br>23 (IDP-<br>1<br>1<br>1<br>1<br>1<br>1<br>24 (IDP-   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182  | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>attery Non-<br>Alarm<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182  |
| Circui<br>NAC 2<br>Circui<br>NAC 2<br>Qu  | it<br>22 (IDP-<br>1<br>1<br>1<br>1<br>1<br>23 (IDP-<br>uantity<br>1<br>1<br>1<br>1<br>1<br>24 (IDP-  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182  | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0<br>0<br>0.182   |
| Circui<br>NAC :<br>Qu<br>Circui<br>NAC :<br>Qu<br>Circui                          | it<br>22 (IDP-<br>22 (IDP-<br>1<br>1<br>1<br>1<br>23 (IDP-<br>1<br>1<br>1<br>1<br>24 (IDP-<br>24 (IDP-<br>24 (IDP-<br>24 (IDP-   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description   | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0<br>0<br>0.182<br>0<br>0<br>0.182  |
| Circui<br>NAC 2<br>Circui<br>NAC 2<br>Qu<br>Circui<br>NAC 2                       | it<br>22 (IDP-<br>22 (IDP-<br>1<br>1<br>1<br>1<br>23 (IDP-<br>23 (IDP-<br>1<br>1<br>24 (IDP-<br>24 (ID | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount If<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount If<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W   | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C  | ilear Lens, 2-wire,<br>ed<br>ilear Lens, 2-wire,<br>ed<br>ilear Lens, 2-wire,                                | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>0.182<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182  |
| Circui<br>NAC   | uantity 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F  | Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R  | ilear Lens, 2-wire,<br>ed<br>ilear Lens, 2-wire,<br>ed<br>ilear Lens, 2-wire,<br>ed                          | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0  |
| Circui<br>NAC 2<br>Qu<br>Circui<br>NAC 2<br>Qu<br>Circui                          | uantity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | Max         2         Part Number         P2RL         SBBRL         @ 110 Candela         Max         2         Part Number         P2RL         SBBRL         @ 110 Candela         Max         2         Part Number         P2RL         SBBRL         @ 110 Candela         Max         2         Part Number         P2RL         SBBRL         @ 110 Candela         @ 110 Candela             | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F  | Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm<br>0.182<br>0<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0<br>0<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   |
| Circui<br>NAC   | it<br>22 (IDP-<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>23 (IDP-<br>23 (IDP-<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>P2RL<br>SBBRL<br>SBBRL<br>@ 110 Candela<br>Max   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used  | Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | Battery Non-<br>Alarm           0  | Battery Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   |
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| Circui<br>NAC :<br>Qu<br>Circui<br>NAC :<br>Qu<br>Circui<br>NAC :<br>Qu<br>Circui | it<br>22 (IDP-<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>23 (IDP-<br>uantity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description | Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>Back Box, Wall, R     | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed | AC Non-Alarm  0  0  0  0  0  0  0  0  0  0  0  0  0 | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Battery Non-         0 <tr< td=""><td>Battery Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td></tr<> | Battery Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0     |
| Circui<br>NAC :<br>Qu<br>Circui<br>NAC :<br>Qu<br>Circui<br>NAC :<br>Qu<br>Circui | it<br>22 (IDP-<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>23 (IDP-<br>uantity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182                | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed | AC Non-Alarm  0  0  0  0  0  0  0  0  0  0  0  0  0 | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                             | Battery Non-         Alarm         0   | Battery Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0     |

|               |                 |                  |                   |                     |              |          | Battery Non- |                      |
|---------------|-----------------|------------------|-------------------|---------------------|--------------|----------|--------------|----------------------|
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm | Alarm        | <b>Battery Alarm</b> |
|               | 1 P2RL          | L-Series, Red, W | all-Mountable, C  | Clear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                  | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   |                     | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                     |              |          |              |                      |
| NAC 27 (IDP-  | 2               | 0.182            | 9 %               |                     |              |          |              |                      |
|               |                 |                  |                   |                     |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               | 1 P2RL          | L-Series, Red, W | all-Mountable, C  | Clear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                  | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   |                     | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                     |              |          |              |                      |
| NAC 28 (IDP-  | 2               | 0.182            | 9 %               |                     |              |          |              |                      |
|               |                 |                  |                   |                     |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               | 1 P2RL          | L-Series, Red, W | all-Mountable, C  | Clear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               |                 | Surface Mount I  | Back Box, Wall, R | ed                  | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   | Deverent Line of  | 1                   | 0            | 0.182    | 0            | 0.182                |
|               | Iviax           | Used             | Percent Used      |                     |              |          |              |                      |
| INAC 29 (IDP- | 2               | 0.182            | 9%                | l                   |              |          | Battom New   |                      |
| Quantity      | Dart Number     | Description      |                   |                     | AC Non Alarm |          | Alarm        | Pattory Alarm        |
| Quantity      |                 | Lescription      | all-Mountable (   | loar Long 2-wire    |              | 0 182    | Alaini       | 0 182                |
| L             |                 | Surface Mount I  | Back Box Wall R   | ad                  | 0            | 0.182    | 0            | 0.182                |
|               | 1 @ 110 Candela | Candela Rating   |                   | eu                  | 0            | 0 182    | 0            | 0 182                |
| Circuit       | Max             |                  | Percent Lised     |                     | 0            | 0.182    | 0            | 0.182                |
| NAC 30 (IDP-  | 2               | 0.182            | 9%                |                     |              |          |              |                      |
|               |                 | 0.102            | 570               |                     |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
| Quantity      | 1 P2RI          | L-Series Red W   | all-Mountable (   | lear Lens 2-wire    | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount I  | Back Box. Wall. R | ed                  | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   |                     | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                     | -            |          |              |                      |
| NAC 31 (IDP-  | 2               | 0.182            | 9 %               |                     |              |          |              |                      |
|               |                 |                  | •                 |                     |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               | 1 P2RL          | L-Series, Red, W | 'all-Mountable, C | Clear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                  | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   |                     | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                     |              |          |              |                      |
| NAC 32 (IDP-  | 2               | 0.182            | 9 %               |                     |              |          |              |                      |
|               |                 |                  |                   |                     |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               |                 | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire,  | 0            | 0.182    | 0            | 0.182                |
|               | I SBBRL         | Surrace Mount I  | Back Box, Wall, R | ed                  | 0            | 0 183    | 0            | 0 193                |
| Circuit       | 1 @ 110 Candela |                  | Dorcont Llood     |                     | 0            | 0.182    | 0            | 0.182                |
|               |                 | 0.192            |                   |                     |              |          |              |                      |
| INAC 55 (IDP- | 2               | 0.182            | 9 78              |                     |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm |              | Battery Alarm        |
| Quantity      | 1 P2RI          | L-Series Red W   | all-Mountable (   | learlens 2-wire     |              | 0 182    |              | 0 182                |
| L             |                 | Surface Mount I  | Back Box Wall R   | ed                  | 0            | 0.102    | 0            | 0.102                |
|               | 1 @ 110 Candela | Candela Rating   |                   |                     | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                     |              | 0.101    | 0            | 01202                |
| NAC 34 (IDP-  | 2               | 0.182            | 9%                |                     |              |          |              |                      |
|               |                 |                  |                   |                     |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                     | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               | 1 P2RL          | L-Series, Red, W | all-Mountable, C  | Clear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                  | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   |                     | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                     |              |          |              |                      |

| Circuit<br>NAC 38 (I<br>Quan<br>Quan<br>Circuit<br>NAC 39 (I<br>Quan<br>Circuit<br>NAC 40 (I | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182 | all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 % | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed | AC Non-Alarm O O AC Non-Alarm AC Non-Alarm O AC Non-Alarm AC Non-Alarm O O O O O O O O O O O O O O O O O O O                 | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0<br>0.182             |
|--|--|--|---|---|--|--|---|---|--|
| Circuit<br>NAC 38 (I<br>Quan<br>Quan<br>Circuit<br>NAC 39 (I<br>Quan                         | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max                     | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used          | all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9%<br>all-Mountable, C<br>ack Box, Wall, R<br>Percent Used          | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed | AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  O  0  0  0  0  0  0  0  0  0  0  0  0    | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                   | Battery Non-<br>Alarm           0 | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182 |
| Circuit<br>NAC 38 (I<br>Quan<br>Quan<br>Circuit<br>NAC 39 (I                                 | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela                            | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating                  | all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>ack Box, Wall, R                        | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed | AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  O  0  0  0  0  0  0  0  0  0  0  0 0 0 0 | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0         | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0<br>0.182             |
| Circuit<br>NAC 38 (I<br>Quan<br>Circuit<br>NAC 39 (I<br>Quan                                 | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>SBBRL                                    | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E                                    | all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>ack Box, Wall, R                        | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed | AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  O  O  O  O  O  O  O  O  O  O  O  O  O                  | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0.182 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182<br>0<br>0.182<br>0<br>0.182             |
| Circuit<br>NAC 38 (I<br>Quan<br>Circuit<br>NAC 39 (I<br>NAC 39 (I                            | htity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>P2RL  | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W   | all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  O  | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>0.182<br>0<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182                  |
| Circuit<br>NAC 38 (I<br>Quan<br>Circuit<br>NAC 39 (I<br>NAC 39 (I                            | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number  | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description   | all-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm   | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182 0 0 0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182                                |
| Circuit<br>NAC 38 (I<br>Quan<br>Circuit<br>NAC 39 (I   | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2   | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182  | 9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>8<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182   |
| Circuit<br>NAC 38 (I<br>Quan<br>Circuit<br>NAC 39 (I   | 1<br>1<br>1<br>(IDP-<br>htity<br>1<br>1<br>1                           | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2   | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182  | all-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  0  0  0  0  0  0  0 0 0 0 0 0 0 0 0                                  | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0 0.182 0 0 0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182   |
| Quan<br>Circuit<br>NAC 38 (I<br>Quan   | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1                | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max  | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used   | all-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>3ack Box, Wall, R   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  AC Non-Alarm  0  0  0  0  0  0  0 0 0 0 0 0 0 0 0                                  | AC Alarm 0.182 0 0 0.182 AC Alarm 0.182 0 0.182 0 0 0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>attery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182   |
| Quan<br>Circuit<br>NAC 38 (I   | ntity<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1           | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela   | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating   | all-Mountable, C<br>3ack Box, Wall, R<br><b>Percent Used</b><br>9 %<br>all-Mountable, C<br>3ack Box, Wall, R  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm O O AC Non-Alarm AC Non-Alarm O O O O O O O O O O O O O O O O O O O   | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0   |
| Quan<br>Circuit<br>NAC 38 (I   | 1<br>1<br>1<br>(IDP-<br>ntity<br>1                                     | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL  | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F   | all-Mountable, C<br>ack Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>3ack Box, Wall, R  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed                             | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182   |
| Quan<br>Circuit<br>NAC 38 (I   | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1                    | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL   | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red W   | all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire                                    | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182  | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182   |
| Quan<br>Circuit<br>NAC 38 (1   | 1<br>1<br>1<br>(IDP-   | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number   | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182   | 9 %<br><sup>a</sup> ll-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>9 %   | lear Lens, 2-wire,<br>ed   | AC Non-Alarm   | AC Alarm<br>0.182<br>0<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm  | Battery Alarm<br>0.182<br>0<br>0.182   |
| Quan<br>Circuit<br>NAC 38 (I   | itity<br>1<br>1<br>1<br>(IDP-  | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2  | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used<br>0.182   | 'all-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>9 %   | lear Lens, 2-wire,<br>ed   | AC Non-Alarm<br>0<br>0<br>0  | AC Alarm<br>0.182<br>0<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182   |
| Quan   | 1<br>1<br>1  | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max   | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating<br>Used  | all-Mountable, C<br>ack Box, Wall, R  | lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0   | AC Alarm<br>0.182<br>0<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182   |
| Quan   | 1<br>1<br>1  | Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela  | Description<br>L-Series, Red, W<br>Surface Mount E<br>Candela Rating  | all-Mountable, C<br>ack Box, Wall, R  | lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0   | AC Alarm<br>0.182<br>0<br>0.182   | Battery Non-<br>Alarm<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182   |
| Quan   | ntity<br>1<br>1  | Part Number<br>P2RL<br>SBBRL   | Description<br>L-Series, Red, W<br>Surface Mount E  | all-Mountable, C<br>3ack Box, Wall, R   | lear Lens, 2-wire,<br>ed   | AC Non-Alarm<br>0<br>0   | AC Alarm<br>0.182<br>0  | Battery Non-<br>Alarm<br>0<br>0   | Battery Alarm<br>0.182<br>0  |
| Quan   | ntity<br>1   | Part Number<br>P2RL  | Description<br>L-Series, Red, W   | all-Mountable, C  | lear Lens, 2-wire,   | AC Non-Alarm   | AC Alarm<br>0.182   | Battery Non-<br>Alarm<br>0  | Battery Alarm<br>0.182   |
| Quan   | ntity  | Part Number  | Description   | 9 %   | loge Long 2 witz   | AC Non-Alarm   | AC Alarm  | Battery Non-<br>Alarm   | Battery Alarm  |
|  |  | David N.   | 0.102   | 9%  | L  |  |   | Battery Non-  | Detter M   |
| L  |  |  | 0.102   | 9%  |  |  |   |   |  |
| NAC 37 (I  | IDP-   | 2  | 0 182   | 1 0.0/  | 1  |  |   |   |  |
| Circuit  |  | Max  | Used  | Percent Used  |  |  |   |   |  |
|  | 1  | @ 110 Candela  | Candela Rating  |   | 1  | 0  | 0.182   | 0   | 0.182  |
|  | 1  | SBBRL  | Surface Mount E   | 3ack Box, Wall, R   | ed   | 0  | 0   | 0   | 0  |
| Ĺ  | 1  | P2RL   | L-Series, Red, W  | all-Mountable, C  | lear Lens, 2-wire,   | 0  | 0.182   | 0   | 0.182  |
| Quan   | ntity  | Part Number  | Description   |   |  | AC Non-Alarm   | AC Alarm  | Alarm   | Battery Alarm  |
|  |  |  |   |   |  |  |   | Battery Non-  |  |
| NAC 36 (I  | IDP-   | 2  | 0.182   | 9 %   |  | •  |   |   |  |
| Circuit  |  | Max  | Used  | Percent Used  |  |  |   |   |  |
| ¯  | 1  | @ 110 Candela  | Candela Rating  |   |  | 0  | 0.182   | 0   | 0.182  |
|  | 1  | SBBRL  | Surface Mount E   | Back Box, Wall, R   | ed   | 0  | 0   | 0   | 0  |
|  | 1  | P2RL   | L-Series, Red, W  | all-Mountable, C  | lear Lens, 2-wire,   | 0  | 0.182   | 0   | 0.182  |
| Quan   | ntity  | Part Number  | Description   |   |  | AC Non-Alarm   | AC Alarm  | Alarm   | Battery Alarm  |
|  |  |  |   |   |  |  |   | Battery Non-  |  |
| NAC 35 (I  | IDP-   | 2  | 0.182   | 9%  |  |  |   |   |  |
| IDC 36 (4  | 1-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 35 (4  | 1-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 34 (4  | +  | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 32 (4  | +-<br>1-   | 0.04   | 0   | 0 %   |  |  |   |   |  |
| IDC 31 (4  | +-<br>1  | 0.04   | 0   |   |  |  |   |   |  |
| IDC 30 (4  | 1-<br>1  | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 29 (4  | 1-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 28 (4  | 1-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 27 (4  | 1-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 26 (4  | 1-   | 0.04   | 0   | 0 %   |  |  |   |   |  |
| IDC 25 (4  | 1-   | 0.04   | 0   | 0 %   |  |  |   |   |  |
| IDC 24 (4  | 1-   | 0.04   | 0   | 0 %   |  |  |   |   |  |
| IDC 23 (4  | 1-   | 0.04   | 0   | 0 %   |  |  |   |   |  |
| IDC 22 (4  | 1-   | 0.04   | 0   | 0 %   |  |  |   |   |  |
| IDC 21 (4  | 1-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 20 (4  | 1-   | 0.04   | 0   | 0 %   |  |  |   |   |  |
| IDC 19 (4  | +-<br>1-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 17 (4  | +-<br>1_   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 17/4   | +-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 16 (4  | 1-<br>1  | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 15 (4<br>IDC 16 (4   | +-   | 0.04   | 0   | 0%  |  |  |   |   |  |
| IDC 14 (4<br>IDC 15 (4<br>IDC 16 (4  | 1  |  | 0   | 0 /0  |  |  |   |   |  |

| 1  | P2RL   | L-Series, Red, W  | 'all-Mountable, C   | lear Lens, 2-wire,                                     | 0  | 0.182  | 0  | 0.182  |
|--|--|---|---|--|--|--|--|--|
| 1  | SBBRL  | Surface Mount   | Back Box, Wall, R   | ed   | 0  | 0  | 0  | 0  |
| 1  | @ 110 Candela  | Candela Rating  |   |  | 0  | 0.182  | 0  | 0.182  |
| Circuit  | Max  | Used  | Percent Used  |  |  |  |  |  |
| NAC 41 (IDP-   | 2  | 0.182   | 9%  | 1  |  |  |  |  |
|  |  |   |   |  |  |  | Battery Non-   |  |
| Quantity   | Part Number  | Description   |   |  | AC Non-Alarm                                       | AC Alarm   | Alarm  | Battery Alarm  |
| 1  | P2RI   | I-Series, Red. W  | all-Mountable, C  | lear Lens, 2-wire,                                     | 0  | 0.182  | 0  | 0.182  |
|  | SBBRI  | Surface Mount R   | Back Box Wall R   | ed   | 0  | 0  | 0  | 0  |
| 1  | @ 110 Candela  | Candela Rating  | Buck Box, Wall, R   | cu   | 0  | 0 182  | 0  | 0 182  |
| Circuit  | Max  | Lised   | Percent Used  |  | •  | 0.102  | 0  | 0.102  |
|  | 2  | 0.182   | 9%  |  |  |  |  |  |
|  | 2  | 0.102   | 570   |  |  |  | Battery Non-   |  |
| Quantity   | Part Number  | Description   |   |  | AC Non-Alarm                                       | AC Alarm   | Alarm  | Battery Alarm  |
| 1  |  | L-Series Red W  | all-Mountable C   | lear Lens 2-wire                                       |  | 0 182  |  | 0 182  |
|  | SBBRI  | Surface Mount B   | Back Box Wall B   | od   | 0  | 0.182  | 0  | 0.182  |
| 1  | @ 110 Candela  | Candola Pating  | Back DOX, Wall, N   | eu   | 0  | 0 182  | 0  | 0 182  |
|  | Max  |   | Dorcont Llood   |  | 0  | 0.102  | 0  | 0.162  |
|  | IVIdX  | 0.182   |   |  |  |  |  |  |
| INAC 43 (IDP-  | 2  | 0.182   | 9%  |  |  |  | Dettern Nen  |  |
| O  | Davit November   | Description   |   |  |  |  | Battery Non-   | Dettern Alerny   |
| Quantity   | Part Number  | Description   |   |  | AC Non-Alarm                                       | AC Alarm   | Alarm  | Battery Alarm  |
|  | P2KL   | L-Series, Red, W  | all-Mountable, C  | lear Lens, 2-wire,                                     | 0  | 0.182  | 0  | 0.182  |
| 1  | SBBRL  | Surface Mount I   | Back Box, Wall, R   | ed   | 0  | 0  | 0  | 0  |
| 1  | . @ 110 Candela  | Candela Rating  |   | Г  | 0  | 0.182  | 0  | 0.182  |
| Circuit  | Max  | Used  | Percent Used  |  |  |  |  |  |
| NAC 44 (IDP-   | 2  | 0.182   | 9 %   |  |  |  |  |  |
|  |  |   |   |  |  |  | Battery Non-   |  |
| Quantity   | Part Number  | Description   |   |  | AC Non-Alarm                                       | AC Alarm   | Alarm  | Battery Alarm  |
| 1  | . P2RL   | L-Series, Red, W  | 'all-Mountable, C   | lear Lens, 2-wire,                                     | 0  | 0.182  | 0  | 0.182  |
| 1  | . SBBRL  | Surface Mount I   | Back Box, Wall, R   | ed   | 0  | 0  | 0  | 0  |
| 1  | @ 110 Candela  | Candela Rating  |   |  | 0  | 0.182  | 0  | 0.182  |
|  |  |   |   |  |  |  |  |  |
| Circuit  | Max  | Used  | Percent Used  |  |  | •  |  |  |
| Circuit<br>NAC 45 (IDP-  | Max<br>2   | <b>Used</b> 0.182   | Percent Used<br>9 %   |  |  |  |  |  |
| Circuit<br>NAC 45 (IDP-  | Max<br>2   | Used<br>0.182   | Percent Used<br>9 %   |  |  |  | Battery Non-   |  |
| Circuit<br>NAC 45 (IDP-<br>Quantity  | Max<br>2<br>Part Number  | Used<br>0.182<br>Description  | Percent Used<br>9 %   |  | AC Non-Alarm                                       | AC Alarm   | Battery Non-<br>Alarm  | Battery Alarm  |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1   | Max<br>2<br>Part Number<br>P2RL  | Used<br>0.182<br>Description<br>L-Series, Red, W  | Percent Used<br>9 %<br>'all-Mountable, C  | lear Lens, 2-wire,                                     | AC Non-Alarm                                       | <b>AC Alarm</b><br>0.182   | Battery Non-<br>Alarm<br>0   | Battery Alarm<br>0.182   |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F   | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R   | lear Lens, 2-wire,<br>ed                               | AC Non-Alarm                                       | <b>AC Alarm</b><br>0.182<br>0                                      | Battery Non-<br>Alarm<br>0<br>0  | Battery Alarm<br>0.182<br>0  |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating   | Percent Used<br>9 %<br>fall-Mountable, C<br>Back Box, Wall, Re  | lear Lens, 2-wire,<br>ed                               | AC Non-Alarm                                       | AC Alarm<br>0.182<br>0<br>0.182                                    | Battery Non-<br>Alarm<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182   |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used   | Percent Used<br>9 %<br>Call-Mountable, C<br>Back Box, Wall, Ro<br>Percent Used  | ilear Lens, 2-wire,<br>ed                              | AC Non-Alarm 0 0 0 0                               | AC Alarm<br>0.182<br>0<br>0.182                                    | Battery Non-<br>Alarm<br>0<br>0<br>0   | <b>Battery Alarm</b><br>0.182<br>0<br>0.182  |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0.182  | Percent Used<br>9 %<br>Vall-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | ilear Lens, 2-wire,<br>ed                              | AC Non-Alarm<br>0<br>0<br>0                        | AC Alarm<br>0.182<br>0<br>0.182                                    | Battery Non-<br>Alarm<br>0<br>0<br>0   | <b>Battery Alarm</b><br>0.182<br>0<br>0.182  |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0.182  | Percent Used<br>9 %<br>Vall-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | ilear Lens, 2-wire,<br>ed                              | AC Non-Alarm<br>0<br>0                             | AC Alarm<br>0.182<br>0<br>0.182                                    | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>8attery Non-  | <b>Battery Alarm</b><br>0.182<br>0<br>0.182  |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0.182<br>Description   | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed                               | AC Non-Alarm 0 0 0 0 0 0 0                         | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm                        | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm                                  |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount F<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W   | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire.         | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182               | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182                         |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R  | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182               | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182                         |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1   | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount I<br>Candela Rating  | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm 0<br>0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm 0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0          |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used  | Percent Used<br>9 %<br>fall-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>fall-Mountable, C<br>Back Box, Wall, R<br>Percent Used  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm 0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm 0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0<br>0.182 |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>1<br>Circuit  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0   | Percent Used<br>9 %<br>fall-Mountable, C<br>Back Box, Wall, Re<br>Percent Used<br>9 %<br>fall-Mountable, C<br>Back Box, Wall, Re<br>Percent Used<br>0 %   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0<br>0.182      |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>1<br>Circuit<br>1<br>Circuit  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0   | Percent Used<br>9 %<br>Call-Mountable, C<br>Back Box, Wall, Re<br>Percent Used<br>9 %<br>Call-Mountable, C<br>Back Box, Wall, Re<br>Percent Used<br>0 %   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>Battery Non-<br>Alarm<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 38 (4-  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>0.04<br>0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0  | Percent Used<br>9 %<br>Call-Mountable, C<br>Back Box, Wall, Re<br>Percent Used<br>9 %<br>Call-Mountable, C<br>Back Box, Wall, Re<br>Percent Used<br>0 %<br>0 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>UDC 40 (4)  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>0.04<br>0.04<br>0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0                                    | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>8<br>8<br>attery Non-<br>Alarm<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0<br>0.182      |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-  | Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>2<br>Part Number<br>P2RL<br>SBBRL<br>@ 110 Candela<br>Max<br>0.04<br>0.04<br>0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>8<br>8attery Non-<br>Alarm<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>8<br>8<br>attery Non-<br>Alarm<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>Circuit<br>IDC 46 (IDP-<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 40 (4-<br>IDC 42 (4-<br>IDC 42 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBR           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %  | ilear Lens, 2-wire,<br>ed<br>ilear Lens, 2-wire,<br>ed | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>8<br>8<br>attery Non-<br>Alarm<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-<br>IDC 43 (4-<br>IDC 43 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>8<br>8<br>attery Non-<br>Alarm<br>0<br>0<br>0<br>0   | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-<br>IDC 42 (4-<br>IDC 43 (4-<br>IDC 44 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0           92RL           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>Quantity<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-<br>IDC 42 (4-<br>IDC 43 (4-<br>IDC 45 (4-<br>IDC 45 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>'all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-         Alarm         0 | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>Quantity<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-<br>IDC 42 (4-<br>IDC 42 (4-<br>IDC 45 (4-<br>IDC 45 (4-<br>IDC 46 (4-<br>IDC 46 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04   | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount H<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used<br>9 %<br>all-Mountable, C<br>Back Box, Wall, R<br>Percent Used<br>9 %<br>all-Mountable, C<br>3ack Box, Wall, R<br>Percent Used<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %<br>0 %  | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-         Alarm         0 | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0<br>0.182      |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>Quantity<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 41 (4-<br>IDC 42 (4-<br>IDC 43 (4-<br>IDC 43 (4-<br>IDC 45 (4-<br>IDC 45 (4-<br>IDC 47 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           'all-Mountable, C           3ack Box, Wall, R           'all-Mountable, C           3ack Box, Wall, R           'all-Mountable, C           'all-Mountable, C           0 %   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>Quantity<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-<br>IDC 43 (4-<br>IDC 43 (4-<br>IDC 45 (4-<br>IDC 45 (4-<br>IDC 46 (4-<br>IDC 48 (4-<br>IDC 48 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04  | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           'Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           'all-Mountable, C           'all-Mountable, C           Back Box, Wall, R           'all-Mountable, C           'all-Mou   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm         0           0         0         0           0         0         0           Battery Non-<br>Alarm         0         0           0         0         0           0         0         0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 43 (4-<br>IDC 43 (4-<br>IDC 43 (4-<br>IDC 44 (4-<br>IDC 45 (4-<br>IDC 45 (4-<br>IDC 48 (4-<br>IDC 49 (4-   | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04                               | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount R<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           'Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           'all-Mountable, C           'all-Mou   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm         0           0         0         0           0         0         0           Battery Non-<br>Alarm         0         0           0         0         0           0         0         0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>Quantity<br>1<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-<br>IDC 42 (4-<br>IDC 43 (4-<br>IDC 45 (4-<br>IDC 45 (4-<br>IDC 46 (4-<br>IDC 46 (4-<br>IDC 49 (4-<br>IDC 49 (4-<br>IDC 49 (4-<br>IDC 50 (4-                             | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04           0.04                | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           0 %   | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-<br>Alarm           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0  | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |
| Circuit<br>NAC 45 (IDP-<br>Quantity<br>1<br>1<br>1<br>Circuit<br>NAC 46 (IDP-<br>Quantity<br>Quantity<br>1<br>1<br>Circuit<br>IDC 37 (4-<br>IDC 38 (4-<br>IDC 39 (4-<br>IDC 40 (4-<br>IDC 41 (4-<br>IDC 42 (4-<br>IDC 43 (4-<br>IDC 45 (4-<br>IDC 45 (4-<br>IDC 45 (4-<br>IDC 46 (4-<br>IDC 47 (4-<br>IDC 48 (4-<br>IDC 49 (4-<br>IDC 49 (4-<br>IDC 50 (4-<br>IDC 51 (4- | Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           2           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0           Part Number           P2RL           SBBRL           @ 110 Candela           Max           0.04 | Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0.182<br>Description<br>L-Series, Red, W<br>Surface Mount B<br>Candela Rating<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           Percent Used           9 %           'all-Mountable, C           Back Box, Wall, R           'all-Mountable, C           O %           O %           O %           O %           O %           O %           O %           O %           O %           O %           O %           O %           O % </td <td>lear Lens, 2-wire,<br/>ed<br/>lear Lens, 2-wire,<br/>ed</td> <td>AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>AC Alarm<br/>0.182<br/>0<br/>0.182<br/>AC Alarm<br/>0.182<br/>0<br/>0.182</td> <td>Battery Non-         Alarm         0</td> <td>Battery Alarm<br/>0.182<br/>0<br/>0.182<br/>Battery Alarm<br/>0.182<br/>0<br/>0.182</td> | lear Lens, 2-wire,<br>ed<br>lear Lens, 2-wire,<br>ed   | AC Non-Alarm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | AC Alarm<br>0.182<br>0<br>0.182<br>AC Alarm<br>0.182<br>0<br>0.182 | Battery Non-         Alarm         0 | Battery Alarm<br>0.182<br>0<br>0.182<br>Battery Alarm<br>0.182<br>0<br>0.182           |

| IDC 53 (4-   | 0.04 | 0     | 0 % |
|--------------|------|-------|-----|
| IDC 54 (4-   | 0.04 | 0     | 0 % |
| NAC 47 (IDP- | 2    | 0.182 | 9 % |

|               |                        |                  |                   |                    |              |           | Battery Non- |               |
|---------------|------------------------|------------------|-------------------|--------------------|--------------|-----------|--------------|---------------|
| Quantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battery Alarm |
| 1             |                        | L-Sorios Rod W   | All Mountable C   | loar Long 2 wire   |              | 0 182     |              | 0 182         |
|               |                        | L-Series, Reu, W |                   | ad                 | 0            | 0.102     | 0            | 0.182         |
| 1             | SDDRL<br>© 110 Candala | Surface Mount    | DACK DUX, WAII, K | eu                 | 0            | 0 103     | 0            | 0 102         |
|               | @ 110 Candela          |                  | Deveentlied       |                    | 0            | 0.182     | 0            | 0.182         |
|               | iviax                  | O 182            |                   |                    |              |           |              |               |
| NAC 48 (IDP-  | 2                      | 0.182            | 9%                |                    |              |           | Datter New   |               |
|               |                        |                  |                   |                    |              |           | Battery Non- | Della Alexa   |
| Quantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battery Alarm |
|               | PZRL                   | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182     | 0            | 0.182         |
| 1             | SBBRL                  | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0         | 0            | 0             |
| 1             | @ 110 Candela          | Candela Rating   |                   |                    | 0            | 0.182     | 0            | 0.182         |
| Circuit       | Max                    | Used             | Percent Used      |                    |              |           |              |               |
| NAC 49 (IDP-  | 2                      | 0.182            | 9%                |                    |              |           |              |               |
|               |                        |                  |                   |                    |              |           | Battery Non- |               |
| Quantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battery Alarm |
| 1             | P2RL                   | L-Series, Red, W | /all-Mountable, C | lear Lens, 2-wire, | 0            | 0.182     | 0            | 0.182         |
| 1             | SBBRL                  | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0         | 0            | 0             |
| 1             | @ 110 Candela          | Candela Rating   |                   |                    | 0            | 0.182     | 0            | 0.182         |
| Circuit       | Max                    | Used             | Percent Used      |                    |              |           |              |               |
| NAC 50 (IDP-  | 2                      | 0.182            | 9%                |                    |              |           |              |               |
|               |                        |                  |                   |                    |              |           | Battery Non- |               |
| Quantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battery Alarm |
|               | PZRL                   | L-Series, Red, W | all-Mountable, C  | iear Lens, 2-wire, | 0            | 0.182     | 0            | 0.182         |
| 1             | SBBRL                  | Surrace Mount I  | Back Box, Wall, R | ed                 | 0            | 0 103     | 0            | 0 102         |
|               | @ 110 Candela          | Candela Rating   | <b>B</b>          |                    | 0            | 0.182     | 0            | 0.182         |
|               | iviax                  | 0.182            | Percent Used      |                    |              |           |              |               |
| NAC 51 (IDP-  | 2                      | 0.182            | 9%                |                    |              |           | Patton/Non   |               |
| Quantity      | Dort Number            | Description      |                   |                    | AC Non Alarm |           | Alarm        | Pottory Alarm |
| Quantity      |                        | L Sorios Rod W   | all Mauntabla C   | loar Long 2 wire   |              | AC AIdTII | Aldini       | 0 192         |
|               |                        | L-Series, Reu, W |                   | ad                 | 0            | 0.102     | 0            | 0.182         |
| 1             | SDDRL<br>@ 110 Candala | Candola Rating   | DACK DUX, WAII, K | eu                 | 0            | 0 193     | 0            | 0 192         |
|               |                        |                  | Deveentlied       |                    | 0            | 0.162     | 0            | 0.182         |
|               |                        | 0.192            |                   |                    |              |           |              |               |
| INAC 32 (IDF= | <u> </u>               | 0.102            | 570               |                    |              |           | Battery Non- |               |
| Quantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battory Alarm |
| 1             |                        | L-Series Red W   | /all-Mountable C  | lear Lens 2-wire   |              | 0 182     |              | 0 182         |
|               | SBBBI                  | Surface Mount I  |                   | od                 | 0            | 0.182     | 0            | 0.182         |
| 1             | @ 110 Candela          | Candela Rating   |                   | eu                 | 0            | 0 182     | 0            | 0 182         |
|               | Max                    |                  | Percent Used      |                    | 0            | 0.182     | 0            | 0.182         |
|               | 2                      | 0.182            | 9 %               |                    |              |           |              |               |
|               |                        | 0.102            | 570               |                    |              |           | Battery Non- |               |
| Quantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battery Alarm |
| 1             | P2RI                   | L-Series Red W   | /all-Mountable_C  | lear Lens 2-wire   | 0            | 0 182     | 0            | 0 182         |
|               | SBBRI                  | Surface Mount I  | Back Box Wall B   | ed                 | 0            | 0.102     | 0            | 0.102         |
| 1             | @ 110 Candela          | Candela Rating   | Back Box, Wall, I | cu                 | 0            | 0 182     | 0            | 0 182         |
|               | Max                    | Lised            | Percent Lised     |                    | 0            | 0.102     | 0            | 0.102         |
| NAC 54 (IDP-  | 2                      | 0.182            | 9%                |                    |              |           |              |               |
|               | _                      |                  |                   |                    |              |           | Battery Non- |               |
| Ouantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battery Alarm |
| 1             | P2RL                   | L-Series. Red. W | /all-Mountable. C | lear Lens, 2-wire. | 0            | 0.182     | 0            | 0.182         |
| 1             | SBBRL                  | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0         | 0            | 0             |
| 1             | @ 110 Candela          | Candela Rating   | ,                 |                    | 0            | 0.182     | 0            | 0.182         |
| Circuit       | Max                    | Used             | Percent Used      |                    |              |           |              |               |
| NAC 55 (IDP-  | 2                      | 0.182            | 9%                |                    |              |           |              |               |
|               |                        |                  |                   |                    |              |           | Battery Non- |               |
| Quantity      | Part Number            | Description      |                   |                    | AC Non-Alarm | AC Alarm  | Alarm        | Battery Alarm |
| 1             | P2RL                   | L-Series, Red, W | /all-Mountable, C | lear Lens, 2-wire, | 0            | 0.182     | 0            | 0.182         |
|               |                        |                  |                   |                    |              |           |              |               |

|         | 1       | SBBRL         | Surface Mount B  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|---------|---------|---------------|------------------|-------------------|--------------------|--------------|----------|--------------|----------------------|
|         | 1       | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit | t       | Max           | Used             | Percent Used      |                    |              |          |              |                      |
| NAC 5   | 6 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |                      |
|         |         |               |                  |                   |                    |              |          | Battery Non- |                      |
| Qu      | antity  | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|         | 1       | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|         | 1       | SBBRL         | Surface Mount E  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|         | 1       | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit | t       | Max           | Used             | Percent Used      |                    |              |          |              |                      |
| NAC 5   | 7 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |                      |
|         |         |               |                  | I                 |                    |              |          | Battery Non- |                      |
| Qu      | antity  | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|         | 1       | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|         | 1       | SBBRL         | Surface Mount E  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|         | 1       | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit | t       | Max           | Used             | Percent Used      |                    |              |          |              |                      |
| NAC 5   | 8 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |                      |
| _       |         |               |                  |                   |                    |              |          | Battery Non- |                      |
| Qu      | antity  | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | <b>Battery Alarm</b> |
|         | 1       | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|         | 1       | SBBRL         | Surface Mount    | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|         | 1       | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit | t       | Max           | Used             | Percent Used      |                    |              |          |              |                      |
| IDC 55  | 5 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 56  | 5 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 57  | ' (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 58  | 3 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 59  | ) (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 60  | ) (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 61  | . (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 62  | 2 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 63  | 8 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 64  | l (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 65  | 5 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 66  | 5 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 67  | ' (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 68  | 3 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 69  | ) (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 70  | ) (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 71  | . (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| IDC 72  | 2 (4-   | 0.04          | 0                | 0 %               |                    |              |          |              |                      |
| NAC 5   | 9 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |                      |
|         |         |               |                  |                   |                    |              |          | Battery Non- |                      |
| Qu      | antity  | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|         | 1       | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|         | 1       | SBBRL         | Surface Mount E  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|         | 1       | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit | t       | Max           | Used             | Percent Used      |                    |              |          |              |                      |
| NAC 6   | 0 (IDP- | 2             | 0.182            | 9 %               |                    | . <u>.</u>   |          |              |                      |
|         |         |               |                  |                   |                    |              |          | Battery Non- |                      |
| Qu      | antity  | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|         | 1       | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|         | 1       | SBBRL         | Surface Mount    | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|         | 1       | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit | t       | Max           | Used             | Percent Used      |                    |              |          |              |                      |
| NAC 6   | 1 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |                      |
|         |         |               |                  |                   |                    |              |          | Battery Non- |                      |
| Qu      | antity  | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|         | 1       | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|         | 1       | SBBRL         | Surface Mount E  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|         | 1       | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |

| Circuit       | Max             | Used             | Percent Used      |                    |              |          |              |                      |
|---------------|-----------------|------------------|-------------------|--------------------|--------------|----------|--------------|----------------------|
| NAC 62 (IDP-  | 2               | 0.182            | 9 %               |                    |              |          |              |                      |
|               |                 |                  |                   |                    |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | <b>Battery Alarm</b> |
|               | 1 P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount    | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                    |              |          |              |                      |
| NAC 63 (IDP-  | 2               | 0.182            | 9 %               |                    |              |          |              |                      |
|               |                 |                  |                   |                    |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               | 1 P2RL          | L-Series, Red, W | 'all-Mountable, C | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount    | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   | 1                  | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                    |              |          |              |                      |
| NAC 64 (IDP-  | 2               | 0.182            | 9 %               |                    |              |          |              |                      |
|               |                 |                  |                   |                    |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               | 1 P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount    | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   |                   | Γ                  | 0            | 0.182    | 0            | 0.182                |
|               | Max             | Used             | Percent Used      |                    |              |          |              |                      |
| INAC 65 (IDP- | 2               | 0.182            | 9%                |                    |              |          | Dattern New  |                      |
| Quantitu      | Dout Number     | Description      |                   |                    |              |          | Battery Non- | Dettern Alerna       |
| Quantity      |                 | Description      | all Mauntable (   | lear Long 2 wire   | AC NON-Alarm | AC Alarm | Alarm        | Dattery Alarm        |
|               |                 | L-Series, Red, W |                   | ad                 | 0            | 0.182    | 0            | 0.182                |
|               | 1 @ 110 Candola | Candola Pating   | BACK BOX, Wall, K | ed                 | 0            | 0 192    | 0            | 0 192                |
| Circuit       | Max             |                  | Porcont Used      |                    | 0            | 0.182    | 0            | 0.162                |
|               | IVIAX           | 0.192            |                   |                    |              |          |              |                      |
|               | 2               | 0.182            | 570               |                    |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
| Quantity      |                 | L-Series Red W   | all-Mountable (   | lear Lens 2-wire   | 0            | 0 182    | 0            | 0 182                |
|               | 1 SBBRI         | Surface Mount    | Back Box Wall B   | ed                 | 0            | 0.102    | 0            | 0.102                |
|               | 1 @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                    | -            | 0.202    |              | 0.101                |
| IDC 73 (4-    | 0.04            | 0                | 0%                |                    |              |          |              |                      |
| IDC 74 (4-    | 0.04            | 0                | 0%                |                    |              |          |              |                      |
| IDC 75 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 76 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 77 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 78 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 79 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 80 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 81 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 82 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 83 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| IDC 84 (4-    | 0.04            | 0                | 0 %               |                    |              |          |              |                      |
| NAC 67 (IDP-  | 2               | 0.182            | 9 %               |                    |              |          |              |                      |
|               |                 |                  |                   |                    |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               | 1 P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               | 1 SBBRL         | Surface Mount    | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0                    |
|               | 1 @ 110 Candela | Candela Rating   | -                 | r                  | 0            | 0.182    | 0            | 0.182                |
| Circuit       | Max             | Used             | Percent Used      |                    |              |          |              |                      |
| INAC 68 (IDP- | 2               | 0.182            | 9 %               |                    |              |          |              |                      |
|               |                 |                  |                   |                    |              |          | Battery Non- |                      |
| Quantity      | Part Number     | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm        |
|               |                 | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182                |
|               |                 | Surrace Mount    | заск вох, Wall, R | ea                 | 0            | 0        | 0            | 0                    |
| Cincust       | e 110 Candela   | Candela Rating   | Democratility     |                    | 0            | 0.182    | 0            | 0.182                |
| Circuit       | iviax           | Used             | Percent Used      | ]                  |              |          |              |                      |

| NAC 69 (IDP-  | 2             | 0.182            | 9 %                |                    |              |          |              |               |
|---------------|---------------|------------------|--------------------|--------------------|--------------|----------|--------------|---------------|
|               |               |                  |                    |                    |              |          | Battery Non- |               |
| Quantity      | Part Number   | Description      |                    |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| 1             | P2RL          | L-Series, Red, W | all-Mountable, C   | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| 1             | SBBRL         | Surface Mount I  | Back Box, Wall, R  | ed                 | 0            | 0        | 0            | 0             |
| 1             | @ 110 Candela | Candela Rating   |                    |                    | 0            | 0.182    | 0            | 0.182         |
| Circuit       | Max           | Used             | Percent Used       |                    | I            |          |              |               |
| NAC 70 (IDP-  | 2             | 0.182            | 9%                 |                    |              |          |              |               |
|               |               |                  | - /-               |                    |              |          | Battery Non- |               |
| Quantity      | Part Number   | Description      |                    |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| 1             | P2RI          | L-Series, Red, W | all-Mountable, C   | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|               | SBBRI         | Surface Mount F  | Back Box, Wall, R  | ed                 | 0            | 0        | 0            | 0             |
| 1             | @ 110 Candela | Candela Rating   |                    |                    | 0            | 0.182    | 0            | 0.182         |
| Circuit       | Max           | Used             | Percent Used       |                    | -            |          | -            |               |
| NAC 71 (IDP-  | 2             | 0.182            | 9%                 |                    |              |          |              |               |
|               | _             | 0.101            | 570                |                    |              |          | Battery Non- |               |
| Quantity      | Part Number   | Description      |                    |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| 1             | P2RI          | L-Series Red W   | all-Mountable C    | lear Lens 2-wire   | 0            | 0 182    | 0            | 0 182         |
|               | SBBRI         | Surface Mount R  | Back Box Wall B    | ed                 | 0            | 0.102    | 0            | 0.102         |
| 1             | @ 110 Candela | Candela Rating   |                    | cu                 | 0            | 0 182    | 0            | 0 182         |
| Circuit       | Max           | Lised            | Percent Used       |                    | 0            | 0.102    |              | 0.102         |
|               | 2             | 0.182            | 9%                 |                    |              |          |              |               |
|               | 2             | 0.102            | 570                |                    |              |          | Battery Non- |               |
| Quantity      | Part Number   | Description      |                    |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
|               |               | L-Series Red W   | all-Mountable C    | lear Lens 2-wire   |              | 0 182    |              | 0 182         |
|               |               | L-Series, Reu, W |                    | od                 | 0            | 0.182    | 0            | 0.182         |
| 1             | @ 110 Candela | Candola Pating   | Sack DOX, Wall, N  | eu                 | 0            | 0 182    | 0            | 0 182         |
|               | Max           |                  | Percent Lised      |                    | 0            | 0.182    | 0            | 0.182         |
|               | 1010          | 0.192            |                    |                    |              |          |              |               |
|               | 2             | 0.182            | 5 76               |                    |              |          | Battony Non- |               |
| Quantity      | Part Number   | Description      |                    |                    | AC Non Alarm |          |              | Battony Alarm |
|               |               | L-Series Red W   | all-Mountable C    | lear Lens 2-wire   |              | 0.182    |              | 0 182         |
|               |               | L-Series, Reu, W | an-iviountable, C  | ad                 | 0            | 0.102    | 0            | 0.102         |
|               | @ 110 Candola | Candola Dating   | back bux, wall, k  | eu                 | 0            | 0 192    | 0            | 0 192         |
| Circuit       | Max           |                  | Porcont Used       |                    | 0            | 0.182    | 0            | 0.182         |
|               | IVIAX         | 0.192            |                    |                    |              |          |              |               |
|               | 2             | 0.182            | 5 70               |                    |              |          | Patton Non   |               |
| Quantity      | Part Number   | Description      |                    |                    | AC Non Alarm |          |              | Battony Alarm |
| Quantity      |               | L Sorios Rod W   | all Mountable C    | loar Long 2 wire   |              | 0 192    | Aldini       | 0 192         |
|               |               | L-Series, Reu, W | all-iviountable, C | ad                 | 0            | 0.102    | 0            | 0.102         |
|               | @ 110 Candola | Candola Dating   | back bux, wall, k  | eu                 | 0            | 0 192    | 0            | 0 192         |
| Circuit       | Max           |                  | Porcont Used       |                    | 0            | 0.182    | 0            | 0.182         |
|               |               | Oseu             |                    |                    |              |          |              |               |
|               | 0.04          | 0                | 0 %                |                    |              |          |              |               |
|               | 0.04          | 0                | 0 %                |                    |              |          |              |               |
|               | 0.04          | 0                | 0 %                |                    |              |          |              |               |
|               | 0.04          | 0                | 0 %                |                    |              |          |              |               |
|               | 0.04          | 0                | 0 %                |                    |              |          |              |               |
| IDC 90 (4-    | 0.04          | 0                | 0%                 |                    |              |          |              |               |
| IDC 91 (4-    | 0.04          | 0                | 0%                 |                    |              |          |              |               |
| IDC 92 (4-    | 0.04          | 0                | 0%                 |                    |              |          |              |               |
| IDC 93 (4-    | 0.04          | 0                | 0%                 |                    |              |          |              |               |
| IDC 94 (4-    | 0.04          | 0                | 0%                 |                    |              |          |              |               |
| IDC 95 (4-    | 0.04          | 0                | 0%                 |                    |              |          |              |               |
| 1DC 96 (4-    | 0.04          | 0                | 0%                 |                    |              |          |              |               |
| INAC 75 (IDP- | 2             | 0.182            | 9%                 |                    |              |          | Dettern N.   |               |
| •             | Dout N.       | Darase it        |                    |                    |              |          | Battery Non- | Datta di      |
| Quantity      | Part Number   | Description      |                    |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
|               | P2KL          | L-Series, Red, W | all-Mountable, C   | iear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|               | SBRKL         | Surface Mount I  | Back Box, Wall, R  | ed                 | 0            | 0        | 0            | 0             |
|               | @ 110 Candela | Candela Rating   |                    |                    | 0            | 0.182    | 0            | 0.182         |
| Circuit       | Max           | Used             | Percent Used       |                    |              |          |              |               |
| NAC 76 (IDP-  | 2             | 0.182            | 9%                 |                    |              |          |              |               |

| 1          |            |               |                  |                   |                    |              |          | Battery Non- |               |
|------------|------------|---------------|------------------|-------------------|--------------------|--------------|----------|--------------|---------------|
|            | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| - E        | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| L          | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|            | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ       | uit        | Max           | Used             | Percent Used      |                    |              |          | -            |               |
| NAC        | 77 (IDP-   | 2             | 0.182            | 9%                |                    |              |          |              |               |
|            |            | _             | 0.101            | 5,70              |                    |              |          | Battery Non- |               |
|            | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| - F        | 1          | P2RI          | L-Series Red W   | all-Mountable C   | lear Lens 2-wire   | 0            | 0 182    | 0            | 0 182         |
| L          | 1          | SBBRI         | Surface Mount R  | Back Box Wall R   | ed                 | 0            | 0.102    | 0            | 0.102         |
|            | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0 182    | 0            | 0 182         |
| Circ       |            | Max           | Lised            | Percent Lised     |                    | 0            | 0.102    | 0            | 0.102         |
| ΝΔΟ        | 78 (IDP-   | 2             | 0.182            | 9%                |                    |              |          |              |               |
|            |            |               | 0.102            | 370               |                    |              |          | Battery Non- |               |
|            | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| - F        | 1          | P2RI          | L-Series Red W   | all-Mountable C   | lear Lens 2-wire   | 0            | 0 182    | 0            | 0 182         |
| L          | 1          | SBBRI         | Surface Mount R  | Back Box Wall B   | ed                 | 0            | 0.102    | 0            | 0.102         |
|            | 1          | @ 110 Candola | Candola Pating   | Back BOX, Wall, N | eu                 | 0            | 0 192    | 0            | 0 192         |
| Circ       |            | Max           |                  | Percent Used      |                    | 0            | 0.182    | 0            | 0.182         |
|            |            | IVIAX         | 0.192            |                   |                    |              |          |              |               |
|            | , 79 (IDP- | 2             | 0.182            | 9 %               |                    |              |          | Dettern Nen  |               |
|            | Oursetitur | Dout Number   | Description      |                   |                    |              |          | Battery Non- |               |
| - P        | Quantity   | Part Number   | Description      |                   | 1                  | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| L          | 1          | PZRL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|            |            | SBBRL         | Surrace Mount i  | Back Box, Wall, R | ea                 | 0            | 0        | 0            | 0             |
| <b>a</b> : | 1          | @ 110 Candela | Candela Rating   | <b>D</b>          |                    | 0            | 0.182    | 0            | 0.182         |
| Circ       |            | Max           | Used             | Percent Used      |                    |              |          |              |               |
|            | 2 80 (IDP- | 2             | 0.182            | 9%                |                    |              |          |              |               |
|            | <b>.</b>   |               |                  |                   |                    |              |          | Battery Non- |               |
| -          | Quantity   | Part Number   | Description      |                   | 4 . o .            | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| L          | 1          | PZRL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|            | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|            | 1          | @ 110 Candela | Candela Rating   | -                 |                    | 0            | 0.182    | 0            | 0.182         |
| Circ       |            | Max           | Used             | Percent Used      |                    |              |          |              |               |
| NAC        | . 81 (IDP- | 2             | 0.182            | 9%                |                    |              |          |              |               |
| - 1        |            | <b>.</b>      |                  |                   |                    |              |          | Battery Non- |               |
| -          | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| L          | 1          | PZRL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|            | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|            | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ       | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| INAC       | C 82 (IDP- | 2             | 0.182            | 9 %               |                    |              |          | _            |               |
|            |            |               |                  |                   |                    |              |          | Battery Non- |               |
| 4          | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| L          | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|            | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|            | 1          | @ 110 Candela | Candela Rating   | -                 |                    | 0            | 0.182    | 0            | 0.182         |
| Circ       | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| IDC        | 97 (4-     | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 98 (4-     | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 99 (4-     | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 100 (4-    | 0.04          | 0                | 0%                |                    |              |          |              |               |
| IDC        | 101 (4-    | 0.04          | 0                | 0%                |                    |              |          |              |               |
| IDC        | 102 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 103 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 104 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 105 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 106 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 107 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC        | 108 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| NAC        | C 83 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |

|      |            |               |                  |                   |                    |              |          | Battery Non- |               |
|------|------------|---------------|------------------|-------------------|--------------------|--------------|----------|--------------|---------------|
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| ſ    | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|      | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    | · · ·        |          |              |               |
| NA   | C 84 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |
|      |            |               |                  |                   |                    |              |          | Battery Non- |               |
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| Ī    | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| -    | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| NA   | C 85 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |
|      |            |               |                  | •                 | •                  |              |          | Battery Non- |               |
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| Ī    | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| -    | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| NA   | C 86 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |
| Т    |            |               |                  |                   | ·                  |              |          | Battery Non- |               |
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| Ī    | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| -    | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| NA   | C 87 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |
|      |            |               |                  |                   |                    |              |          | Battery Non- |               |
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| Ī    | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| -    | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| NA   | C 88 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |
| Т    |            |               |                  |                   |                    |              |          | Battery Non- |               |
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
|      | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
|      | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| NA   | C 89 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |
|      |            |               |                  |                   |                    |              |          | Battery Non- |               |
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
| [    | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| -    | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| NA   | C 90 (IDP- | 2             | 0.182            | 9 %               |                    |              |          |              |               |
|      |            |               |                  |                   |                    |              |          | Battery Non- |               |
|      | Quantity   | Part Number   | Description      |                   |                    | AC Non-Alarm | AC Alarm | Alarm        | Battery Alarm |
|      | 1          | P2RL          | L-Series, Red, W | all-Mountable, C  | lear Lens, 2-wire, | 0            | 0.182    | 0            | 0.182         |
| _    | 1          | SBBRL         | Surface Mount I  | Back Box, Wall, R | ed                 | 0            | 0        | 0            | 0             |
|      | 1          | @ 110 Candela | Candela Rating   |                   |                    | 0            | 0.182    | 0            | 0.182         |
| Circ | uit        | Max           | Used             | Percent Used      |                    |              |          |              |               |
| IDC  | 109 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC  | 110 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC  | 111 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC  | 112 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC  | 113 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
| IDC  | 114 (4-    | 0.04          | 0                | 0 %               |                    |              |          |              |               |
|      |            | 0.04          | 0                | 0%                | 1                  |              |          |              |               |

| IDC 116 (4-  | 0.04   | 0  | 0 %  |
|--|--|--|--|
| IDC 117 (4-  | 0.04   | 0  | 0 %  |
| IDC 118 (4-  | 0.04   | 0  | 0 %  |
| IDC 119 (4-  | 0.04   | 0  | 0 %  |
| IDC 120 (4-  | 0.04   | 0  | 0 %  |
| Power Source   | Max  | Used   | Percent Used   |
| 5495   | 6  | 1.381  | 23 %   |
| Circuit  | Max  | Used   | Percent Used   |
| Constant-  | 3  | 0.602  | 20 %   |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0.574  | 19 %   |
| Power Source   | Max  | Used   | Percent Used   |
| 5495   | 6  | 0.618  | 10 %   |
| Circuit  | Max  | Used   | Percent Used   |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0.413  | 14 %   |
| Constant-  | 3  | 0  | 0 %  |
| Power Source   | Max  | Used   | Percent Used   |
| 5495   | 6  | 0.8  | 13 %   |
| Circuit  | Max  | Used   | Percent Used   |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0  | 0 %  |
| Constant-  | 3  | 0.574  | 19 %   |
| Constant-  | 3  | 0.021  | 1 %  |
| Constant-  | 3  | 0  | 0 %  |
| Power Source   | Max  | Used   | Percent Used   |
| 5495   | 6  | 0.866  | 14 %   |
|  |  | 1 Land   | Deveentlieed   |
| Circuit  | Iviax  | Used   | Percent Used   |
| Circuit<br>Constant-   | 3  | Used<br>0  | 0 %  |
| Circuit<br>Constant-<br>Constant-  | 3<br>3   | 0<br>0.64  | 0 %<br>21 %  |
| Circuit<br>Constant-<br>Constant-<br>Constant-   | Max           3           3           3           3  | 0<br>0.64<br>0.021   | O %           21 %           1 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | Max           3           3           3           3           3           3  | 0<br>0.64<br>0.021<br>0  | O %           21 %           1 %           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | Wax           3           3           3           3           3           3           3           3           3           3  | 0<br>0.64<br>0.021<br>0<br>0   | O %           21 %           1 %           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source   | Max           3           3           3           3           3           3           3           Max  | 0<br>0.64<br>0.021<br>0<br>0<br>Used   | O %           21 %           1 %           0 %           Percent Used  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495   | Wax           3           3           3           3           3           3           3           Max           6  | 0<br>0.64<br>0.021<br>0<br>0<br>Used<br>1.367  | O %           21 %           1 %           0 %           9 % |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit  | Max           3           3           3           3           3           3           6           Max  | 0<br>0.64<br>0.021<br>0<br>0<br>Used<br>1.367<br>Used  | Percent Used           0 %           21 %           1 %           0 %           0 %           Q %           Q %           Percent Used           23 %           Percent Used   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-   | Max           3           3           3           3           3           3           6           Max           3  | 0<br>0.64<br>0.021<br>0<br>0<br>Used<br>1.367<br>Used<br>0.574   | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-   | Max       3       3       3       3       3       3       6       Max       3       3  | 0<br>0.64<br>0.021<br>0<br>0<br>Used<br>1.367<br>Used<br>0.574<br>0.014  | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | Max       3       3       3       3       3       3       6       Max       3       3       3  | 0<br>0.64<br>0.021<br>0<br>0<br>Used<br>1.367<br>Used<br>0.574<br>0.014<br>0   | Percent Used           0 %           21 %           1 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %           0 %  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | Max       3       3       3       3       3       3       Max       6       Max       3       3       3       3       3       3       3       3       3       3       3       3       3       3       3       3  | 0<br>0.64<br>0.021<br>0<br>0<br>Used<br>1.367<br>Used<br>0.574<br>0.014<br>0<br>0<br>0   | Percent Used           0 %           21 %           1 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %           0 %           0 %  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | Max       3       3       3       3       3       3       6       Max       6       3  | 0<br>0.64<br>0.021<br>0<br>0<br><b>Used</b><br>1.367<br><b>Used</b><br>0.574<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0.574  | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %           0 %           0 %           19 %           0 %           19 %  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5↓95<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source  | Max       3       3       3       3       3       3       6       Max       6       3  | 0sed<br>0<br>0.64<br>0.021<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>0<br>0,574<br>Used   | Percent Used           0 %           21 %           1 %           0 %           23 %           Percent Used           19 %           0 %           19 %           0 %           19 %           0 %           Percent Used  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495  | Max         3         3         3         3         3         Max         6         Max         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         4         5         6  | 0sed<br>0<br>0.64<br>0.021<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Percent Used           0 %           21 %           1 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %           19 %           0 %           13 %  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant | Max       3       3       3       3       3       Max       6       Max       3       3       3       3       3       3       3       3       6       Max       6       Max       6       Max  | 0sed<br>0<br>0.64<br>0.021<br>0<br>0<br>0<br>0<br>0<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>0<br>0.574<br>0.574<br>0.574<br>0.574<br>0.574<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %           19 %           0 %           13 %           Percent Used   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant | Max       3       3       3       3       3       Max       6       Max       3       3       3       3       3       3       3       3       3       3       3       3       3       Max       6       Max       3       3  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0.574           0.014           0           0.574           0.807           Used           0.807           Used           0.014  | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %           0 %           19 %           0 %           13 %           Percent Used           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | Max       3       3       3       3       3       Max       6       Max       3  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0.574           0.014           0           0.574           Used           0.574           0           0           0.574           Used           0.807           Used           0.014           0   | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %  |
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| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>C  | Max         3         3         3         3         3         6         Max         3       <  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0.021           0           0           0           0.574           0.014           0           0.574           Used           0.807           Used           0.014           0           0.14           0           0.574   | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %  |
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| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Const  | Max         3         3         3         3         3         6         Max         3  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0.574           0.014           0           0.574           Used           0.574           0           0           0.574           Used           0.807           Used           0.014           0           0.574   | Percent Used           0%           21%           1%           0%           0%           0%           Percent Used           23%           Percent Used           19%           0        |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Co   | Max         3         3         3         3         3         3         Max         6         Max         3         6         6     <  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0.574           0.574           0           0           0           0.574           0.807           Used           0.807           Used           0.014           0           0.574           Used           0.014           0           0.574   | Percent Used           0 %           21 %           1 %           0 %           0 %           Percent Used           23 %           Percent Used           19 %           0 %           13 %           Percent Used           13 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>C  | Max         3         3         3         3         3         3         Max         6         Max         3         4         5         Max <t< td=""><td>Used           0           0.64           0.021           0           0           0           0           0           0           0.574           0.014           0           0.574           0.014           0           0.574           0.574           0.014           0           0.574           0.574           0.574           0.574           0.014           0           0.574           0.014           0           0.793           Used</td><td>Percent Used           0%           21%           1%           0%           0%           0%           0%           0%           0%           0%           0%           0%           19%           0%           Percent Used           13%           Percent Used</td></t<> | Used           0           0.64           0.021           0           0           0           0           0           0           0.574           0.014           0           0.574           0.014           0           0.574           0.574           0.014           0           0.574           0.574           0.574           0.574           0.014           0           0.574           0.014           0           0.793           Used   | Percent Used           0%           21%           1%           0%           0%           0%           0%           0%           0%           0%           0%           0%           19%           0%           Percent Used           13%           Percent Used  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>C  | Max         3         3         3         3         3         3         3         6         Max         3       <  | Used           0           0.64           0.021           0           0           0           0           0           0           0.574           0.014           0           0.574           0.574           0.014           0           0.574           0.574           0.574           0.574           0.574           0.574           0.014           0           0.574           0.014           0           0.574           0.014           Used           0.793           Used           0  | Percent Used           0%           21%           1%           0%           0%           Percent Used           19%           0%           19%           0%           0%           Percent Used           19%           0%           0%           0%           0%           0%           19%           Percent Used           13%           Percent Used           0%           0%           13%           Percent Used           13%           Percent Used           13%           Percent Used           13%           Percent Used           0%  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>C  | Max         3         3         3         3         3         3         3         Max         6         Max         3  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0           0.574           0.014           0           0.574           Used           0.574           Used           0.014           0           0.014           0           0.574           Used           0.014           0           0.574           0.014           0           0.793           0.793           0           0           0   | Percent Used           0%           21%           1%           0%           0%           0%           Percent Used           19%           0%           0%           Percent Used           19%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           13%           Percent Used           13%           Percent Used           13%           Percent Used           0%           0%           0%           0%           0%   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>C  | Max         3         3         3         3         3         3         3         Max         6         Max         3  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0           0.574           0.014           0           0.574           Used           0.807           Used           0.014           0           0           0.574           Used           0.014           0           0           0.574           0.014           0           0.793           Used           0           0           0           0           0.793           Used           0           0           0           0           0           0           0           0           0           0           0           0           0 | Percent Used           0%           21%           1%           0%           0%           0%           0%           0%           0%           Percent Used           19%           0%           0%           0%           0%           0%           0%           0%           0%           0%           13%           Percent Used           0%           0        |
| Circuit Constant- Constan  | Max         3         3         3         3         3         3         3         Max         6         Max         3  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0           0.021           0           0           0.014           0           0.574           Used           0.807           Used           0.014           0           0           0.574           Used           0.014           0           0.574           0.014           Used           0.793           Used           0           0           0           0           0           0.574   | Percent Used           0%           21%           1%           0%           0%           0%           0%           0%           0%           0%           0%           19%           0%                            |
| Circuit Constant- Constan  | Max         3         3         3         3         3         3         Max         6         Max         3  | Used           0           0.64           0.021           0           0           0           0           0           0           0           0           0           0.021           0           0           0.014           0           0.574           Used           0.807           Used           0.014           0           0           0.574           0.014           0           0.574           0.014           0           0.793           Used           0           0           0           0           0           0           0           0           0           0           0   | Percent Used           0%           21%           1%           0%           0%           0%           0%           0%           0%           0%           0%           19%           0%                            |

| 5495  | 6  | 0.793  | 13 %  |
|---|--|--|---|
| Circuit   | Max  | Used   | Percent Used  |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0.574  | 19 %  |
| Constant-   | 3  | 0.014  | 0 %   |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0  | 0 %   |
| Power Source  | Max  | Used   | Percent Used  |
| 5495  | 6  | 1.367  | 23 %  |
| Circuit   | Max  | Used   | Percent Used  |
| Constant-   | 3  | 0.574  | 19 %  |
| Constant-   | 3  | 0.014  | 0 %   |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0.574  | 19 %  |
| Power Source  | Max  | Used   | Percent Used  |
| 5495  | 6  | 0.807  | 13 %  |
| Circuit   | Max  | Used   | Percent Used  |
| Constant-   | 3  | 0.014  | 0 %   |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0.574  | 19 %  |
| Constant-   | 3  | 0.014  | 0 %   |
| Power Source  | Max  | Used   | Percent Used  |
| 5495  | 6  | 0.793  | 13 %  |
| Circuit   | Max  | Used   | Percent Used  |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0  | 0 %   |
| Constant-   | 3  | 0 574  | 19 %  |
| Constant-   | 3  | 0.014  | 0%  |
| Constant-   | 3  | 0  | 0 %   |
|   | Max  | Lised  | Percent Lised   |
| Power Source  | IVIAX  | Uaeu   |   |
| 5495  | 6  | 0.793  | 13 %  |
| 5495<br>Circuit   | 6<br>Max   | 0.793<br>Used  | 13 %<br>Percent Used  |
| 5495<br>Circuit<br>Constant-  | 6<br>Max<br>3  | 0.793<br>Used<br>0   | 13 %       Percent Used       0 %   |
| 5495<br>Circuit<br>Constant-<br>Constant-   | 6<br>Max<br>3<br>3   | 0.793<br>Used<br>0<br>0.574  | 13 %           Percent Used           0 %           19 %  |
| 5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-  | 6<br>Max<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014   | 13 %           Percent Used           0 %           19 %           0 %  |
| 5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | 6<br>Max<br>3<br>3<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0  | 13 %           Percent Used           0 %           19 %           0 %           0 %  |
| 5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0   | 13 %           Percent Used           0 %           19 %           0 %           0 %           0 %  |
| S495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source   | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used   | 13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           0 %           0 %           Percent Used   |
| S495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495   | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>5<br>6   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>Used<br>1.192   | 13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %  |
| S495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit  | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>5<br>6<br>Max  | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>Used<br>1.192<br>Used   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used  |
| Fower Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-   | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>Max<br>6<br>Max<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399  | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %   |
| Fower Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>Max<br>6<br>Max<br>3<br>3<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014  | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           Percent Used           13 %           0 %   |
| Power Source       5495       Circuit       Constant-   | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>Max<br>6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %   |
| Power Source         5495         Circuit         Constant-   | 6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>Max<br>6<br>Max<br>6<br>Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3   | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           0 %   |
| Power Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         3         3         6         Max         6         Max         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3  | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           0 %           0 %           13 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %  |
| Power Source         5495         Circuit         Constant-   | 6         Max         3  | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           13 %           0 %           13 %           0 %           13 %           0 %           13 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           19 %           Percent Used   |
| Power Source         5495         Circuit         Constant-         Stant-         Constant-         Constant-         Constant-         Stant-         Power Source         5495   | 6       Max       3       3       3       3       3       3       3       Max       6       Max       3       3       3       3       3       3       3       3       3       3       3       3       3       3       3       3       3       3       6  | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           13 %           0 %           13 %           0 %           13 %           13 %   |
| Circuit       Constant-       Constant- | Max         6           Max         3           3         3           3         3           3         6           Max         6           Max         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         6           Max         6           Max         6           Max         6  | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           13 %           0 %           13 %           0 %           13 %           0 %           19 %           Percent Used           13 %           Percent Used           13 %   |
| Circuit       Constant-   | 6         Max         3         3         3         3         3         3         3         3         Max         6         Max         3         3         3         3         3         3         3         3         3         3         3         3         3         3         6         Max         6         Max         3  | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>Used<br>0.014   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           13 %           0 %           19 %           Percent Used           13 %           0 %           19 %           Percent Used           13 %           Percent Used           0 %           0 %   |
| Circuit       Constant-   | 6         Max         3         3         3         3         3         3         3         6         Max         6         Max         3  | 0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0<br>0,574<br>Used<br>0.574<br>Used<br>0.574<br>Used<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           0 %           Percent Used           13 %           Percent Used           13 %           Percent Used           13 %           Percent Used           0 %           0 %           0 %           0 %           0 %           0 %           0 %  |
| Power Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         3         6         Max         6         Max         3         3         3         3         3         3         3         3         6         Max         6         Max         6         Max         3 <t< td=""><td>0.793<br/>Used<br/>0.793<br/>0<br/>0.574<br/>0.014<br/>0<br/>0<br/>0<br/>Used<br/>1.192<br/>Used<br/>0.399<br/>0.014<br/>0<br/>0<br/>0.574<br/>Used<br/>0.574<br/>Used<br/>0.574<br/>Used<br/>0.574<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           13 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %</td></t<> | 0.793<br>Used<br>0.793<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           13 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %  |
| Power Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         3         Max         6         Max         3  | 0.793<br>Used<br>0.793<br>Used<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.014<br>0<br>0<br>0,574  | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           13 %           0 %           13 %           0 %           13 %           0 %           19 %           Percent Used           13 %           Percent Used           13 %           Percent Used           13 %           Percent Used           0 %           0 %           0 %           0 %           0 %           0 %           0 %  |
| Power Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         3         Max         6         Max         3  | 0.793<br>Used<br>0.793<br>Used<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.014<br>0<br>0<br>0.574<br>0.014   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           Percent Used           20 %           Percent Used           13 %           0 %           0 %           Percent Used           13 %           Percent Used           13 %           Percent Used           13 %           Percent Used           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %  |
| Power Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         3         Max         6         Max         3  | 0.793<br>0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           Percent Used           13 %           0 %   |
| Former Source         5495         Circuit         Constant-  | 6         Max         3         3         3         3         3         3         3         Max         6         Max         3         3         3         3         3         3         3         3         3         6         Max         6         Max         3  | 0.793<br>Used<br>0.793<br>Used<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                         | Percent Used           13 %           Percent Used           0 %           19 %           0 % |
| Fower Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         3         Max         6         Max         3         4         5         6         Max    <   | 0.793<br>Used<br>0.793<br>0.793<br>0.0574<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0.399<br>0.014<br>0<br>0<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>0.574<br>Used<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>Used<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           13 %           Percent Used           0 %           19 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           0 %           13 %           Percent Used           13 %           0 %           16 %   |
| Former Source         5495         Circuit         Constant-  | 6         Max         3         3         3         3         3         3         3         Max         6         Max         3         4         5         4         5         4         5     <  | 0.793<br>Used<br>0.793<br>Used<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>0.014<br>0<br>0<br>0<br>0.574<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0        | 13 %         Percent Used         0 %         19 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         Percent Used         13 %         0 %         Percent Used         16 %         Percent Used         0 %   |
| Power Source         5495         Circuit         Constant-   | 6         6         Max         3         3         3         3         3         3         Max         6         Max         3  | 0.793<br>0.793<br>Used<br>0<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.014<br>0<br>0<br>0<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                       | 13 %         Percent Used         0 %         19 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         0 %         Percent Used         13 %         0 %  |
| Power Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         Max         6         Max         3  | 0.793<br>Used<br>0.793<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.399<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.574<br>Used<br>0.574<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0       | Percent Used           13 %           Percent Used           0 %           19 %           0 % |
| Power Source         5495         Circuit         Constant-   | 6         Max         3         3         3         3         3         3         3         3         Max         6         Max         3  | 0.793<br>Used<br>0.793<br>Used<br>0.574<br>0.014<br>0<br>0<br>Used<br>1.192<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0.574<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.807<br>Used<br>0.014<br>0<br>0<br>0.574<br>Used<br>0.399<br>0.014<br>0<br>0<br>0<br>0.574<br>Used<br>0.574<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 13 %         Percent Used         0 %         19 %         0 %         0 %         0 %         0 %         0 %         0 %         Percent Used         13 %         Percent Used         13 %         0 %         19 %         Percent Used         13 %         Percent Used         0 %      <                       |

| Constant-    | 3   | 0     | 0 %          |
|--------------|-----|-------|--------------|
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 0.793 | 13 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0.574 | 19 %         |
| Constant-    | 3   | 0.014 | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 1.367 | 23 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0.574 | 19 %         |
| Constant-    | 3   | 0.014 | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0.574 | 19 %         |
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 0.807 | 13 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0.014 | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0.574 | 19 %         |
| Constant-    | 3   | 0.014 | 0 %          |
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 0.793 | 13 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0.574 | 19 %         |
| Constant-    | 3   | 0.014 | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 0.793 | 13 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0.574 | 19 %         |
| Constant-    | 3   | 0.014 | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 1.367 | 23 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0.574 | 19 %         |
| Constant-    | 3   | 0.014 | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0.574 | 19 %         |
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 0.807 | 13 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0.014 | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0     | 0 %          |
| Constant-    | 3   | 0.574 | 19 %         |
| Constant-    | 3   | 0.014 | 0 %          |
| Power Source | Max | Used  | Percent Used |
| 5495         | 6   | 0.793 | 13 %         |
| Circuit      | Max | Used  | Percent Used |
| Constant-    | 3   | 0     | 0%           |
| Constant-    | 3   | 0     | 0 %          |

| Constant-    | 3        | 0.574 | 19 %          |
|--------------|----------|-------|---------------|
| Constant-    | 3        | 0.014 | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Power Source | Max      | Used  | Percent Used  |
| 5495         | 6        | 0.793 | 13 %          |
| Circuit      | Max      | Used  | Percent Used  |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0.574 | 19 %          |
| Constant-    | 3        | 0.014 | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Power Source | Max      | Used  | Percent Used  |
| 5495         | 6        | 1 157 | 19 %          |
| Circuit      | Max      | Used  | Percent Lised |
| Constant-    | 3        | 0.574 | 19 %          |
| Constant-    | 3        | 0.014 | 0%            |
| Constant-    | 3        | 0.014 | 0%            |
| Constant-    | 2        | 0     | 0 %           |
| Constant     | 3        | 0.264 | 10.0/         |
| Power Course | 3<br>Max | 0.304 | 12 %          |
| Fower Source | Iviax    |       | 17.0/         |
| 5495         | b        | 1.017 | 1/%           |
| Circuit      | Max      | Used  | Percent Used  |
| Constant-    | 3        | 0.224 | 7%            |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0.574 | 19 %          |
| Constant-    | 3        | 0.014 | 0 %           |
| Power Source | Max      | Used  | Percent Used  |
| 5495         | 6        | 0.793 | 13 %          |
| Circuit      | Max      | Used  | Percent Used  |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0.574 | 19 %          |
| Constant-    | 3        | 0.014 | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Power Source | Max      | Used  | Percent Used  |
| 5495         | 6        | 0.793 | 13 %          |
| Circuit      | Max      | Used  | Percent Used  |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0.574 | 19 %          |
| Constant-    | 3        | 0.014 | 0%            |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0     | 0%            |
| Power Source | Max      | Used  | Percent Lised |
| 5/05         | 6        | 1 367 | 23 %          |
| Circuit      | Max      | Lised | Percent Lised |
| Constant     |          | 0.574 |               |
| Constant-    | 2<br>2   | 0.574 | 13.20         |
| Constant-    | 3        | 0.014 | 0 %           |
| Constant-    | 3        | U     | 0%            |
| Constant-    | 3        | 0     | 0%            |
| Constant-    | 3        | 0.574 | 19 %          |
| Power Source | Max      | Used  | Percent Used  |
| 5495         | 6        | 0.807 | 13 %          |
| Circuit      | Max      | Used  | Percent Used  |
| Constant-    | 3        | 0.014 | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0     | 0 %           |
| Constant-    | 3        | 0.574 | 19 %          |
| Constant-    | 3        | 0.014 | 0 %           |
| Power Source | Max      | Used  | Percent Used  |
| 5495         | 6        | 0.793 | 13 %          |
| Circuit      | Max      | Used  | Percent Used  |

| Constant-   | 3  | 0   | 0 %  |
|---|--|---|--|
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0.574   | 19 %   |
| Constant-   | 3  | 0.014   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Power Source  | Max  | Used  | Percent Used   |
| 5495  | 6  | 0.793   | 13 %   |
| Circuit   | Max  | Used  | Percent Used   |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0.574   | 19 %   |
| Constant-   | 3  | 0.014   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Power Source  | Max  | Used  | Percent Used   |
| 5495  | 6  | 0.205   | 3 %  |
| Circuit   | Max  | Used  | Percent Used   |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Power Source  | Max  | Used  | Percent Used   |
| 5495  | 6  | 0.205   | 3 %  |
| Circuit   | Max  | Used  | Percent Used   |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Constant-   | 3  | 0   | 0 %  |
| Power Source  | Max  | Used  | Percent Used   |
| 5495  | 6  | 0.205   | 3 %  |
|   |  |   |  |
| Circuit   | Max  | Used  | Percent Used   |
| Circuit<br>Constant-  | Max<br>3   | Used<br>0   | Percent Used   |
| Circuit<br>Constant-<br>Constant-   | Max<br>3<br>3  | <b>Used</b><br>0<br>0   | Percent Used           0 %           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-  | Max<br>3<br>3<br>3   | Used<br>0<br>0<br>0   | Percent Used           0 %           0 %           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | Max<br>3<br>3<br>3<br>3<br>3   | Used<br>0<br>0<br>0<br>0  | Percent Used           0 %           0 %           0 %           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | Max<br>3<br>3<br>3<br>3<br>3<br>3<br>3   | Used<br>0<br>0<br>0<br>0<br>0<br>0  | Percent Used           0 %           0 %           0 %           0 %           0 %           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source  | Max           3           3           3           3           3           3           3           3           Max  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used  | Percent Used           0 %           0 %           0 %           0 %           0 %           0 %           0 %           Percent Used  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495  | Max           3           3           3           3           3           3           3           4           5           6  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0.205  | Percent Used           0%           0%           0%           0%           0%           0%           0%           0%           3%  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit   | Max           3           3           3           3           3           3           6           Max  | Used<br>0<br>0<br>0<br>0<br>Used<br>0.205<br>Used   | Percent Used           0%           0%           0%           0%           0%           0%           0%           0%           9%   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-  | Max           3           3           3           3           3           4           5           6           Max           3  | Used<br>0<br>0<br>0<br>0<br>Used<br>0.205<br>Used<br>0  | Percent Used           0 %           0 %           0 %           0 %           0 %           9 %           Percent Used           3 %           Percent Used           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-  | Max         3           3         3           3         3           3         3           6         Max           3         3           3         3  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0.205<br>Used<br>0<br>0<br>0   | Percent Used           0%   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | Max           3           3           3           3           3           6           Max           3           3  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0.205<br>Used<br>0<br>0<br>0<br>0<br>0<br>0                                    | Percent Used           0 %           0 %           0 %           0 %           0 %           9 %           9 %           9 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | Max         3         3         3         3         3         3         6         Max         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0.205<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           0 %   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-   | Max           3           3           3           3           3           3           6           Max           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0.205<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Percent Used           0%  |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | Max         3         3         3         3         3         4         6         Max         6         Max         3  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Const | Max           3           3           3           3           3           3           6           Max           6           Max           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           6  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%           3%   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Co | Max           3           3           3           3           3           Max           6           Max           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           3           6           Max  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                  | Percent Used           0%           3%           Percent Used   |
| Circuit         Constant-   | Max         3         3         3         3         3         Max         6         Max         3         3         3         3         3         3         3         3         3         6         Max         6         Max         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3  | Used<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                       | Percent Used           0%           3%           Percent Used           3%           Percent Used           0%   |
| Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Power Source<br>5495<br>Circuit<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-<br>Constant-  | Max         3         3         3         3         3         Max         6         Max         3         3         3         3         3         3         3         3         3         6         Max         6         Max         3  | Used<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                       | Percent Used           0%   |
| Circuit         Constant-   | Max         3         3         3         3         3         Max         6         Max         3  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%   |
| Circuit         Constant-   | Max         3         3         3         3         3         Max         6         Max         3  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%   |
| Circuit         Constant-   | Max         3         3         3         3         3         Max         6         Max         3  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%   |
| Circuit         Constant-   | Max         3         3         3         3         3         3         Max         6         Max         3  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%   |
| Circuit         Constant-         Constant-         Constant-         Constant-         Constant-         Constant-         Constant-         S495         Circuit         Constant-  | Max         3         3         3         3         3         3         6         Max         6         Max         3         4         5  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%                                |
| Circuit         Constant-   | Max         3         3         3         3         3         3         Max         6         Max         3         4         5         Max <t< td=""><td>Used<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>Used<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>Percent Used           0%           3%      <!--</td--></td></t<> | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%           3% </td |
| Circuit         Constant-   | Max         3         4         5         4         5         4         3         3         3         3         3         3         4         5         4         3          4         5   | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                  | Percent Used           0%           3%           Percent Used           3%           Percent Used           3%           Percent Used           0%   |
| Circuit         Constant-   | Max         3         <  | Used<br>0<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | Percent Used           0%           3%           Percent Used           3%           Percent Used           3%           Percent Used           0%           0%           0%           0%   |
| Circuit         Constant-   | Max         3         <  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                  | Percent Used           0%   |
| Circuit         Constant-   | Max         3         <  | Used<br>0<br>0<br>0<br>0<br>Used<br>0.205<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | Percent Used           0% </td |
| Circuit         Constant-         Constant-         Constant-         Constant-         Constant-         Constant-         Constant-         Power Source         5495         Circuit         Constant-         <   | Max         3         <  | Used<br>0<br>0<br>0<br>0<br>0<br>Used<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                  | Percent Used           0% </td |

| 5 | 495         | 6   | 0.205 | 3 %          |
|---|-------------|-----|-------|--------------|
|   | Circuit     | Max | Used  | Percent Used |
|   | Constant-   | 3   | 0     | 0 %          |
|   | Constant-   | 3   | 0     | 0 %          |
|   | Constant-   | 3   | 0     | 0 %          |
|   | Constant-   | 3   | 0     | 0 %          |
|   | Constant-   | 3   | 0     | 0 %          |
| Ρ | ower Source | Max | Used  | Percent Used |
| 5 | 495         | 6   | 0.205 | 3 %          |
|   | Circuit     | Max | Used  | Percent Used |
|   | Constant-   | 3   | 0     | 0 %          |
|   | Constant-   | 3   | 0     | 0 %          |
|   | Constant-   | 3   | 0     | 0 %          |
|   | Constant-   | 3   | 0     | 0 %          |
|   |             |     |       |              |

# Certificates

## ONLINE CERTIFICATIONS DIRECTORY





## PGWM.S2766 Control and Communication Equipment

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# **Control and Communication Equipment**

See General Information for Control and Communication Equipment

#### SILENT KNIGHT BY HONEYWELL

1985 Douglas Dr MN10-212A Golden Valley, MN 55422 USA

**Amplifiers**, Model(s) ECS-125W + (c) , EVS-125W + (c), ECS-125WHV+ (c), ECS-50W + (c), EVS-50W + (c), ECS-50WHV+ (c), VIP-125+ (c), VIP-125HV+ (c), VIP-50+ (c), VIP-50HV+ (c)

Amplifiers - Subassembly, Model(s) ECS-INT50W (c), EVS-INT50W (c), EVS-125WBD

Analog loop expander, Model(s) 5815XL+ (c)

Annunciator boards, Model(s) 6861BIA (d), 6861GIA (d)

Autonomous control unit, Model(s) IFP-300ECSB (a)

**Autonomous control units**, Model(s) 6820-EVS (d), ECS-DUAL50W(b)(c), ECS-DUAL50WHV(b)(c), ECS-RCU2000 (b)(c), IFP-1000ECS (c) (a), 5820XL-EVS (c) (a), IFP-1000ECSHV (c) (a), IFP-100ECS (c) (a), IFP-2000/ECS (b)(c), IFP-2000/ECSHV (b)(c)

Autonomous control units, Model(s) IFP-2100ECS, IFP-2100ECSB, IFP-2100ECSHV, IFP-2100ECSHVB (d)

Autonomous control units, Model(s) IFP-300ECS (a)

Back Up Amplifier, Model(s) ECS-50WBU (b) (c)

**Enclosures**, Model(s) 00VIP-125CB+ (c), 00VIP-50CB+ (c), 122773+ (c), 122774+(c), 6820EVSCB, IFP-300ECSCB, and IFP-300ECSSBCB, IFP-2100ECSCB (d), I FP-2100ECSBCB (d)

LED/Switch card, Model(s) ECS-EMG (d)

LOC, Model(s) EVS-LOC (a)

Network Voice Control Module, Model(s) ECS-NVCM

Remote command unit, Model(s) ECS-RCU+ (c), EVS-RCU +(c)

Remote voice module, Model(s) ECS-RVM+ (c), EVS-RVM +(c)

Speaker Expander module, Model(s) ECS-CE4+ (c), EVS-CE4 +(c)

Switch card, Model(s) ECS-SW24+ (c), EVS-SW24 +(c)

Voice control module, Model(s) ECS-VCM + (c), EVS-VCM +(c)

Model(s) ECS-AVCM, EVS-AVCM, Models ECS-RPU, EVS-RPU Remote Paging Units

Model(s) ECS-LOC (d), ECS-LOC2100 (d)

(a) - Complementary Listed to FSZI, UOQY, SYZV and UOJZ

(b) - Complementary Listed under UOJZ, SYZV

(c) - Investigated to ANSI/UL 2572, "Mass Notification Systems"

(d) - Complementary Listed to FSZI, SYZV and UOJZ

+ - Complementary Listed under UOJZ, UOQY,SYZV

Last Updated on 2018-04-16

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## **Boxes, Noncoded**

See General Information for Boxes, Noncoded

#### SILENT KNIGHT BY HONEYWELL

1985 Douglas Dr MN10-212A Golden Valley, MN 55422 USA

Models IDP-PULL-SA, IDP-PULL-DA, SK-PULL-SA, SK-PULL-DA, PS-DA, PS-DASP, PS-SA.

Models PS-DAH, PS-DALOB.

Boxes, non-coded, Models SD500-PS, SD500-PSDA.

Models PS-SATK, PS-SAWH, PS-DATK, PS-SATH PS-DATH.

Fire alarm pull boxes, Models PS-BB, PS-WPB.

Accessory, Model SD500-LK.

Boxes, non-coded , Models WSK-PULL-DA, WIDP-PULL-DA.

Last Updated on 2017-12-22

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## UOJZ.S2766 Control Units, System

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## **Control Units, System**

See General Information for Control Units, System

#### SILENT KNIGHT BY HONEYWELL

1985 Douglas Dr MN10-212A Golden Valley, MN 55422 USA

UL 864 10th Edition Listed

| Model                                 | Control Unit         | Initiating     | Signaling           |
|---------------------------------------|----------------------|----------------|---------------------|
|                                       | System Type(s)       | Device Type(s) | Type(s)             |
| Control Unit                          |                      |                |                     |
| IFP-300ECSB (a)(b)(d)(j)(k)(l)        | AUX, CS (PPU), L, RS | A, CO, M, SS,  | C, DAC, NC, PB, Rev |
|                                       | (PPU)                | WF             | Pol                 |
| RFP-2100, RFP-2100B, RFP-2100HV, RFP- | AUX, CS (PPU), L, RS | A, CO, M, SS,  | DAC, NC, PB         |
| 2100HVB                               | (PPU)                | WF             |                     |

#### UL 864 9th Edition Listed

| Model   | Control Unit<br>System Type(s) | Initiating<br>Device<br>Type(s) | Signaling<br>Type(s) |  |  |
|---|--------------------------------|---------------------------------|----------------------|--|--|
| Control Unit  |                                |                                 | -                    |  |  |
| IFP-1000ECS (c) (k) (l)   | L                              | A, M, SS, WF                    | March, NC            |  |  |
|   | AUX                            | A, M, WF                        | -                    |  |  |
|   | RS (PPU)                       | A, M, SS, WF                    | DAC                  |  |  |
|   | CS (PPU)                       | A, M, SS, WF                    | DAC                  |  |  |
| IFP-1000ECSHV (c) (k) (l)   | L                              | A, M, SS, WF                    | March, NC            |  |  |
|   | AUX                            | A, M, WF                        | -                    |  |  |
|   | RS (PPU)                       | A, M, SS, WF                    | DAC                  |  |  |
|   | CS (PPU)                       | A, M, SS, WF                    | DAC                  |  |  |
| IFP-100ECS (c) (k) (l), 5820XL-EVS (c), (k), (l)                                  | L                              | A, M, WF                        | C, March, NC         |  |  |
|   | AUX                            | A, M, WF                        | -                    |  |  |
|   | RS (PPU)                       | A, M, SS, WF                    | DAC, Rev Pol         |  |  |
|   | CS (PPU)                       | A, M, SS, WF                    | DAC                  |  |  |
| IFP-2000/ECS (b)(k), ECS-DUAL50W (b)(k), ECS-DUAL50WHV (b)(k), ECS-RCU2000 (b)(k) |                                |                                 |                      |  |  |
|   | L                              | A, M, SS, WF                    | March, NC            |  |  |

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| IFP-2000/ECSHV (b)(k)         | AUX                           | A, M, WF            | NC                         |
|-------------------------------|-------------------------------|---------------------|----------------------------|
|                               | CS (PPU)                      | A, M, SS, WF        | DAC                        |
|                               | L                             | A, M, SS, WF        | March, NC                  |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT, Rev Pol           |
| IFP-300B                      | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF | C, DAC, NC, PB, Rev<br>Pol |
| IFP-75B (a)(b)(d)(l)          | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF | C, DAC, NC, PB, Rev<br>Pol |
| 00IFP-1000xxHV (a) (b) (d)    | AUX                           | A, M, WF            | NC                         |
|                               | CS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
|                               | L                             | A, M, SS, WF        | March, NC                  |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT, Rev Pol           |
| 058200IFPxxHV (a) (b) (d) (l) | AUX                           | A, M, WF            | NC                         |
|                               | CS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
|                               | L                             | A, M, SS, WF        | March, NC                  |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT, Rev Pol           |
| 5104B (d) (e)                 | CS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
| 5700 (a) (d) (l)              | AUX                           | A, M, WF            | NC                         |
|                               | CS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
|                               | L                             | A, M, SS, WF        | C, March, NC               |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT, Rev Pol           |
| 5808 (a) (b) (d) (l)          | AUX                           | A, M, WF            | NC                         |
|                               | CS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
|                               | L                             | A, M, SS, WF        | C, March, NC               |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT, Rev Pol           |
| 5820XL (a) (b) (d) (l)        | AUX                           | A, M, WF            | NC                         |
|                               | CS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
|                               | L                             | A, M, SS, WF        | March, NC                  |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT, Rev Pol           |
| 6700                          | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF | DAC, NC, PB, Rev Pol       |
| 6808                          | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF | C, DAC, NC, PB, Rev<br>Pol |
| 6820                          | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF | C, DAC, NC, PB, Rev<br>Pol |
| 6820-EVS (a)(b)(d)(j)(k)(l)   | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF | C, DAC, NC, PB, Rev<br>Pol |
| IFP-100 (a) (b) (d) (l)       | AUX                           | A, M, WF            | NC                         |
|                               | CS (PPU)                      | A, M, SS, WF        | DAC, OT                    |
|                               | L                             | A, M, SS, WF        | C, March, NC               |
|                               | RS (PPU)                      | A, M, SS, WF        | DAC, OT, Rev Pol           |

AUX

RS (PPU)

CS (PPU)

NC

DAC

DAC, OT, Rev Pol

A, M, WF

A, M, SS, WF

A, M, SS, WF

|   | , <b>,</b>                    |                          |                            |
|---|-------------------------------|--------------------------|----------------------------|
| IFP-1000 (a) (b) (d) (l)                                      | AUX                           | A, M, WF                 | NC                         |
|   | CS (PPU)                      | A, M, SS, WF             | DAC, OT                    |
|   | L                             | A, M, SS, WF             | March, NC                  |
|   | RS (PPU)                      | A, M, SS, WF             | DAC, OT, Rev Pol           |
| IFP-1000HV (a) (b) (d) (l)                                    | AUX                           | A, M, WF                 | NC                         |
|   | CS (PPU)                      | A, M, SS, WF             | DAC, OT                    |
|   | L                             | A, M, SS, WF             | March, NC                  |
|   | RS (PPU)                      | A, M, SS, WF             | DAC, OT, Rev Pol           |
| IFP-2000 (a) (b) (d)  | AUX                           | A, M, WF                 | NC                         |
|   | CS (PPU)                      | A, M, SS, WF             | DAC, OT                    |
|   | L                             | A, M, SS, WF             | March, NC                  |
|   | RS (PPU)                      | A, M, SS, WF             | DAC, OT, Rev Pol           |
| IFP-2000-VIP (a) (c) (d)                                      | AUX                           | A, M, WF                 | NC                         |
|   | CS (PPU)                      | A, M, SS, WF             | DAC, OT                    |
|   | L                             | A, M, SS, WF             | March, NC                  |
|   | RS (PPU)                      | A, M, SS, WF             | DAC, OT, Rev Pol           |
| IFP-2000HV (a) (b) (d)  | AUX                           | A, M, WF                 | NC                         |
|   | CS (PPU)                      | A, M, SS, WF             | DAC, OT                    |
|   | L                             | A, M, SS, WF             | March, NC                  |
|   | RS (PPU)                      | A, M, SS, WF             | DAC, OT, Rev Pol           |
| IFP-2100, IFP-2100HV, IFP-2100B, IFP-2100HVB (a)<br>(b)(d)(l) | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF      | C, DAC, NC, PB, Rev<br>Pol |
| IFP-2100ECS, IFP-2100ECSB, IFP-2100ECSHV, IFP-2100            | ECSHVB (a)(b)(d)(k)(l)        |                          |                            |
|   | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF      | C, DAC, NC, PB, Rev<br>Pol |
| IFP-25, 5600 , IFP-25HV, 5600HV                               | AUX                           | A, M, WF                 | -                          |
|   | L                             | A, M, SS, WF             | C, NC                      |
|   | RS (PPU)                      | A, M, SS, WF             | DAC, OT, Rev Pol           |
|   | CS (PPU)                      | A, M, SS, WF             | DAC, OT                    |
| IFP-300   | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF      | C, DAC, NC, PB, Rev<br>Pol |
| IFP-300ECS (a)(b)(d)(j)(k)(l)                                 | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF      | C, DAC, NC, PB, Rev<br>Pol |
| IFP-50 (a) (d) (l)  | AUX                           | A, M, WF                 | NC                         |
|   | CS (PPU)                      | A, M, SS, WF             | DAC, OT                    |
|   | L                             | A, M, SS, WF             | C, March, NC               |
|   | RS (PPU)                      | A, M, SS, WF             | DAC, OT, Rev Pol           |
| IFP-75 (a)(b)(d)(l)   | AUX, CS (PPU), L, RS<br>(PPU) | A, CO, M, SS,<br>WF      | C, DAC, NC, PB, Rev<br>Pol |
| IFPNET (f)  | P (RU)                        | A, M, SS, WF             | MX, OT                     |
|   |                               | A, M, SS, WF             | MX                         |
|   | P (RU)                        |                          |                            |
|   | CS (RU)                       | A, M, SS, WF             | DAC                        |
| RPS-2000 (a) (b) (d) (h)                                      | CS (RU)                       | A, M, SS, WF<br>A, M, WF | DAC                        |

UOJZ S2766 - Control Units, System

|                            | L        | A, M, SS, WF | March, NC        |
|----------------------------|----------|--------------|------------------|
|                            | RS (PPU) | A, M, SS, WF | DAC, OT, Rev Pol |
| RPS-2000HV (a) (b) (d) (h) | AUX      | A, M, WF     | NC               |
|                            | CS (PPU) | A, M, SS, WF | DAC, OT          |
|                            | L        | A, M, SS, WF | March, NC        |
|                            | RS (PPU) | A, M, SS, WF | DAC, OT, Rev Pol |
| SK-2 (e), SK-2E (e)        | AUX      | A, M, WF     | NC               |
|                            | CS (PPU) | A, M, SS, WF | DAC              |
|                            | L        | A, M, SS, WF | March, NC        |
|                            | Ρ        | A, M, SS, WF | С                |
| SK-4 (e), SK-4E (e)        | AUX      | A, M, WF     | NC               |
|                            | CS (PPU) | A, M, SS, WF | DAC              |
|                            | L        | A, M, SS, WF | March, NC        |
|                            | Ρ        | A, M, SS, WF | с                |
|                            | RS (PPU) | A, M, SS, WF | Rev Pol          |
| SK-5208 (a) (b)            | AUX      | A, M, WF     | NC               |
|                            | CS (PPU) | A, M, SS, WF | DAC, OT          |
|                            | L        | A, M, SS, WF | March, NC        |
|                            | RS (PPU) | A, M, SS, WF | DAC, OT, Rev Pol |
| SK-5UD (a) (g) (i)         | AUX      | A, M, WF     | NC               |
|                            | CS (PPU) | A, M, SS, WF | DAC              |
|                            | L        | A, M, SS, WF | March, NC        |
|                            | P (PPU)  | A, M, SS, WF | с                |
|                            | RS (RU)  | A, M, SS, WF | DAC, NC, Rev Pol |
| SK-5UDE (a) (g) (i)        | AUX      | A, M, WF     | NC               |
|                            | CS (PPU) | A, M, SS, WF | DAC              |
|                            | L        | A, M, SS, WF | March, NC        |
|                            | P (PPU)  | A, M, SS, WF | с                |
|                            | RS (PPU) | A, M, SS, WF | DAC, NC, Rev Pol |
| SK-WKS                     | P (RU)   | A, M, SS, WF | от               |
|                            | CS (RU)  | A, M, SS, WF | DAC              |
|                            | P (PPU)  | A, M, SS, WF | от               |

#### UL 864 10th Edition Listed

Local Operating Console, Model(s) EVS-LOC(k)(l)

#### UL 864 9th Edition Listed

Annunciator boards, Model(s) 6861BIA, 6861GIA

**Control Unit Subassemblies**, Model(s) 006700CB, IFP-75CB, and IFP-75BCB enclosures, 021000 mainboard, 067000 mainboard, 068080 mainboard, 068200 mainboard, 6815, ECS-INT50W, EVS-INT50W, EVS-125WBD amplifier board, SK-NIC, SP-TR / SP-TRB trim rings

Control Unit Subassemblies - enclosures, Model(s) 006820CB, IFP-300CB, IFP-300BCB, and 006808CB

**Control Unit Subassemblies - Intended for use with compatible control units as described in the control unit installation manual**, Model(s) 00VIP-125CB enclosure (j), 00VIP-50CB enclosure (j), 052080 main board (b), 052090 main board, 056000 main board, 057000 main board (b), 058080 main board (b), 058631 user interface (b), 068200 main board, 0IFP-100-IA user interface (b), 0IFP-100BD main board (b), 122509 enclosure (b), 122723 enclosure (b), 122740 enclosure (b), 122773 enclosure (c), 122774 enclosure (c), 122950 enclosure (c), 122963 enclosure (c), SK-4XLM LED interface module, SK-4XTM transmitter module, SK-4XZM zone relay module, VIP-125 amplifier (j), VIP-125HV

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#### UOJZ.S2766 - Control Units, System

amplifier (j), VIP-50 amplifier (j), VIP-50HV amplifier (j), VIP-CE4 speaker expander module (j), EVS-CE4 speaker expander module (i), VIP-SW16 switch annunciator (j), VIP-VCM voice control module (j), EVS-VSM Voice Control Module (i)

Enclosures, Model(s) 6820EVSCB, IFP-300ECSCB, IFP-300ECSSBCB, IFP-2100CB, IFP-2100BCB, RFP-2100CB, RFP-2100BCB, IFP-2100ECSCB, IFP-2100ECSCB, IFP-2100ECSBCB

#### Fire Alarm and Emergency Signaling Subassembly, Model(s) ECS-AVCM, EVS-AVCM

LED/Switch cards, Model(s) ECS-EMG

LOC, Model(s) ECS-LOC, ECS-LOC2100

#### Network Voice Control Module, Model(s) ECS-NVCM

Repeaters, Model(s) IFP-RPT-UTP

#### Subassembly, Fiber Optic Multi Mode Board, Model(s) SK-FML

#### Subassembly, Fiber Optic Single Model Board, Model(s) SK-FSL

#### Supplementary Network Bridge, Model(s) SK-WEBPORTAL

Model(s) ECS-RPU, EVS-RPU Remote Paging Units

- AUX Auxiliary System
- CS (PPU) Central Station System (Protected Premises Unit)
- L Local System
- RS (PPU) Remote Station System (Protected Premises Unit)
- A Automatic Fire Alarm: thermostats, smoke detectors, etc.
- CO Carbon Monoxide Alarm: carbon monoxide detectors
- M Manual Fire Alarm: manually operated boxes
- SS Supervisory: gate valves, water-level switches, temperature switches, carbon monoxide alarm, residential fire alarm control units, etc.
- WF Waterflow Alarm: waterflow switches
- C Coded
- DAC Digital Alarm Communicator
- NC Noncoded, Steady, Temporal 3 Pattern, etc.
- PB Performance Based Technologies
- Rev Pol Reverse Polarity
- March March Time
- OT Other Transmission Technologies
- P (RU) Proporiety System (Supervising Station Receiving Unit)
- MX Multiplex
- CS (RU) Central Station System (Supervising Station Receiving Unit)
- P Proprietary System
- P (PPU) Proporiety System (Protected Premises Unit)
- RS (RU) Remote Station System (Supervising Station Receiving Unit)
- (a) Requires separately Listed equipment when System Type is Auxiliary or Type Signaling is Reverse Polarity.
- (b) Complementary Listed to SYZV for Releasing Service.
- (c) Complementary Listed to SYZV for Releasing Service and UOQY.
- (d) Requires separately Listed equipment when Type Signaling is Other Transmission Technologies (OT).

(e) - Requires separately Listed equipment when the Type Signaling is Digital Alarm Communicator (DAC), Reverse Polarity or Coded (C) or if the System Type is Auxiliary (AUX).

(f) - Also suitable for releasing device service when Type Signaling is Digital Alarm Communicator (DAC).

(g) - Requires separately Listed equipment when System Type is Proprietary (PPU), or is Remote Station (PPU) and Type Signaling is Noncoded (NC) or Reverse Polarity.

(h) - Requires separately Listed Model RA-2000 annunciator display when System Type is Local (L).

(i) - Complementary Listed to FSZI and QVAX.

(j) - Complementary Listed to UOQY

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(k) - Complementary Listed for PGWM

(I) - Complementary Listed to FSZI

xx - Represents two letters signifying a foreign country.

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## UOXX.S3511 Control Unit Accessories, System

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## **Control Unit Accessories, System**

See General Information for Control Unit Accessories, System

#### SILENT KNIGHT BY HONEYWELL

1985 Douglas Dr MN10-212A Golden Valley, MN 55422 USA

Investigated to UL 864 (9th edition)

Accessory Mounting cabinets Model(s) IDP-ACB Accessory cabinets Model(s) AB-55, RBB, SK2190 Addressable input modules Model(s) SD500-AIM(f01), SD500-MIM(f01) Addressable NAC modules Model(s) SD500-ANM Amplifier Model(s) ECS-Dual50W (F20), ECS-Dual50WHV (F20), EVS-100W, EVS-100W (F20) Amplifier - subassembly Model(s) ECS-50WBU (F20), ECS-BD50-70V (f20), ECSBD-50-25V (f20), EVS-100WBU (F20) Automatic fire alarm warden stations Model(s) FFT-STSR, FFT-STSS Circuit Expander - subassembly Model(s) ECS-550CE6 (f20) Control modules Model(s) IDP-Control, IDP-Relay, SK-CONTROL, SK-RELAY Dialer Cards Model(s) 5128, 5130 Digital alarm communicator transmitters Model(s) 5129(f04), 5135 Direct connect modules Model(s) 5220(f05) Dual monitor modules Model(s) IDP-Monitor 2, SK-MONITOR-2 Emergency Command Center - ACU Model(s) ECS-550 (f20), ECS-550HV (f20) Enclosures Model(s) 122417, 122599, 122727, 122735, 122955, 5895XLCB End-of-line devices Model(s) 7641, 7643, 7644 End-of-line resistors Model(s) 7628 Fault isolator modules Model(s) IDP-Iso, SK-ISO Fiber to SBUS Converter Model(s) SK-F485C Fire fighter handset cabinets Model(s) FFT-HSC Fire fighter telephone jacks Model(s) FFT-FPJ Fire fighter telephone module subassemblies Model(s) 007880-BD, 007880-BD-SK Fire fighter telephone modules Model(s) IFP-FFT, SK-FFT Indicating circuit expanders Model(s) 5495, 5496, 5499 Input monitor modules Model(s) IDP-Monitor-10, SK-MON-10 Input/Output Module Model(s) IDP-RELAYMON-2, SK-RELAYMON-2 LED drivers Model(s) SD500-LED

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#### 6/7/2018

Line isolator devices Model(s) SD500-LIM(f06), SD505-6IB(f06)

Local Operator Console Model(s) ECS-550LOC (f20), ECS-RCU2000 (f20)

Main board Model(s) 051282

Main Board Model(s) 058950, 068600, 077500, 100BD

Main Boards Model(s) 054950, 054960, 054990

Monitor modules Model(s) IDP-Minimon, IDP-Monitor, IDP-Zone, SD500-FRCM, SD500-FRCM-4, SK-MINIMON, SK-MONITOR, SK-ZONE

Power expander/supplies Model(s) 5895XL, RPS-1000, RPS-1000B, RPS-1000HV

Printers Model(s) IFPN-PRN6

Relay modules Model(s) 5883, IDP-Relay-6, SD500-ARM, SK-RELAY-6

Remote annunciator Model(s) RA-1000R (f08), RA-2000GRAY (f13)

**Remote annunciators** Model(s) 5635, 5860(f07), 5860R(f07), 5865-3(f01), 5865-4(f01), RA-100(f10), RA-1000(f08), RA-2000(f13), SK-5235(f09)

Remote annunciators, input 24VDC, 200mA Model(s) 5880(f01)#

Remote keystation/annunciators Model(s) 5230(f05)

Remote microphone modules Model(s) ECS-550RM

Remote microphone stations Model(s) 00VIP-RM, 00VIP-RM2000, SKE-SRM(f11)

Remote paging unit Model(s) ECS-550RPU

Remote zone annunciators Model(s) SK-RZA4

Repeater Model(s) IFP-RPT-FO, IFP-RPT-UTP

Serial/parallel interfaces, input 24VDC, 50mA Model(s) 5824(f01)#

Six zone interface modules Model(s) IDP-Zone-6, SK-ZONE-6

Status display modules Model(s) SK-5280(f09)

Supervising control modules Model(s) IDP-Control-6, SK-CONTROL-6

Telephone line monitor modules Model(s) 7150

Two-wire smoke monitor modules Model(s) SD500-SDM

Voice evacuation systems Model(s) SKE-450(f12), SKE-450-ZN4(f12), SKE-450-ZN6(f12)

Wireless gateway Model(s) WIDP-WGI, WSK-WGI

Wireless monitor module Model(s) WIDP-MONITOR, WSK-MONITOR

Wireless relay module Model(s) WIDP-RELAY, WSK-RELAY

Zone expanders Model(s) FFT-24, SK-5217(f09)

#### Investigated to UL 864 (10th edition)

Accessory Mounting cabinets Model(s) SK-NIC-KIT

Cellular Transmitter Model(s) Cell-Mod, Cell-Cab-SK

Enclosures Model(s) SK-NIC-Kit

Main board Model(s) 058600

Remote annunciator Model(s) 6855 (f15), 6860 (f15)

# - Complementary Listed under FSYE, QVAX, UOXX, and PGWM.

- (f01) Intended for use with Model 5820, IFP-100ECS, IFP-1000ECS, and IFP-1000ECSHV control units
- (f04) For use with separately Listed central station protected premises or remote station units
- (f05) Intended for use with Model 5207 control units
- (f06) Intended for use with Model 5820 and IFP-1000 control units
- (f07) Intended for use with Model 5820 and 5820-XL control units
- (f08) Intended for use with Model IFP-1000, IFP-1000HV, IFP-1000ECS, and IFP-1000ECSHV control units
- (f09) Intended for use with Model SK5208 control units
- (f10) Intended for use with Model IFP-100 and IFP-100ECS control units
- (f11) For auxiliary use with this Listee's voice evacuation equipment

http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/showpage.html?name=UOXX.S3511&ccnshorttitle=Control+Unit+Accessories,+System&objid=107430

#### 6/7/2018

(f12) - For use with compatible Listed fire alarm control units

(f13) - Intended for use with Model(s) IFP-2000, IFP-2000HV, IFP-2000VIP, RPS-2000 and RPS-2000HV control units.

(f15) - Complimentary Listed to FSYE and PGWM

(F20) - Complementary Listed under PGWM

Note - Some of these products are covered by S2766

Last Updated on 2018-04-16

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## **UQGS.S911 Heat-automatic Fire Detectors**

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## **Heat-automatic Fire Detectors**

See General Information for Heat-automatic Fire Detectors

#### SYSTEM SENSOR UNINCORPORATED, DIV OF HONEYWELL INTERNATIONAL INC

S911

NOW

3825 Ohio Ave Saint Charles, IL 60174-5467 USA

Trim Ring, Model(s) TR300, followed by a two-digit suffix, indicating color: no suffix for white, -IV for ivory, -BL for black, etc.

Color Kit, Model(s) CK300, followed by a two-digit suffix, indicating color: no suffix for white, -IV for ivory, -BL for black, etc.

|  |        |                               |                        |                    | Spac              | ing (Ft)                |
|--|--------|-------------------------------|------------------------|--------------------|-------------------|-------------------------|
| Model<br>No.   | Туре   | Compatibility<br>Restrictions | Contact<br>Arrangement | Temp<br>Range (°F) | Smooth<br>Ceiling | to Wall or<br>Partition |
| 2251T, 2251TM, 2251TB, 2251TMB, 2251TMBC (a)                               |        |                               |                        |                    |                   |                         |
|  | FT/ROR | D2                            | -                      | 135                | 50                | 25                      |
| 2351TB, 2351TBA  | FT     | D1                            | -                      | -                  | -                 | -                       |
| TC806B1043, TC806B1068, TC840M1005, TC840M1013, TC806B1084, TC840M1021 (a) |        |                               |                        |                    |                   |                         |
|  | FT/ROR | D2                            | -                      | 135                | 50                | 25                      |

| Base Model   | Related Detector                               | Control Unit<br>Compatibility Restrictions |
|--------------|--|--|
| B210W, B501W | FWD-200ACCLIMATE, FWH-200FIX135, FWH-200ROR135 | В2   |

B2 - For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

D1 - Listing limited to specific system control unit. Information on compatible control unit indicated on installation drawing of control unit and/or detector.

D2 - For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

FT/ROR - Fixed temperature/rate of rise combination

FT - Fixed temperature

(a) - For connection to Fike model Cybercat control panel.

Last Updated on 2017-12-26

| Questions? |  |
|------------|--|
|            |  |

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## **Heat-automatic Fire Detectors**

See General Information for Heat-automatic Fire Detectors

#### SILENT KNIGHT BY HONEYWELL

1985 Douglas Dr MN10-212A Golden Valley, MN 55422 USA

|                 |        |                               |             |                 |                         | Spac                    | ing (Ft)                |
|-----------------|--------|-------------------------------|-------------|-----------------|-------------------------|-------------------------|-------------------------|
| Model<br>No.    | Туре   | Compatibility<br>Restrictions | Co<br>Arran | ntact<br>gement | Temp<br>Range (°F)      | Smooth<br>Ceiling       | to Wall or<br>Partition |
| IDP-Heat        | FT     | D1                            | -           |                 | 135                     | 50                      | 25                      |
| IDP-Heat-HT     | FT     | D1                            | -           |                 | 190                     | 50                      | 25                      |
| IDP-HEAT-HT-IV  | FT     | D1                            | -           |                 | 190                     | 50                      | 25                      |
| IDP-HEAT-HT-W   | FT     | D1                            | -           |                 | 190                     | 50                      | 25                      |
| IDP-HEAT-IV     | FT     | D1                            | -           |                 | 135                     | 50                      | 25                      |
| IDP-Heat-ROR    | FT/ROR | None                          | -           |                 | 135                     | 50                      | 25                      |
| IDP-HEAT-ROR-IV | FT/ROR | D1                            | -           |                 | 135                     | 50                      | 25                      |
| IDP-HEAT-ROR-W  | FT/ROR | D1                            | -           |                 | 135                     | 50                      | 25                      |
| IDP-HEAT-W      | FT     | D1                            | -           |                 | 135                     | 50                      | 25                      |
| SD505-AHS       | FT     | None                          | -           |                 | 135 <b>-</b> 150        | 70                      | 25                      |
| SD505-HEAT      | FT/ROR | D2                            | -           |                 | 135-194                 | 70                      | 35                      |
| SK-HEAT         | FT     | D1                            | -           |                 | 135                     | 50                      | 25                      |
| SK-HEAT-HT      | FT     | D1                            | -           |                 | 190                     | 50                      | 25                      |
| SK-HEAT-HT-W    | FT     | D1                            | -           |                 | 190                     | 50                      | 25                      |
| SK-HEAT-ROR     | FT/ROR | None                          | -           |                 | 135                     | 50                      | 25                      |
| SK-HEAT-ROR-W   | FT/ROR | D1                            | -           |                 | 135                     | 50                      | 25                      |
| SK-HEAT-W       | FT     | D1                            | -           |                 | 135                     | 50                      | 25                      |
| WIDP-HEAT       | FT     | D1                            | -           |                 | 135                     | 50                      | 25                      |
| WIDP-HEAT-ROR   | FT/ROR | D1                            | -           |                 | 135                     | 50                      | 25                      |
| WSK-HEAT        | FT     | D1                            | -           |                 | 135                     | 50                      | 25                      |
| WSK-HEAT-ROR    | FT/ROR | D1                            | -           |                 | 135                     | 50                      | 25                      |
| Base Model      |        | Related Detector              |             |                 | Contro<br>Compatibility | ol Unit<br>Restrictions | 5                       |

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S6228

NOW

AVAILABLE

| 6/7/2018 |
|----------|
|----------|

|          |           | UQGS.S6228 - Heat-automatic Fire Detectors |      |  |
|----------|-----------|--|------|--|
| D505-6AB | SD505-APS |  | None |  |

D1 - Listing limited to specific system control unit. Information on compatible control unit indicated on installation drawing of control unit and/or detector.

D2 - For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

FT - Fixed temperature

S

FT/ROR - Fixed temperature/rate of rise combination

D2 - For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

#### Honeywell

SUNT

Trademark and/or Tradename:

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## UROX.S6173 Smoke-automatic Fire Detectors

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## **Smoke-automatic Fire Detectors**

See General Information for Smoke-automatic Fire Detectors

#### SILENT KNIGHT BY HONEYWELL

1985 Douglas Dr MN10-212A Golden Valley, MN 55422 USA

| Detector                |               |            | Compatibility  | Velocity<br>Range<br>(fpm) |      | Date<br>of  | Time of<br>Manufacture | Firmware<br>Version |
|-------------------------|---------------|------------|----------------|----------------------------|------|-------------|------------------------|---------------------|
| Model                   | Application   | Туре       | Restrictions   | Min                        | Мах  | Manufacture | Firmware<br>Version    | Update              |
| IDP-BEAM, IDP-          | BEAM-T, SK-BE | AM, SK-BE  | AM-T           |                            |      |             |                        |                     |
|                         | ΟΑΡ           | РВ         | D2             |                            |      | -           | -                      | -                   |
| IDP-FIRE-C0             | ΟΑΡ           | P(IHD)     | D4             | 0                          | 4000 | -           | -                      | -                   |
| IDP-ION, SK-<br>ION     | OAP           | I          | D2             | 0                          | 500  | -           | -                      | -                   |
| IDP-PHOTO, IDP          | -PHOTOR, SK-  | рното, sk  | -PHOTOR        |                            |      |             |                        |                     |
|                         | OAP, D(I)     | Р          | D2             | 0                          | 4000 | -           | -                      | -                   |
| IDP-PHOTO-IV            | OAP, D(I)     | Р          | D2             | 0                          | 4000 | -           | -                      | -                   |
| IDP-PHOTO-R-<br>IV      | OAP, D(I)     | Р          | D2             | 0                          | 4000 | -           | -                      | -                   |
| IDP-PHOTO-R-<br>W       | OAP, D(I)     | Р          | D2             | 0                          | 4000 | -           | -                      | -                   |
| І <b>ДР-РНОТО-Т,</b> ІІ | OP-ACCLIMATE  | E, SK-PHOT | D-T, SK-ACCLIM | ATE                        |      |             | -                      |                     |
|                         | ΟΑΡ           | P(IHD)     | D2             | 0                          | 4000 | -           | -                      | -                   |
| IDP-PHOTO-T-<br>IV      | OAP, D(I)     | Ρ          | D2             | 0                          | 4000 | -           | -                      | -                   |
| IDP-PHOTO-T-<br>W       | OAP, D(I)     | Ρ          | D2             | 0                          | 4000 | -           | -                      | -                   |
| IDP-PHOTO-W             | OAP, D(I)     | Р          | D2             | 0                          | 4000 | -           | -                      | -                   |
| SD400-CPS               | ΟΑΡ           | Р          | D6             | 0                          | 300  | -           | -                      | -                   |
| SD505-AIS               | ΟΑΡ           | Ι          | D2, D6         | 0                          | 300  | -           | -                      | -                   |
| SD505-APS               | ΟΑΡ           | Р          | D2, D6         | 0                          | 300  | -           | -                      | -                   |
| SD505-DUCT              | D(ST)         | Р          | D2, D6         | 300                        | 4000 | -           | -                      | -                   |
| SD505-PHOTO             | OAP, D        | Р          | D2             | 0                          | 4000 | -           | -                      | -                   |
| SK-FIRE-CO              | OAP           | P(IHD)     | D4             | 0                          | 4000 | -           | -                      | -                   |

S6173

#### UROX.S6173 - Smoke-automatic Fire Detectors

| SK-PHOTO-R-W       | OAP, D(I) | Ρ              | D2 | 0 | 4000 | - | - | - |
|--------------------|-----------|----------------|----|---|------|---|---|---|
| SK-РНОТО-Т-W       | OAP, D(I) | Р              | D2 | 0 | 4000 | - | - | - |
| SK-РНОТО-W         | OAP, D(I) | Р              | D2 | 0 | 4000 | - | - | - |
| WIDP-<br>ACCLIMATE | OAP       | P(RF)          | D2 | 0 | 4000 | - | - | - |
| WIDP-PHOTO         | ΟΑΡ       | P(RF)          | D2 | 0 | 4000 | - | - | - |
| <b>WSK-</b> РНОТО  | OAP       | P(RF)          | D2 | 0 | 4000 | - | - | - |
| WSK-РНОТО-Т        | ΟΑΡ       | P(RF)<br>(IHD) | D2 | 0 | 4000 | - | - | - |

| Detector                                 |             |      | Compatibility | Velo<br>Ra<br>(fr | ocity<br>nge<br>om) | Pres<br>Differ<br>Betv<br>Sam<br>Tu | sure<br>ential<br>veen<br>pling<br>be | Date<br>of  | Time of<br>Manufacture | Firmware<br>Version |
|--|-------------|------|---------------|-------------------|---------------------|-------------------------------------|---------------------------------------|-------------|------------------------|---------------------|
| Model                                    | Application | Туре | Restrictions  | Min               | Max                 | Min                                 | Max                                   | Manufacture | Firmware<br>Version    | Update              |
| IDP-<br>PDUCT,<br>IDP-<br>PDUCT-R<br>(a) | D(ST)       | Ρ    | D2            | 100               | 4000                | 0.03                                | 1.4                                   | -           | -                      | -                   |
| SK-DUCT<br>(b)(c)                        | D(ST)       | Р    | D2            | 100               | 4000                | 0.01                                | 1.11                                  | -           | -                      | -                   |

| Base Model                             | Related Detector   | Control Unit<br>Compatibility<br>Restrictions |
|--|--|---|
| B210LP                                 | IDP-FIRE-C0 (CO), SK-FIRE-CO (CO)  | B2  |
| B501, B200S, B210LP,<br>B224RB, B224BI | IDP-FIRE-C0 (CO), SK-FIRE-CO (CO)  | В4  |
| IDP-6AB                                | 1151, 1151RIS, 2151, 1251, 2251, 3251, 7251, IDP-PHOTO, IDP-PHOTO-T, IDP-<br>ION, IDP-HEAT, IDP-HEAT-HT, IDP-HEAT-ROR, IDP-ACCLIMATE | В2  |
| SD505-4AB                              | SD505-AIS, SD505-APS   | B2  |
| SD505-6AB                              | SD505-AIS, SD505-APS   | B2  |
| SD505-6RB                              | SD505-AIS, SD505-APS, SD505-AHS  | B2  |
| SD505-6SB                              | SD505-AIS, SD505-APS, SD505-AHS  | B2  |

B2 - For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

B4 - For connection to any manufacturer's Listed compatible control unit.

D2 - For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

D4 - For connection to any manufacturer's Listed compatible control unit.

D6 - When using 2-wire bases Listing limited to specific system control unit. Information on compatible control unit indicated on installation drawing of control unit and/or detector. When using 4 wire bases, no restriction on compatibility.

OAP - Open Area Protection

PB - Projected Beam

P - Photoelectric

IHD - Includes Integral Heat Detector

I - Ionization

D(I) - Duct Detector - Installation Inside Duct

D(ST) - Duct Detector - Sampling Tubes

D - Duct Detector

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RF - Includes Integral Radio Frequency Transmitter

**Date of Manufacture** identifies the manufacturing start date of all product models that will use the specific Time of Manufacture Firmware Version. The date of manufacture is noncoded and in the format YEAR (in 4 digits), MONTH (in letters), DAY (in 2 digits).

**Time of Manufacture Firmware Version** identifies a numerical and/or alphabetic series designation that is product and date-code specific and will only identify the Firmware Version at the time the product was manufactured. The numeric and/or alphabetic sequence is defined by the manufacturer.

**Firmware Version Update** is a numerical and/or alphabetic sequential identification that is product and date-code specific and sequentially identifies the Firmware Version Update from the previous version of firmware. The numerical and/or alphabetic sequence is defined by the manufacturer.

(a) - Suitable for use in ambient temperatures of 0-55 C (23-131 F).

(b) - SK-DUCT duct housing can be used with the following compatible detector heads: IDP-PHOTO, IDP-PHOTOR, SK-PHOTOR, SK-PHOTOR.

(c) - Suitable for elevated temperatures up to 70 C.

CO - Suitable for use as a carbon monoxide alarm

#### Honeywell

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## Automatic Releases for Preaction and Deluge Sprinkler Systems

The function of these releases is to open water valves automatically via FM Approved fire detection devices.

Release control panels FM Approved for deluge and preaction sprinkler systems are compatible with the specified solenoid-operated valves, have standby power supplies capable of providing the required 90-hour system operation should primary power fail, and fire detection circuitry capable of operation during open circuit fault condition.

#### IFP 2100/RFP-2100, IFP-2100HV Releases

The IFP 2100/RFP/2100, IFP-2100HV release circuits Class A Style D, supervised, rated 24Vdc. The IFP 2100 is provided with the releasing circuits for agent release which will actuate a 24Vdc control head or initiator-based releasing devices. The IFP 2100 is provided with the releasing circuit for sprinkler release which will actuate a 24Vdc control head. For Approved combination of solenoid and water control valves, refer to Automatic Water Control Valve listings that follow. The IFP 2100 is provided with standby battery capacity from 40AH and up to 55 AH to supply the required 90 hours of standby. (See complete IFP 2100 System description under LOCAL PROTECTIVE SIGNALING)

Control Panel Group 1: The IFP 2100/RFP-2100 System is compatible with Solenoid Groups Rated 11W and below.

| Company Name: Silent Knight Div of Honeywell                           |                               |  |
|--|-------------------------------|--|
| Company Address: 7550 Meridian Circle N, Maple Grove, Minnesota 55369, |                               |  |
| Company Website:   | http://www.silentknight.com   |  |
| New/Updated Product Listing:   | No                            |  |
| Listing Country:   | United States of America      |  |
| Certification Type:  | FM Approved                   |  |
| Primary Class of Work:   | 1011-Deluge Sprinkler Systems |  |



## **Electrical Signaling**

Electrical protective signaling systems are configurations of components used to produce alarm signals indicative of fire, smoke, sprinkler waterflow or other emergency and to produce supervisory signals indicative of conditions needing attention with respect to protection equipment or watch service. System configurations are classified according to where and how the signals are received. The categories are commonly designated as local, municipal, remote station, proprietary, emergency voice/alarm communication, emergency communication, and central station. Auxiliary systems are either local or proprietary systems interconnected with a municipal system.

This category presents the major system component categories and the integrated system configurations. The selection of components to form a hybrid system should be made only by those skilled in system design. Also, the suitability of any system application should be judged on the basis of the hazard(s) being protected.

## Local Protective Signaling

Local systems produce alarm and/or supervisory signals within the protected property, which may not be constantly attended. The systems are electrically supervised, include a secondary power supply having sufficient capacity to operate the system for 24 hours under maximum normal load and often are primarily for the purpose of providing occupant evacuation signals. Some local systems also provide for signaling to a constantly attended remote location.

The heart of a signaling system consists of a control unit to which are connected the initiating and signal indicating circuits. The control unit is usually in a separate enclosure, provides power to its external circuits, and often is of modular design to enable flexibility in obtaining multiple functions. In a coded signaling system, transmitters may be either separate from or integral to a control; they transmit to the control or from a control to remote receiving equipment. The equipment listed below, in conjunction with peripheral devices, may be used to form a complete system or a portion of a multizone system.

## IFP-2000, Fire Alarm Control/Communicator

The IFP-2000 Fire Alarm Control/Communicator is an analog addressable fire control system with software revision 2.00. The IFP-2000HV is the same as the IFP-2000 except it has 240VAC input power. The RPS-2000 and the RPS-2000HV, respectively, are the same as the IFP-2000 panel contains one built in signaling line circuit (SLC), which can support up to 159 IDP sensors and 159 IDP basic IFP-2000 panel contains one built in signaling line circuit (SLC), which can support up to 159 IDP sensors and 159 IDP PULL-SA, PS-DAH and PS-DALOB Manual Pull Stations. The following analog addressable Wenlock Heat detectors are compatible with the control: Models IDP-HEAT-W, IDP-HEAT-HT-W, IDP-HEAT-ROR-W, SK-HEAT-ROR-W, SK-HEAT-ROR-W and IDP-HEAT-HT-W, SK-HEAT-HT-W, IDP-HEAT-HT-W, IDP-HEAT-ROR-W, SK-HHOTO-R, UDP-HOTO-R-W, IDP-HOTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-W, IDP-ROTO-R-R

Gamewell-FCI network repeaters: RPT-E3-UTP - Network repeater, unshielded twisted pair: 13ma Standby and Alarm RPT-E3-FO - Network repeater, fiber optic: 13ma Standby and Alarm

Maximum Battery Standby Loads for 24 Hour Standby

| Rechargeable | 24 hr Standby, | 24 hr Standby, | 24 hr Standby, |
|--------------|----------------|----------------|----------------|
| Battery Size | 5 mins Alarm   | 15 min Alarm   | 20 min Alarm   |
|              |                |                |                |



| 17AH | 535mA | 473mA | 442mA |
|------|-------|-------|-------|
| 24AH | 769mA | 706mA | 675mA |
| 33AH | 1.07A | 1.01A | 975mA |
| 40AH | 1.30A | 1.24A | 1.21A |
| 55AH | 1.80A | 1.74A | 1.71A |

Maximum Battery Standby Loads for 90 Hour Standby

| Rechargeable<br>Battery Size | 24 hr Standby,<br>5 mins Alarm | 90 hr Standby,<br>15 min Alarm | 90 hr Standby,<br>20 min Alarm |
|------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 17AH                         | N/A                            | N/A                            | N/A                            |
| 24AH                         | N/A                            | N/A                            | N/A                            |
| 33AH                         | N/A                            | N/A                            | N/A                            |
| 40AH                         | 347mA                          | 331mA                          | 322mA                          |
| 55AH                         | 480mA                          | 464mA                          | 456mA                          |

(See also AUTOMATIC RELEASES FOR PREACTION AND DELUGE SPRINKLER SYSTEMS)

| Company Name:                | Silent Knight Div of Honeywell                            |
|------------------------------|---|
| Company Address:             | 7550 Meridian Circle N, Maple Grove, Minnesota 55369, USA |
| Company Website:             | http://www.silentknight.com                               |
| New/Updated Product Listing: | No  |
| Listing Country:             | United States of America                                  |
| Certification Type:          | FM Approved   |
| Primary Class of Work:       | 3010-Fire Alarm Systems                                   |



### **Electrical Signaling**

Electrical protective signaling systems are configurations of components used to produce alarm signals indicative of fire, smoke, sprinkler waterflow or other emergency and to produce supervisory signals indicative of conditions needing attention with respect to protection equipment or watch service. System configurations are classified according to where and how the signals are received. The categories are commonly designated as local, municipal, remote station, proprietary, emergency voice/alarm communication, emergency communication, and central station. Auxiliary systems are either local or proprietary systems interconnected with a municipal system.

This category presents the major system component categories and the integrated system configurations. The selection of components to form a hybrid system should be made only by those skilled in system design. Also, the suitability of any system application should be judged on the basis of the hazard(s) being protected.

#### **Alarm Signal Initiating Devices**

Alarm signals are initiated either automatically or manually. Automatic detectors respond to changes in characteristic phenomena associated with fire or other emergency conditions.

#### Fire Detection, Heat-Actuated

Heat sensitive devices may be either "spot" or "line" type and operate at a fixed temperature or on a rapid increase in temperature (rate-of-rise). Some detectors combine the fixed and rate sensitive principles.

The spacing guides listed are indicative of each detector's relative sensitivity and, in each case, the spacing guide is the maximum recommended separation between detectors for smooth-ceiling installations. For a given temperature rating, a fixed-temperature detector which has a 30 ft (9 m) listing and one which has a 15 ft (5 m) listing will both respond at approximately the same time to a geometrically growing fire if each is installed at its listed spacing. FM Approved rate-of-rise detectors all have 30 ft (9 m) listed spacings, the maximum separation recommended by FM Approvals.

Installation of heat detectors at less than maximum spacing is necessary: to achieve earlier response; to compensate for ceiling obstructions such as beams and joists; and to compensate for ceiling heights greater than 15 ft (5 m). Proper location and use of heat detectors involves consideration of ceiling construction, the location of partitions, the maximum normal room temperature, heat produced by the occupancy, and whether detector function is to warn occupants or to automatically actuate protection equipment. Refer to Standard 72-1993 of the National Fire Protection Association and design specifications published by jurisdictional authorities, as appropriate.

## Models IDP-HEAT-W, SK-HEAT-W, IDP-HEAT-IV, IDP-HEAT-ROR-W, SK-HEAT-ROR-W, IDP-HEAT-ROR-IV...

Models IDP-HEAT-W, SK-HEAT-W, IDP-HEAT-IV, IDP-HEAT-ROR-W, SK-HEAT-ROR-W, IDP-HEAT-ROR-IV and IDP-HEAT-HT-W, SK-HEAT-HT-W, IDP-HEAT-HT-IV are field programmable analog addressable heat detectors. The temperature sensor can be programmed as either a 135°F (57°C) or 190°F (88°C) fixed temperature or rate-of-rise device through the FACP.

| Compatible Fire<br>Alarm Panels   | IFP-75<br>IFP-75B<br>IFP-300<br>IFP-300B<br>IFP-1000<br>IFP-2000<br>IFP-2100<br>IFP-2100B<br>6700<br>6808<br>5820XL<br>6820  |
|-----------------------------------|--|
| Compatible<br>detector bases      | B224RB, B224RBA, B300-6, B501, B300-6, B300-6-IS, B300A-6, B200S, B200SA, B200S-LF, B200SR, B200SRA, B200SR-LF, B210LP, B210LPA, B224BI, B224BIA, B710LP, and B710LPA.(these models may also have a suffix of -IV (Ivory), -WH, -WHITE (White) or -BL (Black) designating their color) |
| Fixed temperature operating range | 57°C, fixed – IDP-HEAT-W, SK-HEAT-W, IDP-HEAT-IV, IDP-HEAT-ROR-W, SK-HEAT-ROR-W, IDP-HEAT-ROR-IV;<br>88°C, fixed – IDP-HEAT-HT-W, SK-HEAT-HT-W, IDP-HEAT-HT-IV;  |
| Rate of Rise feature              | Yes – IDP-HEAT-ROR-W, SK-HEAT-ROR-W, IDP-HEAT-ROR-IV;  |
| RTI classification                | Special  |
| Maximum spacing                   | 4.6m by 4.6m (15ft by 15ft)  |



| Operating voltage range        | 15 to 32Vdc  |
|--------------------------------|--|
| Operating<br>temperature range | -20° to 38°C - IDP-HEAT-W, SK-HEAT-W, IDP-HEAT-IV, IDP-HEAT-ROR-W, SK-HEAT-ROR-W, IDP-HEAT-ROR-IV;<br>-20° to 66°C - IDP-HEAT-HT-W, SK-HEAT-HT-W, IDP-HEAT-HT-IV;  |
| Maximum humidity               | 10 to 93% RH, non-condensing   |
| Power consumption              | Standby current: 200µA;<br>Alarm current: 2mA;<br>Maximum current: 4.5mA   |
| Outputs                        | Multi-color LED  |
| Transmission<br>method         | All models have flashscan protocol, - IV models also have Classic Loop Interface Protocol (CLIP);  |
| Enclosure                      | Indoor use only;   |
| Explanation of<br>Suffixes     | <ul> <li>"A" – for use in Canada;</li> <li>"ROR" – rate of rise heat sensor;</li> <li>"HT" - high temperature heat sensor.</li> <li>"IV" – ivory color enclosure.</li> <li>"BL" – black color enclosure.</li> <li>"WH" or "WHITE" – white color enclosure</li> </ul> |

| Company Name:                | Silent Knight Div of Honeywell                            |
|------------------------------|---|
| Company Address:             | 7550 Meridian Circle N, Maple Grove, Minnesota 55369, USA |
| Company Website:             | http://www.silentknight.com                               |
| New/Updated Product Listing: | No  |
| Listing Country:             | United States of America                                  |
| Certificate Number:          |   |
| Certification Type:          | FM Approved   |



## Electrical Signaling

Electrical protective signaling systems are configurations of components used to produce alarm signals indicative of fire, smoke, sprinkler waterflow or other emergency and to produce supervisory signals indicative of conditions needing attention with respect to protection equipment or watch service. System configurations are classified according to where and how the signals are received. The categories are commonly designated as local, municipal, remote station, proprietary, emergency voice/alarm communication, emergency communication, and central station. Auxiliary systems are either local or proprietary systems interconnected with a municipal system.

This category presents the major system component categories and the integrated system configurations. The selection of components to form a hybrid system should be made only by those skilled in system design. Also, the suitability of any system application should be judged on the basis of the hazard(s) being protected.

## Alarm Signal Initiating Devices

Alarm signals are initiated either automatically or manually. Automatic detectors respond to changes in characteristic phenomena associated with fire or other emergency conditions.

#### Fire Detection, Smoke-Actuated

FM Approved smoke actuated devices respond to airborne particulate products of combustion.

The photoelectric principle is based on the change in current which accompanies a change in light intensity on a photoelectric cell as a result of smoke entering the detector.

The beam type version has the light source and photoelectric cell separated in the protected area.

The ionization type detector ionizes the air in special chambers within the detector.

Particles entering the exposed chamber decrease the normal ionization current.

Air-sampling detectors have ambient air drawn from the protected area into a chamber containing the sensing element. Air duct smoke detectors are for the primary purpose of controlling blowers and dampers of air conditioning and ventilating systems to prevent distribution of smoke and gaseous products;

they should not be used as a substitute for open area detection.

Unless otherwise indicated in the listing, the permissible air velocity range for duct type detectors is 250 to 1500 ft/min (75 to 455

*m/min)* and up to 300 ft/min (90 m/min) for open area detectors. A "smoke switch" is fail-safe in that loss of power to the device causes the same switching operation as when smoke is detected. Average coverage should not exceed 900 ft2 (84 m2 ) per detector. Reduced coverage is recommended beneath high ceilings and for high air flow areas such as computer rooms.

These devices are suitable for use in ambients of 32°-100°F (0°-38°C) unless otherwise indicated in the listing. Installation, testing, and maintenance by trained personnel are recommended.

## Fire Detectors-Smoke

#### Models IDP-PHOTO-W, SK-PHOTO-W, IDP-PHOTO-IV, IDP-PHOTO-R-W, SK-PHOTO-R-W, IDP-PHOTO-R-IV...

Models IDP-PHOTO-W. SK-PHOTO-W. IDP-PHOTO-IV. IDP-PHOTO-R-W. SK-PHOTO-R-W. IDP-PHOTO-R-IV and IDP-PHOTO-T-W, SK-PHOTO-T-W, IDP-PHOTO-T-IV; are field programmable analog addressable photoelectric smoke detectors.

| Compatible Fire<br>Alarm Panels | IFP-75<br>IFP-75B<br>IFP-300<br>IFP-300B<br>IFP-1000<br>IFP-2000<br>IFP-2100<br>IFP-2100B<br>6700<br>6808<br>5820XL<br>6820   |
|---------------------------------|---|
| Compatible<br>detector bases    | B224RB, B224RBA, B300-6, B501, B300-6, B300-6-IS, B300A-6, B200S, B200SA, B200S-LF,<br>B200SR, B200SRA, B200SR-LF, B210LP, B210LPA, B224BI, B224BIA, B710LP, and<br>B710LPA.(these models may also have a suffix of -IV (Ivory), -WH, -WHITE (White) or -BL (Black)<br>designating their color)<br>All models are also for use with the following Listed duct detector housing: System Sensor Models<br>DNR, DNRA, and DNRW; Silent Knight Model FHS-D; and Fire-Lite Model D355PL. |
| Sensitivity range               | 0.5%/ft. to 4.0%/ft.  |



| Maximum<br>spacing*            | 9m by 9m (30ft by 30ft) – if installed as a smoke detector*  |  |
|--------------------------------|--|--|
| Operating voltage range        | 15 to 32Vdc  |  |
| Operating<br>temperature range | 0° to 50°C, -20° to 70°C in duct applications;   |  |
| Air velocity range             | 0-4000 fpm   |  |
| Maximum<br>humidity            | 0 to 93% RH, non-condensing  |  |
| Power<br>consumption           | Standby : 200μA;<br>Alarm: 2mA (with a red LED on);<br>Alarm: 4.5mA (with an amber LED on);  |  |
| Outputs                        | Multi-color LED;   |  |
| Transmission<br>method         | All models have flashscan protocol, - IV models also have Classic Loop Interface Protocol (CLIP);  |  |
| Enclosure                      | Indoor use only;   |  |
| Explanation of<br>Suffixes     | <ul> <li>"A" – for use in Canada;</li> <li>"R" – remote test "RAT" feature enabled;</li> <li>"IV" – ivory color enclosure.</li> <li>"BL" – black color enclosure.</li> <li>"WH" or "WHITE" – white color enclosure</li> <li>"T" – smoke sensor combines a photoelectric sensing chamber and 57°C fixed temperature heat detector.</li> </ul> |  |

| Company Name:                | Silent Knight Div of Honeywell                            |
|------------------------------|---|
| Company Address:             | 7550 Meridian Circle N, Maple Grove, Minnesota 55369, USA |
| Company Website:             | http://www.silentknight.com                               |
| New/Updated Product Listing: | No  |
| Listing Country:             | United States of America                                  |
| Certification Type:          | FM Approved   |
| Primary Class of Work:       | 3010-Fire Alarm Systems                                   |



# CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

## **Honeywell Fire Safety**

Main Site: One Fire-Lite Place, Northford, Connecticut, 06472, United States

See appendix for additional sites and additional site scopes

has been registered by Intertek as conforming to the requirements of:

## ISO 9001:2015

## The management system is applicable to:

The design, manufacture, test and distribution of fire alarm controls, networks and related equipment.

**Certificate Number:** 93-040p

**Initial Certification Date:** 06 April 1993

**Date of Certification Decision:** 28 September 2018

Issuing Date: 28 September 2018

Valid Until: 03 June 2020



Calin Moldovean President, Business Assurance

Intertek Testing Services NA, Inc., 900 Chelmsford Street, Lowell, MA 01851. USA.





In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.

## **Country of Origin**

Please refer to next page

Honeywell Middle East FZE Trade License No. 7360 P.O. Box: 18530, Office No. LB190401 Jebel Ali, Dubai, U.A.E.



هـانــيــويــل هــيـدل إيـــست م.م.ح. رقم الرخصة تجارية ٧٣٦٠ ص.ب. : ١٨٥٣٠، مكتب رقم ال او بي ١٩٠٤٠١ جبل علي، دبي، ا.ع.م.

Dated: 15 Oct 2018

#### Reference No. S/2018/146

#### To Whom It May Concern:

#### **Country of Origin Certificate**

This letter is to state that Honeywell owns and operates factories in over 30 countries. Products are manufactured under the brand name and logo of Honeywell Corporation in USA, Italy, United Kingdom, Mexico, Canada, Japan, Korea, Taiwan, China, Australia, South Africa, Switzerland and the Netherlands. Honeywell hereby confirms that <u>all Honeywell brand products have been tested and in accordance by our</u> <u>Global Quality Assurance Department under the direct control and leadership of our USA Head quarters to ensure the products Quality and Performance.</u>

Further, Honeywell manufactures the following list of products in the countries as listed across it only:

| Product code      | Description   | COO     |
|-------------------|---|---------|
| IFP-2100HV        | Farenhyt 2100 point Addressable Fire Panel, 4 line LCD display with 40<br>characters per line, One SLC loop card inbuild, 159 Detectors and 159<br>Modules per loop, Additional Loop cards can be expanded through<br>5815RMK (Remote mounting Kit which accomodates 2 SLC Cards (6815)),<br>Network upto 32 panels, inbuild eight on-board Flexput <sup>™</sup> circuits,Built in<br>USB interface,for programming,Four programmable function keys,<br>240VAC @ 50/60Hz, 2.8A, UL Listing and FM Approved, Black Cabinet | USA     |
| 6815              | SLC Loop Expander which supports 159 Detectors and 159 Modules  | USA     |
| 5815RMK           | Remote Mounting Kit   | USA     |
| SK-NIC            | Network Interface Card  | USA     |
| SK-FSL            | Network Interface Card  | USA     |
| BAT-12550         | BATTERY, 12 VOLT, 55 AH.  | VIETNAM |
| BB-55F            | BATTERY BOX, HOLDS UP TO TWO BAT-12260 (26 AH) OR BAT-12550 (55 AH)   | USA     |
| ECS-<br>DUAL50WHV | Amplifier 50/100 Watt Dual Channel / Back-up Amp -high Voltage 220vac 50 Hz   | USA     |
| BAT-12180-BP      | TWO (2) BAT-12180 (12V, 18AH) SHIPPED IN EACH BULK PACK   | VIETNAM |
| IFP-NET-3         | Software and key (a key is required on each PC in system)   | USA     |
| IFPN-GW-KIT       | Installation packages includes Gateway interface, Cabinet, and 5824<br>Serial/Parallel printer interface  | USA     |
| RA-2000           | 4 X 40 Display Remote Annunciator. Red  | USA     |
| IDP-PHOTO         | Intelligent Addressable Photoelectric Detector  | MEXICO  |
| B501              | 4" Mounting Base  | MEXICO  |
| B200S             | Intelligent Sounder Base High/low Volume Output W/ansi Temporal 3 Or Temporal 4, Continuous, March Or Custom Tone   | MEXICO  |
| IDP-FIRE-CO       | Advanced Multi-Criteria Fire/CO Detector  | ITALY   |
| RA100Z            | Remote LED. Mounts to single gang box.  | MEXICO  |
| IDP-PULL-DA       | Addressable Manual Dual Action Pull Station   | MEXICO  |
| IDP-PHOTOR        | Intelligent Photoelectric Replacement Smoke Detector remote test capable, for use with DNR (W) duct smoke detector  | MEXICO  |

| DNR           | InnovairFlex intelligent duct detector, non-relay, does not include head   | MEXICO        |  |  |
|---------------|--|---------------|--|--|
| ST-5          | Detector sampling tube, 4-8' ducts   | MEXICO        |  |  |
| P48-21-00     | Replacement End Cap for Metal  | USA           |  |  |
| RTS151KE      | 1KE Key-Activated Remote Test station  |               |  |  |
| IDP-BEAM      | Intelligent Addressable Beam Smoke Detector  | MEXICO        |  |  |
| BEAMMMK       | Projected Beam Smoke Detector Multi-Mount Kit, Wall or Ceiling.  | MEXICO        |  |  |
| BEAMLRK       | Projected Beam Smoke Detector Long Range Kit, Increases Distance.  | DE            |  |  |
| RTS151        | Remote Test Station.   | MEXICO        |  |  |
| IDP-ACCLIMATE | Intelligent Addressable Multicriteria Photoelectric Smoke Detectorc<br>(Smoke with Thermal (Base Not Included)                             | MEXICO        |  |  |
| 9400X         | FAAST XT 4 CHANNEL   | MEXICO        |  |  |
| 761520.10     | Pipe (ABS), length 3 m, 25 mm PU 10 pcs. Total 30 mts  | GREAT BRITAIN |  |  |
| 761525.10     | Sleeve (ABS) for 25 mm pipe PU 10 pcs.   | GREAT BRITAIN |  |  |
| 761523.10     | 45° angle (ABS) for 25 mm PU 10 pcs.   | GREAT BRITAIN |  |  |
| 761522.10     | 90° angle (ABS) for 25 mm PU 10 pcs.   | GREAT BRITAIN |  |  |
| 761526.10     | End cap (ABS) for 25 mm pipe PU 10 pcs.  | GREAT BRITAIN |  |  |
| 761542.10     | Suctions hose set for 25 mm  | GREAT BRITAIN |  |  |
| 761524.10     | T-piece (ABS) for 25 mm pipe PU 10 pcs.  | GREAT BRITAIN |  |  |
| IDP-CONTROL   | Addressable Control Module   | MEXICO        |  |  |
| IDP-HEAT      | Intelligent Addressable Thermal Detector Fixed Temp 135 (Base Not<br>Included)   | MEXICO        |  |  |
| IDP-HEAT-ROR  | Intelligent Addressable Fixed temperature and rate-of rise thermal detector (Rate-of-rise detection 15°F/min (9°C/min) (Base Not Included) | MEXICO        |  |  |
| B200S         | Intelligent Sounder Base High/low Volume Output W/ansi Temporal 3 Or<br>Temporal 4, Continuous, March Or Custom Tone                       | MEXICO        |  |  |
| FSL100-UV     | UVIR flame detector RED, ATEX FM EN54 NETHERLA   |               |  |  |
| S2000A        | Sensor cable ME  |               |  |  |

Yours sincerely,

Jabri, Fahmi Strategy and Marketing Director, Honeywell Security and Fire

## Warranty Certificate

Please refer to next page

Honeywell Middle East FZE Trade License No. 7360 P.O. Box: 18530, Office No. LB190401 Jebel Ali, Dubai, U.A.E.



هــانــيــويــل ۵ــيـدل إيـــست م.م.ح. رقم الرخصة تجارية ۷۳٦٠ ص.ب. : ۱۸۵۳۰، مكتب رقم ال او بي ۱۹۰٤۰۱ جبل علي، دبي، ا.ع.م.

Reference No. S/2018/223

Dated: 1 Oct 2018

#### To Whom It May Concern:

This letter is to state that Honeywell owns and operates factories in over 30 countries. Products are manufactured under the brand name and logo of Honeywell Corporation in USA, Italy, United Kingdom, Mexico, Canada, Japan, Korea, Taiwan, China, Australia, South Africa, Switzerland and the Netherlands. Honeywell hereby confirms that <u>all Honeywell brand products have been tested and in accordance by our</u> <u>Global Quality Assurance Department under the direct control and leadership of our USA Head quarters to ensure the products Quality and Performance.</u>

The Standard warranty for Honeywell Farenhyt Fire Alarm is Three years against manufacturing defects from the date of manufacture. Please reach out to the undersigned for any clarifications

Yours sincerely,

Jabri, Fahmi Strategy and Marketing Director,



Honeywell Security and Fire

## 11. Samples

## 11.A Sample Label with detail item Number

Please refer to next page

| ITEMS no | Material      | Material Description .                   |
|----------|---------------|--|
| 1        | FFT-FPJ       | FIRE PHONE JACK                          |
| 2        | IDP-CONTROL-6 | CONTROL MULTIMOD SK                      |
| 3        | SPSRL         | SPEAKER STROBE RED WALL                  |
| 4        | PC2RL         | HORN/STRB 2W RED CEIL 4X4                |
| 5        | IDP-PULL-DA   | PULL INTEL KEY D/A SK                    |
| 6        | IDP-PHOTO     | SMK DET INTEL PHOTO SK                   |
| 7        | IDP-ACCLIMATE | SMKDET INTEL ACCLIMATE, REQUIRES BASE    |
| 8        | IDP-HEAT      | HEAT INTEL FIX 135 SK                    |
| 9        | IDP-HEAT-ROR  | HEAT INTEL ROR SK                        |
| 10       | HRL           | HORN RED WALL 4X4                        |
| 11       | SCRL          | STROBE RED CEIL 4X4                      |
| 12       | IDP-CONTROL   | MOD SINGLE CONTROL SK                    |
| 13       | IDP-ISO       | MODULE SINGLE ISO SK                     |
| 14       | IDP-MINIMON   | MOD SINGLE MINI MONITOR SK               |
| 15       | IDP-FIRE-CO   | MULTI CRITERIA FIRE CO SILENT KNIGHT IDP |
| 16       | SPCRL         | SPEAKER CEILING RED                      |
| 17       | P2RL          | HORN/STRB 2W RED WALL 4X4                |
| 18       | SRL           | STROBE RED WALL 4X4                      |
| 19       | RA100Z        | REMOTE INDICATOR                         |

..... End of Proposal .....