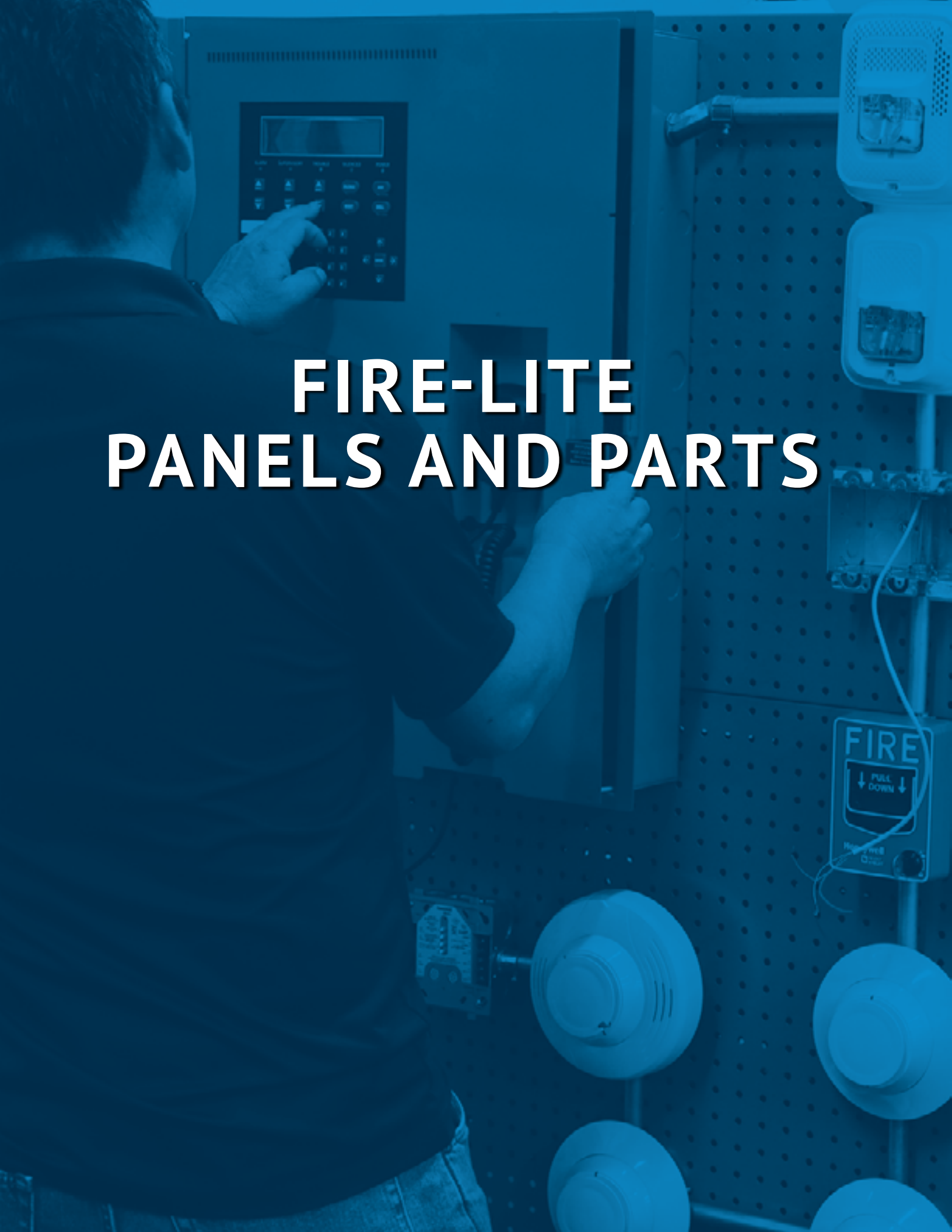
HONEYWELL FIRE-LITE

VIRTUAL TRAINING MANUAL

FED®

LEARNING CENTER

ICC PREFERRED EDUCATION PROVIDER



FIRE-LITE PANELS AND PARTS

Endurance Has Arrived

Fire-Lite systems provide an ideal fit for educational institutions, hospitals and health care facilities, commercial complexes, retail spaces, and government buildings around the world.

Fire-Lite Alarms, One Fire Lite Place, Northford, CT. 06472

Fire-Lite Addressable Control Panels

ES-50X, ES-200X, ES-1000X

- Features cost-effective, intelligent fire alarm control panels
- Designed for ease of installation, programming and operability
- Common platform
- Multi-technology central station communicators
  - POTS
  - IP
  - Cellular

What's New???

- The Lineup:
  - ES-50X (replaces MS-9050UD)
  - ES-200X (replaces MS9200UDLS)
  - ES-1000X (replaces MS9600/9600UDLS)
- Upload/download and firmware upgrades via USB thumb drive or USBA cable
- Four programmable function keys
- Temporal-4 NAC coding for CO alarms
- Addressable multi-criteria detector SD365CO (smoke, heat, CO)
- Programmable sounder base (B200S)
- 3 SLCs for ES-1000X (954 total points!)
- Increased # of software zones for ES-50X and ES-1000X (ES-50X = 50 zones, ES-1000X = 256 zones)
- Full SWIFT compatibility
- Programmable (control module) delay timer for elevator recall
- Built-in support for Class-A NACs (no longer need Class-A option card)

- Trouble indication for un-programmed SLC devices
- Automatic recognition of CMF module vs. CRF module

Capacities

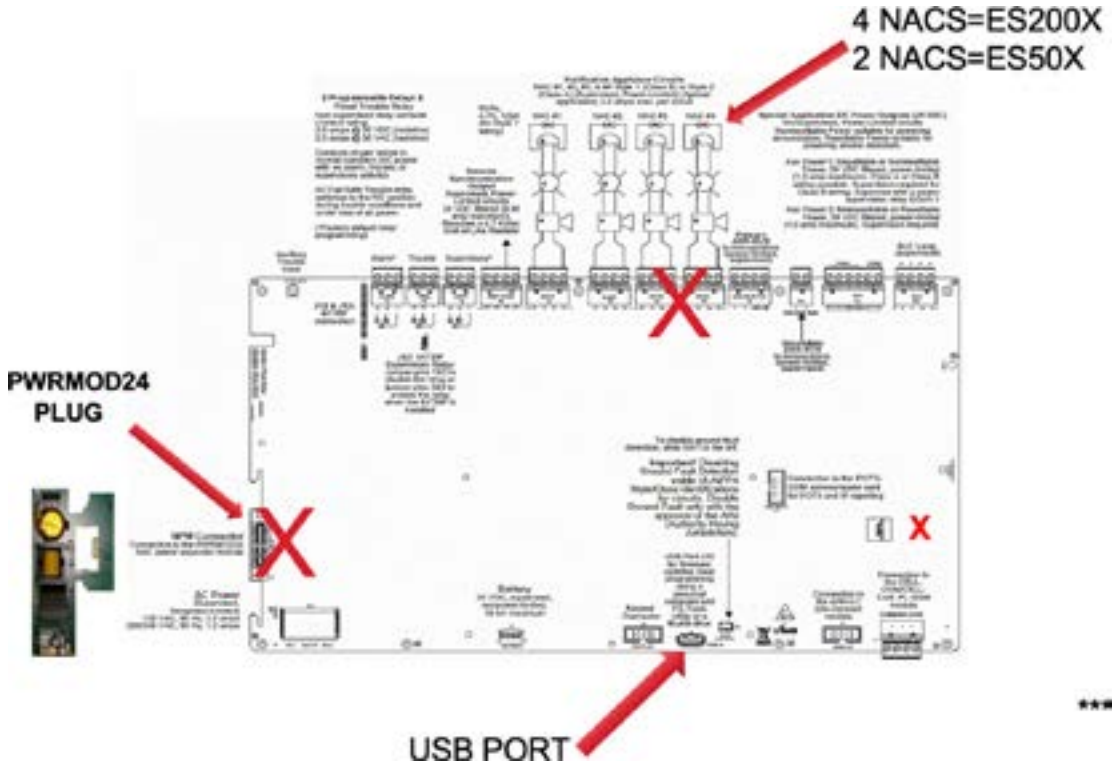
ES-50X

- 50 devices on a single SLC loop
- NFPA Class A, B and X wiring (previously known as styles 4, 6, and 7)
- Lite-Speed polling protocol (plus CLIP)
- The SLC supports any combination of addressable detectors and addressable control/relay/monitor modules totaling 50

ES-200X

- 198 devices on a single SLC loop
- 99 detectors & 99 modules
- NFPA Class A, B, and X wiring (previously known as styles 4, 6, & 7)
- LiteSpeed polling protocol (plus CLIP)

ES-50X & ES-200X Main Board

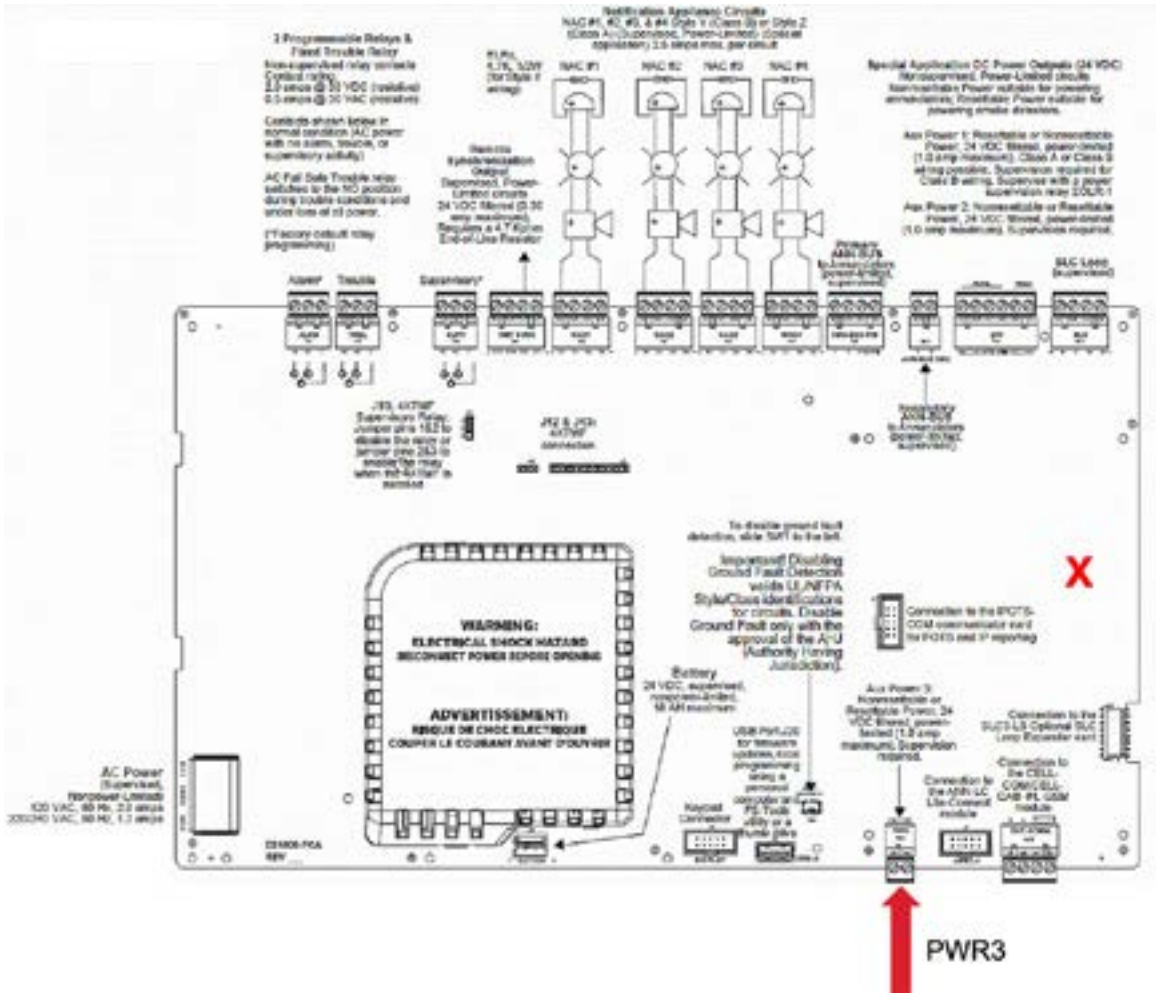


Capacities

ES-1000X

- 318 devices on a single SLC loop
- Up to 954 devices with optionalSLC expander cards, 3 total (SLC3-LS)
- NFPA Class A, B, and X wiring (previously known as styles 4, 6, and 7)
- Each SLC supports up to 159 detectors and 159 modules
- LiteSpeed™ SLC polling protocol (plus CLIP)

ES-1000X Main Board



User Interface

LCD Display and Alpha-Numeric Keypad

- Common to all models
- LCD display - 80 characters (4 rows of 20 characters)
- Silence, Reset, Drill and Acknowledge keys
- Four programmable soft keys
  - Allows rapid disable/enable of various fire panel inputs and outputs during scheduled maintenance
    - Software zone(s)
    - Central station communications
    - NAC(s)
    - Remote sync

NOTE: If AC is lost and the panel is not in alarm, the backlighting is turned off to conserve batteries.

LCD Display and Alpha-Numeric Keypad

- LED indicators
  - Fire alarm (red)
  - CO alarm (red)
  - AC power on (green)
  - Supervisory (yellow)
  - System trouble (yellow)
  - Ground fault (yellow)
  - Battery (yellow)
  - Disabled (yellow)
  - Communication (yellow)
  - Maintenance (yellow)
  - Alarm silenced (yellow)

Power

ES-50X

- 3.0 amps total system power (2.5)

ES-200X (the same)

- 3.0 amps as shipped
- 6.0 amps with optional PWRMOD24 expander module

ES-1000X

- 6.0 amps (7.0)

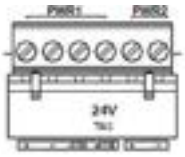
Power Expander Module (ES-200X Only)

PWRMOD24

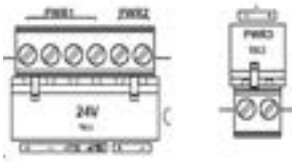
- Adds 3.0 amps of NAC power to ES-200X
- Plugs into main board

Auxiliary Power

- 24VDC filtered outputs
- Programmable for resettable or non-resettable power
- ES-50X & ES-200X - two Class B or
- One Class A
- ES-1000X – three Class B or one Class A + two Class B
- 1.0 amp max. load.



ES-50X & ES-200X



ES-1000X

Notification Appliance Circuits

ES-50X

- Two notification appliance circuits (NACs)
- 2.5 amps max

ES-200X & ES-1000X

- Four notification appliance circuits (NACs)
- 2.5 amps max.

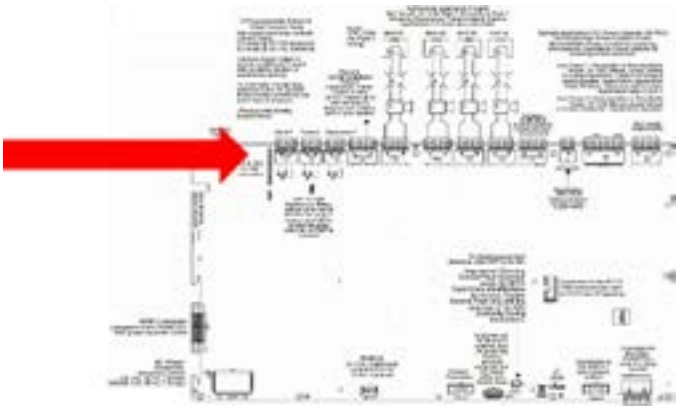
- Supports Class B or Class A wiring
  - (no optional Class A return boards needed!)

- Built-in synchronization for System Sensor, Wheelock, and Gentex notification appliances

- Programmable for the following:
  - Auto-silence - silence inhibit
  - Silenceable vs. non-silenceable - enable/disable
  - Coding options: steady, march time, California, two-stage, temporal 3 and temporal 4 ANSI standards
  - Activation by up to 5 software zones

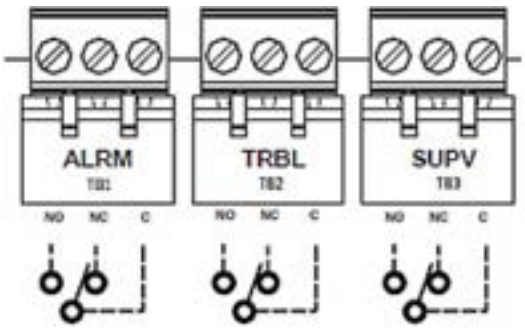
Onboard Relays

- Three Form-C relays factory defaulted to alarm, trouble and supervisory
- Alarm and supervisory relays also programmable for:
  - Supervisory auto-resettable
  - Trouble
  - Communications fail
  - Process monitoring
  - AC loss
  - Hazard
  - Medical



2 Programmable Relays and 1 Fixed Trouble Relay

Non-supervised relay contacts contact rating:
2.0 amps @ 30 VDC (resistive)
0.5 amps @ 30 VAC (resistive)



Contacts shown in normal condition (AC power with no alarm, trouble, or supervisory activity.

AC fail-safe trouble relay switches to the NO state during trouble conditions and under loss of all power

Secondary Power Source

- Onboard 18 Ah battery charger circuit
- External chargers available:
  - CHG-75 for charging batteries from 25 Ah to 75 Ah
  - CHG-120 for charging batteries from 25 Ah to 120 Ah

External Battery Box	Capacity
BB-26	Two 26 Ah batteries or one CHG-75
BB-55F	Two 55 Ah batteries + one CHG-75 or one 100 Ah battery or One CHG-120F

Up to 18 Ah Batteries Can Be Housed in the Enclosure

SLC3-LS

- ES-1000X only
- SLC loop card adds 318 addressable points to system
- 2 per panel

Central Station Communications

IPOTS-COM

- Pre-installed at factory for all models
- DACT for transmitting to central station using PSTN phone lines
- Communicates in the following formats:
  - Ademco contact ID
  - SIA DCS 8
  - SIA DCS 20
- Provides remote programming access over IP connection

HWF2A-COM (AT&T) and HWF2V-COM (Verizon Wireless) models available now!

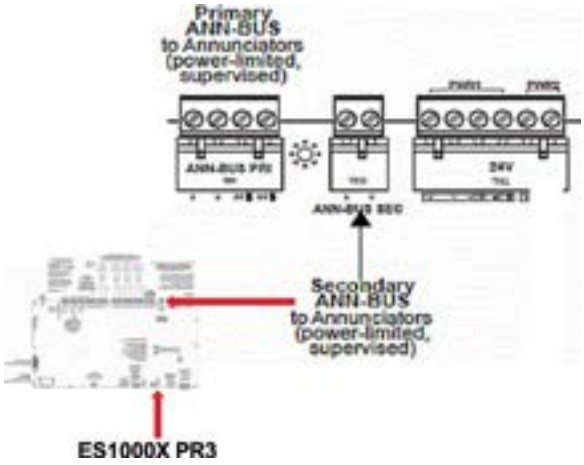
- Replaces CELL-MOD and CELL-CAB-FL communicators
- Connects to IPOTS-COM Primary and Secondary Com Ports (DACT)
- Single/Dual path communicator that supports 4G LTE networks
- Three selectable reporting formats (Cell-only; IP only; IP with cell backup)
- Supports contact ID
- Comes with new CELL-ANT3DB antennas
- Programmed with 7720 handheld programmer
- Requires an AlarmNet account

Honeywell's HWF2-COM Series LTE / IP fire communicators are single or dual path commercial fire alarm communicators that offer contact ID reporting with any fire alarm control panel (FACP) with a built-in dialer. These easy-to-install communicators offer three selectable reporting paths which include LTE cellular only, IP only, or IP primary/LTE cellular backup.

Remote Annunciators - ES50X - ES200X

ANN-BUS

- Two ANN-BUS annunciator circuits
- Primary can be configured for Class B or Class A wiring
- ANN devices powered from aux power output (TB11) or from external supply
- 8 ANN devices per circuit
- 6,000 ft. max



ANN-BUS Peripherals

ANN-80 Liquid Crystal Display

- 80-character display (4 lines 20 characters each)
- Switches for the remote execution of acknowledge, alarm silence, reset and drill functions
- Access controlled by key switch.
- Addressed by dip-switch from 1 to 8
- Panel goes into trouble with switch active after 2 minutes

Surface or Semi-flush mount in a single, double gang, or 4" square electrical box

ANN-100 Liquid Crystal Display (Canada Only)

- 80-character display (4 lines 20 characters each)
- Switches for the remote execution of acknowledge, alarm silence, reset and drill functions
- Access controlled by key switch
- Addressed by dip-switch from 1 to 8
- Panel goes into trouble with switch active after 2 minutes
- System status LEDs for AC power, alarm, trouble, supervisory, and alarm silence

Comes with special sized backbox

LCD-80

LCD-80 – NO LONGER AVAILABLE AND IS NOT COMPATIBLE WITH ENDURANCE PANELS – REPLACE WITH THE ANN-80 (DIS-CONTINUED)

ANN-BUS Peripherals

ANN-RLED

ANN-80

ECC 50\100

ANN-100

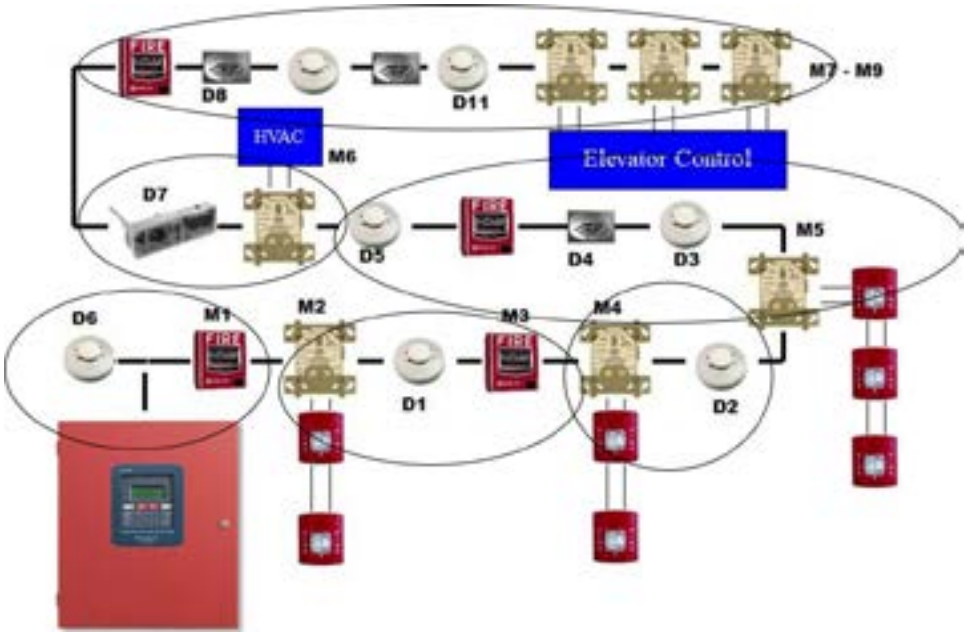
ANN-RLY Relay Module

SLC Wiring Guidelines

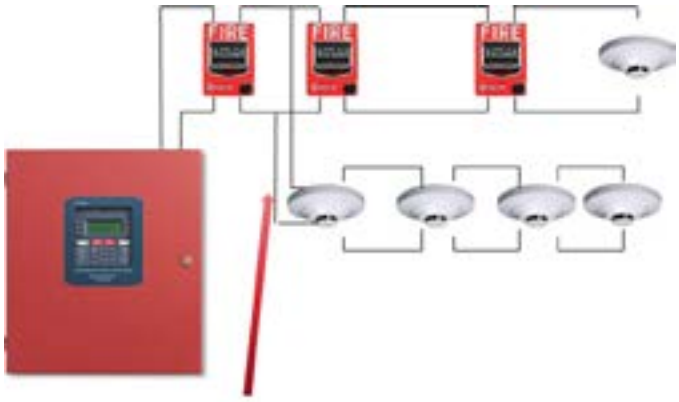
- Supervised and power limited
- Maximum loop resistance:
  - Class B wiring - 40 ohms per branch
  - Class A or Class X wiring – 40 ohms overall
- NEW INSTALLATIONS USING LITESPEED: Each SLC can be wired for a maximum of 10,000 feet of twisted, unshielded wire. (LiteSpeed protocol only!)
  - 18 AWG – 3,225 feet (980 meters)
  - 16 AWG – 4,875 feet (1,450 meters)
  - 14 AWG – 8,000 feet (2,400 meters)
  - 12 AWG - 10,000 feet (3,000 meters)

Note: CLIP Protocol requires twisted, shielded wire to obtain same distances

Addressable - Intelligent Wiring

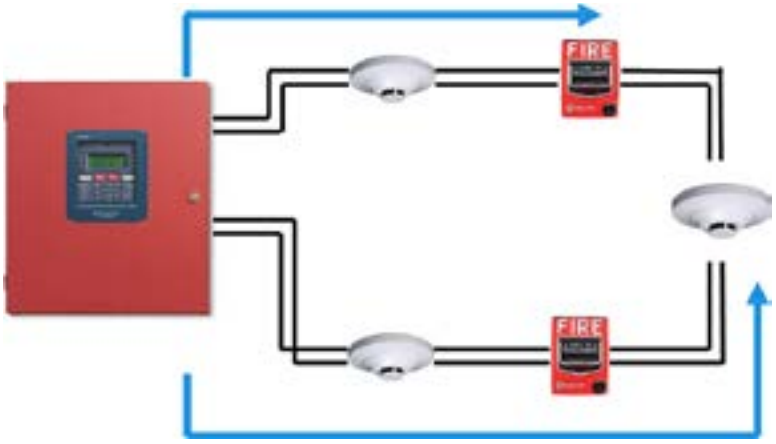


SLC Wiring – Class B

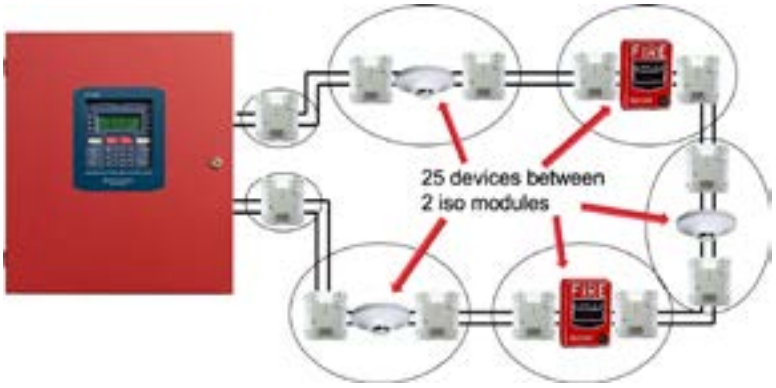


T-Tap, Home Run, Shot Gun
are all possible with addressable devices
because they are supervised by their address.

SLC Wiring – Class A



SLC Wiring – Class X



Addressable SLC Devices

Smoke, Heat, And Multi-Criteria - 365 Series

Designed to detect more types of modern fires while also preventing more false alarms.

New design is easier to clean and test, and is available in multiple colors (white, ivory, or black) to meet modern building design requirements.

Backwards compatible with existing B210LP base installations preventing the need to rewire retrofits. The 365 series detectors come with a B300-6 base.

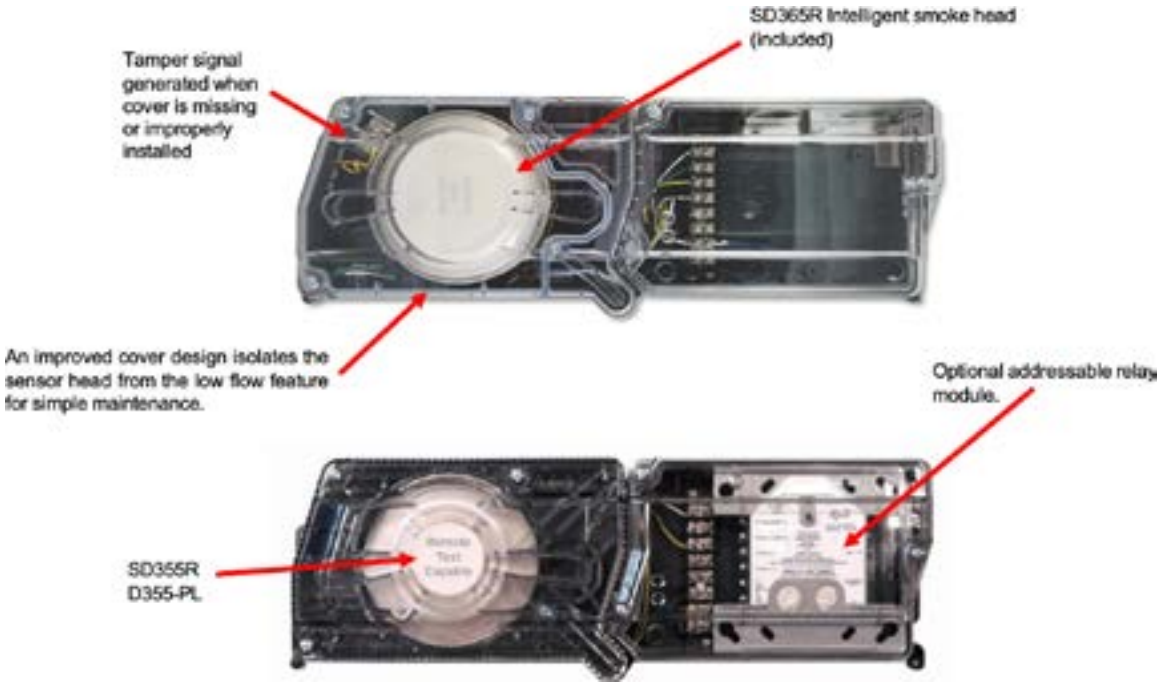
WHITE COLORED LITESPEED

IVORY COLORED LITESPEED & CLIP

365 Series – Color Kits & Trim Rings

Description	White	Ivory	Black
Color Kits	CK300	CK300-IV	CK300-BL
Trim Rings	TR300	TR300-IV	n/a

D365-PL Duct Detector



Note: Sampling Tube Must Be Ordered Separately

OSI-RI-FL—Single-Ended Imaging Beam Smoke Detector

- Resistant to building movement, sunlight, and foreign objects
- Wide 12 degree view
- Automatic sensitivity threshold settings and drift compensation
- 16 – 328 ft range – Requires no separate kit
- Electronically simulated remote test capability

Lite-Speed or CLIP Mode Capable

OSI-RI-FL Features

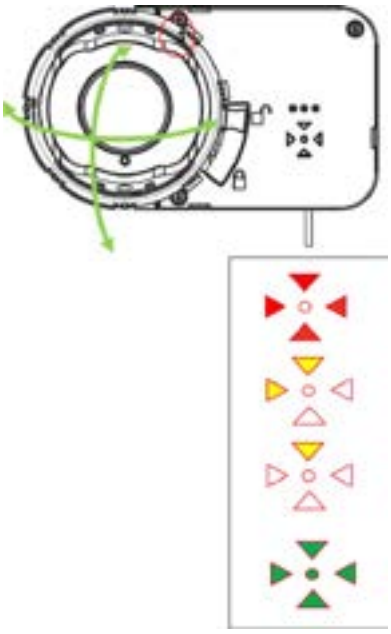
- Reflective IR detector
  - Cost-effective – Only the detector needs to be wired
- Conventional and intelligent version
  - One for one replacement with System Sensor Legacy beam detectors
  - Xtralis conventional model
  - Loop powered intelligent version supports all current communication protocols
  - Re-use existing basic reflector (small one)
- Remote reset and test facility
  - Electronic smoke test
  - Compatible with RTS151KEY

RTS151KEY
Remote test station

Installation

Simple commisioning

- Unlock eyeball
- Rough alignment with reflector using a laser tool
  - 50°H-20°V eyeball adjustment
- Fine adjustment by gently moving eyeball until all indicator arrows are green



OSI-RI-FL Addressable Bean Detector

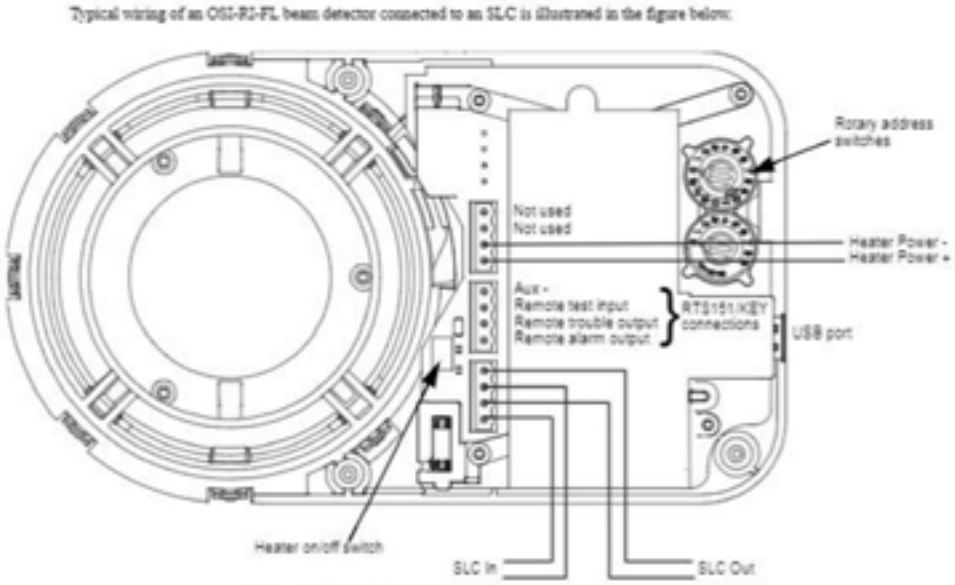


Figure 10.2 OSI-RI-FL Beam Detector Terminal Block Wiring

Device Addressing

- Rotary switches for the setting addresses 01-159 (only for the ES-1000X)
- Only use addresses 1-50 for the ES-50X
- Only use addresses 1-99 for the ES-200X

Multi-Criteria Detector – SD365CO & SD365COIV

- One SD365CO protects people from life-threatening carbon monoxide (CO) leaks, in addition to smoke and heat, and light/flames from fires
- Generates temporal 3 pattern for fire or temporal 4 for CO when used with B200S programmable sounder base, NAC or powerstrike power supply
- 10-year CO cell life with end-of-life warning

SD365CO

- Advanced smoke signatures for accurate detection and high immunity to false alarms
- Eliminates the need for separate devices, junction boxes and wiring. Uses one address
- The smoke sensor will alarm at 4% without CO assistance/sampling. (with delay)

Improved Aesthetics with Less Devices

SD365CO SMOKE ENTRY TESTING – 4% W/DELAY

SYSTEM STATUS DATA

Fire Panel Upload Sensitivity Report For 198 Pt Addr.

Detector Sensitivity

Customer Name:: abc1 Contact Number

Loop Number	Detector Number	Detector Type	Sensitivity Level	%Obs /Temperature
1	1	SMOKE(PHOTO)	7	1.89
1	2	SMOKE(PHOTO)	7	1.89
1	3	SMOKE(PHOTO)	7	1.89
1	4	SMOKE(PHOTO)	7	1.89
1	5	SMOKE(PHOTO)	7	1.89
1	6	HEAT DETECT	2	57(135 F)
1	7	FIRE CO	5	4.00 w/delay 1.89

LOOP CONFIGURATION

DETECTORS LOOP1

Address	Status	Type	Verification	Walk Test	Pre-Signal	PAS Enabled	Custom Label	Sounder Base Installed	Device Disassociate	SounderBase Zones 21	22	23	24	25	Coding	Sounder Base Volume	Wire Zone	21	22	23	24	25
1	Enable	SMOKE(PHOTO)	False	True	False	False	FLOOR 1	False	True	0							False	1				
2	Enable	SMOKE(PHOTO)	False	True	False	False	FLOOR 2	False	True	0							False	2				
3	Enable	SMOKE(PHOTO)	False	True	False	False	FLOOR 3	False	True	0							False	3				
4	Enable	SMOKE(PHOTO)	False	True	False	False	FLOOR 4	False	True	0							False	4				
5	Enable	DUCT SUPERV	False	True	False	False	RTU - NORTH SIDE	False	True	0							False	5				
6	Enable	HEAT DETECT	False	True	False	False	SHUNT ELEVATOR	False	True	0							False	6				
7	Enable	FIRE CO	False	True	False	False	BOILER RM-1ST FLR	True	True	7	8	9	10		TEMPORAL SLOW		False					

MultiCriteria Detectors LOOP1

Address	Type	Status	CO Configurations Enable	Event	21	22	23	24	25	Heat Configurations Enable	Event	21	22	23	24	25	Photo Configurations Enable	Event	21	22	23	24	25	SounderBase Configurations Installed	Coding	Volume	21	22	23	24	25
7	FIRE CO	Enable	True	Supervisory	9					True	Alarm	8					True	Alarm	7					True	TEMPORAL	LOW	7	8	9	10	

AD365 – Multi-Criteria Detector

- Combines three sensing technologies (photo, heat & infrared)
- Compatible with B200S intelligent programmable sounder base
- Sophisticated smoke signatures for heightened immunity to nuisance particulates with enhanced sensitivity to real fire. e.g. "theater smoke"
- Can indicate distinct smoke and heat alarms for local and general alarm requirements

Improved Aesthetics with Less Devices

AD365

Addressable Input Modules

MMF-300 Monitor Module

- For monitoring a circuit of normally-open contact conventional alarm initiating devices

MMF-302 Monitor Module

- For monitoring 2-wire smoke detectors system
- Sensor only, aka 2400, 2100 and i3
- Requires filtered, resettable 24-volt power

MDF-300 Dual Monitor Module

- For monitoring normally-open contact alarm initiating devices.
- NFPA Class B only
- Assumes two sequential SLC addresses
-

Input modules have a Red LED that flashes under normal communication with the control panel and latches when active.

MMF-300-10

- Ten Class B or Five Class A Initiating Device Circuits
- Assumes up to 10 sequential addresses

MMF-302-6

- Six Class B or Three Class A Initiating Device Circuit Module for Monitoring UL Listed two-wire smoke detectors (requires filtered resettable 24 volts.)
- Assumes up to 6 sequential addresses
- Mounting in Cabinets BB-2F or BB-6F w/CHS-6F*
  - * CHS-6F must be ordered separately

MMF-301 Mini-Monitor Module

- For monitoring a single conventional, contact-type device in the same mounting box
- NFPA Class B only
- No polling LED

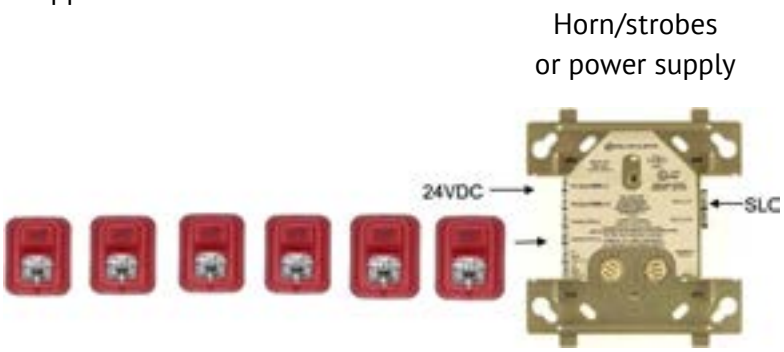
Make an addressable water flow switch, pull station, or power supervision relay!

BG-12LX Addressable Pull Station

- Key resettable
- Dual action
- Can be opened without initiating an alarm condition!
- Addressable module mounted inside station
- Polling LED visible through front handle

CMF-300 Control Module

- NFPA Class B or Class A notification appliance circuit
- 24 VDC power
- 3-amp maximum load capability
- Programmable for the following:
  - Auto-silence (timed sounder cutoff)
  - Silence Inhibit
  - Silenceable vs. non-silenceable



Output modules have a Green LED that flashes under normal communication with the control panel and latches when the device has been activated.

CRF-300 Relay Control Module

- Two Form-C relays that work in unison
- Use for elevator recall, damper control, door holding, auxiliary control functions, etc

CMF-300-6

- Six Class B or three Class A notification appliance circuits

CRF-300-6

- Six Form-C contacts
- Mounting in cabinets BB-2F or BB-6F w/CHS-6F*
- (Both assume up to 6 sequential addresses)
  - * CHS-6F is ordered separately

Combination I/O Module

CDRM-300 Dual Relay/Monitor Module

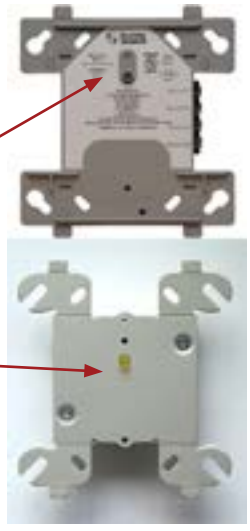
- Provides two monitor module inputs and two control relay outputs
- Class B wiring only
- Assumes four sequential addresses
  - 1st address = relay output #1
  - 2nd address = monitor input #1
  - 3rd address = relay output #2
  - 4th address = monitor input #2
- Monitor input #2 and/or relay Output #2 can be disabled via dipswitch

Isolator

I300 Isolator Module

- It's not an addressable module - but it kinda looks like one
- It's a fault isolator - a type of GFI for SLC loops.
- Sees a short, opens up the circuit to prevent the fault from affecting other sections of the SLC loop

The LED latches ON when a fault has been detected.

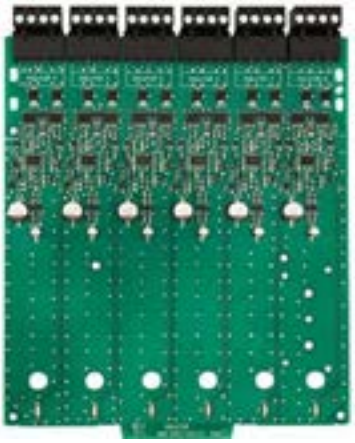


ISO-6

The ISO-6 Six Fault Isolator Module provides six equivalent circuits that will allow a portion of the communications loop to continue operating when a short circuit occurs on that loop.

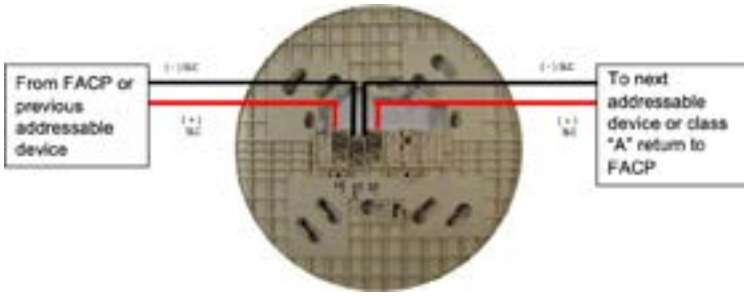
The ISO-6 should be spaced between groups of sensors in an SLC to protect the rest of the loop.

Used to isolate short circuit problems within a section of a loop so that other sections can continue to operate normally. The ISO-6 supports a maximum of 25 devices between isolators.

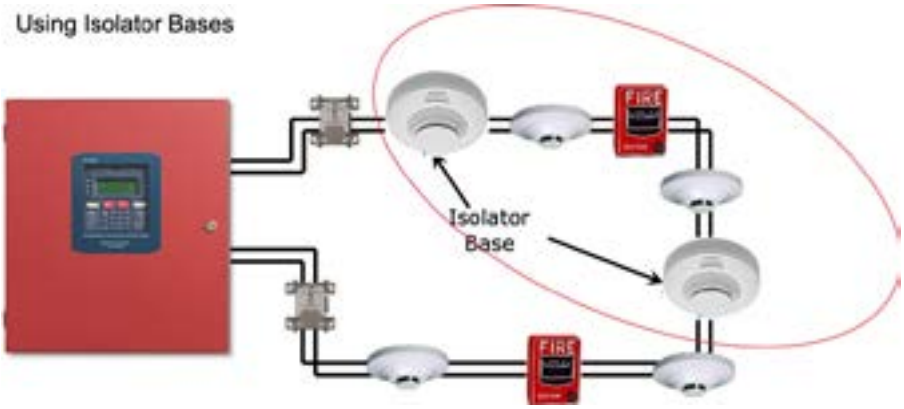


Speciality Bases – Isolator – B224BI

B224BI – Isolator Base can be used in place of isolator modules on SLC. Less complex to wire than stand-alone isolator module.



SLC Wiring – Class A



Speciality Bases – Relay – B224RB

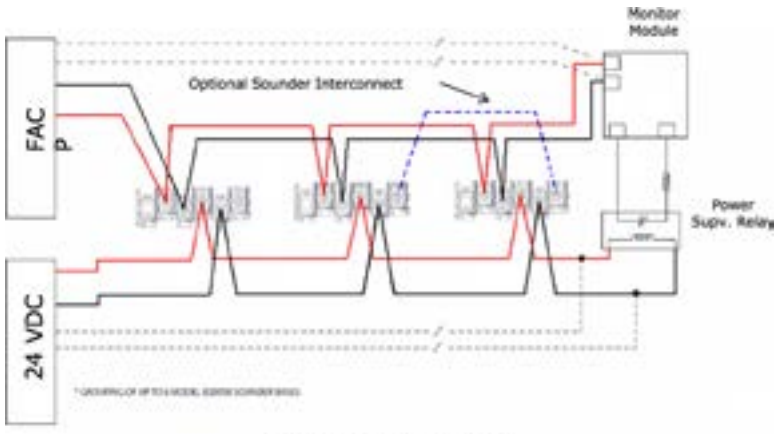
- Provides one set of Form-C contacts.
- Can be used to control supplementary functions such as door release, local appliance activation.
- Relay operates after activation of the detector head.
- Two activation delay settings:
  - Short – 60 msec. – 100 msec.
  - Long – 6 sec. – 10 sec.

Speciality Bases – Programmable SounderB200S, B200S-LF

- Adopts the same address as the detector
- Configurable for temporal 3, temporal 4 (CO) and steady coding
- Recognizes System Sensor Synchronization Protocol
- No need for a control relay module to provide 24 VDC polarity reversal (Only B200SR)
- Base activation by up to 5 software zones.

Ideal for Apartments, Dorms, Hotel Rooms and Other Applications Requiring Localized Audible Notification

Speciality Bases – Sounder – B200SR

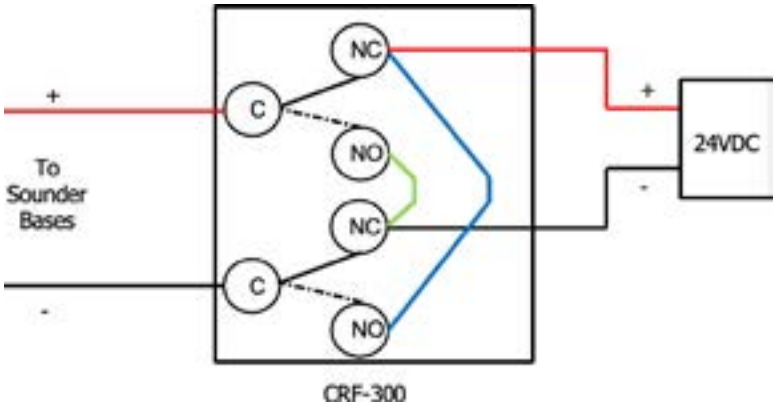


Sample Wiring Diagram

B200SR & B200SR-LF Only!

Speciality Bases – Sounder

24 VDC polarity reversal using a CRF-300 control relay



B200SR and B200SR-LF Only!

Summary Speciality Bases

Base Part Numbers

- B200SR – Configurable smoke sounder base
- B200S - Configurable smoke/CO sounder base
- B200SR-LF Low-frequency configurable sounder base
- B200S-LF Low-frequency configurable smoke/CO sounder base
- B224RB – Relay base
- B224BI – Isolator base

Retrofit Compatibility

Compatible with Fire-Lite's legacy 300-Series addressable devices (modules and smoke detectors) functioning in classic loop interface protocol (CLIP) mode.

- SD300, SD300T and CP300 smoke detectors
- Monitor modules M300, M301, M302
- Control module C304
- BG-10LX manual pull station

Software Features

Screen 1

Screen 2

Detector Type IDs

- Smoke Photo - Generates an alarm signal
- Smoke Ion - Generates an alarm signal
- Heat Detect - Generates an alarm signal
- Smoke DuctP - Generates an alarm signal
- Superv DuctP - Generates a latching supervisory signal
- Photo-SupervAR - Generates a non-latching supervisory signal
- ADAPT - For the ADAPT detector, generates an alarm signal
- BEAM - Generates a latching signal for the OSI beam detector
- Fire/CO - Response is programmable (alarm, supv, or none)

} Programmable

Point Programming Detectors

New edit detector programming screen.

Wireless
The wireless selection allows the programmer to designate the detector as a wireless device if operating as part of a SWIFT wireless network.

Sounder Base
The sounder base selection allows the programmer to enter different values if the selected detector is mounted in an addressable sounder base.

Control Module Type IDs

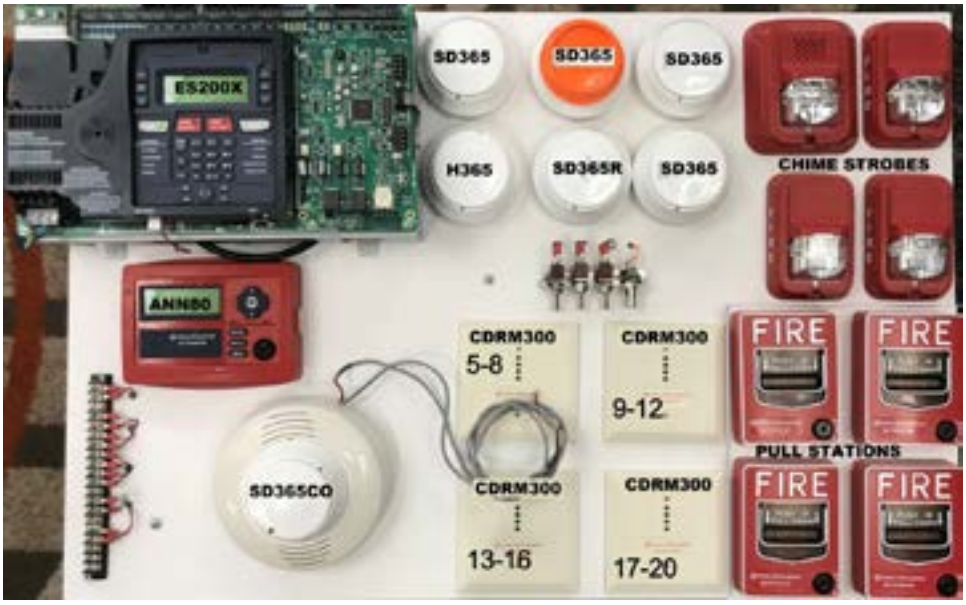
- Control
- Bell circuit
- Horn circuit
- Sounders
- Relay (unsupervised circuit)
- Strobe circuit
- Resettable power (relay type – unsupervised circuit)
- HVAC shutdown (relay type – unsupervised circuit)

Monitor Module Type IDs

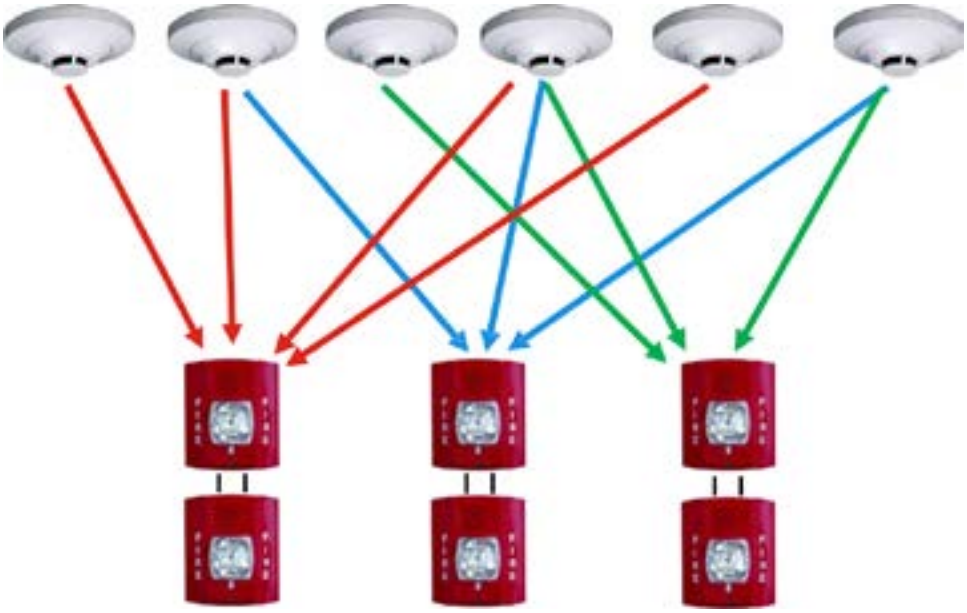
- Monitor
- Pull station (verification does not apply)
- Heat detector
- Supervisory
- Auto-resettable supervisory
- Process monitoring
- Waterflow (delay capability)
- Tamper (auto-resettable)
- Acknowledge, silence, reset, drill
- Power monitor
- HVAC restart, HVAC override
- Phone
- Drill-switch-AR

I/O Mapping Software Zones

Fire-Lite Demo Board



Input-to-Output Mapping



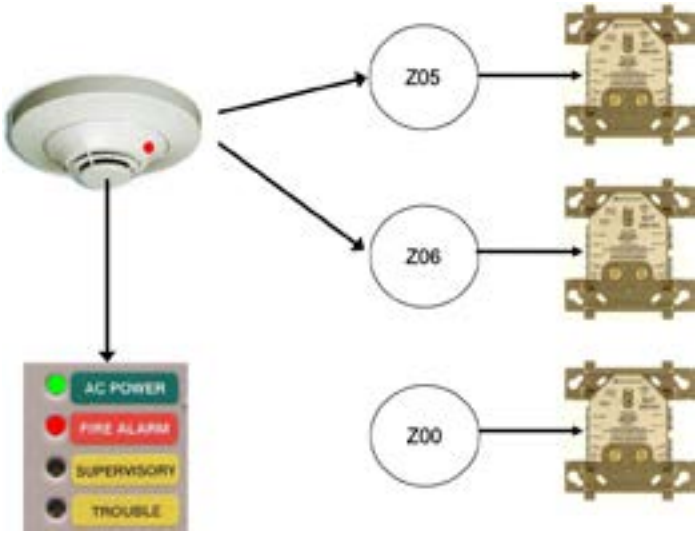
Software Zones

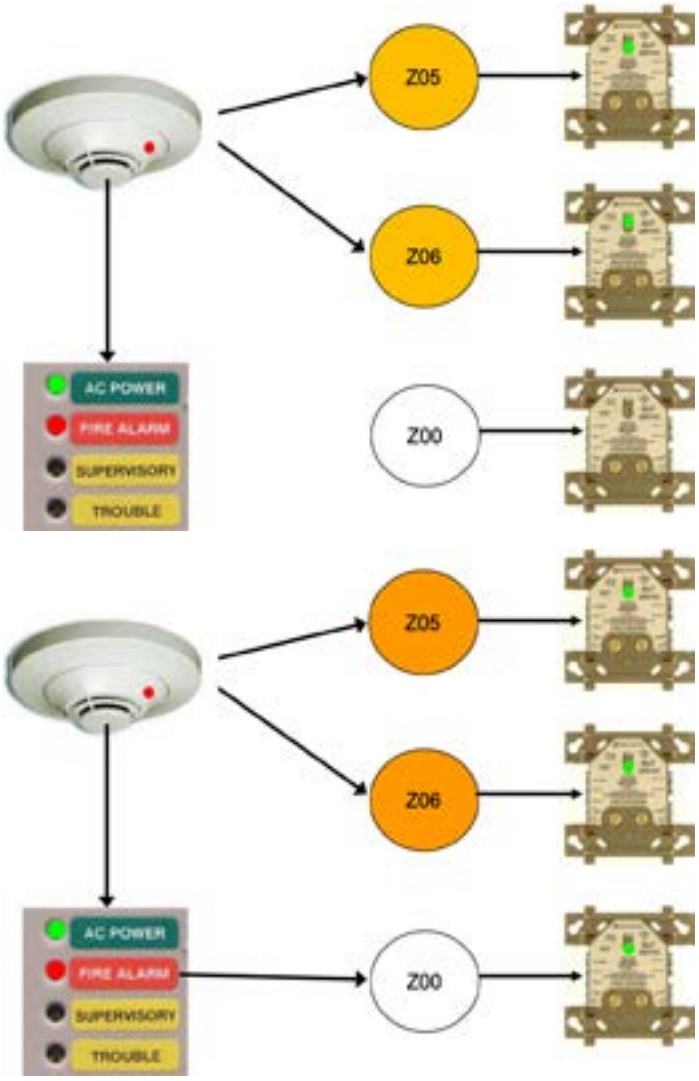
- ES-50X
  - 50 individual software zones
- ES-200X
  - 99 individual software zones
- ES1000X
  - 256 individual software zones
- Each smoke detector or monitor (input) module can be programmed to activate up to 5 software zones.
- Each control or relay (output) module (NAC circuits) can be programmed to be activated by up to 5 software zones.

The General Alarm Software Zone

- **Z00** is the default general alarm software zone.
- All devices are assigned Z00 when the panel is first programmed.
- All output devices assigned Z00 will be activated for any alarm in the system, regardless of the software zones assigned to the device initiating the alarm.
- Z00 should be removed from the programming of all devices if conditional activation of all outputs is desired.

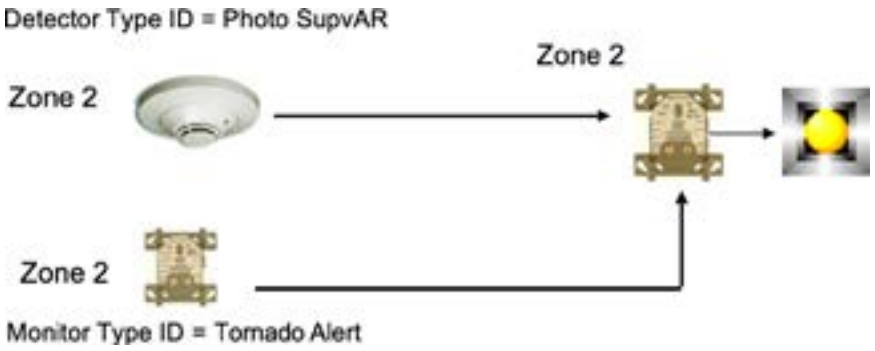
How The General Alarm Zone Works





Software Zones Allows You To:

Have a supervisory programmed input device activate a specific output device or devices



Software Zones Can Be Used For:

- Elevator recall
- Air handler shutdown
- Ring-by-zone
- Floor-above/floor-below
- Door release
- Selective evacuation
- Any type of control by event

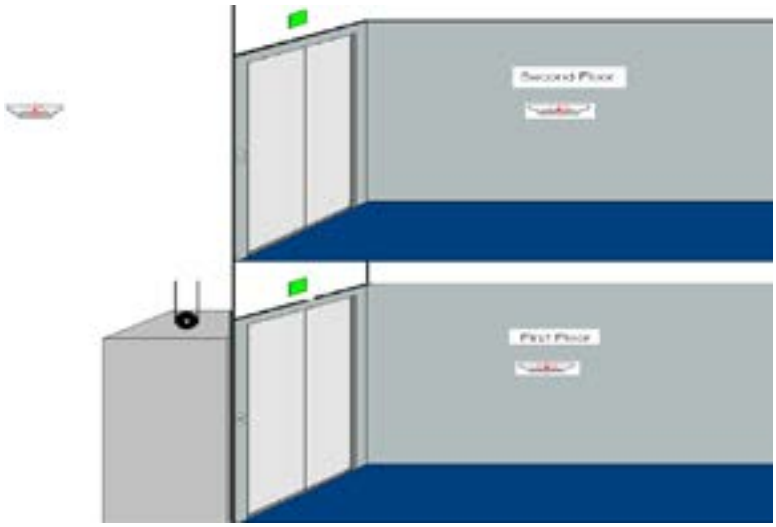
Elevator Recall

The Application

- Upon the activation of a smoke detector in the 1st floor elevator lobby, the elevator car shall be sent to the 2nd Floor.
- Upon activation of a smoke detector in the 2nd floor elevator lobby, or elevator shaft, the elevator car shall be sent to the 1st floor.

How to Program It

- Primary Recall: Alarm initiating points are assigned to "SOFTWARE ZONE 2." An addressable relay module is also assigned to "SOFTWARE ZONE 2." If any of these initiating devices go into alarm, it will activate the relay module, and recalls the elevator.
- Secondary Recall: Alarm initiating points are assigned to "SOFTWARE ZONE 1." An addressable relay module is also assigned to "SOFTWARE ZONE 1." If any of these initiating devices go into alarm, it will activate the relay module, and recalls the elevator.

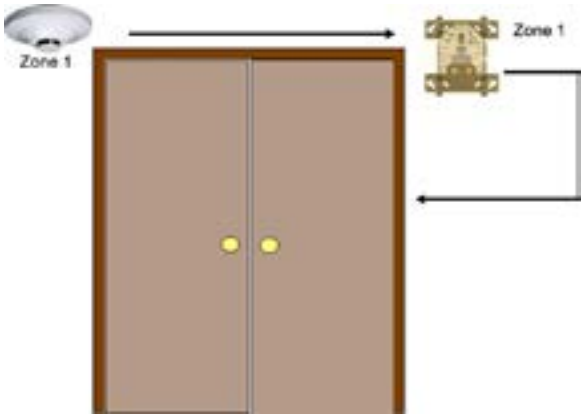


Door Release

The Application
Initiation of a fire alarm in one particular wing of the building shall cause only the fire doors in that wing to close.

How to Program It

- An alarm initiating device is assigned to "A SOFTWARE ZONE."
- An addressable control relay module is also assigned to "THE SAME SOFTWARE ZONE."
- If that initiating device should go into alarm it will activate the addressable control relay module, causing the doors to be released.

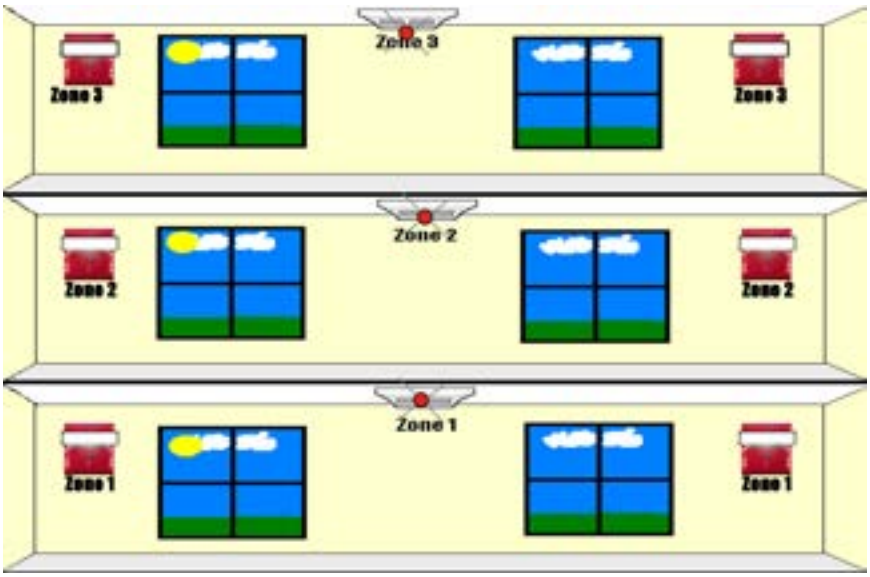


Ring by Zone

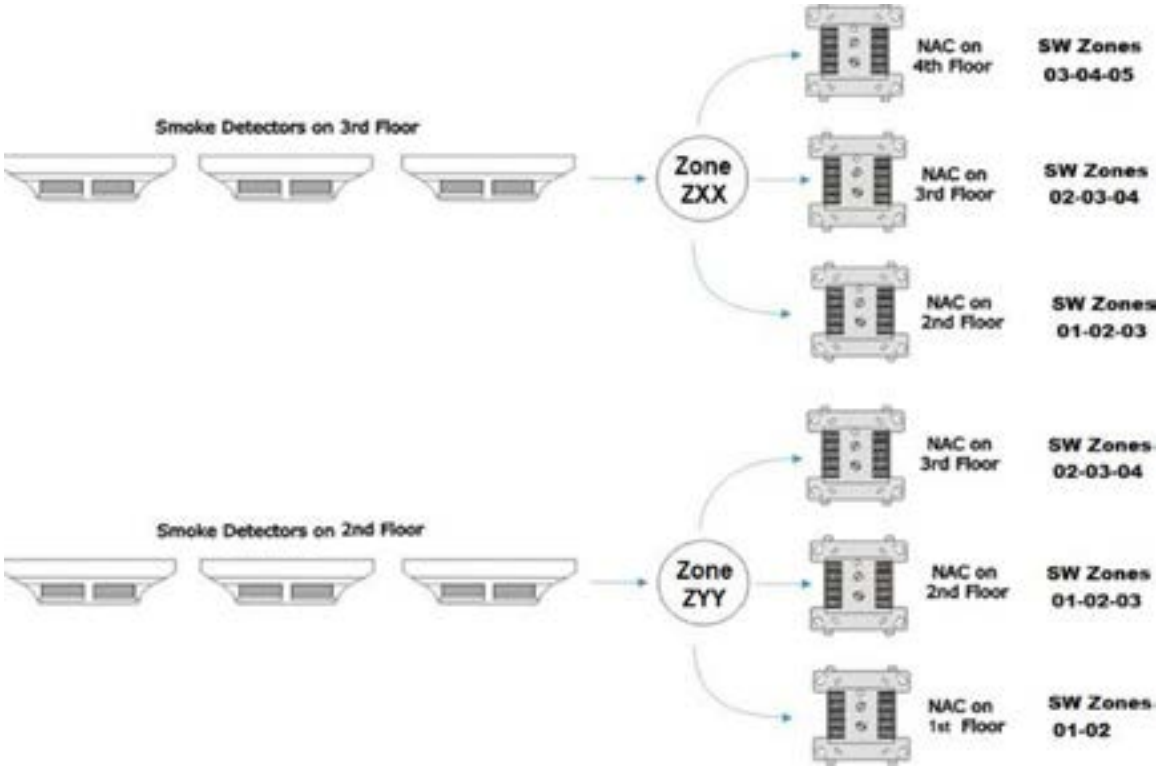
The Application
Initiation of a fire alarm in one particular wing/floor of the building shall only activate the notification devices in that wing/floor.

How to Program It

- All addressable alarm initiating devices on a particular floor, or zone in a building are assigned to a specific "SOFTWARE ZONE." (example, all devices on the first floor assigned to zone 1, 2nd floor = Zone 2, 3rd floor = Zone 3 etc.)
- Assign all addressable control modules (used to activate notification devices) to the corresponding zone. (example 1st Floor = Zone 1, 2nd floor = Zone 2, 3rd floor = Zone 3 etc.)
- If an alarm occurs in a specific zone, only the notification devices in that particular zone will be activated.



Software Zoning for Floor-Above/Floor-Below



Selective Evacuation (College Dorm)

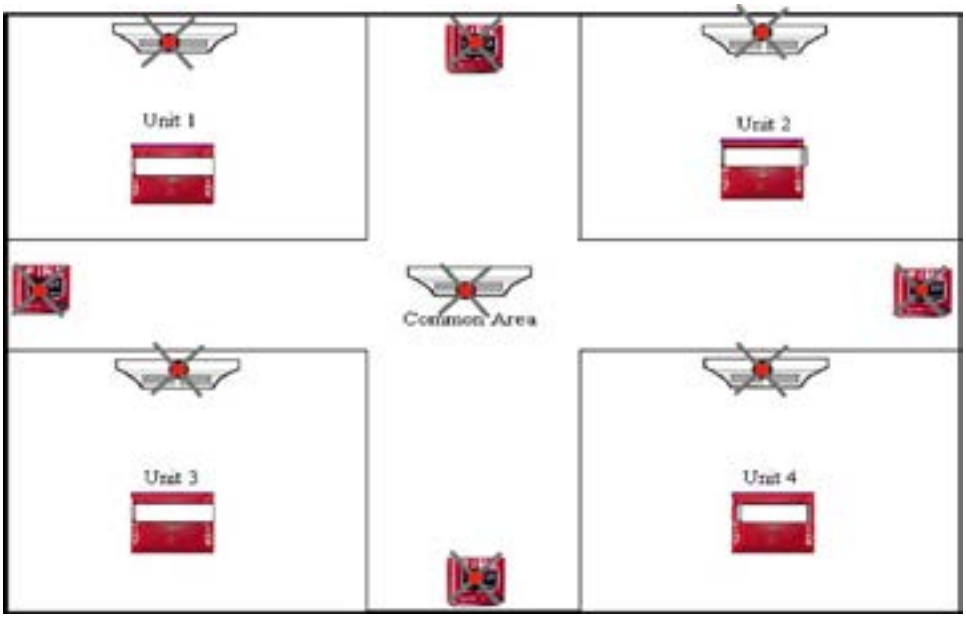
The Application

Initiation of a fire alarm in one unit of the apartment complex shall only activate the NAC's in that particular unit. However, if an alarm is initiated in the common area, it shall cause all NAC's in that complex to be activated.

How to Program It

- Each particular unit's initiating devices will be assigned a corresponding software zone. Unit 1 = Zone 1, Unit 2 = Zone 2. Each Unit will also have a control module assigned to that same software zone.
- All the common area initiating devices will be assigned to a separate zone number. e.g. zone 5. They will cause a general alarm.
- All control modules will also be assigned to zone 5. E.g. The unit 1 control module will be assigned to zone 1, and zone 5, the unit 2 control module to zones 2 and 5, the unit 3 control module to zone 3 and 5.

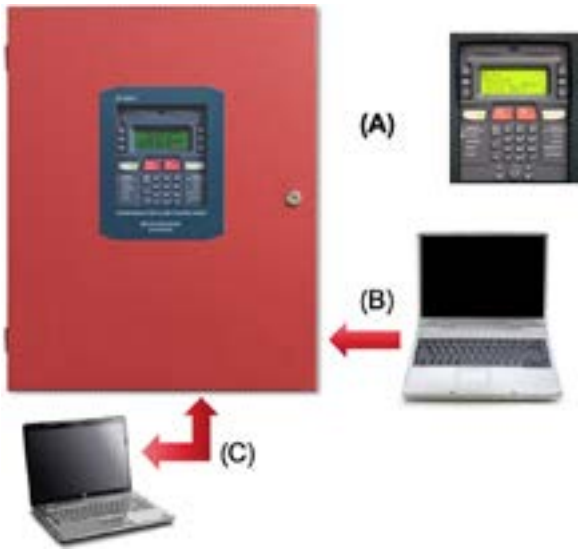
Selective Evacuation



Programming

Fully Programmable from:

- (A) integral keypad – Same menu onscreen structure as the MS series
- (B) PC running FS-Tools through IP / DACT
- (C) PC running FS-Tools (via USB port (USBA cable or "thumb drive")



PC Programming Software

Panel Model	PRT/PK-Cable or USB Cable	PK-Plus Utility	PS-Tools Utility	FS-Tools Utility
MS-5UD & MS-10UD	USB		X	
MS-9200UD(LS) pre V4.0	PRT/PKX	X	X	
MS-9600 pre V4.0	PRT/PKX	X	X	
MS-9050UD	PRT/PKX	X	X	
MS-9200UDLS V4.0 or greater	PRT/PK or USB		X	
MS-9600LS V4.0 or greater	PRT/PKX		X	
MS-9600UDLS V4.0 or greater	PRT/PK or USB		X	
ES-50X, ES-200X or ES-1000X	USB or USB Thumb Drive			X

Operating System Software

- Non-volatile memory (retained after loss of all operating power (excluding time and date).
- Five levels of user interaction
  - Read status
  - No password required
  - Programming – Master Mode
  - User programmable 8-digit password - 00000000
  - Programming – Maintenance mode
  - User programmable 8-digit password – 111111111
  - Upload/Download – 8-digit password – 22222222 (thumb or cable)
  - Firmware Upgrade - 8-digit password – 00000000

(Endurance has no password reset feature)

Read Status

- System point (view point status)
- Zones (enabled, disabled and installed)
- NACs and relays (programmed selections)
- View history
- Print history, detector sensitivity
- **Plus more!**

Master Mode - everything you can do in Maintenance Mode or Read Status plus*...

- Autoprogram SLC devices
- Setup SLC Loops
- Program/Setup new “Function Keys (F1-F4)”
- Change all passwords
- Load and clear/erasing program
- Change main screen banner

***Except Printing from Panel and Programmable Function Keys**

- Auto-silence (sounder cutoff) per NAC
- Silence Inhibit timer per NAC (60-second duration)
- Alarm verification per intelligent detector*
- Waterflow selection per monitor module* (output programming type determines silenceable/ non-silenceable operation)

***These Have Global Time Settings Associated With Them**

Maintenance Mode

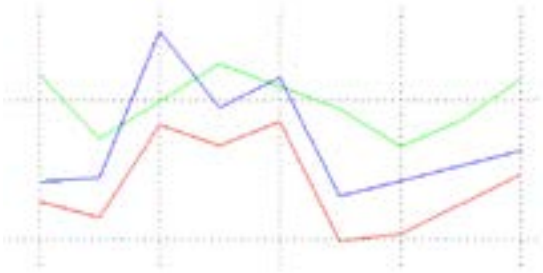
- Point program (enable/disable points)
- Using new programmable function keys (F1-F4)
- History (view and erase)
- Program check or verification - FS Tools (view NACs and zones with no input/output assignment)
- Walktest
- System (change panel time and date)
- Zone setup (enable/disable software zones)
- Positive alarm sequence (PAS) delay per point (15-seconds to acknowledge, up to 3 minute delay preceding alarm signaling)
- Pre-signal delay for manual pull stations
- Continuous, march time, temporal 3 or temporal 4 or California code for main circuit board NACs with two-stage capability
- Real-time clock and calendar
  - Must be re-entered after loss of all power
  - Automatic daylight savings setting
  - Complies with new daylight savings time

Endurance Series

MS 5UD–MS9200UDLS

Maintenance & Troubleshooting

- Readout for battery, onboard NACs, 24 VDC output voltages and battery charging current
- Ground fault detection
- Trouble resound (periodic reminder)
- Walktest
  - Report of two devices set to same address
  - Silent or audible modes
  - 660-event buffer (separate from history buffer)
  - All events time/date stamped
  - Reports untested devices
- Automatic device type code verification
- Continual automatic detector testing (one device per loop each minute)
- Intelligent detector drift compensation with subsequent Maintenance Alerts
- Detector sensitivity printout



```
**********************************************************************
IMPORTANT - Chamber Values are based on the average measured value over
the past 24 hours.  If the FACP has been powered down, or a detector has
been removed within the past 24 hours, chamber readings may not be
accurate.  If the Chamber Value exceeds the Acceptable Upper Limit for
at least 24 hours, then a Maintenance Alert (DIRTY1) will be declared
for that detector.  See the FACP manual for more information about
Chamber Values and Maintenance Alerts.

********************  Detector Sensitivity Data  **********************

Device      Device       Acceptable     Chamber      Time          Date
Number       Type        Upper Limit     Value

1D001     SMOKE(PHOTO)       3087         1490      8:33:24 AM    8/24/2006
1D013     SMOKE(PHOTO)       3080         1071      8:33:24 AM    8/24/2006

******************  End Detector Sensitivity Data  ********************
```

Device Trouble Messages

INVREP (INVALID REPLY)
No answer from device due to a complete device failure, change of address, removal of a device, an open SLC loop or a type code change.

INV ID (Type ID changed)
Device at a certain address has been replaced by a device of another type at that same address (photo–to-ion, monitor-to-control, etc) or the programmed type ID doesn't match the device type.

Detector Trouble Messages

DIRTY1 (MAINTENANCE ALERT)
Dust accumulation is at or near the allowed limit. This condition indicates that cleaning is required before the performance of the detector is compromised.

DIRTY2 (MAINTENANCE URGENT)
Dust accumulation is beyond the allowed limit. This condition indicates that the performance of the detector has been critically compromised. Removal of the head and immediate cleaning is required.

TEST F (FAILED AUTOMATIC TEST)
Detector's sensing chamber and electronics have failed automatic test.

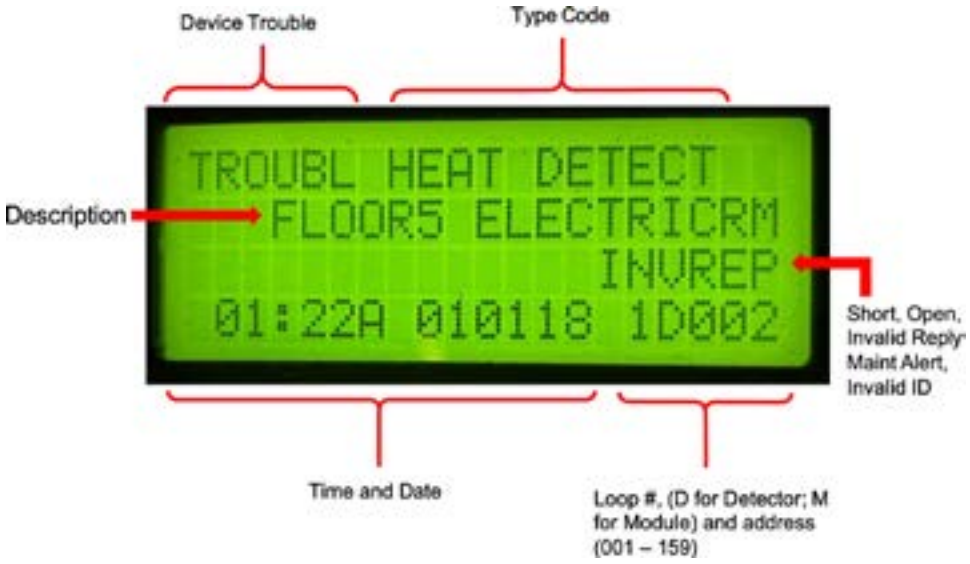
Module Trouble Messages

SHORT (SHORT CIRCUIT)
Short circuit across control module's notification appliance circuit.

OPEN (OPEN CIRCUIT)
Open circuit across control module's notification appliance circuit or monitor module's initiating device circuit.

SW TBL (Switch Trouble)
A module (control or monitor) is defective and requires immediate replacement.

Trouble Message Display



Troubleshooting Tips

- When installing or adding addressable devices, make sure they are Fire-Lite parts
- Do not duplicate addresses
- Set software zones to match your application if required
- If adding a new software map to an existing system, use CAUTION not to use software zones already in use
- Z00 is the general alarm software zone — this is the default zone when adding or programming new devices. This zone needs to be changed if a general alarm is not desired for the new device installed

Honeywell Voice

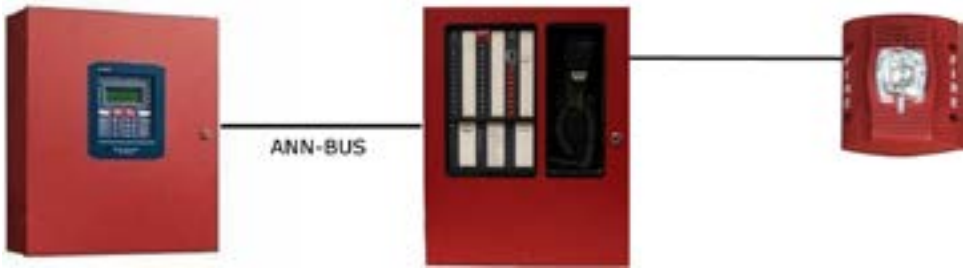
"ECC-50/100 Emergency Command Center"

ECC-50/100 Features

- Direct FACP integration
- Integral 26 Ah battery charger
- Web browser for site programming
- Field upgradeable firmware
- Higher wattage capability using ECC distributed audio booster panels
  - ECC-50DA and ECC-125DA audio boosters
  - Up to 8 speaker circuits per booster

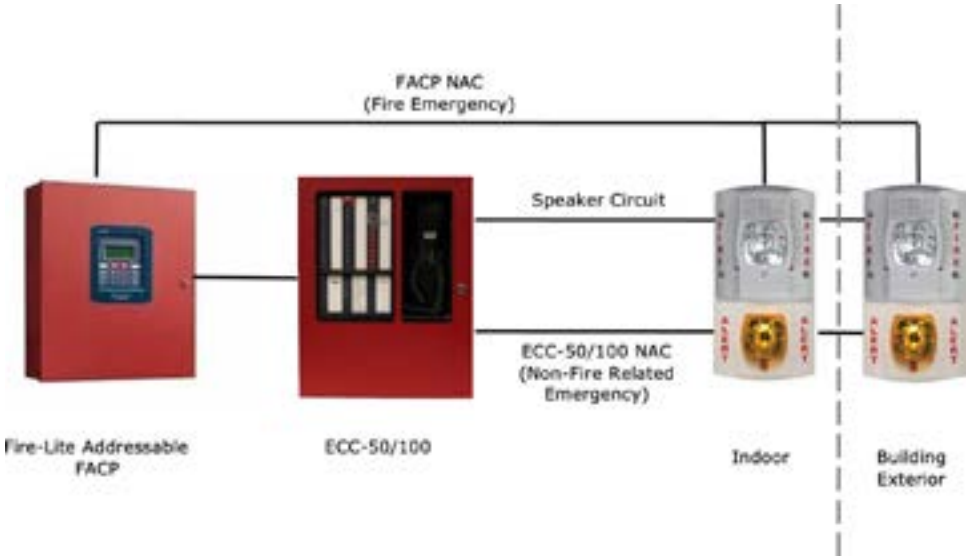
FACP Programming

The ECC-50/100 can be automatically triggered via an ANN-BUS serial link to any Endurance series panel to transmit one of 14 messages over selected speaker circuits. This is accomplished by zone programming at the FACP.



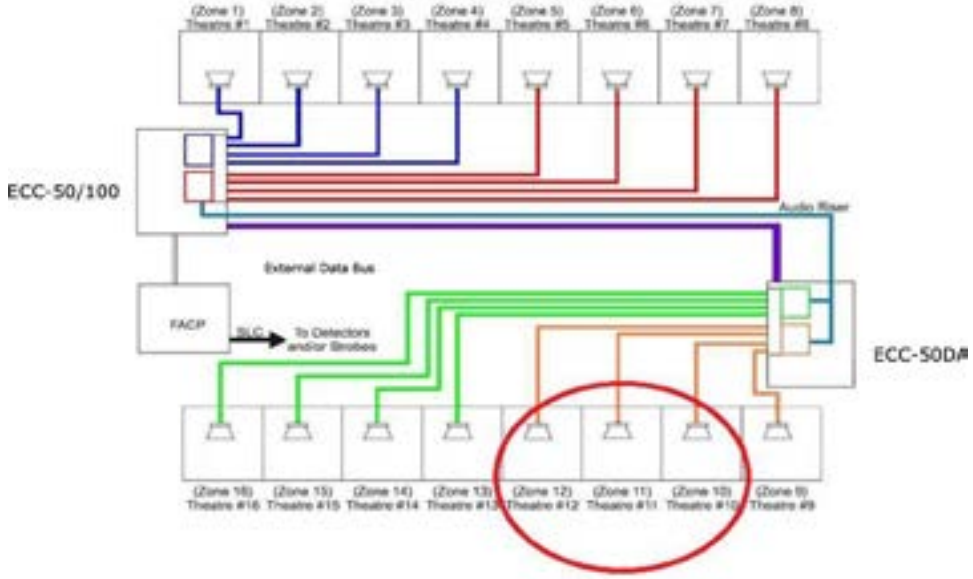
Application Example

One-Way ECS



FACP Programming

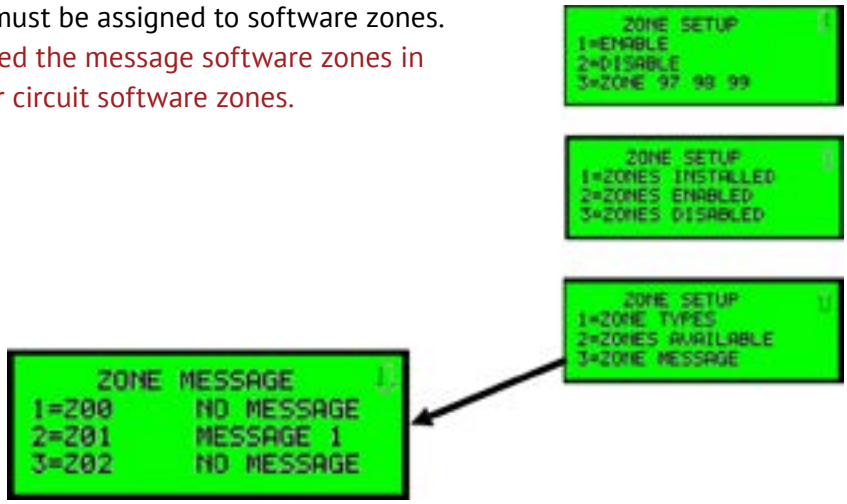
Example: On a fire event in theater #11, message #1 shall activate in theaters 10, 11 & 12.



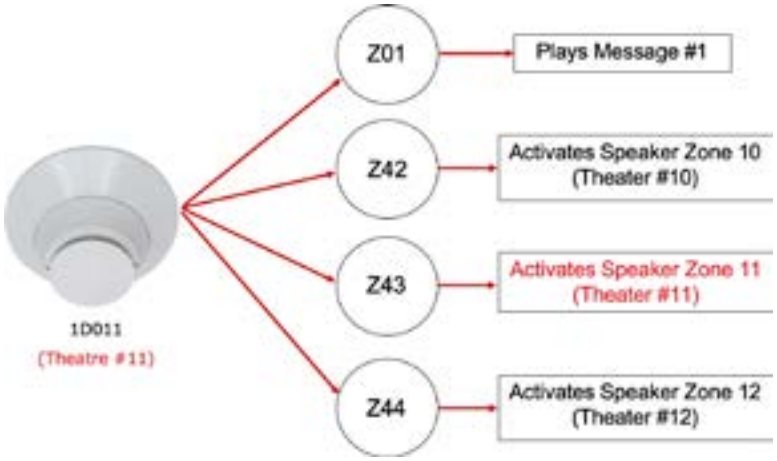
Dedicated Software Zone to Speaker Circuit Assignments

Speaker Circuit Number	Software Zone
All Speaker Circuits (1-24)	32
1	33
2	34
3	35
4	36
5	37
6	38
7	39
8	40
9	41
10	42
11	43
12	44
13	45
14	46
15	47
16	48
17	49
18	50
19	51
20	52
21	53
22	54
23	55
24	56

For proper operation, messages must be assigned to software zones. Initiating devices are then assigned the message software zones in addition to the dedicated speaker circuit software zones.

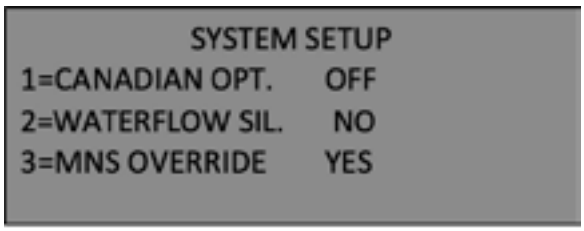


Example: On a fire event in theater #11, message #1 shall activate in theaters 10, 11 & 12.

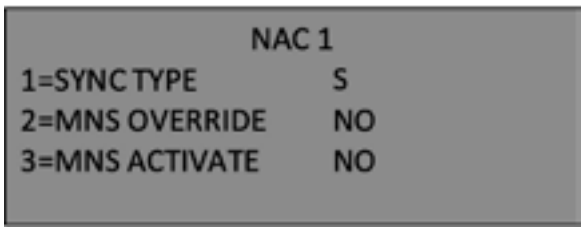


FACP Programming – MNS

For MNS applications, the ECC-50/100 can override an existing fire alarm event and silence the FACP's active NAC(s) or it can be configured to activate a FACPs NAC(s).



Programming Step 1



Programming Step 2

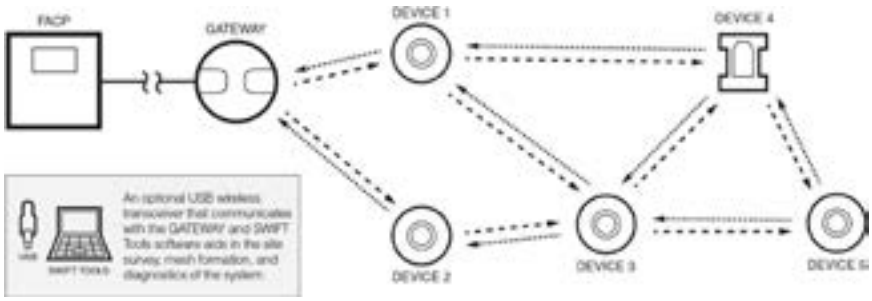
Summary

- Ease of installation and programming
- Point-by-point reporting via communicator
- Maintenance savvy - auto detector testing (no special tools), drift compensation, maintenance alert, auto device type validation.
- When coupled with the ECC 50/100 you can provide compete mass notification.

SMART WIRELESS INFORMATION FIRE TECHNOLOGY (SWIFT)

What is SWIFT?

SWIFT is a commercial wireless system using a robust, Class-A mesh network that integrates with existing fire systems.



SWIFT is compatible with Fire-Lite Lite-Speed panels. THE MS9200UDLS, MS9600UDLS, MS9600LS and the ES50X, ES200X and ES1000X endurance panels.

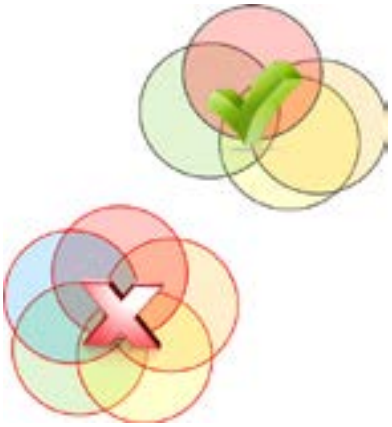
Applications

- Difficult or impossible to wire
- Visually sensitive or historical integrity
- Restricted access – hazardous or secure
- Temporary construction
- Temporary contract fire monitoring

Compatible Fire Alarm Panels

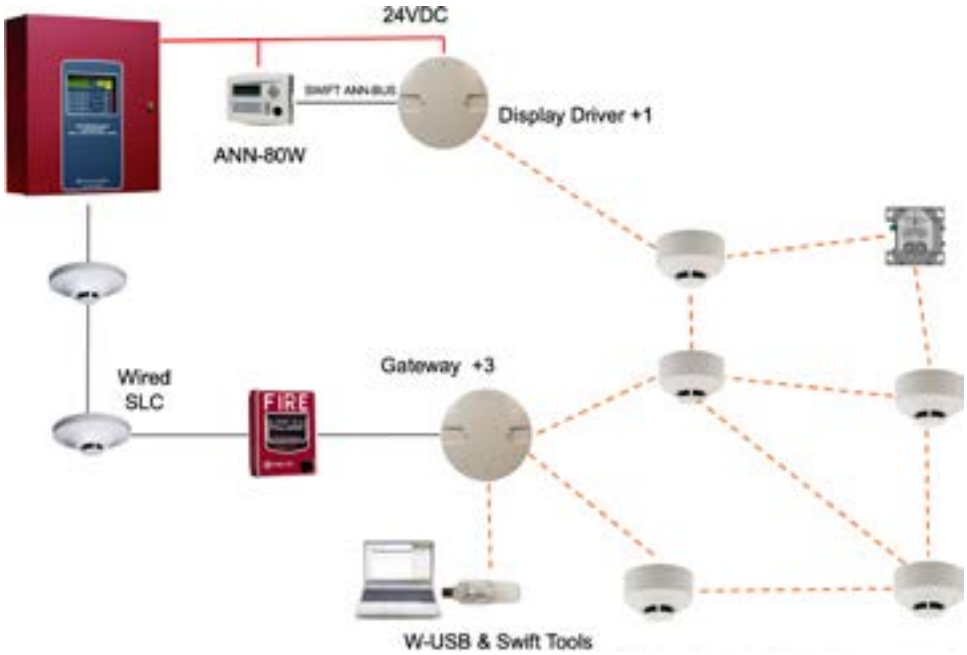
System Specifications

- Up to 50 devices per mesh
- MS series requires the W-Gate & W-DIS-D
- ES series only requires the W-Gate
- 4 overlapping gateways permitted in area**
- 902MHz - 928MHz
  - License free band
  - Frequency Hopping
- Cascading Wave Communication Protocol*
- Wireless detectors or modules can be used as antennas to increase RF signal strength, when needed

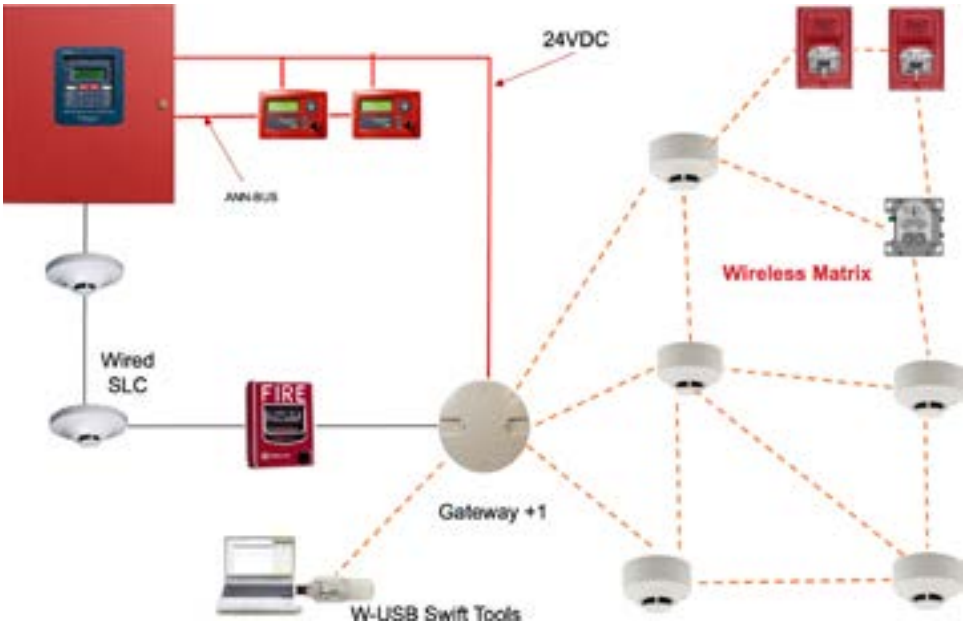


*** Honeywell Patent**

System Overview (MS Series UDLS Panels)



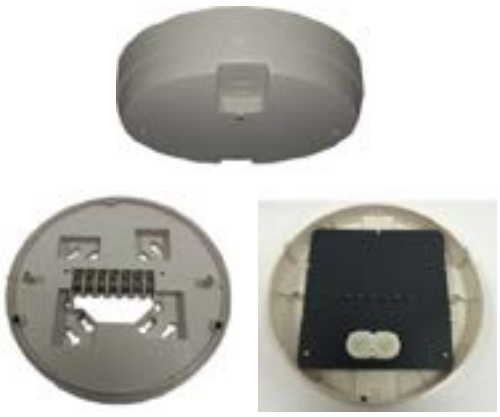
System Overview (ES Series Panels)



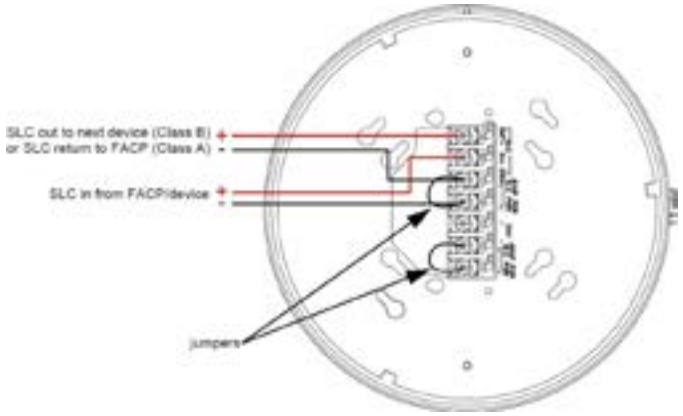
The Gateway and Display Driver

Gateway W-Gate

- Bridges communication from wired to wireless
- Powered by the SLC or external 24 VDC
- LiteSpeed only
- Each mesh requires 1 gateway
- ES series - Occupies 1 module address
  - Base address – Monitor module
- MS series - Occupies 3 module addresses
  - Base address – Monitor module
  - Base address +1 – Tamper
  - Base address +2 – Trouble monitor



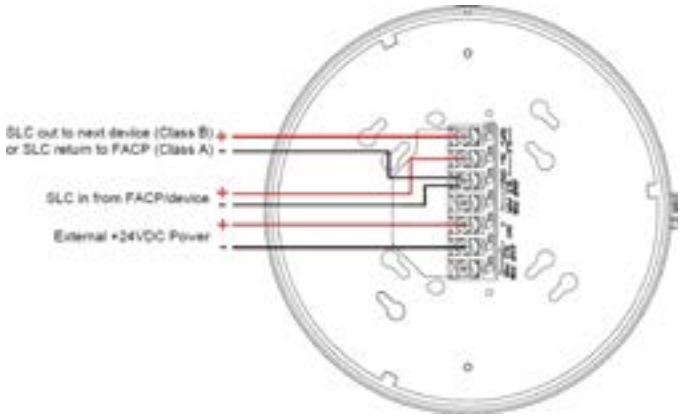
W-Gate Wiring



Powering from the SLC may cause the matrix to use more current depending upon how many times the W-Gate would lose power. This would happen upon initialization when the matrix is lost. Once the power is restored the system would go into a restructuring mode.

W-Gate Wiring

Powered by external 24 VDC



Display W-DIS-D (MS Series UDLS Panels Only)

- Each mesh requires 1 display driver (no more; no less)
- Powered by external 24 VDC
- Occupies 1 module address on FACP
- Communicates directly to an ANN-80W
- Displays wireless specific TROUBLE events only

Ann-80W (MS Series UDLS Panels Only)

- Powered by external 24 VDC
- Must addressed as "1" only
- Communicates directly to display driver over SWIFT ANN-BUS
- Can be installed up to 6,000 ft from display driver
- Install adjacent to control panel
- Displays wireless specific TROUBLE events only

Display W-DIS-D (MS Series UDLS Panels Only)

Wireless specific troubles

- Mesh restructuring
- RF comm loss
- Illegal address (address 0)
- Max gateway exceeded
- Maximum devices
- RF device no answer

Display W-DIS-D (MS Series UDLS Panels Only)

Wireless specific troubles

- Wireless mesh formation in progress
- Jamming
- Duplicate address
- Battery low
- Class A (missing second link)
- Weak link (low signal strength)

The Detectors, Modules, & Accessories

Detectors

- Basic operation identical to wired version
  - Panel makes alarm decision
- Each operates on (4) CR123A batteries (Included with detector)
  - UL listed for 2 years of expected battery life
- 4” base shipped with each detector
  - Magnet included to detect “tamper” condition

Type	Model Number
Photo	W-SD355
Heat (Fixed)	W-H355
Heat (ROR)	W-H355R
Photo/Heat	W-SD355T

Monitor Module (W-MMF)

- Used to monitor any closed contact point
  - Conventional pull station, waterflow, etc.
- Operates on (4) CR123A batteries (Included)
  - UL Listed for 2 years of expected battery life
- Module plate included
  - Magnet included to detect “tamper” condition
- Recommended to use the plastic SMB500 4" box
- 3' limit on wiring length
  - Due to lack of ground fault detection
- 3.9K end of line resistor included with each module

W-CRF Control Relay Module

- Equivalent contact ratings to the wired relay
  - UL limitations – only one set of contacts permitted
- Equivalent battery specifications to all wireless devices
  - Specified for 2 years of battery life
  - Latching relay; only draws power to change state
  - A relay in the “off-normal” or “active” position will draw more power due to the LED drawing more power

- Relay will go to the normal state during startup
- Relay will go to and stay in the normal state during installation
  - Bootloader (updating a device)
  - Factory default (including site survey)
- Relay will go to and stay in the normal state during initialization
  - Mesh formation
  - 1st mesh optimization
- Activation of the relay as follows:
  - Relay will activate first
  - LED changes state after that (next message; lower priority)
- Relay will "hold" its last state if it drops from the mesh
  - Tampered device
  - Jammed device
  - Dropped device (out of range/communication)
  - Dead batteries

W-CRF Limitations

- Wireless relay cannot control multiple devices (1 relay per device)
- Emergency control function interface wiring within 3'
  - NFPA requirement 21.2.4
- Wireless initiating and output devices must be in the same mesh to meet 9 second activation
  - 1 second is needed for the strobe to charge and fire
- Not for releasing service use

21.2.4* Emergency control function interface devices shall be located within 3 ft (1 m) of the component controlling the emergency control function
3.3.137.1.2* Emergency control function interface. The interface between the fire alarm system emergency control function interface device and the component controlling the emergency control function. (SIG-PRO)

Wireless Pull Station

- Same look and feel as current wired pull stations
- Integrated LED to display operating status
- Powered by (4) CR-123 lithium batteries

W-BG12LX

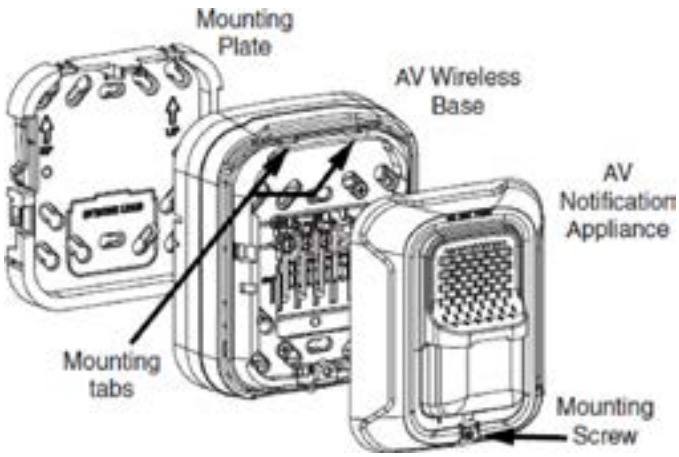
Wireless A/V Bases

- Wireless addressable ceiling A/V bases
- Supports L-series horns, horn/strobes, chimes, chime strobes and strobes mounted directly to the base
- Magnet walk-test to individually test units and conserve batteries
- Powered by (8) CR123A lithium batteries for wireless communications and A/V signal
- Occupies two module SLC addresses via rotary switches:
  - Base Address – RELAY1FC – Wireless =true
  - Base Address + 1 CONTROL – Wireless = false
- For selective silence - Base non-silenceable; base+1 non-silenceable

WAV-CWL & WAV-CRL

The life of the AV set of batteries depends upon the activation time of the audible and/or visible output as indicated in Table 3.

- The wireless AV base and notification appliance will synchronize both audio and visual indications between devices located within the same mesh network when a gateway is used
- Synchronization of a wireless AV device with a wired notification appliance requires a synchronization module (W-SYNC)



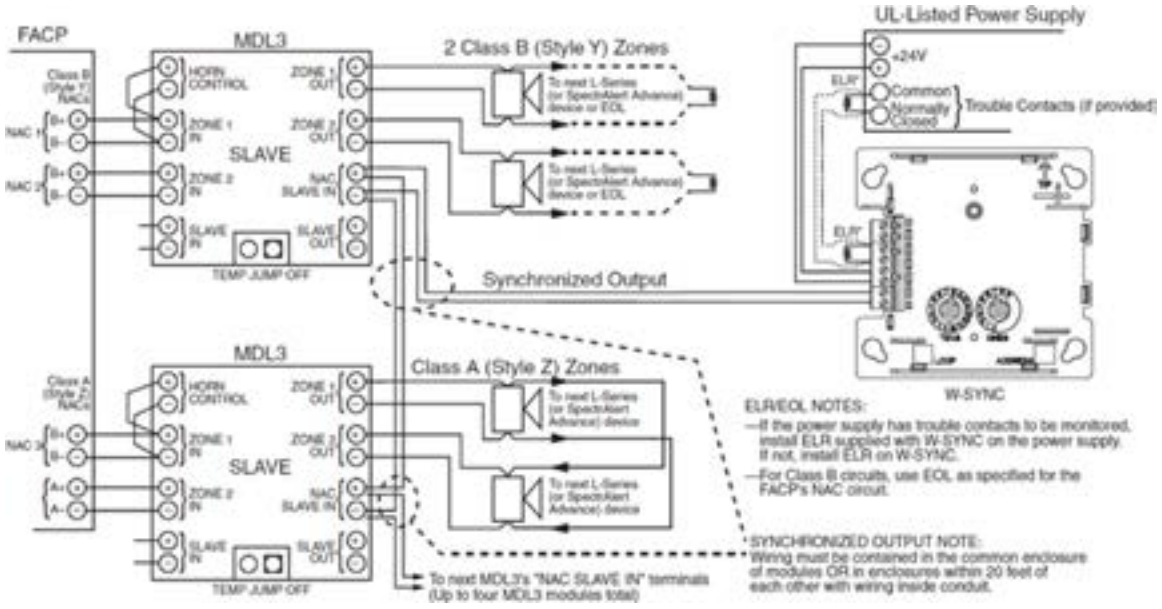
Wireless Sync Module

- Enables visible and audible synchronization between wired and wireless A/V appliances
- Supports System Sensor Sync Protocol
- Can be used to synchronize up to 4 remote power supplies and monitor power supply trouble output
- Powered by 24V with 4 CR123A lithium batteries
- Occupies 2 module SLC addresses via rotary switches:
  - Base Address – RELAY1FC – Wireless true
  - Base Address + 1 CONTROL – Wireless false

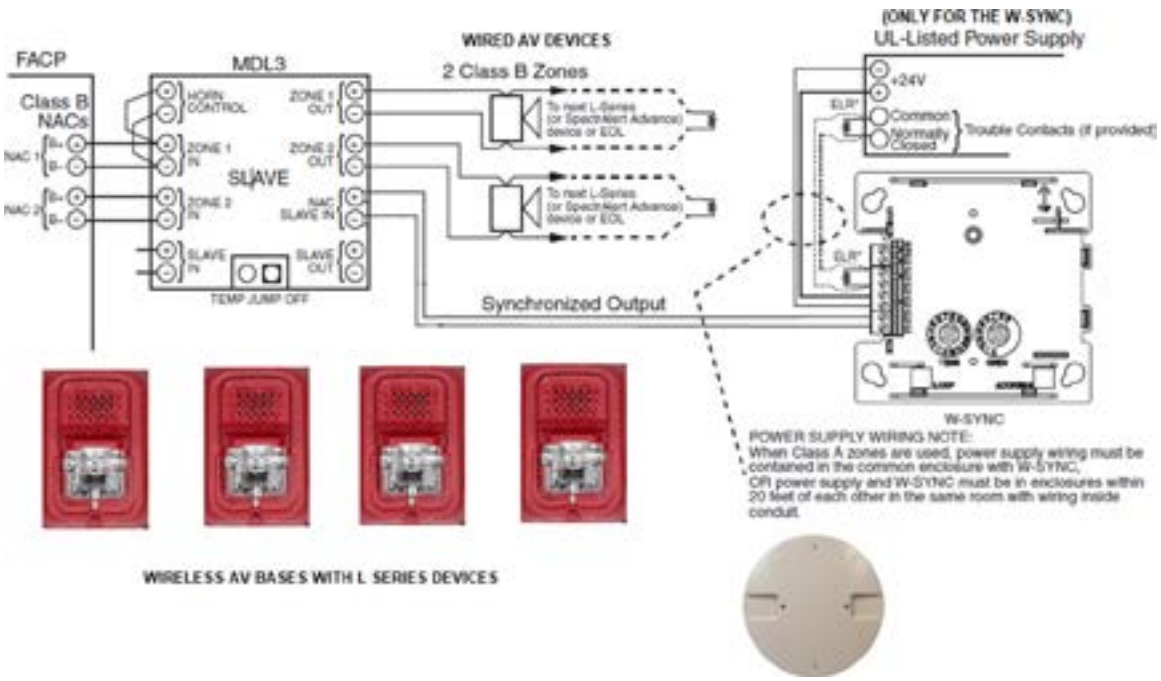
W-SYNC

Synchronization of only wireless notification appliances within a single mesh network is inherent in the wireless system and a wireless synchronization module is not needed.

Wireless Sync Module with Wired AV Devices



A trouble will be generated at the panel if batteries are not installed or at a low battery level. Synchronization is not available during supplemental battery operation. The supplemental batteries enable the wireless transceiver to continue to support wireless mesh communications so that other devices that are its parents or children are not affected by the loss of the 24V connection.



NOTE: A gateway must be used to add the wireless AV to the matrix.

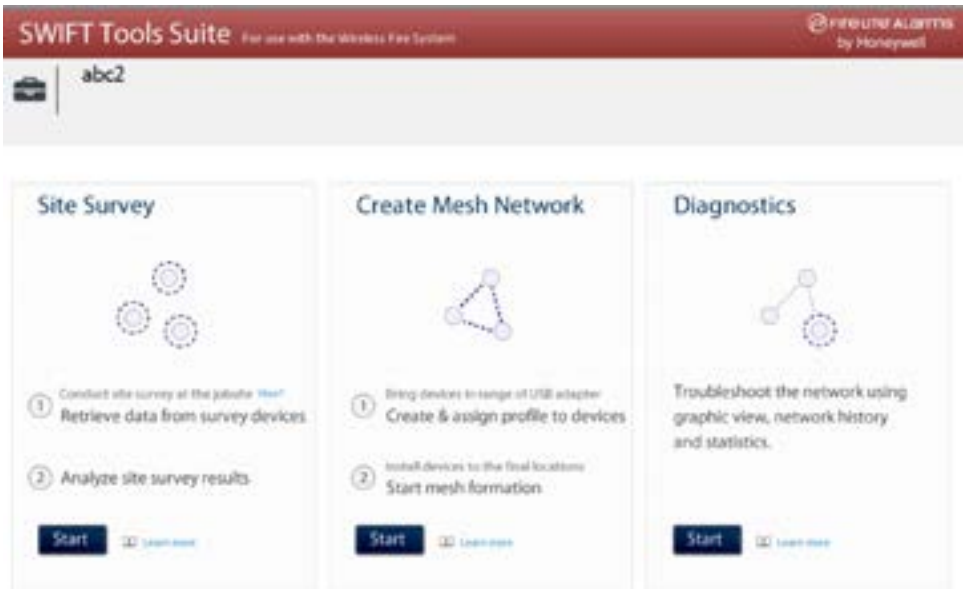
The W-Gate is needed for the wireless AV

SWIFT® Site Survey (Link Test & RF Scan)

USB Adapter (W-USB)

- Made by System Sensor
- Connects to a PC (Windows XP, 7, 8, 10)
- Communicates to wireless devices for configuration and diagnostics
- Compatible with all Honeywell panels that are using SWIFT wireless devices and Advanced protocol such as Lite-Speed

SWIFT Tools

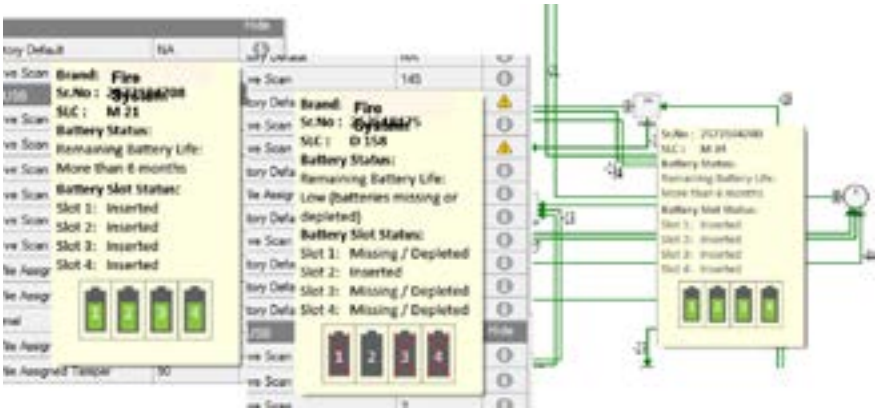


PC-based application for:

- Collecting and analyzing site survey data
- Configuring and installing a system
- Diagnostics
- History
- Statistics

Download for Free at www.firelite.com

- Added information for batteries in the communicator for devices in range of the tool



- Added SLC address and consistency in the popup

See What Devices Have a Low Battery Trouble and Why

SWIFT Testing & Setup

SITE SURVEY
Link Test – Quick test for signal strength
RF Scan – Test for channel activity
and background noise (70 minutes)

SWIFT TOOLS
Site Survey
Create Mesh
Formation
Diagnostics

Site Survey

Evaluate the site prior to installation

- Verify the connectivity to challenging locations
- Measure the interference and activity
- Measure the background noise

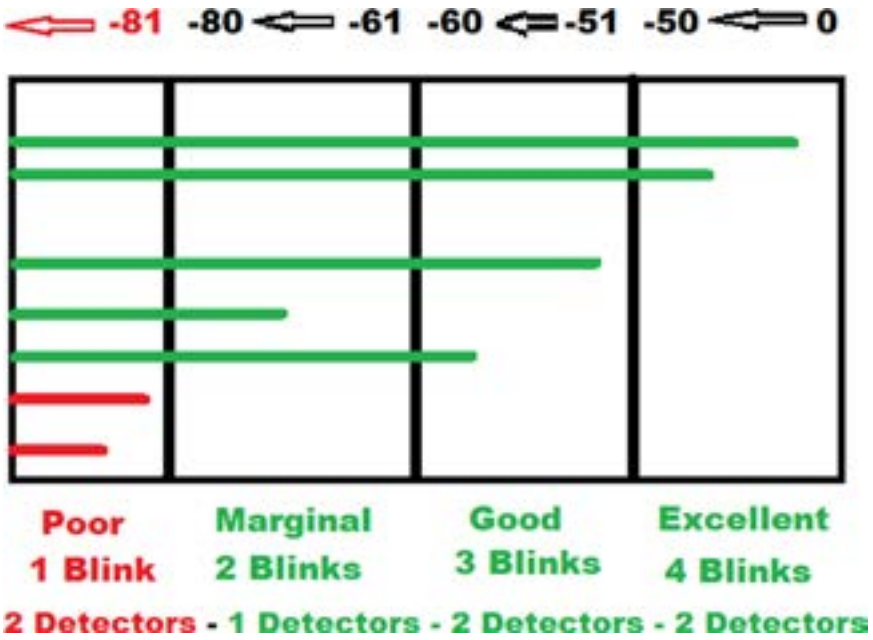
Site Survey – Link Quality Test

ROOM "A" D1	ROOM "B" D2
ROOM "D" D3	ROOM "C" D4

Link Quality Test Results

LED Pattern	Color	Results/Description
On steady	Red	Failure – no data received
Single blink every 5 seconds	Red	Poor – partial data received, or signal strength measured lower than the acceptable limit for a primary or secondary link (-81dBm or lower)
2 blinks every 5 seconds	Green	Marginal – all data received at a signal strength acceptable for a secondary link but not a primary link (-61dBm to -80dBm)
3 blinks every 5 seconds	Green	Good – all data received at a signal strength acceptable for a secondary link and marginally acceptable for a primary link (-51dBm to -60dBm)
4 blinks every 5 seconds	Green	Excellent – all data received at a signal strength acceptable for a primary link (-50dBm or better)

Link Quality Ttest Results in -dBm

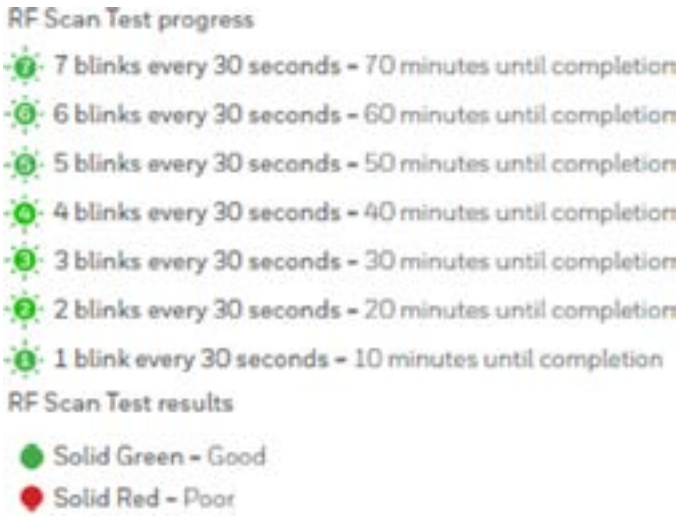


SWIFT Tools – RF Scan Test

Conduct RF Scan

After 5 minutes, the device will transition to the RF scan. The scan will run for no more than 70 minutes. Progress and results of the RF Scan will be shown using LED patterns.

Note: If no RF channels are available, the blink patterns that are shown below will blink red instead of green.



SWIFT Tools – RF Scan Test

Results of the RF Scan test

State	Pattern	LED	Status
In Progress – 70 minutes remaining	7 short blinks every 30 seconds	Red	Bad
		Green	Good
In Progress – 60 minutes remaining	6 short blinks every 30 seconds	Red	Bad
		Green	Good
In Progress – 50 minutes remaining	5 short blinks every 30 seconds	Red	Bad
		Green	Good
↓	↓		
In Progress – 10 minutes remaining	1 short blink every 30 seconds	Red	Bad
		Green	Good
RF scan test complete	On steady	Red	Bad
		Green	Good

Retrieving Site Survey Results

To retrieve the site survey results:

- Return the device to “Pending Site Survey” or “Factory Default” mode. This is done by tempering devices that have completed a link quality test or an RF scan test. This can also be done by rebooting devices after a link quality or RF scan test.

Caution: Do not clear the tamper on a device that is in the “Pending Site Survey” state or the existing results will be replaced. If the device is left for more than 5 minutes, the RF scan results will also be erased provided the device SLC address is greater than 100.

- Plug in the USB adaptor into the laptop/PC where you have installed the SWIFT Tools.
- Bring the devices within a range pf approximately 20ft from the USB adaptor connected to a laptop/PC.
- Retrieve the site survey results. For information on how to retrieve site survey results, refer to the topic, “Retrieve data”.

Reveals if there is any RF interference present

Matrix Development – SWIFT Tools

Installation Steps with SWIFT Tools

A Two step process:

- Assigning profiles
  - Create or upload a profile
  - Select devices to assign the profile
  - Assign the profile
- Create mesh network
  - Start the process
  - Stop the process
  - Mesh network will restructure automatically

SWIFT Tools Provides Visibility into the Process!

Creating the Mesh Network

Create Mesh Network

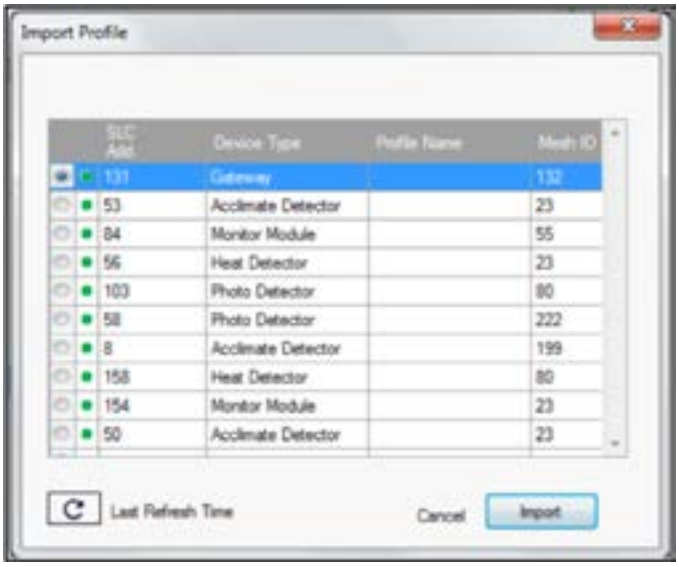
Create Profile

To create a profile, follow the below procedure:

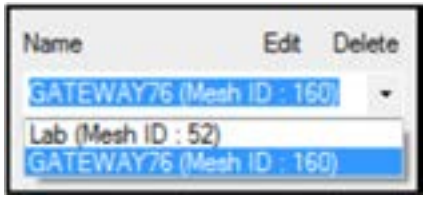
1. From the main screen, click **Start** and **Create Mesh Network**
   The **Create Mesh Network** screen is displayed
2. Click create or import on the profile pane. The create or import screen is displayed
3. Click **Create New Profile** button. **Create Profile** screen is displayed
4. Enter the **name** of the required profile
5. Enter a **mesh ID**

Note: Ensure that each Mesh ID has a different ID from other profiles in range. You can choose the IDs in the range of 1 to 255, creating the mesh network

6. Click **Create**. A profile gets created



Select the required device from which you want to import and click import. The profile is imported and the following message is displayed.



The **Name** drop-down list displays the imported profile.

Assign Profile

Devices that are in factory default state can only be assigned a new profile.

To assign a profile to a device, follow the below procedure:

1. **Create** or **import** a profile as required
2. Select the required profile to assign from the name drop-down list in the Profile pane
3. Select the required devices that are in factory default state from the communicator pane
4. The Assign Profile pane in the middle displays the selected device
5. Click **Assign**

The profile is assigned and the below screen is displayed. Note that the device status column shows, '**Profile Assigned**'.

Mesh Formation

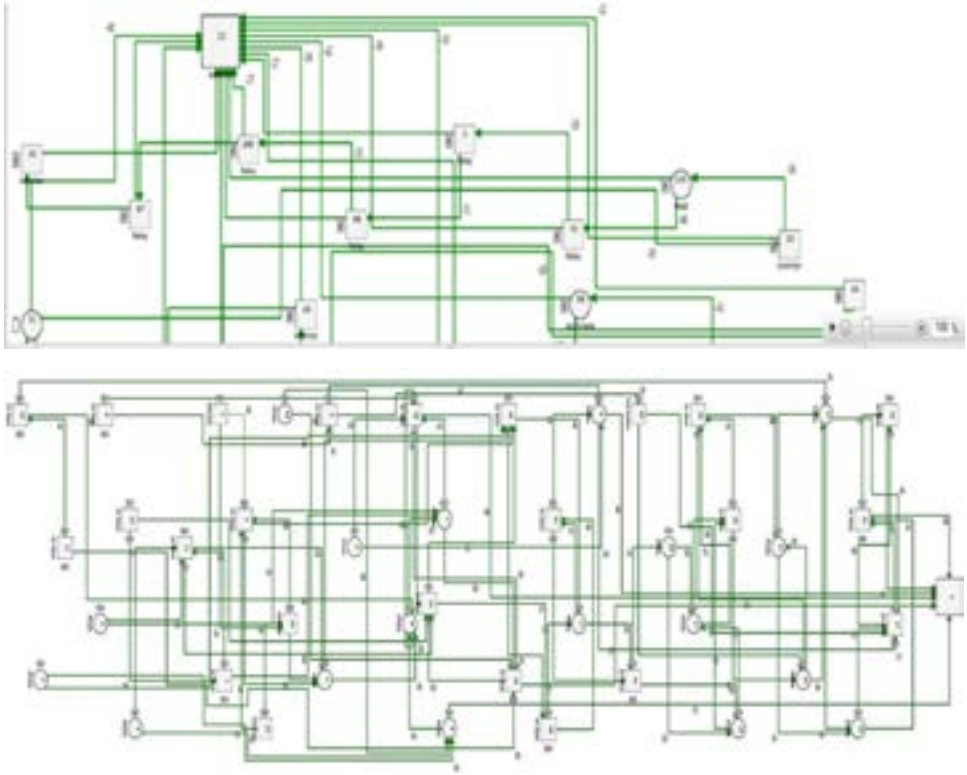
The next step after creating/importing or assigning a profile is to create a mesh formation.

To start a mesh formation, perform the following steps:

1. Assign profile and click the arrow **Next** in the **Create Mesh Network** screen. The **gateways in Range** pane is displayed, listing the gateways and the number of devices joined that are in the range of the USB adapter connected to your PC/laptop

2. Select a profile and click **Start Mesh Formation**. A message is displayed. Click Yes to proceed of click No to cancel
3. The **Enter Password for Gateway** screen is displayed. Enter the password
4. The **Mesh Formation** screen is displayed indicationg the mesh formation is in progress
   - The **Progress Status** column indicates progress status of the selected gateway

Creating the Mesh Network



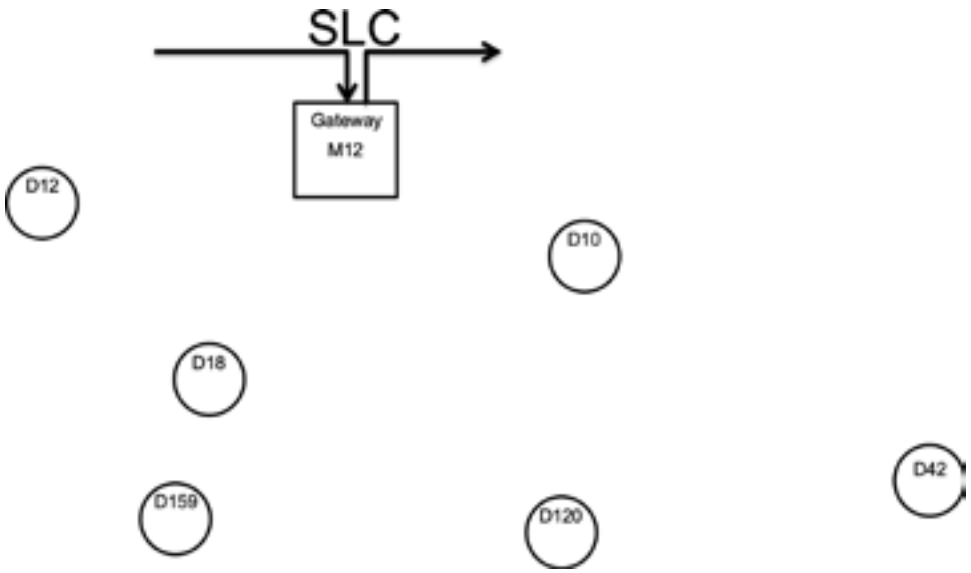
SWIFT Training Videos

SWIFT Wireless Integrated Fire Technology
Honeywell Engineering

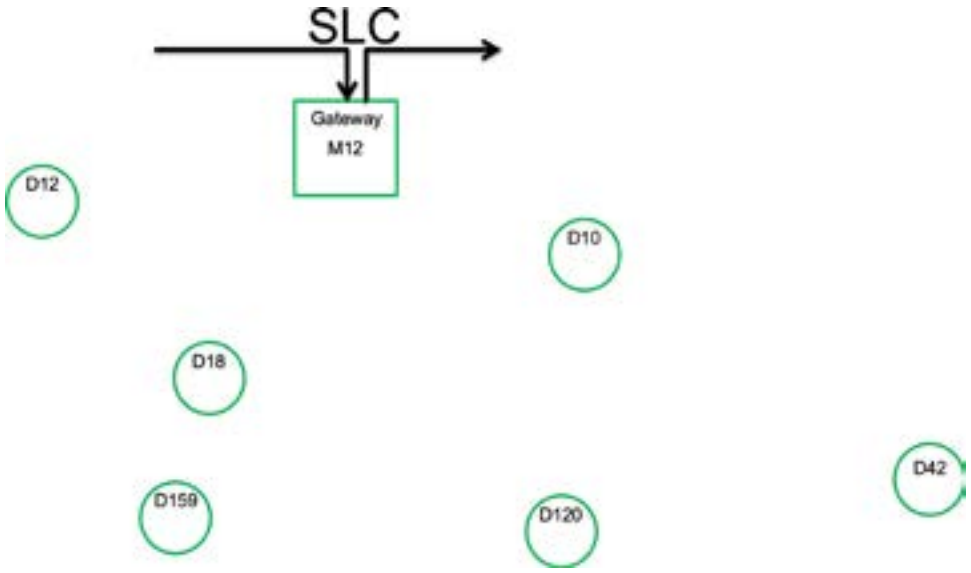
YouTube videos to explain the instructions

Matrix Development Continued

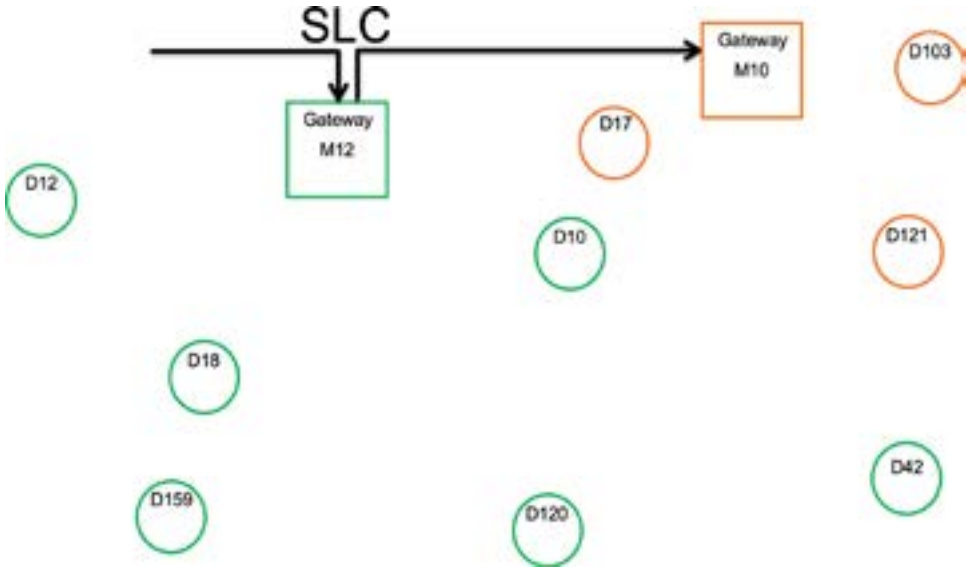
Assign Profiles



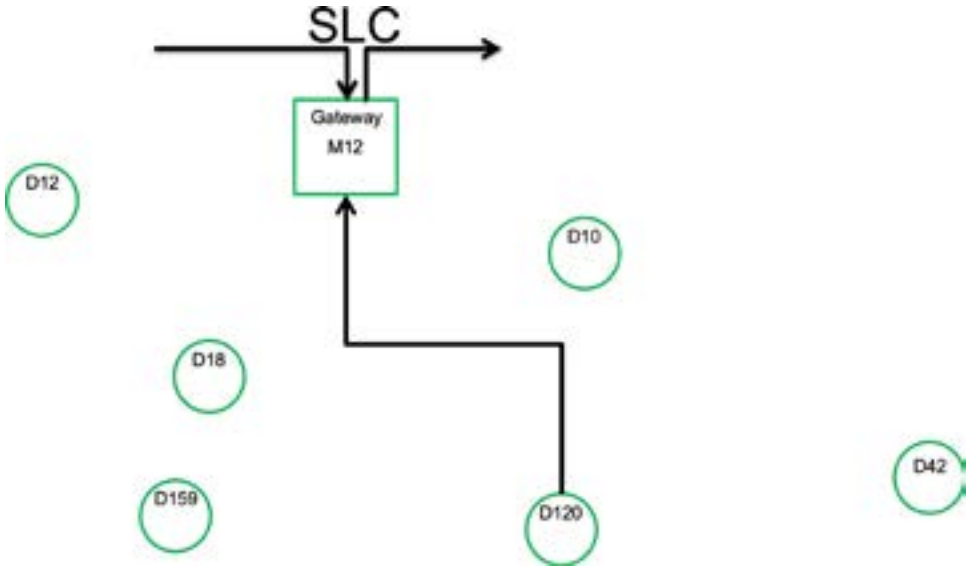
Profiles Assigned



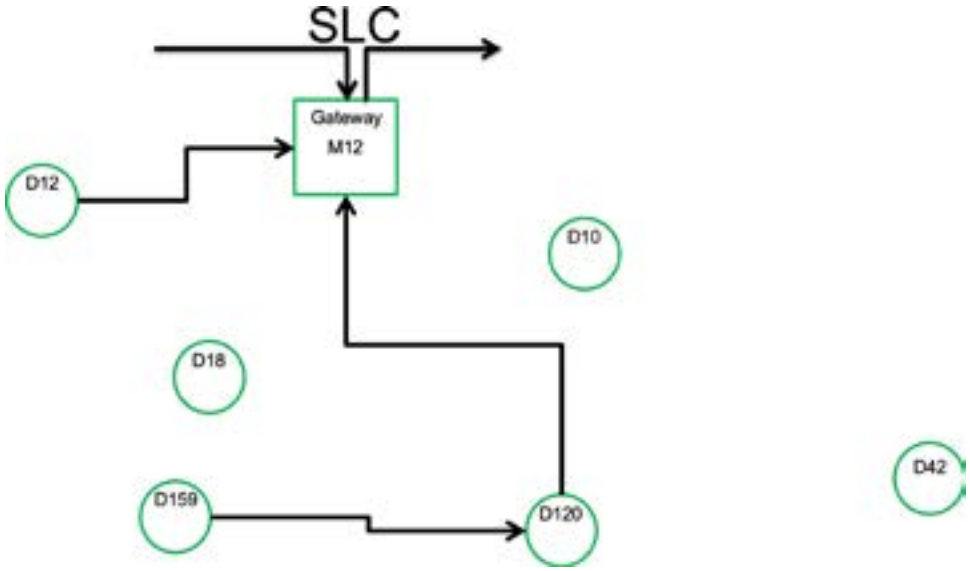
Profiles Define Association/Enrollment



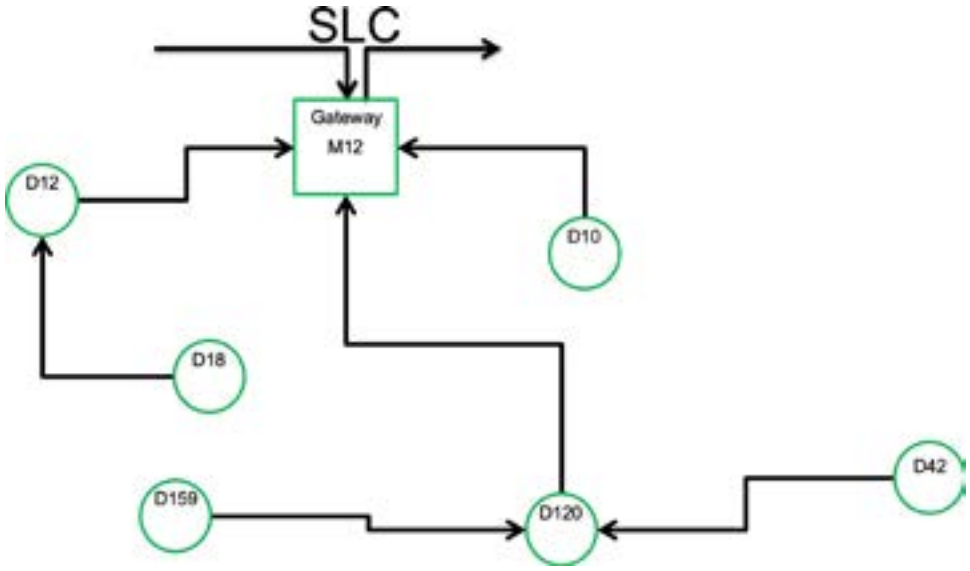
Mesh Formation in Progress



Mesh Formation in Progress



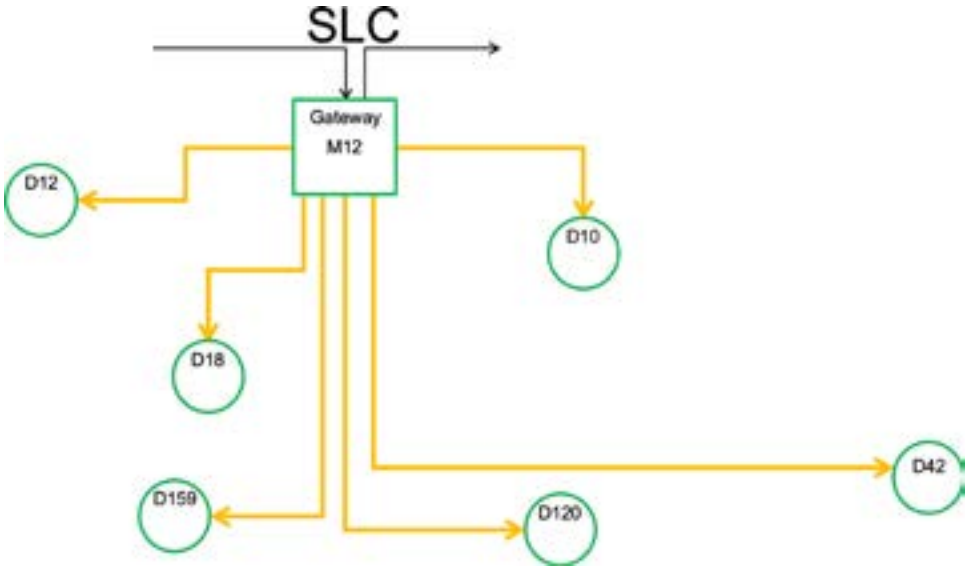
Mesh Formed



Mesh Restructuring

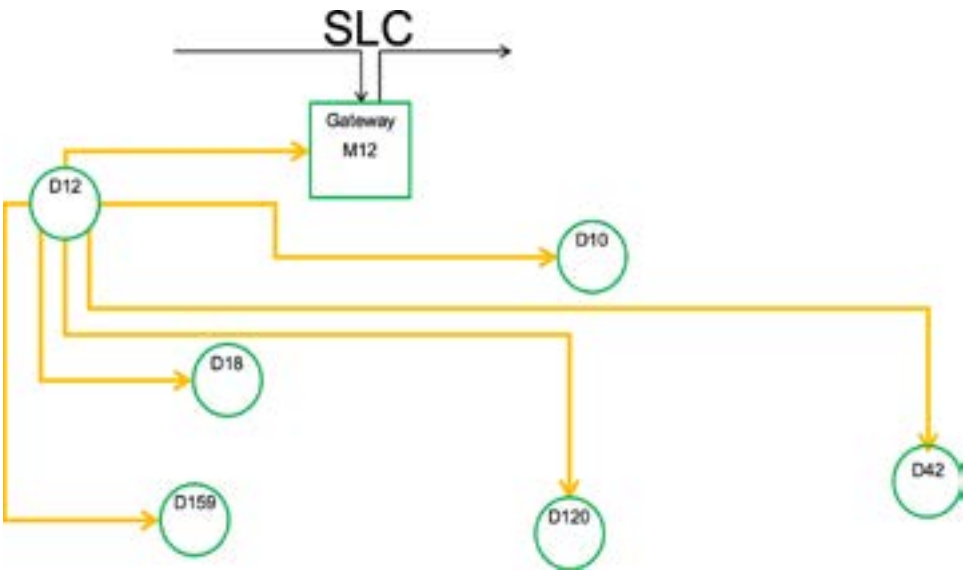
- Changes to the environment
  - Renovations
  - Obstructions
- Device is moved
- Devices are added or deleted
- Panel sends a restructure trouble

Mesh Restructuring in Progress

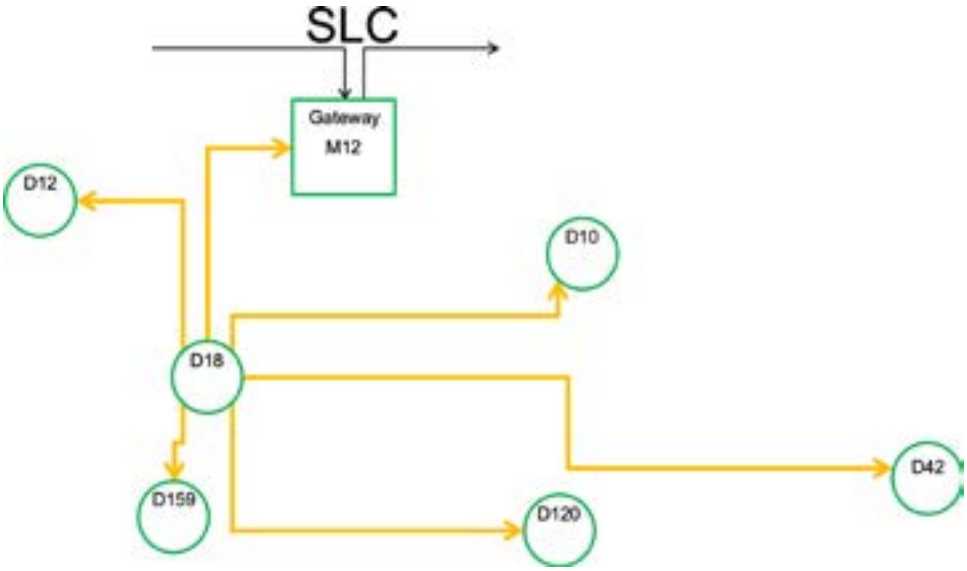


The gateway then conducts a restructuring process where it measures the signal strength from device to device in ALL paths possible – in every configuration. That what these next slides show.

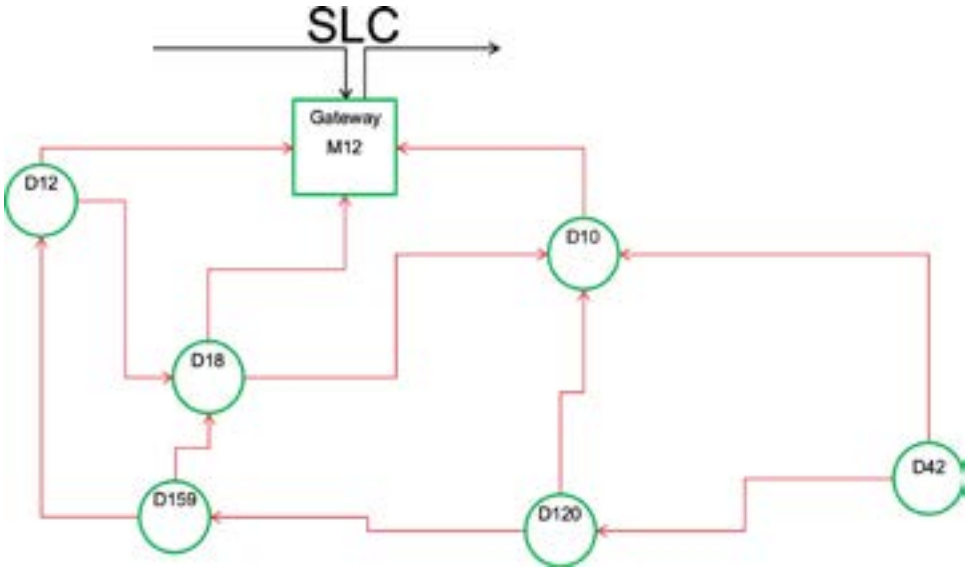
Mesh Restructuring in Progress



Mesh Restructuring in Progress



Mesh Formed

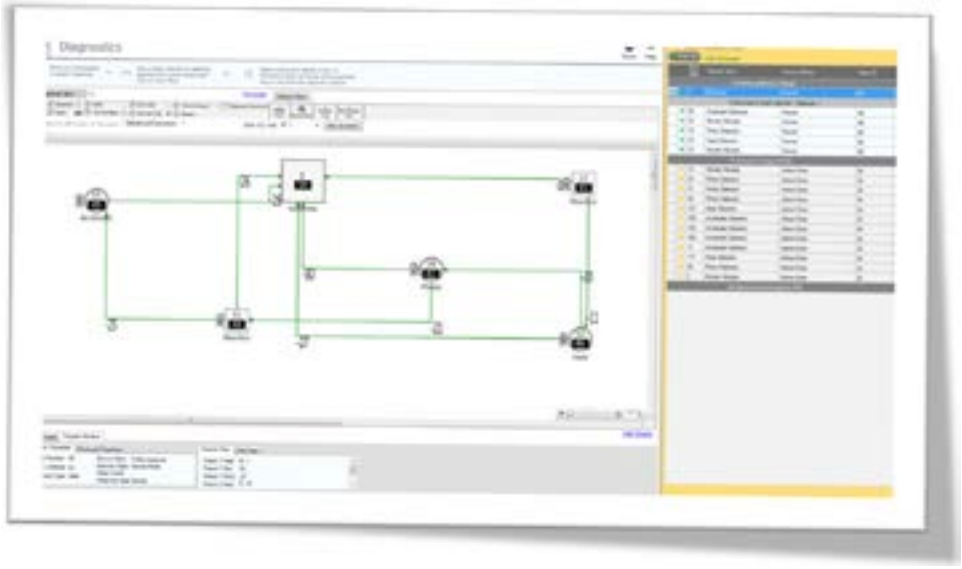


Now the gateway has the signal strength of every device in every possible configuration and it can put the network together in the most optimum configuration. This restructuring will occur

Normal Mode

The mesh network has been formed

- Mesh network will continuously search for additional devices
- Gateway reports “Normal” to the communicator which is displayed in SWIFT tools



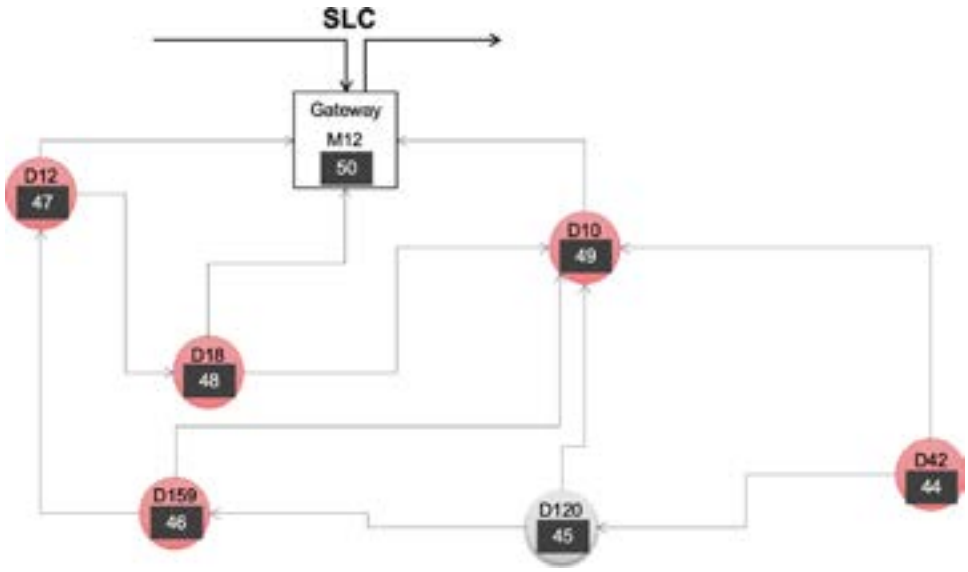
Rescue Mode

If you lose a device on the mesh

- Lost battery power
- Unable to communicate
- Device has been moved

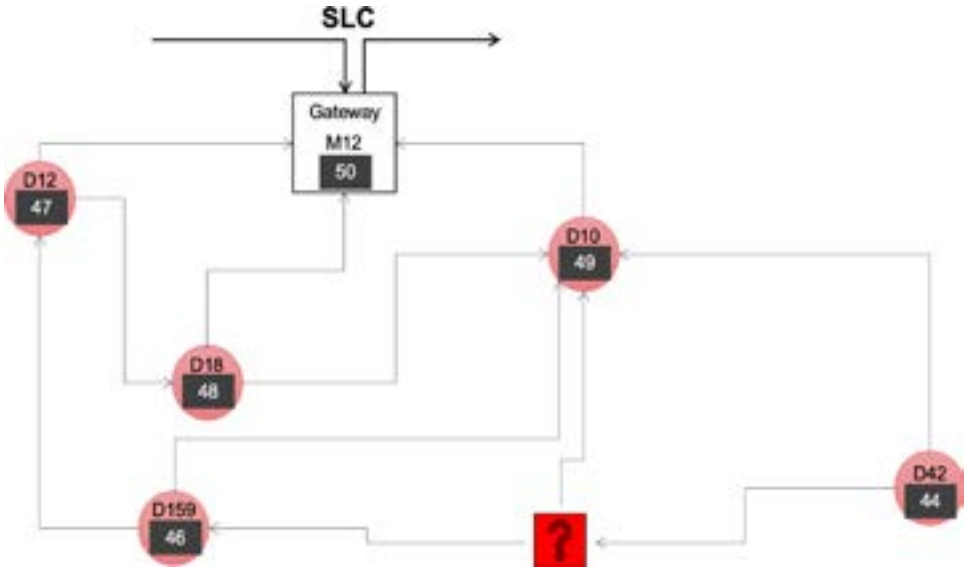
- First, mesh network will be repaired
- Then the other devices will search for the lost device
- LED blinks every 12 sec
- Does not report trouble in this mode
  - If rescue mode fails it generates trouble on the panel
- Rescue mode automatically terminates 3 minutes after the lost device is rescued and returns to normal mode
- Still have fire protection in this mode

If a Device Falls Out of the Mesh....

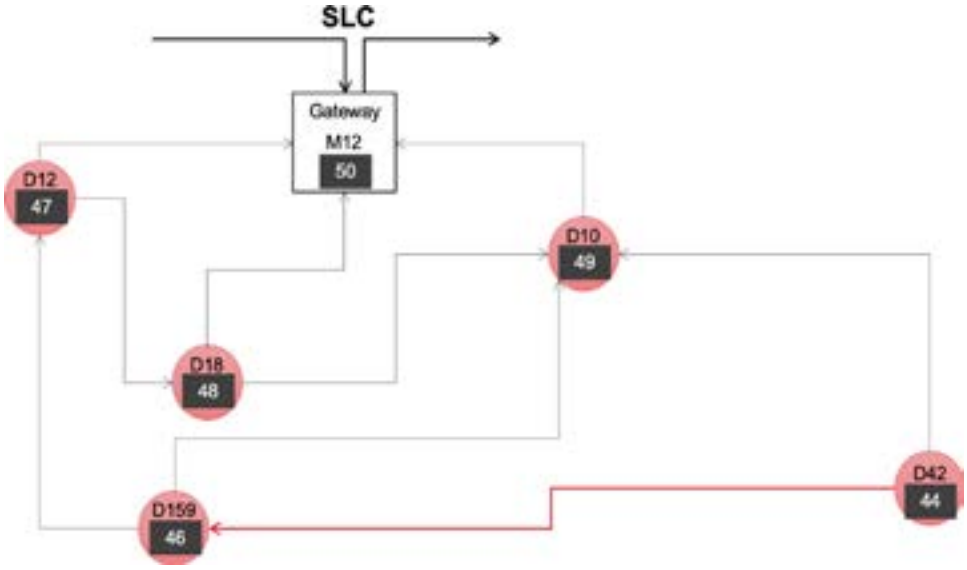


After a certain period of time, the system assumes a missing device has fallen out of the mesh (missing person report)

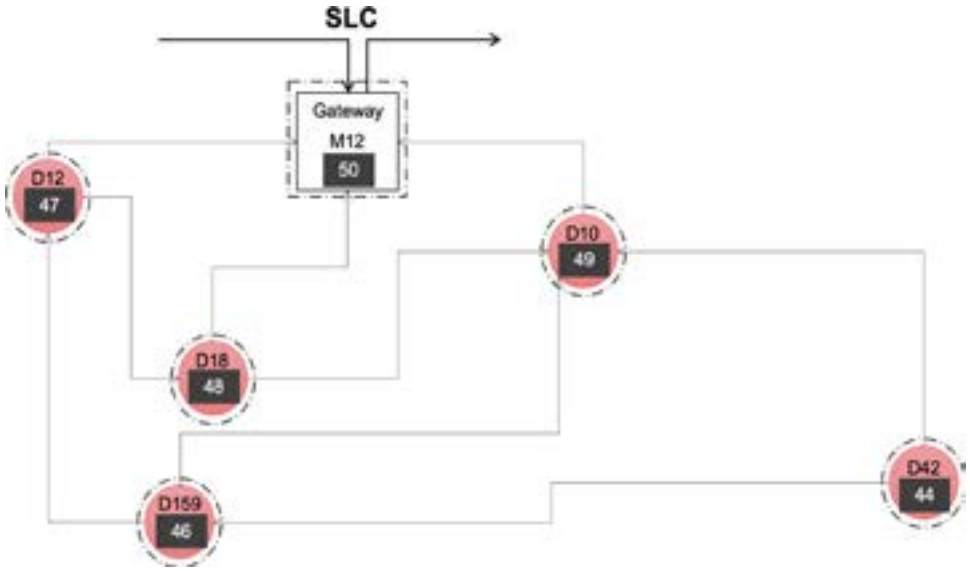
If a Device Falls Out of the Mesh....



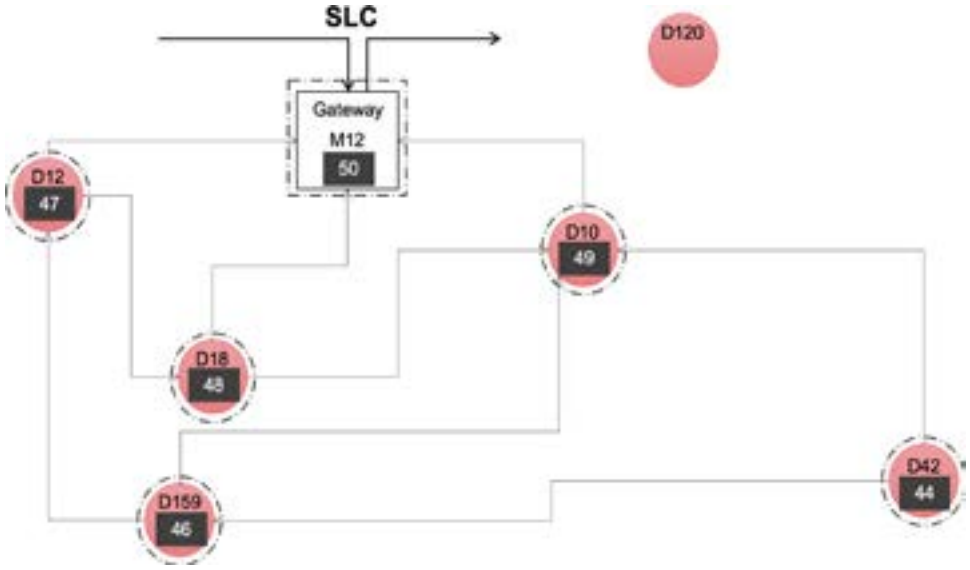
The System Will Repair Connections...



And Search for the Lost Device...

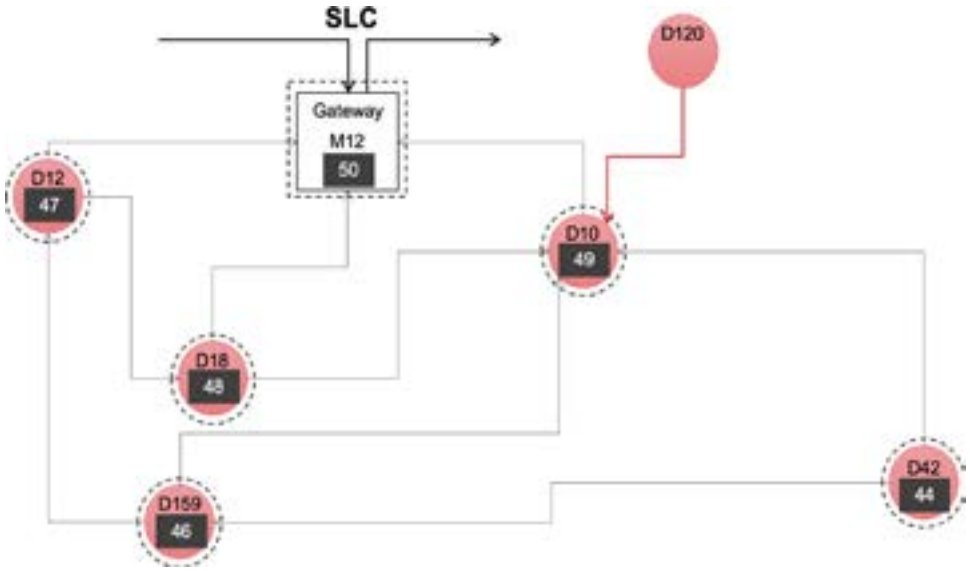


Even if It's Placed in a New Location...



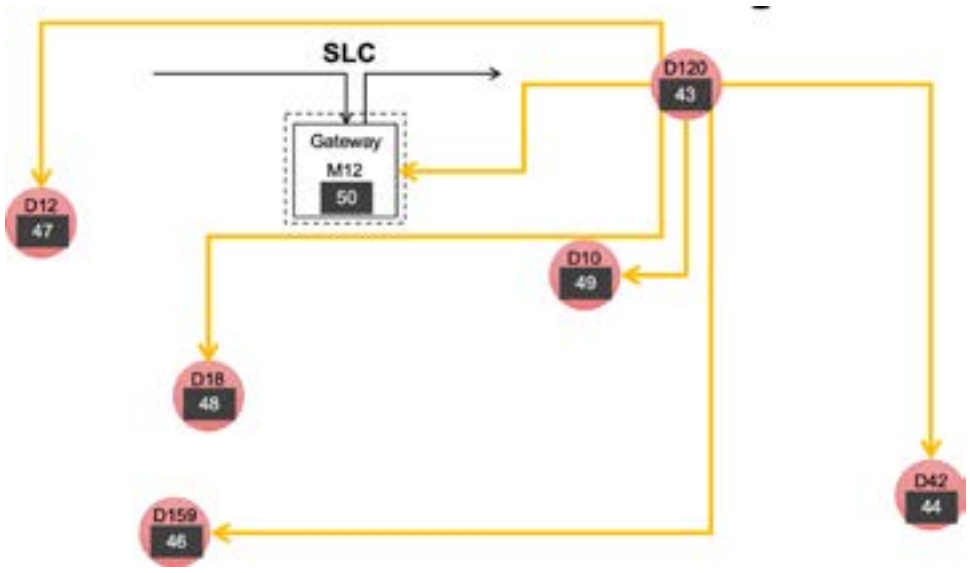
Say someone removes a detector to paint the room. They put it in the office. The gateway will find it even if.....

Recover It Using “Rescue Mode”...

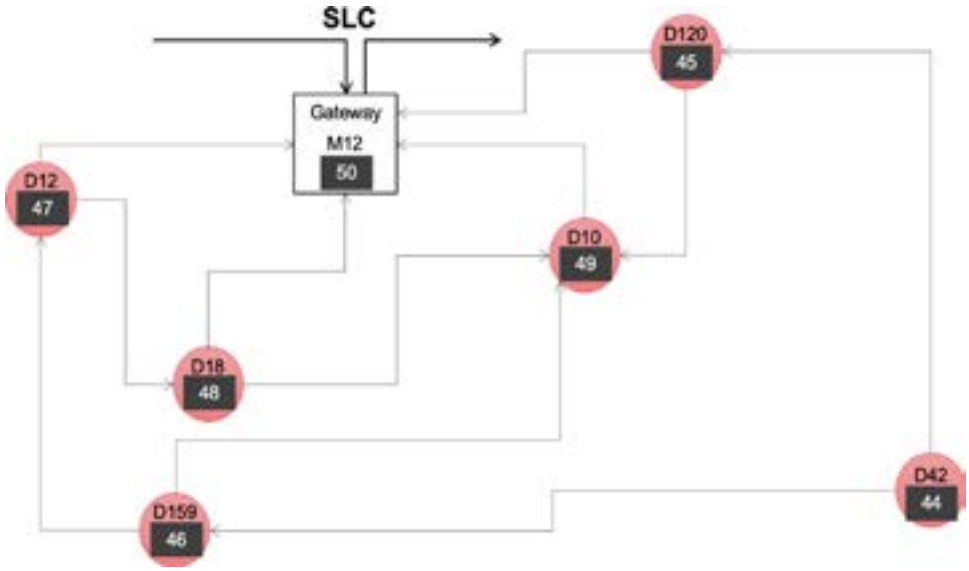


Rescue mode is an automatic mode where all devices in the mesh get upset and start looking for the device. Devices draw a lot of power here.

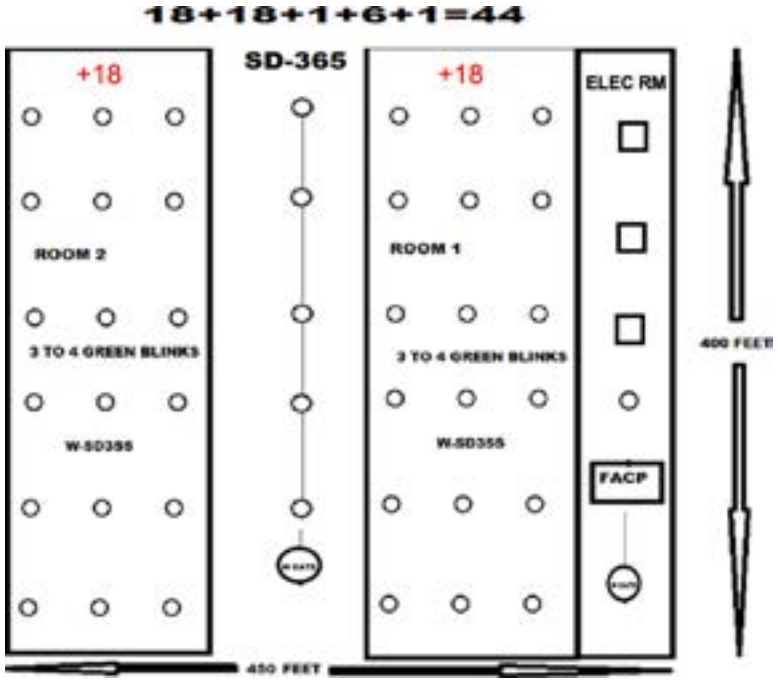
And Use Mesh Restructuring...



To Re-establish the Mesh Network



SWIFT and Wired Detector Application



Operation

- Latching wireless events need to be “reset”
  - Tamper
  - Low battery
  - RF device – no answer
  - UL requires all wireless events to latch. So, all wireless devices will have to be reset. UL requires troubles associated with wireless devices to resound every four hours.

The wireless devices are just like intelligent hard wired devices. You can set all the same parameters for them (drift compensation - MORE EXAMPLES). UL requires all wireless events to latch. So all wireless devices will have to be reset. UL requires troubles associated with wireless devices to resound every four hours.

Silence Mode

- Must select in SWIFT tools
- Temporarily shuts down devices without uninstalling them
- Timed shutdown helps determine whether or not SWIFT is causing RF interference to other systems
- Select timeout in software
  - From 30 minutes to 24 hours
- **No fire protection in this mode**

Batteries

- Four CR123A batteries (included with each device)
  - Panasonic or Duracell ONLY
- UL listed for 2 years of life expectancy
- 2-year battery life expected
  - 2.6 years currently, but with additional features in the road map this will drop, but not lower than 2 years
- Low battery indication with 1 week of life remaining
- Battery status indication using SWIFT tools
  - Fresh, greater than 6 months, less than 6 months, low
  - Individual battery voltages available in statistics
- Battery status indicated by LEDs
  - Battery status indicated upon installation

SWIFT Summary

Redundant

- Class A connections for each device
- A single device loss does not stop another device from communicating

Self-healing

- Rescue mode, mesh restructuring
- Automatically adjusts for most building environment changes

Robust – interference immunity

- Uses multiple frequencies for each transmission
- Withstands walkie-talkie interference at 2 feet (UL test)
- Alternate channel hop set used to avoid interference

Every device repeats and extends the system range

- Extending the distance at each location
- Dedicated repeater network is not required

Added on an existing fire system in cases of hard to wire or no access

SWIFT Tools version 4.1 Provides the Following Fixes and Modifications

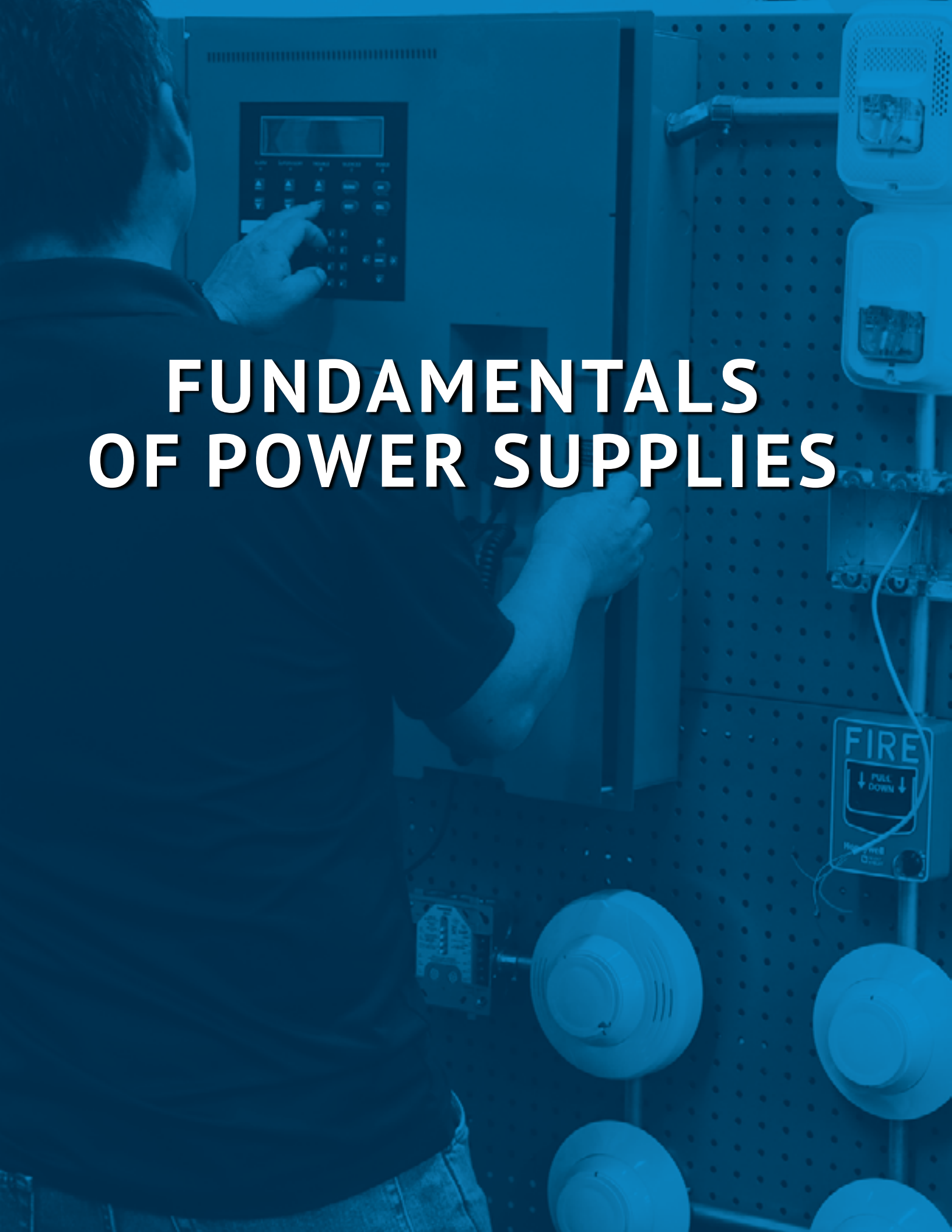
- **System upgrades on enhanced cybersecurity functionality**
- Ability to disable max gateway trouble reporting based on testing procedures outlined in installation manual
- Firmware version 1.0 removed from SWIFT tools for all future releases
- **Low frequency sounder and sounder strobe compatibility**
- Wireless addressable wall-mounted (WAV-RL/WAV-WL) and ceiling-mounted (WAV-CRL/WAV-CWL) AV bases are now compatible with System Sensor L-series low frequency sounder and sounder strobe notification appliances
- SWIFT systems running firmware version 4.1 and higher will be able to properly display low frequency sounders as differentiated from traditional AV devices within SWIFT tools

Agency Approvals

- Underwriters Laboratory
- UL 864
- UL 268
- Factory Mutual
- CSFM approved
- FDNY approved

SWIFT Agency Info

- SWIFT devices comply with UL 268 Standards:
  - 200 second polling and system response of devices within 10 seconds.
- Devices comply with Part 15 of the FCC rules:
  - The device may not cause harmful interference and the device must accept any interference received, including interference that may cause undesired operation.



FUNDAMENTALS OF POWER SUPPLIES

Honeywell Power Supplies

FCPS Series

PowerStrike Series

HPFF Series

Product Discontinuation Notice:

FCPS24S, HPF24S, HPFF8 Series Power Supplies

With the release of the new PS series conventional power supplies, a new and improved range offered in 10 Amp (with 3 inputs and 7 outputs) and 6 Amp (with 2 inputs and 5 outputs), we are announcing product discontinuation notice for our family of power supplies.

FCPS - HPFF POWER SUPPLIES	PowerStrike Replacment Parts
FCPS-24S6	FL-PS-6
FCPS-24S8	FL-PS-10
HPFF8	FL-PS-10
HPFF12	FL-PS-10
ZNAC-4	ZNAC-PS
HP31076	ZNAC-PS

See the Fire-Lite bulletin for the full list

Honeywell Power Supplies Comparison

MODEL #'s	POWER	INPUTS	OUTPUTS	OUTPUT TYPE
FCPS-6/8	6/8 AMP	1 OR 2 INPUTS	4 OUTPUTS	NAC OR DR CLSR
HPFF8/12	8/12 AMP	1 OR 2 INPUTS	4 OUTPUTS	NAC OR DR CLSR
FL-PS-6/10	6/10 AMP	2 OR 3 INPUTS (ISOLATED)	5 OR 7 OUTPUTS (ISOLATED)	NAC, DR CLSR OR AUX PWR

MODEL	CASCADED/ SYNC	FLEXIBLE PROGRAMMING	MODULE INTERIOR INSTALLED	CLASS A OUTPUTS
FCPS-6/8	NO	LIMITED FORMAT	ONLY THE SINGLE MODULE	YES 4
HPFF6/12	NO	LIMITED FORMAT	ONLY THE SINGLE MODULE	YES 4
FL-PS-6/10	Yes *	UN-LIMITED FORMAT	THE SINGLE AND MULTIPLE MODS	YES 5 OR 7

* Depends on the conditions in place.

FCPS-24FS6/8 Features

- Built-in horn/strobe synchronization capability for System Sensor, Wheelock and Gentex
- 6.0 Amp or 8.0 Amp, 24 VDC versions
- Four 3.0 Amp Class B or four Class A NACs w/optional ZNAC-4
- AC Loss reporting – immediate or delayed for 2 hours
- Aux. power output for SLC modules (24 VDC, 500 mA maximum)
- 7.0 Ah to 18.0 Ah battery charging capacity
- Power Supply Trouble Form-C relay contacts. (fail safe)
- SLC modules can be mounted inside box

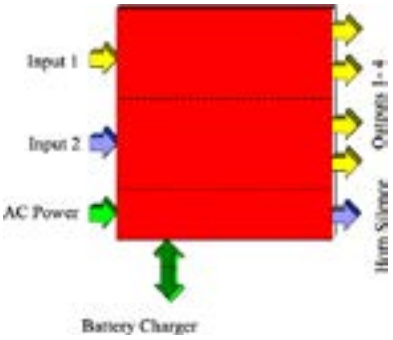
The FCPS can be configured via dipswitch to generate synchronization signals on its 4 output circuits for the manufacturers listed here, or it can be configured to follow a synchronization signal on a FACP NAC that is being used as a triggering circuit to turn the power supply on.

These are not addressable!!!

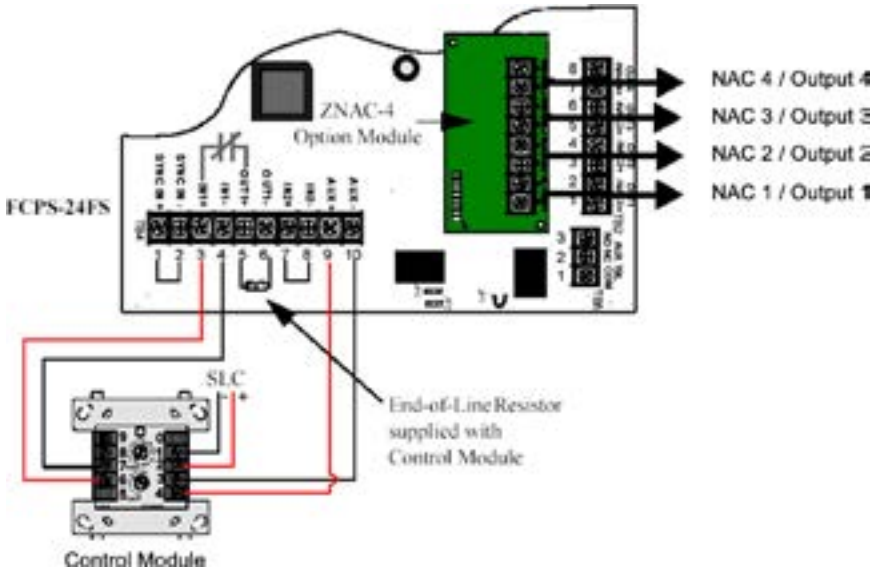
FCPS Series Application

Selective silence - Allows silencing of Horns while leaving strobes flashing.

- Control modules used for activation and selective silence functions.
- FCPS must be configured for master sync generator.
- Input 1 controls outputs 1 – 4.
- Input 2 controls horn silence.



Controlling 4 NACs with 1 Input
FCPS configured for sync master (generator)



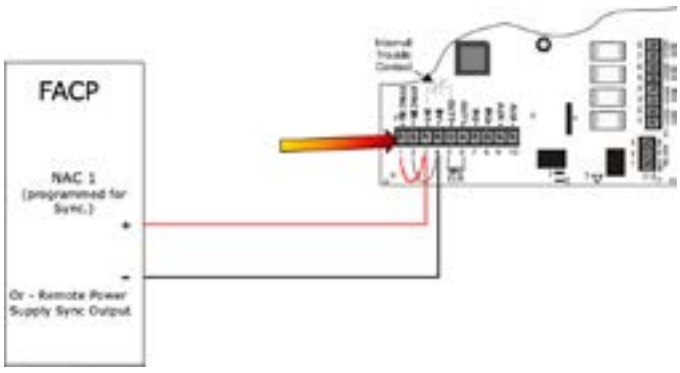
FCPS or Remote Sync Series Application

Controlling 4 NACs with 1 Input
FCPS configured for sync slave (follow)

A Sync signal must be connected to the "Sync In" terminals for pass-through to the FCPS NAC outputs.

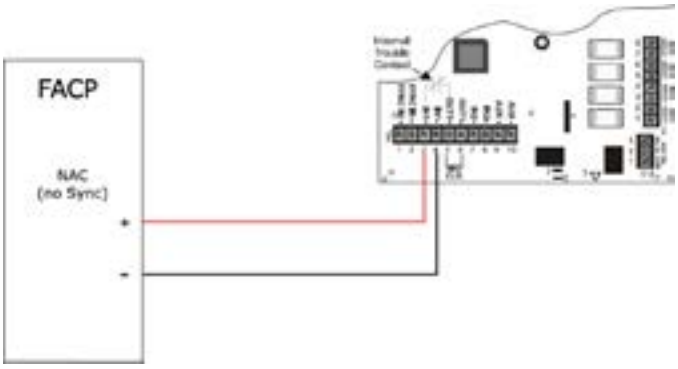
The remote power supply sync output can be used to trigger an FCPS

This is the most commonly used application



FCPS Series Application

Controlling 4 NACs with 1 input
FCPS configured for sync master (generator)



Remote Power Supply Sync. Output

- Found on the MS-5UD and MS-9200UDLS and all endurance control panels
- 24 VDC, filtered, supervised output that follows sync setting of NAC 1
- Can be used to trigger an FCPS power supply
- Requires 4.7k ohm EOL resistor
- MS-5UD - .040 A maximum load
- MS-9200UDLS Rev.3 – 0.35 A maximum load
- Endurance series - 0.35 A maximum load

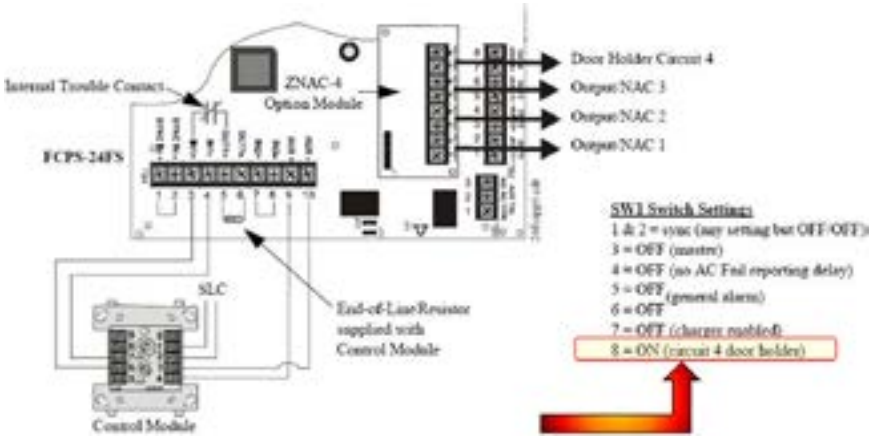
The power supplied by the NACs on the MS-5UD and the MS-9200UDLS is full wave rectified. The FCPS series power supplies cannot follow sync signals on this type of power.

Door Holder Applications

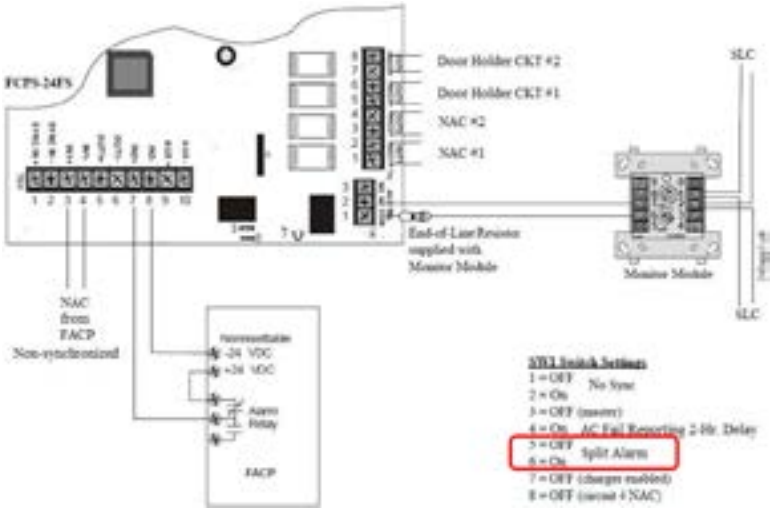
3 configuration options:

- 1 door holder + 3 NAC's
- 2 door holders + 2 NAC's
- 4 door holders
- Or 4 NAC Circuits

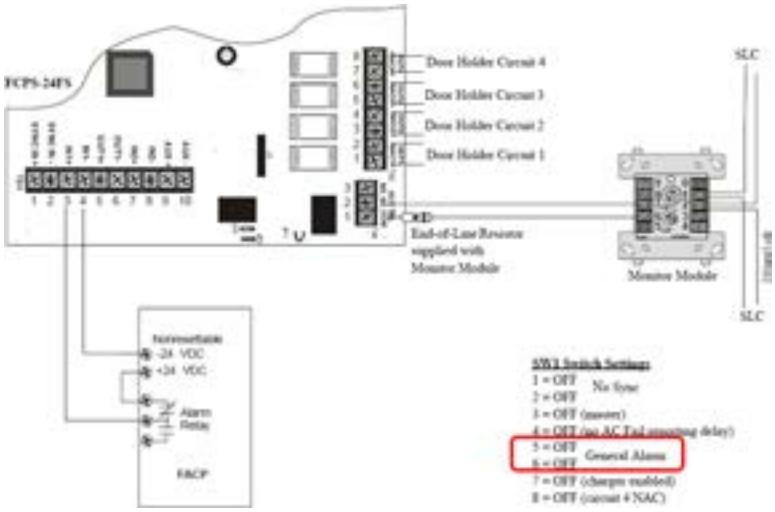
1 Door Holder + 3 NAC's



2 Door Holders + 2 NACs



4 Door Holders



HPFF8 & HPFF12

Honeywell Power Products

HPFF8

HPFF12

FireForce

HPFF8 & HPFF12 Features

- Built-in horn/strobe synchronization capability for System Sensor, Wheelock and Gentex, Faraday, and AMSECO
- 8.0 Amp or 12.0 Amp, 24 VDC versions
- Four NAC output configurations:
  - Four Class B
  - Two Class A
  - Two Class B plus one Class A
  - Four Class A (requires optional Class A converter p/n HP31076

Support for 2 additional horn/strobe manufacturers!
Configurable NAC outputs right out of the box. Class A converter only needed if 4 Class A NACs are required!

- 3.0 Amps maximum current draw for any one NAC
- 7.0 Ah to 26.0 Ah battery charging capacity
  - Up to 18 Ah batteries can be housed in enclosure
- Power supply trouble Form-C relay contacts (fail safe)
- AC loss reporting – immediate or delayed for 2 hours
- Aux. power output for SLC modules (24 VDC, 2.0 Amps)
- SLC module can be mounted inside
  - box on the main board

- Same enclosure as FL FACPs – can house up to 18 Ah batteries
  - Eases retrofit installations by matching existing ELR value without having to locate in the field
  - Attach a single reference resistor to match value of the NAC end-of-line resistor (ELR)
  - Supports a wide range of ELR resistor values: (1.9K ohms to 25K ohms)
- NAC Trouble memory:
  - Individual NAC trouble LEDs blink if past troubles occurred
- Chassis-mount versions for mounting multiple supplies in a single enclosure

2 challenges to overcome:
What is the NAC end-of-line value of the existing system?
Where are the ends of the circuits?

HPFF8 & HPFF12 LED Indicators

HPFF series power supplies provide eight LED indicators as outlined in the table below:

Indicator	Name	State	Trouble Condition
LED 1,2,3,4	SIG(1,2,3,4) TRBL	Blinking	NAC trouble memory
		Steady	Open or shorted NAC
LED 5	GF TRBL	Steady	An earth ground fault present
LED 6	BAT TRBL	Blinking	Charger fault
		Steady	Low or missing battery or broken harness
LED 7	AUX TRBL	Steady	Excessive loading or shorted auxillary output
LED 8	POWER ON	Blinking	Low (brown-out) or missing AC input
		Steady	Normal/Standby

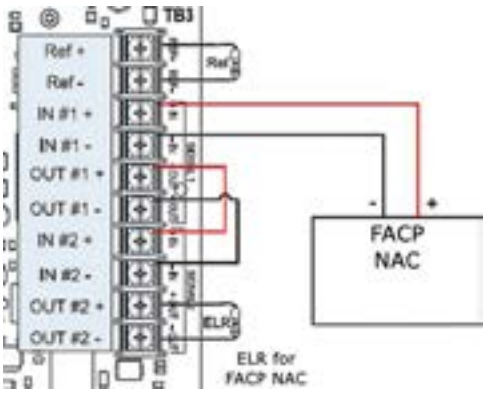
20.5 VDC = Low batt
LED 7 – Aux Trbl. – I mentioned earlier that the 24V aux is kinda sorta supervised. If it gets loaded beyond its 2 A max or if it goes shorted this LED comes on
LED 8 – Blinking = 85 VAC or less

HPFF Series Application

Controlling 4 NACs with one input.

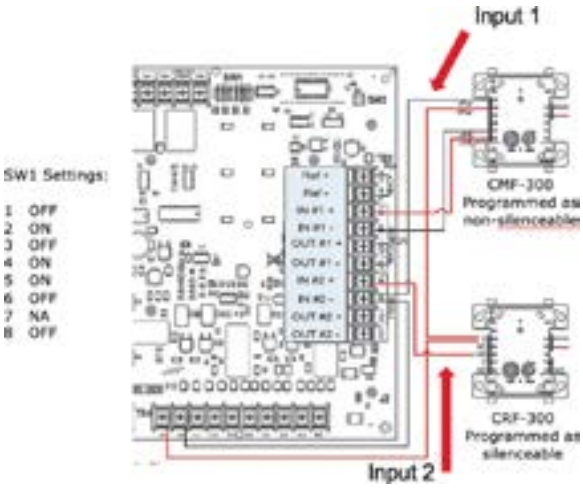
HPFF configured for sync generator

No selective silence



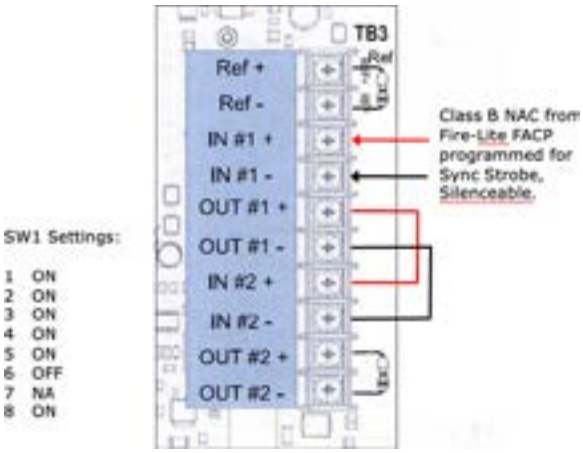
HPFF Series Application (THE RED BOX #2)

Selective silence
Controlling 4 NACs using control modules
If modules are mounted inside the enclosure there's no need to supervise the power connection to the CMF-300 using an EOLR-1 power supv relay

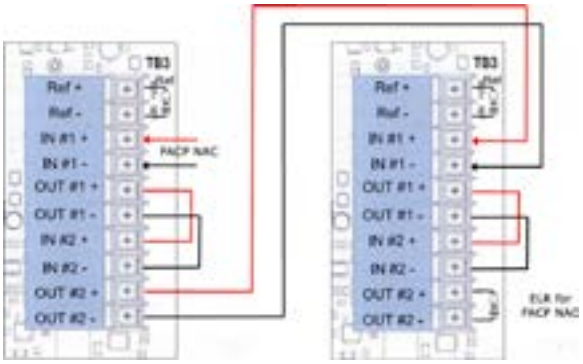


HPFF Series Application

Selective silence
Controlling 4 NACs using 1 FACP NAC



Multiple Power Supplies



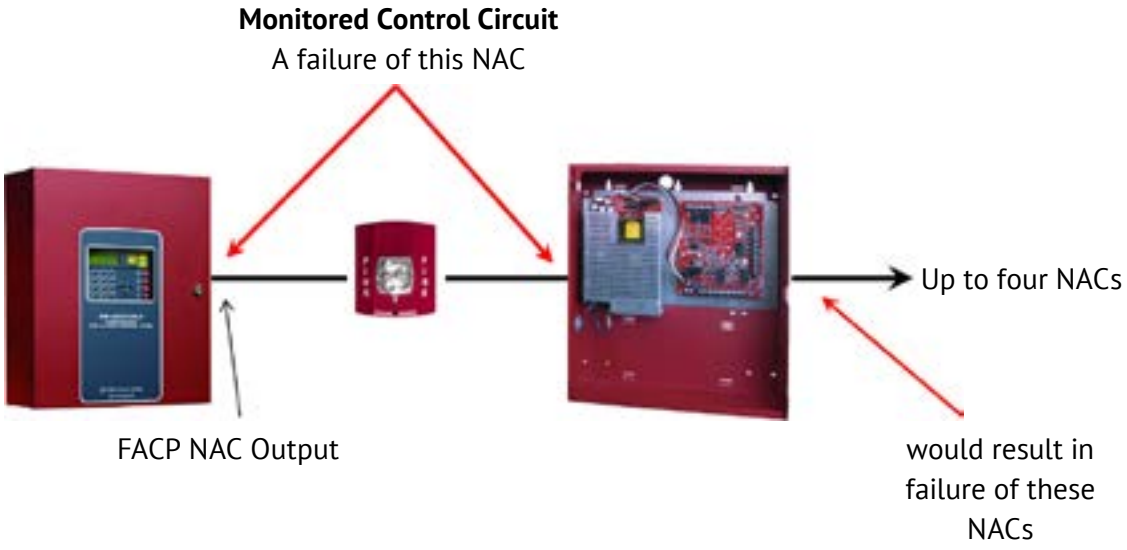
NFPA 72 2002 & 2007 References

3.3.114 Notification Appliance Circuit. A circuit or path directly connected to a notification appliance(s).

4.4.7.1.16 An open, ground, or short-circuit fault on the installation conductors of one alarm notification appliance circuit **shall** not affect the operation of any other alarm notification circuit.

- It is a code violation to trigger an FCPS, HPFF or PowerStrike power supply using a NAC as defined by NFPA 72 post 2002
- A FACP's NAC circuit can be used providing it has no notification appliances connected. In this case it is considered a control circuit

Example



PowerStrike

Features:

- Up to five (PS6) or seven (PS10) outputs independently-configurable, power-limited output circuits for:
  - Class B and/or Class A NACs – Class B and/or Class A resettable or non-resettable 24V auxiliary power – door holder power
  - Converts from Class B to Class A wiring without losing any out puts using the ZNAC-PS converter card (sold separately)

FL-PS6(C) & FL-PS10(C) 6 Amp and 10 Amp, 24 Volt Remote Power Supplies

- Aux power for powering four-wire smoke detectors, annunciators, and other system peripherals requiring regulated power
- Configurable for ANSI temporal 3 or temporal 4 coded output
- UL-listed NAC synchronization using System Sensor, Wheelock, Gentex, or AMSECO appliances
- Triggered from FACP NAC/remote sync outputs, cascaded power supply, or a control module, single or multi, which may be housed within the power supply cabinet
- Ability to cascade/sync up to four power supplies
- Two input 6-amp or three input 10-Amp models fully-isolated input control circuits which can be programmed to any output(s)

- Removable terminal blocks accommodate up to 12 AWG (3.1 mm2) wire
- Works with any UL 864 FACP which utilizes an industry-standard reverse-polarity notification circuit
- Optional devices include addressable control, monitor, relay modules, and power-supervision relay (EOLR-1)

Simplified with Two Models
For larger installations
For smaller installations

- PS6 - 6 Amps, 5 outputs, 2 inputs
- PS10 -10 Amps, 7 outputs, 3 inputs

Each output fully configurable
Pair any input with any output

- NAC output, door holder, Auxiliary power?
  - You decide with less restrictions

Resistance matching for values between 2-27K ohms. A trouble condition will still occur when there is a shorted or open resistance read.

Batteries:

- Enclosure can hold 7 Ah or 18 Ah batteries
- Up to 33 Ah charging (separate cabinet)

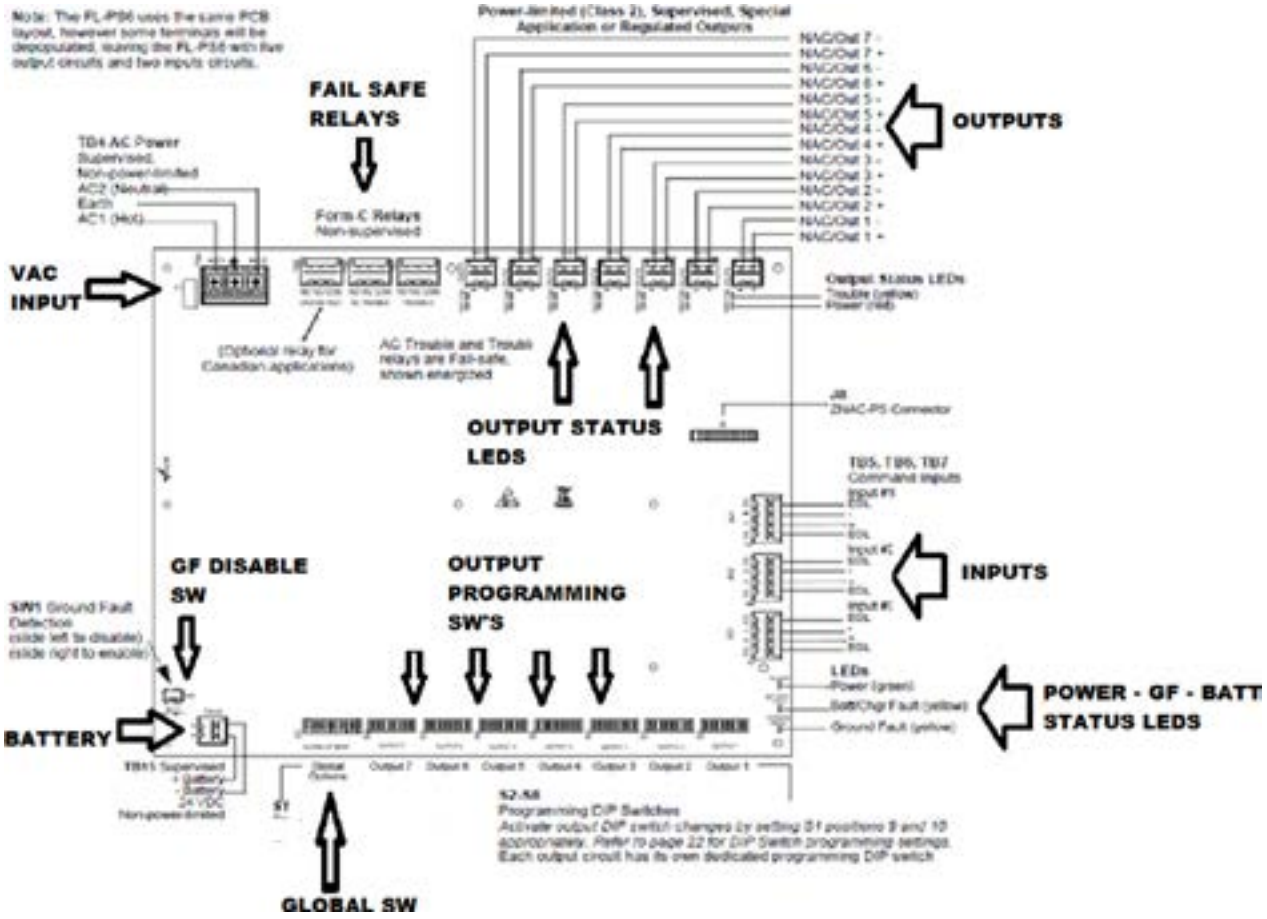
Simple, Practical and Flexible Options for Large and Small Jobs

Primary (AC) Power:FL-PS6: 120 VAC, 50/60 Hz, 1.7 A maximum
FL-PS10: 120 VAC, 50/60 Hz, 2.3 A maximum

Wire Size: #14 AWG (2.0 mm2) or heavier with 600V insulation
Command Input Circuit: Trigger Input Voltage: 9 to 32 VDC
Trigger Current: 2.0 mA (16 - 32V); Per Input: 1.0 mA (9 - 16V)
Trouble Contact Rating: 4 A at 24 VDC

Output Circuits: 24 VDC filtered, regulated
3.0 A maximum special application power, 1 A (6 Amp model) or 1.5 A (10 Amp model) regulated power, for any one circuit
6.0 A (FL-PS6) or 10.0 A (FL-PS10) maximum total continuous current for all outputs

PowerStrike Board Layout



Sync & Cascade

Sync Protocols supported: System Sensor, Wheelock, Gentex, Amseco

Ways to sync:

- Trigger from the
  - FACP NAC or remote sync, control module or power supply.

Cascading:

- Cascade (sync) up to 4 power supplies. All power supplies should be using one AV manufacturer. If divided with System Sensor and Wheelock products, you'll get 50% of System Sensor and 50% of Wheelock synching within themselves.

Cascading four power supplies

- The debounce selection must be set to 1 ms to limit spikes from causing false output activation. From the input trigger to the last PowerStrike can't be more than 10 ms

Supporting Four Major Protocols

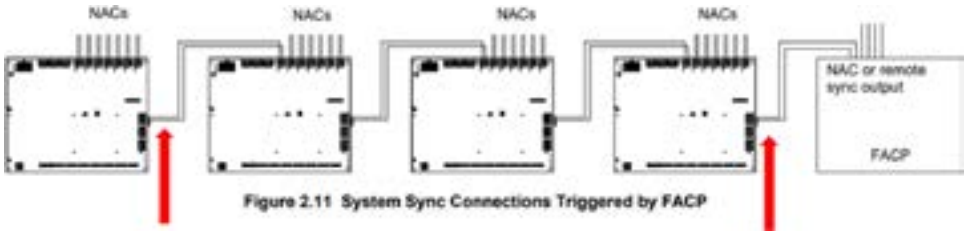


Figure 2.11 System Sync Connections Triggered by FACP

The following notes apply to Figure 2.11.

1. Set all FL-PS units to slave (sync follower) mode.
2. The debounce/dejitter setting must be set to 1 ms on all cascaded units and cannot exceed 10 ms. See Table 3.3 on page 21.
3. Any output used for remote sync applications cannot have notification appliances installed on the same circuit. (NFPA 72)
4. Notification appliances cannot be installed on the interconnecting control circuits. (NFPA 72)

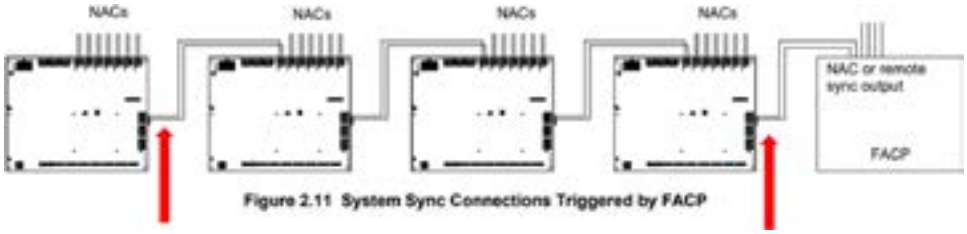


Figure 2.11 System Sync Connections Triggered by FACP

The following notes apply to Figure 2.12.

1. Set FL-PS1 to master mode, and the desired strobe/horn type. Set remaining FL-PS units to slave (sync follower) mode
2. The debounce/dejitter setting must be set to 1 msec on FL-PS2 – FL-PS4 units. See Table 3.3 on page 21
3. Strobe/horn devices connected to the FL-PS units are not guaranteed to be in sync with FACP devices when using this configuration

Note: Depending upon how this last port is programmed, you may need an eol resitor. It is not required to be programmed however for continued sync.

B.1 Controlling NACs for Selective Silence Operation Using a Control Module - (THE RED BOX #1)

In this application, the power supply has been set as a master synchronized outputs and selective silence (see DIP switch settings and selective silence operation information in Section 3). This application requires Input #1 to be controlled by the FACP. Input #2 is required for controlling selective silence via a control/relay module, programmed as an alarm output and a silenceable point. Only mass notification, fire, or combo mass notification/fire NACs are allowed in this configuration. The control module can be powered by one of the FL-PS output circuits, configured as aux power (24 VDC).

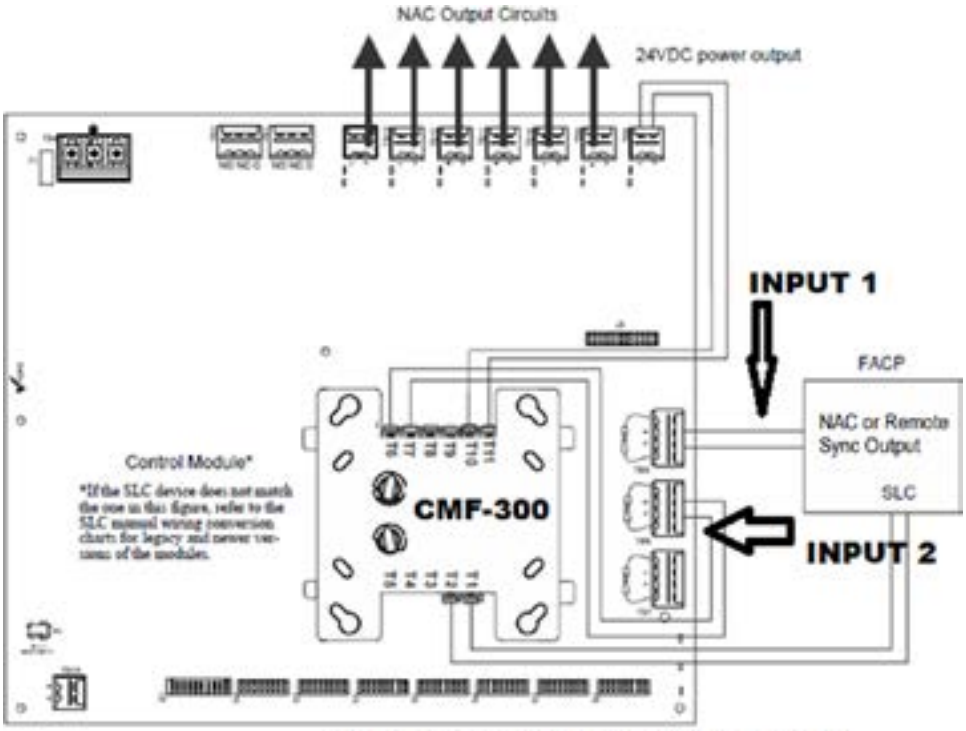


Figure B.1 Controlling Multiple Outputs with One Input

Controlling NACs for Selective Silence Operation Using a Control and Relay Module (THE RED BOX #2)

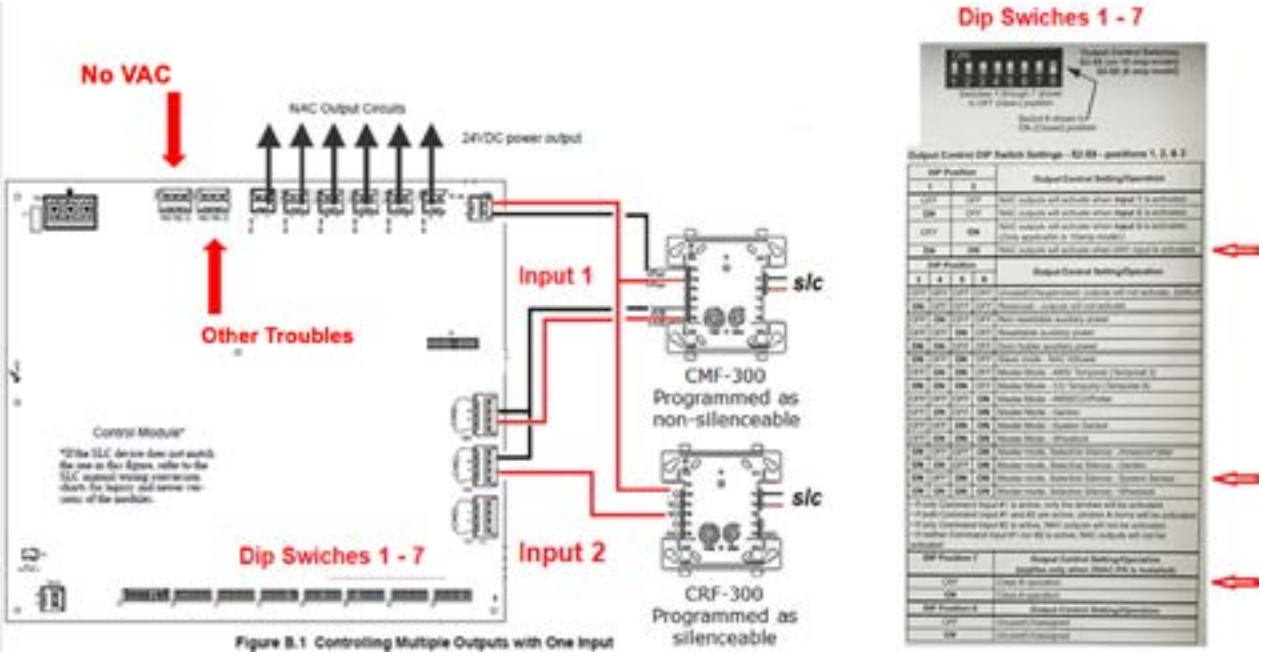


Figure B.1 Controlling Multiple Outputs with One Input

Trouble Conditions

Trouble Relay

The FL-PS power supply has a fail-safe Form-C trouble relay located at TB1. The contacts can be monitored by an FACP input circuit, or an addressable monitor module as illustrated in Figure 5.1.

Note that any faults reported by command Inputs are not repeated by the trouble relay. Trouble conditions that will cause the normally energized trouble relay to change states regardless of whether the panel is in alarm or standby:

- A battery fail condition at the power supply
- A battery charger fail on the power supply
- A field wiring fault on the FL-PS output in resettable aux power, non-resettable aux power, or door holder aux power mode
- A total panel overload fault

Total loss of VAC (TB2)

- A ground fault condition on the power supply (Canadian models only-TB3)

Monitoring the Power Supply for Trouble.

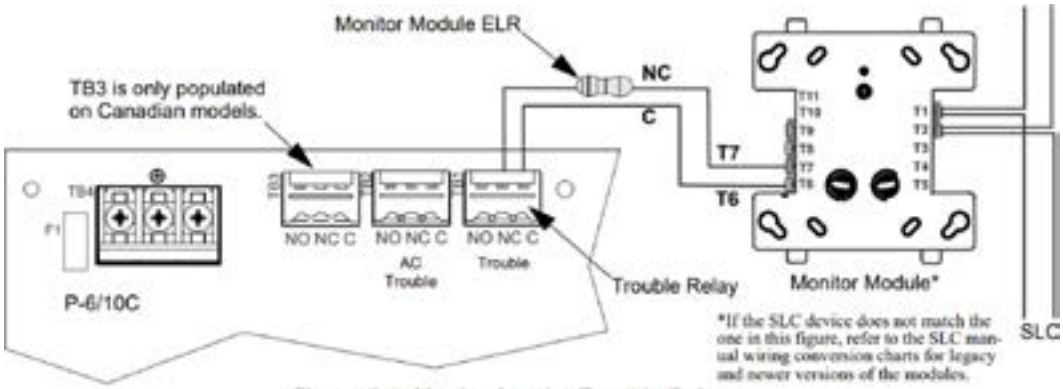


Figure 5.1 Monitoring the Trouble Relay

PowerStrike Programming

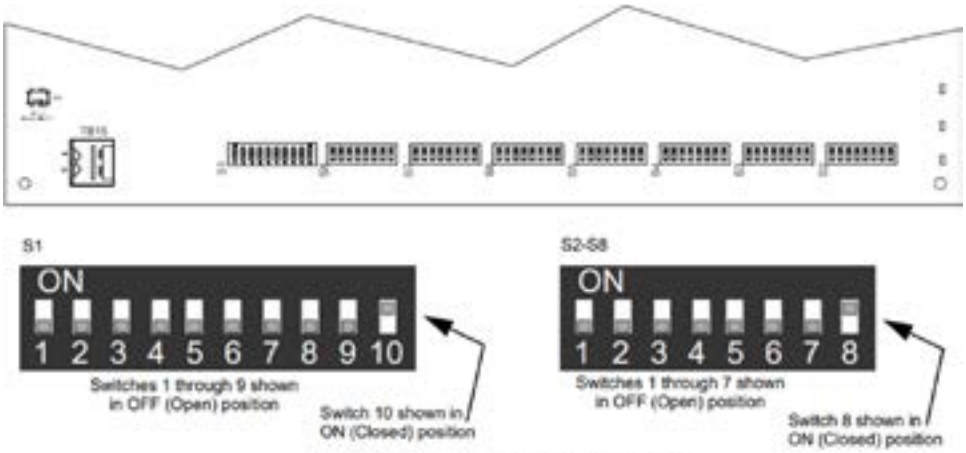


Figure 3.1 Field Programming DIP Switches

Global programming switch
Switch #1

Global programming switch
Switch #2 - #8

3.1 S1 Global Options DIP Switch

The following table lists the global control options for the PSE programmable features and the switch settings required to select a particular feature. A detailed description of each feature is presented in the following pages.

S1 DIP Switch	OFF	ON
1, 2	These switches determine the command input debounce/dejitter setting (for master mode sync operation)[1]. **1 OFF, 2 OFF** = Temporal **1 ON, 2 OFF** = 50 Hz (20 ms) **1 OFF, 2 ON** = 6 ms **1 ON, 2 ON** = 1 ms	
3	Command Input #1 configured for Slave Mode Sync[2] input[3]	Command Input #1 configured as normal
4	Internal battery charger = disabled	Internal battery charger = enabled
5, 6	These switches determine door holder dropout after AC power loss **5 OFF, 6 OFF** = Power does not drop out **5 ON, 6 OFF** = 5 minutes **5 OFF, 6 ON** = 60 seconds **5 ON, 6 ON** = 15 seconds	
7, 8	These switches determine the AC loss delay timer[4] **7 OFF, 8 OFF** = 30 hours **7 ON, 8 OFF** = 12 hours **7 OFF, 8 ON** = 2 hours **7 ON, 8 ON** = none	
9, 10	These switches determine the operating mode of the power supply. *Return switches to normal mode to exit ground fault analysis, change output circuit configurations, and display trouble history modes!* **9 OFF, 10 OFF** = Ground fault analysis **9 ON, 10 OFF** = Change output circuit configurations **9 OFF, 10 ON** = Display trouble history **9 ON, 10 ON** = Normal	

Table 3.1 Global Options DIP Switch Settings

1. Debounce/dejitter provides setting time for input signals to avoid false triggers.
2. Strobe synchronization only works with non-coded NACs.
3. Output circuit(s) must be set to activate on Input #2. See, “Command Input #1” below.
4. Only the no delay and 2 hour delay options are acceptable per UL 864.

3.1 S1 Global Options DIP Switch Settings

Each output circuit has it's own programming DIP switch. DIP switches S2-S8 are labeled on the PCB to indicate which output circuit it is controlling. Output circuits are labeled at the top of the PCB, TB8-TB14. The following table applies to DIP switches S2-S8.

Important! If an output circuit is overloaded, the output will shut off and generate a trouble signal. If this happens, the PSE will need to be reset manually. Either reset circuit configurations by toggling switch S1 position 10 to OFF position for a minimum of 5 seconds or turn off primary and secondary power and reapply to the PSE.

DIP Switch Position			Output Control Setting/Operation
1	**2**	**3**	
OFF	OFF	OFF	NAC output will activate when command input #1 is activated
ON	OFF	OFF	NAC output will activate when command input #2 is activated
OFF	ON	OFF	NAC output will activate when command input #3 is activated (Only applicable to 10amp model.)
ON	ON	OFF	NAC output will activate when any command input is activated
OFF	OFF	ON	Selective silence mode
ON	OFF	ON	Non-resettable auxiliary power
OFF	ON	ON	Door holder auxiliary power
ON	ON	ON	Resettable auxiliary power (provides reset signal at selected outputs when inupt #2 receives a negative pulse trigger singal from FACP or control module)
4	**5**	**6**	**Output Control Setting/Operation**
OFF	OFF	OFF	Unused/unassigned - outputs will not activate
ON	OFF	OFF	Slave mode (NAC follower)
OFF	ON	OFF	Master mode - ANSI temporal (temporal 3)
ON	ON	OFF	Master mode - CO temporal (Temporal 4)
OFF	OFF	ON	Master mode - AMSECO/Potter
ON	OFF	ON	Master mode - Gentex
OFF	ON	ON	Master mode - System Sensor
ON	ON	ON	Master mode - Wheelock
		7	**Output Control Setting/Operation**
		OFF	Class B
		ON	Class A
		8	**Output Control Setting/Operation**
		OFF	Unused/unassigned
		ON	Unused/unassigned

Table 3.6 S2-S8 Output Circuit DIP Switch Settings

Output circuit programming - switches #2 to #8

Ease of Install and Service

- Maintenance and troubleshooting diagnostics
- Save time and money
- Using LEDs, each NAC circuit is monitored for power and troubles
- LEDs also monitor AC loss, battery fault
- Leds for input and output monitoring
- Trouble memory for intermittent conditions

Function	Repeating Pattern	Status
Ground Fault	OFF	No fault
	ON	Ground fault
Power	ON	No fault
	1 short blink	AC power loss/brownout
Battery Fault	OFF	No fault
	1 short blink	Charging path failure
	2 short blinks	Charger voltage too low or charger diode fault
	3 short blinks	Battery discharged/overcharged
	4 short blinks	Battery disconnected/fully discharged
Output Circuit Status	OFF	Output inactive
	ON	Output active
Output Circuit Trouble	OFF	No fault
	1 short blink	Class A/B open-wiring
	2 short blinks	Class A/B short-wiring
	3 short blinks	Class A open circuit Aux power supervision
	4 short blinks	Power limit condition (overload)
Change Configuration Mode Active	1 short blink on every output circuit from right to left	Power supply is in change output configuration mode

Installation and Servicing

Removable door creates easy access:

- Simply slide it off its hinges
- Ideal for tight spaces
- Satisfies AHJ requirements for full viewing and access

Ten double knock outs for easier cable set-up

A Cabinet Layout with the Designer, Installer and Service Teams in Mind

CLSS CLOUD COMMUNICATION

What is CLSS?

CLSS is an innovative, all-in-one cloud platform that enables systems integrators and facilities managers to deliver an enhanced fire safety service, while maximizing the performance efficiencies offered by Honeywell's trusted detection and alarm systems.

By harnessing the power of data, it delivers the connectivity and intelligence needed for secure, compliant and more efficient fire system management.
CLSS answers dealers pain points by driving efficiency, maximizing retention and increasing win rates.

Provides real time visibility and increases user confidence by reducing complexities, cost and uncertanity.

Who Do We Serve?

CLSS Serves 6 market segments of the Fire Industry:

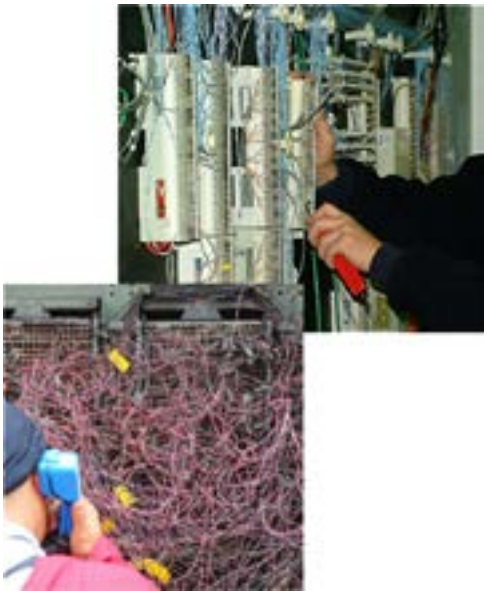
- Dealers
- Fire Marshalls
- Building owner/facility managers
- Central stations
- 911 centers
- First responders

CLSS is the center hub for everything commercial fire. More specifically, CLSS increases user confidence by connecting dealers and end users to their sites. This platform provides real time visibility while reducing cost, complexities, and uncertainty.

What Does CLSS Offer You?

What Do We Offer to You?

- Rid your site of deregulated POTS lines
  - Fewer nuisance signals
  - Cost savings
  - Phoneline fault
  - Corrupted account numbers
  - Simple connection for quicker installations
  - No re-programming of panel needed
  - No need for a 24-hour fire watch



LESS TECHNICAL SUPPORT CALLS !!

Upgrading from POTS will ultimately provide cost savings throughout a dealer's business while adding reliability and redundancy to their fire systems.

Solution. Reduce T1 Lines - Less POTS traffic cost CS money and must have PRI and sec ans. We are IP lower cost.

More reliable signaling, No mismatch of signals causing wrong dispatch.

Industry Sunset Reminders

Be a Solution Provider – 2022 Sunsets

- Mobile sunsets
  - December 2022 verizon

- POTS deregulation!
  - As of August 2022
  - What does this mean?
    - Dealers may see an increase on their telephone bill
    - Carriers have the option to deny service or repair POTS connections.

Share customer testimonials on tower removals before sunset dates.

To eliminate possible service disruptions, upgrade all remaining 3g and POTS lines with Pathways today!

Your Solution!

The **CLSS Pathway** combines dial capture functionality with the powerful capabilities of Honeywell's CLSS cloud. It represents the latest alarm communications technology for the fire industry. The CLSS Pathway allows data transmission by utilizing LTE CAT-M1 networks, serving as a bridge between the fire system and the CLSS cloud. This device provides a single site-to-cloud path ensuring all CLSS cloud services use the same audited and monitored method to access the on-premises life safety system.

Universal Contact ID Support

Features & Benefits: Hardware Features:

- Dual SIM automatically picks from AT&T or Verizon networks for ultimate redundancy and reliability
- LTE-CAT-M1 network is 5G-ready for deep signal penetration inside buildings
- Meets UL 864 requirements for sole, primary or backup path communications
- Universal fire alarm control panel (FACP) compatibility and direct power from 24-volt FACP
- Introductory offer includes first year of cellular/IP service included in purchase price

CLSS Pathway is : a 5G dual path, dual sim dialer capture which communicates over AT&T or Verizon cell networks depending on the strongest signal.

Can be used as a sole path communicator by enabling the LAN connectivity.

Compatible with any fire, burg or combo panel communicating via contact ID.

How Much Does It Cost?

Cost to the Dealer:
Approximately $150.00 per device.
$12.00 per month for airtime

- Includes 5 min supervision
- No over activity fees
- No activation fees
- 12 months free service

What's included?

- Unlimited access to CLSS web and mobile app
- End-user facility management access
- CLSS check-point (test and inspection reports)
- Real time alerts and notifications

The introductory price is $150 but may vary depending on the local distributor.
$12 monthly, or $144 yearly will be due after the 13th month for continued cell services.

Over 60 Central Stations and Growing!!

- Affiliated Monitoring, Inc.
- Alarm Central, LLC
- Alarm Monitoring Services
- Alarm Tech Central Station
- Alert Alarm Inc.
- Alert Security Alarms
- Alert360
- All American Monitoring
- Amcest Corporation
- Audio Sentry Corporation
- AvantGuard Monitoring
- Blue Ridge Monitoring
- Cen-Signal
- CenterPoint Technologies Inc.
- Central Alarm Control
- Central Dispatch Alarm Monitoring
- Central Station Monitoring
- Central Station, Inc.
- Centralarm Monitoring Inc.
- Coastal Burglar Alarm
- Com-Linq Central Station
- Cooperative Response Center Inc.
- COPS Monitoring, Inc.
- Counterforce Central Alarm
- Countryside Alarms
- Criticom Monitoring Services CMS
- Design Communications
- Dispatch Center
- Doyle Security
- Dynamark Monitoring
- Emergency Systems Inc.
- EMERgency24
- ESC Central
- General Monitoring Services
- Global Monitoring Solutions
- Grand Central Station
- Home Security Monitoring Center
- METRODIAL Central Station
- Michigan Monitoring
- Monitoring America
- Nationwide Digital Monitoring
- NEXgeneration Central Station
- NMC (National Monitoring Center)
- Per Mar Security
- Quick Response Monitoring
- Rapid Response
- Securall Monitoring Corporation
- Securatech
- Security Central
- Southwest Dispatch
- Statewide Central Station
- TMS Total Monitoring Services
- United Central Control, Inc.
- Universal Monitoring
- US Monitoring
- USA Monitoring
- Vector Security
- Z-Tech Central

Currently we have over 60+ central stations supporting CLSS Pathway.

If you don't see your CS, no worries! Raise a request through CLSS and we'll contact them in efforts to get them onboarded to support CLSS.

What's Your Part?

To request access to CLSS, download the mobile app for CLSS and request access to CLSS.
www.Fire.Honeywell.com

To configure a Pathway, request the following information from your central station.

1. The prefix (prefix does not get sent to central station)
2. The DNIS (should be 5 digits)
3. Unique account number

After submitting a request for CLSS access, you will receive 3 emails. The first, confirming your request to sign up.

The 2nd and 3rd emails could take up to 2 hours to receive and will contain a generic alpha numeric password used to access CLSS.

Technical Support

For General Technical and Pathway Support Call:
CLSS Support – (800) 627-3473

https://buildings.honeywell.com/us/en/brands/our-brands/firelite/support/technical-support

If Dealer is using the below products call the respective support line.
Fire-Lite Alarms – (800) 627-3473
Notifier – (800) 289-3473
Gamewell-FCI – (800) 606-1983
Farenhyt – (800) 328-0103

Live CLSS trainings will be held through the end of September with Pathway overview being held every Wednesday,

Site and Facility Manager on Thursdays.
Test and Inspect on Fridays.
Provide contact info should they need it.

FED®

LEARNING CENTER

#FEDLC #FireFam
#GenerationTrained
#NFPA10 #FireSafety #NFPA
#OurWorkSavesLives #NFPA72
#NFPA17A #FireExtinguisher
#HandsOnTraining #FlameGame #NFPA101
#NFPA96 #KitchenSuppression #FireProtection

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