GENERAL SYSTEM NOTES

PANEL:

1. THE FIRE ALARM CONTROL PANEL (FACP) IS TO BE MOUNTED TO THE SURFACE. THE TOP OF THE PANEL SHALL NOT EXCEED 6 FEET ABOVE FINISHED FLOOR SURFACE. A MINIMUM CLEARANCE OF 36" WORKING SPACE SHALL BE MAINTAINED.

2. THE SUPPLEMENTAL NOTIFICATION APPLIANCE CONTROL PANEL (SNAC) IS TO BE MOUNTED SURFACE, BESIDE THE FACP. THE TOP OF THE PANEL SHALL NOT EXCEED 6 FEET ABOVE FINISHED FLOOR SURFACE. A MINIMUM CLEARANCE OF 36" WORKING SPACE SHALL BE MAINTAINED.

3. THE SNAC IS TO BE POWERED BY THE SAME DEDICATED 120 VAC CIRCUIT AS THE FACP. TWO CONDUCTORS TO 120 VAC, ONE CONDUCTOR TO ISOLATED GROUND, 20 AMP DEDICATED CIRCUIT. A HOUSE GROUND WILL NOT BE ACCEPTABLE.

4. NEITHER THE BOTTOM OF THE FACP NOR THE SNAC SHALL BE PENETRATED.

DEVICES:

1. ALL MANUAL PULL STATIONS SHALL HAVE THE TOP OF THE STATION AT 48 INCHES ABOVE THE FINISHED FLOOR.

2. ALL SIGNALING DEVICES SHALL HAVE THE BOTTOM OF THE DEVICE PLACED AT 80 INCHES ABOVE FINISHED FLOOR WITHIN THE SPACE, OR THE TOP OF THE DEVICE 6 INCHES BELOW THE CEILING, WHICHEVER IS LOWER.

3. THE AUDIBLE DEVICES SIGNAL SHALL BE SET TO THE TEMPORAL SETTING.

4. ALL DEVICES ARE TO BE LOCATED PER THE DRAWINGS.

5. WHEN APPLICABLE, VERIFY WITH MECHANICAL CONTRACTOR THE EXISTENCE AND LOCATION OF ALL MOTORIZED SMOKE DAMPERS. THESE ARE TO BE 120 VAC DEVICES ON AS FEW CIRCUITS AS POSSIBLE. THESE DEVICE CIRCUITS ARE TO BE CONTROLLED BY THE FACP THROUGH AN INTERFACING RELAY.

6. WHEN APPLICABLE, VERIFY WITH SPRINKLER CONTRACTOR ALL LOCATIONS OF THE SPRINKLER WATERFLOW, DRY FLOW, HI/LO AIR, TAMPER SWITCHES AND PIV OR O, S, & Y VALVES.

7. WHEN APPLICABLE, VERIFY WITH SPRINKLER CONTRACTOR THE EXISTENCE OF SPRINKLER HEAT TAPE. THIS HEAT TAPE SHALL BE MONITORED BY THE FACP AND SHALL REQUIRE AN APPROPRIATE RELAY THAT WILL PROVIDE SUPERVISION FOR HEAT TAPE GROUND FAULTS AND LOSS OF PRIMARY POWER.

8. WHEN APPLICABLE, VERIFY WITH SPRINKLER CONTRACTOR THAT ALL APPLICABLE INTERSTITIAL CEILING, ATTIC, OR FLOOR SPACES ARE PROTECTED WITH SPRINKLER HEADS.

9. ALL SPRINKLER WATERFLOW ZONES SHALL BE NON-SILENCEABLE PER U.L. 864. THE CONDITION MUST BE RETURNED TO A NORMAL CONDITION BEFORE THE FACP CAN BE SILENCED.

WIRING:

1. TWO DEDICATED PHONE LINES TO BE INSTALLED BY OWNER TO TRANSMITTER.

2. ALL AUDIBLE / VISUAL CIRCUITS ARE TO BE 14 AWG FPL WIRE. (RISER OR PLENUM RATED WIRE WHERE REQUIRED PER NEC).

3. AUDIBLE / VISUAL CIRCUITS ARE TO HAVE AN END OF LINE RESISTOR (ELR) AS APPROPRIATE WITH THE FACP / SNAC.

4. THE DETECTION COMMUNICATION LOOP IS TO BE 16 AWG TWISTED, NON-SHIELDED, MID-CAP FPL WIRE. (RISER OR PLENUM RATED WIRE WHERE REQUIRED PER NEC).

5. THE DETECTION COMMUNICATION LOOP DOES NOT REQUIRE AN ELR AT THE END OF THE CIRCUIT.

6. WIRE TO WEATHERPROOF DEVICES SHALL BE STUBBED OUT ONLY. SURFACE WEATHERPROOF BACK BOXES SHALL BE PROVIDED WITH DEVICES.

7. ALL FIRE ALARM WIRES ARE REQUIRED TO BE IDENTIFIED AND APPROPRIATELY MARKED.

8. PER NEC, NO AC VOLTAGE WIRING OF ANY KIND SHALL BE RUN IN THE SAME CONDUIT OR RISER AS THE LOW VOLTAGE FIRE ALARM SYSTEM WIRING.

9. ALL JACKETED CABLE MUST INCLUDE A JACKET REMOVAL PULL STRING AS PART OF THE CABLE.

10. SHIELDED CABLE IS NOT AN ACCEPTABLE SUBSTITUTION FOR CABLE WITHOUT "SHIELDED" AS PART OF THE DESCRIPTION.

GENERAL:

1. ALL FIRE ALARM JUNCTION BOXES ARE TO BE PAINTED RED.

2. ALL END OF LINE DEVICES SHALL HAVE AN IDENTIFYING E.O.L. STICKER AT THE E.O.L. LOCATION.

3. ONLY CONDUCTORS INTENDED FOR TERMINATION TO THE SPECIFIC DEVICE ON ANY GIVEN JUNCTION BOX SHALL BE LEFT OPEN FOR TERMINATION IN THAT JUNCTION BOX. ALL OTHER CONDUCTORS SHALL PASS THROUGH, OR BE SPLICED THROUGH, THAT JUNCTION BOX.

WARRANTY

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THIS WARRANTY SHALL BE VOID IF A PERSON OR FIRM OTHER THAN ABSCO SOLUTIONS, INC. OR THE CONTRACTOR AUTHORIZED BY ABSCO SOLUTIONS, INC. PERFORMS OR RE-PERFORMS ANY WORK IDENTIFIED WITHIN THE ORIGINAL SCOPE OF THE WORK OF THE CONTRACT WITH ABSCO SOLUTIONS, INC.

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VICINITY MAP

PANEL DETAIL – S. HALLWAY 1

DEVICE LEGEND

MANUFACTURER	MODEL NUMBER	DESCRIPTION	BACK BOX	SYMBOL	QUANTITY
GAMEWELL-FCI	SLP-BLK	ADDRESSABLE FIRE ALARM CONTROL PANEL	PROVIDED	FACP	1
GAMEWELL-FCI	PC2W	CEILING MOUNT STROBE	4-SQR		15
GAMEWELL-FCI	SCW	CEILING MOUNT STROBE	4-SQR		15
GAMEWELL-FCI	P2WK	OUTDOOR WALL MOUNT HORN STROBE	PROVIDED	WP	1
GAMEWELL-FCI	SW	WALL MOUNT STROBE	DOUBLE GANG		2
GAMEWELL-FCI	MS-7AF	MANUAL PULL STATION	DEEP SINGLE GANG	F	11
GAMEWELL-FCI	MCS-COF	MULTI-CRITERIA SMOKE/HEAT/CO DETECTOR	4 SQR W/3-O RING/B200S-LF	M	3
GAMEWELL-FCI	ASD-PL2F	PHOTOELECTRIC SMOKE DETECTOR W/B210LP	4 SQR W/ 3-O RING		33
GAMEWELL-FCI	ATD-RL2F	HEAT DETECTOR ROR & FT W/B210LP	4 SQR W/3-O RING		15

WIRE LEGEND

ABSCO DESIGNATION	DESCRIPTION	MANUFACTURER	MODEL NUMBER NON-PLENUM	MODEL NUMBER PLENUM	MODEL NUMBER BURIAL
A	16/2 TWISTED FPL FIRE WIRE, NON-SHIELDED	WINDY CITY WIRE	728103-S	761360-B	
B	14/2 PARALLEL FPL FIRE WIRE, NON-SHIELDED	WINDY CITY WIRE	729100-S	7617963-S	

GENERAL SYSTEM LEGEND

NOTIFICATION DEVICE ID	INITIATING DEVICE ID	WIRE ID	ABBREVATIONS
N1-5 NOTIFICATION CIRCUIT# NOTIFICATION DEVICE#	M10 DEVICE# DEVICE TYPE	REFERENCE WIRE LEGEND-ABSCO DESIGNATION WIRE ID (A) QTY OF WIRE (2A) MULTIPLE TYPES/QTY (2A,2B)	E = EXISTING N = NEW RR = REMOVE & RELOCATE DEVICE W = WIRELESS cd = CANDELA RATING mA = MILLIAMPS V = VOLTAGE ELR = END OF LINE

FACP NOTIFICATION CIRCUIT CALCULATIONS

CIRCUIT CALCULATIONS	FACP	FACP	FACP	FACP
NOTIFICATION CIRCUIT #	N1	N2	N3	N4
# OF DEVICES	13	10	10	SPARE
CURRENT DRAW	1.193	0.710	1.041	-
WIRE GUAGE	14ga	14ga	14ga	-
VOLTAGE DROP%	6.9%	3.7%	4.8%	-
VOLTAGE DROP	1.87	1.00	1.31	-
END OF LINE VOLTAGE	25.13	26.00	25.69	-
WIRE LENGTH (FEET)	250	225	200	-

* Move WP Horn/Strobe to NW Corner of Bldg

APPROVED
FIRE DEPARTMENT
11-21-16

BLD2016-0441

* panel & pull Keys in Knox Box

FACP BATTERY CALCULATIONS

Absco Solutions
INTEGRATED FIRE & SECURITY SOLUTIONS

BATTERY STANDBY REQUIREMENTS
JOB NAME: The Trike Stop

19023 36th Avenue W, Suite E, Lynnwood, WA 98036
Phone: (425) 771-1166 Fax: (425) 771-4422

Qty	Code	Description		Standby Current amps Each	Standby Current amps Total	Alarm Current amps Each	Alarm Current amps Total
15	ATD-RL2F	Analog thermal sensor ROR & FT	INI	0.0007	0.0105	0.0065	0.0975
3	B200S-LF	Intelligent addressable sounder base	INI	0.0006	0.0018	0.09	0.27
3	MCS-COF	Multi-criteria Smoke/heat/CO detector	INI	0.0003	0.0009	0.007	0.021
1	P2WK	Horn/Strobe, 12/24 Volt, White, MC,	SIG			0.176	0.176
15	PC2W	Ceiling Mount Horn Strobe, 12/24 Volt,	SIG			0.089	1.335
15	SCW	Ceiling Mount Strobe, 12/24 Volt,	SIG			0.089	1.335
33	ASD-PL2F	Analog photoelectric detector	INI	0.0003	0.0099	0.0065	0.2145
11	MS-7AF	Addressable double action pull station	INI	0.0003	0.0033	0.0037	0.0407
1	SLP-BLK	Smart loop panel	PAN	0.111	0.111	0.243	0.243
1	SLC-PM	SLP add on SLC module	PAN	0.014	0.014	0.014	0.014
1	DACT-E3	Digital Alarm Communication	PAN			0.018	0.018
					Totals:	0.1514	3.7647

NOTES: SLP-BLK FIRE ALARM CONTROL PANEL 24V 7AH BATTERY CAPACITY

Total Standby Current: 0.1514
X standby hours needed: 24.0
Total: 3.6336

Total Alarm Current: 3.7647
X fraction of hours needed: 0.083
Total: 0.3125

Total Standby: 3.6336
+ total alarm: 0.3125
Total: 3.9461
X d-factor: 1.2
Total Amp hour needed: 4.7353

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APR 11 2016
DEVELOPMENT SERVICES COUNTER

FIRE ALARM RISER

Firm Name and Address

Absco Solutions
P.O. BOX 2246
LYNNWOOD, WA 98036
PH: 425.771.1166
FAX: 425.771.4422
www.abscosolutions.com

Project Name and Address

TRIKE STOP BIG KIDS
WESTGATE EBP
23107 100TH AVE W
EDMONDS, WA 98020

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REDMOND DOR: # 00-B-025

Rev.#-Date	Revision	By
1-04/08/16	Submittal Set	DH

Drawn By	D.H.
Checked By	DJN
Date	04/06/16
Project Name	Trike Stop
Project Number	151127

System Type: FIRE ALARM

Sheet Name: LEGENDS, DETAILS, FIRE ALARM PLANS

Sheet Number: FZ001

SHEET 1 OF 2

CITY COPY

TRIKE STOP DAYCARE CENTER - SUITES 1, 2A, 5 & 6 FLOOR PLANS

SCALE: 1/8" = 1'-0"

RECEIVED
APR 11 2016
DEVELOPMENT SERVICE COUNTER

Firm Name and Address

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Rev.#-Date	Revision	By
1-04/08/16	Submittal Set	DH

Drawn By	D.H.
Checked By	DJN
Date	04/06/16
Project Name	Trike Stop
Project Number	15127

System Type
FIRE ALARM

Sheet Name
SUITES 1, 2A, 5 & 6 FLOOR PLANS

Sheet Number
FZ101

SHEET 2 OF 2

BLD2016-0441

15127 - The Trike Shop
Product Submittal Package

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DEVELOPMENT SERVICES COUNTER

Spec #	Section		
Manufacturer		Doc Name	Doc #
28 31 00	**Fire Detection and Alarm**		
Gamewell-FCI		SLP-BLK_Gamewell-FCI_data	1
Gamewell-FCI		SLC-PM_Gamewell-FCI_data	2
Gamewell-FCI		DACT-E3_Gamewell-FCI_data	3
Modular Devices		SETUL_Modular Devices_data	4
Gamewell-FCI		ASD-PL2F_Gamewell-FCI_data	5
Gamewell-FCI		ATD-RL2F_Gamewell-FCI_data	6
Gamewell-FCI		B210LP_Gamewell-FCI_data	7
Gamewell-FCI		MCS-COF_Gamewell-FCI_data	8
Gamewell-FCI		B200S-LF_Gamewell-FCI_data	9
Gamewell-FCI		MS-7AF_MS7 series_Gamewell-FCI_data	10
System Sensor		PC2R_PC2W_System Sensor_data	11
System Sensor		SCW-P_System Sensor_data	12
System Sensor		P2WK_System Sensor_data	13
26 33 13	**Batteries**		
Yuasa		NP1812B_Yuasa_data	14

Gamewell FCI FIRE CONTROL INSTRUMENTS

by Honeywell

S3 Series Control Panel

Description

The Gamewell-FCI, S3 Series Intelligent Fire Alarm Control Panel provides the latest innovative high-end processing power. It offers a simple, intuitive solution for the small to mid-sized fire alarm applications.

In standalone or network configurations, the S3 Series complies with most fire alarm application requirements. It supports either of the following types of networks.

- Up to 64 nodes using the 7100 Series panel.
- Up to 122 nodes using the S3 Series or E3 Series® panels.

Use either twisted-pair wire or fiber-optic to network panels at a high-speed 625K baud ARCNET network bus.

With flexible Boolean logic, intelligent detection, and Ethernet connectivity, this system provides power and versatility that surpasses comparable, small addressable fire alarm systems.

The basic S3 Series consists of an SLP (Smart Loop Panel) main board, LCD-SLP touchscreen display, SLC loop personality modules, and 7 amp power supply. The SLP provides either one or two SLC loops in Class A or B configuration that supports either of the following protocols:

- Up to 318 devices per loop using the System Sensor® protocol. If you add a second loop module, it increases the maximum device count to 636 devices.
- Up to 126 devices per loop using the Apollo protocol. If you add a second loop module, it increases the maximum device count to 252 devices.

Four Class B or two Class A NACs can be wired and synchronized using the System Sensor, Cooper-Wheelock, or Gentex strobes. To retrofit the SLP on the existing audible/visual appliances, the on-board Electronic EOL (EEOL) automatically adjusts to the EOL resistor in the field.

A 4.3" (10.92 cm) color touchscreen display screen shows the following:

- Events on the system
- Status of analog addressable devices
- Complete diagnostic fault codes/messages
- Five programmable function buttons with LED status for accessibility to the following functions:
  - Disable/Enable
  - Bypass Output
  - Lamp Test
  - Trouble Acknowledge
  - Alarm Acknowledge
  - Custom-defined

E3 Series®, System Sensor® and FocalPoint® are registered trademarks of Honeywell International Inc.
UL® is a registered trademark of Underwriters Laboratories Inc.

Small Analog Addressable Fire Alarm Control Panel

S3 Series

Features

- Listed per ANSI/UL® Standard 864 9th Edition.
- IBC Seismic Certified.
- Allows one SLC loop (expandable to two loops) that supports either System Sensor or Apollo devices in Class A or Class B (Style 4, 6 or 7).
- System Sensor supports up to 318 intelligent devices and each SLC loop supports the following.
  - up to 159 detectors.
  - up to 159 modules (expandable to 636 maximum per panel).
- Apollo supports up to 126 intelligent detectors and modules per SLC. (Expandable to 252 maximum per panel).
- Includes a high resolution (4.3") (10.92 cm) color touchscreen display.
- Supports a network system of up to 122 nodes (includes E3 Series® panels) or up to 64 nodes (includes 7100 Series).
- Provides 7.0 amp power supply (120VAC or 240VAC).
- Includes four Class B or two Class A built-in Notification Appliance Circuits (NAC). Provides selectable System Sensor, Cooper-Wheelock, or Gentex strobe synchronization.
- Supports up to 32 serial annunciators (LCD, LED-only, LED Switch).

SIGNALING UL LISTED S1869 FM APPROVED MEA FDNY: COA-#6162 7165-1703:0176 City of Chicago Approved Class 1 THE VMC GROUP Reference Certificate of Compliance VMA-45894-02C

ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

GAMEWELL-FCI
12 Clintonville Road, Northford, CT 06472-1610 USA • Tel: (203) 484-7161 • Fax: (203) 484-7118

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Application
The S3 Series Fire Alarm and Life Safety System is an easy-to-use intelligent fire alarm solution designed for the small to mid-sized buildings. Analog technology delivers the benefits of a simple system installation, while a user-friendly interface makes panel operation and system maintenance quick and intuitive.

Smart Panel Programming
Using Boolean logic programming, the installer may customize the system to precisely suit the needs of the building owner. Auto-programming allows the installer to instantly locate all the devices on the SLC loop.

Simple, Intuitive Display
The front panel display provides a user-friendly interface for the operator's control. A 4.3" (10.922 cm) color touch-screen displays system status, event details and service modes. On the front of the panel, six LEDs show the following conditions.

- Fire
- Silenced
- Hazard (Gas or CO)
- AC Power
- Supervisory
- Trouble

Five custom programmable switches allow the user quick access to common functions specific to the building like device disable, output bypass and device status.

Perfect for Retrofits
The S3 Series is well-suited for retrofit applications. The SLP provides a simple way to upgrade your fire protection system. It is designed to be an upgrade solution for the legacy FCI 7100 and Gamewell 602 Series panels. An added feature is the SLP's EEOL. Using EEOL, the installers can automatically identify the EOL for existing audible/visual appliances.

Flexibility for Future Growth
The S3 Series can be expanded to add a second SLC loop without replacing the entire system. Using the RPT-E3-UTP Network Repeater, you can network up to 64 nodes (122 nodes with the ANX node expander) using either twisted-pair or fiber-optic. The built-in Ethernet port allows the connection to the Gamewell-FCI's FocalPoint Graphical Workstation.

Figure 1 LCD-SLP Display

Features (Continued)

- Offers an Ethernet port for programming, a variety of system reports, and a FocalPoint® Graphic Workstation connectivity.
- Provides two fully-programmable Form-C contacts for Fire, Trouble, and Supervisory.
- TimeCap - Saves time and date up to 48 hours without any power or battery.
- Automatically adjusts to any NAC End-of-Line Resistor (EOL) value (1k-55k ohm) for legacy audible/visual appliances.
- Removable display can be used as a remote annunciator.
- Suitable for pre-action deluge applications.

Optional Accessories

DACT-E3 - Dialer
The Digital Alarm Communication Transmitter sends digital signals over telephone lines to the central station. It connects to the SLP through an RS-485 bus. Using the Contact ID format, the DACT-E3 provides a four-digit account code followed by the code/numbers listed below:

- Three-digit Event Code
- Two-digit Group Number
- Three-digit Contact Number

All codes are used to provide specific point identification. The DACT-E3 is compatible with digital alarm communicator receivers (DACRs) that receive the following signaling formats:

- Contact ID
- SIA
- 3+1
- 4+2

For more information, refer to the following data sheets:
DACT-E3 Data Sheet, P/N: 9020-0610
FML-E3/FSL-E3 Data Sheet, P/N: 9021-60783

RPT-E3-UTP - Network Repeater Card
The Network Repeater allows the SLP fire control panels to connect to the broadband network from remote locations. It connects to other networked units using unshielded, twisted-pair wiring. The RPT-E3-UTP is available with two add-on fiber modules:

- **FML-E3** connects to the network using either 62.5/125 micron multi-mode fiber.
- **FSL-E3** connects to the network using 9/125 micron single-mode fiber.

Refer to the RPT-E3-UTP Data Sheet, P/N: 9020-0609.

LCD-7100 - Remote Annunciator
The Remote serial display features an 80-character display. The LCD-7100 can be surface or flush-mounted on a standard 4-gang electrical box. You can use up to five LCD-7100 remote annunciators per SLP panel. For more information, refer to the LCD-7100 Data Sheet, P/N: 9020-0486.

ASM-16 - Addressable Switch/LED Module
There are 16 programmable switches available to perform any function the application requires. Each ASM-16 switch has 3 LEDs fully programmable in red, yellow, and green. These LEDs can be programmed to operate with a certain button press or operate independently as a status signal (e.g. ON, OFF, Activated, etc).
Up to 16 ASM-16 modules can be connected to the SLP panel. For more information, refer to the ASM-16 Data Sheet, P/N: 9020-0554.

ANU-48 - 48 LED Driver Unit
The ANU-48 provides output for eight remote panel switches and 48 remote LEDs for use in a remotely located UL® Listed annunciator enclosure. Up to 16 ANU-48 modules can be connected to the SLP panel. For more information, refer to the ANU-48 Data Sheet, P/N: 9020-0596.

Figure 2 illustrates the SLP-BB Cabinet Enclosure.

Figure 2 SLP Enclosure

Specifications

Device Loops	Up to two Class A or B, System Sensor units, each loop supporting up to 318 device addresses. Or- Apollo units, each loop supporting up to 126 device addresses per loop.
NAC circuits	4 Class B or 2 Class A (2.0 A each circuit), 6.0 A total
NAC Operating Voltage	24 VDC
NAC Minimum Voltage	19.5 VDC @ 20.4 V battery voltage
SLC Loop Circuit Operating Voltage	24 V peak-to-peak
Input Voltage	120 VAC, 60 Hz 240 VAC 50-60 Hz
Input Current	120 VAC, 2.75 amps max. 240 VAC, 1.4 amps max.
Aux Power 1 (Continuous)	24 VDC nominal at 1.0A
Aux Power 2 (Resettable)	24 VDC nominal at 1.0A
Base Panel Current draw	Standby: 0.111 amps Alarm: 0.243 amps
Operating Temperature	32°-120° F (0°-49° C)
Relative Humidity	93% (non-condensing)
Battery Charger Voltage	+24 VDC
Battery Charger Capacity	55 A/H batteries (cabinet accommodates 12 A/H batteries)
Alarm, Trouble & Supervisory Relay Contacts	Form-C, 2 amps @ 24VDC (resistive)

Cabinet Dimensions:

SLP-BB Dimensions	14 1/2" W x 20 1/8" H x 4 1/2" D (36.83 W x 51.18 H x 11.43 D cm)
S3BB-RB Dimensions	19 3/8" W x 19 3/8" H x 4.5" D (49.22 W x 49.22 H x 11.43 D)

Figure 3 SLP Panel Configuration

Ordering Information

Part Number	Description
SLP-BLK	SLP addressable FACP in black SLP-BB enclosure. Requires either an SLC-PM or an SLC95-PM for SLC loops.
SLP-RED	SLP addressable FACP with red door and black SLP-BB backbox. Requires either an SLC-PM or an SLC95-PM for SLC loops.
SLP-RED-G	SLP addressable FACP 240VAC power supply with red door and black SLP-BB backbox. Requires either an SLC-PM or an SLC95-PM for SLC loops.
SLC-PM	System Sensor Loop Card - 1 loop used for 159 sensors and 159 modules. For use with the SLP-E3 panels only.
SLC95-PM	Apollo Loop Card-1 loop used for 126 sensors and modules. For use with the SLP-E3 panels only.

Ordering Information (Continued)

Part Number	Description
Accessories	
DACT-E3	Digital Dialer Communicator Transmitter for the S3 or E3 Series.
LCD-SLP	LCD Color Touchscreen display with five programmable switches. For use with the S3 Series panels. Remote annunciation requires the E3 Series A2 cabinet. (E3BB-BA2, E3BB-RA2)
RPT-E3-UTP	Network repeater card with twisted-pair fiber connections require either an FML-E3 or an FSL-E3 card.
FML-E3	Multi-mode fiber-optic card for one channel on the RPT-E3-UTP.
FSL-E3	Single-mode fiber-optic card for one channel on the RPT-E3-UTP.
SLP-RB	SLP motherboard For use with the replacement or the retrofit solutions.
FLPS-7-RB	SLP 120VAC 7A power supply. For use with the replacement or the retrofit solutions.
SLP-RETROFIT	SLP Retrofit Kit for the 7100 B-Slim and IF602 panels. Includes the new door and the mounting plate. Requires the following: • SLP-RB • LCD-SLP • SLC-PM/ SLC95-PM • FLPS-7-RB
S3BB-RB	SLP red cabinet with an inner door for the mounting display behind the plexiglass. Requires the following: • SLP-RB • LCD-SLP • SLC-PM/ SLC95-PM • FLPS-7-RB
LCD-7100	Remote Serial LCD Annunciator
ASM-16	Remote Programmable Addressable Switch/LED Module
ANU-48	Remote LED Driver Module

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www.gamewell-fci.com

Gamewell FCI FIRE CONTROL INSTRUMENTS

by Honeywell

SLC-PM/ SLC95-PM

SLC Personality Loop Modules

Description

The Gamewell-FCI, S3 Series (Small Addressable Fire Alarm Control Panel) uses the following plug-in Signaling Line Circuits (SLC).

- SLC-PM (Signaling Line Circuit Personality Module)
- SLC95-PM (Signaling Line Circuit-95-Personality Module)

Each SLC-PM/SLC95-PM provides one SLC loop in Class B or Class A wiring.
The SLC-PM supports the following devices:

- Up to 318 System Sensor Velociti® devices.
  - 159 sensors and 159 modules.
- Up to 198 System Sensor CLIP devices.
  - 99 sensors and 99 modules.

The SLC95-PM supports the following devices:

- Up to 126 Apollo XP95 devices.
  - 126 sensors and modules.

Installation

The SLC-PM/SLC95-PM modules are designed to be plugged into the Smart Loop Panel-Main Board (SLP-E3). This feature allows you to expand the S3 Series System without the need to remove or replace hardware.

Specifications

	SLC-PM	SLC95-PM
Operating Current:	0.014 amp	0.016 amp
Alarm Current:	0.014 amp	0.016 amp
Line Impedance:	40 Ohms	
Line Capacitance:	0.5 µf max.	
Operating Voltage:	24 VDC FWR	
Operating Temperature:	32° to 120° F (0° to 49° C)	
Relative Humidity:	0 to 93%,non-condensing at 90° F (32° C)	

Ordering Information

Part Number	Description
SLC-PM	System Sensor, Signaling Line Circuit-Personality Module with up to 318 devices.
SLC95-PM	Apollo SLC Personality Module with up to 126 devices.

SLC-PM (System Sensor)

SLC95-PM (Apollo)

Features

- Listed per ANSI/UL® Standard 864 9th Edition.
- SLC-PM supports the System Sensor Velociti protocol using up to 318 devices.
  - Uses up to 159 sensors and 159 modules.
- SLC95-PM supports the Apollo XP95 protocol using up to 126 devices.
  - Uses up to 126 sensors and modules.
- Supports Class A or Class B Wiring.
- Offers a simple, plug-in installation feature.

SIGNALING UL LISTED S1869 MEA FDNY: COA-#6162 7165-1703:0176 City of Chicago Approved Class 1 THE VMC GROUP Reference Certificate of Compliance VMA-45894-02C

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FIRE CONTROL INSTRUMENTS

by Honeywell

DACT-E3

Digital Alarm Communicator Transmitter

DACT-E3

Description

The Digital Alarm Communicator Transmitter (DACT-E3) is an optional component of the E3 Series™ Expandable Emergency Evacuation System. The DACT-E3 sends digital signals over telephone lines to a central station. This module can be located in the main cabinet or remotely located via a local RS-485 serial interface.

The DACT-E3 is compatible with digital alarm communicator receivers (DACRs) that receive the following signaling formats:

- SIA DC8
- SIA DCS20
- Ademco Contact ID
- 3+1 1400 Hz
- 3+1 2300 Hz
- 4+2 1400 Hz
- 4+2 2300 Hz

In addition to the DACT-E3 being compatible with digital signaling formats, the DACT-E3 features numerous formats for communication to a central station. As a digital communicator, the DACT-E3 complies with FCC Part 8, Telecommunication Standards for DC and AC Ringer Equivalence.

Installation

The DACT-E3 is adaptable for installation in standard E3 Series™ system cabinets. Typically, the DACT-E3 module is mounted on standoffs on top of the left side of the ILI-MB-E3 module. Either unit can be easily connected to the backbox or sub-assembly plate depending on the cabinet module.

Note: For instructions on installing the DACT-E3, refer to the E3 Series™ Expandable Emergency Evacuation Installation/Operating Manual, Part Number: 9020-0574 or the DACT-E3 Installation Instructions Part Number: 9000-0580.

Ordering Information

Model	Description
DACT-E3	Digital alarm communicator transmitter

E3 Series™ is a trademark of Fire Control Instruments.

Features

- Communicates with the E3 ILI-MB-E3 sub-assembly via RS-485.
- Communicates in a variety of formats.
- Transmits and verifies data to the central station.
- Offers pre-programmed dialing to the central station phone number.
- Performs on and off-hook status to the phone lines.
- Traces proper central station "ACK" and "Kiss-off" tone.
- Activates hang-up and release phone lines.
- Listed under UL Standard 864, 9th Edition.

Specifications:

Operating Voltage:	24 VDC (from PM-9 power supply)
Operating Current:	0.018 amp
Alarm Current:	0.018 amp
Operating Temperature:	32° to 120° F (0 to 49° C)
Relative Humidity:	0 to 93%, non-condensing at 90° F (32° C)

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FIRE CONTROL INSTRUMENTS
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MODULAR SECURITY ACCESSORIES

RJ31X JACK AND CORD SETS

Part #

SETUL (917UL) (+91628)	USOC RJ31X modular jacks. Gold plated conductor Pins. Shorting bar 1, 4, 5 and 8 UL Listed. Packaged with matching color coded cord. 26 AWG 2ft. 8P8C to spade lugs with strain relief.

(Color Header card for Display)

SETUL50 (917UL50) (+91628) Same as above with 50 microns of gold plating on conductor pins. Packaged with matching color coded cord. 26 AWG 2ft. 8P8C with header

SET (Standard) 917 + 91628 packaged with header

SETULR2 (917UL) (+804R2) 917UL RJ31X Jack UL Listed. Packaged with 26 AWG 8P8C mod to 8P8C mod straight wired cord. With header

SET14 (917) (+91614) Standard 917 RJ31X Jack packaged with a 8P4C modular cord to spade lugs 1ft. strain relief. With header

(Packaged)

SETULNH
SETUL50NH
SETNH

MODULAR SECURITY ACCESSORIES

USOC RJ31X JACKS

8P8C Gold plated conductor pins. Individually bagged with mounting screw and doubled - sided stick tape. Made with 94VO flame retardant plastic. Shorting bar on 1, 4, 5, and 8 Ideal for security installations. UL Listed. Color Ivory.

Part #

917	Standard - RJ31X Jack
917UL	Standard - RJ31X Jack UL Listed
917UL50	8P8C RJ31X UL Jack with 50 microns of gold
9174UL50	8P4C RJ31X UL Jack with 50 microns of gold
9174A	Combo 8P8C RJ31X Jack with RJ11 6P4C
917B	8P8C RJ31X Jack 3-3/4" x 2-1/4"

916 - RJ31X CORD 8 CONDUCTOR

8P8C Round 26 AWG silver satin, plug to spade lugs. Color coded to match RJ31X Jack. Available in 1, 2, 4, and 7 ft. lengths.

91618 -1ft. RJ31X cord 1ft. 8 conductor
91628 -2ft. RJ31X cord 2ft. 8 conductor
91648 -4ft. RJ31X cord 4ft. 8 conductor
91678 -7ft. RJ31X cord 7ft. 8 conductor

916 – RJ31X CORD 4 CONDUCTOR

Modular 8P4C flat 28 AWG silver satin, plug to spade lugs. Color coded to match RJ31X Jack. Available in 1,2, and 7ft lengths.

91614 -1ft. RJ31X cord 1ft. 4 conductor
91624 -2ft. RJ31X cord 2ft. 4 conductor
91674 -7ft. RJ31X cord 7ft. 4 conductor

UL CSA Available

Gamewell FCI FIRE CONTROL INSTRUMENTS

by Honeywell

Velociti® Series ASD-PL2F, ASD-PTL2F and ASD-PL2FR

Description

The Gamewell-FCI Velociti® Series, analog addressable plug-in smoke sensors with integral communication provide features that surpass conventional sensors. Sensitivity can be programmed in the control panel software, and is continuously monitored and reported to the panel. Point ID capability allows each sensor's address to be set, providing exact locations for selective maintenance when the chamber contamination reaches an unacceptable level. The ASD-PL2F photoelectric sensor's unique optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources. Dual electronic thermistors add 135°F (57°C) fixed-temperature thermal sensing on the ASD-PTL2F model.

The Velociti® Series use a communication protocol that substantially increases the speed of communication between the sensors and certain Gamewell-FCI analog addressable fire alarm controls. These devices operate in a grouped fashion. If one of the devices in the group has a status change, the panel's microprocessor stops the group poll and concentrates on the single device. The net effect is a response speed up to five times greater than earlier designs.

Ordering Information

Model	Description
ASD-PL2F	Analog, addressable photoelectronic smoke sensor
ASD-PTL2F	Analog, addressable photoelectronic smoke sensor with thermal sensing
ASD-PL2FR	Analog, addressable photoelectronic smoke sensor used with the DNR duct base when the remote test is required.

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Analog, Addressable Photoelectronic Smoke Sensor

ASD-PL2F/ASD-PTL2F

ASD-PL2FR

Features

- Sleek, low-profile design
- Visual rotary, decimal switch addressing (01-159)
- Built-in functional test switch activated by an external magnet
- Bicolor LEDs flash green whenever the sensor is addressed, and light steady red on alarm*
- Optional relay, isolator, or sounder bases
- Low standby current
- Analog addressable communication
- Stable communication technique with noise immunity
- Optional remote, single-gang LED Indicator (RA400Z)
- Compatible with Gamewell-FCI analog addressable panels

Note: *Only the red LED is operative in panels that do not operate in Velociti® mode.

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Installation

ASD-PL2F plug-in sensors use a separate base to simplify installation, service, and maintenance. A special tool allows maintenance personnel to plug-in and remove sensors without using a ladder.

Mount the base on a box which is at least 1.5" (3.8 cm) deep. Suitable mounting base boxes include:

- 4.0" (10.2 cm) square box
- 3.5" (8.9 cm) or 4.0" (10.2 cm) octagonal box
- Single-gang box (except relay or isolator bases)
- With B200SR base, mounted on a 4.0" (10.2 cm) square box
- With B224RB or B224BI base, mounted on a 3.5" (8.9 cm) octagonal box, or a 4.0" (10.2 cm) octagonal or square box

NOTE: Because of the inherent supervision provided by the SLC, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring.

Sensor Spacing

Gamewell-FCI recommends that the spacing sensors be used in compliance with NFPA 72.

Specifications

Size:	2.1" (5.1 cm) high x 4.1" (10.4 cm) diameter installed in the B501 base, 6.1" (15.5 cm) diameter installed in the ADB-FL base.
Shipping Weight:	5.2 oz. (147 g)
Operating Temperature:	ASD-PL2F: 32° F to 120° F (0° C to 49° C) ASD-PTL2F: 32° F to 100° F (0° C to 38° C)
UL®-Listed Velocity Range:	0-4000 ft./min. (1,219.2 m/min.), suitable for installation in ducts.
Relative Humidity:	10-93% (non-condensing)
Thermal Ratings:	Fixed-temperature setpoint 135° F (57° C)

Electrical Specifications

Voltage Range:	15 – 32 volts DC peak
Standby Current:	(max. avg.): .0003 A @ 24 VDC (one communication every 5 seconds with LED enabled)
Maximum Alarm Current:	.0065 A @ 24 VDC (LED) lit).

Bases and Options

ADB-FL	6.1" (15.5 cm) diameter
B200SR	6.875" (17.46 cm) Base Diameter 2.0" (5.08 cm) Base Height
B224RB Relay Base	Screw terminals: Up to 14 AWG (2.0 mm^2) Relay type: Form-C Rating: 2.0A @ 30 VDC resistive; 0.3 A @ 110 VDC inductive; 1.0 A @ 30 VDC inductive. Dimensions: 6.2" x 1.2" (15.7 x 3.0 cm) **Maximum:** 25 devices between isolator bases.
RA400Z	Remote alarm indicator, LED.
BCK-200	Black detector covers (box of 10)
DNR	Duct smoke housing

Gamewell FCI FIRE CONTROL INSTRUMENTS

by Honeywell

Velociti® Series ATD-L2F, ATD-RL2F

Addressable Thermal Sensor

Description

The Gamewell-FCI Velociti® Series, addressable plug-in thermal sensors with integral communication provide features that surpass conventional sensors. Point ID capability allows each sensor's address to be set, providing exact locations for pinpointing alarm locations and for selective maintenance. ATD thermal sensors use an innovative thermistor sensing circuit to produce 135°F/57°C fixed-temperature (ATD-L2F). The ATD-RL2F provides a combination 15°/minute rate-of-rise with 135° fixed thermal detection that is included in a low-profile package. The ATD-HL2F provides fixed high-temperature detection at 190°F/88°C. These thermal sensors provide cost-effective, addressable property protection in a variety of applications.

The Velociti® Series uses a communication protocol that substantially increases the speed of communication between the sensors and Gamewell-FCI analog addressable fire alarm controls. These devices operate in a grouped fashion. If one of the devices in the group has a status change, the panel's microprocessor stops the group poll and identifies the single device with the status change. The net effect is response speed up to five times greater than earlier designs.

Installation

ATD plug-in sensors use a separate base to simplify installation, service, and maintenance. A special tool allows maintenance personnel to plug-in and remove sensors without using a ladder.

Mount the base on a box which is at least 1.5" (3.8 cm) deep. Suitable mounting base boxes include:

- 4.0" (10.2 cm) square box.
- 3.5" (8.9 cm) or 4.0" (10.2 cm) octagonal box.
- Single-gang box (except relay or isolator base).
- With B200S or B200SR base, mounted on a 4.0" (10.2 cm) octagonal or square box.
- With B224RB or B224BI base, mounted on a 3.5" (8.9 cm) octagonal box, or a 4.0" (10.2 cm) octagonal or square box.

NOTE: Because of the inherent supervision provided by the SLC, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring.

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ULC® is a registered trademark of Underwriters Laboratories Canada Inc.

ATD-L2F

Features

- Sleek, low-profile design
- Visual rotary switch addressing
- Built-in functional test switch activated by an external magnet
- Bicolor LEDs flash green whenever the sensor is addressed, and light steadily red on alarm*
- Optional relay, isolator, or sounder bases
- Low standby current
- Addressable communication
- Stable communication technique with noise immunity
- Optional remote, single-gang LED accessory (RA-100Z)
- Suitable for installation in ducts

Note: *Only the red LED is operative in panels that do not operate in Velociti® mode.

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Specifications

ATD-L2F/ATD-RL2F	
Dimensions:	2.1" (5.3 cm) Height 4.1" (10.4 cm) diameter installed in the B501 base 6.1" (15.5 cm) diameter installed in the B210LP base
Shipping Weight:	4.8 oz. (137 g)
Operating Temperature:	
ATD-L2F or ATD-RL2F	–4° F to 100° F (–20° C to 38°C)
ATD-HL2	–4° F to 150°F (–20 C to 66°C)
Sensor Spacing:	UL® approved for 50 ft. (15.2 m) center to center FM approved for 25 x 25 ft. (7.6 x 7.6 m) spacing
Relative Humidity:	10 – 93% (non-condensing)
ATD-L2F	Fixed-temperature setpoint 135°F (57°C)
ATD-RL2F	Combination 135° F fixed temperature and 15° F(8.3°c)/per minute rate-of-rise°
ATD-HL2F	Fixed-temperature setpoint 190°F (88°C)

Electrical Specifications

Voltage Range:	15 - 32 Volts DC peak
Standby Current:	200 mA @ 24 VDC (without communication)
(max. avg.)	.0003 A @ 24 VDC (one communication every 5 seconds with LED blink enabled)
LED Current (max.)	.0065 A @ 24 VDC (LED lit)

Specifications

Bases and Options

B501	Plug-in sensor base without flange
Dimensions:	4.1" (10.4 cm) diameter
B210LP	Flanged mounting base
Dimensions:	6.1" (15.5 cm) diameter
B210LPBP	Flanged mounting base bulk pack
Dimensions:	6.1" (15.5 cm) diameter
B224RB	Plug-in sensor base with auxiliary relay, SPDT 2 coil latching relay 1 Form C contact UL/ CSA Rating: 0.9 A @ 125 VAC (inductive) 0.9 @ 110 VDC (inductive) 3.A @ 30 VDC (resistive)
Dimensions:	6.1" (15.5 cm) diameter
B224BI	Plug-in sensor isolator base for Style 7 operation
Dimensions:	6.1" (15.5 cm) diameter Maximum 25 devices between isolator bases
B200S	Intelligent sensor sounder base
Dimensions:	6.875" (17.5 cm) diameter
B200SR	Standard sounder base, UL 864 9th Edition compliant, ULC Listed
Dimensions:	6.875" (17.5 cm) diameter
RA-100Z	Remote LED Annunciator
BCK-200	Black detector covers (box of 10)

Ordering Information

Part Number	**Description**
ATD-L2F	Addressable thermal sensor, fixed, 135° F
ATD-RL2F	Addressable thermal sensor, combination fixed,135° F and 15°/minute rate-of-rise.
ATD-HL2F	Addressable thermal sensor, fixed, 190° F

Gamewell FCI FIRE CONTROL INSTRUMENTS

by Honeywell

Intelligent Bases

B501, B224RB, B224BI, B210LP, B200S and B200SR Mounting Kits, and Accessories

Description

The Intelligent FlashScan® and CLIP™ mounting bases and kits provide a variety of ways to install Gamewell-FCI detectors in any application. Intelligent detectors can be mounted in either flanged or flangeless bases depending on the junction box selection (see Junction Box Selection Guide) or plastic rings. Across this product line, you can easily plug-in the detectors to the base using SEMS screws; and the models employ various 12 to 24 AWG wire ranges.

Relay, isolator, and sounder bases can be used to meet local code requirements. Relay bases provide one Form-C contact relay for the control of auxiliary functions such as door closure and elevator recall. Isolator bases allow loops to continue to operate under fault conditions and automatically restore when the fault is removed. Sounder bases are available in a combination temporal 3 and continuous tone model.

The Intelligent Bases provide a variety of mounting options to meet your installation challenges. The bases come in flanged or flangeless versions for mounting to a variety of junction boxes. See Table 1 for the junction box options. The B210LP, B224RB relay base, and B224BI isolator base can be mounted on the SMB600 surface mounting box.

Specifications

System Temperature and Humidity Ranges:

This system meets the NFPA requirements for operation at 0°C to 49°C (32°F to 120°F); and at a relative humidity (non-condensing) of 85% at 30°C (86°F) per NFPA, and 93% ± 2% at 32°C ± 2°C (89.6°F ± 1.1°F) per ULC®. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15°C to 27°C (60°F to 80°F).

Temperature Range:

For B501, B224RB, B224BI, B210LP, B200S, B200SR	32°F to 120°F (0°C to 49° C)
Humidity Range:	10% to 93% RH, non-condensing

Wire Gauge:

For B224BI, B224RB:	14 to 24 AWG
For B200S:	12 to 24 AWG
For B200SR:	12 to 24 AWG

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Figure 1 B501 Mounting Base

Figure 2 B224RB Relay Base and B224BI Isolator Bases

Figure 3 B210LP Mounting Base

Figure 4 B200S/SR Sounder Base

Features

- Bases employ 12 to 24 gauge wire ranges.
- Offers the following three (3) types of bases:
  - Relay
  - Isolator
  - Sounder
- Relay, isolator and sounder bases meet local code requirements.
- Relay bases provide one Form-C contact relay.
- Isolator bases include data communications lines to operate under fault condition.
- Sounder bases offer temporal and non-temporal pattern versions.
- Includes an installation mounting kit and accessories for several types of model options.

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Electrical Ratings

For B224RB, B224BI:

Operating Voltage:	15 to 32 VDC (powered by SLC)
Standby Ratings:	<500 µA maximum @ 24 VDC
Set Time (B224RB only):	Short delay: 55-90 mseconds Long delay: 6 to 9 seconds
Reset Time (B224RB only):	20 mseconds maximum
Relay Characteristics (B224RB only):	Two-coil Latching Relay One Form-C Contact
Ratings (UL/CSA):	0.9 A @ 125 VAC (inductive) 0.9 A @ 110 VDC (inductive) 3.0 A @ 30 VDC (resistive)

For B200S Specifications:

External Supply Voltage:	16 to 33 VDC (VFWR)
Standby Current:	500 µA maximum
Alarm Current:	35 mA maximum (high volume) 15 mA maximum (low volume)
SLC Operating Voltage:	15 to 32 VDC
SLC Standby Current:	300 µA maximum
For B200S Sound Output:	Greater than 90 dBA measured in anechoic room at 10 ft. (3.048 m), 24 volts. Greater than 85 dBA minimum-measured in a UL® reverberant room at 10ft. (3.048 m) 24 volts (in continuous tone).

B200S Description

The B200S sounder base is capable of producing a variety of tone patterns, including the distinctive three-pulse temporal pattern (ANSI Temporal 3) fire alarm signal now required by NFPA 72 for commercial and residential applications. The available tones are Continuous, ANSI Temporal 3, ANSI Temporal 4, and March Time. In addition, some fire alarm panels will offer the option to command a custom tone pattern.

For B200SR Specifications:

External Supply Voltage:	16 to 33 VDC (VFWR)
Standby Current:	<500 µA maximum @ 24 VDC
Alarm Current:	35 mA maximum
Maximum Ripple Voltage:	10% of supply voltage
Startup Capacitance:	200 µF
For B200SR:	6 to 15 seconds
For B200SR:	0.75 to 5.7 seconds
Sound Output:	Greater than 90 dBA measured in anechoic room at 10 feet (3.048 m), 24 volts. 85 dBA minimum in UL reverberant room.

B200SR Description

The B200SR sounder base is capable of producing either the distinctive three-pulse temporal pattern (ANSI Temporal 3) fire alarm signal now required by NFPA 72 for commercial and residential applications or it can produce a continuous tone. To produce a continuous tone, remove the included jumper from the device. Additionally, the B200SR is designed to be compatible with existing installations that use the B501BH-Series sounder bases.

Ordering Information

Intelligent Bases

Part Number	Description
B501	Flangeless mounting base
Dimensions:	4.1" (10.41 cm) diameter
B501BP	Flangeless mounting base bulk pack
Dimensions:	4.1" (10.41 cm) diameter
B224BI	Isolator base
Dimensions:	6.1" (15.5 cm) diameter
B224RB	Relay base
Dimensions:	6.1" (15.5 cm) diameter
B210LP	Flanged mounting base
Dimensions:	6.1" (15.5 cm) diameter
B210LPBP	Flanged mounting base bulk pack
Dimensions:	6.1" (15.5 cm) diameter
B200S	Intelligent sensor sounder base
Dimensions:	6.875" diameter x 2.0" height (less sensor) (17.5 diameter x 5.08 H cm) (less sensor)
B200SR	Standard sounder base, UL Standard 864 9th Edition compliant, ULC Listed.
Dimensions:	6.875" diameter x 2.0" height (less sensor) (17.5 diameter x 5.08 H cm) (less sensor)

Mounting Kits and Accessories

SMB600	Surface mounting kit, flanged.
F110	Accessory retrofit flange ring for B210LP.
F110BP	Accessory retrofit flange ring for the B210LPBP bulk pack of 15.
F210	Accessory with a new smaller flange ring for the B210LP.
M02-04-01	Detector test magnet.
M02-09-00	Test magnet with telescoping handle.
XR2B	Detector removal tool (T55-127-000 included).
XP-4	Extension pole for XR2B (5 to 15 ft/1.524 to 4.572 m)
T55-127-000	Detector removal head.
BCK-200B	Black detector kit.
WCK-200B	White detector kit.

Table 1: Junction Box Selection Guide

	Single-Gang	3.5" Octagonal	4.0" Octagonal	4.0" Square	4.0" Square with 3.0" mud ring	50 mm	60 mm	70 mm	75 mm
B501	No	Yes	No	No	Yes	Yes	Yes	Yes	No
B210LP	Yes	Yes	Yes	Yes	Yes	No	No	No	No
B224BI	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
B224RB	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
B200S	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No
B200SR	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No

NOTE: The box depth is contingent on the base and the wire size.
For information on applicable local codes for appropriate recommendation, refer to the National Electrical Code.

Gamewell FCI FIRE CONTROL INSTRUMENTS

by Honeywell

Velociti® Series MCS-COF

Description

The Advanced Multi-Criteria Fire/CO Detector (MCS-COF) is an addressable device that provides both fire and carbon monoxide (CO) detection. For fire detection, the detector combines the following four separate sensing elements in one unit.

- Smoke
- Carbon Monoxide (CO)
- Light/flame
- Heat

These elements sense multiple components of a fire. This approach enables an enhanced sensitivity to real fire with a heightened immunity to nuisance particulate. For CO, the detector's electrochemical sensing cell creates a separate signal for life safety CO detection.

Released through the incomplete burning of various fuels, CO is a colorless, odorless and deadly gas that is virtually impossible to detect with the human senses. Because the potential exists for dangerous levels of CO to accumulate in almost any building, legislation mandates the use of CO detection in commercial spaces in the U.S. The MCS-COF is Listed to the UL® 2075 Standard for system-connected life safety carbon monoxide monitoring.

It is designed to be used with the Gamewell-FCI, E3 Series or S3 Series fire alarm control panel only. The MCS-COF should be used in conjunction with the B200S intelligent sounder base, which can generate either of the following patterns:

- Temp 3 pattern for fire.
- Temp 4 pattern for CO alarm indication.

The B200S recognizes the System Sensor synchronization protocol. This feature enables it to be used as a component of the general evacuation signal, along with other System Sensor horns, horn strobes, and chimes, when the MCS-COF is connected to a power supply or Fire Alarm Control Panel (FACP) output that is capable of generating the System Sensor synchronization pulses. With each sounder base carrying a unique address, the FACP can then command an individual sounder, or a group of sounders, to activate. The command set from the panel can be tailored to the specific event, allowing selection of volume, tone, and group. For more information on the B200S, refer to Data Sheet P/N: 9021-60671.

E3 Series® is a registered trademark of Honeywell International Inc.
UL® is a registered trademark of Underwriters Laboratories Inc.

Advanced Multi-Criteria Fire/CO Detector

MCS-COF in a B200S Sounder Base

Features

- Offers the unique function to detect the following four major elements of a fire:
  - Smoke
  - Carbon Monoxide (CO)
  - Light/flame
  - Heat
- Supplies a separate CO detection signal.
- Presents the highest nuisance alarm immunity.
- Produces an automatic drift compensation of smoke sensor and CO cell.
- Uses only one address on the SLC.
- Includes the EasyTest CO testing capability.
- Complies with UL® Listed Standard 268 and UL® Listed Standard 2075.
- Separates the audible signal for fire or CO alarm when used with the B200S Base.
- Provides the CO cell end-of-life warning and fault.

SIGNALING UL LISTED S1195 7275-1703:0175

GAMEWELL-FCI
12 Clintonville Road, Northford, CT 06472-1610 USA • Tel: (203) 484-7161 • Fax: (203) 484-7118

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Specifications

Physical Specifications

Base Diameter:	6.875" (17.46 cm) installed in a B200S base
Base Height:	3.46" (8.79 cm) installed in B200S base
Shipping Weight:	4.6 oz
Color:	Ivory
Material:	Bayblend FR110
Operating Temperature Range:	32° F to 100° F (0° C to 38° C)
Operating Humidity Range:	15 to 90% relative humidity (non-condensing)
Air Velocity:	0 to 4,000 ft/min (0 to 20 m/sec)

Electrical Specifications

Operating Voltage Range:	15 to 32 VDC
Maximum Standby Current:	300 µA at 24 VDC (no communication every 5 seconds with LED blink enabled).
Maximum Alarm Current (LED on):	7.2 mA at 24 VDC

Sensitivity Settings & Suggested Applications

Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments: Used in Laboratories.

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

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

Level 4: 3% per foot (30.48 cm) of smoke with different algorithm processing and weighting of sensor elements. Used in hotel rooms near a shower, boiler rooms.

Level 5: 4% per foot (30.48 cm) of smoke. Used in equipment rooms, kitchens, paint shop.

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

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

Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments: Used in Laboratories.

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

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

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

Specifications (Continued)

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

Parts per Million	70 ± 5ppm	150±5ppm	400± 10ppm
Detector Response Time, min.	60-240	10-50	4-15

Note: Per UL Standard 2075, the MCS-COF has been tested to the sensitivity limits defined in UL Standard 2034.

Ordering Information

Part Number	Description
MCS-COF	Advanced Multi-Criteria Fire/CO Detector **Note:** Due to the unique nature of this detector, please consult your Fire Alarm Control Panel Manufacturer for the specific model and compatibility.
Accessories:	
B200S	Addressable Sounder Base
M02-04-01	Detector Test Magnet
M02-09-01	Telescoping Test Magnet

B200S/B200S-LF Intelligent Sounder Bases

System Sensor B200S series sounder bases set a new standard for performance, installation ease, and aesthetics.

B200S-LF B200S

B200S Series Features

- Addressability for maximum configuration flexibility
- Two volume levels (75 or 85 dBA)
- Multiple event-driven tone outputs
- Supports Continuous, ANSI Temporal 3, ANSI Temporal 4, and March Time tones
- Custom tone capability with some FACP models
- Ability to synchronize with other System Sensor notification devices
- UL 268 and UL 464 compliant
- Pre-wire mounting plate fits various junction box sizes
- Mechanical locking feature prevents removal of attached sensor head
- Additional terminal connections on Canadian model (B200SA) enable silence feature
- 520 Hz +/– 10% square wave tone (B200S-LF)

Agency Listings

LISTED
S911

FM APPROVED
3035027

B200S: 7135-1653:0213
B200S-LF: 7300-1653:0238

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

The sounder base "listens in" to the communication between the attached sensor head and the fire alarm control panel (FACP) to adopt the same address as the detector, but as a unique device type on the loop. The FACP can then use that address to command an individual sounder — or a group of sounders — to activate. The command set from the panel can be tailored to the specific event, allowing selection of volume, tone, and group. In addition, some FACPs will enable custom tone patterns.†

The B200S series sounder bases recognize the System Sensor synchronization protocol. This enables it to be used as a component of the general evacuation signal — along with other System Sensor horns, horn strobes, and chimes — when connected to a power supply or FACP output capable of generating the System Sensor synchronization pulses.

The B200S series offers several key advantages. The sounder base employs a separate mounting plate that installs on various junction box sizes to eliminate unsightly surface-mount boxes. The mounting plate enables pre-wiring of all connections to speed and simplify installation. The housing also locks with the mounting plate using two retaining screws, for added tamper resistance.

The B200S-LF ow frequency sounder base is designed to meet the NFPA 72 sleeping space requirement to produce a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent. Studies show that a lower frequency, centered around 520 Hz, is the most ideal to awaken sleeping occupants, even those with mild to severe hearing loss.

†Refer to the appropriate FACP manual for more information.

Physical Specifications	
Base Diameter	6.875″(17.46 cm)
Base Height	2.0″(5.08 cm) less sensor
Shipping Weight	**B200S**: 0.50 lb. (227 gm); **B200S-LF**: 0.60 lb. (272 gm)
Operating Temperature Range	Refer to applicable sensor Operating Temperature Range using the Base/Sensor Cross Reference Chart at systemsensor.com
Operating Humidity Range	10% to 93% relative humidity (non-condensing)
Electrical Specifications: B200S	
External Supply Voltage	16 to 33 VDC (VFWR)
External Supply Standby Current	500 µA maximum
Alarm Current	35 mA maximum at high-volume setting; 15 mA maximum at low-volume setting
SLC Operating Voltage	15 to 32 VDC
SLC Standby Current	300 µA maximum (base only, refer to applicable sensor specification)
Electrical Specifications: B200S-LF	
External Supply Voltage	16 to 33 VDC (VFWR)
External Supply Standby Current	550 µA maximum
Alarm Current	High volume setting: 70 mA maximum @ 33.0 VDC 90 mA maximum @ 24.0 VDC 140 mA maximum @16.0 VDC Low volume setting: 15 mA maximum @ 33.0 VDC 20 mA maximum @ 24.0 VDC 25 mA maximum @ 16.0 VDC
SLC Operating Voltage	15 to 32 VDC
SLC Standby Current	300 µA maximum (base only, refer to applicable sensor specification)
Sound Output	
High Volume	Greater than 85 dBA minimum – measured in a UL reverberant room at 10 ft. 24 Volts (in continuous tone)
Low Volume	Greater than 75 dBA minimum – measured in a UL reverberant room at 10 ft. 24 Volts (in continuous tone)

SYSTEM SENSOR®

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SPDS53602 • 02/15

Gamewell FCI FIRE CONTROL INSTRUMENTS

by Honeywell

MS-7AF, MS-7 and MS-7S

Description

The Gamewell-FCI MS-7 Style manual fire alarm stations are available in a wide variety of configurations. The Stations comply with the Americans with Disabilities Act (ADA) 5-lb. maximum pull force requirement. Operating instructions and Braille text are engraved in the handle. All stations have a key lock/reset which is keyed alike with Gamewell-FCI fire alarm control panels and other manual fire alarm stations.

MS-7AF Velociti Addressable Station

The MS-7AF Velociti® Series addressable station is a double action station designed for installation in the signaling line circuit of Gamewell-FCI analog addressable control panels. Activation of the station causes its assigned address to register at the control panel. The door contains an LED which flashes green in normal condition and lights steady red when the station has been activated.* The station features screw terminals.

MS-7ASF Velociti Addressable Station

The MS-7ASF Velociti® Series addressable station is a single action station designed for installation in the signaling line circuit of Gamewell-FCI analog addressable control panels. Activation of the station causes its assigned address to register at the control panel. The door contains an LED which flashes green in normal condition and lights steady red when the station has been activated.* The station features screw terminals.

The Velociti® Series stations use a communication protocol that substantially increases the speed of communication between the sensors and certain Gamewell-FCI analog addressable fire alarm controls. These devices operate in a grouped fashion. If one of the devices in the group has a status change, the panel's microprocessor stops the group poll and focuses on the single device. The net effect is response speed up to five times greater than earlier designs.

MS-7 Double Action Station

The MS-7 double action station is used with conventional-fire alarm control panels. It features a set of single pole contacts and screw terminals for connection to an initiating circuit.

Velociti® is a registered trademark of Honeywell International Inc.

UL® is a registered trademark of Underwriter's Laboratories Inc.

LEXAN® is a registered trademark of GE Plastics, a subsidiary of General Electric Company.

Non-Coded, Manual Fire Alarm Stations

MS-7

Features

- Addressable stations compatible with all Gamewell-FCI analog addressable fire alarm controls
- Conventional stations suitable for use with any UL® Listed control panel
- Both single and double action stations available
- Tumbler lock for test and reset keyed alike with Gamewell-FCI controls
- Surface or semi-flush mounting
- Shock and vibration resistant
- Stations (MS-7LOB) Listed for outdoor applications
- Complies with ADA pull force requirements

Only the red LED is operative in panels that do not operate in Velociti mode.

An ISO 9001-2000 Company

SIGNALING UL LISTED S2465 · FM APPROVED 3023594 · MEA Approved 67-02-E Vol.VIII · 07150-0694:261

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MS-7S Single Action Station

The MS-7S single action station is used with conventional fire alarm control panels. It features a set of single pole contacts and wire leads for connection to an initiating circuit.

MS-7SP Double Action Station

The MS-7SP is a double action station similar to the MS-7 station, with the additional feature of both English and Spanish instructions molded into the unit.

MS-7LOB Double Action Station (Listed for Outdoor Applications)

The MS-7LOB station must be mounted on a Model SB-I/O backbox. In retrofit applications, the station is UL Listed for use with the WP-10 backbox. It is intended for use with conventional control panels and has a set of single pole contacts and screw terminals.

Mounting

The MS-7 interior stations may be surface mounted (use backbox SB-I/0) or semi-flush mounted on a standard double-gang, or 4-inch (10.2 cm) square electrical box. An optional trim ring (BG-TR) may also be used for semi-flush mounting.

NYC-Plate

The NYC-Plate provides the backplate for the manual pull station. (See Figure 1).

Figure 1 NYC-Plate

Specifications

Material:	Lexan®
Contact Ratings:	0.25 amps. @ 30 VAC/VDC (resistive)
Dimensions:	5 5/8" H x 4 1/4" W x 1 1/4" D (14 x 10.1 x 3.2 cm)
Operating Temperature (MS-7AF):	32° to 120° F (0° to 49° C)
Relative Humidity (MS-7AF):	10 to 93% (non-condensing)
Alarm Current:	.0030 amp. 0.007 for LED
Supervisory Current (MS-7AF):	.00030 amps.

Ordering Information

Model	Description
MS-7	Double action station.
MS-7AF**	Velociti addressable double action station.
MS-7ASF	Velociti addressable single action station
MS-7S	Single action station, wire leads.
MS-7SP	Double action station, English and Spanish instructions.
MS-7LOB	Double action station, outdoor use. (Must use SB-I/O - Indoor/ outdoor use backbox).
SB-I/O	Indoor/outdoor use backback-box.
SB-10	Surface backbox.
BG-TR.	Trim ring for semi-flush mount
NYC-Plate	NYC backplate for manual pull station

**For use with Gamewell-FCI analog addressable control panels only.

SYSTEM SENSOR®

Indoor Selectable-Output Strobes and Horn Strobes for Ceiling Applications

SpectrAlert® Advance audible visible notification products are rich with features guaranteed to cut installation times and maximize profits.

SPECTRAlert® ADVANCE from System Sensor

Features

- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Field-selectable candela settings on ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and three volume selections
- Universal mounting plate for ceiling units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically Compatible with legacy SpectrAlert devices
- Compatible with MDL sync module
- Listed for ceiling or wall mounting

The SpectrAlert Advance series offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry. With white and red plastic housings, wall and ceiling mounting options, and plain and FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement.

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

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

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

Agency Listings

SIGNALING UL LISTED
S4011 (chimes, horn strobes, horns)
S5512 (strobes)

FM APPROVED
3023572

MEA approved
MEA452-05-E

7125-1653:186 (indoor strobes)
7125-1653:188 (horn strobes, chime strobes)
7135-1653:189 (horns, chimes)

SpectrAlert Advance Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance strobes and horn strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 17/8-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with theSync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

Strobe

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

Horn Strobe Combination

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

Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 411/16 × 411/16 × 21/8-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications	
Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Ceiling-Mount Dimensions (including lens)	6.8˝ diameter × 2.5˝ high (173 mm diameter × 64 mm high)
Ceiling-Mount Back Box Skirt Dimensions (BBSC-2, BBSCW-2)	7.1˝ diameter × 2.2˝ high (180 mm diameter × 57 mm high)
Ceiling-Mount Trim Ring Dimensions (sold as a 5 pack) (TRC-HS, TRCW-HS)	6.9˝ diameter × 0.35˝ high (175 mm diameter × 9 mm high)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
	Candela	DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)

	8–17.5 Volts		16–33 Volts						
DC Input	**15**	**15/75**	**15**	**15/75**	**30**	**75**	**95**	**110**	**115**
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-Temporal High	141	152	91	100	116	176	201	221	229
Non-Temporal Medium	133	145	75	85	102	163	187	207	216
Non-Temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-Temporal High	142	161	103	112	126	181	203	221	229
Non-Temporal Medium	134	155	85	95	110	166	189	208	216
Non-Temporal Low	132	154	80	90	105	161	184	202	211

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)

	16–33 Volts					16–33 Volts			
DC Input	**135**	**150**	**177**	**185**	**FWR Input**	**135**	**150**	**177**	**185**
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-Temporal High	255	270	303	309	Non-Temporal High	233	248	275	281
Non-Temporal Medium	242	259	293	299	Non-Temporal Medium	219	232	262	267
Non-Temporal Low	238	254	291	295	Non-Temporal Low	214	229	256	262

Horn Strobe Tones and Sound Output Data

Horn Strobe Output (dBA)

			8–17.5 Volts		16–33 Volts		24-Volt Nominal			
							Reverberant		Anechoic	
Switch Position	**Sound Pattern**	**dB**	**DC**	**FWR**	**DC**	**FWR**	**DC**	**FWR**	**DC**	**FWR**
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98
6	Non-Temporal	Low	75	75	81	81	88	84	96	92
7†	Coded	High	82	82	88	88	93	92	101	101
8†	Coded	Medium	78	78	85	85	90	90	97	98
9†	Coded	Low	75	75	81	81	88	85	96	92

†Settings 7, 8, and 9 are not available on 2-wire horn strobes.

AVDS00501

SpectrAlert Advance Dimensions

Ceiling-mount horn strobes

Ceiling back box skirt

SpectrAlert Advance Ordering Information

Model	Description
Ceiling Horn Strobes	
PC2R*	2-Wire Horn Strobe, Standard cd, Red
PC2RH	2-Wire Horn Strobe, High cd, Red
PC2W*†	2-Wire Horn Strobe, Standard cd, White
PC2WH*	2-Wire Horn Strobe, High cd, White
PC4R	4-Wire Horn Strobe, Standard cd, Red
PC4RH	4-Wire Horn Strobe, High cd, Red
PC4W	4-Wire Horn Strobe, Standard cd, White

Model	Description
Ceiling Strobes	
SCR	Strobe, Standard cd, Red
SCRH	Strobe, High cd, Red
SCW*	Strobe, Standard cd, White
SCWH	Strobe, High cd, White
Accessories	
BBSC-2	Back Box Skirt, Ceiling, Red
	Back Box Skirt, Ceiling, White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

Notes:

* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2R-P.

† Add "-SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP.

‡ "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings.

SYSTEM SENSOR®

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AVDS00501 • 3/12

SpectrAlert® Advance

Selectable Output Notification Appliances

Gamewell FCI FIRE CONTROL INSTRUMENTS by Honeywell

Audio/Visual Devices

General

SpectrAlert Advance selectable-output horns, strobes and horn/strobes are rich with features guaranteed to cut installation times and maximize profits. The SpectrAlert Advance series of notification appliances is designed to simplify your installations, with features such as: plug-in designs, instant feedback messages to ensure correct installation of individual devices, and eleven field-selectable candela settings for wall and ceiling strobes and horn/strobes.

More specifically, when installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon, or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Then, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe, or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

SpectrAlert Advance products allow you to choose:

- 12 or 24 volts.
- At 24 volts, 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, or 185 candela by way of rear-mounted slide switch and front viewing window.
- Horn tones and volume by way of rotary switch.

The SpectrAlert Advance series includes outdoor notification appliances. Outdoor strobes and horn/strobes (two-wire and four-wire) are available for wall or ceiling. Outdoor horns are available for wall only. All System Sensor outdoor products are rated between –40°F and 151°F (–40°C and 66°C) in wet or dry applications.

Models available:

- Indoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Indoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.

7087pho1.jpg

Indoor Ceiling Horn/Strobe

7087pho2.jpg

Outdoor Ceiling Strobe

7087pho3.jpg

Indoor Wall Horn/Strobe

7087pho4.jpg

Indoor Ceiling Strobe

7087pho5.jpg

Indoor Wall Horn

7087pho6.jpg

Outdoor Wall Strobe

Features

- Plug-in design.
- Same mounting plate for wall- and ceiling-mount units.
- Shorting spring on mounting plate for continuity check before installation.
- Captive mounting screw.
- Tamper-resistance capability.
- Field-selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.
- Automatic selection of 12 or 24 volt operation at 15 and 15/75 candela.
- Outdoor wall and ceiling products.
- Outdoor products rated from –40°F and 151°F (–40°C and 66°C).
- Minimal intrusion into the backbox.
- Horn rated at 88+ dbA at 16 volts.
- Rotary switch for tone selection.
- Three horn volume settings.
- Electrically compatible with existing SpectrAlert products.

Engineering Specifications

SpectrAlert Advance horns, strobes, and horn/strobes shall mount to a standard 4.0" x 4.0" x 1.5" (10.16 x 10.16 x 3.81 cm) backbox, 4.0" (10.16 cm) octagonal backbox, or a double-gang backbox. Two-wire products shall also mount to a single-gang 2.0" x 4.0" x 1.875" (5.08 x 10.16 x 4.763 cm) backbox. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32°F and 120°F (0°C and 49°C) from a

regulated DC, or full-wave-rectified, unfiltered power supply. Strobes and horn/strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.

STROBE

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

HORN/STROBE COMBINATION

The horn/strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn/strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a Temporal 3 pattern and a Non-Temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn/strobe models shall operate on a coded or non-coded power supply.

OUTDOOR PRODUCTS

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by UL and shall operate between –40°F and 151°F (–40°C and 66°C). The products shall be listed for use with a System Sensor outdoor/weatherproof backbox with half-inch and three-fourths-inch conduit entries.

SYNCHRONIZATION MODULE

The module shall be a System Sensor Sync•Circuit _____ listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at Temporal 3. Also, while operating the strobes, the module shall silence the horns on horn/strobe models over a single pair of wires. The module shall mount to a 4.688" x 4.688" x 2.125" (11.906 x 11.906 x 5.398 cm) backbox. The module shall also control two Style Y (class B) circuits or one Style Z (Class A) circuit. The module shall synchronize multiple zones. Daisy-chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Operating Specifications

Standard operating temperature: 32°F to 120°F (0°C to 49°C).

K Series operating temperature: –40°F and 151°F (–40°C and 66°C).

Humidity range: 10% to 93% non-condensing (indoor products).

Strobe flash rate: 1 flash per second.

Nominal voltage: regulated 12 VDC/FWR or regulated 24 VDC/FWR. ***NOTE:*** *Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.*

Operating voltage range: 8 V to 17.5 V (12 V nominal); or 16 V to 33 V (24 V nominal). ***NOTE:*** *P, S, PC, and SC products will operate at 12 V nominal only for 15 cd and 15/75 cd.*

Input terminal wire gauge: 12 to 18 AWG (3.31 to 0.821 mm²).

Ceiling-mount dimensions (including lens): 6.8" diameter x 2.5" deep (17.3 cm diameter x 6.4 cm deep).

Wall-mount dimensions (including lens): 5.6" H x 4.7" W x 2.5" D (14.2 cm H x 11.9 cm W x 6.4 cm D).

Horn dimensions: 5.6" H x 4.7" W x 1.3" D (14.2 cm H x 11.9 cm W x 3.3 cm D).

Agency Listings and Approvals

The listings and approvals below apply to SpectrAlert Advance Selectable Output Notification Devices. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL** Listed: file _____.

Strobe Current Draw, UL Maximum (mA RMS)

Candela		8 – 17.5 V		16 – 33 V	
		DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	N/A	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

Horn Current Draw, UL Maximum (mA RMS)

Sound Pattern	dB	8 – 17.5 V		16 – 33 V	
		DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-temporal	High	57	56	69	75
Non-temporal	Medium	42	50	60	69
Non-temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

Horn and Horn/Strobe
Rotary Switch Setting)

Setting	Repetition Rate	dB Level
1	Temporal horn	High
2	Temporal horn	Medium
3	Temporal horn	Low
4	Normal horn	High
5	Normal horn	Medium
6	Normal horn	Low
7*	Externally coded	High
8*	Externally coded	Medium
9*	Externally coded	Low

***NOTE:** Settings 7, 8, and 9 are not available on 2-wire horn/strobe.*

Horn and Horn/Strobe Output (dBA)

Switch Position	Sound Pattern	dB	8 – 17.5 V		16 – 33 V	
			DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84
2	Temporal	Medium	74	74	80	80
3	Temporal	Low	71	73	76	76
4	Non-temporal	High	82	82	88	88
5	Non-temporal	Medium	78	78	85	85
6	Non-temporal	Low	75	75	81	81
7*	Coded	High	82	82	88	88
8*	Coded	Medium	78	78	85	85
9*	Coded	Low	75	75	81	81

***NOTE:** Settings 7, 8, and 9 are not available on 2-wire horn/strobe.*

Two-Wire Horn/Strobe, *STANDARD* Candela Range (15 – 115 cd),
UL Maximum Current Draw (mA RMS)

Input, Sound Pattern, dB Level	8 – 17.5 V		16 – 33 V						
	15	15/75	15	15/75	30	75	95	110	115
DC Input, Temporal, High	137	147	79	90	107	176	194	212	218
DC Input, Temporal, Medium	132	144	69	80	97	157	182	201	210
DC Input, Temporal, Low	132	143	66	77	93	154	179	198	207
DC Input, Non-temporal, High	141	152	91	100	116	176	201	221	229
DC Input, Non-temporal, Medium	133	145	75	85	102	163	187	207	216
DC Input, Non-temporal, Low	131	144	68	79	96	156	182	201	210
FWR Input, Temporal, High	136	155	88	97	112	168	190	210	218
FWR Input, Temporal, Medium	129	152	78	88	103	160	184	202	206
FWR Input, Temporal, Low	129	151	76	86	101	160	184	194	201
FWR Input, Non-temporal, High	142	161	103	112	126	181	203	221	229
FWR Input, Non-temporal, Medium	134	155	85	95	110	166	189	208	216
FWR Input, Non-temporal, Low	132	154	80	90	105	161	184	202	211

Two-Wire Horn/Strobe, *HIGH* Candela Range (135 – 185 cd),
UL Maximum Current Draw (mA RMS)

DC Input	16 – 33 V				FWR Input	16 – 33 V			
	135	150	177	185		135	150	177	185
DC, Temporal, High	245	259	290	297	FWR, Temporal, High	215	231	258	265
DC, Temporal, Medium	235	253	288	297	FWR, Temporal, Medium	209	224	250	258
DC, Temporal, Low	232	251	282	292	FWR, Temporal, Low	207	221	248	256
DC, Non-temporal, High	255	270	303	309	FWR, Non-temporal, High	233	248	275	281
DC, Non-temporal, Medium	242	259	293	299	FWR, Non-temporal, Medium	219	232	262	267
DC, Non-temporal, Low	238	254	291	295	FWR, Non-temporal, Low	214	229	256	262

Ordering Information

Model	Description	Model	Description
WALL HORN/STROBES		***CEILING HORN/STROBES***	
P2R	2-wire horn/strobe, standard cd, red.	**PC2R**	2-wire horn/strobe, standard cd, red.
P2RH	2-wire horn/strobe, high cd, red.	**PC2RH**	2-wire horn/strobe, high cd, red.
P2RK	2-wire horn/strobe, standard cd, red, outdoor.	**PC2RK**	2-wire horn/strobe, standard cd, red, outdoor.
P2RHK	2-wire horn/strobe, high cd, red, outdoor.	**PC2RHK**	2-wire horn/strobe, high cd, red, outdoor.
P2W	2-wire horn/strobe, standard cd, white.	**PC2W**	2-wire horn/strobe, standard cd, white.
P2WH	2-wire horn/strobe, high cd, white.	**PC2WH**	2-wire horn/strobe, high cd, white.
P4R	4-wire horn/strobe, standard cd, red.	**PC4R**	4-wire horn/strobe, standard cd, red.
P4RH	4-wire horn/strobe, high cd, red.	**PC4RH**	4-wire horn/strobe, high cd, red.
P4RK	4-wire horn/strobe, standard cd, red, outdoor.	**PC4RK**	4-wire horn/strobe, standard cd, red, outdoor.
P4RHK	4-wire horn/strobe, high cd, red, outdoor.	**PC4RHK**	4-wire horn/strobe, high cd, red, outdoor.
P4W	4-wire horn/strobe, standard cd, white.	**PC4W**	4-wire horn/strobe, standard cd, white.
P4WH	4-wire horn/strobe, high cd, white.	**PC4WH**	4-wire horn/strobe, high cd, white.
WALL STROBES		***CEILING STROBES***	
SR	Strobe, standard cd, red.	**SCR**	Strobe, standard cd, red.
SRH	Strobe, high cd, red.	**SCRH**	Strobe, high cd, red.
SRK	Strobe, standard cd, red, outdoor.	**SCRK**	Strobe, standard cd, red, outdoor.
SRHK	Strobe, high cd, red, outdoor.	**SCRHK**	Strobe, high cd, red, outdoor.
SW	Strobe, standard cd, white.	**SCW**	Strobe, standard cd, white.
SWH	Strobe, high cd, white.	**SCWH**	Strobe, high cd, white.
ACCESSORIES		***HORNS***	
BBS-2	Backbox skirt, wall, red.	**HR**	Horn, red.
BBSW-2	Backbox skirt, wall, white.	**HRK**	Horn, red, outdoor.
BBSC-2	Backbox skirt, ceiling, red.	**HW**	Horn, white.
BBSCW-2	Backbox skirt, ceiling, white.		

NOTE: *"High cd" refers to strobes that include 135, 150, 177, and 185 candela settings. "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings.*

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SYSTEM SENSOR®

Outdoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications

SPECTRAlert ADVANCE from System Sensor

SpectrAlert® Advance outdoor audible visible products are rich with features that cut installation times and maximize profits.

Features

- Weatherproof per NEMA 4X, IP56
- Listed to UL 1638 (strobe) and UL 464 (horn)
- Compatible with System Sensor synchronization protocol and legacy SpectrAlert products
- Field-selectable candela settings: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Rotary switch for horn tone and three volume selections
- Horn rated at 88+ dBA at 16 volts
- Rated from –40°F to 151°F
- Universal mounting plate with an onboard shorting spring that tests wiring continuity before devices are installed
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Listed for ceiling or wall mounting

Agency Listings

SIGNALING UL LISTED
S4011 (chimes, horn strobes, horns)
S3593 (outdoor and alert strobes)

FM APPROVED
3023572

MEA approved
MEA452-05-E

7300-1653:187 (outdoor strobes)
7125-1653:188 (horn strobes, chime strobes)
7135-1653:189 (horns, chimes)

SpectrAlert Advance offers the broadest line of outdoor horns, strobes, and horn strobes in the industry. With white or red plastic housings, wall or ceiling mounting options, and plain or FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement, including indoor, outdoor, wet, and dry applications in temperatures from –40°F to 151°F.

Like the entire SpectrAlert Advance line, outdoor horns, strobes, and horn strobes for wall applications include a variety of features that increase application flexibility and simplify installation. First, field-selectable settings, including candela, automatic selection of 12- or 24-volt operation, horn tones, and three volume options enable installers to easily adapt devices to meet requirements.

Next, SpectrAlert Advance devices use a universal mounting plate for both wall and ceiling applications. This mounting plate includes an onboard shorting spring that ensures wiring continuity before devices are installed, so installers can verify proper wiring without mounting the devices and exposing them to potential construction damage. Once the plates are mounted, all SpectrAlert Advance devices utilize a plug-in design with a single captured screw to speed installation and virtually eliminate costly ground faults.

Outdoor devices ship with weatherproof plastic back boxes (metal back boxes are available separately) that accommodate in-and-out wiring for daisy chaining devices. Plastic back boxes feature removable side flanges and improved resistance to saltwater corrosion. Knock-outs located on the back eliminate the need to drill holes for screw-in mounting. Plastic and metal weatherproof back boxes come with ¾-inch top and bottom conduit entries and ¾-inch knock-outs at the back. A screw-in NPT plug with an O-ring gasket for a watertight seal is included with each back box.

SpectrAlert Advance Outdoor Horn, Strobe, and Horn Strobe Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance outdoor horns, strobes, and horn strobes shall mount to a weatherproof back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Outdoor SpectrAlert Advance products shall operate between –40 and 151 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The strobe shall be suitable for use in wet environments.

Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options shall be set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn or horn strobe models shall operate on a coded or non-coded power supply. The horn strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The horn strobe shall be suitable for use in wet environments.

Physical/Electrical Specifications	
Operating Temperature	–40°F to 151°F (–40°C to 66°C)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimensions (including lens)	5.6˝L × 4.7˝W × 2.5˝D (142 mm L × 119 mm W × 64 mm D)
Horn Dimensions	5.6˝L × 4.7˝W × 1.3˝D (142 mm L × 119 mm W × 33 mm D)
Wall-Mount Weatherproof Back Box Dimensions (SA-WBB)	5.7˝L × 5.1˝W × 2.0˝D (145 mm L × 130 mm W × 51 mm D)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
	Candela	DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

UL Max. Horn Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
Sound Pattern	dB	DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-Temporal	High	57	56	69	75
Non-Temporal	Medium	42	50	60	69
Non-Temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)

	8–17.5 Volts		16–33 Volts						
DC Input	**15**	**15/75**	**15**	**15/75**	**30**	**75**	**95**	**110**	**115**
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-Temporal High	141	152	91	100	116	176	201	221	229
Non-Temporal Medium	133	145	75	85	102	163	187	207	216
Non-Temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-Temporal High	142	161	103	112	126	181	203	221	229
Non-Temporal Medium	134	155	85	95	110	166	189	208	216
Non-Temporal Low	132	154	80	90	105	161	184	202	211

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)

	16–33 Volts					16–33 Volts			
DC Input	**135**	**150**	**177**	**185**	**FWR Input**	**135**	**150**	**177**	**185**
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-Temporal High	255	270	303	309	Non-Temporal High	233	248	275	281
Non-Temporal Medium	242	259	293	299	Non-Temporal Medium	219	232	262	267
Non-Temporal Low	238	254	291	295	Non-Temporal Low	214	229	256	262

Candela Derating

For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

Strobe Output (cd)

Listed Candela	Candela rating at –40°F
15	Do not use below 32°F
15/75	
30	
75	44
95	70
110	110
115	115
135	135
150	150
177	177
185	185

Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)

			8–17.5 Volts		16–33 Volts		24-Volt Nominal			
							Reverberant		Anechoic	
Switch Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98
6	Non-Temporal	Low	75	75	81	81	88	84	96	92
7†	Coded	High	82	82	88	88	93	92	101	101
8†	Coded	Medium	78	78	85	85	90	90	97	98
9†	Coded	Low	75	75	81	81	88	85	96	92

†Settings 7, 8, and 9 are not available on 2-wire horn strobe.

AVDS01201

SpectrAlert Advance Diagrams

Wall-Mount Horn Strobes

Wall Plastic Weatherproof Back Box

Wall-Mount Horn Strobe with Plastic Weatherproof Back Box

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn Strobes	
P2RK*†	2-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P2RHK*†	2-Wire Horn Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
P2WK*†	2-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2WHK*†	2-Wire Horn Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
P4RK†	4-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P4WK	4-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2RHK-120	2-Wire Horn Strobe, High cd, Red, Outdoor, 120 V (includes plastic weatherproof back box)
Wall Strobes	
SRK*†	Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
SRHK*†	Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
SWK*†	Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
SWHK*†	Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
Horns	
HRK†	Horn, Red, Outdoor (includes plastic weatherproof back box)
Accessories	
SA-WBB	Red, Metal Weatherproof Back Box
SA-WBBW	White, Metal Weatherproof Back Box

Notes:

* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2RK-P.

† Add "-R" to model number for weatherproof replacement device (no back box included), only for use with weatherproof outdoor flush mounting plate, WTP and WTPW. "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings. **When replacing standard outdoor units both the device and back box must be replaced.**

SYSTEM SENSOR®

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NP SERIES - **NP18-12**

Data Sheet

Reliability is your Security

Utilizing the latest advance design Oxygen Recombination Technology, Yuasa have applied their 80 years experience in the lead acid battery field to produce the optimum design of Sealed Lead Acid batteries.

FEATURES

- Superb recovery from deep discharge.
- Electrolyte suspension system.
- Gas Recombination.
- Multipurpose: Float or Cyclic use.
- Usable in any orientation.
- Superior energy density.
- Lead calcium grids for extended life.
- Manufactured World wide.
- Application specific designs.

Technical Features

Sealed Construction

Yuasa's unique construction and sealing technique ensures no electrolyte leakage from case or terminals.

Electrolyte Suspension System

All NP batteries utilize Yuasa's unique electrolyte suspension system incorporating a microfine glass mat to retain the maximum amount of electrolyte in the cells. The electrolyte is retained in the separator material and there is no free electrolyte to escape from the cells. No gels or other contaminants are added.

Control of Gas Generation

The design of Yuasa's NP batteries incorporates the very latest oxygen recombination technology to effectively control the generation of gas during normal use.

Low Maintenance Operation

Due to the perfectly sealed construction and the recombination of gasses within the cell, the battery is almost maintenance free.

Terminals

NP batteries are manufactured using a range of terminals which vary in size and type. Please refer to details as shown.

Operation in any Orientation

The combination of sealed construction and Yuasa's unique electrolyte suspension system allows operation in any orientation, with no loss of performance or fear of electrolyte leakage.

Valve Regulated Design

The batteries are equipped with a simple, safe, low pressure venting system which releases excess gas and automatically reseals should there be a build up of gas within the battery due to severe overcharge. Note. On no account should the battery be charged in a sealed container.

Terminals

Bolt fastened terminal **E**

INCH	= MM
.472	12.00
.453	11.50
.433	11.00
.216	5.50
.079	2.00

Layout

General Specifications

Nominal Capacity (Ah)	NP18-12
20hr to 1.75vpc 30°C	17.2
10hr to 1.75vpc 20°C	16
5hr to 1.70vpc 20°C	14.5
1hr to 1.60vpc 20°C	10.3
Voltage	12
Energy Density (Wh.L.20hr)	94
Specific Energy (Wh.kg.20hr)	38
Int. Resistance (m.Ohms)	11
Maximum discharge (A)	112
Short Circuit current (A)	500
Dimensions (mm)	
Length	180
Width	76
Height overall	167
Weight (Kg)	6.2
Terminal	E
Layout	2
Terminal Torque Nm	-

NP SERIES - **NP18-12**

Data Sheet

Lead Calcium Grids
The heavy duty lead calcium alloy grids provide an extra margin of performance and life in both cyclic and float applications and give unparalleled recovery from deep discharge.

Long Cycle Service Life
Depending upon the average depth of discharge, over a thousand discharge/charge cycles can be expected.

Float Service Life
The expected service life is five years in float standby applications.

Separators
The use of the special separator material provides a very efficient insulation between plates preventing inter-plate short circuits and prohibiting the shedding of active materials.

Long shelf Life
The extremely low self discharge rate allows the battery to be stored for extended periods up to one year at normal ambient temperatures with no permanent loss of capacity.

Operating Temperature Range
The batteries can be used over a broad temperature range permitting considerable flexibility in system design and location.

Charge – 15°C to 50°C
Discharge – 20°C to 60°C
Storage – 20°C to 50°C (fully charged battery)

YUASA

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