

## BUILDING CLASSIFICATIONS AND CODES

OCCUPANCY GROUP: B  
USE: OFFICE  
CONSTRUCTION TYPE: II-B  
STORIES: BASEMENT + 4 FLOORS  
SPRINKLERED: FULLY SPRINKLED  
APPLICABLE CODES: 2015 IBC 2013 NFPA 72  
2015 IFC 2017 NFPA 70  
2015 IMC

## SYSTEM TYPE AND MONITORING

SYSTEM CLASSIFICATION: (NFPA 72, CHAPTER 26), REMOTE STATION  
SYSTEM TYPE: ADDRESSABLE  
WIRING CLASSIFICATION: NAC - CLASS B  
SLC - CLASS B  
COMMUNICATION RISER - CLASS B  
NOTIFICATION TYPE: TEMPORAL PATTERN  
MONITORING: THIS SYSTEM IS AND WILL CONTINUE TO BE  
MONITORED BY A REMOTE SUPERVISING  
STATION, PER NFPA 72 CHAPTER 26, SECTION 3.

## SCOPE OF WORK

PROVIDE THE FOLLOWING FIRE ALARM SYSTEM MODIFICATIONS TO  
ACCOMMODATE THE PROPOSED CONSTRUCTION FOR THE SPEC SUITE 140  
PROJECT LOCATED AT 1411 SOUTH POTOMAC STREET:

### PARTS

1. REPLACE ONE (1) OLD HORN/STROBE WITH NEW HORN/STROBE
2. REPLACE ONE (1) OLD STROBE WITH NEW HORN/STROBE
3. REPLACE ONE (1) OLD STROBE WITH NEW STROBE
4. PROVIDE AND INSTALL TWO (2) NEW HORN/STROBES
5. PROVIDE AND INSTALL FIVE (5) NEW STROBES
6. PROVIDE AND INSTALL ONE (1) NEW BOOSTER PANEL

## INDEX

FA-00	COVER PAGE SCOPE OF WORK GENERAL INFORMATION BUILDING REQUIREMENTS AND CODES
FA-01	FIRE ALARM PLAN LEGEND KEY MAP GENERAL NOTES MOUNTING HEIGHTS
FA-02	CALCULATIONS VOLT DROP BOOSTER CALCULATIONS ONE-LINE RISER DIAGRAM WIRE CODE CHART MATRIX - SEQUENCE OF OPS

# 1411 SOUTH POTOMAC STREET

## FIRE ALARM SYSTEM SHOP DRAWINGS FOR:

### PROJECT:

SPEC SUITE 140  
1411 SOUTH POTOMAC STREET  
AURORA, CO 80012

### FIRE ALARM CONTRACTOR

FIRE ALARM SERVICES, INC.  
4800 W. 60TH AVENUE  
ARVADA, CO 80003  
PH:(303)466-8800  
FAX:(303)466-8820  
CONTACT:SHANNON SMITH

### FIRE ALARM DESIGNER:

FIRE ALARM SERVICES, INC.  
4800 W. 60TH AVENUE  
ARVADA, CO 80003  
PH:(303)466-8800  
FAX:(303)466-8820  
BRITAINY COWDEN  
BRITAINYC@FASONLINE.CC



Fire Alarm Services, Inc.  
4800 W. 60th Avenue  
Arvada, CO 80003

(303)466-8800 (Phone)  
(303)466-8820 (Fax)  
contactus@fasonline.cc (E-Mail)  
www.fasonline.cc

### OWNER/GC:

EJMC, INC.  
111 KALAMATH ST.  
DENVER, CO 80223  
PH:(303)573-5678  
FAX:(303)573-5823  
TODD BUHR

### ARCHITECT

TPS TENANT PLANING SERVICES  
1660 LINCOLN ST.  
DENVER, CO 80110  
PH:(303)861-4800  
FAX:(303)861-1621



City of Aurora Building Division  
Project: **Spec Suite 140**  
Address: **1411 S POTOMAC ST**  
Occupancy Group: **IBC B**  
Construction Type: **IBC IIB**  
RSN: **1437932**  
Permit: **2020-1764572-LT**  
City of Aurora Building Division  
Reviewed for Code Compliance  
By: **William**  
Date: **February 28, 2020**  
2015 INTERNATIONAL CODES & 2017 NEC

City of Aurora  
Adopted Codes & Standards for this project:  
2015-ICC - 2017-NEC  
2013 NFPA 13 - 2013 NFPA 72  
Amendments to include Chapters 22 & 66

Provide a full size set of legible  
approved construction documents  
**PRINTED IN COLOR**  
for review by the Field Inspector.

Raymond P. Breeland  
NICET Certification #111006  
Fire Alarm Systems Level III  
Certification Expires 04/01/22

2/14/20

RPB



4800 W. 60TH AVENUE phone: 303-466-8800  
ARVADA, CO 80003 fax: 303-466-8820  
www.fasonline.cc email: contactus@fasonline.cc

NO.	DATE	REVISIONS
1	2/27/20	REVISION - 1
DATE:	2/14/20	
APPR. BY:		
DATE:		

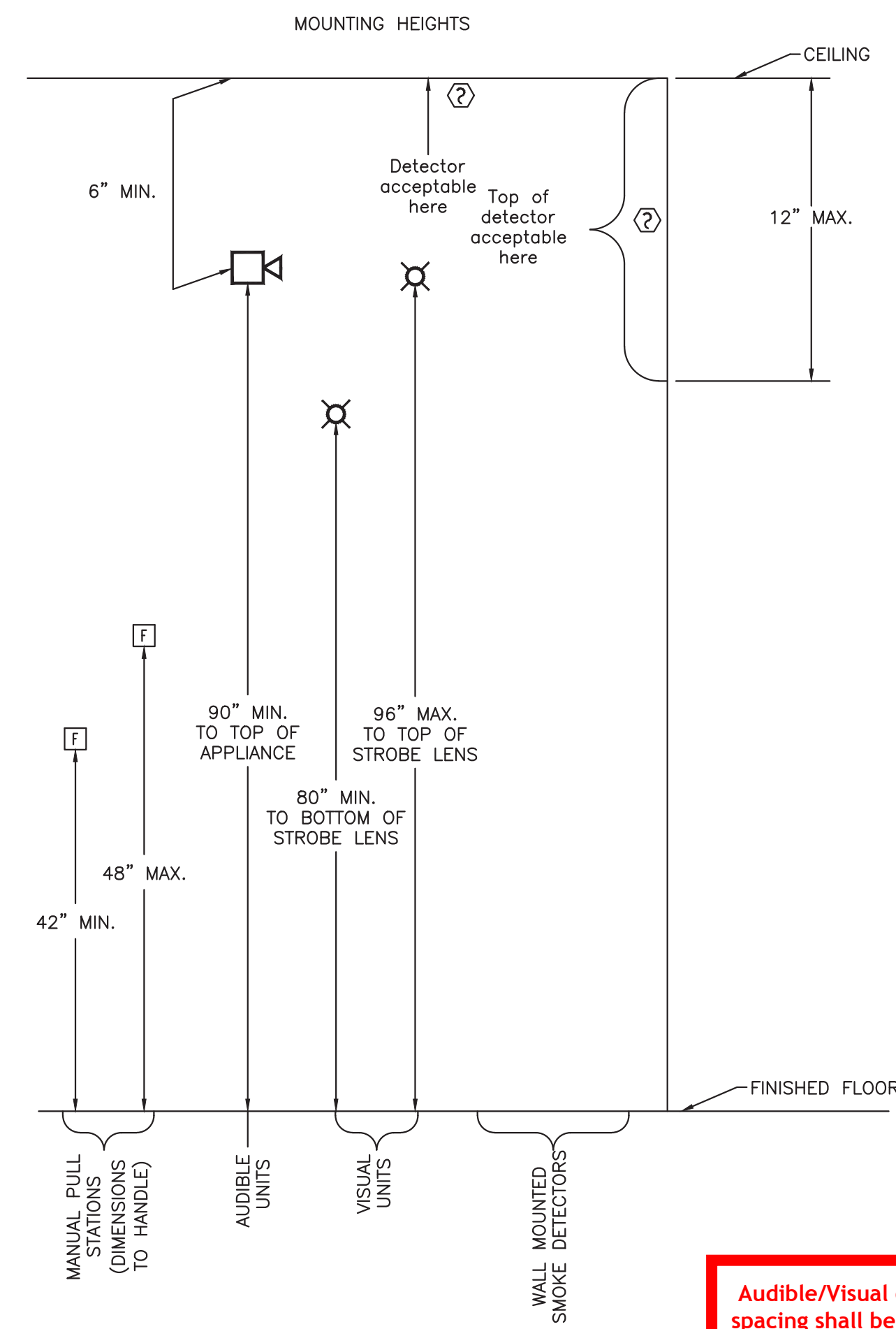
FIRE ALARM SYSTEM TENANT FINISH FOR: SPEC SUITE 140	1411 SOUTH POTOMAC STREET ARVADA, CO 80012	2014027
PROJECT TITLE	BUILDING NAME & ADDRESS	PROJECT NUMBER

FIRE ALARM & DETECTION SYSTEM DRAWING TITLE: SUITE 140 COVER PAGE	SCALE: N/A
--	------------

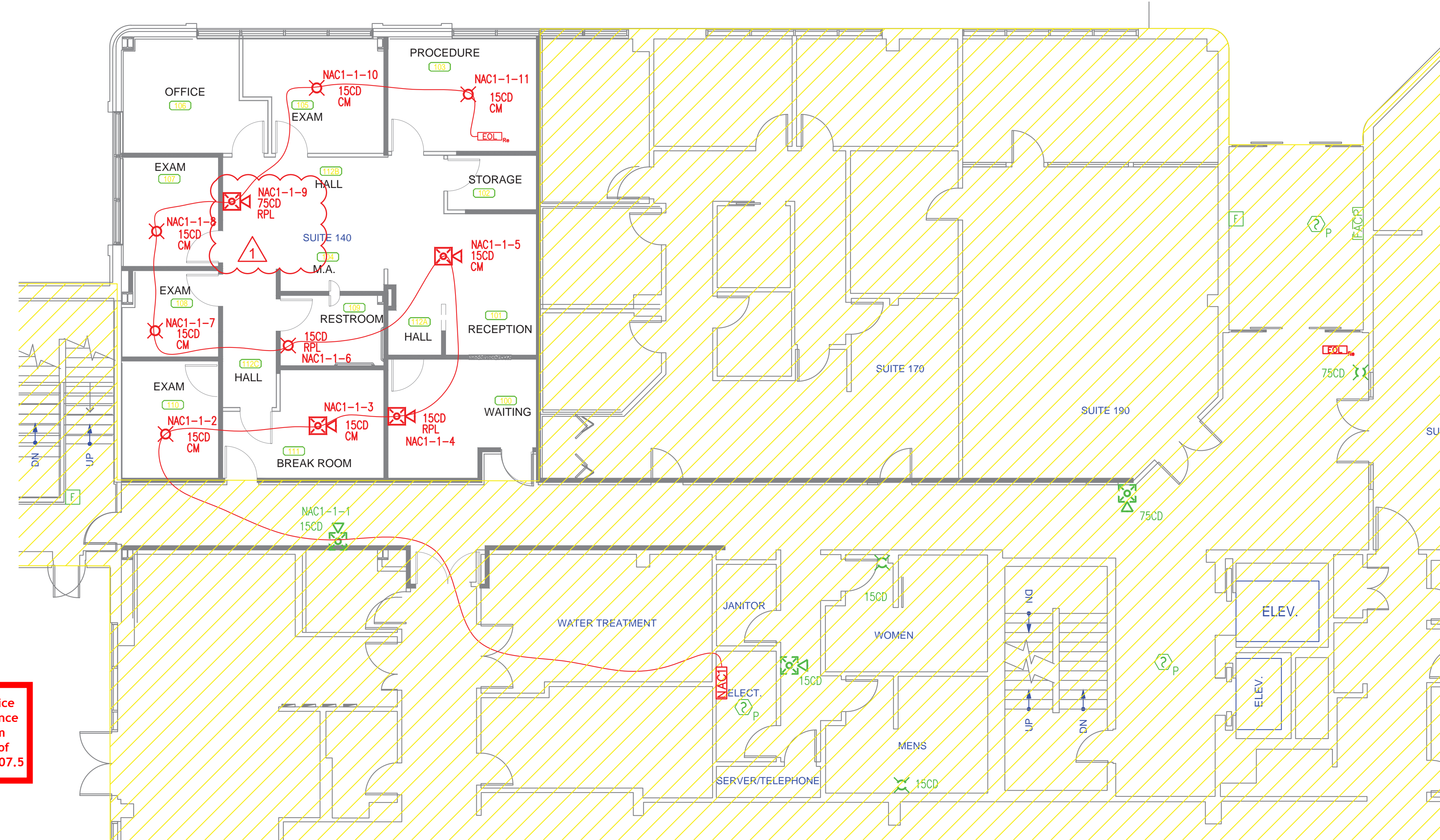
PROJECT SHEET TITLE



































FA-00





**Audible/Visual occupant notification device spacing shall be field verified for compliance in Public Use/Common Use Areas. Exam rooms and shared offices are examples of Public Use/Common Use Areas. 2015 IFC 907.5**



EXISTING	DESCRIPTION	PROPOSED
	STROBE – Wall Mount or CM = Ceiling Mount	
	SMOKE DETECTOR – x = photo, ion	
	Speaker/strobe – Wall Mount or Ceiling Mount	
	Speaker only = Wall Mount or CM = Ceiling Mount	
	Horn/strobe – Wall Mount or Ceiling Mount	
	Horn only = Wall Mount or CM = Ceiling Mount	
	REMOTE LED	
	END OF LINE RESISTOR	
	BOOSTER PANEL	
	PULL STATION	
	FIREMAN'S PHONE JACK	
	HEAT DETECTOR – x = 135, 200, ROR	
	FLOW SWITCH	
	TAMPER SWITCH	
	DUCT DETECTOR – x = photo, ion	
	MONITOR MODULE	
	MONITOR MODULE	

NOTIFICATION APPLIANCE CIRCUIT NUMBER \_\_\_\_\_

NOTIFICATION APPLIANCE PANEL NUMBER \_\_\_\_\_

**NAC1-2-3**

\_\_\_\_\_ DEVICE NUMBER

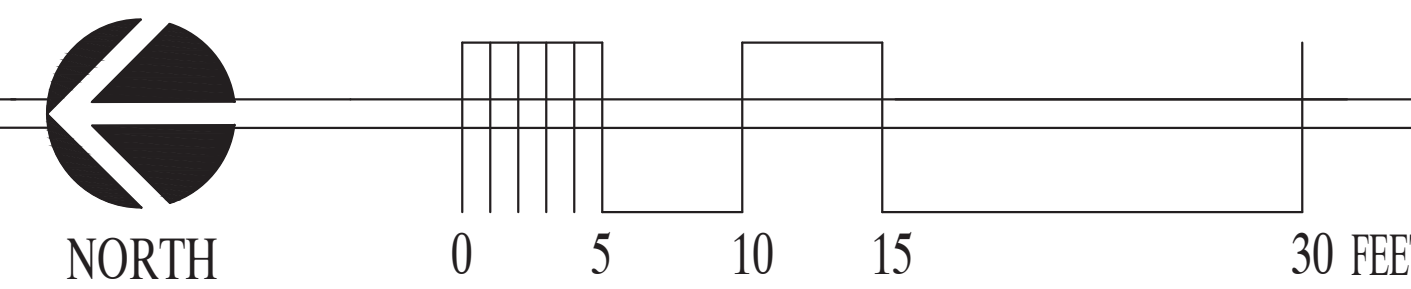
**POWER EXPANDER NUMBERING**

	SPEAKER LINE "A"	SPEAKER LINE "B"	
--	------------------	------------------	--

RL = RELOCATED DEVICES  
RR = REMOVE AND REINSTALL  
RPL = REMOVE AND REPLACE  
**J** = J-BOX

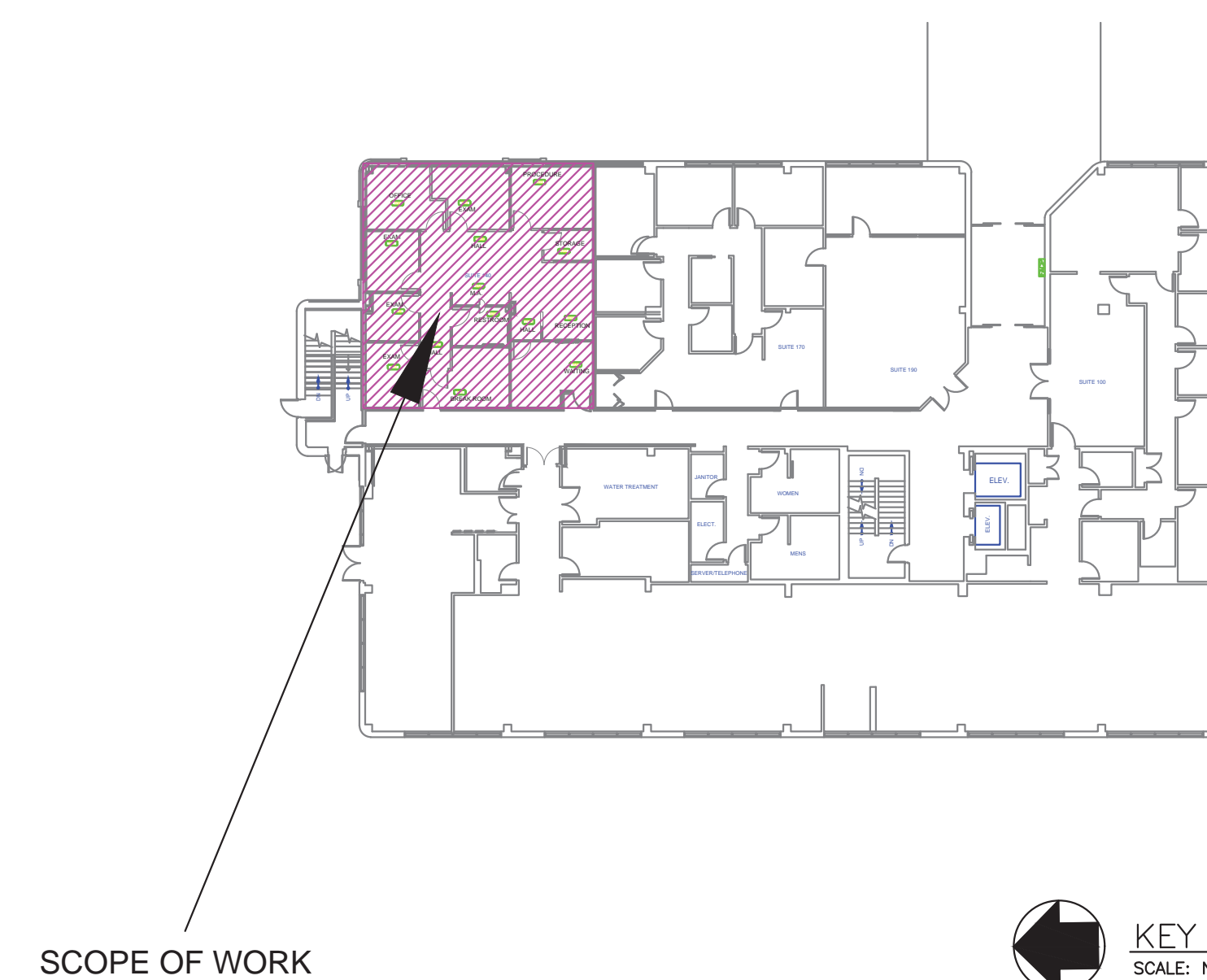
## SUITE 140 FIRE ALARM PLAN

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



GENERAL NOTES:

1. ROUGH-IN INSPECTION IS REQUIRED FOR ALL WORK ON FIRE ALARM SYSTEMS. PRIOR TO INSPECTION, DO NOT INSTALL:- DEVICES (DETECTORS, PULL STATIONS, STROBES, ETC.) - CEILING TILES OR WALLBOARD WHICH CONCEAL CABLES OR OTHER WIRING METHODS.- COVERS ON CABINETS, JUNCTION OR SPLICE BOXES, DEVICE BACKBOXES, ETC.
2. SYSTEM WIRING SHALL COMPLY WITH NATIONAL ELECTRICAL CODE. ARTICLE 760 (NEC) AND 2016 NFPA 72.
3. THE CEILING IN ALL AREAS IS A TYPICAL 9' A.F.F. DROPPED CEILING WITH NO SLOPES.
4. THERE ARE NO PENETRATIONS THROUGH FIRE RATED WALL IN THIS PROJECT



City of Aurora Building Division  
Reviewed for Code Compliance  
By: **William**  
Date: **February 28, 2020**  
2015 INTERNATIONAL CODES & 2017 NEC

Raymond P. Breeland  
NICET Certification #111006  
Fire Alarm Systems Level III  
Certification Expires 04/01/22

2/14/20

RPW



4800 W. 60TH AVENUE phone: 303-466-8800  
ARVADA, CO 80003 fax: 303-466-8820  
www.fasonline.cc email: contactus@fasonline.cc

DRAWN BY: B. COWDEN	NO.	DATE	REVISIONS
	1	2/27/20	REVISION - 1
DATE: 2/14/20			
APPR. BY:			
DATE:			

PROJECT TITLE	FIRE ALARM SYSTEM TENANT FINISH FOR: SPEC SUITE 140
BUILDING NAME & ADDRESS	1411 SOUTH POTOMAC STREET AURORA, C O 80012
PROJECT NUMBER	20114027

FIRE ALARM & DETECTION SYSTEM	DRAWING TITLE:
	SUITE 140 FIRE ALARM PLAN
SCALE: AS SHOWN	

PROJECT SHEET TITLE	FA-01
---------------------	-------





INCREMENTAL VOLTAGE DROP CALCULATIONS FOR AUDIBLE/ VISUAL CIRCUITS						Resistance: 12 Gauge 2.01	
MINIMUM UL RATED VOLTAGE: 16 VOLTS						14 Gauge 3.19	
Current shown in calculations is RMS current at 16 volts.						16 Gauge 5.08	
Circuit Number: NAC1-1							
Location: Floor 1 Booster Panel						Input Voltage = 19.7	
Notification Circuit	Current (in Amps)	Wire Distance (in Feet)	Total Distance (in feet)	Wire Size (AWG)	Resistance (Ohms)	Voltage Drop	From Baseline Voltage
Horn Strobe 15CD	0.0400	30	30	14	0.1914	0.0831	19.6169
CM Strobe 15CD	0.0350	37	67	14	0.2361	0.0930	19.5239
CM Horn Strobe 15CD	0.0500	25	92	14	0.1595	0.0573	19.4667
Horn Strobe 15CD	0.0400	17	109	14	0.1085	0.0335	19.4332
CM Horn Strobe 15CD	0.0500	27	136	14	0.1723	0.0463	19.3868
Strobe 15CD	0.0280	31	167	14	0.1978	0.0433	19.3435
CM Strobe 15CD	0.0350	24	191	14	0.1531	0.0292	19.3143
CM Strobe 15CD	0.0350	19	210	14	0.1212	0.0189	19.2953
Horn Strobe 75CD	0.0500	19	229	14	0.1212	0.0147	19.2807
CM Strobe 15CD	0.0350	29	258	14	0.1850	0.0131	19.2675
CM Strobe 15CD	0.0350	24	282	14	0.1531	0.0055	19.2620
End of Line Resistor	0.0010	0	282	14	0.0000	0.0000	19.2620
Totals:	0.434	282			1.7992	0.4380	19.2620
Total Devices:	11						

SYSTEM INPUTS

1	Manual Pull Station – Basement	X	X						X	X	X	X	X	X					X							1
2	Manual Pull Station – 1st Floor								X	X	X	X	X	X					X							2
3	Manual Pull Station – 2nd Floor			X	X				X	X	X	X	X	X					X							3
4	Manual Pull Station – 3rd Floor			X	X				X	X	X	X	X	X					X							4
5	Manual Pull Station – 4th Floor			X	X				X	X	X	X	X	X					X							5
6	Smoke Sensor – Basement Elev Machine			X	X				X	X	X	X	X	X			X	X								6
7	Smoke Sensor – 1st Floor Elev Lobby			X	X				X	X	X	X	X	X				X								7
8	Smoke Sensor – 2nd Floor Elev Lobby			X	X				X	X	X	X	X	X				X	X							8
9	Smoke Sensor – 3rd Floor Elev Lobby			X	X				X	X	X	X	X	X				X	X							9
10	Smoke Sensor – 4rd Floor Elev Lobby			X	X				X	X	X	X	X	X				X	X							10
11	Smoke Sensor – All Other Locations			X	X				X	X	X	X	X	X				X	X							11
12	Duct Smoke Sensor – 4th Floor				X	X			X											X				X		12
13	Heat Sensors – Basement Elevator Machine			X	X				X	X	X	X	X	X				X	X			X				13
14	Heat Sensors – Basement			X	X				X	X	X	X	X	X				X	X			X				14
15	Heat Sensors – 1st Floor			X	X				X	X	X	X	X	X				X				X				15
16	Heat Sensors – 2nd Floor			X	X				X	X	X	X	X	X				X				X				16
17	Heat Sensors – 3rd Floor			X	X				X	X	X	X	X	X				X	X			X				17
18	Heat Sensors – 4th Floor			X	X				X	X	X	X	X	X				X	X			X				18
19	Sprinkler Waterflow – Basement			X	X				X	X	X	X	X	X				X				X				19
20	Sprinkler Waterflow – 1st Floor			X	X				X	X	X	X	X	X				X				X		X		20
21	Sprinkler Waterflow – 2nd Floor			X	X				X	X	X	X	X	X				X				X				21
22	Sprinkler Waterflow – 3rd Floor			X	X				X	X	X	X	X	X				X				X				22
23	Sprinkler Waterflow– 4th Floor			X	X				X	X	X	X	X	X				X				X				23
24	Sprinkler Control Valve					X	X		X	X	X	X	X	X									X			24
25	FACP AC Power Failure							X	X	X					X								X			25
26	FACP Low Battery							X	X	X														X		26
27	Open Circuit							X	X	X														X		27
28	Ground Fault							X	X	X															X	28
29	Notification Appliance Circuit Short							X	X	X														X		29
30	Alarm Signal Silence														X											30

FOR: Aurora Medical Center  
1411 S. Potomac Street

PANEL: EST BPS6A

PERIPHERAL:				Device Supervisory Current	Device Alarm Current	Total Supervisory Current	Total Alarm Current
ITEM	QTY	PART NUMBER	DESCRIPTION				
1	1	EXISTING	15cd Horn/Strobe	0.000000	0.040000	0.000000	0.040000
2	1	G1RF-VM	15cd Strobe	0.000000	0.028000	0.000000	0.028000
3	2	G1RF-HDVM	15cd Horn/Strobe	0.000000	0.040000	0.000000	0.080000
4	1	G1RF-HDVM	75cd Horn/Strobe	0.000000	0.050000	0.000000	0.050000
5	5	GCF-VM	15cd Ceiling ML Strobe	0.000000	0.033500	0.000000	1.750000
6	1	GCF-HDVM	15cd Ceiling Mt. Horn/Strobe	0.000000	0.050000	0.000000	0.050000
TOTAL:						0.000000	0.430000

PERIPHERAL:

SUPERVISORY:		
PANEL:	0.070000	AMPS
PERIPHERAL:	0.000000	AMPS
SUB-TOTAL:	0.070000	AMPS
X HOURS OF SUPERVISORY:	24.0000	HOURS
SUB-TOTAL:	1.680000	AMP HOURS
ALARM:		
PANEL:	0.270000	AMPS
PERIPHERAL:	0.423000	AMPS
SUB-TOTAL:	0.693000	AMPS
X MINUTES OF ALARM:	0.08333	HOURS
SUB-TOTAL:	0.057750	AMP HOURS

City of Aurora Building Division  
Reviewed for Code Compliance  
By: **William**  
Date: **February 28, 2020**  
2015 INTERNATIONAL CODES & 2017 NEC

2/14/20

PROJECT  
SHEET  
TITLE  
FA-02





**Fire Alarm Services, Inc.**  
4800 West 60th Avenue  
Arvada, CO 80003

Permit: 2020-1764572-LT  
RSN: 1437932  
Page 4 of 20

Phone (303) 466-8800  
Fax (303) 466-8820  
contactus@fasonline.cc

**Fire Alarm System Addition at:**

Spec Suite 140  
1411 South Potomac Street, suite 140  
Aurora, CO 80012

**Scope of Work:**

Provide the following fire alarm system modification to accommodate the proposed construction for spec suite 140 project located at 1411 South Potomac Street:

1. REPLACE ONE (1) OLD HORN/STROBE WITH NEW HORN/STROBE
2. REPLACE ONE (1) OLD STROBE WITH NEW HORN/STROBE
3. REPLACE ONE (1) OLD STROBE WITH NEW STROBE
4. PROVIDE AND INSTALL TWO (2) NEW HORN/STROBES
5. PROVIDE AND INSTALL FIVE (5) NEW STROBES
6. PROVIDE AND INSTALL ONE (1) NEW BOOSTER PANEL

**Raymon P. Breeland**  
**NICET Certification # 111006**  
**Fire Alarm System Level III**  
**Certification Expires 04/01/22**

**Date** 2/14/2020

*RPB*



LIFE SAFETY &amp; INCIDENT MANAGEMENT

# Wall Mount Signaling Appliances

## Genesis LED G4 Series



### Overview

Genesis LED G4 Series horns and LED strobes feature a sleek low profile design and energy-efficient technology that makes them less expensive to install and operate by reducing overhead. High performance LEDs require fewer power supplies, backup power, and batteries. These new appliances are designed with, energy-efficiency, and life safety in mind.

Genesis LED G4 Series uses high efficiency optics, combined with patented electronics, to deliver a highly controlled and efficiently focused light distribution pattern in exchange for lower current requirements. Strobes feature field-selectable 15, 30, 75, or 110 cd light output.

Compared with Xenon-type strobes, Genesis LED G4 Series appliances need fewer power supplies and often smaller wire gauge, which lightens conduit requirements. They are also backwards compatible with legacy strobes, so there's no need to replace all your existing devices to upgrade to new LED technology. In fact, G4 strobes can be mixed on the same circuit and used in the same field of view as Xenon-based strobes. This makes Genesis LED G4 Series ideal for new installations and retrofits alike.

Field-configurable sound output levels provide the flexibility modern life safety projects demand, while the Genesis LED control protocol keeps multiple strobes on compatible NAC circuits synchronized to well within NFPA 72 requirements.

Serviceability is another area where G4 Series appliances shine. The universal room side wiring plate allows for pre-installation and electrical wiring as well as checking continuity with the included diagnostics check bar. G4 Series devices can then be easily snapped into place with the confidence of knowing the wiring is correct. The innovative under-cover diagnostic test points provide easy access to device circuit testing while mounted.

### Standard Features

- **High Performance LED Strobe Technology**
  - Ultra low device current consumption allows:
    - More devices per circuit
    - Ability to use lower gauge wire
    - Longer wire runs
    - Fewer booster power supplies
  - High efficiency optics
  - Selectable 15, 30, 75, or 110 cd light output
  - LED devices may be mixed with legacy Xenon strobes
- **Efficient Audible Output**
  - Selectable high or low dB horn output
  - Selectable temporal or steady horn output
  - Improved audio frequency range for better wall penetration
- **Low-profile Design**
  - Ultra-slim... protrudes about 1.5" from the mounting surface
  - Attractive appearance... no visible mounting screws
- **Multiple "FIRE" Marking Options**
  - Order English, French, Spanish or no FIRE markings
  - Change markings at any time with replaceable quick-swap covers
- **Easy to Install**
  - Pre-install and pre-wire with convenient universal room side wiring plate
  - Check electrical continuity on room side wiring plate with included diagnostics check bar
  - Diagnostics port streamlines device circuit testing
  - Fits 1-gang, 2-gang, 3.5-inch octagon, and 4-inch square electrical boxes
  - Optional red and white trim plates available
  - Slide switches for field configuration
  - 12 to 18 AWG in-out screw terminals for quick wiring

# Application

## Strobes

Genesis G4 Series strobes are UL 1971-listed for use indoors as wall-mounted public-mode notification appliances for the hearing impaired. Prevailing codes require strobes to be used where ambient noise conditions exceed 105 dBA (87 dBA in Canada), where occupants use hearing protection, and in areas of public accommodation as defined in the *Americans with Disabilities Act*.

Synchronization is important in order to avoid triggering seizures in people with photosensitive epilepsy. All Genesis strobes exceed UL synchronization requirements (within 10 milliseconds over a two-hour period) when used with a synchronization source. See the specifications table for a list of compatible sources.

## Horns

Genesis horn output reaches as high as 92 dBA and features an improved audio frequency range compared with other Genesis horns. This results in excellent sound penetration through walls and a clear warning of danger. Horn only models may be configured for either coded or non-coded notification appliance circuits. They can also be set for high or low dBA output. This setting reduces horn output by about 6 dBA. Horn-only models may be ceiling-mounted or wall-mounted.

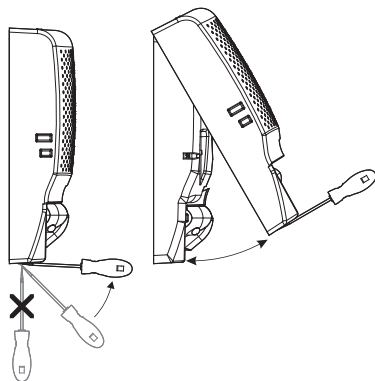
The suggested sound pressure level for each signaling zone used with alarm signals is at least 15 dBA above the average ambient sound level, or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater. These values are measured at five feet (1.5 m) above the floor. The average ambient sound level is A-weighted, fast response sound pressure measured over a 24-hour period.

Doubling the distance from the signal to the ear will theoretically result in a 6 dBA reduction of the received sound pressure level. The actual effect depends on the acoustic environment in the space. A 3 dBA difference represents a barely noticeable change in volume.

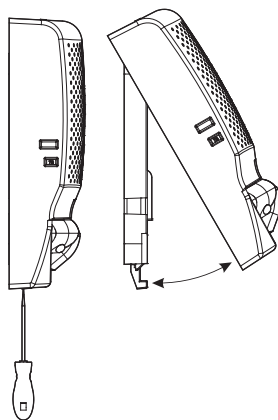
## Installation

Genesis G4 horns and strobes mount to the required GP10 room side wiring plate. The GP10 mounting plate is ordered separately from the G4 device in packs of 10 for convenient pre-installing and pre-wiring. The device can be removed easily from the room side wiring plate by pushing up with a screwdriver. The cover can also be removed from the device easily with a screwdriver to access the light and sound output settings and a diagnostics test port for voltage testing.

Removing Cover

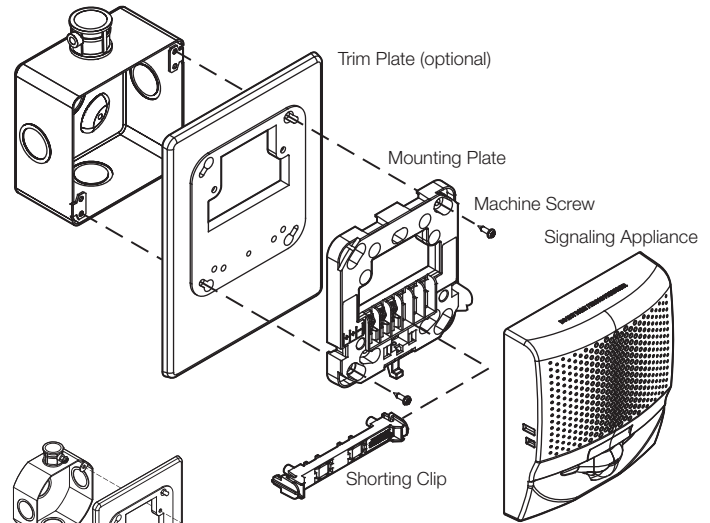


Removing Device



Genesis LED G4 Series horns, strobes, and horn-strobes mount to any standard one-gang, two-gang, 3.5-inch octagon, and 4-inch square electrical box. Matching optional G4T trim rings are available to cover oversized openings. Optional color matched double-gang surface boxes are also available.

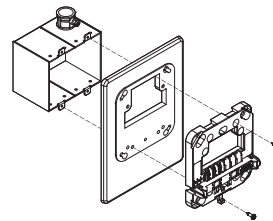
Double Gang Electrical Box



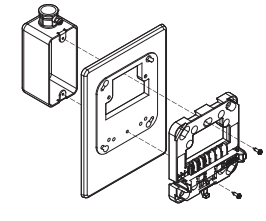
Optional Trim Plate

Using a trim plate is optional.

3.5-inch Octagon Electrical Box

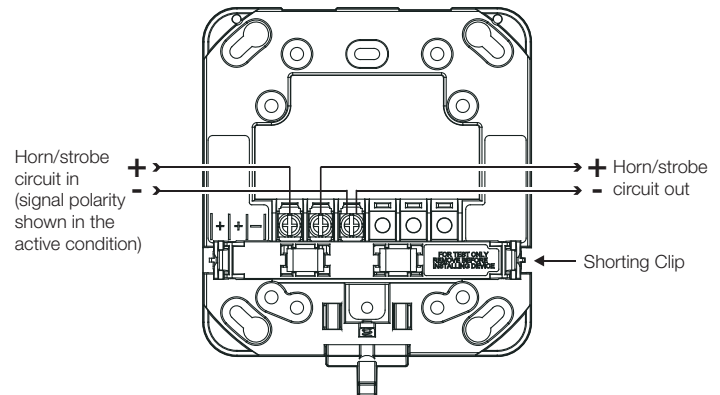


Two-gang Electrical Box



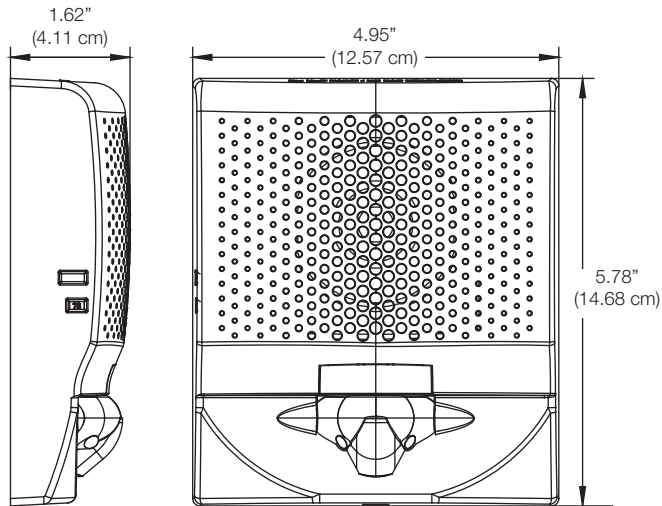
One-gang Electrical Box

## Wiring

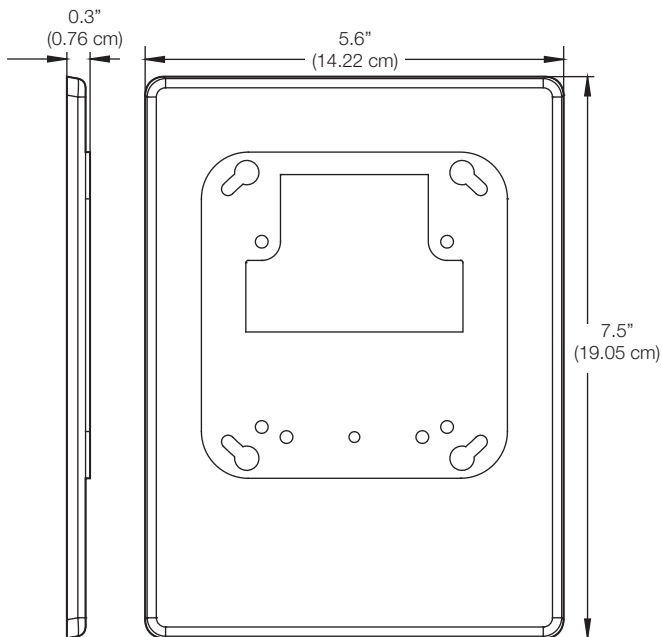


## Dimensions

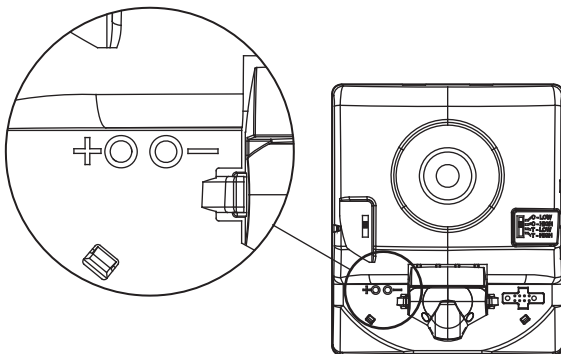
### G4 Notification Appliances



### G4T Trim Plate (optional)



## Diagnostics



Test points indicated above are used to validate the Notification Appliance Circuit and verify device function.

## Field Configuration

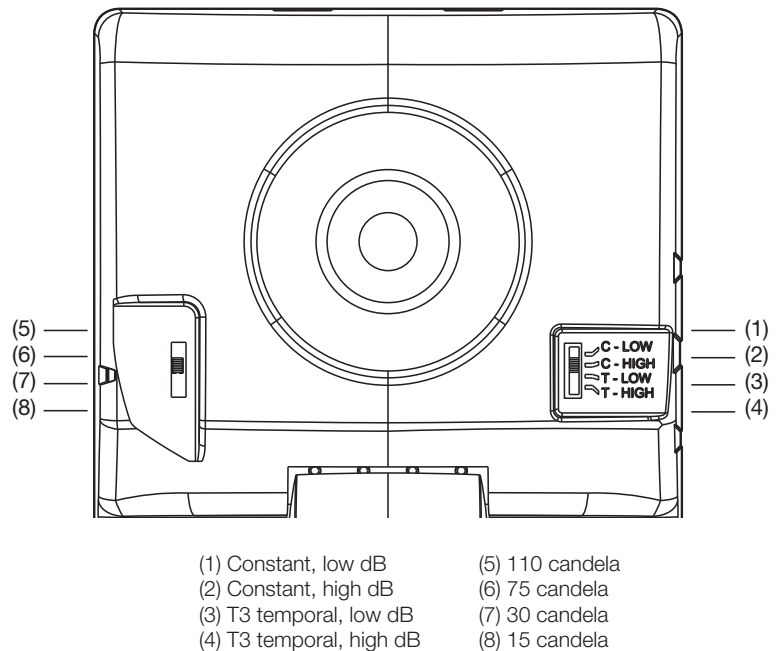
Temporal horn and horn-strobe models are factory set to sound in a three-pulse temporal pattern. By sliding the tone selector switch, horn only models may be configured for constant horn output that can be coded at precise intervals by EDWARDS control panels and control modules.

**Note:** Temporal 3 coding is the required output for fire notification devices per NFPA 72. Any device coding other than temporal 3 is at the discretion and approval of the local authority having jurisdiction (AHJ).

Horns and horn-strobes are factory set for high dB output. Low dB output may be selected by sliding the tone selector switch. This reduces the output by about 6 dBA.

Genesis LED clear strobes and horn-strobes may be set for 15, 30, 75, or 110 candela output. The output setting is changed by simply removing the cover and sliding the candela switch to the desired setting. The device does not have to be removed from the wall to change the output setting. The setting remains visible through a small window on the left-hand side of the device after the cover is closed.

### Light and Sound Output Settings



## Operating current

### Horns

Sound setting	16 to 33 VDC	16 to 33 VFWR
C-Low, T-Low	18 mA	22 mA
C-High, T-High	28 mA	38 mA

### Strobes

Strobe setting	16 to 33 VDC	16 to 33 VFWR
15, 30, 75, 110	28 mA	36 mA

### Horn-Strobes

Strobe setting	Sound setting	16 to 33 VDC	16 to 33 VFWR
15, 30, 75, 110	C-Low, T-Low	40 mA	48 mA
	C-High, T-High	50 mA	60 mA

# Sound Output

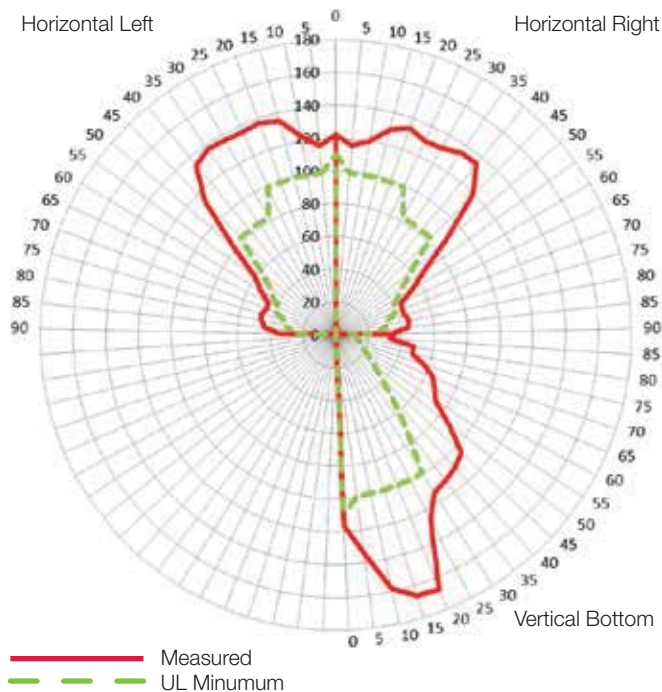
## Horn & Horn-Strobe

Sound setting	Reverberant (UL464)	Anechoic (CAN/ULC - 5925)
C-Low, T-Low	80 dBA	86 dBA
C-High, T-High	85 dBA	92 dBA

## Sound pattern (ULC)

Axis	Angle	Change in output
Horizontal	135° and 45°	-3 dBA
	150° and 30°	-6 dBA
Vertical	135° and 40°	-3 dBA
	150° and 30°	-6 dBA

# Light Distribution



# Specifications


Operating voltage	16 to 33 VDC, 16 to 33 VFWR
Horn signal type	Constant or TC3 temporal
Light output	15, 30, 75, or 110 candela
Strobe flash rate	1 fps (flash per second) approx.
Synchronization	20 $\Omega$ max. between any two devices. To determine allowed wire resistance, refer to these specifications, and the specifications for the synchronized signal source.
Synchronization Sources	Edwards CC Series Signal Modules, Booster and Auxiliary Power Supplies, Intelligent and Conventional Control Panels
Wire size	12 to 18 AWG (0.75 to 2.50 mm <sup>2</sup> )
Dimensions (WxHxD)	4.95 x 5.78 x 1.62 in (12.57 x 14.68 x 4.11 cm)
Strobe-to-box center offset	-1.70 inches (-4.32 cm)
Compatible electrical boxes [1]	1-gang, 2-gang, 3.5-inch octagon, 4-inch square
Trim plates	G4TR, G4TW (5.6 x 7.5 x 0.3 in (14.22 x 19.05 x 0.76 cm))
Operating environment	
Temperature	32 to 122°F (0 to 50°C)
Relative humidity	0 to 93% noncondensing
Storage Temperature	-40 to 158 F (-40 to 70 C)


[1] Electrical boxes must be at least 1-1/2 in. (3.81 cm) deep.







## Ordering Information



FOR REFERENCE ONLY

Notification Appliances		Color	Marking
 <b>Horns</b>	G4ARF	Red	FIRE
	G4ARF-FR	Red	FEU
	G4ARF-SP	Red	FUEGO
	G4ARN	Red	None
	G4AWF	White	FIRE
	G4AWF-FR	White	FEU
	G4AWF-SP	White	FUEGO
	G4AWN	White	None




 <b>Strobes</b>	G4VRF	Red	FIRE
	G4VRF-FR	Red	FEU
	G4VRF-SP	Red	FUEGO
	G4VRN	Red	None
	G4VWF	White	FIRE
	G4VWF-FR	White	FEU
	G4VWF-SP	White	FUEGO
	G4VWN	White	None

 <b>Horn-strobes</b>	G4AVRF	Red	FIRE
	G4AVRF-FR	Red	FEU
	G4AVRF-SP	Red	FUEGO
	G4AVRN	Red	None
	G4AVWF	White	FIRE
	G4AVWF-FR	White	FEU
	G4AVWF-SP	White	FUEGO
	G4AVWN	White	None

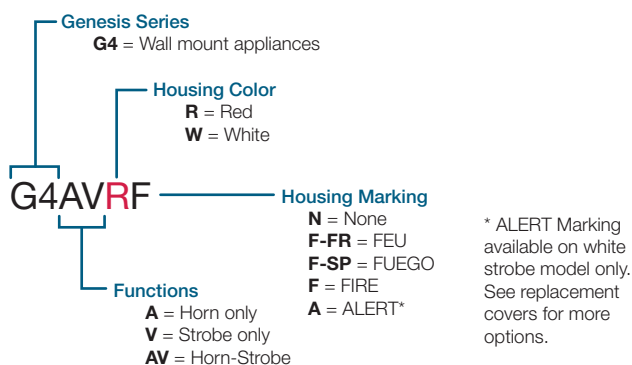
Replacement Appliance Covers		Color	Marking
 <b>Horn Covers</b>	G4ARA-CVR	Red	ALERT
	G4ARF-CVR	Red	FIRE
	G4ARF-FR-CVR	Red	FEU
	G4ARF-SP-CVR	Red	FUEGO
	G4ARN-CVR	Red	None
	G4AWA-CVR	White	ALERT
	G4AWF-CVR	White	FIRE
	G4AWF-FR-CVR	White	FEU
 <b>Strobe Covers</b>	G4VRA-CVR	Red	ALERT
	G4VRF-CVR	Red	FIRE
	G4VRF-FR-CVR	Red	FEU
	G4VRF-SP-CVR	Red	FUEGO
	G4VRN-CVR	Red	None
	G4VWA-CVR	White	ALERT
	G4VWF-CVR	White	FIRE
	G4VWF-FR-CVR	White	FEU
 <b>Horn-strobe Covers</b>	G4AVRA-CVR	Red	ALERT
	G4AVRF-CVR	Red	FIRE
	G4AVRF-FR-CVR	Red	FEU
	G4AVRF-SP-CVR	Red	FUEGO
	G4AVRN-CVR	Red	None
	G4AWA-CVR	White	ALERT
	G4AVWF-CVR	White	FIRE
	G4AVWF-FR-CVR	White	FEU

 <b>Strobe Covers</b>	G4VRA-CVR	Red	ALERT
	G4VRF-CVR	Red	FIRE
	G4VRF-FR-CVR	Red	FEU
	G4VRF-SP-CVR	Red	FUEGO
	G4VRN-CVR	Red	None
	G4VWA-CVR	White	ALERT
	G4VWF-CVR	White	FIRE
	G4VWF-FR-CVR	White	FEU
 <b>Horn-strobe Covers</b>	G4AVRA-CVR	Red	ALERT
	G4AVRF-CVR	Red	FIRE
	G4AVRF-FR-CVR	Red	FEU
	G4AVRF-SP-CVR	Red	FUEGO
	G4AVRN-CVR	Red	None
	G4AWA-CVR	White	ALERT
	G4AVWF-CVR	White	FIRE
	G4AVWF-FR-CVR	White	FEU

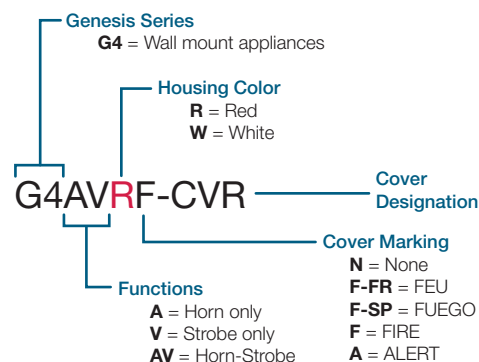
### Accessories

 <b>GP10</b> Room Side Wiring Plate (required, ordered separately)	 <b>G4TR</b> Trim plate, G4 Series, red	 <b>G4TW</b> Trim plate, G4 Series, white
	27193-21 Two-gang surface mount box, red	27193-26 Two-gang surface mount box, white

### Model Number Syntax, Appliances



### Model Number Syntax, Replacement Covers





LIFE SAFETY & INCIDENT MANAGEMENT

**Contact us...**

Email: [edwards.fire@fs.utc.com](mailto:edwards.fire@fs.utc.com)  
Web: [edwards-fire.com](http://edwards-fire.com)

1016 Corporate Park Drive  
Mebane, NC 27302

EDWARDS is a registered mark in the  
United States and other countries.

© 2019 United Technologies Corporation.  
All rights reserved.

---

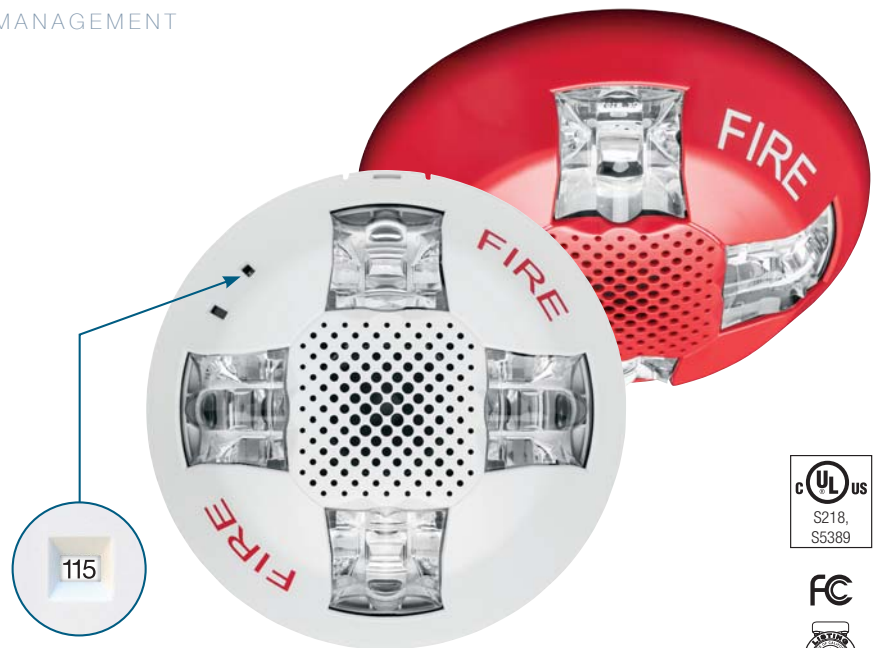




LIFE SAFETY & INCIDENT MANAGEMENT

# Genesis LED GC Series

Ceiling Mount  
Notification Devices



## Overview

Genesis LED GC Series horns and LED strobes feature a sleek low profile design and energy-efficient technology that makes them less expensive to install and operate by reducing overhead. High performance LEDs require fewer power supplies, backup power, and batteries. These new appliances are designed with, energy-efficiency, and life safety in mind.

Genesis LED GC Series uses high efficiency optics, combined with patented electronics, to deliver a highly controlled and efficiently focused light distribution pattern in exchange for lower current requirements. Strobes feature field-selectable 15, 30, 75, or 115 cd light output.

Compared with Xenon-type strobes, Genesis LED GC Series appliances need fewer power supplies and often smaller wire gauge, which lightens conduit requirements. They are also backwards compatible with legacy strobes, so there's no need to replace all your existing devices to upgrade to new LED technology. In fact, GC strobes can be mixed on the same circuit and used in the same field of view as Xenon-based strobes. This makes Genesis LED GC Series ideal for new installations and retrofits alike.

Field-configurable sound output levels provide the flexibility modern life safety projects demand, while the Genesis LED control protocol keeps multiple strobes on compatible NAC circuits synchronized to well within NFPA 72 requirements.

Serviceability is another area where GC Series appliances shine. The universal room side wiring plate allows for pre-installation and electrical wiring as well as checking continuity with the included diagnostics check bar. GC Series devices can then be easily snapped into place with the confidence of knowing the wiring is correct. The innovative under-cover diagnostic test points provide easy access to device circuit testing while mounted.

## Standard Features

- **High Performance LED Strobe Technology**
  - Ultra low device current consumption allows:
    - More devices per circuit
    - Ability to use lower gauge wire
    - Longer wire runs
    - Fewer booster power supplies
  - High efficiency optics
  - Selectable 15, 30, 75, or 115 cd light output
  - LED devices may be mixed with legacy Xenon strobes
- **Efficient Audible Output**
  - Selectable high or low dB horn output
  - Selectable temporal or steady horn output
  - Improved audio frequency range for better wall penetration
- **Low-profile Design**
  - Ultra-slim... protrudes about 1.5" from the mounting surface
  - Attractive appearance... no visible mounting screws
- **Multiple "FIRE" Marking Options**
  - Order English, French, Spanish or no FIRE markings
  - Change markings at any time with replaceable quick-swap covers
- **Easy to Install**
  - Pre-install and pre-wire with convenient universal room side wiring plate
  - Check electrical continuity on room side wiring plate with included diagnostics check bar
  - Diagnostics port streamlines device circuit testing
  - Fits 1-gang, 2-gang, 4-inch octagon, and 4-inch square electrical boxes
  - Optional red and white trim plates available
  - Slide switches for field configuration
  - 12 to 18 AWG in-out screw terminals for quick wiring

## Application

### Strobes

Genesis GC Series strobes are UL 1971-listed for use indoors as ceiling-mounted public-mode notification appliances for the hearing impaired. Prevailing codes require strobes to be used where ambient noise conditions exceed 105 dBA (87 dBA in Canada), where occupants use hearing protection, and in areas of public accommodation as defined in the *Americans with Disabilities Act*.

Synchronization is important in order to avoid triggering seizures in people with photosensitive epilepsy. All Genesis strobes exceed UL synchronization requirements (within 10 milliseconds over a two-hour period) when used with a synchronization source. See the specifications table for a list of compatible sources.

### Horns

Genesis horn output reaches as high as 92 dBA and features an improved audio frequency range compared with other Genesis horns. This results in excellent sound penetration through walls and a clear warning of danger. Horn only models may be configured for either coded or non-coded notification appliance circuits. They can also be set for high or low dBA output. This setting reduces horn output by about 6 dBA.

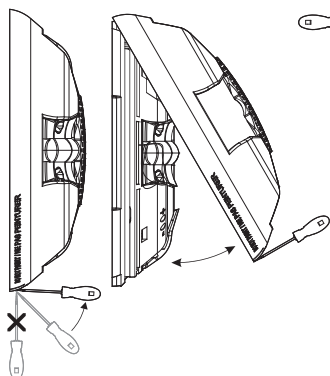
The suggested sound pressure level for each signaling zone used with alarm signals is at least 15 dBA above the average ambient sound level, or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater. These values are measured at five feet (1.5 m) above the floor. The average ambient sound level is A-weighted, fast response sound pressure measured over a 24-hour period.

Doubling the distance from the signal to the ear will theoretically result in a 6 dBA reduction of the received sound pressure level. The actual effect depends on the acoustic environment in the space. A 3 dBA difference represents a barely noticeable change in volume.

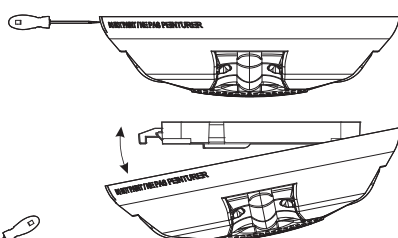
## Installation

Genesis GC horns and strobes mount to the required GP10 room side wiring plate. The GP10 mounting plate is ordered separately from the GC device in packs of 10 for convenient pre-installing and pre-wiring. The device can be removed easily from the room side wiring plate by pushing up with a screwdriver. The cover can also be removed from the device easily with a screwdriver to access the light and sound output settings and a diagnostics test port for voltage testing.

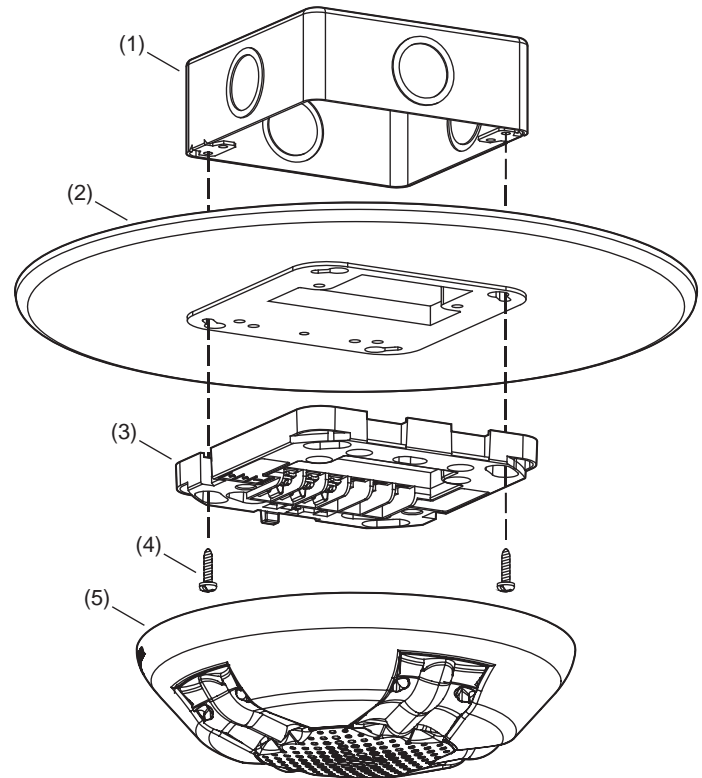
Removing Cover



Removing Device

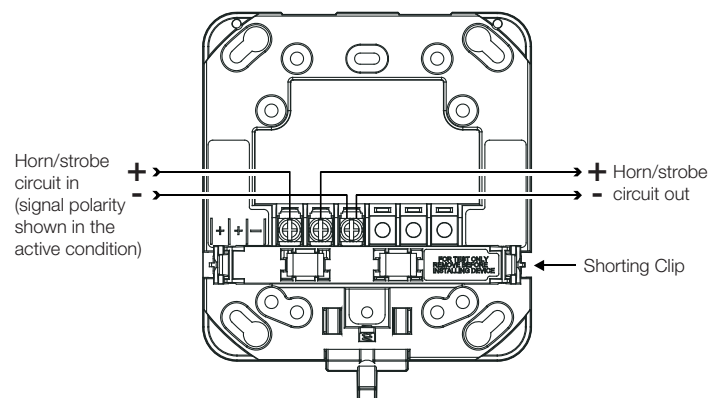


Genesis LED GC Series horns, strobes, and horn-strobes mount to any standard one-gang, two-gang, 4-inch octagon, and 4-inch square electrical box. Matching optional GCT trim rings are available to cover oversized openings. Optional color matched double-gang surface boxes are also available. Genesis LED GC series are listed to be both wall mounted or ceiling mounted.



- (1) Electrical Box
- (2) Trim Plate (optional)
- (3) Wiring plate (required, ordered separately)
- (4) Machine screw (2X, supplied with wiring plate)
- (5) GC signaling appliance

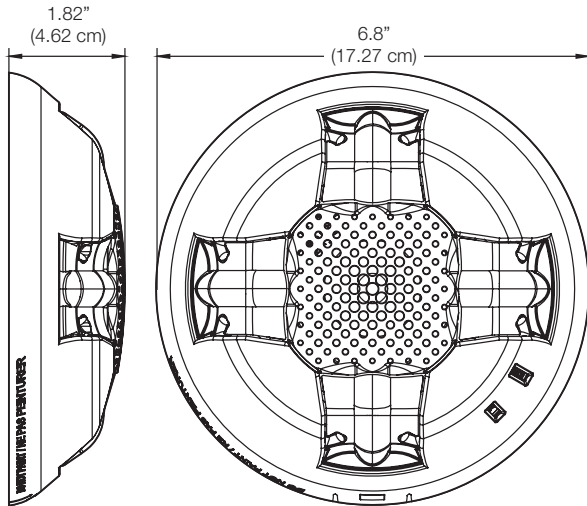
## Wiring



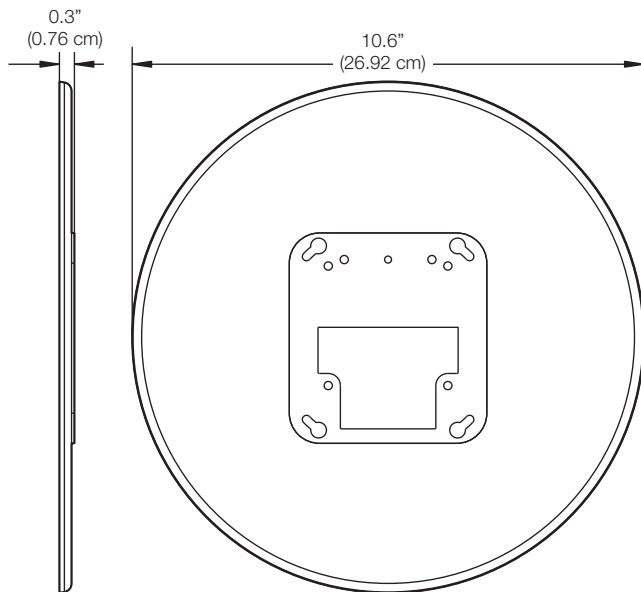


## Dimensions

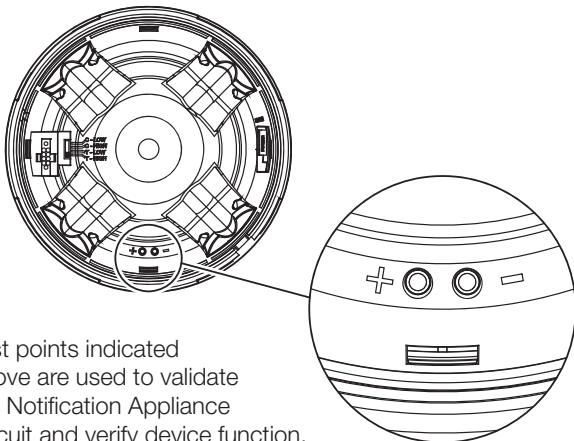
### GC Notification Appliances



### GCT Trim Plate (optional)



## Diagnostics



Test points indicated above are used to validate the Notification Appliance Circuit and verify device function.

## Field Configuration

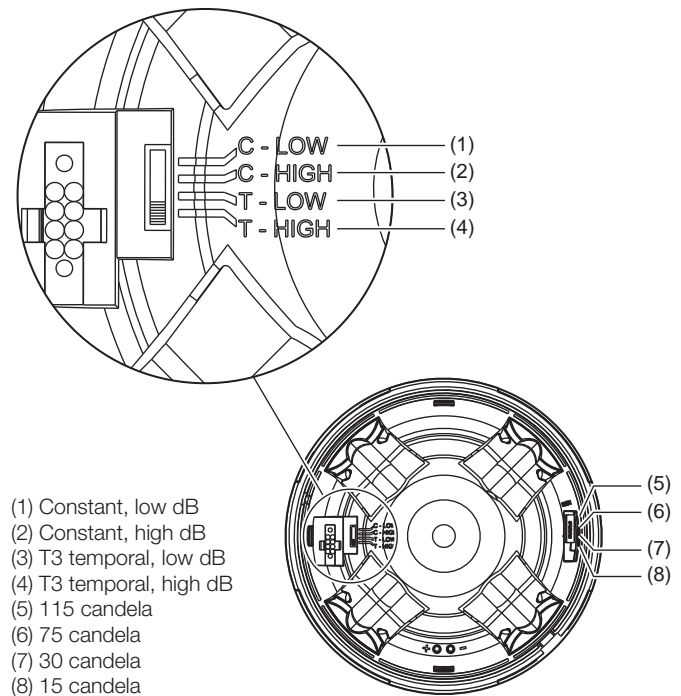
Temporal horn and horn-strobe models are factory set to sound in a three-pulse temporal pattern. By sliding the tone selector switch, horn only models may be configured for constant horn output that can be coded at precise intervals by EDWARDS control panels and control modules.

**Note:** Temporal 3 coding is the required output for fire notification devices per NFPA 72. Any device coding other than temporal 3 is at the discretion and approval of the local authority having jurisdiction (AHJ).

Horns and horn-strobes are factory set for high dB output. Low dB output may be selected by sliding the tone selector switch. This reduces the output by about 6 dBA.

Genesis LED clear strobes and horn-strobes may be set for 15, 30, 75, or 115 candela output. The output setting is changed by simply removing the cover and sliding the candela switch to the desired setting. The device does not have to be removed from the wall to change the output setting. The setting remains visible through a small window on the device after the cover is closed.

### Light and Sound Output Settings



- (1) Constant, low dB
- (2) Constant, high dB
- (3) T3 temporal, low dB
- (4) T3 temporal, high dB
- (5) 115 candela
- (6) 75 candela
- (7) 30 candela
- (8) 15 candela

## Operating current

### Horns

Sound setting	16 to 33 VDC	16 to 33 VFWR
C-Low, T-Low	20 mA	25 mA
C-High, T-High	30 mA	40 mA

### Strobes

Strobe setting	16 to 33 VDC	16 to 33 VFWR
15, 30, 75, 115	35 mA	45 mA

### Horn-Strobes

Strobe setting	Sound setting	16 to 33 VDC	16 to 33 VFWR
15, 30, 75, 115	C-Low, T-Low	50 mA	60 mA
	C-High, T-High	60 mA	75 mA

## Sound Output

### Horn & Horn-Strobe

Sound setting	Reverberant (UL464)	Anechoic (CAN/ULC - 5925)
C-Low, T-Low	80 dBA	86 dBA
C-High, T-High	86 dBA	92 dBA

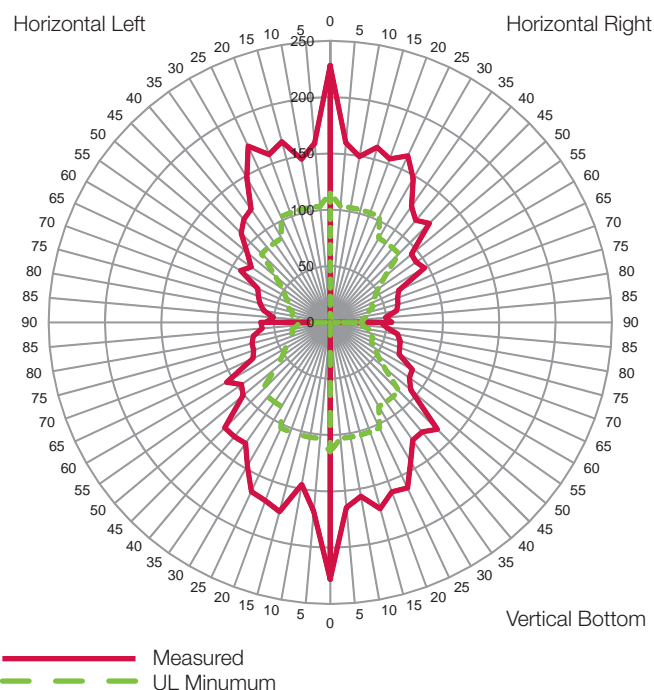
### Sound pattern – Horn Models (ULC)

Axis	Angle (°)	Output (dBA)
Horizontal	115 and 55	93.3
Vertical	125 and 50	91.7

### Sound pattern – Horn-Strobe Models (ULC)

Axis	Angle (°)	Output (dBA)
Horizontal	145 and 35	93.0
	155 and 35	90.8
Vertical	135 and 35	92.0
	155 and 25	85.4

## Light Distribution




## Specifications


Operating voltage	16 to 33 VDC, 16 to 33 VFWR
Horn signal type	Constant or TC3 temporal
Light output	15, 30, 75, or 115 candela
Strobe flash rate	1 fps (flash per second) approx.
Synchronization	20 $\Omega$ max. between any two devices. To determine allowed wire resistance, refer to these specifications, and the specifications for the synchronized signal source.
Synchronization Sources	Edwards CC Series Signal Modules, Booster and Auxiliary Power Supplies, Intelligent and Conventional Control Panels
Wire size	12 to 18 AWG (0.75 to 2.50 mm <sup>2</sup> )
Mounting	Wall or Ceiling mount
Dimensions ( $\varnothing \times D$ )	6.8 $\times$ 1.82 in. (17.27 $\times$ 4.62 cm)
Strobe-to-box center offset	-1.70 inches (-4.32 cm)
Compatible electrical boxes [1]	1-gang, 2-gang, 4-inch octagon, 4-inch square
Trim plates	GCTR, GCTW 10.6 $\times$ 0.3 in. (26.92 $\times$ 0.76 cm)
Operating environment	
Temperature	32 to 122°F (0 to 50°C)
Relative humidity	0 to 93% noncondensing
Storage Temperature	-40 to 158 F (-40 to 70 C)


[1] Electrical boxes must be at least 1-1/2 in. (3.81 cm) deep.





## Ordering Information


Notification Appliances		Color	Marking
 Horns	GCARF	Red	FIRE
	GCARF-FR	Red	FEU
	GCARF-SP	Red	FUEGO
	GCARN	Red	None
	GCAWF	White	FIRE
	GCAWF-FR	White	FEU
	GCAWF-SP	White	FUEGO
	GCAWN	White	None

 Strobes	GCVRF	Red	FIRE
	GCVRF-FR	Red	FEU
	GCVRF-SP	Red	FUEGO
	GCVRN	Red	None
	GCWVF	White	FIRE
	GCWVF-FR	White	FEU
	GCWVF-SP	White	FUEGO
	GCWWN	White	None




 Horn-strobes	GCAVRF	Red	FIRE
	GCAVRF-FR	Red	FEU
	GCAVRF-SP	Red	FUEGO
	GCAVRN	Red	None
	GCAWVF	White	FIRE
	GCAWVF-FR	White	FEU
	GCAWVF-SP	White	FUEGO
	GCAWWN	White	None

Replacement Appliance Covers		Color	Marking
 Horn Covers	GCARA-CVR	Red	ALERT
	GCARF-CVR	Red	FIRE
	GCARF-FR-CVR	Red	FEU
	GCARF-SP-CVR	Red	FUEGO
	GCARN-CVR	Red	None
	GCAWA-CVR	White	ALERT
	GCAWF-CVR	White	FIRE
	GCAWF-FR-CVR	White	FEU
	GCAWF-SP-CVR	White	FUEGO
	GCAWN-CVR	White	None

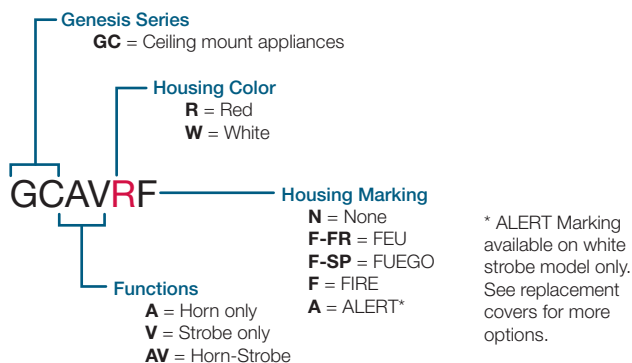
 Strobe Covers	GCVRA-CVR	Red	ALERT
	GCVRF-CVR	Red	FIRE
	GCVRF-FR-CVR	Red	FEU
	GCVRF-SP-CVR	Red	FUEGO
	GCVRN-CVR	Red	None
	GCVWA-CVR	White	ALERT
	GCWVF-CVR	White	FIRE
	GCWVF-FR-CVR	White	FEU
	GCWVF-SP-CVR	White	FUEGO
	GCWWN-CVR	White	None

 Horn-strobe Covers	GCAVRA-CVR	Red	ALERT
	GCAVRF-CVR	Red	FIRE
	GCAVRF-FR-CVR	Red	FEU
	GCAVRF-SP-CVR	Red	FUEGO
	GCAVRN-CVR	Red	None
	GCAVWA-CVR	White	ALERT
	GCAWVF-CVR	White	FIRE
	GCAWVF-FR-CVR	White	FEU
	GCAWVF-SP-CVR	White	FUEGO
	GCAWWN-CVR	White	None

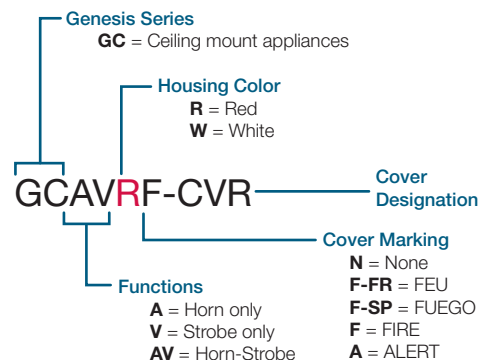
### Accessories

 GP10	Room Side Wiring Plate (required, ordered separately)	 GCTR	Trim plate, GC Series, red	 GCTW	Trim plate, GC Series, white
		27193-21	Two-gang surface mount box, red	27193-26	Two-gang surface mount box, white

### Model Number Syntax, Appliances



### Model Number Syntax, Replacement Covers





LIFE SAFETY & INCIDENT MANAGEMENT

**Contact us...**

Email: [edwards.fire@fs.utc.com](mailto:edwards.fire@fs.utc.com)  
Web: [edwards-fire.com](http://edwards-fire.com)

8985 Town Center Pkwy.  
Bradenton, FL 34202

EDWARDS is a registered mark in the  
United States and other countries.

© 2019 United Technologies Corporation.  
All rights reserved.

---



LIFE SAFETY & INCIDENT MANAGEMENT

# Remote Booster Power Supplies

## BPS6A, BPS10A



### Overview

The Booster Power Supply (BPS) is a UL 864, 9th Edition listed power supply. It is a 24 Vdc filtered-regulated, and supervised unit that can easily be configured to provide additional notification appliance circuits (NACs) or auxiliary power for Mass Notification/Emergency Communication (MNEC), as well as life safety, security, and access control applications.

The BPS contains the circuitry to monitor and charge internal or external batteries. Its steel enclosure has room for up to two 10 ampere-hour batteries. For access control-only applications, the BPS can support batteries totaling up to 65 ampere-hours in an external enclosure. The BPS has four Class B (convertible to two Class A) NACs. These can be activated in one or two groups from the BPS's unique dual input circuits.

The BPS is available in 6.5 or 10 ampere models. Each output circuit has a capacity of three amperes; total current draw cannot exceed the unit's rating.

The BPS meets current UL requirements and is listed under the following standards:

Standard (CCN)	Description
UL864 9th ed.ition (UOXX)Fire Alarm Systems	
UL636 (ANET, UEHX7)	Holdup Alarm Units and Systems
UL609 (AOTX, AOTX7)	Local Burglar Alarm Units and Systems
UL294 (ALVY, UEHX7)	Access Control Systems
UL365 (APAW, APAW7)	Police Station Connected Burglar Alarm Units and Systems
UL1076 (APOU, APOU7)	Proprietary Burglar Alarm System Units
UL1610 (AMCX)	Central Station Alarm Unit
ULC-S527 (UOXXC)	Control Units, Fire Alarm (Canada)
ULC-S303 (AOTX7)	Local Burglar Alarm Units and Systems (Canada)
C22.2 No. 205	Signaling Equipment (Canada)

### Standard Features

- Allows for reliable filtered and regulated power to be installed where needed
- Cost effective system expansion
- Provides for Genesis and Enhanced Integrity notification appliance synchronization
- Supports coded output operation
- Self-restoring overcurrent protection
- Multiple signal rates
- Can be cascaded or controlled independently
- Easy field configuration
- On-board diagnostic LEDs identify wiring or internal faults
- Standard EDWARDS keyed lockable steel cabinet with removable door
- 110 and 230 Vac models available
- Accommodates 18 to 12 AWG wire sizes
- Optional tamper switch
- Dual battery charging rates
- Optional earthquake hardening: OSHPD seismic pre-approval for component Importance Factor 1.5



## Application

The BPS provides additional power and circuits for notification appliances and other 24 Vdc loads. It is listed for indoor dry locations and can easily be installed where needed.

Fault conditions are indicated on the on-board diagnostic LEDs, opening the BPS input sense circuit and the trouble relay (if programmed). While this provides indication to the host system, the BPS can still be activated upon command. A separate AC Fail contact is available on the BPS circuit board, which can be programmed for trouble or AC Fail. There are seven on-board diagnostic LEDs: one for each NAC fault, one for battery fault, one for ground fault, and one for AC power.

The unique dual-input activation circuits of the BPS can be activated by any voltage from 6 to 45 VDC (filtered-regulated) or 11 to 33 Vdc (full-wave rectified, unfiltered). The first input circuit can be configured to activate 1-4 of the four possible outputs. The second input circuit can be configured to control circuits 3 and 4. When outputs are configured for auxiliary operation, these circuits can be configured to stay on or automatically deactivate 30 seconds after AC power is lost. This feature makes these circuits ideal for door holder applications. The BPS also has a separate 200 mA 24 Vdc output that can be used to power internal activation modules.

BPS NACs can be configured for a 3-3-3 temporal or continuous output. California temporal rate outputs are also available on certain models. This makes the BPS ideal for applications requiring signaling rates that are not available from the main system.

In addition to the internally generated signal rates, the BPS can also be configured to follow the coded signal rate of the main system NACs. This allows for the seamless expansion of existing NACs.

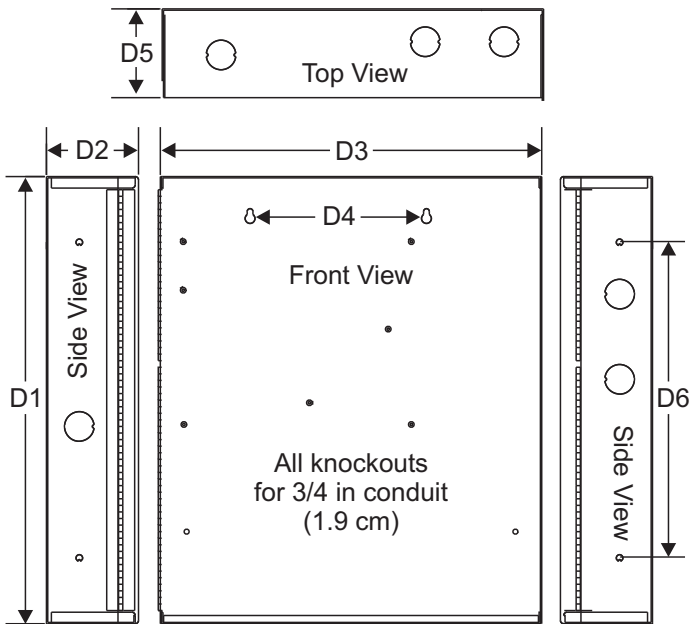
The BPS enclosure has mounting brackets for up to three Signature modules to the right of the circuit board.

## Engineering Specification

Supply, where needed, EDWARDS BPS Series Booster Power Supplies (BPS) that are interconnected to and supervised by the main system. The BPS shall function as a stand-alone auxiliary power supply with its own fully-supervised battery compliment. The BPS battery compliment shall be sized to match the requirements of the main system. The BPS shall be capable of supervising and charging batteries having the capacity of 24 ampere-hours for Mass Notification/Emergency Communication (MNEC), life safety and security applications, and the capacity of 65 ampere-hours for access control applications.

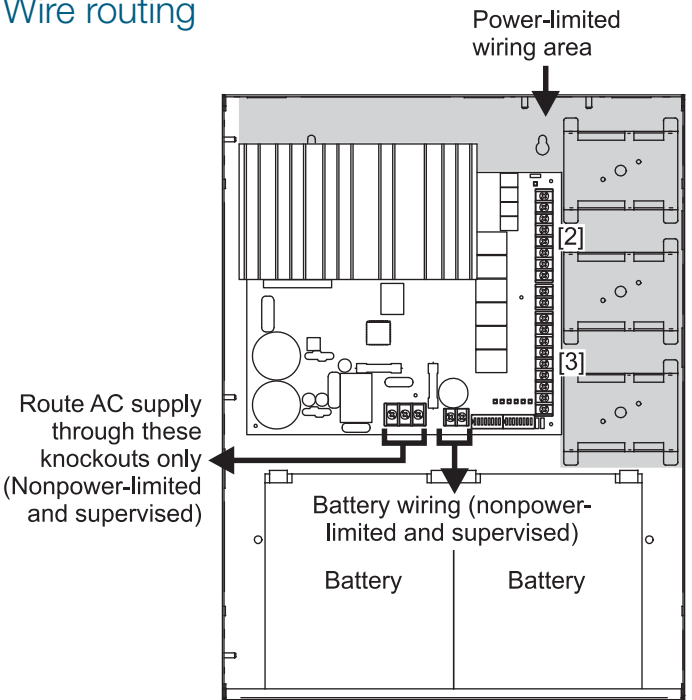
<<The BPS shall be capable of installation for a seismic component Importance Factor of 1.5.>> The BPS shall provide a minimum of four independent, fully supervised Class B circuits that can be field configurable for notification appliance circuits or auxiliary 24 Vdc power circuits. BPS NACs shall be convertible to a minimum of two Class A NACs. Each BPS output circuit shall be rated at 3 amperes at 24 Vdc. Each output circuit shall be provided with automatically restoring overcurrent protection. The BPS shall be operable from the main system NAC and/or EDWARDS Signature Series control modules. BPS NACs shall be configurable for continuous, 3-3-3 temporal or optionally, California rate. Fault conditions on the BPS shall not impede operation of main system NAC. The BPS shall be provided with ground fault detection circuitry and a separate AC fail relay.

## Dimensions



D1	D2	D3	D4	D5	D6
17.0 in (43.2 cm)	3.5 in (8.9 cm)	13.0 in (33.0 cm)	6.5 in (16.5 cm)	3.375 in (8.6 cm)	12.0 in (30.4 cm)

## Wire routing



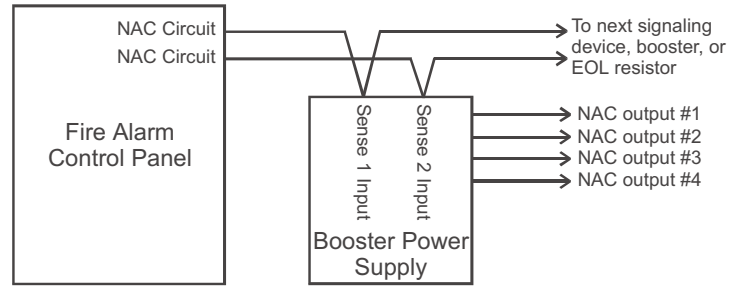
### Notes

1. Maintain 1/4-inch (6 mm) spacing between power-limited and nonpower-limited wiring or use type FPL, FPLR, or FPLP cable per NEC.
2. Power-limited and supervised when not configured as auxiliary power. Non-supervised when configured as auxiliary power.
3. Source must be power-limited. Source determines supervision.
4. When using larger batteries, make sure to position the battery terminals towards the door.

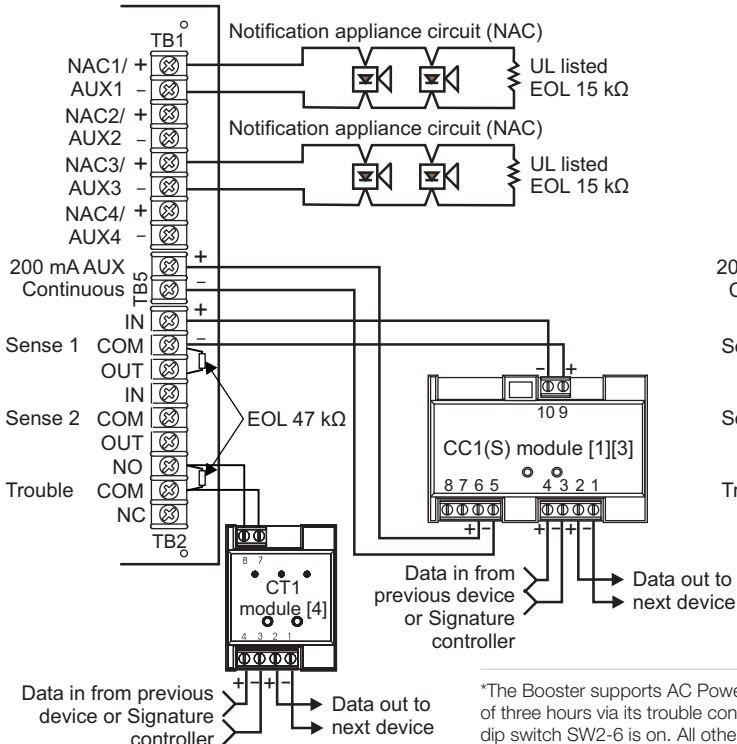
## Typical Wiring

Single or cascaded booster  
anywhere on a notification appliance circuit

Existing NAC end-of-line resistors are not required to be installed at the booster's terminals. This allows multiple boosters to be driven from a single NAC circuit without the need for special configurations.

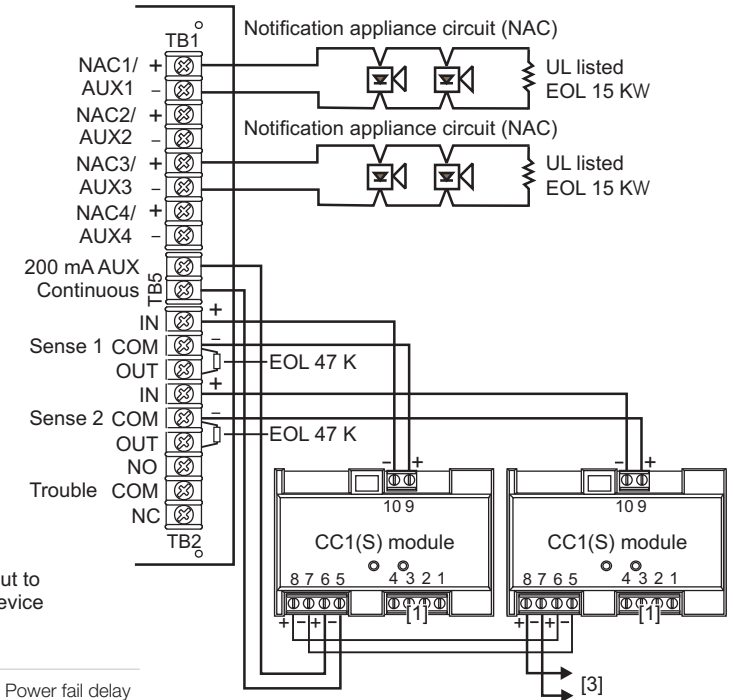


## Configuring the Booster for AC Power Fail delay operation\*

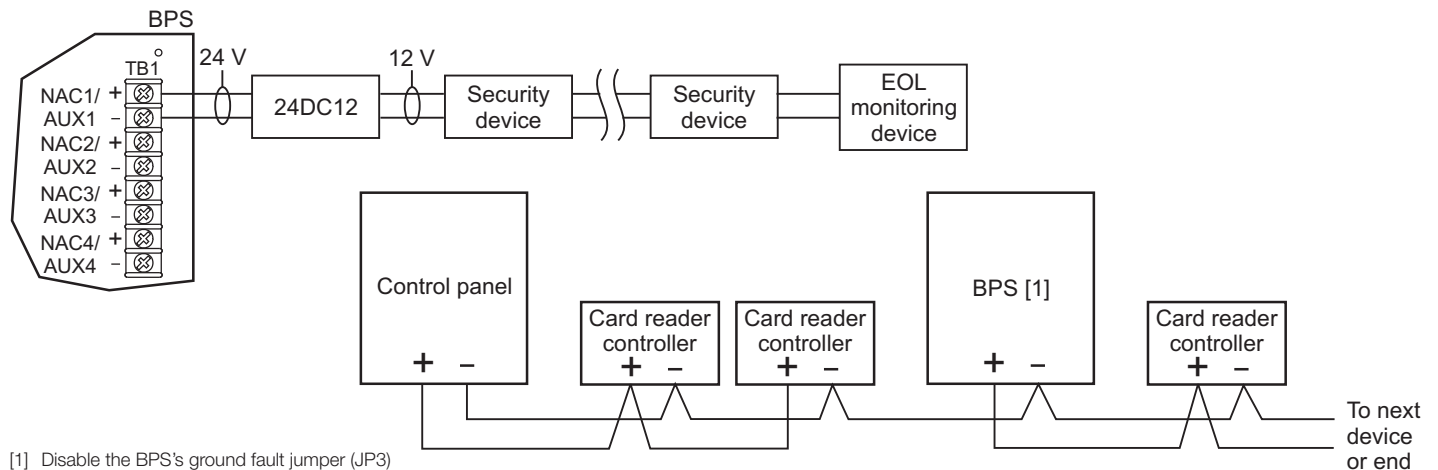


\*The Booster supports AC Power fail delay of three hours via its trouble contact when dip switch SW2-6 is on. All other troubles are reported to supervising module or panel without delay via Sense inputs.

## Multiple CC1(S) modules using the BPS's sense inputs



## Security and access



[1] Disable the BPS's ground fault jumper (JP3)



LIFE SAFETY & INCIDENT MANAGEMENT

Contact us...

Email: [edwards.fire@fs.utc.com](mailto:edwards.fire@fs.utc.com)  
Web: [Edwards-fire.com](http://Edwards-fire.com)

EDWARDS is a UTC brand.  
1016 Corporate Park Drive  
Mebane, NC 27302

© 2016 United Technologies Corporation.  
All rights reserved.

## Specifications

Model	6.5 amp Booster	10 amp Booster
AC Line Voltage	120VAC or 220-240VAC 50/60Hz 390 watts	120VAC or 220-240VAC 50/60Hz 580 watts
Notification Appliance Circuit Ratings	3.0A max. per circuit @ 24Vdc nominal 6.5A max total all NACs	3.0A max. per circuit @ 24Vdc nominal 10A max total all NACs
Trouble Relay	2 Amps @ 30Vdc	
Auxiliary Outputs	Four configurable outputs replace NACs 1, 2, 3 or 4. as auxiliary outputs and 200 mA dedicated auxiliary. (See note 2.)	
Input Current (from an existing NAC)	3mA @ 12Vdc, 6mA @ 24Vdc	
Booster Internal Supervisory Current	70mA + 35 mA for each circuit set to AUX	
Booster Internal Alarm Current	270mA	
Signature Mounting Space	Accommodates three two-gang modules.	
Maximum Battery Size	10 Amp Hours (2 of 12V10A) in cabinet up to 24 Amp hours with ex- ternal battery cabinet for fire and security applications; up to 65 Amp hours for access control applications in external battery box.	
Terminal Wire Gauge	18-12 AWG	
Relative Humidity	0 to 93% non condensing @ 32°C	
Temperature Rating	32° to 120°F (0° to 49°C)	
NAC Wiring Styles	Class A or Class B	
Output Signal Rates	Continuous, California rate, 3-3-3 temporal, or follow installed panel's NAC. (See note 1.)	
Ground Fault Detection	Enable or Disable via jumper	
Agency Listings	UL, ULC, CSFM	

1. Model BPS\*CAA provides selection for California rate, in place of temporal.
2. Maximum of 8 Amps can be used for auxiliary output.

## Ordering Information

Catalog Number	Description	Shipping Wt. lb (kg)
BPS6A	6.5 Amp Booster Power Supply	13 ( 5.9)
BPS6AC	6.5 Amp Booster Power Supply (ULC)	13 ( 5.9)
BPS6A/230	6.5 Amp Booster Power Supply (220V)	13 ( 5.9)
BPS6CAA	6.5 Amp Booster Power Supply with California rate	13 ( 5.9)
BPS10A	10 Amp Booster Power Supply	13 ( 5.9)
BPS10AC	10 Amp Booster Power Supply (ULC)	13 ( 5.9)
BPS10A/230	10 Amp Booster Power Supply (220V)	13 ( 5.9)
BPS10CAA	10 Amp Booster Power Supply with California rate	13 ( 5.9)

1. Requires installation of separate battery cabinet.
2. BPS supports batteries greater than 24 Amp hours for access control applications only.
3. For earthquake anchorage, including detailed mounting weights and center of gravity detail, refer to Seismic Application Guide 3101676. Approval of panel anchorage to site structure may require local AHJ, structural or civil engineer review.

Related Equipment		
12V6A5	7.2 Amp Hour Battery, two required	3.4 (1.6)
12V10A	10 Amp Hour Battery, two required	9.5 (4.3)
3-TAMP	Tamper switch	
BC-1EQ	Seismic Kit for BC-1. Order BC-1 separately. See note 3.	
BPSEQ	Seismic kit for BPS6A or BPS10 Booster Power Supplies. See note 3	
BC-1	Battery Cabinet (up to 2 - 40 Amp Hour Batteries)	58 (26.4)
BC-2	Battery Cabinet (up to 2 - 17 Amp Hour Batteries)	19 (8.6)
12V17A	18 Amp Hour Battery, two required (see note 1)	13 ( 5.9)
12V24A	24 Amp Hour Battery, two required (see note 1)	20 (9.07)
12V40A	40 Amp Hour Battery, two required (see notes 1, 2)	32 (14.5)
12V50A	50 Amp Hour Battery, two required (see notes 1, 2)	40 (18.14)
12V65A	65 Amp Hour Battery, two required (see notes 1, 2)	49 (22.2)