RSN: 1506376
Permit # 2020-1904364-CT
Sheet 1 of 8

BUILDING CLASSIFICATIONS AND CODES

OCCUPANCY GROUP:	B
USE:	OFFICE
CONSTRUCTION TYPE:	VB
STORIES:	3 FLOORS
SPRINKLERED:	FULLY SPRINKLED
APPLICABLE CODES:	2015 IBC 2013 NFPA 72 2015 IFC 2020 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 215 PROJECT IN THE MEDICAL CENTER OF AURORA BUILDING LOCATED AT 1444 SOUTH POTOMAC STREET:

PARTS

1. REMOVE AND REINSTALL ONE (1) EXISTING STROBE
2. PROVIDE AND INSTALL THREE (3) NEW STROBES
3. RELOCATE ONE (1) EXISTING HORN/STROBE
4. PROVIDE AND INSTALL TWO (2) NEW HORN/STROBES

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

MEDICAL CENTER OF SUORORA

FIRE ALARM SYSTEM SHOP DRAWINGS FOR:

PROJECT:
SPEC SUITE 215
1444 SOUTH POTOMAC STREET, SUITE 215
AURORA, CO 80012

OWNER/GC:
SBARRA CONSTRUCTION WEST
7275 UPTON COURT
CASTLE ROCK, CO 80104
PH:(303)515–7052
FAX:(303)515–7046
TONY SBARRA

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

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

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@FIREALARMSERVICES.COM

Fire Alarm SERVICES, INC.

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

City of Aurora
Adopted Codes & Standards for this project:
2015-ICC - 2020-NEC
2013 NFPA 13 - 2013 NFPA 72
Amendments to include Chapters 22 & 66

City of Aurora Building Division
Counter Permit intake by: JLG
Date: Dec 14, 2020
RSN: 1506376
Permit: 2020-1904364-CT
2015 INTERNATIONAL CODES & 2020 NEC Scope of permit to be field verified.

Raymond P. Breeland
Certification Expires 04/01/22
Fire Alarm Systems Level III
NICET Certification #111006
Date: 12/9/2020

Fire Alarm SERVICES, INC.
4800 W. 60TH AVENUE
ARVADA, CO 80003
phone: 303–466–8800
fax: 303–466–8820
www.fasonline.cc email: contactus@fasonline.cc

REVISIONS

NO.	DATE

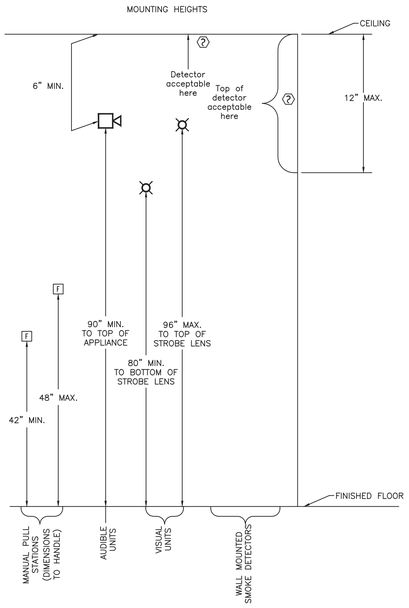
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DATE: 12/9/2020
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DATE:

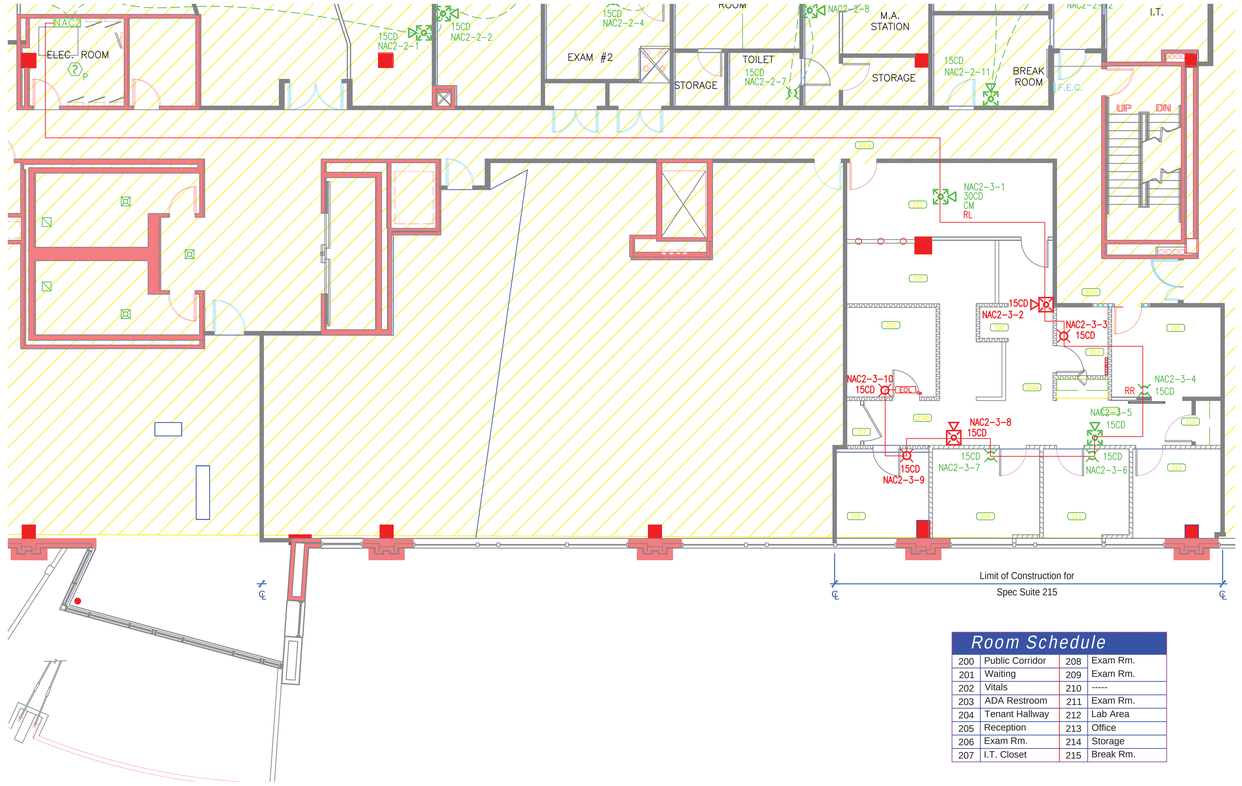
PROJECT TITLE: FIRE ALARM SYSTEM TENANT FINISH FOR: SPEC SUITE 215
BUILDING NAME & ADDRESS: MEDICAL CENTER OF AURORA, 1444 S POTOMAC STREET, AURORA, CO 80012
PROJECT NUMBER: 2014394

FIRE ALARM & DETECTION SYSTEM
DRAWING TITLE: SUITE 215 COVER PAGE
SCALE: N/A

PROJECT SHEET TITLE
FA–00

RSN: 1506376
Permit # 2020-1904364-CT
Sheet 2 of 8





Room Schedule			
200	Public Corridor	208	Exam Rm.
201	Waiting	209	Exam Rm.
202	Vitals	210	-----
203	ADA Restroom	211	Exam Rm.
204	Tenant Hallway	212	Lab Area
205	Reception	213	Office
206	Exam Rm.	214	Storage
207	I.T. Closet	215	Break Rm.

SUITE 215 FIRE ALARM PLAN

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

NORTH 0 5 10 15 30 FEET

FIRE ALARM SYMBOLS LEGEND

EXISTING	DESCRIPTION	PROPOSED
	STROBE – Wall Mount or CM = Ceiling Mount	
	SMOKE DETECTOR – x = photo, ion	
	Speaker/strobe – Wall Mount or Ceiling Mount	
S	Speaker only = Wall Mount or CM = Ceiling Mount	S
	Horn/strobe – Wall Mount or Ceiling Mount	
H	Horn only = Wall Mount or CM = Ceiling Mount	H
	REMOTE LED	
EOL	END OF LINE RESISTOR	EOL
NAC1	BOOSTER PANEL	NAC1
F	PULL STATION	F
	FIREMAN'S PHONE JACK	
	HEAT DETECTOR – x =135, 200, ROR	
WF	FLOW SWITCH	WF
TS	TAMPER SWITCH	TS
	DUCT DETECTOR – x = photo, ion	
RM	RELAY MODULE	RM
MM	MONITOR MODULE	MM

NOTIFICATION APPLIANCE CIRCUIT NUMBER
NOTIFICATION APPLIANCE PANEL NUMBER
DEVICE NUMBER
NAC1-2-3
POWER EXPANDER NUMBERING

	SPEAKER LINE "A"	SPEAKER LINE "B"	

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

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 2013 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 TROUGH FIRE RATED WALL IN THIS PROJECT



NORTH KEY MAP
SCALE: NOT TO SCALE

SCOPE OF WORK

Fire Alarm SERVICES, INC.
4800 W. 60TH AVENUE
ARVADA, CO 80003
phone: 303–466–8800
fax: 303–466–8820
www.fasonline.cc email: contactus@fasonline.cc

REVISIONS

NO.	DATE

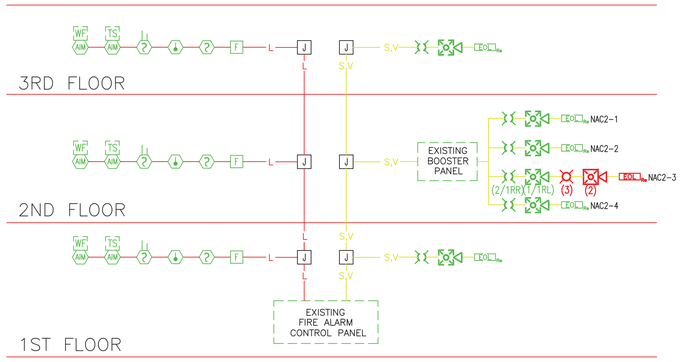
DRAWN BY: B. COWDEN
DATE: 12/9/2020
APPR. BY:
DATE:

Raymond P. Breeland
Certification Expires 04/01/22
Fire Alarm Systems Level III
NICET Certification #111006
Date: 12/9/2020

PROJECT TITLE: FIRE ALARM SYSTEM TENANT FINISH FOR: SPEC SUITE 215
BUILDING NAME & ADDRESS: MEDICAL CENTER OF AURORA, 1444 S POTOMAC STREET, AURORA, CO 80012
PROJECT NUMBER: 2014394

FIRE ALARM & DETECTION SYSTEM
DRAWING TITLE: SUITE 215 FIRE ALARM PLAN
SCALE: AS SHOWN

PROJECT SHEET TITLE
FA–01



ONE-LINE RISER DIAGRAM

FIRE ALARM WIRE CODE CHART						
Code	Description	Wire Type	Wire Tag	Jacket Color	Color (+)	Color (−)
AC	120VAC Power Wiring	3#12 AWG Solid (w/ Green Ground)	–	–	Black (hot)	White (neu)
A	Annunciator Wiring	#18 AWG Twisted/Shielded Pair	–	–	Red	Black
D	Door Holder Wiring	2#14 AWG Solid	Door Holder	Red	Red	Black
L	SLC Wiring (Signaling Line Circuit)	2#18 AWG Solid Shielded Pair	SLC	Red	Red	Black
P	24VDC Power Wiring	2#16 AWG Solid	24 VDC	Red	Red	Black
R	Remote Light/Test Wiring	2#18 AWG Solid	R	Red	Red	Black
S	Notification Appliance (Horns) Wiring	2 or 4#14 AWG Solid	–	Yellow	Red	Black
SA	Notification Appliance (A Speaker) Wiring	2#16 AWG Twisted/Shielded Pair	–	Gray	Red	Black
SB	Notification Appliance (B Speaker) Wiring	2#16 AWG Twisted/Shielded Pair	–	Blue	Red	Black
T	Telephone Circuit Wiring	2#16 AWG Twisted/Shielded Pair	Circuit #	Red	Red	Black
V	Notification Appliance (Strobe) Wiring	2 or 4#14 AWG Solid	–	Yellow	Red	Black
Z	IDC Wiring (Initiating Device Circuit)	2#18 AWG Solid	Zone #	Red	Red	Black
Wire Type Class & Style		SLC – Class B		NAC – Class B		

INCREMENTAL VOLTAGE DROP CALCULATIONS FOR AUDIBLE/ VISUAL CIRCUITS
MINIMUM UL RATED VOLTAGE: 16 VOLTS
Current shown in calculations is RMS current at 16 volts.

Resistance:	12 Guage	2.01
	14 Guage	3.19
	16 Guage	5.08

Circut Number: NAC2-3
Location: Floor 2 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
CM Horn Strobe 30CD	0.1900	120	120	14	0.7656	0.5704	19.1296
Horn Strobe 15CD	**0.0400**	**34**	**154**	**14**	**0.2169**	**0.1204**	**19.0092**
Strobe 15CD	**0.0280**	**15**	**169**	**14**	**0.0957**	**0.0493**	**18.9600**
Strobe 15CD	0.0550	25	194	14	0.1595	0.0777	18.8823
Horn Strobe 15CD	0.1290	20	214	14	0.1276	0.0551	18.8272
Strobe 15CD	0.1030	12	226	14	0.0766	0.0232	18.8040
Strobe 15CD	0.1030	21	247	14	0.1340	0.0268	18.7772
Horn Strobe 15CD	**0.0400**	**16**	**263**	**14**	**0.1021**	**0.0099**	**18.7673**
Strobe 15CD	**0.0280**	**17**	**280**	**14**	**0.1085**	**0.0062**	**18.7611**
Strobe 15CD	**0.0280**	**19**	**299**	**14**	**0.1212**	**0.0035**	**18.7576**
End of Line Resistor	**0.0010**	**0**	**299**	**14**	**0.0000**	**0.0000**	**18.7576**
Totals:	**0.745**	**299**			**1.9076**	**0.9424**	**18.7576**
Total Devices:	10						

1444 S. POTOMAC BUILDING SEQUENCE OF OPERATIONS

SYSTEM OUTPUTS

	FACP Annunciation							Notification						Fire Safety Ctrl.				Monitoring				
	Actuate Common Alarm Signal Indicator	Actuate Audible Alarm Signal	Actuate Common Supervisory Signal Indicator	Actuate Audible Supervisory Signal	Actuate Common Trouble Signal Indicator	Actuate Audible Common Trouble Signal	Actuate Audible Common Trouble Signal	Display Change of Status	Actuate 1st Floor Evacuation Signals (Horn/Strobes)	Actuate 2nd Floor Evacuation Signals (Horn/Strobes)	Actuate 3rd Floor Evacuation Signals (Horn/Strobes)	Actuate Exterior Horn/Strobe	Silence Audible Signal (Horns)	Release Magnetically Held Smoke Doors	Recall Elevator(s) to 1st Floor – Primary Recall	Recall Elevator(s) to 2nd Floor – Alternate Recall	Shut Down Air Handling Units	Transmit Fire Alarm Signal to Supervising Station	Transmit Trouble Signal to Supervising Station	Transmit Supervisory Signal to Supervising Station	Transmit Waterflow Signal to Supervising Station	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
1	Manual Pull Station – 1st Floor	X	X					X	X	X	X	X		X				X				1
2	Manual Pull Station – 2nd Floor	X	X					X	X	X	X	X		X				X				2
3	Manual Pull Station – 3rd Floor	X	X					X	X	X	X	X		X				X				3
4	Smoke Sensor – 1st Floor Elev Machine	X	X					X	X	X	X	X		X	X			X				4
5	Smoke Sensor – 1st Floor Elev Lobby	X	X					X	X	X	X	X		X		X		X				5
6	Smoke Sensor – 2nd Floor Elev Lobby	X	X					X	X	X	X	X		X	X			X				6
7	Smoke Sensor – 3rd Floor Elev Lobby	X	X					X	X	X	X	X		X	X			X				7
8	Smoke Sensor – All Other Locations	X	X					X	X	X	X	X		X				X				8
9	Duct Smoke Sensor – 1st Floor			X	X			X				X					X			X		9
10	Duct Smoke Sensor – 3rd Floor			X	X			X				X					X			X		10
11	Heat Sensors – 1st Floor Elevator Machine	X	X					X	X	X	X	X		X	X			X				11
12	Heat Sensors – 1st Floor	X	X					X	X	X	X	X		X				X				12
13	Sprinkler Waterflow – 1st Floor	X	X					X	X	X	X	X		X				X			X	13
14	Sprinkler Waterflow – 2nd Floor	X	X					X	X	X	X	X		X				X			X	14
15	Sprinkler Waterflow – 3rd Floor	X	X					X	X	X	X	X		X				X			X	15
16	Sprinkler Control Valve			X	X			X												X		16
17	FACP AC Power Failure					X	X	X						X					X			17
18	FACP Low Battery					X	X	X											X			18
19	Open Circuit					X	X	X											X			19
20	Ground Fault					X	X	X											X			20
21	Notification Appliance Circuit Short					X	X	X											X			21
22	Alarm Signal Silence												X									22
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	

SYSTEM INPUTS

BOOSTER CALCULATIONS

FOR: Medical Center of Aurora
1444 S. Potomac St.

HOURS OF SUPERVISION: 24 HOURS
MINUTES OF ALARM: 5 MINUTES

PANEL: EST BPS-10A

ITEM	QTY	PART NUMBER	DESCRIPTION	Device Supervisory Current	Device Alarm Current	Total Supervisory Current	Total Alarm Current
1	1	EXISTING	Notification Booster Panel	0.070000	0.190000	0.070000	0.190000
			TOTAL:			**0.070000**	**0.190000**

PERIPHERAL:

ITEM	QTY	PART NUMBER	DESCRIPTION	Device Supervisory Current	Device Alarm Current	Total Supervisory Current	Total Alarm Current
1	17	EXISTING	15cd Strobe	0.000000	0.055000	0.000000	0.935000
2	1	EXISTING	30cd Strobe	0.000000	0.080000	0.000000	0.080000
3	3	EXISTING	75cd Strobe	0.000000	0.150000	0.000000	0.450000
4	10	EXISTING	15cd Horn/Strobe	0.000000	0.071000	0.000000	0.710000
5	6	EXISTING	30cd Horn/Strobe	0.000000	0.090000	0.000000	0.540000
6	6	EXISTING	75cd Horn/Strobe	0.000000	0.158000	0.000000	0.948000
7	1	EXISTING	110cd Horn/Strobe	0.000000	0.200000	0.000000	0.200000
8	1	EXISTING	30cd Ceiling Mt. Horn/Strobe	0.000000	0.190000	0.000000	0.190000
9	1	EXISTING	75cd Ceiling Mt. Horn/Strobe	0.000000	0.150000	0.000000	0.150000
10	4	EXISTING	95cd Ceiling Mt. Horn/Strobe	0.000000	0.372000	0.000000	1.488000
11	**3**	**G1RF-VM**	**15cd Strobe**	**0.000000**	**0.028000**	**0.000000**	**0.084000**
12	**2**	**G1RF-HDVM**	**15cd Horn/Strobe**	**0.000000**	**0.040000**	**0.000000**	**0.080000**
			TOTAL:			**0.000000**	**5.855000**

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: 0.190000 AMPS
PERIPHERAL: 5.855000 AMPS
SUB-TOTAL: 6.045000 AMPS
X MINUTES OF ALARM: 0.08333 HOURS
SUB-TOTAL: 0.503750 AMP HOURS

TOTALS:
TOTAL SUPERVISORY: 1.680000 AMP HOURS
TOTAL ALARM: 0.503750 AMP HOURS
TOTAL: 2.183750 AMP HOURS
TOTAL PLUS SAFETY FACTOR(20%) 2.62050 AMP HOURS
Batteries Supplied - 1 Set of: 7.00000 AMP HOURS

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

REVISIONS

NO.	DATE

DRAWN BY: B. COWDEN
DATE: 12/9/2020
APPR. BY:
DATE:

PROJECT TITLE: FIRE ALARM SYSTEM TENANT FINISH FOR: SPEC SUITE 215
BUILDING NAME & ADDRESS: MEDICAL CENTER OF AURORA, 1444 S POTOMAC STREET, AURORA, CO 80012
PROJECT NUMBER: 2014394

FIRE ALARM & DETECTION SYSTEM
DRAWING TITLE: SUITE 215 CALCULATIONS
SCALE: N/A

Raymond P. Breeland
Certification Expires 04/01/22
Fire Alarm Systems Level III
NICET Certification #111006
Date: 12/9/2020

PROJECT SHEET TITLE
FA-02

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

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

Fire Alarm System Addition at:

Spec Suite 215
Medical Center of Aurora
1444 S Potomac St, #215
Aurora, CO 80012

Scope of Work:

Provide the following fire alarm system modifications to accommodate the proposed construction for the Spec suite 215 project in the Medical Center of Aurora located at 1444 South Potomac Street:

1. REMOVE AND REINSTALL ONE (1) EXISTING STROBE
2. PROVIDE AND INSTALL THREE (3) NEW STROBES
3. RELOCATE ONE (1) EXISTING HORN/STROBE
4. PROVIDE AND INSTALL TWO (2) NEW HORN/STROBES

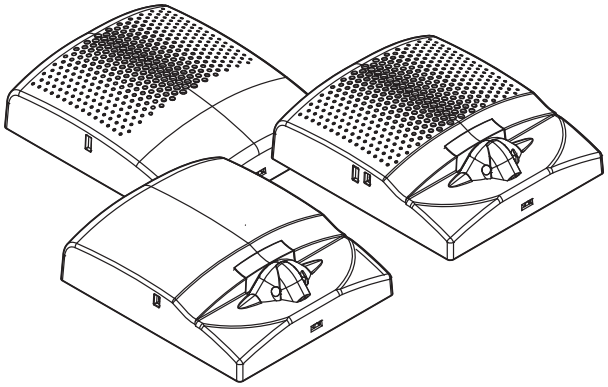
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NICET Certification #111006

Date 12/9/2020



RSN: 1506376
Permit # 2020-1904364-CT
Sheet 5 of 8

Genesis G4 Series Signaling Appliance Installation Sheet



Description

Genesis G4 Series horns, strobes, and horn-strobes are wall-mounted plug-in fire alarm signaling appliances designed for indoor dry applications. See Table 1 to Table 3 for a list of models.

Table 1: Horn models

Number	Description
G4ARF	Wall horn, red, FIRE
G4ARF-FR	Wall horn, red, FEU
G4ARF-SP	Wall horn, red, FUEGO
G4ARN	Wall horn, red, no marking
G4AWF	Wall horn, white, FIRE
G4AWF-FR	Wall horn, white, FEU
G4AWF-SP	Wall horn, white, FUEGO
G4AWN	Wall horn, white, no marking

Table 2: Strobe models

Number	Description
G4VRF	Wall strobe, red, FIRE
G4VRF-FR	Wall strobe, red, FEU
G4VRF-SP	Wall strobe, red, FUEGO
G4VRN	Wall strobe, red, no marking
G4VWF	Wall strobe, white, FIRE
G4VWF-FR	Wall strobe, white, FEU
G4VWF-SP	Wall strobe, white, FUEGO
G4VWN	Wall strobe, white, no marking

Table 3: Horn-strobe models

Number	Description
G4AVRF	Wall horn-strobe, red, FIRE
G4AVRF-FR	Wall horn-strobe, red, FEU
G4AVRF-SP	Wall horn-strobe, red, FUEGO
G4AVRN	Wall horn-strobe, red, no marking
G4AVWF	Wall horn-strobe, white, FIRE
G4AVWF-FR	Wall horn-strobe, white, FEU
G4AVWF-SP	Wall horn-strobe, white, FUEGO
G4AVWN	Wall horn-strobe, white, no marking

Genesis G4 Series signaling appliances feature:

- Field-configurable horn and strobe outputs. See Figure 2.
- Enhanced synchronization circuitry to comply with the latest requirements of UL 1638 and CAN/ULC-S526.
- Input wiring test points on the front of the appliance when the cover is removed.

Note: Synchronized operation requires a separately installed synchronization device. See the control unit or power supply compatibility list for compatible synchronization devices.

Configuration

Caution: Equipment damage hazard. Using excessive force when removing the appliance cover may damage the cover and prevent it from latching in place.

To configure the signaling appliance:

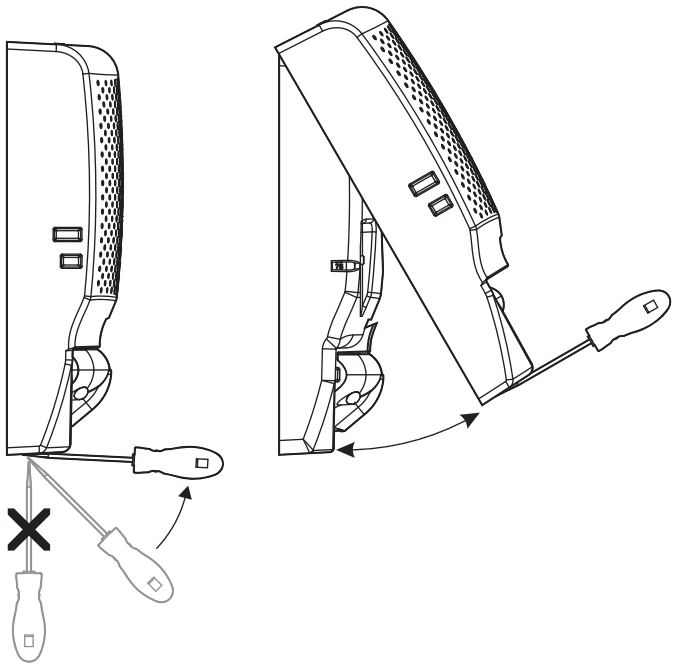
1. Remove the appliance cover. See Figure 1.

   Insert a small, flat-bladed screwdriver into the slot at the bottom of the appliance.

   Gently pull up on the screwdriver to pry the bottom of the appliance cover down and away from the appliance.

   Lift the bottom of the cover out and over the top of the appliance.
2. Set the light and sound output switches. See Figure 2.
3. Replace the appliance cover.

Figure 1: Removing and replacing the cover

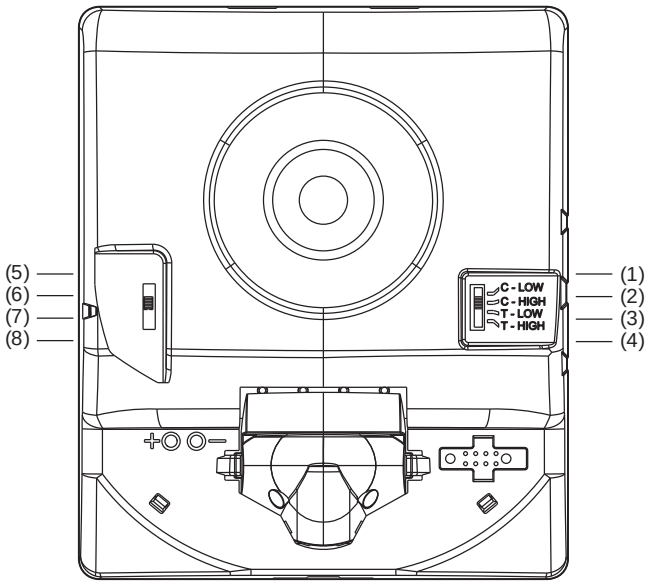


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RSN: 1506376
Permit # 2020-1904364-CT
Sheet 6 of 8

Figure 2: Light and sound output settings



(1) Constant, low dB
(2) Constant, high dB
(3) T3 temporal, low dB
(4) T3 temporal, high dB
(5) 110 candela
(6) 75 candela
(7) 30 candela
(8) 15 candela

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

Caution: Electrical supervision requires that you break the wire run at each terminal. Do not loop the signaling circuit field wires around the terminals.

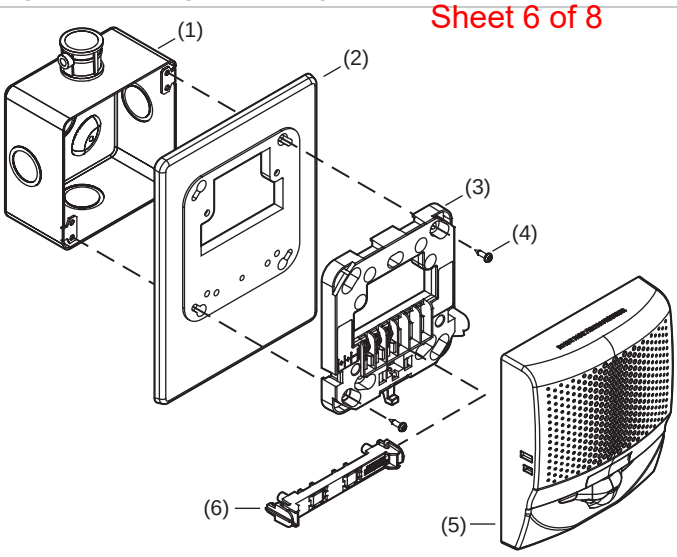
Note: Do not use Genesis G4 Series strobe and horn-strobe signaling appliances in applications where signal power is cycled on and off, such as in coded or private mode signaling systems.

To install the appliance:

1. Using the screws supplied with the mounting plate, attach the mounting plate and, if used, the trim plate to the electrical box. See Figure 3. The mounting plate is ordered separately.
2. Connect the field wiring. Observe signal polarity for the appliance to operate properly. See Figure 4.
3. Remove the shorting clip (Figure 3, item 6). Retain for future use.
4. Plug the appliance into the mounting plate by setting the appliance on the top of the mounting plate, and then snapping the bottom into place. See Figure 5.

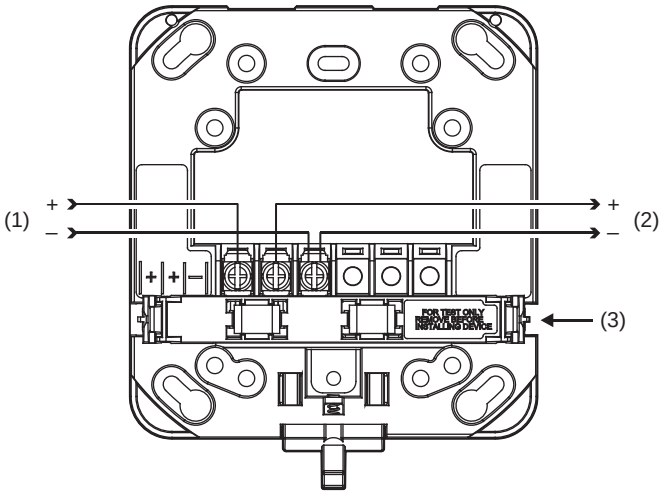
   To unplug the appliance, press the spring clip on the bottom, and then lift the appliance away from the mounting plate.
5. Test the unit for proper operation.

Figure 3: Mounting on a 4-in. square electrical box



(1) Electrical box
(2) Trim plate (optional)
(3) Mounting plate
(4) Machine screw (2X, supplied with mounting plate)
(5) G4 Series signaling appliance
(6) Shorting clip

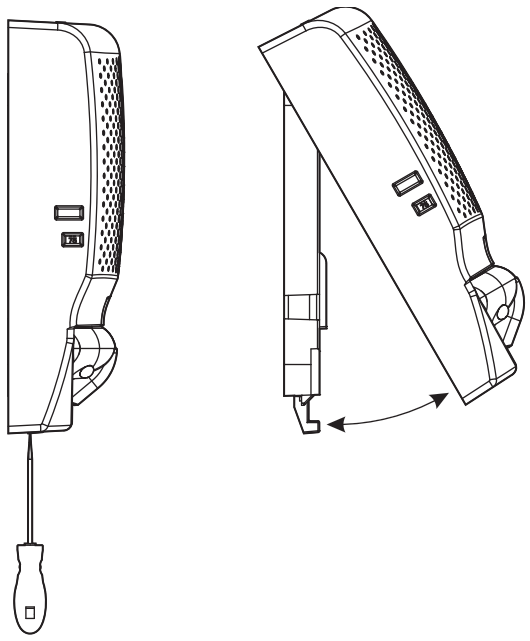
Figure 4: Wiring



(1) Horn/strobe circuit in (signal polarity shown in the active condition)
(2) Horn/strobe circuit out
(3) Shorting clip

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Figure 5: Removing and replacing the appliance



Maintenance and testing

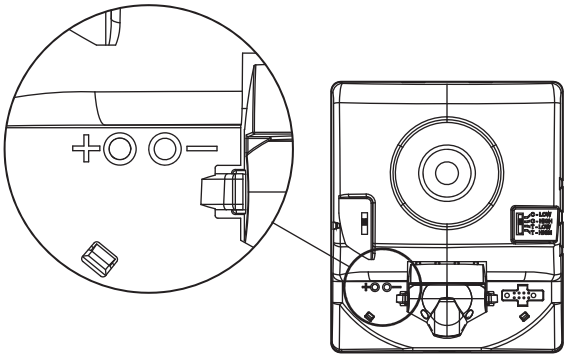
Caution: Equipment damage hazard. To maintain the required agency listings, do not change factory-applied finishes.

This unit is not serviceable or repairable. If the unit fails to operate, contact the supplier for a replacement.

Perform a visual and operational inspection in accordance with applicable codes and standards or as directed by the local authority having jurisdiction.

Input wiring test points are available on the front of the appliance when the cover is removed. The test points let you easily spot check the field circuit wiring without the need to remove the appliance from the wall. See Figure 6.

Figure 6: Test points



Note: Marking indicates signal polarity when the circuit is active.

Specifications

Operating voltage	16 to 33 VDC, 16 to 33 VFWR
Operating current	See Table 4 to Table 6
Horn signal type	Constant or temporal (TC3)
Sound output	See Table 7
Sound pattern	See Table 8
Light output	15, 30, 75, or 110 candela
Strobe flash rate	1 fps (flash per second) approx.
Light distribution	See Figure 7
Synchronization	20 Ω max. between any two devices. To determine allowed wire resistance, refer to these specifications, and the specifications for the synchronized signal source.
Dimensions (W×H×D)	4.95 × 5.78 × 1.62 in. (12.57 × 14.68 × 4.11 cm) See Figure 8
Strobe-to-box center offset	−1.70 in (−4.32 cm)
Compatible electrical boxes	1-gang, 2-gang, 4-inch octagon 4-inch square
Trim plates	G4TR, G4TW
Replacement covers	See Table 9 to Table 11
Operating environment Temperature Relative humidity	 32 to 122°F (0 to 50°C) 0 to 93% noncondensing
Storage temperature	-40 to 158°F (-40 to 70°C)

Table 4: Operating current (horn models)

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

Table 5: Operating current (strobe models)

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

Table 6: Operating current (horn-strobe models)

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

Table 7: Sound output (horn and horn-strobe models)

Sound setting	Reverberant (UL 464)	Anechoic (CAN/ULC-S525)
C-LOW, T-LOW	80 dBA	86 dBA
C-HIGH, T-HIGH	86 dBA	92 dBA

Table 8: 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

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Table 9: Horn replacement covers

Number	Description
G4ARA-CVR	Cover, wall horn, red, ALERT
G4ARF-CVR	Cover, wall horn, red, FIRE
G4ARF-FR-CVR	Cover, wall horn, red, FEU
G4ARF-SP-CVR	Cover, wall horn, red, FUEGO
G4ARN-CVR	Cover, wall horn, red, no marking
G4AWA-CVR	Cover, wall horn, white, ALERT
G4AWF-CVR	Cover, wall horn, white, FIRE
G4AWF-FR-CVR	Cover, wall horn, white, FEU
G4AWF-SP-CVR	Cover, wall horn, white, FUEGO
G4AWN-CVR	Cover, wall horn, white, no marking

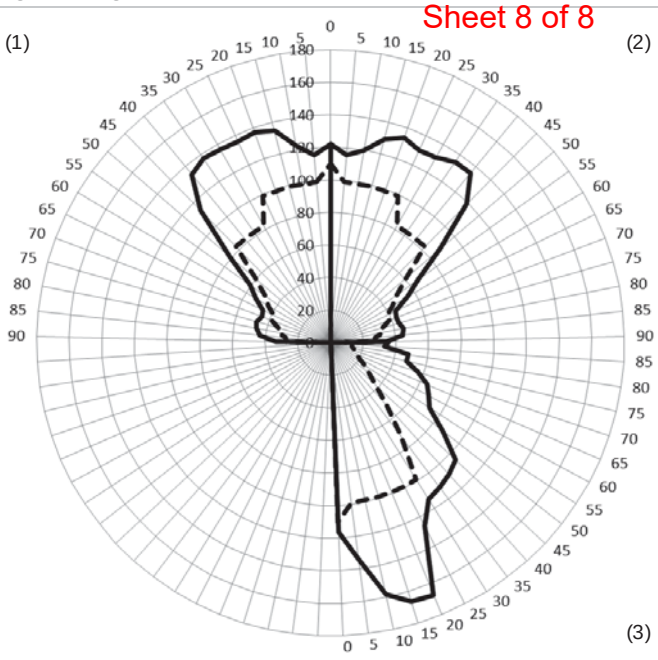
Table 10: Strobe replacement covers

Model	Description
G4VRA-CVR	Cover, wall strobe, red, ALERT
G4VRF-CVR	Cover, wall strobe, red, FIRE
G4VRF-FR-CVR	Cover, wall strobe, red, FEU
G4VRF-SP-CVR	Cover, wall strobe, red, FUEGO
G4VRN-CVR	Cover, wall strobe, red, no marking
G4VWA-CVR	Cover, wall strobe, white, ALERT
G4VWF-CVR	Cover, wall strobe, white, FIRE
G4VWF-FR-CVR	Cover, wall strobe, white, FEU
G4VWF-SP-CVR	Cover, wall strobe, white, FUEGO
G4VWN-CVR	Cover, wall strobe, white, no marking

Table 11: Horn-strobe replacement covers

Model	Description
G4AVRA-CVR	Cover, wall horn-strobe, red, ALERT
G4AVRF-CVR	Cover, wall horn-strobe, red, FIRE
G4AVRF-FR-CVR	Cover, wall horn-strobe, red, FEU
G4AVRF-SP-CVR	Cover, wall horn-strobe, red, FUEGO
G4AVRN-CVR	Cover, wall horn-strobe, red, no marking
G4AVWA-CVR	Cover, wall horn-strobe, white, ALERT
G4AVWF-CVR	Cover, wall horn-strobe, white, FIRE
G4AVWF-FR-CVR	Cover, wall horn-strobe, white, FEU
G4AVWF-SP-CVR	Cover, wall horn-strobe, white, FUEGO
G4AVWN-CVR	Cover, wall horn-strobe, white, no marking

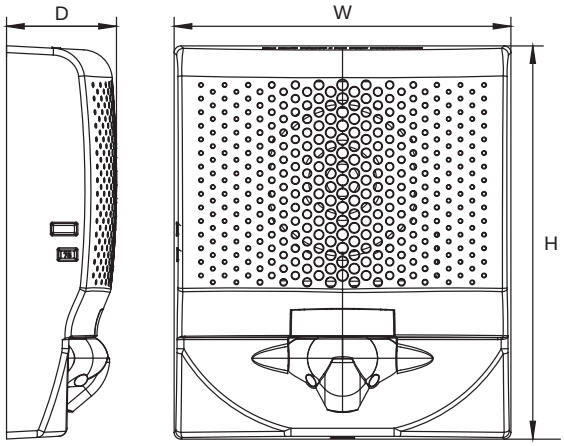
Figure 7: Light distribution



(1) Horizontal left
(2) Horizontal right
(3) Vertical bottom

Measured
UL minimum

Figure 8: Dimensions



Regulatory information

UL rating	Regulated 24 DC and 24 FWR
FCC compliance	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Industry Canada compliance	This Class A digital apparatus complies with Canadian ICES-003.
Environmental class	Indoor, dry

Contact information

For contact information, see www.edwardsfiresafety.com.