

STEP BY STEP GATEWAY

3303 8th AVE SE
 PUYALLUP, WA 98372
FIRE ALARM SYSTEM

EVERGREEN FIRE AND SECURITY
 CERTIFIED BY UNDERWRITERS LABORATORIES

DRAWING SHEET INDEX	
SHEET NO.	DESCRIPTION
FA-000	COVER SHEET
FA-001	PROJECT INFORMATION
FA-100	STEP BY STEP GATEWAY - SITE PLAN
FA-101	STEP BY STEP GATEWAY - FLOOR PLAN
FA-500	PANEL DETAILS
FA-501	CONNECTION DETAILS
FA-502	DEVICE DETAILS
FA-503	DEVICE DETAILS (CONT.)
FA-600	RISER
FA-601	MATRIX
FA-602	BATTERY CALCS



NICET CERTIFICATION INFO	
NICET #	114223
LEVEL	IV
SUB-FIELD	FIRE ALARMS
EXPIRATION DATE	08/01/23
NAME	BRIAN LINDBO

GENERAL NOTES

REVISIONS/NOTES	
REVISION	
DATE	CAD/DESIGN

JOB DETAILS	
DESIGNED BY:	B.LINDBO
DRAWN BY:	A.MURPHREE
CHECKED BY:	D.MOLMEN
CREATION DATE:	01/24/2022
DRAWING SCALE:	VARIES

JOB NAME
 STEP BY STEP GATEWAY
 TITLE PAGE

PAGE NUMBER
FA-000
 01 OF 11

PRELIMINARY

GENERAL SYSTEM NOTES

1. METALLIC RACEWAY SHALL BE USED IF REQUIRED BY CODE.
2. ALL RACEWAYS MUST BE FREE OF MOISTURE.
3. REFER TO EVERGREEN FIRE & SECURITY (EFS) FIRE DATA SHEETS FOR PROPER TYPE AND SIZES OF REQUIRED DEVICE MOUNTING BOXES. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROPER INSTALLATION OF ALL DEVICES.
4. AC VOLTAGE IS NOT PERMITTED IN THE SAME RACEWAY AS FIRE ALARM WIRING.
5. UNRELATED (NON-FIRE) WIRING SHALL NOT BE IN THE SAME RACEWAY AS FIRE ALARM WIRING.
6. ALL CONTRACTOR FIELD WIRING MUST ENTER TOP AND/OR BOTTOM RIGHT OF FIRE ALARM CONTROL PANEL ONLY. SEE DATA SHEET.
7. ALL FIRE ALARM WIRING SHALL TEST FREE OF OPENS, SHORTS, AND GROUNDS.
8. ALL WIRES SHALL BE LABELED AND TAGGED.
9. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL CONDUIT AND BACK BOXES. EFS WILL PROVIDE ALL SPECIALTY BACK BOXES FOR ELECTRICAL CONTRACTOR INSTALLATION.
10. ALL WIRE SHALL MEET ALL APPLICABLE NATIONAL ELECTRICAL CODE ARTICLES FOR FIRE ALARM AND LOW VOLTAGE WIRING.

FIRE SYSTEM DESIGNED BY: EVERGREEN FIRE & SECURITY
TACOMA, WASHINGTON

FIRE SYSTEM INSTALLED BY: EVERGREEN FIRE & SECURITY
TACOMA, WASHINGTON

FIRE SYSTEM EQUIPMENT BY: EVERGREEN FIRE & SECURITY
TACOMA, WASHINGTON

WIRE CHART

CIRCUIT TYPE	CABLE TYPE	NO.	GAUGE	COLOR	NOTES
ADDRESSABLE INITIATING CIRCUIT	FPLR	A	16/2	RED JACKET	
INDICATING CIRCUIT - BELL CIRCUIT	FPLR	B	12/2	RED JACKET	
INDICATING CIRCUIT - FA NAC	FPLR	N	12/2	RED JACKET	
ANNUNCIATOR CIRCUIT	FPLR	L	16/4	RED JACKET	
REMOTE LED CIRCUIT	FPLR	R	16/2	RED JACKET	
REMOTE TEST SWITCH	FPLR	T	16/4	RED JACKET	

SYMBOL INDEX

SYMBOL	DESCRIPTION	MANUFACTURE	MODEL NUMBER	BACK BOX	QTY
	FIRE ALARM CONTROL PANEL	SILENT KNIGHT	IFP-300	EFS TO SUPPLY	1
	REMOTE ANNUNCIATOR	SILENT KNIGHT	00RA-1000	EFS TO SUPPLY	1
	REMOTE TEST SWITCH	SILENT KNIGHT	RTS151KEY	4 SQ. DEEP BOX SINGLE GANG MUD RING	1
	PHOTOELECTRIC SMOKE & SENSOR BASE (A BY SMOKE INDICATES ABOVE T-BAR CEILING)	SILENT KNIGHT	IDP-PHOTO-W B300-6	4 SQ. DEEP BOX SINGLE GANG MUD RING	23
	INTELLIGENT DUCT SMOKE DETECTOR	SILENT KNIGHT	DNR IDP-PHOTO-R-W	EFS TO SUPPLY	1
	DOUBLE ACTION ADDRESSABLE PULL STATION	SILENT KNIGHT	IDP-PULL-DA	4 SQ. DEEP BOX SINGLE GANG MUD RING	1
	SINGLE INPUT MONITOR MODULE	SILENT KNIGHT	IDP-MONITOR	4 SQ. DEEP BOX	2
	DUAL INPUT MONITOR MODULE	SILENT KNIGHT	IDP-MONITOR-2	4 SQ. DEEP BOX	4
	CONTROL RELAY MODULE	SILENT KNIGHT	IDP-RELAY	4 SQ. DEEP BOX	1
	CEILING MOUNT HORN/STROBE	SYSTEM SENSOR	PC2WL	4 SQ. DEEP BOX SINGLE GANG MUD RING	8
	WEATHERPROOF HORN/STROBE	SYSTEM SENSOR	P2RK	EFS TO SUPPLY	1
	FIRE STROBE, WALL	SYSTEM SENSOR	SWL	5 SQ. BOX 4 SQ. MUD RING	2
	WEATHERPROOF SPRINKLER BELL	SYSTEM SENSOR	SSM-24-10	EFS TO SUPPLY	1
	LED INDICATOR	SYSTEM SENSOR	RA100Z	4 SQ. DEEP BOX SINGLE GANG MUD RING	6
	FLOW SWITCH (F.B.O.)	F.B.O.	F.B.O.	F.B.O.	1
	TAMPER SWITCH (F.B.O.)	F.B.O.	F.B.O.	F.B.O.	4
	POST INDICATOR VALVE (F.B.O.)	F.B.O.	F.B.O.	F.B.O.	1
	LOW AIR	F.B.O.	F.B.O.	F.B.O.	1
	PRESSURE SWITCH	F.B.O.	F.B.O.	F.B.O.	1



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GENERAL NOTES

REVISIONS/NOTES

REVISION	DATE	CAD/DESIGN

JOB DETAILS

DESIGNED BY:	B.LINDBO
DRAWN BY:	A.MURPHREE
CHECKED BY:	D.MOLMEN
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DRAWING SCALE:	VARIES

JOB NAME

STEP BY STEP GATEWAY

PROJECT INFORMATION

PAGE NUMBER

FA-001

02 OF 11

PROJECT INFORMATION

PRELIMINARY



EVERGREEN FIRE AND SECURITY
2111 SOUTH 90TH STREET
TACOMA, WA. 98444
253-627-3794

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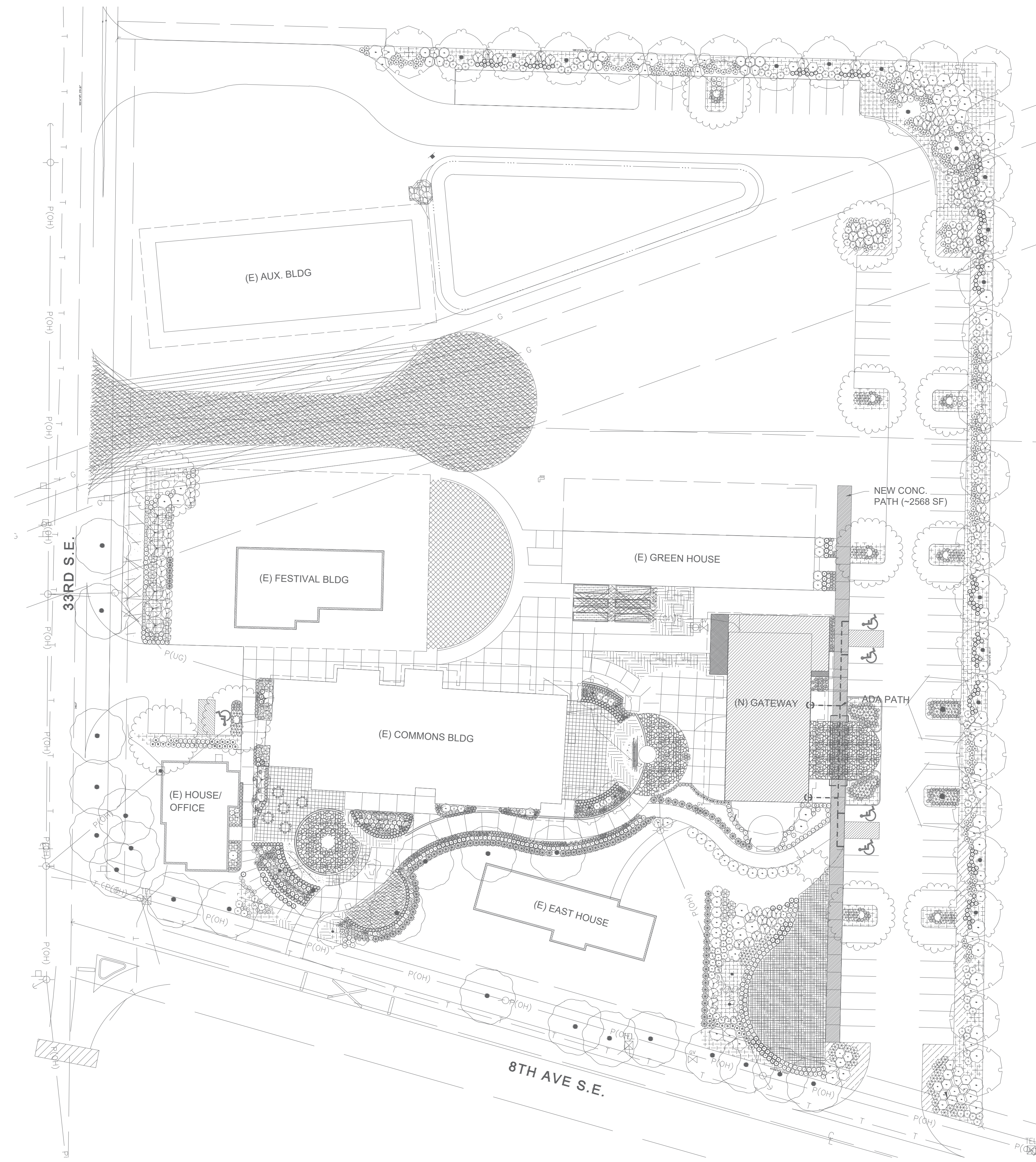
DESIGNED BY:	B.LINDBO
DRAWN BY:	A.MURPHREE
CHECKED BY:	D.MOLMEN
CREATION DATE:	01/24/2022
DRAWING SCALE:	VARIABLES

JOB NAME

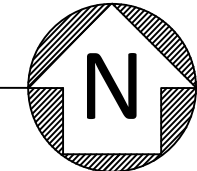
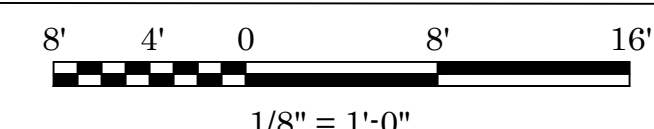
STEP BY STEP GATEWAY
STEP BY STEP GATEWAY - SITE PLAN

PAGE NUMBER

FA-100
03 OF 11



STEP BY STEP GATEWAY - SITE PLAN



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GENERAL NOTES

1 KITCHEN HOOD ANSUL SYSTEM MONITORING MODULE.

2 TWO PHONE LINES ARE REQUIRED FOR MONITORING VIA PHONE LINES.

SYMBOL LEGEND		
SYMBOL	DESCRIPTION	QTY
FACP	FIRE ALARM CONTROL PANEL	1
ANN	REMOTE ANNUNCIATOR	1
RTS	REMOTE TEST SWITCH	1
?	PHOTOELECTRIC SMOKE & SENSOR BASE (A BY SMOKES INDICATES ABOVE T-BAR CEILING)	23
?	INTELLIGENT DUCT SMOKE DETECTOR	1
F	DOUBLE ACTION ADDRESSABLE PULL STATION	1
M	SINGLE INPUT MONITOR MODULE	2
DM	DUAL INPUT MONITOR MODULE	4
CR	CONTROL RELAY MODULE	1
H	CEILING MOUNT HORN/STROBE	8
W	WEATHERPROOF HORN/STROBE	1
F	FIRE STROBE, WALL	2
B	WEATHER PROOF SPRINKLER BELL	1
LI	LED INDICATOR	6
FS	FLOW SWITCH (F.B.O.)	1
TS	TAMPER SWITCH (F.B.O.)	1
PIV	POST INDICATOR VALVE (F.B.O.)	1
LA	LOW AIR	1
PS	PRESSURE SWITCH	1

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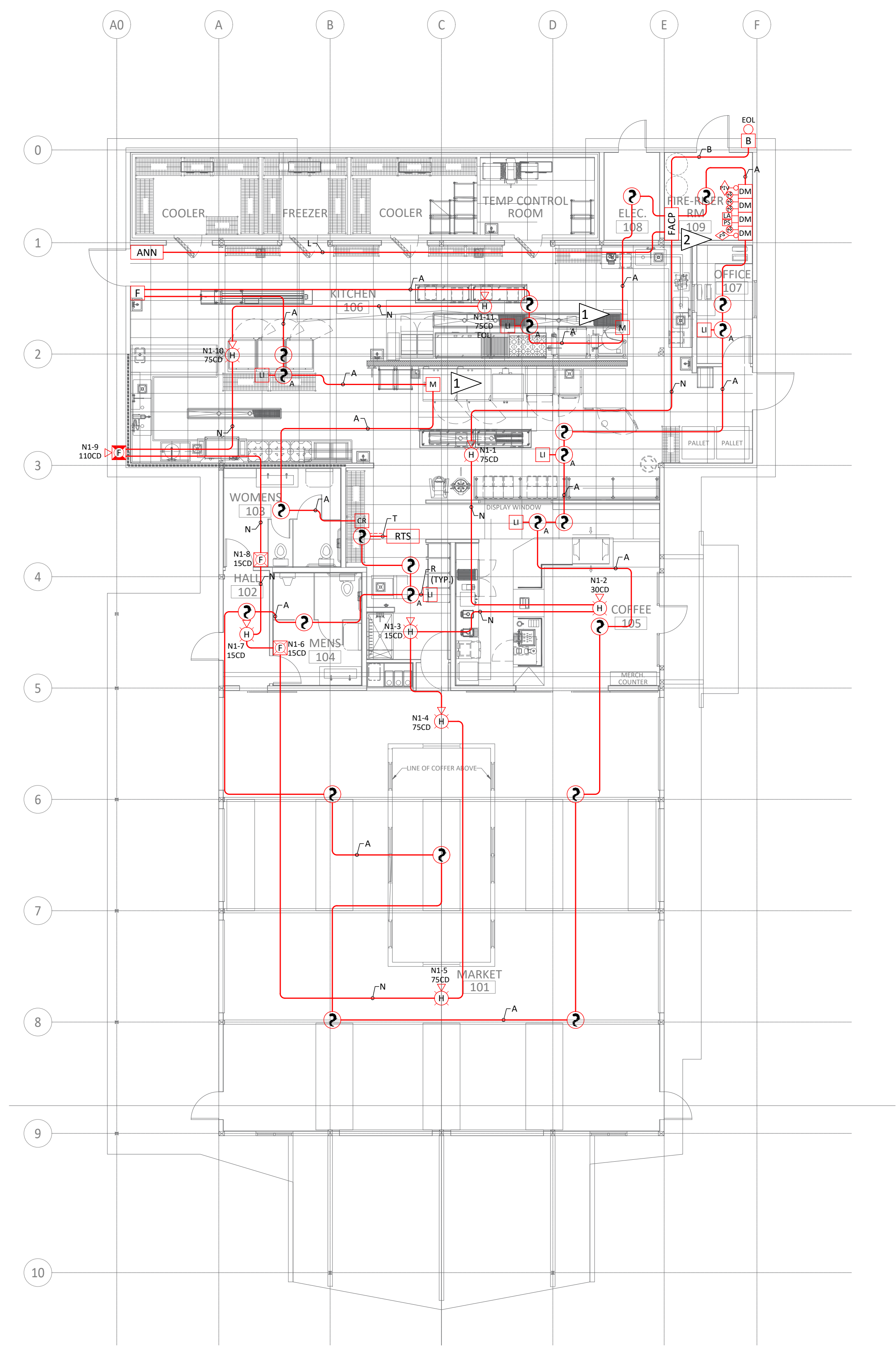
STEP BY STEP GATEWAY

STEP BY STEP GATEWAY - FLOOR PLAN

PAGE NUMBER

FA-101

04 OF 11



WIRE CHART				
CABLE USE	CABLE TYPE	NO.	GAUGE	COLOR
ADDRESSABLE INITIATING CIRCUIT	FPLR	A	16/2	RED JACKET
INDICATING CIRCUIT - BELL CIRCUIT	FPLR	B	12/2	RED JACKET
INDICATING CIRCUIT - FA NAC	FPLR	N	12/2	RED JACKET
ANNUNCIATOR CIRCUIT	FPLR	L	16/4	RED JACKET
REMOTE LED CIRCUIT	FPLR	R	16/2	RED JACKET
REMOTE TEST SWITCH	FPLR	T	16/4	RED JACKET

STEP BY STEP GATEWAY - FLOOR PLAN

8' 4' 0 8' 16'

1/8" = 1'-0"

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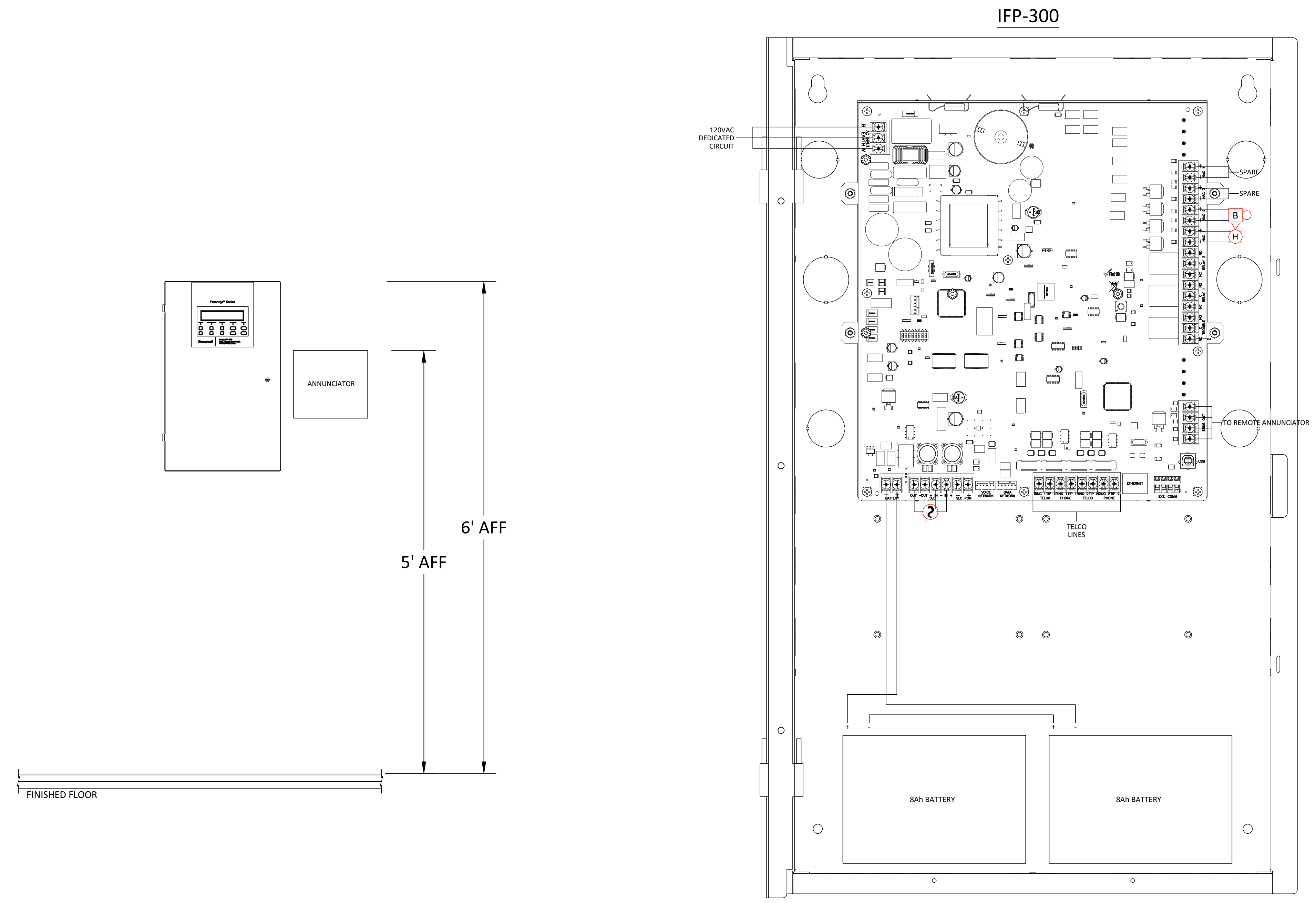
STEP BY STEP GATEWAY

PANEL DETAILS

PAGE NUMBER

FA-500

05 OF 11



IFP-300 PANEL DETAILS

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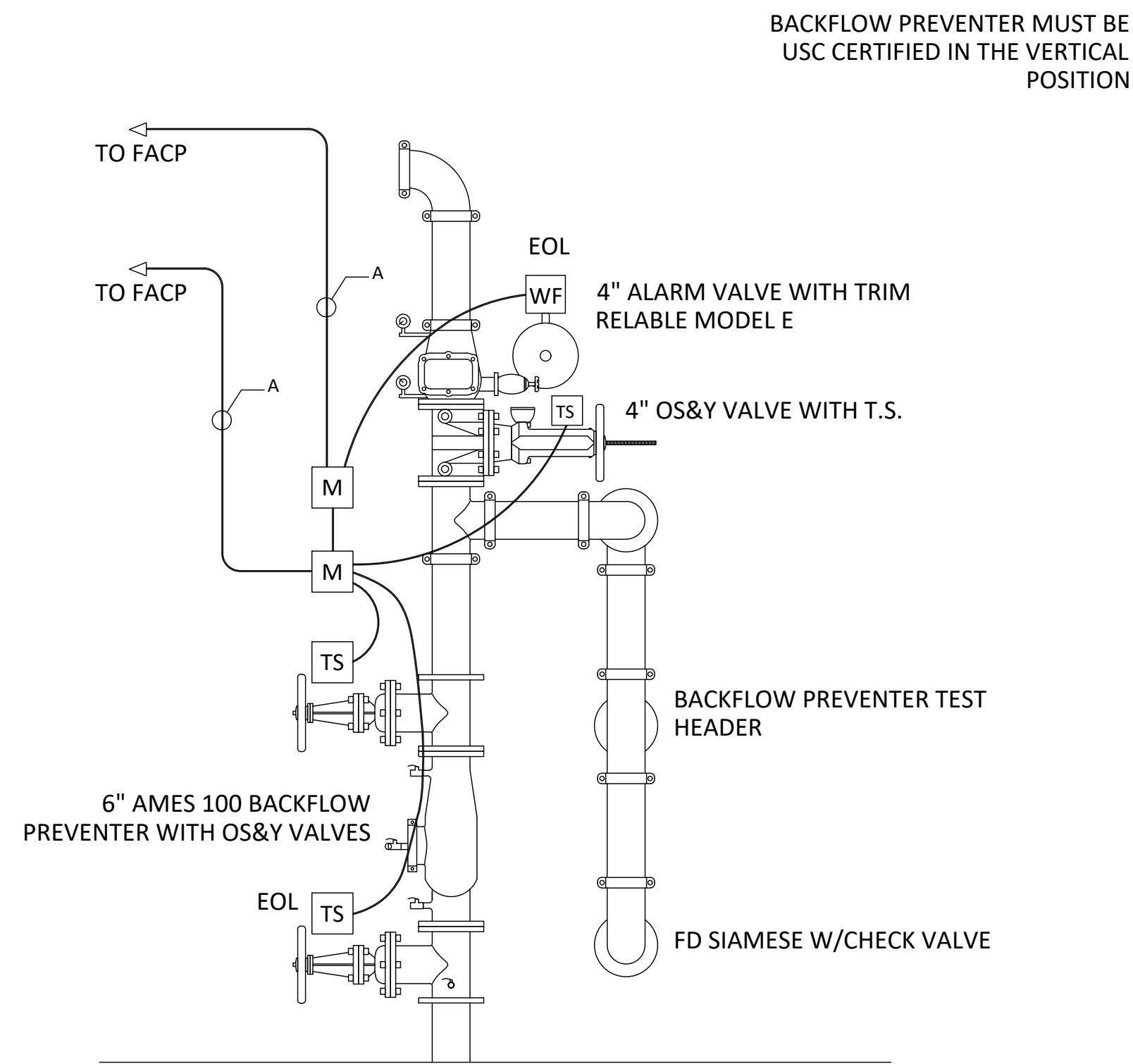
STEP BY STEP GATEWAY

CONNECTION DETAILS

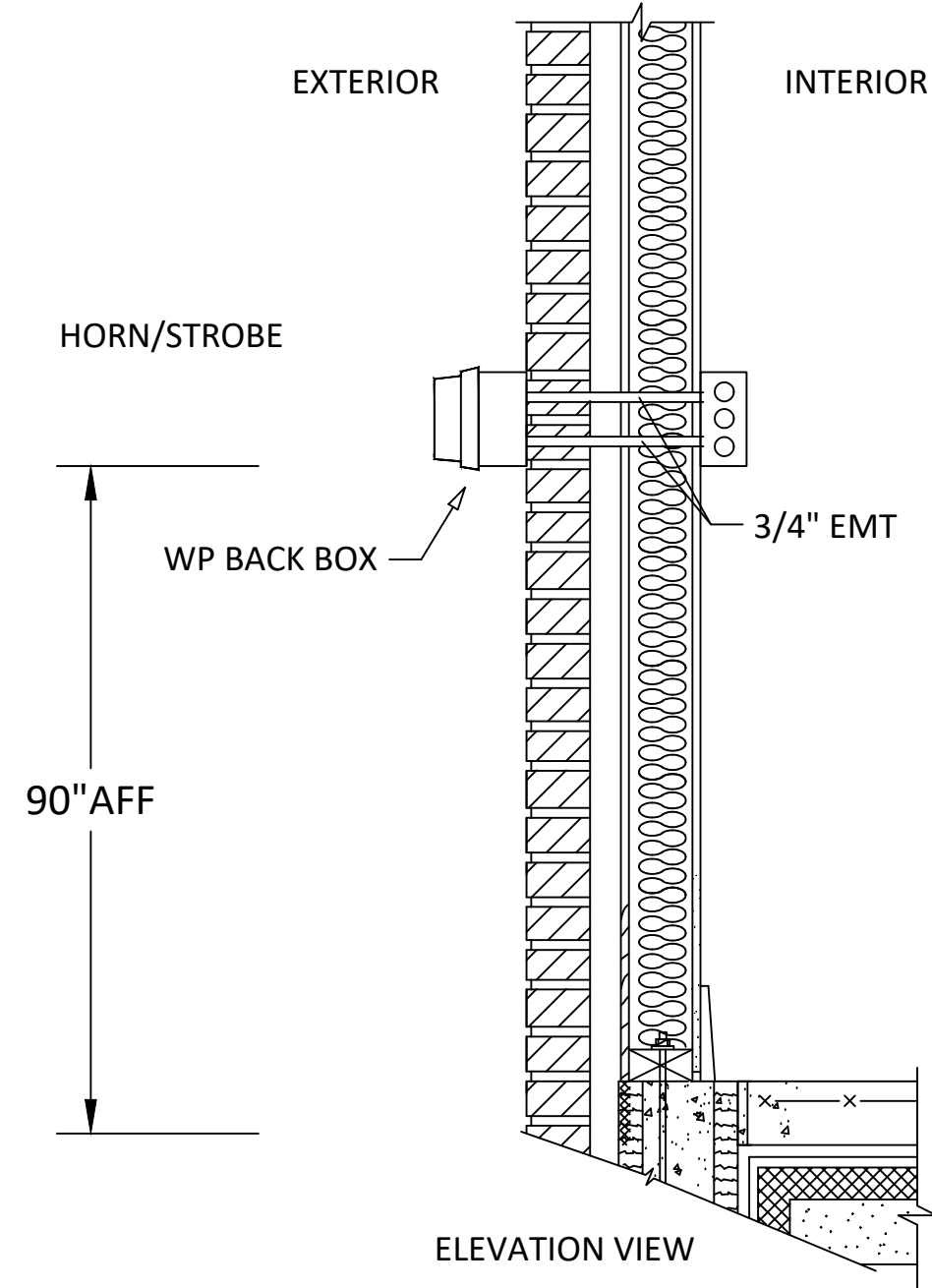
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FA-501

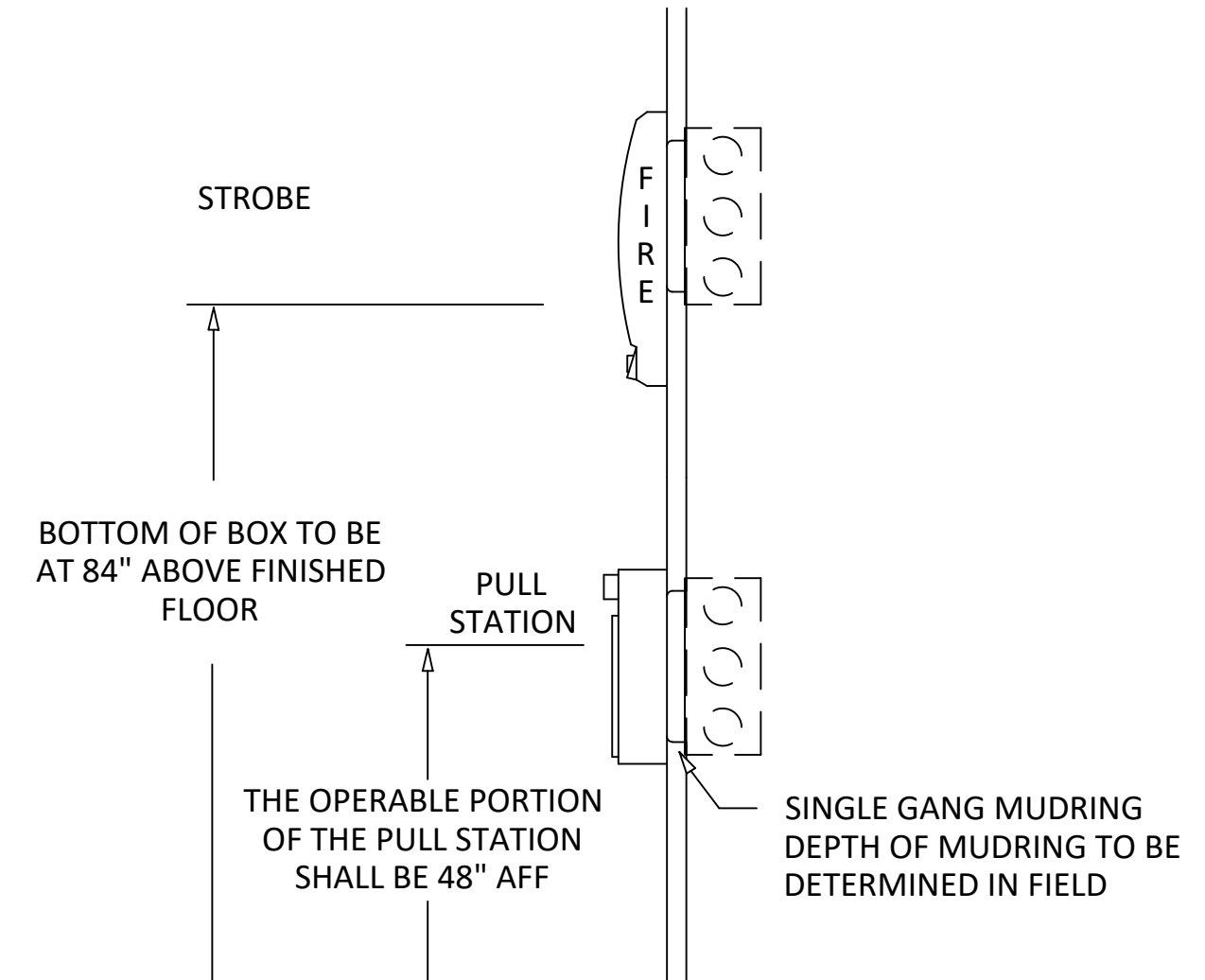
06 OF 11



1 RISER DETAIL
SCALE: NTS

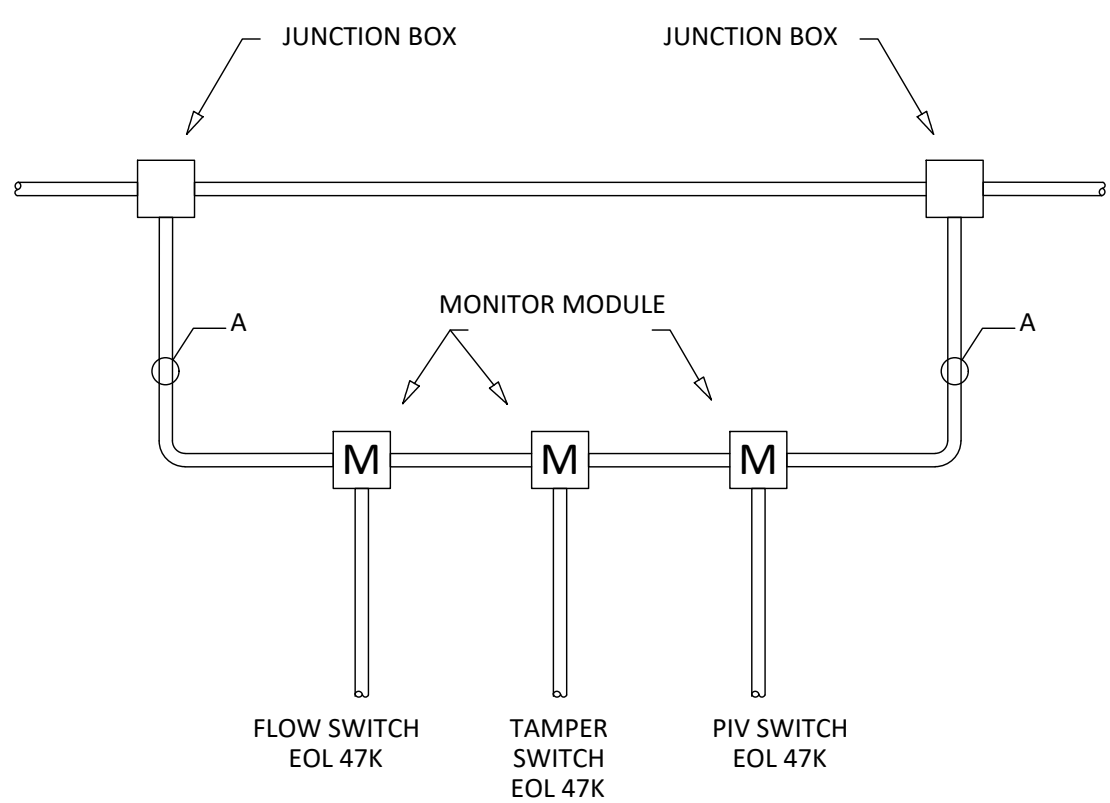


2 EXTERIOR WEATHERPROOF BOX DETAIL
SCALE: NTS

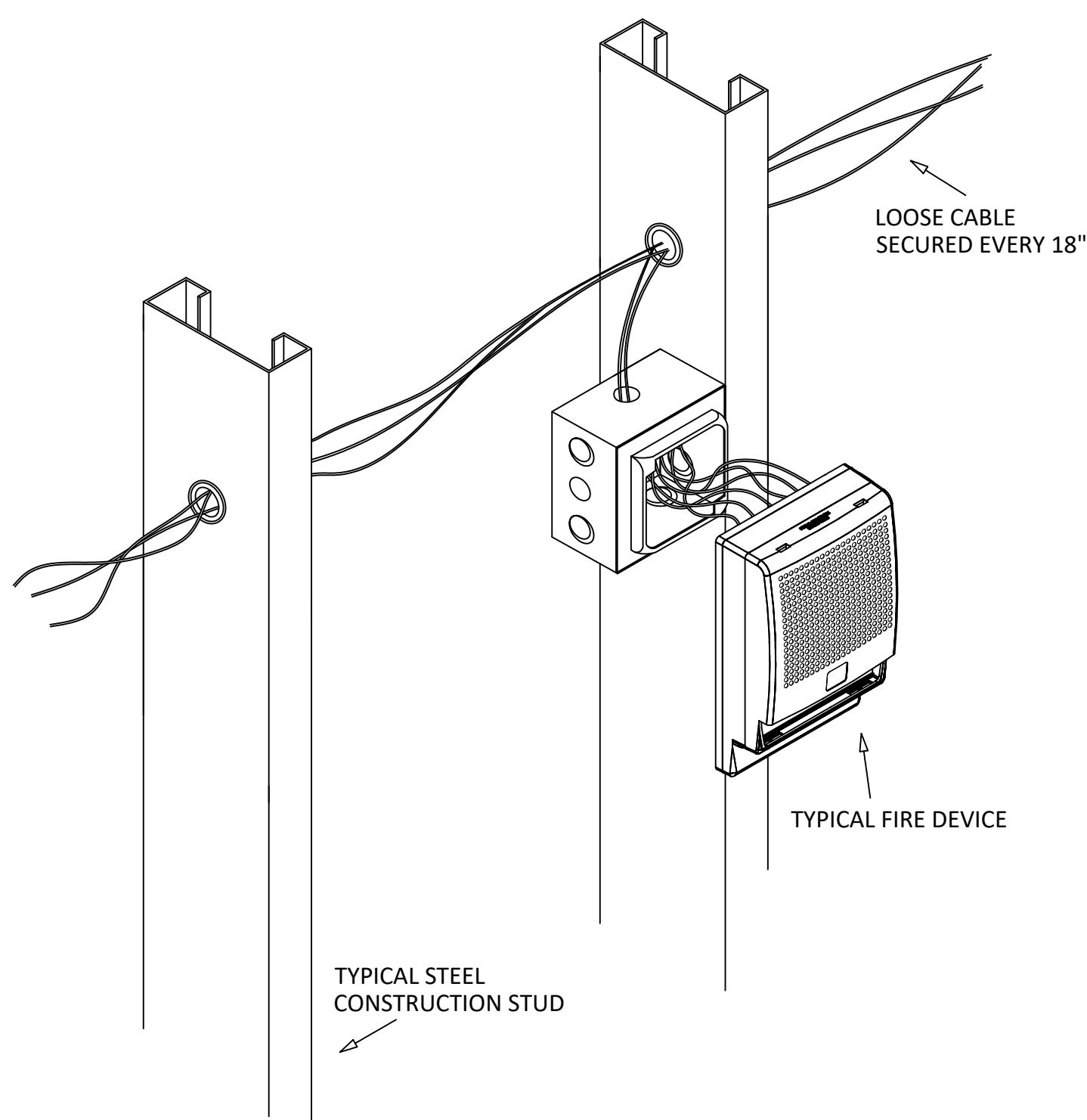


3 DEVICE MOUNTING HEIGHTS DETAIL
SCALE: NTS

ALL WIRING TO BE RUN STRAIGHT FROM JUNCTION BOX TO JUNCTION BOX EXCEPT FOR THE ADDRESSABLE LOOP, WHICH DROPS DOWN TO CONNECT TO THE MONITOR MODULES



4 MONITOR MODULE CONNECTION DETAIL
SCALE: NTS



5 DEVICE MOUNTING WITH LOOSE CABLE DETAIL
SCALE: NTS

CONNECTION DETAILS

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STEP BY STEP GATEWAY

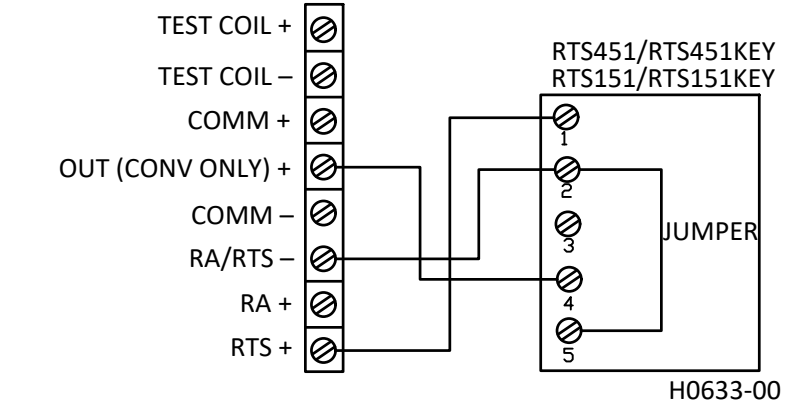
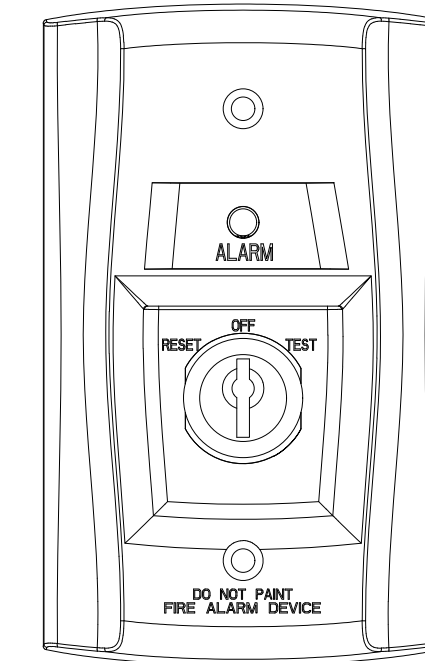
DEVICE DETAILS

PAGE NUMBER

FA-502

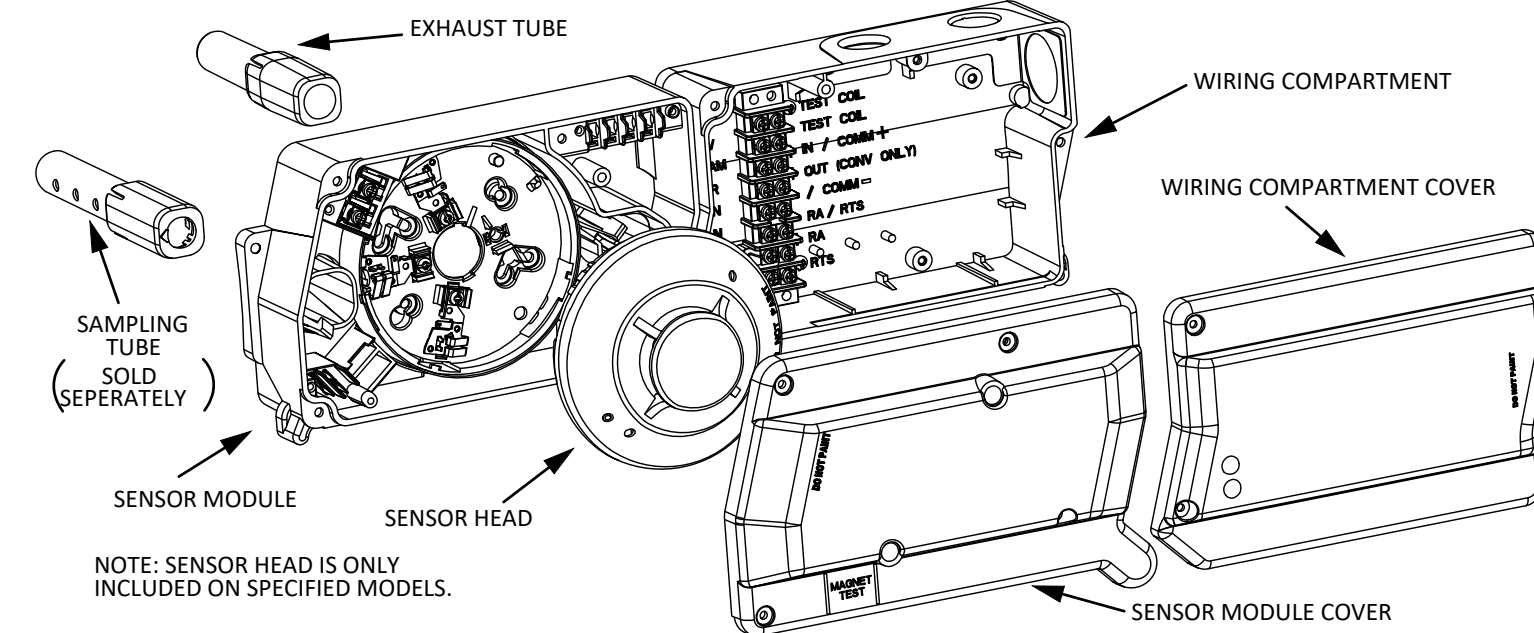
07 OF 11

SILENT KNIGHT MODEL NO: RTS151KEY

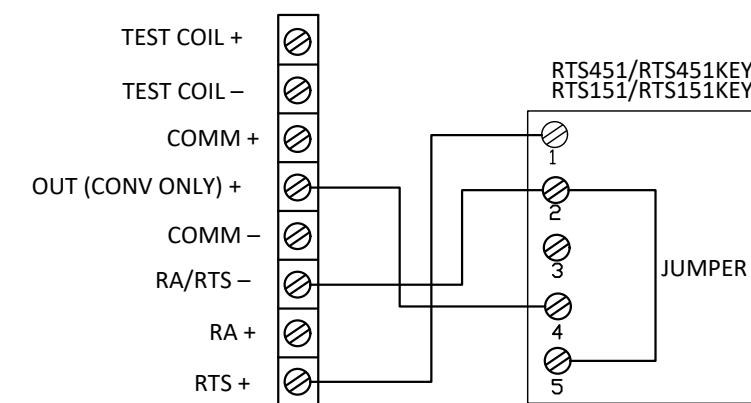


3 REMOTE TEST SWITCH DETAIL
SCALE: NTS

SILENT KNIGHT MODEL NO.: DNR
IDP-PHOTO-R-W

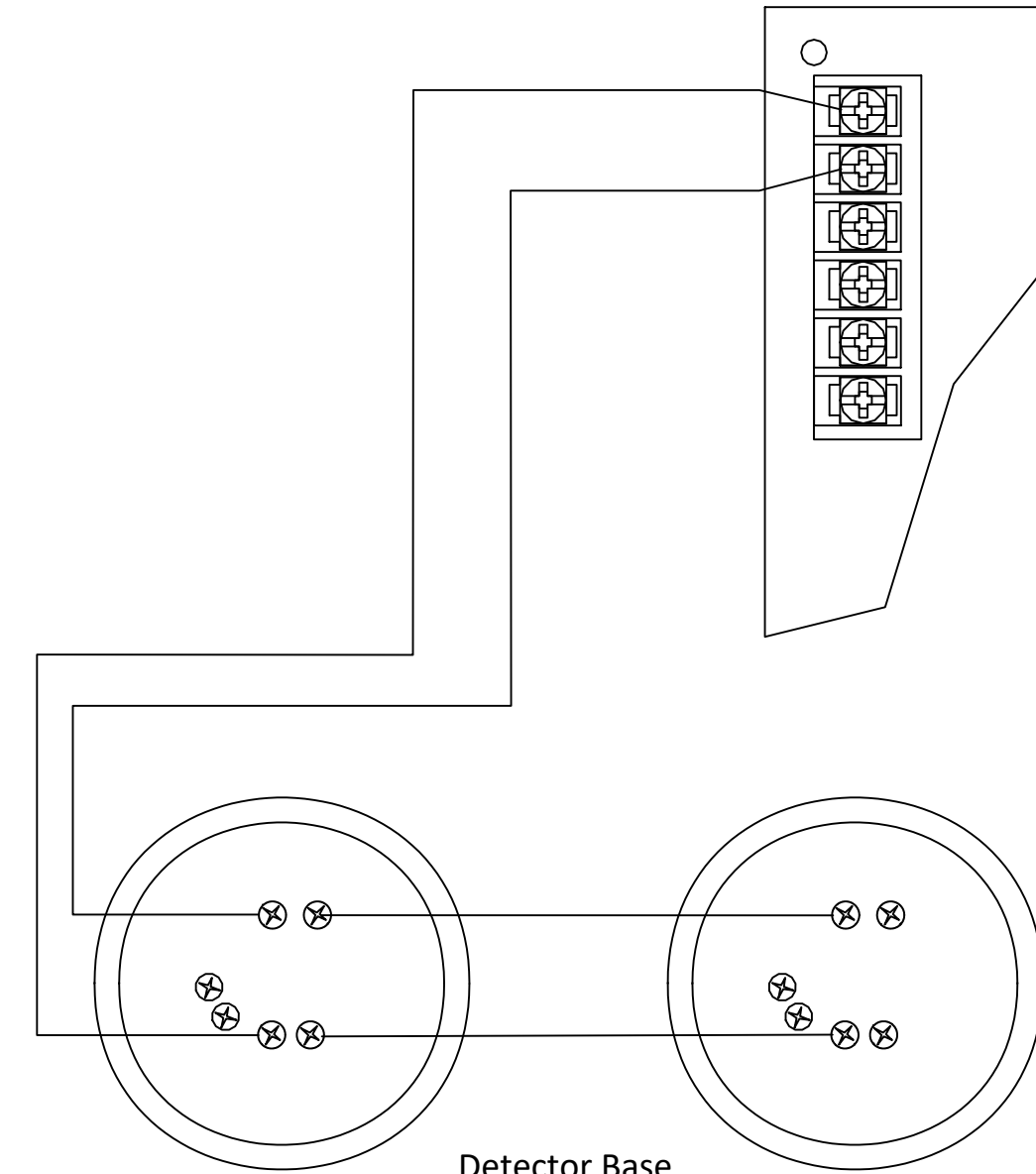


NOTE: SENSOR HEAD IS ONLY INCLUDED ON SPECIFIED MODELS.



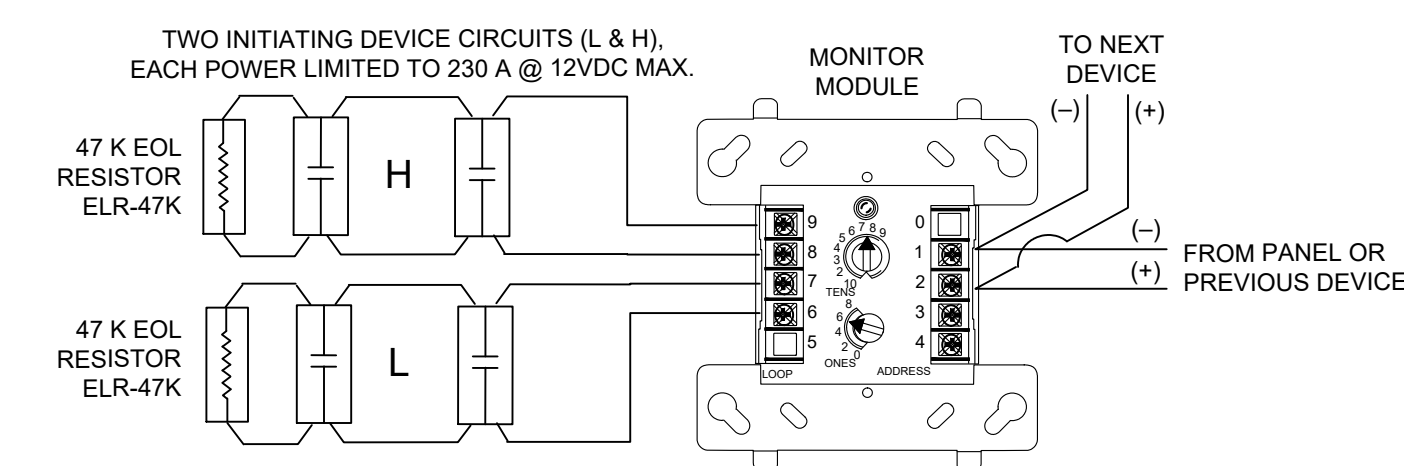
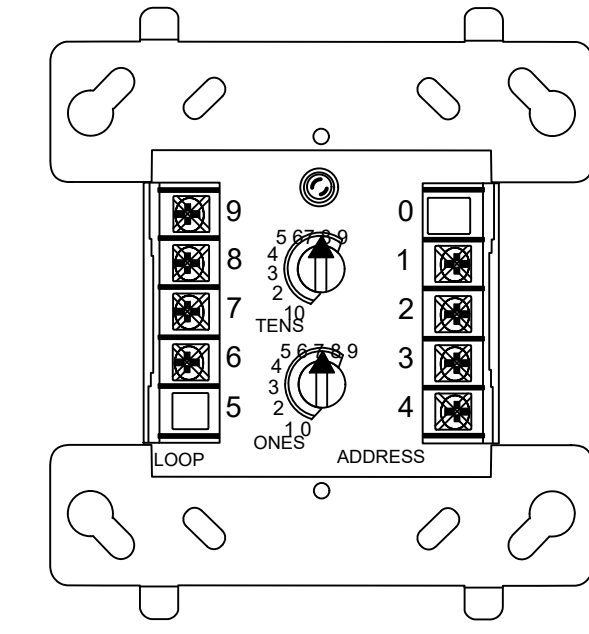
2 DUCT SMOKE DETECTOR
SCALE: NTS

SILENT KNIGHT MODEL NO: IDP-PHOTO-W
B300-6



1 SMOKE DETECTOR DETAIL
SCALE: NTS

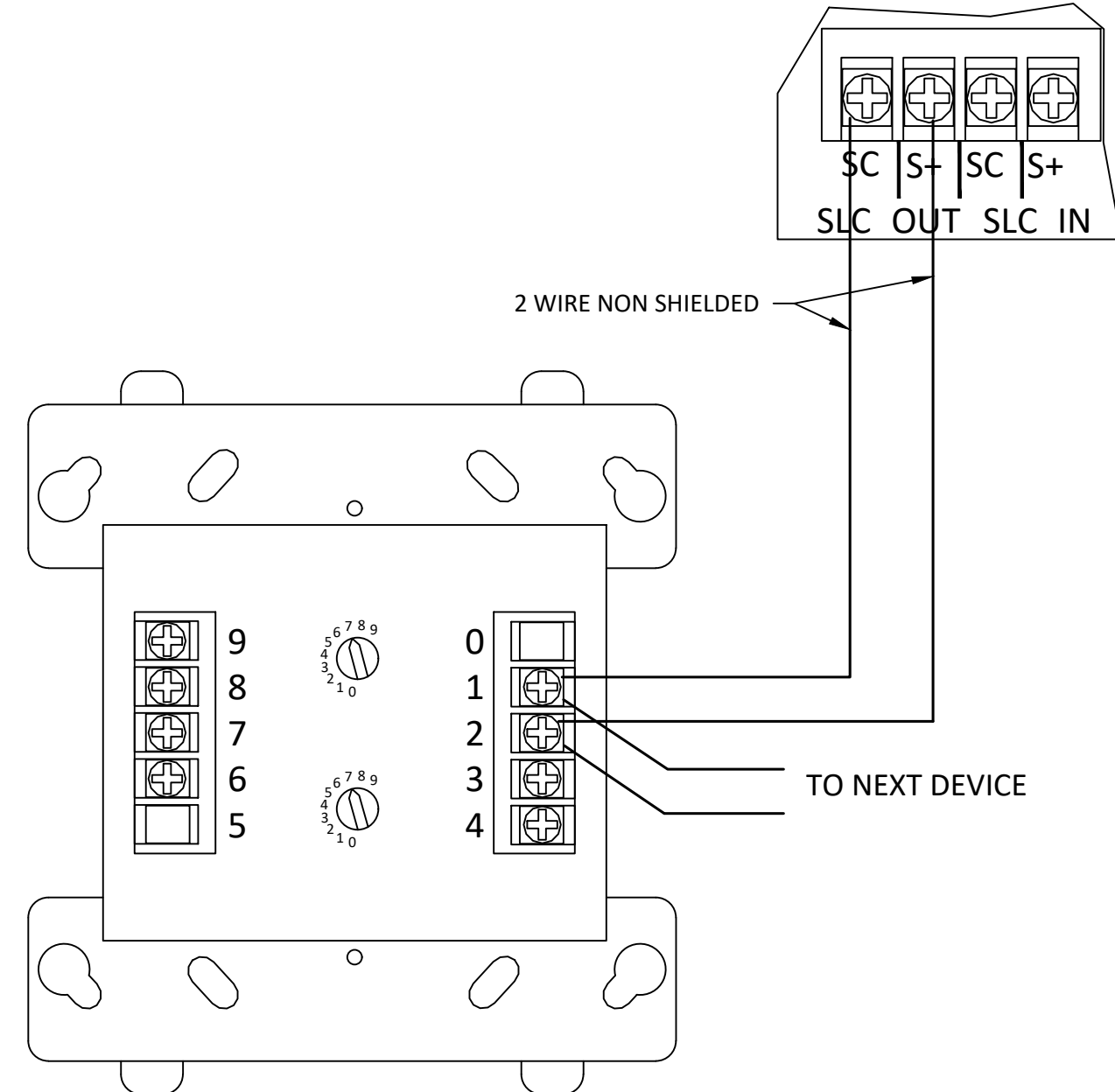
SILENT KNIGHT MODEL NO.: IDP-MONITOR 2



ANY NUMBER OF UL LISTED CONTACT CLOSURE DEVICES MAY BE USED. DO NOT MIX FIRE ALARM INITIATING, SUPERVISORY, OR SECURITY DEVICES ON THE SAME INITIATING DEVICE CIRCUIT.
INSTALL CONTACT CLOSURE DEVICES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

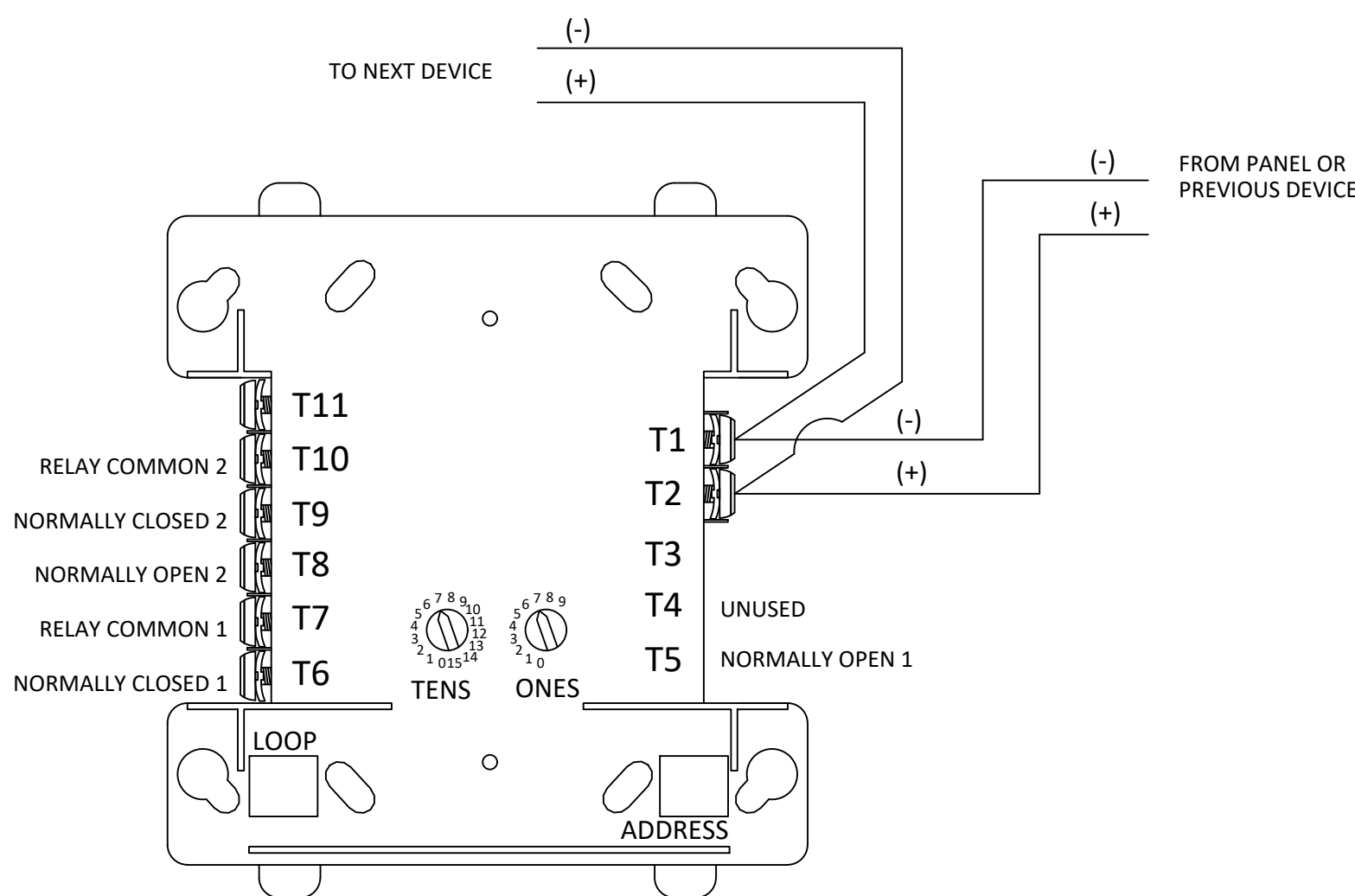
6 DUAL MONITOR MODULE
SCALE: NTS

SILENT KNIGHT MODEL NO: IDP-MONITOR



5 SINGLE INPUT MOINOR MODULE
SCALE: NTS

SILENT KNIGHT MODEL NO. :IDP-RELAY



4 RELAY CONTROL MODULE
SCALE: NTS

DEVICE DETAILS

PRELIMINARY



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GENERAL NOTES

REVISIONS/NOTES

REVISION	DATE	CAD/DESIGN

JOB DETAILS

DESIGNED BY: B.LINDBO
DRAWN BY: A.MURPHREE
CHECKED BY: D.MOLMEN
CREATION DATE: 01/24/2022
DRAWING SCALE: VARIES

JOB NAME

STEP BY STEP GATEWAY

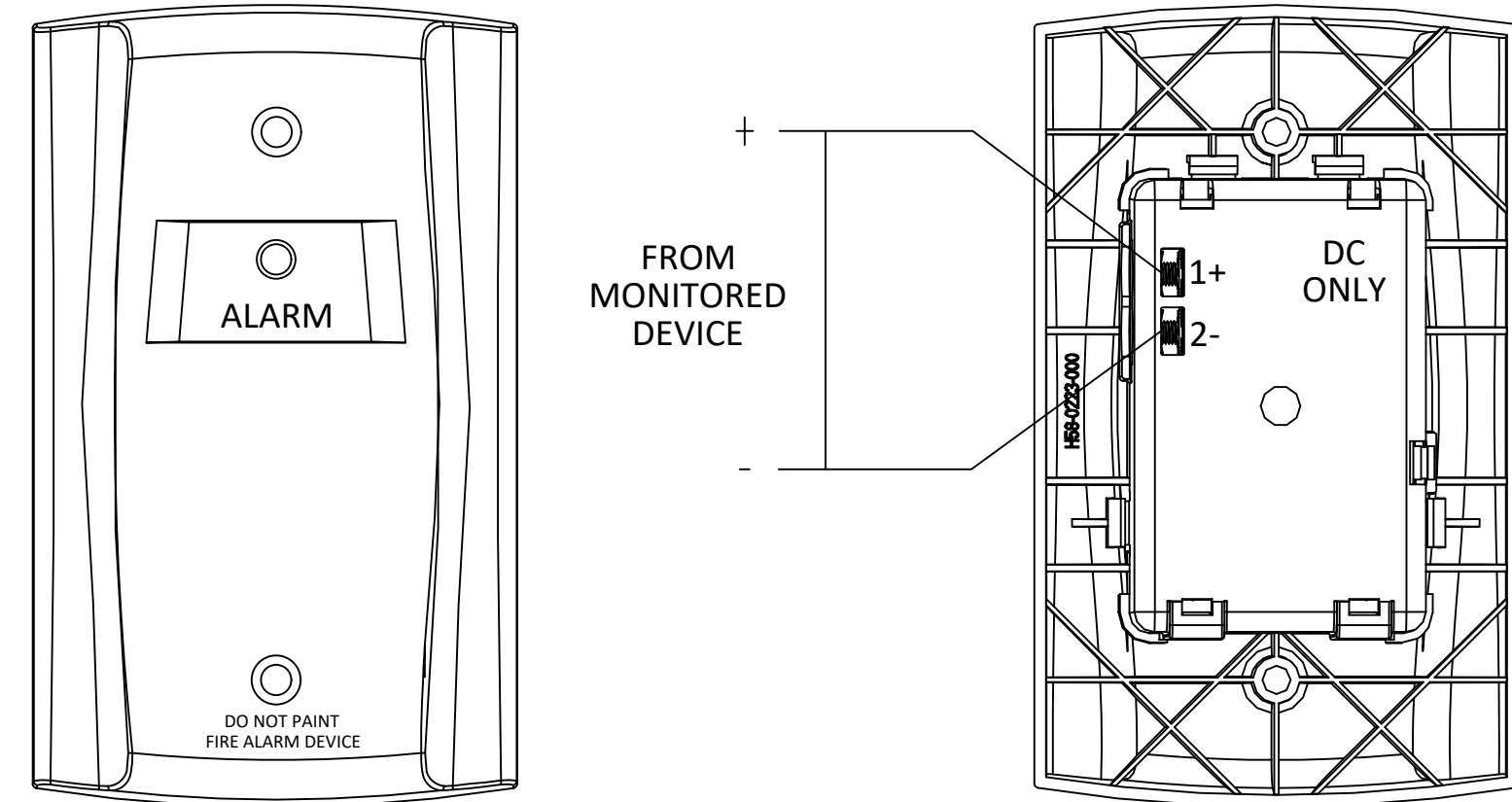
DEVICE DETAILS (CONT.)

PAGE NUMBER

FA-503

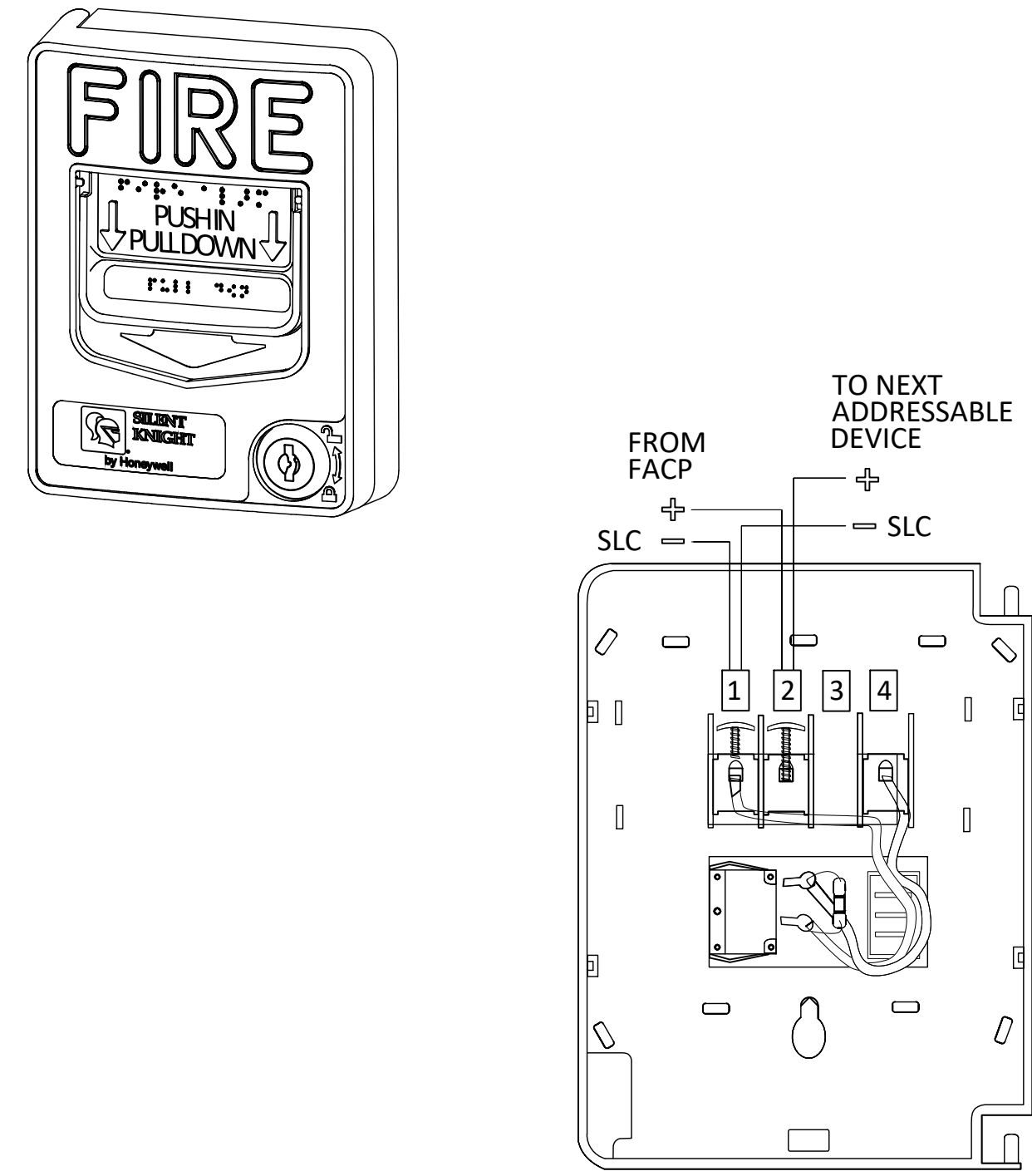
08 OF 11

SYSTEM SENSOR MODEL NO: RA100Z



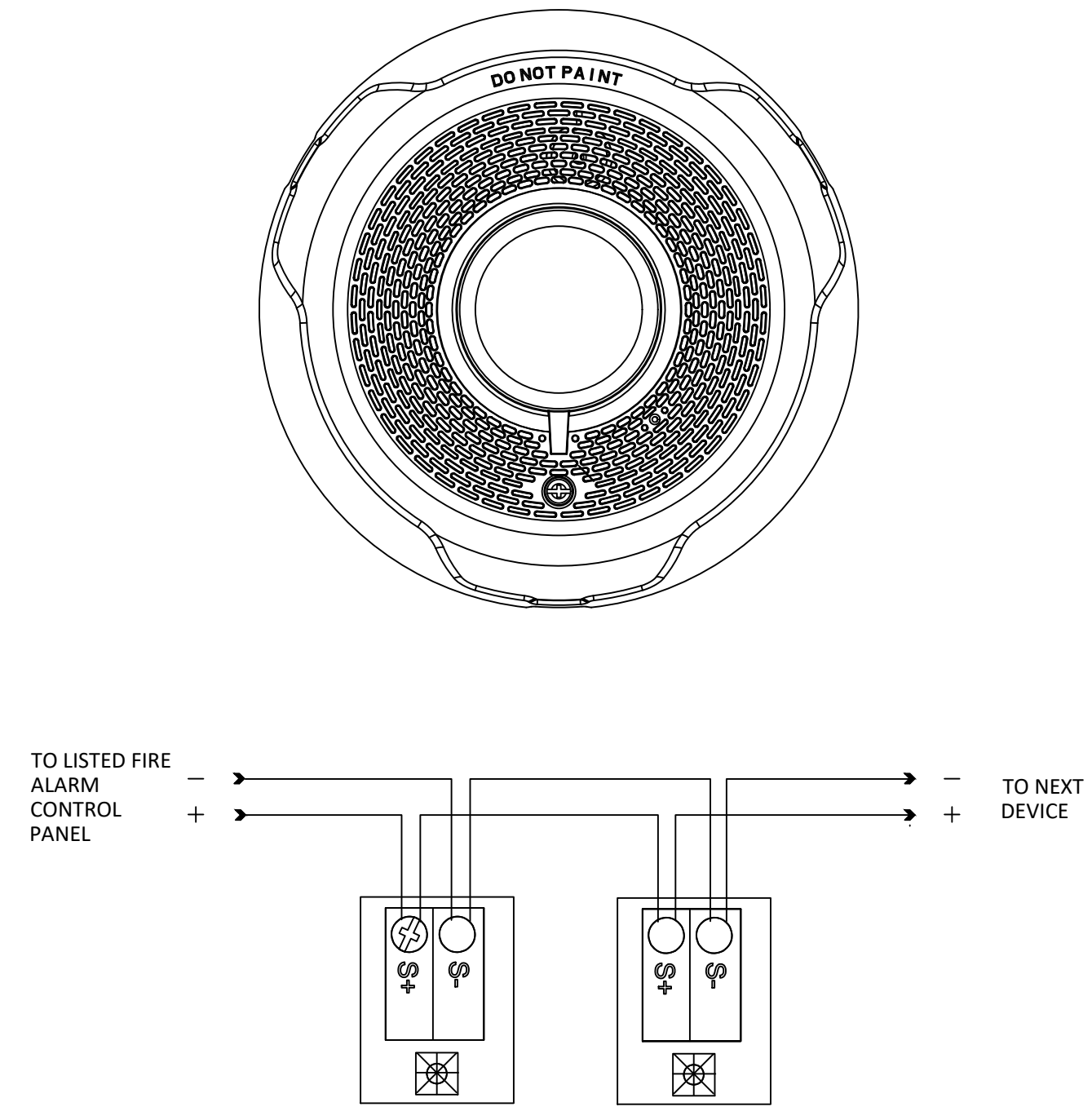
1 REMOTE LED
FA-503 SCALE: NTS

SILENT KNIGHT MODEL NO: IDP-PULL-DA



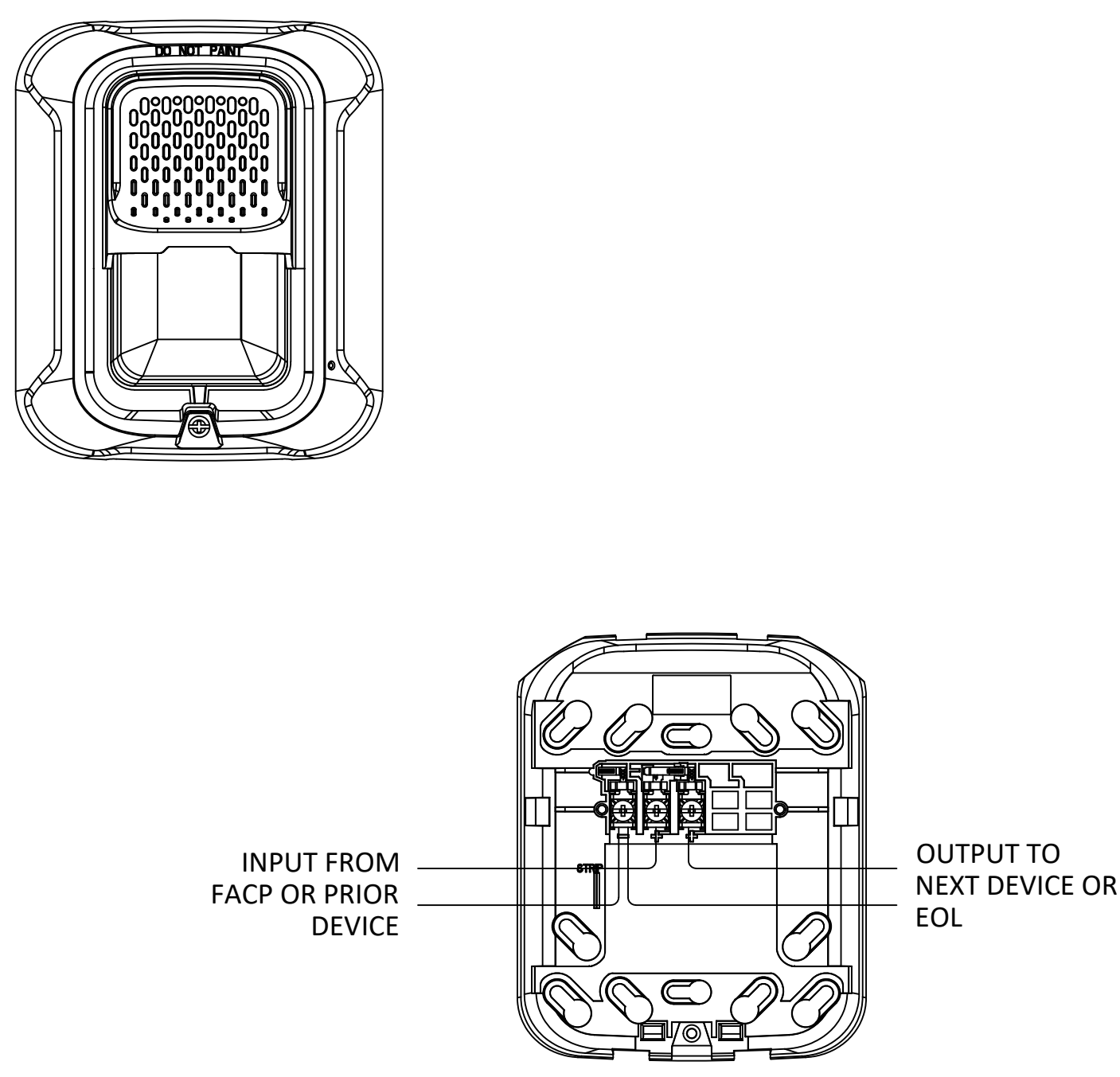
2 PULL STATION, DUAL ACTION
FA-503 SCALE: NTS

SYSTEM SENSOR MODEL NO: .PC2WL



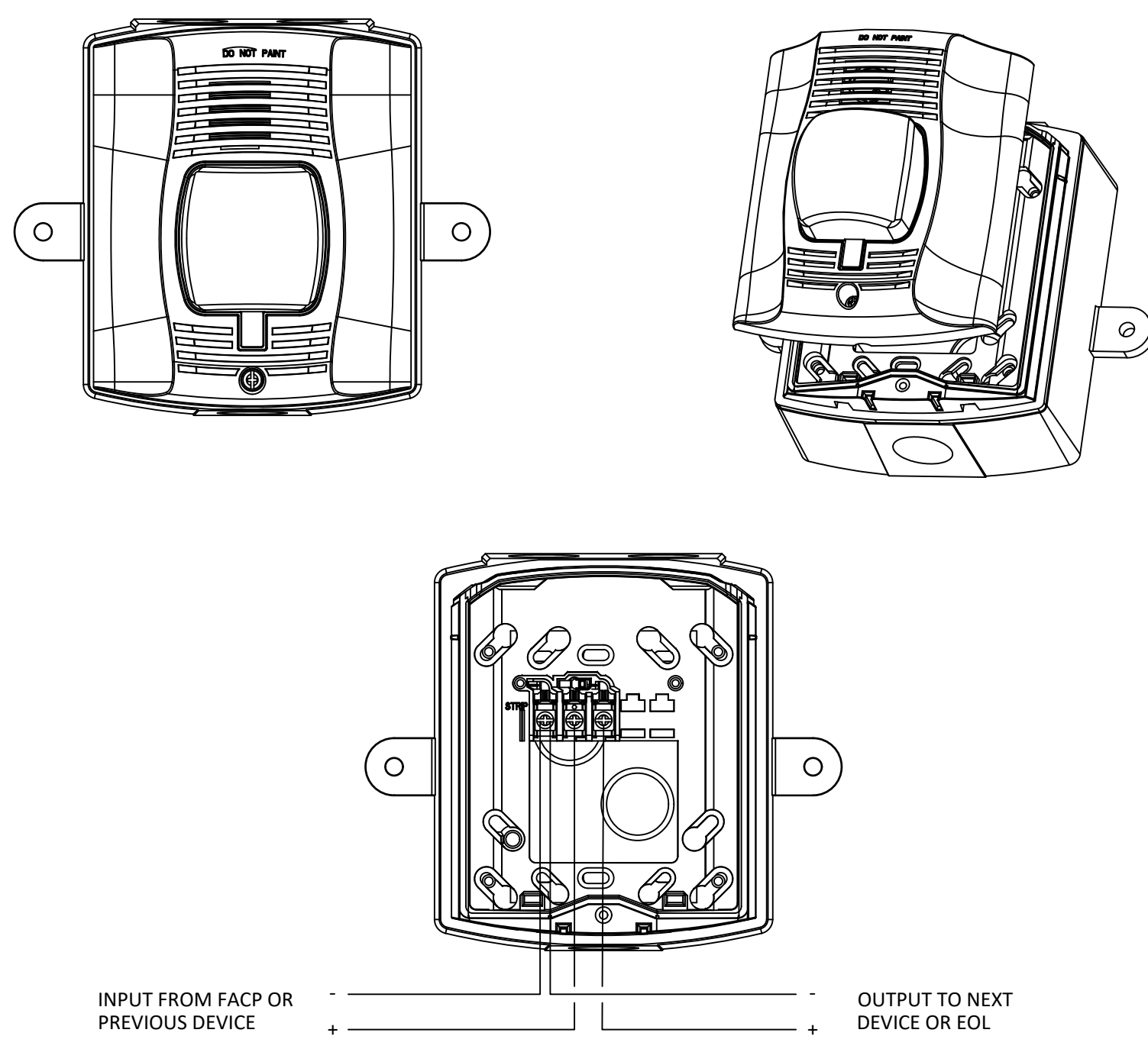
3 CEILING HORN / STROBE DETAIL
FA-503 SCALE: NTS

SYSTEM SENSOR MODEL NO: SWL



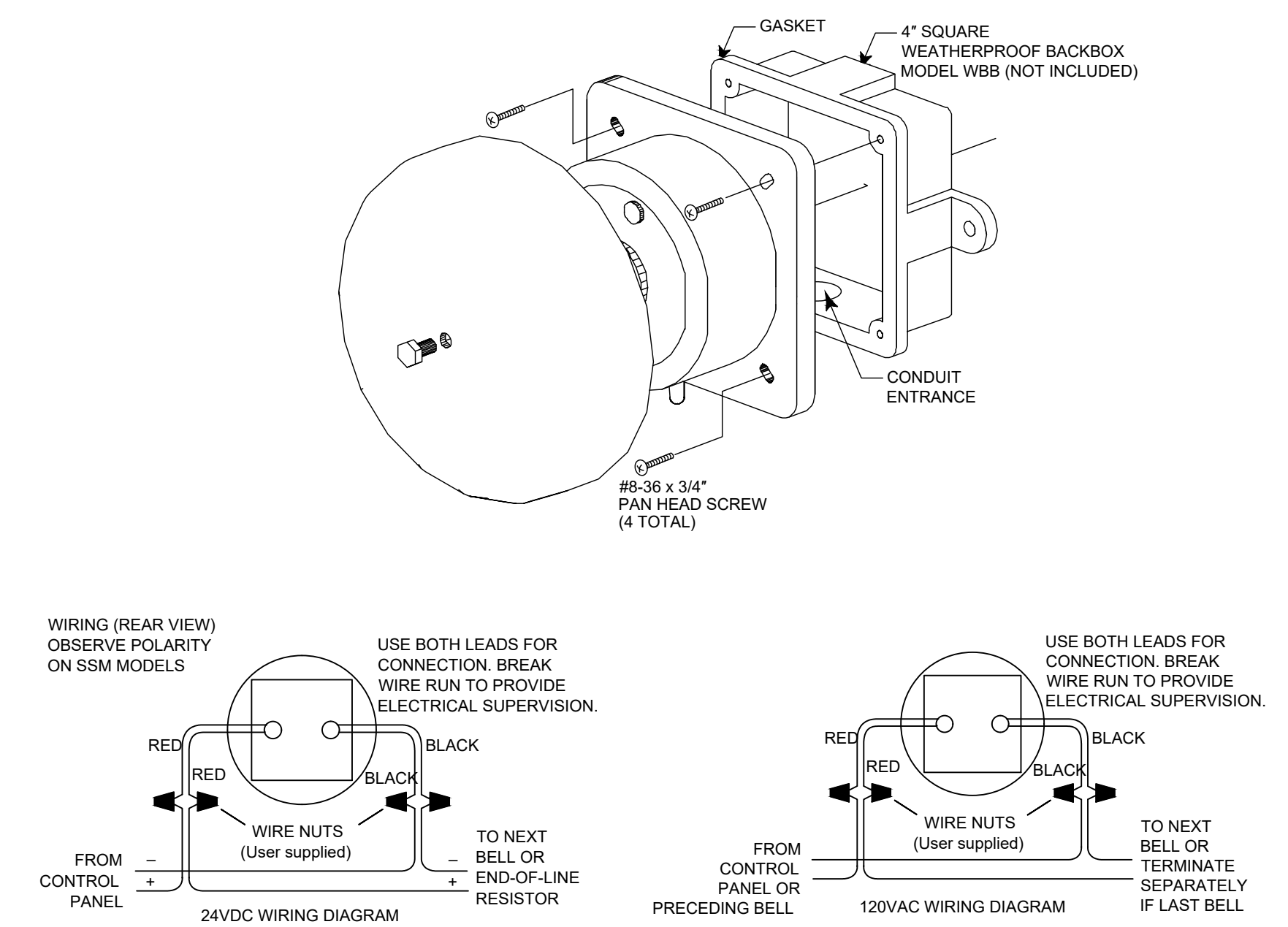
4 STROBE
FA-503 SCALE: NTS

SYSTEM SENSOR MODEL NO: P2RK



5 WEATHERPROOF HORN/STROBE
FA-503 SCALE: NTS

SYSTEM SENSOR MODEL NO: SSM-24-10



6 WEATHERPROOF SPRINKLER BELL
FA-503 SCALE: NTS

DEVICE DETAILS (CONT.)

PRELIMINARY



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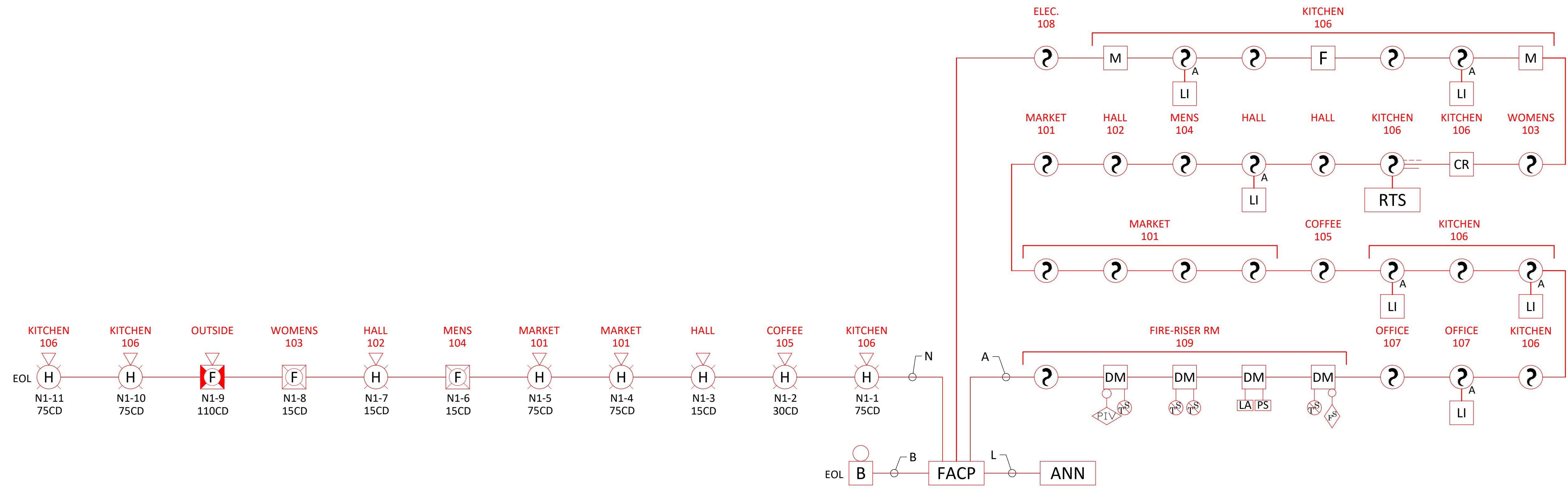
GENERAL NOTES

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JOB NAME
STEP BY STEP GATEWAY
RISER DIAGRAM

PAGE NUMBER
FA-600
09 OF 11



RISER DIAGRAM

PRELIMINARY



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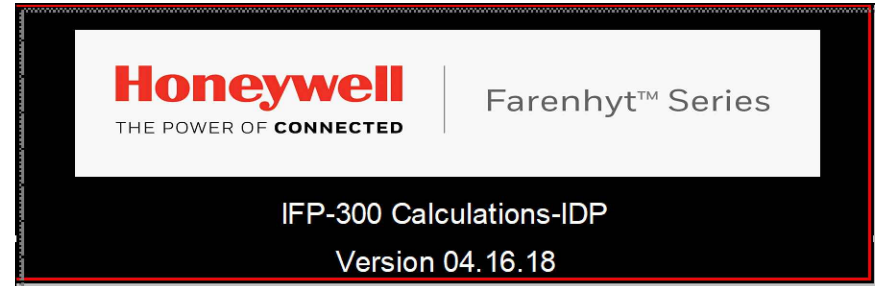
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STEP BY STEP GATEWAY
MATRIX

PAGE NUMBER
FA-601
10 OF 11

FIRE ALARM SYSTEM OPERATION MATRIX	ANNUNCIATION AT FACP PANEL			TRANSMIT SIGNAL TO CENTRAL STATION				EVAC SIGNALS			AUX FUNCTIONS
	AUDIO-VISUAL COMMON TROUBLE INDICATION	AUDIO-VISUAL SUPERVISORY INDICATION	AUDIO-VISUAL GENERAL ALARM	COMMON TROUBLE SIGNAL TO CENTRAL STATION	SUPERVISORY SIGNAL TO CENTRAL STATION	GENERAL FIRE ALARM TO CENTRAL STATION	SPRINKLER WATER FLOW ALARM TO CENTRAL STATION	FACILITY FIRE EVACUATION AUDIO-VISUAL SIGNAL	EXTERIOR WATER FLOW BELL	ILLUMINATE REMOTE LED	SHUT DOWN HVAC FANS
FIRE ALARMS											
MANUAL FIRE ALARM PULL STATION			X			X		X			
WATER FLOW			X				X	X	X		
ABOVE CEILING SMOKE DETECTORS			X			X		X		X	
SMOKE DETECTORS			X			X		X			
PRESSURE SWITCH			X				X	X	X		
SUPERVISORY SIGNALS											
DUCT SMOKE DETECTOR		X			X						X
SPRINKLER SUPERVISORY VALVE		X			X						
PIV		X			X						
LOW AIR		X			X						
TROUBLE CONDITIONS											
FACP LOW BATTERY VOLTAGE	X			X							
FACP CIRCUIT FAULT	X			X							
FACP COMPONENT FAILURE	X			X							
FACP AC POWER FAILURE	X			X							

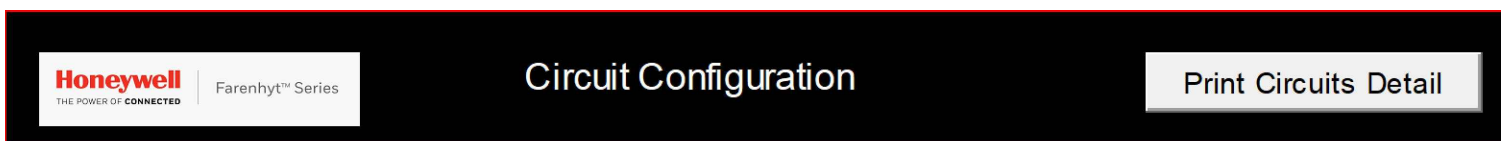


Global Project Values: Project Name: Step by Step Gateway Building, Standby Hours: 24, Alarm Mins: 5, Derating Factor: 1.2, Date: 1/25/2022, Voltage Drop Warning Threshold %: 15

Panel ID: IFP-300 IDP Devices, Model: IFP-300 Fire Alarm Control Panel, Max NAC Current: 3.0 Amps, Location: Sprinkler Room, Volts: 24 VDC, Max Panel Current: 6.0 Amps

Main equipment list table with columns: Part.#, Description, Qty, Current Standby, Current Alarm, Wire AWG & Type, Ohms Per 1000 Ft., Length(ft) One-Way, Actual Ohms, Volts @ EOL, %Drop. Includes sub-tables for NAC #1-4 and summary rows for Standby Time and Total Combined AH Required.

Configure Circuits | Print Page



Project Information: Project Name: Step by Step Gateway Building, Project ID: 0, Prepared By: Evergreen Fire & Security, Date: 1/25/2022

Circuit configuration table for NAC #1: Notification Appl Circuit, showing device quantities and current draw for Standby and Alarm states.

Circuit configuration table for NAC #2: Notification Appl Circuit, showing device quantities and current draw for Standby and Alarm states.

Circuit configuration table for NAC #3: Notification Appl Circuit, showing device quantities and current draw for Standby and Alarm states.

Circuit configuration table for NAC #4: Notification Appl Circuit, showing device quantities and current draw for Standby and Alarm states.



NICET CERTIFICATION INFO table with fields: NICET # 114223, LEVEL IV, SUB-FIELD FIRE ALARMS, EXPIRATION DATE 08/01/23, NAME BRIAN LINDBO

GENERAL NOTES table with a large empty space for notes.

REVISIONS/NOTES table with columns: REVISION, DATE, CAD/DESIGN.

JOB DETAILS table with fields: DESIGNED BY: B.LINDBO, DRAWN BY: A.MURPHREE, CHECKED BY: D.MOLMEN, CREATION DATE: 01/24/2022, DRAWING SCALE: VARIES

JOB NAME table with text: STEP BY STEP GATEWAY, BATTERY CALCS

PAGE NUMBER table with text: FA-602, 11 OF 11

BATTERY CALCS

PRELIMINARY