

HARNETT COUNTY DSS UPFIT 2ND FLOOR FIRE ALARM SYSTEM

JOHNSON CONTROLS CONTACTS

Sales Representative

STEPHEN SANDER
STEPHEN.SANDER@JCI.COM
PHONE: 919-208-0215

Drawings Prepared By

THOMAS PALCZUK
THOMAS.PALCZUK-EXT@JCI.COM
PHONE:

Project Manager

PERRY MILLS
PERRY.MILLS@JCI.COM
PHONE: 919-971-3198

Drawings Reviewed By

JOE SIMMONS
JOE.SIMMONS@JCI.COM
PHONE: 919-455-9023



DISTRICT - 250
SUITE 105
RALEIGH, NC 27610
SERVICE: 919-279-6400
PHONE: 919-279-6400
FAX: 919-285-3401

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LEGENDS

FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	BRAND / MODEL	BACKBOX	WIRE TYPE(S)
[NAC]	4009 IDNET NAC EXTENDER PANEL, 120 VAC, BEIGE	4009-9201	SIMPLEX CABINET	
INITIATING DEVICES				
[S]	SMOKE SENSOR, ADDRESSABLE, PHOTOELECTRIC W/ STANDARD BASE, ADDRESSABLE	4098-9714 HEAD 4098-9732 BASE	4" OCT, 1-1/2" D	M
[S]	DUCT SMOKE DETECTOR, ADDRESSABLE	4098-9755	MOUNTS TO DUCTWORK	M
	SAMPLING TUBE, 49"	4098-9856		
MODULES AND RELAYS				
[R]	DUAL RELAY IAM, ADDRESSABLE	4090-9008	4" SQ. 2-1/8" D W/ COVER	MR
	#N/A	#N/A		
NOTIFICATION APPLIANCES				
[S]	STROBE, CONVENTIONAL, WALL MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	4906-9101	SINGLE GANG 1-1/2" D	V
[S]	HORN/STROBE, CONVENTIONAL, WALL MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	4906-9127	4" SQ. 1-1/2" D	V
[S]	HORN/STROBE, CONVENTIONAL, CEILING MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	4906-9128	4" SQ. 1-1/2" D	V
MISCELLANEOUS DEVICES				
[K]	REMOTE TEST STATION W/ LED AND KEY SWITCH	2098-9806	SINGLE GANG 2" D	K

FIRE ALARM WIRE LEGEND

CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES						
				FLR	FRP	TRH	TRFN	OUTDOOR*	CL	
K REMOTE TEST SWITCH/LED	(2) 2 COND. SOLID	14 AWG		X	X					
M IDNET	UTP SOLID	18 AWG	0.60µF MAX TOTAL LINE CAPACITANCE	X	X					
R RELAY	2 COND. SOLID	14 AWG		X	X	X	X			
V VISUAL	2 COND. SOLID	14 AWG		X	X					
CONDUIT SIZE		MAX CONDUCTOR AREA	CONDUIT SIZE	MAX CONDUCTOR AREA						
1/2"	0.122 SQ INCH*		1-1/4"	0.588 SQ INCH*						
3/4"	0.213 SQ INCH*		1-1/2"	0.814 SQ INCH*						
1"	0.346 SQ INCH*		2"	1.342 SQ INCH*						
*40% CONDUIT FILL PER N.E.C.										
STP = SHIELDED TWISTED PAIR										
UTP = UNSHIELDED TWISTED PAIR										
ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM INSTALLATION. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR SELECTING AND INSTALLING CABLE MANUFACTURER AND MODEL THAT MEETS OR EXCEEDS THE ABOVE REQUIREMENTS. RECOMMENDED CABLE MANUFACTURERS AND MODEL NUMBERS ARE AVAILABLE UPON REQUEST.										

APPLICABLE CODES & STANDARDS

JURISDICTIONS WITHIN THE STATE MAY HAVE AMENDMENTS TO THE STATE ADOPTED CODE. CHECK WITH THE LOCAL JURISDICTION AUTHORITY FOR MORE DETAILS.
NORTH CAROLINA STATE FIRE PREVENTION CODE, 2018 EDITION (AMENDED INTERNATIONAL FIRE CODE (IFC), 2018 EDITION)
NORTH CAROLINA STATE ELECTRICAL CODE, 2017 EDITION (AMENDED NATIONAL ELECTRIC CODE (NFPA 70), 2017 EDITION)
NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72), 2016 EDITION

OCCUPANCY TYPE(S):
B BUSINESS GROUP

SPRINKLER PROTECTION:
UNKNOWN

SCOPE OF WORK

MODIFY EXISTING FIRE ALARM SYSTEM. PROVIDE NEW DEVICES. RELOCATE AND DEMO EXISTING DEVICES AS SHOWN ON DRAWINGS.

ALL NEW WIRING IS TO BE CLASS B FOR NOTIFICATION APPLIANCE CIRCUITS, CLASS A FOR INITIATING DEVICE CIRCUITS, AND SIGNALING LINE CIRCUITS.

THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DISCONNECTED OR TAKEN OUT OF SERVICE WITHOUT WRITTEN PERMISSION FROM THE OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE OWNER THE TIMING OF ANY EXISTING FIRE ALARM SYSTEM DEMOLITION WORK.

ABBREVIATIONS LEGEND

AC = ABOVE CEILING	NEC = NATIONAL ELECTRIC CODE
AFF = ABOVE FINISHED FLOOR	NFPA = NATIONAL FIRE PROTECTION ASSOCIATION
AHJ = AUTHORITY HAVING JURISDICTION	NIC = NOT IN CONTRACT
ALM = ALARM	NPU = NETWORK PROCESSING UNIT
ANW = ANNUNCIATOR	NTS = NOT TO SCALE
BMS = BUILDING MANAGEMENT SYSTEM	PAP = PRE-ACTION PANEL
C = CEILING MOUNTED	RC = EXISTING TO REMOVE AND COVER
CD = CANDELA RATING	RD = EXISTING DEVICE TO BE RELOCATED
DET = DETECTOR	RL = RELOCATED DEVICE
DGP = DATA GATHERING PANEL	RR = REMOVE EXISTING & REPLACE WITH NEW
E = EXISTING TO REMAIN	SCC = STATUS COMMAND CENTER
EOL = END OF LINE	SLC = SIGNALING LINE CIRCUIT
EPO = EMERGENCY POWER OFF	SMK = SMOKE
ER = ELEVATOR RECALL	SUPV = SUPERVISORY
FAA = FIRE ALARM ANNUNCIATOR	TAC = TRUEALERT ADDRESSABLE CONTROLLER
FACP = FIRE ALARM CONTROL PANEL	TOS = TOP OF SHAFT
FATO = FIRE ALARM TERMINAL CABINET	TRBL = TROUBLE
FBO = FURNISHED BY OTHERS	TS = TAMPER SWITCH
FCC = FIRE COMMAND CENTER	TYP = TYPICAL
FSD = FIRE SMOKE DAMPER	UON = UNLESS OTHERWISE NOTED
FTR = FIRE ALARM TRANSPONDER	VCC = VOICE COMMAND CENTER
H = HIGH HUMIDITY	VT = VALVE TAMPER
HT = HEIGHT	W = WATTAGE
HVAC = HEATING VENTILATION & AIR CONDITIONING	W = WITH
IMS = INFORMATION MANAGEMENT SYSTEM	W/O = WITHOUT
MAX = MAXIMUM	WF = WATERFLOW
MIN = MINIMUM	WG = WIRE GUARD
N/A = NOT APPLICABLE	WP = WEATHERPROOF
NAC = NOTIFICATION APPLIANCE CIRCUIT	XP = EXPLOSION PROOF
NDU = NETWORK DISPLAY UNIT	

PROJECT DIRECTORY

Site

HARNETT COUNTY DSS
311 W CORNELIUS HARNETT B
LILLINGTON, NC 27546

Johnson Controls District - 250

540 CIVIC BLVD, SUITE 105
RALEIGH, NC 27610
PHONE: 919-279-6400
FAX: 919-285-3401
SERVICE: 919-279-6400

General Contractor

KENNEDY ELECTRIC SERVICE LLC
1304 WHITE FLASH RD. 300 N. CHURCH ST.
MOUNT OLIVE, NC 28365

DESIGN STATEMENT

THIS PROJECT'S DESIGN IS BASED ON THE ENGINEERED PLANS AND SPECIFICATIONS PREPARED BY: ARCHITECT OR ENGINEER NAME.

ARCHITECTURAL PLANS DATED:
MECHANICAL PLANS DATED:
ELECTRICAL PLANS DATED:
SPECIFICATIONS DATED:
ADDENDUM DATED:

DEVICE TAG LEGEND

PANEL DESIGNATOR

- FA = FACP (NON-NETWORK)
- # = NODE NUMBER
- TR = TRANSPONDER NUMBER
- #TR = NODE-TRANSPONDER NUMBER
- N# = NAC EXTENDER NUMBER

CIRCUIT DESIGNATOR

- IB# = IDNAC CIRCUIT NUMBER
- D# = DOOR HOLDER CIRCUIT NUMBER
- F# = FIRE PHONE CIRCUIT
- H# = AUDIBLE (HORN) CIRCUIT NUMBER
- M# = IDNET LOOP NUMBER
- P# = POWER CIRCUIT NUMBER
- S# = SPEAKER CIRCUIT NUMBER
- V# = VISUAL CIRCUIT NUMBER
- Z# = ZONE NUMBER

DEVICE NUMBER

BRANCH / ISOLATED LOOP DESIGNATOR:

- (L#) = IDNET ISOLATED LOOP NUMBER
- (I#) = IDNAC BRANCH NUMBER
- (E#) = EPR# NUMBER BRANCH NUMBER

1. IDNAC = ADDRESSABLE NOTIFICATION CIRCUIT
2. EPR = ENHANCED POWER REPEATER

GENERAL NOTES

- THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS IS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
- SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS WHICH CAUSE MAJOR DEVIATIONS IN THE WORK SHOWN, THE CONTRACTOR SHALL CONTACT JOHNSON CONTROLS IN A TIMELY MANNER SO AS NOT TO IMPAIR THE CONSTRUCTION SCHEDULE.
- CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS. A STAMPED SET OF APPROVED FIRE ALARM DRAWINGS SHALL BE AT THE JOB SITE AND SHALL BE USED FOR INSTALLATION.
- THE POWER CIRCUIT TO THE FACP AND TO THE FIRE ALARM POWER SUPPLIES SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL." THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
- UPDATE THE AS-BUILT DRAWING SET DAILY WITH JOB PROGRESS. RETURN THE AS-BUILT DRAWING SET TO JOHNSON CONTROLS NO LATER THAN 7 DAYS AFTER FINAL TEST.
- THE CONTRACTOR WILL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMANLIKE MANNER.
- DO NOT APPLY POWER EXCEPT IN THE PRESENCE OF A FACTORY TRAINED JOHNSON CONTROLS TECHNICAL REPRESENTATIVE.
- ANY SMOKE DETECTOR HEAD INSTALLED BEFORE THE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST. ANY FALSE ALARMS DUE TO DIRT CONTAMINATED HEADS SHALL BE THE RESPONSIBILITY OF THE FIRE ALARM INSTALLER.
- THE FIRE ALARM INSTALLER WILL MAINTAIN THE FIRE RESISTANCE INTEGRITY OF ALL WALL, CEILING, AND ROOF ASSEMBLIES ANY TIME THAT WORK IS NOT ACTIVELY BEING PERFORMED.
- INSTALLATION OF DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. POWER LIMITED AND NON-POWER LIMITED FIELD WIRING MUST BE INSTALLED WITHIN THE FACP ENCLOSURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPLICABLE ELECTRICAL CODES. REFER TO "APPLICABLE CODES & STANDARDS" FOR SPECIFIC CODE REFERENCES.
- ALL WIRING SHALL BE INSTALLED ACCORDING TO APPLICABLE ELECTRICAL CODES.
- FIRE ALARM CIRCUITS SHALL BE IDENTIFIED IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES. MARK ALL FIRE ALARM WIRES IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODE SECTIONS FOR POWER LIMITED AND NON-POWER LIMITED WIRE.
- FIRE ALARM CABLE INSTALLED IN DUCTS, PLENUM, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR SHALL BE TYPE FPLP.
- FIRE ALARM CABLE INSTALLED IN THE VERTICAL RUNS AND PENETRATING MORE THAN ONE FLOOR OR CABLES INSTALLED IN VERTICAL RUNS IN SHAFTS SHALL BE TYPE FPLR.
- FIRE ALARM CABLE INSTALLED IN UNDERGROUND CONDUIT OR OTHER WET LOCATIONS SHALL BE UL LISTED FOR WET LOCATIONS.
- FIRE ALARM CIRCUITS EXTENDING BEYOND ONE BUILDING AND RUN OUTDOORS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES, WHERE APPLICABLE.
- ALL WIRING, INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.
- ALL SHIELDED WIRE MUST HAVE SHIELD CONTINUITY AT FULL LENGTH OF THE WIRE.
- ONLY SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
- 120VAC IS NOT PERMITTED IN THE SAME CONDUIT WITH LOW VOLTAGE WIRING.
- MAINTAIN MAXIMUM CONDUIT FILL RATIO AS PER APPLICABLE ELECTRICAL CODES REQUIREMENTS.
- EXISTING CONDUITS MAY BE USED BY THE INSTALLATION CONTRACTOR AS DEEMED NECESSARY; HOWEVER, ANY EXISTING CONDUIT WILL BE USED ONLY IF CONDUITS MEET CURRENT STANDARDS AND CODES. JOHNSON CONTROLS MAKES NO STATEMENTS WRITTEN OR VERBAL AS TO THE CONDITION OF EXISTING CONDUITS.

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Revisions shown with A symbol

ISSUE LOG	MARK	DATE	CAD	CHK	DESCRIPTION

DRAWN BY:	T PALCZUK
CHECKED BY:	J SIMMONS
ISSUE DATE:	7/23/24
JOB #:	250581495
PROJECT #:	24-650581495

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SYSTEM:

FIRE ALARM SYSTEM

SHEET:

COVER SHEET

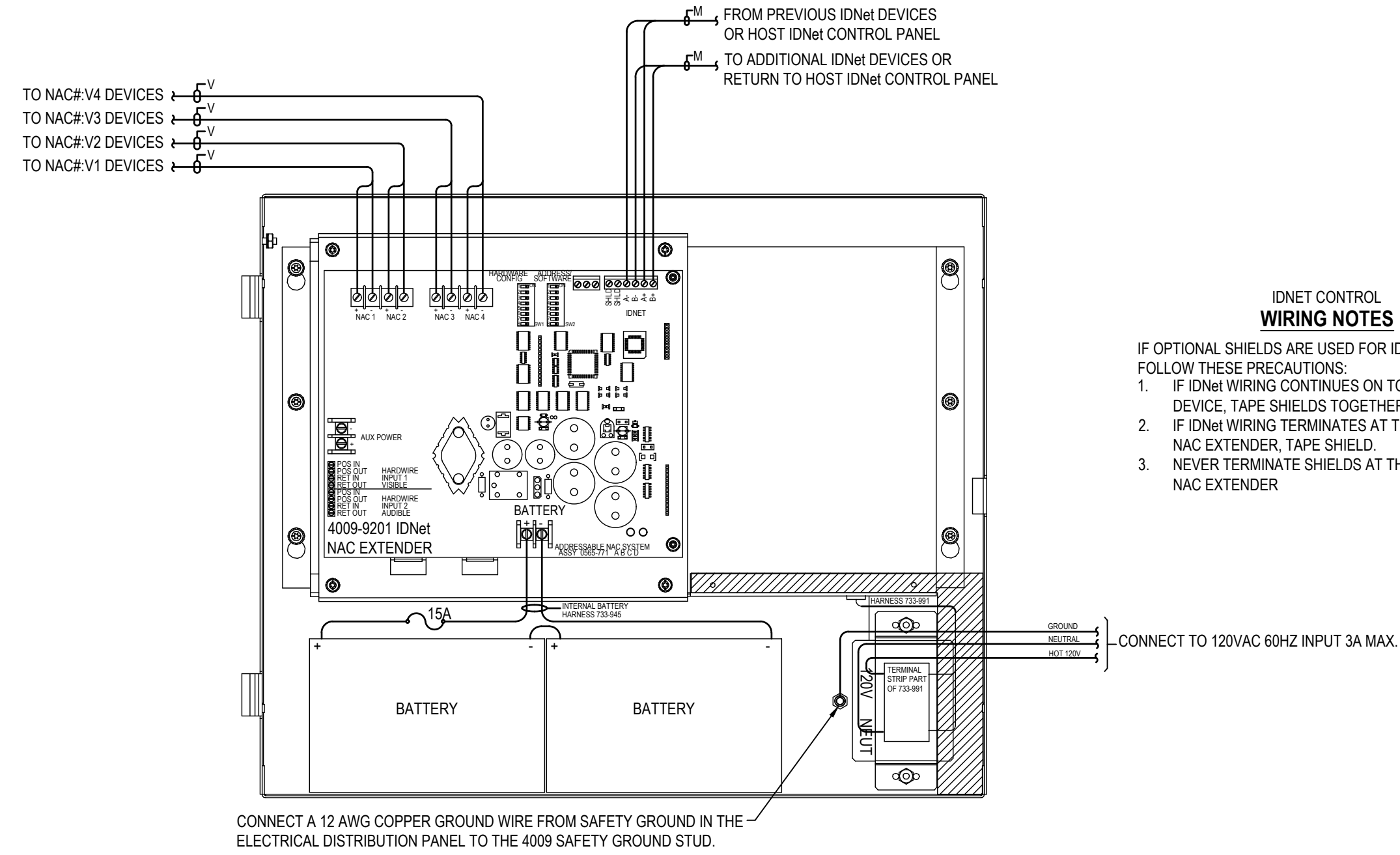
FA-001

HARNETT COUNTY DSS UPFIT 2ND FLOOR HARNETT COUNTY DSS 311 W CORNELIUS HARNETT B LILLINGTON, NC 27546

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LAST SAVED BY: JPALCZT
LAST PRINTED: 7/24/2024 2:10:23 PM
24" x 36" Arch D Size

NAC EXTENDER PANEL WIRING

SIMPLEX 4009 SERIES

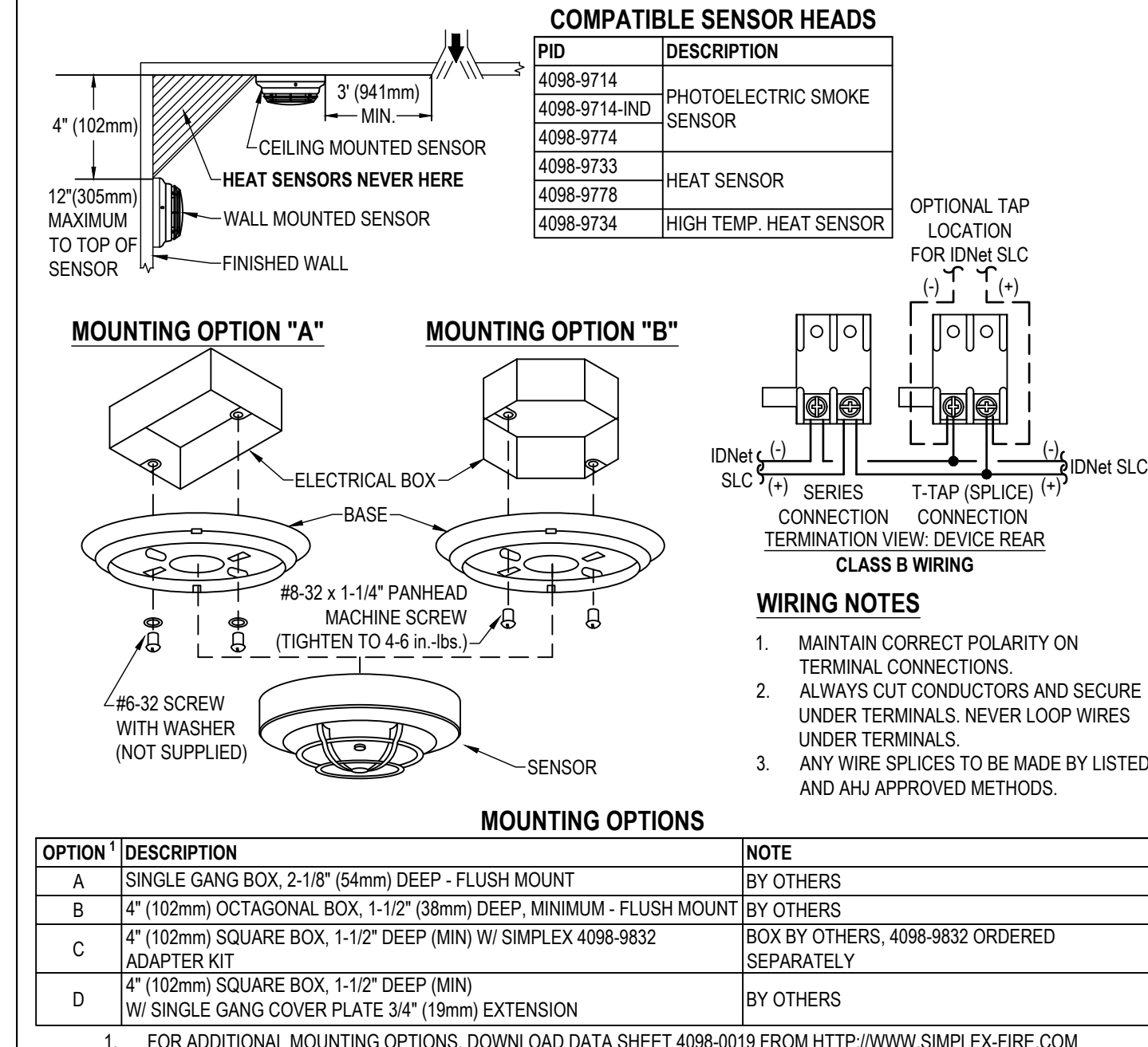


IDNET CONTROL WIRING NOTES

- IF OPTIONAL SHIELDS ARE USED FOR IDNet WIRING, FOLLOW THESE PRECAUTIONS:
 - IF IDNet WIRING CONTINUES ON TO ANOTHER DEVICE, TAPE SHIELDS TOGETHER.
 - IF IDNet WIRING TERMINATES AT THE 4009 IDNet NAC EXTENDER, TAPE SHIELD.
 - NEVER TERMINATE SHIELDS AT THE 4009 IDNet NAC EXTENDER.

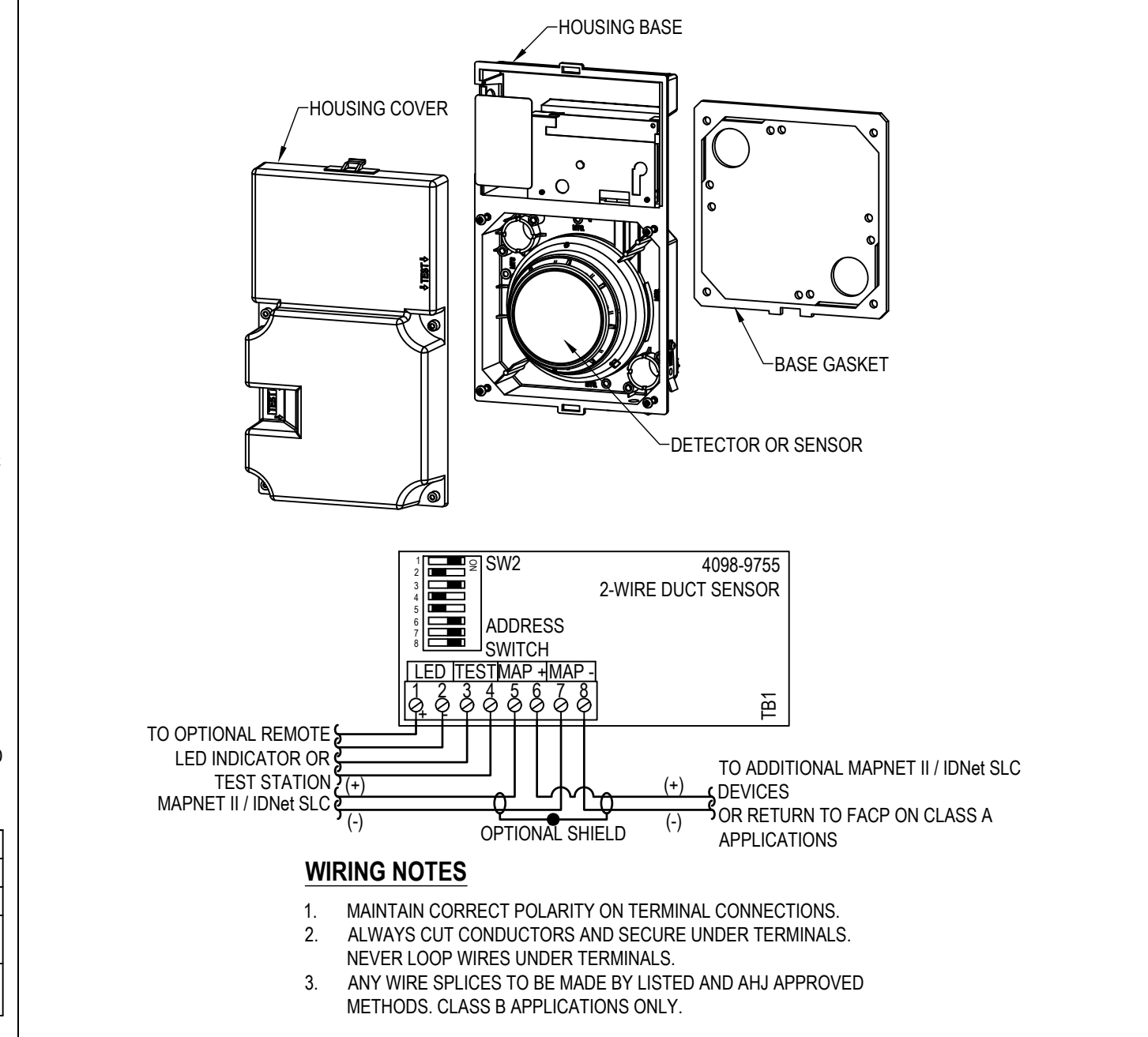
STANDARD SENSOR BASE

SIMPLEX 4098-9792



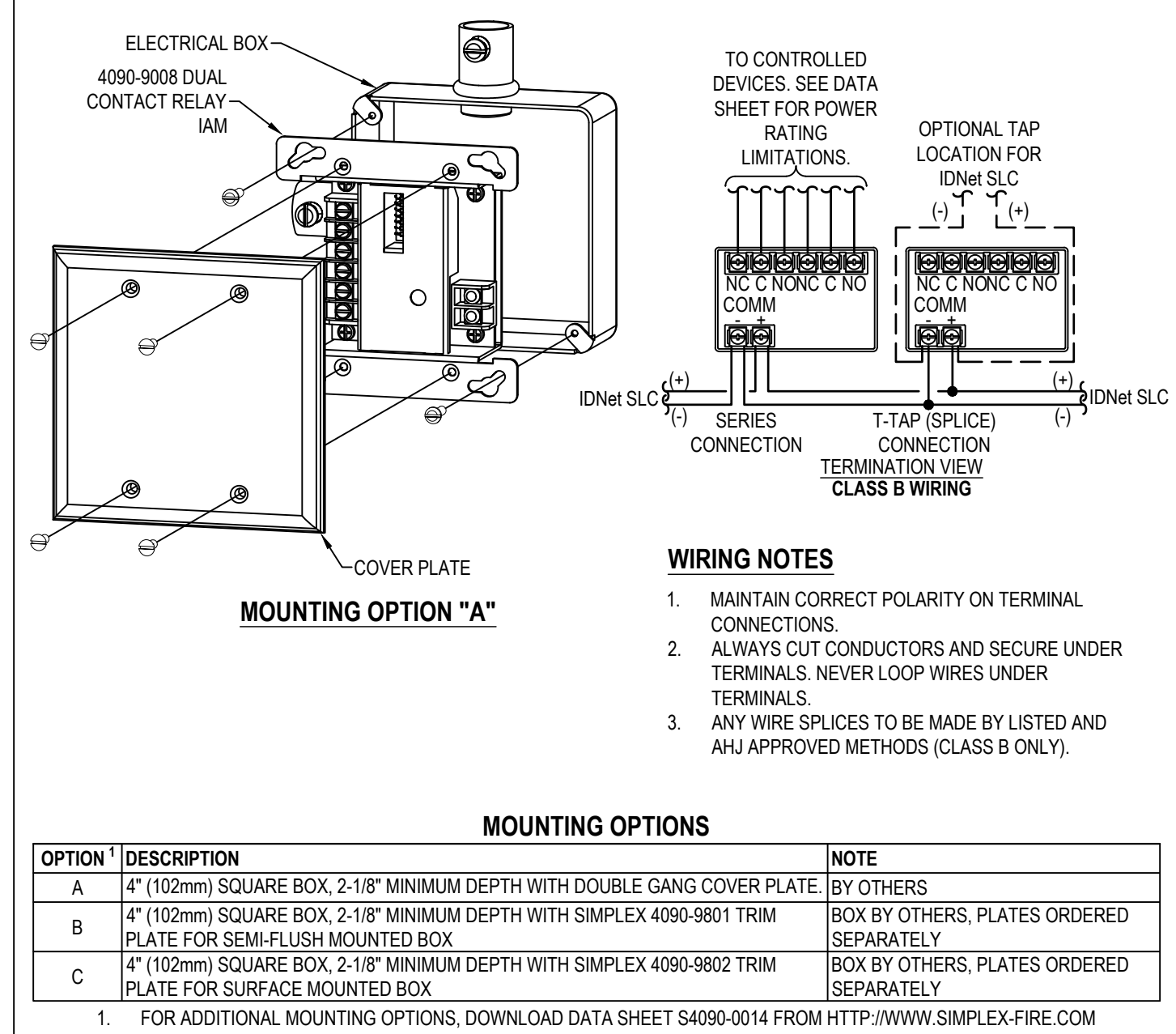
DUCT SMOKE DETECTOR

SIMPLEX 4098-9755 ANALOG 2-WIRE DUCT SENSOR



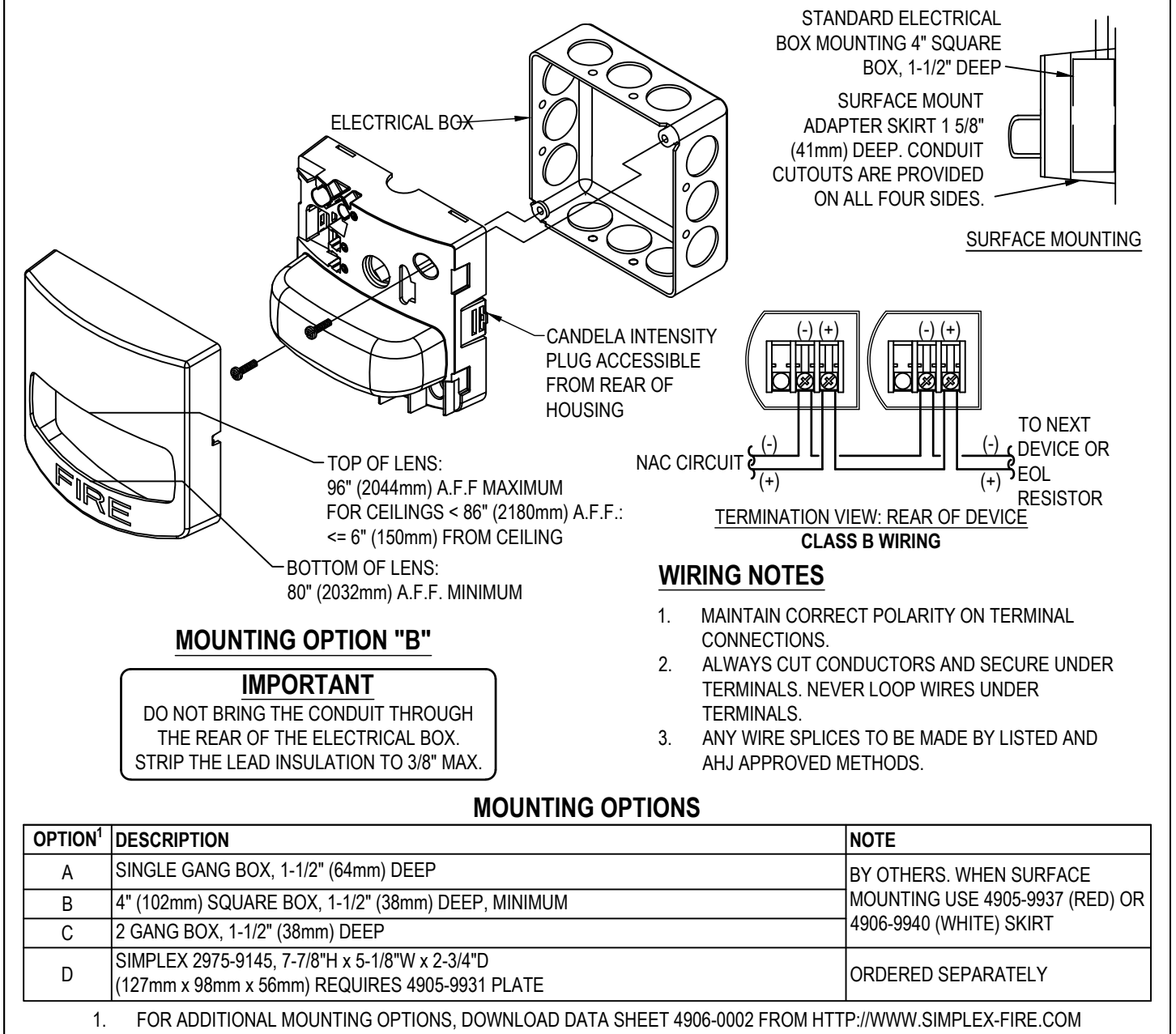
DUAL CONTACT RELAY IAM

SIMPLEX 4090-9008



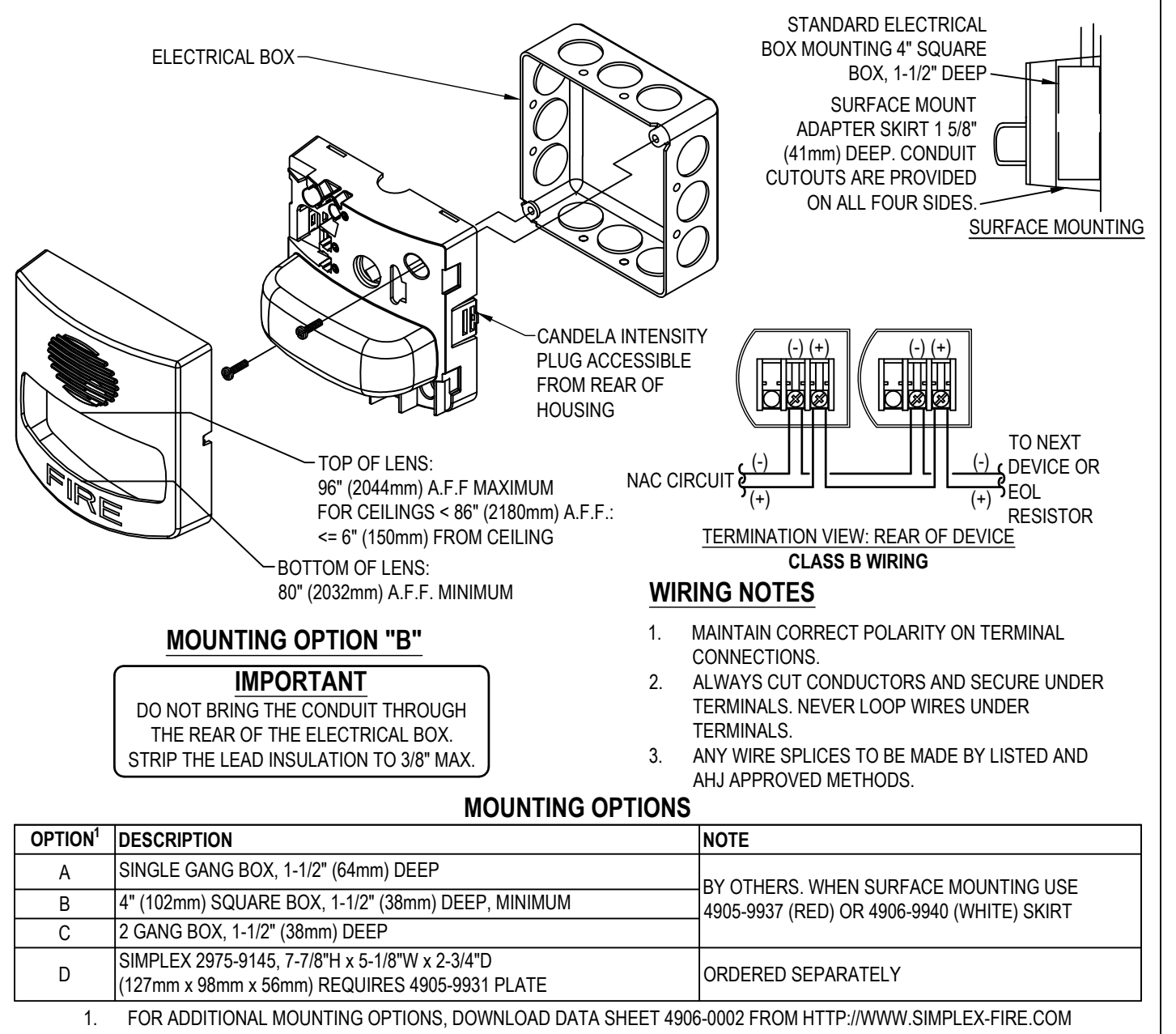
TrueAlert CONVENTIONAL APPLIANCES

SIMPLEX 4906 SERIES WALL MOUNTED VISUAL



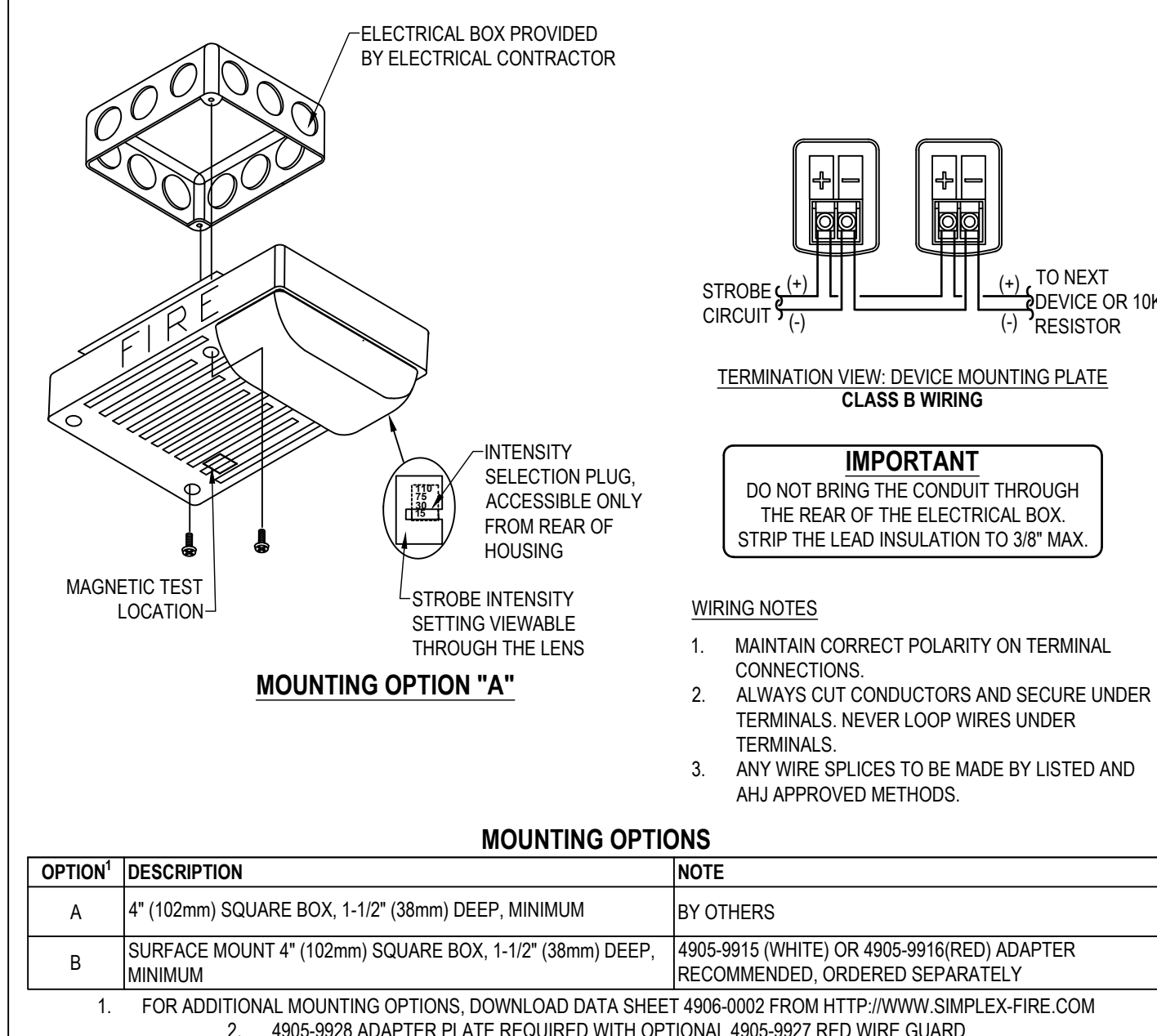
TrueAlert CONVENTIONAL APPLIANCES

SIMPLEX 4906 SERIES WALL MOUNTED MULTI-CANDELA AUDIBLE / VISUAL



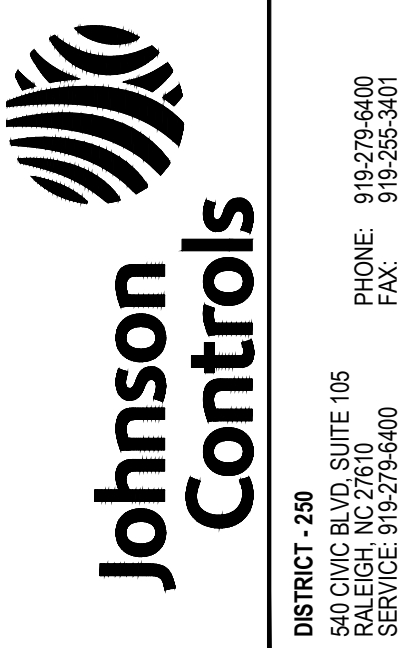
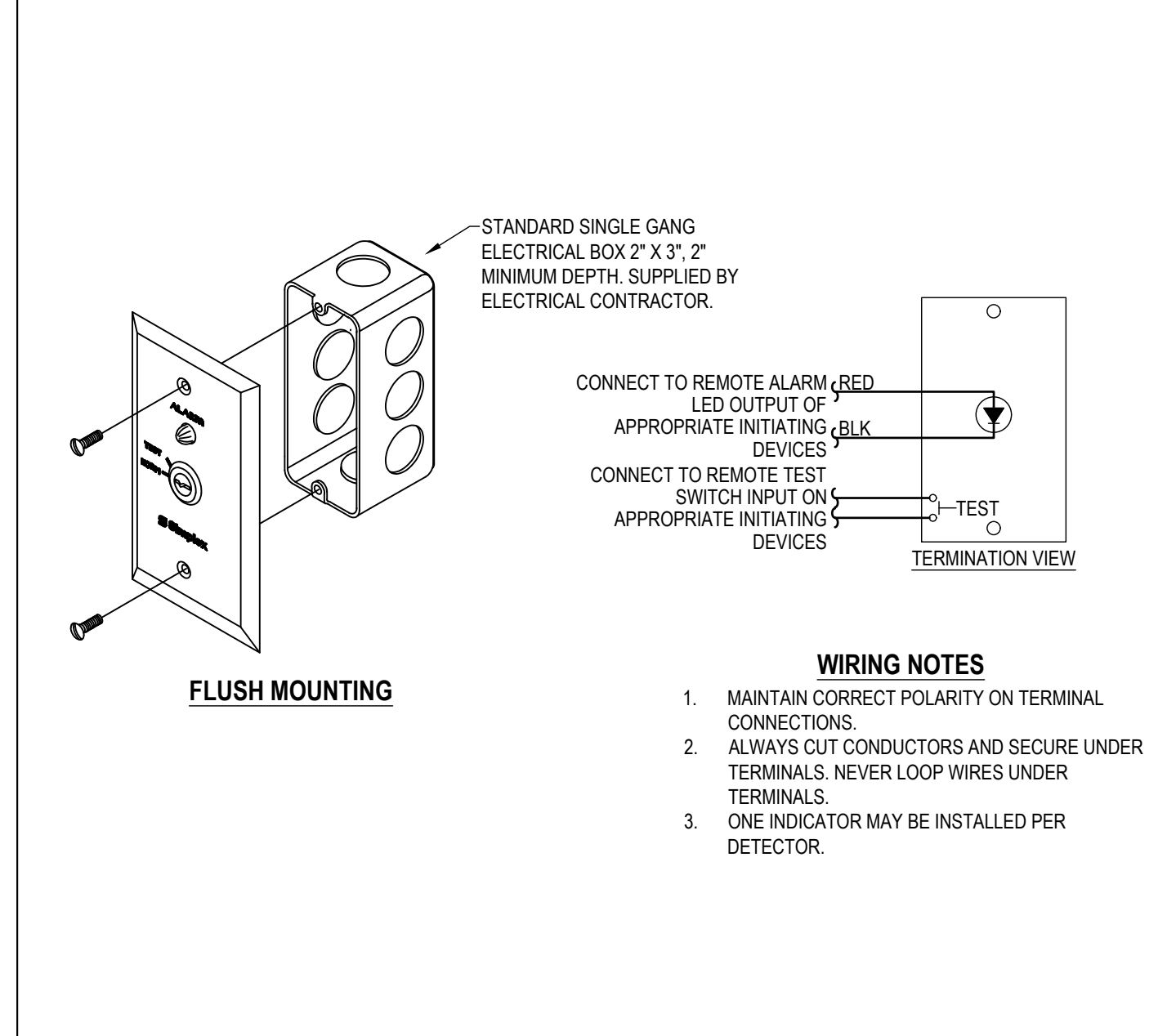
TrueAlert CONVENTIONAL APPLIANCES

SIMPLEX 4906 SERIES CEILING MOUNTED AUDIBLE / VISUAL



REMOTE ALARM INDICATOR / KEY SWITCH

SIMPLEX 2098-9806



DISTRICT 250 SUITE 105
RALEIGH, NC 27610
SERVICE 919-279-5400
PHONE 919-279-5400
FAX 919-255-3401

HARNETT COUNTY DSS
UPFIT 2ND FLOOR
HARNETT COUNTY DSS
311 W CORNELIUS HARNETT B
LILLINGTON, NC 27546

ISSUE NO.	DATE	CHK	DESCRIPTION

DRAWN BY:	T PALCZUK
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SYSTEM: FIRE ALARM SYSTEM

SHEET:

WIRING TYPICALS

FA-701

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