



CAPE FEAR VALLEY HEALTH HARNETT HEALTH FIRE ALARM SYSTEM

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DRAWING INDEX

LEGENDS

APPLICABLE CODES & STANDARDS

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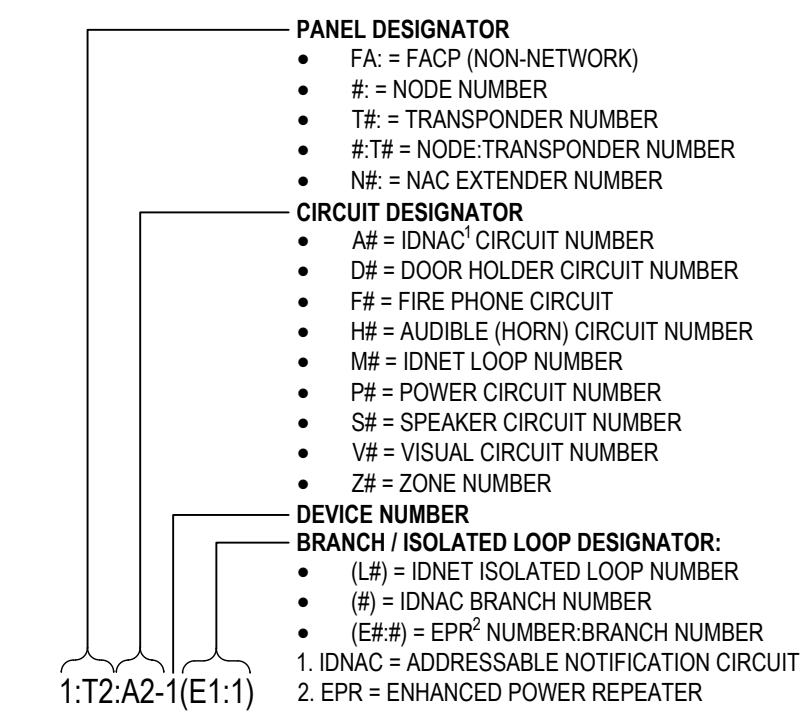
WATSON ELECTRICAL CONSTRUCTION
1530 CHARLESTON ST. SE.
WILSON, NC 27893

DESIGN STATEMENT

THIS PROJECT'S DESIGN IS BASED ON THE ENGINEERED PLANS AND SPECIFICATIONS PREPARED BY THE EAST GROUP

ARCHITECTURAL PLANS DATED:
MECHANICAL PLANS DATED:
ELECTRICAL PLANS DATED: 6/14/24
SPECIFICATIONS DATED:
ADDENDUM DATED:

DEVICE TAG LEGEND



Sheet List Table

Sheet Number	Sheet Title
FA-001	COVER SHEET
FA-101	DEVICE PLACEMENT PLAN
FA-201	RISER DIAGRAM
FA-701	WIRING TYPICALS

FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	BRAND / MODEL	BACKBOX	WIRE TYPE(S)
PANELS				
[FACP]	4010ES FIRE ALARM CONTROL PANEL, 120 VAC, 250 POINT, IDNET, 4 NAC, 4A, 48 LED DISPLAY, PLATINUM, ENGLISH	4010-9402	SIMPLEX CABINET	
[DIAL]	LTE UNIVERSAL WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR	DSC LE4010CF-AT		
[FAA]	SERIAL LCD ANNUNCIATOR (N2)	4606-9102	6-GANG BOX 3-1/2"D	B,P
INITIATING DEVICES				
[S]	SMOKE SENSOR, ADDRESSABLE, PHOTOELECTRIC W/ STANDARD BASE, ADDRESSABLE	4098-9714 HEAD 4098-9792 BASE	4" OCT, 1-1/2" D	M
[H]	HEAT SENSOR, ADDRESSABLE, STANDARD W/ STANDARD BASE, ADDRESSABLE	4098-9733 HEAD 4098-9792 BASE	4" OCT, 1-1/2" D	M
[F]	DOUBLE ACTION MANUAL PUSH/PULL STATION, ADDRESSABLE	4099-9006	4" SQ, 2-1/8" D W/ 3/4" SINGLE GANG COVER EXTENSION	M
[S]	DUCT SMOKE DETECTOR, ADDRESSABLE	4098-9755		M
[S]	SAMPLING TUBE, 24"	4098-9855	MOUNTS TO DUCTWORK	M
[S]	SAMPLING TUBE, 49"	4098-9856		M
MODULES AND RELAYS				
[AM]	INDIVIDUAL ADDRESSABLE MODULE	4090-9001	SINGLE GANG 2-1/2" D W/COVER	M,Z
[AM]	TRIM PLATE FOR SEMI-FLUSH MOUNTING	4090-9806		
[IDNET]	IDNET RELAY IAM, ADDRESSABLE	4090-9002	4" SQ, 2-1/8" D W/ COVER	M,R
[AM]	TRIM PLATE FOR SURFACE MOUNTING	4090-9802		
[AM]	INDIVIDUAL ADDRESSABLE MODULE, ENCAPSULATED, ADDRESSABLE	4090-9051	4-11/16" SQ, 1-1/2" D W/1-1/2" EXT RING	M,Z
[AM]	IAM MOUNTING BRACKET	4090-9810		
NOTIFICATION APPLIANCES				
[EL]	ELUKA CHIMES-STROBE, CONVENTIONAL, CEILING MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	WHEELOCK ELCHSRC	4" SQ, 2-1/8" D	V
[EL]	LED STROBE, CONVENTIONAL, CEILING MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	WHEELOCK ELSTRC	4" SQ, 1-1/2" D	V
MISCELLANEOUS DEVICES				
[RTS]	REMOTE TEST STATION W/ LED AND KEY SWITCH	2098-9806	SINGLE GANG 2" D	K
[SS]	OVERVOLTAGE SUPPRESSOR - IDNET OR POWER	2081-9044	4" SQ, 2-1/8" D	
[SS]	120V HYBRID SURGE PROTECTION DEVICE	SPACE AGE E120V-GT		
[MF]	WATERFLOW SWITCH	BY OTHERS WATERFLOW SWITCH		Z
[VS]	TAMPER SWITCH	BY OTHERS TAMPER SWITCH		Z
[DH]	DOOR HOLDER, 24/120V, FLUSH MOUNT, CHROME	RSQAAMES DH24120FFC		D

JURISDICTIONS WITHIN THE STATE MAY HAVE AMENDMENTS TO THE STATE ADOPTED CODE. CHECK WITH THE LOCAL JURISDICTION AUTHORITY FOR MORE DETAILS.

NORTH CAROLINA BUILDING CODE, 2018 EDITION (AMENDED INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION)
NORTH CAROLINA STATE FIRE PREVENTION CODE, 2018 EDITION (AMENDED INTERNATIONAL FIRE CODE (IFC), 2015 EDITION)
NORTH CAROLINA STATE ELECTRICAL CODE, 2020 EDITION (AMENDED NATIONAL ELECTRIC CODE (NFPA 70), 2020 EDITION)
NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72), 2016 EDITION

OCCUPANCY TYPE(S):

I-2 INSTITUTIONAL GROUP

SPRINKLER PROTECTION:

UNKNOWN

SCOPE OF WORK

PROVIDE AND INSTALL A NEW AUTOMATIC AND MANUAL FIRE ALARM SYSTEM AS SHOWN ON DRAWINGS.

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

AUTOMATIC FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION. THE SUPERVISING STATION SHALL BE LISTED AS EITHER ULFJX OR ULUS UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY THE OWNER.

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
ANN = ANNUNCIATOR	N.T.S. = 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 = TRUALERT 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	WI = 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	

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 FPLP.
- 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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FIRE ALARM WIRE LEGEND

CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES				
				FPLR	FRP	THHN	THFN	OUTDOOR *
B RUI + COMMUNICATION	UTP SOLID	18 AWG	58pF/ft. MAX CAPACITANCE, 35.5 Ω TOTAL LINE RESISTANCE	X	X			
D DOOR HOLDER	2 COND. SOLID	14 AWG		X	X	X	X	
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			
P POWER	2 COND. SOLID	14 AWG		X	X	X	X	
R RELAY	2 COND. SOLID	14 AWG		X	X	X	X	
V VISUAL	2 COND. SOLID	14 AWG		X	X			
Z ZONE CIRCUIT	2 COND. SOLID	14 AWG		X	X	X	X	
CONDUIT SIZE		MAX CONDUCTOR AREA	CONDUIT SIZE	MAX CONDUCTOR AREA				
1/2"		0.122 SQ. INCH*	1-1/4"	0.598 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.								

ISSUE LOG	MARK	DATE	CD	CHK	DESCRIPTION
	L	10/23/25	TP	JS	REVISED PER ENGINEER COMMENTS

REVISION 1

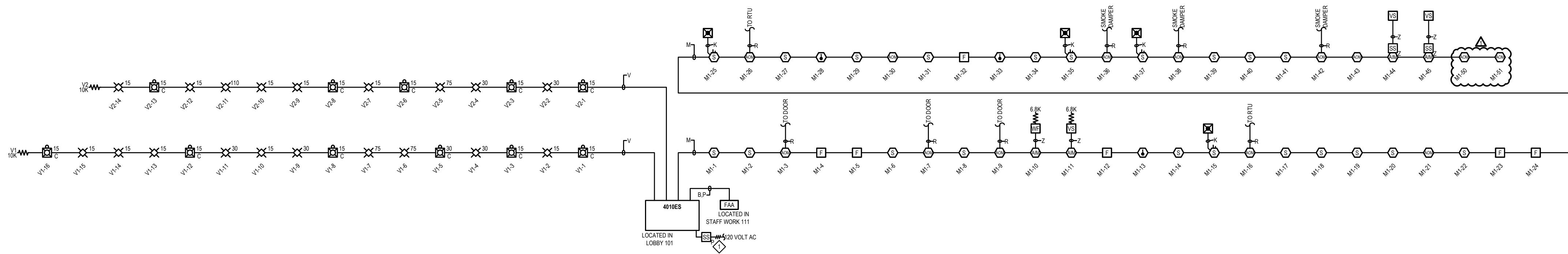
DRAWN BY:	T PALCZUK
CHECKED BY:	J SIMMONS
ISSUE DATE:	6/2/25
JOB #:	250659814
PROJECT #:	250.650659814
JOHNSON CONTROLS © 2025	

SYSTEM: FIRE ALARM SYSTEM

SHEET:

COVER SHEET

FA-001



RISER DIAGRAM
SCALE: N.T.S.

RISER NOTES:

- RISER IS A DIAGRAMMATICAL REPRESENTATION OF THE SYSTEM ARCHITECTURE IN BUILDING CROSS SECTION. IT IS NOT INTENDED TO REPRESENT ACTUAL WIRE RUNS, PANEL CONFIGURATIONS OR PENETRATIONS. REFER TO FLOOR PLANS AND PANEL DETAILS FOR CIRCUIT ROUTING AND CONFIGURATION INFORMATION.
- ALL WIRING SHALL COMPLY WITH APPLICABLE ELECTRICAL CODES. REFER TO APPLICABLE CODES & STANDARDS ON SHEET FA-001 FOR SPECIFIC CODE REFERENCES.

KEYED NOTES:

120VAC PRIMARY POWER SOURCE SHALL BE A MECHANICALLY PROTECTED BRANCH CIRCUIT. THE CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, AND BE IDENTIFIED AS "FIRE ALARM CIRCUIT"

FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	BRAND / MODEL	BACKBOX	WIRE TYPE(S)
PANELS				
[FACP]	4010ES FIRE ALARM CONTROL PANEL, 120 VAC, 250 POINT, IDNET, 4 NAC, 4A, 48 LED DISPLAY, PLATINUM, ENGLISH	4010-9402	SIMPLEX CABINET	
[DIAL]	LTE UNIVERSAL WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR	DSC LE4010CF-AT		
[FAA]	SERIAL LCD ANNUNCIATOR (N2)	4606-9102	6-GANG BOX 3-1/2"D	B,P
INITIATING DEVICES				
[S]	SMOKE SENSOR, ADDRESSABLE, PHOTOELECTRIC W/ STANDARD BASE, ADDRESSABLE	4098-9714 HEAD 4098-9792 BASE	4" OCT, 1-1/2" D	M
[H]	HEAT SENSOR, ADDRESSABLE, STANDARD W/ STANDARD BASE, ADDRESSABLE	4098-9733 HEAD 4098-9792 BASE	4" OCT, 1-1/2" D	M
[F]	DOUBLE ACTION MANUAL PUSH/PULL STATION, ADDRESSABLE	4099-9006	4" SQ, 2-1/8" D W/ 3/4" SINGLE GANG COVER EXTENSION	M
[S]	DUCT SMOKE DETECTOR, ADDRESSABLE	4098-9755	MOUNTS TO DUCTWORK	M
MODULES AND RELAYS				
[IAM]	INDIVIDUAL ADDRESSABLE MODULE	4090-9001	SINGLE GANG 2-1/2" D W/COVER	M,Z
[IAM]	TRIM PLATE FOR SEMI-FLUSH MOUNTING	4090-9806		
[IAM]	IDNET RELAY IAM, ADDRESSABLE	4090-9002	4" SQ, 2-1/8" D W/ COVER	M,R
[IAM]	TRIM PLATE FOR SURFACE MOUNTING	4090-9802		
[IAM]	INDIVIDUAL ADDRESSABLE MODULE, ENCAPSULATED, ADDRESSABLE	4090-9051	4-11/16" SQ, 1-1/2" D W/1-1/2" EXT RING	M,Z
[IAM]	IAM MOUNTING BRACKET	4090-9810		
NOTIFICATION APPLIANCES				
[E]	ELUXA CHIME/STROBE, CONVENTIONAL, CEILING MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	WHEELLOCK ELCHSRC	4" SQ, 2-1/8" D	V
[E]	LED STROBE, CONVENTIONAL, CEILING MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	WHEELLOCK ELSTRC	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
[SS]	OVERVOLTAGE SUPPRESSOR - IDNET OR POWER	2081-9044	4" SQ, 2-1/8" D	
[SS]	120V HYBRID SURGE PROTECTION DEVICE	SPACE AGE E120V-GT		
[WF]	WATERFLOW SWITCH	BY OTHERS WATERFLOW SWITCH		Z
[VS]	TAMPER SWITCH	BY OTHERS TAMPER SWITCH		Z
[DH]	DOOR HOLDER, 24120V, FLUSH MOUNT, CHROME	RS/GAAMES DH24120FPC		D

FIRE ALARM WIRE LEGEND

CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES			
				FPLR	THIN	IFFN	OUTDOOR
B RUI - COMMUNICATION	UTP SOLID	18 AWG	58pF/ft. MAX CAPACITANCE, 35.5 Ω TOTAL LINE RESISTANCE	X	X		
D DOOR HOLDER	2 COND. SOLID	14 AWG		X	X	X	X
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		
P POWER	2 COND. SOLID	14 AWG		X	X	X	X
R RELAY	2 COND. SOLID	14 AWG		X	X	X	X
V VISUAL	2 COND. SOLID	14 AWG		X	X		
Z ZONE CIRCUIT	2 COND. SOLID	14 AWG		X	X	X	X

CONDUIT SIZE: 1/2" (0.122 SQ INCH), 3/4" (0.213 SQ INCH), 1" (0.346 SQ INCH)
 CONDUIT SIZE: 1-1/4" (0.588 SQ INCH), 1-1/2" (0.814 SQ INCH), 2" (1.342 SQ INCH)
 *40% CONDUIT FILL PER N.E.C.
 STP = SHIELDED TWISTED PAIR
 LTP = UNSHIELDED TWISTED PAIR

ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRITICAL 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.

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
LOBBY 101 4010es FACP						
Panel Equipment						
4010-9402	1	FACP, 250PT IDNET, 1 BAY, 120V, PLATINUM		0.3160	0.4300	0.4300
4010-9918	1	DUAL RS232 MODULE	0.0600	0.0600	0.0600	0.0600
Panel Totals				0.3760	0.4900	0.4900
IDNet Addressable Devices (SLC)						
4090-9001	2	IDNET SUPERVISED IAM *				
4090-9002	13	IDNET RELAY IAM *				
4098-9714	17	TRUEALARM PHOTO SMOKE SENSOR				
4098-9733	3	TRUEALARM HEAT SENSOR				
4098-9755	4	TRUEALARM DUCT SMOKE SENSOR W/O RELAY OUTPUT *				
4098-9792	20	TRUEALARM SENSOR BASE *				
4099-9004	3	ADDRESSABLE SINGLE ACTION MANUAL STATION *				
4099-9006	3	ADDRESSABLE DOUBLE ACTION MANUAL STATION, PUSH *				
Notification Appliances						
Setting						
ELCHSRC	8	ELUXA CHIME STROBE, CEILING, MULTI-CANDELA, RED, FIRE	15	0.0000	0.0440	0.3520
ELCHSRC	2	ELUXA CHIME STROBE, CEILING, MULTI-CANDELA, RED, FIRE	30	0.0000	0.0520	0.1040
ELCHSRC	1	ELUXA CHIME STROBE, CEILING, MULTI-CANDELA, RED, FIRE	75	0.0000	0.0820	0.0820
ELSTRC	1	LED STROBE, CEILING MOUNT, RED, FIRE LETTERING	110	0.0000	0.0860	0.0860
ELSTRC	10	LED STROBE, CEILING MOUNT, RED, FIRE LETTERING	15	0.0000	0.0220	0.2200
ELSTRC	5	LED STROBE, CEILING MOUNT, RED, FIRE LETTERING	30	0.0000	0.0300	0.1500
ELSTRC	3	LED STROBE, CEILING MOUNT, RED, FIRE LETTERING	75	0.0000	0.0600	0.1800
Peripheral Totals				0.0000	1.1740	1.1740
Address Totals			45 Addresses	0.0360	0.0450	0.0450
System Totals:			Standby	0.4120	Alarm	1.7090

* Device Address current draw included below (See Additional Current Draws):
 IDNET cards include 40mA alarm current for 20 device LEDs in alarm in addition to base current listed on datasheet.
 1. Base FACP includes current draw for all included components. See data sheet for details.

Battery Set #1 (Cabinet/Charger #1)	Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:		0.3760		1.6640
4010es		0.3760		1.6640
Additional Current Draws:				
RUI Connected Peripheral Devices	0	x 0.0035 = 0.0000	x 0.0035 = 0.0000	
MAPNET/IDNet Device Address Communication Current	45	x 0.000800 = 0.0360	x 0.001000 = 0.0450	
Sub Total		0.4120	1.7090	
Spare addressable point capacity	0%	0	x 0.0008 = 0.0000	x 0.001 = 0.0000
Total		0.4120	1.7090	
Standby Time = 24 Hrs	x 0.4120	= 9.8880	Standby Ah	
Alarm Time = 5 Min	0.08333 x 1.709	= 0.1424	Alarm Ah	
Additional Spare Battery Capacity = 0%				
Battery Discharge Factor = 20%			2.0061	
Minimum Battery Required	2081-9288 12.7AH (2x)		12.0365	
Battery Supplied	2081-9288 12.7AH (2x)			

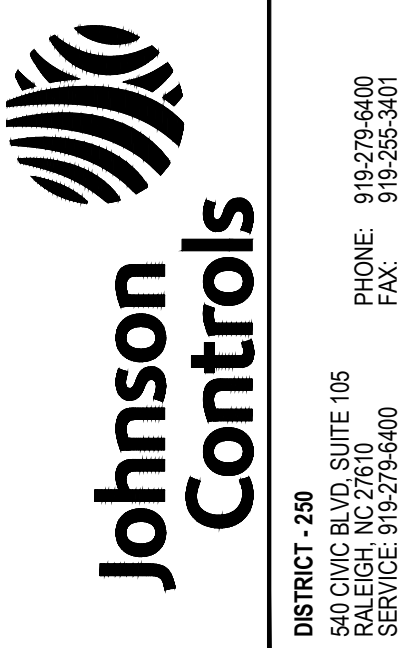
* System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.

IDNET CHANNEL M1	Address	Device Type	Point Type	Location Description	SWITCH SETTINGS
M1-1	PHOTO	SMOKE	LOBBY 101	M1-1	X
M1-2	PHOTO	SMOKE	VISITOR/CONSULT 101A	M1-2	X
M1-3	RIAM	RELAY	LOBBY 101	M1-3	X
M1-4	ADRPUL	PULL	LOBBY 101	M1-4	X
M1-5	ADRPUL	PULL	EVS STOR 139	M1-5	X
M1-6	PHOTO	SMOKE	EVS STOR 139	M1-6	X
M1-7	RIAM	RELAY	SALLYPORT 104	M1-7	X
M1-8	PHOTO	SMOKE	SALLYPORT 104	M1-8	X
M1-9	RIAM	RELAY	CORR 136	M1-9	X
M1-10	IAM	WATER	WATER HEATER 140	M1-10	X
M1-11	IAM	SO	WATER HEATER 140	M1-11	X
M1-12	ADRPUL	PULL	WATER HEATER 140	M1-12	X
M1-13	HEAT	HEAT	WATER HEATER 140	M1-13	X
M1-14	PHOTO	SMOKE	WATER HEATER 140	M1-14	X
M1-15	PHOTO	DUCT	WATER HEATER 140	M1-15	X
M1-16	RIAM	RELAY	WATER HEATER 140	M1-16	X
M1-17	PHOTO	SMOKE	WATER HEATER 140	M1-17	X
M1-18	PHOTO	SMOKE	WATER HEATER 140	M1-18	X
M1-19	PHOTO	SMOKE	WATER HEATER 140	M1-19	X
M1-20	PHOTO	SMOKE	WATER HEATER 140	M1-20	X
M1-21	RIAM	RELAY	CORR 137	M1-21	X
M1-22	PHOTO	SMOKE	CORR 137	M1-22	X
M1-23	ADRPUL	PULL	STAFF WORK 111	M1-23	X
M1-24	ADRPUL	PULL	STAFF WORK 111	M1-24	X
M1-25	PHOTO	DUCT	STAFF WORK 111	M1-25	X
M1-26	RIAM	RELAY	STAFF WORK 111	M1-26	X
M1-27	PHOTO	SMOKE	CORR 137	M1-27	X
M1-28	HEAT	HEAT	LAUNDRY/CLEAN LINEN	M1-28	X
M1-29	PHOTO	SMOKE	CORR 137	M1-29	X
M1-30	RIAM	RELAY	CORR 137	M1-30	X
M1-31	PHOTO	SMOKE	DATA/IT 152	M1-31	X
M1-32	ADRPUL	PULL	ELEC 151	M1-32	X
M1-33	HEAT	HEAT	ELEC 151	M1-33	X
M1-34	PHOTO	SMOKE	ELEC 151	M1-34	X
M1-35	PHOTO	DUCT	TREATMENT PLANNING	M1-35	X
M1-36	RIAM	RELAY	TREATMENT PLANNING	M1-36	X
M1-37	PHOTO	DUCT	CORR 135	M1-37	X
M1-38	RIAM	RELAY	CORR 135	M1-38	X
M1-39	PHOTO	SMOKE	CORR 135	M1-39	X
M1-40	PHOTO	SMOKE	CORR 135	M1-40	X
M1-41	PHOTO	SMOKE	CORR 135	M1-41	X
M1-42	RIAM	RELAY	CORR 135	M1-42	X
M1-43	RIAM	DHOLDER	SECLUSION 125B	M1-43	X
M1-50	RIAM	DHOLDER	NOURISHMENT 133	M1-50	X
M1-51	RIAM	DHOLDER	NOURISHMENT 133	M1-51	X

NOTE: THE LABELS SHOWN ABOVE WILL BE USED FOR PROGRAMMING PURPOSES.
 THE LABELS ARE BASED UPON INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS.
 ANY CHANGES TO THESE LABELS MUST BE NOTED ON THE SUBMITTAL REVIEW, PRIOR TO PROGRAMMING.
 POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL ELECTRICAL CODE (UNCOATED SOLID COPPER WIRE) @ 75 Celsius	Power Supply	Panel Circuit	Plan Ckt.	Dist. (D) Feet	Wire Gauge	Wire Res. / Ft. (R)	Total Alarm (A)	V. Drop (A*2D/R)	Volt @ End	% Volt Drop	Min Device Voltage	Max Distance	ELSTWC 15cd	ELSTWC 30cd	ELSTWC 75cd	ELSTWC 110cd	ELCHSWC 15cd	ELCHSWC 30cd	ELCHSWC 75cd
													MC V/O	MC V/O	MC V/O	MC V/O	MC A/V	MC A/V	MC A/V
NOTIFICATION CIRCUIT DESCRIPTION	4010es	SIG1	V1		14ga	0.0031	0.630	0.000	19.500	0.00%	16vdc	905 FL	5	3	2		4	1	1
	4010es	SIG2	V2		14ga	0.0031	0.544	0.000	19.500	0.00%	16vdc	1048 FL	5	2	1	1	4	1	
		SIG3	V3		14ga	0.0031	0.000	0.000	19.500	0.00%	16vdc	0 FL							
		SIG4	V4		14ga	0.0031	0.000	0.000	19.500	0.00%	16vdc	0 FL							

NOTE:
 LUMP SUM METHOD WAS USED TO CALCULATE ALLOWABLE VOLTAGE DROP. THIS METHOD ALLOWS FOR A SMALL MARGIN OF SAFETY. TAKING INTO CONSIDERATION THAT THE ACTUAL INSTALLED CIRCUIT ROUTING MAY DIFFER FROM WHAT IS SHOWN ON THE SHOP DRAWINGS, IF THE ACTUAL CIRCUIT LENGTH IS GOING TO EXCEED THE MAXIMUM ALLOWABLE CIRCUIT LENGTH, CONTACT YOUR LOCAL JOHNSON CONTROLS DISTRICT OFFICE.



**CAPE FEAR VALLEY HEALTH
 HARNETT HEALTH**
 DOROTHEA DIX ADOLESCENT PSYCHIATRIC UNIT
 CRESTED IDRIS DR.
 LILLINGTON, NC 27546

ISSUE NO.	DATE	CD	CHK	DESCRIPTION	REVISIONS SHOWN WITH SYMBOL
1	10/23/25	TP	US	REVISED PER ENGINEER COMMENTS	

REVISION 1

DRAWN BY: T PALCZUK
 CHECKED BY: J SIMMONS
 ISSUE DATE: 6/2/25
 JOB #: 250659814
 PROJECT #: 250659814
 JOHNSON CONTROLS © 2025

SYSTEM:
FIRE ALARM SYSTEM

SHEET:

RISER DIAGRAM

FA-201

ISSUE NO.	DATE	CHK	DESCRIPTION
1	10/23/25	TP	US REVISION PER ENGINEER COMMENTS

REVISION 1	
DRAWN BY:	T PALCZUK
CHECKED BY:	J SIMMONS
ISSUE DATE:	6/2/25
JOB #:	250659814
PROJECT #:	250659814
JOHNSON CONTROLS © 2025	
SYSTEM: FIRE ALARM SYSTEM	
SHEET:	

DUCT SMOKE DETECTOR

SIMPLEX 4098-9755 ANALOG 2-WIRE DUCT SENSOR

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 2-1/2" (64mm) DEEP	BY OTHERS
B	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP (MIN) W/ SINGLE GANG COVER PLATE 3/4" (19mm)	BY OTHERS
C	SIMPLEX 2975-9022 - 5H x 3-7/8"W x 2-3/16"D (127mm x 98mm x 56mm)	ORDERED SEPARATELY
D	SIMPLEX 2975-9178 - 5-3/4"H x 3-7/8"W x 2-3/16"D (132mm x 102mm x 56mm)	ORDERED SEPARATELY

ADDRESSABLE PULL STATIONS

SIMPLEX 4099 SERIES

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 2-1/2" (64mm) DEEP	BY OTHERS
B	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP (MIN) W/ SINGLE GANG COVER PLATE 3/4" (19mm)	BY OTHERS
C	SIMPLEX 2975-9022 - 5H x 3-7/8"W x 2-3/16"D (127mm x 98mm x 56mm)	ORDERED SEPARATELY
D	SIMPLEX 2975-9178 - 5-3/4"H x 3-7/8"W x 2-3/16"D (132mm x 102mm x 56mm)	ORDERED SEPARATELY

STANDARD SENSOR BASE

SIMPLEX 4098-9792

COMPATIBLE SENSOR HEADS

PID	DESCRIPTION
4098-9714	PHOTOELECTRIC SMOKE SENSOR
4098-9714-ND	SENSOR
4098-9714	HEAT SENSOR
4098-9733	HEAT SENSOR
4098-9778	HIGH TEMP. HEAT SENSOR

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
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- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 2-1/8" (54mm) DEEP - FLUSH MOUNT	BY OTHERS
B	4" (102mm) OCTAGONAL BOX, 1-1/2" (38mm) DEEP, MINIMUM - FLUSH MOUNT	BY OTHERS
C	4" (102mm) SQUARE BOX, 1-1/2" DEEP (MIN) W/ SIMPLEX 4098-9832 EXTENSION KIT	BOX BY OTHERS, 4098-9832 ORDERED SEPARATELY
D	4" (102mm) SQUARE BOX, 1-1/2" DEEP (MIN) W/ SINGLE GANG COVER PLATE 3/4" (19mm) EXTENSION	BY OTHERS

REMOTE LCD ANNUNCIATOR

SIMPLEX 4606-9102

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	SURFACE MOUNT BOX, 2-3/4" DEEP (70 MM)	SIMPLEX 2975-9206 ORDERED SEPARATELY
B	FLUSH MOUNT MASONRY BOX 3-1/2" (89 MM) DEEP	SUPPLIED BY OTHERS
C	FLUSH MOUNT GANGED BOXES, REQUIRES 6-GANG BOX, 3-1/2" (89 MM) MIN. DEPTH SUPPLIED BY OTHERS	ORDERED SEPARATELY

FACP BACKBOX INSTALLATION

SIMPLEX 4010es SERIES

WIRING NOTES

- REMOVE ELECTRONICS AND STORE IT IN A SAFE DRY AREA.
- NO KNOCKOUTS PROVIDED. CUT CONDUIT/SERVICE ENTRANCE OPENINGS. REFER TO ILLUSTRATION FOR PROPER LOCATIONS. CONDUIT PROTRUSION INTO BOX 1/2" MAX.
- MOUNT BOX TO WALL. BOX MUST BE LEVEL AND PLUMB. FOR SURFACE MOUNT USE TEAR DROP AND CLEARANCE HOLES ON BACK SURFACE.
- FOR SEMI-FLUSH MOUNT, USE KNOCKOUTS ON SIDE WALL AND SCREW OR NAIL BOX TO WALL STUDS. IF PRESENT, USE WIRE MANAGEMENT BRACKETS ON BOX SIDES TO SECURE WIRE RUNS.
- DO NOT LOCATE POWER-LIMITED WIRING IN THE SHADDED AREAS OF THE BACKBOX. THIS AREA IS RESERVED FOR NON-POWER LIMITED CIRCUITRY SUCH AS AC POWER, BATTERIES AND CITY CONNECTION.
- USE SEPARATE CONDUIT ENTRANCES FOR POWER LIMITED AND NON-POWER LIMITED WIRING.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	SURFACE MOUNT BOX, 2-3/4" DEEP (70 MM)	SIMPLEX 2975-9206 ORDERED SEPARATELY
B	FLUSH MOUNT MASONRY BOX 3-1/2" (89 MM) DEEP	SUPPLIED BY OTHERS
C	FLUSH MOUNT GANGED BOXES, REQUIRES 6-GANG BOX, 3-1/2" (89 MM) MIN. DEPTH SUPPLIED BY OTHERS	ORDERED SEPARATELY

CONVENTIONAL NOTIFICATION APPLIANCES

WHEELOCK EXCEDER SERIES LED3 CEILING MOUNTED VISUAL

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP (MIN)	BY OTHERS
B	LSPPB/C SURFACE MOUNTING BOX	MANUFACTURER
C	4" OCTAGONAL BACKBOX	BY OTHERS

CONVENTIONAL NOTIFICATION APPLIANCES

WHEELOCK ELUXA SERIES CEILING MOUNT CHIMES & CHIMESTROBES

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP (MIN)	BY OTHERS
B	LSPPB/C SURFACE MOUNTING BOX	MANUFACTURER
C	4" OCTAGONAL BACKBOX	BY OTHERS

ADDRESSABLE RELAY MODULE

SIMPLEX 4090-9002

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH DOUBLE GANG COVER PLATE	BY OTHERS
B	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH SIMPLEX 4090-9801 TRIM PLATE FOR SEMI-FLUSH MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY
C	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH SIMPLEX 4090-9802 TRIM PLATE FOR SURFACE MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY

ADDRESSABLE INPUT MODULE

SIMPLEX 4090-9001 (IAM)

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SINGLE GANG COVER PLATE	BY OTHERS
B	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SIMPLEX 4090-9810 IAM MOUNTING BRACKET AND SIMPLEX 4090-9801 TRIM PLATE FOR SEMI-FLUSH MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY
C	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SIMPLEX 4090-9810 IAM MOUNTING BRACKET AND SIMPLEX 4090-9807 TRIM PLATE FOR SURFACE MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY

REMOTE ALARM INDICATOR / KEY SWITCH

SIMPLEX 2098-9806

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ONE INDICATOR MAY BE INSTALLED PER DETECTOR.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SINGLE GANG COVER PLATE	BY OTHERS
B	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SIMPLEX 4090-9810 IAM MOUNTING BRACKET AND SIMPLEX 4090-9801 TRIM PLATE FOR SEMI-FLUSH MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY
C	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SIMPLEX 4090-9810 IAM MOUNTING BRACKET AND SIMPLEX 4090-9807 TRIM PLATE FOR SURFACE MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY

MAGNETIC SEMI-FLUSH MOUNT DOOR HOLDERS

RSG DH24120F SERIES

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING INSTRUCTIONS

- WITH DOOR MAGNET SECURELY FASTENED, ALIGNED AND ENERGIZED, PROCEED WITH SWIVEL BASE ASSEMBLY.
- ATTACH SWIVEL PORTION OF MAGNET, BEING CAREFUL TO CENTER CATCH PLATE OVER MAGNET.
- WITH CATCH PLATE ASSEMBLY ATTACHED MAGNETICALLY TO DOOR MAGNET, PEEL ADHESIVE BACKING OFF MOUNTING TEMPLATE AND SLIDE OVER CATCH PLATE, MAKING SURE ADHESIVE SIDE FACES DOOR.
- GENTLY CLOSE DOOR AND WITH ONE HAND ADJUST BASE OF CATCH PLATE TO BE FLAT AGAINST DOOR.
- WHILE KEEPING SLIGHT PRESSURE ON DOOR, SLIDE MOUNTING TEMPLATE OVER CATCH PLATE TO DOOR SURFACE AND APPLY PRESSURE TO TEMPLATE IN A FEW SPOTS.
- OPENING DOOR WILL REVEAL MOUNTING TEMPLATE. APPLY FINAL PRESSURE TO INSURE TEMPLATE DOES NOT FALL OFF WHILE ASSEMBLY TAKES PLACE.
- INSERT ALIGNMENT TEMPLATE INTO CENTER OF MOUNTING TEMPLATE. USE TAB TO ROTATE FOR FINE ADJUSTMENT. WHILE HOLDING ALIGNMENT TEMPLATE WITH ONE HAND, REMOVE ADHESIVE BACKING OF TAB, THEN PUSH TAB AGAINST DOOR.
- IF USING OPTIONAL DOOR BACK PLATE, CENTER PUNCH POINTS INDICATED ON ALIGNMENT TEMPLATE FOR EITHER HORIZONTAL OR VERTICAL MOUNTING. FOR BEST RESULTS DRILL 1/8" PILOT HOLE FIRST, THEN FOLLOW WITH 5/16" DIA. DRILL. DRILL STRAIGHT THROUGH DOOR.
- IF MOUNTING CATCH PLATE ASSEMBLY DIRECTLY TO DOOR, DRILL 1/8" DIA PILOT HOLE APPROXIMATELY 1/4" TO 1/2" DEEP, BEING CAREFUL NOT TO GO THROUGH DOOR.
- FOR EITHER STYLE OF MOUNTING (THRU DOOR/DIRECT) REMOVE ONLY ALIGNMENT TEMPLATE, THEN PLACE SWIVEL IN CENTER ALIGN HOLES, THEN INSERT SCREWS AND TIGHTEN ASSEMBLY FULLY. LASTLY, REMOVE MOUNTING TEMPLATE.

HYBRID SURGE PROTECTION DEVICE

SPACE AGE ELECTRONICS E120V-GT

ELECTRICAL INSTALLATION

- DISCONNECT MAIN POWER.
- REMOVE FRONT COVER OR PANEL COVER.
- REMOVE 1" KNOCKOUT FROM BOX.
- FEED WIRES THROUGH KNOCKOUT HOLE AND INSTALL UNIT WITH SUPPLIED NUT. A SHORTER WIRE IS BETTER. GROUND BUS RESISTANCE SHOULD BE LESS THAN 5 OHMS FOR BEST PERFORMANCE.
- CONNECT WHITE WIRE TO NEUTRAL.
- CONNECT BLACK WIRE TO LOAD SIDE OF CIRCUIT. TRIM EXTRA WIRE AS NEEDED.
- REPLACE FRONT/PAANEL COVER.
- RESTORE POWER.

OVERVOLTAGE PROTECTOR

SIMPLEX 2081-9044

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ALL LINES WHICH RUN EXTERNAL TO THE BUILDING MUST BE PROPERLY GROUND, TWISTED AND SHIELDED PAIRS.

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
- ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
- ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS

OPTION	DESCRIPTION	NOTE
A	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH DOUBLE GANG COVER PLATE	BY OTHERS
B	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH SIMPLEX 4090-9801 TRIM PLATE FOR SEMI-FLUSH MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY
C	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH SIMPLEX 4090-9802 TRIM PLATE FOR SURFACE MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY

OVERVOLTAGE PROTECTOR

SIMPLEX 2081-9044

WIRING NOTES

- MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
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MOUNTING OPTIONS

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A	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH DOUBLE GANG COVER PLATE	BY OTHERS
B	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH SIMPLEX 4090-9801 TRIM PLATE FOR SEMI-FLUSH MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY
C	4" (102mm) SQUARE BOX, 2-1/8" (54mm) DEEP WITH SIMPLEX 4090-9802 TRIM PLATE FOR SURFACE MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY

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