

Fire Alarm and Detection System

Equipment Supplied By



Project Team Co	Project Team Contact Information											
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Technician Scheduler:	Yvonne Thompson	yvonne.thompson@jci.com	(206) 777-4860									

	SHEET LIST TA	BLE
INCLUDED	SHEET NUMBER	SHEET TITLE
X	FA-COV-01	TITLE SHEET
X	FA-COV-02	GENERAL INFORMATION
	FA-RIS-01	RISER DIAGRAM
	FA-DET-01	WIRING TYPICALS
	FA-DET-02	WIRING TYPICALS
Х	FA-DET-03	WIRING TYPICALS
	FA-PG	PARKING
	FA-DO-01	DROP OFF
	FA-B-01	BASEMENT
	FA-G-01W	GROUND WEST
	FA-G-01E	GROUND EAST
	FA-F-01W	LEVEL 1 WEST
	FA-F-01E	LEVEL 1 EAST
X	FA-F-02W-D	LEVEL 2 WEST DEMO
X	FA-F-02W	LEVEL 2 WEST
	FA-F-02E	LEVEL 2 EAST
	FA-R-01	ROOF

	Johnson W	
eway Drive ⁄a. 98168	Controls	
206-291-1400		

			619230901 12781 Gateway Drive	SALES: 206-291-140		
PROJECT#	619230901	619230901	619230901	619230901	650284615	
ENGINEER	JWB	JWB			EQB	
DRAFTER	SSS	MAM	MAM	MAM	MAM	
REVISION DESCRIPTION	8/14/20 GORDON EDU T.I.	17 2/22/21 GORDON EDU T.I.— CUSTOMER CMNT	06/14/21 GORDON EDU RECORD DRAWINGS	09/02/21 GORDON EDU RECORD DWGS. UPDATES	5/5/23 HYBRID O.R. #1 T.I.	
DATE	8/14/20	2/22/21	06/14/21	09/02/21		
NO.	16	17			18	
Eric E	<b>AWIN</b> ( Beck, CET T #22888 Alarm Sys	34	/IEWEI	D BY:	)	
	j					

SHEET					
SAMARITAN	HOSPITAL	1	WEST WING	WING	
/ENUE SOUTHEAST WA					

· · · · - ·
3-1-2000
ROJECT NUMBER:
459-990051
HEET NUMBER:
FA-COV-0

#### GENERAL FIRE ALARM SYSTEM NOTES

- 1) FIRE ALARM SYSTEM IS POWER LIMITED. METALLIC RACEWAY SHALL BE USED IF REQUIRED BY CODE, SPECIFICATIONS AND CONTRACT DOCUMENTS OR AHJ.
- 2) ALL RACEWAYS MUST BE FREE OF MOISTURE
- 3) REFER TO JOHNSON CONTROLS FIRE ALARM DATA SHEETS FOR PROPER TYPE AND SIZES OF REQUIRED DEVICE MOUNTING ELECTRICAL 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 ALARM) WIRING SHALL NOT BE IN THE SAME RACEWAY AS FIRE ALARM
- 6) ALL CONTRACTOR FIELD WIRING MUST ENTER ALARM CONTROL PANEL BACKBOX FOLLOWING POWER-LIMITED AND NON POWER-LIMITED WIRING REQUIREMENTS. REFER TO INSTALLATION INSTRUCTIONS FOR MORE INFORMATION. 7) ZONE CIRCUITS AND SIGNAL CIRCUITS ARE ELECTRICALLY SUPERVISED. BRANCH CIRCUITS SHALL BE LOOPED TO MAINTAIN INTEGRITY OF SUPERVISED CIRCUITS——T—TAPPING OF
- ZONE CIRCUITS AND SIGNAL CIRCUITS IS NOT PERMITTED.
- 8) REFER TO FACP MODULE DIAGRAMS, INCLUDED WITH FACP, FOR SPECIFICATIONS AND INFORMATION ON INDIVIDUAL PANEL MODULES. VERIFY ALL CONNECTIONS WITH A JOHNSON CONTROLS
- FIELD TECHNICAL REPRESENTATIVE PRIOR TO TERMINATION.
- ALL FIRE ALARM WIRING SHALL TEST FREE OF OPENS, SHORTS AND GROUNDS. 10) ALL WIRING SHALL BE LABELED AND TAGGED
- 11) ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAKING ALL FINAL CONNECTIONS PRIOR TO JOB CHECKOUT AND FINAL TESTING BY A JOHNSON CONTROLS FIELD TECHNICAL REPRESENTATIVE. CALL A MINIMUM OF 5 DAYS IN ADVANCE TO SCHEDULE
- A JOHNSON CONTROLS TECHNICIAN AT (206) 777-4860.
- 12) ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR INSPECTION, TEST AND CERTIFICATION OF THE FIRE ALARM SYSTEM BY ALL APPROPRIATE AUTHORITIES.
- 13) UPON WRITTEN REQUEST, JOHNSON CONTROLS WILL PROVIDE WRITTEN INSTRUCTIONS REGARDING THE APPROPRIATE WRE/CABLE FOR INSTALLATION OF THE EQUIPMENT/SYSTEM(S) IDENTIFIED IN THESE DRAWINGS. JOHNSON CONTROLS SHALL NOT BE RESPONSIBLE FOR PROBLEMS OR DAMAGES RESULTING FROM THE USE OF WIRE/CABLE OTHER THAN THAT WHICH HAS BEEN IDENTIFIED
- IN WRITING BY JOHNSON CONTROLS FOR A SPECIFIC APPLICATION. 14) ALL WIRING SHALL MEET ALL APPLICABLE NATIONAL ELECTRIC CODE ARTICLES FOR FIRE ALARM AND LOW VOLTAGE WIRING.

TI ARCHITECT:

MAZZETTI ARCHITECTS SEATTLE, WA.

FIRE ALARM SYSTEM TI DESIGNED BY:

JOHNSON CONTROLS TUKWILA, WA

FIRE ALARM SYSTEM TI INSTALLED BY:

REDMOND, WA

PRECISION ELECTRIC GROUP

EQUIPMENT FOR FIRE ALARM SYSTEM SUPPLIED BY:

JOHNSON CONTROLS TULWILA, WA

WASHINGTON STATE ELECTRICAL CONTRACTORS NUMBER: JOHNSCP831PR

THESE DRAWINGS DO NOT SUPERSEDE THE CONTRACT DRAWINGS AND SPECIFICATIONS. THEY ARE INTENDED AS A SUPPLEMENT ONLY AND MUST BE USED IN CONJUNCTION WITH THE CONTRACT DOCUMENTS. THEY DO NOT MODIFY THE CONTRACTORS OBLIGATIONS TO CONFORM TO THE PROJECTS ORIGINAL DESIGN CRITERIA.

#### ELECTRICAL CONTRACTOR

- ELECTRICAL CONTRACTOR IS TO SCHEDULE A PRELIMINARY SITE MEETING WITH A JOHNSON CONTROLS TECHNICAL REPRESENTATIVE. THESE MEETINGS ARE FOR REVIEWING EQUIPMENT LISTS, INSTALLATION PROCEDURES, AND PROVIDING ANSWERS TO QUESTIONS RELATIVE TO SYSTEM INSTALLATION.
- PLEASE ALLOW A MINIMUM OF FIVE WORKING DAYS ADVANCE NOTICE TO SCHEDULE A TECHNICAL REPRESENTATIVE.
- TO SCHEDULE A MEETING PLEASE CONTACT OUR SERVICE DEPARTMENT
- DO NOT USE FIRE ALARM CABINET AS TERMINAL CABINET

#### NOTES:

AT (206) 777-4860.

- FIRE ALARM DRAWINGS ARE SCHEMATIC ONLY. - ALL CABLE SUBSTITUTIONS MUST BE APPROVED BY SIMPLEX ENGINEERING IN WRITING.
- STROBES AT 80" TO BOTTOM OF DEVICE.
- NOTE: MOUNT PULL STATIONS <u>AT 48" TO TOP</u> OF DEVICE.
- ALL SHIELDS ON THE SAME MAPNET CHANNEL OR SPEAKER CIRCUIT SHOULD BE TWISTED TOGETHER FOR CONTINUITY AND TAPED UP TO PREVENT GROUNDING - SPEAKER CIRCUIT SHOULD BE TAPED TOGETHER
- AND BE FREE OF OPENS, SHORTS, AND GROUNDS. - DO NOT EXCEED 2500 FT OUT TO FURTHEST DEVICE-MAXIMUM 10,000 FT ON MAPNET CHANNEL.
- DRY CONTACT ONLY PROVIDED FOR DOOR HOLDERS, ROLL DOORS AND SMOKE/FIRE DAMPERS - POWER BY OTHERS. - DUCT DETECTORS ARE NOT WEATHERPROOF. ELECTRIC CONTRACTOR IS RESPONSIBLE FOR PROTECTING
- FROM ENVIRONMENTAL CONDITIONS (TEMPERTURE, MOISTURE, ETC)
- ALL SPEAKERS TO BE TAPPED AT 1/2 WATT, 25V UNLESS OTHERWISE NOTED.

# SPEAKER CIRCUIT

- CIRCUIT # DROP-OFF LEVEL BASEMENT LEVEL
- FIRST LEVEL FIRST LEVEL SECOND FLOOR & ROOF, PENTHOUSE LEVEL

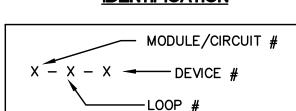
GROUND LEVEL

## MONITORING COMPANY

NORTHWEST AMS 1-877-870-0910 SERVICE COMPANY SUTHERLAND SECURITY 3991 TANWAX CT. E.

EATONVILLE, WA. 98328





## Does the system have an Emergency Generator that meets NEC 700.01? How many hours of battery standby are required? \_X\_4 \_\_\_\_24 \_\_\_48 \_\_\_60 (4 hours minimum w/ Emergency Generators) Total Qty Part# Description Current (A) Standby (A) Current (A) Alarm (A)

**BATTERY CALCULATIONS - FACP** 

4100-9111	Fire Alarm Control Panel	3.7300	3.7300	4.7000	4.7000
	Audible/Visible Devices	0.0000	0.0000	5.9510	5.9510
4603-9101	LCD Annunciator	0.0300	0.1500	0.1700	0.8500
4098-9756	TrueAlarm Duct Smoke Sensor	0.0024	0.0048	0.0150	0.0300
4098-9753	Duct Detector	0.0017	0.0085	0.0017	0.0085
4098-9843	Duct Detector Relay	0.0000	0.0000	0.0150	0.1050
2088-9008	Remote Relay	0.0000	0.0000	0.0150	0.5250
2190-9163	Control Zam	0.0100	0.3100	0.0400	1.2400
2190-9161	Signal Zam	0.0150	0.0300	0.0400	0.0800
		Total Standby=	4.2333	Total Alarm=	13.4895
	Total Standby Current Required=	4 2333	Y	Time (Hrs)	16.9332
	, , ,	4.2000	X	4.0000	10.0002
	Total Alarm Current Required=	13.4895	Χ	0.2500	3.3724
	Total=				20.3056
	20% Depletion Factor=				4.0611
	Total Amp/Hour Required=				24.3667
	Total Amp/Hour Batteries Provided=			(1) set	110.0000
	4603-9101 4098-9756 4098-9753 4098-9843 2088-9008 2190-9163	Audible/Visible Devices  4603-9101 LCD Annunciator  4098-9756 TrueAlarm Duct Smoke Sensor  4098-9753 Duct Detector  4098-9843 Duct Detector Relay  2088-9008 Remote Relay  2190-9163 Control Zam  2190-9161 Signal Zam  Total Standby Current Required=  Total Alarm Current Required=  20% Depletion Factor=  Total Amp/Hour Required=	Audible/Visible Devices 0.0000 4603-9101 LCD Annunciator 0.0300 4098-9756 TrueAlarm Duct Smoke Sensor 0.0024 4098-9753 Duct Detector 0.0017 4098-9843 Duct Detector Relay 0.0000 2088-9008 Remote Relay 0.0000 2190-9163 Control Zam 0.0100 2190-9161 Signal Zam 0.0150  Total Standby=  Total Standby Current Required= 4.2333  Total Alarm Current Required= 13.4895  Total=  20% Depletion Factor=  Total Amp/Hour Required=	Audible/Visible Devices 0.0000 0.0000 4603-9101 LCD Annunciator 0.0300 0.1500 4098-9756 TrueAlarm Duct Smoke Sensor 0.0024 0.0048 4098-9753 Duct Detector 0.0017 0.0085 4098-9843 Duct Detector Relay 0.0000 0.0000 2088-9008 Remote Relay 0.0000 0.0000 2190-9163 Control Zam 0.0100 0.3100 2190-9161 Signal Zam 0.0150 0.0300  Total Standby= 4.2333  Total Standby Current Required= 4.2333 X  Total Alarm Current Required= 13.4895 X  Total=  20% Depletion Factor=  Total Amp/Hour Required=	Audible/Visible Devices 0.0000 0.0000 5.9510 4603-9101 LCD Annunciator 0.0300 0.1500 0.1700 4098-9756 TrueAlarm Duct Smoke Sensor 0.0024 0.0048 0.0150 4098-9753 Duct Detector 0.0017 0.0085 0.0017 4098-9843 Duct Detector Relay 0.0000 0.0000 0.0150 2088-9008 Remote Relay 0.0000 0.0000 0.0150 2190-9163 Control Zam 0.0100 0.3100 0.0400 2190-9161 Signal Zam 0.0150 0.0300 0.0400  Total Standby= 4.2333 Total Alarm=  Total Standby= 4.2333 X 0.2500  Total=  20% Depletion Factor=  Total Amp/Hour Required=  Total Amp/Hour Required=

		BATTERY CALCULA	TIONS - N	AC#1 LE\	/EL G	
	Does the	system have an Emergency Generator the	at meets NEC 700	0.01?		
	How man	y hours of battery standby are required?  X 244860 (4 hours minim	num w/ Emergenc	y Generators)		
			Standby	Total	Alarm	Total
	Qty Part#	Description	Current (A)	Standby (A)	Current (A)	Alarm (A)
	1 4009-920		0.0850	0.0850	0.1850	0.1850
	1	Total Current from Volt Drop	0.0000	0.0000	3.5600	3.5600
			Total Standby=	0.0850	Total Alarm=	3.7450
15cd					Time (Hrs)	
ela 18		Total Standby Current Required=	0.0850	X	24.0000	2.0400
Candé Sd Sd Sd		Total Alarm Current Required=	3.7450	X	0.0833	0.3120
High Carlon High Carlon High Carlon High Carlon High Carlon High Carlon High T5cd he 1100 he 1100 he 75cd vices		Total=				2.3520
Wall Strobe High Candela 185cd Strobe 30cd Strobe 75cd Strobe 110cd Ceiling Strobe 15cd Ceiling Strobe 75cd Ceiling Strobe 75cd Ceiling Strobe 75cd Existing Devices		20% Depletion Factor=				0.4704
Wall stroby Stroby Stroby Stroby Stroby Ceilin Ceilin Ceilin Ceilin Synct Existi		Total Amp/Hour Required=				2.8224
0.430 0.094 0.186 0.252 0.075 0.125 0.233 0.316 0.075		Total Amp/Hour Batteries Provided=			(1) set	6.2000

								Signa	al Circuits - NAC#1	<u>Current</u>	Dist. (ft)	Voltage Drop
						9		N1-1	Ground Floor	0.675	430	1.78
						10		N1-2	Ground Floor	0.750	460	2.12
						7		N1-3	First Floor	0.525	510	1.64
2			1			9		N1-4	First Floor	1.610	555	5.49
2 0	0 (	0	1	0 0	0	35	0	Total		3.560		

		yes X no	at meets NEC 700	J.O 1 ?		
	How many hou	rs of battery standby are required?  44860 (4 hours minim	num w/ Emergenc	y Generators)		
			Standby	Total	Alarm	Total
Qty	Part #	Description	Current (A)	Standby (A)	Current (A)	Alarm (A
1	4009-9201	NAC Panel	0.0850	0.0850	0.1850	0.1850
1		Total Current from Volt Drop	0.0000	0.0000	2.5170	2.5170
			Total Standby=	0.0850	Total Alarm=	2.7020
		Total Standby Current Required=	0.0850	Х	Time (Hrs) 24.0000	2.0400
		Total Alarm Current Required=	2.7020	X	0.0833	0.2251
		Total=				2.2651
		20% Depletion Factor=				0.4530
		Total Amp/Hour Required=				2.7181
	-	Total Amp/Hour Batteries Provided=			(1) set	6.2000

		Signa	al Circuits - NAC#2 - Level 1 Equipment Rm F171	Current	Dist. (ft)	Voltage Drop
		N2-1	Level 1 Northeast	1.562	715	6.86
		N2-2	Level 1 Northeast	0.441	500	1.35
		N2-3	Level 1 Northeast	0.388	460	1.10
		N2-4	Level 1 Northwest	0.126	100	0.08
		N2-5	Spare	0.000		0.00
		N2-6	Spare	0.000		0.00
		N2-7	Spare	0.000		0.00
		N2-8	Spare	0.000		0.00
0	0	Total		2.517		

			2.517				0.00					
			T		1							
SEQUENCE OF OPERATION	MANUAL PULL STATION	SMOKE DETECTION	1ST FLR ELEV. LOBBY SMOKE DETECTION	ES EXCEP	ACHINE DE TE	elev. Shaft smoke detection	elev. Shaft heat detection	DUCT SMOKE DETECTION	HEAT DETECTION	FLOW SWITCH	TAMPER SWITCH	SYSTEM TROUBLE
ACTIVATION OF LOCAL ALARM AT FACP (LCD DISPLAY & AUDIBLE INDICATION)	×	X	×	×	×	×	X	×	×	×		
ACTIVATION OF ALARM AT ANNUNCIATOR	×	X	×	×	$\times$	×	X	×	×	×		
ACTIVATE AUDIBLE/VISIBLE DEVICES	×	X	×	×	X	×	X	×	×	×		
ACTIVATE MAGNETIC DOOR HOLDER RELAYS	×	X	×	X	×	×	X	×	×	×		
ACTIVATE DOOR CONTROL RELAYS	X	X	×	×	×	×	X	X	X	X		
DEACTIVATE SECURITY DOORS PUSH BUTTONS	X	X	×	×	×	×	X	X	X	X		
NITIATE PRIMARY ELEVATOR RECALL RECALL TO FIRST FLOOR				×	×	X						
NITIATE ALTERNATE ELEVATOR RECALL RECALL TO SECOND FLOOR			X									
TRANSMIT ALARM SIGNAL TO CENTRAL STATION MONITOR	X	X	X	×	×			X	X	X		
TROUBLE INDICATION AT FACE												×
TROUBLE INDICATION AT ANNUNCIATOR												X
TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION MONITOR												×
SUPV. INDICATION AT FACP											X	
SUPV. INDICATION AT ANNUNCIATOR											X	
TRANSMIT SUPV. SIGNAL TO CENTRAL STATION MONITOR											X	

#### MAPNET CIRCUIT DISTRIBUTION 1-1 TO 1-53, 1-57 TO 1-60, 1-66 TO 1-107, 1-1091-110 TO 1-124 MAPNET #2 2-1 TO 2-96, 2-98 TO 2-105, 2-122 TO 2-127 3-1 TO 3-42, 3-44 TO 3-49, 3-53, 3-64 TO 3-96, 3-100 TO 3-101

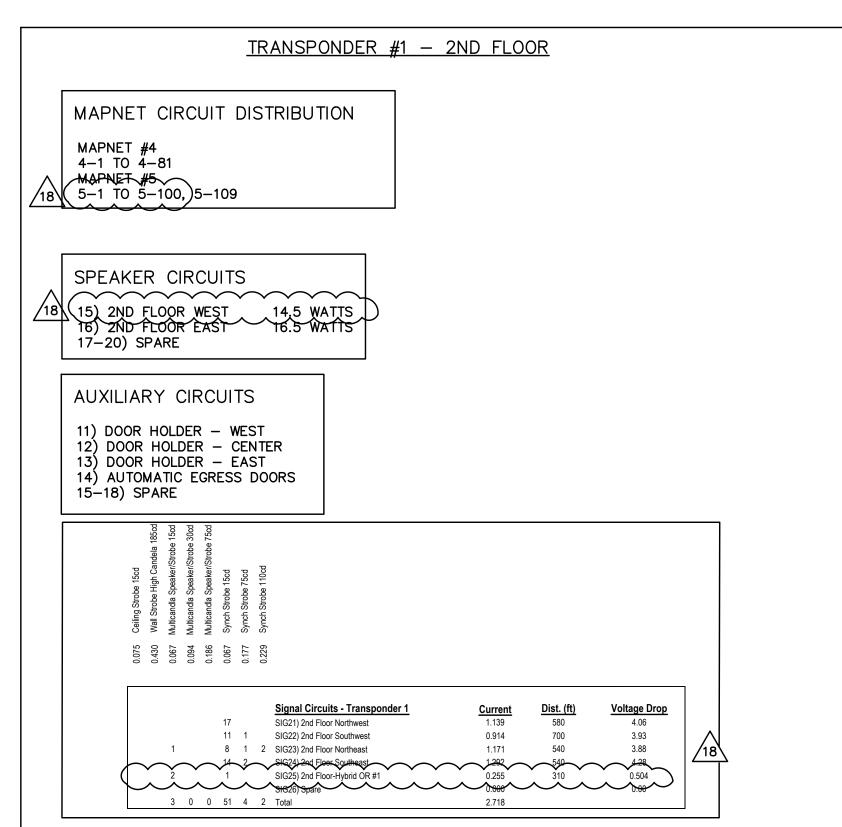
3-118 TO 3-121

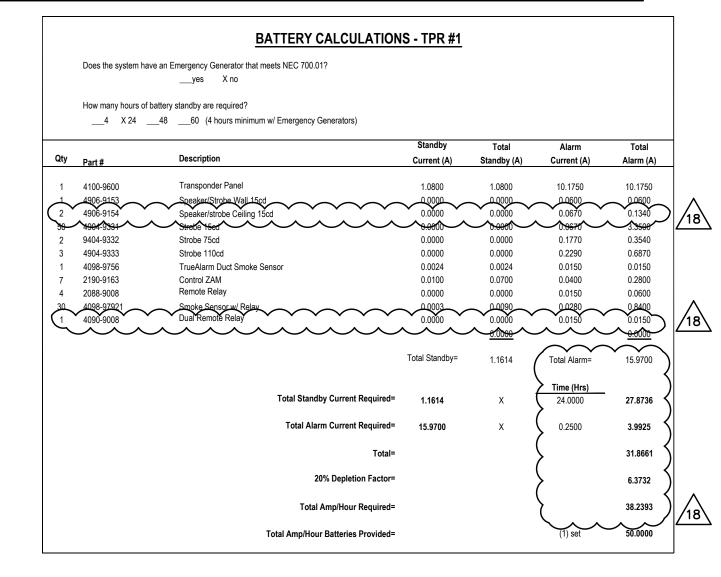
6-1 TO 6-74, 6-75 TO 6-114

MAPNET #6

SCOPE OF WORK TENANT IMPROVEMENT ON 2ND LEVEL-HYBRID O.R.#1. FOR COVERAGE DURING CONSTRUCTION PHASE, SWAP EXISTING DEVICES FOR HEAT DETECTORS WHERE INDICATED ON DEMO DRAWINGS. UPON COMPLETION OF CONSTRUCTION, DEMO (DEVICES WHERE INDICATED ON DEMO DRAWINGS AND INSTALL NEW DEVICES AND, WIRE AS INDICATED ON DRAWING FA-F-02W. ALL NEW WIRING NEEDED WILL BE CLASS B.

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.





<u>Dist. (ft)</u> <u>Voltage Drop</u>

170

0.354

0.000

0.000

0.753

0.24

0.37

0.00

0.00

	Does the system have an Emergency Generator that meets NEC 700.01?yes X no									
How many hours of battery standby are required?4 X 244860 (4 hours minimum w/ Emergency Generators)										
٠.			Standby	Total	Alarm	Total				
Qty	Part #	Description	Current (A)	Standby (A)	Current (A)	Alarm (A				
1	4009-9201	NAC Panel	0.0850	0.0850	0.1850	0.1850				
1		Total Current from Volt Drop	0.0000	0.0000	0.7530	0.7530				
			Total Standby=	0.0850	Total Alarm=	0.9380				
					Time (Hrs)					
		Total Standby Current Required=	0.0850	Χ	24.0000	2.0400				
		Total Alarm Current Required=	0.9380	Χ	0.0833	0.0781				
		Total=				2.1181				
		20% Depletion Factor=				0.4236				
		Total Amp/Hour Required=				2.5418				
	7	Total Amp/Hour Batteries Provided=			(1) set	6.2000				

Signal Circuits - NAC#3

1 2 N3-1 Ground & Level 1

N3-3 Spare

N3-4 Spare

2 2 N3-2 Level 2

2 1 2 2 Total

BACK BOX SYMBOL MODEL # DESCRIPTION 4" SQ DEEP ADDRESSABLE MANUAL PULL STATION 2099-9795 \* SUBSCRIPT INDICATES MAPNET# 2 GANG 4" RING 4" SQ W/SG BY EC ADDRESSABLE MANUAL STATION 4099-9001 \* SUBSCRIPT INDICATES MAPNET# ADDRESSABLE MANUAL STATION 4" SQ W/SG BY EC 4099-9004 \* SUBSCRIPT INDICATES MAPNET# WALL HORN/STROBE 4903-9427 4" SQ BY EC \* SUBSCRIPT INDÍCATES CIRCUIT # & CANDELA MULTICANDELA WALL SPEAKER/STROBE 4" SQ DEEP 4906-9151 \* SUBSCRIPT INDICATES CIRCUIT # & CANDELA SETTING 1.5" EXT BY EC 4" SQ DEEP WALL MOUNT SPEAKER 4902-9703 \* SUBSCRIPT INDICATES CIRCUIT # 1.5" EXT BY EC CEILING MOUNT SPEAKER 4902-9705 OR 4" SQ DEEP \* SUBSCRIPT INDICATES CIRCUIT # 4902-9721 1.5" EXT BY EC MULTICANDELA CEILING SPEAKER/STROBE 4906-9154 4" SQ BY EC \* SUBSCRIPT INDICATES CIRCUIT # Multicandela Ceiling Strobe 4906-9102 4" SQ BY EC \* SUBSCRIPT INDICATES CIRCUIT # MULTICANDELA WALL STROBE 15cd 4" SQ BY EC 4906-9103 \* SUBSCRIPT INDICATES CIRCUIT # HIGH CANDELA WALL STROBE 4906-9109 4" SQ DEEP \* SUBSCRIPT INDICATES CIRCUIT # 1.5" EXT BY EC STROBE 15cd 4" SQ BY EC 4904-9331 \* SUBSCRIPT INDICATES CIRCUIT # STROBE 75cd 4904-9332 4" SQ BY EC \* SUBSCRIPT INDICATES CIRCUIT # STROBE 110cd 4904-9333 4" SQ BY EC \* SUBSCRIPT INDICATES CIRCUIT # 4 11/16" SQ., 2 1/8" DEEP w/ SIGNAL ZAM 2190-9161 \* SUBSCRIPT INDICATES MAPNET # 1 1/2" DEEP EXTENSION RING SMART SYNCH MODULE 4905-9938 4" SQ 2 1/8" DEEP W/4" SQ BY EC 4" OCT BY EC 4098-9714 w/ SMOKE SENSOR AND BASE 4098-9792 BASE 4" x 2 1/8" DEEP OCT. W/ SMOKE DETECTOR w/ RELAY DRIVER BASE 4098-9714 w/ \* SUBSCRIPT INDICATES MAPNET # 4098-9791 BASE 1 1/2" EXTENSION RING BY EC 4098-9733 w/ 4" SQ w/ HEAT SENSOR AND BASE \* SUBSCRIPT INDICATES MAPNET # 4098-9792 BASE 4" OCT RING 4098-9756 HOUSING DUCT DETECTOR HOUSING AND SENSOR SELF-CONTAINED \* SUBSCRIPT INDICATES MAPNET # GANG RING ON 4" SQ LED INDICATOR 2098-9808 WATERFLOW SWITCH BY OTHERS BY OTHERS TAMPER SWITCH BY OTHERS BY OTHERS BY OTHERS BY OTHERS ALARM BY OTHERS BY OTHERS BY OTHERS BY OTHERS FIRE/SMOKE DAMPER SUPERVISED IAM 2190-9172 OR 4" SQ DEEP BOX w/ \* SUBSCRIPT INDICATES MAPNET ; 4090-9001 4" SQ BLANK BY EC ROLL DOOR BY OTHERS BY OTHERS MAGNETIC DOOR LOCKS BY OTHERS BY OTHERS 2088-9578 or 2088-9608 MAGNETIC DOOR HOLDERS SINGLE GANG EXT. RING BY EC DOOR LOCK CONTROL BY OTHER BY OTHER REMOTE RELAY - DPDT SELF-CONTAINED 2088-9010 REMOTE RELAY 2088-9008 SELF-CONTAINED

2190-9163

4090-9008

4603-9101

4009-9201

4100-8019

4100 SERIES

<u>LEGEND</u>

## WIRE CODE

4 11/16" SQ., 2 1/8" DEEP w/

1 1/2" DEEP EXTENSION RING AND SURFACE COVER BY EC

4" SQ DEEP BOX w/

4" SQ BLANK BY EC

6 GANG BOX BY EC

**EXISTING** 

16.25"W x 13.5"H x 4.25"D

52.125"W x 25.75"H x 6.75"D

ALL WIRING TO MEET CURRENT NATIONAL ELECTRIC CODE ARTICLE 760, 300, 310, 370, 725 AND ALL RELATED SECTION CODE REQUIREMENTS

LETTER	QTY	COLOR/TYPE	SIZE	FUNCTION
Α	2	BLACK/ORANGE TFN	16	ZONE
С	2	RED/BLUE THHN	12	STROBE
D	4	RED/BLUE THHN	12	STROBE LOOP
E	2	BROWN/YELLOW THHN	14	DOOR HOLDERS
F	4	ORANGE/YEL./BLACK/BLUE THHN	14	FAN SHUTDOWN
Н	1	WEST PENN D975	18	REMOTE ANNUNCIATOR
	2	RED/BLACK THHN	14	
J	1	TW/SHLD. PAIR	12	SPEAKER
K	2	TW/SHLD. PAIR	12	SPEAKER LOOP
L	2	YELLOW THHN	14	ELEVATOR RECALL
М	2	BROWN/YELLOW THHN	14	DOOR CONTROL
N	2	RED/BLACK THHN	14	NAC TRIGGER
Р	2	RED/BLACK THHN	14	24VDC POWER
R	2	BLUE/WHITE TFN	16	REMOTE LED
Т	2	WEST PENN D975	18	TRANSPONDER PANEL
	2	TW/SHLD PAIR	16	
	2	RED/BLACK THHN	14	
Х	1	WEST PENN D975	18	ADDR. MAPNET DATA LINE

CONTROL ZAM

\* SUBSCRIPT INDICATES MAPNET #

DUAL RELAY MODULE

TRANSPONDER PANEL

\* SUBSCRIPT INDICATES MAPNET #

REMOTE LCD ANNUNCIATOR

EXISTING FIRE ALARM CONTROL PANEL

- 1) TAG AND IDENTIFY ALL ZONE WIRES WITH ZONE NUMBER. 2) TAG AND IDENTIFY ALL SIGNAL CIRCUIT WIRES WITH
- SIGNAL CIRCUIT NUMBER. 3) TAG AND IDENTIFY ALL ANNUNCIATOR WIRES.

3-1-2000 PROJECT NUMBER: 459-990051 SHEET NUMBER: FA-COV-02

APPROVED BY: K. CHUN

DRAWN BY:

**군 오 | 요** # 5

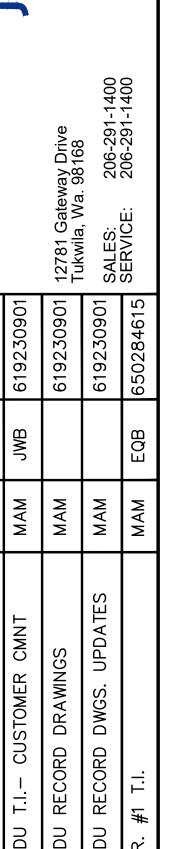
ohnson Control

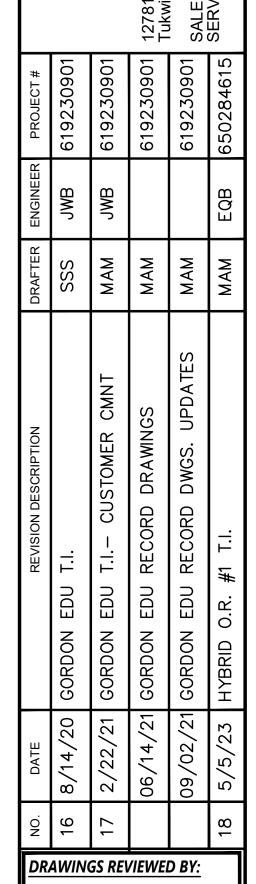
DRAWINGS REVIEWED BY:

VICET #228884

Fire Alarm Systems, Level III

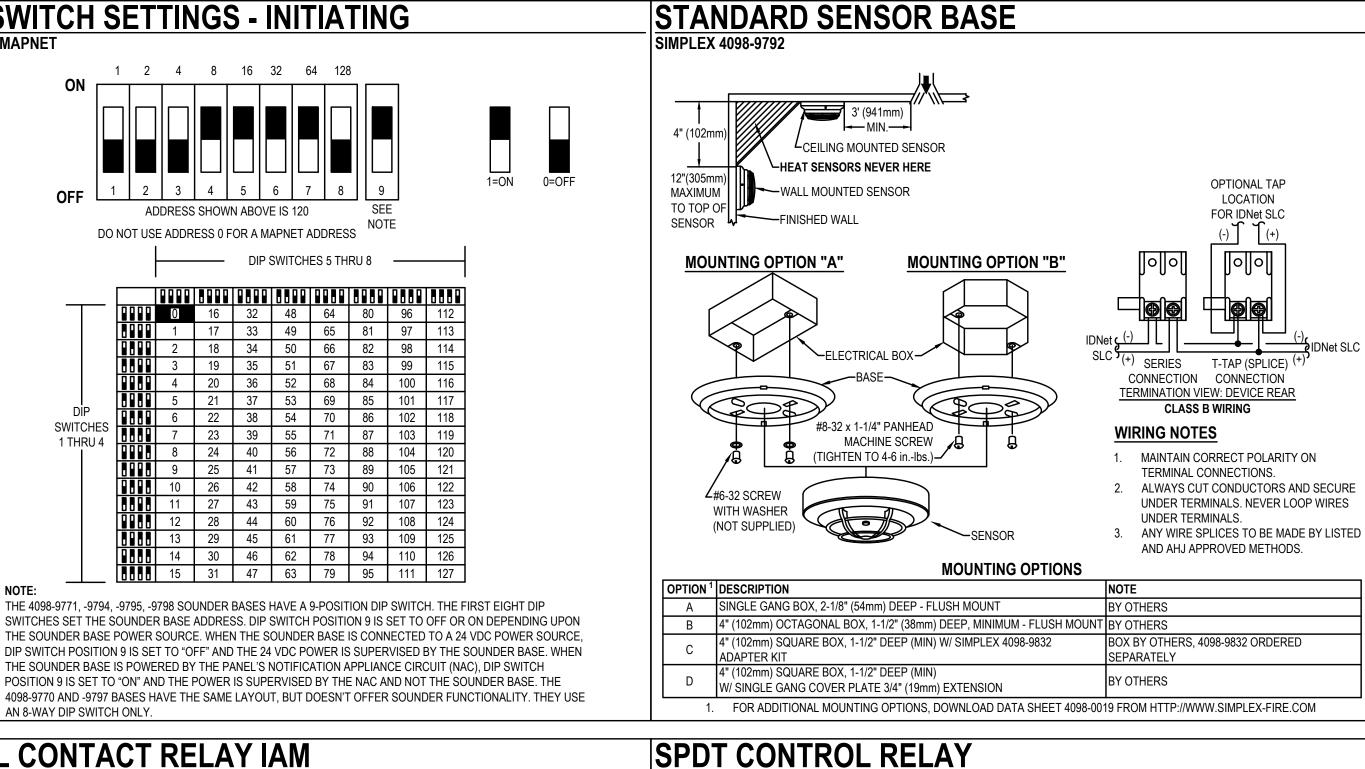






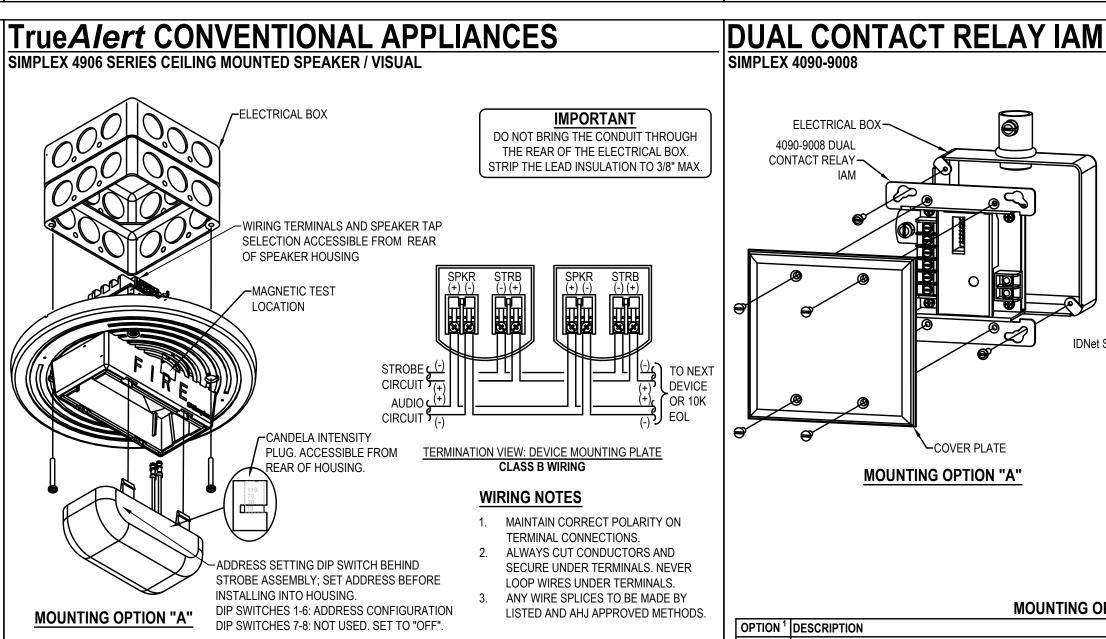
Eric Beck, CET

NICET #228884 Fire Alarm Systems, Level III



SIMPLEX 2088-9008 / APOLLO AMERICA MR-101/C

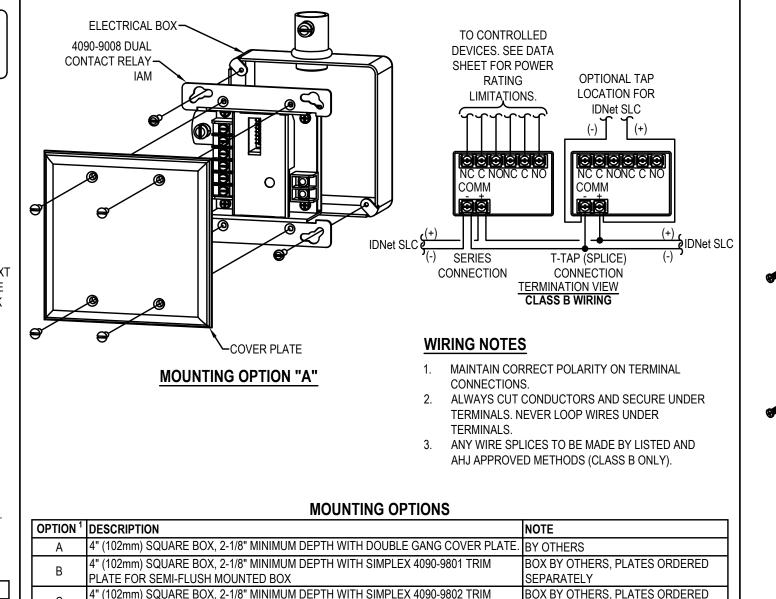
END OF LINE RESISTOR CODES **DIP SWITCH SETTINGS - INITIATING** SIMPLEX MAPNET NOTE: REFER TO PANEL/MODULE AND DEVICE INSTALLATION INSTRUCTIONS FOR PROPER MODEL | KEF.  $\Omega$ CIRCUIT TYPE FIRE ALARM PANEL/MODULE SHOWN ARE TO THE CLOSEST EDGE OF THE DETECTOR. 4120, 4100U, ZAMs HEAT, WATERFLOW, TAMPER, ETC. 4081-9002 733-893 3.3K ORG ORG RED GLD N/A 24 PT. I/O SWITCH SUPV. CURRENT LIMITED N.O. INIT. 4605-7401, 4100 SERIES 4090 IDNET IAM (EOLR) NOTIFICATION (DACT) 04, 4005, 4090-9001 IDNET IAM, N/O INITIATING PULL, SMOKE, HEAT, W.FLOW, TAMPER, ETC MAXIMUM TO TOP OF SENSOR 4090-9001 IDNET IAM 4005\*, 4090-9001 IDNET IAM 4081-9006 733-890 560 GRN BLU BRN GLD N/A N.C. INITIATING (EOLR) 4100, 4100U N.C. INITIATING (EOLR) 004, 4005, 4006, 4008, 4009, 4010, 4081-9008 733-894 10K BRN BLK ORG GLD N/A 1/2 NOTIFICATION TO MR-101 RELAY COIL
N.C. INIT. (ACROSS CONTACTS) 4005 8 POINT I/O 4005\*, 4090-9001 IDNET IAM 24 PT. I/O (ACROSS CONTACTS 4605-7401, 4100 SERIES 4081-9010 733-973 | 1K | BRN | BLK | RED | GLD | N/A 4090-9001 IDNET IAM (IN SERIES WITH CONTACT) 4081-9011 733-974 100 BRN BLK BRN GLD N/A 1/2 ANNUNCIATOR (N2) 4006, 4008, 4010 SPEAKER CIRCUIT 4090-9001 IDNET IAM MONITORING EOLR) 4081-9015 734-093 1.5K BRN GRN RED GLD N/A 1/2
4081-9016 734-149 150K BRN GRN YEL GLD N/A 1/2
4081-9017 734-171 3.9K ORG WHT RED GLD N/A 1
4081-9018 734-168 10K BRN BLK ORG GLD N/A 1 4090-9001 IDNET IAM (SECURITY MONITORING EOLR \* USE WITH RETROFIT OR HIGH CURRENT MODULE



MOUNTING OPTIONS

4" (102mm) SQUARE BOX, 1-1/2" (38mm) DEEP, WITH 1-1/2" (38mm) EXTENSION RING - FLUSH MOUNTING BY OTHERS

1. FOR ADDITIONAL MOUNTING OPTIONS, DOWNLOAD DATA SHEET 4906-0003 FROM HTTP://WWW.SIMPLEX-FIRE.COM



1 2 4 8 16 32 64 128

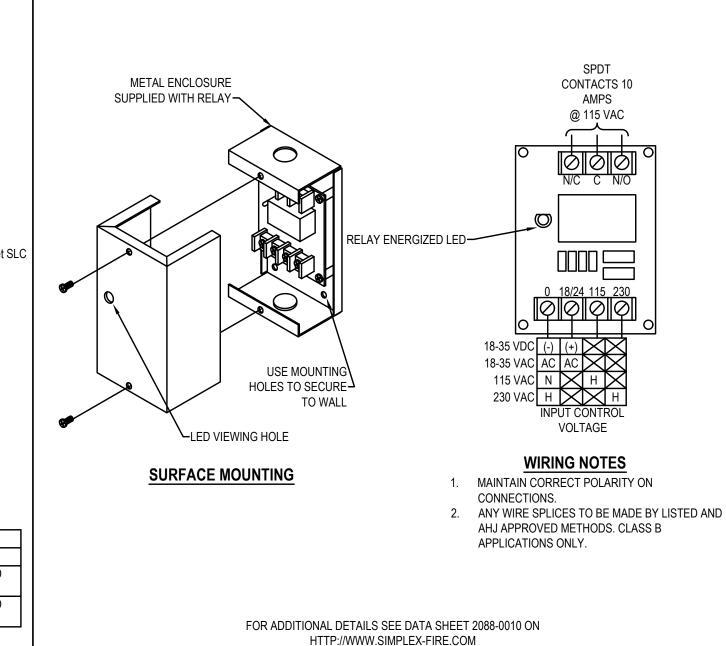
ADDRESS SHOWN ABOVE IS 120

DO NOT USE ADDRESS 0 FOR A MAPNET ADDRESS

AN 8-WAY DIP SWITCH ONLY.

———— DIP SWITCHES 5 THRU 8 ————

**IRR** 14 30 46 62 78 94 110 126



rue <i>Alert</i> CONVENTIONAL APPLIANCES	True Alert CONVENTIONAL APPLIANO	CES_
MPLEX 4902-9721 WALL/CEILING MOUNTED SPEAKER	SIMPLEX 4906 SERIES WALL MOUNTED VISUAL	
APPLIANCE  MOUNTING OPTION "A"  APPLIANCE  MOUNTING OPTION "A"  SPKR  (+) (-)  THE REAR OF THE ELECTRICAL BOX. STRIP THE LEAD INSULATION TO 3/8" MAX.  WIRING NOTES  AUDIO  LINE  AUDIO  LINE  AUDIO  LINE  CONNECTIONS  AUDIO  LINE  PANEL  TERMINATION VIEW  RESISTOR  AUDIO  LINE  PANEL  TERMINATION VIEW  RESISTOR	ELECTRICAL BOX  CANDELA INTENSITY PLUG ACCESSIBLE FROM REAR OF HOUSING  TOP OF LENS: 96" (2044mm) A.F.F. MAXIMUM FOR CEILINGS < 86" (2180mm) A.F.F.:  TERMINATION	N VIEW: REAR CASS B WIRING RECT POLARIT CONDUCTORS A
2. ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.	THE REAR OF THE ELECTRICAL BOX. STRIP THE LEAD INSULATION TO 3/8" MAX.  3. ANY WIRE SPL AHJ APPROVE	
3. ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.	MOUNTING OPTIONS	
	OPTION¹ DESCRIPTION	NOTE
	A SINGLE GANG BOX, 1-1/2" (64mm) DEEP	BY OTHERS MOUNTING
MOUNTING OPTIONS	B 4" (102mm) SQUARE BOX, 1-1/2" (38mm) DEEP, MINIMUM C 2 GANG BOX, 1-1/2" (38mm) DEEP	4906-9940 (
	SIMPLEX 2975-9145, 7-7/8"H x 5-1/8"W x 2-3/4"D	ORDERED
OPTION¹ DESCRIPTION  A 4" (102mm) SQUARE BOX, 1-1/2" (38mm) DEEP, WITH 1-1/2" (38mm) EXTENSION RING - FLUSH MOUNTING BY OTHERS	(127mm x 98mm x 56mm) REQUIRES 4905-9931 PLATE	

DEVICE MOUNTING HEIGHT REFERENCE

OF LENS FOR 110CD STROBES WITHIN 16' OF THE PILLOW

TO COMPENSATE FOR A POSSIBLE SMOKE LAYER.

FOR CEILING HEIGHTS LESS THAN 86"

(2180mm), THE VISUAL LENS MOUNTING HEIGHT

SHALL BE WITHIN 6" (150mm) OF THE CEILING.

AUDIBLE/VISUAL

& VISUAL ONLY

APPLIANCES

SYNCHRONIZE MORE

THAN TWO APPLIANCES

IN ANY FIELD OF VIEW.

NOTE: REFER TO THE PROPER DEVICE

INSTALLATION INSTRUCTIONS

FLOOR-

FOR BACKBOX MOUNTING HEIGHT.

2. 177CD STROBES, USED IN SLEEPING ROOMS, CAN BE WITHIN THE 24"

<u>VISUAL APPLIANCE MOUNTING HEIGHT CONSIDERATIONS IN SLEEPING ROOMS</u>

MIN DISTANCE IN SLEEPING ROOMS IS 24" (610mm) FROM CEILING TO TO

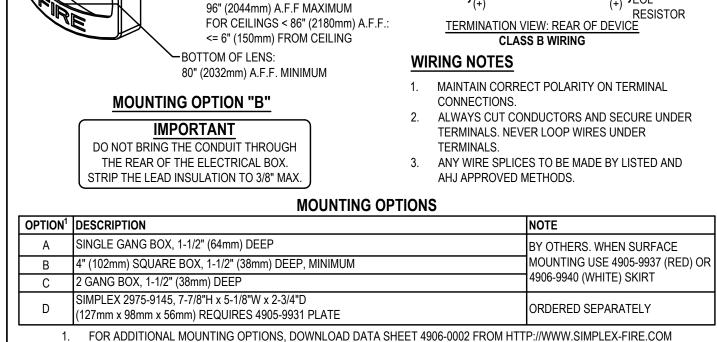
(610mm) MINIMUM DISTANCE FROM THE CEILING. THE HIGHER INTENSITY IS

80" MIN (ADA, IBC, NFPA)

(2032mm MIN)

ABOVE FINISHED FLOOR

TO BOTTOM OF LENS



THE 4" REQUIREMENT FOR SMOKE DETECTORS HAS

BEEN REMOVED FROM THE 2010 EDITION OF NFPA 72

CEILING MOUNTED

SMOKE/HEAT

DETECTOR

HEAT DETECTORS

NEVER HERE-

SMOKE/HEAT DETECTOR -

WALL MOUNTED

FINISHED

WALL ---

STANDARD ELECTRICAL

SURFACE MOUNT

ADAPTER SKIRT 1 5/8"

ON ALL FOUR SIDES.

(41mm) DEEP. CONDUIT

CUTOUTS ARE PROVIDED

BOX, 1-1/2" DEEP

SURFACE MOUNTING

BOX MOUNTING 4" SQUARE

ACCEPTED HERE——

NOTE: MEASUREMENTS

A/C SUPPLY

OR RETURN

DIFFUSER

NFPA 72 AUDIBLE APPLIANCE 6" MIN

(152.4mm MIN) BELOW FINISHED CEILING

90" MIN (2286mm MIN)

ABOVE FINISHED FLOOR

(OTHER MOUNTING HEIGHTS SHALL BE

PERMITTED BY THE AHJ PROVIDING IT MEETS

THE SOUND LEVEL OUTPUT REQUIRED.)

AUDIBLE ONLY

96" MAX (ADA, IBC, NFPA)

(2440mm MAX)

ABOVE FINISHED FLOOR

TO TOP OF LENS

MINIMUM -

TO EXIT DOOR

(1524mm)

MAGNETIC

DOOR

HOLDER-

-MANUAL PULL

48" MAX (ADA) (1219mm)

48" MAX (NFPA, ADA) (1219mm MAX)

42" MIN (NFPA) (1067mm MIN)

MEASUREMENTS SHOWN ARE

TO TOP OF PULL HANDLE

STATION

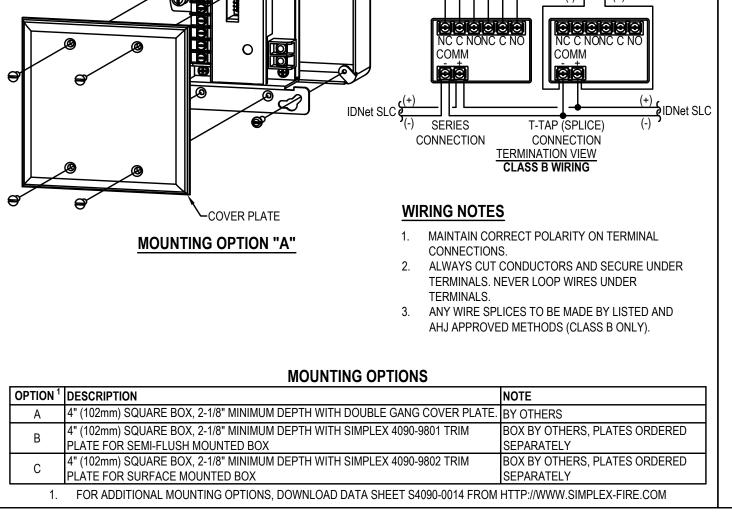
PHONE

5' (MAX.)

DOOR

LESS 3" F

WIDTH



F O D 5 5 5 APPROVED BY: K. CHUN DRAWN BY: 3-1-2000

PROJECT NUMBER: 459-990051 SHEET NUMBER:

FA-DET-02

