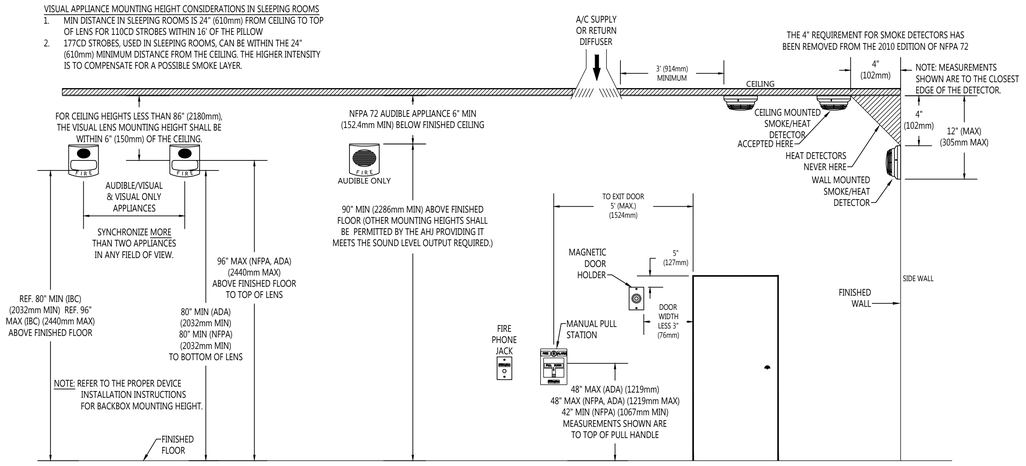
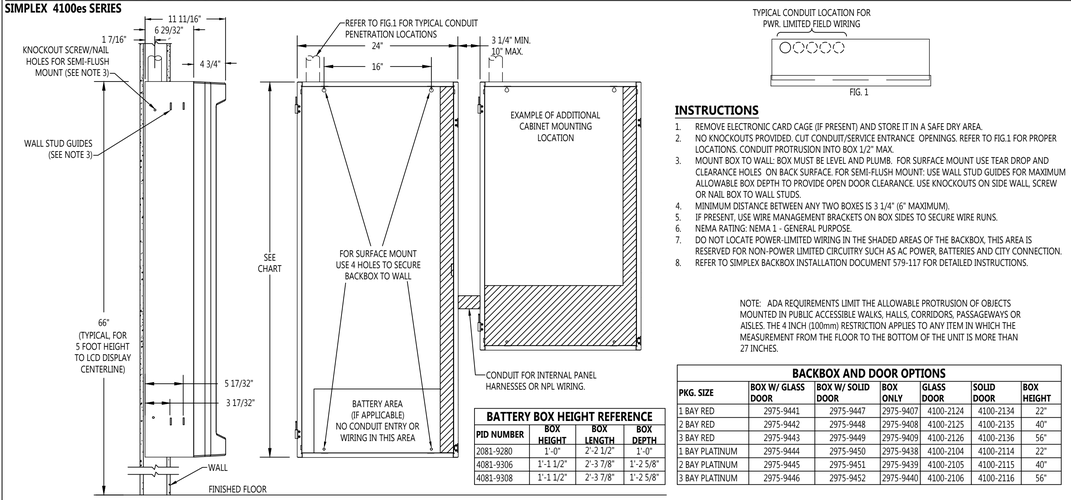
DEVICE MOUNTING HEIGHT REFERENCE

PER NFPA 72



FIRE ALARM CONTROL PANEL BACKBOX INSTALLATION

SIMPLEX 4100es SERIES



TYPICAL CONDUIT LOCATION FOR PWR. LIMITED FIELD WIRING

FIG. 1

INSTRUCTIONS

1. REMOVE ELECTRONIC CARD CAGE (IF PRESENT) AND STORE IT IN A SAFE DRY AREA.
2. NO KNOCKOUTS PROVIDED. CUT CONDUIT/SERVICE ENTRANCE OPENINGS. REFER TO FIG.1 FOR PROPER LOCATIONS. CONDUIT PROTRUSION INTO BOX 1/2" MAX.
3. 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 WALL STUD GUIDES FOR MAXIMUM ALLOWABLE BOX DEPTH TO PROVIDE OPEN DOOR CLEARANCE. USE KNOCKOUTS ON SIDE WALL, SCREW OR NAIL BOX TO WALL STUDS.
4. MINIMUM DISTANCE BETWEEN ANY TWO BOXES IS 3 1/4" (6" MAXIMUM).
5. IF PRESENT, USE WIRE MANAGEMENT BRACKETS ON BOX SIDES TO SECURE WIRE RUNS.
6. NEMA RATING: NEMA 1 - GENERAL PURPOSE.
7. DO NOT LOCATE POWER-LIMITED WIRING IN THE SHADED AREAS OF THE BACKBOX. THIS AREA IS RESERVED FOR NON-POWER LIMITED CIRCUITRY SUCH AS AC POWER, BATTERIES AND CITY CONNECTION.
8. REFER TO SIMPLEX BACKBOX INSTALLATION DOCUMENT 579-117 FOR DETAILED INSTRUCTIONS.

NOTE: ADA REQUIREMENTS LIMIT THE ALLOWABLE PROTRUSION OF OBJECTS MOUNTED IN PUBLIC ACCESSIBLE WALKS, HALLS, CORRIDORS, PASSAGEWAYS OR AISLES. THE 4 INCH (100mm) RESTRICTION APPLIES TO ANY ITEM IN WHICH THE MEASUREMENT FROM THE FLOOR TO THE BOTTOM OF THE UNIT IS MORE THAN 27 INCHES.

BATTERY BOX HEIGHT REFERENCE

PID NUMBER	BOX HEIGHT	BOX LENGTH	BOX DEPTH
2081-9280	1'-0"	2'-2 1/2"	1'-0"
4081-9306	1'-1 1/2"	2'-3 7/8"	1'-2 5/8"
4081-9308	1'-1 1/2"	2'-3 7/8"	1'-2 5/8"

BACKBOX AND DOOR OPTIONS

PKG. SIZE	BOX W/ GLASS DOOR	BOX W/ SOLID DOOR	BOX ONLY	GLASS DOOR	SOLID DOOR	BOX HEIGHT
1 BAY RED	2975-9441	2975-9447	2975-9407	4100-2124	4100-2134	22"
2 BAY RED	2975-9442	2975-9448	2975-9408	4100-2125	4100-2135	40"
3 BAY RED	2975-9443	2975-9449	2975-9409	4100-2126	4100-2136	56"
1 BAY PLATINUM	2975-9444	2975-9450	2975-9438	4100-2104	4100-2114	22"
2 BAY PLATINUM	2975-9445	2975-9451	2975-9439	4100-2105	4100-2115	40"
3 BAY PLATINUM	2975-9446	2975-9452	2975-9440	4100-2106	4100-2116	56"

1. FOR ADDITIONAL INFORMATION, DOWNLOAD DATA SHEET S4100-0100 FROM HTTP://WWW.SIMPLEX-FIRE.COM

4905-9835 TEMPORAL CODE 4 MODULE (TC4M) FOR CO GAS ALARM NOTIFICATION (STYLE Z)

PRODUCT INFORMATION

SPECIFICATIONS:

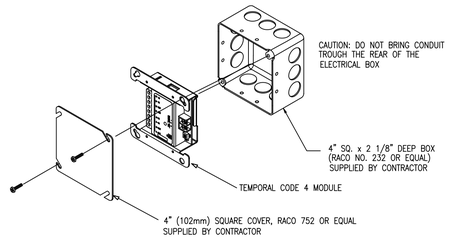
- UL LISTED STANDARD 864
- THREE SELECTABLE OPERATING MODES:

SYNCHRONIZED: ALLOWS A DEDICATED CONTROL NAC TO BOTH ACTIVATE AND SYNCHRONIZE THE TEMPORAL CODE 4 OUTPUT TIMING OF MULTIPLE 4905-9835 MODULES
- THE PANEL CONTROL NAC OUTPUTS A SYNCHRONIZATION PATTERN
- SIGNALS ARE SYNCHRONIZED BETWEEN TC4M'S
- ONE DEDICATED CONTROL NAC IS RESERVED TO COMMAND ALL TC4MS WITHIN A SYSTEM OF A FIRE (NAC OFF) OR CO ALARM (NAC ON) WHILE SYNCHRONIZING THEM.
- THE CONTROL NAC IS OFF DURING A FIRE ALARM, AND THEREFORE THE TC4M PASSES THROUGH ANYTHING THAT IS PLAYED ON THE SIGNAL NAC.
- DURING A CO ALARM, THE SIGNAL NAC IS REQUIRED TO BE ON STEADILY TO SOUND THE TEMPORAL CODE 4.

UNSYNCHRONIZED - ALLOWS A DEDICATED CONTROL NAC TO ACTIVATE THE TEMPORAL CODE 4 OUTPUT TIMING OF MULTIPLE 4905-9835 MODULES
- THE PANEL CONTROL NAC IS ON DURING A CO GAS ALARM.
- SIGNALS ARE NOT SYNCHRONIZED BETWEEN TC4MS.
- ONE DEDICATED CONTROL NAC IS RESERVED TO COMMAND ALL TC4MS WITHIN A SYSTEM OF A FIRE (NAC OFF) OR CO ALARM (NAC ON) WHILE SYNCHRONIZING THEM.
- THE CONTROL NAC IS OFF DURING A FIRE ALARM, AND THEREFORE THE TC4M PASSES THROUGH ANYTHING THAT IS PLAYED ON THE SIGNAL NAC.
- DURING A CO ALARM, THE SIGNAL NAC IS REQUIRED TO BE ON STEADILY TO SOUND THE TEMPORAL CODE 4.

STAND ALONE - ALLOWS THE INPUT NAC TO ACTIVATE TEMPORAL CODE 4 TIMING FOR NACS DEDICATED FOR CO GAS ALARM
- ONLY THE TEMPORAL CODE 4 IS OUTPUT.
- NO CONTROL NAC WIRE IS USED AT THE NAC OR AT THE TC4M. ALL SIGNAL NAC WIRING REMAINS THE SAME.
- WALKTEST CANNOT BE PLAYED ON THE SIGNAL NAC TIED TO THE TC4M.
- THE NAC IS ONLY USED FOR CO GAS ALARM (CANNOT BE USED FOR FIRE ALARM).
- DURING A CO ALARM, THE SIGNAL NAC IS REQUIRED TO BE ON STEADILY TO SOUND THE TEMPORAL CODE 4.

- OPERATING TEMPERATURE RANGE: 32° F TO 120° F (0° C TO 49° C)
- HUMIDITY RANGE: UP TO 93% RELATIVE HUMIDITY @ 100° F (38° C)
- OUTPUT CAPACITY: FOR 24 VDC NACS, UP TO 3 A MAXIMUM, LIMIT IS PER THE INPUT NAC RATING; FOR CONTROL OF AUDIBLE NOTIFICATION APPLIANCES COMPATIBLE WITH CODE PULSE DUTY CYCLE
- SCREW TERMINALS FOR IN/OUT WIRING, 18 TO 12 AWG WIRE

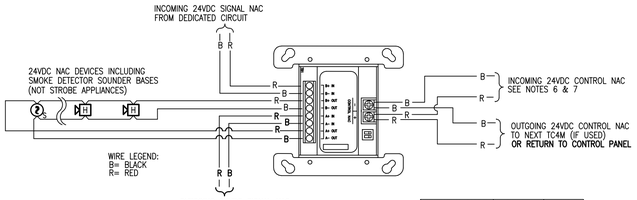


DESCRIPTION:

CO GAS ALARM WARNINGS ARE REQUIRED TO BE DIFFERENT FROM FIRE ALARM WARNINGS. IN THE EVENT OF A CO GAS ALARM, THE PRESENCE OF A TEMPORAL CODE 4 AUDIBLE SIGNAL PATTERN IDENTIFIES THE TYPE OF CONDITION TO THE RESPONDERS TO ASSIST IN DETERMINING THE PROPER ACTIONS TO BE TAKEN.
CO GAS ALARM, OR FIRE ALARM, USE OF THE 4905-9835 TEMPORAL CODE 4 MODULE ALLOWS THE NFPA 720 TEMPORAL CODE 4 SIGNAL TO BE GENERATED USING A STANDARD STEADY ON AUDIBLE APPLIANCE NAC INPUT. UNDER THE FIRE ALARM PANEL'S CONTROL, THE AUDIBLE NOTIFICATION SIGNAL CAN BE SELECTED PASS THROUGH THE CONVENTIONAL FIRE PULSE PATTERN FOR A FIRE ALARM CONDITION, OR THE TEMPORAL CODE 4 PATTERN CAN BE ACTIVATED FOR A CO GAS ALARM CONDITION.

WIRING NOTES:

1. FOR MAXIMUM VOLTAGE DROP, ETC., REFER TO SIMPLEX FIELD WIRING GUIDE.
2. MAXIMUM NO. 12 AWG WIRE FOR 24 VDC WIRING, OR TO LOCAL CODE.
3. MAXIMUM POWER OF NAC LOOP = 3 AMPS AT 24 VDC.
4. NAC CIRCUIT WIRING DISTANCES WITH MAXIMUM VOLTAGE DROP OF 3 VOLTS. WHEN COMPUTING DISTANCES ON THE TC4 MODULE OUTPUT, REMEMBER TO ACCOUNT FOR THE WIRING DISTANCE (LOSS) FROM THE CONTROL PANEL TO THE TC4 MODULE. MAXIMUM LINE DISTANCE= 2000 FEET (RESTRICTED FOR DC SUPERVISION LIMITATIONS)
5. ALL CONNECTIONS MUST TEST FREE OF GROUNDS.
6. SEE INSTALLATIONS INSTRUCTIONS 579-840.
7. WHEN OPERATING WIRING LEAVES THE BUILDING, OVERVOLTAGE PROTECTORS ARE ARE REQUIRED.



OPERATING MODE	SW 1	SW 2
SYNCHRONIZED	0=OFF	0=OFF
UNSYNCHRONIZED	1=ON	0=OFF
STAND ALONE	1=ON	1=ON
N/A	0=OFF	1=ON

4098-9771 CO SENSOR BASE WITH SOUNDER

PRODUCT INFORMATION

FEATURES:

- UL LISTED TO STANDARD 268, SMOKE DETECTORS FOR FIRE ALARM SIGNALING SYSTEMS AND STANDARD 2075, GAS AND VAPOR DETECTORS AND SENSORS; ALLOWING SYSTEMS TO BE LISTED TO STANDARD 2034, SINGLE AND MULTIPLE STATION CARBON MONOXIDE ALARMS.
- CO SENSOR BASES SUPPORT (AND REQUIRE) A TRUEALARM ANALOG PHOTOELECTRIC, PHOTO/HEAT, HEAT, OR IONIZATION SENSOR.
  - PHOTOELECTRIC SMOKE SENSOR 4098-9714: SEVEN LEVELS OF SENSITIVITY FROM 0.2% TO 3.7%
  - IONIZATION SMOKE SENSOR 4098-9717: FOUR LEVELS OF SENSITIVITY FROM 0.5% TO 1.7%.
  - HEAT SENSOR 4098-9733:
    - RATE-OF-RISE TEMPERATURE DETECTION IS SELECTABLE AT THE CONTROL PANEL FOR EITHER 15°F (-9°C) OR 20°F (-6.7°C) PER MINUTE
    - FIXED TEMPERATURE SENSING IS INDEPENDENT OF RATE-OF-RISE AND PROGRAMMABLE TO OPERATE AT 135°F (57°C) OR 155°F (68°C)
    - TRUEALARM HEAT SENSORS CAN BE PROGRAMMED AS A UTILITY DEVICE TO MONITOR FOR TEMPERATURE EXTREMES IN THE RANGE FROM 32° F TO 155° F (0° C TO 68° C). UL STANDARD SPACING: 60 FT (18.3 M) SPACING FOR 135°F (57°C) 40 FT (12.2 M) SPACING FOR 155° F (68°C)
- CO SENSOR BASES ARE MULTI-POINT DEVICES, CONSUME ONLY ONE IDNet SLC ADDRESS, AND RECEIVE BOTH COMMUNICATIONS AND SENSOR POWER FROM THE IDNet SLC CHANNEL.
- MODULAR TRUEALARM SENSOR BASE WITH BUILT-IN ELECTRONIC ALARM SOUNDER:
  - SOUNDER OPERATION IS UL LISTED AS AN AUDIBLE NOTIFICATION APPLIANCE TO UL STANDARD 464.
  - SOUNDER CAN BE POWERED FROM 24 VDC OR FROM A COMPATIBLE NOTIFICATION APPLIANCE CIRCUIT (NAC)
  - SOUNDER CAN BE SYNCHRONIZED CODED/TEMPORAL CODED BY COMMUNICATIONS, NAC OR TEMPORAL CODE 4 MODULE 4905-9835
  - SOUNDER CAN BE MANUALLY ACTIVATED FROM THE CONTROL PANEL
- INTEGRAL RED LED FOR POWER-ON (PULSING), ALARM OR TROUBLE (STEADY ON)
- FOR USE WITH SIMPLEX 4100 SERIES CONTROL PANELS.
- MAXIMUM QUANTITY OF DEVICES: 250 FOR 4100 IDNet SLC CHANNEL
- MOUNTING: CEILING OR WALL
- BASE DIMENSIONS: 1-1/8" X 6-7/16" (2.85 CM X 16.5 CM)

SPECIFICATIONS:

- UL LISTED TEMPERATURE RANGE: 32°F TO 100°F (0°C TO 38°C)
- OPERATING TEMPERATURE RANGE: 4098-9714 = 15°F TO 122°F (-9°C TO 50°C)
  4098-9733 = 32°F TO 122°F (0°C TO 50°C)
- HUMIDITY RANGE: 10% TO 95% RH
- PHOTOELECTRIC SENSOR AIR VELOCITY RANGE: 0-2000 FT/MIN (610 M/MIN)
- IONIZATION SENSOR AIR VELOCITY RANGE: 0-200 FT/MIN (61 M/MIN)
- CO SENSOR SPECIFICATIONS

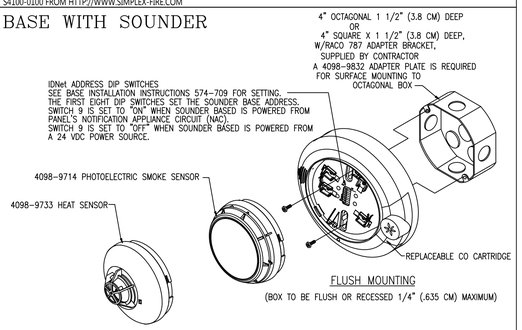
UL 2034 REQUIREMENTS REFERENCE	70 PPM CONCENTRATION	ALARM WINDOW 60 TO 240 MINUTES
	150 PPM CONCENTRATION	ALARM WINDOW 10 TO 50 MINUTES
	400 PPM CONCENTRATION	ALARM WINDOW 4 TO 15 MINUTES

- SOUNDER OPERATING SPECIFICATIONS

SOUNDER VOLTAGE		16 TO 32 VDC FROM STEADY EXTERNAL SOURCE, NAC OR 4905-9835 CODE 4 MODULE.
ALARM CURRENT (SOUNDER ON)		17 mA @ 24 VDC, 24 mA MAXIMUM @ 32VDC
SOUNDER OUTPUT		88 dBA MINIMUM @ 10 FT. PER UL STANDARD 464, AUDIBLE SIGNALING APPLIANCE APPLIANCES AND UL STANDARD 268, SMOKE DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS
SOUNDER POWER SUPERVISION (SELECTABLE)	SUPERVISED	SELECT FOR CONTINUOUS 24 VDC POWER, LOSS OF POWER IS COMMUNICATED TO PANEL
	UNSUPERVISED	SELECT WHEN CONNECTED TO NAC FOR SOUNDER POWER, NAC PROVIDES SUPERVISION
NAC POWERED OPERATION		WHEN IN ALARM, WILL SOUND WHEN NAC IN ALARM, ALLOWING SYNCHRONIZED CODING (TEMPORAL OR MARCH TIME, ETC.) CONTROLLED BY THE NAC OR 4905-9835 MODULE.

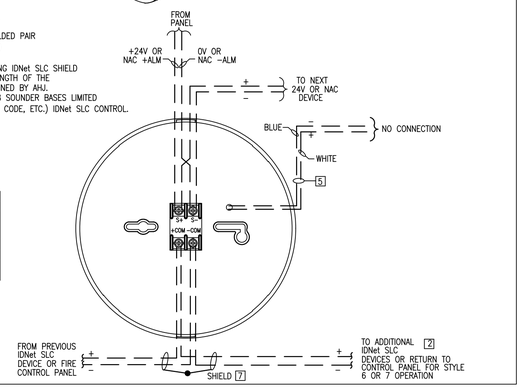
DESCRIPTION:

TRUEALARM SENSOR BASES CONTAIN INTEGRAL ADDRESSABLE ELECTRONICS THAT CONSTANTLY MONITOR THE STATUS OF THE DETACHABLE PHOTOELECTRIC, IONIZATION, OR HEAT SENSORS. EACH SENSOR'S OUTPUT IS DIGITIZED AND TRANSMITTED TO THE SYSTEM FIRE ALARM CONTROL PANEL EVERY FOUR SECONDS.
THREE TYPES OF CO INFLUENCED OPERATION ARE AVAILABLE:
UL 2034 CO ALARM DETECTION; UL 2075 CO (OSHA) LEVEL MONITORING FOR VENTILATION CONTROL; AND MULTI-CRITERIA FIRE SENSOR ANALYSIS WITH ALGORITHMS THAT COMBINES OPTICAL AND CO GAS MONITORING INFORMATION OPERATION OF A CO SENSOR BASE WITH A PHOTOELECTRIC SENSOR.



WIRING:

1. ALL WIRING TO COMPLY WITH LOCAL CODE.
2. CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
3. MAINTAIN CORRECT POLARITY
4. IDNet SLC WIRING TO BE #18 AWG TWISTED SHIELDED PAIR
5. REFER TO INSTALLATION INSTRUCTIONS (574-707)
6. REFER TO APPLICATION MANUAL (574-709)
7. IF SHIELD IS PRESENT, CONNECT TO THE OUTGOING IDNet SLC SHIELD TO PROVIDE A CONTINUOUS SHIELD OVER THE LENGTH OF THE IDNet SLC CHANNEL. METHOD OF SPLICE DETERMINED BY AHJ.
8. MAXIMUM QUANTITY OF SENSORS WITH 4098-9798 SOUNDER BASES LIMITED TO 43 PER SLC IF OUTPUT IS CODED (TEMPORAL CODE, ETC.) IDNet SLC CONTROL.



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				Revisions shown with △ symbol

DRAWN BY:	J.DELACRUZ
CHECKED BY:	A.ONEAL
ISSUE DATE:	1/19/18
JOB #:	
PROJECT #:	147.60432801

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SYSTEM:
FIRE ALARM SYSTEM

SHEET:
WIRING TYPICALS

FA-701

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