GENERAL NOTES

All initiating and signal circuits will be in a parallel loop; no parallel branches are allowed. IDNet communication, door holders and 24vdc power (when unsupervised) may be "T-Tapped". Use typical wiring diagrams as a guide to determine when circuits may be "T-Tapped".

All wires must test free of all grounds (1 meg ohm or greater).

Due to induced voltages, SimplexGrinnell does not allow line voltage to be wired in the same conduit with low voltage systems, except where specifically shown on the drawings and subject to local codes.

Wire runs are shown for connection only. Final decisions regarding actual wire or conduit runs are the responsibility of the electrical contractor and not the supplier. All field wiring will be pulled by contractor and not SimplexGrinnell.

It is recommended that 10% spare (minimum of one pair per type of wire) be run in conduit.

Contractor shall contact SimplexGrinnell if any discrepancies are noted between SimplexGrinnell drawings and field requirements.

The information contained in this document is proprietary to SimplexGrinnell and is intended for internal SimplexGrinnell use only. Such information may be distributed to others only by written permission.

Verify all wiring with shipping documents.

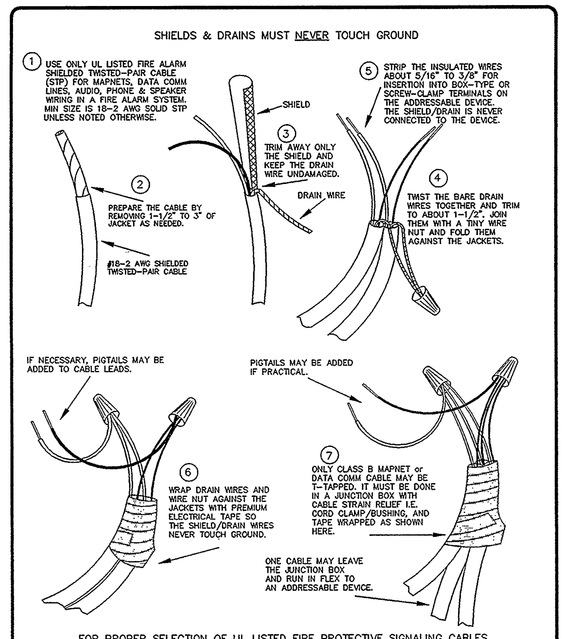
If ceilings are anything other than flat, smooth ceilings, consult N.F.P.A. 72, Article 5, or SimplexGrinnell for detector placement.

Detectors should not be located in a direct airflow, nor closer than 3 feet from a ceiling mounted air supply diffuser or 6 feet from a wall-mounted air supply diffuser. (1996 N.F.P.A. 72 A.5.3.5.1, 1999 N.F.P.A. 72 A.2.3.5.1, or 2002 N.F.P.A. 72 A.5.7.4.1)

DO NOT CONNECT THE POWER TO THE SYSTEM WITHOUT A SIMPLEXGRINNELL TECHNICAL REPRESENTATIVE PRESENT, OR WITHOUT PRIOR VERIFICATION OF THE SYSTEM BY SIMPLEXGRINNELL.

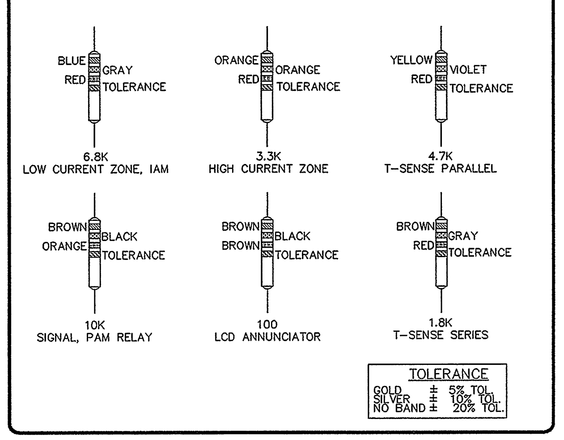
PANEL MUST BE CONNECTED TO A DEDICATED 120VAC EMERGENCY CIRCUIT, 20 AMP MAXIMUM, WITH A SEPARATE UNIFIED EARTH GROUND PER NEC ARTICLE 250.

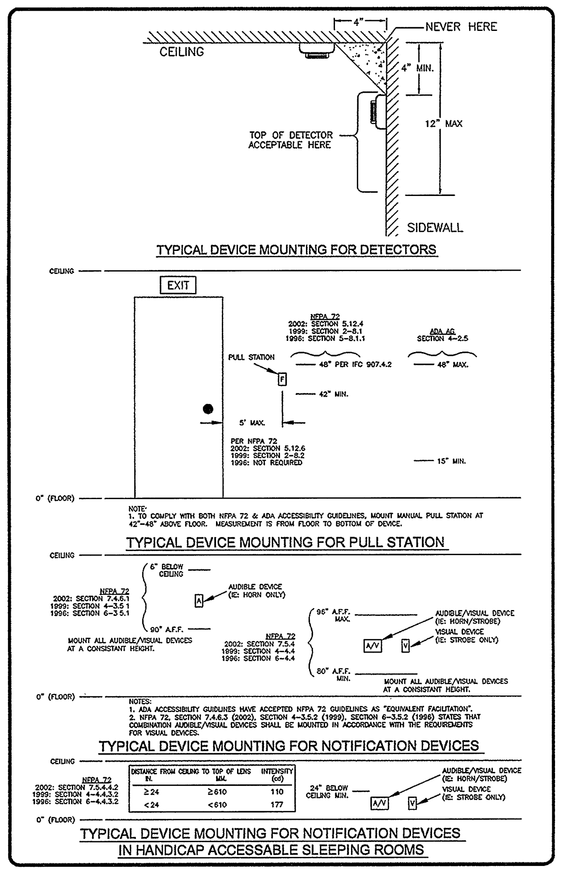
ALL SHIELDED WIRE USED WITHIN THIS SYSTEM MUST HAVE PROPERLY DRESSED SHIELDS AND DRAIN WIRES. SHIELDS AND DRAINS MUST BE A CONTINUOUS CONDUCTOR, TAPED COMPLETELY AT EVERY JUNCTION AND TERMINATED ONLY AT THE TERMINAL DESIGNATED "SHIELD". UNDER NO CONDITION SHALL THE SHIELDS BE EXPOSED TO CONDUIT, OTHER WIRING, OR EQUIPMENT CABINETS.



WIRING TECHNIQUES
FOR SHIELDED CABLE

RESISTOR LEGEND





LEGEND:

SYMBOL	DESCRIPTION	PART #	MOUNTING
FACP	EXISTING 4020 FIRE ALARM CONTROL PANEL WITH NEW 33AH BATTERIES	4020-7003 2081-9271	MOUNT ON WALL BACKBOX INCLUDED
NAC	4009 NAC EXTENDER PANEL WITH 6.2AH BATTERIES	4009-9201 2081-9272	MOUNT ON WALL BACKBOX INCLUDED
F	ADDRESSABLE SINGLE ACTION MANUAL PULL STATION	4099-9001	4" SQUARE BOX 2-1/8" DEEP W/SINGLE GANG EXTENSION RING
S_D	SMOKE SENSOR IN SSD SENSOR BASE	4098-9714 4098-9789	4" OCTAGONAL OUTLET BOX
H_D	HEAT SENSOR IN SSD SENSOR BASE	4098-9733 4098-9789	4" OCTAGONAL OUTLET BOX
L	REMOTE LED ON PLATE	2098-9808	SINGLE GANG OUTLET BOX
S_D	TRUEALARM DUCT DETECTOR WITH SAMPLING TUBES AND ENCAPSULATED PAM RELAY	4098-9756 2098-9798 4098-9843	DIRECTLY TO DUCTWORK
DH	WALL MOUNTED DOOR HOLDERS	2088-9608	SINGLE GANG BOX 2" DEEP
F	WALL MOUNT HORN WITH MULTI-CANDELA STROBE UNIT SET AT INDICATED CANDELA	4906-9127	4" SQUARE BOX 1-1/2" DEEP
F	WALL MOUNT MULTI-CANDELA STROBE UNIT SET AT INDICATED CANDELA	4906-9101	4" SQUARE BOX 1-1/2" DEEP
CUBE	OVERVOLTAGE SUPPRESSOR	2081-9044	4" SQUARE BOX 2-1/8" DEEP
M	MONITOR-INDIVIDUAL ADDRESSABLE MODULE	4090-9001	SINGLE GANG BOX 2-1/8" DEEP
Z	CONTROL ZAM	2190-9163	4-11/16" SQUARE BOX 2-1/8" DEEP WITH 4-11/16" SQUARE EXTENSION RING, 1-1/2" DEEP
P	WATERFLOW SWITCH	BY OTHERS	BY OTHERS
T	VALVE TAMPER SWITCH	BY OTHERS	BY OTHERS
T_{PIV}	POST INDICATOR VALVE	BY OTHERS	BY OTHERS
J	JUNCTION BOX	BY OTHERS	NOT APPLICABLE

FIRE ALARM WIRE TYPE CHART

CODE	DESCRIPTION	WIRE TYPE	REC. WIRE - PLENUM	REC. WIRE - CONDUIT
AC	120VAC POWER WIRING	3#12 AWG SOLID (WITH GREEN GROUND)	TYPE PER NEC	-
D	24VDC DOOR HOLDER WIRING	2#14 AWG SOLID	WEST PENN #60993	WEST PENN #994
E	EXTERIOR WIRING	#16 AWG TWISTED/SHIELDED PAIR	WEST PENN #60990	WEST PENN #D991
H	NOTIFICATION APPLIANCE (HORNS) WIRING	2#14 AWG SOLID	WEST PENN #60993	WEST PENN #994
L	REMOTE LIGHT WIRING	2#18 AWG SOLID	WEST PENN #609808	WEST PENN #970
M	SIGNALING LINE CIRCUIT (MAPNET)	#18 AWG TWISTED/SHIELDED PAIR	WEST PENN #60975	WEST PENN #D975
P	24VDC POWER WIRING	2#14 AWG SOLID	WEST PENN #60993	WEST PENN #994
R	AUXILIARY CIRCUIT (RELAY) WIRING	2#14 AWG SOLID	WEST PENN #60993	WEST PENN #994
T	NOTIFICATION APPLIANCE (TRUEALERT) WIRING	2#14 AWG SOLID	WEST PENN #60993B	WEST PENN #994
V	NOTIFICATION APPLIANCE (STROBE) WIRING	2#14 AWG SOLID	WEST PENN #60993B	WEST PENN #994
Z	INITIATING DEVICE CIRCUIT (ZONE) WIRING	2#16 AWG SOLID	WEST PENN #60991	WEST PENN #990

NOTES:
1. West Penn Wire part numbers are given for reference only. All wire manufacturer types which are equal to the recommended wire are acceptable. Contact the local SimplexGrinnell engineering department for a complete list of acceptable wire manufacturers.
2. All wires should be clearly tagged for identification. If desired, different wire conductor colors can be used. When applicable match existing wire colors and sizes to maintain consistency. Contact SimplexGrinnell if existing wire is to be reused.
3. All wire sizes shown are minimum recommendations. All Fire Alarm wire must meet NEC Article 760 requirements. If different wire is desired, please contact the local SimplexGrinnell engineering department to determine compliance with U.L. listings.
4. Where contract documents and shop drawing wiring is at variance, contact engineer for clarification before proceeding.
5. Indoors only - call for other applications.

MAPNET DIP SWITCH SETTINGS

DO NOT USE ADDRESS Ø FOR A MAPNET ADDRESS

MAPNET Address	SWITCH SETTINGS 1	2	3	4	5	6	7	8	
1	X								ON
		X	X	X	X	X	X	X	OFF
2		X							ON
	X		X	X	X	X	X	X	OFF
3	X	X							ON
			X	X	X	X	X	X	OFF
4			X						ON
	X	X		X	X	X	X	X	OFF
5		X		X					ON
			X		X	X	X	X	OFF
6		X	X						ON
	X			X	X	X	X	X	OFF
7	X	X	X						ON
				X	X	X	X	X	OFF
8				X					ON
	X	X	X		X	X	X	X	OFF
9			X						ON
	X			X	X	X	X	X	OFF
10		X		X					ON
	X		X		X	X	X	X	OFF
11	X	X		X					ON
			X		X	X	X	X	OFF
12			X	X					ON
	X	X			X	X	X	X	OFF
13	X		X	X					ON
		X			X	X	X	X	OFF
14		X	X	X					ON
	X				X	X	X	X	OFF
15	X	X	X	X					ON
					X	X	X	X	OFF
16					X				ON
	X	X	X	X	X	X	X	X	OFF
17	X				X				ON
		X	X	X		X	X	X	OFF
18		X		X					ON
	X		X		X	X	X	X	OFF
19	X	X		X					ON
			X	X	X	X	X	X	OFF
20			X		X				ON
	X	X		X		X	X	X	OFF
21		X		X					ON
	X		X		X	X	X	X	OFF
22		X	X		X				ON
	X			X		X	X	X	OFF
23	X	X	X		X				ON
				X		X	X	X	OFF
24				X	X				ON
	X	X	X			X	X	X	OFF
25	X			X	X				ON
		X	X			X	X	X	OFF

MAPNET Address	SWITCH SETTINGS 1	2	3	4	5	6	7	8	
26			X	X	X	X			ON
	X		X				X	X	OFF
27	X	X	X	X	X				ON
						X	X	X	OFF
28			X	X	X	X			ON
	X	X					X	X	OFF
29		X		X	X	X			ON
	X		X				X	X	OFF
30		X	X	X	X	X			ON
	X						X	X	OFF
31	X	X	X	X	X	X			ON
							X	X	OFF
32						X			ON
	X	X	X	X	X		X	X	OFF
33	X					X			ON
		X	X	X	X		X	X	OFF
34		X				X			ON
	X		X	X	X		X	X	OFF
35	X	X					X		ON
			X	X	X	X	X	X	OFF
36		X				X			ON
	X	X		X	X		X	X	OFF
37	X		X			X			ON
		X		X	X		X	X	OFF
38		X	X			X			ON
	X			X	X	X	X	X	OFF
39	X	X	X			X			ON
				X	X		X	X	OFF
40				X		X			ON
	X	X	X		X		X	X	OFF
41	X			X		X			ON
		X	X		X		X	X	OFF
42		X		X		X			ON
	X		X		X		X	X	OFF
43	X	X		X		X			ON
			X		X		X	X	OFF
44			X	X		X			ON
	X	X			X		X	X	OFF
45	X		X	X		X			ON
		X		X			X	X	OFF
46		X	X	X		X			ON
	X				X		X	X	OFF
47	X	X	X	X		X			ON
					X		X	X	OFF
48					X	X			ON
	X	X	X	X			X	X	OFF
49	X				X	X			ON
		X	X	X			X	X	OFF
50		X		X	X				ON
	X		X			X	X	X	OFF

MAPNET Address	SWITCH SETTINGS 1	2	3	4	5	6	7	8	
51	X	X			X	X			ON
			X	X			X	X	OFF
52			X		X	X			ON
	X	X		X			X	X	OFF
53	X		X		X	X			ON
		X		X			X	X	OFF
54		X	X		X	X			ON
	X			X			X	X	OFF
55	X	X	X		X	X			ON
				X			X	X	OFF
56					X	X	X		ON
	X	X	X					X	OFF
57	X			X	X	X			ON
		X					X	X	OFF
58		X		X	X	X			ON
	X		X				X	X	OFF
59	X	X		X	X	X			ON
			X				X	X	OFF
60			X	X	X	X			ON
	X	X					X	X	OFF
61	X		X	X	X	X			ON
		X					X	X	OFF
62		X	X	X	X	X			ON
	X						X	X	OFF
63	X	X	X	X	X	X			ON
							X	X	OFF
64						X			ON
	X	X	X	X	X	X			OFF
65	X					X			ON
		X	X	X	X	X			OFF
66		X				X			ON
	X		X	X	X	X			OFF
67	X	X				X			ON
			X	X	X	X			OFF
68			X				X		ON
	X	X		X	X	X			OFF
69	X		X				X		ON
		X		X	X	X			OFF
70		X	X				X		ON
	X			X	X	X			OFF
71	X	X	X				X		ON
				X	X	X			OFF
72			X				X		ON
	X	X	X		X	X			OFF
73	X			X			X		ON
		X	X		X	X			OFF
74		X		X			X		ON
	X		X		X	X			OFF
75	X	X		X			X		ON
			X		X	X			OFF

MAPNET Address	SWITCH SETTINGS 1	2	3	4	5	6	7	8	
76			X	X			X		ON
	X	X			X	X		X	OFF
77	X		X	X			X		ON
		X			X	X		X	OFF
78		X	X	X			X		ON
	X				X	X		X	OFF
79	X	X	X	X			X		ON
					X	X		X	OFF
80				X			X		ON
	X	X	X		X	X		X	OFF
81	X				X	X			ON
		X	X	X			X	X	OFF
82		X		X		X			ON
	X		X		X		X	X	OFF
83	X	X			X		X		ON
			X	X		X		X	OFF
84			X		X	X			ON
	X	X		X			X	X	OFF
85	X		X		X		X		ON
		X		X		X		X	OFF
86		X	X		X		X		ON
	X			X		X		X	OFF
87	X	X	X		X		X		ON
				X		X		X	OFF
88				X	X		X		ON
	X	X	X			X		X	OFF
89	X			X	X		X		ON
		X	X			X		X	OFF
90		X		X	X		X		ON
	X		X			X		X	OFF
91	X	X		X	X		X		ON
			X			X		X	OFF
92			X	X	X		X		ON
	X	X				X		X	OFF
93		X	X	X	X		X		ON
		X				X		X	OFF
94		X	X	X	X		X		ON
	X					X		X	OFF
95	X	X	X	X	X		X		ON
						X		X	OFF
96						X	X		ON
	X	X	X	X	X			X	OFF
97	X					X	X		ON
		X	X	X	X			X	OFF
98		X				X	X		ON
	X		X	X	X			X	OFF
99	X	X				X	X		ON
			X	X	X			X	OFF
100			X			X	X		ON
	X	X		X	X			X	OFF
101	X		X			X	X		ON
		X		X	X			X	OFF

MAPNET Address	SWITCH SETTINGS 1	2	3	4	5	6	7	8	
102		X	X	X		X	X		ON
	X			X	X			X	OFF
103	X	X	X			X	X		ON
				X	X			X	OFF
104				X		X	X		ON
	X	X	X		X			X	OFF
105		X			X		X		ON
	X		X	X		X		X	OFF
106		X		X		X	X		ON
	X		X		X			X	OFF
107	X	X		X		X	X		ON
			X		X			X	OFF
108			X	X		X	X		ON
	X	X			X			X	OFF
109	X		X	X		X	X		ON
		X			X			X	OFF
110		X	X	X		X	X		ON
	X			X			X	X	OFF
111	X	X	X	X		X	X		ON
					X			X	OFF
112				X	X	X	X		ON
	X	X	X	X				X	OFF
113	X				X	X	X		ON
		X	X	X				X	OFF
114		X			X	X	X		ON
	X		X	X				X	OFF
115	X	X			X	X	X		ON
			X	X				X	OFF
116		X		X	X	X	X		ON
	X		X					X	OFF
117	X		X	X	X	X	X		ON
		X						X	OFF
118		X	X		X	X	X		ON
	X			X				X	OFF
119	X	X	X		X	X	X		ON
				X				X	OFF
120				X	X	X	X		ON
	X	X	X					X	OFF
121	X			X	X	X	X		ON
		X	X					X	OFF
122		X		X	X	X	X		ON
	X		X					X	OFF
123	X	X		X	X	X	X		ON
			X					X	OFF
124			X	X	X	X	X		ON
	X	X						X	OFF
125		X	X	X	X	X	X		ON
	X							X	OFF
126		X	X	X	X	X	X		ON
	X							X	OFF
127	X	X	X	X	X	X	X		ON
								X	OFF

tyco / Fire & Security / SimplexGrinnell

6423 SHELBY VIEW, SUITE 107
MEMPHIS, TN 38134

SALES: 901-386-0532
SERVICE: 901-386-0532
FAX: 901-386-1756

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NO.	DATE	REVISION DESCRIPTION
1	09-26-06	SPRINKLER POINT ADDS (LL)

FIRE ALARM SYSTEM
GENERAL NOTES & LEGEND

HIGHLAND OAKS ELEMENTARY SCHOOL ADDITION
5242 ANNANDALE
MEMPHIS, TENNESSEE 38125

ENGINEER: (FRANCES BEEDY)	DATE:
SALES: (RODDY CONNOLL)	DATE:
INSTALL: (CHRIS BRADSHAW)	DATE:
DRAWN BY: LIEM LE	DATE: 09-14-06

SimplexGrinnell
PROJ# 922295001
MF# 235-406575-01

SCALE: N.T.S.

SHEET NUMBER: FA1.01
1 OF 7