SIEMENS

Installation Instructions for Siemens - Fire Safety U-MHU-1G and U-MHU Sync / Non-Sync Electronic Horn w/Volume Control and U-MHU-MCU Sync / Non-Sync Electronic Horn w/Volume Control and Sync / Non-Sync Multi-Candela Selectable Candela Strobe

IMPORTANT! - All audible and visual signaling appliances must be installed in accordance with all applicable national and local fire alarm codes and any other required regulatory agency. As with all fire equipment periodic testing is required (Ref. NFPA 72). Signals should be tested at least two times a year and more often if required by local and/or state codes. Defective devices must be replaced immediately. Field repair of these signals is not to be attempted. Malfunctioning units should be returned to the factory for repair or replacement.

The U-MHU-1G, U-MHU, and U-MHU-MCS Electronic Signal and the Multi-Candela Strobe lights must be connected to a compatible signal circuit with an appropriate voltage. These units are designed for operation on both DC and FWR voltage sources.

The U-MHU-1G, U-MHU, and U-MHU-MCS Electronic Signal and the Multi-Candela Strobe lights are for **indoor use only**, +32°F to 120°F (0°C to 49°C) with a maximum humidity of 85% RH. They can be either **wall mounted or ceiling mounted**.

The audible and strobe light can be installed in systems needing synchronization (See Fig. 8). For synchronization a Model DSC Sync Control unit or a compatible source of Siemens Sync Protocol must be wired electrically before the strobes. The audible device can be silenced while the strobe continues to flash. For synchronization load requirements see Installation Instructions for the Siemens Sync Control device.

The maximum number of U-MHU-1G, U-MHU, and U-MHU-MCS 15 cd sync strobe lights per circuit is 42. The maximum line impedance between any two adjacent strobes to still remain in sync is 30 ohms.
Note: Do not exceed maximum recommended line impedance, current and voltage drop specified for the Notification Appliance Circuit.

The U-MHU-1G, U-MHU, or U-MHU-MCS can also operate with a non-synchronized continuous or temporal audible signaling pattern (jumper selectable) and continuous non-synchronized strobe light when connected to a compatible Notification Appliance Circuit (NAC) of a Fire Alarm Control Panel. The output voltage of the (NAC) must be continuous (non-pulsing).

Note: The 3 pulse temporal pattern is to be used for evacuation only.

DEVICE SPECIFICATIONS:

Audible Signal Type: Electronic Signal,
Sync Mode: Temporal, MTB, Coded
Non-Sync Mode: Temporal, Continuous
Strobe Type: Sync or Non-sync, Selectable candela

Operating Voltage Range Limits: Special Application 16-32V DC & FWR
The U-MHU-1G, U-MHU, U-MHU-MCS were tested to the operating voltage limits of 16-32 V. Do not apply 80% and 110% of these values for system operation
Audible Signal Current: See Chart
Strobe current: See Chart
Units are for **indoor use only**, +32°F to 120°F (0°C to 49°C) with a maximum humidity of 85% RH.

	Audible Ratings				
Pattern	Voltage	Max Volume Control		Min Volume Control	
	DC or FWR	dB @ 10 ft.	RMS Current	dB @ 10 ft	RMS Current
Steady	16	84.7	39ma	80.1	22ma
Steady	24	87.8	54ma	83.3	30ma
Steady	32	89.3	61ma	86.1	41ma
Temporal	16	80.6	39ma	76	22ma
Temporal	24	83.6	54ma	79.3	30ma
Temporal	32	85.5	61ma	82.0	41ma

Adjustment Slot
Volume Control is Factory-set for maximum volume, (fully Clockwise)
See Wiring Diagram for location of adjustment

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Siemens Building Technologies, Inc.
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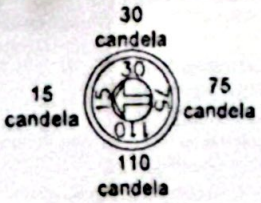
Florham Park, New Jersey 07932

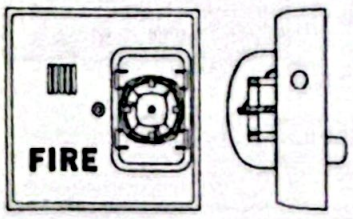
SPECIFICATIONS: Visual Signaling Appliance

Adjustment Switch Setting		15		30		75		110	
Listed UL 1971 Output		15 cd		30 cd		75 cd		110 cd	
Light Output, on Axis		75 cd		75 cd		75 cd		110 cd	
Operating Voltage Range Limits		Special Application 16 - 32V DC or FWR							
		DC	FWR	DC	FWR	DC	FWR	DC	FWR
*Maximum Operating RMS Current FWR & DC	16V	91 mA	112 mA	120 mA	139 mA	218 mA	251 mA	315 mA	323 mA
	24V	63 mA	82 mA	84 mA	107 mA	143 mA	182 mA	178 mA	234 mA
	32V	54 mA	75 mA	64 mA	94 mA	116 mA	142 mA	153 mA	183 mA
Rated Peak Current FWR & DC	16V	132 mA	264 mA	169 mA	272 mA	642 mA	668 mA	624 mA	652 mA
	24V	118 mA	278 mA	153 mA	298 mA	330 mA	668 mA	434 mA	636 mA
	32V	104 mA	664 mA	177 mA	668 mA	648 mA	682 mA	624 mA	668 mA
Initial Inrush		Less than 840ma for 2 ms.							
Strobe Flash Rate		1 Per Second							

15 cd and 30 cd Strobe switch settings were tested for 75 cd. minimum on axis.
ADA Minimum Frontal Light Output requirement is 75 cd
U.L. 1971 Standard covers emergency signaling devices for the hearing impaired.
These strobe lights were only tested to the operating voltage limits of 16V and 32V. Do Not apply 80% and 110% of these values for system operation.
The maximum number of 15 cd sync strobes per circuit is 42. The maximum line impedance between any two adjacent strobes to still remain in sync is 30 ohms. Note: Do not exceed maximum recommended line impedance and loading specified for the Notification Appliance Circuit.



Strobe Candela Selection Switch Settings
Factory Set at 15 Candela



Supplied Hole Plug (P/N 944276) Place Hole Plug in hole for Strobe Candela Selection Switch after moving Candela Selection Switch to desired candela rating position

Strobe Candela Selection Switch Location

UL 1971 VISUAL DISPERSION for WALL And CEILING Mounting

Degrees	Minimum Candela				
	-15	-30	-60	-75	-110
0	75	75	75	75	110
5 to 25	13.5	27	54	67.5	99
30 to 45	11.25	22.5	45	56.25	82.5
50	8.25	16.5	33	41.25	60.5
55	6.75	13.5	27	33.75	49.5
60	6	12	24	30	44
65	5.25	10.5	21	26.25	38.5
70	5.25	10.5	21	26.25	38.5
75	4.5	9	18	22.5	33
80	4.5	9	18	22.5	33
85	3.75	7.5	15	18.75	27.5
90	3.75	7.5	15	18.75	27.5

Mounting Instructions

Wiring Note: Individual wires (especially heavy gauge wire) should be bent at 90° before attaching to screw. Wiring should then carefully be pushed back into back box to minimize stress on the terminal block.

U-MHU-1G ELECTRONIC SIGNAL (Fig. 1)

1. Connect wiring (see fig. 4 or 5).
2. Mount the Electronic Signal to the single gang box with the two # 6-32 x 1-3/4" screws.
3. Test unit for proper operation.

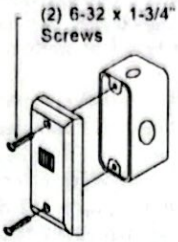


Fig. 1 (U-MHU-1G)

U-MHU ELECTRONIC SIGNAL (Fig 2)

1. Pull the wires from the outlet box through the large opening in the adapter plate.
2. Mount the adapter plate to the electrical box using the appropriate screws provided. Making sure that the adapter plate is mounted in the upright position.
   (Note: When using a single gang outlet box make sure to use the holes labelled "single gang".)
3. Connect wiring (see fig. 4 or 5).
4. Mount the grill on to the adapter plate by first engaging the two slots in the bottom of the grille with the two tabs in the bottom of the adapter.
5. Test unit for proper operation.

Fig. 2 (U-MHU)

U-MHU-MCS ELECTRONIC SIGNAL/STROBE (Fig. 3)

1. Move Strobe Candela Selection Switch to desired setting. (see diagram page 5)
2. Place supplied hole plug (P/N 944276) in for hole for Strobe Candela Selection Switch.
3. Pull the wires from the outlet box through the large opening in the adapter plate.
4. Mount the adapter plate to the electrical box using the appropriate screws provided. Making sure that the adapter plate is mounted in the upright position.
   (Note: When using a single gang outlet box make sure to use the holes labelled "single gang".)
5. Connect wiring (see fig. 6, 7, 8 or 9).
6. Mount the grille on to the adapter plate by first engaging the two slots in the bottom of the grille with the two tabs in the bottom of the adapter plate. Then use the # 6 x 5/8" self tapping screw to attach the grill to the adapter plate.
7. Test unit for proper operation.

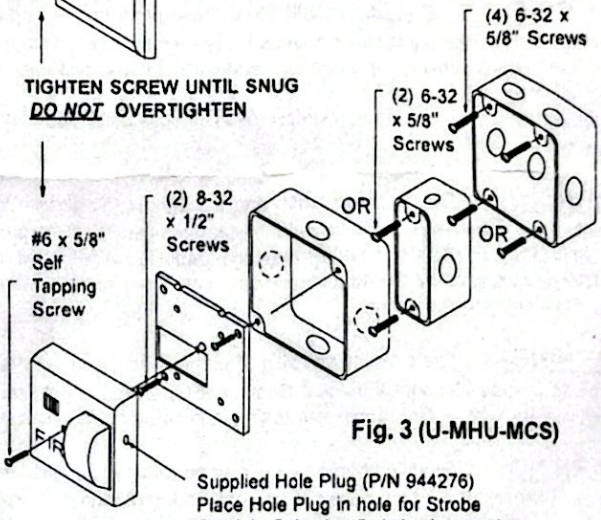


Fig. 3 (U-MHU-MCS)

Wiring Diagrams

NOTE: UNITS TO BE ONLY INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL ELECTRICAL CODES.
DO NOT LOOP WIRE. CUT WIRE RUN TO PROVIDE ELECTRICAL SUPERVISION
Terminals are designed to accept no larger than 12 ga. wire.

Typical Wiring for U-MHU-1G and U-MHU for Synchronized Operation with DSC Dual Sync Control Module
(Sync and Silenceable Operation)
Polarity Shown In Alarm Condition

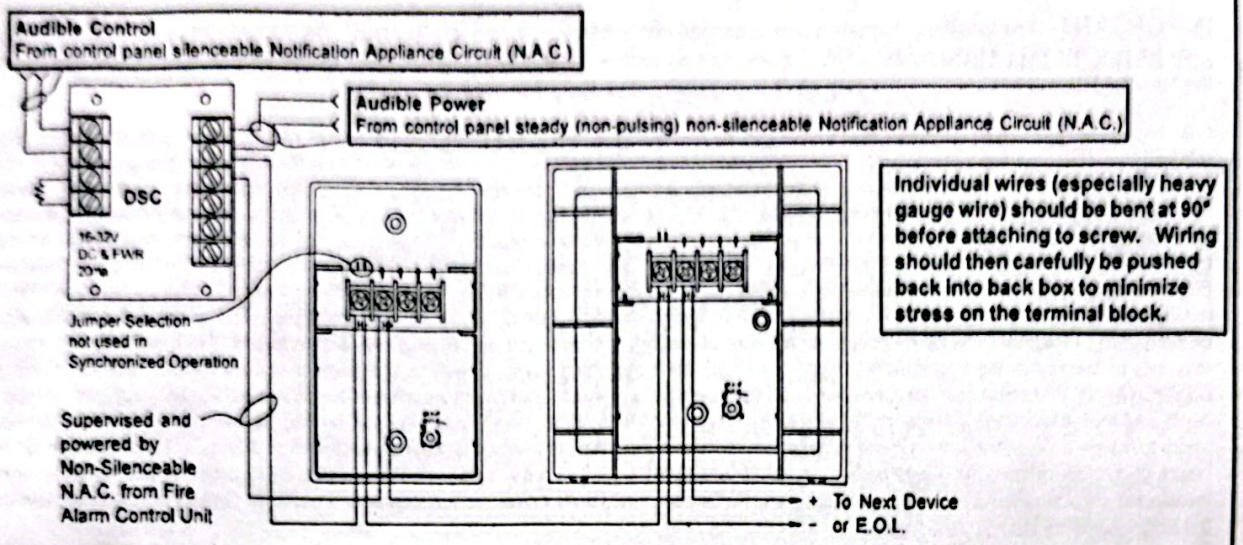


Fig. 4

Typical Wiring for U-MHU-1G and U-MHU for Non-Synchronized Operation
Polarity Shown In Alarm Condition

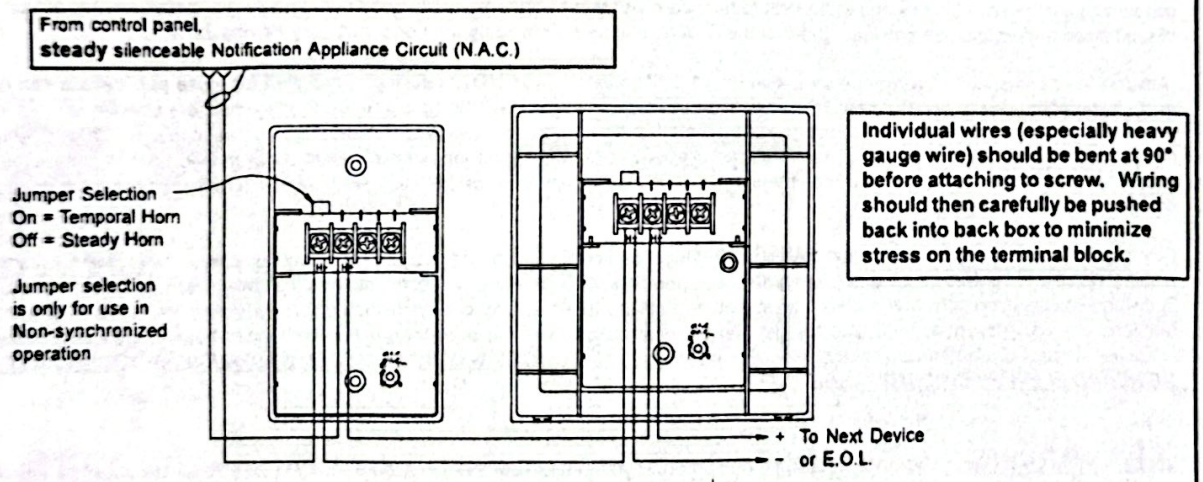


Fig. 5

Wiring Diagrams

NOTE: UNITS TO BE ONLY INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL ELECTRICAL CODES.
DO NOT LOOP WIRE. CUT WIRE RUN TO PROVIDE ELECTRICAL SUPERVISION
Terminals are designed to accept no larger than 12 ga. wire.

Typical Wiring for U-MHU-MCS for Synchronized Operation with DSC Dual Sync Control Module

Audible Signal and Strobe on Same Circuit (Audible Signal and Strobe Synchronized), Audible Signal Silenceable
Polarity Shown In Alarm Condition

Note: When audible and strobe units are powered from the same source, add the currents for both devices.

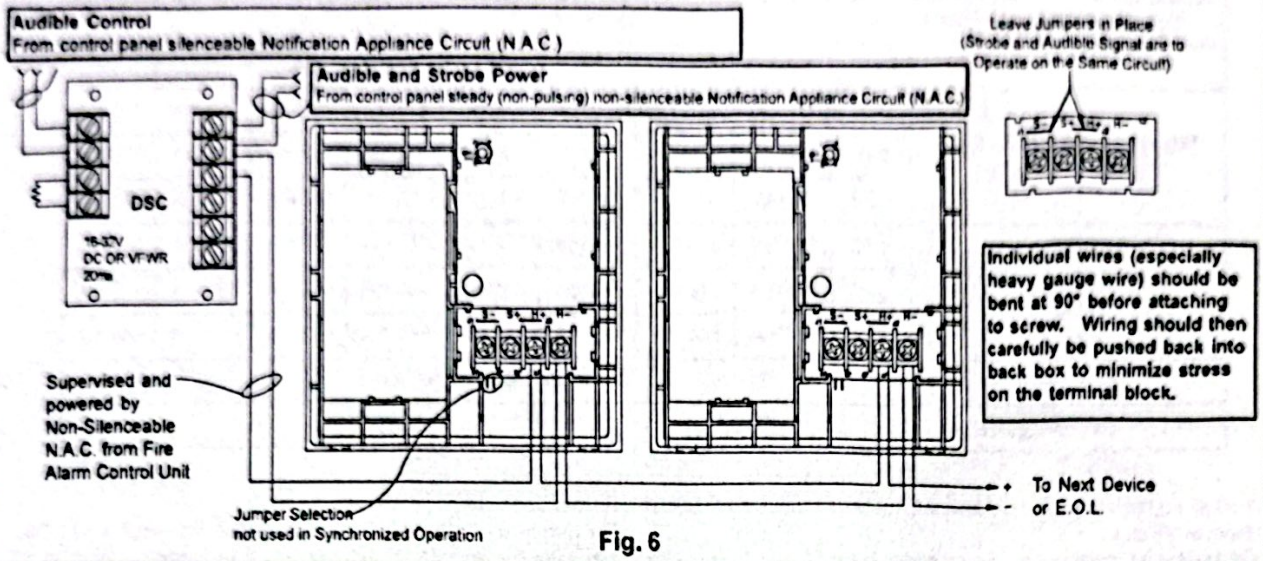


Fig. 6

Typical Wiring for U-MHU-MCS for Non-Synchronized Operation

Audible Signal and Strobe on Same Circuit
Polarity Shown In Alarm Condition

Note: When audible and strobe units are powered from the same source, add the currents for both devices.

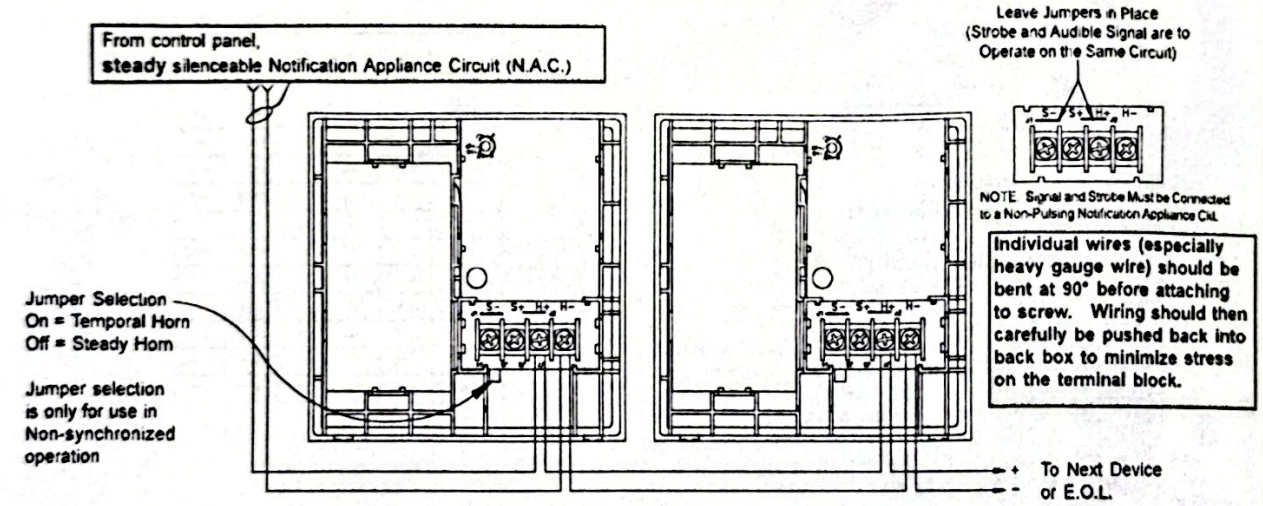


Fig. 7

Wiring Diagrams

NOTE: UNITS TO BE ONLY INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL ELECTRICAL CODES.
DO NOT LOOP WIRE. CUT WIRE RUN TO PROVIDE ELECTRICAL SUPERVISION
Terminals are designed to accept no larger than 12 ga. wire.

Typical Wiring Diagram for U-MHU-MCS Non-Synchronized Operation of Audible Signal and Strobe on Separate Circuits

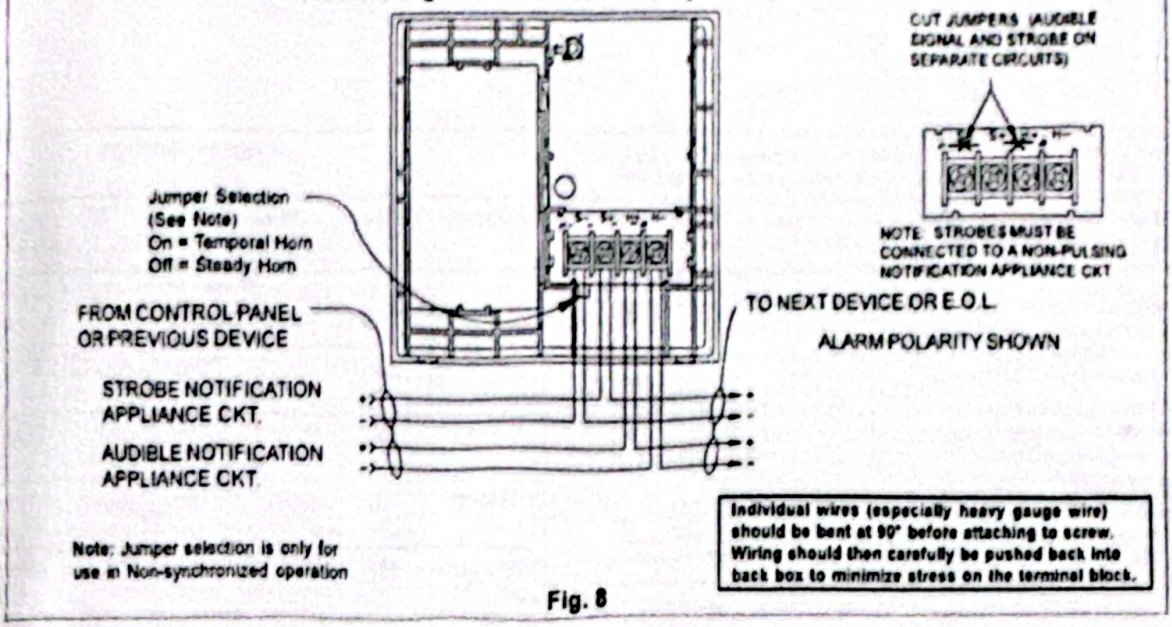


Fig. 8

Typical Wiring Diagram for U-MHU-MCS Non-Synchronized Operation of Audible Signal and Synchronized Operation of Strobe on Separate Circuits

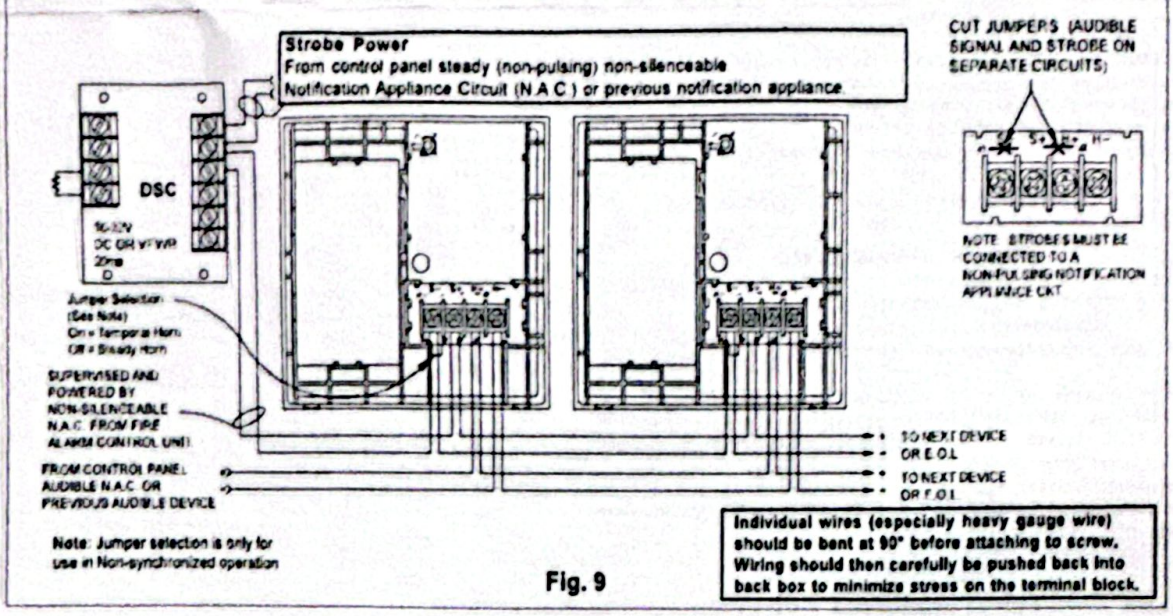


Fig. 9