

Installation Instructions for Temporal Horn/Strobe

DESCRIPTION

The temporal horns are high quality notification appliances intended for use in applications where a self-synchronized temporal signal is required. It is recommended that these products be installed in accordance with the requirements in the latest recognized edition of national and local fire alarm and electrical codes.

The unit may be set to sound either a temporal or steady tone. One of two output levels may be selected: 102 dBA or 98 dBA.

The strobes are self-synchronized to flash at 1 fps across their full operating voltage range. Studies show that people with photosensitive conditions may experience a photoconvulsive response from multiple random flashes of light. This risk is minimized with these strobes.

The strobe operates on any existing 2-wire signal circuit. Separately installed "sync control modules" are not required. Synchronization of less than 200 milliseconds will be maintained for no less than 60 hours supervision followed by 30 minutes in alarm.

See Table 1 and Figures 1-3 for specifications.

INSTALLATION

WARNINGS

To reduce the risk of shock, always disconnect all power before handling the unit.

This device will not operate without electrical power. As fires frequently cause power interruptions, discuss further safeguards with your local fire protection specialist.

To reduce the risk of shock, do not tamper with this device when the signal circuit is energized. Disconnect all power and allow 5 minutes for stored energy to dissipate before handling.

1. The unit is shipped set at 102 dBA. To select an output of 98 dBA, remove the appropriate jumper from the circuit board on the rear of the unit (See Figure 5). Slide the jumper onto one pin on the back of the unit so it is readily available if it is desired to change the output level again.

2. The unit is shipped set to sound a temporal tone. To select a steady tone, disconnect the appropriate jumper from the circuit board on the rear of the unit (See Figure 5). Slide the jumper onto one pin on the back of the unit so it is readily available if it is desired to change the tone again.
3. Select an electrical box as shown in Figure 1 or Table 2. Install the box using suitable hardware. Attach the mounting plate to the electrical box.

NOTE: Be sure hook flange is facing outward as shown in Figure 1.

NOTE: The designation "TOP" on boxes denotes box orientation after installation.

4. Bring the signaling circuit field wiring into the electrical box.

CAUTION

Electrical supervision requires wire run to be broken at each device. Do not loop signaling circuit field wires around terminals.

5. Connect the signaling circuit field wires to the terminal block on the horn/strobe (Figures 4 and 5). For additional wiring connection details, see the applicable instructions supplied with the signaling modules or circuits used in the fire alarm control panel.
6. Mount the horn/strobe assembly on the mounting plate (Figure 1).
 - a. The inside of the top of the grille has hinges. With the bottom of the grille lifted out slightly, place the grille over the mounting plate so that the hinges of the grille are resting on the hook flange of the mounting plate.
 - b. Properly seat the grille by pressing the bottom in.
 - c. Fasten the bottom of the grille to the mounting plate by installing the captive combination drive screw.
7. Apply power to the fire alarm control panel. Initiate an alarm to activate the horn/strobe. Verify that it is operating properly. Reset the panel to the supervisory mode.

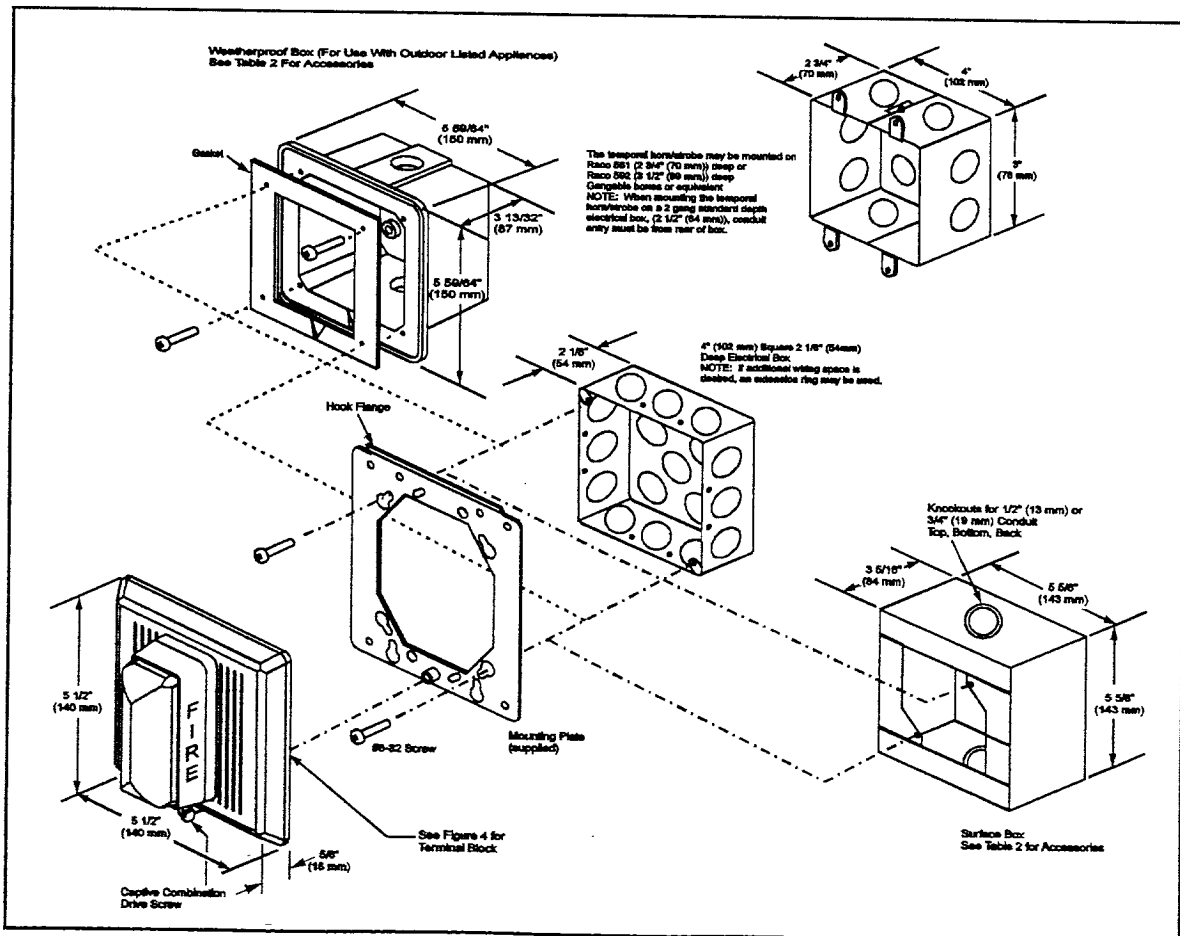


Figure 1. Mounting the Temporal Horn/Strobe

MAINTENANCE

CAUTION

Should the unit fail to operate properly, do not attempt repair. Contact the supplier for replacement.

Perform a visual inspection and an operational test twice a year or as directed by the local authority having jurisdiction.

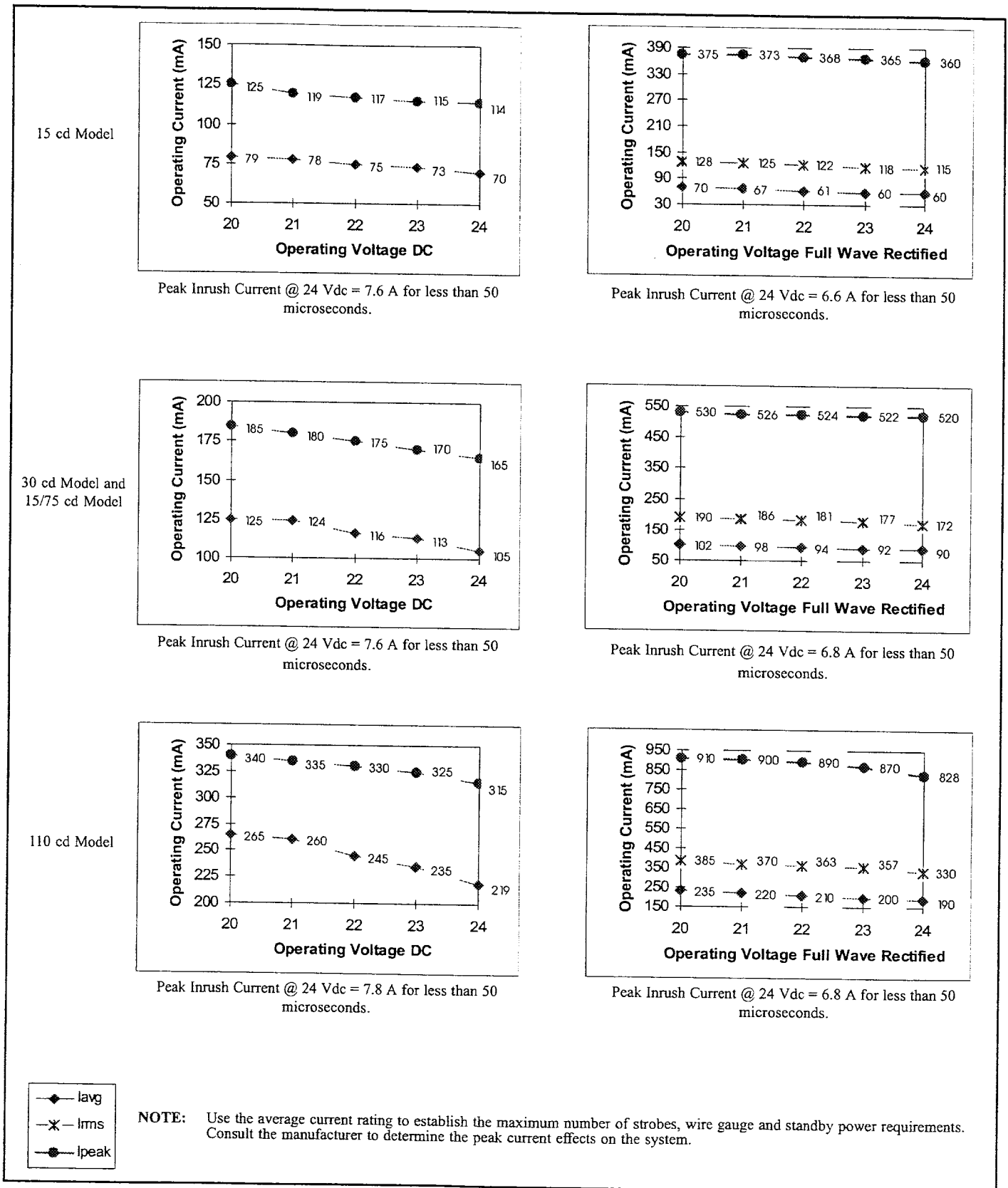


Figure 2. V/I Curves

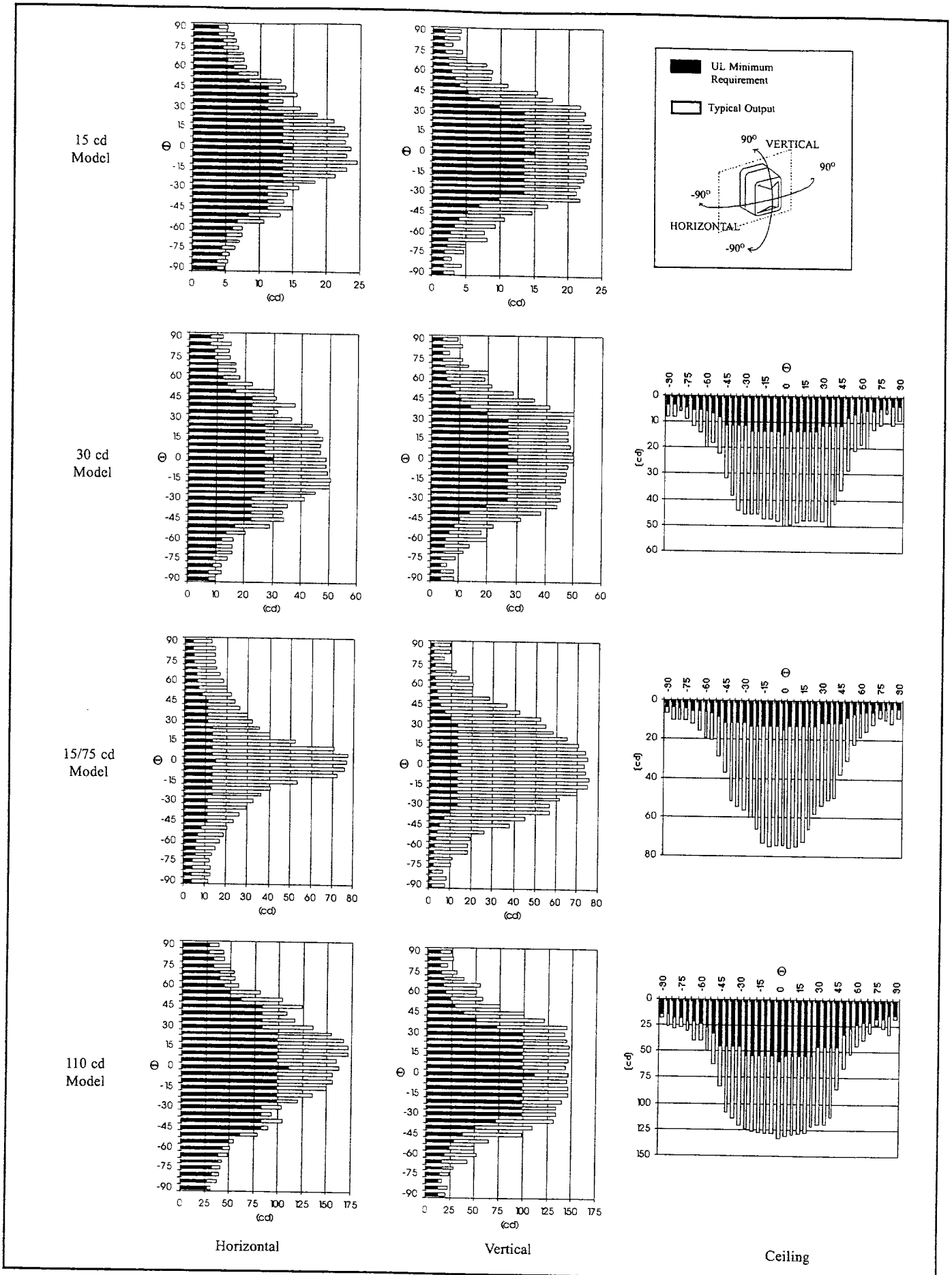


Figure 3. Strobe Light Output Distribution Patterns

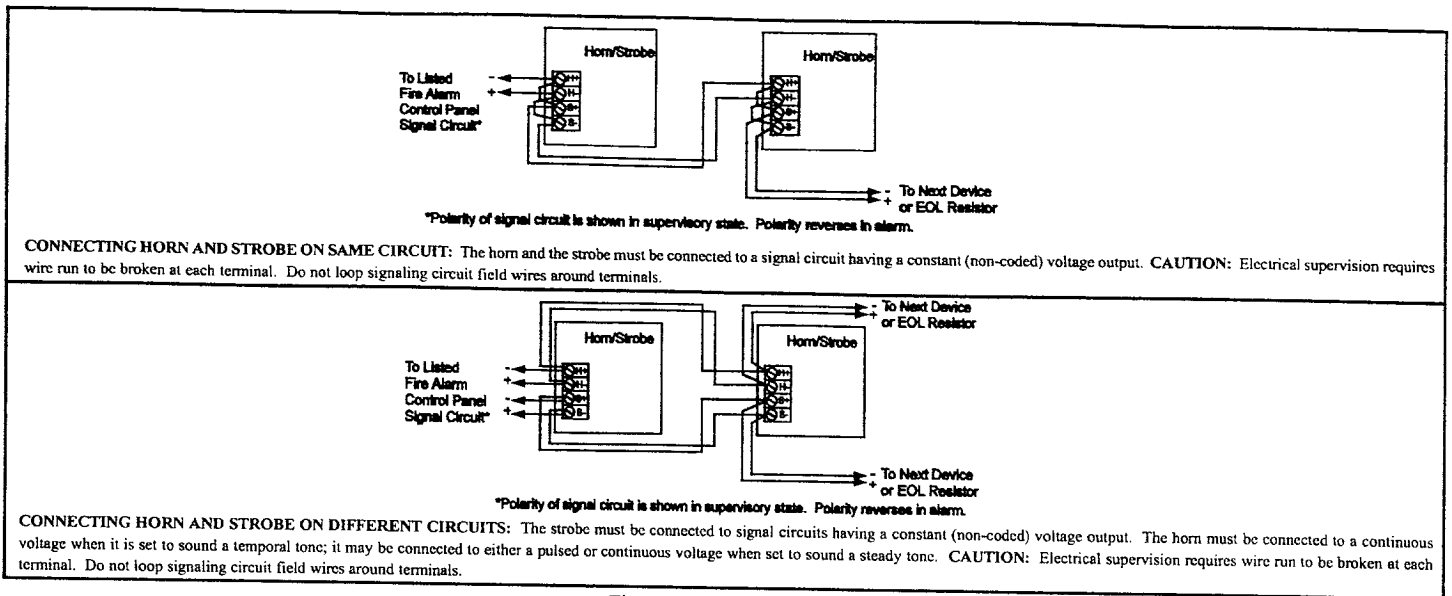


Figure 4. Wiring Diagrams

Table 1. Specifications

| | Temporal | | | | Continuous | | | |
|---------------------------------------|--|-------------|--------------------------|-------------|---------------|-------------|------------------------------|-------------|
| | Low Volume | High Volume | Low Volume | High Volume | Low Volume | High Volume | Low Volume | High Volume |
| Operating Voltage | 20 to 24V DC | | 20 to 24V FWR | | 20 to 24V DC | | 20 to 24V FWR | |
| Operating Current - Horn* | 17 mA | 40 mA | 23 mA | 52 mA | 17 mA | 40 mA | 23 mA | 52 mA |
| Operating Current - Strobe** | See Figure 2 | | | | | | | |
| Flash Rate (per second) | 1 fps (synchronized) | | | | | | | |
| Sound Level Output at 10 ft. (3.05 m) | Low Volume | | High Volume | | Low Volume | | High Volume | |
| Anechoic - Peak at 24V DC | 98 dBA | | 102 dBA | | 98 dBA | | 102 dBA | |
| Anechoic - Average at 24V DC | 93 dBA | | 97 dBA | | 93 dBA | | 97 dBA | |
| Reverberant Room per UL 464 at 24V DC | 75 dBA | | 79 dBA | | 79 dBA | | 85 dBA | |
| ULI at 20V DC | 75 dBA | | 79 dBA | | 79 dBA | | 82 dBA | |
| Light Output (cd) - See Figure 3 | 3A | | 5A*** | | 7A | | 8A | |
| UL 1971 | 30 cd wall 15 cd ceiling | | 15 cd wall mount only | | 15 cd ceiling | | 110 cd wall 60 cd ceiling | |
| UL 1638 | 30 cd | | 15 cd | | 75 cd | | 120 cd | |
| ULCS526 | 30 cd | | 15 cd | | 75 cd | | 120 cd | |
| Operating Environment - Indoor | 93% Relative Humidity @ 104F (40C); 32 to 120F (0 to 49C) | | | | | | | |
| Operating Environment - Outdoor | 98% Relative Humidity @ 104F (40C); -35 to 150F (-31 to 66C) | | | | | | | |
| Synchronization**** | Pulses at temporal rate within 200 ms on common circuit* | | | | | | | |

*The strobe must be connected to a continuous voltage. The horn must be connected to a continuous voltage when it is set to sound a temporal tone; it may be connected to either a pulsed or continuous voltage when set to sound a steady tone.

**Horn and strobe currents are additive when connected in parallel.

***5A Units are indoor rated only.

****The temporal pattern for the horn is: 1/2s ON, 1/2s OFF, 1/2s ON, 1/2s OFF, 1/2s ON, 1 1/2s OFF, repeat cycle.

CAUTION: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Table 2. Temporal Horn/Strobe and Accessories

| | |
|--|--|
| Temporal Horn/Strobe, Red | 757-*-T 2452THS-15-R 2452THS-30-R 2452THS-15/75-R 2452THS-110-R INT-*T XLS757-*-T |
| Temporal Horn/Strobe, White | 757-*-TW 2452THS-15-W 2452THS-30-W 2452THS-15/75-W 2452THS-110-W INT-*TW XLS757-*-TW |
| Surface Box, Red, Indoor | 757A-SB 2459-SMB-R INT-SB XLS757A-SB |
| Surface Box, White, Indoor | 757A-SBW 2459-SMB-W INT-SBW XLS757A-SBW |
| Weatherproof Box, Red, Outdoor | 757A-WB 2459-WPB-R INT-WB XLS757A-WB |
| Weatherproof Box, White, Outdoor | 757A-WBW 2459-WPB-W INT-WBW XLS757A-WBW |
| Bi-directional Mounting Frame, Red, Indoor | 757A-BDF INT-BDF XLS757A-BDF |
| Bi-directional Mounting Frame, White, Indoor | 757A-BDFW INT-BDFW XLS757A-BDFW |
| Lens Marking Kit, Wall Orientation | LKW Series** |
| Lens Marking Kit, Ceiling Orientation | LKC Series** |

*Insert strobe model - 3A, 5A, 7A, 8A

**Lens marking kits are available for various applications (e.g., FIRE, SMOKE, HALON) and in various languages. For more information and to order, contact your local representative. LKW-1 ("FIRE", Wall orientation) is supplied with the horn/strobe.

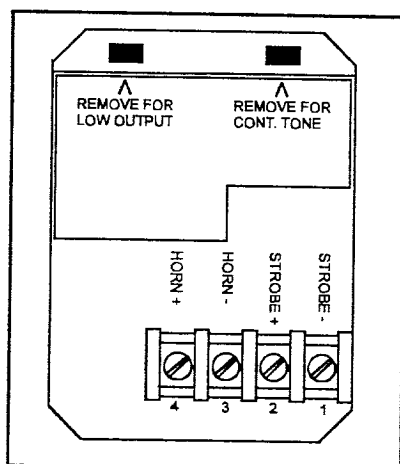


Figure 5. Terminal Block