

Integrity Synchronized Temporal Horn-Strobe Installation Sheet

Description

The Integrity Synchronized Temporal Horn-Strobe is a fire alarm notification appliance designed for indoor or outdoor walls and ceilings. (The 15 cd strobe is for indoor use only.) For model numbers, see Table 1; for accessories see Table 2.

Table 1: Models

Description	Numbers	
15 cd horn-strobe, red [1]	757-5A-T XLS757-5A-	INT-5AT 2452THS-15-R
15 cd horn-strobe, white [1]	757-5A-TW XLS757-5A-TW	INT-5ATW 2452THS-15-W
30 cd horn-strobe, red	757-3A-T XLS757-3A-T	INT-3AT 2452THS-30-R
30 cd horn-strobe, white	757-3A-TW XLS757-3A-TW	INT-3ATW 2452THS-30-W
75 cd horn-strobe, red [2]	757-4A-T XLS757-4A-T	INT-4AT 2452THS-75-R
75 cd horn-strobe, white [2]	757-4A-TW XLS757-4A-TW	INT-4ATW 2452THS-75-W
15/75 cd horn-strobe, red	757-7A-T XLS757-7A-T	INT-7AT 2452THS-15/75-R
15/75 cd horn-strobe, white	757-7A-TW XLS757-7A-TW	INT-7ATW 2452THS-15/75-W
110 cd horn-strobe, red	757-8A-T XLS757-8A-T	INT-8AT 2452THS-110-R
110 cd horn-strobe, white	757-8A-TW XLS757-8A-TW	INT-8ATW 2452THS-110-W

[1] For indoor use only

[2] Not ULC Listed

Table 2: Accessories

Description	Numbers	
Surface box, red, indoor	757A-SB XLS757A-SB	INT-SB 2459-SMB-R
Surface box, white, indoor	757A-SBW XLS757A-SBW	INT-SBW 2459-SMB-W
Weatherproof box, red, outdoor	757A-WB XLS757A-WB	INT-WB 2459-WPB-R
Weatherproof box, white, outdoor	757A-WBW XLS757A-WBW	INT-WBW 2459-WPB-W
Bidirectional mounting frame, red, indoor	757A-BDF XLS757A-BDF	INT-BDF 2459-BDF-R
Bidirectional mounting frame, white, indoor	757A-BDFW XLS757A-BDFW	INT-BDFW 2459-BDF-W

The strobe operates on any existing two-wire signal circuit. There are jumpers for selecting either a temporal or steady tone, and high or low volume. See Figure 4 for the jumper locations.

The strobe features an enhanced synchronization circuit to comply with the latest requirements of UL 1971 *Signaling Devices for the Hearing Impaired* and CAN/ULC-S526 *Visible Signal Devices for Fire Alarm Systems, Including Accessories*. Synchronized operation requires a separately installed synchronization control module. See Table 3 for a list of compatible synchronization modules.

Table 3: Compatible synchronized models

Description	Numbers	
Auto-Sync Output Module	SIGA-CC1S	SIGA-MCC1S
Genesis Signal Master - Remote Mount	ADTG1M-RM XLSG1M-RM G1M-RM BPS-6(10)A	MG1M-RM EG1M-RM ZG1M-RM APS-6(10)A

Installation

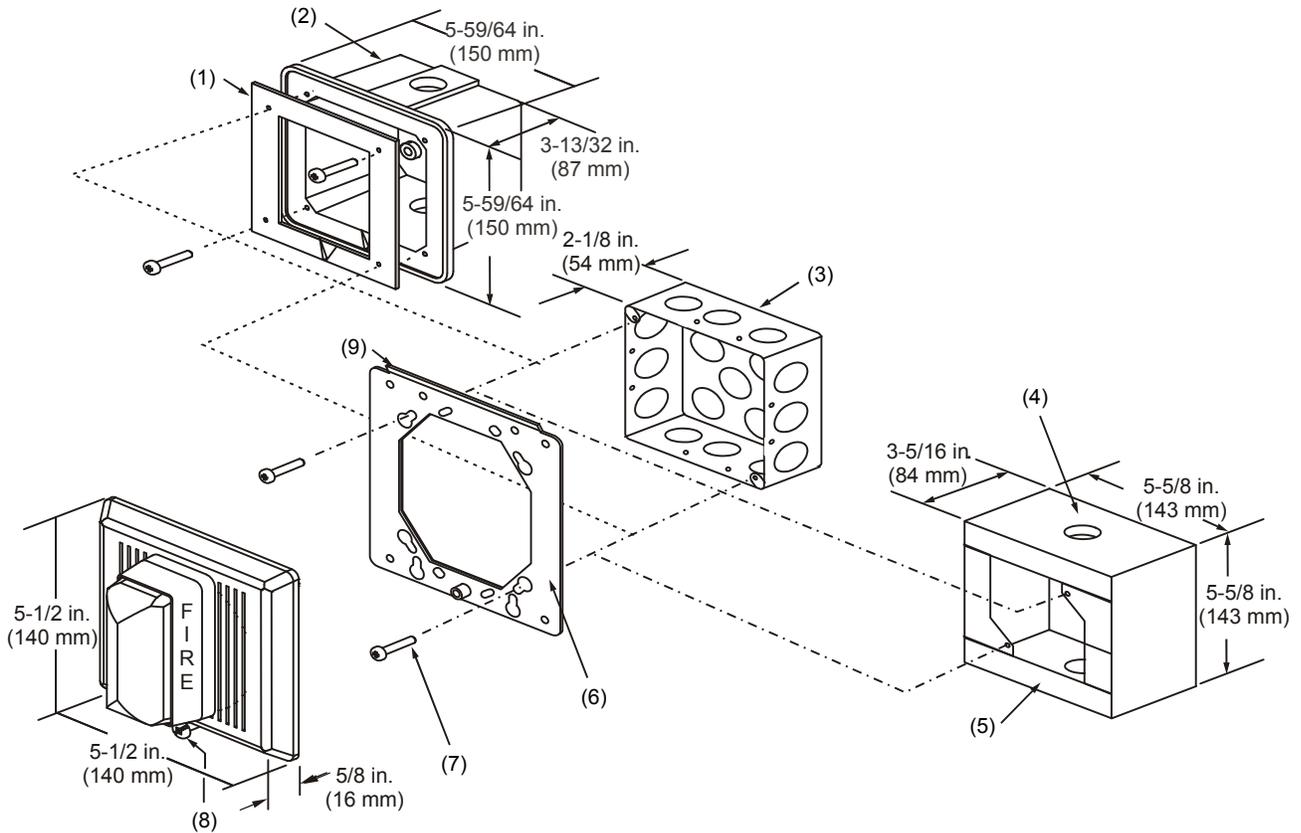
WARNING: Electrocutation hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow stored energy to discharge before installing or removing equipment.

Notes

- Electrical supervision requires the wire run to be broken at each terminal. Do not loop the signaling circuit field wires around the terminals.
- To ensure flash synchronization, do not install this enhanced strobe (identified by a *red* cd rating on the front of the unit) in the same field of view as older models (identified by a *black* cd rating on the front of the unit).

Install this product in accordance with applicable requirements in the latest editions of NFPA 72, *National Fire Alarm and Signaling Code*, and CSA C22.1 the *Canadian Electrical Code*, Part 1, Section 32, CAN/ULC-S524 *Installation of Fire Alarm Systems* and in accordance with the local authority having jurisdiction.

Figure 1: Mounting diagram



- | | |
|--|-------------------------------|
| (1) Gasket | (5) Surface mount box |
| (2) Weatherproof box | (6) Mounting plate (supplied) |
| (3) Standard box | (7) #8-32 screw |
| (4) Knockouts for 1/2 in. (13 mm) or 3/4 in. (19 mm) conduit top, bottom, back | (8) Captive locking screw |
| | (9) Hook flange |

To install the temporal horn-strobe:

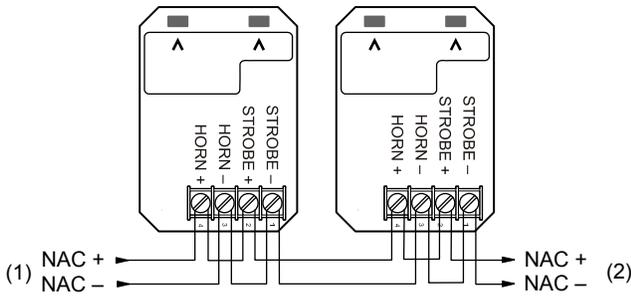
1. Select and install a suitable electrical box. See “Mounting the electrical box” on page 3 for details.
 Note: Outdoor installations require a weatherproof backbox.
2. Set the horn volume and tone. See “Selecting the volume and tone” on page 3 for details.
3. Bring the signal circuit field wiring into the electrical box.
4. Position the mounting plate on the electrical box with the hook flange up and facing outward as shown in Figure 1. Fasten the plate using screws provided with the electrical box.
5. Connect the signal circuit field wiring. For the unit to function properly, observe polarity.

To connect the horn and strobe on the same circuit, see Figure 2. To connect the horn and strobe on different circuits, see Figure 3.

For additional wiring details, see the installation instructions for the signaling modules or circuits used in the fire alarm control panel.

6. After completing the connections, attach the unit to the mounting plate, as noted below.
 - a. The grille has tabs (at the top of the inner face) that engage with the hook flange on the mounting plate. Angle the bottom of the grille out slightly, and slide the unit into place so that the tabs engage the flange.
 - b. Seat the grille by pressing the bottom in.
 - c. Fasten the bottom of the grille to the mounting plate by tightening the captive locking screw.
7. Apply power and activate the unit to verify that it is operating properly.

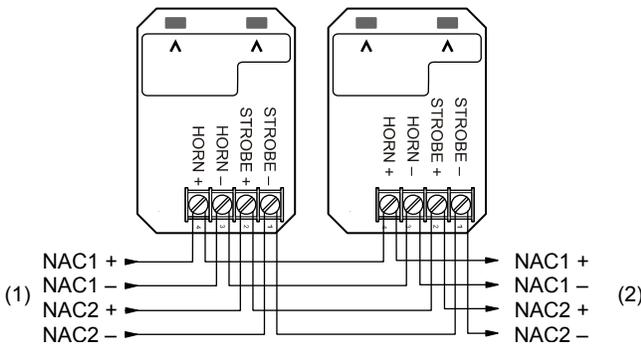
Figure 2: Typical one-circuit wiring diagram



Polarity is shown in the active state.

- (1) From UL/ULC Listed fire alarm control panel signal circuit.
- (2) To next device or end of line resistor for Class B. Return to control panel for Class A connection.

Figure 3: Typical two-circuit wiring diagram



Polarity is shown in the active state.

- (1) From UL/ULC Listed fire alarm control panel signal circuit.
- (2) To next device or end of line resistor for Class B. Return to control panel for Class A connection.

Mounting the electrical box

Figure 1 shows mounting details for:

- Standard box. When using a 4 in. square box, use an extension ring for additional wiring space, if needed. If using a double-gang electrical box that is 2-1/2 in. (64 mm) deep, locate the conduit only at the rear of the box.
- Weatherproof box. Peel off the adhesive backing from the gasket and adhere to the box.
- Surface mount box.

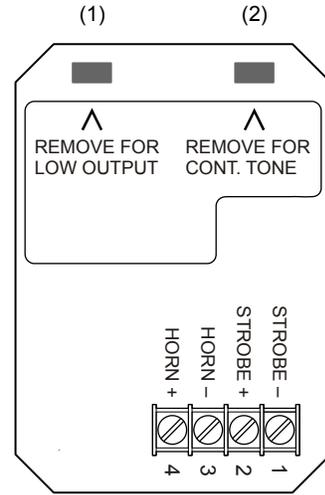
Selecting the volume and tone

The horn has a jumper for selecting a high or low volume output level. The default is high volume. To set the output to low volume, remove the output jumper from the circuit board on the rear of the unit. See Figure 4 below.

The horn has a jumper for selecting either a temporal or steady tone. The default is temporal tone. To set the output to steady tone, remove the tone jumper from the circuit board on the rear of the unit.

Tip: Save the jumper by sliding it onto a single pin.

Figure 4: Jumper setup and terminal block



Item	In	Out
(1)	High output	Low output
(2)	Temporal tone	Steady (continuous) tone

Maintenance

Note: Do not change the factory-applied finishes.

This unit is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should not be disassembled.

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

Specifications

Operating voltage	16 to 33 VDC, 16 to 33 VFWR
Strobe operating current	See Table 4
Horn operating current	See Table 5
Sound output	See Table 6 and Table 7
Light output	See Table 10
Horn temporal pattern	0.5 s on, 0.5 s off, 0.5 s on, 0.5 s off, 0.5 s on, 1.5 s off, repeat cycle
Wire size	12 to 18 AWG (0.75 to 2.50 mm ²)
Compatible electrical boxes	2-1/2 in. (64 mm) deep double-gang, 4 in. square box 2-1/8 in. (54 mm) deep, Surface or bidirectional mounting box per Table 2
Operating temperature	
Indoor	32 to 120°F (0 to 49°C)
UL outdoor	-35 to 150°F (-37 to 66°C)
ULC outdoor	-40 to 150°F (-40 to 66°C)
Relative humidity	
Indoor	93% noncondensing
Outdoor	98% noncondensing

Table 4: Maximum strobe operating current (A RMS)

Voltage	15 cd	30 cd	75 cd [1]	15/75 cd	110 cd
VDC	0.109	0.130	0.263	0.162	0.329
VFWR	0.150	0.189	0.333	0.210	0.420

[1] See Table 10.

Table 5: Maximum horn operating current

Voltage	UL [1]	ULC [2]
16 to 33 VDC	85 mA	213 mA
16 to 33 VFWR	105 mA	254 mA

[1] 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.

[2] Horn and strobe currents are additive when connected in parallel.

Table 6: Reverberant room sound output (dBA) [1]

Method	Temporal		Continuous	
	Low	High	Low	High
UL464 at 16 VDC	73	80	77	83
ULI at 24 VDC	77	83	82	86
ULI at 33 VDC	78	85	82	88

[1] Sound level output at 10 ft. (3.05m)

Table 7: ULC anechoic room, average peak sound output (dBA) [1]

Method	Temporal		Continuous	
	Low	High	Low	High
16 to 33 VDC	93	98	86	91
16 to 33 VFWR	98	101	90	93

[1] Sound level output at 10 ft. (3.05m)

Meets or exceeds CAN/ULC-S525-07, 85 dBA minimum anechoic at 3 meters, all settings

Table 8: Audible directional characteristics, horizontal axis

Angle (degree)	dBA
90	0 (ref)
75 and 105	-3
70 and 110	-6

[1] Strobe is vertical

Table 9: Audible directional characteristics, vertical axis

Angle (degree)	dBA
90	0 (ref)
60 and 120	-3
45 and 135	-6

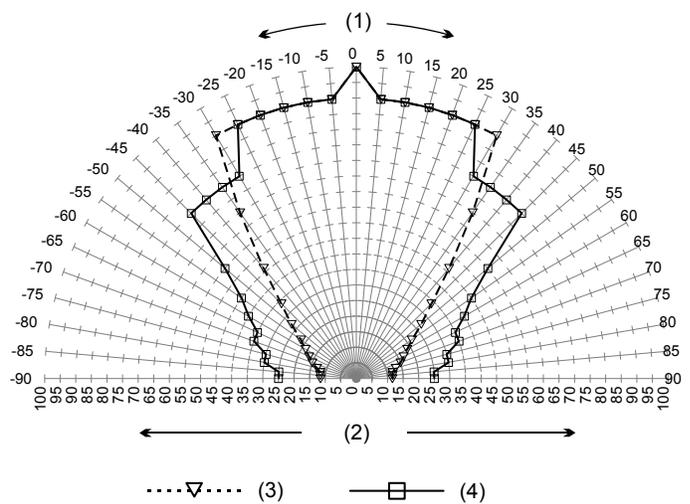
[1] Strobe is horizontal

Table 10: Light output (cd)

Model	UL 1971	UL 1638	CAN/ULC-S526-07
15 cd	15 indoor wall mount only	15 indoor use only	15
30 cd	30 wall 15 ceiling	30 9.0 [1]	30
60 cd	60 wall 30 ceiling	60 37.8 [1]	
75 cd	75 wall 60 ceiling	75 48.2 [1]	
15/75 cd	15 wall 15 ceiling	75 17.7 [1]	15 (75 on-axis)
110 cd	110 wall 60 ceiling	110 70.7 [1]	120

[1] Tested at -31°F (-35°C)

Figure 5: UL 1971 minimum light output (% of rating vs. angle)



- (1) Angle
- (2) Percentage of related output
- (3) Vertical
- (4) Horizontal ceiling

Regulatory information

Manufacturer	Edwards, A Division of UTC Fire & Security Americas Corporation, Inc. 8985 Town Center Parkway, Bradenton, FL 34202, USA
Year of manufacture	The first two digits of the date code (located on the product identification label) are the year of manufacture.
UL rating	Regulated 24 DC, regulated 24 FWR [1]
Environmental class	Indoor, outdoor
Synchronization	Meets UL 1971 requirements. Maximum allowed resistance between any two devices is 20 Ω . Refer to specifications for the synchronization control module, this strobe, and the control panel to determine allowed wire resistance.
North American standards	Meets: CAN/ULC-S525-07, CAN/ULC -S526-07, UL 464, UL 1638 and UL 1971 Follow: NFPA 72 and CAN/ULC-S524
FCC compliance	This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules and regulations.

[1] This device was tested to the regulated 24 DC/FWR operating voltage limits of 16 V and 33 V.

Contact information

For contact information, see www.utcfireandsecurity.com.

