

757 Series Temporal Horn

Integrity Family

Features

- Synchronized temporal audible output**
 Select for self-synchronizing temporal signal or steady tone. External "synch-control" module is not required.
- Synchronized strobe flash**
 Self-synchronizing flash from multiple strobes improves the safety for photosensitive people. External "synch-control" module is not required.
- Mounts to two-gang box**
 Flush mount to standard North American two-gang or four inch square electric box.
- Adjustable high or low dBA output**
 Select for 98 dBA or 94 dBA sound output.
- True horn tone**
 Low pitch "growling" sound demands attention.
- ADA/UL1971/ULC listed strobe**
 All strobe models provide "Equivalent Facilitation" allowed under ADA Accessibility Guidelines, satisfy NFPA codes and are UL1971 listed as Signaling Devices for the Hearing Impaired.
- Easy installation**
 A universal mounting plate allows Integrity to be wired then left hanging "free" to allow easy V.I. and testing before it is fastened to electrical box.
- Screw terminal wire connection**
 Large terminals speed installation and accept up to #12 AWG (2.5mm²) wire.
- Field changeable lens markings**
 Standard "FIRE" strobe marking/language is easily changed with optional snap-on Lens Kits.
- UL/ULC rated outdoor option**

Description

EST's 757 Integrity Series Temporal Horn and Temporal Horn/Strobe are perfect for life safety applications as an alert and alarm signal, especially to notify the hearing impaired. The horn emits a piercing low frequency sound that is easily heard above moderate ambient noise levels.

Integrity's rugged plastic housing is available with a red or white textured finish. With its ingenious mounting sub-plate, the horn is firmly held in place with a single screw ensuring a quick, attractive installation. A separate trim plate is not required for flush mounting. Separate terminals to accept up to #12 AWG (2.5mm²)

Patented



wire are provided for field connection of the strobe and horn.

Matching Integrity Speakers, Chimes, and Strobe combinations are also available.

HORN: During installation, the horn is configured for steady or temporal tone signal and either low or high dB output. When temporal output is selected all horns on a common two-wire circuit are self-synchronized (see specifications). External "sync-control" modules are not required.

Integrity Series horns emit a low frequency "growling" tone to really demand attention. Select 'high' output for 98 dBA; choose 'low' output for 94 dBA. (Average measurement at 10 ft (3.05 m) in anechoic chamber.)

STROBE: EST strobes are self-synchronized to flash at one fps across their full operating voltage range. The strobe operates on any existing two-wire signal circuit. Separately installed "sync-control" modules are not required. A very small portion of the population have a condition which may cause them to become disoriented from multiple random flashes of light. This risk is minimized with Integrity's strobe.

The flash from EST strobes can be noticed from almost any position in the room, corridor, or large open space. The output is controlled using a specially shaped reflector to disperse the light in all viewing directions. EST strobes are UL1971 listed with both wall and ceiling cd intensity ratings (see Specifications). This is useful in areas where the Authority Having Jurisdiction (AHJ) permits ceiling mount strobes.

757 Series Temporal Horn/Strobes are shipped with wall mount style "FIRE" lens markings. Where ceiling mount, other languages or different lens markings are required, optional LKW and LKC series Lens Marking Kits are offered. Lens marking sleeves snap right over the strobe lens providing quick, easy, change. Consult EST for availability of other languages or special markings.

EDWARDS SYSTEMS TECHNOLOGY

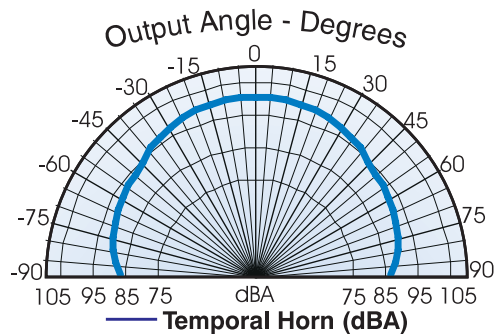
U.S. SALES: SARASOTA, FL 941-739-4638; FAX 941-727-1214 • CANADA SALES: OWEN SOUND, ON 519-376-2430; FAX 519-376-7258
 INTERNATIONAL SALES: 905-270-1711; FAX 905-270-9553 • CORPORATE HEADQUARTERS: CHESHIRE, CT • U.S. MANUFACTURING: PITTSFIELD, ME

Audible Signal Application

Suggested sound pressure levels in each signaling zone for alert or alarm signals are at least 15 dB above the average ambient sound level or 5 dB above the maximum sound level having a duration of at least 60 seconds, whichever is greater, measured five feet (1.5 m) above the floor. The average ambient sound level is the rms, A-weighted sound pressure measured over a 24-hour period.

Doubling the distance from the signal to the ear will theoretically cause a 6 dB reduction in the received sound pressure level. The actual effect depends on the acoustic properties of materials in the space. A 3 dBA difference is a "just noticeable" change in volume.

Typical Sound Output Distribution
dBA measured at 10 ft in anechoic chamber
757 Series Temporal Horn ('HIGH' output)



Visible Signal Application

These guidelines are based on ANSI/NFPA 72 National Fire Alarm Code (1993). When applied and installed in accordance with that code, EST strobes meet or exceed the illumination produced by the ADA specified 75 candela (cd) strobe at 50 ft. **However, optimum performance is obtained by providing "Equivalent Facilitation" as allowed by the Americans with Disabilities Act Accessibility Guidelines [ADA(AG)].** Contact EST for exact spacing requirements.

Non-Sleeping Rooms	Use ONE Wall Mounted - EST Model:
Up to 20' x 20' (6.1 x 6.1m)	757-5A 15 cd @ 70 mA or 757-7A* 15/75 cd @ 105 mA
Up to 30' x 30' (9.1 x 9.1m)	757-3A 30 cd @ 105 mA
Up to 50' x 50' (15.2 x 15.2m)	757-8A 110 cd @ 219 mA
Corridors	Wall Mounted - EST Model:
Any Length x Max. 20' (6.1m) Wide	757-5A or 757-7A* spaced @ 100' (30.5 m) never exceeding 15' (4.5 m) from end wall

* Model 757-7A is rated at 15 cd (wall or ceiling mount) per UL1971, and 75 cd UL1638.

Non-Sleeping Rooms and Corridors: EST strobes rated at less than 110 cd per UL1971 are intended for use in non-sleeping areas only. Install them 80 inches (2.03 m) above floor level **OR** within the space between six inches (150 mm) to 24 inches (610 mm) below the ceiling, whichever is lower. No point in any space (including corridors) required to have strobes shall be more than 50 ft (15.2 m) from the signal (in the horizontal plane). The 110 cd strobe should be used in non-sleeping areas only when the room exceeds 40' x 40' (12.2 m x

12.2 m). In large rooms or spaces (such as auditoriums) that exceed 100 ft (30.4 m) across and without obstructions more than 72 inches (1.8 m) above the finished floor, strobes may be placed around the perimeter, spaced a maximum of 100 ft (30.4 m) apart, in lieu of suspending them from the ceiling.

Sleeping Rooms: EST model 757-8A is rated at 110 cd. It is intended for use in sleeping rooms and should be installed along with a smoke detector. It must be wall mounted at least 80 inches (2.03 m) above floor level, but no closer than 24 inches (610 mm) to the ceiling. The distance from the strobe to the pillow must not exceed 16 ft (4.8 m).

Sleeping Rooms	Use ONE Wall Mounted - EST Model:
Any Size	757-8A 110 cd @ 219 mA

Application Notes - USA

In any case, audible signals cannot have a sound level less than 75 dBA at 10 ft (3m) per NFPA 72 and cannot exceed 120 dBA per ADA (130 dBA per NFPA 72) at the minimum hearing distance to audible appliance. Audible signals shall be installed with the top of the device above the floor not less than 90 inches (2.3 m) and below the finished ceilings at least six inches (150 mm) (per NFPA 72).

Strobes must be used to supplement audible signals wherever the average ambient sound level exceeds 105 dBA. Combination Audible/Visible signals must be installed per NFPA guidelines established for strobes.

ADA suggests that the following areas may require Visual Alarm Signals:

- rest rooms, meeting rooms, and other general usage areas.
- lobbies, hallways, and other common use areas.
- sleeping rooms intended for use by persons with hearing impairments.
- work areas used by a person with a hearing impairment (per Title 1 of ADA).

Application Notes - CANADA

(Based in part on 1995 Canada National Building Code)

The fire alarm signal sound pressure level shall not exceed 110 dBA in any normally occupied area. The sound pressure level from an audible signal in a floor area used for occupancies other than residential occupancies shall be not less than 10 dBA above the ambient noise, and never less than 65 dBA. The sound pressure level in sleeping rooms from an audible signal shall not be less than 75 dBA when any intervening doors between the device and the sleeping room are closed. Audible signal devices shall be installed not less than 1.8 m to the center of the device above the floor (per CAN/ULC S524).

The fire alarm audible signal shall be supplemented by fire alarm strobes in any floor area where the ambient noise level exceeds 87 dBA, or where the occupants of the floor area use ear protective devices, are located within an audiometric booth, or are located within sound insulating enclosures. This also applies to assembly occupancies in which music and other sounds associated with performances could exceed 100 dBA.

Strobes shall be installed in a building so that the flash from not less than one device is visible throughout the floor area or portion thereof in which they are installed. For maximum safety, EST recommends that strobes be installed as per the guidelines shown here under Strobe Application.

Specifications

Standalone Synchronization Characteristics (note 5)	Strobe flash at 1 per second within 200 milliseconds on common circuit Horn pulses at temporal rate within 200 milliseconds on common circuit			
Operating Volts	Strobe: 20-24 Vdc Continuous; Horn: 20-31 Vdc Continuous			
Horn Output (note 1)	Anechoic: High Setting - 104 dBA (peak)/98 dBA (avg); Low Setting - 99 dBA (peak)/94 dBA (avg) Reverberent: High Setting - 85 dBA (continuous)/82 dBA (temporal); Low Setting - 82 dBA (continuous)/75 dBA (temporal)			
Horn Current	High Output: 40 mA @ 24 Vdc; 55mA @ 24 Vrms FWR; Low Output: 20 mA @ 24 Vdc; 28 mA @ 24 Vrms FWR			
Rated Strobe Output - candela (cd)	757-5A-	757-7A-	757-3A-	757-8A-
UL 1971	15 cd wall mount only	15 cd wall 15 cd ceiling	30 cd wall 15 cd ceiling	110 cd wall 60 cd ceiling
UL 1638	not UL 1638 rated	75 cd	30 cd	120 cd
ULC S526	15 cd	75 cd	30 cd	120 cd
Average Strobe Current (note 2)	24Vdc: 70mA 20Vdc: 80mA	24Vdc: 105mA 20Vdc: 125mA	24Vdc: 105mA 20Vdc: 125mA	24Vdc: 219mA 20Vdc: 272mA
Peak Strobe Current (note 2)	20Vdc: 208mA	20Vdc: 208mA	20Vdc: 208mA	20Vdc: 352mA
Average Strobe Current (note 3)	24Vdc: 84mA 20Vdc: 99mA	24Vdc: 168mA 20Vdc: 204mA	24Vdc: 168mA 20Vdc: 204mA	24Vdc: 325mA 20Vdc: 355mA
Peak Strobe Current (note 3)	20Vdc: 360mA	20Vdc: 594mA	20Vdc: 594mA	20Vdc: 876mA
Strobe Marking	Supplied with LKW-1 "FIRE" red letters, vertical both sides (Wall Mount) - see LKW and LKC series for ceiling style and optional markings.			
Flash Tube Enclosure	Clear LEXAN with white marking sleeve			
Housing	Textured, color impregnated engineered plastics - exceeds 94V-0 UL flammability rating			
Wire Connections	Terminals - separate, polarized inputs for Horn & Strobe, #12 AWG (2.5mm ²) maximum			
INDOOR Operating Environment	93% @ 40°C relative humidity; 32-120°F (0-49°C) ambient temperature			
OUTDOOR Operating Environment (must use weatherproof box)	98% @ 40°C relative humidity; -35-150°F (-31-66°C) ambient temperature (757-7A: rated at 50 cd @ -35°C per UL/@ -40°C per ULC) (757-8A: rated at 100 cd @ -35°C per UL/@ -40°C per ULC)			
Mounting - INDOOR	Flush: North-American 2-gang box, 3" high x 4" wide x 2 3/4" (69 mm) minimum Surface: 757A-SB Back box Bi-directional: 757A-BDF Mounting Frame			
Mounting - OUTDOOR	Surface: 757A-WB Weatherproof Box			
Agency Listings	UL 1971, UL 1638, UL 464, ULC S526, ULC S525, MEA, CSFM, FM, CE (All models comply with ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule)			

Note 1 - Measured at 10 ft (3m) @ 24 Vdc. Subtract 3 dBA for models with strobes

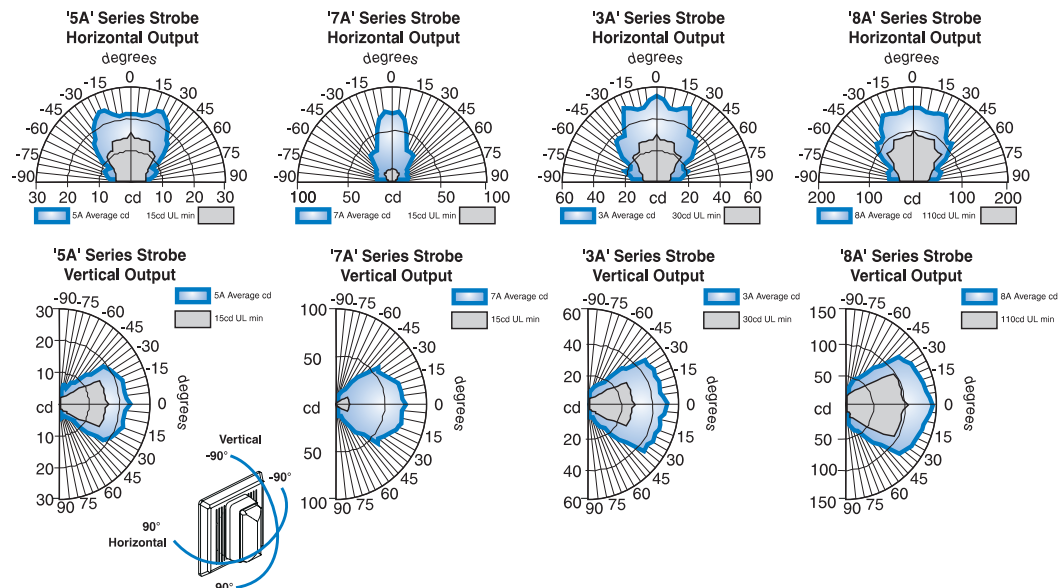
Note 2 - Connected to FILTERED dc source.

Note 3 - Connected to UNFILTERED (Full Wave Rectified) dc source.

Note 4 - Use the average current rating to establish the maximum number of strobes, wire gauge and standby power requirements.

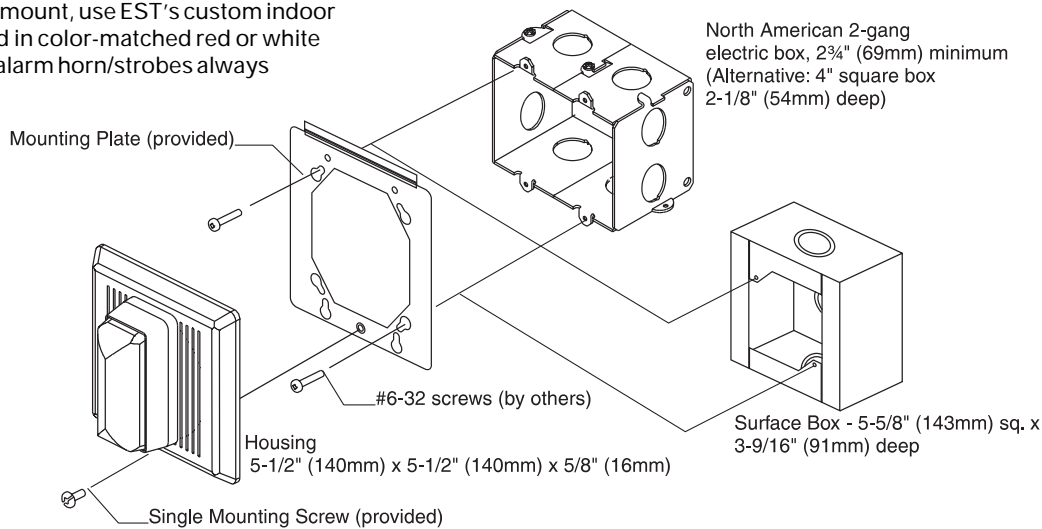
Note 5 - Temporal audible pattern is defined as: 1/2 sec ON, 1/2 sec OFF, 1/2 sec ON, 1/2 sec OFF, 1/2 sec ON, 1 1/2 sec OFF, then repeat cycle.

Light Output Patterns



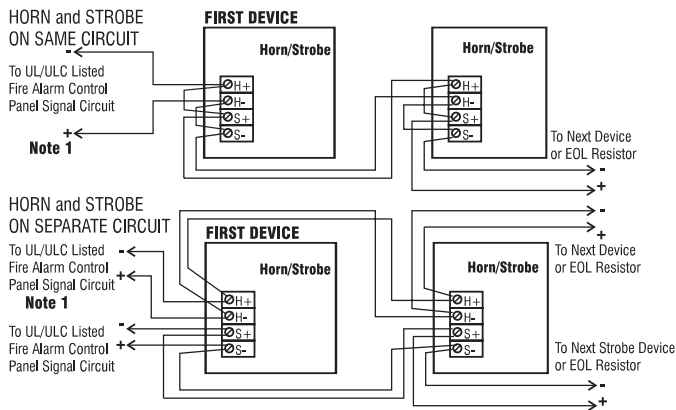
Installation and Mounting

All models fit to a standard flush mounted, North-American two-gang electrical box, 2¾ inch (69 mm) minimum. Optional flush trims are not required. For surface mount, use EST's custom indoor and outdoor surface boxes painted in color-matched red or white epoxy. EST recommends that fire alarm horn/strobes always be installed in accordance with the latest recognized edition of national and local fire alarm codes.



Typical Wiring

The strobe must be connected to signal circuits which output a constant (not pulsed) voltage. The horn can be connected to continuous voltage circuits.



Note 1: Polarity of Signal Circuit is shown in supervisory state. Polarity reverses in alarm condition.

WARNING: These devices will not operate without electrical power. As fires frequently cause power interruptions, we suggest you discuss further safeguards with your local fire protection specialist. These visual signal appliances' flash intensity may not be adequate to alert or waken occupants in the protected area. Research indicates that the intensity of strobe needed to awaken 90% of sleeping persons is approximately 100 cd. EST recommends that strobes in sleeping rooms be 110 cd minimum.

Ordering Information

Catalog Number	Description	Ship Wt. lb. (kg)
Temporal Horns		
757-1A-T*	Temporal Horn, Red	1.7(.8)
Temporal Horn/Strobes		
757-5A-T*	Temporal Horn/Strobe, 15cd, Red	2(.9)
757-7A-T*	Temporal Horn/Strobe, 15/75cd, Red	
757-3A-T*	Temporal Horn/Strobe, 30cd, Red	
757-8A-T*	Temporal Horn/Strobe, 110cd, Red	
Mounting Accessories		
757A-SB*	Surface Box, Red, Indoor	1.5(.7)
757A-WB*	Weatherproof Box, Red, Surface	1.5(.7)
757A-BDF*	Bi-directional Frame, Red	4(1.8)
Lens Marking Kits (see note 1)		
LKW-1	"FIRE", Wall Orientation (supplied)	0.1 (.05)
LKW-1R	"FIRE", Wall Orientation, RED	
LKW-2	"FEU", Wall Orientation	
LKW-3	"FIRE/FEU", Wall Orientation	
LKW-4	"SMOKE", Wall Orientation	
LKW-5	"HALON", Wall Orientation	
LKW-6	"CO2", Wall Orientation	
LKW-7	"EMERGENCY", Wall Orientation	
LKW-8	"ALARM", Wall Orientation	
LKW-9	"FUEGO", Wall Orientation	
* Add Suffix "W" to catalog no. for WHITE. (e.g. 757-7A-TW)		
Note 1 - Change "W" to "C" for CEILING mount. (e.g. LKC-1)		

EDWARDS SYSTEMS TECHNOLOGY

It is our intention to keep the product information current and accurate. We can not cover specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information or questions relative to this Specification Sheet, contact EST.

Strobe

Models: 405-3A, -5A, -6A, -7A -8A

Features

- **Synchronizing strobe**
EST strobes are self-synchronizing; no external control module is required. Synchronized flash from multiple strobes improves the safety for photosensitive people.
- **Satisfies ADA code requirements**
ADA/UL1971/ULC listed strobe is available in five intensities. All models provide the "Equivalent Facilitation" allowed under ADA Accessibility Guidelines. Use single strobe in rooms up to 50 ft x 50 ft and satisfy both ADA and NFPA codes.
- **Superior visibility**
In addition to being UL 1638 and ULC S526 listed as Visual Signal Appliances, EST strobes have a "distributed" light output pattern and are UL 1971 listed as Signaling Devices for the Hearing Impaired.
- **Field changeable markings**
Lens language or standard "FIRE" marking is easily changed with optional LKW and LKC series Lens Kits.
- **Screw terminal wire connection**
Large terminals speed installation and accept up to #12 AWG (2.5mm²) wire.
- **Rugged steel front plate**
Red or white front plate is finished with durable baked epoxy polyester powder-coat finish.
- **Fits four inch square flush box**
Ideal for retrofit and new projects.
- **UL/ULC rated outdoor option**

Description

EST **405 Series Strobes** are especially designed for use with compatible life safety communication and control equipment to alert the hearing impaired. EST strobes are available with 15cd, 15/75 cd, 30cd, 60cd, and 110cd effective flash intensity.

EST strobes are self-synchronized to flash at 1 fps across their full operating voltage range. The strobe operates on any existing two-wire signal circuit. Separately installed "synch control modules" are not required. A very small portion of the population have a condition which may cause them to become disoriented from multiple random flashes of light. This risk is minimized with Integrity's strobe.



Patented

405 Series



The flash from EST strobes can be noticed from almost any position in the room, corridor, or large open space. The light dispersion is controlled with a specially shaped reflector. It directs a minimum of 12 % of rated light output above and below the strobe, and a minimum of 25 % of rated light straight out both sides. EST strobes are UL1971 listed with both wall and ceiling cd intensity ratings (see Specifications). This is useful in areas where the Authority Having Jurisdiction (AHJ) permits ceiling mount strobes.

The 405 series is shipped with standard wall mount style "FIRE" lens markings. Where ceiling mount, other languages, or different lens markings are required, EST offers optional LKW/LKC series Lens Marking Kits. These optional lens markings just "snap on" to the strobe for quick, easy, conversion. Consult EST for availability of special lens languages or markings.

The strobe is designed for 20 to 24 Vdc operation and must be connected to signal circuits which output a constant (not pulsed) voltage. A diode is used to allow full signal circuit supervision and terminals to accept up to #12 AWG (2.5mm²) wire are provided for making polarized connections.

The steel housing/front plate is finished in red or white color. Durable baked epoxy polyester powder-coat paint is used. The 405 series strobes are a part of a full line of ADA/UL 1971/ULC S526 listed fire alarm Audible/Visible signals available from EST. Single-gang mount (202 series) strobes are also available.

EDWARDS SYSTEMS TECHNOLOGY

U.S. SALES: SARASOTA, FL 941-739-4638; FAX 941-727-1214 • CANADA SALES: OWEN SOUND, ON 519-376-2430; FAX 519-376-7258
INTERNATIONAL SALES: 905-270-1711; FAX 905-270-9553 • CORPORATE HEADQUARTERS: CHESHIRE, CT • U.S. MANUFACTURING: PITTSFIELD, ME

Strobe Application

All models are listed to standard **UL 1971 - Signaling Devices for the Hearing Impaired** and **CAN/ULC S526 Standard for Visual Signal Appliances for Fire Alarm Systems**. Each strobe can provide the "Equivalent Facilitation" allowed under **Americans with Disabilities Act Accessibility Guidelines (ADA(AG))**.

These guidelines are based on **ANSI/NFPA 72 National Fire Alarm Code (1993)**. When applied and installed in accordance with that code, EST strobes meet or exceed the illumination produced by the ADA specified 75 candela (cd) strobe at 50 ft. **However, optimum performance is obtained by providing "Equivalent Facilitation" as allowed by the Americans with Disabilities Act Accessibility Guidelines [ADA(AG)]**. Contact EST for exact spacing requirements.

Non-Sleeping Rooms	Use ONE Wall Mounted - EST Model:
Up to 20' x 20' (6.1 m x 6.1 m)	405-5A 15 cd @ 70mA or 405-7A* 15/75 cd @ 105 mA
Up to 30' x 30' (9.1 m x 9.1 m)	405-3A 30 cd @ 105mA
Up to 40' x 40' (12.2 m x 12.2 m)	405-6A 60 cd @ 155mA
Up to 50' x 50' (15.2 m x 15.2 m)	405-8A 110 cd @ 219mA
Corridors	Wall Mounted - EST Model:
Any Length x Max. 20' (6.1m) Wide	405-5A or 405-7A* spaced @ 100' (30.5m) never exceeding 15' (4.5m) from end wall

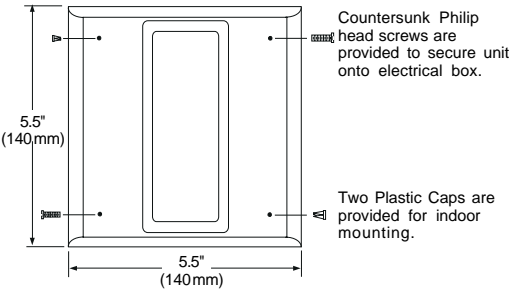
* Model 405-7A is rated at 15 cd (wall or ceiling mount) per UL1971, and 75 cd per UL 1638.

Non-Sleeping Rooms and Corridors: EST strobes rated at less than 110 cd per UL1971 are intended for use in non-sleeping areas only. Install them 80 inches (2.03m) above floor level OR within the space between six inches (150mm) to 24 inches (610mm) below the ceiling, whichever is lower. No point in any space (including corridors) required to have strobes shall be more than 50 ft (15.2m) from the signal (in the horizontal plane). The 110 cd strobe should be used in non-sleeping areas only when the room exceeds 40 ft X 40 ft (12.2m X 12.2m).

In large rooms or spaces (such as auditoriums) that exceed 100 ft (30.4m) across and without obstructions more than 72 inches (1.8m) above the finished floor, strobes may be placed around the perimeter, spaced a maximum of 100 inches (30.4m) apart, in lieu of suspending them from the ceiling.

Installation and Mounting

All models fit to a standard flush mounted, North American four inch electrical box, 1-1/2 inch (38 mm) deep minimum. Optional EST weatherproof, surface mount boxes are available. The strobes must be connected to signal circuits which output a constant (not pulsed) voltage. EST recommends that these strobes always be installed in accordance with the latest recognized edition of national and local fire alarm codes.



Sleeping rooms: EST model 405-8A is rated at 110 cd. It is intended for use in sleeping rooms and should be installed along with a smoke detector. It must be wall mounted at least 80 inches (2.03m) above floor level, but no closer than 24 inches (610mm) to the ceiling. The distance from the strobe to the pillow must not exceed 16 ft (4.8m).

Sleeping Rooms	Use ONE Wall Mounted - EST Model:
Any size	405-8A 110 cd @ 219mA

Application Notes — USA

Strobes must be used to supplement audible signals wherever the average ambient sound level exceeds 105 dBA. Combination Audible/Visible signals must be installed per NFPA guidelines established for strobes.

ADA suggests the following areas may require Visual Alarm Signals:

- rest rooms, meeting rooms, and other general usage areas.
- lobbies, hallways, and other common use areas.
- sleeping rooms intended for use by persons with hearing impairment (per Title 1 of ADA).
- work areas used by a person with a hearing impairment (per Title 1 of ADA).

Application Notes — CANADA

(Based in part on 1995 Canada National Building Code)

The fire alarm audible signal shall be supplemented by fire alarm strobes in any floor area where the ambient noise level exceeds 87 dBA, or where the occupants of the floor area use ear protective devices, are located within an audiometric booth, or are located within sound insulating enclosures. This also applies to assembly occupancies in which music and other sounds associated with performances could exceed 100 dBA.

Strobes shall be installed in a building so that the flash from not less than one device is visible throughout the floor area or portion thereof in which they are installed. For maximum safety, EST recommends that strobes be installed as per the guidelines shown here under Strobe Application.

Specifications

Catalog Number	405-5A-*	405-7A-*	405-3A-*	405-6A-*	405-8A-*
UL 1971 Rated Strobe Output - candela (cd)	15cd (wall only)	15cd (wall or ceiling)	30cd (wall) 15cd (ceiling)	60cd (wall) 30cd (ceiling)	110cd (wall) 60cd (ceiling)
UL 1638/ULC S526 Rated Strobe Output	15cd (not UL 1638)	75cd	30cd	60cd	120cd
Average Operating Current (note 2)	70mA @ 24 Vdc 80mA @ 20 Vdc	105mA @ 24 Vdc 125mA @ 20 Vdc	105mA @ 24 Vdc 125mA @ 20 Vdc	155mA @ 24 Vdc 185mA @ 20 Vdc	219mA @ 24 Vdc 272mA @ 20 Vdc
Peak Operating Current (note 2)	208mA @ 20 Vdc	208mA @ 20 Vdc	208mA @ 20 Vdc	265mA @ 20 Vdc	352mA @ 20 Vdc
Average Operating Current (note 3)	84mA @ 24 Vdc 99mA @ 20 Vdc	168mA @ 24 Vdc 204mA @ 20 Vdc	168mA @ 24 Vdc 204mA @ 20 Vdc	219mA @ 24 Vdc 282mA @ 20 Vdc	325mA @ 24 Vdc 355mA @ 20 Vdc
Peak Operating Current (note 3)	360mA @ 20 Vdc	594mA @ 20 Vdc	594mA @ 20 Vdc	723mA @ 20 Vdc	876mA @ 20 Vdc
Strobe Flash Rate	Synchronized at one flash per second (no external control module required)				
Strobe Operating Volts	20 to 24 Vdc (Continuous)				
Operating Environment	INDOOR: 85% @ 30°C RH; 32-120°F (0-49°C) ambient temperature OUTDOOR ('CS' models only): 93% @ 30°C RH; -40-150°F (-40-66°C) ambient temp '7A' (50cd @ -35°C per UL @ -40°C per ULC) and '8A' (100cd @ -35°C per UL @ -40°C per ULC) models only				
Lens Markings	Supplied with LKW-1 "FIRE" red letters, vertical both sides (Wall Mount) - see LKW and LKC series for ceiling style and optional markings				
Wire Connections	Terminals - polarized input, #12 AWG (2.5mm²) max wire size				
Flash Tube Enclosure	Clear LEXAN				
Strobe Plate, Finish	CRS steel - 5½ in (140mm) square, red or white baked epoxy polyester powder-coat finish				
Mounting	INDOOR: North American 4 in square electrical box; OUTDOOR: EST 449 series weatherproof surface box				
Agency Listings	UL 1971, UL 1638, ULC S526, FM, CE, CSFM, MEA (All models comply w/ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule)				

*Suffix "-T" for RED front plate, "-TW" for WHITE front plate.

Note 1: Use the average current rating to establish the maximum number of strobes, wire gauge, and standby power requirements.

Note 2: From a FILTERED dc source.

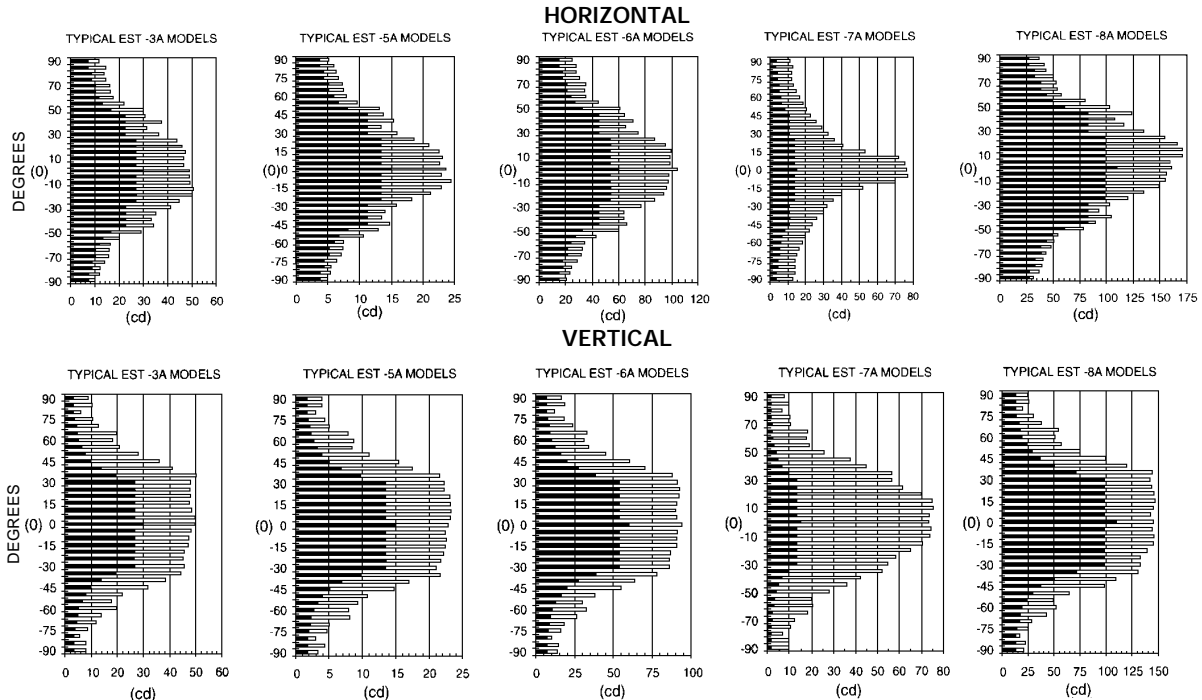
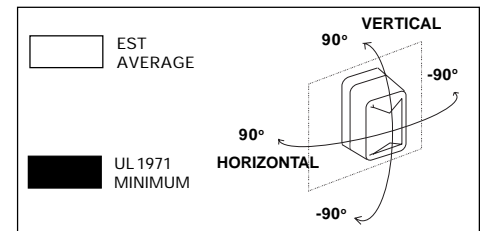
Note 3: From an UNFILTERED (Full Wave Rectified) dc source.

UL 1971 WALL MOUNTED STROBE LIGHT OUTPUT DISTRIBUTION PATTERNS

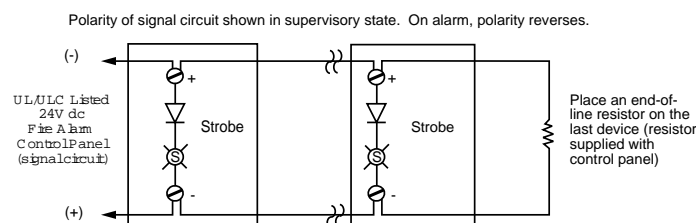
SOURCE: UL STANDARD 1971 - SIGNALING DEVICES FOR THE HEARING IMPAIRED

SOURCE: UL STANDARD 1638 - VISUAL SIGNAL APPLIANCES

SOURCE: UL CANADA STANDARD S526 - VISUAL SIGNAL APPLIANCES FOR FIRE ALARM SYSTEMS



Typical Wiring - 24 Vdc



WARNING: These devices will not operate without electrical power. As fires frequently cause power interruptions, we suggest you discuss further safeguards with your local fire protection specialist. These visual signal appliances' flash intensity may not be adequate to alert or waken occupants in the protected area. Research indicates that the intensity of strobe needed to awaken 90% of sleeping persons is approximately 100 cd. EST recommends that strobes in sleeping rooms be 110 cd minimum.

Ordering Information - Strobes

Catalog Number	Description	Ship Wt. lb (kg)
405-5A-T	Strobe, 15 cd, Red	1 (0.4)
405-5A-TW	Strobe, 15 cd, White	
405-7A-T	Strobe, 15/75, Red	
405-7A-TW	Strobe, 15/75, White	
CS405-7A-T	Strobe, 15/75, Outdoor, Red	
405-3A-T	Strobe, 30 cd, Red	
405-3A-TW	Strobe, 30 cd, White	
405-6A-T	Strobe, 60 cd, Red	
405-6A-TW	Strobe, 60 cd, White	
405-8A-T	Strobe, 110 cd, Red	
405-8A-TW	Strobe, 110 cd, White	
CS405-8A-T	Strobe, 110 cd, Outdoor, Red	
Mounting Accessories		
449	Surface Mount Box, Outdoor, Gray (for 'CS' models only)	1 (0.4)

Ordering Information - Lens Marking Kits

Cat No.	Description	Ship Wt. lb (kg)
LKW-1	"FIRE" - Wall Orientation (supplied)	0.2 (0.1)
LKW-1R	"FIRE" - Wall Orientation, red w/white letters	
LKW-2	"FEU" - Wall Orientation	
LKW-3	"FIRE/FEU" - Wall Orientation	
LKW-4	"SMOKE" - Wall Orientation	
LKW-5	"HALON" - Wall Orientation	
LKW-6	"CO2" - Wall Orientation	
LKW-7	"EMERGENCY" - Wall Orientation	
LKW-8	"ALARM" - Wall Orientation	
LKW-9	"FUEGO" - Wall Orientation	
LKC-1	"FIRE" - Ceiling Orientation	
LKC-2	"FEU" - Ceiling Orientation	
LKC-3	"FIRE/FEU" - Ceiling Orientation	
LKC-4	"SMOKE" - Ceiling Orientation	
LKC-5	"HALON" - Ceiling Orientation	
LKC-6	"CO2" - Ceiling Orientation	
LKC-7	"EMERGENCY" - Ceiling Orientation	
LKC-8	"ALARM" - Ceiling Orientation	

EDWARDS SYSTEMS TECHNOLOGY

It is our intention to keep the product information current and accurate. We can not cover specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information or questions relative to this Specification Sheet, contact EST.