

INSTALLATION INSTRUCTIONS
WHEELOCK ELUXA CHIME AND CHIME STROBES
WITH PRE-WIRE/PRE-TEST (CEILING MOUNT)

Use this product according to this instruction manual. Please keep this instruction manual for future reference.

GENERAL:

The Wheelock Eluxa series ELCHC Chime and ELCHSC Chime-Strobe appliances are designed for easy installation with a pre-wire capable mounting plate. All models are for 24V operation. Series ELCHC/ELCHSC Eluxa Chime is UL Listed for indoor fire protection service under Standard UL464 for Private Mode Audible Signal Appliances as well as ULC-S525-2016 (Audible Signaling Devices for Fire Alarm and Signaling Systems). The Eluxa Chime is designed for low current draw and versatile performance. The Eluxa Chime offers a choice of 1Hz, 2Hz, coded, or temporal code 3 (T3) operation. It has an adjustable sound level, and operates at a frequency of 890Hz. The Low Profile design incorporates a high efficiency speaker for maximum output at minimum power, and features a sealed back construction for extra protection and improved audibility. These models are listed for indoor use, ceiling mount with the backboxes specified in these instructions (see mounting options). Model ELCHC (non-strobe) may be wall or ceiling mounted.

The Wheelock Eluxa Series meets NFPA 2016 20 millisecond light pulse duration code requirements. In addition, the Wheelock Eluxa and LED3 product lines have been UL/ULC listed as compatible with all Fire Alarm Control Panels (FACP) and accessories that have been determined to be compatible with Wheelock model RSS Strobe based products including the RSS, CH, E, EH, ET, ST, HS, MT, S8, SA, STH and Z Series. The maximum number of Eluxa devices per NAC is determined by dividing the maximum current rating of the FACP NAC by the total current rating of one Eluxa device, with a maximum of 105 Eluxa (or LED3) devices per NAC. Refer to FACP installation instructions for more detail. The Wheelock Eluxa Series and Exceder LED3 Series strobes may be installed in the same notification zone and field of view with any RSS Strobe based product.

Wheelock Eluxa Strobe can provide a non-synchronized strobe appliance when connected directly to a Fire Alarm Control Panel (FACP), or provide a synchronized strobe appliance when used in conjunction with an FACP that incorporates the Wheelock Sync Protocol, a Dual Sync Module (DSM) or a Wheelock Power Supply.

- ⚠ **CAUTION: Do not change factory applied finishes. "DO NOT PAINT".**
- ⚠ **ATTENTION: Ne pas modifier les finitions appliquées en usine. "NE PAS PEINTURER"**

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO COMPLY WITH ANY OF THE FOLLOWING INSTRUCTIONS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

SPECIFICATIONS:

Table 1: Specifications	
Models	ELCHC (Chime), ELCHSC (Chime-Strobe)
Agency	Strobe: UL1638, UL1971, CAN/ULC-S526-16 Sounder: UL464, CAN/ULC-S525-16
Input Voltage	DC or FWR, 24V Regulated, 16 to 33V (All models)
Chime Patterns	1Hz, 2Hz, Coded, T3 (field selectable, Table 4)
Strobe Light Output	Strobe: 15, 30, 75, 110, 150, 177cd (field selectable)
NAC Characteristics	Max. line resistance: 35Ω
Environmental	Indoor Use Only, 0° C - 50° C (32° F - 122° F) 93% R.H.

Table 2A: Eluxa Chime – Current and Sound Pressure Level Ratings						
UL/ULC Voltage	Maximum RMS Current (Amps)	Reverberant dBA at 10Ft per UL464 for Private Mode		Anechoic dBA at 10 Ft per CAN/ULC-S525-16 for Dwelling Use Only		
		Min	Max	Min	Max	
DC 16.0 – 33.0 Vdc	0.022	51	68	61	78	
FWR 16.0 – 33.0 Vrms	0.022	51	68	61	78	

Table 2B: Directional Characteristics	
-3dB	+/- 90 Degrees Horizontal, +/- 90 Degrees Vertical (does not reach 3dB)
-6dB	+/- 90 Degrees Horizontal, +/- 90 Degrees Vertical (does not reach 6dB)

Table 3: ELCHSC Strobe Current Ratings (AMPS) **						
Candela Setting	Regulated 24DC (16-33VDC)			Regulated 24FWR (16-33VRMS)		
	DC	0.022	0.030	0.060	0.086	0.125
FWR	0.036	0.050	0.092	0.142	0.196	0.274

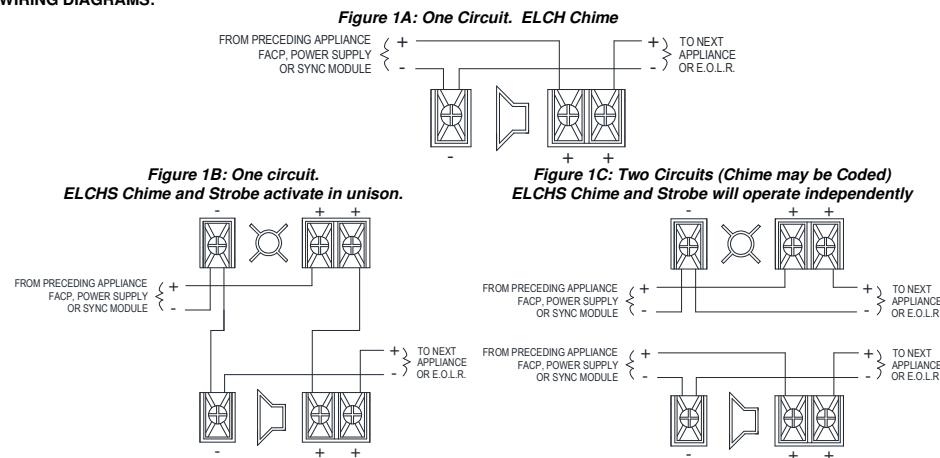
** Setting will determine the current draw of the product.

When calculating the total currents: Use Table 2A and Table 3 to determine the highest value of "RMS Current" for an individual appliance, then multiply these values by the total number of appliances; be sure to add the currents for any other appliances powered by the same source and include any required safety factors.

Make sure that the total RMS current required by all appliances that are connected to the system's PRIMARY and SECONDARY power sources, NAC circuits, DSM Sync Modules or Wheelock Power Supplies does not exceed the power sources' rated capacity or the current ratings of any fuses on the circuits to which these appliances are wired.

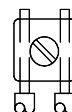
Check the minimum and maximum output of the power supply and standby battery, and subtract the voltage drop from the circuit wiring resistance to determine the applied voltage to the appliance.

WIRING DIAGRAMS:



*Refer to Dual Sync Module instruction sheets DSM (P83177) or Wheelock's Power Supplies for additional information.

Figure 2:



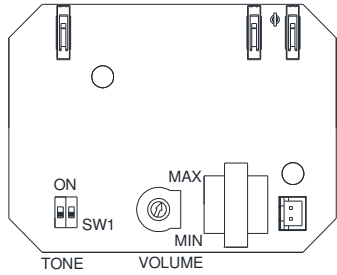
1. This model has in-out wiring terminals that accept two #12 to #18 American Wire Gauge (AWG) wires at each screw terminal. Strip leads 3/8 inches and connect to screw terminals.
2. Break all in-out wire runs on supervised circuits to assure integrity of circuit supervision as shown in Figure 2. The polarity shown in the wiring diagrams is for operation of the appliances. The polarity is reversed by the FACP during supervision.

NOTES:

1. The strobe will produce 1 flash per second over the "Regulated Voltage" range.
2. Strobe is not designed to be used on coded systems in which the applied voltage is cycled on and off.
3. The maximum number of Eluxa or LED3 strobes on a single notification appliance circuit shall not exceed 105.
4. These appliances are UL Listed as "Regulated". They are intended to be used with FACPs whose notification circuits are UL Listed as "Regulated." Refer to the FACP instructions or the Wheelock Strobe Compatibility Data Sheet (P85328) for special application and strobe synchronization compatibility.
5. These appliances were tested to the regulated voltage limits of 16.0-33.0 Volts. Do not apply voltage outside of this range. Check the minimum and maximum output of the power supply and standby battery and subtract the voltage drop from the circuit wiring resistance to determine the applied voltage to the strobes. The max wire impedance between strobes shall not exceed 35 ohms.
6. Make sure that the total RMS current required by all appliances that are connected to the system's primary and secondary power sources, notification appliance circuits, DSM sync modules, or Wheelock power supplies does not exceed the power sources rated capacity or the current ratings of any fuses on the circuits to which these appliances are wired.
7. The Code 3 temporal pattern (1/2 second on, 1/2 second off, 1/2 second on, 1/2 second off, 1/2 second on, 1-1/2 off and repeat) is specified by ANSI and NFPA 72 for standard emergency evacuation signaling. Code 3 shall be used only for fire evacuation signaling and not for any other purpose.
8. The effect of shipping and storage temperatures shall not adversely affect the performance of the appliance when it is stored in the original cartons and not subjected to misuse or abuse.

SETTINGS:

Figure 3A: Chime Setting



DIP Position		MODE	Circuits Required
1	2		
OFF	OFF	2Hz	One or Two
OFF	ON	T3 (Code 3)	One or Two
ON	OFF	1Hz	One or Two
ON	ON	Coded	Two

Factory setting is T3 (Code 3) with Volume at Maximum. Tone may be changed with the DIP switch, SW1. Refer to Figure 3 for location of SW1 and Volume Control.

Synchronized Mode Settings: The chime will produce temporal Code 3 (T3) "Chime Tone" on 1Hz, 2Hz (and T3) settings. Coded setting is not compatible with synchronization, and should not be used.

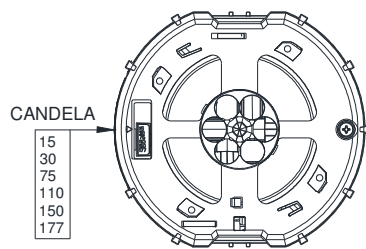
Continuous Mode Settings: T3 (Code 3), 1Hz, and 2Hz: Continuous input voltage must be applied to operate the chime in these modes.

Coded Operating Mode: Set SW1 to "Coded" setting. See Table 4, and Figure 3A. The minimum input pulse duration required is 160 milli-seconds "ON" time, and 160 milli-seconds "OFF" time. The chime will operate once for each input pulse. This mode is recommended for coded systems where voltage is not continuous. Requires two circuits, since strobes are not compatible with Coded Systems.

SETTINGS: To set candela, slide the selector switch to the desired setting. See Figure 3B.

Figure 3B: Candela

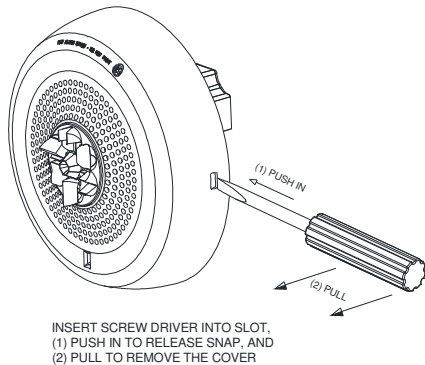
Set from rear. Factory Setting is 15cd.



Strobe device has only one mounting orientation. LED light element should be oriented toward the floor

NFPA 72/ANSI 117.1 provide means for determining equivalent illumination using fewer, higher intensity strobes within the same protected area.

Figure 5: Grille Removal **



INSERT SCREW DRIVER INTO SLOT.
(1) PUSH IN TO RELEASE SNAP, AND
(2) PULL TO REMOVE THE COVER

** Grille removal: 1) Insert Screwdriver into slot, and push to release snap. 2) Remove the grille.

Figure 4: ELCHSC Light Distribution

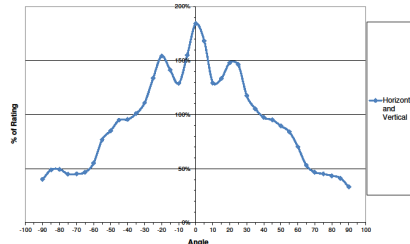
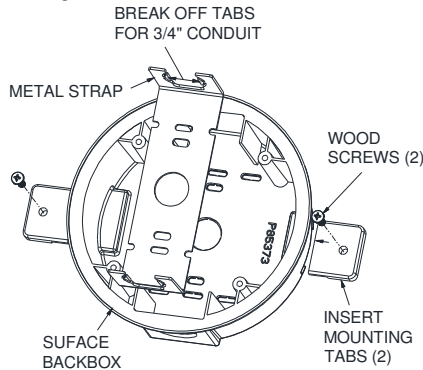


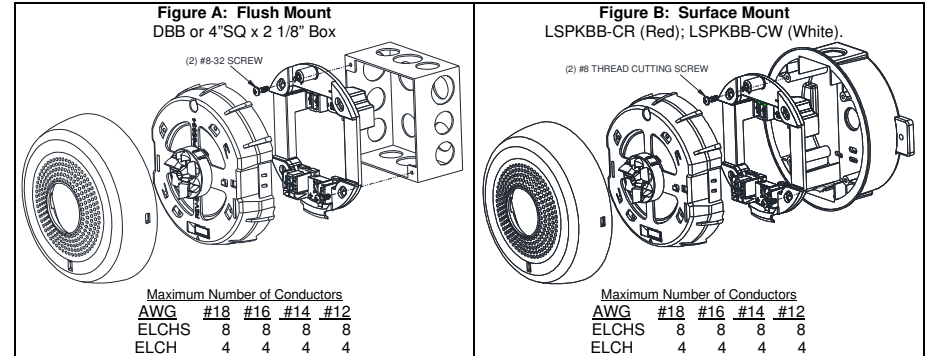
Figure 6: Surface BackBox – LSPKBB-C



MOUNTING OPTIONS:

The following figures (A and B) show the maximum number of field wires (conductors) that can enter the backbox used with each mounting option. If these limits are exceeded, there may be insufficient space in the backbox to accommodate the field wires and stresses from the wires could damage the product.

Check that the installed product will have sufficient clearance and wiring room prior to installing backboxes and conduit, especially if sheathed multiconductor cable or 3/4" conduit fittings are used.



All installations shall be in accordance with:

- 1) In the United States, the National Electrical Code, NFPA 70, and the National Fire Alarm and Signaling Code, NFPA 72.
- 2) In Canada, CSA C22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Section 32; and the Canadian Standard for the Installation of Fire Alarm Systems - CAN/ULC-S524.

MOUNTING PROCEDURES:

1. Select a mounting option and **install the backbox**. LSPKBB-C requires 6 1/4" spacing for surface mounting. Screws are provided. Conduit entrances to the backbox should be selected to provide sufficient wiring clearance for the installed product. Do not pass additional wires (used for other than the signaling appliance) through the backbox. Such additional wires could result in insufficient wiring space for the signaling appliance.
2. **Install the Mounting Plate** on the backbox. Use 8-32 screws for 4" back-box or hi-lo screws for the LSPKBB-C.
3. **Pre-Wire: Connect field wires to terminals** on mounting plate (reference Figure 1 and 2). Use care and proper techniques to position the field wires in the backbox so that they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires and wires with thick insulation or sheathing. When terminating field wires, do not use more lead length than required. Excess lead length could result in insufficient wiring space for the signaling appliance.
4. **Pre-Test: Mounting Plate contains a SHUNT** between adjacent "+" terminals to facilitate testing before device is attached. Note: Shunt will open permanently when device is installed on mounting plate.
5. **Verify appliance settings** are correct for your application. Settings are shown in Fig. 3A, 3B. Factory settings are T3 (Code 3), 15cd.
6. **Place the Eluxa appliance** over the mounting plate. Engage TOP hook on mounting plate, then secure with screw at the bottom. Use care to prevent speaker cone damage when driving the screw.
7. **Align cover** to the Eluxa appliance with strobe opening over LED lens. Then, **snap the cover** in place.
8. **To remove** the appliance, insert a small flat-bladed screwdriver into the opening 1/2" as shown in Figure 5. Then remove the grille.
9. **Accessories** for Eluxa surface back box (Ceiling): LSPKBB-CR (Red); LSPKBB-CW (White).

Important: Do not fully back out terminal screws. Do not over tighten screws or terminals. Excessive torque may affect operation. When using power tools, ensure the torque is set to the lowest setting available.

NOTE: Final acceptance is subject to Authorities Having Jurisdiction.

Check the installation instructions of the manufacturers of other equipment used in the system for any guidelines or restrictions on wiring and/or locating Notification Appliance Circuits (NAC) and notification appliances. Some system communication circuits and/or audio circuits, for example, may require special precautions to assure immunity from electrical noise (e.g. audio crosstalk).

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. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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