

INSTALLATION INSTRUCTIONS
SERIES ASWP AUDIBLE STROBE WEATHERPROOF
APPLIANCE (WALL/CEILING MOUNT VERSION)

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

GENERAL

Series ASWP appliance is the industry's first 2-wire horn strobe alarm appliance that provides a selectable continuous or Code 3 horn tone and continuous strobe when connected directly to the Fire Alarm Control Panel (FACP), or provides a synchronized Code 3 horn tone and synchronized strobe when used in conjunction with a Sync Module (SM), Dual Sync Module (DSM) or Cooper Wheelock's power supplies. Additionally, Cooper Wheelock's Multi-High-Candela (ASWP-24MCWH and ASWP-24MCCH) appliances provide two selectable settings (135/185 or 115/177, respectively). The ASWP Appliances are UL-Listed under Standard 464 for Audible Signal Appliances and Standard 1638 for Visual Signaling Appliances - Private Mode Use. All ASWP models are suitable for outdoor use. For outdoor application the ASWP must be mounted to the Weatherproof Backbox (WPBB). All ASWP models are UL-Listed to Standard 1971 for Signaling Devices for the Hearing Impaired when installed indoors. These appliances are also ULC Listed under Standard CAN/ULC-S526-07 for Visual Signaling Appliances and Standard CAN/ULC-S525-07 for Audible Signaling Appliances. The ASWP uses a Xenon flashtube with solid state circuitry enclosed in a polycarbonate lens to provide maximum visibility and reliability for effective visible signaling.

The ASWP appliance can be field set to provide high (HI) dBA, medium (MED) dBA or low (LO) dBA sound output.

The strobe is designed for use with either filtered DC (VDC) or unfiltered full-wave-rectified (FWR) input voltage. All inputs are polarized for compatibility with standard reverse polarity supervision of circuit wiring by a FACP.

NOTE: 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. **The Code 3 Horn should be used only for fire evacuation signaling and not for any other purpose.**

NOTE: All Canadian installations should be in accordance with the Canadian Standard for the Installation of Fire Alarm Systems, CAN/ULC-S524 and the Canadian Electrical Code, Part 1. Final acceptance is subject to Authorities Having Jurisdiction (AHJ).

WARNING: Please read these instructions carefully before using this product. Failure to comply with any of the following instructions, cautions and warnings 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.

CAUTION: Not recommended for use at refrigerator/freezer door entrances or other area with persistent condensation.

SPECIFICATIONS

Model	Regulated Voltage (VDC/FWR)	Voltage Range (UL/ULC)	Candela Ratings			
			ULC-S526	UL1971	UL1638 (Note 1)	Cold Ambient (Note 1)
ASWP-2475W	24	16-33	30	30	180	115
ASWP-2475C	24	16-33	15	15	180	115
ASWP-24MCWH	24	16-33	135/185	135/185	135/185	86/118
ASWP-24MCCH	24	16-33	115/177	115/177	115/177	73/113

Model	Maximum RMS Current w/Hi dBA (Amps)		Maximum RMS Current w/Med dBA (Amps)		Maximum RMS Current w/Low dBA (Amps)	
	DC	FWR	DC	FWR	DC	FWR
ASWP-2475W	0.168	0.235	0.155	0.225	0.150	0.220
ASWP-2475C	0.168	0.235	0.155	0.225	0.150	0.220
ASWP-24MCCH	0.355/0.480	0.515/0.700	0.340/0.465	0.480/0.675	0.335/0.470	0.460/0.665
ASWP-24MCWH	0.335/0.460	0.470/0.665	0.340/0.465	0.480/0.675	0.335/0.470	0.460/0.665

1. Note 1. UL1638 is an on axis rating where the following applies: **WARNING: not to be used as a visual public model alarm notification appliance. Use UL1971 and ULC-S526 ratings for all public mode applications.**

Description	Volume	Reverberant Per UL 464			Anechoic dBA Per CAN/ULC-S525-07		
		16.0VDC	24.0VDC	33.0VDC	16.0VDC	24.0VDC	33.0VDC
Continuous Horn	Low	80	83	86	86	90	91
	Medium	85	88	91	91	95	97
	High	88	91	93	95	99	100
Code 3 Horn	Low	75	79	82	86	90	91
	Medium	80	84	86	91	95	97
	High	84	87	90	95	99	100

Horizontal Axis	Angle (Reference 90 degrees)	SPL - 101dB
	136 degrees	98dB
	145 degrees	95dB
	180 degrees	90dB
Vertical Axis	Angle (Reference 90 degrees)	SPL - 102dB
	113 degrees	99dB
	120 degrees	96dB
	180 degrees	91dB

NOTES

- Strobe produces 1 flash per second over the Regulated Voltage range.
- These models meet the required light distribution patterns defined in UL1638, ULC S526-07 and UL 1971.
- All models are listed for indoor and outdoor use. UL 1971 is tested from a temperature range of 32°F to 120°F (0°C to 49°C). UL 1638 is tested from a temperature range of -40°F to +150°F (-40°C to +66°C) with a maximum humidity of 98%± 2% RH. The effect of shipping and storage temperatures shall not adversely affect the performance of the appliances when it is stored in the original cartons and is not subjected to misuse or abuse.

CAUTION: Strobes are not designed to be used on coded systems in which the applied voltage is cycled on and off.

When calculating the total current: Use Table 1A to determine the highest value of RMS Current for an individual ASWP Appliance then multiply the value by the total number of ASWP Appliances. Add the currents for any other appliances powered by the same source and include any required safety factors.

NOTE: The maximum number of strobes on a single notification appliance circuit shall not exceed 50.

WARNING: Candela setting will determine the current draw of the product.

WARNING: These appliances were tested to the regulated voltage limits of 16-33 Volts for 24V models using filtered DC or unfiltered full-wave-rectified voltage. Do not apply voltage outside of this range.

WARNING: 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 maximum wire impedance between strobes shall not exceed 35 ohms.

WARNING: 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, SM, DSM sync modules, or Cooper Wheelock's 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. Overloading power sources or exceeding fuse ratings could result in loss of power and failure to alert occupants during an emergency, which could result in property damage and serious injury or death to you and/or others.

CANDELA AND SOUND OUTPUT (SPL) SETTINGS

To set the candela, slide the switch to the desired setting. The setting in indicated by the pointer and label visible on the bottom of the lens.

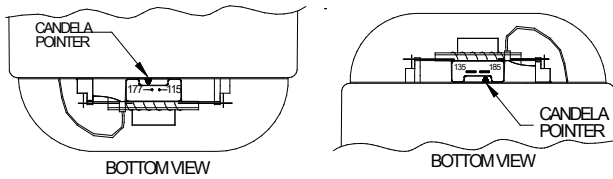


Figure 1

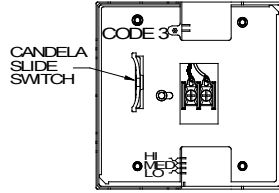


Figure 2: Showing Location of the Jumper Plug

Factory setting is on medium dB and Code 3. ASWP-MCWH comes preset at 185cd. ASWP-MCCH comes preset at 177cd.

WARNING: The candela select switch must be field set to the required candela intensity before installation. When changing the setting of the candela select switch, make certain it clicks in place. After changing the candela setting, the appliance must be retested to verify proper operation. Improper setting of the candela select switch, may result in operation at the wrong candela, which could result in property damage and serious injury or death to you and/or others.

WARNING: The audible strobe appliances must be field set to the desired tone and dBA sound output level before they are installed. This is done by properly inserting jumper plugs in accordance with these instructions. Incorrect settings will result in improper performance, which could result in property damage and serious injury or death to you and/or others.

(Use needle nose pliers to pull and properly set the jumper plugs). No jumper plug is needed for continuous horn setting. However, it is recommended that the jumper plug be retained in the unit for future use (if needed) as shown in Figure 4.

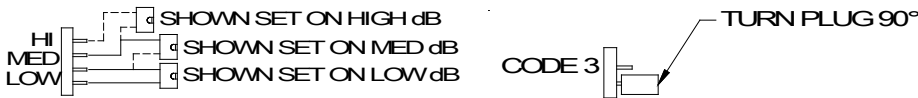


Figure 3: Jumper plug settings for High, Medium, Low and Code 3

Figure 4: Jumper plug setting for Continuous Horn

NOTE: The ASWP must be set for Code 3 when used on synchronized notification appliance circuit (NAC).

LIGHT OUTPUT

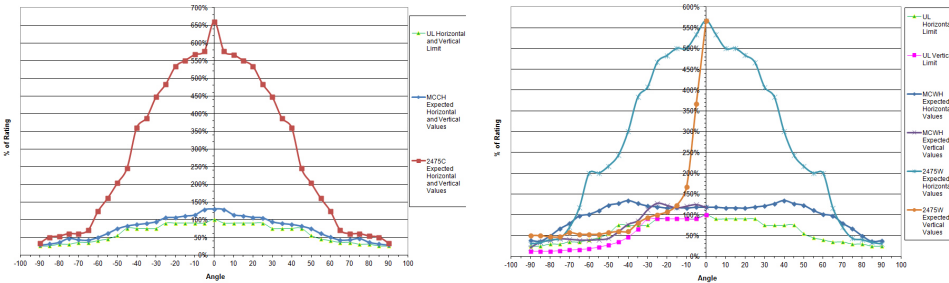


Figure 5: Expected light output for Ceiling (left) and Wall (right) Models

WIRING AND MOUNTING INFORMATION

When the sync module is used, the audible tone will be the **Code 3 sound only**. Refer to Sync Module installation instruction sheets SM (P83123), DSM (P83177) or Wheelock® power supply instructions for additional information.

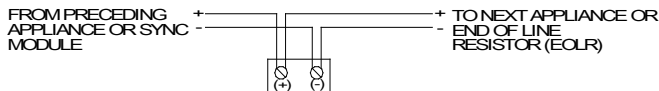


Figure 6

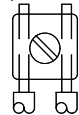


Figure 7

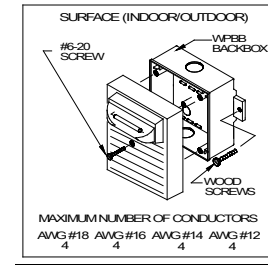
2. The ASWP Appliance has in-out wiring terminals that accepts two #12 to #18 American Wire Gauge (AWG) wires at each screw terminal. Strip leads 3/8 inches for connection to screw terminals.

3. Break all in-out wire runs on supervised circuit supervision as shown in Figure 7. The polarity shown in the wiring diagrams is for the operation of the appliances. The polarity is reversed by the FACP during supervision.

CAUTION: The following figure shows 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 multi-conductor cable is used.

WARNING: If the ASWP housing does not properly contact the gasket on the WPBB backbox, moisture may seep into the ASWP when used in an outdoor application and this could result in improper operation of the product.

Although the limits shown for each mounting option comply with the National Electrical Code (NEC), Cooper Notification recommends use of the largest backbox option shown and the use of approved stranded field wires, whenever possible, to provide additional wiring room for easy installation and minimum stress on the product from wiring.



WARNING: This unit must be mounted on a flat surface, so that the surface covers the entire back surface of the backbox. When used in an outdoor application or a NEMA 3R application, use weatherproof-rated conduit fitting on all knockouts of the backbox.

1. Conduit entrances to the backbox should be selected to provide sufficient wiring clearance for the installed product. The knock-out opening on the backbox is sized for a 1/2" conduit and matching connector. Be sure that a proper watertight conduit fitting is used to connect the backbox for outdoor/severe environment applications. 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. 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.
3. Connect 4 field wires to the ASWP terminal block (polarity must be observed).
4. Bend the 4 field wires up 90° at the connection to the terminal block and carefully push the 4 field wires into the backbox by hand.
5. Carefully press the ASWP to the backbox, verifying that the ASWP is in contact with the gasket all the way around. It should not be resting on the lip of the backbox.
6. Screw the ASWP to the WPBB using the #6-20 screw.

CAUTION: If audible strobe appliances are operated within 15 inches of a person's ear, they can produce a sound pressure level that exceeds the maximum 120dBA permitted by ADA and OSHA rules. Exposure to such sound levels can result in damage to a person's hearing.

WARNING: The ASWP STROBE appliance is a FIRE ALARM DEVICE - DO NOT PAINT.

WARNING: When installing strobes in an open office or other areas containing partitions or other viewing obstructions, special attention should be given to the location of the strobes so that their operating effect can be seen by all intended viewers, with the intensity, number, and type of strobes being sufficient to make sure that the intended viewer is alerted by proper illumination, regardless of the viewer's orientation. Failure to do so could result in property damage and serious injury or death to you and/or others.

WARNING: A small possibility exists that the use of multiple strobes within a person's field of view, under certain circumstances, might induce a photo-sensitive response in persons with epilepsy. Strobe reflections in a glass or mirrored surface might also induce such a response. To minimize this possible hazard, Cooper Notification strongly recommends that the strobes installed should not present a composite flash rate in the field of view, which exceeds five (5) hz at the operating voltage of the strobes. Cooper Notification also strongly recommends that the intensity and composite flash rate of installed strobes comply with levels established by applicable laws, standards, regulations, codes and guidelines.

WARNING: Removal of the printed circuit board cover at the back of the mounting plate could result in severe electric shock.

NOTE: NFPA 72/ANSI 117.1 conform to ADAAG Equivalent Facilitation Guidelines in using fewer, higher intensity strobes within the same protected area.

CAUTION: 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 electrical noise immunity (e.g., audio cross talk).

NOTE: 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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