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**INSTALLATION INSTRUCTIONS
ET-1010 VANDAL RESISTANT SPEAKER**

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

GENERAL:

Wheelock's Series ET-1010 Low Profile Vandal Resistant Speaker is UL Standard 1480 for Speaker Appliances. The speaker is designed for multiple power requirements with high dBA output at each power tap. All models offer a choice of field selectable taps, 1/8W to 8W for either 25.0VRMS or 70.0VRMS audio systems. All models are UL Listed for indoor and outdoor wet with the backboxes specified in these instructions (see Mounting Options).

NOTE: All **CAUTIONS** and **WARNINGS** are identified by the symbol . All warnings are printed in bold capital letters.

⚠ WARNING: PLEASE READ THESE INSTRUCTIONS CAREFULLY. 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.

SPECIFICATIONS:

<i>Table 1: UL Listed Models and Ratings</i>								
Vandal Resistant Models	Speaker Voltage (VRMS)	Speaker dBA at 10 Feet (Rated Watts)						
		1/8	1/4	1/2	1	2	4	8
ET-1010	25/70	77	80	83	86	87	92	94

NOTE: dBA is rated per UL Standard 1480 for Speaker Appliances.

WIRING INFORMATION:

- Field selectable input terminals are provided on each unit. The following wattage selections are available: 1/8W, 1/4W, 1/2W, 1W, 2W, 4W and 8W. Frequency range of speakers is 400-4000Hz.
- A 10µF blocking capacitor for DC supervision of audio lines by the FACP is factory wired in series with the speaker input. The maximum supervision voltage is 33 volts DC.

Figure 1:

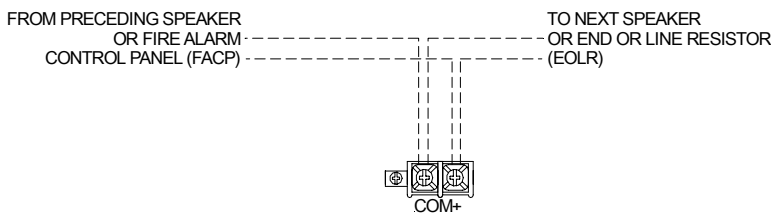
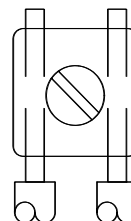


Figure 2:



- Low Profile ET Series Speaker models have 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.
- 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.

⚠ WARNING: THE SPEAKER APPLIANCES MUST BE FIELD SET TO THE DESIRED 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.

Each letter corresponds to a plug position of the header located on the printed circuit board. Select voltage and wattage as shown in Table 2 below.

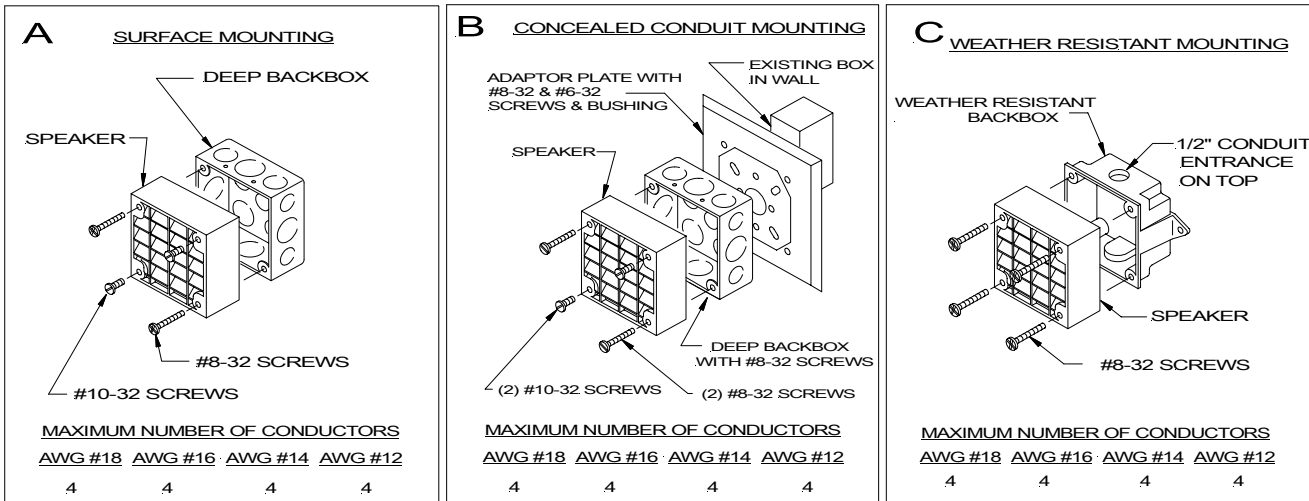
Input	1/8	1/4	1/2	1	2	4	8
25.0VRMS	E	D	C	J	B	-	A
70.7VRMS	F	G	H	E	D	C	J

GROUNDING: Connect ground wire to backbox. Install signaling appliance to backbox using mounting screws provided.

MOUNTING OPTIONS:

⚠ CAUTION: The following figures 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.

Although the limits shown for each mounting option comply with the National Electrical Code (NEC), Wheelock 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.



ET-1010 can be Ceiling or Wall Mounted

MOUNTING PROCEDURES:

⚠ CAUTION: If sheathed multiconductor cable or 3/4" conduit fittings are used, check that installed product has sufficient clearance and wiring room prior to installing backboxes and conduit.

1. For weather resistant installation, use outdoor Mounting Option.
2. Do not exceed +130% of speaker rated voltage per UL 1480. Improper input voltage can damage speaker.

⚠ CAUTION: Always operate audio amplifiers and speakers within their specified ratings. Excessive input may distort sound quality and may damage audio equipment. If distortion is heard, check for clipping of the audio appliance with an oscilloscope and reduce the amplifier input level or gain level to eliminate any clipping.

3. Each doubling of rated Watts increases sound output by 3 dBA. Field selectable input terminals are provided on each unit. The following wattage selections are available: 1/8W, 1/4W, 1/2W, 1W, 2W, 4W, and 8W.
4. All units are compatible with line supervision. Speakers block DC supervision voltage of either polarity.
5. Frequency range of speakers is 400-4000Hz.
6. INPUT TERMINALS: Each input terminal accepts (2) leads for in-out wiring of 12-22 AWG wire. Break wire run to provide electrical supervision. Do not loop wire around screw. Refer to wiring diagram.
7. HARDWARE: All mounting hardware is supplied with the unit. See Mounting Options.
8. Select largest backbox shown in Mounting Options where possible, to provide additional wiring room for easy installation.
9. Conduit entrance to backboxes should be selected to insure sufficient wiring clearance for installed equipment. When extension rings are required, conduit should enter through backbox, not extension ring. Use Steel City #53151 1-1/2" deep or #53171 2-1/8" deep extension rings or equal with same area cut out in back.
10. When using a weather-proof backbox, use threaded conduit entrance only. Do not use knockout entrance.

⚠ CAUTION: Always operate audio amplifiers and speakers within their specified ratings. Excessive input may distort sound quality and may damage audio equipment. Do not exceed +130% of speaker input voltage per UL 1480. Improper input voltage can damage speaker. If distortion is heard, check for clipping of the audio appliance with an oscilloscope and reduce the amplifier input level or gain level to eliminate any clipping.

If this appliance is required to produce a distinctive three-pulse Temporal Pattern Fire Alarm Evacuation Signal (for total evacuation) in accordance with NFPA 72, the appliance must be used with a Fire Alarm Control unit that can generate the temporal pattern signal. Refer to manufacturer's installation manual for details.

⚠ 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 crosstalk).

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IMPORTANT: READ SEPARATE "GENERAL INFORMATION" SHEET FOR INFORMATION ON THE PLACEMENT, LIMITATIONS, INSTALLATION, FINAL CHECKOUT, AND PERIODIC TESTING OF NOTIFICATION APPLIANCES.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) Reorient or relocate the receiving antenna, 2) Increase the separation between the equipment and receiver, 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, and 4) Consult the dealer or an experienced radio/TV technician for help.

Limited Warranty

Wheelock products must be used within their published specifications and must be PROPERLY specified, applied, installed, operated, maintained and operationally tested in accordance with these instructions at the time of installation and at least twice a year or more often and in accordance with local, state and federal codes, regulations and laws. Specification, application, installation, operation, maintenance and testing must be performed by qualified personnel for proper operation in accordance with all of the latest National Fire Protection Association (NFPA), Underwriters' Laboratories (UL), Underwriters' Laboratories of Canada (ULC), National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), local, state, county, province, district, federal and other applicable building and fire standards, guidelines, regulations, laws and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ). Wheelock products when properly specified, applied, installed, operated, maintained and operationally tested as provided above are warranted against mechanical and electrical defects for a period of three years from date of manufacture (as determined by date code). Correction of defects by repair or replacement shall be at Wheelock's sole discretion and shall constitute fulfillment of all obligations under this warranty. THE FOREGOING LIMITED WARRANTY SHALL IMMEDIATELY TERMINATE IN THE EVENT ANY PART NOT FURNISHED BY WHEELOCK IS INSTALLED IN THE PRODUCT. THE FOREGOING LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY SOFTWARE REQUIRED FOR THE OPERATION OF OR INCLUDED IN A PRODUCT. WHEELOCK MAKES NO REPRESENTATION OR WARRANTY OF ANY OTHER KIND, EXPRESS, IMPLIED OR STATUTORY WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER.

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