### **ET Series**

# Low-Profile Speaker and Speaker Strobes



**Audio/Visual Devices** 

### **GENERAL**

Wheelock's high performance Series ET Speakers and Series ET Speaker Strobes provide high audio output, clear audibility, dual voltage (25/70 VRMS) capability and field selectable taps from 1/8 to 8 watts. They are designed to meet the critical needs of the life safety industry for effective emergency voice communications, tone signaling and visible signaling to alert the hearing impaired.

The low profile design incorporates a speaker mounting plate for faster and easier installation. Each model has a built-in level adjustment feature and an aesthetic two (2) screw grille cover.

The Series ET Speaker Strobe models incorporate Low Current draw Series RSS Strobes.

Strobe options for wall mount models include 1575 cd or Wheelock's patented MCW multi-candela strobe with field selectable candela settings of 15/30/75/110cd or the high intensity MCWH strobe with field selectable 135/185cd.

Ceiling mount models are available in Wheelock's patented MCC multi-candela ceiling strobe with field selectable intensities of 15/30/75/95cd or the high intensity MCCH strobe with field selectable 115/177cd.

The strobe portion of all Series ET Strobes may be synchronized when used in conjunction with the Wheelock SM, DSM sync modules or the power supply with patented Wheelock Sync Protocol. Wheelock's synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy.

Series ET70 and ET90 Speaker Strobes are UL Listed for indoor use under Standard 1971 (Signaling Devices for the Hearing Impaired) and Standard 1480 (Speaker Appliances), and use a Xenon flashtube with solid state circuitry enclosed in a rugged Lexan® lens to provide maximum reliability for effective visual signaling. All inputs are supervised and employ IN/OUT wiring terminals for fast installation using #12 to #18 AWG wiring.

Color options for Series ET speakers and speaker strobes are red or white plated.

Wheelock's Weatherproof Low Profile Speaker Strobe, Series ET70WP-2475W-FR appliance has an extended temperature range of -40° F to 150° F (-40° C to 66° C) that will satisfy virtually all outdoor and severe environment applications.

For outdoor applications the ET70WP-2475W-FR must be wall mounted to a Weatherproof Back Box (IOB). Models are available for surface mounting to Wheelock weatherproof backboxes on walls or ceilings. The optional WP-KIT allows the weatherproof backboxes (IOB, WPBB or WPSBB) to be mounted to a recessed electrical box for concealed conduit installation. For semi-flush installation, the WPA and WFPA kits allow a customer to mount the weatherproof appliances to a recessed electrical box without the need for an external weatherproof backbox.

### **FEATURES**

- ADA/NFPA/UFC/ANSI compliant.
- Meets OSHA 29 Part 1910.165.
- Wall mount models are available with Field Selectable Candela.
- Settings of 15/30/75/110cd or 135/185cd (Multi-Candela models) or 1575cd (Single Candela model).



ET70 Series Speaker Strobe



ET90 Series Speaker



Multi-Candela Indicator (bottom of strobe lens)

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- Ceiling mount models are available with field selectable candela settings of 15/30/75/95cd or 115/177cd (multi-candela models).
- Strobes produce 1 flash per second over the regulated voltage range.
- 24 VDC with wide UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage.
- Synchronize with Wheelock SM, DSM or power supply with built-in Wheelock sync protocol.
- Field selectable taps for 25 or 70 VRMS operation from 1/8 watt to 8 watts.
- High efficiency design for maximum output at minimum wattage across a frequency range of 400 to 4000 HZ.
- Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires.



WARNING: PLEASE READ THESE SPECIFICATIONS AND ASSOCIATED INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS OR 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.

#### **GENERAL NOTES:**

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range". Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL Standard 1971.
- Series ET Speaker Strobes and Series ET Speakers are listed under UL Standard 1971 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 85%.
- Wheelock Weatherproof Appliances are designed to operate over an extended temperature of -40° F to 150°F (-40°C to 66°C) and all candela ratings represent minimum effective strobe intensity based on UL 1638. Maximum humidity of 93% RH + 2%.
- "Regulated Voltage Range" is the newest terminology used by UL to identify the voltage range. Prior to this change UL used the terminology "Listed Voltage Range".

## ARCHITECTURAL/ENGINEERING SPECIFICATIONS

The speaker appliances shall be Wheelock Series ET Speakers and speaker strobe appliances shall be Wheelock Series ET Speaker Strobes or approved equals. The speakers shall be UL Listed under Standard 1480 for Fire Protective Service and speakers equipped with strobes shall be listed under UL Standard 1971 for Signaling Devices for the Hearing-Impaired. In addition, the strobes shall be certified to meet the requirements of FCC Part 15, Class B.

All speakers shall be designed for a field selectable input of either 25 or 70 VRMS, with selectable power taps from 1/8 watt

to 8 watts. All models shall have listed sound output of up to 93 dB at 10 feet and a listed frequency response of 400 to 4000 Hz. The speaker shall also incorporate a sealed back construction. All inputs shall employ terminals that accept #12 to #18 AWG wire sizes.

The strobe portion of the appliance shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens. The strobe shall be of low current design. Where, Multi-Candela Speaker Strobes are specified, the strobe intensity shall have field selectable settings and shall be rated per UL Standard 1971 at 15/30/75/110cd or 135/185cd for wall mount and 15/30/75/95 cd or 115/177cd for ceiling mount. The selector switch for selecting the candela shall be tamper resistant. The 1575 strobe shall be specified when 15 candela UL Standard 1971 listing with 75 candela on-axis is required (e.g. ADA compliance).

When synchronization is required, the strobe portion of the appliance shall be compatible with Wheelock's SM, DSM sync modules or a a power supply with built-in Wheelock Patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the sync module or Power Supply fails to operate, (i.e., contacts remain closed), the strobe shall revert to a non-synchronized flash rate.

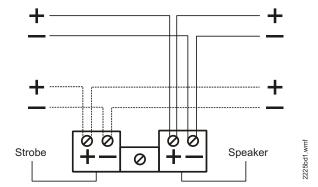
The speaker and speaker strobe appliances shall be designed for indoor surface or flush mounting. The speaker and speaker strobe shall incorporate a speaker mounting plate with a grille cover which is secured with two screws for a level, aesthetic finish and shall mount to standard electrical hardware requiring no additional trimplate or adapter. The finish of the Series ET speakers and speaker strobes shall be white, red or nickel plate. All speakers and speaker strobes shall be backward compatible.



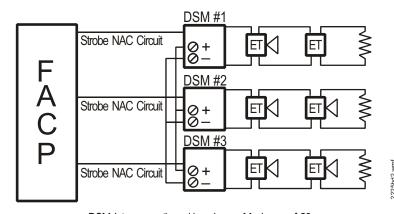
WARNING: CONTACT WHEELOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS (P83983) SERIES NS-24MCW, (P84234) SERIES NS-12 AND 24 VDC SINGLE CANDELA MODELS, (P83600) SERIES NH AND "GENERAL INFORMATION" SHEET (P82380) ON THESE PRODUCTS. THESE DOCUMENTS UNDERGO PERIODIC CHANGES. IT IS IMPORTANT THAT YOU HAVE CURRENT INFORMATION ON THE PRODUCTS. THESE MATERIALS CONTAIN IMPORTANT INFORMATION THAT SHOULD BE READ PRIOR TO SPECIFYING OR INSTALLING THESE PRODUCTS, INCLUDING:

- TOTAL CURRENT REQUIRED BY ALL APPLIANCES CONNECTED TO SYSTEM SECONDARY POWER SOURCES.
- FUSE RATINGS ON NOTIFICATION APPLIANCE CIRCUITS TO HANDLE PEAK CURRENTS FROM ALL APPLIANCES ON THOSE CIRCUITS.
- COMPOSITE FLASH RATE FROM MULTIPLE STROBES WITHIN A PERSON'S FIELD OF VIEW.
- ADDING, REPLACING OR CHANGING APPLIANCES OR CHANGING CANDELLA SETTINGS WILL
  AFFECT CURRENT DRAW. RECALCULATE CURRENT DRAW TO INSURE THAT THE TOTAL
  AVERAGE CURRENT AND TOTAL PEAK REQUIRED BY ALL APPLIANCES DO NOT EXCEED THE
  RATED CAPACITY OF THE POWER SOURCES OR FUSES.
- THE VOLTAGE APPLIED TO THE PRODUCTS MUST BE WITHIN THEIR "REGULATED VOLTAGE RANGE."
- INSTALLATION OF 110 CANDELA STROBE PRODUCTS IN SLEEPING AREAS.
- INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.
- THESE APPLIANCES ARE NOT DESIGNED TO BE USED ON CODED SYSTEMS IN WHICH THE APPLIED VOLTAGE IS CYCLED ON AND OFF.
- FAILURE TO COMPLY WITH THE INSTALLATION INSTRUCTIONS OR GENERAL INFORMATION SHEETS COULD RESULT IN IMPROPER INSTALLATION, APPLICATION, AND/OR PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.
- CONDUCTOR SIZE (AWG), LENGTH AND AMPACITY SHOULD BE TAKEN INTO CONSIDERATION PRIOR TO DESIGN AND INSTALLATION OF THESE PRODUCTS, PARTICULARLY IN RETROFIT INSTALLATIONS.

### **WIRING DIAGRAMS**

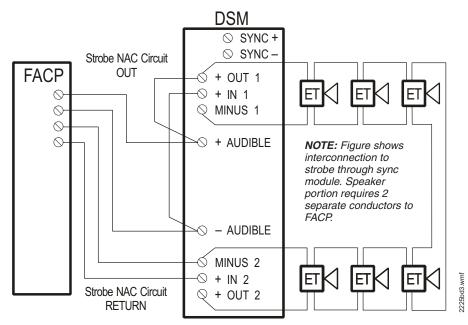


Series ET Speaker and Strobe Operate Independently (Non-Sync or Sync)



DSM Interconnecting wiring shown. Maximum of 20.

Series ET Speaker Strobes Synchronized with DSM Module Single Class "A"



Series ET Speaker Strobe Appliances Synchronized with DSM Module Single Class "A"

### **SPECIFICATIONS**

Table 1: UL Max Current*													
ET70/ET90 Speaker Strobes	ET70 Strobe Current - Wall Mount						ET90 Strobe Current - Ceiling Mount						
	241575W	24MCW			24MCWH		24MCC				24MCCH		
	1575cd	15cd	30cd	75cd	110cd	135cd	185cd	15cd	30cd	75cd	95cd	115cd	177cd
16-33 VDC	0.090	0.060	0.092	0.165	0.220	0.300	0.420	0.065	0.105	0.189	0.299	0.300	0.420

**NOTE:** UL max current rating is the maximum RMS current within the listed voltage range (16-33v for 24v units). For strobes the UL max current is usually at the minimum listed voltage (16v for 24v units). For audibles the max current is usually at the maximum listed voltage (33v for 24v units). For unfiltered FWR ratings, see installation instructions.

Table 2: ET70/ET90 UL Reverberant dBA @ 10ft**									
Watts	1/8	1/4	1/2	1	2	4	8		
ET Speaker	75.0	78.0	81.0	84.0	87.0	90.0	93.0		
ET Speaker Strobe	75.0	78.0	81.0	84.0	87.0	90.0	93.0		
ET70WP-2475W	78.0	81.0	84.0	87.0	90.0	93.0	95.0		

<sup>\*\*</sup>NOTE: dBA ratings based on UL testing under UL Standard 1480.

### **LISTINGS AND APPROVALS**

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in progress. Consult factory for listing status.

- UL Listed: S2652 (Speakers); S2652/S5391 (Strobe/Speakers)
- CSFM: 7125-0785:146; 7125-0785:152; 7320-0785:134
- MEA: 151-92-E Vol. 21

### **ORDERING INFORMATION**

Model	Strobe Candela	Non- Sync	Sync w/ SM, DSM	Model Color	Wall/ Ceiling	Agency Approvals (* Pending )				
	Callucia			Coloi	Cennig	UL	MEA	CSFM	FM	BFP
ET70-24MCW-FR	15/30/75/110	Х	Х	Red	Wall	Χ	Х	Х	Х	Х
ET70-24MCW-FW	15/30/75/110	Х	Х	White	Wall	Χ	Х	Х	Х	Х
ET70-241575W-FR	15 (75 on axis)	Х	Х	Red	Wall	Χ	Х	Х	Х	Х
ET70-24157SW-FW	15 (75 on axis)	Х	Х	White	Wall	Χ	Х	Х	Х	Х
ET70WP-2475W-FR	75	Х	Х	Red	Wall	Χ	Х	Х	*	*
ET90WP-2475W-FW	75	Х	Х	White	Wall/Ceiling	Χ	Х	Х	Х	Х
ET90-24MCC-FR	15/30/75/95	Х	Х	Red	Ceiling	Χ	Х	Х	Х	*
ET90-24MCC-FW	15/30/75/95	Х	Х	White	Ceiling	Χ	Х	Х	Х	*
ET90-24MCCH-FW	115/177	Х	Х	White	Ceiling	Χ	Х	Х	Х	*
ET70-R	-	-	-	Red	Wall/Ceiling	Χ	Х	Х	Х	Χ
ET70-W	-	-	-	White	Wall/Ceiling	Х	Х	Х	Х	Х

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This document is not intended to be used for installation purposes.

We try to keep our product information up-to-date and accurate.

We cannot cover all specific applications or anticipate all requirements.

All specifications are subject to change without notice.



For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118. www.notifier.com