





Helping People Take Action™

# **Description**

FIRE ALARM SYSTEMS

Wheelock's Series ET provides a full range of rugged, high performance speakers and speaker strobe combinations specifically designed to meet the critical needs of the life safety industry for voice and tone signaling. Available in compact, aesthetically pleasing package styles, each ET model covers both 25 or 70 volt audio systems. Their high-efficiency design provides improved evacuation signal, such as the "slow whoop" and "code-3". The Series ET provides unequaled performance and installation flexibility at the job site, while minimizing confusion about mounting and performance capabilities.

Series ET Speaker Strobes use an Xenon flashtube with solid state circuitry enclose din a rugged Lexan® lens to provide maximum reliability for effective visible signaling.

All Series ET models have IN and OUT wiring terminals that accept two #12 to #18 American Wire Gauge (AWG) wires at each terminal. Strobe inputs are polarized and audio inputs include a 10 uF blocking capacitor for compatibility with standard reverse polarity DC supervision of NAC circuits.

### **Features**

- Approvals include: CAN/ULC-S541-99 for speaker appliances and CAN/ULC-S526-02 for visual appliances
- High efficiency design for maximum output at minimum wattage across a frequency range of 400 to 4000 HZ
- Field selectable taps for 25 VRMS operation from 1/8 watt to 2 watts
- Field selectable taps for 70 VRMS operation from 1/8 watt to 8 watts.
- Series ET Speaker Strobes models available with 15 candela strobes featuring low current draw and low temperature compensation to reduce power consumption and wiring costs
- All audio and strobe inputs are compatible with standard reverse polarity type supervisions of circuit wiring by an alarm panel
- Four attractive package styles for flush, semi-flush or surface mounting to low cost electrical backboxes
- Choice of vandal resistant die cast grilles (ET-1010/1080) or general purpose sheet metal grilles (ET-1070/1090)
- Sealed back speaker construction for extra protection and improved audibility
- Sealed back speaker construction for extra protections and improved audibility
- Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires

# SERIES ET SPEAKERS & SPEAKER STROBES



Series ET-1010 Vandal Resistant



Series ET-1070 + LS



Series ET-1080 + LS Vandal Resistant w/Stobe



Series ET-1090 +LS

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

MARNING: 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.

⚠ 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 +30% of speaker rated voltage per CS 243. Improper input voltage can damage speaker. If distortion is heard, check for clipping of the audio signal with an oscilloscope and reduce the amplifier level or gain level to eliminate any clipping.

## **Specifications**

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Model Number	Speaker dB @ 10 Feet** (Rated Watts)							Strobe Voltage (VDC)	Strobe
	1/8	1/4	1/2	1	2	4*	8*	NOM	Candela
ET-1010	78	81	84	87	90	93	96	-	-
ET-1070	78	81	84	87	90	93	96	-	-
ET-1080	78	81	84	87	90	93	96	-	-
ET-1090	78	81	84	87	90	93	96	-	-
ET-1070-LS-24	78	81	84	87	90	93	96	24	15
ET-1080-LS-24	78	81	84	87	90	93	96	24	15
ET-1090-LS-24	78	81	84	87	90	93	96	24	15

Notes: 1. Frequency range of speakers is 400-4000 Hz. 2. A 10 uF blocking capacitor for DC Supervisoin of audio lines by the FACP is factory wired in series with the speaker input. 3. dBA is rated per UL 1480.

\*4 and 8 watt taps not available for 25 VRMS applications.

Voltage	Voltage Rated Average Current LS		Rated Inrush Current LS	
24 VDC	.080	.190	.250	
24 VFWR	.081	.216	.380	

Note: All VFWR voltages in table are measured with DC volt meter. Multiply VFWR voltage by 1.11 to convert to VRMS.

MARNING: ALTHOUGH UL TESTING HAS VERIFIED THAT THESE STROBES FUNCTION EVEN AT 80% OF THEIR MINIMUM RATING AND 110% OF THEIR MAXIMUM RATING, WHEELOCK STRONGLY RECOMMENDS THAT THE VOLTAGE APPLIED TO THESE PRODUCTS BE WITHIN THEIR RATED INPUT VOLTAGE RANGE. THE APPLICATION OF IMPROPER VOLTAGE MAY RESULT IN DEGRADED OPERATION OR DAMAGE TO THESE PRODUCTS.

The UL "Listed Rated Input Voltage" uses either filtered (DC) or unfiltered full-wave-rectified (FWR) voltage. Check the minimum and maximum output of the power supply and stand by battery and subtract the voltage drop from the circuit wiring resistance to determine the applied voltage to the strobes.

#### General Notes:

- Strobes are designed to flash at 1 flash per second minimum over their Regulated Voltage Range.
- ET-1010 Speakers are Listed for indoor/outdoor use with a temperature range of -35°C to 66°C (-31°F to 150°F) and maximum humidity of 95% RH. All other ET Speakers and Speaker Strobes are Listed for indoor use with a temperature range of 0°C to 49°C (32°F to 120°F) and maximum humidity of 85%RH.

\*\*MARNING: USE STROBES ONLY ON NAC CIRCUITES WITH CONTINUOUSLY APPLIED OPERATING VOLTAGE. DO NOT USE STROBES ON CODED OR INTERRUPTED NAC CIRCUITS IN WHICH THE APPLIED VOLTAGE IS CYCLED ON AND OFF, AS THE STROBE MAY NOT FLASH.

Series	Model Number	Order Code	Strobe Candela	dBA @ 10 Feet	Strobe Average Current @ 24 VDC	Mounting Options
ET Speakers	ET-1010-R-ULC	4066	-	78-96	-	E,K,N,R,S
	ET-1070-R-ULC	4243	-	78-96	-	E,L,O,P,Q,V
	ET-1080-R-ULC	4337	-	78-96	-	E,L,O,P,Q
	ET-1090-W-ULC	4231	-	78-96	-	E,N,O,Q,V
ET Speaker Strobes	ET-1070-LS-24-VFR-ULC	6144	15	78-96	.074	E,L,O,P,Q,V
	ET-1080-LS-24-VFR-ULC	6145	15	78-96	.074	E,L,O,P,Q
	ET-1090-LS-24-VFW-ULC	6146	15	78-96	.074	E,N,O,Q,V

Notes: 1. Models code suffix V= vertical lens; C= ceiling lens; F= fire lettering; R= red plate; W= white plate. 2. Approval codes: UI C= Underwriter Laboratories of Canada.

MARNING: CONTACT WHEELOCK FOR THE CURRENT "INSTALLATION INSTRUCTIONS" AND "GENERAL INFORMATION" SHEET ON THESE PRODUCTS. THESE MATERIALS CONTAIN IMPORTANT INFORMATION THAT SHOULD BE READ PRIOR TO SPECIFYING THESE PRODUCTS. INCLUDING:

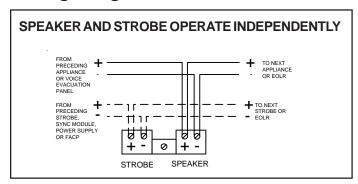
- TOTAL CURRENT REQUIRED BY ALL APPLIANCES CONNECTED TO SYSTEM SECONDARY POWER SOURCES.
- FUSE RATINGS ON NAC CIRCUITS TO HANDLE MAXIMUM INRUSH OR PEAK CURRENTS FROM ALL APPLIANCES ON THOSE NAC CIRCUITS. THE TIME DURATION OF THE MAXIMUM STROE INRUSH OR PEAK CURRENT IS 2 MILLISECONDS FOR LS MODELS.
- INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.

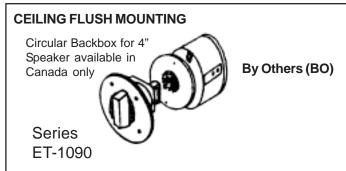
#### **Application Notes:**

CAUTION: 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.

- 1. Mounting hardware for each mounting option is supplied.
- 2. Conduit entrances to the backbox should be selected to provide sufficient wiring clearance for the installed product. When extension rings are required, conduit should enter through the backbox, not the extension ring. Note not all Canadian Extension Rings fit Series E. Call factory for assistance.
- 3. When terminating field wires, do not use more lead length than required. Excess lead length could result in insufficient wiring space for the signaling device.
- 4. 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.
- 5. Do not pass additional wires (used for other than the signaling device) through the backbox. Such additional wires could result in insufficient wiring space for the signaling appliance.

# Wiring Diagrams#





## ARCHITECTS AND ENGINEERS SPECIFICATIONS

The speaker appliance shall be a Wheelock Series ET speaker and speaker strobe appliance or equivalent. The speaker and strobes shall be ULC Listed under CAN/ULC-S541-99 and CAN/ULC-S526-02 for Fire Protective Service. All speakers shall be either 25 or 70 VRMS inputs with field selectable power taps. Strobes shall use filtered power or unfiltered power supply (full-wave-rectified). All models shall have provisions for standard reverse polarity type supervision and IN/OUT field wiring using terminals that accept #12 to #18 AWG wiring.

Combination speaker strobe appliances signals shall incorporate a Xenon flashtube enclosed in a rugged Lexan lens or equivalent with solid state circuitry. Strobe shall meet ULC and produce a flash rate of one (1) flash per second minimum over the Listed input voltage range. The strobe intensity shall be rated per ULC for 15 candela.

The combination speaker strobe appliances shall be installed indoors and surface or flush mounted. They shall mount to standard electrical hardware requiring no additional trimplate or adapter. The appliance shall be finished in a textured red or white color.

Wheelock products must be used within their published specification and must be properly specified, applied, installed, operated, maintained and operationally tested in accordance with their installation instruction 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 & ULC), 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 an the requirements of local authority having jurisdiction (AHJ).

Due to continuous development of our products, specifications and offering are subject to change without notice in accordance with Wheelock, Inc. standard terms and conditions.

#### WE ENCOURAGE AND SUPPORT NICET CERTIFICATION

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