

# Echo™ Series

## ELK-870 Amplified Speaker

The ELK-870 is a self amplified interior speaker mounted in an attractive surface mount plastic enclosure. It may be connected to an audio source, ie: microphone, telephone system paging output, etc., even an ordinary single line phone set. The audio source is amplified up to 10 watts, adjustable from an on-board volume control. This Echo™ Series speaker is designed to be heard but not seen!. Sound “echoes” off mounting surface from back plate edge. This unique contemporary speaker has a smooth, paintable, “no grill” surface that easily blends with any decor. This speaker mounts to any flat surface or single gang electrical box. For additional coverage, up to three (3) external 8 Ohm speakers may be wired in parallel with the internal speaker. The ELK-870 operates on 12 to 24 Volts A.C. or D.C. and requires only 22-24 gauge telco or alarm type wire.



## Features

- Self-Contained 10 Watt Amplified Speaker.
- Amplifies Virtually Any Audio Source.
- Expanded Telephone System Paging.
- Does Not Require 25 or 70V Line Transformers.
- Attractive “No-Grill” Surface Mount Enclosure.
- May be Painted or Wallpapered.
- Drives Up to Three (3) Additional 8 Ohm Speakers.
- Built-in Volume Control.
- Electrical “J” Box Mounting Holes.
- Mounting Hardware Included.
- Lifetime Limited Warranty.

## Specifications

- Rated Output: 10 Watts.\*\*
- Power Input: 12 to 24 Volts A.C. or D.C.\*\*
- Speaker (Output) Load: 2 to 16 Ohms.\*\*
- Current Draw: 50 to 800mA (depending on load & volume setting)
- Input Impedance: 1000 Ohms Nominal.
- Size: 4.375" H x 6.375" W x 1.875" D.

1. Remove the front cover by inserting and twisting the tip of a wide flat-blade screwdriver in the slots along the edge of the housing.
2. Mounting holes are provided on the backplate for a standard electrical J-box as well as for direct surface mounting (hardware included).
3. Connect all wiring as follows. Recommended wire gauge is 22-24 AWG. If distance exceeds 1000' use 18-20 gauge.

**PWR IN:** Connect to a good quality 12 to 24 Volt A.C. or D.C.\*\* Power Source. No Polarity. D.C. Power is recommended for a cleaner output.

**\*\*NOTE:** The ELK-870 is primarily designed for short duration (intermittent) paging applications. For long durations, such as playing music, you may need to reduce the volume output, or lower the power input voltage, or lower the speaker loading in order to keep the ELK-870 from overloading and shutting down.

**AUDIO IN:** Connect an audio input source. ie: microphone, telephone PBX or KEY system paging output, etc., even an ordinary single line phone set (see diagram below).

**SPKR:** Internal speaker is already connected. The ELK-870 speaker output can handle up to a maximum load of two (2) Ohms\*\*. Up to three (3) additional 8 Ohm speakers (MIN = 20 Watt (ELK-70, ELK-73, ELK-44) may be connected in parallel on these two terminals.

**VOLUME:** Turn the volume control clockwise (CW) to increase volume. Adjust to a comfortable level.\*\*

### Recommended Speaker Spacing for Paging Applications

Ambient Sound Level	Location	Speaker Spacing
Quiet 50 to 65db	Offices	120 feet (14,400 sq. ft.)
Moderate 65 to 80db	Light Manufacturing	90 feet (8,100 sq. ft.)
Noisy 80 to 90 db	Heavy Manufacturing	60 feet (3,600 sq. ft.)
Very Noisy +90db		40 feet (1,600 sq. ft.)

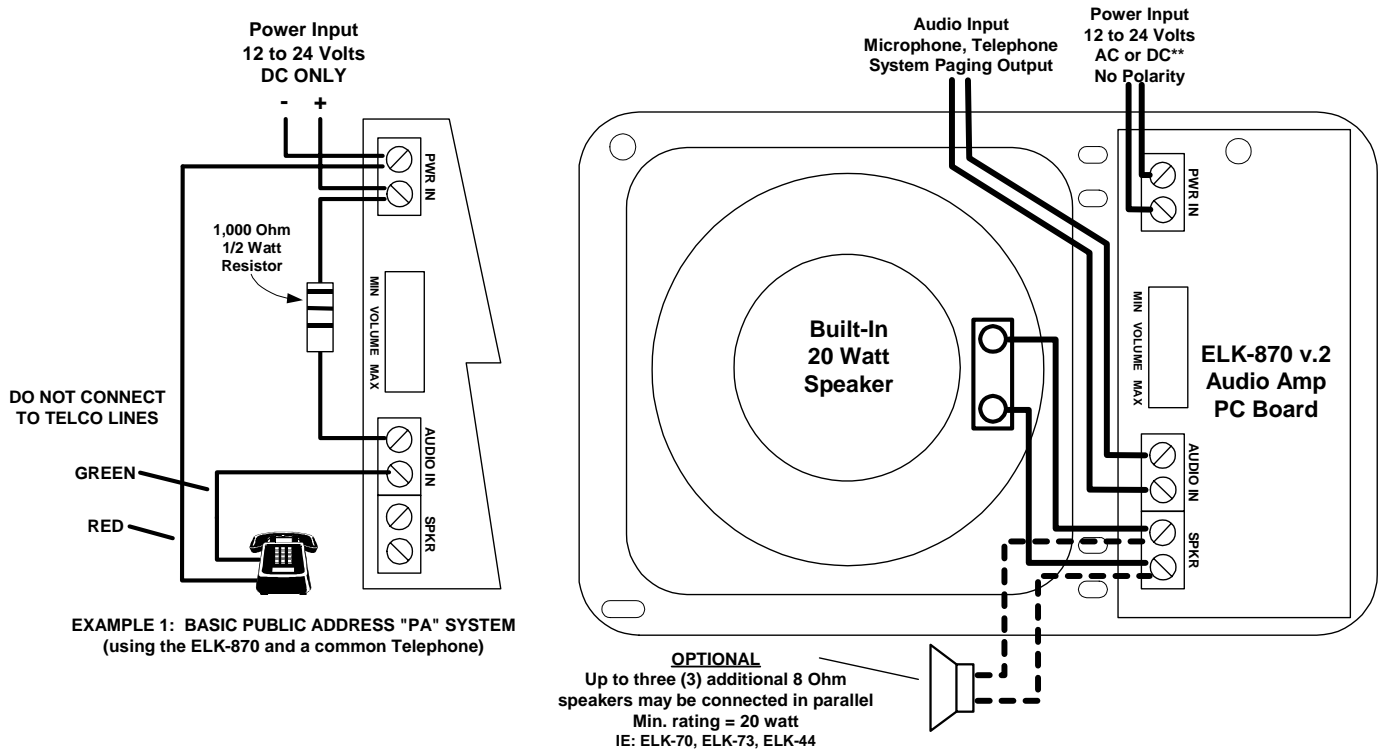


FIGURE 1: WIRING HOOKUP