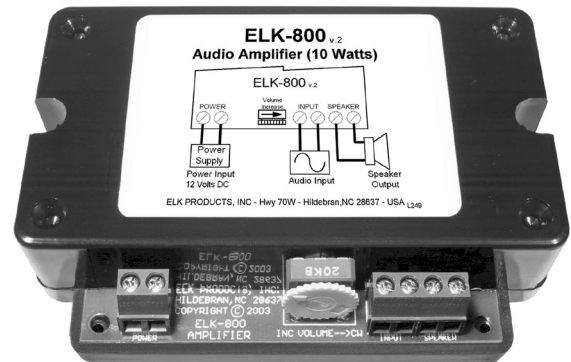


# 10 Watt Audio Amplifier

## ELK-800

The ELK-800 is a great compact audio amplifier. It may be connected to an audio source, i.e. 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. Remotely installed, it saves money by requiring only 22 - 24 gauge telco or alarm type wire. It operates on 12 -24 volts A.C. or D.C. and can also drive multiple speakers. See Application Note on reverse: A Simple Paging System using an ELK-800 and a telephone.



## Features

- Small, Compact Public Address Amplifier.
- Expanded Telephone System Paging.
- Amplified Telephone Ringer (where speaker tone signaling is available)
- Built-in Volume Control.
- Does Not Require 25 or 70 Volt Line Transformers.
- Drives Ordinary Horn or Cone Speakers.
- Requires only 22-24 gauge telco wire.
- Compact Size.
- Surface Mount ABS Enclosure with Snap-On Cover.
- Lifetime Limited Warranty.

## Specifications

- Output Rating: 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 and volume setting)
- Input Impedance: 1000 Ohms Nominal.
- Enclosure Size: 4.5" x 3" x 1.2" (111.8mm x 76.3mm x 29.2mm).

## Wiring Connections

**POWER:** Connect to good quality 12 to 24 volts A.C. or D.C.\*\*, No Polarity. D.C. recommended for a cleaner output.

\*\*NOTE: The ELK-800 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-800 from overloading and shutting down.

**INPUT:** 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).

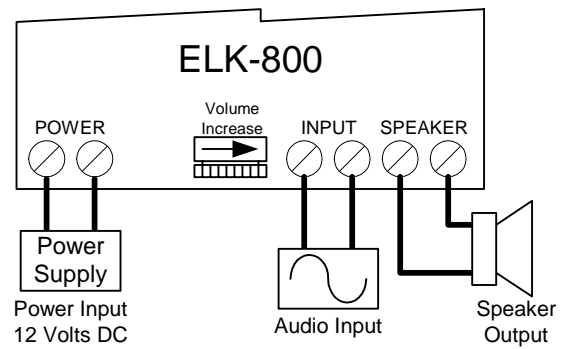
**SPEAKER:** Two (2) ohm maximum load. Speakers may be series/parallel wired for multiple speaker combinations up to 16 speakers.\*\*

## Volume Control

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

## Power Supply Wire Sizing

Number of Speakers	Wire Length (ft)	
	24 AWG	22 AWG
4	100	160
2	200	320
1	400	640



## Input Wire Sizing

When using a remote power supply and 24 AWG wire, the length of the audio wire should be limited to 3000 feet with a maximum of four (4) ELK-800 amplifiers connected. Standard telephone twisted pair wire is a good choice for the audio wire run.

## 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.)

