

ELK-950 Telco & Power Line Surge Protector

A solid state surge suppressor complete with built-in 8-pin (RJ31X) modular jack. Designed to protect the Telephone and AC Transformer Line on an alarm control & communicator. Features a rugged and easy to mount plastic case.

ELK-960 Delay Timer

An economical adjustable time delay relay suitable for hundreds of applications. It features 12 or 24 Vdc operation, and can be configured for delayed turn-on, delayed turn-off, pulsating on/off, or single one-shot activation. Delay time is adjustable from 1 second to 60 minutes.

ELK-965 Low Battery Cutoff and Power Switch

Designed to work with virtually any 12 Volt control panel or power supply. The convenient power switch permits the installer or user to disconnect both the battery and AC power for servicing or emergencies. Automatically disconnects the battery during an extended power outage if the voltage falls below 9 Vdc.

ELK-800 Telephone Paging Amplifier

Compact audio amplifier for telephone paging, PA, and alarm announcement. It can be centrally or remotely installed and saves money by requiring only 22-24 gauge telco or alarm type wire. It operates on 16.5 to 24 Volts AC or DC and has a built-in volume adjust. The output is short circuit protected and is capable of driving multiple speakers.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. 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 a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with 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. 4) Consult the dealer or an experienced radio/TV technician for help.

Voice Recordable Annunciator Module ELK-124

Four (4) Channels, 30 Seconds Each

FEATURES

- Four (4) Recordable Voice Channels: Thirty (30) seconds of message per channel, or up to 120 seconds on one channel.
- Recordings stored in nonvolatile memory
- Positive voltage triggering. Channel 1 allows Neg. (-) triggering via the -C1 input.
- All channels accept momentary triggers
- Selectable 1 shot or continuous play modes
- Built-in condenser microphone for recording
- LED Light for Record indication
- Adjustable speaker volume and current draw
- Powerful 24 watt audio amplifier
- Fused over current protection
- PC sound card interface connectors

SPECIFICATIONS

- Operating Voltage Range: 11 to 14 Vdc
 - Adjustable current draw: 1/4 to 1.8 Amps
 - Low current triggers: 11 to 14 Vdc @ 30 mA
 - Maximum sound level: 120 dB **
 - Maximum speaker loading: 4 Ohms
 - Maximum message length: 120 seconds
 - Size: 3" x 5" x 1.25" (76 x 127 x 32 mm)
- ** 13.8 VDC @ 1 meter with one 8 Ohm speaker.

ELK
PRODUCTS, INC.

PO Box 100 • Hwy. 70W • Hildebran, NC 28637 • USA

Voice Recordable Annunciator Module ELK-124



Four (4) Channels, 30 Seconds Each

APPLICATION

The versatile **ELK-124** is a 4 channel custom **recordable voice annunciation module**. Recordable channels provide 30 seconds of message each, or they may be combined into a maximum of 120 seconds on a single channel. Adjustable volume and flexible triggers make the ELK-124 suitable for applications ranging from security applications to talking sales demonstrations. The channels can be configured to play once or to repeat endlessly. The optional **ELK-129 Computer Sound Card Interface** may be used to record sounds from a PC with a stereo sound card. Pre-recorded sounds and phrases are available through our Internet Webpage: <http://www.elkpro.com/>

Instructions Printed On Inside

Installation and Operation

OVERVIEW

The four (4) voice message channels on the **ELK-124** are stored in non-volatile memory and may be re-recorded as needed. Each channel may be activated by a Positive (+) 11 to 14 Vdc input supplied from a control panel or other switched source. Channel 1 features a Neg. (-) trigger via the **-C1** input as explained in these instructions.

CAUTION: Use of the ELK-124 as the primary annunciator for emergency applications is not recommended. Supplementary or secondary annunciator use is subject to the approval of the local Authority Having Jurisdiction.

INPUT CONNECTIONS

[+12V] Connect to positive (+) side of a 12Vdc power source. This input is required **ONLY** if the trigger sources for channels 1 thru 4 are current limited to 30 mA or less, OR if the **-C1** input trigger is being used. Nominal operating range is 11 to 14Vdc.

[-NEG] Connect to negative (-) of a 12 Vdc power source.

[+C1] Channel 1 positive (+) 11 to 14 Vdc input trigger.

[+C2] Channel 2 positive (+) 11 to 14 Vdc input trigger.

[+C3] Channel 3 positive (+) 11 to 14 Vdc input trigger.

[+C4] Channel 4 positive (+) 11 to 14 Vdc input trigger.

[-C1] Channel 1 negative (-) input trigger. For control panels (such as DSC) that have a switched negative alarm output. Negative input triggering is only available for channel 1.

NOTE: To sequentially playback multiple channels, apply and maintain voltage triggers to multiple inputs.

[Speaker] Connect to 8 Ohm speakers. (Max. 4 Ohm load)

Jumper Options

JP1) MIC, for recording with the on board microphone.
PRG, for recording with ELK-129 computer interface.

JP2) 1SHOT, limits playback to one time per trigger. The trigger for the channel must then be removed and re-applied before the message will be played again.
REPEAT, message continuously plays back for as long as the input trigger is applied.



FIGURE 2 - Jumper JP2 Selections

JP3) DIS SW, disables the record pushbutton switch and prevents accidental recording.
EN SW, enables the record pushbutton switch.

JP4) GT30, enables record and playback of messages greater than 30 seconds with message recording overflowing** into the next channel.
30SEC, messages cannot overflow into the next channel and are limited to 30 seconds.

Activating The Voice Channels (Playback)

Continuous (maintained) trigger: Apply a positive (+) 11 to 14 Vdc to terminal **+C1** for Channel 1, terminal **+C2** for Channel 2, etc. The message will playback for as long as the power is applied, provided Jumper **JP2** ("1SHOT - REPEAT") is in the **REPEAT** position. See Figure 2.

Momentary trigger: Connecting terminals **+12V** and **Neg** to a constant (+) 11 to 14 Vdc power source allows channels to playback with a momentary trigger input voltage. Most current is drawn from the constant power source. Current draw from the input triggers will be approximately 30 mA. In the momentary trigger mode each message is played through to the end (one cycle).

** Voice Record Time

If jumper **JP4** is in the **30SEC** position, maximum record time is 30 seconds per channel. In the **GT30** position, messages longer than 30 seconds may be recorded by overflowing the message into the next available channel. When this occurs, the next "overflow" channel cannot be used as a recordable channel.

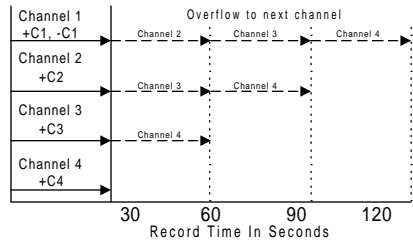


FIGURE 1 - MAXIMUM MESSAGE LENGTHS

WARNING: When a message exceeds 30 seconds and overflows into the next channel (Jumper **J4** in the **GT30** position), any attempt to record a message into that next channel will automatically overwrite and destroy the overflow part of the previous channel's message.

Recording Voice Messages

Place jumper **JP1** in the **MIC** and jumper **JP3** in the **ENS** position to enable the on-board microphone and record switch. Place jumper **JP2** in the **REPEAT** position to allow continuous loop playback. If the message is longer than 30 seconds, place jumper **JP4** in the **GT30** position.

Activate the desired channel by applying a positive (+) 11 to 14 Volts DC to the input (**+C1, +C2, +C3, or +C4**). The **ELK-124** will playback the message (if any) that was previously recorded. While the message is playing, press and hold the record switch **SW1**. When the Red **REC/EOM** LED comes on, speak clearly into the on-board microphone. Silently release the record switch at the end of the message. The new message will then playback. Remove the trigger input to stop the playback. To change the message or to correct a mistake repeat the above procedure. To record another channel apply the trigger voltage to that channel and repeat the above procedure. Messages longer than 30 seconds will overflow record into the next channel (provided **JP4** is set to the **GT30** position) but must be played back from the channel where the recording began.

Note: If the maximum record time is reached or exceeded, the red **REC/EOM** LED will start blinking to indicate that recording time has halted. If this happens, the trigger input must be removed and re-applied to start playback.

Volume and Current Adjust

Turning the **Volume Increase** knob clockwise increases the speaker volume. The louder the volume, the higher the current draw. The volume and current draw may be adjusted to match the current capability of the power supply. Maximum Current is approximately 1.2 amps with a 8 ohm speaker, 1.8 amps with a 4 ohm speaker load.

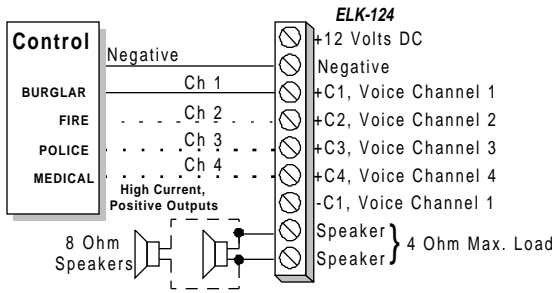
Computer Sound Card Interface (ELK-129)

The **ELK-124** may also be programmed using a personal computer equipped with a stereo sound card and the **ELK-129** Sound Card Interface. Plug the **ELK-129** into connector **J1 (CH 1+2 PRG)** for channels 1 and 2, or connector **J2 (CH3+4 PRG)** for channels 3 and 4. Place jumper **JP1** in the **PRG** position to disable the on-board microphone. Then follow the **ELK-129** Instructions.

INSTALLATION & HOOKUP EXAMPLES

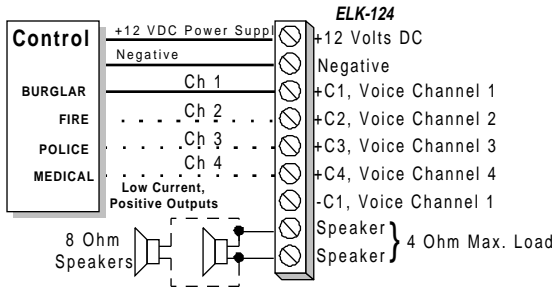
Note: Dashed Lines Indicate Optional Connections.

Security Control Panel with alarm outputs capable of up to 1.8 Amps output.



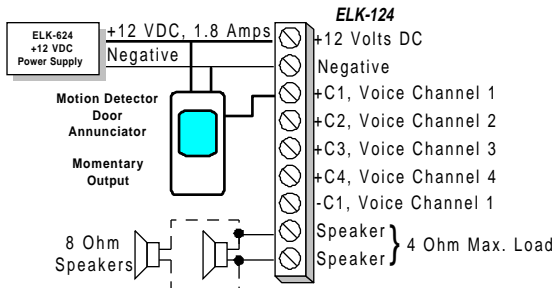
All current must be supplied from the Control Panel Outputs. Maximum current draw with a 8 Ohm speaker load is 1.2 Amps, or 1.8 Amps with a 4 Ohm load. The current may be reduced down to 1/4 amp by adjusting the volume lower.

Low Current Trigger Method: Positive alarm outputs capable of 30 milliamps each



The operational current will be supplied from a constant +12 VDC auxiliary power source. The voice channel trigger terminals draw only 30 milliamps from the control alarm outputs.

Door Annunciator with single play message

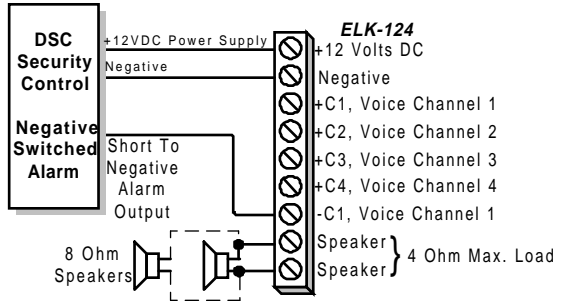


Set jumper JP2 to "1Shot" position for single play.

A motion detector door annunciator may be connected to the ELK-124 to announce entry into a premise. The motion detector output should momentarily switch on +12 VDC at 30 milliamps when motion is sensed.

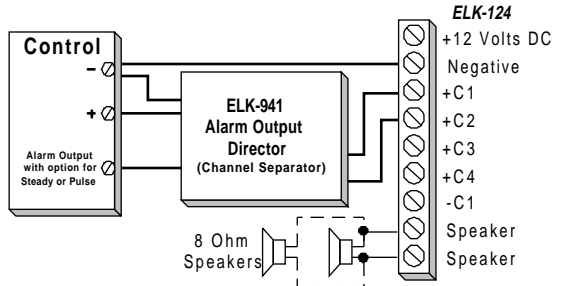
Single Alarm Output With Switched Negative:

Controls panels such as DSC provide an alarm output with a switched negative, requiring a special hookup.



The -C1 terminal internally activates Voice Channel 1 upon a continuous or momentary short to negative trigger input.

Single Alarm Output Security Control with steady and pulsing alarm outputs



Separate trigger inputs can be received from a single output control panel by using the ELK-941 Alarm Output Director to separate the steady or pulsing outputs. See the ELK-941 Instructions.

Example for Multiple Speaker Hookups

