

## OVERVIEW

The ELK-110 offers high quality pre-recorded voice messages and 3 alarm sounds, warble siren, pulsing buzzer, and temporal coded bell. It features two (2) input channels, one for Burglary, and one for Fire. The alarm sounds and voice messages alternate for each channel. DIP switches and jumpers provide many unique options. It is possible to select voice only, siren only, or combined alternating playback.

### CHANNEL INPUTS

**BURGLARY (BA)** The ELK-110 features a positive (+) input trip for Burg **+BA** as well as a negative (-) input trip **-BA**, making it compatible with most controls. On controls that have a single alarm output with a pulsing option for Fire, both the **+BA** and **-BA** inputs provide **ComboTrigger™**, which automatically switches from Burg to Fire if either input is activated with a .5 to 1.5 second pulsing voltage.

**FIRE (FA)** This channel has a (+) positive input trip only. NOTE: Fire may also be tripped by applying a pulsing input to the **+BA** or **-BA** (Burglary) inputs. This is ideal for controls having only a single alarm output with a pulsing Fire option.

### VOICE MESSAGES

Voice messages are spoken in English, Spanish/English, or Spanish only, depending upon the switch and jumper settings. (See "Switch & Jumper Options"). Each channel has an initial cycle, followed by a repeating cycle.

#### BA (Burglar) English:

Initial: 3 Sec. Tone, *Intruder, intruder, leave immediately.*  
Followed by warble or pulsing buzzer sound.  
Repeat: "Intruder, intruder, leave immediately"  
Followed by warble or pulsing buzzer sound.

#### FA (Fire) English:

Initial: *Fire, fire, leave immediately*  
Followed by a Temporal Coded Bell sound.  
Repeat: *Fire, fire, leave immediately*  
Followed by a Temporal Coded Bell sound.

#### BA (Burglar) Spanish:

Initial: 3 Sec. Tone, *Intruso, intruso*  
Followed by warble or pulsing buzzer sound.  
Repeat: *Intruso, intruso*  
Followed by warble or pulsing buzzer sound.

#### FA (Fire) Spanish:

Initial: *Incendio, incendio*  
Followed by a Temporal Coded Bell sound.  
Repeat: *Incendio, incendio*  
Followed by a Temporal Coded Bell sound.

#### PULSING BA INPUT: (Same for Spanish or English)

Initial: 3 Sec. Tone, *Fire, fire, leave immediately*  
Followed by a Temporal Coded Bell sound.  
Repeat: *Fire, fire, leave immediately.*  
Followed by a Temporal Coded Bell sound.

### Switch & Jumper Options:

SW1	Closed = Warble Siren Sound. Open = Pulsing Buzzer Sound.
SW2	Closed = English Only. Open = Spanish and English. (See Notes below)
SW3	Closed = Full Volume Open = Volume Step Feature. Siren starts at low volume and steps to full volume in 90 seconds.
SW4	Closed = Full Current. Open = <b>MilliMiser™</b> Low Current Draw. Reduces current draw by approx. 25% with only 8-10% less volume. Great for controls that have limited alarm current.
JP1	Siren Only On Burg. Cutting this jumper deletes the voice message on the BA Burglar channel input. <u>Note: Disables ComboTrigger</u>
JP2	Siren Only On Fire. Cutting this jumper deletes the voice and Temporal Coded Bell sound on the Fire channel input, leaving a buzzer or warble. <u>Note: ComboTrigger on +BA or -BA will still play the "Fire" message and Temporal Coded Bell.</u>
JP3	Voice Only. Cutting this jumper deletes the siren and Temporal Coded Bell sounds from both the Burglar and Fire channels.

**Note:** For Spanish Only, cut the foil jumper marked "Cut Spanish Only" located on the back of the circuit board and then open switch SW2.

# Voice Driver ELK-110

With Temporal Coded Bell

### APPLICATION:

The **ELK-110** is the first voice siren driver to include a Temporal Coded Bell Sound, which meets the ANSI standard for emergency evacuation signaling. The ELK-110 is ideal for residential and commercial alarm jobs and features two input channels, bilingual voices messages, and many unique options.

**ELK**  
PRODUCTS, INC.

## Voice Driver ELK-110

Version 4.0



With Temporal Coded Bell

### FEATURES:

- Two Input Channels, Burglar & Fire.
- Siren only, Voice only, or combined.
- Bilingual Voice - *English Or Spanish.*
- Temporal Coded Bell - ANSI standard Audible Emergency Evacuation Signaling.
- **MilliMiser™** - option reduces current draw for controls with limited alarm output power
- **ComboTrigger™** - option for single alarm output controls which have the option of steady for burglar and pulsing for fire.
- **VolumeStep™** - option starts the siren sound at low volume and gradually increases the volume to maximum over a 90 second time period.
- Watchdog Microprocessor Monitoring.
- Lifetime Limited Warranty, call for details.

### SPECIFICATIONS:

- Nominal Operating Voltage: 10-14 Volts D.C.
- Minimum Trigger Voltage: 7 Volts D.C.
- Sound Level: 122 db @ 1meter.
- Nominal Current Drain: 1.25 Amps.
- **MilliMiser™** Current Drain 800 mA.
- Maximum Speaker Loading: 4 Ohms.
- Size: 2.75" X 4.0" (70mm X 102mm).

Features or Specifications subject to change without notice.

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Instructions Printed On Inside

# ELK-110 INSTALLATION INSTRUCTIONS

## SIREN ONLY ON BURGLAR

Cutting JP1 deletes the "Intruder" message on the +BA or -BA (Burg) inputs. Note: This also deletes the Combo Trigger feature which is the detection of pulsing voltages.

## SIREN ONLY ON FIRE

Cutting JP2 deletes the "Fire" message on the FIRE input. The Temporal Coded Bell sound changes to a siren. Note: Combo Trigger on +BA or -BA will still play the "Fire" message and Temporal Coded Bell.

## FOR SPANISH ONLY:

Out foil jumper located on the back side of the circuit board

## VOICE ONLY:

Cutting JP3 deletes the Siren and Temporal coded Bell sound

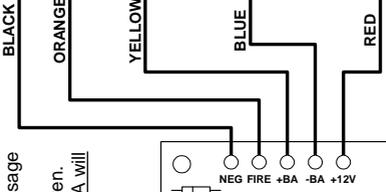
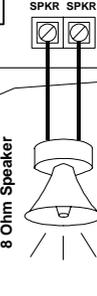
SWITCHES  
CLOSED

ELK-110 VOICE SIREN

DIP SWITCHES

SW1	Closed	Warble*
	Open	Buzzer
SW2	Closed	English*
	Open	Adi Spanish
SW3	Closed	Full Volume*
	Open	Volume Step
SW4	Closed	Full Current*
	Open	MilliAmper

\* = Default



**NEG:** Connect this wire to a common negative (-) terminal on the control panel or power source.  
**FIRE:** Connect this wire to a positive (+) 12 Volts D.C. Fire alarm output that is rated and fused for 2 Amps or greater.  
**NOTE:** The **Fire** and **+BA** inputs draw the maximum current unless the **+12V** wire is connected as explained below.  
**+ BA (BURG):** Connect this wire to a positive (+) 12 Volts D.C. Burglar alarm output that is rated and fused for 2 Amps or greater. Pulsing this input on/off in 1/2 to 1 second intervals will activate the Fire message and sound, provided the **+12V** wire is connected to a constant (+) 12 Volts D.C. source and Jumper JP1 is not cut.

**- BA (BURG):** For controls that provide a switched negative (-) Burglar alarm output (DSC and others), connect this wire to the negative (-) Bell output terminal, connect **+12V** wire to the positive (+) Bell output terminal, and connect **NEG** wire to any one of the constant negative (-) terminals on the control. **NO OTHER CONNECTIONS ARE REQUIRED!** With these 3 connections, the Fire channel may also be activated by pulsing the **-BA (BURG)** input on/off in .5 to 1.5 second intervals.

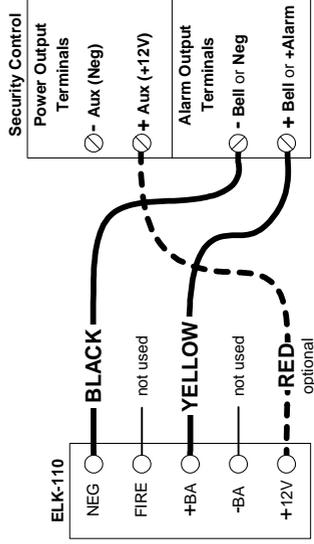
**+12V:** To use the pulsing Combo Trigger feature, or to activate the **+BA (BURG)** or **FIRE** inputs from low current triggers (5 to 40 milliamps, greater than 7 Volts D.C.), connect this optional wire to a positive (+) 12 Volts D.C. 24hr auxiliary source rated and fused for 2 Amps or greater. This wire powers the board constantly and supplies the main operating current. If the control doesn't have an auxiliary output rated 2 Amps or greater, one option is to connect this wire directly to the standby battery using a 2 Amp in-line fuse & holder for safety.

**SPKR:** Connect one or more 8 ohm speakers in parallel or series, making certain that the combined resistance is not less than 4 Ohms. The alarm output should be fused at 3 amps maximum for short circuit protection.

## Hookup to a Switched Positive (+) Alarm Output

i.e. Caddx, Napco, Ademco

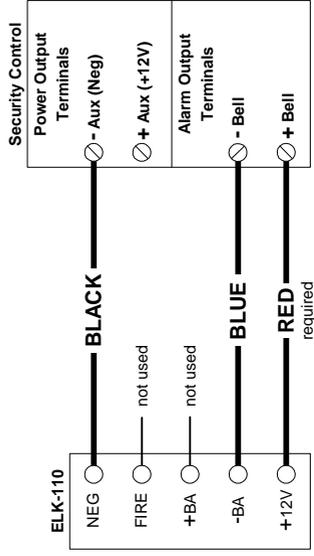
A constant positive voltage from the alarm output (+Bell) to Yellow Wire (+BA) input will play the burglar message, while a pulsing positive voltage will play the fire message. (Pulsing requires connection of RED wire to +12 Volts DC.)



## Hookup to a Switched Negative (-) Alarm Output

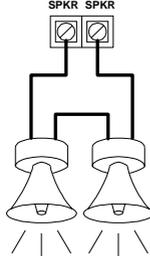
i.e. DSC 832

A constant alarm output (pull to ground Neg) from -Bell to the Blue Wire (-BA) input will play the burglar message, while a pulsing output will play the fire message. Requires connection of RED wire to +Aux or +Aux @ 2 Amps Min.

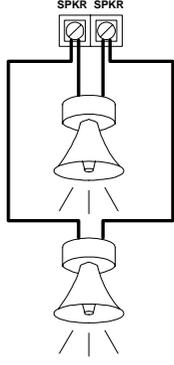


ELK-110 Speaker Resistance & Current Draw			
Number of Wired in Series or Parallel Speakers	Total Resistance	Nominal Current Draw	MilliAmper Current Draw
1	8 Ohms	1.2 Amps	800 mA
2	Parallel	4 Ohms	2.1 Amps
2	Series	16 Ohms	700 mA
3	2 Series, 1 Parallel	6 Ohms	1.7 Amps

Two 8 Ohm Speakers in Series (16 ohm load)



Two 8 Ohm Speakers in Parallel (4 ohm load)



Two 8 Ohm Speakers in Series, One in Parallel (6 ohm load)

