

\* Try these other fine ELK products \*

**M1 Cross Platform Control**

**M1 (Std)** Integrates Security, Lighting, Telephone, and Energy Management. Powerful "Rules" based automation capabilities. Up to 208 Zones.

**M1G (Gold)** More powerful version of M1 with more expansion and capabilities.

- M1KP** LCD Keypad, 2 x 16 Character, backlit
- M1XIN** 16 Zone (input) expander. Up to 12 per sys.
- M1XOVR** 16 Output expander. 8 voltage/8 Relays
- M1XOV** 16 Output expander. All low voltage pins
- M1RB** 8 relay board for use w/Ctrl,XOVR, or XOV
- M1DBH** Data Bus wiring hub for multiple homeruns
- M1XEP** Ethernet port expander/interface
- M1XSP** Serial port expander for additional serial ports.

**Magic Module Series**

- MM220** Magic Module, 2 Input, 2 Output, Programmable
- MM443** Magic Module, 4 Input, 4 Output, Programmable
- MM447** Automation Controller w/Voice, Caddx Interface
- MV480** Recordable Voice Module, 400 Channels
- MK400** Starter Kit, Includes MM443 & MK485
- MK485** Programming Kit, MB485, Cables, Software
- MB485** Data Bus Interface, RS232 to RS485

**Rust Free Sirens / Speakers**

- 1RT** Speaker & Stainless Steel Enclosure
- 150RT** Siren & Stainless Steel Enclosure

**Speakers & Sirens**

- 44** Speaker, 30 W, 8 Ohm Compact Horn
- 45** Siren, Compact Horn, 118db
- M120** Siren, Single Tone, 107db, Mini Horn
- SP15** Speaker, 15 watt, Small Horn
- SP30** Speaker, 30 watt, Horn
- SP35** Speaker, 20 watt, Interior
- SP40** Speaker, 40 watt, Horn
- SS15** Siren, Dual Tone, 110db, Horn
- SS30** Siren, Dual Tone, 120db, Horn
- SS36** Siren, Dual Tone, 105db, Interior

**ECHO™ Sirens & Speakers**

- 73** ECHO Speaker, 20 Watt, Interior
- 74** ECHO Dual Tone Siren, Interior
- 75** ECHO Voice Siren, Interior
- 870** ECHO Speaker, Self Amplified

**Siren & Voice Drivers**

- 100** High Performance Siren Driver
- 110** Voice Siren Driver, English & Spanish
- 120** Recordable Voice Module and Siren
- 124** Recordable Voice Module, 4 Channels

**Surge Suppressors**

- 950** Surge Suppressor, Phone & Power Line
- 951** Surge Suppressor, Phone - Single Line
- 955** Surge Suppressor, Phone - Dual Line

**Relay Modules**

- 912** Compact Relay, 12 Vdc, SPDT
- 912B** Heavy Duty Compact Relay, 12/24 Vdc, SPDT
- 924** Sensitive Relay, 12/24 Vdc, DPDT
- 941** Alarm Output Director
- 960** Delay Timer Relay, 1 sec. to 60 min.

**Power Products**

- 1250** Battery, Lead Acid, 12v, 5Ah
- 1280** Battery, Lead Acid, 12v, 8Ah
- P112** 12 Volts DC, 1 Amp Power Supply w/Enclosure
- P124** 24 Volts DC, 800mA Power Supply w/Enclosure
- P1216** 12 Volts DC, 1.5 Amp Power Supply
- P412** 12 Volts DC, 4 Amp Power Supply
- P624** Power Supply & Battery Charger
- PD9** Power Distribution Module
- 965** Low Battery Cutoff and Power Switch
- TRG1640** Transformer, 16.5VAC @ 40 VA
- TRG2440** Transformer, 24VAC @ 40 VA

**Accessories**

- 129** Computer Sound Card Interface
- 800** Audio Amplifier, 10 Watts
- 900-2** "B" Connectors, Unfilled, 500 pcs
- 902-2** "B" Connectors, Gel filled, 500 pcs
- 980** Telephone Line Fault Monitor
- 999** Double Sided Tape
- SL1** Strobe Light, 4 colors available
- WK1** Wall Mount Kit for SL1 Strobes

For more information contact your local Distributor or:  
ELK PRODUCTS, INC 828-397-4200 FAX 828-397-4415  
<http://www.elkproducts.com> Email: [info@elkproducts.com](mailto:info@elkproducts.com)

# Doorbell & Telephone Ring Detector ELK-930

**APPLICATION:**

The ELK-930 performs three (3) functions. It can detect ring activation from one or two doorbell buttons and a single telephone line. It conveniently isolates the voltage and current and produces an open collector (pull to ground) output which can be used to trigger an automation controller, relay, timer, etc. The circuit is pre-scored so that the individual detectors may be snapped off (separated) from each other.



## Doorbell & Telephone Ring Detector ELK-930



**FEATURES:**

**Doorbell**

- Detects Doorbell Activation Current.
- Inputs for Two Separate Pushbutton Locations.
- No Interference With Lighted Pushbuttons.
- Produces an Open Collector Output.
- Powered by the Doorbell Transformer.

**Telephone**

- Detects Telephone Ringing Voltage.
- Provides an Open Collector Output that follows the ringing pattern.

- Lifetime Limited Warranty, call for details

**SPECIFICATIONS:**

- Max Input on Doorbell Boards: 24 Volts A.C.
- Max Output : 40mA @ 12 Volts D.C.
- Doorbell Detection Current: 900mA min.
- Total Dimensions: 3.4" x 2.75" x .625".

Features and Specifications subject to change without notice.



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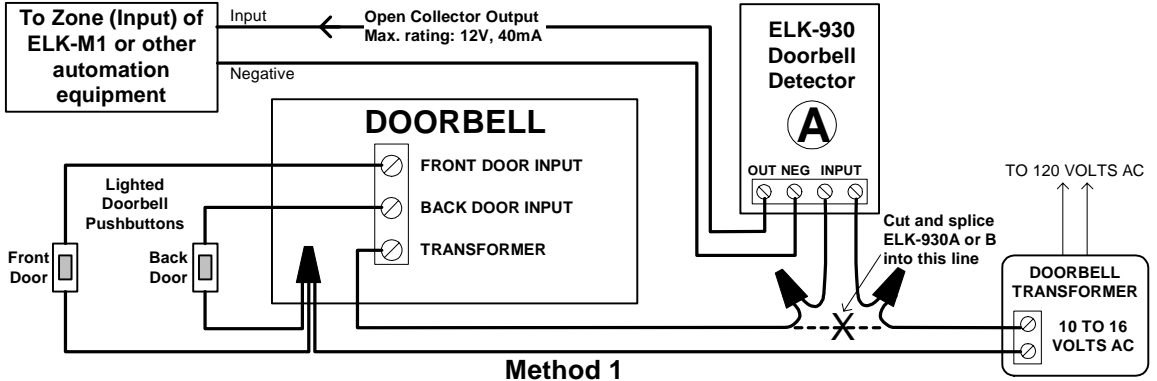
**Instructions Printed On Inside**

# INSTALLATION

The **ELK-930 doorbell detector** monitors the current draw of a doorbell and produces an open collector output when the pushbutton is pressed and the doorbell draws 900mA or more. This open collector output can be used to trigger an automation controller input that utilizes high to low switching (pull to ground) for activation. There are two basic installation methods:

**Method 1** requires only 1 of the ELK-930 doorbell detectors and free access to the wires leading from the doorbell transformer. The ELK-930 will activate when the doorbell rings, regardless of a single pushbutton or two (front door, back door) pushbuttons.

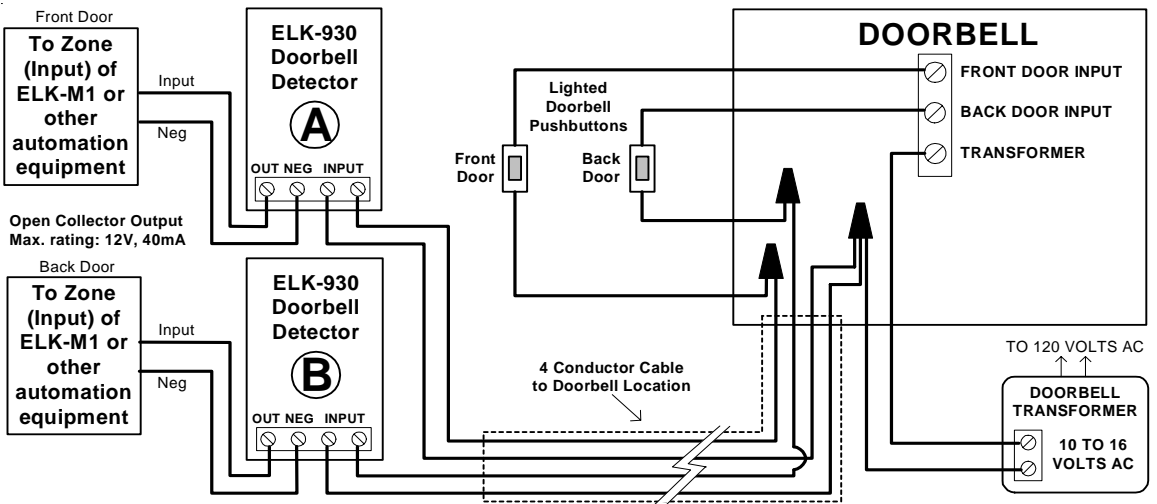
1. Mount the ELK-930 at any convenient location along the path of the two wires leading from the transformer to the doorbell.
2. Cut one of the two transformer wires. Strip the ends and place one under each of the doorbell detector INPUT terminals.
3. Run a two conductor wire from the doorbell detector output terminals to the automation controller or device to be activated.
4. Connect one wire from the "NEG" terminal to a common NEG terminal of the controller. Connect the other wire from the "OUT" terminal to one of the input zones on the controller.



**Method 1**

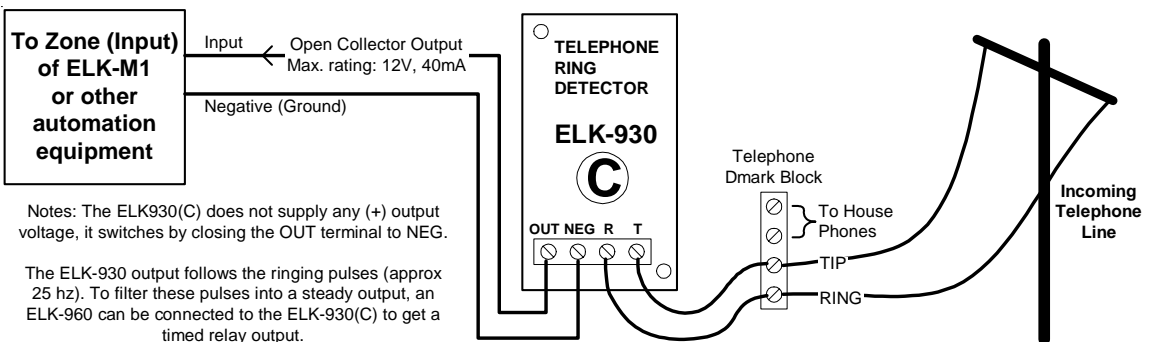
**Method 2** requires both ELK-930 doorbell detectors and free access to both of the pushbuttons wires. Detector A will activate when the front door pushbutton is pressed and Detector B will activate when the back door pushbutton is pressed.

1. Mount the ELK-930 near the Automation Equipment.
2. Run a four conductor wire to the doorbell location.
3. Connect one pair of the four conductor to the INPUT terminals on Detector A and the other pair to the INPUT terminals on Detector B. At the doorbell location splice one pair of the four conductor in series between the front door wire and the transformer common. Splice the other pair between the back door wire and the transformer common.
4. For each doorbell detector connect one wire from the "NEG" terminal to a common NEG terminal of the controller. Connect the other wire from the "OUT" terminal to one of the input zones on the controller.



**Method 2**

The **ELK-930 telephone ring detector** monitors the voltage on the telephone line and produces an open collector output (pull to ground) when the telephone ringing voltage is approximately 50 Volts or greater. The output follows the ringing pattern.



Notes: The ELK930(C) does not supply any (+) output voltage, it switches by closing the OUT terminal to NEG.

The ELK-930 output follows the ringing pulses (approx 25 Hz). To filter these pulses into a steady output, an ELK-960 can be connected to the ELK-930(C) to get a timed relay output.