

\* Try these other fine ELK products \*

**Magic Module Series**

- MM443** Magic Module, 4 Input, 4 Output, Programmable
- MM447** Automation Controller w/Voice, Caddx Interface
- MV480** Recordable Voice Module, 400 Channels
- MKHOME1** Home Control Kit for Caddx NX Controls
- MK400** Starter Kit, Includes MM443 & MK485
- MK485** Programming Kit, MB485, Cables, Software
- MK410** X-10® Transceiver Kit, Programmed MM443
- MK420** iButton™ Access Kit w/ MM443, MA100, MA101
- MA100** iButton™ 'Touchkey' Reader & Interface Pack
- MA101** iButton™ 'Touchkeys', 10 pcs w/keyring holders
- MA290** Proximity / Wiegand Data Interface to MM443
- MB485** Data Bus Interface, RS232 to RS485
- MC100** Clock / Calendar Module for MM443
- ML8** Link Interface to Caddx NX Controls
- MT100** Temperature Sensor Module for MM443
- MM220** Magic Module, 2 Input, 2 Output, Programmable

**Rust Free Sirens / Speakers**

- 1RT** Speaker & Stainless Steel Enclosure
- 150RT** Siren & Stainless Steel Enclosure
- 155RT** Voice Siren in Stainless Steel Box

**Speakers & Sirens**

- 44** Speaker, 30 W, 8 Ohm Compact Horn
- 45** Siren, Compact Horn, 118db
- 55** Voice Siren, Compact Horn
- 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**

- 1240** Battery, Lead Acid, 12v, 5Ah
- 1270** Battery, Lead Acid, 12v, 8Ah
- 12100** Battery, Lead Acid, 12v, 12Ah
- 12170** Battery, Lead Acid, 12v, 18Ah
- 12250** Battery, Lead Acid, 12v, 25Ah
- 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
- 998** Warning Alarm System Decals
- 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)  
 05/02

# Telephone & Power Line Surge Suppressor ELK-950

**APPLICATION:**

The **ELK-950** Telephone and Power Line Surge Suppressor is specially designed to protect residential and commercial electronic security control equipment from damaging transients on the Power input line, the telephone line, and serves as the RJ-31/38X telephone connection block.



## Telephone & Power Line Surge Suppressor ELK-950



**FEATURES:**

- Utilizes Solid State Surge Suppression.
- Protects Incoming Telephone Line.
- Protects AC Input From Transformer.
- Clamps Line-To-Line & Line-To-Ground.
- Self-Restores After Surges Within Rating.
- RJ31/38X 8 Position Modular Jack.
- Rugged, Easy To Mount Plastic Case.
- Packed In Reusable Poly Storage Box.
- Lifetime Limited Warranty.

**SPECIFICATIONS:**

- Response Time: < 1 Nanosecond.
- Breakover Voltage:
  - Telephone Line: 300 Volts.
  - AC Power Line: 50 Volts.
- Peak Pulse Current:
  - Telephone Line: 100 Amps.
  - AC Power Line: 50 Amps.
- Ground Wire: 24" - 14 Gauge Stranded.

This device complies with Part 68 of the FCC rules.  
 FCC Reg. No. 5K6USA-23140-XP-N Ren No. 0.0B.

Features and Specifications subject to change without notice.



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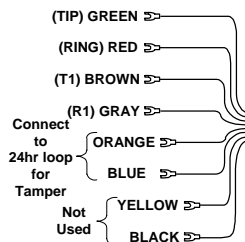
**Instructions Printed On Inside**

# CONNECTIONS

- EARTH GROUND** This terminal must be connected to a good quality earth ground using a 14-16 gauge wire. The best choice of ground is : Copper or galvanized ground rod (6' or longer) driven into the ground OR a copper cold water pipe. Do not use PVC pipe! An acceptable but less preferred ground is the screw on an electrical outlet.
- TELCO** **RING** - Connect one side of the **Incoming Telephone Line** pair. (Commonly colored RED)  
**TIP** - Connect the other side of the **Incoming Telephone Line** pair. (Commonly colored GREEN)
- HOUSE** **R1** - Connect one side of the pair returning to the **House Phone(s)**. (Commonly colored BLACK)  
**T1** - Connect the other side of the pair returning to the **House Phone(s)**. (Commonly colored YELLOW)
- J1 - 8 PIN MODULAR JACK** Connect an 8 wire modular telephone cord from **J1** to the **Digital Communicator**. Studies have found that the cord should be at least 3 feet long for best surge suppression. The pin assignments of J1 are: 4 & 5 are RING and TIP going to the control. 1 & 8 are R1 and T1 returning from the control. 2 & 7 are shorted together by jumper **EOL**, **creating a closed circuit tamper loop** to supervise the modular plug. This loop may be converted to a resistored EOL circuit by cutting the jumper and attaching the required resistor in series with the jumper.
- POWER (DATA)** Optional! Provides transient/surge suppression for the low voltage transformer power line input to the control.  
**CAUTION: UNPLUG TRANSFORMER UNTIL ALL CONNECTIONS ARE COMPLETE!**  
**IN (A & B)** - Connect the two wires coming from the **Transformer**. **Max. input is 24 volts AC.**  
**OUT (A & B)** - Connect the two wires going to the **Control**. Polarity is not important with the AC.
- NOTE:** The POWER terminals may alternately be used for surge protecting data transmission wires such as a keypad or zone expansion bus, as long as any measurable voltage on the two data wires is less than 24 volts. Connect the data wires to the IN and OUT terminals while observing polarity using the A & B markings.

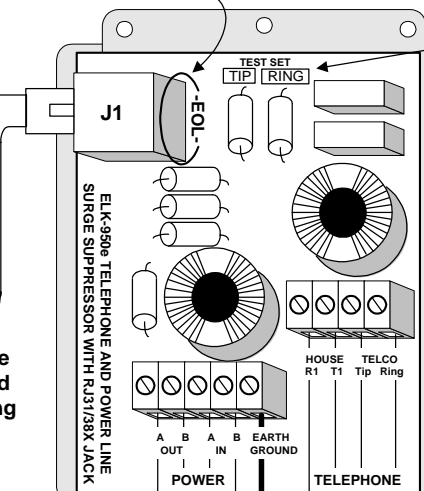
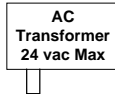
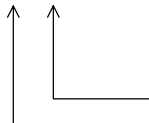
**Jumper EOL shorts pins 2 & 7 for tamper supervision of the plug.**

**To Digital Communicator Inputs On Control Panel**



**Eight (8) Wire Modular Cord Min. 3 Ft. Long**

**To Transformer Input On Control Panel**



**Convenient points for connecting a telephone linemans testset**



**House Phone(s)**

**Telephone Co. Demark Block**

**Earth Ground Rod**

## LIFETIME LIMITED WARRANTY

Elk Products, Inc. ("Manufacturer") warrants to the original purchaser (the "Customer") that the products it manufactures ("Product") shall be free from defects in material and workmanship at time of shipment. Manufacturer's obligations under this Limited Warranty shall be limited to repairing or replacing, at its option, free of charge, any product returned to Manufacturer freight prepaid. Manufacturer shall have no obligation under this Limited Warranty or otherwise if (1) the Product has been damaged by negligence, accident, mishandling, lightning or flood, or other Acts of God, (2) the Product has not been operated in accordance with its operating instructions, (3) the Product has been altered or repaired by anyone outside Manufacturer's authorized facilities (4) adaptations or accessories have been made or attached to the Product which, in Manufacturer's sole determination, have adversely affected its performance, safety or reliability. Products such as batteries and fused transformers have their own warranties, and are not included in this Limited Warranty.

If a Product should malfunction or fail, contact Manufacturer or one of its authorized distributors for a Return Authorization (RA) number. Returned Products must include a complete description of the problem, along with the RA number clearly marked on outside of the package. Manufacturer will not be responsible for any unnecessary items included with any returned Product.

THIS WARRANTY IS THE EXCLUSIVE WARRANTY FOR ANY PRODUCT. MANUFACTURER SPECIFICALLY DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY. MANUFACTURER SHALL NOT BE LIABLE IN TORT, INCLUDING NEGLIGENCE OR STRICT LIABILITY, AND SHALL HAVE NO LIABILITY AT ALL FOR INJURY TO PERSONS OR PROPERTY. MANUFACTURER'S LIABILITY FOR FAILURE TO FULFILL ITS OBLIGATION UNDER THIS LIMITED WARRANTY OR ANY OTHER LIABILITY IN CONNECTION WITH A PRODUCT SHALL BE LIMITED TO THE AMOUNT OF THE PURCHASE PRICE RECEIVED BY MANUFACTURER FOR THE PRODUCT. THE REMEDIES STATED IN THIS LIMITED WARRANTY ARE THE CUSTOMER'S EXCLUSIVE REMEDIES AGAINST MANUFACTURER REGARDING ANY PRODUCT. UNDER NO CIRCUMSTANCES SHALL MANUFACTURER BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS AND REVENUES, INCONVENIENCE OR INTERRUPTIONS IN OPERATIONS, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSSES OF ANY KIND. THESE LIMITATIONS AND DISCLAIMERS ARE NOT MADE BY MANUFACTURER WHERE PROHIBITED BY LAW. SOME STATES PROHIBIT LIMITATIONS OF WARRANTIES AND THE CUSTOMER MAY HAVE ADDITIONAL RIGHTS IN THOSE STATES.

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