

Telephone & Low Voltage Power Line Surge Suppressor

ELK-950

The ELK-950 is an RJ31/38X Telephone Jack containing solid state transient suppression designed to protect both the Telephone and Low Voltage AC Transformer inputs on an alarm control. It responds to power surges and transients in less than 1 nanosecond, automatically restoring after each surge within the specified ratings. The ELK-950 is compact and easy to install and features high quality, clearly labeled screw terminals, 8 pin modular phone connector, built-in tamper loop, and automatic shorting pins for cord removal. The ELK-950 is FCC Registered under part 68 and eliminates the need for a separate RJ31X telephone jack. The AC Transformer inputs 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.



Features

- Superior Solid State Surge Suppression.
- Rapid Response Time.
- Protects Incoming Telephone Line.
- Protects AC Input from Transformer.
- Clamps Line-To-Line & Line-To-Ground.
- Self-restoring After Surges Within Ratings.
- RJ31/38X 8-Pin Modular Jacks.
- Convenient Test points for Lineman's Test set.
- Surface Mount Enclosure.
- Screw Terminals Provided For Telco In-Out & AC Power.
- Lifetime Limited Warranty.

Specifications

- Response Time: <1 Nanosecond.
- Breakover Voltage: 300 Volts on Telephone Line, 50 Volts on AC line.
- Peak Pulse Current: 100 Amps.
- Max AC Input Voltage: 24 VAC.
- Ground Wire: 24" - 14 Gauge Stranded.
- FCC Reg. No.: 5K6USA-23140-XP-N Ren No. 0.0B.
- Size: 4.4" x 3" x 1.15".

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Instructions

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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.

