

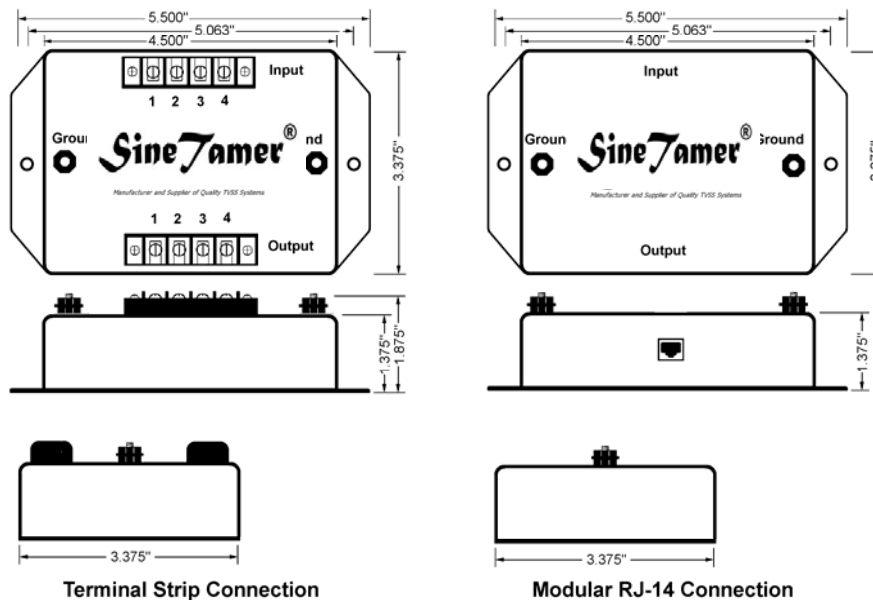
WARNING - HAZARDOUS VOLTAGES MAY BE PRESENT. Improper installation may result in serious injury to the installer and/or damage to the electrical system or connected communication equipment. Read all instructions before beginning the installation. Safety equipment must be used as prescribed by OSHA, whenever working around hazardous voltages.

Failure of unit and/or consequential equipment damage due to improper installation or misapplication is not covered by the product warranty.

Voltage measurements, data transmission rates and **installation must be completed by a certified technician** in accordance with the National Electric Code, State, and Local codes. The National Electric Code, State and Local Code requirements supersede this instruction.

POWER MUST BE REMOVED FROM THE ELECTRICAL SYSTEM BEFORE INSTALLING THE ST-TC-xx-v or ST-RJ##-v SERIES TELEPHONE UNIT.

WIRING DIAGRAM



ST-TC-12-130 model dimensions are 7.3" X 4.7" X 2.8"

BEFORE INSTALLATION

Prior to installation of either the ST-TC-xx-v or ST-R##-v series unit(s):

- **1** – Test system to verify that the voltage and current do not exceed the Maximum Continuous Operating Levels listed in the table below.
- **2** – Actual measurement with an oscilloscope, or verification through review of 'as installed' equipment specifications may be sufficient to establish compliance.
- **3** – **If the circuit exceeds Maximum Continuous Operating Levels in voltage and/or current, do not proceed with the installation!**

The ST-TC-xx-v &/or ST-RJ##-v series devices are designed to protect standard voice grade telephone lines. These devices are intended for installation at the telephone demarcation point so as to allow for a common grounding point.

There are no position-oriented components in the ST-TC-xx-v &/or ST-RJ##-v series units; therefore, the devices can be mounted upside down or sideways to allow for the most efficient installation.

Available Telephone Line Models:	
ST-TC-2-v	Single Pair – Terminal Connected
ST-TC-4-v	Two Pair – Terminal Connected
ST-TC-6-v	Three Pair – Terminal Connected
ST-TC-8-v	Four Pair – Terminal Connected
ST-TC-12-v	Six Pair – Terminal Connected
ST-RJ11-v	One Pair – RJ11 Modular Connection
ST-RJ14-v	One or Two Pair – RJ14 Modular Connection

Note: The ST-TC-x-v and ST-RJ##-v may be ordered in the protection voltages (-v) shown in the table below. RJ## may be either RJ11 (one line/two conductor) or RJ14 (two lines/four conductors). As well, the '-x' shown in the ST-TC-x-v model string allows the device to be ordered with 2, 4, 6, 8 or 12 wire terminals.

Table of Absolute Operating Maximums:		
Maximum Continuous Operating Voltage (-v)	Maximum Continuous Operating Current	Maximum Data Rate
130 Vrms	360 mA	100 kbits/sec
170 Vrms	360 mA	100 kbits/sec

INSTALLATION STEPS

STEP 1:

- **CAUTION:** Do not proceed further until power has been removed from the electrical system.

STEP 2: Mounting the Unit

- Mechanically mount the suppressor using the mounting feet at the ends of the device.
- The device should be mounted for maximum separation between protected and unprotected wiring.
- The device contains no direction-oriented components and can be mounted in any position.
- The device should be the last device placed in the circuit before the protected equipment.
- The device should be mounted at, or as close as practical to the phone company demarcation point.

STEP 3: Wiring the Unit

- Connect a ground wire (#6-12 AWG) from one of the ground lugs to system ground.
- FOR RJ CONNECTED UNITS: Connect the Line 1 incoming RJ modular plug to the Line 1 INPUT RJ modular receptacle.
- Connect the Line 1 equipment line RJ modular plug to the Line 1 OUTPUT RJ modular receptacle.
- FOR TERMINAL CONNECTED UNITS: Connect the incoming line 1 TIP wire to the first INPUT screw terminal.
- Connect the outgoing line 1 TIP wire to the first OUTPUT screw terminal directly across from the first INPUT screw terminal.
- Connect the incoming line 1 RING wire to the second INPUT screw terminal.
- Connect the outgoing line 1 RING wire to the second OUTPUT screw terminal directly across from the second INPUT screw terminal.
- Continue the line INPUT and OUTPUT installations for remaining lines.

STEP 4: Restart the system and check for proper operation

- The telephone system may require recalibration due to the additional resistance of the suppressor on the line. If, upon installation of the surge suppressor, the telephone system does not operate properly, remove the suppressor and contact your local distributor.