TWLinx®
Communications Products

Surge Protection Solutions

Installation Instructions

MTC-TL1 / MSL-CAT5-LAN-RJ45 / MSL-CAT5-POE-RJ45 / MSL-CAT6-LAN / MSL-CAT6-POE

**** Low voltage power, data and video surge protection ****

NOTE

This product is not intended for direct outdoor exposure to the elements, use a NEMA 4X rated or comparable enclosure for outdoor installations.

Note: ***• The protector shall be installed in accordance with the applicable requirements of the National Electric Code, ANSI/NFPA-70, Article 800, Section C.***
• Never install telephone wiring during a lightning storm.
• Do not attach module to an AC base unit in a Primary application.

A.) SecureLinx CAT 5 Modules (Models: MSL-CAT5-LAN-RJ45, MSL-CAT5-POE-RJ45), ***See Figure 1.***

These models protect one 8-wire Cat 5 cable using RJ45 connectors.

1. Simply plug the RJ45 jack from the line input cable into the "Line" side of the protector.
2. Using a Cat 5 (or better) patchcord, plug one end into the "Equipment" side of the protector and the other side of the patchcord into the equipment to be protected.
3. Mount protector to a solid surface, like plywood. Drill a 3/32 hole for the #6 x 3/4 screw & eyelets provided. See figure 4. Attach screw and eyelet to wall and slide protector over screw and tighten. Add second screw to bottom of protector.

   If you are not using a SurgeGate base unit, connect the protector to a single point ground with a minimum 14 AWG wire as shown in Figure 5. Additional protectors may also be bonded together as shown in figure 4 on below.(dotted outline).

B.) SecureLinx CAT 6 Modules (Models: MSL-CAT6-LAN, MSL-CAT6-POE), ***See Figure 2.***

These models protect one 8-wire Cat 6 cable using 110 connectors.

1. Remove protector cover.
2. Strip off 1.5" of jacket from line input 24 AWG OSP cable and protected equipment cable.
3. Insert OSP cable ("LINE" side) into clip on the printed circuit board. If shielded cable is used, contact shield with the clip.
4. Punch down line input pairs on the 110 connectors ("LINE" side) carefully maintaining proper wire twist. (Note: The color code is printed on the PC board next to the connector.)
5. Punch down the protected equipment pairs on the opposite 110 connectors ("EQUIPMENT" side) carefully maintaining proper wire twist. (Note: The color code is printed on the PC board next to the connector.)
6. Position and tightly secure a cable tie on each cable to provide strain relief next to cable exit holes in the protector housing.
7. Replace cover.
8. Mount protector to a solid surface, like plywood. Drill a 3/32 hole for the #6 x 3/4 screw & eyelets provided. See figure 4. Attach screw and eyelet to wall and slide protector over screw and tighten. Add second screw to bottom of protector.
9. When used as a Primary Protector, connect the grounding strip to a good earth ground with a minimum 10 AWG wire. Use ring lug and machine screw provided. Route wire as direct & as short as possible For Isolated Loop applications, connect to a single point ground with a minimum 14 AWG wire as shown in figure 5.
10. Additional protectors may also be bonded together as shown in figure 5. (dotted outline)

SecureLinx POE Protectors: Wiring Conventions

- Shall be wired per TIA/EIA 568A or 568B.
- Data Pairs: Orange, Green (Clamp at 16V).
- Power Pairs: Blue, Brown (Clamp at 62V).

C.) SecureLinx MTC-TL1. ***See Figure 5.***

The SecureLinx MTC-TL1 is designed to protect the low voltage lines for traffic control systems, PTZ Cameras and other remote equipment and begins clamping at 7.5 volts. It also protects a 2-wire telephone line and begins clamping at 220 volts. The ground terminal should not be used unless the wiring is done with shielded wire. In that case, connect the shields to the "GND" terminals on the module.

1. Strip back the outer jackets of both the Signal and Telephone wires about 4 inches (See figure 5).
2. Strip the ends of the individual wires about 1/4 inch. The MTC-TL1 has special screw clamp terminals that work with a range of wire sizes without lugs or tinning wires (See figure 3).
3. Connect the ground wire or shield wire to the "GND" terminal on the "Protected" side of the module.
4. Connect the wires from the traffic signal controller to terminals 1-2, 4-5, 7-8 on the "Protected" side of the module. Connect the telephone wires from the Central Office (CO) to terminals 9-10 on the "Protected" side of the module.
5. Connect the wires to the traffic signal equipment (lights) to terminals 1-2, 4-5, 7-8 on the "Unprotected" side of the module. Connect the telephone wires from the modem to terminals 9-10 on the "Unprotected" side of the module.
6. Mount protector to a solid surface, like plywood. Drill a 3/32 hole for the #6 x 3/4 screw and eyelets provided. (See figure 4). Attach screw and eyelet to wall and slide protector over screw and tighten. Add second screw to bottom of protector.

D). Power Up!

After all the modules and base units have been properly installed and connected, turn on the power to the SecureLinx unit and then the protected equipment. You're Done!

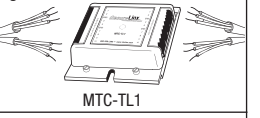
Figure 1

SecureLinx CAT5

Figure 2

SecureLinx CAT6

Figure 3



MTC-TL1

Figure 4

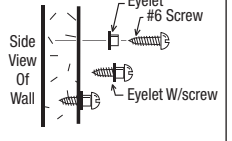
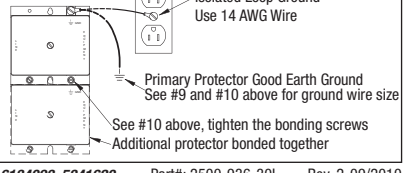


Figure 5



Printed in the U.S.A. ***PATENTED: 6134093, 5841620*** Part#: 2500-936-30I Rev. 2-09/2010

For technical support, please call ***1-800-336-5469***
www.itwlinx.com • 425 North Gary Ave., Carol Stream, IL 60188