

MINUTEMAN[®] Power Technologies

From Para Systems, Inc.

Installation Instructions

MODELS: • MMS-CAT5-LAN-RJ45 • MMS-CAT5-POE-RJ45
• MMS-CAT6-LAN • MMS-CAT6-POE

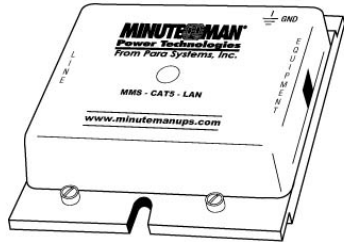
* Low voltage power, data and video surge protection *

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. LineGuard CAT 5 Modules (Models: MMS-CAT5-LAN-RJ45, MMS-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 LineGuard unit.
2. Using a Cat 5 (or better) patchcord, plug one end into the "Equipment" side of the LineGuard unit and the other side of the patchcord into the equipment to be protected.
3. Mount the LineGuard unit to a solid surface, like plywood. Drill a 3/32 hole for the #6 x 3/4 screw and eyelets provided. See figure 3. Attach the screw and the eyelet to the wall and slide the LineGuard unit over screw and tighten. Add a second screw to bottom of the LineGuard unit.

NOTE: If the LineGuard is to be used as a stand-alone unit, connect a minimum #14 AWG wire from the ground terminal tab to common earth ground with 1 ohm or less (0.5 ohms preferred). Use a single ground for the LineGuard unit and the protected equipment to eliminate differences in ground potential. Additional LineGuard units may also be bonded together as shown in figure 4 below (dotted outline).

B. LineGuard CAT 6 Modules (Models: MMS-CAT6-LAN, MMS-CAT5-POE). See Figure 2.

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

1. Remove the LineGuard unit's cover.
2. Strip off 1.5" of the jacket from line input 24 AWG OSP cable and the protected equipment cable.
3. Insert the OSP cable ("LINE" side) into the clip on the printed circuit board. If a shielded cable is used, connect the shield to the clip.
4. Punch down the 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 LineGuard unit's housing.
7. Replace the cover.
8. Mount LineGuard unit 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 the screw and the eyelet to wall and slide the LineGuard unit over screw and tighten. Add a second screw to the bottom of the LineGuard unit.

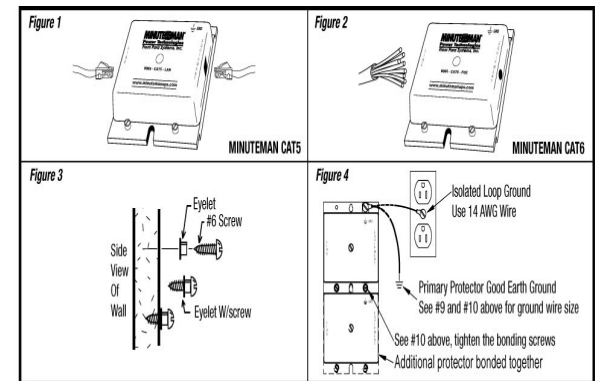
9. When used as a Primary Surge Suppressor, connect the grounding strip to a good earth ground with a minimum 10 AWG wire. Use the ring lug and the machine screw provided. Route wire as direct and as short as possible. For Isolated Loop applications, connect to a single point ground with a minimum 14 AWG wire as shown in figure 4.
10. Additional LineGuard units may also be bonded together as shown in figure 4 (dotted outline).

LineGuard POE Surge Suppressor Wiring Conventions:

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

C. Start Up.

After the LineGuard unit has been properly installed and connected, turn on the power to the LineGuard unit and then the protected equipment. The installation is complete.



MINUTEMAN UPS

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LIMITED WARRANTY AND CONNECTED EQUIPMENT GUARANTEE

By purchasing a MINUTEMAN LineGuard Surge Suppressor in the United States or Canada, the original end-user consumer purchaser (referred to as the "Initial Customer") receives a Limited Warranty and a Connected Equipment Guarantee.

Limited Warranty: The Initial Customer receives the limited warranty explained below (referred to as the "Limited Warranty") for the MINUTEMAN LineGuard series (referred to as the "Surge Suppressor").

Connected Equipment Guarantee: MINUTEMAN provides the Initial Customer with limited additional protection in the event that the Surge Suppressor is defective in materials or workmanship and certain equipment plugged into the Surge Suppressor is damaged.

This Limited Warranty and Connected Equipment Guarantee gives you specific rights, and you may have other rights, which vary from State to State or Province to Province.

If you are the Initial Customer, you are asked to read the following terms and conditions carefully before using the Surge Suppressor. By using the Surge Suppressor you consent to be bound by and become a party to the terms and conditions of the Limited Warranty and Connected Equipment Guarantee provided in this document. If you do not agree to the terms and conditions of the Limited Warranty and Connected Equipment Guarantee, you should return the Surge Suppressor for a full refund prior to using it.

LIMITED WARRANTY

MINUTEMAN warrants to you, the Initial Customer, that the Surge Suppressor will be free from defects in material and workmanship for its lifetime, subject to the terms of this Limited Warranty. This Limited Warranty gives you specific rights, and you may have other rights, which vary from State to State or Province to Province.

This provision shall NOT create any Implied Warranty or Merchantability or of Fitness for a Particular Purpose that would not otherwise apply to the Surge Suppressor. The Limited Warranty does not cover or apply to: mis-use, modification, operation or storage outside environmental limits of the Surge Suppressor, a Surge Suppressor in transit, in shipment, or in storage, improper operation or maintenance, or use with items not designed or intended for use with the Surge Suppressor. You must contact MINUTEMAN within fifteen (15) days of the failure of the Surge Suppressor in order to make a warranty claim.

Exclusive Remedies Under Limited Warranty

Your exclusive remedy and MINUTEMAN's sole obligations are as follows for the Surge Suppressor:

If (a) the Surge Suppressor you purchased and still own is defective in material or workmanship under this Limited Warranty or any applicable warranty imposed by law, and (b) all Limited Warranty requirements have been met, MINUTEMAN will repair or replace the Surge Suppressor if it proves to be defective in material or workmanship.

Making a Limited Warranty Claim

To make a Limited Warranty claim, you must do the following:

1. Provide reasonable proof of purchase (for example, a sales receipt) that establishes you as the Initial Customer (the original end-user consumer purchaser) of the Surge Suppressor.
2. Call MINUTEMAN at (972) 446-7363, or write to MINUTEMAN at: 1455 LeMay Drive, Carrollton, TX 75007, within FIFTEEN (15) days of the failure of the Surge Suppressor.
3. When you contact MINUTEMAN, identify the Surge Suppressor by model number, provide the purchase date, and request Return Materials Authorization (RMA) information from MINUTEMAN.
4. Pack and ship the Surge Suppressor to MINUTEMAN as instructed in your RMA. Show the RMA number on the shipping label or include it with the Surge Suppressor. You MUST prepay all shipping costs and you are responsible for packaging and shipment.

MINUTEMAN will inspect and examine the Surge Suppressor. If the Surge Suppressor is defective in material or workmanship, MINUTEMAN will repair or replace the Surge Suppressor and return it to you at MINUTEMAN's expense, or, if MINUTEMAN is unable to or decides not to repair or replace the Surge Suppressor (if defective) within a reasonable time, MINUTEMAN will refund to you the full purchase price you paid for the Surge Suppressor (purchase receipt showing price paid is required).

CONNECTED EQUIPMENT GUARANTEE

The Initial Customer is protected for the life of the LineGuard Surge Suppressor against certain losses due to the Surge Suppressor's defective material or workmanship that is directly and properly connected to electronic equipment (referred to as the "Connected Equipment"), subject to certain terms and conditions provided below.

The Connected Equipment Guarantee is not "first dollar" coverage. MINUTEMAN's obligation is reduced by any amounts that the Initial Customer is entitled to recover from other sources regarding the Connected Equipment, including insurance, other warranty, or extended warranty coverage, whether or not the Initial Customer makes a claim for recovery, including but not limited to a claim under any applicable insurance, other warranty, or extended warranty.

To be covered under the Connected Equipment Guarantee: (a) you must notify MINUTEMAN within fifteen (15) days of the event for which you intend to make the Connected Equipment claim; (b) the Surge Suppressor must have been defective in material or workmanship and such defect must have directly and proximately caused the damage; (c) the Connected Equipment must have been damaged by a transient, spike, or surge (a "Power Disturbance") on power lines (AC/DC), telephone lines, video lines, signal/data lines, coaxial cable, antenna lead-ins (d) is directly plugged into and properly connected to the Surge Suppressor in its original condition which is properly operated when a Power Disturbance passes through the Surge Suppressor and (i) exhausts the protection capacity of the Surge Suppressor or (ii) damages the Surge Suppressor.

Further, the Connected Equipment Guarantee does not apply if the Surge Suppressor has been operated in a failure mode or not in compliance with MINUTEMAN installation instructions, or if the Connected Equipment has not been operated in compliance with the instructions and manuals of its manufacturer/vendor or if there are signs of tampering, or modifying the Surge Suppressor in any way.

MINUTEMAN's total liability under this Connected Equipment Guarantee is limited to the Agreed Damage Amount (defined below).

Making a Connected Equipment Guarantee Claim

To make a claim for damage to Connected Equipment under the Connected Equipment Guarantee, you must do the following:

1. Provide reasonable proof of purchase (for example, a sales receipt) that establishes you as the Initial Customer of the Surge Suppressor.
2. Call MINUTEMAN at (972) 446-7363, or write to MINUTEMAN at: 1455 LeMay Drive, Carrollton, TX 75007, within fifteen (15) days of the date of the event for which you wish to make a Connected Equipment claim.
3. When you contact MINUTEMAN, identify the Surge Suppressor (by model number) and the item(s) of Connected Equipment (by manufacturer and model). Have information on all applicable insurance or other resources of recovery/payment that are available to the Initial Customer. MINUTEMAN will then send you additional instructions and the appropriate claim forms.

MINUTEMAN's Duties

MINUTEMAN will inspect and examine the Surge Suppressor and the item(s) of Connected Equipment (or at MINUTEMAN's election, your written statement and repair cost estimate for those item(s)). You must return the Surge Suppressor for inspection. If the MINUTEMAN product shows evidence of surge damage due to transients, spike, or surge from power lines (AC/DC), telephone lines, video lines, signal/data lines, coaxial cable, antenna lead-ins, and/or performing outside (>10%) of design specifications relative to its surge protection capability, MINUTEMAN will request that all connected equipment for which a Connected Equipment Guarantee claim has been submitted, be sent for evaluation to either MINUTEMAN or an authorized service center.

If the damage to Connected Equipment is covered by the Connected Equipment Guarantee, MINUTEMAN's sole obligation and the Initial Customer's exclusive remedy is: repair (or pay the cost of repair) or replacement of the Connected Equipment by MINUTEMAN; or at the option of MINUTEMAN, as permitted by law, payment by MINUTEMAN to the Initial Customer the "Agreed Damage Amount" for the Connected Equipment. The "Agreed Damage Amount" for all items of the Initial Customer's Connected Equipment shall be the lesser of the amount determined under Clause (1) or (2) below, reduced by any amounts described in Clause (3) below:

1. The fair market value of the Connected Equipment as established by the lower of (a) the average price the same or similar items are being sold for on eBay, (b) the price list of Orion Blue Book (or if such price list is no longer published, a published or announced price list reasonably selected by MINUTEMAN), or (c) the lowest price the same or similar items can be purchased for in the United States; or
2. The Aggregate Limit for all Connected Equipment of \$10,000.00 minus:
3. The amount(s) of all payment you have or are entitled to receive from insurance, other warranties, extended warranties, or from other sources or persons for the Connected Equipment or damage to such equipment so that MINUTEMAN's maximum liability shall be reduced to reflect all such other payments or sources of recovery.

If MINUTEMAN replaces the connected equipment or pays the Agreed Damage Amount to the Initial Customer, the Initial Customer shall transfer all item(s) to MINUTEMAN without warranty by the Initial Customer, but free of lien or other interest.

MINUTEMAN reserves the right to inspect the Surge Suppressor, the Connected Equipment, and the site where the event occurred. All costs of shipping the Surge Suppressor and the Connected Equipment to and from MINUTEMAN for inspection shall be borne solely by the Initial Customer. MINUTEMAN reserves the right to negotiate the cost and choose the facility at which any repairs will take place, and MINUTEMAN must be notified and approve any repair facility before any Connected Equipment is serviced. Any repair or modification of the Connected Equipment or Surge Suppressor by a facility or entity not approved by MINUTEMAN voids this Connected Equipment Guarantee. If MINUTEMAN determines, in its sole discretion, that it is impractical to ship the damaged equipment to MINUTEMAN, MINUTEMAN may designate, in its sole discretion, an equipment repair facility to inspect and estimate the cost to repair such equipment. The cost, if any, of shipping the equipment to and from such repair facility and of such estimate shall be borne solely by the Initial Customer. Damaged equipment must remain available for inspection until the claim is finalized. Whenever claims are settled, MINUTEMAN reserves the right to be subrogated under any existing insurance policies the claimant may have.

CONDITIONS COMMON TO THE LIMITED WARRANTY AND THE CONNECTED EQUIPMENT GUARANTEE

While the Limited Warranty and the Connected Equipment Guarantee are separate, they do share the following terms:

The Limited Warranty and the Connected Equipment Guarantee *Do Not Apply* unless the Initial Customer:

1. Has properly connected the Surge Suppressor and the Connected Equipment according to the installation instructions and wiring diagrams (including compliance with electrical and safety codes of the most current applicable codes NEC or CEC). All wires (including, e.g., power lines (AC/DC), telephone lines, video lines, signal/data lines, coaxial cable, antenna lead-ins) leading into the Connected Equipment must first pass through a single Surge Suppressor designed for the particular application.
2. Has provided a suitable and proper environment for use and installation of the Surge Suppressor and Connected Equipment.
3. Has properly installed and operated the Surge Suppressor and Connected Equipment.
4. Has operated the Surge Suppressor at all times within the limitations of the Surge Suppressor's capacity and/or design specifications.
5. Used and/or operated the Surge Suppressor in the United States and Canada only.

MINUTEMAN Does Not Cover or Undertake Any Liability in Any Event for Any of the Following:

1. Loss of or damage to data, video, records, or software, the restoration of data, video, or records, or the reinstallation of software.
2. Damage from causes other than Power Disturbances (as defined above).
3. Used and/or operated outside of the United States and Canada.
3. Damage from fire, flood, wind, rain, rising water, leakage or breakage of plumbing, or abuse, mis-use, or alteration of either the Surge Suppressor or the Connected Equipment.