Remote Control Module & Mounting Plate

The Remote Control Module allows you to remotely monitor and control many of the functions of select* Tripp Lite PowerVerter PV Inverters and PowerVerter APS, RV or EMS Inverters/Chargers.

* Only those models featuring an RJ45 Remote Port.

**Installation**

Connecting to an Inverter or Inverter/Charger

Connect one end of the included RJ-type cable into the RJS Remote Port on the front of your PowerVerter Inverter or Inverter/Charger. Connect the other end into one of the two RJ45 Remote Ports on the bottom of the Remote Control Module.

Connecting to Additional Remote Control Modules (Optional)

You can control a single PowerVerter Inverter or Inverter/Charger with two separate Remote Control Modules. Connect one Remote Control Module directly to the PowerVerter as described above. Connect either of the two RJ45 Remote Ports on the bottom of the second Remote Control Module directly to the remaining RJ45 Remote Port on the bottom of the first Remote Control Module using an RJ45-type cable, included.

Connecting to Vehicle’s Ignition Switch (Optional)

You can set the Remote Control Module to automatically perform either one of two additional control functions (DISABLE or ENABLE) by connecting the Remote Control Module to the vehicle’s ignition switch. These connections are optional; the Remote Control Module will function without these connections.

**Operation**

### DISABLE Control Function:

This function automatically disables (turns OFF) the AC power output from the PowerVerter when the vehicle’s ignition switch is placed in the “Engine Run” position. This function will satisfy local codes and requirements concerning video monitors (or TVs) that are located within a driver’s view by automatically turning them off when the engine is started.

Using the interface cable (included with select models), connect the black lead to vehicle ground (battery negative). Connect the red lead to the “Engine Run” terminal of the vehicle’s ignition switch. Then, connect the interface cable’s mini-plug to either of two Ignition Switch Control Jacks located on the side panel of the Remote Control Module: if you are controlling a PV Inverter, insert the mini-plug into the jack labeled “J-1”; if you are controlling an APS, RV or EMS Inverter/Charger, insert the mini-plug into the jack labeled “J-2.” After connecting the interface cable, set the Remote Control Module’s switch to either “ON” (for PV models) or “CHRG ONLY” (for APS, RV or EMS models).

* The interface cable (included with select models) has a mini-plug on one end and two wire leads (one black and one red) on the other.

### ENABLE Control Function:

This function automatically enables (turns ON) the AC power output from the PowerVerter when the vehicle’s ignition switch is placed in the “Accessory” or “Engine Run” positions. This function minimizes the risk of discharging the vehicle battery when the vehicle is parked with the engine off for an extended period of time.*

Using the interface cable** (included with select models), connect the black lead to vehicle ground (battery negative). Connect the red lead to the “Accessory” terminal of the vehicle’s ignition switch. Then, connect the interface cable’s mini-plug to either of two Ignition Switch Control Jacks located on the side panel of the Remote Control Module: if you are controlling a PV Inverter, insert the mini-plug into the jack labeled “J-2”; if you are controlling an APS, RV or EMS Inverter/Charger, insert the mini-plug into the jack labeled “J-1.” After connecting the interface cable, set the Remote Control Module’s switch to either “ON” (for PV models) or “CHRG ONLY” (for APS, RV or EMS models).

* The interface cable (included with select models) has a mini-plug on one end and two wire leads (one black and one red) on the other.

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**WARNING! THE IGNITION SWITCH CONTROL FUNCTION IS ONLY FOR USE WITH 12V NEGATIVE GROUND SYSTEMS.**

Wiring the Ignition Switch Control Cable to your vehicle’s ignition requires a qualified technician, who must determine the proper wiring procedure.

**Mounting Without Included Mounting Plate (Optional)**

Affix either one of the two included labels to the front panel of the Remote Control Module. The labels identify the Module’s LEDs. Choose the label marked “PV” if you are using the Remote Control Module to operate a Tripp Lite Inverter. Choose the label marked “APS” if you are using the Remote Control Module to operate a Tripp Lite Inverter/Charger.

Mount the Remote Control Module in a variety of ways (under-counter, recessed, etc.) using user-supplied hardware inserted through the Module’s mounting holes/slots and into the mounting surface.

**WARRANTY REGISTRATION**

Don’t forget to register your new Tripp Lite equipment on-line at www.tripplite.com/warranty to make sure you receive all the benefits of owning our products.

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**Owner’s Manual**

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**Remote Control Module & Mounting Plate**

for use with select PowerVerter Inverters (PV series) or PowerVerter Inverter/Chargers (APS, RV or EMS series)

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**Mounting With Included Mounting Plate (Optional)**

- For PVXXXXHF Model Inverters: Install with Inverter side of plate facing out.
- For PVXXXXFC Model Inverters: Install with Inverter side of plate facing out; place included label on plate as shown.

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**Placement of Label**

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**Operation**

Choose operation based on whether you connect your Remote Control Module to an Inverter (PV series) or Inverter/Charger (APS, RV or EMS series).

### INVERTER (PV series)

**OFF/ON Switch:**

Move this switch to the “OFF” position to have your Inverter provide connected equipment with AC power by converting DC power from an attached battery. To prevent battery drain, leave it in the “OFF” or “INV OFF”** position when not using connected equipment.

**BATTERY** LEDs:

These three lights show the approximate charge of your connected batteries. See chart below for approximate charges.

<table>
<thead>
<tr>
<th>LEDs Illuminated</th>
<th>Approximate Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>96% - Full</td>
</tr>
<tr>
<td>Green &amp; yellow</td>
<td>81% - 95%</td>
</tr>
<tr>
<td>Yellow</td>
<td>61% - 80%</td>
</tr>
<tr>
<td>Yellow &amp; red</td>
<td>41% - 60%</td>
</tr>
<tr>
<td>Red</td>
<td>21% - 40%</td>
</tr>
<tr>
<td>All three lights</td>
<td>0% (Inverter shutdown)</td>
</tr>
<tr>
<td>All three lights</td>
<td>Excessive discharge</td>
</tr>
</tbody>
</table>

* "INV OFF" when used with label. "NO OFF" when used with mounting plate.
LEDs Illuminated

<table>
<thead>
<tr>
<th>Approximate Load</th>
<th>Green</th>
<th>Green &amp; yellow</th>
<th>Yellow</th>
<th>Yellow &amp; Red</th>
<th>Red</th>
<th>All three lights off</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% - 20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inverter off</td>
</tr>
<tr>
<td>21% - 40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flashing red</td>
</tr>
<tr>
<td>41% - 60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Overload</td>
</tr>
<tr>
<td>61% - 80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81% - Full</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IN** LED: This yellow light will turn continuously ON whenever connected equipment is receiving battery-supplied AC power. It will flash if the Inverter/Charger does not detect the minimum load necessary to activate the inverter.

**LOAD** LED: This red light will turn continuously ON when your Inverter/Charger is receiving utility-supplied AC power and the load is between 80% and 110% of capacity to alert you that the inverter might not be able to support the load. The light will flash intermittently after the Inverter/Charger's inverter shuts down due to a severe overload or overheating.

**FAULT** LED: This red light will turn ON whenever the Inverter/Charger's inverter shuts down due to a severe overload or overheating.

NOTES:
- To remotely reset the Inverter/Charger after a shutdown due to overload, move the Remote Control Module's "CONTROL" Switch to the "CHRG ONLY" or "LINE/CHARGE ONLY" position until the LOAD LED goes out. Remove the overload by turning off some connected equipment. After allowing a few moments for the Inverter/Charger to cool, switch the Remote Control Module's "CONTROL" Switch back to "AUTO" or "AUTO/INVERT".
- RJ45 Remote Ports: Use to connect the Remote Control Module to either an Inverter or a second Remote Control Module. See installation section.

**Ignition Switch Control Jacks:** Use to connect the Remote Control Module to your vehicle's ignition (with cable supplied on select models only) in order to automatically control the Inverter with the vehicle's ignition switch. See installation section.

**Mounting Holes/Slots:** Front panel holes can be used to attach included Mounting Plate or to mount Remote Control Module behind a panel. Top and side panel slots can be used to attach Remote Control Modules (without the Mounting Plate) either under or along a variety of surfaces with user-supplied hardware.

**Operation (continued)**

**INVERTER/CHARGER (APS, RV or EMS series)**

**CONTROL Switch:** Move this switch to the "AUTO" or "AUTO/INVERT" position to have your Inverter/Charger provide connected equipment with AC power (converted from DC power from attached batteries) in the event of an AC power outage. Move it to the "CHRG ONLY" or "LINE/CHARGE ONLY" position when equipment is not in use to conserve battery power by disabling the inverter. The "LINE" LED will flash while the switch is in this position to remind you that battery power will not be available in the event of a blackout or disconnection from utility shore power.

If the switch is in the "AUTO" or "AUTO/INVERT" position, the LEDs indicate the approximate charge level and voltage of your connected battery bank and alarm you to several fault conditions. See Chart 4 for charge levels and voltage levels.

**Battery Capacity (Charging/Discharging)**

Red: 75% - 100%
Yellow & Red: 61% - 80%
Yellow: 41% - 60%
Red: 21% - 40%
All three lights off: 0% (inverter shutdown)‡

‡ Charge levels listed are approximate. Actual conditions vary depending on battery condition and load.

Inverter shutdown protects battery against damage due to excessive discharge.

**Fault Condition**

All three lights flash slowly: Excessive discharge (inverter shutdown)
All three lights flash quickly: Overcharge (charger shutdown)

‡ Approximately ½ second on, ½ second off. See Troubleshooting section. Inverter shutdown protects battery against damage due to excessive discharge. Approximately ½ second on, ½ second off. Charger shutdown protects battery against damage due to overcharging. May also indicate a battery charger fault exists.

If the switch is in the "CHRG ONLY" or "LINE/CHARGE ONLY" position, the LEDs indicate the approximate charge rate of the Inverter/Charger. See Chart 5 for charge rates.

**Limited Warranty**

Tripp Lite warrants its products to be free from defects in material and workmanship for a period of one year (domestic) or 10 years (select models only) from the date of purchase. Tripp Lite’s obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty you must obtain a Returned Material Authorization (RMA) number from Tripp Lite or an authorized Tripp Lite service center. Products must be returned to Tripp Lite or an authorized Tripp Lite service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been modified or altered. This warranty applies only to the original purchaser.

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WARRANTY REGISTRATION

Visit www.tripplite.com/warranty today to register the warranty for your new Tripp Lite product. You’ll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!∗

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