

# PS1370 POWER PRE-REGULATOR INSTALLATION INSTRUCTIONS

## 1. Wiring Instructions



### Caution:

*Before installing cables between the PS1370 Power Pre-regulator, your computer or powered cradle, and the vehicle DC power source, please consider the following:*

- *Ensure the vehicle body and underlying wiring is not damaged while drilling mounting holes.*
- *Protect cable runs from pinching, overheating, and physical damage.*
- *Use grommets to protect cables that pass through metal.*
- *Use plastic straps and tie-downs to secure cables and connectors in their desired location, away from areas where they may get snagged or pulled.*
- *Keep the cables away from heat sources, grease, battery acid, and other potential hazards.*
- *Keep the cables away from control pedals, levers, and other moving parts that may pull on the cables or interfere with the operation of the vehicle.*
- *Leave enough slack on the cables so that the computer can be removed easily for maintenance.*

*Warning: Make sure the cables run inside the roll cage of the vehicle.*

## 2. Wiring Vehicle Power to the PS1370



### Warning:

- *Normally a Vehicle-Mount Computer (VMC) accepts nominal voltage between a minimum of 10VDC and a maximum of 48VDC. If the vehicle DC power source exceeds the VMC's maximum allowed input limit, the PS1370 is required.*
- *Normally a Hand-Held Computer's Powered Cradle accepts DC power sources below 20VDC. If the vehicle DC power source is above 20VDC, the powered cradle requires the use of the PS1370.*
- *Applying voltages higher than those listed above without the pre-regulator or reversing polarity may result in permanent damage to the computer or powered cradle and will void the product warranty.*

Extension power cables (P/N 13985-302 and P/N 13985-303) are used when the PS1370 is integrated in a system. Please follow the instructions in the installation sheet (P/N 16435) supplied with the extension cables. The PS1370 may draw a maximum input current of 8 Amps. The PS1370 can be used with both negative and positive chassis vehicles.

*Note: If the PS1370 Power Pre-regulator is ordered as an accessory, extension power cables are not included—they must be ordered separately.*

## 3. Installing the PS1370

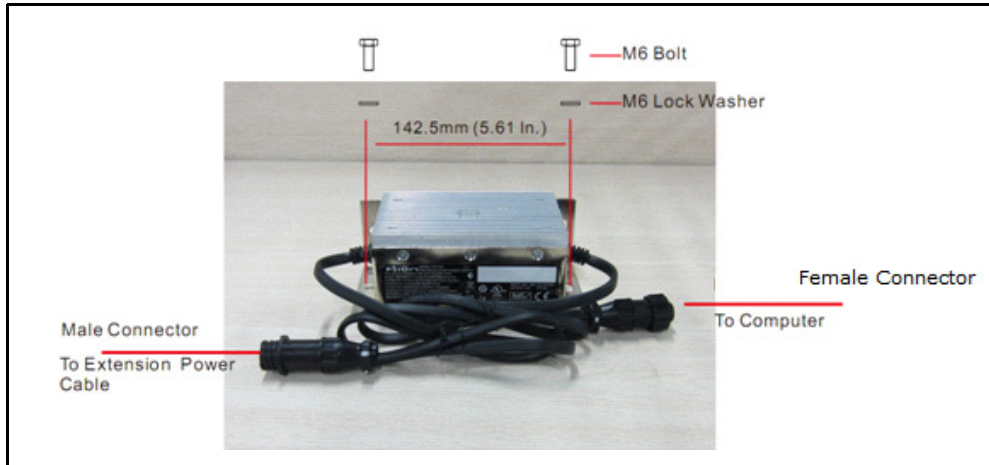


### Important:

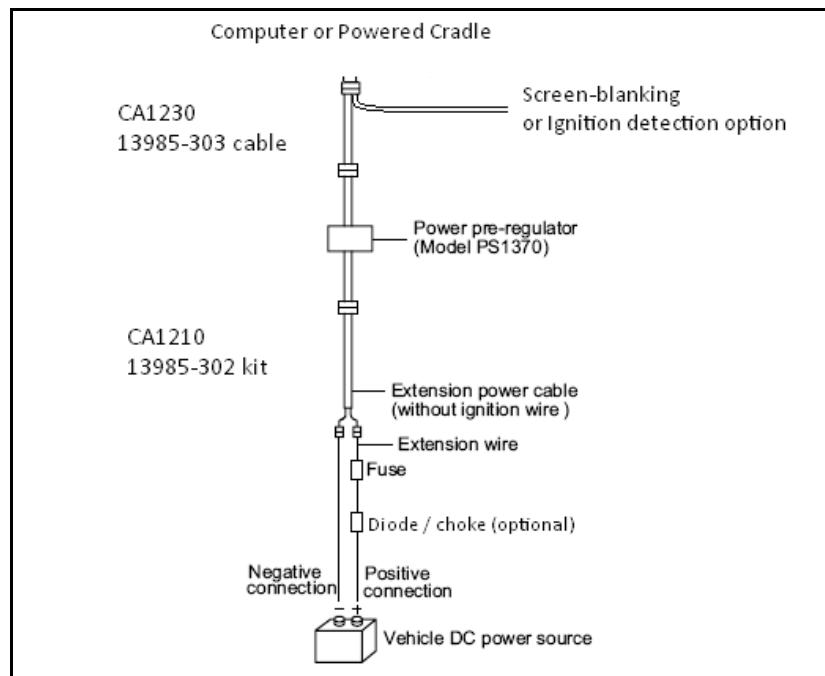
- *Always ensure the PS1370 chassis is directly mounted to the vehicle metal chassis in order to avoid electric shock. If the PS1370 is not mounted directly to the vehicle metal chassis, a grounding strap (minimum 16 gauge with ground lug hardware and a #10 heavy duty wire crimp ring terminal) should connect from the PS1370 chassis to a solid, reliable contact point on the main portion of the vehicle chassis. As with other vehicle cables, the routing of the ground strap should be carefully considered to ensure it does not pose a hazard to the operator or the safe operation of the vehicle. If necessary, secure the ground strap with cable ties or some other mechanical means to prevent loops or loose lengths of wire from catching on stationary items when the vehicle is in motion.*
- *Always ensure the PS1370 is connected to a FUSED vehicle DC power source. An extension fuse accessory (P/N 19440-xxx) shall be installed with the power cable (P/N 13985-302), if the PS1370 is taking power from an un-fused vehicle DC power source. The fuse accessory must connect to the positive side of the DC supply and be located as close as possible to the DC power source.*
- *The positive lead of the extension power cable (P/N 13985-302) is red and the negative lead is black. DO NOT connect the leads to the vehicle body. It is recommended that all connections be secured with electrical tape or heat shrink to prevent contaminants from degrading the connection.*

1. Attach the PS1370 with male connector to the extension power cable (P/N 13985-302), which has been installed and connected to the vehicle DC power source.
2. Connect the PS1370 with female connector either directly to the computer or the powered cradle's power cable, and to the extension power cable (P/N 13985-303 with 'screen blanking or ignition detection option', (see Figure 2).

**Figure 1** The PS1370 Power Pre-regulator



**Figure 2** Extension Power Cables -- Connections to Vehicle DC Supply with PS1370 Power Pre-regulator



**Notes:**

- When installing a computer (except VH10) or powered cradle on vehicles with an electric traction motor operating on 24VDC and above, the diode assembly (supplied with the extension power cable 13985-302) should be used to reduce the AC ripple produced by the SCR traction motor controller on the vehicle.
- To connect the diode, push the male connector on the diode assembly into the female connector on the positive (red) lead of the power cable. If the fuse assembly is already installed, connect the diode assembly to the fuse assembly as described in the previous sentence. Connect the red wire from the diode assembly to a fused power source on the vehicle.
- It is recommended that all connections be secured with electrical tape or heat shrink to prevent contaminants from degrading the connection.