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# True**Power** 400 PS Series

Owner's Manual and Installation Guide



## 400 Watt Inverter with Automatic Crossover

Models	Part No.	Description
TruePower400PS	79400	GFCI Protected Outlets
TruePower400PS	79405	Hardwired

# IMPORTANT SAFETY NOTICE SAVE THESE INSTRUCTIONS

Please read all safety, operating and installation instructions before installing or applying AC power to your ProMariner / On Board Solutions power inverter.

For all product, installation or service questions please visit www.promariner.com or call ProMariner directly at: 1-800-824-0524 8:30 am to 5pm (Eastern Time)

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## **INTRODUCTION**

Thank you from all of us at Professional Mariner and Onboard Solutions. Congratulations on your recent purchase of the TruePower400PS Power Inverter!

For over 30 years ProMariner has been a leading designer and manufacturer of power conversion products. On Board Solutions serves customers in the automotive, recreational vehicle, industrial and mobility markets and is a proud division of ProMariner. We have expanded our offering to include our latest line of TruePower400PS Power Inverters.

Please save and read this manual carefully and fully understand the safety instructions before installing your new TruePower400PS Power Inverter.

#### GENERAL SAFETY INSTRUCTIONS

Before installing and using your new inverter, read all appropriate sections of this guide and any cautionary markings on the inverter, batteries and on your appliances.

## 1) SAVE THESE INSTRUCTIONS

This manual contains important safety and operating instructions for inverter models 79400 and 79405.

## 2) CAUTION:

Do not operate the inverter if the carton or unit has significant damage from being dropped or crushed, received a direct hit of force or is otherwise damaged.

## 3) CAUTION:

Do not dismantle the inverter. Call the factory directly when service or repair is required. Incorrect assembly may result in risk of electrical shock or fire.

## 4) CAUTION:

To reduce the risk of electrical shock, disconnect both AC and DC power from the inverter prior to any maintenance or cleaning.

## 5) CAUTION:

Protect the inverter from rain, snow, water and spray.

## 6) CAUTION:

Use of an attachment not recommended or sold by ProMariner my result in a risk of fire, electric shock, or injury to persons.

## 7) CAUTION:

Connect and disconnect DC output connections ONLY after setting any inverter switches to the off position and removing any AC or shorepower cords from electric outlet or opening an AC disconnect.

## PERSONAL SAFETY PRECAUTIONS

Someone should be within the range of your voice or close enough to come to your aid when installing power inverters or working near lead acid batteries.

Wear complete eye protection and protective clothing. Avoid touching eyes while working on or with batteries. Have plenty of soap and water nearby in case of battery acid comes in contact with skin, clothing or eyes.

If battery acid comes in contact with skin or clothing, wash immediately with soap and water. If acid enters the eye (s) flood eye (s) with running water for at least 10 minutes and get medical attention immediately.

#### PERSONAL SAFETY PRECAUTIONS CONTINUED

Never smoke or allow a spark or a flame in the vicinity of a battery or engine.

Be extra cautious to reduce the risk of dropping a metal tool onto a battery. It may spark or short-circuit the battery or other electrical parts that may cause an explosion.

Remove all personal metal items such as rings, bracelets, necklaces, watches and jewelry when working near a battery. A battery can produce a short circuit high enough to weld a ring or any metal, causing serious burns.

Never charge a frozen battery.

#### **WARNING: RESTRICTIONS ON USE**

The TruePower 400 PS sine wave inverter shall not be used in connection with life support systems or other medical equipment devices.

## **GUIDE TO OPERATION**

#### **General Advisory**

Install your TruePower 400 PS Inverter to the guidelines recommended in this manual. The TruePower 400 PS Inverter is designed to meet UL 458.

#### **General Operation**

The TruePower400 PS Inverter is a sine wave inverter which converts 12 volt direct-current (DC) power from your batteries to 120 volts alternating current (AC) power. This AC power is the same quality as the electricity you get from your utility. The TruePower400 PS Inverter comes equipped with numerous protection features to guarantee safe and worry-free operation.

#### GENERAL OVERVIEW

The TruePower 400 PS provides 400 watts of clean sine wave AC power for your sensitive entertainment electronics.

Offering superior quality sine wave output, the TruePower400PS sine wave inverter is designed to power entertainment systems in boats and recreational vehicles. Its clean utility-grade output does not produce noise and distortion on televisions, LCD and Plasma TV's, VCR's, DVD's and stereo's. The TruePower400PS supplies up to 400 watts of continuous power and with a surge rating of 1000 watts, it can power complete entertainment systems including two 27" televisions, or it could also power small appliances, chargers, and power tools.

The TruePower 400 PS sine wave inverter includes a built-in transfer switch that automatically transfers between inverter and incoming AC power. The inverter comes standard with dual AC outlets and AC hardwire connections that increase installation options and safety.

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#### INVERTER FEATURES

#### Product Features

- 400 watt inverter with 1000 watt surge provides sufficient power for entertainments systems
- Built-in transfer switch automatically transfers between inverter power and incoming AC power, rated at 10 Amps
- Certified to UL 458
- Dual GFCI protected AC outlets and hardwire AC connections
- Flush mount remote control with 3 meter cable
- Filtered sine wave output will not produce distortion on sensitive electronics
- One year warranty
- Part number # 79400 with plugs and Part number # 79405 for hardwired only
- Remote control panel with status indicator

#### **Protective Features**

- Automatic overload protection
- Battery over-voltage and under-voltage protection
- Ground Fault Protection (GFCI)
- Over temperature shutdown
- Short circuit protection

## PROTECTION FEATURES

Low Voltage Shutdown protects the battery from becoming completely discharged by shutting down automatically if the input voltage drops below 10.5 volts. The TruePower400PS recovers automatically when the input voltage comes up to 12.4.

High Voltage Shutdown protects the True Power 400 PS by disabling the AC output when the input voltage rises to 15.6 volts or more. The AC output is enabled when the input voltage drops to 15.5 volts. Over-temperature Shutdown disables the AC output of the True Power 400 PS when the internal temperature rises or overloading occurs. The True Power 400 PS recovers automatically after it cools down.

Overload Protection disables the AC output of the TruePower 400 PS if the appliance connected to the inverter exceeds the 400 watt rating of the inverter. The TruePower 400 PS will then automatically reset after the overload has been removed.

Short Circuit Protection disables the AC output of the TruePower 400 PS when a short circuit is applied on the last AC output. Once the short circuit is cleared, the TruePower 400 PS will automatically be reset.

(GFCI) Ground Fault Circuit Interrupter trips and disables the output of the TruePower400PS when a ground fault current is detected. The output can be enabled again by resetting the GFCI, once the ground fault is cleared. (GFCI is available in the 79400 model only)

#### CUSTOMER SERVICE & WARRANTY

We are committed to customer satisfaction and value your business. If at any time during the warranty period you experience a problem with your new TruePower400PS inverter simply call us at 1-800-824-0524 during standard business hours (8:30 AM - 5 PM Eastern Standard Time) for technical support.

# TruePower 400PS One Year Limited Factory Warranty & Lifetime Repair or Replacement Policy

Each TruePower400PS model is guaranteed against defects in material and workmanship to the original consumer in normal use for 1 year from the date of purchase. Professional Mariner, LLC will at it's discretion repair or replace free of charge any defects in material or workmanship. The following conditions apply:

- Warranty is calculated from manufacture date if not registered within 30 days of purchase.
- · Warranty void if unauthorized repairs attempted.
- Customer is responsible for returning the product to Professional Mariner, LLC. Inbound shipping costs must be paid by customer.
- This warranty does not cover blemishes due to normal wear and tear or damaged caused by accidents, abuse, alterations or misuse.
- Cosmetic repairs can be done at owner's request and expense.

Purchase or other acceptance of the product shall be on the condition and agreement that Professional Mariner SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. (Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.) Professional Mariner neither assumes nor authorizes any person for any obligation or liability in connection with the sale of this product.

To make a claim under warranty, call 1-800-824-0524 or visit www.promariner.com indentifying the product and giving its locations. Follow the company's return instructions, which will then be provided by the company. Professional Mariner will make its best effort to repair or replace the product, if found defective within the terms of the warranty, within (30) days after return of the product to the company. Professional Mariner will ship the repaired or replaced product back to the purchaser.

After the 1 year limited factory warranty expires, all product replacement is pro-rated based on list price and will never exceed 50% of list price.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty is in lieu of all others expressed or implied.

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#### GENERAL SPECIFICATIONS

AC Receptacle: 2 – Dual Three-prong

Battery Polarity Protect: Yes (Fuse)
DC Fuse (Recommended): 70 A

Dimension (L x W x H): 13 x 6.25 x 3.75

Efficiency: 88%

Output Short Protect: Yes (Button Breaker)
Output Waveform: Pure Sine Wave (<3% Thd)
Operating Temperature Range: 32° F – 158° F (0° Fc – 40° C)

Overload Protect: Yes

Storage Temperature Range:  $-22^{\circ} \text{ F} - 158^{\circ} \text{ F} (-30^{\circ} \text{ C} - 70^{\circ} \text{ C})$ 

Part Number: 79400 With Outlets
Part Number: 79405 Hardwired
Thermal Protect: 50 +/-5 Deg C
Weight: 13 Lbs

## **ELECTRICAL SPECIFICATIONS**

Battery Low Shutdown: 10.5 VDC Continue Output Power: 400 W

Input Voltage Range: 10.5 – 15.3 VDC

Input Full Load Current 40 A No Load Power Draw 0.5 A

Output Frequency: 60 +/- 0.05 Hz Output Power: 400 Watts

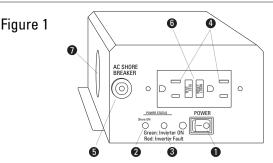
Output Voltage (At No Load): 120 Vac Rms  $\pm$  120 Vac Rms  $\pm$ 

Peak Output Power: 1000 Va Surge For 5 Seconds

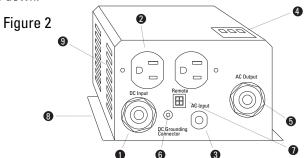
#### **CAUTION:** ALWAYS PLACE THE INVERTER IN AN ENVIRONMENT WHICH IS:

- (A) WELL VENTILATED
- (B) NOT EXPOSED TO DIRECT SUNLIGHT OR HEAT SOURCE
- (C) OUT OF REACH FROM CHILDREN
- (D) AWAY FROM WATER / MOISTURE, OIL OR GREASE
- (E) AWAY FROM ANY FLAMMABLE SUBSTANCE

## TRUEPOWER 400 PS FEATURES



- 1. ON / Off Switch turns the inverter to ON or to OFF.
- 2. Shore Power light illuminates when you are connected to shorepower. (shorepower refers to the AC input power from a utility grid, generator or external AC source)
- 3. Inverter / Fault Light illuminates Green when the inverter is operating and illuminates Red for fault conditions such as over temperature, output overload, or battery over voltage.
- 4. Two AC Outputs to power connected appliances.
- 5. Supplemental Circuit Protection Button may trip if there is an over-current (over 10 amps) or a short circuit.
- 6. GFCI opening enables the Reset and Test monthly capabilities.
- 7. Fan (internal) activates when the internal temperature of the inverter increases. The fan speed varies with the internal temperature and turns off when the inverter cools down.



- 1. DC Input Cables
- 2. AC Receptacles
- 3. AC Input cord for shorepower
- 4. Wiring box access panel (Top panel)
- 5. AC Strain Relief for hardwiring
- 6. Chassis ground lug
- 7. Remote control jack
- 8. Mounting flanges (Side panel)
- **9. Ventilation openings** provides air circulation (Side panel)

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#### PREPARING FOR INSTALLATION

Read this entire installation section so you can plan the installation from beginning to end. Prior to beginning your installation, review the "Personal Safety Precautions" information on page 2.

#### WARNING: Electrical shock and fire hazards

Professional Mariner recommends all wiring be done by qualified personnel. Disconnect all AC and DC power sources to prevent accidental shock. Disable and secure all AC and DC disconnect devices and automatic generator starting devices. It is the installer's responsibility to ensure compliance with all the applicable installation codes and regulations.

#### **WARNING**: Fire Hazard

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To meet regulatory requirements, the TruePower 400 PS must be mounted on a flat horizontal surface with the label panel in the upright position.

#### **WARNING**: Fire Hazard

Do not cover or obstruct the ventilation openings. Do not install this equipment in a compartment with limited airflow; Overheating may result.

#### **WARNING**: This devise is not Ignition Protected

Avoid serious injury or death from explosion. Do not install in compartments containing gasoline fueled engines or gasoline tank, or in areas where ignition protected equipment is required.

#### **WARNING**: Risk of Fire or Explosion

This equipment contains components that could produce arcs or sparks. To reduce the risk of fire or explosion, do not install this equipment in compartments containing batteries or flammable materials, or in a location containing gasoline-powered machinery, or joints, fittings, or other connections between components of the fuel system.

#### WARNING: Restrictions on Use

The TruePower400PS sine wave inverter shall not be used in connection with life support systems or other medical equipment or devices.

Installation Recommendations & Requirements include the following:

- American Boat and Yacht Council (ABYC)
- The Canadian Electrical Code (CEC)
- Canadian Standards Association (CSA)
- The U.S. National Electrical Code (NEC)
- RV Industry Association (RVIA)

Problem:	No output voltage. Inverter light is illuminated.
Cause:	Inverter may be overloaded. Battery voltage may be too high. Over temperature.
Solution:	-Disconnect all appliances connected to the inverter & reset the inverter by turning the ON/Off switch to Off then back to ONThe inverter will restart if the battery voltage drops below 15.5 volts DCAllow the inverter to cool down. The inverter will start automatically. No output voltage. NO Lights are illuminated.

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Problem:	AC input cord is connected to shorepower, but appliance(s) are not powered from shorepower. AC Input light is illuminated.
Cause: Solution:	GFCI has tripped.  -Reset the external breaker -Disconnect all appliances. Check the AC wiring and press the supplemental circuit protection button to reset itClear the ground fault and reset the GFCI.

Problem:	No output voltage. Fault LED light is illuminated.
Cause:	Poor DC wiring.
Solution:	-Recharge the batteries to more than 12.6 volts DC. The inverter will automatically restartTurn the inverter to Off. Disconnect the DC wiring. Use proper wiring and ensure all connections are secure.

Problem:	Fan runs all the time.
Cause:	The power rating of the appliance is too high. The ambient temperature is high.
Solution:	<ul> <li>-No action. The fan will run at full speed when the inverter is powering a higher rated appliance.</li> <li>-No action. The fan will run at a higher ambient temperature to keep the inverter cool.</li> </ul>

## TROUBLE SHOOTING GUIDE

This section is designed to accommodate you in identifying and troubleshooting common problems that may result with a Sine Wave inverter. Review this section before contacting customer service. If you can not resolve the problem, record the data of the instance based on information provided here with in this manual.

**WARNING**: **Electrical shock and fire hazards**. Professional Mariner recommends that all wiring be done by qualified personnel. Disconnect all AC and DC power sources to prevent accidental shock. Please do not attempt to disassemble the TruePower400PS inverter. It does not contain any user-serviceable parts. Attempting to service the unit yourself could result in electrical shock or fire.

This troubleshooting section will aid you in identifying the source of common problems you may encounter. If you are unable to resolve the problem from the troubleshooting reference table, contact your dealer or customer service.

Problem:	No output voltage. No indicator lights are illuminated.
Cause:	The switch is in Off position. No input power to the inverter. DC fuse is open.
Solution:	-Turn the ON/Off switch to the ON positionCheck the DC wiring to the inverter for loose connections or frayed wiringHave a qualified service technician check & replace the fuse.

Problem:	No output voltage. Inverter light is illuminated.
Cause:	Circuit breaker has tripped. GFCI has tripped.
Solution:	<ul> <li>-Disconnect all appliances to reduce the overload, check the AC wiring, and reset the breaker by turning the ON/Off switch to Off and then back to ON.</li> <li>-Clear the ground fault, and reset the GFCI by pressing the reset on the GFCI button.</li> </ul>

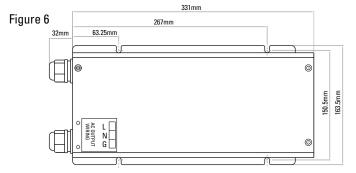
Problem:	Fan does not turn on.
Cause:	The power rating of the appliance may be too low or the ambient temperature is too cool.
Solution:	-No action. The fan will run at full speed when the inverter is powering a higher rated appliance.

#### MOUNTING YOUR INVERTER

To mount the TruePower 400 PS Inverter:

- 1. Turn the On/Off switch on the front panel of the inverter to Off position.
- 2. Select an appropriate mounting location and orientation.
- **3**. Hold the inverter against the mounting surface, mark the position of the mounting screws, and then remove the inverter.
- 4. Drill pilot holes for the four mounting fasteners.
- **5**. Fasten the inverter to the mounting surface with four #10 hardware fasteners.

Mount your inverter prior to connecting any wires or cables: For the best load starting performance, the DC cables should be short and large as possible. See table 3 for minimum recommended cable size. Using a smaller cable may cause the inverter to shut down under a heavy load.



#### Minimum Recommended DC Input cable (copper) – AWG

Cable Length: Battery to Inverter (Each Cable)	Minimum Recommended Cable Size – AWG
0 – 10 Feet	No. 6
10 – 15 Feet	No. 4
15 – 30 Feet	No. 2
30 – 40 Feet	No. 0

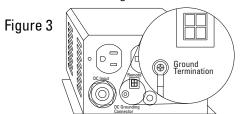
DC Fuse and Disconnect or DC Circuit Breaker: The DC fuse and disconnect switch or the DC circuit breaker shall be rated 60 amps. Additionally, the fuse type must be selected to match code requirements.

Connecting the Chassis Ground: The chassis ground lug is used to connect the chassis of the inverter to your system's chassis grounding point, as required by installation codes.

Use copper cable that is provided with green insulation. **Do not use the chassis ground lug for your AC output grounding wire.** 

#### INSTALLATION CONTINUED

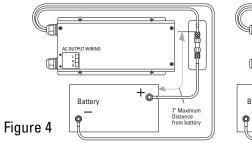
To Connect the Chassis Ground: Refer to figure 3



1.Using the #3 standard Phillips screwdriver, loosen the screw on the chassis ground lug.

2.Using a #8 Ring Terminal connect a No. 8 AWG copper cable between the inverter's chassis ground lug and the DC grounding point for your system. Tighten the screw to a torque of 15 inch pounds.

Connecting the DC Cables: Refer to figure 4



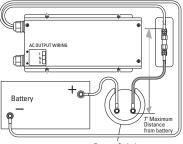


Figure 4 - Connecting the DC Cables

- 1. Switch the inverter On/Off switch to the Off position.
- 2. Route the DC cables from the inverter towards the battery.
- 3. Using a #8 AWG or larger red wire install a 70 Amp DC fuse or a DC circuit breaker within 7 inches of the battery or battery switch as shown in fig. 4. Remove the fuse or switch off the breaker for the remainder of the installation.
- **4.** Connect the RED positive (+) lead coming from the inverter DC input to the output side of the fuse or circuit breaker. Tighten the connection terminals to the manufacturer's recommendations. Test that the cable is secure.
- **5**. Connect the BLACK negative (-) lead coming from the inverter DC input to the negative battery terminal [or to the current shunt if an amp hour counting device is used. Tighten the connection terminals to the manufacturer's recommendations. Test that the cable is secure.

#### OPERATION CONTINUED

**Resetting the Inverter:** To reset the TruePower 400 PS, turn the ON/Off switch to Off and then back to ON.

**Resetting the Supplemental Circuit Protection Button:** If there is a short circuit or an overload condition, the supplemental circuit protection button trips. To reset the TruePower 400 PS, clear the overload condition then press the supplemental circuit protection button.

**Resetting the Ground Fault Circuit Interrupter (GFCI):** Function- The GFCI receptacle protects the receptacle output against a ground fault.

Correcting a Ground When a ground fault condition is detected, the Reset button on the GFCI receptacle Fault- will trip and the power to an appliance is interrupted. To resume normal operation, determine and correct the ground fault, then press the Reset button.

Monthly Testing - Once a month, with either shorepower or the TruePower400PS turned ON, press the Test button on the GFCI receptacle. The Reset button should trip. Press it to reset the GFCI and to continue with normal operation. If the Reset button does not trip, the GFCI may have failed. Contact your dealer or ProMariner to have a qualified technician inspect the unit.

#### Resetting as the Result of an Overload:

The TruePower400PS has a high surge capacity of 1000 watts for 5 seconds. If the appliance(s) connected to the unit try to draw excess power for more than 5 seconds, the TruePower400PS will shut down and the Red Fault light will illuminate. After removing the overload condition, the TruePower400PS will cycle through a 15 second self check and automatically reset to operating levels.

#### **Operating Several Appliances at the Same Time:**

If you are going to operate several appliances from the TruePower400PS at the same time, turn them on independently, after you have powered up the inverter. This action ensures that the TruePower400PS does not have to deliver the starting current for all of the appliances at once. The TruePower400PS can accommodate several appliances at once as long as they do not exceed more than a combined total of 400 watts.

#### **Recharging Your Batteries:**

We recommend you recharge your batteries before they are 50% discharged. This will provide a much longer life cycle than recharging them when they are almost completely discharged. It is recommended to use a Remote Battery Status indicator to monitor the battery levels and determine optimum recharge times and cycles.

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#### **OPERATION**

#### The ON/Off switch turns the TruePower 400 PS to ON or to Off.

- In the ON position, the Inverter/Fault LED light will illuminate Green. The TruePower 400 PS begins inverting and provides 400 watts of sine wave power, if shorepower is not present.
- In the Off position with no shorepower present, the TruePower 400 PS draws no current from the battery.
- In the Off position with the AC input cord plugged into shorepower, the AC Input LED light illuminates Green and the appliances connected to the TruePower 400 PS inverter can be operated.

## NOTE: When the ON/Off switch is in the Off position with the TruePower400PS connected to shorepower, AC voltage will be present at the output.

LED Indicators: The two indicator lights on the front panel of the inverter illustrate the operating status of the TruePower400PS. See table 4 below.

Table 4 ~ Status of Indicator Lights

Light	Color	Status	Result
Shorepower ON	Green	When the TruePower400PS is connected to shorepower, the AC Input illuminates.	Can run all your appliances from shorepower.
Inverter/Fault	Green	When the TruePower400PS unit is on, the Inverter light illuminates.	Can run your appliances through the TruePower400PS from the battery.
Inverter/Fault	Red	The Fault light illuminates whenever there is a battery overvoltage fault condition (in excess of 15.6 volts), an output overload condition or over-temperature fault condition.	Can not run appliances as the AC output is disabled in the invert mode. Clear the fault condition. Reset the TruePower400PS by turning the ON/Off switch to Off and then back to ON, or by connecting to shorepower.

## INSTALLATION CONTINUED

- **6**. Check that the polarity of the DC connections are correct: RED to positive (+) at the battery and BLACK to negative (-) at the battery.
- 7. Replace the fuse and/or switch on the breaker. A small spark is normal when this connection is made.

Hardwiring the AC Output:

#### **WARNING**: Fire, Shock and Energy Hazards

Make sure wiring is disconnected from all electrical sources before handling. All wiring must be done in accordance with local and national wiring codes. Do not connect the output leads of the inverter to any incoming AC source.

To Hardwire the AC Output Connections:

- 1. Turn the inverter On/Off switch to Off.
- **2**. Locate the wiring box access panel, and remove the two screws to access the wiring box as illustrated in Figure 5.

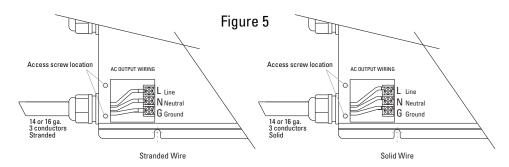


Figure 5 ~ Removing the Two Screws on the Wiring Box Access Panel

- 3. Remove the wiring box access panel from the unit.
- 4. Loosen the clamping nut of the Strain Relief.
- 5. Locate the terminal block.

The three terminals are labeled as follows;

- L Line
- N Neutral
- G Ground
- **6**. Strip about 2 inches off the jacket of the AC output cable. The AC output cable must be with in range of No. 14 to No. 16 AWG, have three conductors and be solid or stranged.

#### INSTALLATION CONTINUED

- 7. Strip approximately 3/8 inch off the insulation of the cable.
- 8. Run the AC cable through the clamp and into the wiring box.
- **9.** Using a screwdriver, loosen the wire attachment screws on the terminals by about five turns.
- 10. Insert and fasten the Ground wire into the corresponding terminal.
- 11. Insert and fasten the Line and Neutral wires into the corresponding terminals.
- 12. Tighten the Strain Relief screws, leaving some slack inside the output wiring box.

Note: If using standard wire it is recommended that you use proper crimp terminal connectors. Chassis Ground Connection

Using a length of wire no smaller than one size smaller than the DC power cables. Connect one end of this cable to the DC grounding connector at the inverter and the other end to the vehicle chassis or bending system

## PERFORMING CHECKS PRIOR TO INSTALLATION

Before starting up your inverter, ensure these conditions are met:

- Verify the chassis ground is properly installed.
- Verify the On/Off switch is in the Off position.
- Verify the Positive (+) battery cable is connected to the positive (+) battery terminal.
- Verify the Negative (-) battery cable is connected to the negative (-) battery terminal.
- Verify the battery voltage is within the proper range for this unit (10.5-15.3 volts DC).
- Verify the DC fuse is intact.

## PERFORMING CHECKS PRIOR TO INVERTER START-UP

When you are ready to test your installation and operate the TruePower400PS Inverter, close the DC fuse and disconnect or the DC circuit breaker to supply DC power to the TruePower400PS inverter.

#### Display Functions of the On/Standby Switch and Light Pattern:

The ON/OFF switch turns the TruePower 400 PS inverter to ON or to OFF:

- In the On position, the Inverter Fault LED light illuminates Green. The TruePower 400 PS begins inverting and provides 400 watts of sine wave power, if shore power is not present.
- In the Off position with no shorepower present, the TruePower 400 PS Inverter draws no current from the battery. None of the front panel LED lights are illuminated.
- In the Off position, with the AC input cord plugged into shorepower, the Green AC Input light illuminates and the appliances connected to the TruePower400PS can be operated.

#### INSTALLATION CONTINUED

#### To test the TruePower400PS Inverter:

- 1. Turn the On/Off switch to the ON position. The Inverter/Fault LED light illuminates Green.
- 2. Plug an appliance of 400 watts or less into the AC outlet.
- 3. Turn the appliance ON to verify that it operates.
- 4. If the Inverter/Fault light illuminates Red, see the TruePower400PS Inverter "Troubleshooting" section.

**Shorepower Mode**: When the shorepower source is connected, the TruePower 400 PS inverter transfers the appliances to the shorepower source and goes directly into shorepower mode. The AC Input LED light illuminates Green. The inverter will transfer power with the ON/Off switch in either the ON or Off position.

**Inverter Mode**: If the ON/Off switch is in the ON position, the TruePower400PS will automatically supply the appliance(s) with the inverter power if the shorepower source fails or becomes disconnected.

## INSTALLING YOUR REMOTE CONTROL

- 1. Find a location for the remote with enough area to mount the 1-3/4" by 2-1/4" panel.
- 2. Using tape (painters masking tape is preferred) cover the area where the remote is to be mounted.
- **3.**Create a center drill point. Measure out to both sides 31/32' and create a drill point on each side of center.
- 4. The center hole is drilled to 1-5/16". The two side holes are drilled to 3/32".
- 5. Remove the tape and sand smooth any rough edges.
- **6.** Mount the remote into the panel using the two supplied screws.
- **7.** Run the remote cable to the inverter and plug the connector into the jack labeled "Remote"

