



GO AC[™]

OWNER'S MANUAL

**PP150AC &
PP350AC**

HIGH SURGE POWER INVERTERS

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P/N PP150/350MAN
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WHISTLER

If you have questions concerning the operation of this Whistler product please call consumer relations:

1-800-531-0004

Hours:

Monday - Friday
8:00 am - 5:00 pm CT

Please keep the receipt in a safe place. If the unit is returned without a dated proof of purchase, an out of warranty service charge applies.

Note: Your warranty period begins at the time of purchase. The warranty is validated only by your receipt.

Now is the time to record the serial number of the unit in the space provided in the warranty section of the manual.

INTRODUCTION

Dear Whistler Owner,

For many of us, a vehicle is more than just transportation. It can be a mobile office, communications or entertainment center, or simply an expression of our personality. Whistler products are designed to make the time you spend in your vehicle more productive, more fulfilling, safer, or just simply more fun. Our mission is to provide products that improve your driving experience.

Whistler offers a complete line of DC to AC inverters ranging in capacity from 150 Watts to 2500 Watts. These inverters offer advanced technology, dependable operation and will provide years of reliable service when used in accordance with our operating instructions.

Your new Whistler Go AC power inverter allows you to run most AC appliances right from your car, boat or RV. They're great for weekend use and life on the road. They're also great for power outtages!

To fully acquaint yourself with the operation of the Whistler PP150AC and PP350AC we recommend reading this entire manual.

Sincerely,

THE WHISTLER GROUP

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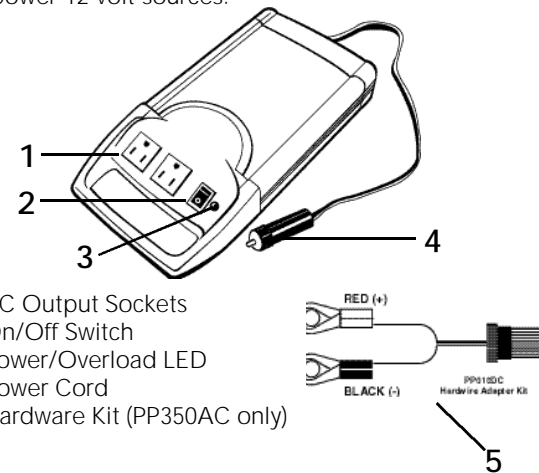
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WHISTLER FEATURES

A Word About WHISTLER GO AC™ Inverters.

WHISTLER inverters convert low voltage, direct current (DC) to 110 volt alternating household current (AC). The AC output is called "modified sine wave". See "Technical Operating Principles" section for more information. Depending on the model and its rated capacity, WHISTLER inverters draw power either from standard 12 volt automobile and marine batteries or from portable high power 12 volt sources.



1. AC Output Sockets
2. On/Off Switch
3. Power/Overload LED
4. Power Cord
5. Hardware Kit (PP350AC only)

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IMPORTANT INFORMATION

Important Information About Your New WHISTLER Inverter.

This manual will provide you with directions for the safe and efficient operation of your WHISTLER GO AC 150 Watt or 350 Watt Inverter. Read the manual carefully before using your new WHISTLER Inverter and keep the manual on file for future reference.

Notes:

Your WHISTLER inverter is designed to operate from a 12 volt power source only. Never attempt to connect your Whistler inverter to any other power source, including any AC power source.

- Do not attempt to connect the PP150AC Inverter directly to the 12 volt power source other than using the supplied adapter cord and plug or the optional WHISTLER 12 volt hard wire adapter kit (Part Number PP010DC).
- Do not attempt to modify the adapter cords, plugs or any of the elements that comprise the PP350AC hard wire adapter kit.
- 110 volts of current can be lethal. Improper use of your WHISTLER inverter may result in property damage, personal injury or loss of life.
- Check with the appliance manufacturer for compatibility with modified sinewave inverters. Some appliances may not work well or not at all. **This is especially true for medical equipment.** For more information on compatibility issues, please visit our inverter FAQ page at www.whistlergroup.com/faq-inverters.asp

INVERTER BASICS

Getting Started

Power equipment and appliances which operate with motors or tubes require an initial surge of power to get them up and running. This power surge is referred to as the "starting load" or "peak load." (By comparison, electrical devices such as standard light bulbs do not require a large starting load). Once the equipment or appliance has been powered up, it settles down to a slower pace and requires far less electrical power to operate. This lower power requirement is referred to as the "continuous load."

In order to ensure that the capacity of your WHISTLER inverter is sufficient to meet the required start up load, you must first determine the power consumption of the equipment or appliance you plan to operate.

Power consumption is rated either in wattage or in amperes, and information regarding the required "watts" or "amps" generally is stamped or printed on most appliances and equipment. If this information is not indicated on the appliance or equipment, check the owner's manual. **Contact the appliance or equipment manufacturer to determine if the device you are using (TV's, battery re-charger, computer, etc.) is compatible with a modified sine wave.**

If the power consumption is rated in amps, multiply the number of amps by 110 (AC voltage) to determine the comparable wattage rating. As a general rule, you can determine the required start up load by multiplying the wattage rating by 10.

For further information on the fundamental operating principles of WHISTLER inverters and related technical data, see "Technical Operating Principles"

INVERTER BASICS

Don't Push It.

Although your WHISTLER GO AC inverter has the capacity to provide power output (excess current) equal to approximately two times its rated wattage capacity for a very brief period, it is designed to operate equipment and appliances with start up load wattage ratings no higher than its own maximum continuous wattage rating.

For example, the 150 model has a maximum continuous rating of 150 watts. Although this model has the capacity to briefly provide up to 300 watts of power (that is, excess current), it is designed to operate equipment and appliances with start up load requirements of 150 watts or less.

Consequently, if the start up load rating of your equipment or appliance is the same or approximately the same as the maximum continuous rating of the inverter, the inverter will attempt to start loads above the continuous rating for up to 10 seconds.

To determine whether your inverter will operate a particular piece of equipment or appliance, run a test. The inverter is designed to shut down automatically in the event of a power overload. Testing appliances and equipment with start up load ratings comparable to your inverter wattage rating will not damage it.

INVERTER BASICS

If a piece of equipment or an appliance will not operate, first confirm that the inverter has been properly connected to the 12 volt power source (See "Making The Connection"). If all connections have been properly made, turn the inverter rocker switch ON (I), OFF (O) and ON (I) again in quick succession. If this procedure is unsuccessful, it is likely that the inverter does not have the required start up capacity to operate the equipment or appliance in question.

Note:

- Most heat generating appliances require start up loads in excess of 1000 watts and the WHISTLER 150 and 350 inverters will not operate such appliances as coffee makers, irons, hair dryers or heaters.

OPERATION

Making the Connection.

The PP150AC is designed to connect to your 12 volt battery through the cigarette lighter socket on your dashboard. (See the following section for instructions for connecting the PP350AC).

To connect the 150 inverter, follow these steps:

1. Remove the cigarette lighter and push the adapter plug firmly into the cigarette lighter socket. (Make certain both the socket and adapter plugs are clean).
2. Plug your appliance or equipment into the AC receptacle on the inverter.
3. Turn the inverter rocker switch to the ON (I) position.
4. Confirm that the LED Power Indicator light on the inverter is glowing GREEN. This GREEN light indicates that your WHISTLER inverter is "ready for action."
5. Turn on your appliance or power equipment.

The PP350AC is designed to connect to your 12 volt battery either through the cigarette lighter socket or directly to the battery using the supplied Hard Wire Adapter Kit.

To connect the PP350AC with the cigarette lighter adapter plug and cord, follow the steps as outlined above.

Note:

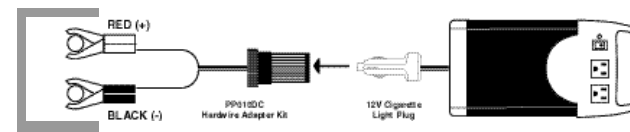
- If the equipment or appliance you intend to operate, requires more than 150 watts of continuous power, the PP350AC should be connected directly to the power source using the **Hard Wire Adapter Kit**. Failure to do so may result in serious damage to the power cord or to the cigarette lighter socket wiring.

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OPERATION

To connect the PP350AC using the Hard Wire Adapter Kit (P/N PP010DC), follow these steps:

1. Push the adapter plug leading from the inverter firmly into the Hard Wire Adapter Kit socket.
2. Properly identify the positive and negative terminals on the 12 volt power source and make certain that the terminals are clean and dry.
3. Connect the RED alligator clip to the Positive (+) terminal on the power source and the BLACK alligator clip to the Negative (-) terminal on the power source.
4. Plug your equipment or appliance into the AC receptacle on the inverter.
5. Turn the inverter's rocker switch to the ON (I) position.
6. Confirm that the LED Power Indicator light on the inverter is glowing GREEN. This GREEN light indicates that the inverter is "ready for action."
7. Turn on the equipment or appliance.



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OPERATION

Note:

- It is normal for the PP150AC and PP350AC audible alarm to make a momentary "chirp" when you plug the adapter into the cigarette lighter socket or when you turn on the appliance or equipment. However, if the alarm sounds for an extended period, turn the appliance or equipment off immediately. This alarm indicates that the input from the battery has dropped below 10.5 volts. Do not attempt to operate the inverter until the battery has been recharged.

(For further information on this audible alarm feature, see "Automatic Shut Down Safety Features.")

- The use of an extension cord from the inverter to the appliance or equipment being operated will not significantly decrease the power being generated by the inverter. For best operating results, the extension cord should be no more than 50 feet long.
- Check frequently to ensure that the input and output connections are secure. Loose connections may cause damage to the inverter or battery or may generate excessive heat.

OPERATION

Important Information on Battery Chargers

Using your inverter to recharge units designed to charge such portable equipment as power tools, flashlights, video cameras and laptop computers may cause damage to the inverter or the charging unit.

Although we advise against it, if you attempt to recharge a charging unit, monitor the temperature of the charging unit for approximately 10 minutes. If the charging unit becomes unusually warm, disconnect it from the inverter immediately.

Don't Blow A Fuse.

The WHISTLER 150 is equipped with a 20 amp spade type fuse; the WHISTLER 350 with a 35 amp, spade type fuse. With reasonable care, it should not be necessary to replace the fuse in your inverter.

Most blown fuses are the result of reverse polarity or a short circuit within the appliance or equipment being operated. If the fuse does blow, turn off and disconnect the appliance or equipment from the inverter immediately, repair the related problem and replace the fuse in accordance with the following instructions: The fuse compartment is easily accessed at the back of the unit underneath the "lift up" cover.

OPERATION

Note:

- All WHISTLER inverters are shipped with a replacement fuse. Do not install a fuse with a higher rating than that specified. Doing so may damage the inverter.
- This same precaution also applies when the vehicle's cigarette lighter fuse is blown. Always replace the cigarette lighter fuse with a fuse of the same type and rating as indicated in the vehicle's owner's manual.
- Make certain to correct the source of the overload which caused the blown fuse before turning your inverter back ON (I).

The Power Source.

When the engine is off, most batteries will provide an ample power supply to the inverter for one to two hours. The actual length of time is a function of several variables including the age and condition of the battery and the power demand being placed on it by the equipment being operated with the inverter.

If you are using the inverter while the engine is off, we recommend you start the engine every hour and let it run for at least 10 minutes to recharge the battery. We also recommend that the device plugged into the inverter be turned off before turning over the engine.

OPERATION

Although it is not necessary to unplug the inverter when turning over the engine, the inverter may momentarily cease operation as the battery voltage decreases. When the inverter is not supplying power, it draws very low amperage from the battery (<0.10 A to <0.20 A depending on the model) and may be left connected to the battery for up to three hours. However, we recommend the inverter always be disconnected when not in use.

Note:

- Inverters will not operate with certain automotive systems unless the ignition is on. If the inverter is not generating power, try turning the ignition to the accessory position.

ADDITIONAL FEATURES

Automatic Shut Down & Related Safety Features.

Each WHISTLER GO AC inverter model has a unique LED Indicator warning light system which operates in conjunction with the **automatic shut down feature**. These indicator lights operate as follows:

GREEN LED: System ready.

YELLOW LED: System overload/automatic shut down.

Your inverter will shut down automatically when any of the following problems occur:

1. The power input from the battery drops below 9.5 volts.
2. The power input from the battery exceeds 16 volts.
3. The continuous draw of the appliance or equipment being operated exceeds the design parameters of the inverter.

The WHISTLER PP150AC and PP350AC models are equipped with the following additional safety features:

1. **Thermal Cut Off:**
Automatic shut down when the internal circuit temperature exceeds standard design parameters for safe operation.
2. **Low Battery Voltage Alarm/Shutdown Protection**
 - a) When the input voltage from the 12 volt power source drops below 10.5 volts, an audible tone will be heard. This is the low battery voltage alarm.

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ADDITIONAL FEATURES

- b) The inverter will automatically shut down when the input voltage drops below 9.5 volts. This protects the battery from completely draining.

In the event of automatic shut down or continuous audible alarm, turn the inverter rocker switch to the OFF (O) position until the source of the related problem has been identified and resolved.

Note:

- The Whistler PP350AC model only is equipped with a cooling fan which is designed to run continuously while the inverter is operating. Automatic shutdown caused by excess circuit temperature occurs when the cooling fan is unable to maintain the design parameters for safe operation of the inverter.

Wall Mounting:

Whistler inverters have provisions for wall mounting; two slotted holes in the handle area and a notched area at the power cord end allow for easy wall mounting of the unit.

Some Powerful Advice.

Your WHISTLER GO AC inverter will work best when placed on a reasonably flat surface. The floor or seat of your car or truck both are good locations.

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CARE AND MAINTENANCE

(When driving with the inverter in operation, make certain that neither the inverter nor the power cords will impede safe operation of your vehicle. Keep the unit and all cords clear of the steering wheel, gas, brake and clutch pedals and gear shift).

To maintain your inverter in proper working condition, note the following important safety precautions:

- **MOISTURE.** Keep the inverter dry. Do not expose it to moisture. Do not operate the inverter if you, the inverter, the device being operated or any other surfaces that may come in contact with any power sources are wet. Water and many other liquids can conduct electricity which may lead to serious injury or death.
- **HEAT.** For peak efficiency, the ambient air temperature should be between 50° and 80° F. Avoid placing the inverter on or near heating vents, radiators or other sources of heat. Do not place the inverter in direct sunlight.

CARE AND MAINTENANCE

- **VENTILATION.** In order to disperse the heat generated while the inverter is in operation, keep it well ventilated. While in use, maintain several inches of clearance around the top and sides of the inverter.
- **FUMES & GASES.** Avoid using the inverter near flammable materials. Do not place the inverter in areas such as battery compartments. Where fumes or gases may accumulate.

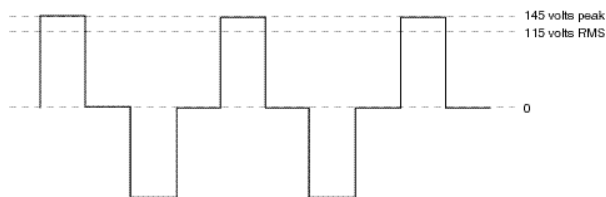
OPERATING PRINCIPLES

For You Technical Types.

1. Basic Operating Principles:

WHISTLER GO AC inverters work in two stages. During the first stage, the DC to DC converter increases the DC input voltage from the power source (e.g. a 12 volt battery) to 145 volts DC. In the second stage, the high voltage DC is converted to 110 volts (60 Hz AC) using advanced power MOS-FET transistors in a full bridge configuration. The result is excellent overload capability and the capacity to operate difficult reactive loads. The output waveform resulting from these conversions is a "quasi-sine wave" or a "modified sine wave" as shown on the following page.

This stepped waveform is similar to the power generated by utilities And has a broad range of applications.



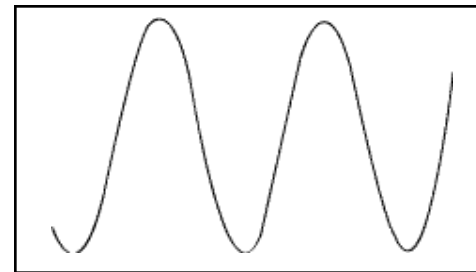
The modified sine wave produced by your WHISTLER GO AC Inverter

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OPERATING PRINCIPLES

The modified sine wave produced by your Whistler inverter has a root mean square (RMS) voltage of 110 volts. The majority of AC voltmeters are calibrated for RMS voltage and assume that the measured waveform will be a pure sine wave.

Consequently, these meters will not read the RMS modified sine wave voltage correctly and, when measuring your WHISTLER inverter output, the meters will read about 20 to 30 volts too low. To accurately measure the output voltage of your inverter, use a true RMS reading voltmeter such as a Fluke 87, Fluke 8060A, Beckman 4410, Triplett 4200 or any multimeter identified as "True RMS."



A true sine wave typical of home AC outlet.

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OPERATION SUMMARY

In Review.

- Never attempt to operate your WHISTLER inverter from any power source other than a 12 volt battery.
- The WHISTLER 150 is designed for use only with the cigarette lighter socket adapter plug or the optional WHISTLER 12 volt hard wire adapter kit (part number PP010DC).
- The WHISTLER 350 is designed for use with the cigarette lighter socket adapter plug or with the Hard Wire Adapter Kit. When operating the WHISTLER 350 with equipment or appliances requiring in excess of 150 watts of continuous load, use the Hard Wire Adapter Kit.
- Make certain the rated power consumption of the appliance or equipment you wish to operate is compatible with the capacity of your inverter.
- If the rated power consumption of the equipment is in the range of the maximum specified wattage of your converter, test the inverter to ensure that it will operate properly.
- WHISTLER 150 and 350 Watt Inverters are not designed to operate heat generating appliances such as coffee makers, irons, hair dryers, toasters and heaters.
- Before attempting to recharge a charging unit see page 11.

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OPERATION SUMMARY

- Use only fuses which conform with the design specifications outlined in this manual.
- When operating the inverter with the engine off, start the engine every hour and let it run for at least 10 minutes to recharge the battery.
- In the event of automatic shut down, turn the inverter OFF (O) immediately. Do not restart the inverter until the source of the problem has been identified and corrected.
- To avoid battery drain always disconnect the inverter when not in use.
- Do not expose the inverter to moisture.
- Avoid placing the inverter near sources of heat or in direct sunlight.
- When in use, make certain that the inverter is properly ventilated.
- Do not use the inverter near flammable materials, fumes or gases.
- Always operate the inverter in accordance with the instructions in this manual. Failure to do so may result in property damage, personal injury or loss of life.
- Before attempting to use medical equipment see page 4.

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TROUBLESHOOTING

PROBLEM: TV Interference

Problem	Solution
Electrical interference from inverter.	Add a Ferrite data line filter on to the TV power cord. This filter is available at RadioShack, part number 273-105.

PROBLEM: Low or No Output Voltage

Problem	Solution
Automotive system requires ignition to be on.	Turn ignition key to accessory position.
Inverter fuse blown.	Replace fuse according to Guidelines in " Don't Blow A Fuse " Section of this manual. Make sure that inverter is connected to power source with correct polarity.
Using incorrect type of voltmeter to test output voltage.	Use true RMS reading meter. See " For You Technical Types " Section of this manual.

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TROUBLESHOOTING

PROBLEM: Low Battery Alarm On All The Time

Problem	Solution
Input voltage below 10.5 volts.	Keep input voltage above 10.5 volts to maintain regulation.
Poor or weak battery condition.	Replace battery.
Inadequate power being delivered to the inverter or excessive voltage drop.	Check condition of cigarette lighter plug and socket. Clean or replace as necessary.

Yellow LED on

Problem	Solution
Equipment has a high start up surge.	Turn inverter power switch OFF (O) and then ON (I) again until the inverter powers your appliance. Repeat as necessary to get your appliance "started".
Battery voltage below 10 volts.	Recharge or replace battery.
Equipment being operated draws too much power.	Use a higher capacity inverter or do not use this equipment.
Inverter is too hot (thermal shutdown mode).	Allow inverter to cool. Check for adequate ventilation. Reduce the load on the inverter to rated continuous power output.

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TROUBLESHOOTING

PROBLEM: TV Does Not Work

Problem	Solution
TV does not turn on	Try rocking the ON/OFF switch of the inverter while leaving the TV ON (see page 3).
	Use Hard Wire Adapter Kit, lighter socket not supplying sufficient current.
	Contact TV manufacturer for start-up surge and/or if TV is compatible with a modified sine wave.
	A larger inverter may be required.

SPECIFICATIONS

WHISTLER 150 WATT INVERTER SPECIFICATIONS

Maximum Continuous Power150 Watts
 Maximum Surge Capability (Peak Power)..300 Watts
 No Load Current Draw.....<0.10 A
 WaveformModified Sine Wave
 Operating Input Voltage Range.....9.5 – 16 Volts DC
 AC Receptacle.....Dual 3 Prong
 Fuse.....20 Amp (Spade Type)
 Approximate Dimensions.....9.5" H x 6" W x 2" D
 Approximate Weight.....2.5 lbs

WHISTLER 350 WATT INVERTER SPECIFICATIONS

Maximum Continuous Power.....350 Watts
 Maximum Surge Capability (Peak Power)..700 Watts
 No Load Current Draw.....<0.20 A
 WaveformModified Sine Wave
 Operating Input Voltage Range.....9.5 – 16 Volts DC
 AC Receptacle.....Dual 3 Prong
 Fuse.....35 Amp (Spade Type)
 Approximate Dimensions.....11" H x 6" W x 2" D
 Approximate Weight.....2.5 lbs

WARRANTY

Consumer Warranty

The Whistler PP150AC and PP350AC are warranted to the original purchaser for a period of one year, from the date of original purchase, against all defects in materials and workmanship. **This limited warranty is void if the unit is abused, modified, installed improperly, had its housing removed, or has a missing serial number.** There are no express warranties covering this product other than those set forth in this warranty. All express or implied warranties for this product are limited to one year. Whistler is not liable for damages arising from the use, misuse, or operation of this product. The warranty card provided with your inverter must be returned in order to validate your warranty.

Service Under Warranty

During the warranty period, defective units will be repaired or replaced (with the same or a comparable model), at Whistler's option, without charge to the purchaser when returned prepaid, with dated proof of purchase to the address below. Units returned without dated proof of purchase will be handled as described in section "Service Out Of Warranty."

When returning a unit for service under warranty, please follow these instructions:

1. Ship the unit in the original carton or in a suitable sturdy equivalent, fully insured, with return receipt requested, and shipping charges prepaid to:

Whistler Repair Dept.
1201 North Dixieland Road
Rogers, AR. 72756

WARRANTY

IMPORTANT: Whistler will not assume responsibility for loss or damage incurred in shipping. Therefore, please ship your unit insured with return receipt requested.

2. Include with your unit the following information, clearly printed:
 - Your name and street address (for shipping via UPS), and a daytime telephone number, (No P.O. Box please.)
 - A detailed description of the problem, i.e. Unit powers up but no AC output.
 - A copy of your dated proof of purchase or bill of sale.
 3. Be certain your unit is returned with its serial number. For reference, please write your unit's serial number in the following space: s/n _____.
- Units without serial numbers are not covered under warranty.

IMPORTANT: To validate that your unit is within the warranty period, make sure you keep a copy of your dated proof of purchase.

WARRANTY

NOTES

Service Out Of Warranty

Units will be repaired at "out of warranty" service rates when:

- The unit's original warranty has expired.
- Dated proof of purchase is not supplied.
- The unit has been returned without its serial number.
- The unit has been abused, modified, installed improperly, or had its housing removed.

The minimum out of warranty service fee for your Whistler inverter, PP150AC is \$25.00 (U.S.) and PP 350AC is \$45.00 (U.S.). If you require out of warranty service, please return your unit as outlined in the section "Service Under Warranty" along with a certified check or money order for the correct amount. Payment may also be made by MasterCard or VISA; **personal checks are not accepted.** In the event repairs cannot be covered by the minimum service fee, you will be contacted by a Whistler technical service specialist who will outline options available to you. If you elect not to have your unit repaired/replaced, it will be returned to you along with your certified check or money order.

IMPORTANT: When returning your unit for service, be certain to include a daytime telephone number.

Consumer Relations

If you have questions concerning the operation of your Whistler inverter, or require service during or after the warranty period, please call Consumer Relations at 1-800-531-0004. Representatives are available to answer your questions Monday - Friday from 8:00 a.m. to 5:00 p.m. (CST).

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