GO AC™

OWNER'S MANUAL
200/400 WATT SERIES
HIGH SURGE POWER INVERTERS

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Consumer Relations Tel (800) 531-0004
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P/N 400WATTMAN

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
or visit www.whistlergroup.com

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 140 Watts to 2750 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 this inverter we recommend reading this entire manual.

Sincerely,

THE WHISTLER GROUP
We're Driving Technology

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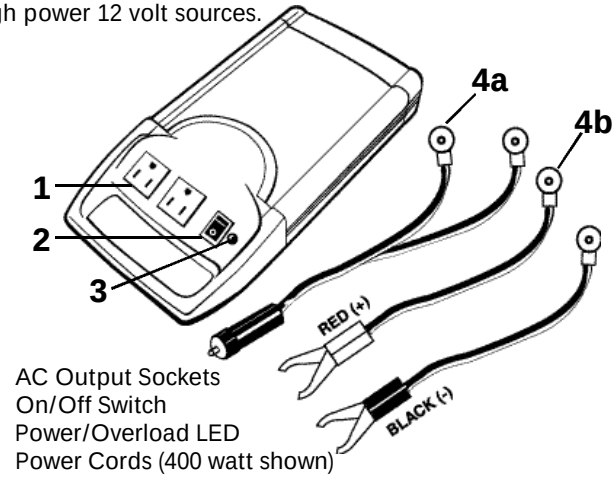
WHISTLER FEATURES

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 Cords (400 watt shown)

On 200 watt model 4a is attached and 4b is not included.

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 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.

- The length of the supplied cables is matched for the current needed by the inverter. Making this cable longer will make the inverter less efficient and may cause the cables to heat up.
- Do not attempt to lengthen the supplied power cables.
- 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, not at all or be damaged. **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, medical equipment, 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"**

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 400 watt model has a maximum continuous rating of 400 watts. Although this model has the capacity to briefly provide up to 800 watts of power (that is, excess current), it is designed to operate equipment and appliances with start up load requirements of 400 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.

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. However, make sure the appliance your testing is compatible with modified sinewave inverters. See page 4 for more information.

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 this inverter will not operate such appliances as coffee makers, irons, hair dryers or heaters.

Making the Connection.

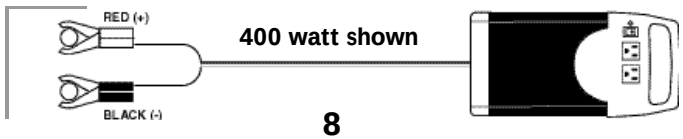
This inverter is designed to connect to your 12 volt battery using the light socket plug or by the supplied #10 gauge cables (for appliances over 150 watts* 400 watt model).

Making The Connection.

1. Make certain that the inverter rocker switch is in the OFF (O) position.
2. Connect the lighter plug or hardwire cables to the power input terminals at the rear of the inverter and tighten the screws to make a secure connection. Do not use tools to tighten these screws. (400 watt model only)

Steps 3 - 5 are used when and appliance requires over 150 watts.* Step 6 is for appliances under 150 watts.*

3. Connect the cable from the (BLACK) Negative (-) terminal on the inverter to the Negative (-) terminal on the 12 volt power source. Make certain the connection is secure.
4. Confirm that the cable you have just installed is properly connected. Specifically, make certain that the cable is connected to the Negative (-) terminals on both the inverter and the 12 volt power source.
5. Connect the cable from the (RED) Positive (+) terminal on the inverter to the Positive (+) terminal on the power source.



400 watt shown

6. 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.)

Note:

- If the equipment or appliance you intend to operate requires more than 150 watts of continuous power, this inverter should be connected directly to the power source using the Hard Wire Cables (400 watt model) or the optional Hard Wire Adaptor P/N PP010DC. Failure to do so may result in serious damage to the power cord or to the cigarette socket lighter wiring.
- Loose connections can result in a severe decrease in voltage which may cause damage to the wires and insulation.
- Failure to make proper connection between the inverter and the power source will result in reverse polarity. Reverse polarity will blow the internal fuses in the inverter and may cause permanent damage to the inverter. Damage caused by reverse polarity is not covered under the WHISTLER warranty.
- Making the connection between the Positive terminals may cause a spark as a result of current flowing to the capacitors in the inverter. This is a normal occurrence. Due to the potential for sparking, however, it is extremely important that both the inverter and the 12 volt battery be well removed from any possible source of flammable fumes or gases.

  Failure to heed this warning could result in fire or explosion.

*Some vehicle lighter sockets may only supply 10 amps or approximately 100 watts. If so, use the hardwire cables. Check vehicle's owner's manual for lighter socket fuse rating.

- 400 watt model - If the supplied cables are too short to allow for placement of the inverter in a desired location, the inverter may be connected to the power source using a #8 wire, up to 12' - #4 wire for longer lengths. The steps outlined for making the connection and the related safety precautions remain unchanged.

7. Turn the inverter rocker switch to the ON (I) position. The LED Indicator Light should glow GREEN confirming that there is power running to the inverter.

8. Turn the inverter rocker switch to the OFF (O) position. (The GREEN LED Power Indicator light may "blink" briefly and/or the internal audible alarm may make a momentary "chirp". This is normal).
8. Confirm that the equipment or appliance to be operated is turned off. Plug the equipment or appliance into one of the three AC receptacles on the front panel of the the inverter.
10. Turn the inverter to the ON (I) position. Turn on the equipment or appliance.

Note:

- As indicated in Step 7 above, the audible alarm may make a momentary "chirp" when the inverter is turned OFF (O). The same alarm may also sound when the inverter is being connected to or disconnected from the 12 volt power source. Again, this is normal.

- 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 damage the inverter or the power source or may generate excessive heat.

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. Check with the appliance manufacturer for compatibility with sine wave inverters if you're unsure.

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.

This inverter is equipped with either a 20 amp (lighter socket - 400 watt model) or a 40 amp spade type fuse (20 amp 200 watt model). With reasonable care, it should not be necessary to replace the fuse(s) 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(s) does blow, turn off and disconnect the appliance or equipment from the inverter immediately, repair the related problem and replace the fuse(s). The fuse is easily accessed either inside the lighter socket plug or inline on the hardwire cable.

Note:

- 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.

Although it is not necessary to disconnect 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, and turned on, it draws very low amperage from the battery (<0.40 A).

Automatic Shut Down & Related Safety Features.

Each inverter has an 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 inverters are also 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.

ADDITIONAL FEATURES

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.
   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.

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.

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.

CARE AND MAINTENANCE

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.
- 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.

In Review.

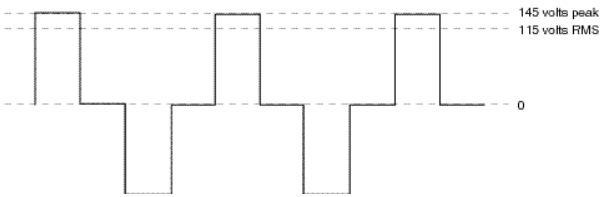
- Never attempt to operate your WHISTLER inverter from any power source other than a 12 volt battery or group of batteries that total 12 volts.

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 MOSFET 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.



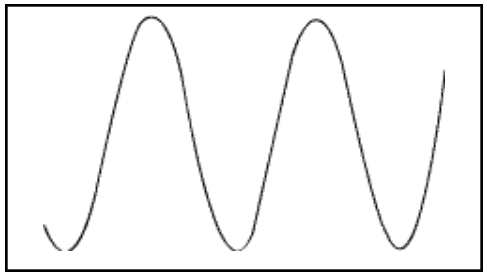
The modified sine wave produced by your WHISTLER GO AC Inverter

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."

For more information on inverters see our Inverter FAQ page at www.whistlergroup.com/faq-inverters.asp



A true sine wave typical of home AC outlet.

OPERATION SUMMARY

- This inverter is designed to be connected to the power source with the supplied cables or with #8 wire up to 12' - #4 wire for longer length (400 watt only). When utilizing the supplied cables do not attempt to modify or lengthen them.
- When operating this inverter with equipment or appliances requiring in excess of 150 watts of continuous load, use the optional hardwire kit (PP010DC - 200 watt model) or the hardwire cables.
- Always make certain that the power cable terminal connections run Negative (-) to Negative (-) and Positive (+) to Positive (+). Check these connections frequently to ensure that they are secure.
- 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.
- This Inverter is not designed to operate heat generating appliances such as coffee makers, irons, hair dryers, toasters and heaters.
- Before attempting to use a battery charger see page 11.

OPERATION SUMMARY

- Before attempting to use medical equipment see page 4.
- 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 hear 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.

TROUBLESHOOTING

Please visit our Inverter FAQ page on our website (www.whistlergroup.com), for more troubleshooting information and FYI topics.

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
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 a **true RMS** reading meter. See **"For You Technical Types"** Section of this manual.

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.	Use lower gauge wire. (400 watt model)

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.

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 7).
	Contact TV manufacturer for start-up surge and/or to find out if TV is compatible with a modified sine wave.
	A larger inverter may be required.

SPECIFICATIONS

WHISTLER 200 WATT INVERTER SPECIFICATIONS

Maximum Continuous Power .....200 Watts
Maximum Surge Capability (Peak Power)..400 Watts
No Load Current Draw.....<0.21 A
Waveform .....Modified Sine Wave
Operating Input Voltage Range.....9.5 – 16 Volts DC
AC Receptacle ..... Two 3 Prong
Fuses.....One 20 Amp (Spade Type)
Approximate Dimensions.....10" H x 6" W x 2" D
Approximate Weight.....3 lbs

WHISTLER 400 WATT INVERTER SPECIFICATIONS

Maximum Continuous Power .....400 Watts
Maximum Surge Capability (Peak Power)..800 Watts
No Load Current Draw.....<0.40 A
Waveform .....Modified Sine Wave
Operating Input Voltage Range.....9.5 – 16 Volts DC
AC Receptacle..... Two 3 Prong
Fuses.....One 40 Amp (Spade Type)
One 20 Amp (Glass Type)
Approximate Dimensions.....9.5" H x 6" W x 2" D
Approximate Weight.....3 lbs

WARRANTY

Consumer Warranty
This Whistler is warranteed to the original purchaser for a period of two years, 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 two years. Whistler is not liable for damages arising from the use, misuse, or operation of this product.

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 with a dated store receipt to the address below. Units returned without a dated store receipt 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), a daytime telephone number, (No P.O. Box please.) and email address (if applicable).
- A detailed description of the problem, i.e. Unit powers up but no AC output.
- A copy of your dated store receipt 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 store receipt. You may register your warranty online at www.whistlergroup.com, however, for warranty verification purposes, a copy of your dated store receipt must accompany any unit sent in for warranty work.

WARRANTY

Service Out Of Warranty

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

- The unit's original warranty has expired.
- Dated store receipt 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 200 watt inverter is $25.00 (U.S.) and the 400 watt inverter 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, VISA and American Express; **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. (CT).

NOTES