OWNER'S MANUAL

Schumacher ELECTRIC

Models: XI41DU, XI50DU & XI75DU

Power Inverter

Converts 12V DC Battery Power
to 120V AC Household Power

DO NOT RETURN THIS PRODUCT TO THE STORE!
Call Customer Service

⚠WARNING **READ THE ENTIRE MANUAL BEFORE USING THIS PRODUCT. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.**

IMPORTANT: READ AND SAVE THIS SAFETY AND INSTRUCTION MANUAL.

SAVE THESE INSTRUCTIONS – This manual will show you how to use your inverter safely and effectively. Please read, understand and follow these instructions and precautions carefully, as this manual contains important safety and operating instructions. The safety messages used throughout this manual contain a signal word, a message and an icon.

The signal word indicates the level of the hazard in a situation.

⚠DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or bystanders.

⚠WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or bystanders.

⚠CAUTION Indicates a potentially hazardous situation which, if not avoided, could result in moderate or minor injury to the operator or bystanders.

IMPORTANT Indicates a potentially hazardous situation which, if not avoided, could result in damage to the equipment or vehicle or property damage.

⚠WARNING

Pursuant to California Proposition 65, this product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

1. IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

RISK OF ELECTRIC SHOCK OR FIRE.

1.1 Keep out of reach of children.

1.2 Keep the inverter well ventilated in order to properly disperse heat generated while it is in use. Make sure there are several inches of clearance around the top and sides and do not block the slots of the inverter.

1.3 Make sure the inverter is not close to any potential source of flammable fumes, gases or clothing.

1.4 Do not place the inverter in areas such as battery compartments or engine compartments where fumes or gases may accumulate.

1.5 Keep the inverter dry.

1.6 DO NOT allow the inverter to come into contact with rain or moisture.

1.7 DO NOT operate the inverter if you, the inverter, the device being operated or any other surfaces that may come into contact with any power source are wet. Water and many other liquids can conduct electricity, which may lead to serious injury or death.

1.8 Do not place the inverter on or near heating vents, radiators or other sources of heat or flammable materials.

1.9 Do not place the inverter in direct sunlight. The ideal air temperature for operation is between 50° and 80°F.

1.10 Only connect the power inverter to a 12-volt accessory outlet. Do not attempt to connect the inverter to any other power source, including an AC power source. Connecting to a 6-volt or 16-volt battery will cause damage to the inverter.

1.11 Make sure the AC plug connection is tight.

1.12 Do not modify the inverter in any way including cables, plugs or switches as it may result in property damage or personal injury.

1.13 **⚠WARNING** Incorrect operation of your inverter may result in damage and personal injury. The inverter output is 120V AC and can shock or electrocute the same as any ordinary household AC wall outlet.

1.14 Do not open – No user serviceable parts inside.

1.15 This device does not include an internal Ground Fault Circuit Interrupter (GFCI).

2. BEFORE USING YOUR POWER INVERTER

When you turn on a device or a tool that runs on a motor, the device basically goes through two stages:

1. Start Up – Requiring an initial surge of power (commonly known as the “starting or peak load”).
2. Continuous Operation – Power consumption drops (commonly known as the “continuous load”).

The wattage (WATTS) or amperes (AMPS) can normally be found stamped or printed on most devices and equipment, or in the user’s manual. Otherwise, contact the manufacturer to find out

whether the device you want to use is compatible with a modified sine wave.

To calculate the wattage: Wattage = AMPS x 120 (AC Voltage).

To calculate the starting load: Starting Load = 2 x WATTS. In general, the start up load of the device or power tool determines whether your inverter has the capability to power it.

To calculate the continuous load: Continuous Load = AMPS x 120 (AC Voltage).

IMPORTANT Always run a test to establish whether the inverter will operate a particular piece of equipment or device. In the event of a power overload, the inverter is designed to automatically shut down. This safety feature prevents damaging the inverter while testing devices and equipment within the wattage range of the inverter.

IMPORTANT When using the vehicle's 12 volt accessory port, this inverter is designed to supply 60 to 70 watts when the vehicle is not running. With the vehicle's engine running, it can supply up to 100 watts. To use the full output, you must connect the inverter directly to your battery.

NOTE: The 100 watt limit is to accommodate the fuse ratings for all vehicles. Some vehicles may allow the full output. If the fuse blows when you switch on the device you are trying to use, you have to either use a smaller device or you must connect the inverter directly to the battery.

IMPORTANT This inverter uses a nonsinusoidal waveform. Therefore we do not recommend you use it to power the following devices:

1. Switch Mode Power Supplies
2. Linear Power Supplies
3. Class 2 Transformers
4. Line Filter Capacitors
5. Shaded Pole Motors
6. Fan Motors
7. Microwave Ovens
8. Fluorescent and High Intensity Lamps (with a Ballast)
9. Transformerless Battery Chargers

Doing so, may cause the device to run warmer or overheat.

3. CONNECTING INVERTER CABLES

The inverter and power source must be in the OFF mode.

IMPORTANT Make sure you connect your inverter to a 12-volt power supply only.

Inverter connection:

1. Locate the positive and negative plastic terminals located on the back of the inverter and remove the terminal caps completely.
2. Install the positive (red) cable ring lug onto the positive (red) terminal screw. Install the negative (black) cable ring lug onto the negative (black) terminal screw. Tighten each terminal so that the cable cannot come loose.

Connecting inverter cable to a vehicle (100 watts maximum):

1. Remove the cigarette lighter from its outlet.
2. Push the 12-volt power plug firmly into the outlet.

Connecting inverter cables to 12v battery or 12v power source:

1. Keep hands, hair, clothing and jewelry clear of battery terminals.
2. Wear eye protection and clothing protection.
3. Connect the positive (red) inverter terminal cable to the power source positive (+) or battery terminal. Make sure the connection is secure.
4. Connect the negative (black) inverter terminal cable to the power source negative (-) or battery terminal. Make sure the connection is secure.
5. To disconnect the inverter, reverse the above steps.

NOTE: The internal speaker may make a brief “beep” when the inverter is being connected to or disconnected from the 12-volt power source.

IMPORTANT Failure to make the correct connections will result in blown fuses and permanent damage to the inverter.

4. OPERATING INSTRUCTIONS

1. Connect the inverter (see “CONNECTING INVERTER CABLES” section).
2. Make sure the device to be operated is turned OFF.

3. Plug the device into the inverter AC outlet.
4. Press and hold the ON/OFF ⏻ switch to turn the inverter on. (The internal speaker will make a brief “beep”. This is normal.) The Wattage out W~ LED will glow and the digital display will show 0.
5. Turn the device on. The display will now show the total wattage used by the device. To change the digital display, press the Display 888 button.
6. To disconnect, reverse the above procedure.

NOTE: If more than one device is to be powered, start one device at a time to avoid a power surge and overloading the inverter. The surge load of each device should not exceed the inverters Continuous Operation wattage rate.

IMPORTANT If there is a short circuit or power surge in the device, SC will display and the alarm will sound. Press the ON/OFF ⏻ switch to turn off the alarm. If the SC displays after several attempts, there is a short circuit or the device requires more “starting” or “peak” load than the inverter is capable of providing.

NOTE: After two SC events the inverter will go into a mandatory 10 second cool down period before it will turn on again.

IMPORTANT If you are using the power inverter to operate a battery charger, monitor the temperature of the battery charger for about 10 minutes. If the battery charger becomes abnormally warm, disconnect it from the inverter immediately.

NOTE: You can use an extension cord from the inverter to the device without significantly decreasing the power being generated by the inverter. For best operating results, the extension cord should be no longer than 50 feet.

Using the USB Port

The USB port provides up to 500mA at 5V DC.

1. Plug the device into the USB port.
2. Press and hold the ON/OFF ⏻ switch to turn the inverter on. (The internal speaker will make a brief “beep”. This is normal.)
3. Turn the USB device on.
4. Reverse these steps when finished using the USB port.

Using the Inverter to Operate a TV or Audio Device:
The inverter is shielded and filtered to minimize signal interference. Despite this, some interference may occur with your television picture, especially with weak signals. Below are some suggestions to try and improve reception.

1. Make sure the television antenna produces a clear signal under normal operating conditions (i.e. at home plugged into a standard 120-volt AC wall outlet). Also, ensure that the antenna cable is adequately shielded and of good quality.
2. Try altering the position of the inverter, antenna cables, and television power cord. Add an extension cord from the inverter to the TV so as to isolate its power cord and antenna cables from the 12-volt power source.
3. Try coiling the television power cord and the input cables running from the 12-volt power source to the inverter.
4. Affix one or several “Ferrite Data Line Filters” to the television power cord. Ferrite Data Line Filters can be purchased at most electronic supply stores.

NOTE: You may hear a “buzzing” sound being emitted from inexpensive sound systems when operated with the inverter. This is due to ineffective filters in the sound system’s power supply. Unfortunately, this problem can only be resolved by purchasing a sound system with a higher quality power supply or higher quality filter.

5. POWER SOURCE

Your average automobile or marine battery at full charge will provide an ample power supply to the inverter for approximately 3 hours when the engine is off. The actual length of time the inverter will function depends on the age and condition of the battery and the power demand being placed by the device being operated with the inverter.

If you decide to use the inverter while the engine is off, we recommend you turn OFF the device plugged into the inverter before starting the engine. To maintain battery power, start the engine every 2 to 3 hours and let it run for approximately 10 minutes to recharge the battery.

Although it is not necessary to disconnect the inverter when turning over the engine, it may briefly cease to operate as the battery voltage decreases. While the inverter draws very low

amperage when not in use, it should be unplugged to avoid battery drain.

6. LED DISPLAY

The LED display identifies the current status of the inverter.

VOLTS IN V⎓ : The voltage of the vehicle's battery, Portable Power jump starter or DC power source.

VOLTS OUT V~ : The voltage supplied to the device through the AC receptacle.

WATTAGE OUT W~ : The power or wattage supplied to the device plugged into the inverter.

An audio alarm will sound when any of the following codes display. To stop the alarm, press the ON/OFF ⏻ switch:

bAd – The inverter is not functional. See warranty and call Customer Service 1-800-621-5485 (Hours: 7:00 am to 5:00 pm CST).

H ib – The vehicle's battery voltage is more than 15.5-volts. The inverter will automatically restart after the voltage drops below 15.0-volts.

H iP – The continuous load demand from the device exceeds the inverter's wattage output.

HoE – The inverter is overheated and automatically turns off for a period of 1 to 3 minutes to cool. Make sure the inverter is well ventilated. It will automatically restart after it cools.

Lob – The vehicle's battery voltage is less than 10.5-volts.

SC – Short circuit, power surge or overload in the device.

7. IF THE INVERTER FUSE BLOWS

Your power inverter is fitted with a fuse, which should not have to be replaced under normal operating conditions. A blown fuse is usually caused by reverse polarity or a short circuit within the device or equipment being operated.If the fuse does blow:

1. Disconnect the device or equipment immediately.

2. Find the source of the problem, and repair it.

3. Install a new fuse, 15-amp. The fuse can be found on the end of the plug on the inverter.

4. Do not tighten the fuse cap too tight; finger tight is sufficient.

IMPORTANT Do not install a fuse higher than 15-amp, as this may damage the inverter. Make sure to correct the cause of the blown fuse before using the inverter again.

8. TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
Alarm is On.	Display shows SC. Device has a short circuit or demands too much surge power.	Cycle the inverter power OFF and ON. If problem persists, use a larger inverter or a smaller device. Remove the defective device.
	Display shows Lob. 12-volt battery is too low.	Recharge/replace battery
	Display shows voltage in between 10.5 and 11.0-volts.	12-volt battery is low. Recharge/replace battery. The inverter will automatically shut off after battery voltage reaches 10.5-volts.

PROBLEM	REASON	SOLUTION
Alarm is on (continued).	Display shows Hib. 12-volt voltage is too high.	If in a vehicle, repair/ replace the alternator or charging system. Use a properly sized and rated 12-volt battery. If the input voltage returns to 15-volts or less, the inverter will automatically restart.
	Display shows HiP. Device demands more than the inverter's continuous power rating.	Cycle the inverter power OFF and ON. If problem persists, use a larger inverter or a smaller device.
	Display shows Hot. Inverter is too hot.	Increase the ventilation to the inverter. Move the inverter to a cooler area. Reduce the power consumption of the device. The inverter will automatically reset after cooling.

PROBLEM	REASON	SOLUTION
Inverter does not turn on.	Poor contact at terminals	Check for poor connection to battery or power supply. Make sure connection points are clean. Rock clamps back and forth for a better connection.
	Fuse is blown.	A blown fuse is usually caused by reverse polarity or a short circuit within the inverter. To replace, contact a qualified service technician who will diagnose the inverter and replace the fuse(s) with the appropriate replacement(s).
	Inverter may be defective.	

9. SPECIFICATIONS

Model: XI41DU

Maximum Continuous Output..... 410 Watts
Surge Capacity (0.1 second)..... 820 Watts
Optimum Efficiency 85%
No Load Current Draw ..... <0.5A
Output Frequency .....60Hz ± 3Hz
Output Wave Form.....Modified Sine Wave
Input Voltage Range..... 10.5V – 15.5V DC
Low Battery Alarm.....Audible, 11V ± 0.3V DC
Low Voltage Shutdown.....Under 10.5V ± 0.3V DC
High Voltage Shutdown.....Over 15.5V ± 0.5V DC

AC Receptacle ..... Two, NEMA 5 – 15 USA
USB Port ..... One, 0.5A 5V DC
Dimensions ..... 5" L x 4" W x 2.2" H
Weight ..... Approximately 2 lbs

Model: XI50DU

Maximum Continuous Output..... 500 Watts
Surge Capacity (0.1 second)..... 1000 Watts
Optimum Efficiency 85%
No Load Current Draw ..... <0.5A
Output Frequency ..... 60Hz ± 3Hz
Output Wave Form ..... Modified Sine Wave
Input Voltage Range..... 10.5V – 15.5V DC
Low Battery Alarm ..... Audible, 11V ± 0.3V DC
Low Voltage Shutdown..... Under 10.5V ± 0.3V DC
High Voltage Shutdown..... Over 15.5V ± 0.5V DC
AC Receptacle ..... Two, NEMA 5 – 15 USA
USB Port ..... One, 0.5A 5V DC
Dimensions ..... 5" L x 4" W x 2.2" H
Weight ..... Approximately 2 lbs

Model: XI75DU

Maximum Continuous Output..... 750 Watts
Surge Capacity (0.1 second)..... 1500 Watts
Optimum Efficiency 85%
No Load Current Draw ..... <0.5A
Output Frequency ..... 60Hz ± 3Hz
Output Wave Form ..... Modified Sine Wave
Input Voltage Range..... 10.5V – 15.5V DC
Low Battery Alarm ..... Audible, 11V ± 0.3V DC
Low Voltage Shutdown..... Under 10.5V ± 0.3V DC
High Voltage Shutdown..... Over 15.5V ± 0.5V DC
AC Receptacle ..... Two, NEMA 5 – 15 USA
USB Port ..... One, 0.5A 5V DC
Dimensions ..... 8.5" L x 4" W x 2.2" H
Weight ..... Approximately 3.5 lbs

REPLACEMENT PARTS

Models XI41DU and XI50DU

12V Accessory Plug with Cables	2299002191
Red Battery Cable with Clamps	2299001894
Black Battery Cable with Clamps	2299001895

Model XI75DU

12V Accessory Plug with Cables	2299002191
Red Battery Cable with Clamps	2299001892
Black Battery Cable with Clamps	2299001893

10. LIMITED WARRANTY

SCHUMACHER ELECTRIC CORPORATION, 801 BUSINESS CENTER DRIVE, MOUNT PROSPECT, IL 60056-2179, MAKES THIS LIMITED WARRANTY TO THE ORIGINAL RETAIL PURCHASER OF THIS PRODUCT. THIS LIMITED WARRANTY IS NOT TRANSFERABLE OR ASSIGNABLE.

Schumacher Electric Corporation (the “Manufacturer”) warrants this inverter for two years from the date of purchase at retail against defective material or workmanship that may occur under normal use and care. If your unit is not free from defective material or workmanship, Manufacturers obligation under this warranty is solely to repair or replace your product, with a new or reconditioned unit, at the option of the Manufacturer. It is the obligation of the purchaser to forward the unit, along with mailing charges prepaid to the Manufacturer or its authorized representatives in order for repair or replacement to occur.

Manufacturer does not provide any warranty for any accessories used with this product that are not manufactured by Schumacher Electric Corporation and approved for use with this product. This Limited Warranty is void if the product is misused, subjected to careless handling, repaired, or modified by anyone other than Manufacturer or if this unit is resold through an unauthorized retailer.

Manufacturer makes no other warranties, including, but not limited to, express, implied or statutory warranties, including without limitation, any implied warranty of merchantability or implied warranty of fitness for a particular purpose. Further, Manufacturer shall not be liable for any incidental, special or consequential damage claims incurred by purchasers, users or others associated with this product, including, but not limited to, lost profits,

revenues, anticipated sales, business opportunities, goodwill, business interruption and any other injury or damage. Any and all such warranties, other than the limited warranty included herein, are hereby expressly disclaimed and excluded. Some states do not allow the exclusion or limitation of incidental or consequential damages or length of implied warranty, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and it is possible you may have other rights which vary from this warranty.

THIS LIMITED WARRANTY IS THE ONLY EXPRESS LIMITED WARRANTY AND THE MANUFACTURER NEITHER ASSUMES OR AUTHORIZES ANYONE TO ASSUME OR MAKE ANY OTHER OBLIGATION TOWARDS THE PRODUCT OTHER THAN THIS WARRANTY.