Schumacher

MODEL SJ1332 Jump Starter and DC Power Source OWNERS MANUAL



PLEASE SAVE THIS OWNERS MANUAL AND READ BEFORE EACH USE. This manual will explain how to use the portable power safely and effectively. Please read and follow these instructions and precautions carefully.



CONTAINS SEALED, NON-SPILLABLE LEAD-ACID BATTERY. MUST BE DISPOSED OF PROPERLY.

WARNING: Possible explosion hazard. Contact with battery acid may cause severe burns and blindness. Keep out of reach of children.

1. IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS. WARNING – RISK OF EXPLOSIVE GASES

WORKING IN THE VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL OPERATION. IT IS IMPORTANT THAT YOU FOLLOW THESE INSTRUCTIONS EACH TIME YOU USE THE UNIT.

To reduce the risk of battery explosion, follow these instructions and those published by the battery manufacturer and the manufacturer of any equipment you intend to use in the vicinity of a battery. Review cautionary markings on these products and on the engine.

WARNING! RISK OF ELECTRIC SHOCK OR FIRE.

- **1.1** Keep out of reach of children.
- **1.2** Do not disassemble the jump starter. Take it to a qualified service professional if service or repair is required. Incorrect assembly may result in fire or electrical shock.
- **1.3** Do not use the jump starter to jump a vehicle while charging the internal battery.
- **1.4** Do not recharge the jump starter with a damaged extension cord.
- **1.5** The jump starter gets hot during charging and must have proper ventilation.
- **1.6** Do not set the jump starter on flammable materials, such as carpeting, upholstery, paper, cardboard, etc.
- **1.7** Place the jump starter as far away from the battery being jumped as the cables will permit.
- **1.8** Do not expose the jump starter to rain or snow.
- **1.9** Never attempt to jump start a frozen battery.
- **1.10** Never place the jump starter directly above battery being jumped.

- **1.11** To prevent arcing, never allow the clamps to touch together or to contact the same piece of metal.
- 1.12 Use of an attachment not recommended or sold by Schumacher[®] Electric Corporation may result in damage to the unit or personal injury.
- **1.13** Never operate the jump starter if it is damaged.
- 1.14 If someone else uses the jump starter, ensure they are well informed on how to use it safely, and have read and understood the operating instructions.
- **1.15** The jump starter is NOT designed to be installed as a replacement for a vehicle battery.
- **1.16** Use ONLY on vehicles, boats and garden tractors powered with a 12V DC battery system.
- 1.17 If the engine fails to start after the recommended number of attempts, disconnect the unit and look for other problems that may need to be corrected.
- **1.18** Use the jump starter for jump starting lead-acid batteries only. Do not use for dry cell batteries that are commonly used with home appliances.

2. PERSONAL SAFETY PRECAUTIONS

2.1 Restrictions on Use:

The converter may not be used with life support devices or systems. Failure of this converter can reasonably be expected to cause failure of that life support device or system, or to affect the safety or effectiveness of that device or system.

- **2.2** Wear complete eye protection and protective clothing when working near lead-acid batteries. Always have someone nearby for help.
- 2.3 Have plenty of fresh water, soap and baking soda nearby for use, in case battery acid contacts your eyes, skin, or clothing. Wash immediately with soap and water and seek medical attention.

3. FEATURES



- **2.4** If battery acid comes in contact with eyes, flush eyes immediately for a minimum 10 minutes and get medical attention.
- 2.5 Neutralize any acid spills thoroughly with baking soda before attempting to clean up.
- 2.6 Remove all personal metal items from your body, such as rings, bracelets, necklaces and watches. A battery can produce a short circuit current high enough to weld a ring to metal, causing a severe burn.
- **2.7** Never smoke or allow a spark or flame in the vicinity of the battery or engine.
- 2.8 WARNING: This product contains one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
 - 1. Compressor gauge
 - 2. Compressor/inflator switch
 - 3. Inflator port
 - 4. Deflator port
 - 5. 12 Volt DC outlets
 - 6. USB port
 - 7. Jump start/USB On/Off switch
 - 8. Digital display
 - 9. Built-in work light
 - 10. Display button
 - 11. Work light On/Off switch
 - 12. Converter On/Off switch
 - 13. 120 Volt AC outlets
 - 14. Charger port
 - 15. Compressor hose
 - 16. Battery clamps
 - 17. Adapters
 - 18. Inflator hose

4. CHARGING THE INTERNAL BATTERY OF THE JUMP STARTER

IMPORTANT:

CHARGE IMMEDIATELY AFTER PURCHASE, AFTER EACH USE AND EVERY 30 DAYS, TO KEEP THE UNIT'S INTERNAL BATTERY FULLY CHARGED AND PROLONG BATTERY LIFE.

4.1 CHECKING THE LEVEL OF THE INTERNAL BATTERY

Check the internal battery's charge level by pressing the Display Button. The Digital Display will show the battery's percent of charge. Charge the internal battery if the display shows it is under 100%. **NOTE:** The internal battery's percent of charge is most accurate when the jump starter has been disconnected from all devices and charging sources for a few hours.

4.2 CHARGING THE INTERNAL BATTERY Charge the internal battery of the jump starter using an extension cord (not included).

NOTE: Use of an improper extension cord could result in a risk of fire and electric shock.

- 1. Plug an extension cord into the charger port on the back of the jump starter.
- Plug the extension cord into a 120VAC electrical wall outlet. While the jump starter is connected to an AC outlet, the green LED on the back of the unit will be on.
- 3. Monitor the progress of the charge by pressing the display button on the front of the unit. When the internal battery is fully charged, the display will show IDD. Complete charging may take up to 72 hours. The jump starter is then ready to use.
- When fully charged, the charger will automatically go into maintain mode and maintain the battery at full charge without damaging it.
- **5.** Charge the jump starter as soon as possible after use.

5. OPERATING INSTRUCTIONS

5.1 JUMP STARTING A VEHICLE

IMPORTANT: Using the Jump Start feature without a battery installed in the vehicle will damage the vehicle's electrical system.

- 1. Turn the ignition OFF.
- Lay the DC cables away from any fan blades, belts, pulleys and other moving parts.
- 3. For a negative-ground vehicle (as in most vehicles), connect the unit's POSITIVE (RED) clamp to the POSITIVE (POS, P, +) battery post. Next, connect the NEGATIVE (BLACK) clamp to the vehicle chassis or engine block, away from the battery.
- For a positive-ground vehicle, connect the unit's NEGATIVE (BLACK) clamp to the NEGATIVE (NEG, N, -) battery post. Next, connect the POSITIVE (RED) clamp to the vehicle chassis or engine block away from the battery.
- 5. Turn the switch to the ON position.

4.3 CHARGING THE INTERNAL BATTERY WHILE DRIVING

You may also charge the internal battery while driving, using a male-to-male charger cable (part number 94500109 – not included).

IMPORTANT: DO NOT CHARGE INTERNAL BATTERY FOR MORE THAN 30 MINUTES OR LEAVE THE BATTERY UNATTENDED. IT COULD EXPLODE, CAUSING PROPERTY DAMAGE OR PERSONAL INJURY.

- 1. Make sure the car is running.
- 2. Insert one end of the accessory cable into the 12V DC power outlet.
- 3. Insert the other end of the accessory cable into the vehicle's accessory outlet (lighter socket).

NOTE: The **GREEN** LED does not operate during this method of charging. Using this method to charge the battery overrides the maintain mode and the battery can be overcharged.

4. Monitor the progress of the charge by pressing the display button on the front of the unit. When the battery is fully charged, disconnect the accessory cable from the jump starter, then from the lighter socket of the vehicle.

NOTE: Completely disconnect the charger cable when the engine is not running.

NOTE: When connected to the vehicle, the display shows the vehicle's battery voltage. When connected and in the ON position, the display shows the equalized voltage between the vehicle's battery and internal battery.

- Crank the engine for no more than 8 seconds. If the engine does not start, wait 2 minutes before cranking again.
- After the engine starts, turn the switch to the OFF position and remove the jump starter from the battery.
- 8. Charge the unit.

5.2 USING THE USB PORT

The USB port provides up to 2A at 5V DC.

- 1. Ensure the battery clamps are securely clipped on the storage holders.
- 2. Turn the unit ON.
- 3. Plug your device into the USB port.
- **4.** When finished using the USB port, turn the switch to the OFF position.
- 5. Charge the unit.

5.3 USING THE WORK LIGHT

The work light is controlled by a sliding ON/ OFF switch located on the front of the unit.

- Make sure the lamp is turned OFF when the unit is being recharged or stored.
- Position the unit on a flat, stable surface near the intended work area.
- Ensure the battery clamps are securely clipped on the storage holders.

5.4 POWERING A 12V DC DEVICE

The unitis a power source for all 12V DC accessories that are equipped with a 12V accessory plug. Use it for power outages and on fishing or camping trips. **NOTE:** Do not power a 12V device with the unit while charging the internal battery.

- 1. Make sure the device to be powered is OFF before inserting the 12V DC accessory plug into the 12V DC accessory outlet.
- 2. Open the protective cover of the DC power outlet on the unit.
- Plug the 12V DC device into the DC power outlet and turn on the 12V DC device (if required).
- 4. When finished, turn off the DC device (if required) and unplug from the DC power outlet.

CAUTION: Do not use the unit to run appliances that draw more than 20A DC. **NOTE:** Extended operation of a 12V DC device may result in excessive battery

drain. Recharge the unit immediately after unplugging the 12V DC device.

5.5 USING THE AIR COMPRESSOR

NOTE: To prevent overheating, the compressor has built-in thermal protection that will turn the compressor off before it overheats. If the compressor shuts off, wait a few minutes and it will automatically restart when the compressor cools.

WARNING. Read the instructions of the product being inflated before using the compressor. Avoid overinflation; do not exceed the manufacturer's recommended pressures. Do not leave the air compressor unattended during use.

- 1. Remove the air compressor hose from the storage compartment.
- Connect the adapter to the valve stem by threading it onto the end. If necessary, use one of the additional adaptors.
- 3. Turn ON the inflator power switch and inflate to the desired pressure or fullness.
- 4. When the desired pressure is reached, put the inflator power switch to OFF, open the thumb latch and remove the connector from the valve stem.

5. Allow unit to cool.

6. Recharge the unit before storing. NOTE: The air compressor is rated for 150 PSI maximum.

5.6 USING THE INFLATOR RISK OF EXPLOSION.

Read instructions of the product being inflated before using the inflator. Avoid overinflation, do not exceed the manufacturer's recommended pressures. Do not leave the inflator unattended during use.

- 1. Ensure the battery clips are securely on the storage holders.
- Attach the corrugated hose with end adapter to the high-flow inflator outlet located near the Compressor/Inflator switch on the back of the unit.
- The main accessory adapter attached to the corrugated hose accommodates up to 4 sizes. If another size is needed, an additional adapter can be attached to the end of the main accessory adapter.
- Insert the adapter into the product to be inflated.
- 5. Push the Compressor/Inflator switch to the INFLATOR position and inflate the product.
- 6. When the product is inflated to the desired level, push the Compressor/ Inflator switch to the OFF position and remove the adapter.

Estimated time for inflating

Vehicle tires 13-16"	6-24 minutes
Bike tires	1-3 minutes
Sports balls	30 seconds

These times are approximate. Use the air compressor gauge to ensure the proper pressure has been reached. Do not overinflate.

5.7 USING THE DEFLATOR

- 1. Ensure the battery clips are securely on the storage holders.
- Attach the corrugated hose with the end adapter to the high-flow deflator outlet, which is located on the side of the unit.
- The main accessory adapter attached to the corrugated hose accommodates up to 4 sizes. If another size is needed, an additional adapter can be attached to the end of the main accessory adapter.
- 4. Insert the adapter into the item to be deflated.
- 5. Push the Compressor/Inflator switch to the INFLATOR position and deflate the item.

6. When the product is deflated to the desired level, push the Compressor/ Inflator switch to the OFF position and remove the adapter.

5.8 BEFORE USING THE CONVERTER Important Safety Instructions:

- Keep the unit 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 vents on the back of the unit.
- Make sure the unit is not close to any potential source of flammable fumes or clothing.
- 3. Keep the unit dry.
- 4. DO NOT allow the unit to come into contact with rain or moisture.
- 5. DO NOT operate the unit if you, the unit, the device being operated or any other surfaces that may come in contact with any power source are wet. Water and many other liquids can conduct electricity, which may lead to serious injury or death.
- 6. Do not place the unit on or near heating vents, radiators or other sources of heat.
- 7. Do not place the unit in direct sunlight. The ideal air temperature for operation is between 50° and 80° F.
- Do not use the converter near an open engine compartment where fumes may accumulate.
- 9. Do not modify the AC receptacles in any way.

5.9 USING THE CONVERTER

It is important to know the continuous wattage of the device you plan to use with the converter. The unit must be used with devices drawing 200 watts or less. If the wattage is not marked on the device, use only devices that draw less than 1.7 amps of AC current.

Devices like TVs, fans or electric motors require additional power to start (commonly known as the "starting" or "peak" power). The unit can supply a momentary surge in wattage; however even devices rated less than the maximum 200 watts can exceed the converter's surge capability and cause an automatic overload shutdown.

Do not use the converter with a product that draws a higher wattage than the converter can provide, as this may cause damage to the converter and the product.

Make sure the device you are using is compatible with a modified sine wave converter.

CAUTION: Always run a test to establish whether the converter will operate a particular piece of equipment or device.

In the event of a power overload, the converter is designed to automatically shut down. This safety feature prevents damaging the converter while testing devices and equipment with the 200-watt range.

If powering more than one device, start one device at a time to avoid a power surge and/or converter overload. The surge load of each device should not exceed the converter's Continuous Operation wattage rate.

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

You can use an extension cord from the converter to the device without significantly decreasing the power being generated by the converter. For best operating results, the extension cord should be 16 AWG (1.31 mm²) or larger and no longer than 50 feet.

IMPORTANT: This converter uses a modified sine waveform, which is not quite the same as power company electricity. For the following devices, we strongly recommend that you use caution and check the device's manual to make sure it is compatible with modified sine waveform.

- 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 Using the converter with any of these devices may cause the device to run warmer or overheat.

POWERING A 120V AC DEVICE

- 1. Ensure the battery clips are securely on the storage holders.
- 2. Open the protective cover of the AC power outlet on the front panel of the unit.
- **3.** Make sure the 120V AC device to be operated is turned OFF.
- Plug the 120V AC device into the AC power outlet, and turn the converter switch to the ON position. NOTE: When the converter is turned on and being used, the display will show the

total wattage used by the device being powered by the converter.

- 5. Turn the device on.
- 6. If the device does not operate properly when first connected to the converter, push the converter rocker switch ON, OFF, and ON again in quick succession. If this procedure is not successful, it is likely that the converter does not have the required capacity to operate the device intended.
- 7. Charge the unit as soon as possible after each use.

6. MAINTENANCE INSTRUCTIONS

- **6.1** After use and before performing maintenance, unplug and disconnect the jump starter.
- **6.2** Use a dry cloth to wipe all battery corrosion **6.4** and other dirt or oil from the battery clips, cords and the jump starter case.

7. MOVING AND STORAGE INSTRUCTIONS

- 7.1 Store inside, in a cool, dry place.
- 7.2 Do not store the clips on the handle, clipped together, on or around metal, or clipped to cables. The clips on the jump starter are live when the switch is in the ON position and will produce arcing or sparking if they come in contact with each other. To prevent accidental arcing, always place the switch in the OFF position and keep the clips on the storage holders when not using it to jump start a vehicle.
- 7.3 If the jump starter is moved around the shop or transported to another location, take care to avoid/prevent damage to the cords, clips and jump starter. Failure to do so could result in personal injury or property damage.

IMPORTANT: Do not use and/or store the jump starter in or on any area or surface

8. TROUBLESHOOTING

RISK OF ELECTRIC SHOCK.

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

NOTE: The maximum continuous load is 200 watts. Do not use the converter with a product that draws more than 200 watts, as this may cause damage to the converter and the product.

- **6.3** Ensure that all of the jump starter components are in place and in good working condition.
- **5.4** All servicing should be performed by qualified service personnel.

where damage could occur if the internal battery should unexpectedly leak acid.

7.4 IMPORTANT:

CHARGE IMMEDIATELY AFTER
PURCHASE

KEEP FULLY CHARGED

Charge the jump starter's internal battery immediately after purchase, after every use and every 30 days.

All batteries are affected by temperature. The ideal storage temperature is at 70° F. The internal battery will gradually self-discharge (lose power) over time, especially in warm environments. Leaving the battery in a discharged state may result in permanent battery damage. To ensure satisfactory performance and avoid permanent damage, charge the internal battery every month.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The unit won't jump start my car.	Jump Start/USB switch is not turned ON.	Turn ON the Jump Start/USB Switch.
	Clips are not making a good connection to the battery.	Check for poor connection to battery and frame. Make sure connection points are clean. Rock clamps back and forth for a better connection.
	The internal battery is not charged.	Check the battery charge status by pressing the button on the front of the unit. See <i>Checking the Level</i> of the Internal Battery.
	The vehicle's battery is defective.	Have the battery checked.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The unit won't power my 12V device.	The 12V device is not turned on.	Turn on the 12V device.
	The internal battery is not charged.	Check the battery charge status by pressing the button on the front of the unit. See <i>Checking the Level of the Internal Battery</i> .
	The 12V device draws more than 20A, has a short circuit, or the internal fuse has blown.	Disconnect the 12V device. The internal 20A fuse needs replacement by a qualified service person.
The battery in the unit won't hold a charge.	The battery is bad (will not accept a charge).	Have the battery checked.

9. SPECIFICATIONS

Internal Battery Type	.Sealed, Maintenance Free, AGM, Lead-Acid
Nominal Voltage	
DC Power Output (Maximum Continuous Lo	bad) 20A (both outlets combined)
Jumper Cables	4 AWG, 24"
Dimensions (H x W x D)	
Weight	

AC Power Specifications

Maximum continuous power	
Surge capacity (peak power)	
No load current draw	<<0.4 Amps
Wave form	Modified sine wave
Input voltage range	10.5 – 15.5V DC
AC outlets	(2) 120V AC 3-prong NEMA 5-15

10. REPLACEMENT PARTS

11. ACCESSORIES

Male-to-male accessory cable	94500109
SPUSB 2.0 Amp dual USB 12V plug	94500750