



# PROSERIES™

Model:

OWNER'S MANUAL

PSJ-2212, PSJ-3612, PSJ-4424

Jump Starter and DC Power Source



PSJ-2212

**PLEASE SAVE THIS OWNER'S MANUAL AND READ BEFORE EACH USE.** This manual will explain how to use your jump starter safely and effectively. Please read and follow these instructions and precautions carefully.

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## 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 JUMP STARTER.

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:** 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. Wash hands after handling.

- Keep out of reach of children.
- 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.
- Do not use the jump starter to jump a vehicle while charging the internal battery.
- Do not recharge the jump starter with a damaged extension cord.
- The jump starter gets hot during charging and must have proper ventilation.
- Do not set the jump starter on flammable materials, such as carpeting, upholstery, paper, cardboard, etc.
- Place the jump starter as far away from the battery being jumped as the cables will permit.
- Do not expose the jump starter to rain or snow.
- Never place the jump starter directly above battery being jumped.
- To prevent arcing, never allow the clamps to touch together or to contact the same piece of metal.
- Use of an attachment not recommended or sold by Schumacher® Electric Corporation may result in damage to the unit or personal injury.
- Never operate the jump starter if it is damaged.
- 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.
- The jump starter is NOT designed to be installed as a replacement for a vehicle battery.
- Use ONLY on vehicles, boats and garden tractors powered with a 12V DC battery system.
- 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.
- 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

- Wear complete eye protection and protective clothing when working near lead-acid batteries. Always have someone nearby for help.
- 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.
- If battery acid comes in contact with eyes, flush eyes immediately for a minimum 10 minutes and get medical attention.
- Neutralize any acid spills thoroughly with baking soda before attempting to clean up.
- 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.
- Never smoke or allow a spark or flame in the vicinity of the battery or engine.

### 3. FEATURES



1. Durable polypropylene case with high-impact rubber base
2. ON/OFF switch
3. 12 Volt DC power outlet
4. Two function digital display
5. Heavy-duty replaceable battery clamps

### 4. CHARGING THE INTERNAL BATTERY OF THE JUMP STARTER

**IMPORTANT!** CHARGE IMMEDIATELY AFTER PURCHASE, AFTER EACH USE AND EVERY 30 DAYS, TO KEEP THE JUMP STARTER'S INTERNAL BATTERY FULLY CHARGED AND PROLONG BATTERY LIFE.

#### DIGITAL DISPLAY

The display can be used to indicate a battery's voltage percentage when connected to a battery or the percentage of charge in the jump starter's internal battery.

With the switch in the OFF position, connect the clamps to the vehicle's battery and its voltage is displayed. Turn the jump starter's rotary switch to 12V (12V or 24V for PSJ-4424) and the combined voltage of both internal and external batteries is shown.

To read the internal battery's charge status: Press the display button to read the percentage of charge left in the internal battery. A fully charged battery will read 100%.

#### CHARGING THE INTERNAL BATTERY

Charge the internal battery for 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. Make sure the rotary switch on the front of the jump starter is in the O (OFF) position.
2. To charge, plug an 18 gauge (AWG) or larger extension cord (not included) into the charger plug on the side of the jump starter.
3. Plug the extension cord into a 120V AC electrical wall outlet.
4. While the jump starter is charging, the battery's percentage of charge will be displayed. When the internal

battery is fully charged, the display will show 100. Complete charging may take up to 72 hours. The jump starter is then ready to use.

5. The charger will automatically go into maintain mode and maintain the battery at full charge without damaging it.
6. Charge the jump starter as soon as possible after use.

**IMPORTANT:** Do not use the jump starter while charging the internal battery.

#### 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).

**IMPORTANT:** 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.

## 5. USING THE JUMP STARTER

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

1. Turn the ignition OFF.
2. Make sure the area is well ventilated.
3. Lay the DC cables away from any fan blades, belts, pulleys and other moving parts.
4. Make sure the rotary switch on the front panel is in the O (OFF) position until the clamps are connected to the vehicle. If plugged into an AC wall outlet, unplug.
5. DO NOT allow the clamps to touch together or to contact the same piece of metal.
6. For a negative-ground vehicle (as in most vehicles), connect the jump starter'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.
7. For a positive-ground vehicle, connect the jump starter'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.

**IMPORTANT:** If you have connected the clips backwards, an audio alarm will sound. DO NOT turn on the jump starter. This could cause serious damage to the jump starter or the vehicle. Reverse the connections and the audio alarm will stop.

8. If no audio alarm sounds, turn the rotary switch to the 12V position (12V or 24V position for Model PSJ-4424). The 3-digit display will show the voltage of the battery.
9. Crank the engine. If the engine does not start within 5-8 seconds, stop cranking and wait at least 1 minute before attempting to start the vehicle again. (This permits the battery to cool down.)

10. After the engine starts, turn the rotary switch to the O (OFF) position. Disconnect the black clamp (-) and then the red clamp (+), in that order.
11. Recharge the jump starter as soon as possible after use.

### POWERING A 12V DC DEVICE

The jump starter is 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. Estimated usage times are listed in the chart.

**NOTE:** Do not power a 12V device with the jump starter 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. Ensure the battery clamps are secured on the storage holders.
3. Open the protective cover of the DC power outlet on the jump starter.
4. Plug the 12V DC device into the DC power outlet and turn on the 12V DC device (if required).
5. When finished, turn off the DC device (if required) and unplug from the DC power outlet.

**NOTE:** Do not use the jump starter to run appliances that draw more than 15A DC. If the 12V DC device draws more than 15A or has a short circuit, the internal circuit breaker of the jump starter will trip and disconnect the power to the device. Disconnect the 12V DC device. The breaker will automatically reset after an overload occurs.

**NOTE:** Extended operation of a 12V DC device may result in excessive battery drain. Recharge the jump starter immediately after unplugging the 12V DC device.

## 12V DC ESTIMATED RUN-TIMES

APPLIANCE TYPE	ESTIMATED WATTAGE	ESTIMATED RUN TIME PSJ-2212	ESTIMATED RUN TIME PSJ-3612, PSJ-4424
Cell phone, fluorescent light	4 watts	66 hrs	132 hrs
Radio, fan, depth finder	9 watts	23.9 hrs	58.6 hrs
Camcorder	15 watts	17.6 hrs	35.2 hrs
Electrical tool	24 watts	11 hrs	22 hrs
Electric cooler	48 watts	5.5 hrs	11 hrs
Car vacuum, air compressor	80 watts	3.3 hrs	6.6 hrs

**NOTE:** Actual time may vary. Times are based on the internal battery being fully charged.

## 6. MAINTENANCE AND CARE

- Clean the clamps and the case after each use.
- Recharge the unit once a month, when not in use.
- Store the clamps on their support posts, to ensure they do not come into contact with any metallic surface.
- Never completely discharge the internal battery.

## 7. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REASON/SOLUTION
The jump starter won't jump start my car.	Clamps are not making a good connection to the battery.	Check for poor connection to battery and frame. Make sure connection points are clean.
	The jump starter's battery is not charged.	Check the battery charge status by pressing the Display button on the front of the unit. The display will show the percentage of charge.
	The vehicle's battery is defective.	Have the battery checked.
The jump starter won't power my 12V device.	The 12V device is not turned on.	Turn on the 12V device.
	The jump starter's battery is not charged.	Check the battery charge status by pressing the Display button on the front of the unit. The display will show the percentage of charge.
	The 12V device draws more than 15A or has a short circuit.	Disconnect the 12V device. The internal breaker will automatically reset after a minute or two. Try using the 12V device again.
The battery in the jump starter won't hold a charge.	The battery is bad (will not accept a charge).	Replace the battery.
CHG shows on the display.	The battery is charging.	Not a problem; continue charging.
The jump starter's alarm is on.	Connections are reversed.	Disconnect the jump starter and reverse the clamps.

## SPECIFICATIONS

### PSJ-2212

Internal Battery Type.....	Sealed, Maintenance Free, AGM, Lead-Acid
Nominal Voltage.....	12V DC
Capacity.....	22Ah
DC Power Output (Maximum Continuous Load).....	15A
Peak Amps.....	2200
Cranking Amps.....	330
Cold Cranking Amps.....	275
Battery Hookup Cables.....	4 gauge, AWG, 50" (127 cm) Long
Dimensions (H x W x D).....	15" x 14" x 4.7" (37.1 x 35.56 x 11.9 cm)
Weight.....	21.55 lbs (9.78 kg)

### PSJ-3612

Internal Battery Type.....	Sealed, Maintenance Free, AGM, Lead-Acid
Nominal Voltage.....	12V DC
Capacity.....	(2) 22Ah
DC Power Output (Maximum Continuous Load).....	15A
Peak Amps.....	3600
Cranking Amps.....	470
Cold Cranking Amps.....	385
Battery Hookup Cables.....	2 gauge, AWG, 55" (139.7 cm) Long
Dimensions (H x W x D).....	15" x 14" x 7.7" (37.1 x 35.56 x 19.6 cm)
Weight.....	37.55 lbs (17.04 kg)

### PSJ-4424

Internal Battery Type.....	Sealed, Maintenance Free, AGM, Lead-Acid
Nominal Voltage.....	12V DC
Capacity.....	(2) 22Ah
DC Power Output (Maximum Continuous Load).....	15A
Peak Amps.....	4400
Cranking Amps.....	500
Cold Cranking Amps.....	415
Battery Hookup Cables.....	2 gauge, AWG, 55" (139.7 cm) Long
Dimensions (H x W x D).....	15" x 14" x 7.7" (37.1 x 35.56 x 19.6 cm)
Weight.....	38.15 lbs (17.32 kg)

## 10. REPLACEMENT PARTS/ACCESSORIES

Battery clamp jaw replacement kit .....	2299001580
Male-to-male accessory cable .....	94500109

### BATTERY CLAMP JAW REPLACEMENT

1. Make sure the rotary switch on the front panel is in the OFF (O) position and the jump starter is not plugged into a 120V AC wall outlet.
  2. Secure the clamp in the open position using a vise or equivalent clamping device.
  3. Remove the rear screw that attaches the jump starter cable to the jaw.
  4. Remove the screw holding the copper jaw to the plastic clamp. Repeat for the other jaw.
  5. Remove the two jaws and braided cable.
  6. Reverse the steps to install the replacement clamps.
- WARNING:** The clamps are spring loaded, so use caution when replacing the jaws, to avoid injury.