

909[®]

INSTRUCTION MANUAL
RP828-AUOXY



**300 AMP
Portable
Lithium-Ion
Jump Starter**

CONTENTS

Warranty	2
Introduction	3
Environmental protection	3
Specifications	3
Instruction manual	3
Safety instructions	3
Specific safety instructions for jump starters	4
Additional safety instructions for batteries and chargers	5
Know your product	6
Charging / recharging	7
Operation guide	7
Troubleshooting	10

Warranty

For full details please visit us at www.909.com

Introduction

Your new 909 appliance will more than satisfy your expectations. It has been manufactured under stringent 909 Quality Standards to meet superior performance criteria.

You will find your new appliance easy and safe to operate, and, with proper care, it will give you many years of dependable service.

CAUTION. Carefully read through this entire Instruction Manual before using your new 909 appliance. Take special care to heed the Cautions and Warnings.

Your 909 appliance has many features that will make your job faster and easier. Safety, performance, and dependability have been given top priority in the development of this tool, making it easy to maintain and operate.

Environmental protection



Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally safe way.

Specifications

Battery:	Lithium - Ion 12V 6ah
Output (instant):	300A
Output (constant for 5 seconds):	225A
USB:	5Vdc 500mA
AC Charger Input:	230V-240Vac
AC Charger Output:	12Vdc 500mA
Area Light:	2 white LED

Instruction manual

Please refer to and observe all safety instructions before use.

To comply with the published safety standards, the following must be observed when using this jump-starter:

1. Before attempting jump-starting procedures, read the instructions.
2. Disconnect AC power supply before connecting to or disconnecting from the battery.
3. Assure that this jump-starter is correctly connected to the battery.
4. User must use output clamps provided by manufacturer only.

Safety Instructions

Important specification note: This power system is to be used ONLY on vehicles with 12 volt DC battery systems.

WARNING! When using battery-powered appliances, basic safety precautions, including the following, should always be followed to reduce the risk of fire, leaking batteries, personal injury and material damage.

Note. Prior to using this appliance, persons fitted with a heart pace maker or similar medical devices should obtain medical advise before using this appliance.

- Read all of this manual carefully before using the appliance.
- The use of any accessory or attachment or the performance of any operation with this appliance other than those recommended in this instruction manual may present a risk of personal injury.

Using your appliance

- This appliance is not intended for use by young or infirm persons without supervision.
- Use in a dry location only. Do not allow the appliance to become wet.
- Do not immerse the appliance in water.

- Do not open body casing. There are no user-serviceable parts inside.
- Do not operate the appliance in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.
- To reduce the risk of damage to plugs and cords never pull the cable to remove the plug from a socket outlet.

After use

- When not in use, the appliance should be stored in a dry, well ventilated place out of the reach of children.
- When the appliance is stored or transported in a vehicle it should be placed in the boot or restrained to prevent movement following sudden changes in speed or direction.
- The appliance should be protected from direct sunlight, heat and moisture.

Inspection and repairs

- Before use, check the appliance for damaged or defective parts. Check for breakage of parts, damage to switches and any other conditions that may affect its operation.
- Do not use the appliance if any part is damaged or defective.
- Have any damaged or defective parts repaired or replaced by an authorised repair agent.
- Never attempt to remove or replace any parts other than those specified in this manual.

Specific safety instructions for jump-starters

WARNING! To reduce the risk of injury and/or property damage:

- Follow these instructions and those published by the battery manufacturer, vehicle manufacturer and manufacturer of any equipment you intend to use with this unit. Review warning labels on these products and on the vehicle.

- Explosive gas may be vented from the lead acid batteries when charging and under extreme conditions battery leakage may occur. Ensure the area is well ventilated when conducting jump-starting and charging procedures.
- The appliance must only be connected to a 12V lead-acid battery. Do not use the appliance for charging dry-cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and damage property.
- Never allow the red and black clamps to touch each other or another common metal conductor. This can cause dangerous sparks, power arcing, and/or explosion.
- Check the polarity of the vehicle battery terminals before connecting the appliance. Always disconnect the negative (black) jumper cable first: followed by the positive (red) jumper cable.
- The jump-starter power button should be in the off position before connection to a power source or load, when the unit is charging and when not in use.
- When using this unit in proximity to the vehicle's battery and engine, stand the unit on a flat, stable surface, and be sure to keep all clamps, cords, clothing and body parts away from moving parts of the vehicle.
- Replace worn or defective parts immediately.
- After use, press the jump-starter power button and the unit on/off button to turn the jump-starter off.

CAUTION! To reduce the risk of property damage:

- Vehicles may have electrical and electronic systems (e.g. engine management system, on-board computerized system, mobile phone) that may be damaged if subjected to high starting voltages and voltage peaks. Before connecting the appliance to the vehicle read the vehicle's owner's manual to confirm that external-starting assistance is advised.

- Excessive engine cranking can damage the vehicle's starter motor.
If the engine fails to start after the recommended number of attempts, discontinue jump-starting procedures and look for other problems that need to be corrected.
- This appliance is not designed to be used as a replacement for a vehicular battery. Do not attempt to operate a vehicle that does not have a battery installed.
- This appliance contains a Lithium-Ion battery. It is recommended that the appliance is laid flat during storage, use, and recharging.
- To reduce the risk of electric shock, disconnect the appliance from any power source before attempting maintenance or cleaning. Turning off controls without disconnecting the appliance will not reduce this risk.
- Make sure the appliance is disconnected from all charging power sources before beginning the jump-start procedure.
- If the connections to the battery's positive and negative terminals are incorrect, the reverse polarity indicator will light and the unit will sound a warning until the clamps are disconnected. Rectify the connections immediately.
- If vehicle fails to start, turn off the ignition, turn off the Jump-Starter Power Switch, disconnect the jump-start system's leads and contact a qualified technician to investigate why the engine did not start.
- Recharge this unit fully after each use.
- Always store the battery clamps in the built-in holsters when not in use.

Additional safety instructions for batteries and chargers

Batteries

- Never attempt to open the unit's body casing for any reason.
- Do not expose the battery to water.
- Do not store in locations where the temperature may exceed 40°C.
- Charge only at ambient temperatures between 4°C and 40°C.
- Charge only using the chargers provided with the appliance.
- When disposing of batteries, follow the instructions given in the section "Protecting the environment".
- Under extreme conditions, battery leakage may occur. When you notice liquid on the batteries, carefully wipe the liquid off using a cloth. Avoid skin contact.

Chargers

Your charger has been designed for a specific voltage. Always check that the mains voltage corresponds to the voltage on the rating plate.

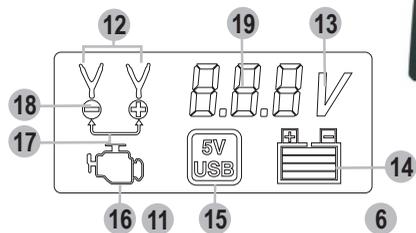
WARNING! Never attempt to replace the charger unit with a regular mains plug. Use your charger only to charge the battery in the tool with which it was supplied. Other batteries could burst, causing personal injury and damage.

WARNING! Use your charger only to charge the battery in the tool with which it was supplied. Other batteries could burst, causing personal injury and damage.

- Never attempt to charge non-rechargeable batteries.
- Have defective cords replaced immediately.
- Do not expose the charger to water.
- Do not open the charger.
- Do not probe the charger.
- The battery must be placed in a well ventilated area when charging.

Know your product

1. Unit On/Off button
2. Area light On/Off button
3. LCD screen
4. USB power socket
5. LED area light
6. 12V AC/DC charging socket
7. Jump starter power button
8. Cord storage
9. Positive (+) red clamp
10. Negative (-) black clamp
11. AC charging adaptor
12. Clamps icon
13. Battery voltage indicator
14. Battery icon
15. USB icon
16. Jump-starter icon
17. Short circuit icon
18. Polarity icon
19. Digital display



Charging / recharging

Lithium-Ion batteries require routine maintenance to ensure a full charge and long battery life. All batteries lose energy from self-discharge over time and more rapidly when they are at higher temperatures. Therefore, batteries need periodic charging to replace energy lost through self-discharge. When the unit is not in frequent use, manufacturer recommends the battery be recharged at least every 6 months.

IMPORTANT: If you attempt to use the unit when the unit's battery charge level is too low, the unit will automatically shut down. Immediately recharge the unit with all other functions turned off.

Notes: This unit is delivered in a partially charged state – you must fully charge it after purchase and before using it for the first time. Initial AC charge should be for up to 20 hours or until the unit shows as fully charged.

Recharging battery after each use will prolong battery life; frequent heavy discharges between recharges and/or overcharging will reduce battery life.

Make sure all other unit functions are turned OFF during recharging, as this can slow the recharging process.

AC charging

1. Insert the jack plug of AC (mains) charging adapter into the 12V AC/DC charging socket on the side of the unit. Insert the mains charging adapter into a mains power socket. A beep will sound, the LCD backlight will turn on 5 seconds and the LCD screen will display the following:



The bars on the battery icon represent the capacity level of the unit's internal battery. The bars on the battery icon will change from empty to solid (bottom to top) repeatedly to indicate the unit is charging.

Note: If the unit on/off button is pressed while the AC charging adapter is plugged in, the LCD screen will display the following:



The digital display shows the unit's internal battery voltage. The 5V USB icon will display and the bars on the battery icon will continue to change from empty to solid (bottom to top) repeatedly to indicate the unit is still charging.

2. Charge for up to 20 hours or until the unit is fully charged. The unit is fully charged when the battery icon shows 4 solid bars.
3. When charging is complete, unplug the AC charging adapter from the mains power socket, then disconnect the jack plug of the AC charging adapter from the 12V AC/DC charging port. Store the charger in a dry, safe place.

Operation guide

Jump-starter

This unit is equipped with a jump-starter power button that allows energy to flow only when proper connections are made to battery and frame. Take the following steps, observing all cautions and warnings in the "Safety Instructions" section at the front of this manual

1. Turn off vehicle ignition and all accessories (radio, A/C, lights, connected cell phone chargers, etc.). Place vehicle in "park" and set the emergency brake.
2. Make sure the unit on/off button and jump-starter power button are turned off.
3. Remove jumper clamps from clamp holders. Connect the red clamp first, then the black clamp.
4. **Procedure for jump-starting a NEGATIVE GROUNDED SYSTEM (negative battery terminal is connected to chassis) (MOST COMMON)**

- 4a. Connect positive (+) red clamp to vehicle battery's positive terminal.
- 4b. Connect negative (-) black clamp to chassis or a solid, non-moving, metal vehicle component or body part. Never clamp directly to negative battery terminal or moving part. Refer to the automobile owner's manual.

5. Procedure for jump-starting POSITIVE GROUND SYSTEMS

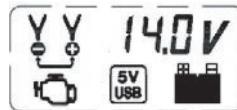
Note: In the rare event that the vehicle to be started has a Positive Grounded System (positive battery terminal is connected to chassis), replace steps 4a and 4b above with steps 5a and 5b, then proceed to step 6.

- 5a. Connect negative (-) black clamp to vehicle battery's negative terminal.
 - 5b. Connect positive (+) red clamp to vehicle chassis or a solid, non-moving, metal vehicle component or body part. Never clamp directly to positive battery terminal or moving part. Refer to the automobile owner's manual.
6. When clamps are connected properly, press the unit on/off button to turn the jump-starter on. A beep will sound, the LCD backlight will turn on for 5 seconds and the LCD screen will display the following to indicate the unit is in standby mode:



The digital display shows the unit's internal battery voltage. The 5V USB icon will display and the bars on the battery icon will light solid to represent the capacity level of the unit's internal battery.

7. Press the jump-starter power button. The LCD screen will display the following to indicate the unit is ready to jump-start:



If the surrounding ambient temperature drops to an extremely low level during operation, the jump starter icon on the LCD screen will flash and all the functions will stop. Disconnect the jump starter and allow the unit to warm up for several minutes.

If the surrounding ambient temperature rises to an extremely high level during operation, the jump starter icon on the LCD screen will flash and all the functions will stop. Disconnect the jump starter and allow the unit to cool down for several minutes. Make sure there is adequate ventilation around the unit before attempting to jump start again.

If the clamps are disconnected from the battery, the battery clamps icons (Y Y) on the LCD screen will flash until the clamps are connected.

If the clamps are **incorrectly** connected with regard to polarity, the “-” and “+” signs under the battery clamps icon (⦿ ⦿) on the LCD screen will flash and an alarm will sound continuously until the clamps are disconnected.

Disconnect the clamps and reconnect with proper polarity.

If the unit encounters a short-circuit condition, the arrows pointing to the “-” and “+” sign under the battery clamps icon (⚡) on the LCD screen will flash and the alarm will sound continuously until the clamps are disconnected.

Disconnect the clamps, and discontinue the jump-starting procedure:

- a) Check the wires for damage. If damage is detected, return to manufacturer for replacement immediately.
- b) Assure that the vehicle has a 12 volt DC battery system. This jump-starter is to be used **ONLY** on vehicles with 12 volt DC battery systems.

Note: The LCD will automatically return to standby mode after 30 seconds.

8. If there are no indications of fault (as outlined in the “Important” section above), turn on the vehicle’s ignition and crank the engine in 5-6 second bursts until the engine starts. Do not crank the engine continuously, otherwise the temperature inside the unit will rise rapidly. Allow a two-minute interval between attempts.
9. After the engine starts, press the jump-starter power button, then the unit on/off button to turn the unit off.
10. Disconnect the negative (–) engine or chassis clamp first, then disconnect the positive (+) battery clamp.

WARNING! To reduce the risk of injury or property damage:

- Follow all safety instructions found in the “Specific Safety Instructions for Jump-Starters” section of this instruction manual.
- Never touch red and black clamps together — this can cause dangerous sparks, power arcing, and/or explosion.
- Always turn the unit off when not in use.
- Replace worn or defective parts immediately. Contact the manufacturer.

CAUTION. To reduce the risk of property damage:

- Vehicles that have on-board computerized systems may be damaged if vehicle battery is jump-started. Before jump-starting this type of vehicle, read the vehicle manual to confirm that external-starting assistance is advised.
- Excessive engine cranking can damage the vehicle’s starter motor. If the engine fails to start after the recommended number of attempts (refer to the Vehicle Owner’s Manual), discontinue the jump-start procedure and look for other problems that need to be corrected.
- If the connections to the battery’s positive and negative terminals are incorrect, the LCD screen will display as shown in the second part of step 7 of the directions. Disconnect clamps and reconnect to battery with correct polarity.
- If the vehicle fails to start, turn off the ignition; press the jump-starter power button, then the unit on/off button to

turn the unit off; disconnect the jump-start system’s leads and contact a qualified technician to investigate why the engine did not start.

- Recharge this unit fully after each use.

LED area light

The built-in two-LED area light is controlled by the area light on/off button on the control panel. Press the unit on/off button first, then the area light on/off button once to turn the light on. Press the area light on/off button to turn the area light off, then, if desired, press the unit on/off button to turn the unit off. Make sure the light and the unit are turned off when the unit is being recharged or stored.

Periodically check the unit’s battery status on the LCD screen. (Four solid bars in the battery icon indicate a full battery. One bar indicates that the unit needs to be recharged.)

USB power socket

The USB power socket is located under the protective cover above the LCD screen. Refer to the “Features” section at the front of this manual to locate.

1. Press the unit on/off button to turn the unit on. The LCD screen will display the following:



The “5V USB” icon indicates that the USB power socket is ready to use.

2. Plug the USB-powered device into the USB power socket and operate normally.
3. Periodically check the unit’s battery status on the LCD screen. (Four solid bars in the battery icon indicate a full battery. One bar indicates that the unit needs to be recharged.)

Notes: This unit’s USB power socket does not support data communication. It only provides 5 volts/500mA DC power to an external USB-powered device.

Some household USB-powered electronics will not operate with this unit.

Make sure all appliances are disconnected from the USB power port and the unit is turned off when the unit is being recharged or stored.

Troubleshooting

Unit not charging

- Make sure all of the unit's functions are turned off.
- Check that the charger is properly connected to a live mains power socket.

Engine fails to jump-start

- Make sure you have followed all the steps in the jump-starter instructions carefully. Refer to the important notes included in this section that explain common problems and solutions.
- Make sure a proper polarity cable connection has been established.
- Check that unit has a full charge. Recharge unit if necessary.

LED area light does not come on

- Make sure the unit on/off button and the LED area light on/off button have been pressed to turn the unit and LED area light on.
- Check that unit has a full charge. Recharge unit if necessary.

USB power socket will not power appliance

- Make sure the unit on/off button has been pressed to turn the unit on.
- Check that unit has a full charge. Recharge unit if necessary.

909[®]