

POWERLIGHT RESCUE (Model No. LNC7480) 12 Volt Jump Starter, Power Bank and Work Light

Operator's Manual

WARNING



Failure to follow instructions may cause damage or explosion, always shield eyes. **Read entire instruction manual before use.**

WARNING: This product can expose you to chemicals including Vinyl-Chloride, Styrene and Acrylonitrile, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling. We have taken numerous measures in quality control and in our manufacturing processes to ensure that your product arrives in top condition, and that it will perform to your satisfaction. *Save your purchase receipt, it is required for warranty service.*

This unit has a sealed lithium-based battery that should be kept at full charge. Recharge when first received, immediately after each use, and every three months if not used. Failure to perform maintenance charges may cause the battery life to be reduced.

	Read these instructions completely before using the POWERLIGHT RESCUE and save them for future reference. Before using the POWERLIGHT RESCUE to jump start a car, truck, boat or to power any equipment, read these instructions and the instruction manual/safety information provided by the car, truck, boat or equipment manufacturer. Following all manufacturers' instructions and safety procedures will reduce the risk of accident.
July .	Working around lead-acid batteries may be dangerous. Vehicle lead-acid batteries release explosive gases during normal operation, charging and jump starting. Carefully read and follow these instructions for safe use. Always follow the specific instructions in this manual and on the POWERLIGHT RESCUE each time you jump start using the POWERLIGHT RESCUE . All lead-acid batteries (car, truck and boat) produce hydrogen gas which may violently explode in the presence of fire or sparks. Do not smoke, use matches or a cigarette lighter while near batteries . Do not handle the battery while wearing vinyl clothing because static electricity sparks are generated when vinyl clothing is rubbed. Review all cautionary material on the POWERLIGHT RESCUE and in the engine compartment.
	Always wear eye protection, appropriate protective clothing and other safety equipment when working near lead-acid batteries. Do not touch eyes while working on or around lead-acid batteries.
	When not using the unit to jump start, remove and properly store output cables. Leaving clamps connected and improperly storing the unit may cause the clamps to come into contact with each other or a common conductor, causing the battery to short and generating high enough heat to ignite most materials.
T	Use extreme care while working within the engine compartment, because moving parts may cause severe injury. Read and follow all safety instructions published in the vehicle's Owner's Manual.
a fail fail and	While the battery in the POWERLIGHT RESCUE is a sealed unit with no free liquid acid, batteries being jump started with the POWERLIGHT RESCUE unit likely contain liquid acids which are hazardous if spilled.



WARNING: The POWERLIGHT RESCUE should only be used as a jump starter with the supplied Safety Cable. *NEVER* use an alternate cable when jump starting with the POWERLIGHT RESCUE.

SAFETY SUMMARY

LITHIUM BATTERY HAZARDS

Lithium batteries are very energy dense and provide a high level of power to their respective applications. Care must be taken to properly manage all lithium batteries in their use, charging and storage to ensure safety for the operator and equipment serviced.

All rechargeable lithium batteries are potentially hazardous and can present a serious **FIRE HAZARD** if damaged or improperly used. A fire is most likely to occur during the charging process under the following circumstances:

- a. THE BATTERY HAS BEEN FULLY DISCHARGED AND IS NOT RECHARGED SHORTLY AFTERWARD. Lithium batteries should be recharged within 24 hours of use, particularly if fully or near fully discharged.
- b. CHARGING IS ATTEMPTED AT TEMPERATURES BELOW 40°F (4°C). Charging below 40°F (4°C), causes a chemical reaction in the battery cells that can cause permanent damage and the possibility of fire or explosion during charging.
- c. **THE BATTERY HAS BEEN EXPOSED TO LIQUIDS, ESPECIALLY SALTWATER.** Exposure to liquids can cause internal corrosion or damage to the cells or to the internal Battery Management System (BMS). The BMS protects the battery from overcharging, high self-discharge or imbalanced charging of the cells, any of which can present the possibility of fire during recharging.
- d. OPERATING OR CHARGING A BATTERY THAT HAS BEEN DAMAGED FROM DROPPING OR FROM SHIPPING DAMAGE. If your unit has a crack on the outer case, it should not be charged, as it may may contain a damaged battery.
- e. USING A CHARGER OTHER THAN SPECIFICALLY DESIGNATED FOR THE PARTICULAR BATTERY. Each battery wall charger provides charging voltage, current and charge control parameters specific to that particular wall charger. The specific parameters of the wall charger provided with your unit exactly meet the charging requirements of its internal battery. These could be very different from other lithium battery wall chargers and are certainly different than chargers for use with SLA, NiCd, NiMH, or other rechargeable batteries. Never use a charger other than the one provided with your unit this could present a serious fire risk.

PERSONAL PRECAUTIONS

Someone should always be within range of your voice or close enough to come to your aid when you work near a lead-acid battery.

Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing or eyes. Protective eyewear should always be worn when working near lead-acid batteries.

If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 10 minutes and get medical attention immediately.

Be extra cautious to reduce risk of dropping a metal tool onto a battery. It might spark or short circuit the battery or another electrical part that may cause explosion.

Remove personal metal items such as rings, bracelets, necklaces and watches when working with a lead-acid battery. A lead-acid battery can produce a short-circuit current high enough to weld a ring or the like to metal, causing a severe burn.

Use the POWERLIGHT RESCUE for jump starting *lead-acid batteries* **only**. Do not use for charging dry-cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and damage to property.

NEVER charge or jump start a frozen battery.

To prevent arcing, **NEVER** allow clamps to touch together or to contact the same piece of metal.

IMPORTANT SAFETY INSTRUCTIONS

Use of an attachment not recommended or sold by the manufacturer may result in a risk of damage to the unit or injury to personnel.

When using the wall charger or power extension cord, pull on the plug and **never on the wire** when disconnecting.

Do not recharge the POWERLIGHT RESCUE with a damaged wall charger or power extension cord. Replace them immediately.

The POWERLIGHT RESCUE may be used under any weather condition – rain, snow, hot or cold temperatures. Do not charge the POWERLIGHT RESCUE in temperatures below $40^{\circ}F$ (4°C).

Do not submerge in water.

Do not operate with flammables such as gasoline, etc.

If the POWERLIGHT RESCUE receives a sharp blow or is otherwise damaged in any way, have it checked by a qualified service person. If the POWERLIGHT RESCUE is leaking battery acid, do not ship it. Take it to the closest battery recycler in your area.

Do not disassemble the POWERLIGHT RESCUE. Have it checked by a qualified service person.

The POWERLIGHT RESCUE should never be left in a completely discharged state for any period of time. Damage to the battery could be permanent, with poor performance as a result. When not in use, recharge every three (3) months.

OPERATION AND MAINTENANCE

POWERLIGHT RESCUE Operating and Safety Features

The POWERLIGHT RESCUE is an ideal power supply for powering and/or recharging small electronics connected through its USB power ports. With 12000 mAh of power, it can recharge multiple devices on a single charge.

The POWERLIGHT RESCUE can serve as a vehicle jump starter when the included output cables and clamps are connected through the 12V cable port. It is designed to jump start vehicles of all shapes and sizes up to a V8 gasoline engine.

The POWERLIGHT RESCUE features a variety of safety features, including reverse polarity protection, backfeed protection, short circuit protection, over voltage protection and under voltage protection to make jump starting safe and hassle free.

The POWERLIGHT RESCUE also features multifunctional work light capabilities. It can be deployed as a 480 lumen work light, a 3W focus beam light, a 3W SOS emergency light, a red warning light or a red blinking warning light.

CHARGE STATUS AND RECHARGING PROCEDURES

Note: Upon initial purchase, your POWERLIGHT RESCUE should be charged for a minimum of 6 hours.

Charge Status Indication

Press the Power Button on the front of the unit one time to see the unit's state of charge. The unit's state of charge status is indicated by four LED indicators below the Power Button, as follows:

One Blue Status LED = Recharge Immediately

Two Blue Status LEDs = 25-50% Charge - Charge soon

Three Blue Status LEDs = 50-75% Charge – Charge if using as a jump starter

Four Blue Status LEDs = At or near full charge

It is recommended that the unit be at or near 100% state of charge when using as a jump starter. This will greatly improve your odds of success.

Recharging Your POWERLIGHT RESCUE

Charging via the included AC adapter.



Never use any other charger than the one provide with the unit. Use of another charger can damage the internal Lithium battery, which could result in fire.

- 1. Connect the pin jack at the end of the AC adapter cord to the POWERLIGHT RESCUE through the input port marked "AC IN."
- 2. Connect the male end of the AC adapter to the AC outlet.
- 3. Using this method, the unit will be brought to full charge automatically without overcharging. It can remain connected to AC power without adverse effect.

Note: The blue status LEDs will turn on successively to indicate charging progress. When all blue LEDs are lit solid, the unit has reached full charge.

OPERATING INSTRUCTIONS

Used as a 12 Volt Jump Starter



WARNING: The POWERLIGHT RESCUE should only be used as a jump starter with the supplied Safety Cable. *NEVER* use an alternate cable when jump starting with the POWERLIGHT RESCUE.

Note: For optimal performance, do not store your POWERLIGHT RESCUE below 50°F when using as a jump starter. Never charge or jump start a frozen battery.

Note: When using as a jump starter, make sure that the unit is charged such that the unit's Status Display shows 4 blue LEDs when the Power Button is depressed.

- 1. Use in a well ventilated area.
- 2. Shield eyes. Always wear protective eyewear when working near batteries.
- 3. Review this instruction manual and the instruction/safety manual provided by the manufacturer of the vehicle being jump started.
- 4. Connect the smart cable/clamp set to the POWERLIGHT RESCUE through the covered port on the side of the unit. Be sure that the cable connection is fully engaged and secure. Upon connection, the smart cable will beep and flash all LEDs as it does its safety check. It will then light a flashing blue LED, indicating the unit is in standby mode.
- 5. Turn ignition off before making vehicle connections.
- Clamp the positive (red +) clamp to the positive terminal on the vehicle battery (for negative ground system), or an alternate vehicle starting point as recommended by vehicle manufacturer.

7. Clamp the negative (black –) clamp to the vehicle frame (ground).

Note: Make sure the cables are not in the path of moving engine parts (belts, fans, etc.).

- 8. Once connected, the smart cable/clamp will provide an assessment of the connection.
 - 8a. If the smart cable/clamp lights solid green, the battery to be jumped in the normal range. You have 30 seconds in which to start the vehicle or the unit will return to standby mode.
 - 8b. If the smart cable/clamp lights red and a warning buzzer sounds, this indicates a reverse connection. Disconnect from vehicle immediately and properly connect to vehicle. This condition cannot be overridden.
 - 8c. If proper connection has been made, but the vehicle battery is below 10VDC, the red LED will beep. If you check that all connections are correct, you can circumvent this protection by depressing the Override Button for 4 seconds on the side of the smart cable clamp box. The Green Status LED should now light. You have 30 seconds in which to start the vehicle or the unit will return to standby mode.
- 9. Stay clear of batteries while jump starting.
- 10. Start the vehicle (turn on the vehicle ignition).

Note: If the vehicle doesn't start within 6 seconds, let the POWERLIGHT RESCUE cool for 3 minutes before attempting to start the vehicle again or you may damage the POWERLIGHT RESCUE.

Note: During very cold conditions, the unit may not start on the first attempt. We suggest attempting to start a second or third time, as the starting attempt will warm the internal battery and improve your starting chances. Do not attempt to jump start after four attempts – either the unit does not have sufficient power to start the vehicle or there is a more extensive problem with the vehicle than simply a depleted battery.

- 11. When the vehicle is started, the smart cable/clamp will show a solid blue LED and the warning buzzer will beep for a short period.
- 12. Disconnect the negative (-) battery clamp from the vehicle frame.
- 13. Disconnect the positive (+) clamp.
- 14. Disconnect smart cables/clamps from the PowerLight RESCUE and properly store them for the next use.

Used as a USB Power Supply

Your POWERLIGHT RESCUE can be used to power or recharge a wide variety of small electronic devices.

- 1. Connect your device's charging cable to the device.
- 2. Connect the USB end of the charging cable into a POWERLIGHT RESCUE USB port.
- 3. Press the Power Button to activate USB charging.

Used as a WorkLight

The POWERLIGHT RESCUE features several different work light modes. The sequence below explains how the unit cycles through each of these modes:

- 1. First Power Button press turns the unit ON, activating the USB ports and battery status panel.
- 2. Second press turns ON the primary work light.
- 3. Third press turns ON solid red warning light.
- 4. Fourth press turns ON flashing red warning light.
- 5. Fifth press turns ON focus beam light.
- 6. Sixth press turns ON focus beam light SOS signal.
- 7. Seventh press turns entire unit OFF.

Note: While in any of the above work light modes, you can turn the unit OFF by pressing and holding the Power Button for four seconds. You will see the battery status panel turn OFF at that time.

TROUBLESHOOTING

Problem: I charged the unit when the LED indicated it was low, but after several hours, there is no change in status.

Answer: Suspect a faulty charger.

- **Problem:** While charging, the four blue status LEDs light to indicate full charge has been reached. But, when the unit is removed from the charger and Power Button pressed, the status LEDs indicate a low or completely dead battery.
- Answer: Suspect a battery problem.

QUESTIONS & ANSWERS

- **Question:** How many jump starts can a fully charged POWERLIGHT RESCUE provide before needing to be recharged?
- **Answer:** 1 to 8. Factors impacting this are temperature, general condition of the vehicle being jump started, engine type and size.
- Question: Can the battery in the POWERLIGHT RESCUE be replaced?
- **Answer:** No, the battery connections inside the POWERLIGHT RESCUE make it impossible to replace the battery.
- Question: What is the ideal in-use temperature for the POWERLIGHT RESCUE?
- Answer: Room temperature. The POWERLIGHT RESCUE will also operate at low and high temperatures, however its capacity will be reduced. For instance, high heat will increase self-discharge of the POWERLIGHT RESCUE battery.
- Question: I have a regular 10 amp battery charger, can I use it to recharge the POWERLIGHT RESCUE?
- **Answer:** No, only the supplied AC adapter should be used.
- Question: Is the POWERLIGHT RESCUE goof proof?

Answer: No, jump starting instructions must be followed. Read and understand all safety and operating instructions in this manual and those found in the owner's manual of any vehicle being jump started before using your POWERLIGHT RESCUE.

- Question: How long should I charge the POWERLIGHT RESCUE?
- Answer: It should be charged for a minimum of 6 hours when new. When recharging, the POWERLIGHT RESCUE should be charged until full charge is indicated.

Question: How often should I charge the POWERLIGHT RESCUE?

Answer: It should be charged whenever the status LED indicates the unit is low and after every use. Otherwise, it should be charged every 90 days.

DISPOSAL INSTRUCTIONS



Contains Lithium-based battery. Must be recycled/disposed of properly.

The battery inside your POWERLIGHT RESCUE is a lithium-based battery and should be recycled or disposed of properly, as you would any electronic device containing an advanced technology battery. It is your responsibility to recycle or dispose of your POWERLIGHT RESCUE in accordance with your specific local, regional and national requirements.