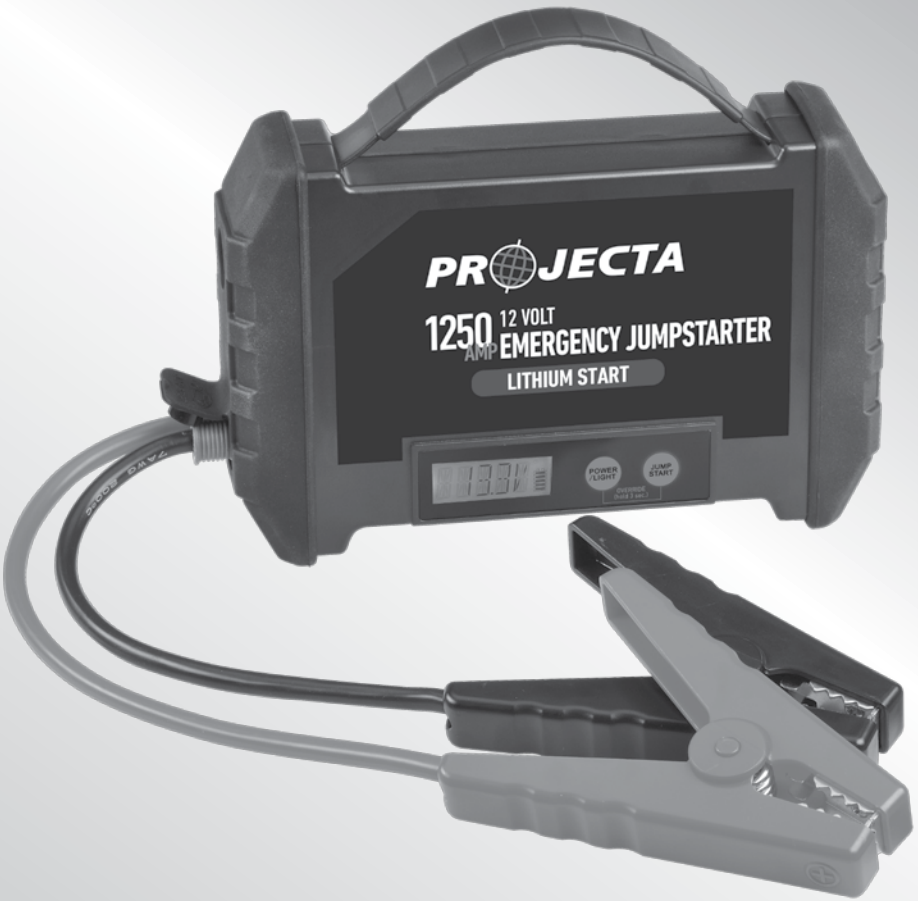
PROJECTA

## LITHIUM START 12V EMERGENCY

# LITHIUM JUMPSTARTER

## AND PORTABLE POWER BANK




P/No LS950, LS1250

# IMPORTANT SAFETY INFORMATION

Please read this manual thoroughly before use and store in a safe place for future reference.

## WARNING

- Risk of explosive gas. Working in the vicinity of a lead-acid batteries can be dangerous. Batteries release explosive gases during normal operation, charging and while jumpstarting a battery. Before using this Jumpstarter, read and follow the instructions carefully. Follow all manufacturer's instructions and warnings on the vehicle's battery and other equipment being used.
- Jumpstart 12V lead-acid batteries only. Do not use to jumpstart dry-cell batteries commonly found in household appliances. These batteries may burst and cause injury and/or property damage.
- Do not smoke, use matches, use a cigarette lighter, or allow a spark or flame near the battery.
- Do not allow metal to come in contact with the battery posts. It may spark or short circuit the battery and cause an explosion/fire.
- Always wear eye protection when operating the Jumpstarter.
- Remove rings, bracelets, necklaces and watches when working with a lead-acid batteries.
- Contains a Lithium Iron Phosphate battery and must be disposed of properly.
- Ensure correct polarity when connecting to vehicle.
- Keep in a dry location
- Although the Jumpstarter has been designed to protect the battery it is best to not drop the Jumpstarter or try and pierce the Jumpstarter in anyway, as this can result in a fire.
- Do not store the Jumpstarter in temperatures above 60° Celsius or below 0° Celsius, as this can affect the health of the battery.
- Not intended for people (including children) with reduced physical or mental capability.
- Do not drive the vehicle with the LS950 or LS1250 still attached to the battery.
- If the vehicle cannot be started within 5 seconds allow the Jumpstarter to cool for 3 minutes before attempting to start the vehicle again or damage to the Jumpstarter may occur.
- Please wait 10 minutes if there are several failed attempts to jumpstart, then try again.

# IMPORTANT CHARGING INFORMATION

- Charge Jumpstarter prior to first use, this may take up to 4 to 8 hours depending on the model.
- Fully recharge the Jumpstarter after every use to ensure your Jumpstarter is ready in emergencies.
- To extend the life of your battery do not let the battery charge level fall below 20%.

# FEATURES

**LS950**

The LS950 is suitable for starting most 12V Petrol vehicles up to 6 litres and diesel vehicles up to 3.2litres.

**LS1250**

The LS1250 is suitable for starting most 12V Petrol vehicles up to 7 litres and diesel vehicles up to 4.5litres.

**240VAC CHARGE ADAPTOR** – provides for convient charging from mains power

**12V USB CHARGING** – Allowing the Jumpstarter to be charged from your vehicle cigarette socket.

**LITHIUM BATTERY** – Increased storage life and a much more compact lightweight unit.

**PREMIUM SPARK FREE CLAMPS** – Ensuring safe Jumpstarting.

**INCORPORATES HIGHEST RATE OF DISCHARGE BATTERY** – For increased starting capacity.

**POWER BANK WITH 2.1 and 1.0 AMP USB PORT** – Allowing charging of phones, tablets and other small portable devices.

**EASY TO READ BATTERY STATUS DIGITAL SCREEN** – Shows battery status and when recharge is required.

**INBUILT LED FLOOD LIGHT** – Inbuilt LED flood light provides illumination for safer, more convenient operation at night.

# MAXIMUM PROTECTION, SAFETY AND RELIABILITY

**TOTAL SAFEGUARD PROTECTION** – Includes Over voltage Protection, Battery Over-temperature Protection, Reverse Polarity Protection and Alarm, Short Circuit Protection, Over Current Protection, Over Cranking Protection, Under-voltage Protection, Low voltage indication to protect the user, vehicle and Jumpstarter.

**REVERSE POLARITY PROTECTION & ALARM** – Prevents sparking from accidental reverse connection. The alarm sounds when the Jumpstarter clamps are connected incorrectly.

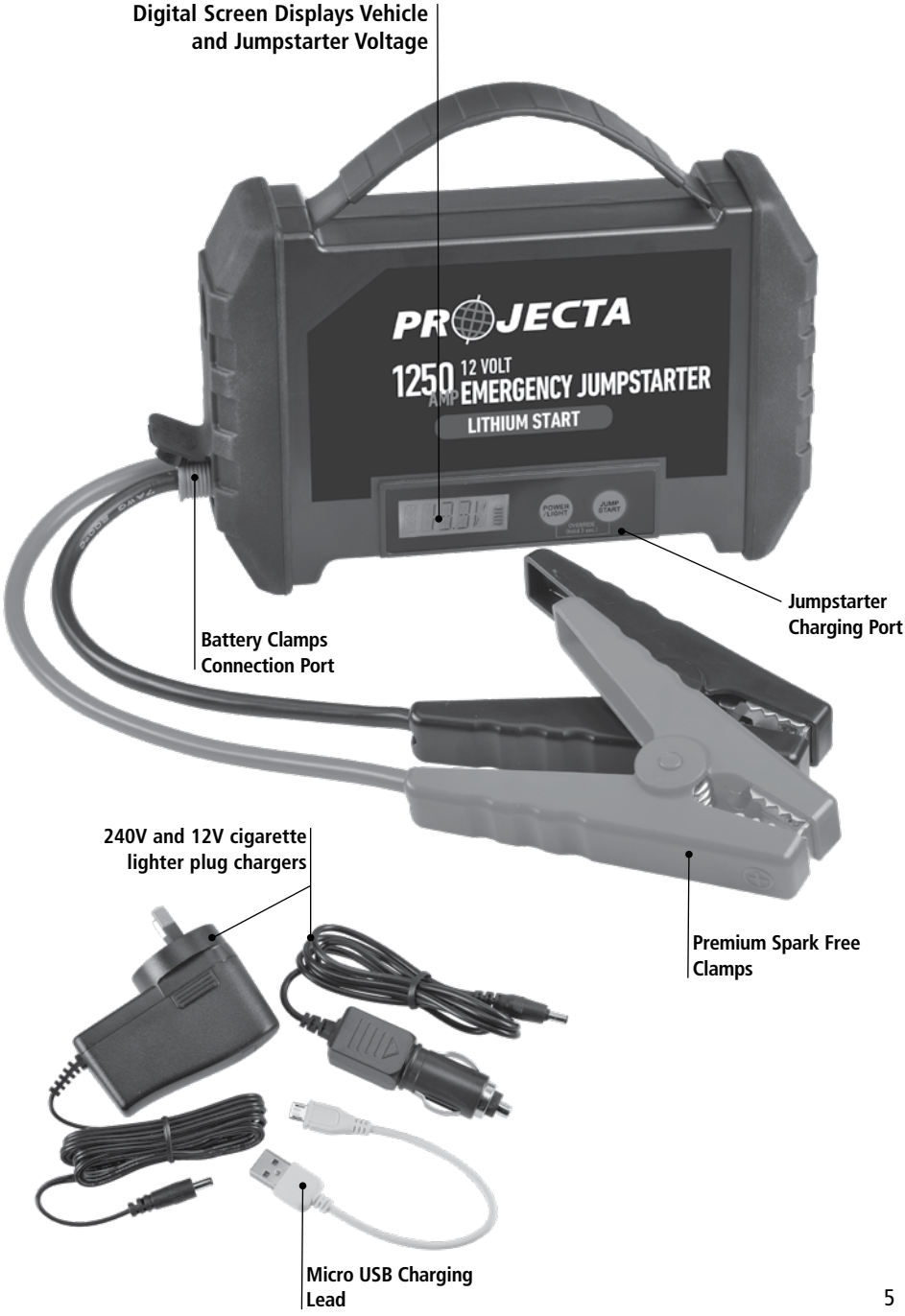
**SURGE PROTECTION** – LS950 & LS1250 features built in surge protection so you can safely Jumpstart vehicles with EFI (electronic fuel injection) and computer management systems.

# SPECIFICATIONS

| P/No. | LS950 | LS1250 |
|---|---|---|
| **Battery** | | |
| Battery Type | Lithium Iron Phosphate | |
| Battery Capacity | 8,000mAhr<br>25.6Whr<br>2Ahr at 12.8V | 16,000mAhr<br>51.2Whr<br>4Ahr at 12.8V |
| Battery Short Circuit Current | 950A | 1250A |
| Clamp Power | 290A | 400A |
| Number of Jumpstarts<br>(Vehicle without battery) | 7 Starts (Petrol)<br>0 Start (Diesel) | 14 Starts (Petrol)<br>0 Start (Diesel) |
| Number of Emergency Jumpstarts*<br>(with a vehicle flat Battery) | 14 Starts (Petrol)<br>5 Starts (Diesel) | 28 Starts (Petrol)<br>10 Starts (Diesel) |
| **USB Output** | | |
| USB output | 2.1, 1.0A at 5.0V | |
| USB low Voltage Disconnect | Battery voltage at 10.5V | |
| **Jumpstarter Leads** | | |
| Length | Positive 43cm, Negative 37cm | |
| Cable | 10.5mm² (7AWG) | |
| Polarity Protection | MCU controlled with Automatic Switch | |
| Overload Protection | MCU controlled with Automatic Switch | |
| **Recharging** | | |
| 240V AC Charging | 15V, 1.0A DC output | |
| 12V DC charging | 12V Cigarette socket outlet | |
| Recharge time | 4 hours | 8 hours |
| **Jumpstart connection Voltages** | | |
| Normal Connect | 2.5~15.9V | |
| Override | 0~2.5V | |
| **Dimensions, Weight & Environmental** | | |
| Height | 55mm | |
| Width | 140mm | |
| Length | 205mm | |
| Weight | 0.83Kg | 1.08Kg |
| Operating & Storage Temperature | -0 to 60°C | |

* Tested on a Ford Ranger 3.2L Diesel and Ford Territory 4.0L Petrol with a flat battery in good condition

# PRODUCT OVERVIEW



# VEHICLE JUMPSTARTING INSTRUCTIONS

1. Your Jumpstarter should be charged for 8 hours prior to first use and as soon as possible after each use.
2. Before making any connections, check the Jumpstarter battery status by turning on the Jumpstarter. The Jumpstarters battery capacity should show at least 2 bars or above 60% charged.
3. Turn your vehicle's ignition OFF before connecting the Jumpstarters clamps to your vehicle.
4. Connect the Red Positive (+) clamp to the positive (+) terminal of the battery in the vehicle and the Black Negative (-) clamp to the negative (-) terminal of the battery or any non moving metal part of the engine block. DO NOT CONNECT TO FUEL LINE. Always double check that you have the proper connections.

   At this point the clamp voltage (vehicle voltage) will be displayed on the jumpstarter.
5. Press the Jumpstart button.

   If the vehicle voltage is less than 2.5V. You will need to engage OVERRIDE on the jumpstarter. To do this you will need to press and hold the JUMPSTART button followed by the POWER/LIGHT button, holding both together for more than 3 seconds.

   If the Jumpstarter fails to start your vehicle refer to the Jumpstarter display for any errors it may indicate & check that the clamps are correctly connected with good contact.
6. Turn the vehicle's ignition to ON and start the vehicle. After the engine has started, turn the Jumpstarter off.
7. Disconnect the Black clamp and then the Red clamp.
8. Recharge the Jumpstarter.

# CHARGING THE JUMPSTARTER

The Jumpstarter can be charged with the provided 240V A.C adaptor or by the 12V D.C Cigarette plug adaptor.

**AC CHARGING**

1. Plug the AC charger into the Jumpstarters charing port.
2. Connect the AC charger to the mains supply. The LCD will now display CHARGING.
3. When the battery is charged the LCD display will show FULLY CHARGED and the jumpstarter will stop charging.
4. Disconnect the AC charger from mains supply and unplug the charger from the Jumpstarter.

**DC CHARGING,** while driving.

1. Plug the DC adaptor into the jumpstarter's charging port.
2. Connect the Cigarette plug to the vehicles Cigarette power socket, and start the car. The LCD will now display CHARGING.
3. When the battery is charged the LCD display will show FULLY CHARGED and the jumpstarter will stop charging.
4. Disconnect the Cigarette plug to the vehicles Cigarette power socket and unplug the charger from the Jumpstarter.

**WHEN TO CHARGE**

Your Jumpstarter is shipped partially charged. Therefore you should charge the Jumpstarter before using it for the first time. It is recommended to charge fully after each use so the Jumpstarter is ready in case it is required.

**POWER BANK**

The Jumpstarter has a USB output with 2.1A and 1.0A out. It is suitable to charge phones, tablets, cameras and GPS devices. The Jumpstarter will turn off after 2 minutes of no activity or the USB device has been fully charged.

If the USB output becomes overloaded, remove the device and check it. Turn the Jumpstarter off and back on again, the USB output should work again.

WARNING: Charging devices from the Jumpstarter will drain the battery and potentially cause the Jumpstarter to fail to start your vehicle in an emergency. Recharge the Jumpstarter as soon as possible.

**FLOOD LIGHT**

The Flood light has 3 functions. These are:
1st press – Flood light mode
2nd press – Strobe mode
3rd press – SOS mode

# TROUBLE SHOOTING

| PROBLEM | POSSIBLE CAUSE | REMEDIES |
|---|---|---|
| NON STOP CRANKING scrolled on display of the LCD and beeping | The jumpstarter is in over-discharge protection mode. Cranking for more than 8 seconds. | 1. Press JUMPSTART button to reset the alarm, then again to resume jumpstarting.<br>2. Wait 2 minutes for Jumpstarter to turn off or press and hold the POWER/LIGHT button for 3 seconds to turn off. Then restart Jumpstarter. |
| OVER DISCHARGE scrolled on display of the LCD and beeping. | The internal battery voltage has gone too low, the Jumpstarter has gone into over-discharged protection mode | 1. Press JUMPSTART button to reset the alarm, then again to resume jumpstarting.<br>2. Wait 2 minutes for Jumpstarter to turn off or press and hold the POWER/LIGHT button for 3 seconds to turn off. Then restart Jumpstarter. |
| OVER TEMPERATURE scrolled on display of the LCD and beeping. | The internal battery temperature has gone too high, the Jumpstarter has gone into over-temperature mode | Wait until the Jumpstarter has cooled down below 50°C. |
| OVERLOADING scrolled on display of the LCD and beeping, then Jumpstarter shuts down automatically | Too much power is being drawn from the USB | Check the device being charged is not faulty or short circuited. |
| WARNING-EXTERNAL VOLTAGE IS OVER 15V scrolled on display of the LCD and beeping. | The Vehicle battery voltage is too high | Make sure the vehicle to be jumpstarted is a 12V system |
| WARNING-CLAMPS REVERSED scrolled on display of the LCD and beeping. | Jumpstarter clamps are connected to the battery incorrectly (reversed). | Check to ensure the Positive clamps is connected to the Positive battery post and the Negative clamp is connected to the negative battery post. |
| OVER DISCHARGE scrolled on display of the LCD and beeping, when power devices from USB, then the Jumpstarter shuts down automatically. | The internal battery voltage has gone too low, the Jumpstarter goes into over-discharged protection mode and turns off. | Check the internal battery capacity and recharge it if necessary |
| The vehicle cannot be jumpstarted | 1. Improper clamp connections<br>2. The internal battery charge is too low<br>3. Jumpstarter is too cold<br>4. Jumpstarter is too hot<br>5. Vehicle battery is defective or shorted | 1. Check and make sure the connections are correct<br>2. Check the internal battery charge and recharge it if necessary<br>3. LCD displays ##°C and goes into LOW TEMPERATURE MODE<br>4. Jump Starter goes into high temperature protection, cool down the unit before Jumpstarting<br>5. Check the vehicle battery and change it if necessary |

# **TROUBLE SHOOTING** (continued)

| PROBLEM | POSSIBLE CAUSE | REMEDIES |
|---|---|---|
| USB doesn't work | 1. Improper USB connections<br>2. The internal battery charge is too low | 1. Check the USB connections are correct<br>2. Check the internal battery capacity and recharge |
| Cannot turn on the Jumpstarter | The internal battery's charge is too low | Recharge the jumpstarter |
| PLEASE REMOVE THE CLAMPS scrolled on display of the LCD together with beeping after successfully started | The clamps have not been disconnected from the vehicle battery after POWER/LIGHT button is pressed to turn off the Jump Starter | Disconnect the clamps from the vehicle battery and then turn off the Jump Starter via pressing POWER/ LIGHT button |

# FREQUENTLY ASKED QUESTIONS

**Q. Why didn't my Jumpstarter start my vehicle?**

A. There could be a number of reasons why the Jumpstarter did not start your vehicle.

**Check the following:**

1. Ensure the Jumpstarter battery is fully charged.
2. Ensure you have followed the correct operating procedure. Refer to page 6 ("Vehicle Jumpstarting Instructions").
3. Ensure the vehicle operates on 12V DC
4. The vehicle's battery may be below 2.5V, the minimum start voltage for the Jumpstarter. Ensure all connections are correct, then press the Power/Light and Jumpstart buttons simultaneously for 3 seconds to manually activate the Jumpstarter. Refer to page 6 ("Vehicle Jumpstarting Instructions") for further information.
5. Ensure the vehicle being jumpstarted does not require a clamp output greater than 290 Amps (LS950) or 400 Amps (IS1250) in order to jumpstart the vehicle.

**Q. Can I leave my Jumpstarter connected to the car after it has started?**

A. Leaving the Jumpstarter connected to the car after it has started will not be a problem but it is best to disconnect and charge the Jumpstarter so it is ready to start another car. As the Jumpstarter will not be receiving charge in this situation and it is best to pack the Jumpstarter away so it will not fall in the engine area.

**Q. How often should I charge my Jumpstarter?**

A. The Jumpstarter uses Lithium technology which self discharges only a very small amount.

To be safe the Jumpstarter should be charged at least every year to be sure it is ready in case of an emergency.

**Q. What is Peak Amps?**

A. Peak amps is the maximum current the battery in the Jumpstarter can produce.

**Q. What is Clamp Power?**

A. Clamp power is the maximum current available at the clamps.

# NOTES

# WARRANTY STATEMENT

**Applicable only to product sold in Australia**

Brown & Watson International Pty Ltd of 1500 Ferntree Gully Road, Knoxfield, Vic., telephone (03) 9730 6000, fax (03) 9730 6050, warrants that all products described in its current catalogue will under normal use and service be free of failures in material and workmanship for a period of one (1) year (unless this period has been extended as indicated elsewhere) from the date of the original purchase by the consumer as marked on the invoice. This warranty does not cover ordinary wear and tear, abuse, alteration of products or damage caused by the consumer.

To make a warranty claim the consumer must deliver the product at their cost to the original place of purchase or to any other place which may be nominated by either BWI or the retailer from where the product was bought in order that a warranty assessment may be performed. The consumer must also deliver the original invoice evidencing the date and place of purchase together with an explanation in writing as to the nature of the claim.

In the event that the claim is determined to be for a minor failure of the product then BWI reserves the right to repair or replace it at its discretion. In the event that a major failure is determined the consumer will be entitled to a replacement or a refund as well as compensation for any other reasonably foreseeable loss or damage.

This warranty is in addition to any other rights or remedies that the consumer may have under State or Federal legislation.

**IMPORTANT NOTE**

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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