

RED FUEL™

POWERED BY SCHUMACHER

MODEL:
SL161
Jump Starter
OWNER'S MANUAL



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

POR FAVOR GUARDE ESTE MANUAL DEL PROPIETARIO Y LEER ANTES DE CADA USO. En este manual se explica cómo utilizar la unidad segura y efectiva. Por favor, lea y siga las siguientes instrucciones y precauciones.



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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 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 Read the entire manual before using this product. Failure to do so could result in serious injury or death.
- 1.2 Keep out of reach of children.
- 1.3 Do not put fingers or hands into any of the unit's outlets.
- 1.4 Do not expose the unit to rain or snow.
- 1.5 Use only recommended attachments. Use of an attachment not recommended or sold by Schumacher® Electric Corporation for the SL161 may result in a risk of fire, electric shock or injury to persons or damage to property.
- 1.6 To reduce the risk of damage to the electric plug or cord, pull by the adaptor rather than the cord when disconnecting the unit.
- 1.7 Do not operate the unit with damaged cables or clamps.
- 1.8 Do not operate the unit if it has received a sharp blow, been dropped or otherwise damaged in any way; take it to a qualified service person.
- 1.9 Do not disassemble the unit; take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.

WARNING! RISK OF EXPLOSIVE GASES.

- 1.10 To reduce the risk of a 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 the battery. Review the cautionary markings on these products and on the engine.
- 1.11 Do not set the unit on flammable materials, such as carpeting, upholstery, paper, cardboard, etc.
- 1.12 Never place the unit directly above battery being jumped.
- 1.13 Do not use the unit to jump start a vehicle while charging the internal battery.

2. PERSONAL PRECAUTIONS

WARNING! RISK OF EXPLOSIVE GASES. A SPARK NEAR THE BATTERY MAY CAUSE A BATTERY EXPLOSION. TO REDUCE THE RISK OF A SPARK NEAR THE BATTERY:

- 2.1 NEVER smoke or allow a spark or flame in the vicinity of a battery or engine.
- 2.2 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 to metal, causing a severe burn.
- 2.3 Be extra cautious, to reduce the risk of dropping a metal tool onto the battery. It might spark or short-circuit the battery or other electrical part that may cause an explosion.
- 2.4 Do not permit the internal battery of the unit to freeze. Never charge a frozen battery.
- 2.5 To prevent sparking, NEVER allow clamps to touch together or contact the same piece of metal.
- 2.6 Consider having someone nearby to come to your aid when you work near a lead-acid battery.
- 2.7 Have plenty of fresh water, soap and baking soda nearby for use, in case battery acid contacts your eyes, skin, or clothing.
- 2.8 Wear complete eye and body protection, including safety goggles and protective clothing. Avoid touching your eyes while working near the battery.
- 2.9 If battery acid contacts your skin or clothing, immediately wash the area with soap and water. If acid enters your eye, immediately flood the eye with cold running water for at least 10 minutes and get medical attention right away.
- 2.10 If battery acid is accidentally swallowed, drink milk, the whites of eggs or water. DO NOT induce vomiting. Seek medical attention immediately.
- 2.11 Neutralize any acid spills thoroughly with baking soda before attempting to clean up.
- 2.12 **This product contains a lithium ion battery.** In case of fire, you may use water, a foam extinguisher, Halon, CO₂, ABC dry chemical, powdered graphite, copper powder or soda (sodium carbonate) to extinguish the fire. Once the fire is extinguished, douse the product with water, an aqueous-based extinguishing agent, or other nonalcoholic liquids to cool the product and prevent the battery from re-igniting. NEVER attempt to pick up or move a hot, smoking, or burning product, as you may be injured.
- 2.13 **WARNING:** This product contains one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. PREPARING TO USE THE UNIT

WARNING! RISK OF CONTACT WITH BATTERY ACID. BATTERY ACID IS A HIGHLY CORROSIVE SULFURIC ACID.

- 3.1 Make sure the area around the battery is well ventilated while the unit is in use.
- 3.2 Clean the battery terminals before using the jump starter. During cleaning, keep airborne corrosion from coming into contact with your eyes, nose and mouth. Use baking soda and water to neutralize the battery acid and help eliminate airborne corrosion. Do not touch your eyes, nose or mouth.
- 3.3 Determine the voltage of the battery by referring to the vehicle owner's manual and make sure that the output voltage is 12V.
- 3.4 Make sure that the unit's cable clamps make tight connections.


4. FOLLOW THESE STEPS WHEN CONNECTING TO A BATTERY

WARNING! A SPARK NEAR THE BATTERY MAY CAUSE A BATTERY EXPLOSION. TO REDUCE THE RISK OF A SPARK NEAR THE BATTERY:

- 4.1 Plug the clamps into the unit, and then attach the output cables to the battery and chassis as indicated below. Never allow the output clamps to touch each other.
- 4.2 Position the DC cables to reduce the risk of damage by the hood, door and moving or hot engine parts. **NOTE:** If it is necessary to close the hood during the jump starting process, ensure that the hood does not touch the metal part of the battery clips or cut the insulation of the cables.
- 4.3 Stay clear of fan blades, belts, pulleys and other parts that can cause injury.
- 4.4 Check the polarity of the battery posts. The POSITIVE (POS, P, +) battery post usually has a larger diameter than the NEGATIVE (NEG, N, -) post.
- 4.5 Determine which post of the battery is grounded (connected) to the chassis. If the negative post is grounded to the chassis (as in most vehicles), see step 4.6. If the positive post is grounded to the chassis, see step 4.7.
- 4.6 For a negative-grounded vehicle, connect the POSITIVE (RED) clamp from the jump starter to the POSITIVE (POS, P, +) ungrounded post of the battery. Connect the NEGATIVE (BLACK) clamp to the vehicle chassis or engine block away from the battery. Do not connect the clamp to the carburetor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
- 4.7 For a positive-grounded vehicle, connect the NEGATIVE (BLACK) clamp from the jump starter to the NEGATIVE (NEG, N, -) ungrounded post of the battery. Connect the POSITIVE (RED) clamp to the vehicle chassis or engine block away from the battery. Do not connect the clamp to the carburetor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
- 4.8 When finished using the jump starter, remove the clamp from the vehicle chassis and then remove the clamp from the battery terminal. Disconnect the clamps from the unit.

5. FEATURES



1. SL161
2. Micro USB-USB charging cable
3. Carrying case
4. Green and red smart cable LEDs
5. Battery clamps with smart cable
6. LCD display
7. ON/OFF switch
8. Micro USB input port for recharging
9. USB port – 2.1A
10. USB port – 1A
11. Jump start output socket
12.  Display ON/OFF button
13. LED light (on back)

6. CHARGING THE JUMP STARTER

IMPORTANT! CHARGE IMMEDIATELY AFTER PURCHASE, AFTER EACH USE AND EVERY 30 DAYS, OR WHEN THE CHARGE LEVEL FALLS BELOW 85%, TO KEEP THE INTERNAL BATTERY FULLY CHARGED AND PROLONG BATTERY LIFE.

6.1 CHECKING THE LEVEL OF THE INTERNAL BATTERY

1. Slide the ON/OFF switch to the ON position. The LCD display will show the battery's percentage of charge. A fully charged internal battery will read 100%. Charge the internal battery if the display shows it is under 85%.
2. To reduce the risk of electric shock, unplug the unit's charging cable from a USB or wall charger before attempting any maintenance or cleaning. Simply turning off the controls will not reduce this risk.
3. When charging the internal battery, work in a well ventilated area and do not restrict the ventilation in any way.

6.2 CHARGING THE INTERNAL BATTERY

NOTE: Use a 2A USB charger (sold separately), or a USB charging port to quickly recharge the jump starter. Using a charger with less than 2A will increase charge time.

1. Plug the Micro USB end of the charging cable into the input port. Next, plug the USB end of the charging cable into a charger's USB port.
2. Plug your charger into a live AC or DC power outlet.
3. The LCD display will light, the digit begins to flash and show "IN", indicating that charging has begun.

4. The jump starter will fully charge in 2-3 hours. When the unit is fully charged, the display will show "100%".
5. When the battery is fully charged, disconnect your charger from the outlet, and then remove the charging cable from the charger and the unit. Slide the ON/OFF switch to the OFF position, if you are not using the unit immediately.
6. Charge the unit as soon as possible after use.

7. OPERATING INSTRUCTIONS

7.1 JUMP STARTING A VEHICLE ENGINE

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

IMPORTANT: Using the jump starter without a battery installed in the vehicle will damage the vehicle's electrical system.

NOTE: The internal battery must have a charge of at least 40% to jump start a vehicle.

1. Turn the ignition OFF.
2. Plug the battery clamp cable into the jump starter's output socket.
3. Lay the DC cables away from any fan blades, belts, pulleys and other moving parts. Make sure all of the vehicle's electrical devices are turned off.
4. For a negative-grounded vehicle, connect the POSITIVE (RED) clamp from the jump starter to the POSITIVE (POS, P, +) ungrounded post of the battery. Connect the NEGATIVE (BLACK) clamp to the vehicle chassis or engine block away from the battery. Do not connect the clamp to the carburetor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
5. For a positive-grounded vehicle, connect the NEGATIVE (BLACK) clamp from the jump starter to the NEGATIVE (NEG, N, -) ungrounded post of the battery. Connect the POSITIVE (RED) clamp to the vehicle chassis or engine block away from the battery. Do not connect the clamp to the carburetor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
6. Slide the ON/OFF switch to the ON position. The green LED on the smart cable should light.

NOTE: If the vehicle battery is extremely discharged, the initial current draw from the jump starter may activate short circuit protection in the smart cable. When the condition is corrected, the smart cable will automatically reset.
7. After a proper connection has been made, 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.

NOTE: If the car does not crank a second time, check the smart cable to see if the green LED is lit. If an LED is flashing, refer to section 10, *Troubleshooting*, and note which error code is in effect. When the condition is corrected, the smart cable will automatically reset.

NOTE: Cold weather may affect the performance of the jump starter's lithium battery. If you hear only a click and the engine does not turn over, try the following:

With the jump starter connected to the car battery and the green LED illuminated on the smart cable, turn on all lights and electrical accessories for

one minute. This draws current from the jump starter and warms the battery. Now try to crank the engine. If it does not turn over, repeat the procedure. Extremely cold weather may require two or three battery warmings before the engine will start.

IMPORTANT: DO NOT attempt to jump start your vehicle more than three consecutive times. If the vehicle will not start after three attempts, consult a service technician.

8. After the engine starts, disconnect the black clamp (-) and the red clamp (+), in that order, and then unplug the battery clamps from the jump starter socket.
9. Recharge the unit as soon as possible after each use.

7.2 CHARGING A MOBILE DEVICE, USING THE USB PORTS

The SL161 includes two USB ports. One provides up to 2.1A at 5V DC; the other provides up to 1A at 5V DC.




1. Consult your mobile device manufacturer for proper charging power specifications. Connect a mobile device cable to the appropriate USB port.
2. Slide the ON/OFF switch to the ON position. Charging should begin automatically. The display will show which port is in use.
3. Charging time will vary, based on the mobile device's battery size and the charging port used.

NOTE: Most devices will charge with either USB port, but may charge at a slower rate.

4. When finished using the USB port, disconnect the charging cable from your mobile device and then disconnect the charging cable from the unit. Slide the ON/OFF switch to the OFF position.
5. Recharge the unit as soon as possible after each use.

NOTE: If no USB device is connected, power to the USB ports will automatically shut off after 30 seconds.

7.3 USING THE LED LIGHT

1. Slide the ON/OFF switch to the ON position.
2. Hold down the display  button for 3 seconds.
3. Once the LED light is on, press and release the display  button to cycle through the following modes:
 - Steady glow
 - Flash for an SOS signal
 - Flash in strobe mode
4. When finished using the LED light, press and hold the display  button until the light turns off.
5. Slide the ON/OFF switch to the OFF position.
6. Recharge the unit as soon as possible after each use.

8. MAINTENANCE INSTRUCTIONS


1. After use and before performing maintenance, unplug and disconnect the unit.
2. Use a dry cloth to wipe all battery corrosion and other dirt or oil from the battery clamps, cords, and the outer case.
3. Do not open the unit, as there are no user-serviceable parts.

9. STORAGE INSTRUCTIONS

1. Charge battery to full capacity before storage.
2. Store this unit at temperatures between -5°F-+140°F (-20°C-+60°C).
3. Never completely discharge the battery.
4. Charge after each use.
5. Charge at least once every month, if not in frequent use, to prevent over-discharge.

10. TROUBLESHOOTING

Jump Starter

PROBLEM	SOLUTION
The jump starter's display will not turn on.	Make sure the unit is charged. Connect to a power source, to reset. Make sure the ON/OFF switch is set to the ON position.
 The thermometer symbol is flashing.	The unit is too hot or cold. The thermometer symbol will disappear when the condition is removed.
The jump starter will not recharge.	Make sure the power source is live.
The jump starter turns on, but won't jump start my vehicle.	Check connections. Verify the charge level of the jump starter is at least 40%. Do not attempt to jump start your vehicle more than three consecutive times. If the vehicle still does not start, consult a qualified service technician.
When cable is connected only to the battery: Solid Red LED, (Green LED off); beeps once per second	The vehical battery voltage is lower than 10.5V. User can connect to jump starter and turn key to jump start the vehicle.
When cable is correctly connected to both battery and jump starter: Green LED blinking; Red LED off; no beep.	"Fake" high battery voltage is detected, but reverse charging protection did not activate. User can turn key to jump start the vehicle.

Smart Cable LED and Alarm Behavior

BEHAVIOR	REASON
Green LED blinking; Red LED off; no beep.	Cable is connected to battery only. Cable is connected to jump starter only.
Green LED solid; Red LED off; no beep.	Cable is connected correctly to both battery and jump starter.

BEHAVIOR	REASON
Solid Red LED, Green LED off; beeps once per second	Low voltage protection
Solid Red LED, Green LED off; beeps twice per second	Reverse polarity protection
Alternating Red and Green flashing LEDs; no beep	Reverse charging protection
Solid Red LED, Green LED off; rapid beeping	Short circuit protection
Solid Red and Green LEDs; beeps once per second	Temperature protection

NOTE: When the condition is corrected, the smart cable will automatically reset.

11. BEFORE RETURNING FOR REPAIRS

If these solutions do not eliminate the problem, or for more information about troubleshooting, contact customer service for assistance:

services@schumacherelectric.com
www.batterychargers.com
or call 1-800-621-5485

Monday-Friday 7:00AM to 5:00PM CST

For **REPAIR OR RETURN**, contact Customer Service at 1-800-621-5485. **DO NOT SHIP UNIT** until you receive a **RETURN MERCHANDISE AUTHORIZATION (RMA)** number from Customer Service at Schumacher Electric Corporation.

When returning an item, place the original package into a shipping carton. If you received an emailed label from Schumacher, please print the label and tape it to the carton. **Only ship via insured ground service with a tracking number.** Return shipping charges are the responsibility of the customer. We cannot accept C.O.D. deliveries and are not responsible for lost or damaged packages. Please do not place stickers or shipping labels on the original manufacturer's package. Please allow 2-3 days from date we received the package for us to process your return. All return shipping charges must be prepaid.

12. SPECIFICATIONS

Internal battery type	Lithium ion polymer
Capacity	29.6 Wh
USB output.....	5V DC, 2.1A / 1A
Jump start	600A peak/300A cranking
Charging Temperature.....	32°-122°F (0°-50°C)

13. REPLACEMENT PARTS

Battery clamp smart cable.....	3899003854Z
Micro USB-USB charging cable	3899003781Z

14. LIMITED WARRANTY

SCHUMACHER ELECTRIC CORPORATION, 801 BUSINESS CENTER DRIVE, MOUNT PROSPECT, IL 60056-2179, MAKES THIS LIMITED WARRANTY TO THE ORIGINAL RETAIL PURCHASER OF THIS PRODUCT. THIS LIMITED WARRANTY IS NOT TRANSFERABLE OR ASSIGNABLE.

Schumacher Electric Corporation (the "Manufacturer") warrants this jump starter for one (1) year from the date of purchase at retail against defective material or workmanship that may occur under normal use and care. If your unit is not free from defective material or workmanship, Manufacturer's obligation under this warranty is solely to repair or replace your product, with a new or reconditioned unit, at the option of the Manufacturer. It is the obligation of the purchaser to forward the unit, along with proof of purchase and mailing charges prepaid to the Manufacturer or its authorized representatives in order for repair or replacement to occur.

Manufacturer does not provide any warranty for any accessories used with this product that are not manufactured by Schumacher Electric Corporation and approved for use with this product. This Limited Warranty is void if the product is misused, subjected to careless handling, repaired, or modified by anyone other than Manufacturer or if this unit is resold through an unauthorized retailer. Manufacturer may void this Limited Warranty if a "warranty void if removed" label is removed from the product.

Manufacturer makes no other warranties, including, but not limited to, express, implied or statutory warranties, including without limitation, any implied warranty of merchantability or implied warranty of fitness for a particular purpose. Further, Manufacturer shall not be liable for any incidental, special or consequential damage claims incurred by purchasers, users or others associated with this product, including, but not limited to, lost profits, revenues, anticipated sales, business opportunities, goodwill, business interruption and any other injury or damage. Any and all such warranties, other than the limited warranty included herein, are hereby expressly disclaimed and excluded. Some states do not allow the exclusion or limitation of incidental or consequential damages or length of implied warranty, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and it is possible you may have other rights which vary from this warranty.

THIS LIMITED WARRANTY IS THE ONLY EXPRESS LIMITED WARRANTY AND THE MANUFACTURER NEITHER ASSUMES OR AUTHORIZES ANYONE TO ASSUME OR MAKE ANY OTHER OBLIGATION TOWARDS THE PRODUCT OTHER THAN THIS WARRANTY.

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WARRANTY CARD

**SAVE ON POSTAGE! ACTIVATE YOUR WARRANTY ONLINE –
THE QUICK AND EASY WAY!**

Go to www.batterychargers.com to register your product online.

(No internet access? Send in the completed warranty card.)

1 YEAR LIMITED WARRANTY PROGRAM REGISTRATION

MODEL: _____

DESCRIPTION: _____

This is the only express limited warranty, and the manufacturer neither assumes nor authorizes anyone to assume or make any other obligation. There is no other warranty, other than what is described in the product owner's manual.

The warranty card should be submitted within 30 days of purchase. The customer must keep the ORIGINAL receipt because it will be required for any warranty claims. This warranty is not transferable. Send warranty card only. **DO NOT SEND UNIT TO THIS ADDRESS FOR REPAIR.**

Mail this card to:

Schumacher Electric Corporation
801 Business Center Drive
Mount Prospect, IL 60056-2179

Name _____

Street address _____

City _____

State _____

Zip code _____

Phone _____

Email _____

Name of store where purchased _____

Date of purchase _____

Store location _____

UPC number _____

Serial number (See Product) _____

For faster warranty activation, go to www.batterychargers.com to register your product online.