

S **LAR**® *Owner's Manual*

Model Nos. 2001/3001

Commercial Jump Starter/Chargers



⚠ WARNING	
	READ ENTIRE MANUAL CAREFULLY BEFORE OPERATING UNIT!



Made in U.S.A.

Congratulations! You have just purchased the most versatile and dependable unit on the market today.

Keep the unit plugged in when not in use and it will provide long, continuous service and satisfaction.







The **SOLAR** Jump Starter/Charger is specifically designed to jump start and/or charge 12 Volt lead-acid batteries. Follow all battery/vehicle manufacturer's jump starting or charging instructions. Our units will deliver 600 Amp-1000 Amp starting power depending upon the model and battery installed.

DO NOT JUMP START WITH AC POWER CORD CONNECTED TO 110 VOLT AC POWER SOURCE.

The unit's charger will maintain the it's internal battery and recharge most lead-acid batteries within two hours. It will automatically shut off. The ampere needle flickering at zero indicates the battery is fully charged. The charger constantly monitors it's storage battery or the battery it's charging. It may be used to charge maintenance-free, conventional, deep cycle, gelled electrolyte, and recombination batteries.

The automatic shut off air compressor (Model No. 3001) will fill a tire in minutes to a pre-selected pressure (30-75 lbs.). The 150 PSI compressor is specifically designed for automotive and small truck tires. **DO NOT INFLATE TIRES OR FLIP "ON/OFF" SWITCH "ON" WITH UNIT CONNECTED TO 110 AC POWER SOURCE.**

⚠WARNING	
	DO NOT TIP UNIT OR LAY UNIT FLAT WITH BATTERY INSTALLED!

⚠WARNING	
	Read these instructions completely before using the SOLAR Jump Starter/Charger and save them for future reference. Before using the SOLAR Jump Starter/Charger 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.
	Working around lead-acid batteries may be dangerous. 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 SOLAR Jump Starter/Charger each time you jump start using the SOLAR Jump Starter/Charger. 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 SOLAR Jump Starter/Charger 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.
	Always return clamps to their proper storage positions, away from each other or common conductors. Improper storage of clamps may cause the clamps to come in contact with each other, or a common conductor, causing the battery to short circuit and generate high enough heat to ignite most materials. Never touch the air compressor or fittings connected to the air compressor, with bare hands during or immediately after usage. It will become very hot during and after use, if necessary, wear heat resistant gloves.
	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.
	The battery in the SOLAR Jump Starter/Charger contains liquid acids which are hazardous if spilled. In addition, batteries being charged with the SOLAR Jump Starter/Charger unit likely contain liquid acids which are hazardous if spilled.

SAFETY INSTRUCTIONS

1. Use of an attachment not recommended or sold by manufacturer may result in a risk of fire, electric shock, or injury to persons.
2. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting unit.
3. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
4. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure pins on plug of extension cord are the same number, size, and shape as those of plug on unit; extension cord is properly wired and in good condition; wire size is large enough for the length of cord as specified in the following chart:

<i>Length in feet:</i>	<i>25</i>	<i>50</i>	<i>100</i>	<i>150</i>
<i>Cord AWG size:</i>	<i>16</i>	<i>12</i>	<i>10</i>	<i>8</i>

5. Do not operate unit with damaged cord or plug - replace them immediately.
6. Do not disassemble unit – take it to/or call a qualified technician when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
7. To reduce risk of electric shock, unplug unit from outlet before attempting any maintenance or cleaning.

PERSONAL SAFETY PRECAUTIONS

1. Someone should 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.
2. 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.
3. **NEVER** smoke or allow a spark or flame in vicinity of battery or engine.
4. Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause explosion.
5. 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.
6. When using unit as charger, charge a LEAD-ACID battery only. It is not intended to supply low-voltage power for applications other than battery charging. Do not use with batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and damage property.
7. **NEVER** JUMP START OR CHARGE a frozen battery. Any battery that is suspected of being frozen must be thawed before jump starting or charging.

GROUNDING AND AC POWER CONNECTION INSTRUCTIONS

Unit should be grounded to reduce risk of electric shock. Unit is equipped with an electric cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ DANGER

Never alter the AC cord or plug provided – if it will not fit outlet, have proper outlet installed by a qualified electrician. This unit is for use on a 120 Volt, 60 Hz cycle circuit. A temporary adapter may be used to connect this plug to a two-pole receptacle if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. Before using adapter, be certain that center screw of outlet plate is grounded. The green rigid ear or lug extending from adapter must be connected to a properly grounded outlet – make certain it is grounded. If necessary, replace original outlet cover plate screw with a longer screw that will secure adapter ear or lug to outlet cover plate and make ground connection to grounded outlet.

SELECTING AND INSTALLING THE BATTERY

BATTERY SELECTION

1. Battery Size (Group) to Use:
 - Model No. 2001 – Group 31 1000 CCA and up
 - Model No. 3001 – Group 31 1000 CCA and up
2. A high quality battery will last longer and perform better than a marginal quality battery.
3. Use a battery with a sealed top or with screw type flush fill caps. This will help prevent acid leakage should unit be inadvertently laid flat or turned over.
4. Use battery with 3/8" threaded studs.
5. A high quality battery emits less gases as it recharges. Using this type of battery will extend charger and wiring life. Battery acid and petroleum resistant wiring is used in this unit.
6. Check battery water level every 90-120 days to extend battery life.

BATTERY INSTALLATION – ALL MODELS

1. Remove back panel by removing (2) 1/4" – 20 bolts securing panel.
2. Place battery on back edge of unit with negative facing inward.
3. Connect Negative (–) jumper cable with Black (NEG –) wire to Negative (N, –) stud of battery with 3/8" nut provided. (See Figure 1a.)
4. Slide battery under internal ladder structure to front of unit moving Negative (–) jumper cable to left of bottom platform. Battery will slightly drop down when fully inserted.
5. Connect Positive (+) jumper cable with Red (POS +) wire to Positive (P, +) stud of battery with 3/8" nut provided. (See Figures 1b and 1c.)
6. Replace back panel and secure with (2) 1/4" – 20 bolts.
7. Volt gauge should read between 12.5 and 14 volts.
8. Plug in unit to charge battery. Amp gauge will take 3 seconds to register battery and apply proper charge rate.
9. When amp gauge approaches "2" or less and flickers, battery is fully charged and unit is ready to use.



Figure 1a



Figure 1b



Figure 1c

OPERATING INSTRUCTIONS

OPERATING THE UNIT AS A JUMP STARTER

Warning: DO NOT JUMP START WHILE THE UNIT IS PLUGGED INTO 110 AC POWER SOURCE!
NEVER JUMP START A FROZEN BATTERY!
A SPARK NEAR BATTERY MAY CAUSE BATTERY EXPLOSION – FOLLOW INSTRUCTIONS BELOW TO REDUCE RISK OF A SPARK NEAR BATTERY.

1. Position DC jumper cables to reduce risk of damage by hood, door, or moving engine part.
 2. Stay clear of fan belts, pulleys, and other parts that can cause injury to persons.
 3. Check polarity of battery posts. POSITIVE (POS, P, +) and NEGATIVE (NEG, N, -).
 4. Determine which post of battery is grounded (connected) to the chassis. If negative post is grounded to chassis (as in most vehicles) see step 5a. If positive post is grounded to the chassis, see step 5b.
 5. a) For negative-grounded vehicle, connect POSITIVE (RED) grip from unit to POSITIVE (POS, P, +) ungrounded post of battery. Connect NEGATIVE (BLACK) grip from unit to vehicle chassis or engine block away from battery.
b) **For positive-grounded vehicles only**, connect NEGATIVE (BLACK) grip from unit to NEGATIVE (NEG, N, -) ungrounded post of battery. Connect POSITIVE (RED) grip from unit to vehicle chassis or engine block away from battery. *(This arrangement is usually found in pre-1970 foreign vehicles or pre-1970 farm tractors. This is a rare occurrence.)*
- Note:** Do not connect grip to carburetor, fuel lines, or sheet-metal body parts.
Connect to a heavy gauge metal part of the frame or engine block.
6. After jump starting vehicle, disconnect the unit from the vehicle. When disconnecting unit, ALWAYS remove grip from vehicle chassis first, then remove grip from battery terminal second.

OPERATING THE UNIT AS A BATTERY CHARGER (USE ON LEAD-ACID BATTERIES ONLY)

Warning: DO NOT JUMP START WHILE THE UNIT IS PLUGGED INTO 110 AC POWER SOURCE!
NEVER JUMP START A FROZEN BATTERY!
A SPARK NEAR BATTERY MAY CAUSE BATTERY EXPLOSION – FOLLOW INSTRUCTIONS BELOW TO REDUCE RISK OF A SPARK NEAR BATTERY.

1. Position DC jumper cables to reduce risk of damage by hood, door, or moving engine part.
 2. Stay clear of fan belts, pulleys, and other parts that can cause injury to persons.
 3. Check polarity of battery posts: POSITIVE (POS, P, +) and NEGATIVE (NEG, N, -).
 4. Determine which post of battery is grounded (connected) to the chassis. If negative post is grounded to chassis (as in most vehicles) see step 5a. If positive post is grounded to the chassis, see step 5b.
 5. a) For negative-grounded vehicle, connect POSITIVE (RED) grip from unit to POSITIVE (POS, P, +) ungrounded post of battery. Connect NEGATIVE (BLACK) grip from unit to vehicle chassis or engine block away from battery.
b) **For positive-grounded vehicles only**, connect NEGATIVE (BLACK) grip from unit to NEGATIVE (NEG, N, -) ungrounded post of battery. Connect POSITIVE (RED) from unit to vehicle chassis or engine block away from battery.
6. Do not connect grip to carburetor, fuel lines, or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
 7. Connect AC power cord to 110 AC outlet. When battery being charged is fully charged, the ampere gauge (on front panel) will flicker on "0".
 8. Upon completion of charging, disconnect unit from vehicle. When disconnecting unit, ALWAYS remove grip from vehicle chassis first, then remove grip from battery terminal second.

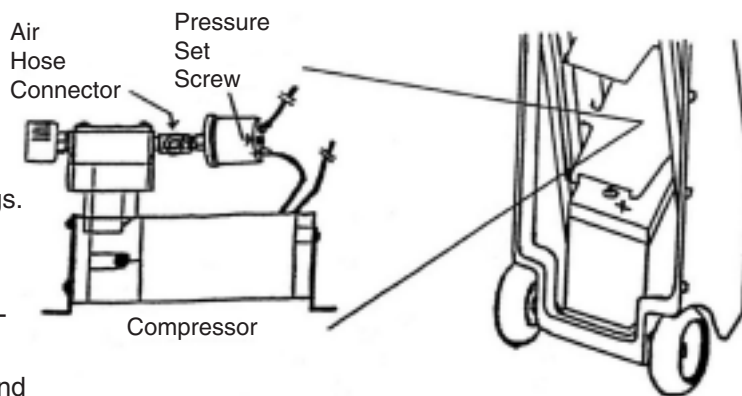
OPERATING THE UNIT AS AN AIR COMPRESSOR (Model No. 3001 Only)

Warning: DO NOT INFLATE TIRES OR FLIP AIR COMPRESSOR "ON/OFF" SWITCH WHILE THE UNIT IS PLUGGED INTO 110 AC POWER SOURCE!

1. Snap air chuck on tire valve stem (some wheel covers may require use of valve stem extension).
2. Flip "ON/OFF" air switch on front panel to "ON" position.
3. Tire will inflate to preset pressure and compressor will shut off.
4. Disconnect air chuck from tire valve stem (compressor will come on again).
5. Flip "On/Off" air switch on front panel to "Off" position.
6. See Compressor section below to adjust shut off pressure.

Adjusting the Compressor Shut Off Pressure

1. Remove back panel by removing (2) 1/4" – 20 bolts securing panel.
2. Locate the pressure switch and set screw (center of switch).
3. When adjusting shut-off pressure, turn no more than 1/2 turn between settings.
4. To increase pressure setting, turn clockwise (1/4 turn = approximately 4 lb.).
5. To decrease pressure setting, turn counter-clockwise (1/4 turn = approximately 4 lb.).
6. Check pressure setting by inflating a tire and checking tire pressure with an air gauge.
If more adjustment is necessary, return to step 4 or 5.
7. Secure back panel with (2) 1/4" – 20 bolts.



TROUBLESHOOTING

PROBLEM: Unit does not jump start.

POSSIBLE CAUSE

Poor grip connection
Low/defective battery
Loose jumper cable connection to battery

SOLUTION

Check grip connection
Load test/charge/replace battery
Tighten battery connections

PROBLEM: Unit does not charge.

POSSIBLE CAUSE

Poor grip connection
Faulty 110 AC outlet
Bad plug on unit
Loose/defective connections
Defective amp gauge
Faulty charger

SOLUTION

Check grip connection
Check or change outlet
Check continuity of plug pins/replace plug
Check unit for loose connections
Replace gauge
Replace charger

PROBLEM: Unit does not inflate tires.

POSSIBLE CAUSE

Low/defective battery indicated by clicking of circuit breaker
Loose/defective connections
Defective air pressure switch
Defective "On/Off" switch
Defective compressor

SOLUTION

Recharge/replace battery
Check unit for loose connections
Replace pressure switch
Replace "On/Off" switch
Replace compressor

For Diagnostic and Repair Help, call the Clore Automotive
Technical Service Hot Line at (800) 328-2921 or visit www.solaronline.com

LIMITED WARRANTY

Clore Automotive, LLC warrants your **SOLAR** Commercial Jump Starter/Charger to be free from defects in material and workmanship for a period of one year from the date of sale to the original user or consumer purchaser. If your **SOLAR** Commercial Jump Starter/Charger malfunctions or fails within the first 30 days of the warranty period because of a defect in material or workmanship, we will replace it. If your **SOLAR** Commercial Jump Starter/Charger malfunctions or fails within the 12 month warranty period because of a defect in material or workmanship, we will repair it without charge.

This warranty is in lieu of all other express warranties. The duration of any implied warranty, including but not limited to any implied warranty of merchantability or fitness for a particular purpose, made in respect to your **SOLAR** Commercial Jump Starter/Charger is limited to the period of the express warranty set forth above.

This warranty excludes and does not cover defects, malfunctions, or failures of your **SOLAR** Commercial Jump Starter/Charger which were caused by repairs made by an unauthorized person, mishandling, modifications, normal wear, unreasonable use or damage to the **SOLAR** Commercial Jump Starter/Charger while in your possession. This warranty applies neither to battery, deterioration of the battery, nor damage to the unit caused by the use of a faulty battery.

In no event shall Clore Automotive, LLC be liable for consequential or incidental damages. Some states do not allow limitations on the length of the implied warranty or the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



S **LAR**®

Owner's Manual Model Nos. 2001/3001

Commercial Jump Starter/Chargers

READ CAREFULLY BEFORE OPERATING UNIT!

WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects and other reproductive harm. ***Wash hands after handling.***

Clore Automotive • Kansas City, MO 64161 • www.solaronline.com • 913.310.1050

WARRANTY AND TECHNICAL SUPPORT REGISTRATION

Please complete the attached registration card to be eligible to receive **FREE** technical support, product updates and warranty service.

TECHNICAL SUPPORT

Technical support is available to registered users only.
Call (800) 328-2921 Monday through Friday, 8:00 AM to 4:30 PM CST.

THREE EASY WAYS TO REGISTER

1. Mail in the completed registration card below **OR**
2. Fax the completed registration card to (800) 716-6531 **OR**
3. Register your product online at www.cloreregistration.com.

(Complete information below, detach at perforation and mail)

WARRANTY AND TECHNICAL SUPPORT REGISTRATION CARD

Model Number: _____

Date of purchase: ___/___/___ Purchased from: _____

Company Name: _____

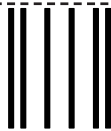
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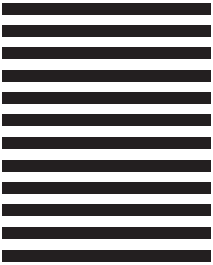
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