Lester Electrical

LESTRONIC II MOTIVE POWER BATTERY CHARGER

MODEL 06815 TYPE 12LC10-2ET

PLEASE SAVE THESE IMPORTANT SAFETY AND OPERATING INSTRUCTIONS

For correct operation of the equipment, it is important to read and be familiar with this entire manual before installing and operating the charger.
DO NOT DISCARD THIS MANUAL AFTER READING.

LOOK FOR THIS SYMBOL TO POINT OUT SAFETY PRECAUTIONS. IT MEANS: *BECOME ALERT—YOUR SAFETY IS INVOLVED.* IF YOU DO NOT FOLLOW THESE SAFETY INSTRUCTIONS, INJURY OR PROPERTY DAMAGE CAN OCCUR.

INTRODUCTION

The Lestronic II battery charger is designed to recharge deep-cycle, lead acid batteries. A ferroresonant transformer is used to provide a highly reliable, line compensating unit with a minimum of moving parts and designed for long, trouble-free service. A patented electronic circuit turns the charger on and off automatically. This circuit determines full charge by measuring the rate at which the battery voltage increases during charge. When the voltage stops rising, the battery is fully charged and the charger turns off.

INITIAL INSTALLATION

Circuit breaker or fuse protection in the 115 volt AC outlet to which the charger is to be plugged should allow 3 amps per charger. Do not overload electrical outlet. Use of an extension cord with the charger should be avoided unless absolutely necessary. Use of an improper extension cord could result in a risk of a fire and electric shock. If an extension cord is needed, use a three-conductor, No. 16 AWG (or larger) cord with ground, properly wired, in good electrical condition and keep as short as possible. Make sure that the pins on the plug of the extension cord are the same number, size, and shape as that of the plug on the battery charger.

Locate all cords so that they will not be stepped on, tripped over, or otherwise subjected to damage or stress. Do not operate the battery charger with a damaged cord or plug. Do not operate the battery charger if it received sharp blow, was dropped or otherwise damaged in any manner; refer to a qualified service agent.

Provide adequate ventilation for both batteries and charger. The convection cooled design requires an unobstructed flow of cooling air for proper operation. Keep all charger ventilation openings at least two inches (2") (5.08cm) away from walls and other objects. Do not allow clothing, blankets, or other material to cover charger.

WARNING: CHARGERS CAN IGNITE FLAMMABLE MATERIALS AND VAPORS. DO NOT USE NEAR FUELS, GRAIN DUST, SOLVENTS, THINNERS, OR OTHER FLAMMABLES.

WARNING: KEEP DRY; DO NOT EXPOSE TO RAIN. FOR STORAGE, KEEP IN A BUILDING. REPLACE WORN, CUT, OR DAMAGED ELECTRICAL CORDS AND PLUGS IMMEDIATELY.

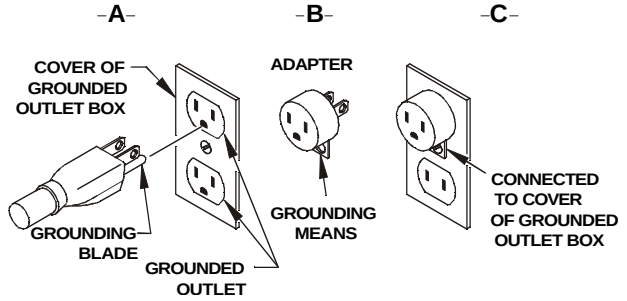
GROUNDING INSTRUCTIONS

This battery charger must be grounded to reduce the risk of electric shock. This battery charger is equipped with an electric cord having an equipment-grounding conductor and a grounding-type plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with the National Electrical Code and all local codes and ordinances.

⚠DANGER: IMPROPER CONNECTION OF THE EQUIPMENT-GROUNDING CONDUCTOR CAN RESULT IN A RISK OF ELECTRIC SHOCK. DO NOT REMOVE GROUNDING PRONG FROM PLUG.

This battery chargers equipped with a grounding plug as illustrated in adjacent Figure A, for use on a nominal 115 volt, 60 Hertz circuit. A temporary adapter, as illustrated in Figures B and C, may be used to connect this plug to a two-pole receptacle as shown in Figure B 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. The green-colored rigid ear or lug extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

GROUNDING METHODS



NOTE: Use of adapter shown in Figures B and C is NOT permitted in Canada.

NORMAL OPERATION

Instructions printed on cover of charger are for daily reference.

1. With charger DC cord disconnected from batteries, connect power supply cord to a properly grounded, 115 volt, 60 Hertz, single phase outlet (refer to Grounding Instructions).

⚠WARNING: LEAD-ACID BATTERIES GENERATE GASES WHICH CAN BE EXPLOSIVE. TO PREVENT ARCING OR BURNING NEAR BATTERIES DO NOT DISCONNECT DC CORD FROM BATTERIES WHEN CHARGER IS OPERATING. IF CHARGE CYCLE MUST BE INTERRUPTED, FIRST DISCONNECT POWER SUPPLY CORD FROM OUTLET THEN DISCONNECT DC CORD FROM BATTERIES. KEEP SPARKS, FLAME, AND SMOKING MATERIALS AWAY FROM BATTERIES.

⚠WARNING: ALWAYS SHIELD EYES WHEN WORKING NEAR BATTERIES. DO NOT PUT WRENCHES OR OTHER METAL OBJECTS ACROSS BATTERY TERMINAL OR BATTERY TOP. ARCING OR EXPLOSION OF THE BATTERY CAN RESULT.

2. Connect DC output cord to batteries.

⚠CAUTION: BEFORE CONNECTING CHARGER MAKE SURE THE BATTERY PACK IS A 12 VOLT, 6 CELL SERIES CONNECTED, LIQUID ELECTROLYTE LEAD ACID SYSTEM WITH A CAPACITY OF 42 TO 84 AMPERE-HOURS (20 HR. RATE), AND FINISH ON-CHARGE VOLTAGE OF 2.5 VOLTS PER CELL. USE OTHERWISE MAY DAMAGE CHARGER AND/OR BATTERIES. DO NOT USE ON GELLED ELECTROLYTE BATTERIES.

⚠DANGER: TO PREVENT ELECTRIC SHOCK, DO NOT TOUCH UNINSULATED PARTS OF CHARGER DC OUTPUT CONNECTOR, BATTERY CONNECTOR, OR BATTERY TERMINALS. MAKE SURE ALL ELECTRICAL CONNECTORS ARE IN GOOD WORKING CONDITION. USE OF A DAMAGED OR DEFECTIVE CONNECTOR MAY RESULT IN A RISK OF OVERHEATING OR ELECTRIC SHOCK.

Charger turns on automatically three to five (3-5) seconds after DC cord is connected to batteries. If batteries have been severely discharged and battery voltage is below 8.5 volts, charger may not turn on automatically. Charger may be manually turned on by depressing the "LOW BATTERY VOLTAGE START" switch on rear panel. Charger will start immediately and battery voltage should rise quickly above 12 volts. Automatic turn on circuit will activate above 9 volts and charger will remain on after switch is released. Do not hold switch depressed for more than ten seconds. Refer to qualified service agent if charger does not turn on.

3. Monitor ammeter for correct charge rate. Initial charge rate will vary from 8 to 12 amps depending on the batteries depth of discharge. During charge, the battery voltage increases gradually which causes the charge rate to decrease. If all cells are good, charge rate will taper to a finish rate of 2 to 3 amps. Normal charging at this low finish rate is important to achieve equalization of all battery cells.

Charger is equipped with a temperature sensor which automatically turns charger off if it overheats. Should charger turn off before the batteries are fully charged, check to be sure all ventilation openings are free from obstructions. After charger cools down to a safe temperature, it will automatically restart. If charger repeatedly overheats, refer to a qualified service agent.

4. Charger turns off automatically when batteries are fully charged. Charge time varies with battery size and depth of discharge. Allow 8 hours for normal charging. Larger batteries (84 ampere-hours maximum) or severely discharged batteries may require up to 12 hours to be properly charged and equalized. When night air temperatures fall below 50°F, batteries charged in unheated areas should be placed on charge as soon after use as possible. Cold batteries require more time to achieve full charge.

   After charger has turned off, disconnect DC cord from batteries. If charger has not turned off and charge cycle must be interrupted, disconnect power supply cord from outlet prior to disconnecting DC cord from batteries. Do not leave charger on while unattended for more than two consecutive days. Severe overcharging and possible damage to batteries will result if charger should fail to turn off.

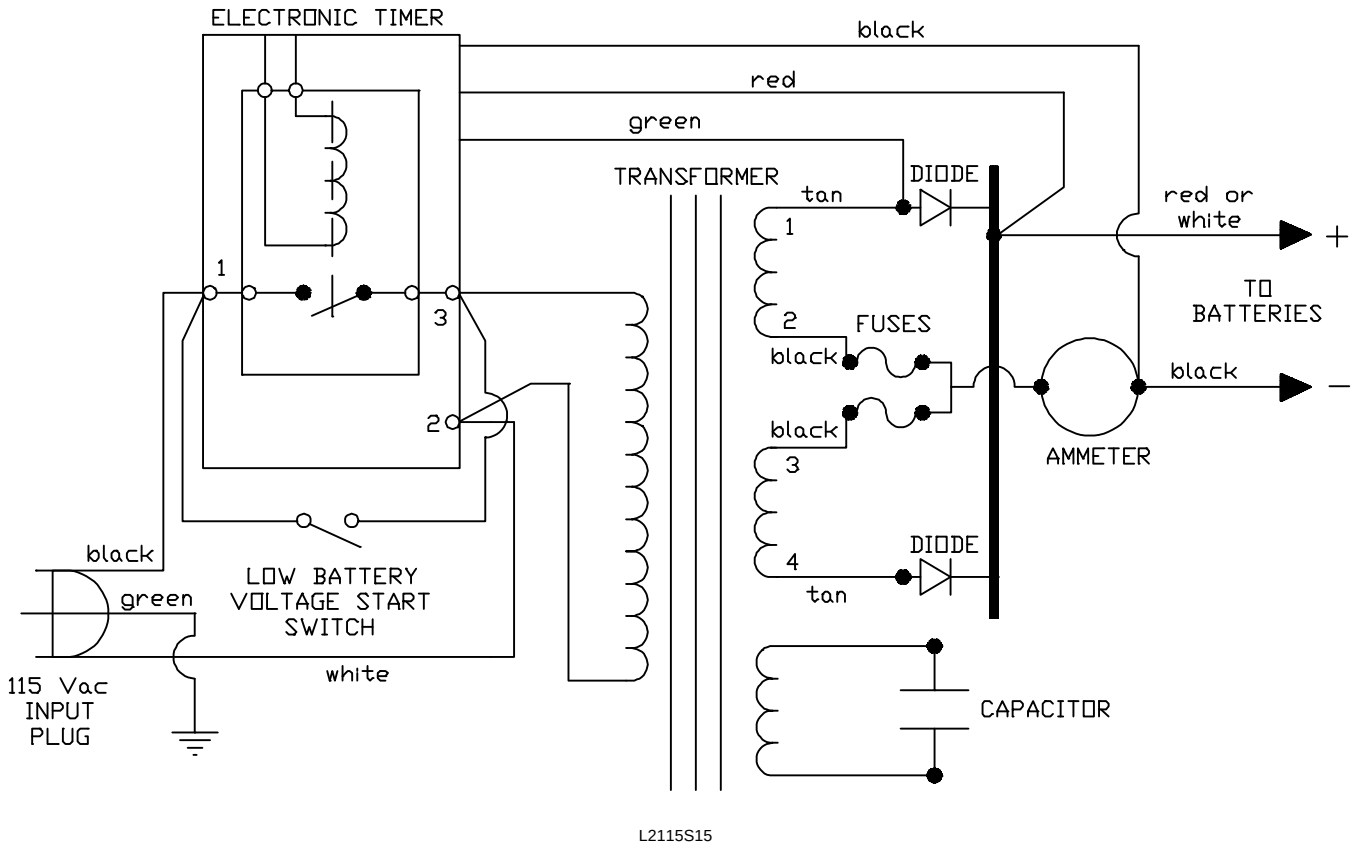
PROPER CARE OF MOTIVE POWER BATTERIES

Motive power batteries are subject to severe deep cycle duty on a daily basis. Although these batteries are designed to withstand such duty, the following precautions must be observed to obtain good range and cycle life.

⚠CAUTION: ALWAYS WEAR PROTECTIVE EYE SHIELDS AND CLOTHING WHEN WORKING WITH BATTERIES. BATTERIES CONTAIN ACID WHICH CAN CAUSE BODILY HARM.

1. New batteries should be given a full charge before their first use because it is difficult to know how long batteries have been stored.
2. Limit use of new batteries for first 5 cycles. New batteries are not capable of their rated output until they have been discharged a number of times.
3. Do not excessively discharge batteries. Excessive discharge can cause polarity reversal of individual cells resulting in complete failure shortly thereafter. Limited use of new batteries will minimize the chance of cell reversals.
4. Maintain proper electrolyte level by adding water when necessary. Electrolyte levels lower during discharge and rise during charge. Therefore, it is mandatory that water be added to cells ONLY when they are fully charged; do not overfill. Old batteries require more frequent additions of water compared to new batteries.
5. Keep tops of batteries clean and dry to prevent excessive self-discharge. Keep battery terminals reasonably tight.

WIRING DIAGRAM



PARTS LIST FOR LESTRONIC II CHARGER
MODEL 06815 TYPE 12LC10-2ET
115 VAC / 60 HZ

PART NO.	QTY.	DESCRIPTION
06564S	1	CASE ASSEMBLY
07195S	1	TRANSFORMER ASSEMBLY
06068S	1	HEATSINK ASSEMBLY, W/ DIODES
05387S	1	AMMETER
07056S	1	ELECTRONIC TIMER ASSEMBLY
03820S	1	CAPACITOR, 2.0 MFD, 660 VAC
04275S	2	BUSHING, 6N3-4, INSULATOR FOR CORDSETS
03822S	1	CORDSET, AC
11549S	1	CORDSET, DC, NO PLUG
16898S	1	CORDSET, DC, W/ ALLIGATOR CLIPS
14942S	1	CORDSET, DC, W/ SB50 AMP GRAY PLUG
06654S	1	CORDSET, DC, W/ 1454G3 POWER POLE
05322S	2	FUSEHOLDER ASSEMBLY
03838S	2	FUSE, 15 AMPS
05468S	1	SWITCH, ROCKER