



La MARCHÉ[®]

MODEL A6 DATA SHEET

The Model A6 charger is a solid-state, fully automatic constant voltage battery charger/power supply designed for a wide range of applications requiring filtered d.c. power.

Standard features include a.c. line compensation, d.c. voltage regulation and current limiting. The La Marche transistor controlled electronic regulator circuit is designed to automatically float and charge stationary batteries with d.c. output regulation of +/-1% from no load to full rated output. Accurate output regulation is maintained with a.c. line variations of +/-10%.

The regulating circuit used is fully electronic and provides rated regulation and less than 30mv RMS of ripple voltage at full load without a battery connected. In normal operation the A6 charger maintains a constant battery voltage for all loads up to rated capacity. All units are designed for continuous operation at rated output. The charger is current limited at approximately 150% of rated output. Automatic current limiting and overall conservative design prevents damage to any of the components or of tripping overload protection even if the unit is connected to a discharged battery.

The A6 is offered in a range of sizes to accommodate charging lead acid, lead calcium and nickel-cadmium batteries.

DESIGN FEATURES:

- SILICON DIODE RECTIFIERS
- CURRENT LIMITING CIRCUIT
- A.C INPUT VOLTAGE COMPENSATION
- D.C. VOLTAGE REGULATION
- OUTPUT AMMETER AND VOLTMETER
- FUSED A.C. INPUT AND D.C. OUTPUT
- FLOAT/EQUALIZE TOGGLE SWITCH
- OUTPUT VOLTAGE ADJUSTMENTS

<u>ECN/DATE</u>	<u>ECN/DATE</u>	<u>ECN/DATE</u> 01/90	<p>106 BRADROCK DRIVE DES PLAINES, IL. 60018 (847)299-1188 FAX:(847)299-3061</p> <p>INSTRUCTION PART NUMBER:</p> <p style="text-align: right;">LA6-1-A</p>
PAGE 1 OF 3			

SPECIFICATIONS

ELECTRICAL:

A.C. INPUT VOLTAGES:

*120, 208, 240 VAC, 50/60 Hz

D.C. OUTPUT COMBINATIONS:

D.C. AMPS - 1 TO 10

D.C. VOLTS - 6, 12, 24

* Other a.c. input voltages and frequencies can be designed.

MECHANICAL:

FINISH: Base material pretreated with zinc phosphate. Gray primer covering all base metal. Hammertone Gray baked enamel finish coat.

MOUNTING: Mounting flanges are supplied as part of the cabinet back plate on wall mounted units.

STANDARD ACCESSORIES SUPPLIED:

- 1.) Potentiometers for desired float and equalize voltage adjustments.
- 2.) Quality d.c. ammeter and voltmeter with 50 millivolt movement, 2% accuracy.
- 3.) Fused a.c. input and d.c. output for complete protection.
- 4.) Convenient switch to transfer from float charge to high rate equalize charge.
- 5.) Internal terminal board for easy connection of a.c. input, d.c. output and power failure equipment.
- 6.) One complete manual is supplied with each A6 charger. This manual includes and covers the following topics: Technical Operation, Installation and Operating Instructions, schematic wiring diagram, parts list, case drawing, troubleshooting and replacing silicon diodes. The manual supplied is packed inside the charger. Additional manuals are billed at the rate in effect at time of purchase

SAMPLE SPECIFICATIONS FOR MODEL A6

The charger to be furnished shall be of the full wave rectifier type, La Marche Mfg. Co. Model A6 or approved equal. The charger shall employ a transistor controlled electronic regulator circuit and shall maintain rated output voltage within +/-1% from no load to full load, with a.c. input variations of +/-10%.

The charger shall be convection cooled in a ventilated steel enclosure and painted a gray color.

This charger shall have:

- 1.) Separate float and equalize potentiometers. Both float and equalize settings adjustable +/-5% by potentiometers on the front panel of the charger.
- 2.) Automatic a.c. line compensation.
- 3.) Automatic current limiting protection.
- 4.) Automatic d.c. voltage regulation.
- 5.) Hermetically sealed silicon diode rectifiers.
- 6.) Automatic surge suppressers.
- 7.) A.C. power failure relay with remote indication contacts connecting terminals.
- 8.) D.C. ammeter and voltmeter with 50 millivolt movement 2% accuracy.
- 9.) Fused a.c. input and d.c. output.
- 10.) Filtering provided reduces the ripple to less than 30mv RMS.

Call factory for information on optional accessories.

INSTALLATION & OPERATING INSTRUCTIONS

MODEL A6 CHARGER/POWER SUPPLY

The Model A6 is a ferroresonant charger/power supply designed to supply a regulated d.c. output from a 60 hertz a.c. input power source*. The d.c. output is filtered to suppress the output ripple voltage.

Install the unit vertically so the flow of air through the unit is not obstructed.

The A6 charger/power supply is designed to operate with a specified input, and output voltage. The nameplate on the baseplate indicates its input, and output voltage.

When connecting the d.c. output cables to the battery or load, be certain the positive terminal of the charger is connected to the positive load or battery terminal and the negative is connected to the negative load or battery terminal.

Before connecting the a.c. input cable, check the line power with that specified on the nameplate of the unit. (Voltage and Frequency)

Binding posts are provided on terminal boards within the unit for these connections.

Potentiometers, located on the top of the unit, are provided to set the float and equalize voltage to the desired level. Set output voltage with no loads or battery connected to d.c. output terminals.

Follow battery manufacturer's recommendations when setting the float and equalize voltage.

No other field adjustments are necessary.

MAINTENANCE:

No special maintenance is required, except for monthly cleaning of dust accumulation inside the unit. If the operating environment is particularly dusty, increase the cleaning frequency to prevent heavy accumulation. Cleaning is best accomplished by low pressure air or vacuuming. Also, check input and output connections; they must be tight.

TROUBLESHOOTING:

Symptom 1: No charging current

POSSIBLE CAUSES:

- A. No line voltage: Check a.c. line.
- B. Open a.c. breaker or d.c. fuse; check fuse or breaker.

Symptom 2: Low output (fuses good)

- A. Open C1 capacitor
- B. Defective regulator -

To check the regulator, measure d.c. input voltage across capacitor C3. Voltage should be approximately 4 to 5 volts higher than d.c. output at no load. If voltage across C3 is correct, try to adjust P1 or P2 potentiometer. If output voltage does not change, regulators must be replaced.

- C. Check C5 for short

The following is a list of reasons why the a.c. or d.c. fuse may blow:

- 1.) Charger connected to the wrong a.c. input voltage
- 2.) Shorted regulator, REG-1; REG-2
- 3.) Shorted C1, C2 or C4 capacitor