



La MARCHÉ[®]

A18J / A20R

INSTRUCTION

MANUAL

The Type "J" – 6V charger is for use with 3 cell batteries (6 volt). The Type "J" – 12V is for use with 6 cell batteries (12 volts).

The Type "R"-24V La Marche Automatic Battery Charger is for use with batteries of 12 cells (24 volts). Type "R" - 30/36V is for use with batteries of either 15, 16, or 18 cells. If the above models are designed for use with nickel cadmium or nickel iron batteries, this will be indicated on the nameplate. Type "R" – 24/32V is tap selectable for use with 12 cell, 15 cell, or 16 cell batteries.

Except for the difference in voltage, the installation, setting and operation of the "J" and "R" are identical and the following applies to both types:

To remove the cover, unscrew one screw on each side and the screw in the center of the front, then slide the cover up. This exposes the terminal strip with the three compensation tap settings and the battery change taps. The battery voltage is indicated on the battery change taps and it is only necessary to shift the wire from the voltage setting it is on, to the other terminal marked with the desired battery voltage.

After removing the cover, you can make your a.c. input and battery connections from the terminal board. **IN ALL CASES**, the POSITIVE WIRE on the charger is connected to the POSITIVE TERMINAL of the battery, and the NEGATIVE WIRE on the charger is connected to the NEGATIVE TERMINAL of the battery.

The compensation taps are marked HIGH, MED , and LOW. These designations refer to the OUTPUT VOLTAGE of the charger. Thus in a case where a hydrometer reading on a battery, not drawing charging current, reads consistently low, the compensation tap should be moved to the tap marked HIGH. These chargers are always shipped with the compensation tap on NORMAL, and this setting does not need to be changed except in rare instances on continuously very high or very low line voltage.

A La Marche Automatic Battery charger does NOT show an appreciable current flow in the ammeter while it is connected to a fully charged battery. This is your GUARANTEE that the battery is being correctly maintained at full charge but not being overcharged. To bring the charger into operation, the battery must be discharged slightly by throwing a load on it for a few minutes or disconnecting the charger for an hour.

These chargers are convection cooled and must be mounted upright in a vertical position. NEVER MOUNT DIRECTLY OVER THE BATTERIES. When used in cabinets such as engine control panels or switching panels, the case is removed permanently and the ammeter is placed on the main control panel.

NOTE: Units with Engine Cranking Relay have two terminals, which must be connected to the Engine Cranking circuit. The terminals are marked 1E and 2E.

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IMPORTANT SAFETY INSTRUCTIONS

1. **SAVE THESE INSTRUCTIONS.** This manual contains important safety and operating instructions. Before using this equipment, read all instructions and cautionary markings on (1) unit, (2) battery, and (3) product using the battery.
2. **CAUTION:** To reduce risk of injury and/or damage to the batteries, use only the type of batteries specified on the charger nameplate.
3. Do not expose equipment to rain or snow.
4. Do not operate equipment if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
5. Do not disassemble this unit; take it to a qualified serviceman when service or repair is required. Incorrect re-assembly may result in a risk of electric shock or fire.
6. To reduce risk of electric shock, disconnect this unit from the a.c. supply, batteries and loads before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.
7. **WARNING – RISK OF EXPLOSIVE GASES**
 - a. Working in the vicinity of a battery is dangerous. Some batteries generate explosive gases during normal battery operation. For this reason, it is of utmost importance that each time before using this unit, you read this manual and follow the instructions
 - b. To reduce risk of battery explosion, follow these instructions and those published by the battery manufacturer and manufacturer of any equipment you intend to use in the vicinity of the battery. Review cautionary marking on all products.
8. **PERSONAL PRECAUTIONS:**
 - a. Someone should be within range of your voice or close enough to come to your aid when you work near a battery.
 - b. Have plenty of fresh water and soap nearby in case the battery electrolyte contacts skin, clothing, or eyes.
 - c. Wear complete eye protection and clothing protection. Avoid touching eyes while working near a battery.
 - d. If the battery electrolyte contacts skin or clothing, wash immediately with soap and water. If the electrolyte enters the eye, immediately flood the eye with running cold water for at least ten (10) minutes and get medical attention immediately.
 - e. Never smoke or allow a spark or flame in vicinity of a battery.
 - f. Be extra cautious, DO NOT drop metal onto a battery. It might spark or short-circuit the battery or cause an explosion.
 - g. Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a battery. A battery can produce a short-circuit current high enough to weld these items causing severe burns.
 - h. NEVER charge a frozen battery.
 - i. Do not use battery charger for charging dry-cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to person or damage to property.
9. **PREPARING TO CHARGE**
 - a. If it is necessary to remove the battery connections, always remove grounded terminal from the battery first. Make sure all loads are disconnected and unit is off, so as not to cause an arc.
 - b. Be sure the area around the battery is well ventilated while the battery is being charged.
 - c. When cleaning battery terminals, be careful to keep corrosion from coming in contact with eyes.
 - d. Study all the battery manufacturer's specific precautions such as removing or not removing cell caps while charging, recommended rates of charge, and maintenance procedures.
 - e. Follow the battery manufacturer's recharging instructions.
10. **CHARGER LOCATION**
 - a. Never place this unit directly above the standard flooded battery. Gases from the battery will corrode and damage equipment. A sealed maintenance free or valve regulated lead acid (VRLA) may be placed below this equipment.
 - b. Never allow the battery electrolyte to drip on this unit when reading the specific gravity or filling the battery.
 - c. Do not operate this unit in a closed-in area or restrict ventilation in any way.
 - d. Do not set any battery on top of this unit.

11. D.C. CONNECTION PRECAUTIONS

Connect and disconnect d.c. output cables only after setting all of this unit's switches to off position and removing a.c. input supply. Do not pull on output cables when disconnecting charger from battery.

12. GROUNDING INSTRUCTIONS

This battery charger should be connected to a grounded, metal, permanent wiring system; or an equipment grounding conductor should be run with circuit conductors and connected to equipment-grounding terminal or lead on battery charger. Connections to battery should comply with all local codes and ordinances.

General Maintenance Procedure

Yearly

1. Blow out rectifier/inverter with a low-pressure air hose.
2. Make sure all connections are tight.
3. Perform a visual check on all internal components.
4. Check front panel meters and alarms for accuracy.

4th Year

REPEAT ABOVE WITH THE ADDITION OF:

1. Check relay contacts for pitting or corrosion.
2. Check capacitors for leakage.

7th Year

REPEAT ALL, WITH THE ADDITION OF:

1. Filter, resonating capacitors and control relays should be replaced.

10th Year

REPEAT ALL WITH THE ADDITION OF: (except replacing capacitors and control relays, they should be replaced every 7 years)

1. Check magnetics, components and wiring for signs of excessive heat.

MANUFACTURER'S WARRANTY

All La Marche Manufacturing Co. equipment has been thoroughly tested and found to be in proper operating condition upon shipment from the factory and is warranted to be free from any defect in workmanship and material that may develop within one year from date of purchase. In addition to the standard one (1) year warranty, La Marche warrants its magnetics and power diodes on a parts replacement basis only for one (1) additional year under normal use.

Any part or parts of the equipment (except fuses, d.c. connectors and other wear-related items) that prove defective within a one (1) year period shall be replaced without charge providing such defect, in our opinion, is due to faulty material or workmanship and not caused by tampering, abuse, misapplication or improper installation. Magnetics and power diodes are warranted for two (2) years after date of purchase. During the last one (1) year of this two (2) year warranty period, the warranty covers parts replacement only, and no labor or other services are provided by La Marche, nor is La Marche obligated to reimburse the owner or any other person for work performed.

Should a piece of equipment require major component replacement or repair during the first year of the warranty period, these can be handled in one of two ways:

1. The equipment can be returned to the La Marche factory to have the inspections, parts replacements and testing performed by factory personnel. Should it be necessary to return a piece of equipment or parts to the factory, the customer or sales representative must obtain authorization from the factory. If upon inspection at the factory, the defect was due to faulty material or workmanship, all repairs will be made at no cost to the customer during the first year. Transportation charges or duties shall be borne by purchaser.
2. If the purchaser elects not to return the equipment to the factory and wishes a factory service representative to make adjustments and/or repairs at the equipment location, La Marche's field service labor rates will apply. A purchase order to cover the labor and transportation cost is required prior to the deployment of the service representative.

In accepting delivery of the equipment, the purchaser assumes full responsibility for proper installation, installation adjustments and service arrangements. Should minor adjustments be required, the local La Marche sales representative should be contacted to provide this service only.

All sales are final. Only standard LaMarche units will be considered for return. A 25% restocking fee is charged when return is factory authorized. Special units are not returnable.

In no event shall La Marche Manufacturing Co. have any liability for consequential damages, or loss, damage or expense directly or indirectly arising from the use of the products, or any inability to use them either separately or in combination with other equipment or materials, or from any other cause. In addition, any alterations of equipment made by anyone other than La Marche Manufacturing Co. renders this warranty null and void.

La Marche Manufacturing Co. reserves the right to make revisions in current production of equipment, and assumes no obligation to incorporate these revisions in earlier models.

The failure of La Marche Manufacturing Co. to object to provisions contained in customers' purchase orders or other communications shall not be deemed a waiver of the terms or conditions hereof, nor acceptance of such provisions.

The above warranty is exclusive, supersedes and is in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness. No person, agent or dealer is authorized to give any warranties on behalf of the Manufacturer, nor to assume for the Manufacturer any other liability in connection with any of its products unless made in writing and signed by an official of the manufacturer.