



## **O P E R A T I N G I N S T R U C T I O N S**

### **QPAX180-240V/6A, MULTI SERIES Battery Charger**

#### **INTRODUCTION:**

The Series Multi charger is designed to charge 90 - 120 cells in series at a 1 to 6 amp rate. The charge rate is controlled by one infinite adjustable control knob.

**⚠ WARNING: THIS CHARGER HAS THE POTENTIAL TO PRODUCE UP TO 300 VOLTS DC WHICH CAN BE LETHAL. EXERCISE EXTREME CAUTION WHEN HANDLING LEADS. ALWAYS TURN POWER OFF FIRST. THE BATTERY STRING ITSELF CAN CAUSE A SEVERE SHOCK OR ELECTROCUTION IF BODY PARTS MAKE CONTACT WITH THE BEGINNING AND END OF THE STRING.**

**⚠ WARNING:** Do not use this charger on motorcycle batteries, nicad batteries, AGM batteries, or gel batteries. This charger has no voltage limit, charging these batteries could cause an explosion resulting in bodily harm.

**IMPORTANT: DO NOT USE THIS CHARGER UNTIL YOU HAVE READ ALL THE INSTRUCTIONS.**

#### **INITIAL INSTALLATION:**

This charger requires **220-230** volts input and is shipped without an AC cord cap. Have a qualified electrician install one and a compatible AC receptacle.

#### **GROUNDING INSTRUCTIONS:**

**⚠ WARNING:** Improper connection of the equipment grounding conductor can result in a risk of an electric shock. **DO NOT USE THIS CHARGER ON A TWO POLE UNGROUNDED OUTLET OR ATTEMPT TO BREAK OFF THE GROUND PRONG FOR USE ON A RECEPTACLE OR EXTENSION CORD NOT HAVING A GROUND.**

**⚠ CAUTION:** To reduce the risk of fire, use this charger only on circuits provided with a maximum of 20 ampere branch circuit protection (circuit breaker or fuse), in accordance with the National Electric Code, ANSI/NFPA 70, and all local codes and ordinances.

The use of an extension cord with this charger should be avoided. The use of an improper extension cord could result in a risk of a fire or electric shock. If an extension cord must be used, make sure it is in good condition. Use a three conductor cord no smaller than 14 AWG. And keep it as short as possible. Locate all cords so that they will not be stepped on, tripped over, or otherwise subjected to damage or stress.

Do not operate this charger if it shows any signs of physical damage.

## PROPER CARE AND USE OF BATTERIES:

**⚠ CAUTION:** Always wear protective eye shields and clothing when working with batteries. Batteries contain acids which can cause bodily harm. Do not put wrenches or other metal objects across the battery terminal or battery top. Arcing or explosion of the battery can result. Do not wear jewelry when working around batteries. Arcing can cause severe burns.

The tops of the batteries and battery hold downs must be kept clean and dry at all times to prevent excessive self discharge and flow of current between the battery post and frame.

Maintain the proper electrolyte level by adding water when necessary. Never allow the electrolyte level to fall below the top of the battery plates. Electrolyte levels fall during discharge and rise during charging. Therefore, to prevent the overflow of electrolyte when charging, add water **ONLY AFTER** the batteries have been fully charged **DO NOT OVERFILL**. Old batteries require more frequent additions of water than do new batteries.

Provide adequate ventilation for the batteries and charger. Do not obstruct the flow of cooling air around the charger. Provide at least 1" of space around charger. Do not allow clothing, blankets or other material to cover the charger.

**⚠ WARNING:** Chargers can ignite flammable materials and vapors. Do not use near fuels, grain, dust, solvents, or other flammable's.

**⚠ WARNING:** Make sure the DC output leads, clamps, or connector are all in good working condition.

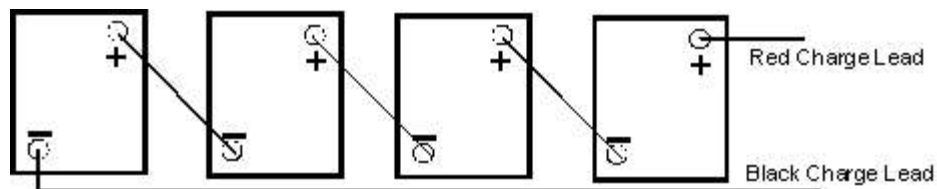
### DO NOT USE THIS CHARGER IF:

The DC output clamps are loose, worn or does not make good contact; The leads are cut or have exposed wires; The DC output leads or clamps feel hot when used.

Using this charger with any of the above symptoms could result in a fire, property damage, or personal injury. Have a qualified service person make the necessary repairs. Repairs should not be made by people who are not qualified.

### NORMAL OPERATION:

Before connecting each battery to the line, test each one with a standard charger to make sure current will flow through it. Place the batteries on a wooden or other non-metallic surface. Using jumper wires with 18 AWG minimum size wire and tight clamps, connect each battery as shown. **Before connecting charge leads to batteries, make sure the charger is not ON, and is unplugged from AC power. A minimum of 90 cells (15) 12 volt batteries must be connected, or overheating and premature failure of charger will result.** A maximum of 120 cells (20) 12 volt batteries can be connected



When batteries are connected in series, the voltage is additive, and the amp hour rating remains the same. Example: four 100 amp hour, 12 volt batteries would equal 48 volts, and 100 amp hours of capacity.

**▲ WARNING:** Batteries produce explosive gasses, provide adequate ventilation. Extinguish all open flames and remove all flammable's from the area

- 1). AGAIN, turn the rate control knob down, flip the power switch OFF, and plug the charger into AC power.
- 2). Flip the power switch on. Slowly increase rate control knob until the desired charge current is reached.
- 3). Continually monitor the line during the charging cycle. Remove any battery that gases's excessively. But only after decreasing the rate control to zero, flipping the AC power off, and unplugging from the source.

Depending on the condition, the size of the batteries, and charge rate, it will take anywhere from 12-36 hours to achieve a specific gravity reading of 1.250 to 1.285 and a voltage reading of between 14-15 volts per battery while on charge. This indicates batteries are fully charged.

NOTE: the number of batteries online does not influence the charge time.

### **SHUT DOWN CHARGER:**

**▲ WARNING:** Do not disconnect the charger clamps or move any jumper lead with the power switch on. The resulting arcing could cause the batteries to explode.

- 1). Turn rate control all the way down.
- 2). Flip power switch off.
- 3). Unplug charger.
- 4). Disconnect black charge lead, then red.

### **TROUBLE SHOOTING:**

**▲ CAUTION:** DO NOT DISASSEMBLE THE CHARGER. Incorrect assembly may result in a risk of electric shock or fire. Contact factory.

**▲ DANGER:** To reduce the risk of electric shock, always disconnect both the AC power supply cord and the output leads or connector before attempting any maintenance cleaning.

- 1). **“AC POWER” LED WILL NOT COME ON WHEN POWER SWITCH IS ON**  
Check that you are plugged into a live circuit. Check AC cord, plug and receptacle for damage. Check the fuse on charger. If the element is blown, replace with a fuse of the exact ratings.
- 3). **FUSE ON CHARGER OR AC LINE BREAKER BLOWS**  
The charger may be shorted internally
- 4). **NO POWER IS PRESENT ACROSS THE DC LEADS WHEN A VOLT METER IS CONNECTED**  
Good. The charger will not turn on until the clamps are connected to the battery.

**5). THE AC POWER LED COMES ON, BUT NO CURRENT REGISTERS ON THE AMMETER WHEN THE RATE CONTROL IS INCREASED**

One of the batteries in the line may have an open cell which will stop current flow to all the batteries. One of the jumper wires may be broken at the clamp. A poor connection from charger clamp to battery post. (Don't readjust with power on)

**QUICK CHARGE QPAX180-240v/6A Battery Charger  
"LIMITED WARRANTY"**

Quick Charge corporation warrants the QPAX180-240v/6A battery charger for one (1) year from the date of purchase.

After the warranty period, chargers returned to the factory for repair will be charged a minimum rate of \$25.00. Charger will be returned, freight and repair charges, C.O.D. unless other arrangements have been made

This warranty covers all defects in manufacture and performance, provided the unit is operated in compliance with manufacture's operating instructions.

For repairs to be made at the Quick Charge factory, a charger and/or component(s) should be sent, freight prepaid to Quick Charge at::

Quick Charge Corp.  
1032 S.W. 22nd St.  
Oklahoma City, OK. 73109

Quick Charge, will at it's option, repair or replace the charger or component in question. The repaired item will then be returned, freight prepaid by Quick Charge. This warranty is void if the charger or component have been altered, changed, or repaired by anyone not authorized by Quick Charge, or if the charger or component, have been subjected to misuse, negligence, or harsh environmental conditions. (Except those chargers designed for such conditions)

If returning the charger to the factory is not practical, replacement parts may be shipped to the customer for field repair at no charge. On parts such as circuit boards, the customer will be required to return the board suspected to be defective to Quick Charge, freight prepaid. If such defective parts are not returned, the customer will be invoiced for the repair parts.

Field repairs are made at the user's own risk. "Authorization" by Quick Charge to repair refers to maintaining the warranty only. Quick Charge assumes no responsibility or liability for field servicing, and shall not be responsible for incurred travel or labor charges.

Quick Charge corporation shall not in any event be liable for the cost of any special, indirect or consequential damages to anyone, product or thing.

This warranty is in lieu of all other warranties expressed or implied. Quick Charge neither assumes nor authorizes any representative or other person to assume for us any liability in connection with the sale of this product.