



OPERATING INSTRUCTIONS

QP, QPXU Battery Chargers

For Industrial Use: Designed for gel, wet cell, AGM, and Lithium Ion Batteries
(Lithium ion applications *must be factory programmed*)



Quick Charge Corp.
800 658-2841
e-mail info@quickcharge.com
www.quickcharge.com
Made in the U.S.A

Quick Start Instructions: Check for any damage before proceeding. Read entire instructions.

1



Check that the temporary label on charger line cord matches the battery to be charged. If not, see programming instructions. Switch power off.

Connect red clip to battery positive, black to negative, or plug the charger into battery pack.

5



As the battery(s) become charged the volts will continue to rise.....

2



Flip the meter switch to volts and read the battery voltage, in this case we are charging a 12 volt battery and it is at 11.8 volts

6



and the amps will fall. The LED will turn yellow, indicating the cycle is 80% or more complete.

3



Plug the charger into AC power and flip the power switch ON, or if your model is dual voltage, flip the power switch to the correct voltage. **Do not charge a battery at a higher voltage than what it was designed for.** The LED should flash red, and then turn steady red. The voltage will rise. How much, depends on the depth of discharge and the charger size in relation to the battery.

7



When complete, the LED will turn green indicating the charger has either dropped into a maintenance mode (flickering green) or has shut off (steady green). Here, the charger is maintaining the battery at the float voltage shown. If it would have shut off the voltage would be less.

4



Flip the meter switch to amps. It should read around the capacity of the charger. In this case our 25 amp charger is putting out 21.7 amps.

8



The amps are just enough to maintain the float voltage. In shut off mode, the amps would read zero.

NOTE: It does not matter what position the meter switch is in. It is for viewing and not operating.

EQUALIZATION:

When using multiple batteries in a series string, cells become uneven during charge and discharge cycles. At least once a month perform two charge cycles back to back, this will give a chance for cells that are lagging behind to catch up, and is important to overall battery performance. NOTE: This only needs to be done when using the wet cell or AGM settings with a standard, or extended gassing/absorption cycle. (Switch #1 ON).

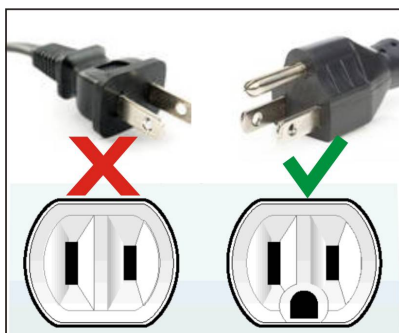


SAFETY INFORMATION AC WIRING:

Before making AC connections, refer to the requirements on the charger ID label. If your charger is not equipped with an AC plug, *for example, a 230 volt charger*, have a qualified electrician install one.

To reduce the risk of fire, use this charger only on branch circuits that are protected by a circuit breaker or fuse, and that are adequate to carry the power drawn by the charger. All wiring should be in accordance with the National Electric Code, ANSI/NFPA 70, and all local codes and ordinances.

This battery charger must be grounded to reduce the risk of electric shock. 117 volt chargers are equipped with a grounding type plug, 230 volt chargers are shipped without a plug. Have a qualified electrician install a properly grounded 3 wire plug.



**DO NOT USE THIS CHARGER ON A TWO POLE
UNGROUNDING OUTLET OR ATTEMPT TO BREAK OFF
THE GROUND PRONG FOR USE ON A RECEPTACLE OR
EXTENSION CORD NOT HAVING A GROUND.**

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



OTHER SAFETY INFORMATION

Do not use charger if it shows signs of physical stress, or if DC output leads or connector feel hot when used.

Do not disconnect the DC output clamps, or connector from the batteries when the charger is on. The resulting arcing could cause the batteries to explode.

Do not expose charger to rain.

The charger will become hot during use, provide adequate air flow around it. Do not place charger on cloth or vinyl seats, blankets, or around any other obstructive materials. Do not place charger against walls, allow 12" of space on all sides.



BATTERY SAFETY & CARE INFORMATION

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.

With wet cell batteries, 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, or just enough to cover the plates if discharged.** Old batteries require more frequent additions of water than do new batteries.

Do not over discharge batteries. Excessive discharge can cause polarity reversal of individual cells resulting in complete battery failure. Re-charge batteries as soon as possible after a deep discharge, but not if they are warm, allow a cooling down period.

Provide adequate ventilation when charging batteries. Chargers can ignite flammable materials and vapors. Do not use near fuels, grain, dust, solvents, or other flammables.

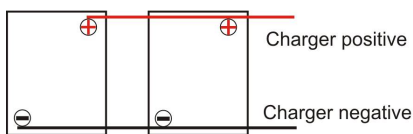
Do not charge batteries in excessively hot temperatures; wait till the cool of the evening.

PRE CHARGE INFORMATION

Before connecting the charger to the batteries, make sure the battery pack is of the same voltage rating of the charger. If you are unsure, count the number of cells on the battery pack and multiply by two. This figure should be the same as the DC voltage rating of the charger. (*see ratings label on charger*)

 Make sure the AC cord, DC output leads, terminals, connectors, or clamps are all in good working condition. Do not use the charger if there are any signs of stress or damage, or if wires are cut or have damaged insulation. Using this charger with any of these 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.

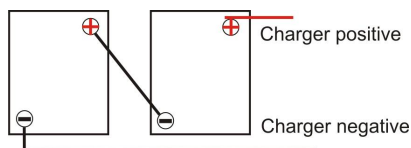
Illustration of series and parallel battery connections.



Parallel

When batteries are connected in Parallel the battery amp hour capacity is additive and the voltage remains the same.

Example: two 180 amp hour 12 volt batteries would equal 12 volts and 360 amp hour capacity



Series

When batteries are connected in Series the voltage is additive and the battery amp hour capacity remains the same.

Example: two 180 amp hour 12 volt batteries would equal 24 volts and 180 amp hour capacity

REPROGRAMMING:

Disconnect the charger from the batteries, and unplug the power cord. Remove the sheet metal screws holding the cover on.



Select the switch configuration that most closely matches your application. Whether choosing maintenance mode, or shut off is a personal preference, however the maintenance mode assures batteries will remain charged and won't self discharge.

IMPORTANT: Use switch numbers as a guide, as some boards may be upside down, and reversed.

LEFT TO RIGHT FACING BOARD

If the switch has 3 positions, ignore #1



AGM batteries
Standard deep cycling applications



Deep cycle wet cell batteries
Standard deep cycling applications, and maintains.



AGM batteries
Shallow cycling or starting applications



Deep cycle wet cell batteries
Shallow discharging, and maintains.



Deep cycle wet cell batteries
Standard deep cycling applications, and shuts off.



Gel batteries, starting batteries, AGM batteries if standby use.



Deep cycle wet cell batteries
Shallow cycling, and shuts off

NOTE: The #1 position is designated for batteries requiring long finish rates. If your performance is poor, it could be the batteries are being undercharged. Verify with specific gravity readings on wet cells. **US Battery**, and **Full River** are two brands that benefit from longer charge cycles.

TROUBLESHOOTING

Symptom	Cause	Corrective Action
No voltage reading on meter when connected to battery, and the LED flashes red/green.	Connected reverse to battery, or not connected to battery.	Correct polarity, or connect to battery. On chargers having a white and black wire, white is positive.
	Break in DC cord, or connector.	Have a qualified person make repair.
	Battery too dead to charge.	Replace.
When switched on, the red LED does not light, and no amps read on meter	The panel mount fuse is blown.	Replace with one having the same rating.
	There is no AC power present at the plug.	Check that there is power at the source. If using an extension cord, check that it is not damaged.
When I put a volt meter across the output of the charger there is no power coming out when I switch it on.	The charger must be connected to a battery to turn on.	
The batteries don't receive a full charge. On wet cells, the specific gravity will not rise to a full reading after the charge has completed.	The charger is too small for the battery.	Check that the charger's output is about 10% of the amp hour rating of the battery.
	The charge profile is not set correctly.	Recheck the dip switch setting. If in doubt, contact us.
	The cycle needs more time.	If you have a 4 position switch, switch #1 position ON.
	The battery is defective.	Replace.

The battery voltage reads well below the rating of the battery, and when powered up the LED is red with a yellow flash, and the amps are less than 5.	The battery is very low, and the charger is in a slow charge phase until the voltage rises to a safe level before full turn on.	Leave connected, it may take hours, but if the voltage rises even a little bit, it should recover, and turn the charger full on. <i>(Do not allow your batteries to deep discharge, it is the number one cause of premature battery failure.)</i>
When switched on, the LED flashes red/yellow, and there is no amp output on the meter	Charger and battery voltage mismatch	Connect the charger to a battery(s) with the same voltage rating.
The charger blows it's fuse, or branch circuit fuse/circuit breaker as soon as it's switched on.	Charger is shorted	Contact factory.
The charger blows the branch circuit fuse/circuit breaker a short while after being switched on.	The branch circuit is too small.	Relocate charger to a branch circuit with a heavier rating, or remove other loads on the circuit.
Batteries use water, get hot, or smell.	One or more dead cells. Dip switch not set correctly.	Replace batteries. If charging in a series string, it is best to replace all the batteries rather than mix new with old. If shallow discharging, check that the dip switch is not set to standard, or extended cycle.
Voltage rises quickly on battery(s) and the amps fall fast even though they are dead.	The batteries are sulfated.	Sometimes batteries can be recovered. Leave the charger on for some hours, if the voltage falls and the current begins to rise, it may be able to be recovered.

After a full charge the LED is green with a yellow flash	The batteries did not reach 80% charge in 12 hours, or did not reach minimum voltage, and the charger timed out.	The charger is too small for the batteries. Batteries are beginning to age. Sometimes running a second cycle will achieve full charge, but battery replacement, or a larger charger may be needed.
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QUICK CHARGE QP Battery Chargers "LIMITED WARRANTY"

Quick Charge Corporation warrants the QP line of chargers for three (3) years 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.