

# Operation Manual

## IF THE CHARGER DOES NOT OPERATE



Switch it off and remove the charger plug from the wall socket and check the AC power lead, charging leads and connectors for any damage.

Reconnect and turn on charger. If it is still not working, call your supplier for advice and/or return the charger complete with original packaging and leads for testing. Remember that the green light may not immediately come on if the battery is extremely deeply discharged -- i.e. Under 24 volts for a nominal 36 volt battery.



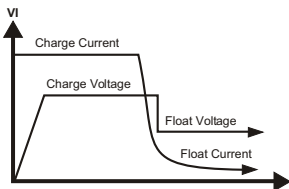
**3604**  
36Volt at 4 amp

## 3 - STEP CHARGER

**CAUTION!!!!** There are no user serviceable components inside. Service personnel should ensure that the AC line source is disconnected prior to the case being opened for service. If the mains power cord is damaged, it must only be replaced with an approved type.

## Common Specifications

Mains Input Voltage	90-260 vac
Mains Frequency	47-63 Hz
Efficiency	85% max.
Output Boost	44.1V
Float	41.4V
Total Output Regulation	+/-1%
Operating Temperature	0-40°C
Operating Humidity	10-90% RH
Safety	Meets CSA T-mark
EMI	FCC Class B, CE, C-Tick
Aust. Standard Approvals	AS 3350.2.29, Q03341



### Charging Characteristics

Automatic boost charge

Automatic preservation of fully charged condition

Insensitive to fluctuations in mains voltage and mains frequency

## GENERAL INFORMATION

This sophisticated switch-mode charger has been specially developed for use with all deep-cycle sealed lead-acid batteries including "Dryfit" gel batteries. It is light-weight, compact and efficient. It will operate on any AC input voltage between 110VAC to 240VAC - this means it will work ANYWHERE in the world without an additional transformer or switching for the 3604. It automatically charges, without requiring monitoring, all sealed lead-acid, maintenance type and gel batteries with a nominal voltage of 36. Charging begins immediately if the battery has been properly connected and AC power turned on.

The output of the charger is electronically protected against short circuit, reverse polarity connection and extremely deeply discharged batteries. A three colour Light Emitting Diode (LED) on the front panel is used as a charging and state of charge indicator.

## MOUNTING

The 3604 3-Step Charger should be used in a moisture-free indoor environment. Care should be taken to ensure that both the charger and the battery are situated securely and adequate ventilation provided for the charger and to avoid the collection of gasses vented from the battery in a confined space! The gaseous by-products of charging a battery are hydrogen and oxygen in explosive proportions. Do not allow them to collect and ignite with a spark from the battery/charger terminals!

## Operation

**IMPORTANT!** Connect the charger to batteries before turning on.

Plug in and switch on charger at the mains supply and then turn the charger's POWER switch on located on the back panel --charging should begin.

When charging a flat battery, the charging indicator LED illuminates RED. After reaching approx. 80% charge, the charging LED will turn YELLOW, when 100% the LED will be GREEN.

NB A deeply discharged battery may take some time before it draws enough current to cause the LED indicator to change colour. If you are sure the battery is flat, just leave the charger connected until indication begins.

If the battery still refuses to charge have it checked at your place of purchase.

**YOU MAY LEAVE BATTERIES ON CHARGE UNTIL READY FOR USE.**

If the battery you are charging is too large for this charger, a safety timer will reduce the output voltage after 1 hour at the gassing voltage.

If the battery is removed from charge the output current stops immediately. To resume normal charging operation, turn charger off, reconnect and turn on.

To ensure a full charge in the shortest time and ensure the longest possible battery life, make sure all leads and connectors are clean and undamaged.

1. Check all connections thoroughly and that the power switch of charger and the AC mains are turned ON.
2. Check that connectors on lead from charger to battery are correctly wired i.e. RED to positive (+) and BLACK to negative (-).
3. During the first charging phase, the charger may become quite warm or slightly hot to touch -- this is normal if charging deeply discharged batteries.

**UNDER NO CIRCUMSTANCES** attempt to use the charger if the AC power cord or the DC leads are damaged. These must be replaced by a suitably qualified repair station or return to your place of purchase for service.