

Operation & Installation Manual for 2404



Switch-mode Battery Charger for lead-acid batteries

Common Specifications

Mains Input Voltage	90-240 VAC
Mains Frequency	47-63 Hz
Efficiency	85% max.
Total Output Regulation	+/-5%
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/NZ 3350.2.29
Environmental rating	IP41

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GENERAL INFORMATION

This sophisticated Switch-Mode Battery 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 90-240VAC - this means it can work ANYWHERE in the world without an additional transformer just select the appropriate setting on the back panel. It automatically charges, without requiring monitoring, all sealed lead-acid, maintenance type and gel batteries with a nominal voltage of 24 volts.

Charging begins immediately if the battery has been properly connected. The output of the charger is electronically protected against short circuit, reverse polarity connection and extremely deeply discharged batteries. A bi-colour red/green Light Emitting Diode (LED) on the front panel is used as a charging and state of charge indicator. A flashing RED LED indicates no battery or incorrect connection.

MOUNTING

The 2404 Switch-mode Charger should be installed in a moisture-free environment. Care should be taken to ensure that both the charger and the battery are securely mounted and positioned with adequate ventilation!

Operation

IMPORTANT! This type of charger must be connected to the battery before being switched ON.

Always turn AC power OFF before disconnecting charger from battery

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

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OPERATION GUIDE

1. Check that connectors on lead from charger to battery are pushed fully home.
2. Check that the AC power cord is firmly attached to the charger, and that the power switch of charger and the AC mains are turned ON.
3. **The Green LED will flash rapidly (3 flashes per second) when the charger is Boost charging, and more slowly (1 flash per second) once battery is above 80%, at 100% the LED will stop flashing and illuminate continuously.** The Green LED turns off once the charger drops to maintenance mode.
4. If the battery is extremely deeply discharged; under 20 volts for a nominal 24 volt system the charger will try to Pulse charge it for 30 minutes. The LED will flash alternately red then green. If the battery does not begin to charge normally, charging will stop, with the RED LED ON.
5. If a normal charge cycle is not completed within 12 hours, the charger will turn OFF, RED LED ON, your battery should be tested at the place of purchase.
6. During the first charging phase, the charger may become quite warm or hot to touch -- this is normal if charging deeply discharged batteries.
7. It is advisable not to charge a battery with other equipment attached which draws current. If you need this option, consult your vendor at the place of purchase.

IF THE CHARGER DOES NOT OPERATE

Switch the charger OFF and remove the AC plug from the wall socket and check the AC power lead, charging leads and connectors for any damage, do not use the charger if any damage is discovered, return to your supplier for repair.

Reconnect in the approved manner, and turn on charger. If it is still not working, call your supplier for advice &/or return the charger complete with original packaging and leads for testing, remember that the green light may not fast flash immediately if the battery is extremely deeply discharged -- The charger will not start charging if the battery is under 6 volts for a 24 volt system.

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