

VMAXTANKS™

Model BC2403

Fully Automatic Smart Battery Charger User Manual

The VMAX BC2403 utilizes the latest technology in AGM, Gel and flooded lead-acid battery charging. Can be used with 9-60ah batteries. For best results, use with 9-45ah batteries.

During the charging process; the charger's 4 LEDs indicate the battery capacity status from 25% (LED 1) to 100% (LED 4).

The BC2403 is a Four Stage Charger

Stage 1: Desulfating the battery through 18V pulse. Charger enters this stage if it detects battery sulfation or severe discharge. Once battery is rejuvenated, charger moves to Bulk stage. **(LEDs: 1 ON, 2-4 OFF)**

Stage 2: Bulk charge using charger highest rated voltage and current for the type of battery in use until it reaches 80% capacity. **(LEDs: 1-4 Blinking Sequentially)**

Stage 3: Absorption, the output voltage is limited to 14.7V while current declines as the battery charges to its full capacity without overheating. **(LEDs: 1-3 ON, 4 Blinking)**

Stage 4: Float. At this stage, the battery is fully charged and the charger maintains the battery through pulse charging. **(LEDs: 1-4 ON)**

WARNING!

1. This charger is designed for charging AGM, GEL & lead-acid, batteries from 9 to 60 Ah. Do not use for any other purpose.
2. Since batteries may emit explosive gases, always provide good ventilation and avoid any source of flames or sparks when charging.
3. To reduce risk of damage to electric plug and cord, pull by the plug rather than by the cord when disconnecting charger.
4. Use of an improper extension cord could result in a risk of fire and electric shock.
5. Do not operate charger if you notice any signs of damage to charger or cords.
6. Do not disassemble the charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
7. To reduce risk of electric shock, unplug charger from AC outlet before attempting any maintenance or cleaning.

Specifications

Input Voltage	100-240VAC,50-60Hz
Input Current	1.6A
Back current drain	1.3mA
Charge voltage	Rating 24V,Bulk limited voltage : 29.4V
Ripple current	Current-ripple:<= 0.13A rms
Bulk charge current	3A
Operate Temperature	-5F~120F
Cooling	Natural convection. Do not cover the charger.
Charge principle	Auto 4 stages: Ud-I-Uo-Up
Battery type	All types of 12V lead-acid batteries.(SLA, Gel, AGM)
Battery capacity	9-60Ah
Size	6.7 x 2.8 x 2 inches
Enclosure	IP54 (Dust protected, Water splashing resistance)
Weight	14.5 oz

How to use:

1. Connect the AC cord to AC outlet. The "power" LED will light on solid.
2. Connect positive charger clip (red) to positive battery terminal, the black clip to negative. The "25%~100%" LEDs will light in a sequence. If the batteries polarity is reversed or output is shorted, **all LEDs will flash simultaneously, DISCONNECT & CHECK.**
3. Depending on the charged capacity, 25%~100% LEDs will light up solid. When all are ON, the battery is fully charged. You can disconnect the battery to use OR keep it connected to charge in float mode. If battery stays at Stage 2 after 24 hours of charging, then the battery is defective. The table shows the duration of the Bulk step-up to about 80% state of charge

Battery type (Ah)	BC2403 (hours)
9	3
14	5
20	7
30	10
60	20