

OptiMATE™5

**Complete 12V
battery care for
medium to large
batteries**



Desulphates and saves neglected batteries

Optimises battery power and life

Safe long-term maintenance cycle

Tests battery every hour

OptiMate™ 5, the all-in-one tool for 12V battery care at home. Diagnoses, recovers, charges, tests and optimally maintains, automatically. **OptiMate5** retains all the fully automatic, 100% safe, easy-to-use characteristics, of the 1.5 million OptiMates produced since 1995, but adds a powerful 2.8 Amp output to take care of larger batteries.

Forgot your battery throughout the winter? **OptiMate5** will recover it from deep discharge and optimally recharge it. Then it will check that the charge delivered is the best possible before then checking how well the battery can retain the charge. And tell you its status, at a glance. Of course, it will then maintain your battery at full charge safely for months at a time. And prolong its life by up to 400%. Reducing waste, for a better environment. No wonder 10 major constructors recommend OptiMate. **OptiMate5. Battery performance guaranteed!**

1

Low Volt
Start (1V)

2

TEST before
charge

3

Turbo
SAVE

4

Pulse
SAVE

5

Controlled
CHARGE

6

OPTIMIZE

7

TEST after
CHARGE

8

OptiMate
maintenance

OptiMATE 5

How it works

- 1. Safety check:** OptiMate 5 must be connected to a battery (retaining minimum 2V) to activate its output.
- 2. Desulphation and recovery:** if due to sulphation the battery's resistance is abnormally high, a voltage of up to 20V is automatically applied to overcome this so as to recover very flat or neglected batteries until they are able to accept the normal charge program.
- 3. Bulk charge:** a constant current of 2.8A efficiently brings the battery close to full charge.
- 4. Charge verification:** as soon as the rising resistance causes the charge voltage to reach 14.3V, the voltage is limited at 13.6V for 30 minutes while the circuit monitors the actual voltage and the current absorbed by the battery. If within 30 minutes the automatic circuit judges that the achieved charge is less than optimal, the program reverts to bulk charge and the process repeats.
- 5. Charge retention test:** when the monitored parameters confirm that an optimal charge has been achieved, the first check for battery (and connected system) power leakage commences. Depending on the voltage retained during 30 minutes, an "OK" (green LED) or "not OK" (red LED) test result is displayed. These 30 minute test periods repeat hourly until the OptiMate 5 is disconnected, so that the battery status indication is continually updated.
- 6. Charge maintenance:** during alternate 30 minute periods, at a float limit of 13.6V the battery is offered charge current (up to the maximum) it needs to sustain it against any small connected loads or power leakage and against natural self-discharge. OptiMate 5 can stay connected to the battery indefinitely, the battery will stay cool and safe. And optimally charged. Of course.

Technical Specifications

Ideal for LiFePO4/LFP batteries	7.5 to 120Ah, AGM (MF), Standard, GEL and AGM spiral cell
Program control	Microprocessor (5 stages)
Output current (bulk charge)	2.8A
Automatic desulfation	yes
Charge time limit	Maintenance time: unlimited
Maintain / test cycles	30 min/30 min (alternating hourly)
Charge retention test	monitors during 30min., no charge intervals
Size	190 x 75 x 56mm / 7 ½ x 3 x 2 ¼ inches
Weight (packaging)	0.9 kg / 2 lb
Enclosure classification	fully sealed (IP54), 4 x wall mount tabs
Input cable length	2m / 6ft
Output cable length	2m / 6ft
Included Accessories	SAE-71 fused eyelet set, weather protected SAE-74 clamps set for bench charging
Operation temperature range	From -20°C <-> 40°C / -4°F <-> 104°F
Warranty	3 years
AC supply	100-240V 50-60Hz 0.90A @ 100-240V
Reverse drain current	less than 0.5mA
Power usage (no battery connected)	0.0089kWh / day
Ratings / approvals : Safety, EMC, Energy efficiency, enclosure seal rating	IP54, CE, NRTL (UL & CSA), SAA (AU & NZ), approved by TUV Sud. BC (California Energy Compliant).

