

# OptiMATE™4

**Advanced 12V  
battery care  
at home**



Optimizes battery power and life

Turbo recovery mode

Saves “dead” batteries

Early warning of battery problems

Unique battery test and maintenance cycle

**OptiMate™ 4**, the ultimate all-in-one tool for 12V battery care at home. Diagnoses, recovers, charges, tests and optimally maintains, automatically. **OptiMate™ 4** retains all the fully automatic, 100% safe, easy-to-use characteristics of the 1,5 million OptiMates produced since 1995, but adds several improvements such as Turbo Recovery for even more effective recovery of badly neglected, sulphated batteries; a stylish new 10-LED control panel displaying more complete information and test results; a slick weatherproof enclosure with built-in mounting lugs; improved energy efficiency leading to typical energy costs of just a few euros a year. Extending battery life by up to 400%, **OptiMate™ 4** will maintain your battery safe and ready-to-go for months on end. Reducing waste, for a better environment. No wonder 10 major constructors recommend OptiMate.

**OptiMate™ 4. Battery performance guaranteed!**



# OptiMATE™

**Battery Performance  
Guaranteed!**

## How it works

- 1. Safety check:** OptiMate 4 must be connected to a battery (retaining minimum 2V) to activate its output.
- 2. Functionality check:** the OptiMate 4 microprocessor checks the system for correct operation (LEDs flash briefly to confirm).
- 3. Desulphation and recovery:** 1 or 2 stages (if necessary) of high voltage (max 22V) engage automatically to recover neglected, flat batteries from sulphation to a chargeable state.
- 4. Bulk charge:** a constant current of 0,8A efficiently brings the battery close to full charge.
- 5. 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 microprocessor 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.
- 6. Charge retention test:** when the monitored parameters confirm that an optimal charge has been achieved, (or after the 48 hour time limit for the above stages has expired) the first check for battery (and connected system) power leakage commences. Depending on the voltage retained during 30 minutes, 1 of 5 possible test results is displayed on a combination of 3 LEDs. These 30 minute test periods repeat hourly until the OptiMate 4 is disconnected, so that the battery status indication is continually updated.
- 7. 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 4 can stay connected to the battery indefinitely, the battery will stay cool and safe. And optimally charged. Of course.

## Technical Specifications

Recommended for AGM/MF, Standard, GEL and spiral cell batteries	from 2Ah to 50Ah rated capacity
Programme control	microprocessor, 6 stages, fully automatic
Input current max.	0,095A @ 230V
Typical annual energy cost	± €1 (continuous maintenance)
Reverse drain current	less than 0,5mA
Output current (bulk charge)	0,8A
Automatic desulphation	2 stages (recovery and Turbo-recovery)
Charge time limit	48 hours (maintenance time: unlimited)
Maintain / test cycles	30 min/30 min (alternating hourly)
Charge retention test	5 possible results from 'good' to 'bad'
Size	200 x 75 x 61mm
Weight (packaging)	0,9 kg (1,3 kg)
Enclosure classification	IP54
Mounting	easy direct wall mounting
Input cable length	2m
Output cable length	2m
Included Accessories	TM-71 fused eyelet set, weather protected TM-74 clamps set for bench charging
Operation temperature range	-40°C / +40°C
Warranty	2 years

