OptiMATE™4

DUAL PROGRAM



Advanced 12V battery care at home

- **Multi-stage desulphation saves neglected batteries**
- **Optimises battery power and life**
- **Safe long term battery care**
- **Charge battery DIRECT or via CAN-bus**
- **TEST at start and TEST every hour**

OptiMate™4, the ultimate all-in-one tool for 12V battery care at home, now with ***DUAL PROGRAM*** that diagnoses, recovers, charges, tests and optimally maintains, automatically. Charge the battery direct or select the program to charge via the 12V port on your CAN-bus equipped bike. With automatic KEY-LESS activation ***OptiMate 4 DUAL PROGRAM*** will charge and maintain your battery automatically until it is disconnected. ***OptiMate 4 DUAL PROGRAM*** includes Low voltage PULSE recovery for even more effective recovery of badly neglected, sulphated batteries; a user friendly battery test at connection; a slick weatherproof enclosure with built-in mounting lugs and improved energy efficiency. Extending battery life by up to 400%, ***OptiMate 4 DUAL PROGRAM*** will maintain your battery safe and ready-to-go for months on end. ***OptiMate 4 DUAL PROGRAM. Battery performance guaranteed!***

OptiMATE™

Battery Performance Guaranteed !

OptiMATE™4

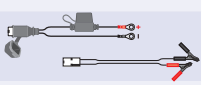
How it works

1. **Switch between STANDARD or CAN-BUS program** with a simple 5 step procedure: connect clamps together, connect to mains, wait for the LED's to confirm program change, disconnect clamps. You can switch programs as many times as you want. LED indication confirms the CAN-BUS program is active.
2. **Safety check:** OptiMate 4 DUAL PROGRAM will proceed to charge if the battery voltage can maintain above 2V during the initial start up diagnosis, even if the battery was at 0,5V before connection.
3. **Functionality:** OptiMate 4 DUAL PROGRAM microprocessor checks the system for correct operation (LEDs flash briefly to confirm).
4. **Pre-qualification test:** OptiMate 4 DUAL PROGRAM indicates the battery condition prior to charging.
5. **Desulphation and recovery:** STANDARD (up to 16V) engages automatically to recover neglected, flat batteries from a sulphated to a chargeable state. For badly neglected batteries TURBO stage (max 22V) engages if vehicle electronics is not detected / battery is out of the vehicle. Turbo stage is disabled with CAN-bus program selection. The safe low voltage PULSE recovery engages for the final 15 minutes.
6. **Bulk charge:** a constant current of 0,8A is delivered until the voltage reaches 14.3V.
7. **Absorption and equalisation:** Current is delivered in pulses to bring the battery to full charge in the shortest possible time.
8. **Charge verification and short circuit / dead cell check:** Charge acceptance is monitored, to detect internal damage and prevent unnecessary charging of an unrecoverable battery that cannot be recovered. An undamaged battery requiring further charging will revert to pulsed absorption.
9. **Voltage retention test:** is conducted for 30 minutes during which no charge current is delivered, with 5 possible test results indicating the battery's general state of health. The pre-qualification test can be used to detect batteries that may hold a charge initially, but lose charge overnight.
10. **Charge maintenance:** a voltage of 13,6V is delivered for 30 minutes following each voltage retention test, with charge current up to the maximum available to sustain it against natural self-discharge or current drain from permanently active vehicle components (LCD display, computer control) or connected accessories (alarm, immobiliser). The voltage retention test and charge maintenance periods continue alternating half-hourly until the battery is disconnected. The test result is updated during each subsequent test.

    CAN-bus program: the KEY-LESS activation program guarantees automatic re-opening of the connection even with the ignition not turned on.

    The alternating test and charge maintenance program is designed to provide the recommend maintenance voltage for AGM / GEL batteries whilst reducing the average voltage as required by STD filler cap batteries, making it ideal for indefinite and 100% safe long term maintenance charging of any type of 12V lead-acid battery.

Technical Specifications

Recommended for AGM/MF, Standard, GEL and spiral cell batteries	Recharging (48 hours): from 2Ah to 50Ah capacity Long term maintenance: up to 75Ah
Program 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	Range: 12.0 - 12,6V. GOOD (green) = battery voltage > 12,6V
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	3 years

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