

OptiMATE PRO-2

ampmatic

**Total battery
management
for 2 batteries**



Charge 2 x 12V batteries independently

Optimally activates new MF batteries

ampmatic™ automatic current control

Professional test and maintenance cycle

Optimises battery power and life

The new **OptiMATE PRO-2** is an affordable all-in-one dual-battery care centre for professional use on motorcycle and other leisure and power sports batteries. Diagnostics, charging, testing and technically correct activation charging for brand new MF batteries, in a single device. Just connect one or two (even dissimilar) 12V batteries and its radically new **ampmatic™** microprocessor, the result of more than 15 years experience, optimally sets and continually adjusts the bulk charge current to best suit the evolving condition of each battery. It is also possible to charge two 12V batteries in series.

An enhanced multi-stage version of the acclaimed OptiMate desulphation action automatically recovers most badly neglected, otherwise “dead” batteries and dead cells are identified and signaled after 10 minutes of connection.

The affordable new **OptiMATE PRO-2**. Total professional battery optimisation



OptiMATE™

**Battery Performance
Guaranteed!**

OptiMATE PRO-2

ampmatic

How it works

Connect 1 output to each of two 12V batteries or to each + / - pair of series-connected 12V (=24V) battery posts.

- 1. Initialisation:** OptiMate PRO-S checks that it is connected to a battery (= minimum voltage 1,8V).
- 2. Programming:** The 2 OptiMate PRO-2 outputs each require connection to a battery (of minimum voltage 1,8V) to activate
- 3. Desulphation and recovery:** if necessary, 2 or 3 stages of high voltage and oscillatory pulsing are applied to recover neglected, flat batteries (removed from the vehicle) from sulphation to a chargeable state.
- 4. Bulk charge:** the ampmatic processor sets and then continually re-adjusts the constant current optimally for each individual battery according to its evolving electrical characteristics.
- 5. Short-circuited cell check:** during charging the ampmatic processor checks for short-circuited or damaged cells.
- 6. Absorption and equalisation:** during 10 minutes the current is delivered in pulses to cause the voltage to oscillate between 13,7 and 14,3V, aiding cell voltage equalization.
- 7. Charge verification:** during 5 minutes the voltage is limited at 13,6V while the ampmatic processor monitors the current absorbed by the battery. If this reveals a less than optimal charge, the program reverts to absorption for a further 10 minutes (maximum 12 reversions).
- 8. Charge retention test:** when the optimal charge has been achieved, the first check for battery (and connected system) power leakage commences. If the battery passes the first 30 minutes test, the test is extended up to 12 hours for a definitive result. If the voltage falls below 12,4V in this period the extended test is terminated. Results of the tests can be read at a glance on the easy-to-read LED panel. 30 minute tests are repeated hourly until the OptiMate PRO 2 is disconnected, so that the battery status indication is continually updated.
- 9. Charge maintenance:** during alternate 30 minute periods, at a float limit of 13,6V the battery is offered whatever charge current it needs to sustain it against any small connected loads or power leakage and against natural self-discharge. OptiMate PRO-2 can be left connected to the battery indefinitely, the battery will stay cool and safe. And optimally charged. Of course.

Technical Specifications

| | |
|--|---|
| Recommended for AGM/MF, 'Classical', GEL and spiral cell batteries | from 2Ah to 100Ah (48 hour charge) |
| Programme control | ampmatic™ microprocessor |
| Input current max. | 0,45A @ 230V |
| Indicative annual energy cost | < €1 (continuous maintenance) |
| Reverse drain current | less than 1mA |
| Output current (bulk charge) | 0,4A – 2A at each output |
| Automatic desulphation | multistage (high voltage, turbo and pulsed mode) |
| 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 | 287 x 127 x 80mm |
| Weight | 3,4kg |
| Enclosure classification | IP30 |
| Mounting | easy direct wall mounting |
| Input cable length | 2m |
| Output cable length | 2 x 2,65m (incl. extensions, excl. connection sets) |
| Included Accessories | 2 x TM-71 fused eyelet set, weather protected 2 x TM-74 clamps set for bench charging 2 x TM-73 extension cable |
| Operation ambient temperature range | 0°C / +40°C |
| Warranty | 2 years |

