

Unique 8-battery optimiser OptiMate PRO 8-S

Time-saver for service workshops. All 12V lead-acid battery types. Versatile & error-proof, 100% safe.

100% Automatically
Recovers deep-discharged batteries!
 • **Diagnoses**
 • **Desulphates**
 • **Charges**
 • **Tests**
 • **Maintains**

DUAL PROGRAM

Engine Start

Deep Cycle

Applications & functions

- Dual program diagnostic and recuperative multi-bank charger.
- Separate charging programs for Engine Start (STD & MF) batteries and Deep Cycle (DC) batteries.
- Perfectly charges up to eight different batteries simultaneously.
- Select the right program by way of four lever switches each controlling the selection for two adjacent stations.
- The parameters described overleaf are delivered at each battery station independently.
- Input voltages of 100V~, 110-120V~, 220-240V~.

2 Year Limited Warranty
 excluding oxidation, corrosion, wear & tear.

ONE GLANCE KEEPS YOU INFORMED :

GOOD	TEST	← CHARGE MODE → STD MF DC	TEST	GOOD
WEAK				WEAK
CHARGE				CHARGE
DESULFATE				DESULFATE

OptiMate PRO 8-S

Dual program diagnostic charger for 8 batteries.

Unique : Recovery, Charge, Verification & Self-discharge check functions

Charging Programs

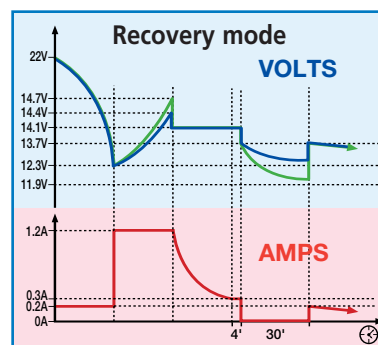
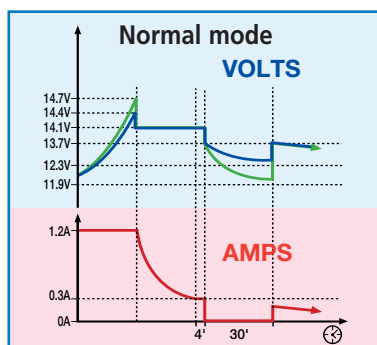
1) Initialisation : to start the program, the battery must measure $>2V$ immediately before connection to the charger. This is to avoid trying to recharge «hopeless cases» with attendant waste of time and energy.

2) Recovery mode^(*) : if the battery voltage on connection is $>2V$ but the resistance prevents delivery of a fixed 200mA current at a voltage below 13.9Vdc, the normal voltage limit of 14.4V (Engine Start - STD & MF program) or of 14.7V (Deep Cycle - DC program) is unlatched to allow delivery of a voltage of up to 22Vdc, so as to 'persuade' the battery to accept part or all of the 200mA current, to prompt it's recovery until it can accept the charging algorithm applicable to batteries in a less severely discharged condition.

3) «Bulk Charge» stage : the circuit delivers a Constant Current of 1.2A until the battery voltage reaches the limit of 14.4V (STD & MF Engine Start program) or 14.7V (Deep Cycle).

4) Absorption and charge verification stage : (both programs) during this the charge voltage is limited at 14.1V and the charge current is limited at 1.2A. The current will gradually reduce as the battery's state of charge nears «full». Only when the charge current remains below 300mA for 4 minutes continuously (thereby signalling the battery is close to full charge) will the following stage (self-discharge check) engage.

5) Self-discharge check : the charging output is interrupted for 30 minutes during which the battery voltage is monitored as it reduces naturally. Should the battery vol-



tage reduce below 12.3V (STD & MF) or 11.9V (DC) the red 'WEAK' LED will signal excessive self-discharge in the battery, or, if the battery remains connected within a wiring system, that a leakage of current is occurring in the battery or in the system. The charge program is suspended. The operator disconnects any wiring system from the battery and reconnects the charger. A battery again indicated as «WEAK» can be sent for recycling. A battery now indicated as «GOOD» indicates that the defect previously indicated lies in the wiring system to which the battery was connected.

6) Maintenance mode : Both programs if the self-discharge test is O.K., the green LED ('GOOD') signals a satisfactory condition, and the battery's charge is topped up and maintained with the float voltage limited at 13.7V and the current limited at 200mA, until disconnected.

Protections

All automatic :
Suppression of the generation of sparks. Disablement of the charging station in case of short circuit at that output. Disablement of the charging station in case of no correct battery connection at that output. Disablement of the charging sta-

tion in case of inverted battery connection at that output.

Excessive AC input voltage blows a glass fuse at the appliance power cord receptacle. A spare fuse is built into the input voltage selection assembly. The latter allows easy alteration of the appliance for use on any of three different nominal input voltages.

Equipments & Accessories

Delivered with detachable power cord, user manual, 8 detachable & replaceable connection sets comprising 2m of cable and battery clips. These plug directly into two-pole sockets built into the charger housing and can be disconnected and stored when that station is not in use.

Optional accessories

Ref. AMEXTEND : 2.5m 2 x 16Awg (2 x 1.3mm²) charging output extension cable.

Ref. BMBRACKET : Galvanised steel wall-mounting bracket.

(*) Recovery of sulphated Deep Cycle and some hybrid batteries to a useful status, especially when these have remained so for a significant length of time, can be more difficult and may not be achievable.