



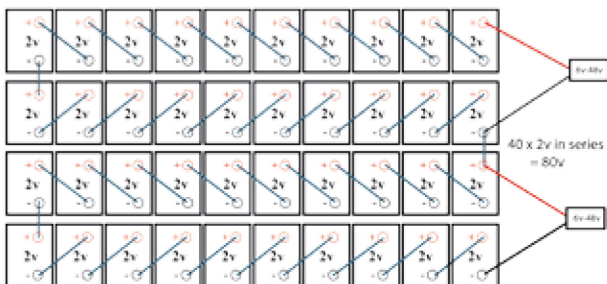
BATTERY ACCESSORIES

BATTERY DESULFATORS

PATENTED DUAL PULSE

These battery desulfators employ a Patented Dual Pulse Technology which uses a targeted method of inducing a total of 10,600 pulses per second into the battery. 5300 pulses of current per second are extracted from the battery after which the finely tuned Pulse Wave is created and induced back into the battery at the same rate of 5300 per second.

This super-efficient dual action targets crystallized inactive material, re-energizing it back into active service leaving the battery in as new condition. The high frequency pulses act as a Pace-Maker for the battery and the electrical system, restoring efficiency and reliability. The battery desulfators are very efficient using only 10 milliamp of power which it derives from the battery itself therefore does not require external power input. Each unit can condition up to 1500Ah of battery capacity from 6v to 48v, and for larger banks multiple units can be installed in series configuration.



FEATURES

- Works with all types of batteries
- VEES & HD648 technology is suitable for all types of batteries (except lithium and nicad).
- Tested and proven

Tested by CSIRO, Unitech Energy, Volvo, Scania, MAN, Mercedes, Nobina, Solaris, ThermoKing, Bavaria and many more OEM manufacturers.



BAT/48451 : 6 - 48V

- 8mm Fork Terminals
- 1500 Ah conditioning capacity
- Cable Reach (terminals 850mm apart)
- Suitable for Small-Medium applications
- Multi-voltage compatible 6v to 48v
- Compliant to IP65 waterproof rating
- External fuse IP65 splash-proof rated
- ISO9001, E11, CE, RoHS, RCM Certified
- 10-Year Global Replacement Warranty

BAT/48452 : 6 - 48V HEAVY DUTY

- 8mm Ring Terminals
- 2000 Ah conditioning capacity
- Cable Reach (terminals 1050mm apart)
- Suitable for Medium-Large applications
- Multi-voltage compatible 6v to 48v
- Compliant to IP67 waterproof rating
- External fuse IP67 rated - 100% sealed
- ISO9001, E11, CE, RoHS, RCM Certified
- 10-Year Global Replacement Warranty

Electrical Failures

DC Electrical Systems are designed to be efficient and reliable, in the field however most Vehicles, Vessels and Equipment often operate outside design parameters as a result of degraded batteries, this leads to Inefficiency, Unreliability and Electrical Failures, increasing Maintenance and Repairs.

The Cause

All batteries Degrade and as they do, they cause Voltage Losses which directly affects Electrical System functionality. Degraded batteries also run hotter due to elevated internal resistance, creating gas and electrolyte boil-off which is both Corrosive and Explosive.

The Solution to Unnecessary Electrical Failures

The battery desulfators have a disruptive technology which significantly reduces electrical system Failures caused by Degrading batteries. Our Technology employs a Patented Dual Pulse Algorithm to Re-Energize inactive material clogging battery plates, returning it to active duty enabling the battery and electrical system to function at Full Voltage, Efficiency and Reliability.

Battery Degradation affects our Environment

By removing and preventing Degradation, batteries are kept out of the recycling loop up to 3 times longer reducing Lead in our Environment.

PRIME/OEM Manufacturers and fleet operators using Patented Dual Pulse Technology

VOLVO, SCANIA, BAYLISS, MERCEDES, VOLMAX, SOLARIS, MAN, NOBINA, UNIBUSS, NEOPLAN, BAMA, SCAB, BAVARIA, AVINOR, THERMOKING, KEOLIS AUSTRALIA



High-Cost to Failure for Military, OEM & Fleets

Battery degradation causes Electrical System Failures which leads to loss of Capability, Increased Maintenance and Repairs.

Permanent loss of battery capacity

Battery plates are grids with lead oxide paste pressed into them, this paste requires maximum voltage to remain firm in order to resist falling out when subjected to road shock or wave pounding. Degradation causes chronic undercharging, keeping the plate material soft thus easily falling out of the grid resulting in permanent capacity loss, which in turn directly affects the electrical system functionality and performance.

Greenhouse gas emissions

Vehicles, Vessels and Equipment operating on reduced voltages as a result of Degraded batteries, do not burn fuel efficiently resulting in higher consumption and higher Greenhouse Emissions.

Military and Emergency Vehicles

Military and emergency vehicles (Ambulance, Fire and Police) demand error-free running of on-board equipment. These vehicles often operate at idle for long periods, as a result batteries are severely drained causing Degradation and Electrical Failures.

Scania reduces electrical faults

Scania ran a large scale 5 year field test involving 140 trucks, of which 70 were installed with the battery desulfators and compared with 70 identical vehicles without the battery desulfators. The vehicles fitted with a battery desulfator achieved a reduction in electrical related faults and maintenance from 56% down to 0.3%.

Volvo extends battery life

Volvo increased battery service life from an average of 2 years to over 5 years and reduced Electrical Failures in a 7 year field test, as a result Volvo installed 100,000 trucks with Patented Dual Pulse technology.

Reduced Warranty Claims

Warranty claims are the greatest concern to OEM/ Prime manufacturers, whereas Down-Time is the

greatest concern for Fleet Operators, and finally capability is the main concern for Defense forces. The battery desulfators have been proven to be effective in reducing electrical failures in all of the above sectors.

Tried and Tested

Over 23 years, customers worldwide have consistently shown reduced Electrical System Faults, reduced warranty claims, Improved reliability and Productivity.

Built for Harsh Environments

- Tested multiple times through the manufacturing process
- Able to meet strict zero defect targets set by OEM manufacturers
- Manufactured to meet aggressive environmental conditions during use
- Manufactured with high quality components in ISO9001 accredited facilities



MORE INFO ON: WWW.MEGAPULSE.NET

BATTERY DISCHARGE INDICATORS



MULTI-VOLTAGE BATTERY DISCHARGE INDICATOR



▶ **BAT/32561** - WITH HOUR COUNTER 24V - 80V

Programmable multi-voltage battery discharge meter with hour counter. This battery indicator with hour counter & SMD-technology is based on a powerful microprocessor. One of the most important characteristics are the two touch buttons and a potentiometer on the back which make it possible to program according to the battery! At 70% depth of discharge, a flashing LED signals an "energy reserve" alert. At 80% alternately flashing LEDs provide an "empty" status warning. With pump cut-out - Ø 52 mm IP66



▶ **BAT/38510** - 24V - 80V

With pump cut-out - Ø 52 mm

BATTERY DISCHARGE INDICATOR



▶ **BAT/32146** - 12V- 24V

52 x 30 mm

BUZZER



▶ **BAT/45913**

Audio alarm when the battery is too deep discharged. Connectable on BAT/32561 & BAT/38510

HOUR COUNTER



▶ **BAT/47529** - 12V- 48V

Ø 52 mm



▶ **BAT/32562** - 12V- 48V

52 x 30 mm



▶ **BAT/48146** VIBRATION ACTIVATED

Ø 52 mm



▶ **BAT/45131** VIBRATION ACTIVATED

36 x 25 mm

BATTERY DISCHARGE INDICATOR



REF	Ø mm	Voltage	Pump cut-out	Hour counter	Multi voltage
BAT/18638	52	12	X		
BAT/18640	52	24-48	X		X



REF	Ø mm	Voltage	Pump cut-out	Hour counter	Multi voltage
BAT/18648	52	12			
BAT/18650	52	24			
BAT/18654	52	48			



REF	Ø mm	Voltage	Pump cut-out	Hour counter	Multi voltage
BAT/17443	52	24	X		
BAT/17444	52	48	X		
BAT/17101	52	80	X		



REF	Ø mm	Voltage	Pump cut-out	Hour counter	Multi voltage
BAT/32561	52	24-36-48-72-80	X	X	X
BAT/38510	52	24-36-48-72-80	X		X

BAT/17282	52	12	X		
BAT/18674	52	12-24-36-48	X		X
BAT/17070	60	adaptor Ø 60 mm			