

Pulse Technology

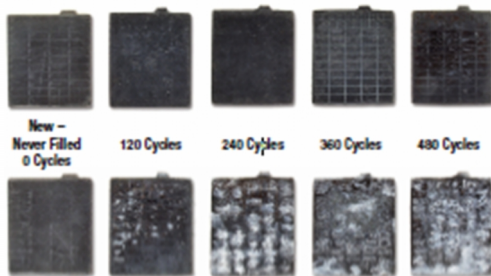
Pulse Technology makes our products better than any other charger or maintainer on the market. In addition to charging the battery, our patented Pulse Technology removes sulfates from the battery plates and prevents new ones from forming. **No other chargers on the market have this technology.**



**The Pulse
Technology
Waveform**

The photos below show actual battery plates. Note the development of lead-sulfate on the conventionally charged plates in the bottom row while the top row is charged with a PulseTech charger and has no sulfate accumulation.

12-Volt Lead-Acid Batteries Charged with PulseTech Charger



Battery Maintenance Management Program

PulseTech's Battery Maintenance Management Program (BMMP) provides the tools to implement a complete battery management program and can achieve an immediate 70% reduction in lead-acid battery consumption while improving battery performance.



Benefits:

- Increases battery voltage and capacity
- Extends battery life by up to three times
- Reduces warranty issues
- Helps protect our environment
- Reduces battery budget
- Dramatically reduces jumpstarts

SolarPulse

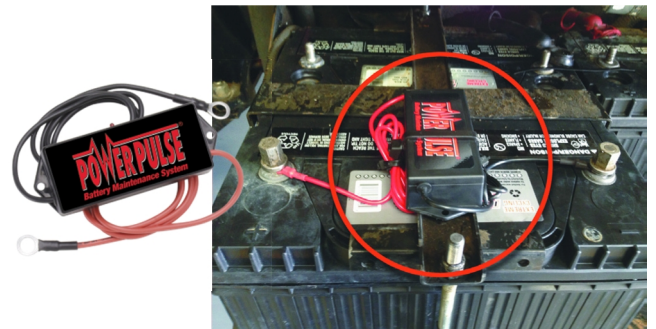


Use the Power of the Sun to
Extend the Life and Power
of Batteries

- Prevents normal loss of battery power on vehicles and equipment stored outside
- Patented Pulse Technology prevents sulfate buildup
- Batteries remain in peak condition, even when sitting for months at a time
- Dramatically reduces the hassle of jump starts and warranty issues
- Applications: trucks, construction and farm equipment, buses, emergency vehicles, boats etc.

Solar Charger	Install On:
SP-3	1 Battery
SP-7	2 Batteries
SP-12	3-4 Batteries

12, 24, 36 & 48V PowerPulse



Selected as a Top 50 Product by Automotive Engineering magazine, the PowerPulse is a performance enhancing battery maintainer. It's part of the product install section of our BMP and is permanently installed on frequently used vehicles

- Helps batteries charge faster
- Extends battery life
- Allows battery to provide maximum power
- Prevents sulfate crystal buildup on the battery plates
- Applications: trucks, forklifts, golf carts, buses, RV's, cars etc.

Return on Investment for BMMP

Follow a simple formula to calculate return on investment (ROI) of implementing our BMMP or using our recovery chargers. Example:

If 100 batteries are disposed of per month:
 100 spent batteries x 0.7 recovery rate = 70 batteries recovered each month

70 batteries at an average cost of \$150 per battery = \$10,500 saved in new battery purchases per month.

Monthly savings = \$10,500

Calculate your own numbers and replace your numbers where you see XXX:

XXX spent batteries x 0.7 recovery rate = XXX batteries recovered each month

XXX batteries at an average cost of \$150 per battery = \$XXX saved in new battery purchases per month.

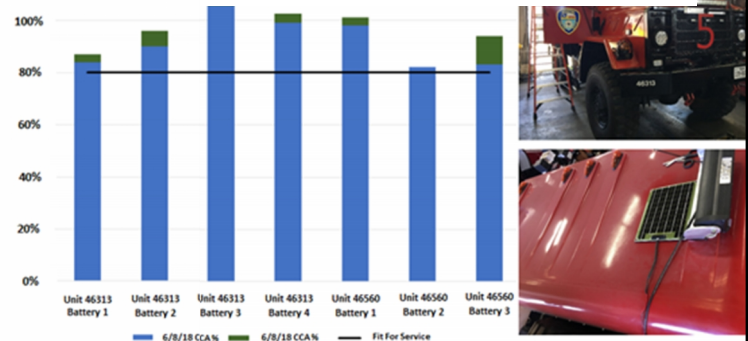
Monthly savings = \$XXX

City of Houston Restores Lost Battery Capacity

The City of Houston Fire Department Restores Lost Battery Capacity with SolarPulse

Critical reserve assets such as 5-Ton high water reserve trucks and fueling trailers needed to be deployment ready. However, batteries were losing capacity due to sulfation and had no access to power. SolarPulse battery chargers were installed and the City of Houston saw improvements across the board.

5-Ton and Fuel Trailer with SolarPulse – CCA %



Voltages and CCAs Improved at XPO Logistics 87% of Batteries Recovered at MHC Kenworth

XPO Logistics Restores 12V Batteries with SC-12 Recovery Charger

XPO Logistics is a global logistics company committed to protect the environment with greener and more efficient supply chains. The voltage and CCAs for all of the batteries improved with the use of the SC-12. Returning voltage and CCAs to optimum level on 10 batteries meant an immediate savings in new battery purchases and prevented 5 batteries from heading to the hazardous waste pile today with at least 3 of the others right behind them.



Battery #	Start Voltage at Start	After 24-48 Use of SC-12 Voltage After 24-48 Hours	Start CCA at Start	After 24-48 Hour Use of SC-12 CCA After 24-48 Hours
1	12.27	13.09	912	1132
2	12.28	13.12	1041	1264
3	12.27	13.14	1058	1271
4	10.76	13.14	0	659
5	6.43	13.01	0	595
6	10.6	12.93	4	639
7	10.31	12.63	27	218
8	4.9	13.27	0	806
9	5.56	13.28	40	790
10	5.51	13.28	0	797
11	5.72	13.35	0	778

MHC Kenworth Restores Odyssey Batteries with SC-12 Recovery Charger

87% of the Odyssey batteries were recovered with the SC-12. The only two batteries unable to be recovered had bad cells. Saving 14 Odyssey Group 31 batteries meant an immediate \$3,800 savings in new battery purchases more than covering the cost of the equipment.

Battery #	Start 9-12-18 Voltage	After Use of SC-12 9-24-18 Voltage	Start 9-12-18 CCA	After Use of SC-12 9-24-18 CCA
1	5.97	12.92	23	1319
2	6.04	12.85	20	1199
3	6.17	12.85	15	1284
4	6.17	12.91	17	1419
5	4.76	12.82	19	1250
6	5.47	12.89	11	1203
7	5.51	12.41	6	1205
8	6.18	12.92	23	1232
9	5.52	13.06	14	1279
10	6.04	12.91	21	1288
11	5.99	12.86	17	1283
12	5.52	6.56	6	114
13	5.72	12.92	3	1233
14	6.17	12.88	14	1202
15	5.89	7.25	17	160
16	5.66	12.92	1	1233