FSIP ELECTRONICS
A division of TVH

Xtender Battery Regenerator

The **Xtender Battery Regenerator** is an all-in-one, fully automated machine for safely **discharging**, **desulfating**, and **recharging** lead-acid batteries. The Xtender uses a high-frequency pulsation process to breakdown lead sulfate crystals to restore lost battery capacity.

Features

- Single-phase input
- Restores batteries between 2–96 V
- Individual battery analysis
  - Individual cell analysis available with the addition of the BMS
- Control and monitor system remotely
- Restorative Shark Pulse technology
- Customizable detailed battery performance reports
- Customizable cycles
- Touchscreen programming
- Suitable for flooded lead-acid, AGM and gel traction batteries

Benefits

- Increase battery lifespan/run-time
- Minimize battery replacement costs
- No acid adjustment required
- Easy to use and operate (can be left unattended)

800-333-1194 · sales@fsip.biz · **shop.fsip.biz**

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Battery Monitoring System (BMS)

The **Battery Monitoring System (BMS)** is designed to provide accurate data on the health of individual battery cells. Data from up to 100 cells is simultaneously collected by the sensors and transferred to a wireless receiver. The wireless receiver communicates the data to a PC. It is easy to determine which cell needs replaced with the proprietary software. Use the **BMS** in conjunction with the **Xtender Battery Regenerator** to improve the health of your battery.

Features/Benefits

- Available in 6 V and 8–12 V
- Suitable for various industries
- Complete battery evaluation
- Printable results for record keeping
- Software and updates included

BMS Sensors	6 V	8–12 V
M1001 Kit	8	6

Individual Cell Capacity Monitoring

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Sum	Avg
00:00	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	39.60	2.20
00:03	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	39.60	2.20
00:06	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	39.42	2.19
00:09	2.18	2.18	2.18	2.18	2.18	2.18	2.19	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	39.25	2.18
00:12	2.18	2.18	2.18	2.18	2.18	2.18	2.14	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	39.20	2.18
00:15	2.17	2.17	2.17	2.17	2.17	2.17	2.14	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	39.03	2.17
00:18	2.17	2.17	2.17	2.17	2.17	2.17	2.14	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	39.03	2.17
00:21	2.16	2.16	2.16	2.16	2.16	2.16	2.14	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	38.86	2.16
00:24	2.16	2.16	2.16	2.16	2.16	2.16	2.14	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	38.86	2.16
00:27	2.15	2.15	2.15	2.15	2.15	2.15	2	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	38.55	2.14
00:30	2.15	2.15	2.15	2.15	2.15	2.15	2	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	38.55	2.14
00:33	2.14	2.14	2.14	2.14	2.14	2.14	2	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	38.38	2.13
00:36	2.14	2.14	2.14	2.14	2.14	2.14	1.89	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	38.27	2.13
00:39	2.13	2.13	2.13	2.13	2.13	2.13	1.85	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	38.06	2.11
00:42	2.13	2.13	2.13	2.13	2.13	2.13	1.75	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	37.96	2.11
00:45	2.12	2.12	2.12	2.12	2.12	2.12	1.6	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	37.64	2.09
00:48	2.12	2.12	2.12	2.12	2.12	2.12	1.6	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	37.64	2.09
00:51	2.11	2.11	2.11	2.11	2.11	2.11	1.6	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	37.47	2.08
00:54	2.11	2.11	2.11	2.11	2.11	2.11	1.6	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	37.47	2.08
00:57	2.1	2.1	2.1	2.1	2.1	2.1	1.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	37.30	2.07
00:60	2.1	2.1	2.1	2.1	2.1	2.1	1.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	37.30	2.07

Model	Input Voltage	Max Input Current	DC Output Voltage	DC Output Current
Xtender Battery Regenerator			**Dim.**: 24" x 16" x 52.5"	**Wt.**: 273 lbs.
93-M1001	208–240 VAC, Single-Phase	35 A	1.2–100 V	0–30 A