

ProTech-4 Series

Advanced Electronic, Fully Automatic 4-Step Marine Battery Charger/Power Supply

▶ **Faster Charging.**

2 to 3 times faster than traditional battery chargers. With true 4-step charging technology, each step is electronically controlled for the fastest charge.

▶ **Auto-Ranging AC Input.**

Automatically accepts global voltages of 90 VAC to 270 VAC at 45-440 Hz.

▶ **Conditions and Extends Battery Life.**

Absorption cycle ensures 100% charge and knocks sulfates off battery plates, extending battery life. Gentle float mode maintains batteries at 100% charge.

▶ **Less Maintenance.**

Advanced charging reduces water consumption.

▶ **Field Selectable.**

Use with lead/acid or gel batteries (AGM factory option). Select length of absorption charge cycle based on size of batteries.

▶ **At-a-Glance LED Indicators.**

Provides status of charge cycle.

▶ **Built-In Safety.**

Reverse-polarity, ignition and over temperature protection.

▶ **Easy Installation.**

May be mounted in any orientation.

▶ **One-Year Warranty.**

Includes lifetime repair guarantee.

▶ **Certified to:**

UL Marine 1236/SA



IMCI 8846 Ignition Protected



Listing No. 17817



ProTech 1210, 1220 and 2412

Suggested Uses:

- Sail or power: Charge 1, 2 or 3* heavy-duty marine battery banks with limited DC usage at the dock.
- Typically installed on a 22'-32' vessel with no AC gen set aboard.
- 12V engine and/or gen set starting – maintainer/charger/conditioner.
- Anywhere 10 or 20 amps at 13+ volts are needed to power equipment with or without a battery in line.
- Replaces up to a 60 amp ferro-resonant or conventional charger.

*NOTE: The 1210 is a 2-bank charger.



ProTech 1230, 1240, 1250 and 2425

Suggested Uses:

- Sail or power: Charges up to three heavy-duty marine battery banks with moderate to heavy DC usage at the dock.
- Typically installed on a 22'-50' yacht.
- 12V engine and/or gen set starting – maintainer/charger/conditioner.
- Live aboard up to 50 amps. Cruising sailors will average up to 50 amps return from 50% discharge (ProTech 1250).
- Anywhere 30 to 50 amps at 13+ volts are needed to power equipment with or without a battery in line.
- Replaces up to a 150 amp ferro-resonant or conventional charger.
- Available with 24V-25 amp output in ProTech 2425.
- **Also available in 32V and 36V output.**

True 4-Step Charging

Electronically Controlled for the Fastest Charge

▶ Step 1: Fast Charge.

Charger will deliver its maximum amperage rating to the connected batteries for the fastest charge (current regulation mode) until battery voltage is raised to 14.6V (lead acid factory setting). At this time, the ProTech will shift to step 2.

▶ Step 2: Absorption Charge.

Maximizes charge and holds voltage (voltage regulation mode) at 14.6V (lead acid factory setting) for 1 to 4 hours (selectable based on battery size), while letting the batteries determine the amount of amps they can accept. This mode creates activity in the batteries, reducing sulfate buildup, and conditions the batteries for an extended life. After the programmed 1 to 4 hours have elapsed, the ProTech will shift to step 3.

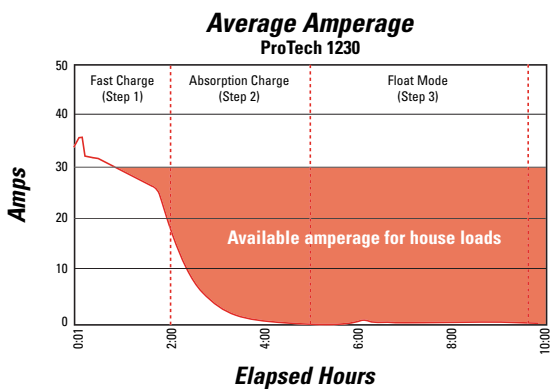
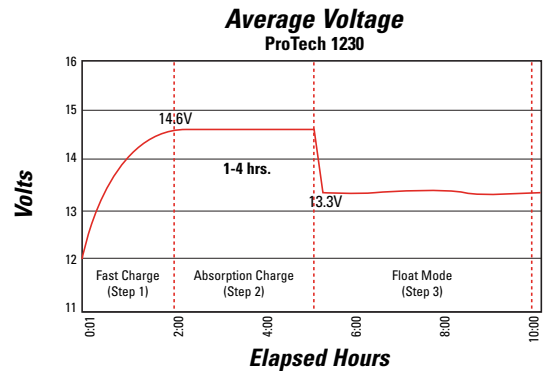
▶ Step 3: Float Mode.

A precision 13.3V (lead acid factory setting) finishing voltage that maintains each battery (step-down voltage regulation mode), which is perfect for short or long storage periods and will never overcharge your batteries. ProTech will deliver its full rated output for houseloads including: lighting, electronics and pumps.

▶ Step 4: Recycle.

If there are very large loads on the battery while the charger is on, the unit will recycle to the first step, ensuring that batteries stay fully charged.

Advanced Electronic Technology



SPECIFICATIONS

Model	Part #	Volts	Amperage	Bank	AC In	Cycle	Size l x w x h	Weight
ProTech 1210	61210	12	10	2	90-270	45-440	9.14 x 5.7 x 2.3 (23.2 x 14.5 x 5.8)	3 lbs.
ProTech 1220	61220	12	20	3	90-270	45-440	9.14 x 5.7 x 2.3 (23.2 x 14.5 x 5.8)	3 lbs.
ProTech 1230	61230	12	30	3	90-270	45-440	14.5 x 6.75 x 2.38 (36.8 x 17.6 x 6.1)	6 lbs.
ProTech 1240	61240	12	40	3	90-270	45-440	14.5 x 6.75 x 2.38 (36.8 x 17.6 x 6.1)	6 lbs.
ProTech 1250	61250	12	50	3	90-270	45-440	14.5 x 6.75 x 2.38 (36.8 x 17.6 x 6.1)	6 lbs.
ProTech 2412	62412	24	12	3	90-270	45-440	9.14 x 5.25 x 2.25 (23.2 x 14.5 x 5.8)	3 lbs.
ProTech 2425	62425	24	25	3	90-270	45-440	14.5 x 6.75 x 2.38 (36.8 x 17.6 x 6.1)	6 lbs.
ProTech 3218	63218	32	18	3	90-270	45-440	14.5 x 6.75 x 2.38 (36.8 x 17.6 x 6.1)	6 lbs.
ProTech 3616	63616	36	16	3	90-270	45-440	14.5 x 6.75 x 2.38 (36.8 x 17.6 x 6.1)	6 lbs.

CHARGING ALGORITHM TABLE

	Lead Acid Batteries	Gel Batteries
Step 1: Fast Charge	14.6	14.1
Step 2: Absorption Charge	14.6	14.1
Step 3: Float Mode	13.3	13.8