

# TRUECHARGE™ 2 Battery Chargers – 12-volt

# xantrex™



## Redesigned, High Performance, Worldwide Charging

Xantrex™ TRUECHARGE™ 2 Battery Chargers lead the industry with a small footprint and ultra-compact design. In addition to meeting global safety and regulatory standards, TRUECHARGE2 Battery Chargers feature low electrical interference and superior, efficient, power factor corrected multistage charging. TRUECHARGE2 Battery Chargers can be mounted virtually anywhere, given their unique drip-proof design. With certified ignition protection, even a gasoline engine room is an alternative for installation\*. Trouble-free installation is ensured with easy-to-access AC and DC wiring compartments and reverse-polarity battery protection.

Designed primarily for marine and commercial applications worldwide, TRUECHARGE2 Battery Chargers are unmatched for reliability. Available in two 12-volt models, they are versatile enough to be used in a wide variety of conditions and locations. Auto-ranging AC input voltage capability (90 - 265 volts AC) makes traveling abroad and handling poor-quality power a breeze. The easy-to-read display can be augmented with an optional remote panel.

## Performance Features

- ▶ 12-volt models available in 20 A and 40 A
- ▶ Microprocessor-controlled, multistage charging algorithms
- ▶ Settings for two and three-stage charging
- ▶ Settings for flooded, gel, AGM or lead-calcium batteries
- ▶ Auto-ranging universal input voltage (90-265 Vac, 47-63 Hz) is also compatible with a generator or other low-quality power sources
- ▶ Temperature-compensated charging
- ▶ Power factor corrected for efficient charging
- ▶ Battery-equalization feature
- ▶ Ability to charge 'dead' batteries
- ▶ Battery temperature sensor available (Part #808-0232-01)
- ▶ Optional remote display includes a maximum charger output control (Part #808-8040-00)

## Protection Features

- ▶ Reverse battery polarity protection
- ▶ Drip-proof design
- ▶ Over and under-temperature protection
- ▶ DC over-voltage protection
- ▶ Battery overcharging protection
- ▶ Ignition protection

## TRUECHARGE™ 2

20A

40A

### Xantrex Technology Inc.

Headquarters  
8999 Nelson Way  
Burnaby, British Columbia  
Canada V5A 4B5  
800 670 0707 Toll Free  
604 420 1591 Fax

541 Roske Drive, Suite A  
Elkhart, Indiana  
USA 46516  
800 446 6180 Toll Free  
574 294 5989 Fax

[www.xantrex.com](http://www.xantrex.com)

\* Xantrex recommends, however, that it is safest not to install electrical equipment in these areas.

## 20 and 40 amp 12-volt Multistage Battery Chargers

### Electrical Specifications (@ 25°C unless otherwise noted)

Models	TRUECHARGE2 20 / 40
Output current (nominal)	20 A / 40 A
Output voltage (nominal, depending on settings)	
· Charge	14.2 - 15.5 Vdc
· Float	13.4 - 13.8 Vdc
· Equalize	16 Vdc
DC output connections	Three
AC input voltage <sup>1</sup>	90-265 Vac 47-63 Hz 120 Vac, 230 Vac, 240 Vac nominal
Temperature compensation	Three settings or optional remote battery temperature sensor
Charger efficiency	> 80%
Battery type	Gel, Flooded, AGM and Pb-Ca
Recommended battery size	100 Ah to 400 Ah

### General Specifications

Models	TRUECHARGE2 20 / 40
Operating temperature <sup>2</sup>	0 to 65°C
Storage temperature	-40 to 80°C
Battery connection	Three positive terminals One negative terminal
Dimensions (H x W x L)	2.8 x 6.7 x 9.8" (70 x 170 x 250mm)
Weight	4.8 lb (2.2 kg)
Warranty	Two year
Part Numbers	804-1220 804-1240

### Accessories

Remote panel	808-8040-00
Battery temperature sensor	808-0232-01

### Regulatory Compliance

CSA E60335-2-29, UL1564, and UL1236 including the Marine Supplement, drip test, and Ignition Protection ratings. CE Marked for the Low Voltage Directive (safety) and the EMC Directive. Complies with IEC 60335-2-29 including Australian deviations. Ingress protection rating IP32 per EN/IEC 60529. Complies with FCC Part 15B and Industry Canada ICES-003 Class B emissions limits. Complies with ABYC A-31

<sup>1</sup> 90 - 105 Vac  $\pm$  4 Vac output de-rated to 80% of full load current

<sup>2</sup> Between 50° and 65°C DC output current de-rated. Highly Accelerated Life Tested (HALT) to -20°C.

Note: Specifications subject to change without notice.

### Three-Stage Charging

Multistage charging ensures batteries receive optimum charging, but with minimal wear and tear, regulating the voltage and current delivered to the batteries in three automatic stages:

- ▶ **Bulk:** Replaces 70-80% of the battery's state-of-charge at the fastest possible rate.
- ▶ **Absorption:** Replenishes the remaining 20-30% of charge, bringing the battery to a full charge at a slow, safe rate.
- ▶ **Float:** Voltage is reduced and held constant in order to prevent damage and maintain batteries at a full charge.

### Power Factor Corrected (PFC)

Less shorepower is required for charging batteries, freeing up more usable AC power for running electrical devices and appliances and reducing the likelihood of tripping shorepower breakers.