

TRUECHARGE™ 2 Remote Panel Owner's Guide

⚠ WARNING: Fire hazard
Read, follow, and save these instructions to reduce the risk of fire hazard, equipment damage, or malfunction.

⚠ WARNING: Limitations on use
Do not use Remote Panel in connection with life support systems, medical equipment, or where human life or medical property may be at stake.

- This package includes:**
1. Truecharge2 Remote Panel unit (Product Number: 808-8040-01)
 2. Two 7.6 m (25 ft.) communications cables
 3. Owner's Guide with mounting template
 4. 1½" NPT locknut (for mounting)

About the Truecharge2 Remote Panel

- The Remote Panel can be used to:
- Set the charger to on or standby,
 - Adjust maximum charger output settings¹,
 - Program the charger for battery type and temperature,
 - Set the charger mode (two or three-stage charging),
 - Activate and terminate equalization (not allowed for GEL and AGM),
 - Monitor charger status and output,
 - Display faults and warnings,
 - Display individual battery bank status, and
 - Operate two chargers connected in parallel to increase output capacity.

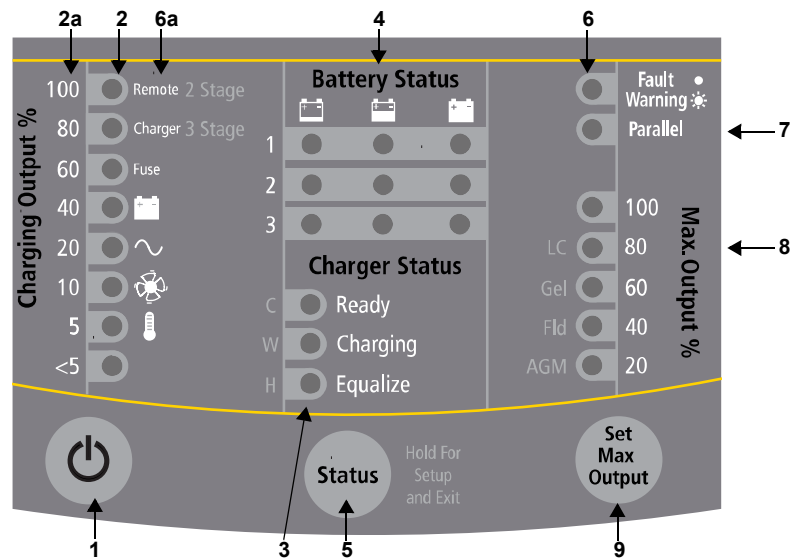


Figure 1 Truecharge2 Remote Panel

Item	Description
1	ON/STANDBY Button <ul style="list-style-type: none"> • Press to enable or disable the charger while AC power is connected. • When in Setup Mode: Press to select the Charger Mode: two or three-stage. • To set or cancel an Equalization program: Press and hold both the Status and ON/STANDBY buttons for more than five seconds.
2	Charging Output (%) LEDs <ul style="list-style-type: none"> • The LEDs illuminate like a bar graph displaying the present total output charge current as a percentage of the maximum rated charge current. For example, unit model TC4012 has a maximum rated charge current of 40 A so at 60% the charger's current output is 24 A. The numbers to the left of the LEDs represent the percentage values (see 2a). NOTE: When the maximum Charge Output current is limited by pressing the Set Max Output button, the LEDs will still display the total charge output current as a percentage of the maximum charge current and NOT as a percentage of the limited charge current. • An LED may flash intermittently in combination with a solid Fault LED to indicate a fault or with a flashing Fault LED to indicate a warning condition. The icons on the right side of the LEDs represent different types of faults and warnings.

1. Limits the maximum charger output current (20, 40, 60, 80, and 100% of charger rating) to lower the current drawn from the generator or AC source

Item	Description
3	Charger Status LEDs Displays the present status of the charger. <ul style="list-style-type: none"> • Ready - a solid light indicates that all batteries are fully charged and in rest stage. • Ready and Charging - solid lights indicate that batteries are fully charged and in float stage. • Charging - a solid light indicates that the charger is performing a normal charge cycle. • Equalize - a solid light indicates that the charger is performing an equalization cycle. <ul style="list-style-type: none"> - a flashing light indicates that the equalization cycle will begin after the absorption stage is done.
4	Battery Status LEDs Displays the present status of each battery (or battery bank) – available only on the Remote Panel. Each row represents the battery (or battery bank) number designation—1, 2, or 3. Each column represents Low, Medium, or Full battery capacity. <p>NOTE: These levels are measured and the status updated at the start of each stage in the charge cycle during charging, on demand when AC is disconnected and the Status button is pressed, or whenever AC is cycled.</p> <ul style="list-style-type: none"> • Low if battery voltage is below 11.9 V (23.8 V for 24 Vdc systems) • Medium if the voltage is 11.9 to 12.4 V (23.8 to 24.8 V for 24 Vdc systems) • Full if the voltage is above 12.4 V (24.8 V for 24 Vdc systems)
5	Status Button NOTE: The LEDs will flash intermittently when the Remote goes into Setup Mode. <ul style="list-style-type: none"> • Press and hold for five seconds to enter Setup Mode. • When in Setup Mode: Press to select the Battery Temperature: <u>C</u>old, <u>W</u>arm, or <u>H</u>ot. <p>NOTE: If the optional BTS^a is used, the battery temperature setting is adjusted automatically.</p> • Press and hold for five seconds to save settings and exit Setup Mode. • When setting or cancelling an Equalization cycle or program: Press and hold both the Status and ON/STANDBY buttons. • When AC is disconnected: Press to view battery status.
6	Fault/Warning LED The LED displays a solid light to indicate a fault condition or flashes intermittently to indicate a warning condition. Faults or warnings are displayed in combination with a flashing Charging Output (%) LED to indicate the type of fault or warning (6a).
7	Parallel LED The LED illuminates a solid light indicating that two Truecharge2 Battery Chargers are in parallel configuration.
8	Max. Output (%) LED The LED illuminates a solid light corresponding to the Maximum Charger Output % setting.
9	Set Max Output Button <ul style="list-style-type: none"> • Press to select and limit the maximum charge current. For example, the unit model TC4012 has a maximum charge current of 40 A. Changing the Max Output setting from 100 to 80 will limit the maximum charge current to 32 A (80% of 40 A). It will also limit the equalization current if the Max Output is set to below 50%. This feature is available only on the Remote Panel. • When in Setup Mode: Press to select the Battery Type: AGM, Flooded, GEL, or Lead-Calcium. <p>NOTE: The OEM battery type setting is also available if a custom setting has been programmed by Xantrex or a designated OEM and is indicated when all four battery type LEDs are illuminated.</p>

a. Battery Temperature Sensor (to order reference part number: 808-0232-01)

Installing the Truecharge2 Remote Panel

1. Choose a location for the remote panel that is within 7.6 m (25 ft.) from the charger. Use only the six-conductor communications cable (RJ-12) that comes with the package. If you require a longer communications cable, call Xantrex and order the 15.2 m (50 ft.) communications cable (part number: 31-6262-00).
2. Use the mounting template provided on the right to predrill a 1.875-inch (48 mm) hole where the threaded bracket at the back of the remote will go through and a small 0.125-inch (3 mm) hole where the stud pin will go. Take care that there is nothing behind the surface for you to damage such as other cables or pipes.
3. After making the holes, push the back of the remote panel through and secure the remote panel in place by screwing the locknut (provided) to the threaded bracket until fastened firmly to the wall.
4. Connect the RJ-12 connector to the remote panel's PRIMARY port and route it to the charger. Be careful not to damage the connector locking tab when routing the cable. You can protect the locking tab by covering it with tape temporarily to prevent it from catching on something and breaking off when routing the cable.
5. Once the Truecharge2 Battery Charger is mounted, plug the other RJ-12 connector into the Remote port on the rear panel of the primary Truecharge2 Battery Charger.
6. If two Truecharge2 Battery Chargers will be operated in parallel, connect the second communications cable to the remote panel's second RJ-12 port. Connect the other end of the cable to the secondary charger's Remote port.

IMPORTANT: If the remote panel does not turn on automatically when you first connect it to a powered Truecharge2 Battery Charger, cut power to the battery charger by disconnecting the AC source (via the AC breaker switch) and disconnecting the batteries (via the DC disconnect switch). Wait one minute before returning power to the battery charger.

Configuring the Charger Mode

- NOTE: By default, the Charger Mode is set to three-stage.**
1. Press and hold the **Status** button for five seconds to enter Setup mode. Entering Setup mode will enable you to select the charger mode.
 2. Press **on/standby** button to select the desired charger mode. The LEDs will indicate which of the two types is being selected: three-stage (default) or two-stage.
 3. Press and hold the **Status** button for five seconds to exit Setup mode and save the new setting.

Configuring the Battery Bank Type

- NOTE: By default, the Battery Type is set to Flooded.**
1. Press and hold the **Status** button for five seconds to enter Setup mode. Entering Setup mode will enable you to select the battery type.
 2. Press **Set Max Output** button to select the proper battery type. The LEDs will indicate which of the four types is being selected: Flooded (default), GEL, Lead Calc., or AGM.

NOTE: If a custom battery type has been programmed by the OEM, then all four LEDs will light up to indicate a fifth type. To select the OEM battery type, use the Truecharge2 Battery Charger control panel.
 3. Press and hold the **Status** button for five seconds to exit Setup mode and save the new setting.

Configuring the Maximum Output Current Percentage of the Charger

- NOTE: By default, the Max. Output % is set to 100.**
- Press the **Set Max Output** button to select the appropriate maximum output setting. The LEDs will indicate which of the five values is being selected: 100, 80, 60, 40, or 20.

NOTE: The equalization charge current may be affected. See note under Description for Set Max Output Button.

NOTE: If operating two Truecharge2 Battery Chargers in parallel, configuration settings made via the remote panel or primary charger will be applied to both chargers. Settings cannot be changed via the secondary charger.

Mounting Template

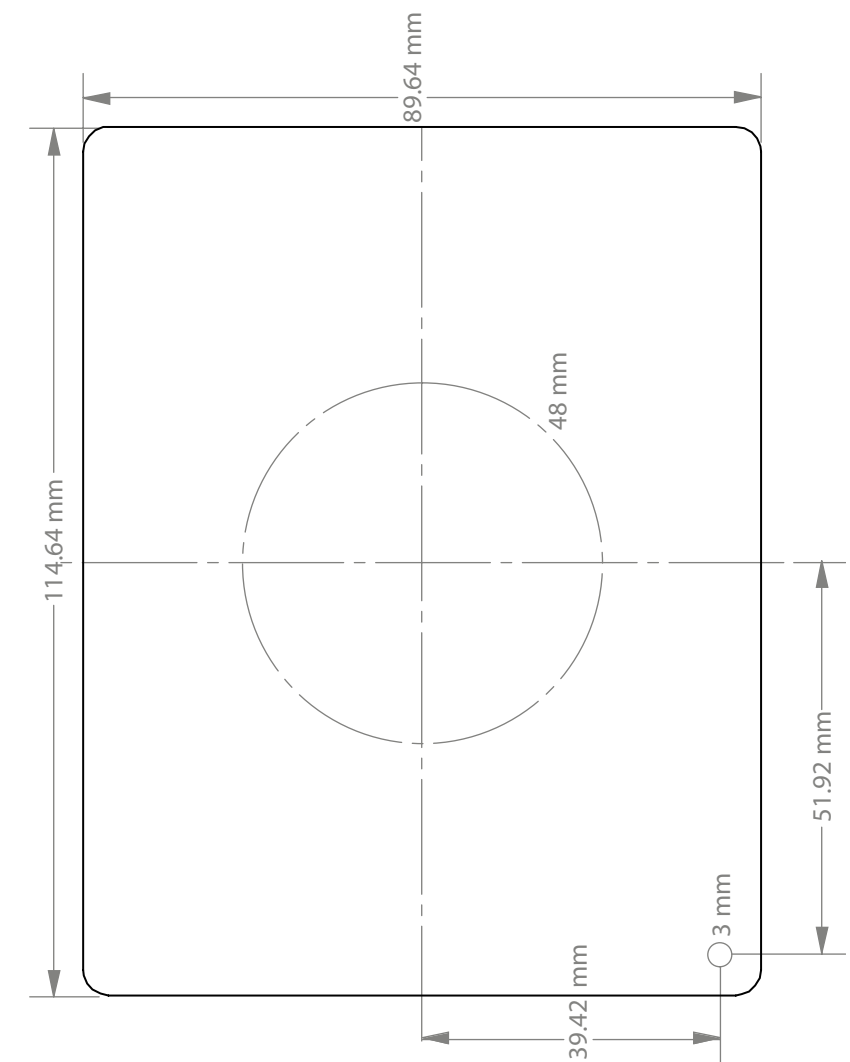


Figure 2 Truecharge2 Remote Panel Mounting Template (1:1)

Technical Specifications

NOTE: Specifications are subject to change without prior notice.

DC input voltage range	+10.5–15 Vdc
Operating DC voltage range	+9–15 Vdc
Input current range	30 mA (60 mA at LED test)
Operating ambient temperature	0–50 °C
Dimensions (L×W×H)	4 ⁹ / ₁₆ × 1 ³ / ₄ × 3 ⁹ / ₁₆ in. (114.64 × 44.39 × 89.64 mm)

Warranty and Return Information

Warranty

What does this warranty cover and how long does it last? This Limited Warranty is provided by Xantrex Technology USA Inc. ("Xantrex") and covers defects in workmanship and materials in your Truecharge2 Remote Panel. This warranty period lasts for 1 year from the date of purchase at the point of sale to you, the original end user customer, unless otherwise agreed in writing (the "Warranty Period"). You will be required to demonstrate proof of purchase to make warranty claims. This Limited Warranty is transferable to subsequent owners but only for the unexpired portion of the Warranty Period. Subsequent owners also require original proof of purchase as described in "What proof of purchase is required?"

What will Xantrex do? During the Warranty Period Xantrex will, at its option, repair the product (if economically feasible) or replace the defective product free of charge, provided that you notify Xantrex of the product defect within the Warranty Period, and provided that Xantrex through inspection establishes the existence of such a defect and that it is covered by this Limited Warranty. Xantrex will, at its option, use new and/or reconditioned parts in performing warranty repair and building replacement products. Xantrex reserves the right to use parts or products of original or improved design in the repair or replacement. If Xantrex repairs or replaces a product, its warranty continues for the remaining portion of the original Warranty Period or 90 days from the date of the return shipment to the customer, whichever is greater. All replaced products and all parts removed from repaired products become the property of Xantrex. Xantrex covers both parts and labor necessary to repair the product, and return shipment to the customer via a Xantrex-selected non-expedited surface freight within the contiguous United States and Canada. Alaska, Hawaii and outside of the United States and Canada are excluded. Contact Xantrex Customer Service for details on freight policy for return shipments from excluded areas.

How do you get service? If your product requires troubleshooting or warranty service, contact your merchant. If you are unable to contact your merchant, or the merchant is unable to provide service, contact Xantrex directly at:

Phone: 1 800 670 0707

Web: www.xantrex.com/support

Direct returns may be performed according to the Xantrex Return Material Authorization Policy described in your product manual. For some products, Xantrex maintains a network of regional Authorized Service Centers. Call Xantrex or check our website to see if your product can be repaired at one of these facilities.

What proof of purchase is required? In any warranty claim, dated proof of purchase must accompany the product and the product must not have been disassembled or modified without prior written authorization by Xantrex.

Proof of purchase may be in any one of the following forms:

- The dated purchase receipt from the original purchase of the product at point of sale to the end user; or
- The dated dealer invoice or purchase receipt showing original equipment manufacturer (OEM) status; or
- The dated invoice or purchase receipt showing the product exchanged under warranty.

What does this warranty not cover? Claims are limited to repair and replacement, or if in Xantrex's discretion that is not possible, reimbursement up to the purchase price paid for the product. Xantrex will be liable to you only for direct damages suffered by you and only up to a maximum amount equal to the purchase price of the product.

This Limited Warranty does not warrant uninterrupted or error-free operation of the product or cover normal wear and tear of the product or costs related to the removal, installation, or troubleshooting of the customer's electrical systems. This warranty does not apply to and Xantrex will not be responsible for any defect in or damage to:

- a) the product if it has been misused, neglected, improperly installed, physically damaged or altered, either internally or externally, or damaged from improper use or use in an unsuitable environment;
- b) the product if it has been subjected to fire, water, generalized corrosion, biological infestations, or input voltage that creates operating conditions beyond the maximum or minimum limits listed in the Xantrex product specifications including but not limited to high input voltage from generators and lightning strikes;
- c) the product if repairs have been done to it other than by Xantrex or its authorized service centers (hereafter "ASCs");
- d) the product if it is used as a component part of a product expressly warranted by another manufacturer;
- e) component parts or monitoring systems supplied by you or purchased by Xantrex at your direction for incorporation into the product;
- f) the product if its original identification (trade-mark, serial number) markings have been defaced, altered, or removed;
- g) the product if it is located outside of the country where it was purchased; and
- h) any consequential losses that are attributable to the product losing power whether by product malfunction, installation error or misuse.

Disclaimer

Product

THIS LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY XANTREX IN CONNECTION WITH YOUR XANTREX PRODUCT AND IS, WHERE PERMITTED BY LAW, IN LIEU OF ALL OTHER WARRANTIES, CONDITIONS, GUARANTEES, REPRESENTATIONS, OBLIGATIONS AND LIABILITIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE IN CONNECTION WITH THE PRODUCT, HOWEVER ARISING (WHETHER BY CONTRACT, TORT, NEGLIGENCE, PRINCIPLES OF MANUFACTURER'S LIABILITY, OPERATION OF LAW, CONDUCT, STATEMENT OR OTHERWISE), INCLUDING WITHOUT RESTRICTION ANY IMPLIED WARRANTY OR CONDITION OF QUALITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE TO THE EXTENT REQUIRED UNDER APPLICABLE LAW TO APPLY TO THE PRODUCT SHALL BE LIMITED IN DURATION TO THE PERIOD STIPULATED UNDER THIS LIMITED WARRANTY.

IN NO EVENT WILL XANTREX BE LIABLE FOR: (a) ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, LOST REVENUES, FAILURE TO REALIZE EXPECTED SAVINGS, OR OTHER COMMERCIAL OR ECONOMIC LOSSES OF ANY KIND, EVEN IF XANTREX HAS BEEN ADVISED, OR HAD REASON TO KNOW, OF THE POSSIBILITY OF SUCH DAMAGE, (b) ANY LIABILITY ARISING IN TORT, WHETHER OR NOT ARISING OUT OF XANTREX'S NEGLIGENCE, AND ALL LOSSES OR DAMAGES TO ANY PROPERTY OR FOR ANY PERSONAL INJURY OR ECONOMIC LOSS OR DAMAGE CAUSED BY THE CONNECTION OF A PRODUCT TO ANY OTHER DEVICE OR SYSTEM, AND (c) ANY DAMAGE OR INJURY ARISING FROM OR AS A RESULT OF MISUSE OR ABUSE, OR THE INCORRECT INSTALLATION, INTEGRATION OR OPERATION OF THE PRODUCT BY PERSONS NOT AUTHORIZED BY XANTREX.

Exclusions

If this product is a consumer product, federal law does not allow an exclusion of implied warranties. To the extent you are entitled to implied warranties under federal law, to the extent permitted by applicable law they are limited to the duration of this Limited Warranty. Some states, provinces and jurisdictions do not allow limitations or exclusions on implied warranties or on the duration of an implied warranty or on the limitation or exclusion of incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to you. This Limited Warranty gives you specific legal rights. You may have other rights which may vary from state to state, province to province or jurisdiction to jurisdiction.

Return Material Authorization Policy

For those products that are not being repaired in the field and are being returned to Xantrex, before returning a product directly to Xantrex you must obtain a Return Material Authorization (RMA) number and the correct factory "Ship To" address. Products must also be shipped prepaid. Product shipments will be refused and returned at your expense if they are unauthorized, returned without an RMA number clearly marked on the outside of the shipping box, if they are shipped collect, or if they are shipped to the wrong location.

When you contact Xantrex to obtain service, please have your instruction manual ready for reference and be prepared to supply:

- The serial number of your product
- Information about the installation and use of the unit
- Information about the failure and/or reason for the return
- A copy of your dated proof of purchase

Record these details on "Information About Your System" section below.

Return Procedure

Package the unit safely, preferably using the original box and packing materials. Please ensure that your product is shipped fully insured in the original packaging or equivalent. This warranty will not apply where the product is damaged due to improper packaging.

Include the following:

- The RMA number supplied by Xantrex Technology USA Inc. clearly marked on the outside of the box.
- A return address where the unit can be shipped. Post office boxes are not acceptable.
- A contact telephone number where you can be reached during work hours.
- A brief description of the problem.

Ship the unit prepaid to the address provided by your Xantrex customer service representative.

If you are returning a product from outside of the USA or Canada. In addition to the above, you MUST include return freight funds and are fully responsible for all documents, duties, tariffs, and deposits.

If you are returning a product to a Xantrex Authorized Service Center (ASC). A Xantrex return material authorization (RMA) number is not required. However, you must contact the ASC prior to returning the product or presenting the unit to verify any return procedures that may apply to that particular facility and that the ASC repairs this particular Xantrex product.

Information About Your System

As soon as you open your Truecharge2 Remote Panel package, record the following information and be sure to keep your proof of purchase.

Serial Number _____
Product Number 808-8040-01 _____
Purchased From _____
Purchase Date _____

If you need to contact Customer Service, please record the following details before calling. This information will help our representatives give you better service.

Type of installation (e.g. car, RV, truck) _____
Length of time inverter has been installed _____
Battery type (e.g. flooded, sealed gel cell, AGM) _____
Alarm sounding? _____
Description of indicators on front panel _____
Appliances operating when problem occurred _____
Description of problem _____