

▶ Visit ProMariner Online at www.pmariner.com, for a Complete Selection of Quality Marine Products...

Here are just a few:

- ▶ ProSport Series - Recreational Sport Fishing & Boating Waterproof Marine Battery Chargers
- ▶ ProTournament Series - Professional Grade Tournament Waterproof Marine Battery Chargers
- ▶ Advanced 4 Step Dry Mount Marine Battery Chargers
- ▶ Battery Maintainers
- ▶ AC Plug Holders
- ▶ Battery Isolators
- ▶ ProSport Cup Holder Inverters
- ▶ Pro Inverters
- ▶ DC to DC Converters
- ▶ Advanced Regulators
- ▶ Corrosion Control Products
- ▶ Waterproof Marine Binoculars
- ▶ Marine CCTV Color Camera Equipment
- ▶ Gold Plated Fuses and Holders
- ▶ A complete selection of panel meters and shunts
- ▶ A complete line of hand held test meters

Visit frequently, we are always adding new products for your boating enjoyment!

Professional Mariner, LLC
 P.O. Box 968
 Rye, New Hampshire 03870
 TEL: 603-433-4440
 FAX: 603-433-4442
www.pmariner.com

specifications subject to change without notice

6/03 rev a

ProTournament Series

Owner's Manual and Installation Guide



Distributed On-Demand™ 3 Step Charging

Professional Grade 3 Step Marine Battery Chargers

Models	Amperage	No. Of Banks	Volts
ProTournament 100	10 Amps	2 Banks	12/24
ProTournament 150	15 Amps	3 Banks	12/24/36
ProTournament 200	20 Amps	2 Banks	12/24
ProTournament 300	30 Amps	3 Banks	12/24/36
ProTournament 300Quad	30 Amps	4 Banks	12/24/36

IMPORTANT NOTICE

Please save and read all safety, operating and installation instructions before installing or applying AC power to your ProMariner on-board battery charger.

For all product, installation or service questions call ProMariner directly at: 1-800-824-0524 8am to 5pm (Eastern Standard Time).

▶ Notes

▶ Table Of Contents

Safety Instructions...	pages 1-2
ProTournament Overview...	pages 3-6
Installation Guidelines...	pages 7-9
Charging Your Batteries...	page 10
Maintenance...	page 11
Trouble Shooting...	page 12
Specifications & Accessories...	page 13
Customer Service & Warranty...	page 14

▶ Introduction

Thank you from all of us at Professional Mariner and congratulations on your purchase of the ProTournament 3 Step Marine Battery Charger.

For over 25 years ProMariner has been a leading designer and manufacturer of marine battery chargers. When our customers requested a fully electronic, waterproof marine battery charger that was significantly faster, smaller and lighter we responded with the ProTournament Series.

ProTournament's "Distributed On-Demand" 3 Step Charging" is the latest in high performance bass, walleye and center console on-board charger technology. Designed to give you and your batteries a lifetime of professional performance.

Please save and read this manual carefully and fully understand the safety instructions before installing your new on-board marine battery charger.

General Safety Instructions

Before connecting your batteries or AC power, read all instructions and cautionary markings on the battery charger and batteries.

CAUTION - To reduce the risk of injury; charge only lead acid type rechargeable batteries (lead acid, sealed lead acid, gel cell and AGM). Other types of batteries may burst, causing personal injury. **The ProTournament is factory set for lead acid batteries.**

Use of attachments not recommended or sold by Professional Mariner, LLC may result in a risk of fire, electrical shock or personal injury.

Do not operate the charger if it has received a sharp blow, direct hit of force, dropped or otherwise damaged in any way.

Do not disassemble the charger. Call the factory directly when service or repair is required. Incorrect assembly may result in risk of electrical shock or fire.

To reduce the risk of electrical shock, remove AC power from the charger prior to any maintenance or cleaning.

WARNING: RISK OF EXPLOSIVE GASES

WORKING IN THE VICINITY OF A LEAD ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON IT IS OF EXTREME IMPORTANCE THAT EACH TIME BEFORE USING YOUR CHARGER YOU FOLLOW THESE SAFETY INSTRUCTIONS.

To reduce risk of battery explosion, follow these instructions and those published by the battery manufacturer, and of any equipment you intend to use in the vicinity of a battery. Review all cautionary markings and labels.

Personal Safety Precautions

Someone should be within the range of your voice or close enough to come to your aid when working near a lead acid battery.

Have plenty of water and soap nearby in case battery acid comes in contact with skin, clothes or eyes.

Wear complete eye protection and clothing protection. Avoid touching eyes while working with a battery.

If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters the eye(s) flood eye(s) with running cold water for at least 10 minutes and get medical attention immediately.

Customer Service & Warranty

We are committed to customer satisfaction and value your business. If at any time during the warranty period you experience a problem with your new ProTournament Marine Battery Charger simply call us at 1-800-824-0524 for technical support.

If a replacement unit is needed, ProMariner will express ship a replacement ProTournament Marine Battery Charger at no cost with a prepaid UPS shipping label for the original unit to be returned.

PROTOURNAMENT LIMITED LIFETIME WARRANTY WITH 1 YEAR REPLACEMENT GUARANTEE

Each product is guaranteed against defects in material and workmanship to the original consumer in normal use for one full year after purchase at no charge.

Each serial numbered product has an additional repair adjustment provision after the year limited warranty that limits the maximum charge for a factory repair to the original consumer to 1/60 of the retail price times the months after purchase (minimum 12) or up to 50% of current retail price, after 30 months service, plus shipping.

- Warranty and repair adjustment calculated from manufacture date if not registered within two weeks of sale.
- Warranty void if unauthorized repairs attempted.
- Outside of the 1 year warranty period customer is responsible for return shipping damages. Shipping costs must be prepaid both ways. Cosmetic repairs done at owner's request and expense.

Purchase or other acceptance of the product shall be on the condition and agreement that Professional Mariner SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. (Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.) This warranty is made in lieu of all other obligations or liabilities on the part of Professional Mariner. Professional Mariner neither assumes nor authorizes any person for any obligation or liability in connection with the sale of this product.

To make a claim under warranty, write directly to Professional Mariner, LLC at P.O. Box 968, Rye, NH 03870, identifying the product and giving its locations. Follow the company's return instructions, which will then be provided by the company. Professional Mariner will make its best effort to repair or replace the product, if found defective within the terms of the warranty, within (30) days after return of the product to the company. Professional Mariner will ship the repaired, or replaced product back to the purchaser.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty is in lieu of all others expressed or implied.

Professional Mariner, LLC
P.O. Box 968 Rye, 03870
Tel: (603) 433-4440 / Fax: (603) 433-4442

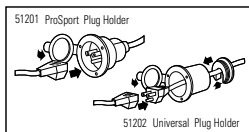
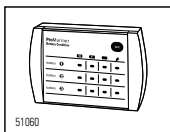
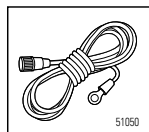
Factory Service Center & Technical Offices
Professional Mariner, LLC
200 International Drive STE 195
Portsmouth, NH 03801

► Specifications

model	part no.	volts	amps	banks	cable size	size H x W x D	weight	AC in
ProTournament 100	51010	12/24	10	2	6'/6"	3" x 11.5" x 6 7/8"	6 lbs	90-270
ProTournament 150	51015	12/24/36	15	3	6'/6"	3" x 13" x 6 7/8"	8 lbs	90-135*
ProTournament 150L	51016	12/24/36	15	3	12'/9'/9"	3" x 13" x 6 7/8"	9 lbs	90-135*
ProTournament 200	51020	12/24	20	2	6'/6"	3" x 13" x 6 7/8"	9 lbs	90-135*
ProTournament 300	51030	12/24/36	30	3	6'/6"	3" x 15.5" x 6 7/8"	10 lbs	90-135*
ProTournament 300L	51031	12/24/36	30	3	12'/9'/9"	3" x 15.5" x 6 7/8"	11 lbs	90-135*
ProTournament 300Quad	51034	12/24/36	30	4	12'/9'/9'/9"	3" x 17" x 6 7/8"	12 lbs	90-135*

*Internal selection 180 - 270 VAC

► Optional Accessories



model	part no.	cable size	volts	banks
ProTournament Remote Temperature Sensor*	51050	10'	n/a	n/a
Remote Battery Bank Status Monitor	51060	10'	12	3
ProTournament AC Plug Holder (white)	51200	n/a	n/a	n/a
ProTournament AC Plug Holder (black)	51201	n/a	n/a	n/a
Universal AC Plug Holder (black)	51202	n/a	n/a	n/a
Universal AC Plug Holder (white)	51203	n/a	n/a	n/a
Battery Bank Cable Extender	51070	9'	n/a	n/a

*not available for ProTournament100 & ProTournament200

To Place an Order Please Contact Your Local Dealer or ProMariner at:
Tel: 603-433-4440 / Fax: 603-433-4442 / www.pmariner.com

► Personal Safety Precautions Continued

Never smoke or allow a spark or a flame in the vicinity of a battery or engine.

Be extra cautious to reduce risk of dropping a metal tool onto a battery. It may spark or short-circuit the battery or other electrical parts that may cause explosion.

Remove all personal metal items such as rings, bracelets, necklaces, watches, and jewelry when working near a battery. A battery can produce a short circuit high enough to weld a ring or any metal, causing serious burns.

Use the ProTournament for charging lead acid batteries only. It is not intended to supply low voltage electrical systems other than in a marine application. Do not use the battery charger to charge dry cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and property.

Never charge a frozen battery.

► Safety Precautions Prior to Charging Batteries

If necessary to remove a battery from a boat to charge, always remove grounded terminal from battery first. Make sure all accessories in the boat are off, as to not cause an arc.

Be sure the area around the charger and batteries is well ventilated while the batteries are being charged. Gases can be forcefully blown away using a piece of cardboard or other nonmetallic material as a fan.

Clean battery terminals with full eye protection to prevent corrosion from coming in contact with eyes.

Add distilled water in each cell until electrolyte reaches levels specified by the battery manufacturer. This helps purge excessive gases from cells. Do not overfill. For batteries without caps, carefully follow manufacturer's recharging instructions.

Study all manufacturer's specific precautions, such as removing or not removing cell caps while charging, in addition to rates of charge.

Extension cords should be industrial grade / heavy duty U.L. approved and grounded. Check extension cord before use for damage, bent prongs, and cuts. Replace if damaged.

Always make your extension cord connection on the charger side first. After connecting the extension cord to the charger then proceed to plug the extension cord to a nearby 120VAC GFCI protected (Ground Fault Circuit Interrupt) outlet.

Always remove the extension cord from the 120VAC outlet first when charging is completed followed by unplugging the charger.

General Overview

The ProTournament is an Professional Grade 3 Step Marine Battery Charger that is pre-wired for easy installation and is 100% waterproof for all fresh and salt water applications.

The ProTournament's rugged all aluminum case is designed for superior heat dissipation, and corrosion resistance. The ProTournament is not filled with epoxy and is completely serviceable for a lifetime of use. Our advanced electronic technology yields a compact charger that is typically half the height and weight of leading traditional chargers. In addition the ProTournament will charge your batteries to 100% 2 times faster than leading traditional linear chargers without shutting off prematurely.

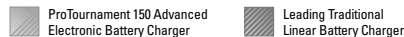
Unlike most traditional linear chargers that under perform when low AC power cord voltage is present as sometimes seen with use of extension cords at docks, lodging sites or at home. The ProTournament series will provide 100% of its charging output even with AC power cord voltage as low as 90VAC.

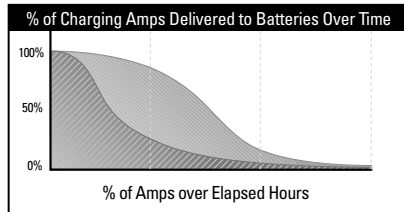
The ProTournament's "Distributed On-Demand" 3 Step Charging" technology provides completely isolated charging outputs that will automatically sense and distribute its full rated charging output of 10, 15, or 30 amps (model specific) to any one bank or combination of all banks.

Easy to use at a glance LED indicators will provide you with the charge status of each battery as well as what mode the charger is operating in.

The ProTournament is available in 3 models and can be used in 12, 24, and 36 volt configurations without rewiring or switching. Just attach the output cable terminals as illustrated in the installation section of this manual.

The ProTournament has been designed to give you and your batteries a lifetime of professional performance.





Faster Charging 100% Charge Guaranteed

ProMariner's advanced electronic technology will deliver 2 times the amps to your batteries in the same amount of time when compared to leading traditional linear chargers. That means the ProTournament will charge your batteries twice as fast.

Trouble Shooting Guide

No Red or Green LED Indicator

Check for loss of AC power at the 120VAC Outlet. Confirm GFCI (Ground Fault Circuit Interrupter) has not tripped. Check with a meter or 120VAC test light that AC is present at the end of your extension cord.

Confirm all charger cables are installed with the correct polarity connections at each battery and that all connections are clean and tight.

With the AC power removed and the engine off check the charge level of each battery with on-board "Push-to-Test" feature as described on page 5. If there is no charge level indication for a battery, check each battery with a hydrometer to determine if it has one or more bad cells. (batteries should always be replaced in sets, and always the same type.)

If everything above checks out ok, contact ProMariner for product service.

Battery is Not Charging, Red and Green Indicator is "on"

Confirm all charger cables are installed with the correct polarity connections at each battery, and that all connections are clean and tight. *Reverse polarity connections will blow output fuse, resulting in no output voltage.*

With the charger on, read DC Voltage at each battery. If any of the readings are less than 13.0VDC Proceed with the following:

- A. Disconnect AC power at the 120VAC outlet.
- B. Remove charger cables from each battery.
- C. Reconnect AC power and read DC Voltage across each output cable, if output voltage is approximately 14.5VDC the charger is ok and each battery should be tested with a hydrometer with the charger and engine off to determine if one or more batteries have bad cells. (batteries should always be replaced in sets, and always the same type.)
- D. If there is no output when trying to read DC voltage check each output fuse and replace as needed.

If the DC voltage at each charger output there is less than 14.0 volts contact ProMariner for product service.

Owner's Periodic Maintenance Guide

Item: Battery Connections	
Process:	Clean and tighten all battery connections. Follow battery manufacturer's instructions for cleaning a battery. Clean all battery terminals with a wire brush where required and tighten all battery connections.
When:	Monthly

Item: Battery Electrolyte	
Process:	Per battery manufactures instructions monitor and maintain proper levels of distilled water in each battery.
When:	Monthly

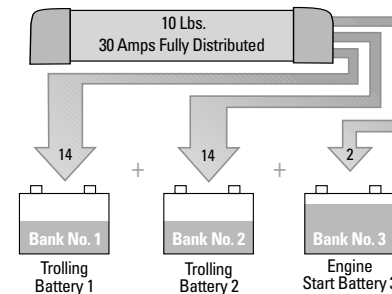
Item: ProTournament DC Output Wiring	
Process:	Visually inspect all wiring for cuts and abrasions. Contact ProMariner if charger needs to be serviced with new wiring.
When:	Monthly

Item: AC Power Cord and Mounting Hardware Inspection	
Process:	Process: Visually inspect the AC power cord. Confirm ground blade is present and all plug blades are in good conditions and not bent out of place. Check all mounting hardware to ensure there is no loose hardware. Tighten were required.
When:	Monthly

ProTournament Charger vs. Leading Traditional Linear Charger

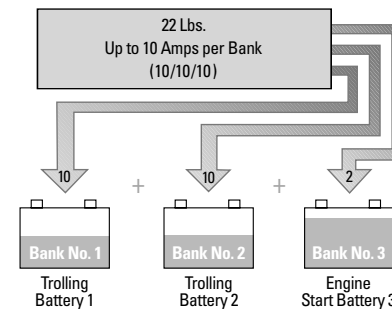
ProTournament's "Distributed On-Demand" Charging will automatically distribute its full rated output of 10, 15, 20 or 30 amps (model specific) to any one bank or combination of all battery banks. ProTournament distributes and uses every charging amp with no waste unlike other 2 and 3 bank chargers with an amp limit per bank.

Distributed On-Demand™ 3 Step Charging Output



ProMariner's Distributed On-Demand™ Charging technology ensures 100% of the ProTournament 300's 30 amps is fully utilized. The 8 amps not required by the engine start battery is automatically Distributed On-Demand™ to trolling motor batteries #1 and #2.

Typical Leading Competitive Charging Output



Competitive chargers have an amp limitation per bank as illustrated. The 30 amp (10/10/10) charger only delivers 22 amps. The 8 amps not used by the engine start battery can not be shifted to battery #1 or battery #2.

Note: Above illustration reflects typical battery usage after a day of fishing. Trolling motor batteries are 50% discharged and not usable. Engine start battery is 80% charged from the engine charging system.

► **General Operation**

Install your ProTournament Professional Grade 3 Step Marine Battery Charger to the guidelines in this manual.

Make sure your charger and batteries are properly vented. Connect your extension cord with no AC Power present to the ProTournament and proceed to plug your extension cord in at a nearby 120 VAC GFCI protected (Ground Fault Circuit Interrupt) outlet.

With your ProTournament plugged in properly, it will automatically charges your batteries to 100% while it conditions and extends the life of your batteries. When you're at home always leave your charger plugged in to reduce sulfate build-up allowing your batteries to be maintained at 100% charge for your next fishing trip.

► **Push-to-Test Battery Bank Status Monitor and Operation**

The ProTournament has been designed to provide the information you need when you're on the water, at the dock, lodging site or home. **This feature is only available on ProTournament 150, 300 and 300Quad.**

To use the "Push-to-Test" Battery Bank Status Monitor, AC power must not be present and the engine must be off.

With the AC power removed from the charger and the engine off, simply push the highly visible (yellow) "Push-to-Test" button located on the front of the ProTournament. While holding the "Push-to-Test" button view the relative charge status of each of the batteries connected.

Each battery bank has 3 (green) LED indicators to indicate the following:

Battery is discharged	Tri-mode LED Indicator
Battery is at 50% charge	_____
Battery is fully charged	_____

"Push-to-Test" Button

Battery Bank Status Monitor

*Note: The "Push-to-Test" Battery Bank Status Monitor can only be used when AC power is removed and engine is off. **This feature is only available on ProTournament 150, 300 and 300Quad.***

Note: When only using one battery connect output 1, output 2, and output 3 red wires to the positive side of the battery, and connect the black or yellow ground wires to the negative side of the battery. Not recommended for ProTournament300 or 300Quad

If only two batteries are used connect the unused output cable as instructed above to either one of the two batteries.

Always connect each charger output to a single 12V battery even if the batteries are wired series for 24V or 36V.

► **Charging Batteries**

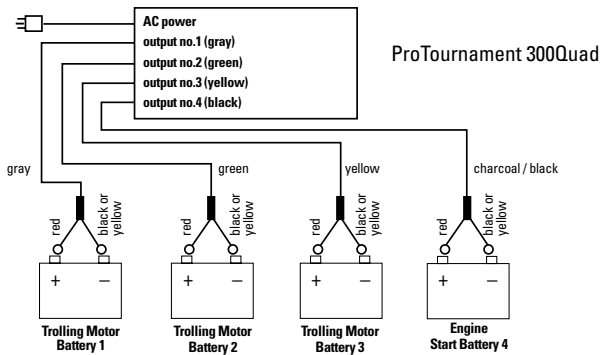
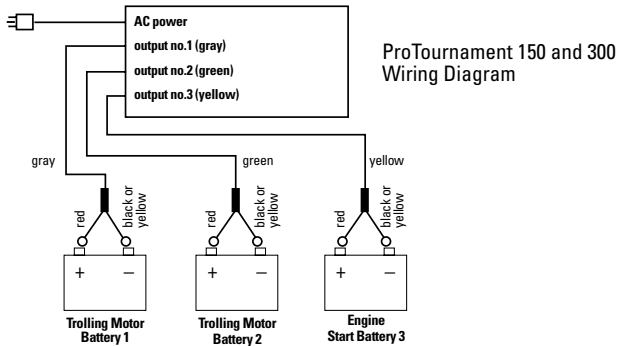
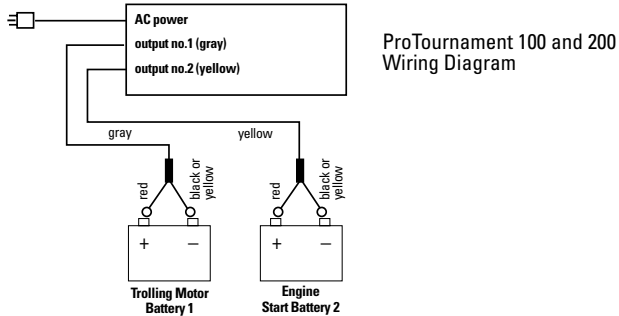
The ProTournament Series is designed to charge your batteries 2 times faster than leading traditional chargers. "Distributed-On-Demand" 3 Step Charging" will not only provide you with a significantly faster charging process it will ensure your batteries are charged to 100% while it conditions and extends the life of each battery.

1. Open all battery compartments and ventilate for at least 15 minutes before applying AC power to your charger.
2. Make sure all DC battery connections are tight and clean. Follow battery manufacturer's recommendations for battery cell caps. (loosen caps if applicable)
3. Connect a heavy duty U.L. approved extension cord to the ProTournament charger first. After connecting the extension cord to the charger then proceed to plug the extension cord to a nearby 120VAC GFCI protected (Ground Fault Circuit Interrupt) outlet.
4. Observe the on-board mode LED for a solid red, flashing red indication. This will tell you what mode your charger is in.
5. Charge your batteries until the tri-mode LED is solid green. This indicates the charging process is completed and your batteries are 100% charged and are being maintained in a gentle float / storage mode. (recommended while your boat is not in use). The ProTournament can be left on in this mode indefinitely and will never overcharge your batteries. *Refer to the page 5.*
6. When ready to use your boat, unplug the extension cord from the 120VAC outlet first, followed by unplugging the charger.

► **Battery Charge Level Status**

With the AC power removed and the engine off, view the front panel of the ProTournament Battery Charger and simply hold down the "Push-to-Test" (yellow) button and observe the charge level indicators for each battery. *Refer to the page 5.*

ProTournament Series Wiring Diagrams



Charge Mode Indicator and Operation

When the ProTournament Marine Battery Charger is activated the on-board tri-mode LED indicator will illuminate as follows for each step of charging:

Step 1: Fast Charge – Solid Red Indicator

During this mode the on-board tri-mode indicator will be a solid red indicating fast charge.

The charger will deliver its maximum amperage rating to the connected batteries for the fastest charge (current regulation mode) until battery voltage is raised to 14.6 volts (lead acid factory setting). At this time the ProTournament will shift to:

Step 2: Absorption Charge - Flashing Red Indicator or Continued Solid Red for ProTournament100 and 200

During this mode the on-board tri-mode indicator will be flashing red indicating absorption charge.

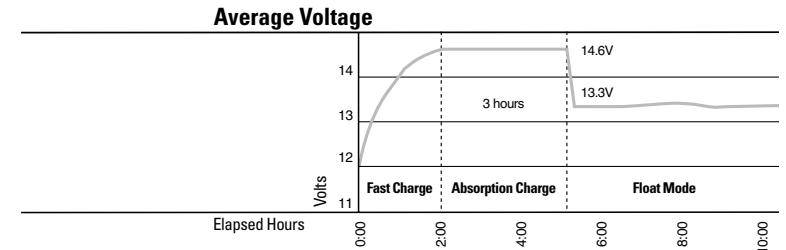
This mode maximizes charge and holds voltage at 14.6 volts (lead acid factory setting) for 3 hours (voltage regulation mode) while letting the batteries determine the amount of amps they can accept. This mode creates activity in the batteries reducing sulfate buildup and conditions batteries for extended life. After approximately 3 hours has elapsed the ProTournament will shift to:

Step 3: Float Mode - Solid Green Indicator

During this mode the on-board tri-mode indicator will be solid green indicating float mode.

A precision 13.3 volts (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.

Note: If the tri-mode LED indicator is not on at all this may be an indication of a short or a faulty battery on one of the banks.



Installation

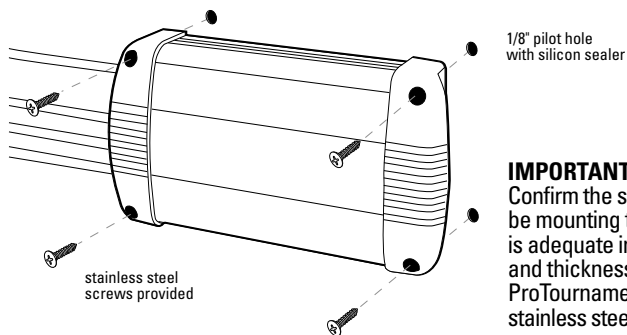
All ProTournament Battery Chargers are designed to be permanently mounted on-board, and can be mounted at any angle.

Do NOT mix battery types on-board. All batteries should be of the same age and in good operating condition.

Do NOT make any electrical connections to the ProTournament or batteries until the following steps are completed:

11 Easy to follow installation steps:

1. Select a mounting location that allows for ventilation any time the charger is used. Open all battery and engine compartments and ventilate for at least 15 minutes before starting the installation of the ProTournament charger.
2. Make sure the selected mounting location allows for a minimum of 6 inches of free space around front and sides of the ProTournament charger. Be sure to place the ProTournament in an accessible area where all indicators are viewable. Confirm all battery cables can reach each of the batteries.
3. Using the ProTournament as a template use a small awl or screwdriver to mark the position of each mounting hole.
4. Using a 1/8" drill bit, drill pilot holes in the (4) marked locations as described in step 3. Apply a silicon sealer in each of the mounting locations to waterproof the screw holes.
5. Position the ProTournament over the mounting holes and using a power screwdriver install the (4) stainless screws provided.



IMPORTANT NOTICE
Confirm the surface you will be mounting the charger to is adequate in strength and thickness to hold the ProTournament in place with stainless steel screws provided.

Installation Continued

6. Prepare each battery in advance by cleaning each terminal post with a wire brush until a shiny surface is obtained.

IMPORTANT NOTICE

As you prepare to attach the positive (red) and negative (yellow or black wires) to the batteries there will be brief low power spark that is generated as you make the connection. This is due to the high frequency capacitors taking a charge. Make sure the (black or yellow) wires are connected as illustrated to the negative side of the battery and the red wires are connected to the positive side of the battery.

7. Run your cables free from sharp objects and hold each of them in place with the cable ties provided. Coil excess cable, do not cut or shorten the length of the cables as there are inline fuses located 4 inches from the end of each red (positive) cable. These fuses are in place to protect wiring in the event of a short.
8. Connect the DC output cables as illustrated on page 9. Make sure the (black or yellow) wires are connected as illustrated to the negative side of the battery and the red wires are connected to the positive side of the battery.

Note: Make sure output no. 1 (gray position) on the charger and output cable is always connected to the most used trolling motor.

9. Make sure all DC connections are tight and correct.
10. Locate the AC power cord in an open-air area of your boat at least 21 inches from the charger, batteries and fuel fill lines.
11. Connect a heavy duty U.L. approved extension cord to the ProTournament charger first. After connecting the extension cord to the charger then proceed to plug the extension cord to a nearby 120VAC GFCI protected (Ground Fault Circuit Interrupt) outlet. Always remove the extension cord from the 120VAC outlet first when charging is completed, followed by unplugging the charger.

You are now connected and charging your batteries. View the indicators on your ProTournament. Assuming your batteries are discharged you should observe a solid red LED indicating the Step 1 Fast Charge Mode.

IMPORTANT NOTICE

For internal selectable modes, REF: Gel Cell, AGM or 180 to 270VAC operation. Please contact ProMariner directly at 1-800-824-0524 for factory assistance.