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- ProMite Series - Standard Edition Waterproof Marine Battery Chargers
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- AC Plug Holders
- Battery Isolators
- ProSport Cup Holder Inverters
- Pro Inverters
- DC to DC Converters
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Professional Mariner, LLC
PO. Box 968
Rye, New Hampshire 03870
TEL: 603-433-4440
FAX: 603-433-4442
www.promariner.com

specifications subject to change without notice

10/03

ProMariner®

ProMite Series

Owner's Manual and Installation Guide

Fully Automatic Charging

Standard Edition **On-Board Marine Battery Chargers**

Models	Amperage	No. Of Banks	Volts
ProMite5	5 Amps	1 Bank	12
ProMite5/5	10 Amps	2 Bank	12/24
ProMite5/5/3	13 Amps	3 Bank	12/24/+ENG

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 please visit www.promariner.com or call ProMariner directly at: 1-800-824-0524 8am to 5pm (Eastern Standard Time)

Notes

ProMariner®

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Introduction

Thank you from all of us at Professional Mariner and congratulations on your recent purchase of the ProMite On-board Marine Battery Charger.

For over 25 years ProMariner has been a leading designer and manufacturer of marine battery chargers. We have expand our offering to include our latest line of ProMite Chargers. Designed for light duty fishing and boating. ProMite offers a balance of performance and value.

Please save and read this manual carefully and fully understand the safety instructions before installing your new ProMite 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 ProMite is factory set for lead acid and gel 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.

Notes

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 ProMiteOn-Board Marine Battery Charger simply call us at 1-800-824-0524 for technical support.

PROMITE
LIMITED ONE-YEAR FACTORY WARRANTY

Each ProMite model is guaranteed against defects in material and workmanship to the original consumer in normal use for 1 year from the date of purchase. Professional Mariner, LLC will at it's discretion repair or replace free of charge any defects in material or workmanship. The following conditions apply:

- Warranty is calculated from manufacture date if not registered within two weeks of sale.
- Warranty void if unauthorized repairs attempted.
- Customer is responsible for returning the product to Professional Mariner, LLC. Inbound shipping costs must be prepaid.
- This warranty does not cover blemishes due to normal wear and tear or damaged caused by accidents, abuse, alterations or misuse.
- Cosmetic repairs can be 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 Headquarters
Tel: (603) 433-4440 / Fax: (603) 433-4442

Factory Service Center & Technical Offices
Professional Mariner, LLC
200 International Drive STE 195
Portsmouth, NH 03801
Tel: 1-800-824-0524 www.promariner.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 ProMite for charging lead acid and gel marine 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 (3 pronged) 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 120 VAC GFCI protected (Ground Fault Circuit Interrupt) outlet.

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

General Overview

The ProMite charger is a fully Automatic/ Electronic On-board Marine Battery Charger. ProMite is prewired for easy installation and is 100% waterproof for fresh and salt water applications.

The ProMite incorporates a durable one piece plastic housing. The ProMite offers fully automatic charging which includes a "Float " maintenance mode that is safe for long and short term storage. ProMite can be left on indefinitely without harming or over charging your batteries.

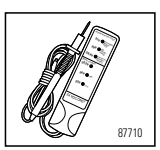
Easy to view LED indicators will provide you with AC Power On and Charging Status. The LED Indicators can be seen from the front and side of the charger when installed.

The ProMite is available in 3 models and can be used in 12, 24 and 24 volt with engine battery (model specific) configurations without rewiring or switching. Just attach the DC output cable terminals as illustrated in the installation section of this manual.

Specifications

model	volts	amps	banks	DC cable size	size L x W x H	est. weight	AC in
ProMite5	12	5	1	6'	6"x 3.65" x 2.5"	5 lbs	90-135
ProMite5/5	12/24	10	2	6'/6'	9"x 5.25" x 3.5"	8 lbs	90-135
ProMite5/5/3	12/24/+ENG	13	3	6'/6'/6'	9"x 5.25" x 3.5"	9 lbs	90-135

Optional Accessories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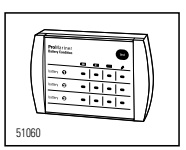
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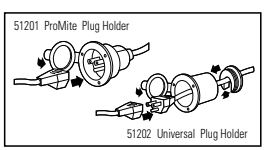

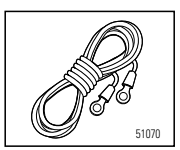
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model	part no.	cable size	volts	banks
Handheld DC System Tester	87710	n/a	n/a	n/a
Remote Battery Bank Status Monitor	51060	10'	12	3
ProMite AC Plug Holder (white)	51200	n/a	n/a	n/a
ProMite AC Plug Holder (black)	51201	n/a	n/a	n/a
Universal AC Plug 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	15'	n/a	n/a
Battery Bank Cable Extender	51071	5'	n/a	n/a

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

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 or 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 a DC meter or Handheld DC Tester. 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 VDC 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 14.1DC 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 is less than 13.0 volts contact ProMariner for product service.

General Operation

Install your ProMite - Fully Automatic / On-Board 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 ProMite and proceed to plug your extension cord in at a nearby 120 VAC GFCI protected (Ground Fault Circuit Interrupt) outlet.

With your ProMite plugged in properly, it will automatically charge your batteries while it conditions and extends the life of your batteries. When your not at home always leave your charger plugged in to reduce sulfate buildup allowing your batteries to be fully charged and maintained until your next fishing trip.

AC Power and Charging LED Status Indicators

The ProMite includes two LED indicators as shown below.

Green "AC Power" LED indicator:

When on, the green LED indicates when AC Power is present.

Red " Charging" LED indicator:

When on, the red LED indicates the ProMite is in its Automatic Charging Mode. When charging is complete only the green LED will remain on.

Fully Automatic Charging Overview

When the ProMite On-board Marine Battery Charger is turned on the green AC power indicator with turn on followed by the red charging LED indicator.

The Automatic Charger will provide the following:

ProMite Charging - Red and Green LED On

During this mode the ProMite will use its available charging amps (as controlled by temperature) until battery voltage is raised to 14.1 VDC (safe for lead acid or gel batteries).

ProMite Conditioning - Red and Green LED On

The ProMite will charge batteries to 14.1 VDC to complete charging while conditioning batteries. Upon completion the ProMite will go to into its maintenance mode.

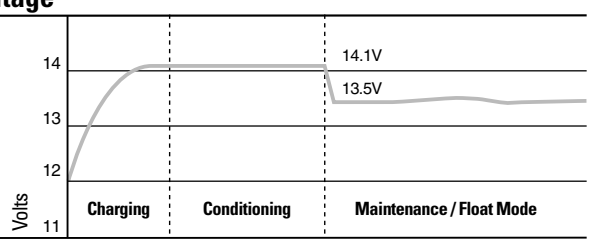
Fully Automatic Charging Overview Continued

ProMite Float / Maintenance - Green LED Only On

During this mode the red "Charging" LED will turn off indicating that the charging process is over and the charger is now maintaining your batteries on-board. Only the green LED will remain on, indicating Power On / Float-Maintenance mode. A precision 13.5 volts 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: The only LED Indicator that will be on during the maintenance mode will be the green "Power" LED indicator.

Typical Average Voltage



Installation

All ProMite Battery Chargers are designed to be permanently mounted on-board, and can be mounted vertically or horizontally.

Always mount your ProMite Charger in a compartment area that can be properly ventilated during use.

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 ProMite or batteries until the following steps are completed:

11 Easy to follow installation steps:

1. Select a mounting location that allows for free air ventilation with a minimum of 8 inches of clear unobstructed space around and infront of the ProMite On-board Marine Battery Charger. Open all battery and engine compartments and ventilate for at least 15 minutes before starting the installation of the ProMite Charger.

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:	ProMite 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

Charging Batteries Continued

3. Connect a heavy duty U.L. approved extension cord to the ProMite 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 LED indicators for a solid green and red Indication. This will tell you the batteries are in the charging process.

5. Charge your batteries until only the green LED indicator remains on. This indicates the charging process is completed and your batteries are fully charged and are now being maintained in a gentle float / storage mode. (recommended while your boat is not in use). The ProMite can be left on in this mode indefinitely and will never overcharge your batteries. *Refer to the page 4.*

6. When ready to use your boat, unplug the extension cord from the 120 VAC outlet first, followed by unplugging the charger.

Optional Battery Bank Status Monitor

See your local dealer or retailer for the ProMariner Remote Battery Bank Status Monitor. The Remote Monitor is easy to install and connects directly to your boats batteries. Once installed simply hold down the "Push-To-Test" button and observe the charge level indicator for each battery. (up to 3 batteries can be monitored). Note: AC power and the boats engine must be off when using the Remote Battery Bank Status Monitor.

Important Notice: FCC Class A Part 15 Notification.

Your ProMite On-Board Marine Battery Charger has been designed and tested to comply with FCC Class A part 15. These regulations are to provide adequate protection against harmful interference while operated in a commercial application. If in a residential setting you are encountering interference with TV and radio reception. Simply remove AC from the ProMite to confirm if your battery charger is causing interference. End user can explore the following to minimize interference.

1) Chose a different AC circuit to power your On-board Marine Charger

2) Make sure your outlet is properly grounded

3) Re-position receiving antenna

4) Purchase a separate AC line filter

5) Relocate charger so that it is at the furthest point from home receiving equipment. TV, radio, etc

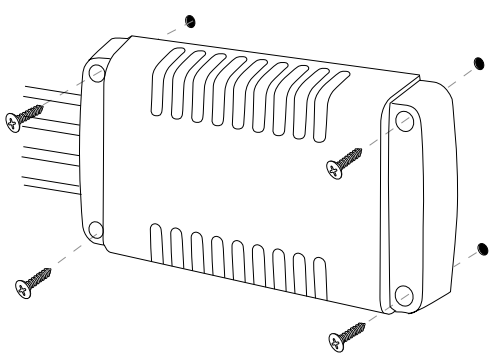
Installation Continued

2. Confirm the selected mounting location allows for a minimum of 8 inches of free space around front and sides of the ProMite charger. Do not install charger on carpeted , upholstered , vinyl or varnished areas. Be sure to place the ProMite in an accessible area where all indicators are viewable. Confirm all battery cables can reach each of the batteries.

3. Using the ProMite 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 ProMite over the mounting holes and secure with a power screwdriver by installing 4 marine grade or stainless steel screws. (mounting screws **not included**)



IMPORTANT NOTICE
Confirm the surface you will be mounting the charger to is adequate in strength and thickness to hold the ProMite in place with the mounting screws you have selected.

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 or the battery.

Installation Continued

7. Run your cables free from sharp objects and hold each of them in place with cable ties. Coil excess cable, do not cut or shorten the length of the cables as there are in-line fuses located 4 inches from the end of each red (positive) cable. These fuses are in place to protect the charger and output cables in the event of a short or reverse polarity.

8. Connect the DC output cables as illustrated on page 8. 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.

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 ProMite 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 LED indicators. Assuming your batteries are discharged you should observe both the green "Power" LED and the red "Charging" LED on, indicating charging mode is in process.

Lead Acid (Flooded) / Gel Charging Profile
The ProMite On-Board Marine Battery Charger is factory set with a safe charging profile for lead acid (flooded) and gel batteries.

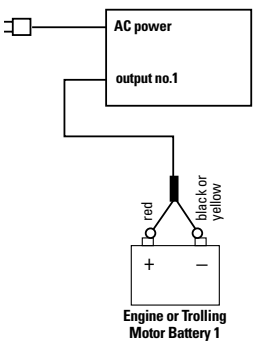
ProMite Series Wiring Diagrams

IMPORTANT NOTICE
If only two batteries are used with a 3 bank charger, than connect the unused output cable to either one of the two batteries, as instructed in item 8 above

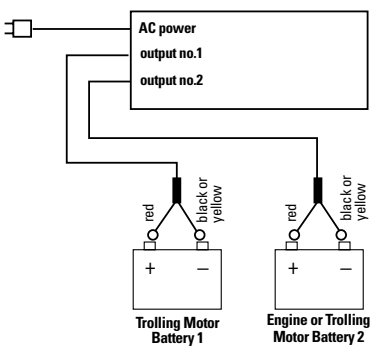
Always connect each charger output to a single 12V battery even if the batteries are wired series for 24V or 24Vwith an engine battery.

ProMite Series Wiring Diagrams

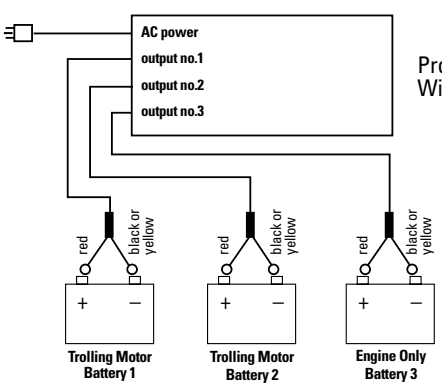
ProMite5 Wiring Diagram



ProMite5|5 Wiring Diagram



ProMite5|5|3 Wiring Diagram



Charging Batteries

The ProMite Series is designed to charge and maintain your batteries. Please follow these steps each time you use your ProMite Charger:

1. Open all battery compartments and ventilate for at least 15 minutes before applying AC power to your charger. While charging your batteries make sure to keep your battery compartment open allowing for free air ventilation.

2. Make sure all DC battery connections are tight and clean. Follow battery manufacturer's recommendations for battery cell caps. (loosen caps if applicable)