

INTRODUCING... THE EMI SUPPRESSOR

Thank you for purchasing the EMI Suppressor! Use the suppressor to prevent noise and spikes from motors and solenoids from reaching their DC power sources. The suppressor's four inputs/outputs are each capable of a 20-amp load.

Warranty/Registration

Before proceeding, complete and mail back the Warranty Registration card.

Manual Purpose

With your personal safety in mind, this manual lists important safety precautions first, then covers installation, operation, maintenance, troubleshooting, warranty, and customer service information.

APPLICATION

EMI Suppressor Requirements

This unit is a four-bank I/O suppressor, which can be used in series with 12 or 24 VDC loads up to 20 amps.

Note: Alternators not rated for continuous operation at high current and temperature may fail when driven by the regulator unless current is limited to a safe value.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS. This manual contains important safety and operating instructions for the EMI Suppressor. Read the entire manual before using this unit. Also read all instructions and cautions for and on the EMI Suppressor.

Installation Precaution

Boat wiring is a complex task that can cause shock, corrosion and other hazards if not done properly by trained, experienced personnel. For more information on this subject contact the **American Boat and Yacht Council (ABYC)** or see the standards and regulations below:

American Boat and Yacht Council
E-8 "Alternating Current (AC)
Electrical Systems on Boats"

3069 Solomon's Island Road
Edgewater, MD 21037
Telephone: 410.956.1050
FAX: 410.456.2737

NFPA Standard 302.
"Pleasure and Commercial Motor Craft"

National Fire Protection Association
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9401
Telephone: 800.344.3555

Rules and Regulations for Recreational Boats

Excerpts from the United States Code (USC) and the Code of Federal Regulations (CFR) (U.S. Coast Guard Regulations) are available from the **American Boat and Yacht Council** listed above.

Note: Installation of the EMI Suppressor must be made in accordance with all applicable standards and regulations.

Environmental Precaution

The EMI Suppressor is intended for installation inside an engine room or elsewhere inside the boat. Make sure that the location will not subject the unit to rain, snow, or excessive moisture.

Application Precaution

These units are intended for hard-wired, permanent, on-board applications. Use of attachments not recommended or sold by Charles Marine Products may result in risk of fire, electrical shock or personal injury.

Damaged Unit Precaution

Do not operate the EMI Suppressor if it has received a sharp blow, been dropped, immersed in water or otherwise damaged. See the section in this manual on *Warranty & Customer Service* for repair information.

MOUNTING

Choosing Mounting Hardware

As with any marine equipment, secure mounting is of utmost importance. You will need to provide four #8 bolts or screws to secure the unit. The screws or bolts you choose should be backed with a flat washer and kept vibration-free with a split-ring lock washer. If using bolts, they must be secured on both sides of the bulkhead and also backed with a washer or washer plate. If using screws, they should be at least 1 inch long. All hardware must be corrosion-resistant stainless steel or cadmium-plated steel.

Mounting the EMI Suppressor

The suppressor is protected against ambient humidity, but must be mounted in a dry location free of moisture, dust, and other environmental insults.

WARNING – ELECTRICAL SHOCK HAZARD

Use care when drilling to avoid contact with any wires or live components.

Step	Action
1.	Carefully lower and position the EMI Suppressor in the exact location the unit will be installed. <i>Note: The wiring enclosure should be visible and accessible.</i>
2.	Mark the location of the mounting holes.
3.	Remove the suppressor and drill the four marked holes with the proper-sized drill bit.
4.	Realign the suppressor's mounting holes with the drilled holes and fasten the unit to the mounting surface with the appropriate mounting hardware.
5.	Firmly secure all mounting hardware.

WIRING

Wire the suppressor according to Figure 1 and Table 1.

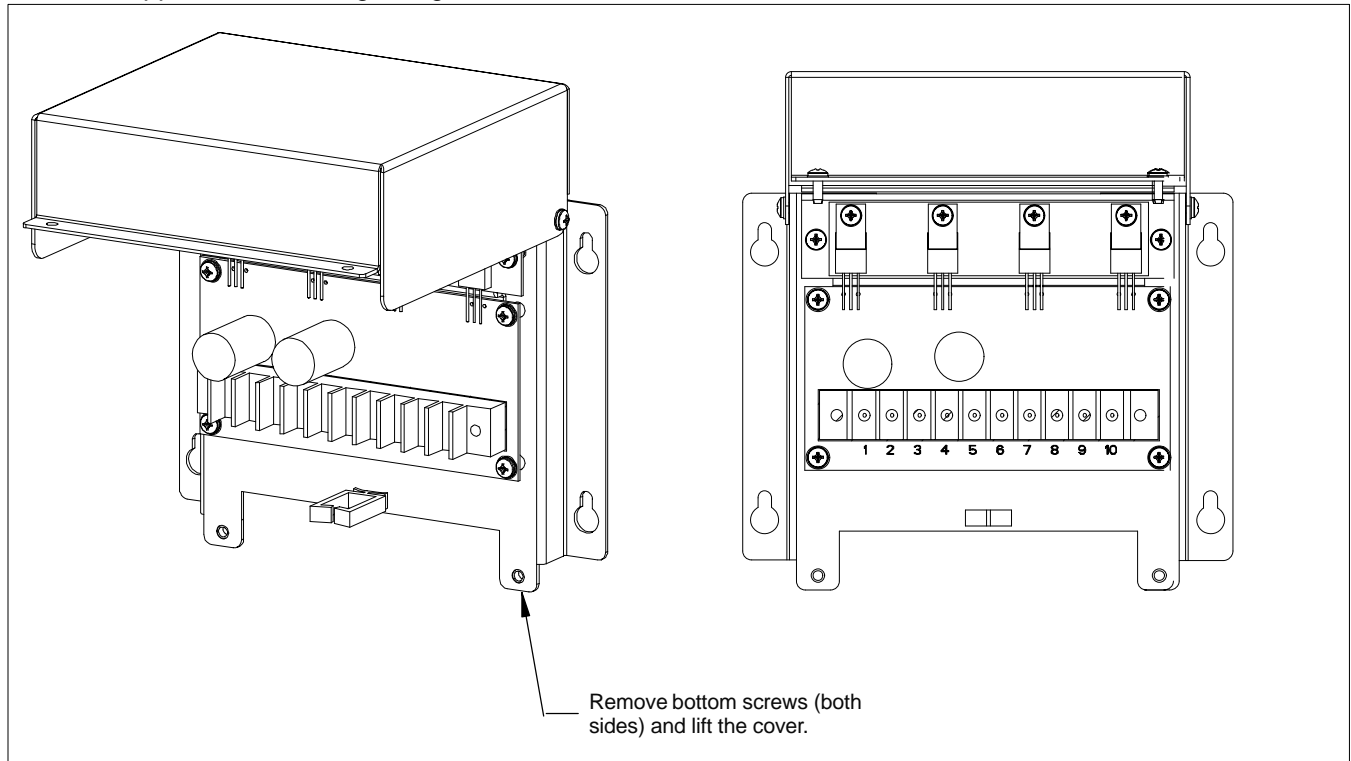


Figure 1. Open EMI Suppressor

Table 1. Wiring Description

Pin	Description
1	Trim tab up—out to pump
2	Trim tab up—in from input switch
3	Trim tab down—out to pump
4	Trim tab down—in from input switch
5	Port trim tab select—out to pump
6	Port trim tab select—in from input switch
7	Starboard trim tab select—out to pump
8	Starboard trim tab select—in from input switch
9	Return (ground)
10	Return (ground)

WARRANTY & CUSTOMER SERVICE

Warranty

CHARLES MARINE PRODUCTS warrants the EMI Suppressor will be free from defects in materials and workmanship which cause mechanical failure for one (1) year, as set forth in the Limited Warranty. Review this warranty carefully for information on what is covered by its terms. Complete and return the warranty registration card within ten (10) days of purchase to establish proof of ownership and validate the warranty coverage. You must

provide notice of any alleged defect in material or workmanship within thirty (30) days of discovering the problem, and within the warranty period. Follow the procedure outlined below to obtain warranty service.

Warranty Service and Repair

If the unit fails to operate properly after following all the instructions in the manual, or if the EMI Suppressor requires service, take the following steps:

1. Contact Charles Marine Products Customer Service and obtain a "Returned Goods Authorization" (RGA) number and a Service Center address
2. Ship or mail the EMI Suppressor together with the RGA to the appropriate Service Center. Shipping costs to and from the Service Center are your responsibility
3. When service is completed, Charles Marine Products will return the EMI Suppressor to you.

Customer Service

If technical assistance or customer service is required, contact Charles Marine Products at:

- (847) 806-6300 (Customer Service)
- (847) 806-6352 (FAX)
- (905) 821-7673 (Canada)

For correspondence only, mail to:

Charles Marine Products
 Charles Center
 5600 Apollo Drive
 Rolling Meadows, IL 60008-4049

SPECIFICATIONS

The specifications for the EMI Suppressor are listed in Table 2.

Table 2. EMI Suppressor Specifications

Feature	U.S.	Metric
Input Voltage	12/24 VDC (nominal)	
Input Current	20 Amps	
Output Current	20 Amps	
Operating Temperature	32° to 140° F	0° to 60° C
Approximate Weight	14 ounces	0.397 kilogram
Height	5.5 inches	13.97 centimeters
Width	6.7 inches	17.02 centimeters
Depth	2.1 inches	5.33 centimeters

