

# BALMAR®

## INTRODUCTION

Your Centerfielder provides a centralized source of charging control for twin engine applications where two alternators and two regulators are used to charge a single battery bank. The Centerfielder senses when only one engine is running. When the second engine is started, the Centerfielder determines which regulator's field current is dominant, and directs that field current to both alternators. This even distribution of field current ensures that both alternators deliver comparable percentages of their available capacities.

Outputs may vary based on engine rpm's, comparative alternator size, and distances from dominant regulator to alternators. For best performance, regulators used should be identical.

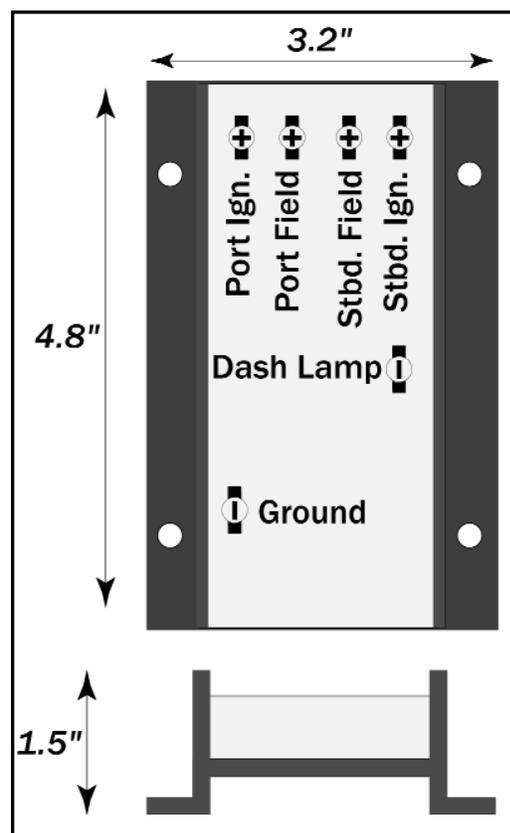
In addition to its ability to equalize regulation to both alternators, the Centerfielder provides the assurance that both alternators will continue to supply your batteries with charging amperage, should either starboard or port side regulators fail.

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## INSTALLATION

The Centerfielder is remarkably easy to install. You will find, included with the Centerfielder, a collection of spade and wire tap connectors needed for installation, as well as two fused 12 ga. replacement wires for the regulator wiring harnesses (see step 6). Field wires (12-gauge), ground wire (12-gauge) and ignition wires (14-gauge) are user supplied. To install:

1. Disconnect batteries or turn battery switches to their "Off" positions.
2. Install the Centerfielder on a flat surface (bulkhead) mid distance between the two alternators.
3. Determine the distances required for wire runs between the Centerfielder and the regulator wiring harnesses as indicated on the wiring illustration on the reverse side of this sheet.
4. Connect the spade terminals as shown, and plug appropriate wires as illustrated in the diagram below.
5. Using the wire taps included, connect the user supplied wires to the appropriate wires in the port and starboard side wiring harnesses. Taps should be located within one inch (1") of the regulators.
6. Remove the existing red power wire from the regulator harness and replace with the 12-ga. 15-amp fused red wire included with the Centerfielder. Reconnect at the regulator and source of battery voltage.
7. Re-connect batteries and start engines. The indicator LEDs will light as the Centerfielder selects the dominant regulator's field current.



## OPERATION

The Centerfielder automatically responds to charging conditions as they occur. Initially, the Centerfielder will sense field and ignition voltage on the first engine started. As the second engine starts, the Centerfielder will direct field current from the first regulator to the both alternators. During operation, the Centerfielder will continue to monitor field output from both regulators. Should the secondary regulator's field current exceed that of the first regulator, control of both alternators will be directed to that regulator.

## 12V OR 24V CONTROL

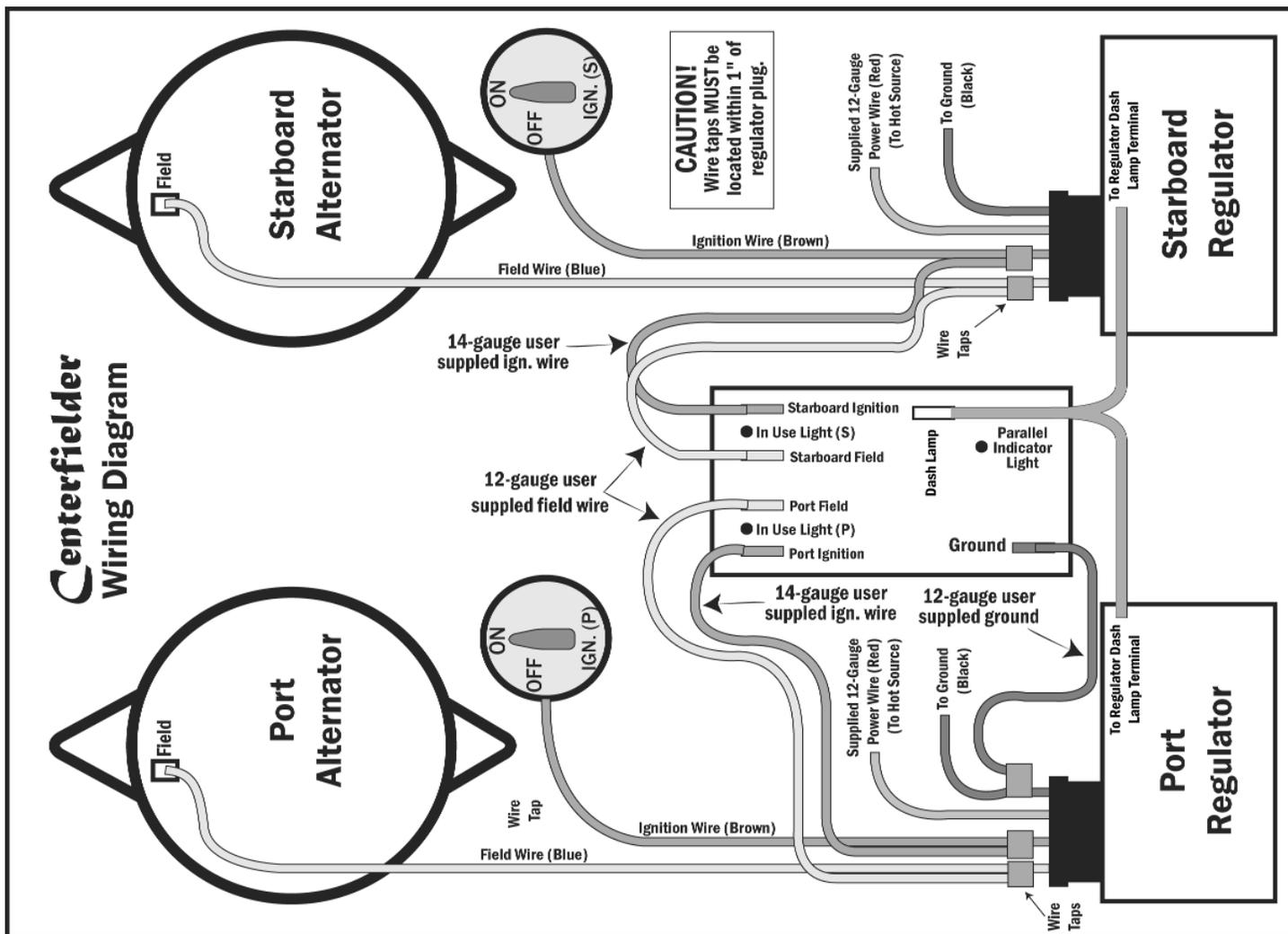
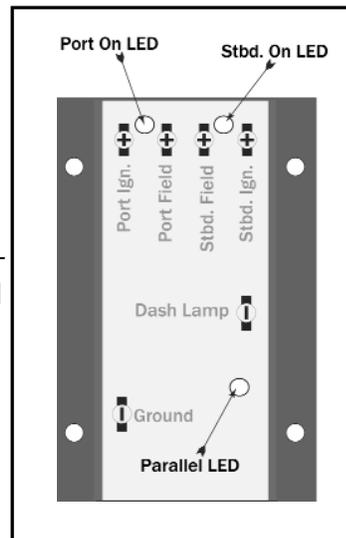
Both 12V and 24V charging systems can be controlled with the Centerfielder. Wiring connections for both system voltages are identical.

## INDICATOR LIGHTS

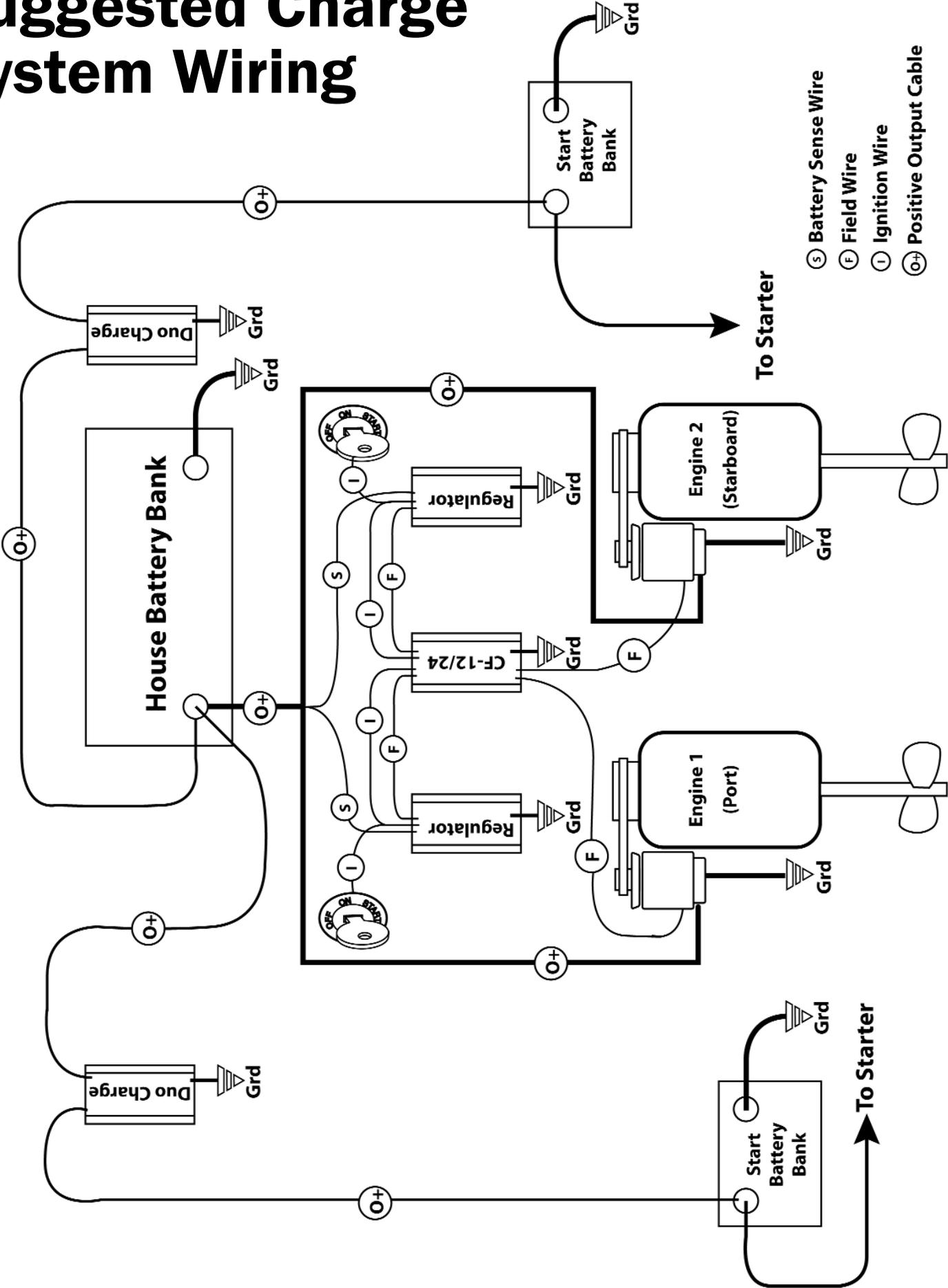
The Centerfielder is equipped with three LEDs. (See illustration.) The "In Use" indicator LEDs located between the ignition and field terminal plugs on port and starboard are activated when the Centerfielder detects operation of either voltage regulator. When both engines are in operation and the Centerfielder detects activity at both regulators, the third LED, located near the Dash Lamp terminal, indicates that the Centerfielder has combined the output of both alternators in parallel.

## DASH LAMP

If regulators are equipped with Balmar Alternator or Battery Temperature Sensors, connect a splice wire at the Dash Lamp terminal of each regulator and connect both wires to the Dash Lamp terminal at the Centerfielder. Should either regulator detect low voltage, high voltage, high temperature at either alternator or at the batteries, the Centerfielder will automatically separate the individual alternators and regulators.



# Suggested Charge System Wiring



- Ⓢ Battery Sense Wire
- ⓕ Field Wire
- Ⓛ Ignition Wire
- Ⓞ+ Positive Output Cable

## **LIMITED PRODUCT WARRANTY**

BALMAR warrants to the original consumer/purchaser the product is free from any defects in material or workmanship for a period of one year from the date of purchase. If any such defect is discovered within the warranty period, BALMAR will replace the regulator free of charge, subject to verification of the defect or malfunction upon delivery or shipping prepaid to BALMAR.

This warranty DOES NOT apply to defects or physical damage resulting from abuse, neglect, accident, improper repair, alteration, modification, or unreasonable use of the products resulting in breakdown, cracked or broken cases nor are parts damaged by fire, water, freezing, collision, theft, explosion, rust, corrosion or items damaged in shipment in route to BALMAR for repair. BALMAR assumes no responsibility for consequential damage or loss or expense arising from these products or any labor required for service or repair.

BALMAR WILL NOT repair or be held responsible for any product sent without proper identification and return address or RA number clearly marked on the package. You must include proof of date and place of purchase (photocopy of purchase invoice) or we cannot be responsible for repairs or replacement. In order to expedite warranty claims more efficiently, BALMAR asks that prior to returning a defective product for repair, you call their customer service department for a warranty return authorization number .

If factory service is required, you can contact our BALMAR Customer Service Department Monday through Thursday, 7:30 AM to 5:30 PM, (PST)1-360 435-6100 ext. "3".

Material required for the repair or replacement for the defective part or product is to be supplied free of charge upon delivery of the defective regulator to BALMAR, 19009 61st Ave. NE, Arlington, WA 98223. Customer is responsible for all return transportation charges and any air or rush delivery expense. BALMAR reserves the right to determine whether to repair or replace defective components.

THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS. NO PERSON, AGENT, DEALER IS AUTHORIZED TO GIVE ANY WARRANTY.

**BALMAR**<sup>®</sup> 19009 61st Ave. NE, Arlington, WA 98223 Phone: (360) 435-6100,

Fax: (360) 435-3210 E-mail: [balmar@balmar.net](mailto:balmar@balmar.net), Web: <http://www.balmar.net>

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