

PURPOSE

The purpose of this Technical Bulletin is to outline example electrical wiring diagrams for DC Seakeeper models with a variety of vessel-side 12VDC systems. The DC Seakeeper models can be powered by the House Battery Bank, creating a single combined Seakeeper/House Battery Bank, or by a dedicated Seakeeper Battery Bank. The following diagrams illustrate possible vessel wiring configurations for installing DC Seakeepers on boats with different outboard engine and battery bank configurations.

DRAWING #	OUTBOARD ENGINE CONFIGURATION	BATTERY BANK CONFIGURATION	SEAKEEPER CONFIGURATION
90583	1 x Mercury	Combined Seakeeper/House	Seakeeper 1
90584	1 x Mercury	Separate Seakeeper and House	Seakeeper 1
90934	2 x Yamaha	Combined Seakeeper/House	Seakeeper 2-4
90935	2 x Yamaha	Separate Seakeeper and House	Seakeeper 2-4
90936	3 x Yamaha	Combined Seakeeper/House	Seakeeper 2-4
90937	3 x Yamaha	Separate Seakeeper and House	Seakeeper 2-4

OUTBOARD ENGINE NOTES

It is important to note Yamaha and Mercury outboards have different alternator lead configurations. Yamaha outboard engines have two leads (one for the engine's starting battery and an auxiliary lead). Mercury outboards only have one alternator lead, typically connected to the engine's starting battery. For Mercury outboards, ACRs (Automatic Charging Relays) are required to provide charging power to a House Battery Bank and/or Seakeeper Battery Bank.

DRAWING NOTES

NOTE: The outboard engine brand and configuration should dictate which drawing to refer to for different Seakeeper integrations.

NOTE: Seakeeper recommends a combined Seakeeper and House Battery Bank for DC Seakeeper installations. The benefit of a combined Seakeeper/House Battery Bank is the engine alternators only power one integrated House Battery Bank after charging the starting batteries. This configuration requires less overall equipment and provides more reliability than creating separate house and Seakeeper battery banks. The Seakeeper has an internal alarm to power down if the Voltage of its power supply drops below 11 V. Refer to TB_90913 Overview of DC Low Power Protections for more details.

DISCLAIMER: *The wiring diagrams included herein is intended for reference only. The installer is responsible for hardware selection and proper installation per the manufacturer specific installation manuals for the equipment installed.*

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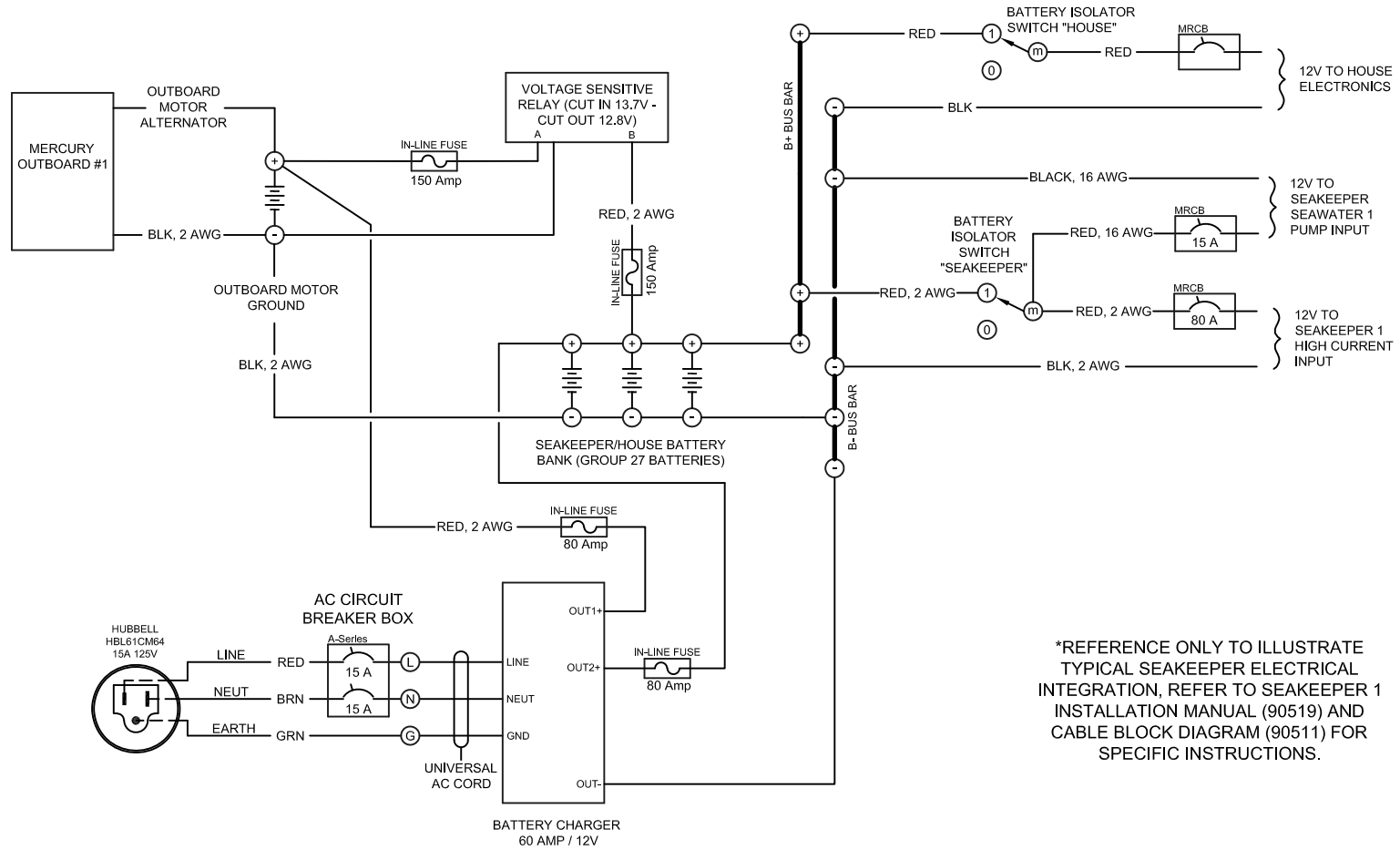
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NOTES:

- 1) THIS DOCUMENT REPRESENTS AN EXAMPLE ELECTRICAL VESSEL SIDE WIRING ARRANGEMENT FOR A SEAKEEPER 1 INTEGRATION ON A VESSEL WITH A SINGLE ENGINE (ONE ALTERNATOR AVAILABLE FOR BATTERY CHARGING AT SEA).
- 2) THE WIRING DIAGRAM INCLUDED HERIN INTENDED FOR REFERENCE ONLY. THE INSTALLER IS RESPONSIBLE FOR HARDWARE SELECTION AND PROPER INSTALLATION PER THE MANUFACTURER SPECIFIC INSTALLATION MANUALS FOR THE EQUIPMENT INSTALLED ONBOARD.



*REFERENCE ONLY TO ILLUSTRATE TYPICAL SEAKEEPER ELECTRICAL INTEGRATION, REFER TO SEAKEEPER 1 INSTALLATION MANUAL (90519) AND CABLE BLOCK DIAGRAM (90511) FOR SPECIFIC INSTRUCTIONS.

<i>PROPRIETARY AND CONFIDENTIAL</i>		SEAKEEPER	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SEAKEEPER, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SEAKEEPER, INC. IS PROHIBITED.		45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619	
DRAWN: _____		DATE: _____	
ENG APPR: _____		DATE: _____	
PRD APPR: _____		DATE: _____	
TITLE SEAKEEPER 1 - ELECTRICAL INTEGRATION DIAGRAM - COMBINED HOUSE / SEAKEEPER BATTERY BANK		DWG NUMBER 90583	REV SHEET NO 1 1

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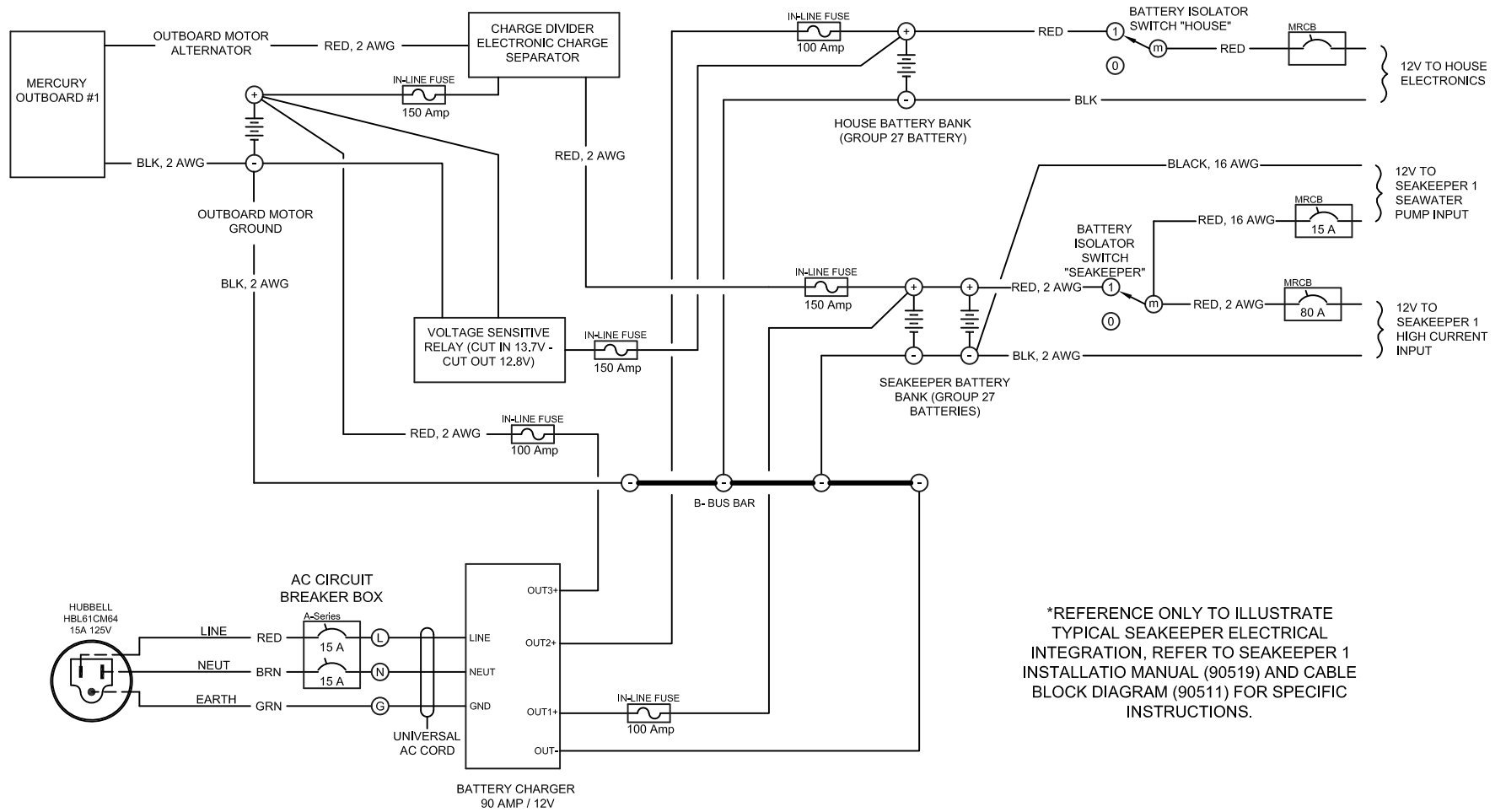
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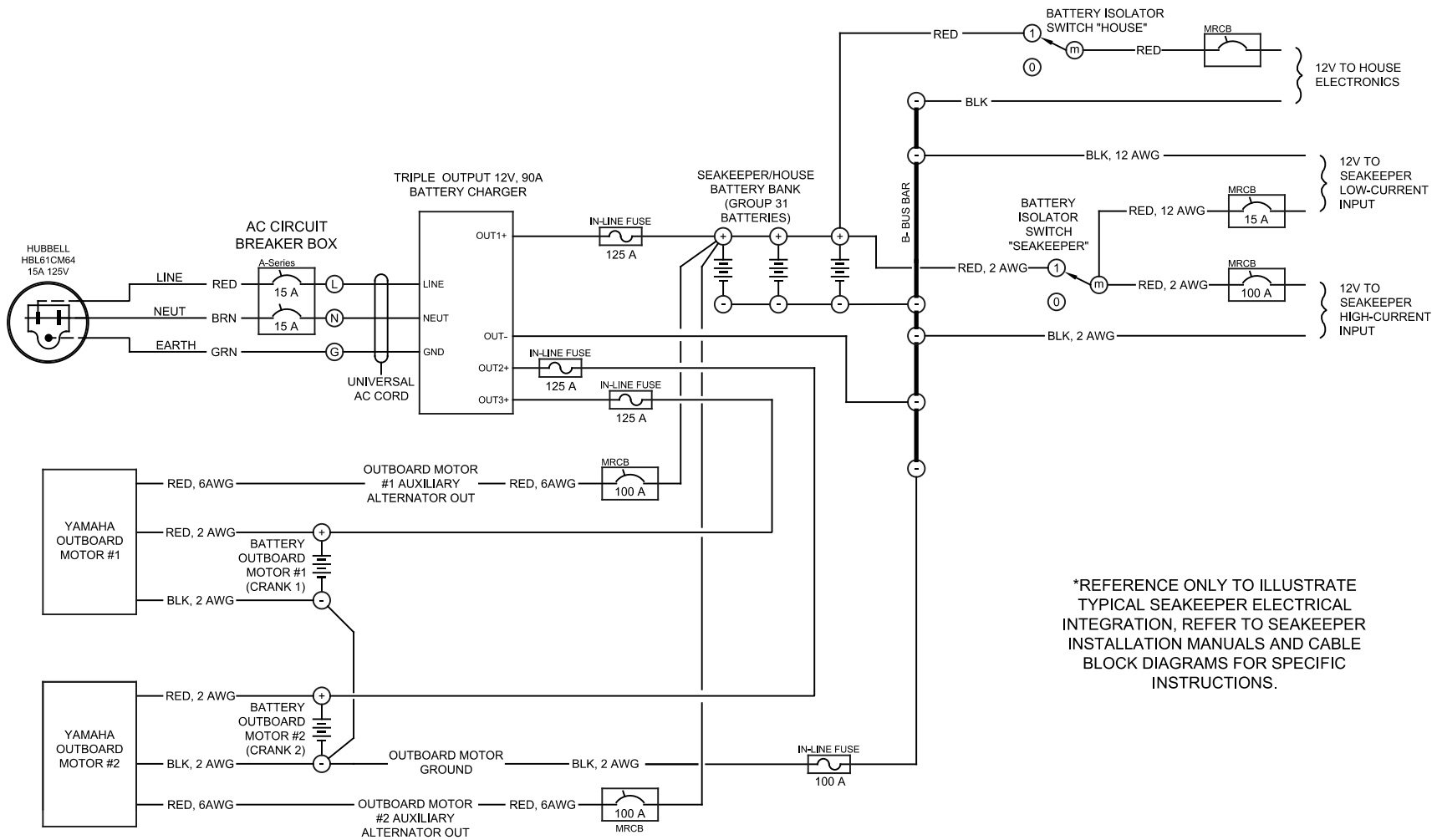


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TITLE SEAKEEPER 1 - ELECTRICAL INTEGRATION DIAGRAM - SEPARATE HOUSE / SEAKEEPER BATTERY BANK	TITLE SEAKEEPER 1 - ELECTRICAL INTEGRATION DIAGRAM - SEPARATE HOUSE / SEAKEEPER BATTERY BANK	DWG NUMBER 90584	REV SHEET NO 1 1
DRAWN _____	DATE _____	ENG APPR _____	DATE _____
PROD APPR _____	DATE _____		

NOTES:

- 1) THIS DOCUMENT REPRESENTS AN EXAMPLE ELECTRICAL VESSEL SIDE WIRING ARRANGEMENT FOR A SEAKEEPER 2 - 4 INTEGRATION ON A VESSEL WITH TWIN OUTBOARD ENGINES (TWO ALTERNATORS AVAILABLE FOR BATTERY CHARGING AT SEA)
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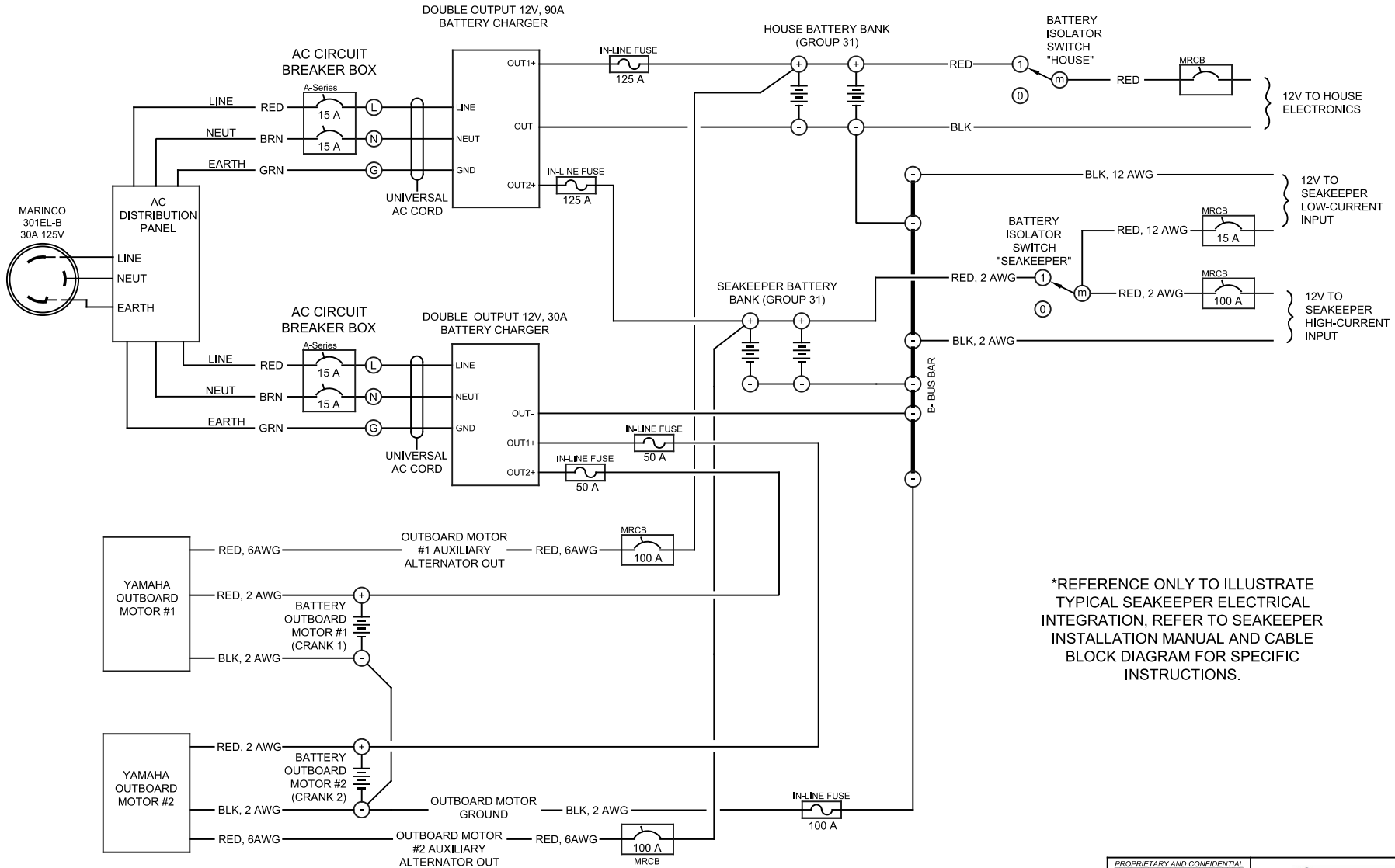


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45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619		TITLE SEAKEEPER 2-4 - ELECTRICAL DIAGRAM - TWIN YAMAHA COMBINED BANK	
WEIGHT LBS MATERIAL	DRAWN DATE	ENG APPR DATE	PROJ APPR DATE
DWG NUMBER 90934		REV 1	SHEET NO. 1

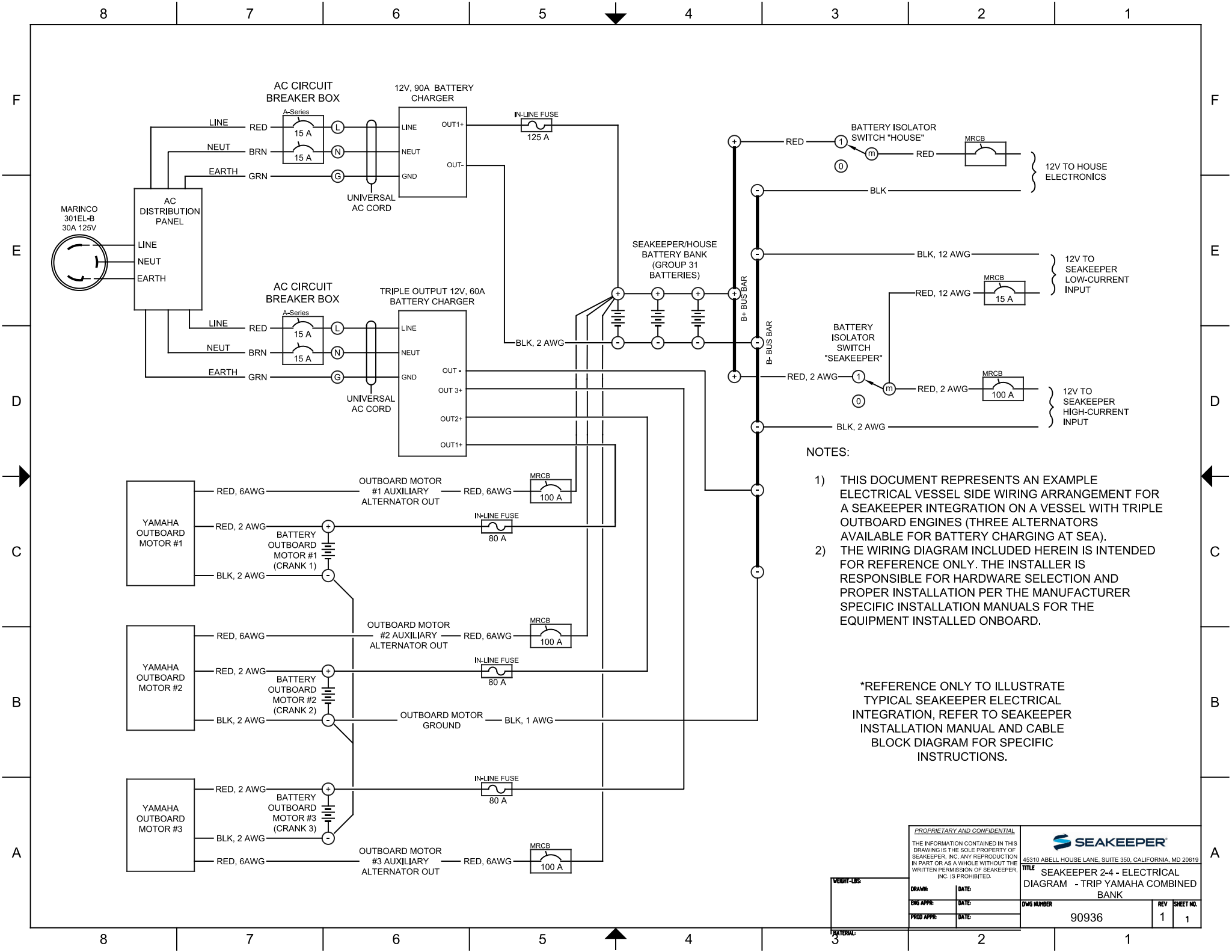
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TITLE SEAKEEPER 2-4 - ELECTRICAL DIAGRAM - TWIN YAMAHA SEPERATE BANK		DWG NUMBER 90935	
REV 1	SHEET NO. 1		
DESIGN-LEAD	DRAWN	DATE	
MATERIAL	ENG APPR	DATE	
	PROD APPR	DATE	

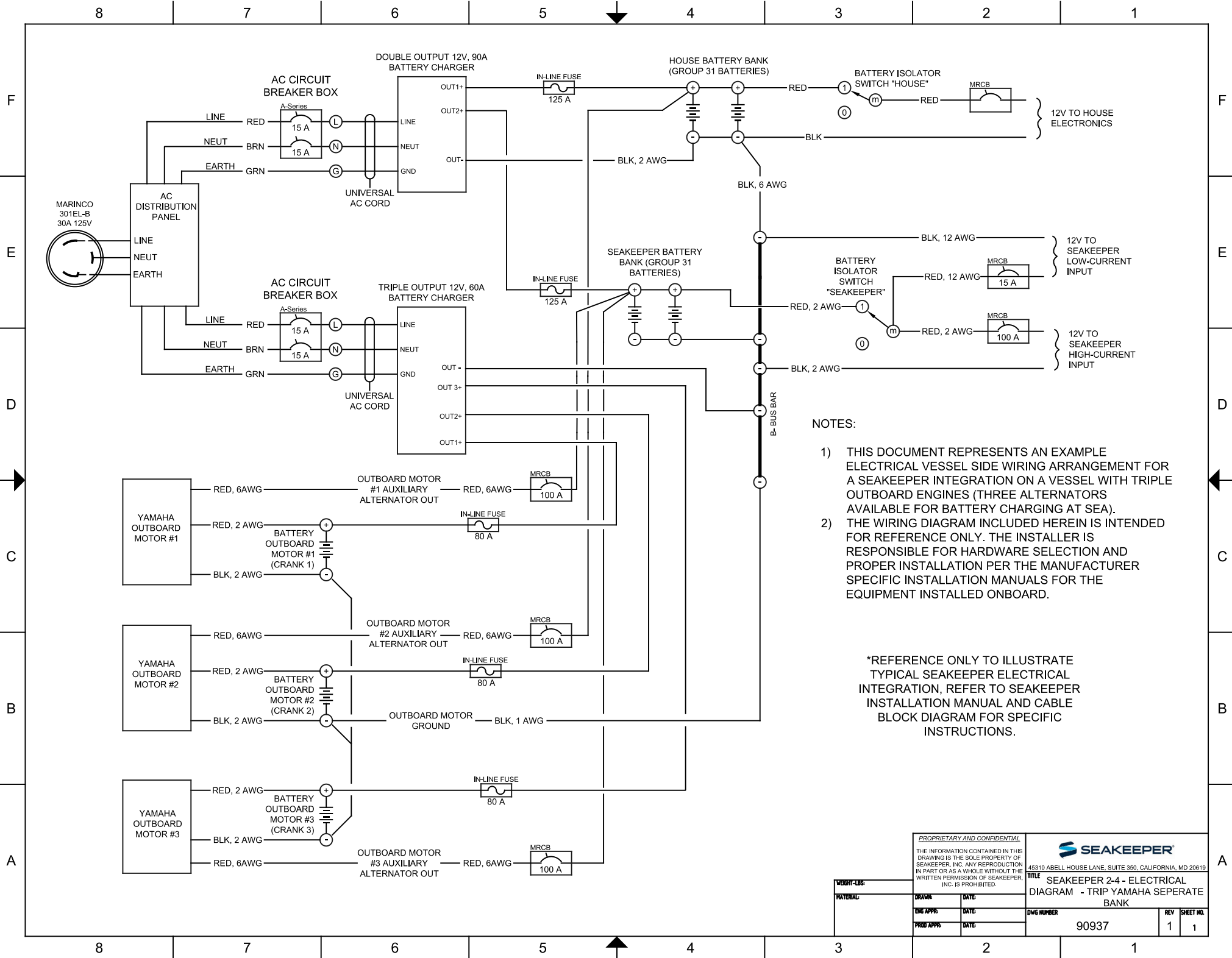


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45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619		TITLE SEAKEEPER 2-4 - ELECTRICAL DIAGRAM - TRIP YAMAHA COMBINED BANK	
MATERIAL WEIGHT-LBS	DATE DATE	DWG NUMBER 90936	REV SHEET NO. 1 1



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<small>45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619</small>		TITLE SEAKEEPER 2-4 - ELECTRICAL DIAGRAM - TRIP YAMAHA SEPARATE BANK	
WEIGHT-LBS MATERIAL:	DATE DATE:	DWG NUMBER 90937	REV SHEET NO. 1 1