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
90585	2 x Yamaha	Combined Seakeeper/House	Seakeeper 2
90586	2 x Yamaha	Separate Seakeeper and House	Seakeeper 2
90587	3 x Yamaha	Combined Seakeeper/House	Seakeeper 3
90588	3 x Yamaha	Separate Seakeeper and House	Seakeeper 3

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

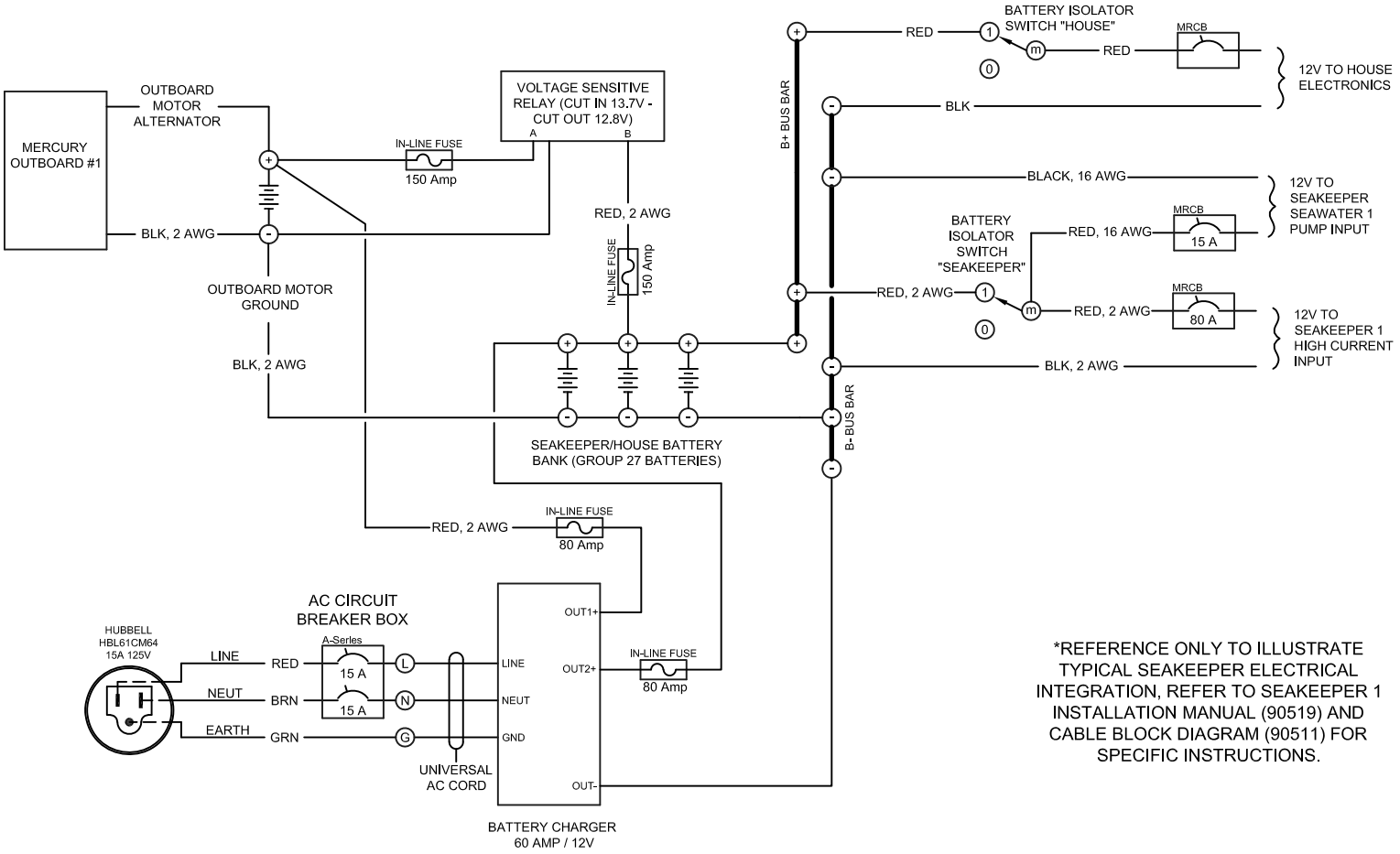
NOTE: The outboard engine brand and configuration should dictate which drawing to refer to for different Seakeeper integrations. For example, a Seakeeper 1 can be installed on a boat with twin Yamaha engines, therefore either drawing 90585 or 90586 should be used as a reference.

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_90454 DC Seakeeper Automatic Low-Voltage Shutdown 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.*

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.

DRAWN:	DATE:
ENG APPR:	DATE:
PROD APPR:	DATE:

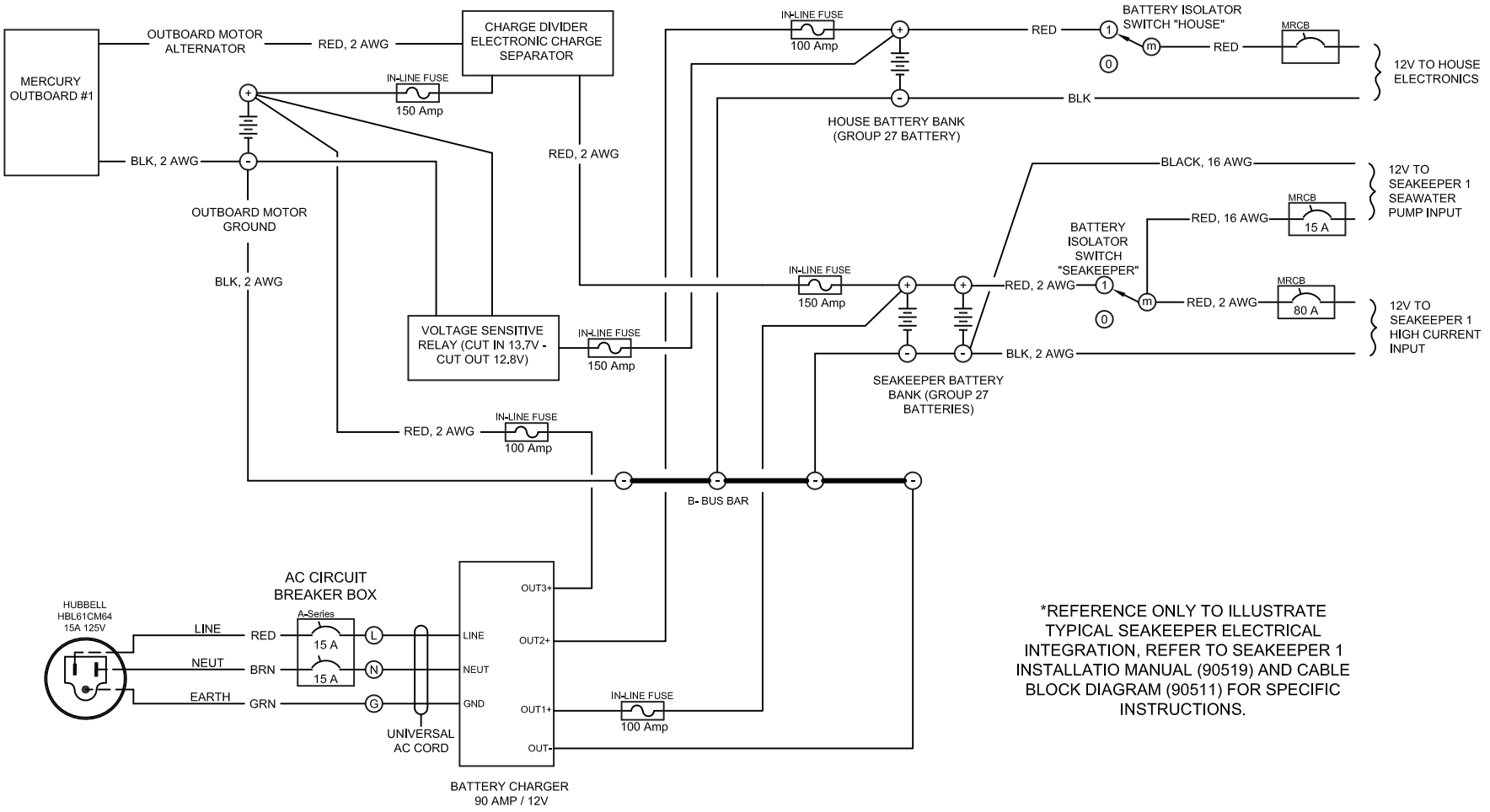
SEAKEEPER
45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619

TITLE: SEAKEEPER 1 - ELECTRICAL INTEGRATION DIAGRAM - COMBINED HOUSE / SEAKEEPER BATTERY BANK

DWG NUMBER	REV	SHEET NO.
90583	1	1

NOTES:

1) THIS DOCUMENT REPRESENTS AN EXAMPLE ELECTRICAL VESSEL SIDE WIRING ARRANGEMENT FOR SEAKEEPER 1 INTEGRATION ON A VESSEL WITH A SINGLE OUTBOARD ENGINE (ONE ALTERNATOR AVAILABLE FOR BATTERY CHARGING AT SEA).
2) THE WIRING DIAGRAM 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 ONBOARD.



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

DRAWN:	DATE:
ENG APPR:	DATE:
PROD APPR:	DATE:

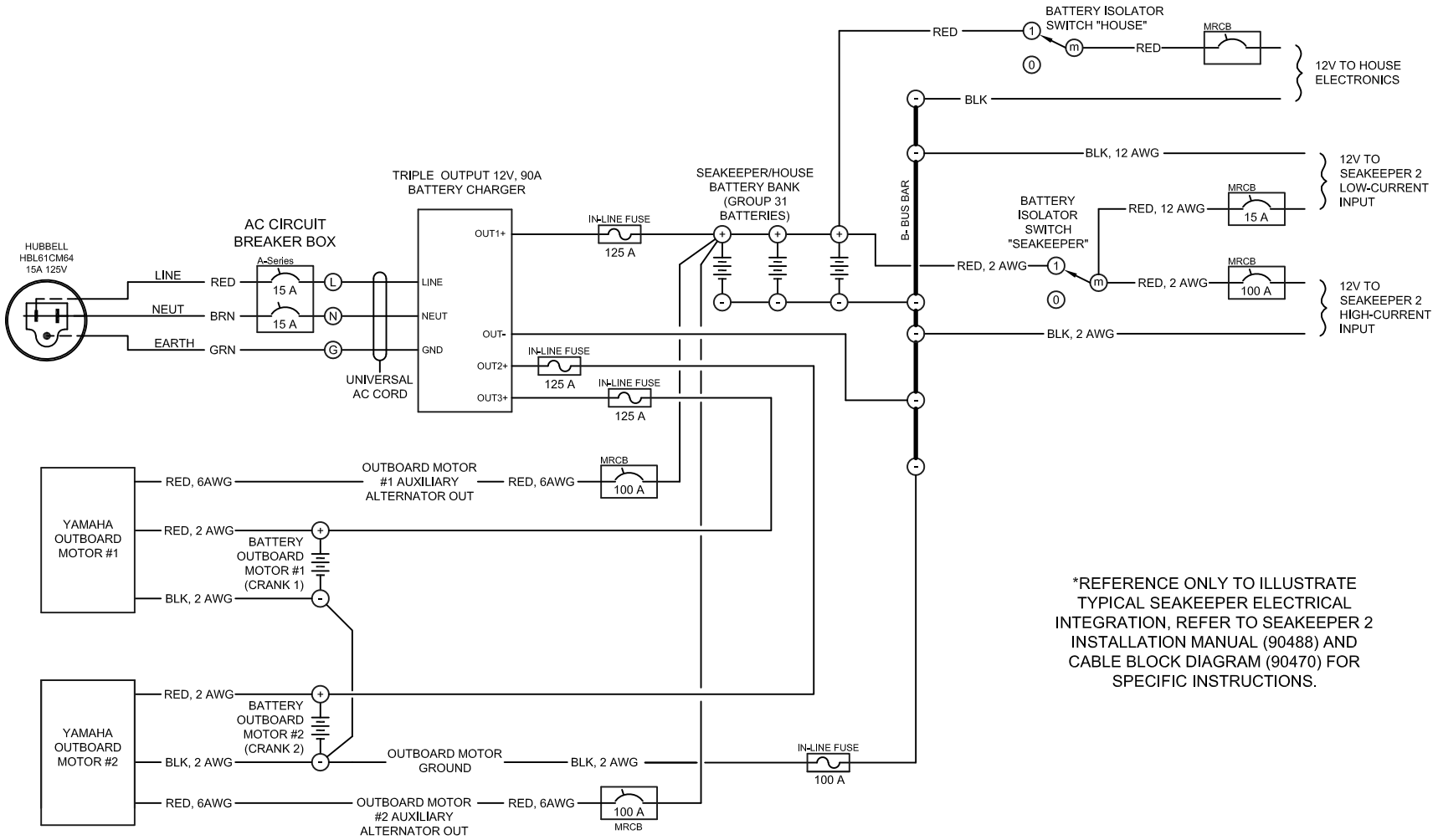
SEAKEEPER
45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619

TITLE: SEAKEEPER 1 - ELECTRICAL INTEGRATION DIAGRAM - SEPARATE HOUSE / SEAKEEPER BATTERY BANK

DWG NUMBER	REV	SHEET NO.
90584	1	1

NOTES:

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



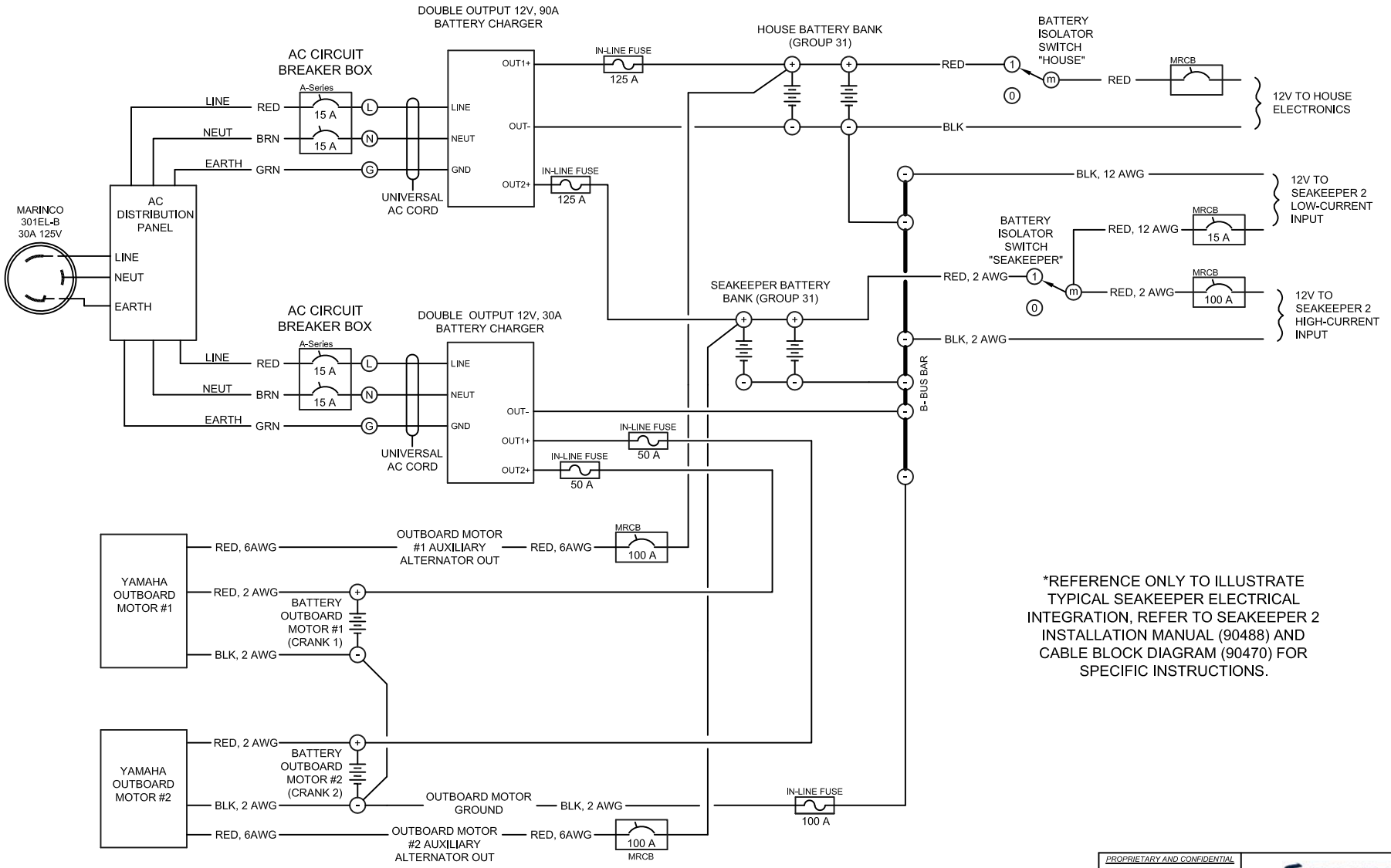
*REFERENCE ONLY TO ILLUSTRATE TYPICAL SEAKEEPER ELECTRICAL INTEGRATION, REFER TO SEAKEEPER 2 INSTALLATION MANUAL (90488) AND CABLE BLOCK DIAGRAM (90470) FOR SPECIFIC INSTRUCTIONS.

SEAKEEPER
45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619

WEIGHT-LBS:	
MATERIAL:	
DRAWN:	DATE:
ENG APPR:	DATE:
PROD APPR:	DATE:
TITLE	SEAKEEPER 2 - ELECTRICAL INTEGRATION DIAGRAM - COMBINED HOUSE / SEAKEEPER BATTERY BANK
DWG NUMBER	90585
REV	1
SHEET NO	1

NOTES:

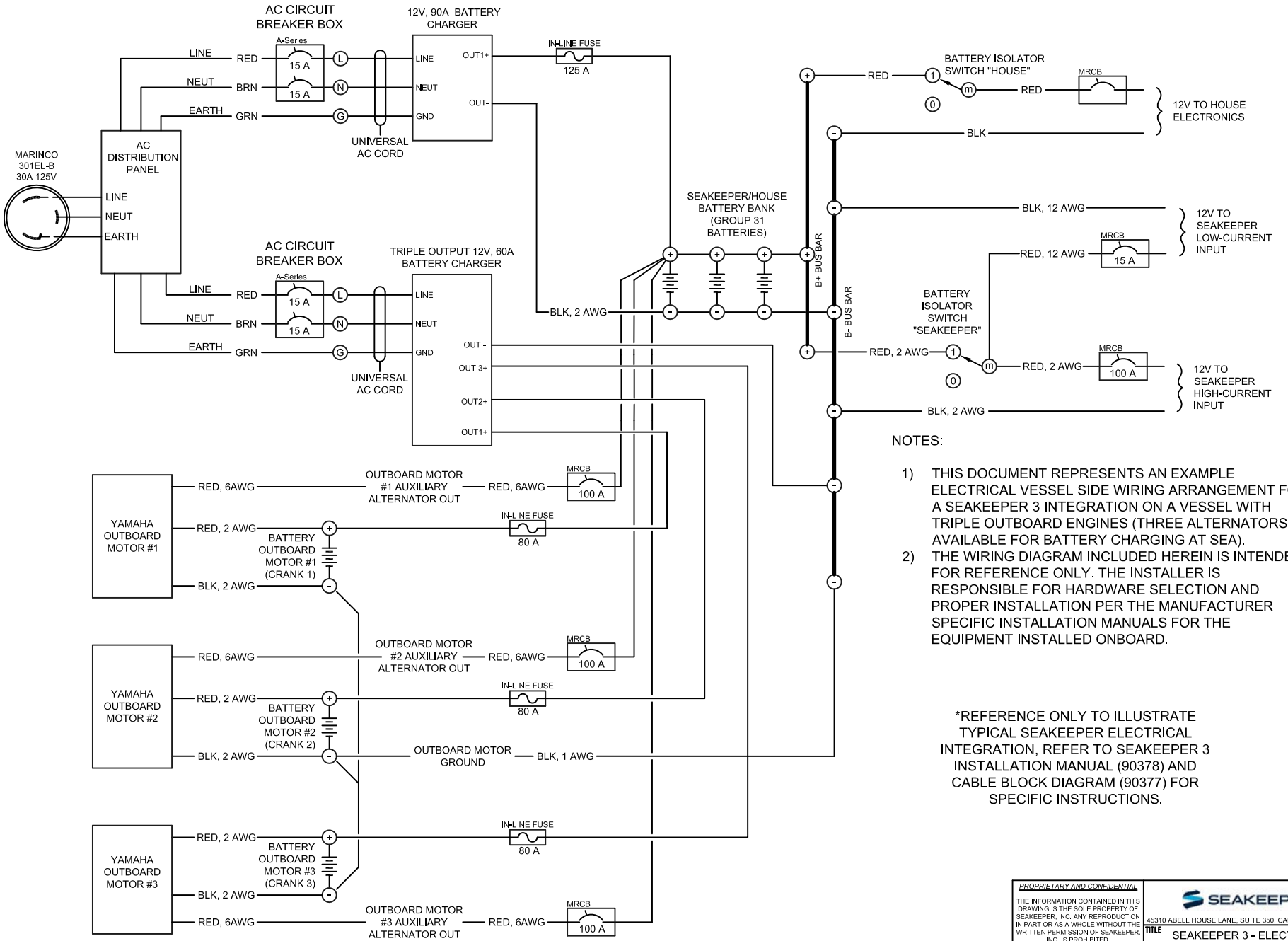
1) THIS DOCUMENT REPRESENTS AN EXAMPLE ELECTRICAL VESSEL SIDE WIRING ARRANGEMENT FOR A SEAKEEPER 2 INTEGRATION ON A VESSEL WITH TWIN OUTBOARD ENGINES (TWO ALTERNATORS AVAILABLE FOR BATTERY CHARGING AT SEA)
2) THE WIRING DIAGRAM INCLUDED HEREIN IS INTENDED FOR REFERENCE ONLY. THE INSTALLER IS RESPONSIBLE FOR HARDWARE SELECTION AND PROPER INSTALLATION PER THE MANUFACTURER SPECIFIC INSTALLATION MANUALS FOR THE EQUIPMENT INSTALLED ONBOARD.



*REFERENCE ONLY TO ILLUSTRATE TYPICAL SEAKEEPER ELECTRICAL INTEGRATION, REFER TO SEAKEEPER 2 INSTALLATION MANUAL (90488) AND CABLE BLOCK DIAGRAM (90470) FOR SPECIFIC INSTRUCTIONS.

SEAKEEPER
45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619

WEIGHT-LBS:		TITLE	SEAKEEPER 2 - ELECTRICAL INTEGRATION DIAGRAM - SEPARATE HOUSE / SEAKEEPER BATTERY BANK
MATERIAL:	DRAWN: DATE:	DWG NUMBER	90586
	ENG APPR: DATE:	REV	1
	PROD APPR: DATE:	SHEET NO.	1



NOTES:

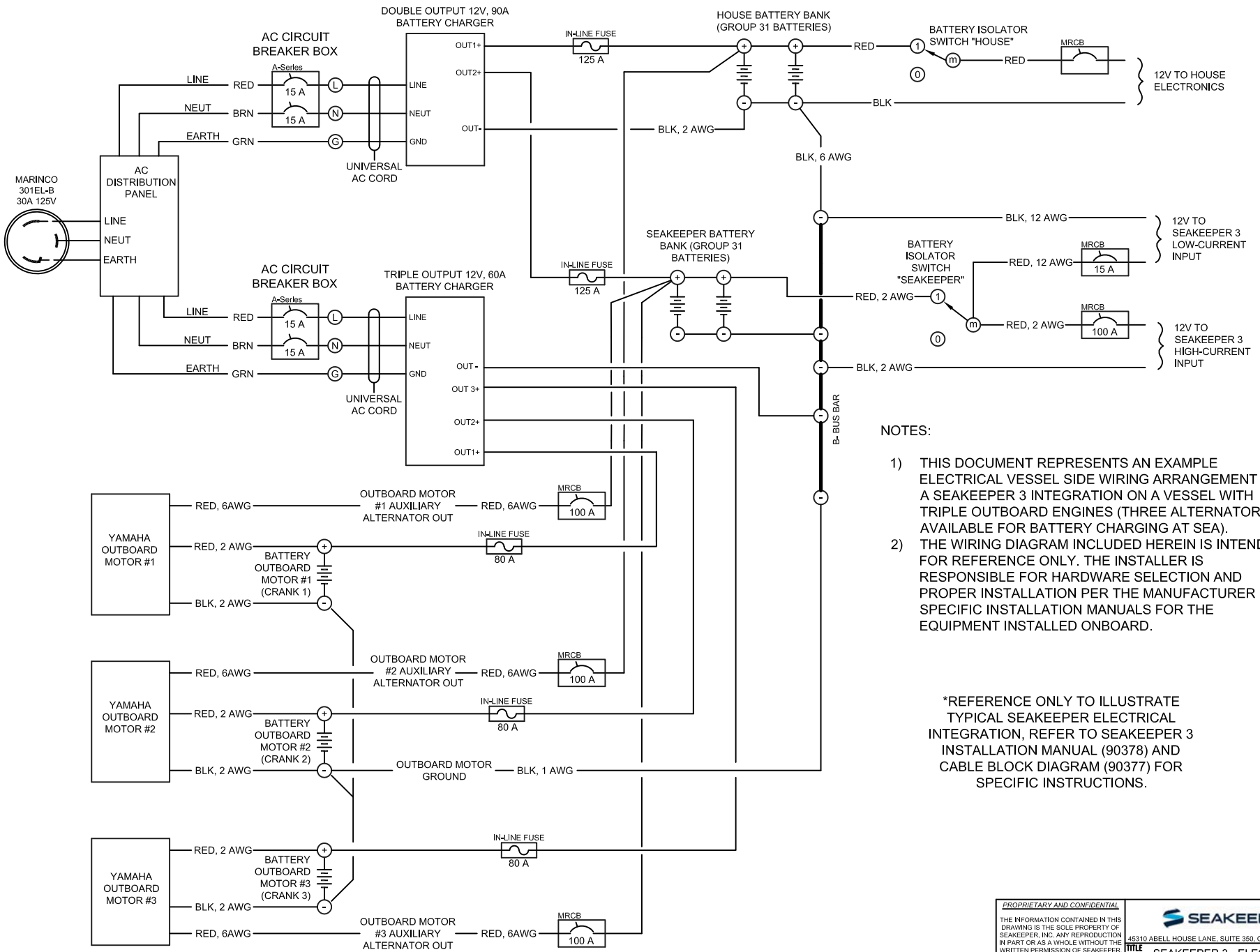
1) THIS DOCUMENT REPRESENTS AN EXAMPLE ELECTRICAL VESSEL SIDE WIRING ARRANGEMENT FOR A SEAKEEPER 3 INTEGRATION ON A VESSEL WITH TRIPLE OUTBOARD ENGINES (THREE ALTERNATORS AVAILABLE FOR BATTERY CHARGING AT SEA).
2) THE WIRING DIAGRAM INCLUDED HEREIN IS INTENDED FOR REFERENCE ONLY. THE INSTALLER IS RESPONSIBLE FOR HARDWARE SELECTION AND PROPER INSTALLATION PER THE MANUFACTURER SPECIFIC INSTALLATION MANUALS FOR THE EQUIPMENT INSTALLED ONBOARD.

*REFERENCE ONLY TO ILLUSTRATE TYPICAL SEAKEEPER ELECTRICAL INTEGRATION, REFER TO SEAKEEPER 3 INSTALLATION MANUAL (90378) AND CABLE BLOCK DIAGRAM (90377) FOR SPECIFIC INSTRUCTIONS.

SEAKEEPER
45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619

TITLE: SEAKEEPER 3 - ELECTRICAL INTEGRATION DIAGRAM - COMBINED HOUSE / SEAKEEPER BATTERY BANK

WEIGHT-LBS:	DRAWN:	DATE:	DWG NUMBER	REV	SHEET NO
MATERIAL:	ENG APPR:	DATE:	90587	1	1
	PROD APPR:	DATE:			



NOTES:

1) THIS DOCUMENT REPRESENTS AN EXAMPLE ELECTRICAL VESSEL SIDE WIRING ARRANGEMENT FOR A SEAKEEPER 3 INTEGRATION ON A VESSEL WITH TRIPLE OUTBOARD ENGINES (THREE ALTERNATORS AVAILABLE FOR BATTERY CHARGING AT SEA).
2) THE WIRING DIAGRAM 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 ONBOARD.

*REFERENCE ONLY TO ILLUSTRATE TYPICAL SEAKEEPER ELECTRICAL INTEGRATION, REFER TO SEAKEEPER 3 INSTALLATION MANUAL (90378) AND CABLE BLOCK DIAGRAM (90377) FOR SPECIFIC INSTRUCTIONS.

SEAKEEPER
45310 ABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619

WEIGHT-LBS:		TITLE	SEAKEEPER 3 - ELECTRICAL INTEGRATION DIAGRAM - SEPARATE HOUSE / SEAKEEPER BATTERY BANK
MATERIAL:	DRAWN: DATE:		
	ENG APPR: DATE:	DWG NUMBER	REV / SHEET NO
	PROD APPR: DATE:	90588	1 / 1