REGAL

OWNER'S MANUAL

38 SAV

January 2026

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I know I speak for everyone at Regal when I welcome you to the ever-growing family of Regal boat owners. You've chosen a boat that is recognized worldwide for its standard of excellence. Each step in construction has been carefully scrutinized to assure safety, performance, reliability, and comfort for both your passengers and yourself.

Your yacht is certified by the National Marine Manufacturers Association. It also complies with the applicable standards set by the United States Coast Guard, American Boat and Yacht Council, and the International Marine Certification Institute. Your Regal boat was built with the same attention to detail and quality of construction that we would expect in a craft we would purchase ourselves.

Whether you're a veteran boater or a newcomer, we strongly urge you to read this owner's manual thoroughly. Familiarize yourself with the various components of your vessel, and heed the safety precautions noted herein.

If you have questions that are not covered in this manual, please consult your authorized Regal dealer for assistance, phone the Regal factory at 407-851-4360 or visit www.regalboats.com.

Thank you, and welcome to the "World of Regal"!

President & CEO
Duane Kuck

OUR MISSION

With God's help, we will develop an exceptional team dedicated to enriching lives and providing an awesome boating experience.

OUR VALUES

Integrity

Gratitude

Relationship-Focused

Excellence-Driven

Ambitious

Team

LIMITED WARRANTY

This document is your Limited Warranty Registration Certificate and Statement of Limited Warranty. Please check the registration information section for accuracy. If this information is not correct or if you change your address at some future date, please notify us at the following address: Regal Marine Industries, Inc., Attention: Warranty Registrations, 2300 Jetport Drive, Orlando, Florida 32809; or email customer.service@regalboats.com.

Please read the Limited Warranty carefully. It contains important information on Regal's claims procedures and your rights and obligations under this Limited Warranty.

WHAT IS COVERED: This Limited Warranty applies to Regal boats beginning with model year 2026.

LIFETIME LIMITED STRUCTURAL DECK & HULL WARRANTY: Regal Marine Industries, Inc. warrants to the original retail purchaser of this boat, if purchased from an authorized Regal dealer, that the authorized selling Regal dealer or Regal will repair or replace the factory-installed fiberglass if it is found to be structurally defective in material or workmanship, for as long as the original retail purchaser owns the boat.
For the purpose of this Limited Warranty, the hull is defined as the single fiberglass casting which rests on the water. The deck is defined as the single fiberglass casting attached to the hull. This Limited Warranty is subject to all limitations and conditions explained below.

FIVE-YEAR TRANSFERABLE LIMITED STRUCTURAL DECK & HULL WARRANTY: Regal Marine Industries, Inc. warrants to the original retail purchaser of this boat, if purchased from an authorized Regal dealer, in addition to the Lifetime Limited Structural Hull Warranty, Regal offers a Transferable Five-Year Limited Structural Deck & Hull Warranty. Under the Five-Year Transferable Limited Structural Hull Warranty, the authorized Regal selling dealer or Regal will repair or replace the fiberglass hull or deck if it is found to be structurally defective in material or workmanship within the first five (5) years after the date of delivery to the original retail purchaser. Any remaining term of this Five-Year Limited Hull Warranty may be transferred to a second owner if, within 60 days of purchase, the new owner registers the transfer with Regal and pays the established Limited Warranty transfer fee. Contact Regal Customer Service at the above address for details.

FIVE-YEAR LIMITED HULL BLISTER WARRANTY: Regal Marine Industries, Inc. warrants to the original retail purchaser of this boat, if purchased from an authorized Regal dealer that the authorized selling dealer or Regal will repair any underwater gelcoated surfaces of the hull against laminate blisters which occur as a result of defects in material or workmanship within five (5) years of the date of delivery provided that the original factory gelcoat surface has not been altered. Alteration would include but is not limited to damage repair; excessive sanding, scraping, sandblasting, or improper surface preparation for application of a marine barrier coating or bottom paint, any of which shall void this Five-Year Limited Hull Blister Warranty. Proper preparation must be applied to the hull bottom if the boat is to be moored in the water for periods in excess of sixty (60) days. Regal Marine shall repair or cause to be repaired any covered laminate blisters based on the following prorated schedule.

Less than three (3) years from delivery date - 100%
Three (3) to four (4) years from delivery date - 50%
Four (4) to five (5) years from delivery date - 25%

Reimbursement shall be limited to one repair, not to exceed one hundred and fifty ($150.00) dollars per foot of boat length prior to prorating. Regal's prior authorization for the method and cost of repair must be obtained before repairs are commenced. All costs to transport the boat for repairs are the responsibility of the owner.

THREE-YEAR BOW-TO-STERN WARRANTY

Regal Marine Industries, Inc. warrants to the original retail purchaser of this boat, if purchased from an authorized Regal dealer, that the authorized Regal selling dealer or Regal will repair or replace any parts found to be defective in materials or workmanship for a period of three (3) years from the date of delivery. This warranty includes cabinetry, fiberglass parts (aside from hull/deck), upholstery, and other factory-installed components, excluding the items outlined in "What is Not Covered."

ONE-YEAR LIMITED COSMETIC WARRANTY

Regal Marine Industries, Inc. warrants to the original retail purchaser of this boat, if purchased from an authorized Regal dealer, that the authorized Regal selling dealer or Regal will repair cosmetic defects in gelcoat, powder coating, paint, and similar finishes for one (1) year from the date of delivery to the original retail purchaser. This warranty covers cosmetic defects, such as cracks, air voids, or crazing, subject to the limitations and conditions described herein.

CUSTOMER OBLIGATIONS: The following are conditions precedent to the availability of any benefits under Regal's limited warranties:
(a) The purchaser, who is not Regal's sales agent and is otherwise not in any general or sales agency relationship with Regal, must sign and the authorized Regal selling dealer, must submit to Regal the "**Customer Delivery Acceptance Form**" within fifteen (15) days of the date of delivery and such information must be on file at Regal.
(b) The purchaser must first notify the authorized Regal selling dealer from whom the boat was purchased of any claim under this Limited Warranty within the applicable Limited Warranty period and within a reasonable period of time (not to exceed thirty (30) days after the defect is or should have been discovered).
(c) Regal will not be responsible to repair any condition or replace any part, (1) if the use of the boat is continued after the defect is or should have been discovered; and (2) if such continued use causes other or additional damage to the boat or component parts of the boat.
(d) Based on the authorized Regal selling dealer's knowledge of Regal's Limited Warranty policy and/or consultations with Regal, the dealer will accept the claim and arrange for appropriate repairs to be performed, or deny the claim if it is not within the Limited Warranty policy or is otherwise excluded.
(e) The authorized Regal selling dealer will contact the Regal boat owner regarding instructions for delivery of the boat or part for covered warranty repair if it is covered by the Limited Warranty. **ALL COSTS TO OR FROM THE BOAT AND/OR TRANSPORT OF THE BOAT FOR REPAIRS ARE THE RESPONSIBILITY OF THE OWNER.**
(f) If the Regal boat owner believes a claim has been denied in error or the authorized Regal selling dealer has performed the covered warranty work in an unsatisfactory manner, the owner must notify Regal's Customer Service Department in writing at the address listed for further consideration. Regal will then review the claim and take appropriate follow-up action.
(g) Before bringing any action, claim, lawsuit or otherwise seeking relief against Regal based on any alleged breach of any of the Limited Warranties' terms or conditions herein, the Regal Boat owner must contact Regal's Customer Service Department Directly and allow Regal, beyond those efforts made by

its authorized Regal selling dealer or other authorized Regal dealer, notice and an opportunity to cure any alleged breach of any of the terms of any of the Regal Limited Warranties.

WARRANTY EXCEPTIONS: THIS LIMITED WARRANTY does not cover, the following are not warranted, are excluded from the terms of the Regal Limited Warranty, and the following terms apply to any Regal Limited Warranty:
(a) Engines, drives, controls, propellers, batteries, generators, gyro stabilization systems, metal plating or finishes, windshield breakage, leakage, fading, and deterioration of paints, canvas, vinyl, upholstery, and fabrics;
(b) Gelcoat surfaces, including, but not limited to, discoloration or blistering, except as noted above;
(c) Accessories and items which were not part of the boat when shipped from the Regal factory or which carry their own individual warranty, and /or any damage caused by such accessories and items;
(d) Damage caused by one or more of the following: misuse, accident, corrosion, galvanic corrosion, negligence, lack of proper maintenance, or improper trailering;
(e) Any boat used for racing, or used for rental or commercial purposes;
(f) Any boat operated contrary to any instructions furnished by Regal, including instructions and guidance provided in the Regal Owner's Manual, or operated in violation of any federal, state, Coast Guard, or other governmental agency laws, rules, or regulations;
(g) The limited warranty is void if alterations have been made to the boat;
(h)Transportation of boat or parts to and/or from a REGAL factory or service location;
(i) Travel time or haul outs, loss of time or inconvenience;
(j) Any published or announced catalog performance characteristics of speed, fuel and oil consumption, and static or dynamic transportation in the water;
(k) Any boat that has been repowered beyond Regal's power recommendations;
(l) Boats damaged by accident and boats damaged while being loaded onto, transported upon, or unloaded from trailers, cradles, or other devices used to place boats in water, remove boats from water, or store or transport boats on or over land;
(m) Any item repaired, replaced, or modified under the terms of this warranty does not in any way prolong, extend, or change any terms set forth in this limited warranty;
(n) Water damage to, dry rot to, condensation to, or absorption by interior surfaces, wood structures or polyurethane foam; interior wood including, but not limited to, mold, bleeding and/or discoloration as a result of condensation or moisture or water continually contacting the plywood causing staining to upholstery, carpet or other interior surfaces;
(o) Costs or charges derived from inconvenience or loss of use, commercial or monetary loss due to time loss, and any other special, incidental, or consequential damage of any kind or nature whatsoever.
(p) Regal reserves the right to improve the design or manufacturing process of Regal boats without obligation to modify previously produced products.

NO WAIVER OF THESE TERMS: The terms, conditions, limitations, and disclaimers contained herein cannot be waived except by the Customer Service Manager of Regal. Any such waiver shall be in writing. Neither the authorized Regal dealer, nor the customer, nor any service, sales, and/or warranty representative of Regal, is authorized to waive and/or modify these conditions, limitations, and/or disclaimers.

EXCEPT AS SET FORTH HEREIN OR ON ANY OTHER WRITTEN EXPRESS LIMITED WARRANTIES BY REGAL, THERE ARE NO OTHER WARRANTIES EITHER EXPRESS OR IMPLIED PROVIDED BY REGAL ON THIS BOAT. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY, ARE EXPRESSLY EXCLUDED.
REGAL FURTHER DISCLAIMS ANY LIABILITY FOR ECONOMIC LOSS ARISING FROM CLAIMS OF PRODUCT FAILURE, NEGLIGENCE, DEFECTIVE DESIGN, MANUFACTURING DEFECT, FAILURE TO WARN AND/OR INSTRUCT, LACK OF SEAWORTHINESS, AND ANY OTHER THEORY OF LIABILITY NOT EXPRESSLY COVERED UNDER THE TERMS OF THIS LIMITED WARRANTY.

AS SET FORTH ABOVE, REGAL MAKES NO IMPLIED WARRANTY OF MERCHANTABILITY AND EXPRESSLY EXCLUDES ANY SUCH WARRANTY. TO THE EXTENT SUCH EXCLUSION IS NOT ALLOWED BY LAW OR AN IMPLIED WARRANTY OF MERCHANTABILITY IS REQUIRED BY LAW: (I) ANY IMPLIED WARRANTY OF MERCHANTABILITY THAT IS, AS A MATTER OF LAW, NOT PERMITTED TO BE EXCLUDED AS SET FORTH ABOVE, IS LIMITED TO ONE YEAR FROM THE DATE OF DELIVERY TO THE FIRST RETAIL OWNER; (2) NEITHER REGAL, NOR ANY SELLING DEALER SHALL HAVE ANY RESPONSIBILITY FOR LOSS OF USE OF THE BOAT, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, INCIDENTAL OR CONSEQUENTIAL DAMAGES.
SOME STATES MAY NOT ALLOW EXCLUSIONS OF IMPLIED WARRANTIES OR LIMITATIONS ON HOW LONG ANY IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT BE APPLICABLE. SOME STATES MAY NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT BE APPLICABLE IN THOSE STATES. THIS WARRANTY GIVES THE OWNER SPECIFIC LEGAL RIGHTS, AND THE OWNER MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

THE TERMS AND CONDITIONS CONTAINED HEREIN, AS WELL AS THOSE OF ANY DOCUMENTS PREPARED IN CONJUNCTION WITH THE SALE OF THIS VESSEL MAY NOT BE MODIFIED, ALTERED OR WAIVED BY ANY ACTION, INACTION, OR REPRESENTATIONS, WHETHER ORAL OR IN WRITING, EXCEPT UPON THE EXPRESSED, WRITTEN AUTHORITY OF A MANAGEMENT LEVEL EMPLOYEE OF REGAL.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Regal's obligation with respect to this warranty is limited to making repairs to or replacing the defective parts and no claim for breach of warranty shall be cause for cancellation or rescission of the contract or sale for any boat manufacturer by REGAL MARINE INDUSTRIES, INC.
Regal will discharge its obligations under this warranty as rapidly as possible, but cannot guarantee any specific completion date due to the different nature of claims which may be made and services which may be required. Regal reserves the right to change or improve the design of its boats without obligation to modify any boat previously manufactured. This limited warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. Regal shall in no way be responsible for any repairs not PRE-AUTHORIZED by a Regal Customer Service Manager or repairs performed by a repair shop not PRE-AUTHORIZED by a Regal Customer Service Manager.

ARBITRATION OF DISPUTES AND WAIVER OF JURY TRIAL

EXCEPT AS SPECIFICALLY EXCLUDED IN THIS LIMITED WARRANTY, PURCHASER, REGAL, AND AUTHORIZED REGAL DEALER AGREE TO SUBMIT ANY AND ALL CONTROVERSIES, CLAIMS, OR DISPUTES ARISING OUT OF OR RELATING TO THE BOAT AND THIS LIMITED WARRANTY AND ALL OTHER AGREEMENTS EXECUTED BY PURCHASER RELATED TO THE BOAT TO BINDING ARBITRATION. IT IS THE EXPRESS INTENT OF PURCHASER, REGAL, AND DEALER THAT THIS ARBITRATION PROVISION APPLIES TO ALL DISPUTES, INCLUDING CONTRACT DISPUTES, TORT CLAIMS, FRAUD CLAIMS, AND FRAUD-IN-THE-INDUCEMENT CLAIMS, STATUTORY CLAIMS, AND REGULATORY CLAIMS RELATING IN ANY MANNER TO THE BOAT AND THIS LIMITED WARRANTY.

IF ANY CONTROVERSY OR CLAIM DESCRIBED IN THIS ARBITRATION PROVISION IS DETERMINED FOR ANY REASON TO BE INELIGIBLE FOR ARBITRATION, AND FOR ANY CONTROVERSIES, CLAIMS, OR DISPUTES SPECIFICALLY EXEMPTED FROM ARBITRATION, THEN THOSE CONTROVERSIES, CLAIMS, OR DISPUTES SHALL INSTEAD BE DECIDED BY A JUDGE OF A COURT OF COMPETENT JURISDICTION, IN ORANGE COUNTY, FLORIDA, WITHOUT A JURY. PURCHASER, REGAL, AND DEALER KNOWINGLY AND VOLUNTARILY WAIVE THE RIGHT TO A TRIAL BY JURY FOR ALL SUCH CONTROVERSIES, CLAIMS, AND DISPUTES. PURCHASER, REGAL, AND DEALER UNDERSTAND THAT THERE SHALL BE NO JURY TRIAL, WHETHER THE CONTROVERSY OR CLAIM IS DECIDED BY ARBITRATION OR BY TRIAL BEFORE A JUDGE.
NOTWITHSTANDING THE PROVISIONS OF THIS ARBITRATION AGREEMENT, WITH REGARD TO CONTROVERSIES AND/OR ENTITLEMENT TO POSSESSION OF EITHER THE BOAT OR ANY TRADE-IN, ANY PARTY HERETO MAY RESORT TO A JUDICIAL DETERMINATION (BY A JUDGE AND NOT A JURY) OF SUCH CONTROVERSIES, DISPUTES OR CLAIMS WITHOUT WAIVING ANY RIGHT TO DEMAND ARBITRATION WITH RESPECT TO ALL OTHER CONTROVERSIES, DISPUTES, OR CLAIMS BETWEEN THE PARTIES AS MORE SPECIFICALLY SET FORTH IN THIS ARBITRATION PROVISION.
ALL ARBITRATIONS SHALL PROCEED THROUGH THE AMERICAN ARBITRATION ASSOCIATION AND BE SUBJECT TO ITS COMMERCIAL ARBITRATION RULES, EXCEPT AS SET FORTH HEREIN.
THE ARBITRATORS SHALL HAVE THE AUTHORITY TO AWARD ANY FORM OF RELIEF THAT COULD BE PROPERLY AWARDED IN A CIVIL ACTION IN THE STATE OF FLORIDA FOR THE TYPE OF CLAIMS PRESENTED, SUBJECT, HOWEVER, TO ALL LIMITATIONS, PREDICATES, AND CONDITIONS

COVERING SUCH REMEDIES OR RELIEF UNDER FLORIDA LAW.

THE PURCHASER, REGAL, OR DEALER MAY DEMAND ARBITRATION OF A CLAIM BY FILING A WRITTEN DEMAND FOR ARBITRATION, ALONG WITH A STATEMENT OF THE MATTER IN CONTROVERSY WITH THE AMERICAN ARBITRATION ASSOCIATION, AND SIMULTANEOUSLY SERVING A COPY UPON THE OTHER PARTY. PURCHASER, REGAL, AND DEALER AGREE THAT THE ARBITRATION PROCEEDING SHALL BE CONDUCTED IN ORANGE COUNTY, FLORIDA, UNLESS OTHERWISE AGREED BY THE PARTIES. EACH PARTY AGREES TO BEAR THEIR OWN ATTORNEY FEES AND COSTS DURING THE PROCEEDING. THE FILING FEES AND ALL OTHER THIRD-PARTY COSTS FOR THE ARBITRATION, INCLUDING THE ARBITRATOR'S FEE, SHALL BE PAID BY THE FILING PARTY INITIATING THE ARBITRATION. THE ARBITRATOR SHALL AWARD TO THE PREVAILING PARTY, IF ANY, AS DETERMINED BY THE ARBITRATOR, REASONABLE ATTORNEY FEES AND REASONABLE COSTS FROM THE NON-PREVAILING PARTY.

Introduction

Boating is becoming more popular each and every year. There are numerous types of recreational vessels on our waterways today involved in an ever growing number of activities. Therefore, as a Regal boat owner it is of the highest priority to learn about general boating practices before operating your vessel.

Your Regal dealer will answer many questions and provide valuable “hands on” information during the completion of the new boat delivery process. In addition, your dealer has received special factory training on the product line and his services should be employed to solve any technical problems and periodic maintenance beyond the scope of this manual. Your Regal dealer carries a line of factory approved parts and accessories.

Your Regal dealer can provide information regarding national training organizations such as the U.S. Power Squadron and United States Coast Guard Auxiliary. Along with other organizations and literature, they can help build your “boating savvy” by developing the necessary skills and awareness to be a safe and confident skipper.

Also, your local library can assist in providing recommended boating literature such as Chapman Piloting Seamanship & Boat Handling by Elbert S. Maloney. Also, boating information is available on the internet.

Remember, waterway conditions can change in a heartbeat. Knowing how to react quickly comes from experience and knowledge which can be gained through boating education.

Welcome aboard!

Important Notes

FUEL SYSTEMS

Boats manufactured for use in California for model year 2026 and after meet the California EVAP Emissions regulation for spark-ignition marine watercraft. Boats meeting this requirement will have a label affixed near the helm.

⚠ WARNING

Operating, servicing and maintaining a recreational marine vessel can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, service your vessel in a well-ventilated area and wear gloves or wash your hands frequently when servicing this vessel. For more information go to: www.P65warnings.ca.gov/marine.

The fuel system in this boat complies with U.S. EPA mandated evaporative emission standards at time of manufacture using certified components. See the label below.

EMISSIONS CONTROL SYSTEM INFORMATION

MEETS U.S. EPA EVAP STANDARDS USING CERTIFIED COMPONENTS AND MEETS 2021 MY CALIFORNIA EVAP EMISSIONS REGULATIONS FOR SPARK-IGNITION MARINE WATERCRAFT

MANUFACTURER: REGAL MARINE INDUSTRIES, INC.
MODEL:

CALIFORNIA EVAP FAMILY: MRMIPVSSL002
EMISSION CONTROL SYSTEM: CM

REGAL # 212226

Note the YYYY MY (model year) along with the California Evap Family first Letter in the Family grouping changes annually in this label.

MANUFACTURER'S WARRANTY

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your spark-ignition marine watercraft is defective, the part will be repaired by Regal Marine Industries, Inc.

OWNER'S MANUAL RESPONSIBILITIES

- As the spark-ignition marine watercraft owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Regal Marine Industries, Inc. recommends that you retain all receipts covering maintenance on your spark-ignition marine watercraft, but Regal Marine Industries, Inc. cannot deny warranty solely on the lack of receipts.
- As the owner, you should be aware that Regal Marine Industries, Inc. may deny you warranty coverage of your spark-ignition marine watercraft or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your spark-ignition marine watercraft to a Regal Marine Industries, Inc. distribution center or a service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have any questions regarding your warranty coverage, you should contact Regal Marine Industries, Inc. at 407-851-4360.

NOTE AS PART OF REGAL'S COMMITMENT TO PRODUCT IMPROVEMENT SPECIFICATIONS, COMPONENTS, AND LOCATIONS DISPLAYED IN DRAWINGS AND/OR DOCUMENTATION MAY CHANGE AT ANY TIME. SELECT COMPONENTS ARE OPTIONAL AND MAY NOT BE INSTALLED ON YOUR VESSEL.

Chapter 1
General Vessel Information

Regal Owner's Manual

Your Regal owner's manual has been compiled with information to assist you in operating your craft with safety and pleasure. This manual targets specific details of Regal related systems and components along with their location, operation and maintenance that normally are not found in the vendor information. In addition, supplier related equipment information is located within the owner's information packet.

⚠ WARNING

Prevent injury, death, or property damage! Read and understand the propulsion owner's manual before attempting to operate the vessel.

The Regal owner's manual is not to be thought of as a complete shop technical document. Besides the system chapters, there is troubleshooting information devoted to select current standard and optional equipment. In addition, refer to the engine and generator (if installed) operator's manuals. More detailed information may exist in the owner's packet associated with that component.

Remember that your Regal dealer has received special factory training and his services should be employed to solve more technical problems.
Call 407-851-4360 or go to the internet at regalboats.com to find the closest Regal dealership.

In keeping with its commitment to improvement Regal Marine Industries, Inc. is continually upgrading the product line. Regal notes that all dimensions, specifications, models, standard and optional equipment is subject to change without notice at any time.

Regal Owner's Manual QR Label

Currently there is a QR label attached to a visible location such as the helm or cabin. This label when scanned by a phone will take you via an app to the Regal website where you can download your models owner's manual or for that matter any Regal owner's manual.

With the manual downloaded you can duplicate it into a format you are comfortable using. The QR label is used globally for any type product from the food, home and auto business to boats. It affords much more capacity and is much more customer friendly than the traditional bar code used by manufacturer's on their products. *Other Regal owner's manuals can be found by scanning this QR Code or by going to: regalboats.com/owners.*

Owner's Information Packet

An owner's information packet (black satchel) is located on the vessel. Read and become familiar with the materials. This packet contains valuable information on your propulsion package, standard and optional equipment, systems, care and maintenance along with component warranty. Store the information packet in a clean, dry location on board your vessel.

Vessel Information Sheet

It is recommended that you fill out the information on the following page. It will supply vital statistics on your vessel.

ABYC Yacht Plate

In proximity to the helm on Regal boats over 26' in length is a NMMA (National Marine Manufacturer's Association) yacht plate. This plate recognizes that your vessel was built to ABYC design compliance standards in effect on the date the certification was verified. The plate also states that your vessel complies with United States Coast Guard safety system standards in effect on the date of certification.

Note: Overloading, improper loading and weight distribution are well documented causes of accidents. Provide for an extra margin of safety in rough sea conditions.

Hull Identification Number

The United States Coast Guard has established a universal system of numerically recognizing vessels by using a hull identification number or "HIN." This number identifies your Regal yachts' model, hull number, month and year of manufacture. The HIN is normally found on your boat's hull on the starboard side, just below the rub rail on the transom vertical surface. The HIN is stamped on a plate and reinforced with a special adhesive. The HIN consists of 12 alpha or numeric characters.

It is recommended that you locate and write down the HIN for future reference. It can be especially useful when ordering parts from your Regal dealer. A second HIN number is found in a hidden location. This second HIN is useful to authorities if the vessel is stolen and/or the original transom HIN is modified or eliminated.

Vessel Float Plan

Formulate the float plan on the following page before departing. Leave it with a responsible person who will notify the United States Coast Guard or local law enforcement authorities if you do not return as planned. If you change your plans be sure to notify this person. Make copies of the float plan and use one each time you go boating. This will help people know where to find you should you not return on schedule. Do not file the float plan with the United States Coast Guard.

Vessel Information Sheet

Owner: _____

Address:_____

City & State:_____

Home Phone: _____ Business Phone:_____

In Case Of Emergency Notify: _____

Address _____

_____

City & State _____

Phone _____

Insurance Agent's Name:_____

Policy#: _____

USCG Phone: _____ Local Police:_____

Marina Phone: _____ Slip (Dock#): _____

Hull Serial #: RGM __ __ __ __ __ __ __ __ __ __ __ __

Key #:_____ Engine:_____

Selling Dealer: _____

Address: _____

City & State: _____

Phone: _____ Fax: _____

Servicing Dealer:_____

Address:_____

City & State:_____

Phone:_____ Fax:_____

Vessel Float Plan

Fill out this form before departure. Leave it with a responsible person who will notify the Coast Guard or police if you don't return as planned. If you change your plans be sure to notify this person. Make copies of the float plan and use one each time you go on a trip. This will help people know where to find you should you not return on schedule. Do not file this plan with the Coast Guard.

Owner: _____
Address: _____
City & State: _____
Telephone#: _____
_____
_____
Person Filing Report: _____
Name _____
Telephone _____
_____
_____
Make Of Craft: _____
Length_____Boat Name _____
Color_____ Trim____ Hp_____
Inboard _____ Stern Drive_____
Hull I.D.# _____
Documented Vessel # _____
_____
Other Information _____
_____
_____
_____
_____

Safety Equipment Aboard: _____
Life Jackets
First Aid Kit
Flares
Flash Light
VHF Radio
Cell Phone __#_____
Computer __Desk Top ____Lap Top___
E-mail address_____
Food_____Water____

State Registration#_____
Destination:
Leave From _____
Time Left_____
Going To _____
Fuel Capacity_____
Est. Day Of Arrival _____
_____
Est. Time Of Arrival _____
If Not Back By____o'clock Call Authorities

Persons Aboard:

Name	Age	Address	Phone

____See Other Side For Additional Persons

Vessel Cruise Checklist

- ☐ Obtain a current weather update.
- ☐ Hoist the boat & periodically inspect the hull bottom and propellers for damage. Marine growth such as barnacles will affect performance and fuel efficiency. Check sacrificial anodes located on the propulsion unit, transom and engine. Replace anode if less than 2/3 remaining.
- ☐ Check the electrical system and all safety related equipment. Carry extra fuses. Ensure they are of the proper capacity and type.
- ☐ If your boat has been in the water, run the bilge pump until the flow of water stops.
- ☐ Check to see that all bilge water has drained and the drain plug is installed before launching If your boat if it has been out of the water.
- ☐ Check that all required safety equipment is on board and in good working condition Examples include personal flotation devices (PFD's), horn, bell, hand held fire extinguishers, and visual distress signals.
- ☐ Check fuel level. Fuel tanks should be filled to slightly less than capacity. Allow for fuel expansion. Remember the "one third rule".
- ☐ Open engine compartment. Inspect for fuel odors and visible leaks in the fuel, oil, coolant, exhaust and power steering systems.
- ☐ Check all fuel filters for the presence of water.
- ☐ Check fluid levels of engines, drives and generator (if applicable).
- ☐ Inspect engine for cracked hoses, worn or loose belts, and loose hardware.

Recommended On Board Equipment

Tools:

Allen Wrenches
Jack Knife
Phillips Screwdriver
Regular & Needle Nose Pliers
Combination Box & End Wrench Set
Screwdriver Set (One With Various Tips)
Side Cutters
Ratchet & Socket Set
Electrical Crimper,Cutter,Stripper Combo
Hammer
VOA Electrical Tester
Water Pump Pliers
Vise Grip Pliers
Floating Flashlight/Lantern
Oil/Fuel Filter Wrench
Tape Rule

Spare Parts:

Fuel Filters-Engines & Generator
Poly V- Belt (See Engine Manual)
Coolant For Engine Freshwater System
Extra Light Bulbs
Seawater Filter
Fuses
Propeller Set (See Dealer)
Propeller Hardware
Flashlight Batteries
Engine Spare Parts
Generator Spare Parts
Air Filters-Engine & Generator
Oil Filters-Engine, Generator
Drive Oil Filters

Basic Gear & Supplies:

Tow Line
Lubricating Oil, Liquid Wrench
Mooring Lines
Duct & Electricians Tape
Dock Fenders
Coolant (Engine Freshwater Side)
Distress Signals
Engine, Drive, Power Steering Oil
First Aid Kit
Boat Soap (Not Dish Soap)
Boat Hook
Woody Wax
Charts & Plotting Instruments
Vinyl Cleaner
Emergency Food & Water
Hydrogen Peroxide (AC Pans)
EPIRB
Life Raft
Bailer or Hand Pump
Rust Stain Remover (Star Brite)
Extra Hand Held Fire Extinguishers
Corrosion Block
Personal Floatation Devices
Bilge Cleaner
Clean Rags, Diapers- For Oil Leaks
Nylon Windbreaker Suit
Sunscreen (SPF 30+)
Shop Vacuum (1 Gal. Cap. Wet-Dry)
Bucket/Pans w/Lids-Draining/Storing
Used Fluids
Squeegee
Mirror (For Inspection & Emergency Signaling)
Binoculars

Owner's Registration & Systems

Please note that your boat requires the proper registration by your authorized Regal dealer. To initiate the vessel warranty your dealer must complete the owner's registration form and systems checklist at the time of delivery. The owner must sign the paperwork to acknowledge that the dealer has reviewed the boat systems and warranty provisions with the owner. The owner should keep the original paperwork that features a temporary warranty registration. A warranty certificate will be sent several weeks after receipt of the paperwork at Regal World Headquarters.

Dealer's Responsibility

Your vessel has undergone rigid quality assurance inspections before leaving the factory. In addition, your dealer has been trained to perform final predelivery checks and to service your Regal boat.

Your dealer's responsibilities include:

1. An orientation in the operation of your Regal boat including matters relating to the safe operation of the vessel.

2. Completion and mailing of your boat registration warranty form to Regal.

3. Location of vendor warranties, registration materials, owner's manual, operation, installation and maintenance instructions for auxiliary equipment supplied with or installed on your Regal boat.

Owner's Responsibility

You are entitled to all the benefits and services outlined in your Regal warranty. However, you have certain responsibilities to ensure warranty satisfaction. These are:

To read the warranty materials and understand them fully.

To examine the vessel in detail at the time of delivery.

To apply the following: boating rules and regulations, safety equipment, environmental regulations, accident reports and warranty regulations terms and conditions.

To read thoroughly all literature supplied with your boat including this owner's manual and to follow the recommendations in the literature.

To provide proper maintenance and periodic servicing of your boat and equipment as set forth in the various manuals supplied.

Customer Service

Take the time to write down your Regal dealer's phone number and E-mail address for future reference. Along with your Regal dealer information is a listing below of other phone numbers and web addresses which may prove useful.

Regal Dealer:

Phone: _____
E-mail: _____

Regal Marine Customer Service:
1-800-US REGAL (1-800-877-3425)
regal@regalboats.com
customer.service@regalboats.com

Chapter 2
Safety On Board

Safety awareness can not be over emphasized. Safety on board needs to be the skippers number one priority. In this manual you will find many safety precautions and symbols to identify safety related items. Heed all safety precaution information. Remember, the skipper is responsible for the safety of his passengers.

Safety Labels

Safety precautions are stated as caution, warning and danger signal words. They are highlighted in this manual by font design and symbol usage. Also, a notice heading is included which provides operation and maintenance information but is not hazard-related. An information label provides tips on a variety of topics.

Read and understand all safety labels affixed to your Regal boat or found in this manual and the vendor literature. Many of the safety labels are posted close to the helm, aft cockpit, cabin and swim platform. The location of the labels may vary. Review the helm safety labels with passengers before disembarking. Use common sense to analyze the result of an action on board your vessel. Always think safety first!

NOTICE

General or specific information which is important for proper operation or maintenance, but is not hazard related.

⚠ CAUTION

Indicates a potentially hazardous situation or unsafe practice that, if not avoided, may result in injury, property, or product damage.

⚠ WARNING

Potentially hazardous situation that, if not avoided, could result in death or serious injury.

⚠ DANGER

Immediate hazardous situation that, if not avoided, will result in death or serious injury.

NOTICE

Do not remove or cover any precautionary labels. Keep harsh chemicals away from labels. If a label becomes illegible, contact your Regal dealer for ordering replacements.

General Boating Safety

We understand that you are eager to go boating. However, we strongly suggest that you thoroughly familiarize yourself and friends or members of your family with safe boating practices before setting out. Remember, that along with the freedom and exhilaration of boating comes the responsibility that you have for the safety of your passengers and other boaters who share the water with you.

Boating regulations vary from state to state. Check with your local and state authorities for the regulations pertaining to your area.

Check with local FM weather stations, U. S. Coast Guard, or on-line for the latest weather conditions.

Remember getting caught in severe weather is hazardous. Check weather conditions periodically while you are boating. If you are forced to operate your boat in a storm condition, take common sense precautions; wear PFD's, store gear, reduce speed and if possible head for safe refuge.

It is best to avoid operating your boat in foggy weather. When fog sets in, take bearings, log courses and speeds. You are required to emit a five second blast from your horn or whistle once every minute. Also, have your passengers wear PFD's and observe for oncoming vessels.

Operation in shallow water presents a number of hazards including sand bars and water levels influenced by tides. If the vessel strikes an underwater hazard, check for boat and engine damage. If the engine vibrates excessively after striking an underwater obstruction, it may indicate a damaged propeller. If you run aground, seek help by radio or flares.

Make sure your boat and equipment are in top condition. Do this by frequently inspecting the hull, engine and propulsion components.

You must provide a Coast Guard approved personal flotation device (PFD) for every person on board. These PFD's should be in good condition and easily accessible.

Insist that non-swimmers and children on board wear a PFD at all times. If you encounter rough weather conditions, make sure everyone on board is wearing a PFD, including yourself. Instruct your passengers in how to put on their PFDs and be sure they know their storage location on the boat. Remember, in an emergency, a PFD that cannot be quickly located and worn is useless.

Never allow anyone to sit anywhere on the boat not specifically designed as seating. **While underway, ALWAYS insist passengers occupy a recognized seat as shown on page 215 of this manual.**

Never drink and drive! As captain, you are responsible for the safety of your passengers. Alcohol and boating can be a dangerous combination. DO NOT

mix them. Alcohol impairs the boat operators ability to make conscious decisions and react to emergency situations quickly.

Never overload your boat! An overloaded boat, or one with uneven weight distribution can be difficult to steer. **Never let people stand in bow area while underway as vision will be obstructed!!!** Insist that passengers wear life jackets and sit in the designated seats per the seating arrangement plan in the technical section of this manual while the vessel is underway!

⚠ CAUTION

Read and understand the seating arrangement drawing in the Technical Drawings chapter. This drawing displays the designated seating arrangement for a balanced load and vessel maximum persons capacity.

Use maximum caution when fueling. Never allow any smoke or flame nearby while you are fueling. Be certain there is enough fuel aboard for your cruising needs especially if your cruise distance expands.

Practice the “one-third rule: Use one-third of your fuel going out, one-third to return and retain one-third as a reserve.

Always check the weather before departure. Be particularly cautious of forecasted electrical storms and high winds.

Always have up-to-date charts aboard as a back-up to your plotter and auto pilot option. Charts can be obtained at your closet marina, on-line store or by contacting one of three federal government agencies.

Always file a float plan. Leave details of your trip with someone responsible who will be remaining on shore. Include expected return, plus name and phone number of a contact person in case of emergency.

Use care, courtesy and common sense when launching, docking or operating your boat.

Learn and obey the “Rules of the Road”. A weather resistant placard copy of the “Rules of the Road” is included in the on board Regal information packet. Additional information can be obtained from the U.S. Coast Guard Auxiliary or your local Power Squadron organization.

In case of emergency know the international distress signals for your VHF radio. The spoken word “MAYDAY” is the international signal of distress and is for emergency use only. Under no circumstances should this word be used, unless there is danger at hand.

Operation in shallow water presents a number of hazards including sand bars and water levels influenced by tides. If the vessel strikes an underwater hazard, check for boat and engine damage. If the engine vibrates excessively after striking an underwater obstruction, it may indicate a damaged propeller. If you run aground, seek help by radio or flares.

Make sure your boat and equipment are in top condition. Do this by frequently inspecting the hull, engine and propulsion components.

You must provide a Coast Guard approved personal flotation device (PFD) for every person on board. These PFD's should be in good condition and easily accessible.

Again, insist that non-swimmers and children on board wear a PFD at all times. If you encounter rough weather conditions, make sure everyone on board is wearing a PFD, including yourself. Instruct your passengers in how to put on their PFDs and be sure they know their storage location on the boat. Remember, in an emergency, a PFD that cannot be quickly located and worn is useless.

Never allow anyone to sit anywhere on the boat not specifically designed as seating. While underway, ALWAYS insist passengers sit in a seat and set an example by doing this yourself.

Never drink and drive! As captain, you are responsible for the safety of your passengers. Alcohol and boating can be a dangerous combination. DO NOT mix them. Alcohol impairs the boat operators ability to make conscious decisions and react to emergency situations quickly.

Never overload your boat! An overloaded boat, or one with uneven weight distribution can be difficult to steer.

Insist that passengers sit in seats while the vessel is making headway!! See technical chapter for seating positions while underway. No one to be standing in the bow area while underway as visibility will be obstructed!!!

Posted speed limits, swimming areas, "no wake" zones and other restrictions should be red-flagged. They are so noted for a reason. Sensible boat use, plus courtesy, equals enjoyable and safe boating.

It is your responsibility to stay abreast of all federal, state and local rules, as some laws or regulations may change or be different from state to state. Contact your local boating agencies for updated information.

We can not stress safety enough! Remember, there are no brakes on your boat, and the water current and wind velocity both affect your ability to respond.

Safety on board deck is a must do item for the boat operator. Always use common sense when boarding and exiting, making headway and anchoring in open waters.
Following are recommendations when using components such as the boarding platform and ladder, foredeck and hand holds.

Aft Platform

On all types of aft platforms you should make periodic inspections of the hardware that support the platform to ensure that all connections and fittings are tight and in good condition.

Use caution when operating the boat in reverse to insure that water does not accumulate excessively on the platform or transom, especially in rough seas or strong currents. If installed, do not exceed the recommended maximum capacity label!

Typical label shown (vary by platform type/model).

⚠ CAUTION

Maximum capacity of swim platform
500 lbs / 226 kg

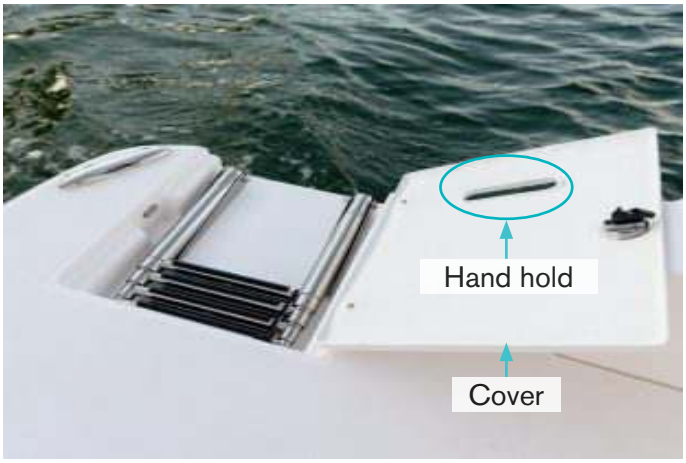
⚠ WARNING

Avoid serious injury or death! Do not operate the boat with people in the water on top or holding on to the swim platform structure.

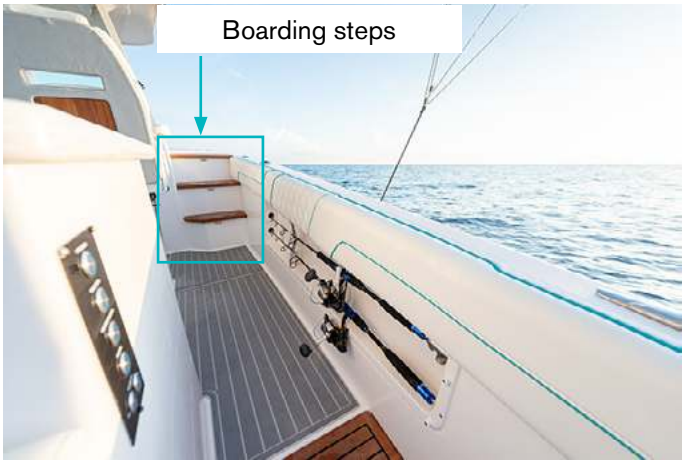
Typical outboard aft platform

Boarding Ladder

When exiting using the ladder ensure it is fully extended and your feet are firmly planted on each rung. When entering the vessel using the ladder ma make sure the ladder is fully extended and the ladder cover is latched to safely use the hand hold integrated into the cover.
Note to never use any segment of the outboard motor to assist in boarding! Body parts could be injured by the propeller blades. Always ensure the boarding ladder is fully folded and the cover latched before making headway!



Typical boarding ladder



The vessel features a starboard set of boarding steps used for embarking when mooring. When entering or exiting the vessel utilize the hard top hand holds. Make sure the vessel is moored securely before embarking.

Read and understand the following label installed on the step riser. As the vessel operator, inform passengers not to use the boarding steps when the boat is underway.

⚠ WARNING

Avoid possible bodily injury or death due to falling! The starboard boarding steps are for embarking only! Use hand holds! Do not occupy or use boarding steps when underway!

Required Safety Equipment

Personal Flotation Devices:

All personal flotation devices (PFD's) must be Coast Guard approved, in good working condition, and must be the correct size for the wearer. All PFD's must be readily accessible. This means being able to wear them in a reasonable amount of time in case of an emergency (fire, boat sinking, etc.). They should not be stored or locked in closed areas. Also, make sure that all coverings are removed such as plastic from any PFD's. Throw-able devices such as a ring buoy need to be available for immediate deployment. A PFD should be worn at all times when your boat is operating on the water. A PFD may save your life, but it must be worn to do so.

As a minimum U. S. Coast Guard requirement all recreational boats must carry one type I, II, III, or V PFD (wearable) for each person aboard. See the explanation following for each type. For type V to be counted they must be used according to the label instructions. In addition, all boats over 16' must carry one Type IV (throw-able) PFD.

Some states require that PFD's be worn by children of specific ages at all times. Check with local and state boating agencies for particular requirements in your state before taking children on the water. Child life jackets are classified by the child's weight and should like all life jackets be sized before being purchased.
Remember PFD's will not necessarily keep you from drowning, even though they are designed to keep a person from sinking. When purchasing PFD's make sure it safely fits the person wearing it. It is a good idea to test PFD's in a life guarded shallow pool before venturing on the water.
Refer to the USCG minimum equipment requirements at the end of this chapter. It is meant to be a guide only. Contact state and local agencies for additional equipment requirements. Remember as the captain of your vessel you are responsible for its safe operation.

Type I:

Also known as an off-shore jacket, it provides the most buoyancy. It is a PFD for all waters and is especially useful in rough waters where rescue may encompass additional time. It is designed to turn most unconscious users in the water to a true face-up position. Type I PFD is available in adult & child sizes Buoyancy minimum poundages are 15.5 adult, 11 medium child, and 7 for small child and infants.

Type II:

Also known as near-shore buoyant vest, it is recommended for calm, inland water where rescue time will be minimal. It will turn some unconscious people face-up in the water but not as numerous as Type I. They are available in adult, medium child, along with infant and small child sizes.

Type III:

Known as a flotation aid it is good for calm, inland water or where there is a chance for quick rescue. It is designed so wearers can place themselves in a face-up position in the water. The wearer may have to tilt their head back to avoid face-down positions. Type III offer the same buoyancy minimum poundages as the Type II. They are generally the most comfortable for continuous wear. Float coats, fishing vests, and vests featuring designs for various sport activities are examples of Type III.

Type IV:

Intended for calm, inland water with heavy vessel traffic, where help is constantly present. It is designed to be thrown into the water for someone to grab on to and held until rescued. It is not designed to be worn. Type IV includes ring buoys, buoyant cushions, and horseshoe buoys.

Type V:

Also known as a special use device this is the least bulky of all PFD's. It contains a small amount of inherent buoyancy, and an inflatable chamber. It is rated even to a Type I, II, or III PFD (as noted on the jacket label) when inflated. Some Type V devices provide significant hypothermia protection. Varieties include deck suits, work vests, board sailing vests and Hybrid PFD's. Remember that this Type V type PFD may be carried instead of another PFD only if used according to the approval condition on the label.

Note: A water skier or wake boarder is considered on board the vessel and a PFD is required for the purposes of compliance with the PFD carriage requirements. It is advisable and recommended for a skier or wake boarder to wear a PFD designed to withstand the impact of hitting the water at a high speed. "Impact Class" marking on the label refers to PDF strength, not personal protection. Some state laws require a skier or wake boarder to wear a PFD.

PFD's For Pets:

If you are a skipper who needs to have his pet dog or cat on board or dock side then a PFD is recommended. The PFD will aid you in finding the pet if it should fall overboard. The device must fit the pet properly. Also, it may take a bit of training before the pet is comfortable wearing the PFD. Normally, dogs are easier to train wearing a life vest than a cat. Marine type retail stores will fit a pet to a PFD by body weight.

Maintaining Your PFD's

A PFD is only useful if it is well maintained. Always be aware of PDF age since it has a life expectancy like any other piece of equipment.

√ Check periodically for broken zippers, frayed webbing, water soaked kapok bags, missing straps, and sewing that has become undone.

√ Clean each PFD with mild soap and water only. Again, let dry sufficiently before storing.

√ Keep PFD's out of grease and oil since they can deteriorate the jacket inner and outer materials.

√ Check any kapok-bagged jackets by squeezing. If you hear air escaping the bag is defective and the PFD should be thrown away.

√ Grab the cover with the fingers. If the cover material rips, the PFD is rotted and should be thrown away.

Portable Fire Extinguishers

While the vessel may already come equipped with portable fire extinguishers, it is the owner's responsibility to ensure proper maintenance and replacement is taken care of.

Below are the necessary requirements:

- U.S. Coast Guard Approved for marine use.
- The recommended minimum rating is 5-B:C (formerly B-I).
- Dry chemical (Class ABC) is the standard for general protection. However, a "clean agent" extinguisher may be purchased (such as Halotron or FK-5-1-12) for use near the helm or entertainment systems to prevent residue damage to sensitive electronics.

Fire Emergency Procedure

In the event of a fire, take the following actions immediately:

1. Immediately shut down all engines, generators, and blowers.
2. Ensure all passengers have donned life jackets.
3. Extinguish the fire:

- If the fire is in the Lazarette compartment, <u>do not open the hatch.</u> If the fixed fire extinguisher has not been automatically discharged, manually discharge it immediately as detailed earlier.
- If the fire is above deck or in the cabin, use a portable fire extinguisher, aiming at the base of the flames with a sweeping motion. **Never use water on gasoline, oil, or electrical fires.**

4. If possible, maneuver the vessel to position the fire downwind of passengers and superstructures.

U.S.C.G Approved Fire Extinguisher Types & Features:

The dry chemical agent is widely used because of its convenience and low cost. The extinguisher canister is filled with a white dry chemical powder along with a pressurized gas. It is a good idea to shake this type periodically because they tend to "pack" on the canister bottom.

The foam type uses a chemical foaming agent plus water and is best when used for fires involving flammable liquids-solvents, gasoline, oil, grease and various paints. It will work on fires involving rubber, plastics, cloth, wood, and paper. It leaves a messy residue. Do not use this extinguisher for electric fires.

The carbon dioxide unit uses CO2 gas under high pressure, with a funnel discharge hose usually swivel mounted. This extinguisher leaves no residue and does not cause interior engine harm. To ensure workability, weigh the unit annually. A 10% maximum weight variance is allowed.

Pyrotechnic Devices:

Pyrotechnic visual distress signals must be Coast Guard approved, be ready for service and must be readily accessible. They all display a marking which is the service life, which must not have expired. A minimum of 3 devices are required for the day and 3 devices for night.
Some devices meet both day and night requirements. Pyrotechnic devices should be stored in a cool, dry location. Most of these devices can be purchased in an highly visible (orange) watertight container. Types of Coast Guard approved pyrotechnic distress signals and associated devices are:

- Pyrotechnic red flares, hand-held or aerial type.
- Pyrotechnic orange smoke, hand-held or floating type.
- Launchers for parachute flares or aerial red meteors.

All in all, each distress signal has certain advantages and disadvantages.

There is no distress signal that is best under all situations. Pyrotechnics are recognized worldwide as superior distress signals. A downfall is they emit a very hot flame that can cause burns and or ignite flammable materials. Pistol launched and hand-held parachute flares operate consistent with firearms and therefore must be carefully handled. Check with local and state regulations since some of these device are considered firearms and are prohibited.

It is best to carry red aerial flares which are visible from a greater distance. Also, the red parachute flares burn for longer periods and therefore are more likely to be seen by another vessel.

Non-Pyrotechnic Devices:

Non-pyrotechnic devices must all be in serviceable condition, readily accessible, and must be certified by the manufacturer to comply with USCG standards. They include:

- Orange distress flag.
- Electric distress light.

The distress flag is for day use only. It must be 3 x 3 or larger with a black square and ball on an orange background. It can be spotted when attached to a boat hook, long fishing rod, or paddle with the person waving the flag back and forth overhead.
The electric distress light is for night use only flashing the international SOS distress signal (..._ _ _ ...).

Under Inland Navigation Rules, a high intensity white light that flashes at regular intervals from 50-70 times per minute is considered a distress signal.

Remember that regulations prohibit the display of visual distress signals on the water under any circumstances except when assistance is required to prevent immediate or potential danger to passengers on a vessel.

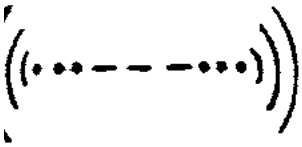
International Distress Signals

BLACK SQUARE
AND BALL ON
ORANGE BACKGROUND

CODE FLAGS
NOVEMBER
& CHARLIE

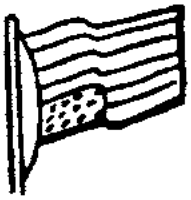
SQUARE FLAG
& BALL

PERSON
WAVING
HANDS



MORSE
CODE S.O.S.

"MAYDAY"
BY
RADIO



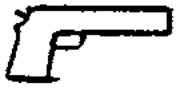
ENSIGN
UPSIDE
DOWN

PARACHUTE
RED FLARE

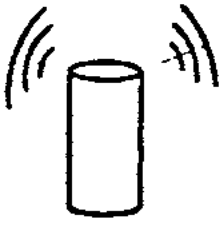
RED METEOR
FLARES

SMOKE

FOG HORN
SOUNDED
CONTINUOUSLY

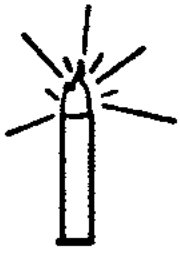


GUN FIRED AT
1- MINUTE
INTERVALS



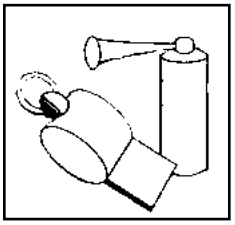
POSITION
INDICATING
RADIO BEACON

DYE MARKER
(ANY COLOR)



HAND-HELD
FLARE

Sound Producing Devices



According to both Inland and International Rules, all boats must carry a way of producing an efficient sound signal. If your vessel is 12 meters (39' 4") or longer, a power whistle or power horn and bell must be carried. Bell mouth must be at least 7 7/8" diameter. The sound signal made in all cases must be capable of a four or six second blast audible for one half mile. See the section discussing bridge and whistle signals for more information.

Radio Communications:

VHF radios are used for distress and ship to shore and ship to ship communications today. Learn the specialized messages such as Mayday, Mayday, Mayday. It is only used when life or vessel is in imminent danger.

Many of the more recent VHF's feature DSC capability which offers the ability to place and receive digital calls directly with vessels and shore stations including USA and Canadian Coast Guards. Channel 70 is reserved exclusively for DSC calls. Refer to the VHF owner's information since you need to establish a Mobile Maritime Safety Identity (MMSI) number before using the DSC feature. A MMSI number identifies each DSC radio, like a telephone number. The FCC requires a ship station license for all vessels equipped with a marine VHF radio.

Navigation Lights:

The U. S. Coast Guard requires recreational boats operating at night to display navigation lights between sunset and sunrise along with other periods of reduced visibility.
Navigation lights help avoid collisions by improving the night visibility of vessels. Red and green directional lights, white stern lights, white masthead lights and white all-around lights must be displayed in specified positions, depending on boat size, and mode of operation.

Marine Sanitation Devices:

Recreational vessels under 65' with installed toilet facilities must have an operable marine sanitation device (MSD) on board. Vessels 65' and under may use Type I, II, or III MSD's. All installed MSD's must be U.S. Coast Guard certified. The MSD's are labeled to show conformity to the regulations.

Navigation Rules:

The navigation rules establish actions to be taken by vessels to avoid collision. They are divided into Inland/International. Operators of vessels 39.4' or more shall have on board and maintain a copy of the Inland navigation rules.

Navigation Light Rules

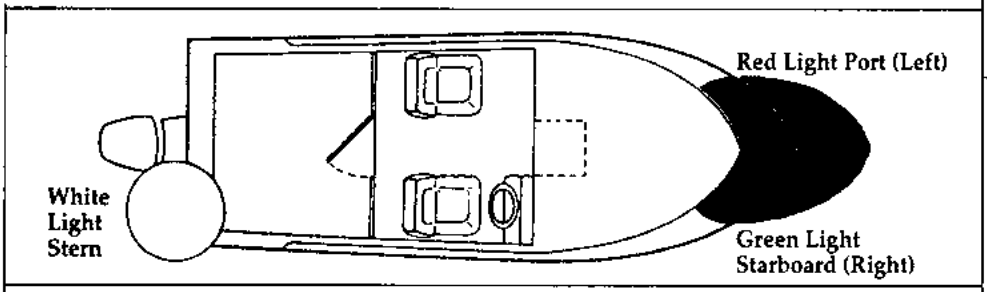


figure 1

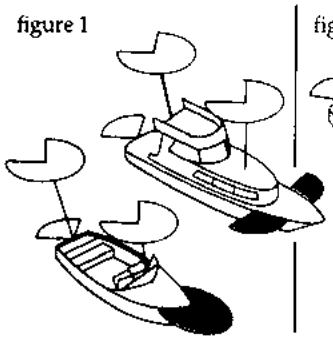


figure 2

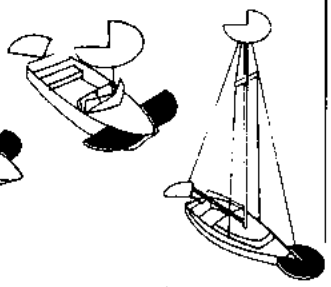


figure 3

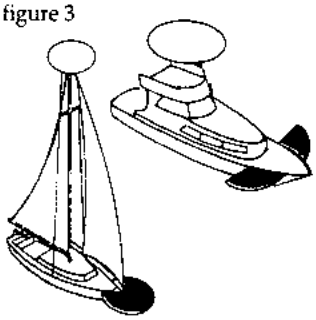


figure 4

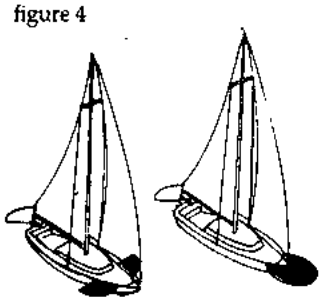


figure 5

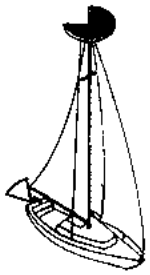


figure 6

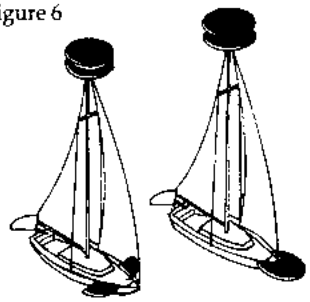
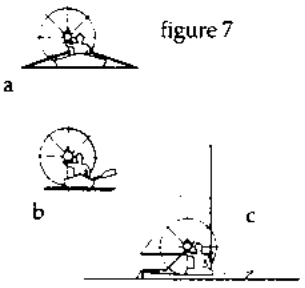


figure 7

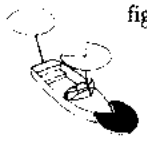


Sailboat using sail alone, less than 7 meters in length: If impractical to display lights in figure 4, 5 or 6, a single white light may be displayed in time to prevent a collision (figure 7c).

Row Boats or Paddle Boats
One all-round white light ready to display in time to prevent a collision (figure 7 a or b).

Great Lakes

figure 7d



Motorboat or sailboat using power on Great Lakes: The lighting arrangements in figure 7d may be used instead of the arrangements in figures 1 and 2.

Location of lights on vessel	Visible Range: Less than 12 m.	Visible Range: 12 m. but less than 20 m.	Degrees of arc lights
	in miles		
Masthead	2	3	225°
All-round	2	2	360°
Side lights	1	2	112.5° each color
Stern light	2	2	135°

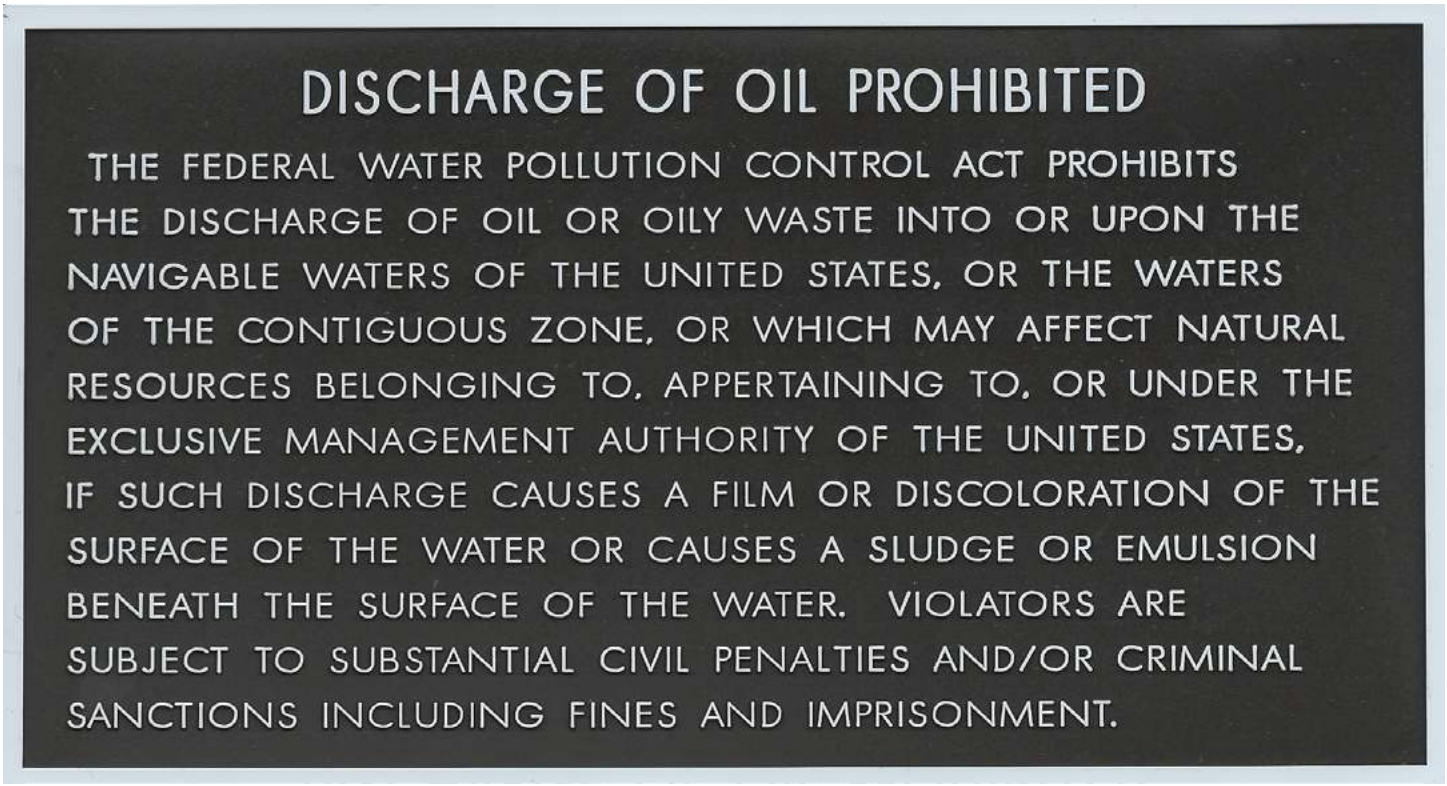
Boats less than 12 meters in length
Motorboats or sailboats using power: The lighting arrangements to figure 1, 2 or 3 may be used.
Sailboat using sails alone: The lighting arrangements in figure 4, 5 or 6 may be used.

Boats 12 meters but less than 20 meters in length
Motorboats or sailboats using power: The lighting arrangements to figure 1 or 2 may be used.
Sailboat using sails alone: The lighting arrangements in figure 4, 5 or 6 may be used.

Location of lights
Lights should be located as shown in the drawings.
The masthead light (forward white light in figures 1, 2 and 7d) must be at least one meter higher than the colored lights on a boat less than 12 meters in length and at least 2.5 meters above the gunwale on a boat 12 meters but less than 20 meters in length.

Exceptions
Motorboat or sailboat using power, built before December 24, 1980: The lighting arrangement in figure 1, 2 or 3 may be used. However, the arrangement in figure 3 is not acceptable on a boat that is 12 meters or longer on international waters.

Pollution Regulations



Marpol Treaty:

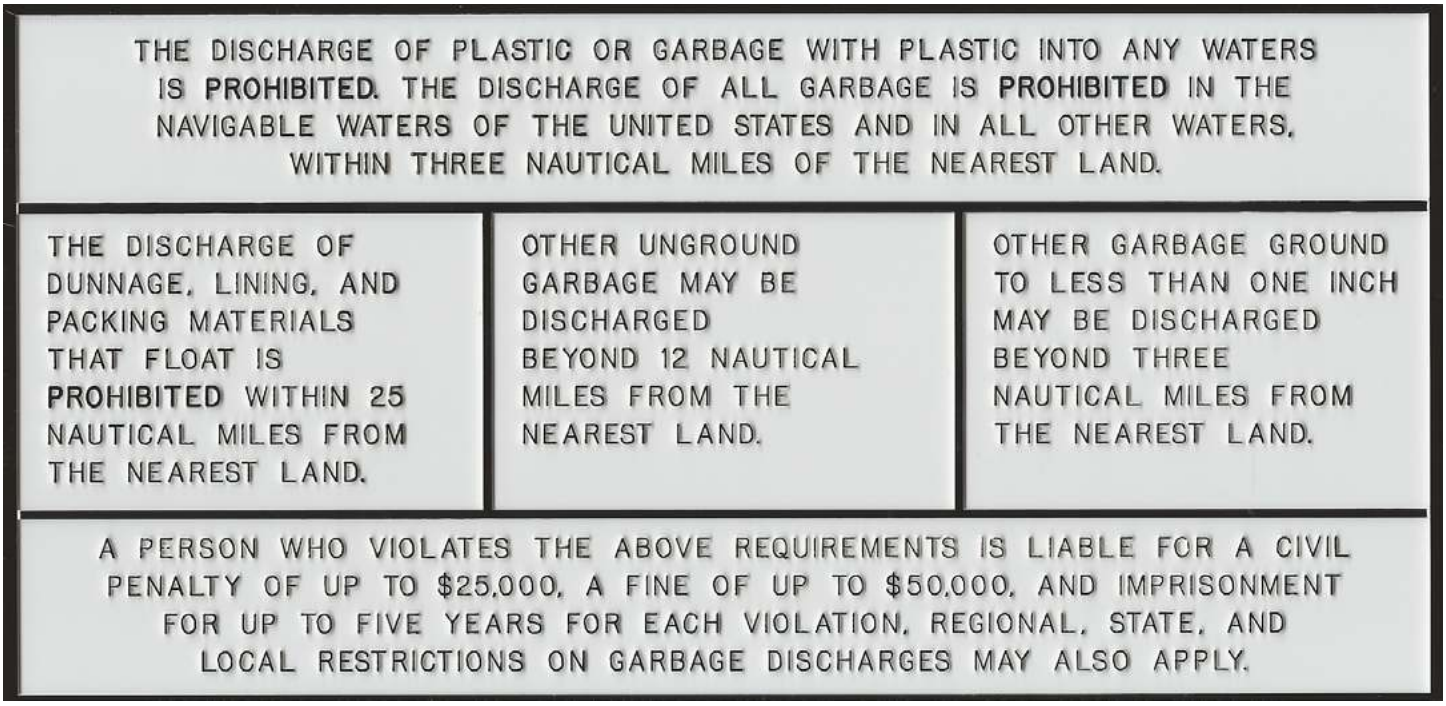
The USCG now enforces the International Convention for the Prevention of Pollution from ships, referred to commonly as the MARPOL TREATY (marine pollution). This international treaty prohibits the overboard dumping of all oil, garbage, ship-generated plastic and chemicals. There is a placard on board your boat (typical example shown below) that explains the garbage and plastic dumping laws in detail.

Immediately notify the USCG if your vessel discharges oil or hazardous substances in the water. Call toll free 1-800-424-8802. Report the following information: location, source, size, color, substances and time observed.

No vessel may intentionally drain oil or oily waste from any source into the bilge of any vessel. A bucket or bailer is suitable as a portable means of discharging oily waste.

The placard noted above is normally located in the engine compartment or may be attached to the engine hatch.

Garbage Discharge



The act to prevent pollution from ships places limitations on the discharge of garbage from vessels. It is illegal to dump plastic trash anywhere in the ocean or navigable waters of the United States. Also, it is illegal to discharge garbage in the navigable waters of the United States, including the Great Lakes. The discharge of other types of garbage is allowed outside certain specified distances from shore as determined by the nature of that garbage.

United States vessels of 26 feet or longer must display in a prominent location, a durable placard at least 4" x 9" notifying crew and passengers of discharge restrictions.

USA vessels of 26' or longer equipped with a galley and berthing must have a written Management Plan describing the plan for collecting, processing, storing and discharging garbage, and designate the person charged with carrying out the plan.

The placard noted below is usually found near a galley, inside the engine hatch area or close to a receptacle.

USCG Minimum Equipment Requirements

Use the chart below as a guideline for assuring your vessel is outfitted to meet USCG standards. Remember to check with local and state authorities for additional equipment requirements. Make sure your vessel certificate of numbers are on the boat, updated and displayed properly according to state requirements. Keep the paperwork on board in a watertight and safe environment. On documented vessels keep both the original and current certificate on board stored in a safe, dry, and accessible location. Also, on documented vessels make sure the vessel name/hailing port are marked on the hull exterior with letters not less than 4" in height. In addition, the Official Number must be permanently affixed on a clearly visible interior structure part of the boat-block type Arabic numbers not less than 3" in height.

Life Rafts

Inflatable life rafts are recommended for ocean going and vessels operating in a large body of water like the Great Lakes. They provide a shelter for extended periods. If used, make sure it is large enough for all aboard and contains the proper emergency equipment pack. Also, periodically have the unit professionally serviced. Make sure the life raft is Coast Guard approved since it would require meeting a number of stringent material and performance standards.

USCG Minimum Equipment Requirements for Recreational Vessels

Boat Size in Feet	16'	26'	40'	65'	165'
Personal Flotation Devices[1]	One Type I, II, III, or V per person		One Type I, II, III, or V per person plus one Type IV throwable		
Fire Extinguishers[2]					
No Fixed System	One B-I, any type		One B-II or Two B-I	One B-II and one B-I, or three B-I	One or more B-II (vessels 0-50 tons gross) Two or more B-II (vessels 50-100 tons gross)
With Fixed System	No Portables Required		One B-I	Two B-I or one Class B-II	
Visual Distress Signals	Night signals required when operating at night		Minimum of three day-use and three night-use (or three day/night combination) pyrotechnic devices[5]		
Sound Producing Devices	Horn or whistle recommended to signal intentions or signal position			One bell, and one whistle or horn required to signal intentions or position	
Backfire Flame Arrestor	One CG-approved device on each carburetor of all gasoline-powered engines built after April 1940, except outboard motors				
Ventilation	CG standard system required on gasoline powered vessels with enclosed engine compartments built after August 1980				
Navigation Lights					
Under Power[3,4]	Sidelights, Stern Light and Masthead[6,7]				
Under Sail	Sidelights and Stern Light[6,8]				
Rowing	Same as "Under Sail"				
At Anchor	All-round light, 2nm (at night) or black anchoring ball (during the day) when outside a designated anchorage				
Visibility Range	1nm Sidelights, 2nm all others			3nm Masthead, 2nm all others	5nm Masthead, 2nm all others
Pollution Regulations	"Honor system" (no plaques required)		5" x 8" Oil Discharge placard and 4" x 9" Waste Discharge placard Vessels over 40' with a galley must have a Waste Management Plan		
Marine Sanitation Devices	Vessels with installed toilet facilities must have an operable, CG-certified Type I, II or III Marine Sanitation Device (MSD). **Subject to local laws!**				Type II or III MSD only
Navigation Rules	Familiarity with the Inland Navigation Rules required			The Inland Navigation Rules ("Rules of the Road") must be kept on board	

1. *Pfd's must be CG approved, wearable by the intended user and readily accessible.*
2. *Fire extinguishers required on boats with enclosed engine compartments (not outboards), enclosed living spaces or permanent fuel tanks.*
3. *Sailboats operating under engine power are considered power driven and must follow the "Under Power" rules. During the day, motorsailing vessels are required to fly a motoring cone.*
4. *Power-driven vessels under 23' and under 7 knots can substitute a white lantern or torch in place of the required lights.*
5. *Non-pyrotechnic substitutes: 1 orange distress flag (day-use) and 1 electric SOS signal light (night-use).*
6. *All boats under 65' can substitute a single bi-color light for sidelights.*
7. *Boats under power under 40' can substitute a single all-round light for separate stern and masthead lights.*
8. *Boats under sail under 40' can substitute a tri-color light for separate sidelights and stern light.*

Additions to theses requirements are prescribed by some individual state laws. Check your state's Boating Safety Handbook for a complete list.

Exhaust & Carbon Monoxide

Carbon monoxide (CO) in exhaust can be hazardous, especially from gasoline engines, gasoline generators, grills, stoves, space heaters and on a much smaller degree diesel engines.

CO is a natural by-product of the gasoline engine using an artificial spark . Diesels on the other hand detonate fuel using pressure and temperature. Looking at the two engines another way, gasoline engines use much more oxygen up in the combustion process which contributes to a much higher CO build-up. Although diesels do produce a small amount of CO the combustion process operates with much greater amounts of oxygen which the end result is a much lower CO level.

Ensure that you read the information and follow all the recommendations regarding CO.

Familiarize your crew, passengers and yourself with the sources, symptoms and possible effects of carbon monoxide poisoning. Remember that boats in the same general vicinity can cause your vessel to accumulate dangerous CO levels in the cabin and or in the cockpit.

For safety sake avoid the following:

1. Do not park by other boats with their engine idling or generator cycling for an extended period of time.

2. Do not disable the carbon monoxide alarms that come with your Regal boat. Test the units in accordance with the alarm manufacturers instructions.

3. Do not operate an engine for extended periods of time while in a confined area or where exhaust outlets face a sea wall or bulkhead.

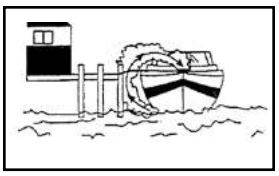
4. Do not operate the engine for an extended period of time with the canvas in the upright and installed position.

5. Do have the engine exhaust system inspected when the boat is in for service.

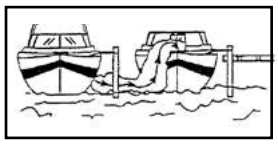
6. Persons sleeping can easily be overcome by carbon monoxide without realizing it. Do not sleep on board while an engine or generator is running close-by.

7. Do not operate your vessel for extended periods with the bow up in slow cruise conditions especially close behind a vessel being towed or one operating at slow speeds.

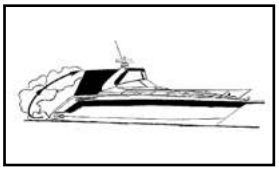
8. When underway open all hatches, windshield vents, and main cabin entry door to allow proper airflow from bow to stern.



Blockage of exhaust outlets can cause carbon monoxide to accumulate in the cabin and cockpit area even when the hatches, windows, portholes and doors are open. Sea walls and other confined spaces can cause CO levels to be dangerously elevated.



Exhaust from another vessel alongside your boat, while docked or anchored, can emit poisonous CO gas inside the cabin and cockpit areas.



The "station wagon effect" or back drafting can cause CO gas to accumulate inside the cabin, cockpit/ hardtop or bridge areas when the boat is underway, using protective weather coverings (canvas), high bow angle, improper or heavy loading, slow speeds, or at rest. This can occur when traveling behind another boat.

How does CO affect us?

In high concentrations, CO can be fatal in minutes. However, the effects of lower concentrations over a extended period of time can be just as lethal.
Our blood uses hemoglobin to carry the oxygen we breathe to different body parts. Unfortunately, hemoglobin carries CO more readily than it does oxygen. The result is when we breathe in CO it replaces oxygen in our blood and we begin to suffocate. Also, when we are removed from the CO source it remains in our blood for hours causing long term effects. People have been known to become sick and even lose consciousness hours after exposure.

Carbon monoxide accumulation requires immediate attention! Thoroughly ventilate cabin and cockpit areas. Determine the probable source of the carbon monoxide and correct the condition immediately. Anyone with symptoms of CO poisoning should be placed in a fresh air environment and medical attention found immediately. Regal has installed CO detectors on your boat. Have these detectors professionally calibrated at regular intervals according to the manufacturer's recommendations.

A Few Notes About Diesel/CO Poisoning

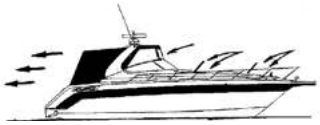
The diesel engine under normal combustion produces much smaller amounts of CO. Therefore, it is far less likely to be fatal to a healthy person. Other factors including weather, temperature and engine condition can greatly affect the unsafe build-up of CO. The best approach is to respect and treat the engine, generator and other vessel components the same way you would a gasoline propulsion system giving particular attention to the sources and possible effects of CO poisoning!
Diesel exhaust in the combustion process produces various components and the captain must be aware that the build-up of these select components over a period of time can cause CO or seasickness like symptoms. These include carbon dioxide, carbon monoxide (CO), nitrogen dioxide, nitric oxide, sulfur dioxide and others. Be careful with boats mooring with engine/generator running overnight. A healthy person breathing in sulfur dioxide over a period of time through a diesel engine or generator exhaust can develop nausea. This condition is not life threatening but the person may exhibit CO poisoning or seasickness symptoms. Just never rule out that it could be CO poisoning! Immediately find the source of the problem and move the individual to fresh air.

Symptoms of excessive exposure to carbon monoxide (CO) are:

- Dizziness
- Drowsiness
- Nausea
- Headache
- Ringing in the ears
- Throbbing temples
- Watering, itchy eyes
- Flushed appearance
- Inattentiveness
- Incoherence
- Fatigue or vomiting
- Convulsions

⚠ DANGER

Carbon Monoxide (CO) is a tasteless, odorless, and invisible gas that can cause discomfort, severe illness, and even death. Exercise caution while operating generator or engines in confined spaces or at dockside. Do not allow hull exhaust outlets to become blocked or exhaust fumes can become trapped in and around the confines of the boat. During idle and slow cruise conditions, bilge blowers should be used.



DESIRED AIR FLOW THROUGH BOAT

To help prevent carbon monoxide (CO) accumulation, ventilate your cabin and cockpit while underway. Open a forward hatch, porthole or window to allow air to travel through the boat's interior and cockpit. See the illustration for desired airflow.

NOTE: Never occupy moored boat with engines running and/or canvas completely covering vessel.

⚠ WARNING

Inspect the exhaust system. Immediately repair or replace leaking, cracked, corroded, or missing exhaust components.

- Before each trip inspect engine, generator and all CO detectors. All must be working properly.
- Make sure all exhaust hose clamps are in place.
- Look for exhaust leaking from the exhaust system components, indicated by rust and or black streaking, water leaks, or corroded or cracked fittings.
- Inspect all rubber exhaust hoses for burned or cracked areas. All rubber hoses should feel soft and be free of kinks.
- Visually verify that water exits at the engine exhaust outlet.
- Keep an ear tuned for changes in exhaust sound that may be an exhaust component malfunction.

Do Not Operate the Vessel If **Any** of the above conditions exist. Contact a marine professional!

NOTICE

Carbon Monoxide precautionary labels are located at the helm, transom, and cabin. Ensure that all aboard read and understand the signs and effects of Carbon Monoxide (CO).

Boating & Alcohol

Operating a vessel while intoxicated became a specific federal offense effective in 1988. The ruling set federal standards for determining when an individual is intoxicated. If the blood alcohol content (BAC) is .10% (.08 in some states) or higher for operators of recreational vessels being used only for pleasure are subject to a civil penalty up to $1,000 or criminal penalty up to $5,000, one year imprisonment or both. In some states the fines and imprisonment may increase significantly.

The effects of alcohol and drugs account for the highest single cause of marine accidents and deaths. Most deaths in boating accidents occur when someone falls into the water. Balance is one of the first things you lose when drinking alcohol or under the influence of drugs. The problem arises out of not knowing your balance is restricted.

Overall vision is reduced by alcohol especially at night, along with double or blurred vision. Peripheral vision is lessened which restricts seeing vessels or objects on the side. Also, color awareness decreases especially with red and green which happen to be the colors of boat navigation lights, buoys, and channel markers.

Alcohol will greatly increase your heat loss so it increases the effects of hypothermia. Finally, your ability to make correct judgements in emergency situations is greatly reduced. Alcohol takes away the brains ability to process information quickly and delays a persons reaction time.
Don't drink and drive!

Alcohol Myths & Facts:

Myth: Beer is less intoxicating than other alcoholic beverages.

Fact: One 12 oz. can of beer has about the same amount of alcohol as a 5oz. glass of wine or a shot of liquor.

Myth: Black coffee, fresh air, and a shower will sober the effects of alcohol.

Fact: After consuming alcohol time is the only thing that will sober you up. Our bodies average burning 1 oz. of alcohol every hour. If a person is drunk, it will take a person seven or more hours to sober up.

Myth: Telling if a person is too drunk to operate a vessel is easy.

Fact: Many experienced drinkers have learned to compensate for the visual effects of alcohol and can disguise their drunk condition.

Myth: You can judge if you are fit to operate a boat.
Fact: Judgement is one of the first elements you lose when drinking.

Boating Accidents

The following is a list of common causes of boating accidents. Be aware of them and take the necessary steps to ensure that yourself and crew are educated and prepared to act in an emergency.

1. Mixing boating and alcohol. Remember, the skipper is responsible for his crew, passengers and vessel.

2. Trying to reach the bow by the deck walk-around at unsafe speeds. Use the center walk-through.

3. Someone sitting on the bow, deck, or swim platform while underway.

4. Choosing a boating outing day with inclement weather, especially in high winds and thunderstorms in the forecast or staying out when bad weather is approaching.

5. Disembarking without checking all the fluids or systems, and especially fuel system components.

6. Not monitoring the boating traffic or possible obstructions around you.

7. Emergency communications equipment, signaling devices, and navigation lights not working.

8. Improper boat handling especially high speed turns in rough water. Using trim improperly.

9. Being too far from shore with inadequate fuel supply or navigational aids.

10. Passengers, especially children that are not wearing the proper life saving devices.
11. Skipper or passengers not seated in the boat.

Reporting Boating Accidents:

According to the Federal Boat Safety Act of 1971 involving collision, accident or other casualty, the operator must make a formal report within 48 hours to the nearest state boating authority when the incident involves:

1. Death
2. Injury requiring treatment other than first aid
3. The disappearance of someone from a boat under death or injury circumstances.

A formal report must be made within 10 days for accidents involving more than $2000 damage or complete loss of vessel.

For information regarding accident reporting, please call the Boating Safety Hot-line at:
800-368-5647.

Note if there is no state provision for reporting boating accidents a report must be made to the Coast Guard officer in charge, Marine Inspection Unit nearest to the accident site or USCG station.

Federal Regulations - Vessel Security

Federal maritime regulations contain specific information when operating near naval vessels, oil tankers and cruise ships.

1. You may not approach within 100 yards of any U.S. naval vessel, oil tanker, or cruise ship. When this is impossible to avoid, you must contact either the vessel or the Coast Guard escort vessel on channel 16 of the VHF radio.

2. Also, you must operate at minimum speed within 500 yards of these vessels.

Rendering Assistance

The operator of a vessel is obligated by law to provide assistance that can be provided safely to any individuals in a dangerous situation on the waterway. The operator is subject to fine and or imprisonment for failure to do so.

⚠ DANGER

Avoid serious injury or death from falling overboard! All occupants shall stay seated in the cockpit while the boat is running.

Water Sports

Besides learning the safety precautions for safe boating, as well as understanding and knowing required rules and regulations you are obligated to be particularly careful around other water sportsman, such as scuba divers, water skiers, wake boarders, and fisherman.

Whenever you see a "Diver Down" flag maintain a distance of at least 100 feet on inland waters. In bays and open waters stay 300 feet away. The flag indicates a diver in the water. If a diver is operating from your boat, be certain to use this flag and post a lookout on board to observe the diver's air bubbles.

Fishing

Most boaters fish from time to time. With the propulsion systems of today it is possible to fish in out-of-the-way places. When cruising, stay clear of fisherman. They may have lines or nets out which might be cut or get caught in your propeller if you come too close. Slow down when approaching fishing boats. Do not return to cruising speed until the boats have been passed. If a fishing boat should be anchored, a large wake could flip or swamp the boat, upset fishing gear, pull the anchor loose from the bottom or worse yet cause someone to fall overboard.

When fishing from your boat, never anchor in a shipping channel or tie up to any navigational aid. These must be kept clear of at all times. Be sure to carry a local chart of the area to back up your plotter and be on the lookout for shallow water and hidden obstructions. Many times local conditions change and there is a time lag on the plotter chip until the next revision. Pick up a tidal chart if appropriate so you do not end up grounded.

Weather / Water Conditions

Before a boating outing check the weather conditions. As we all know the weather can change rapidly in many parts of the country. It does so sometimes without being predicted. NOAA weather radio reports are continuously available on designated frequencies installed on VHF radios and various hand held devices.

Also, many local radio stations carry weather reports along with on-line information.

Cloud Formations:

Clouds indicate the type of current weather and upcoming changes in the weather. Knowing the type of cloud formation can assist you in understanding current weather. Flat clouds (stratus) normally indicate stable air. Cumulus clouds indicate unstable air.

Many times a "cotton ball" or cumulus cloud builds vertical height in the afternoon and the result is a thunderstorm with increased winds and waves; sometimes these storms are quite violent.

Also, water spouts with high vortex winds can develop over water. You can find additional weather information (meteorology) at your local library or on the internet.

Waves & Fog:

As the wind blows across water waves are created. The stronger the wind and increased distance across the water enlarges the wave action. Other factors that can cause problem situations for vessels are fog, currents, and tidal changes.
Fog can develop inland on clear, calm mornings. Coastal areas see large "blankets" of fog roll in and stay for extended time periods sometimes causing hazardous navigation conditions. If you are caught in the fog, do not panic. Think of the best plan of action and proceed carefully. If you are limited in navigation equipment at the first sign of fog proceed to the nearest shoreline and wait until the fog lifts.

Boats equipped with navigation equipment, local waterway experience and charts should proceed to a safe harbor. Use extreme caution, signal as needed, and reduce to a speed where you can stop within half of your forward vision range.

If foul weather catches you at sea do the following:

1. Slow down. Proceed with caution and put on your life vests.
2. Try to reach the nearest safe shoreline.
3. Navigate your vessel slowly into the waves at a 45 degree angle.
4. Passengers should sit low in the center of the vessel.
5. Monitor your bilge pump. Make sure sump stays free of water.
6. Secure loose gear. Make ready emergency equipment.
7. Anchor over the bow but never over the stern.

Chapter 3
Rules of the Road

The Navigation Rules set forth actions to be followed by boats to avoid collision. They are referred to as the "Rules of the Road". There are two main parts referred to as the inland and international rules. The inland rules apply to vessels operating inside the boundaries of the United States. The international rules (referred to as 72 COLREGS) apply to vessels operating on the high seas and all connected waters outside the established demarcation boundaries. Most navigational charts show the demarcation lines by red dotted lines and are published in the navigation rules. Remember to consult state and local agencies since areas such as "no wake zones," swimming beaches, "diver down flag" and inland landlocked lakes fall under their responsibilities. This section is only an introduction to the "rules of the road". We strongly recommend additional training before getting behind the "wheel".
Order Inland & International Navigation Rules from:

Superintendent of Documents
U. S. Government Printing Office
Washington, DC 20402
Tel: (202-512-1800) Fax:(202-512-2250

⚠ WARNING

To avoid injury and/or death, follow the navigation "Rules of the Road" to prevent collisions.

Navigation Rules

Right Of Way:

1. Cross waves at right angles.

2. When caught in heavy water or squalls, head either directly into the waves or at a slight angle. Reduce speed, but maintain enough power to maneuver your boat safely.

3. Keep your speed under control. Respect the rights of other boaters engaged in all water sports. Give them plenty of operating room.

4. Whenever meeting a boat head on, keep to the right where possible.

5. When two boats cross, the boat to the right (starboard) has the right of way.

6. When overtaking or passing, the boat being passed has the right of way.

7. In general, boats with less maneuverability have right-of-way over more agile craft. The skipper must keep his craft clear of the following vessels:

8. A vessel not under command or aground; due to their circumstances, these vessels have no maneuverability.

9. A vessel restricted in its maneuverability; these vessels usually are performing work which limits their maneuverability. Examples are boats surveying, dredging, laying pipe or cable, or servicing navigational markers.

10. A vessel engaged in fishing; these include boats fishing with lines, trawls or nets, but not trolling lines.

11. Sailboats; they have the right-of-way over powerboats. However, if a sailboat is using a prop to move forward, it is considered a powerboat even if the sails are up.

12. Remember the unwritten "rule of tonnage". Basically a smaller tonnage vessel should take every effort to avoid close quarters with a larger tonnage vessel. One way to accomplish this is to have a designated human lookout to "eyeball" the horizon for any developing collision course.

13. Use defensive driving skills on the waterway just as you do on the roadway. The other vessel may not know the rules of the road. Be alert and ready to take immediate action.

14. If a collision course is unavoidable neither boat has the right of way. Both boats must react to avoid an accident according to the rules of the road.

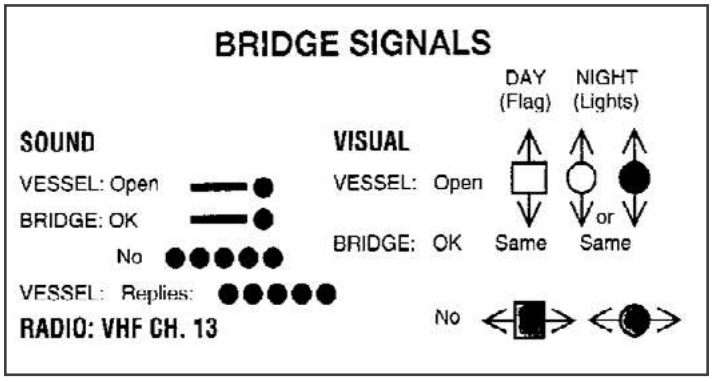
Lookouts:

International and Inland navigation rules spell out the specifics of establishing a lookout. A lookout is legally defined by the court system as a person who has specifically charged duties on board such as observing sounds, echoes, lights and any inhibitors to navigation with complete thoroughness as permitted by the circumstances.

The term "specifically charged" means that the lookout has no other duties at that time that could prevent him from keeping a proper watch.

Of course the skipper must delegate the lookout duties to a seasoned crew member who can react to events quickly and communicate effectively with the captain with little notice.

As captain of your yacht you are responsible for the vessel and the crew. Choose an experienced individual as lookout and review the navigation rules with this person so he can make the right call quickly as situations develop.



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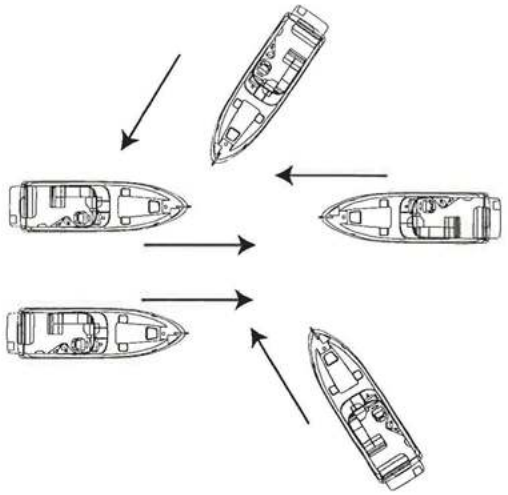
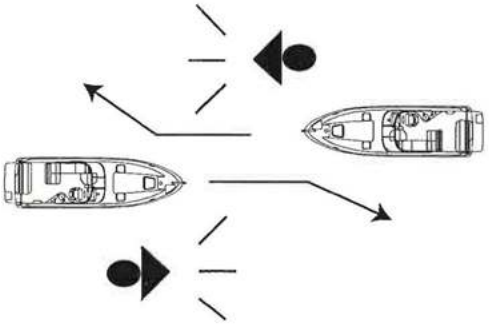
Navigation Rules

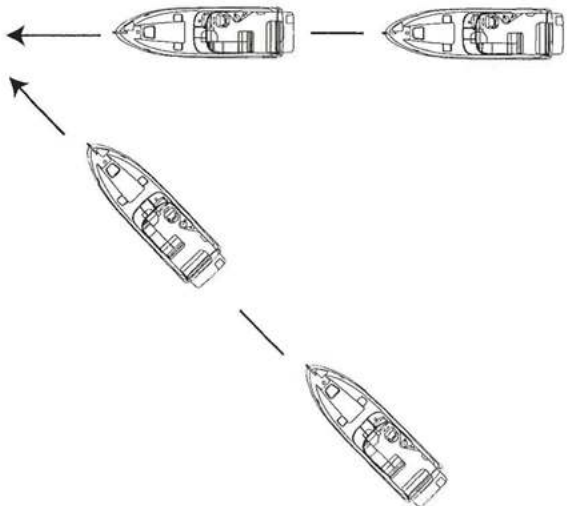
The Navigation Rules set forth 3 types of crossing situations- crossing, meeting, and overtaking. In each case, both boats are governed by special procedures.



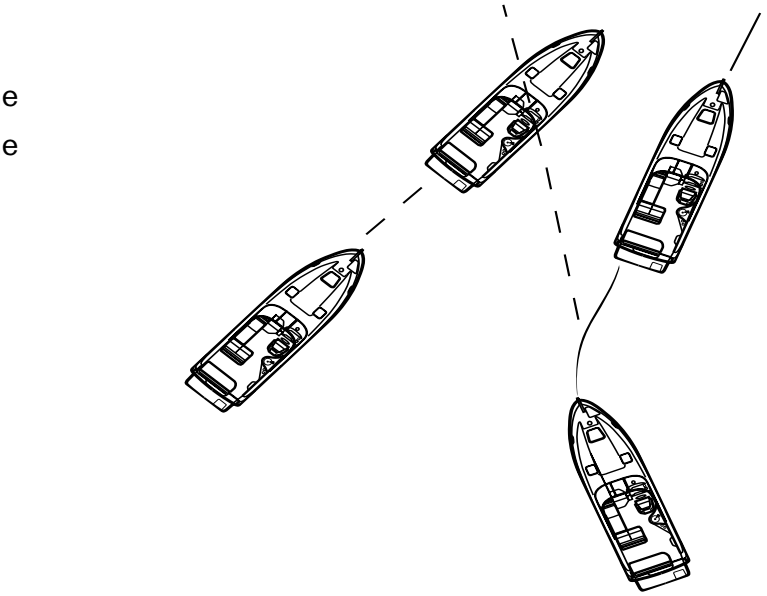
In a head-on meeting, both vessels must sound a single blast to give way toward starboard and pass to port.

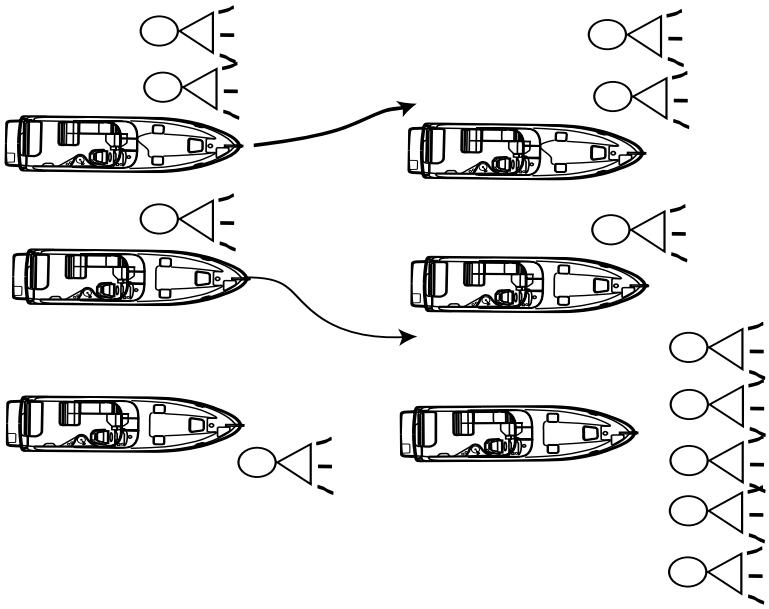


These rules appear when there is a risk of collision. In a crossing situation be aware of the other craft's position. For safety, there should be a noticeable change in the angle, bow or stern; a gradual change in position indicates possible danger.



An overtaking boat is burdened, and is not the privileged craft, even though it approaches the danger zone of the overtaken boat.





The overtaking boat first signals with a single blast if that boat desires to pass on the starboard side of the boat ahead, or a double blast if passing to port. The overtaken craft responds with the same signal if safe, or with the danger signal (5 short blasts or more) if unsafe. The boat overtaking must not pass unless the appropriate signals are sounded.

Navigation Aids

Navigation aids are placed along coasts and navigable waters as a guide for mariners in determining their position in reference to land and hidden danger. Each aid provides specific information. They form a continuous system of charted markers for monitoring on the plotter or providing accurate piloting on paper as a backup. Your on board plotter provides up to date navigation aids. Besides coastal maps a complete domestic interior waterway grid is featured on the plotter.

If desired, there are hand-held GPS devices that are available as back-up devices. In addition, nautical charts are provided by the National Ocean Service (NOS) and are distributed nationwide through marinas and outlet stores. These charts show the geography of the coast, water depth, landmarks, navigation aids (buoys and markers), marine hazards, and port facilities. Use only up-to-date charts for navigation. We recommend when purchasing a chart to look for the weather resistant ones. Buoys provide a road map to keep the skipper on course and to avoid hazards. Buoys are identified by light, shape, color and in severe weather conditions by sound.

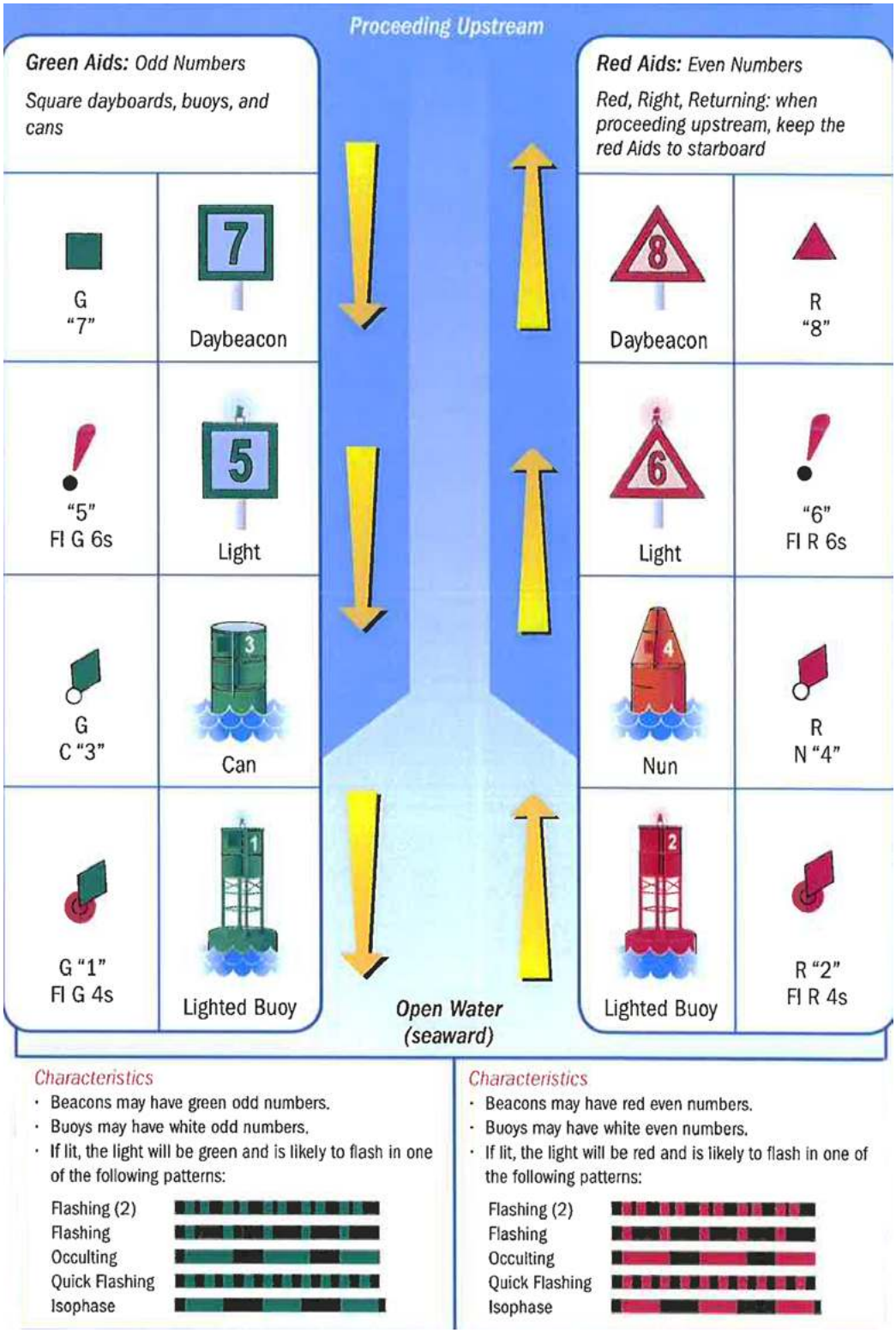
Buoys or beacons called lateral markers indicate the port and starboard sides of the waterway to be followed. U. S markers follow the buoy age system known as Red Right Returning. When returning from sea or traveling upstream, the green markers are to port (on your left) and the red markers are to the starboard side (on your right). When traveling downstream or out to sea the marker color would be reversed.

Before operating your vessel, learn to identify the various navigational aids such as lateral aids, mid-channel markers, information and regulatory markers.

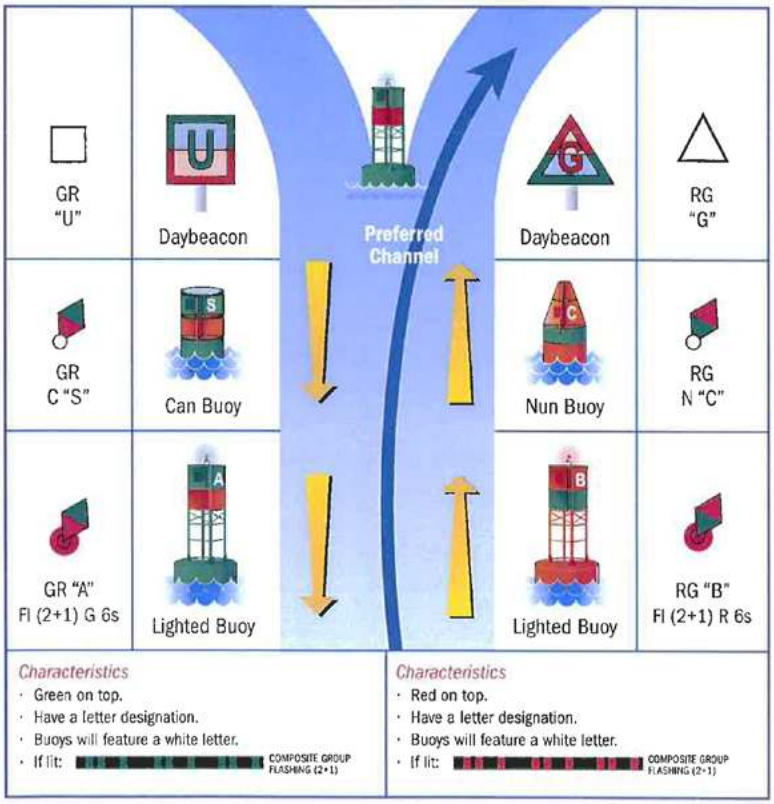
NOTICE

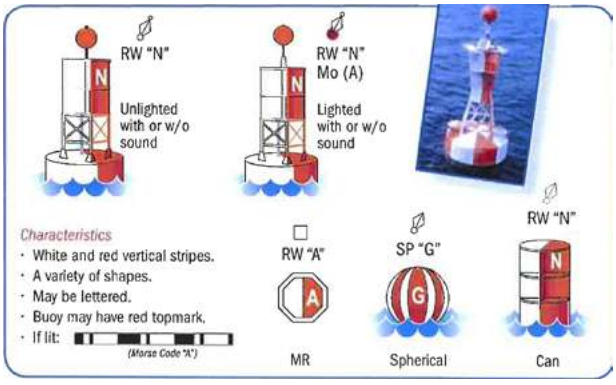
Operators must not rely on buoys alone to mark their position. Severe weather conditions and wave action can alter a buoy's position. Never tie up to a buoy. It is illegal and dangerous.

Lateral Aids

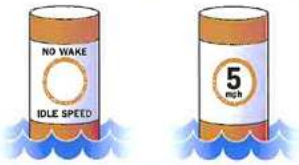
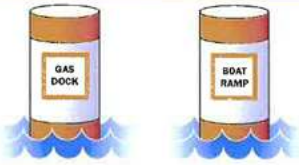


Channel Markers





Regulatory Markers

Symbol	Meaning	Examples
	**Danger** A diamond shape alerts boaters to hazards	
	**Restricted Operations** Marks with a circle indicate areas with regulated operations	
	**Exclusion** A diamond shape with a cross means boats are prohibited from the area	
	**Information** Marks with a square provide helpful information such as directions, distances, and locations	

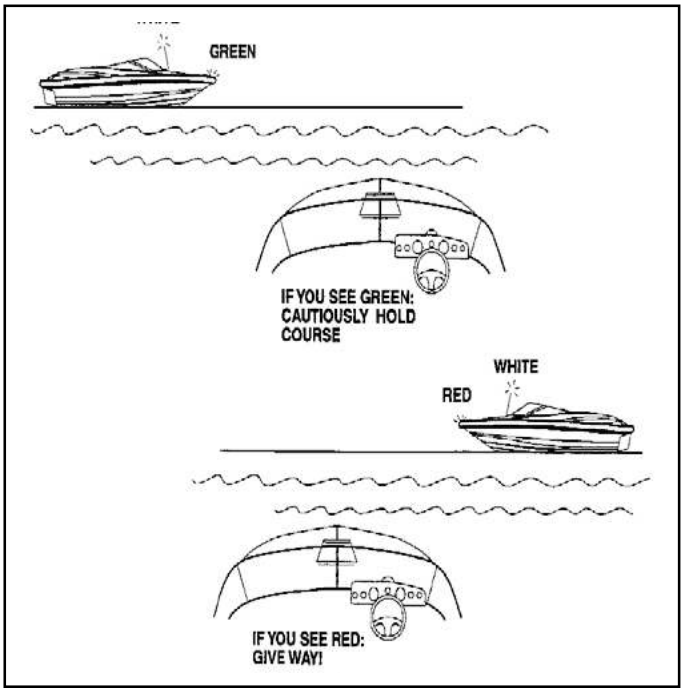
Night Running

Boats operating between sunset and sunrise (hours vary by state), or in conditions of reduced visibility, must use navigation lights. Night time operation, especially during bad weather and fog, can be dangerous. All Rules of the Road apply at night, but it is best to slow down and stay clear of all boats regardless of who has the right-of-way.
To see more easily at night, avoid bright lights when possible. Also, it is helpful to have a passenger (appoint as lookout) keep watch for other boats, water hazards and navigational aids.

To determine the size, speed and direction of other vessels at night, you should use the running lights. A green light indicates starboard side, and a red light indicates port side. Generally, if you see a green light, you have the right-of-way. If you see a red light, give way to the other vessel.

Bridge Clearance

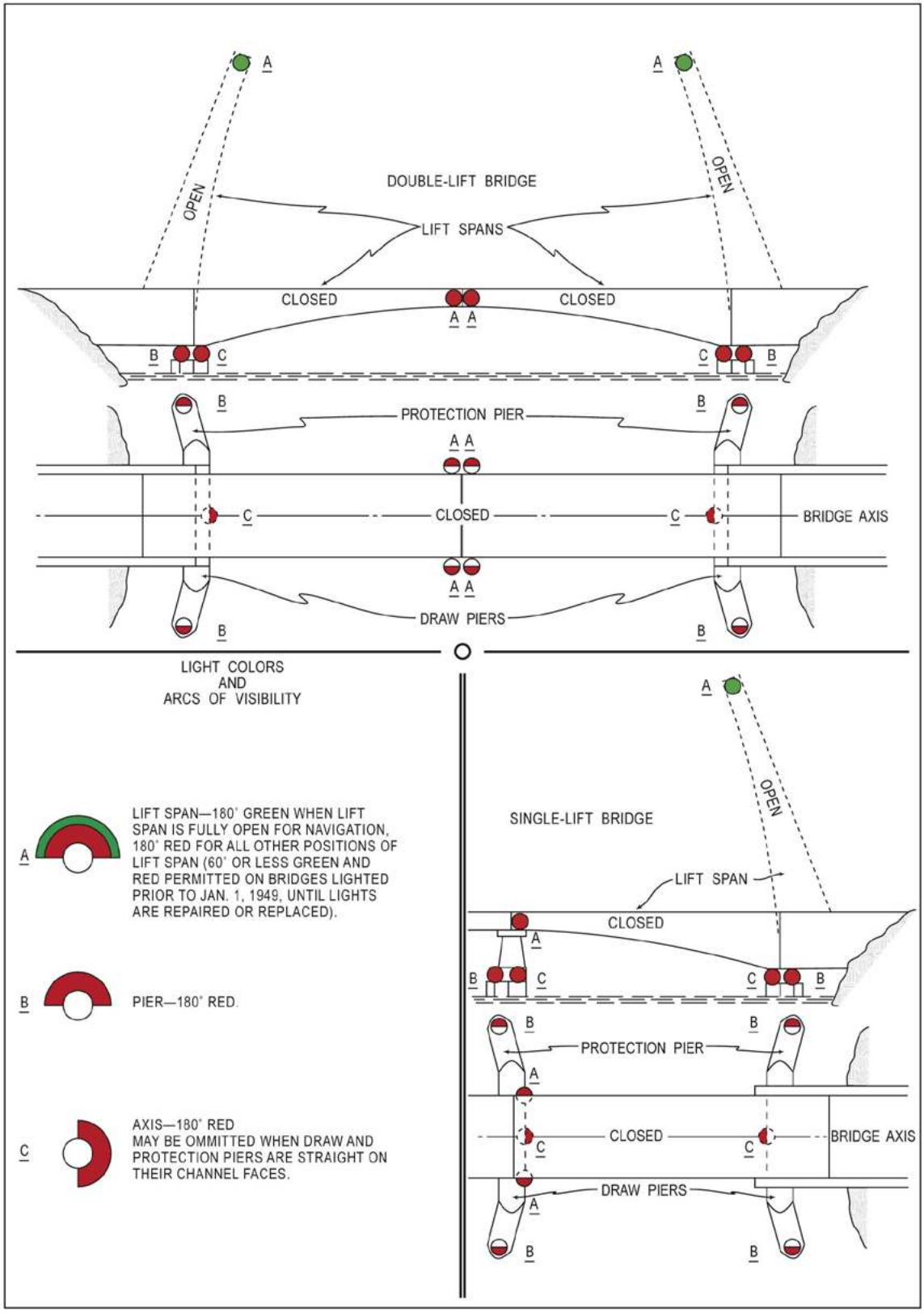
Be aware that your vessel requires a specified bridge clearance height. This height is a measured estimate from the waterline to the top of the highest equipment height. The estimated height can change because of variances in the loaded condition of the vessel and equipment variances. Consult the bridge clearance specifications located in Chapter 12 (Technical Information section). Some bridges are tendered. Know and use the proper bridge signals when approaching these bridges (see bridge signals in this chapter). You can also monitor and communicate on channel 13 of a VHF radio for bridge information in most domestic locals. Other bridges are marked with a clearance measurement and you are on your own. It is recommended that you have a look out posted for additional visual assistance when entering a bridge zone.

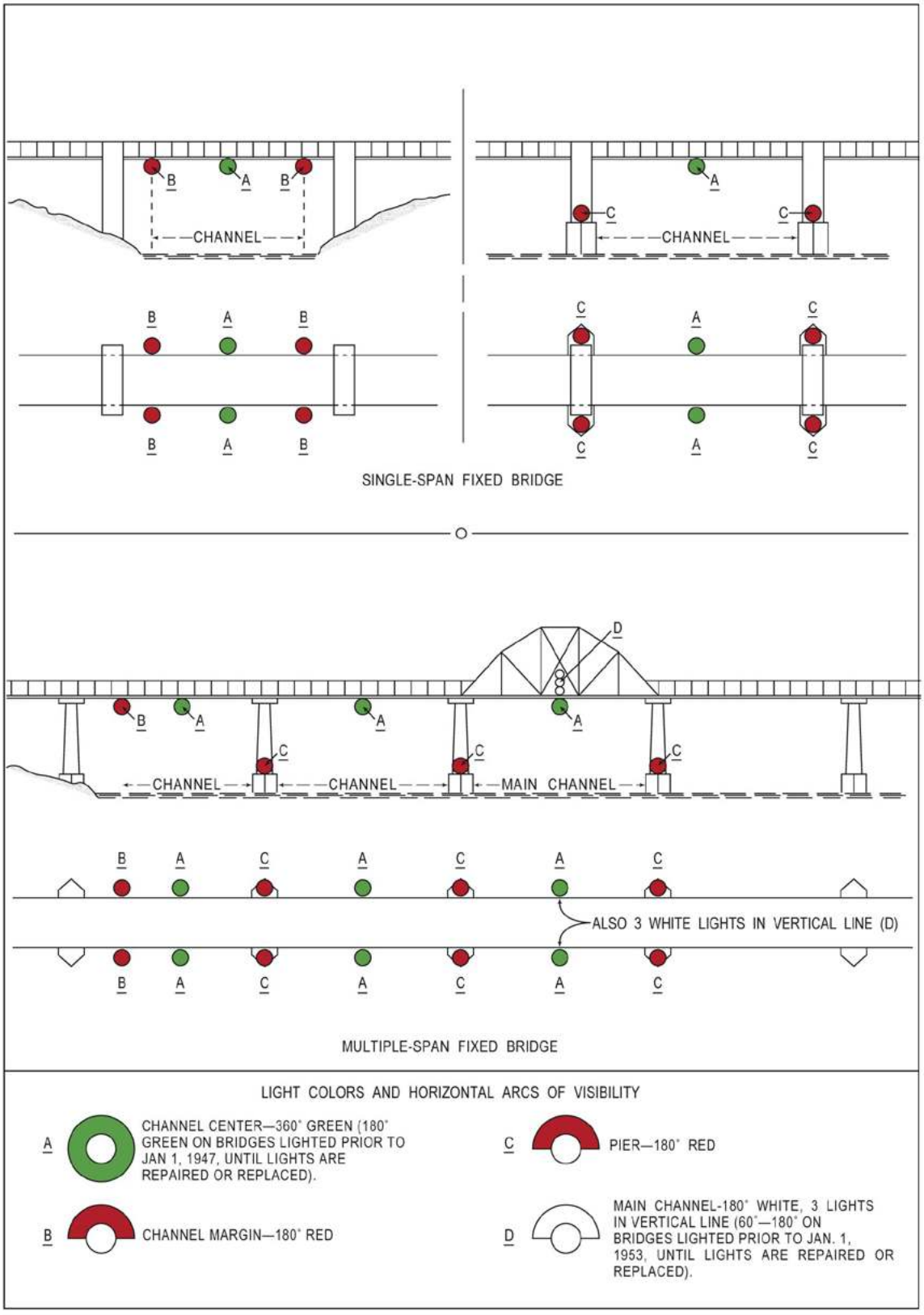


After determining your vessel will clear the bridge proceed with caution at a safe idle speed. Keep your eye on vessel traffic at all times in order to react quickly. Keep both hands on the helm since you may need to change course because of current and wind conditions. Resume a safe speed once clear of the bridge structure and acknowledgment of clear visibility. Just use common sense around any type of bridge structure!

Bridge Lighting:

Bridge lighting is maintained by the Department of Homeland Security. On the following pages are 2 typical examples of night-time bridge lighting. As the skipper approaches bascule and fixed bridges light position (arc of visibility) and color will indicate the safe channel through the bridge. Notice green denotes the “safe” entry location on single-span bridges and green or white on multiple-span bridges designates the main channel. In addition, green denotes the “up” position for single and double lift bridges.


A
A
OPEN
OPEN
DOUBLE-LIFT BRIDGE
LIFT SPANS
CLOSED
CLOSED
A A
B
C
C
B
B
B
PROTECTION PIER
A A
C
CLOSED
C
BRIDGE AXIS
A A
DRAW PIERS
B
B
LIGHT COLORS
AND
ARCS OF VISIBILITY
A
LIFT SPAN—180° GREEN WHEN LIFT SPAN IS FULLY OPEN FOR NAVIGATION, 180° RED FOR ALL OTHER POSITIONS OF LIFT SPAN (60° OR LESS GREEN AND RED PERMITTED ON BRIDGES LIGHTED PRIOR TO JAN. 1, 1949, UNTIL LIGHTS ARE REPAIRED OR REPLACED).
B
PIER—180° RED.
C
AXIS—180° RED
MAY BE OMMITTED WHEN DRAW AND PROTECTION PIERS ARE STRAIGHT ON THEIR CHANNEL FACES.
A
OPEN
SINGLE-LIFT BRIDGE
LIFT SPAN
CLOSED
A
B
C
C
B
B
B
PROTECTION PIER
A
C
CLOSED
C
BRIDGE AXIS
A
DRAW PIERS
B
B


B
A
B
CHANNEL
A
C
C
CHANNEL
B
A
B
B
A
B
C
A
C
C
A
C
SINGLE-SPAN FIXED BRIDGE
D
B
A
A
A
C
C
C
CHANNEL
CHANNEL
MAIN CHANNEL
B
A
C
A
C
A
C
ALSO 3 WHITE LIGHTS IN VERTICAL LINE (D)
B
A
C
A
C
A
C
MULTIPLE-SPAN FIXED BRIDGE
LIGHT COLORS AND HORIZONTAL ARCS OF VISIBILITY
A
CHANNEL CENTER—360° GREEN (180° GREEN ON BRIDGES LIGHTED PRIOR TO JAN 1, 1947, UNTIL LIGHTS ARE REPAIRED OR REPLACED).
B
CHANNEL MARGIN—180° RED
C
PIER—180° RED
D
MAIN CHANNEL-180° WHITE, 3 LIGHTS IN VERTICAL LINE (60°—180° ON BRIDGES LIGHTED PRIOR TO JAN. 1, 1953, UNTIL LIGHTS ARE REPAIRED OR REPLACED).

Chapter 4
Systems - Safety

Overview

This chapter details the location, operation, and specifications of key vessel systems, including safety, electrical, digital, propulsion, and fluids.

While this section covers the integration of these components, the individual manufacturer's manuals located in your owner's information packet should be referenced for detailed maintenance schedules and advanced troubleshooting.

Note: Due to our commitment to continuous product improvement, your vessel may possess equipment different from what is described in this chapter. Always prioritize the safety labels and instructions found directly on the equipment.

Fire Protection

Fixed Fire Extinguisher - Automatic Activation

The engine compartment is equipped with an automatic fire suppression system with FK-5-1-12, a "clean agent" gas that instantly extinguishes fire by removing heat energy. The system is designed to discharge automatically when the sensor on the cylinder detects a temperature of 175°F (79°C). System status is monitored via the instrument display unit (shown to the left) and the Digital Switching System (DSS, shown below).

- Green light: system is charged and operational.
- Red light: system has discharged.
- Audible alarm: indicates discharge or system fault.

Upon discharge, the ignition system will be instantaneously interrupted and the engines, generator, and blowers will shut down. See the automatic fire extinguisher manual in the owner's packet for additional details.

Fixed fire extinguisher icon (DSS)

Fixed Fire Extinguisher - Manual Activation

If a fire has started in the engine compartment, the system will automatically discharge, or the operator

can manually discharge the extinguisher. Find the system manual cable assembly located under the starboard mezzanine seat. To use the manual discharge, remove the safety pin from the "Fire T Handle" and pull firmly on the "Fire" handle which will activate the fire extinguisher unit in the engine compartment. A loud "rushing air" sound may be heard. Complete discharge will take several seconds. Keep the compartment closed for a period of time sufficient to permit the agent to soak all areas of the protected space. This allows hot metals and fuel time to cool. Refer to the automatic fire extinguisher owner's manual for additional information.

Note: The boat operator needs to educate the crew on fire protection and more specifically the automatic fire extinguishing system in the event that they become incapacitated. It is a good idea to practice by having a mock fire drill.

Portable Fire Extinguishers

While the vessel may already come equipped with portable fire extinguishers, it is the owner's responsibility to ensure proper maintenance and replacement is taken care of.

Below are the necessary requirements:

- U.S. Coast Guard Approved for marine use.
- The recommended minimum rating is 5-B:C (formerly B-I).
- Dry chemical (Class ABC) is the standard for general protection. However, a "clean agent" extinguisher may be purchased (such as Halotron or FK-5-1-12) for use near the helm or entertainment systems to prevent residue damage to sensitive electronics.

Fire Emergency Procedure

In the event of a fire, take the following actions immediately:

1. Immediately shut down all engines, generators, and blowers.
2. Ensure all passengers have donned life jackets.
3. Extinguish the fire:
   - If the fire is in the Lazarette compartment, do not open the hatch. If the fixed fire extinguisher has not been automatically discharged, manually discharge it immediately as detailed earlier.
   - If the fire is above deck or in the cabin, use a portable fire extinguisher, aiming at the base of the flames with a sweeping motion. **Never use water on gasoline, oil, or electrical fires.**
4. If possible, maneuver the vessel to position the fire downwind of passengers and superstructures.

CO/Smoke Detectors

Carbon monoxide, CO, is a deadly byproduct of combustion. It is invisible, tasteless, and odorless, and is produced by all combustion engines and/or appliances.

The most common forms of CO on board vessels are from petrol engines/generators and if applicable, propane heating and cooking devices. Remember that a vessel moored next to you may be a CO poison contributor.

Never disconnect a carbon monoxide detector. Periodically test the device using the procedures defined in the CO operator's manual. Remember that a slight amount of CO in the human body over several hours causes headaches, nausea, and symptoms close to food poisoning, motion sickness, or flu. High concentrations can quickly become fatal.

How the System Works

The hemoglobin in our blood has a stronger affinity for CO than oxygen; this concentration within the bloodstream is called Carboxyhemoglobin (COHb). The CO detector uses a mini computer to measure immediate CO levels and simulate COHb levels over time. If the detector senses high levels of CO, the alarm will sound quickly. If lower levels are sensed, the detector will predict COHb levels and sound an alarm when the appropriate level is reached. Read and understand the CO owner's manual in the information pouch.

The CO detectors operate using 12v DC power and overcurrent protection on the Battery Management Box in the engine compartment. The CO circuitry works to its best performance when continually activated. The test cycle should be activated frequently. Simply press the button. Refer to the CO detectors owner's manual for an explanation of the test cycle indicators. Note that the green light will flash every 180 seconds, which is normal.

When an alarm sounds take action immediately. The danger alarm indicator flashes red and the horn beeps 4 times, pauses, and repeats the cycle.

1. Operate reset/silence button.
2. Call your emergency services (911).
3. Immediately move to fresh air. Do not re-enter the vessel until emergency personnel have arrived, aired the vessel out, and the alarm is in a normal condition.
4. After following steps 1-3 and your alarm reactivates within a 24 hour period call a qualified technician to inspect the vessel. Note that the CO detector will clear when the CO concentration has dropped below 70 parts per million.

Ventilation System (Blowers)

A powered ventilation system is a required standard for any vessel with gas or diesel engines in an enclosed engine space. Ventilation blowers are used to dissipate any gasoline vapors and help regulate the air temperature of the engine space.

The blowers evacuate air from the lower third of the bilge, where any gas fumes may exist. Intake and exhaust ducting is used in this process. The blowers can be activated using the blower icon in the top left corner of the Digital Switching System (see page 96 and/or below).

Always preform a bilge sniff test before starting the generator and/or engines. If the sniff test is positive, deactivate all sources of power at the battery activation panel and seek professional assistance immediately to locate the source of vapor leakage. **Do not attempt to start generator or engines.**

Anytime the generator is operated, the blowers need to be run before starting the generator and during operation of the generator. Read and understand the warning label shown.

⚠ WARNING

Avoid serious injury or death from fire or explosion!
Run blowers at least 4 minutes before starting engine.
Continue to run blowers when generator is running.

Periodic maintenance of the powered ventilation includes examining the intake and exhaust ducts for any obstructions such as debris or insect nests inside the ducting. Make sure the exhaust hoses extend into the lower third of the bilge and they are not damaged in any way.

Never obstruct any part of the ventilation system!

With the Lazarette hatch lifted, both the intake and exhaust can be seen on the edge of the deck surface (see images below).

Powered ventilation ducting

Gas Vapor Detector

Located just below the steering wheel on the ignition panel, the vapor detection system will issue an alarm and illuminate the “DANGER” light in the event of a gas fume/vapor leak.

If the alarm goes off, cease operating the vessel immediately, turn off all potential sources of combustion, and service the boat with your Regal dealer before operating again.

Gas vapor detector

High Water Alarm

The high water alarm will sound if there is too much water in the bilge. Activate the bilge pumps manually through the Digital Switching Systems (see page 96). If safe to do so, enter the Lazarette compartment and attempt to identify the source of water ingress. This could be a loose hose, seacock, or cracked hull.

High water alarm

VHF Radio

Very High Frequency, or VHF, radios are used for distress signaling, ship-to-ship, and ship-to-shore communication. The radio is located on the starboard side of the helm dash (see image).

In the event of an emergency, use the red "16/9" buttons on both the handheld microphone and the radio unit. The first press instantly jumps to Channel 16; the second press jumps to Channel 9; a third press returns you to whatever channel you were previously on. Channel 16 is the primary channel for ships in distress. Channel 9 is used for secondary/hailing purposes.

Emergency Distress Procedures

Option A: Digital Distress

Lift the red DISTRESS cover on the back of the handheld unit. Press and hold for 3 seconds. The radio will digitally broadcast your GPS position and vessel identity to the Coast Guard (or your local agency) and all nearby vessels.

Option B: Voice Mayday (Channel 16)

1. Ensure the radio is on and set to Channel 16.
2. Ensure the power is set to HI (25W) for maximum range.
3. Press/hold the transmit button and say "Mayday, Mayday, Mayday."
4. Provide
   - Vessel name
   - Position (see chartplotter or VHF screen)
   - Nature of emergency
   - Number of people on board
5. Release button and wait 10 seconds. Repeat if no response.

Note: The VHF is integrated with the Garmin chartplotter system. Ensure at least one plotter is powered on to provide the radio with accurate GPS coordinates.

Electrical System

In this section, both DC (direct current) and AC (alternating current) electrical systems are introduced. Select electrical components are reviewed along with their location and function within the electrical system.

For more complicated issues outside the scope of this manual, contact your closet Regal dealer. They have undergone extensive training on the Regal boat systems.

Be sure to read and follow any danger, warning, caution, or notice labels in reference to the vessel's electrical system or individual equipment components. Also, refer to the component manual for further product information or the internet.

DC Current

Your Regal boat uses 12 volt DC electricity, otherwise known as direct current. It is called DC because it flows only one way in a circuit. Specifically to name a few; helm gauges, batteries, battery cables, engine electrical components, select lighting, shower sump, bilge pumps, and vacuum toilets are all components using a 12 volt DC system.

⚠ WARNING

Avoid serious injury or death! Disconnect all electrical power sources before attempting to repair or replace any electrical component.

⚠ CAUTION

Avoid damage to the charging system! Do not turn engine automatic battery switches to the "OFF" position with the engine running.

Batteries

All vessel DC equipment and specifications are subject to change at any time as part of Regal's commitment to product improvement. Equipment shown here and information is up to date per the manual printing date. Read the following pages and view the accompanying photos relating to the onboard battery system components.

Battery Terminology Descriptions

Group - Batteries are divided into groups which identify the height, length, and width of the battery. This is useful information should a replacement battery become necessary. Note that the 38 SAV currently uses 31-A batteries for both engine cranking needs and house/electronics deep cycle needs.

Cold Cranking Amps (CCA) - This rating measures the cranking power of a full charged marine battery having the ability to start at 32 degrees F. The higher the rating, the greater starting power of the battery.

Reserve Capacity (RC) - As usage on the boat increases, so does the need for more reserve capacity. The reserve capacity represents the length of time in minutes that a new, fully charged battery can maintain the vessel's electrical needs without the engine running or in the event a stator failure.

Battery Activation Panel

Located under the helm dash, the battery activation panel activates the entire DC system. Press the "POWER" button to turn the batteries on. The "Parallel" button has been moved to the Helm Breaker Panel.

The button will remain lit while the batteries are on. Press the button again to turn the batteries off. This is necessary when storing the boat after each voyage. For more information on smart battery management, refer to the "EGIS Modules" section.

Battery activation panel

House Batteries

There are three house batteries located in the sump on your vessel. One is the “house” battery and the other two are known as the “accessory house” batteries. They are group 31A type batteries.

Many of the component circuits with lower amperage demands use the “house” battery, also called the house main. Examples are bilge pumps, the macerator, fresh water pump, and lighting circuits.

Several of the component circuits with heavier amperage demands use the “house accessory” battery. These include an installed stabilizer (Seakeeper), bow thruster, windlass, and generator. All 31A batteries in your vessel are of the flooded lead-acid variety. Refer to the following page for house battery locations.

Battery Information Page

On the chartplotters, battery amperage and voltage can be viewed by navigating to the “Vessel” pages from the homescreen. This page is shown below.

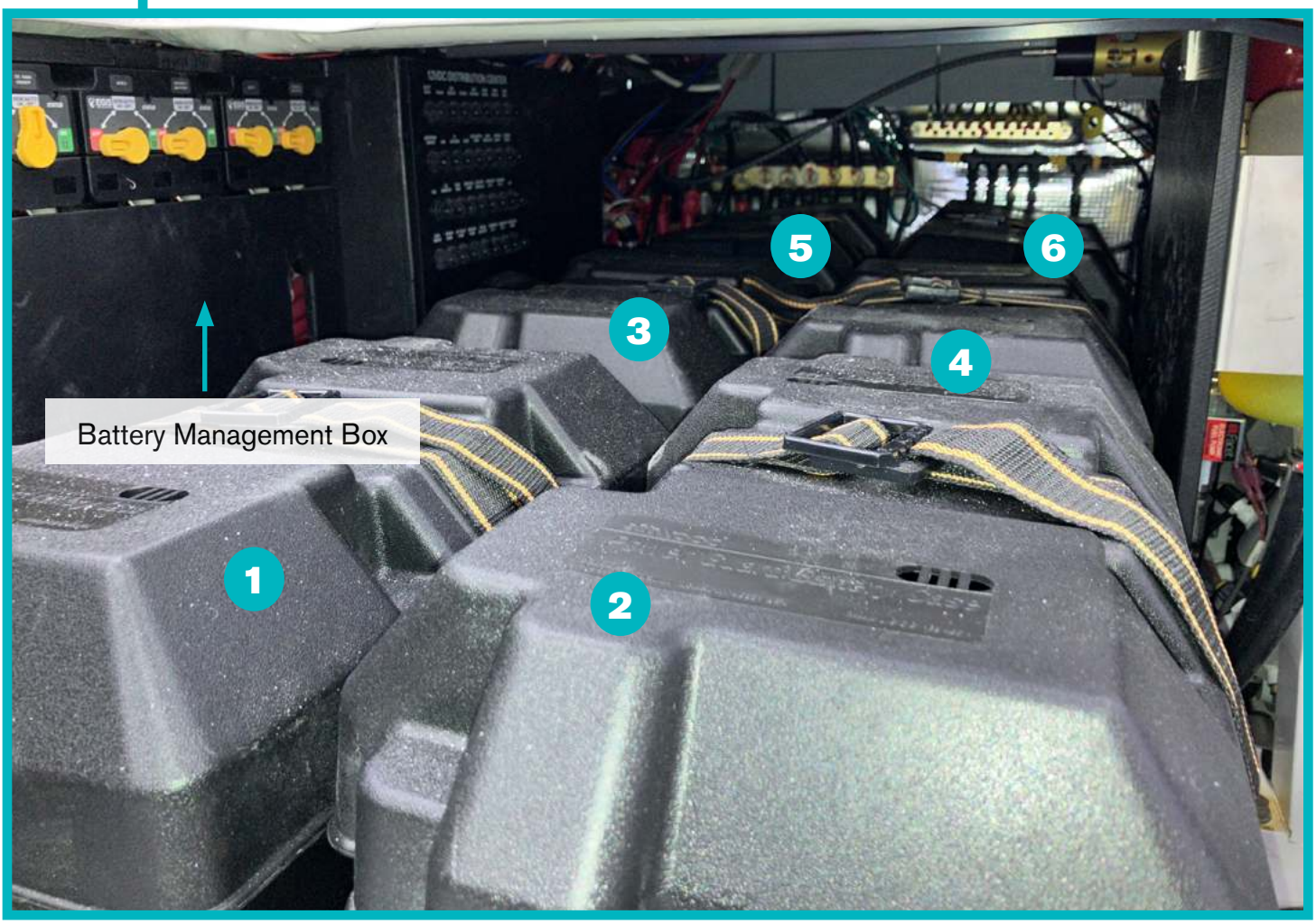
Engine Batteries

As part of the standard triple engine propulsion package, each engine features a designated group 31A starting battery. These batteries each weigh approximately 45 pounds and offer plenty of cold cranking amps for engine starting. Refer to the following page for engine battery locations.

TYPICAL GROUP 31A ENGINE BATTERY

BATTERY SPECIFICATIONS			
Battery Type	Group	CCA @32 Degrees F.	Reserve Capacity
Engine Cranking	31 A	1260	195 min.

Battery Locations



Note: layouts may vary.

Battery Problems/Solutions

1. Weak battery - This battery problem can be caused by low electrolyte cell levels.

Warm, bilge compartment temperatures will deteriorate a battery's life quicker by evaporating the water from the electrolyte, thus corroding and weakening the positive grids inside the battery.

When a flooded lead-acid battery is low, electrolyte levels can be monitored by periodic inspection and filling as needed with distilled water. Boaters in higher climate areas with longer stretches of hot weather will need to check their batteries more often.

The "maintenance free" engine cranking batteries require no water. They do feature a different chemistry that does consume less water. Inside the cells as gases are released, condensation is formed which aids in maintaining the cell electrolyte level. These batteries incorporate a deeper layer of electrolyte over the plates, but eventually it can run dry. On the 31 series engine cranking batteries, keep all terminals clean, connections tight, and your electrical system in top shape to extend battery life.

2. Dead Battery - Either the battery will not accept a charge, hold a charge, or the charging system is not supplying a charging current through the battery charging system and/or engine stators.

The battery charger (shown on the following pages) output can be checked by monitoring the lights on the charger front face.

Check the battery post connections for tightness and corrosion.

With the engines running, the displayed voltage of the port or starboard engine battery and house battery should be between 12.5 up to 14.6 volts.

If less than 12 volts, check for voltage across the battery terminals.

If less than 12 volts on the house battery, use a hydrometer to locate faulty cells.

On maintenance free batteries, they can be removed from the vessel if necessary and trickle charged. If readings after charging are still low, replace the battery.

AC Generator Option

If the generator option is selected, this will be the main source of AC power. The generator is always located in the Lazarette compartment, towards the aft section.

Fuel System

The generator pulls fuel from a dedicated 28.8 gallon diesel tank. The diesel fill is located on the starboard gunwale, as shown below.

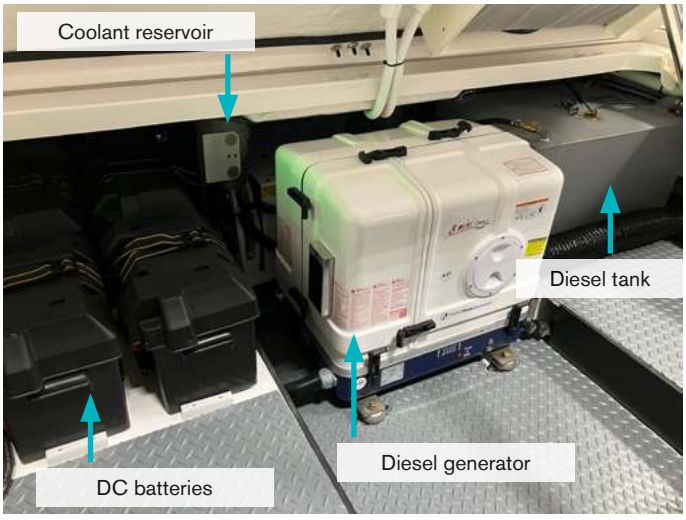
The diesel system includes two fuel filters that keep debris out of the generator. The first is an in-line water separator filter located close to the generator. The second is a cartridge style filter on the generator itself. Both share the purpose to keep fine particles and water out of the generator fuel system. Refer to the vendor information for periodic maintenance schedules. Clean fuel is the life line of generator performance.

⚠ WARNING

Use of alcohol enhanced fuel, or any fuel other than diesel can lead to deterioration of the fuel system components. This can result in fire and possible explosion.

Since water is heavier than fuel, it will settle at the bottom of the water separator filter. Periodically check the filter for foreign debris and water in the fuel supply. To check the filter, unscrew the filter using an oil filter type wrench that fits on the bottom. Do not use a strap type wrench since it may deform or damage the filter housing. Use an environmentally safe container to catch any contaminated fuel. Dispose of according to local, or state regulations. Carry extra water separator filters on board.

When you turn the filter upside down, note that any water in the gasoline will gather at the bottom of the container since it is heavier than gasoline. Water will appear as a different color and consistency and normally will move back and forth independently from the gasoline mixture in the container. After inspection, reinstall the filter (hand-tighten only). Start the engine and check for fuel or air leaks.



Cooling

The generator uses raw water for cooling. Most seacocks are located in the aft starboard section of the Lazarette compartment (see images).

There is a strainer located along the raw water line that catches debris and keeps the generator clean. To check the strainer basket, first make sure the seacock is closed. Next clear the strainer by removing the strainer top, strainer basket, and dumping out any debris. Replace the basket by pushing it down evenly into place and tightening the strainer top. Reopen the seacock. Periodically check the strainer basket for debris.

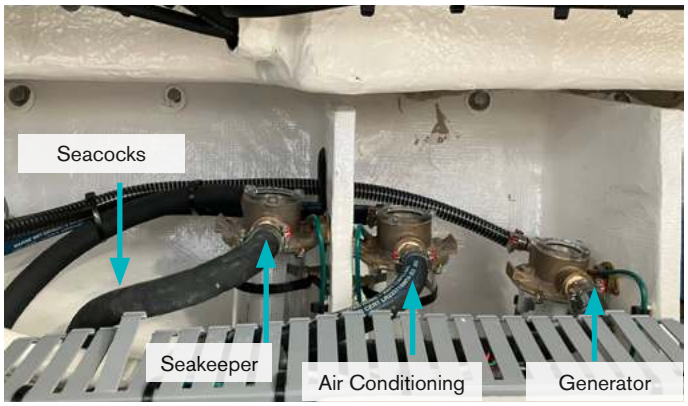
The generator also uses chemical coolant, located in the coolant reservoir near the generator (see photo on the previous page) to avoid overheating. The coolant reservoir is marked to indicate the optimal fill level; consistently check coolant levels to help ensure smooth performance. Refer to your generator owner's manual for upkeep and maintenance schedules.

⚠ WARNING

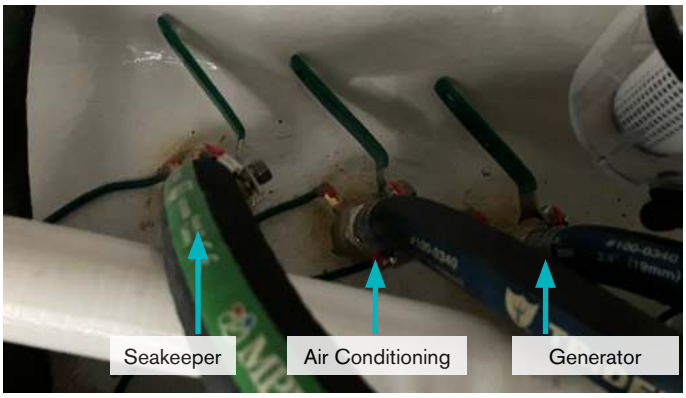
Prevent injury or death due to fire or explosion! Run blower at least 4 minutes before starting engine.

⚠ WARNING

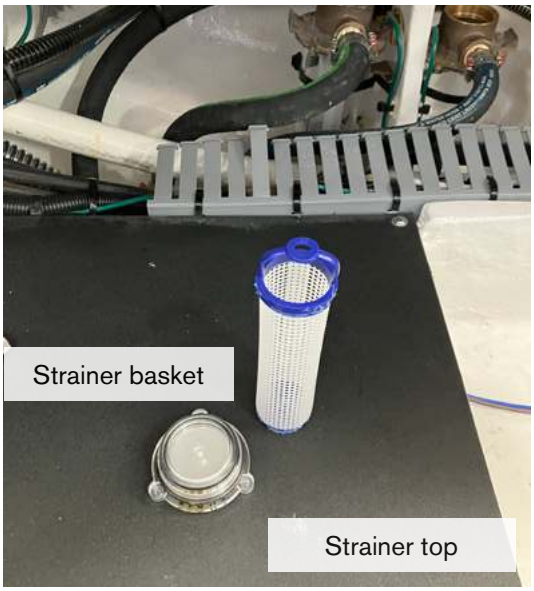
To prevent possible generator damage, all shore power breakers and ac switches need to be deactivated before starting or stopping generator.



Seacock strainers



Seacocks (closed positions)



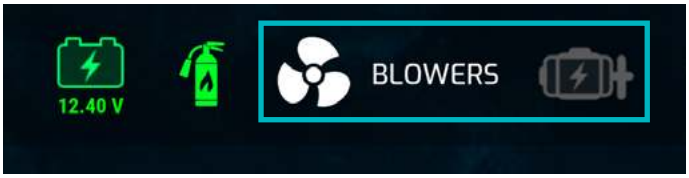
⚠ WARNING

Gasoline vapors can explode! Before starting engine check bilge compartments for gasoline leaks or vapors.

Before Starting Generator

The following items should be checked each time before starting the generator. This covers the basic system components.

- Close off the generator seacock. Check strainer for debris. Open the seacock before starting it.
- Ensure that all main panel and equipment breakers are off.
- Inspect the generator for fuel, oil, or water leaks.
- Check generator engine oil level. Top off with correct viscosity as required.
- Check coolant for proper level at reservoir. Add as needed.
- Check diesel fuel level. Apply the one-third rule.
- Check battery voltages using the chartplotter readings.
- Check drive belts for wear and proper tension (weekly).
- Record the hour meter reading to meet maintenance scheduling.
- Check the blower for proper operation. Start blower and let run **at least 4 minutes** before attempting to start the generator. Run blower continuously while generator is running.
- Check the water surrounding the aft swim platform for persons in the water. Do not attempt to start the generator with persons in the water as generator exhaust could overcome the individual with CO poisoning and lead to drowning. Never let anyone near the generator exhaust which is located on the starboard transom.



Blowers and generator start icon within DSS

Starting the Generator

1. Activate the generator using any of the three following methods:
   - Digital generator icon at the top left header of the DSS
   - Switch icon within the Switching page
   - Manual activation using the dedicated control panel in the cabin

2. Let the generator run without a load for several minutes.

3. At the MDP (see the following page), slide the parallel (transfer) bar up. Activate the breaker.

4. Push the port bar up. Activate the generator breaker. At this point AC voltage should display on the AC line voltage meter.

5. Activate the desired AC equipment breakers.

Switching page icon

Physical control panel

Stopping the Generator

To stop the generator follow these steps at the ship's main control panel;

1. Turn to the "off" position all AC equipment breakers.

2. Turn to the "off" position the 50 amp AC generator breaker. At this point, no AC line voltage will be displayed at the AC volt meter. Let the generator run for 3-5 minutes without a load to cool down.

3. Stop the generator with the "stop" switch on the panel. Hold switch until generator stops.

Main Distribution Panel (MDP)

Charging - Mastervolt ChargeMaster Plus

Two Mastervolt ChargeMasters use AC current from the generator or shore power to charge the DC battery bank, which includes the house, electronics, and engine batteries. Refer to the manufacturer's manual for more information.

Possible Generator Problems/Solutions

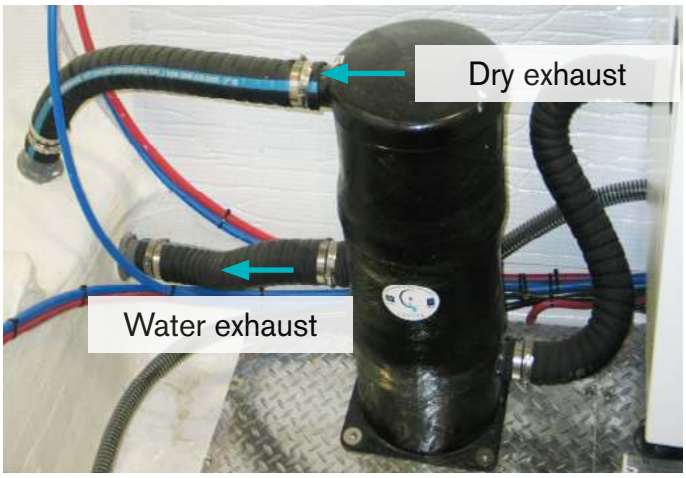
1. With generator main control panel activated there is no voltage at the AC line voltage meter. Check AC output breaker on the generator. It may have tripped due to an overload.

2. The generator quit due to overheating. Check the generator strainer for obstructions such as seaweed, plastic, or shellfish. Be sure to close the seacock before removing the strainer basket.

3. The generator will not start from any method after being serviced. Make sure the generator mounted emergency stop switch is in the “off” position and the breaker has not tripped.

Generator Exhaust System

The generator exhaust system features a dual tier operation. As the water and exhaust exit the generator, they travel to the muffler. The muffler discharges the heavier water out the muffler bottom and through the hull. The exhaust itself is exited out the muffler top and through the hull. The benefits of the system are two-fold. First, the actual decibel or sound level is decreased. In addition, the lower resonating sound is more pleasing to the ear. For colder climates, a drain plug is installed in the muffler.



Generator muffler

Before departure always check the hose connections for signs of water and air leaks. Tighten hose clamps periodically as needed. Check entire exhaust system for leaks and fastener tightness. After starting generator, check for water flow at the generator discharge.

PowerBank Option

Lithium ion battery

The PowerBank option comes with three lithium ion DC batteries that supply vessel's electrical needs. Mastervolt CombiMaster inverter-chargers take the DC power from the PowerBank and invert it to AC power for the vessel's AC components. MacPlus Units are used to convert DC power between the lithium and lead-acid type batteries.

Mastervolt CombiMasters

When plugged in to shore power, they can act as chargers for the PowerBank, or pass power directly through them to run the MDP off shore power rather than using the PowerBank. However, the more loads present, the less charge to the batteries will be received. It is possible that even with shore power in, the 120v loads are more than the incoming charge, so the CombiMasters will still need to invert to make up for the power, and therefore will not be charging the PowerBank.

CombiMaster unit

Mastervolt MacPlus

Mastervolt MacPlus units convert DC voltage between different types of batteries. They allow the PowerBank's lithium batteries to communicate with the DC battery bank which includes the house, engine, and electronics AGM lead-acid-type batteries. They can charge the PowerBank using the engine alternators if the engines are running above 1100 RPM. However, the priority is always ensuring the engine batteries have charge. For more information on smart battery management, see the "EGIS Modules" section.

MacPlus unit

Activating the PowerBank

Turn the PowerBank on by tapping the "Lithium ON" icon within the dedicated "Switching" page. The PowerBank must stay activated to charge using shore power; it will automatically activate when shore power is connected. Be sure to turn off the PowerBank when storing the vessel for extended periods of time.

Switching page icon

Shore Power

Connect to a marina's shore power tower to supply the boat's 120v AC system through the MDP. With the PowerBank option, shore power can charge the batteries if there aren't too many AC loads at the MDP.

The shore power inlets are located in a small compartment in the port aft gunwale. Before plugging in the shore power, check to see that all vessel AC breakers are off at the MDP in the cabin.

When connecting the shore power cord, be sure to twist the cord into the marina inlet plug to lock the plug in the socket. There may be several types of inlet plugs located at the marina dock power tower. Be advised that the 30 amp plug is smaller and the 50 amp cord will not physically fit it.

Marina dock power centers normally have breakers that must be activated after installing the dock side cord. Make sure the dock side cord has enough slack for changing tides if applicable and also does not come in contact with the water. Check with the marina dock master for more information on their shore power operation and requirements.

Shore power inlets are located in a small compartment on the port aft gunwale. The shore water inlet is also located here.

Read and understand the shore power warning label below. As needed make tidal adjustments for shore power cords to ensure they do not dangle and are not immersed in water while being used.

⚠ WARNING

Electrical shock and fire hazard. Failure to follow these instructions may result in injury or death.

(1) Turn off the boat's shore power connection switch before connecting or disconnecting the shore power cable.
(2) Connect the shore power cable to the boat first.
(3) If polarity-warning indicator is activated, immediately disconnect cable.
(4) Disconnect shore power cable at shore outlet first.
(5) Close shore power inlet cover tightly.

DO NOT ALTER SHORE POWER CABLE CONNECTORS

Before disconnecting the shore power cord ensure that all AC equipment breakers are off at the MDP in the cabin to prevent component failure.

When disconnecting the shore power cord first turn the breaker to the "OFF" position at the marina dock power center. Then remove the dock side cord from the outlet.

⚠ DANGER

Prevent bodily injury, death, or fire! Never use extension cords or improvised cords in shore power/ marina inlets. Use only approved marine shore power cords matching the original wire gauge and amperage.

Shore Power Possible Problems/Solutions

1. After the dock side cord is connected and the AC MDP shore power 1 and/or 2 is activated, no voltage is shown on the voltage displays.

Check the breaker on the marina dock power center to ensure it is activated.

Check the ELCI breaker/voltage sensing device. The "power" icon should show green. If a leakage fault exists, a red icon will light indicating the breaker is tripped. If needed, use the test button to reset the breaker. Read the information in the following pages regarding ELCI system.

2. The marina dock power center lacks a 30 amp twist plug inlet.

Call the dock master or marina personnel. An adapter cord may be available from the dockage facility. NEVER IMPROVISE ANY TYPE OF CORD OR POWER INLET CHANGES! Additional cord adapters can be found at retail boating outlets.

⚠ WARNING

Prevent severe injury or death! Alternating current (AC) can kill you! Disconnect all electrical power sources before attempting to repair or replace any electrical components.

Inspect the shore power connections monthly. If any discoloration (blackening), pitting, or burn marks are present, replace components immediately.

Heat Check

After both 15 minutes and 1 hour of running high-load appliances (A/C, water heater) on shore power, touch the head of the shore power cable. If it is unnaturally hot or uncomfortable to hold, disconnect immediately and notify the marina/dockmaster. Running current through a hot plug will melt the connector and may start a fire.

Examples of damaged shore power cords

ELCI (Equipment Leakage Circuit Interrupter)

An ELCI, located under the port mezzanine seat provides protection for the entire boat and features a trip threshold which provides ground fault protection for the entire AC system beyond the ELCI. The ELCI protection on individual shore power lines combined with GFCIs will reduce the risk to those on the boat, dock, and in the water surrounding the vessel.

A proper operating alternating current system will display a green illuminated LED. Periodically test the ELCI by pressing the “test” button. The breaker should trip, indicating the system is functioning properly. Simply reset the breaker.

The ELCI can at times undergo a process called “nuisance tripping” which can cause a tripped breaker. This can be caused by overloads in the electrical draw or sometimes caused from unbalanced loads. One way to minimize the situation is to closely monitor the energized devices on the vessel which will assist in keeping the total amperage used to a minimum and the loads between panel legs more balanced.

ELCI LED Information

As a central segment of the ELCI system, there are two LED lights with a “test” button. With the breaker in the “on” position and the shore power cord hooked up, these LED lights may show variations in color to provide system conditions.

1. Green LED On, Red LED Off
Line voltage is present, the breaker is closed, and the device is protecting the circuits against overcurrent and current leakage.

2. Green LED Off, Red LED On
The device has detected current leakage and has opened the circuit breaker.

3. Green LED flashing, Red LED Off
The circuit breaker has opened due to overcurrent or has been manually turned to the “off” position.

4. Green LED Off, Red LED Off
Line voltage is not present. Check cord connections and marina breaker for “on” position.

Note: Check circuit at least monthly by pushing in the white switch marked TEST. When pressed, the breaker should return to the reset position indicating the ELCI circuit is operating properly.

AC Main Distribution Panel (MDP)

1 - AC Voltage Display

2 - Shore Power Selector Switch

3 - AC Current Display

4 - Shore Power 1 Main Breaker

5 - Generator Main Breaker

6 - Bar 1

7 - Reverse Polarity Indicators

8 - Shore Power 2 Main Breaker

9 - Bar 2

10 - Parallel Switch

11 - Leg 1

12 - Leg 2

AC MDP Continued

The AC Main Distribution Panel (MDP) controls all high voltage components on your vessel. This panel is 120 volts AC on twin legs. Equipment is controlled by individual breakers. Voltage is supplied by either a shore power cord, generator, or PowerBank if installed. The panel features voltage and amperage (current) displays.

Each major feature is covered below. Refer to the photo on the previous page for each component reviewed.

AC Line Voltage/Current Meters

After the shore power or generator breaker is activated, line voltage will display on the main panel. As equipment breakers are activated, the load current meter (extreme right side of panel) will show an amperage draw. Normally the amperage will ascend as more equipment breakers are activated and will descend as equipment breakers are deactivated.

Shore 1 & 2 Toggle Switch

Located between the analog displays, this switch shows the voltage and amperage readings for each leg of the MDP. With the shore power switch in the "center" position it is off. The switch can be a great tool for balancing loads between panel legs, helping prevent circuit and panel overloads, power surging, and voltage drops.

It is recommended that most breakers be turned off when storing the boat. It may be necessary to leave the shore power cords connected and the battery charger on during extended periods to keep the batteries up.

Main Shore Power Breakers

The two main shore power breakers on the panel, Shore 1 and Shore 2, control current flow to the respective legs of the MDP. Before energizing the main breaker, make sure all sub breakers are deactivated to prevent any excessive equipment motor draws and eliminate any system arcing.

With the reverse polarity indicator displaying the green icon, activate each leg by moving the bars down and flipping the switches on. Turn on sub breakers as needed, always being conscious of the load current meter.

AC Generator Breaker

Whether still docked or at sea, first make sure shore power is disconnected and/or both shore breakers are turned off. Once the generator is running, move Bar A up and flip on the generator breaker. To energize both legs, move Bar B up and flip on the parallel switch to provide current to the second leg of the MDP.

Reverse Polarity Indicator

Before activating the Shore 1 or 2 breaker, visually check for a green light at the reverse polarity indicator. The green light indicates there is no reverse polarity. A red light indicates faulty wiring connections. DO NOT activate any main breaker. Disconnect the shore power cord from the marina power center and call for professional assistance.

Parallel Transfer Breaker

With the generator running, flipping the parallel transfer breaker allows the generator to supply both legs of the MDP simultaneously.

GFCI Outlet (Ground Fault Circuit Interrupter)

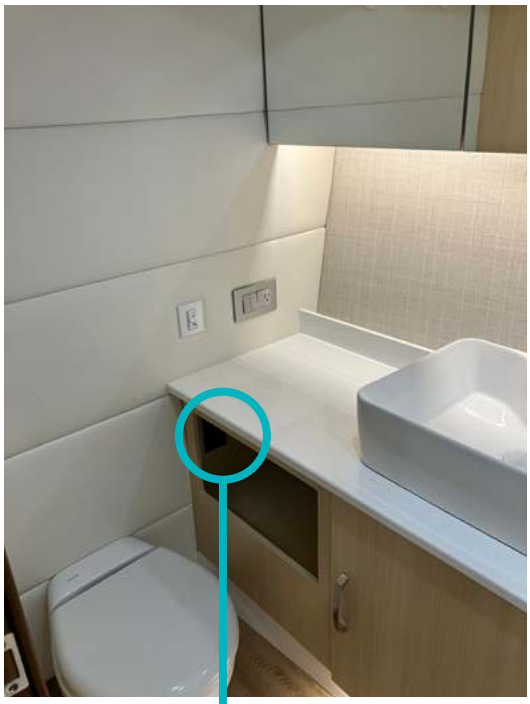
Identify the GFCI primary receptacle by the 'TEST' and 'RESET' breaker in the center of the device. These outlets are designed to protect from serious shock hazards. If a fault is detected, it quickly cuts power to the outlet and any other outlets connected downstream.

Check the GFCI protection monthly. Press the 'TEST' button. The 'RESET' button should pop out, and power to the outlet should stop. Press the 'RESET' button again to restore power.

If the 'RESET' button does not pop out during testing or pops out again after resetting, do not use the outlet. Have the boat serviced by your Regal dealer immediately.

If the GFCI trips (the 'RESET' button pops out) while using an appliance, unplug the appliance immediately and attempt to reset the outlet. If the button stays in, the appliance is likely faulty. If the button pops out again without anything plugged in, there may be a fault in the boat's wiring. Have the boat serviced by your Regal dealer.

Note: The GFCI protects against shock; it does not protect against circuit overloads. Overload protection is provided by the breaker panels.



Possible Problems/solutions (GFCI's)

1. If the "reset" button does not pop out when testing, the GFCI is probably defective and should be replaced.

2. If the "reset" button pops out one time but tends to stick the next, the GFCI should be replaced.

3. The GFCI "reset" button pops out when something is turned on. This may indicate an internal wiring problem with the GFCI or there may be a ground-fault down stream.

4. The GFCI "reset" button is in the pressed position and nothing works. Check the appropriate breaker at the AC MDP to make sure it has not tripped or as been deactivated.

Ignition Protected Devices

Electrical components located in the engine room or fuel compartments (such as starters, alternators, and distributors) are designed to be "Ignition Protected." This means they are sealed to prevent internal sparks from igniting fuel vapors in the bilge.

If any electrical component in the engine or fuel compartment requires service or replacement, contact your authorized dealer. Ensure only OEM (Original Equipment Manufacturer) or certified marine-grade parts are used.

⚠ WARNING

Avoid serious injury, death, or fire! Never replace marine electrical components with standard automotive parts. Automotive parts are not ignition protected and can cause a fire or explosion on board.

Fuses

There are three types of DC fuses on the boat: Midi, ATC, and Class T. Understanding fuses is important in order to replace them if necessary.

Midi fuses are small rectangular fuses with teeth protruding from each end and circles punched into the teeth for connections. The amperage rating is displayed on the center body of each fuse.

Typical MIDI Fuse

ATCs are blade type fuses. Both connector teeth protrude from the fuse body on the same side. ATC fuses are designed for lower draw electrical components. Both ATC and Midi fuses have clear bodies designed to easily identify a blown fuse. When a fuse blows, the wiring in the center of the fuse that connects the teeth is broken.

Typical ATC Fuse

Class T fuses have a central, cylindrical body and two teeth protruding from either end. They are used in the LivePower system, the bow thruster, and to protect some batteries.

Typical Class T Fuse

Galvanic Isolator

Located behind the AC MDP in the cabin, the galvanic isolator blocks low voltage stray currents from the dock and other vessels. This prevents rapid corrosion of the boat's metal components and zinc anodes while maintaining a safe ground connection for the shore power.

The galvanic isolator functions automatically and silently. There is a fan located at the right side of the isolator, identified by an array of ventilation holes. If you ever hear the fan running, disconnect shore power and contact your Regal dealer for professional maintenance. Do NOT attempt to test or troubleshoot the system yourself.

⚠ WARNING

Avoid serious injury or death! Never swim near the boat while shore power is connected. Stray currents in the water can be life-threatening.

⚠ CAUTION

After a lightning strike, the isolator may fail even if the fan is not running. Have a professional check the system.

DC Breaker Panels

The DC system breakers are comprised of the DC distribution center on the Battery Management Box, 12v helm breaker panel, and the Digital Switching System within the Garmin chartplotters (more detail on this later). Covered first is the Battery Management Box as it houses other important components related to the DC management system.

Battery Management Box

1. Mid Bilge Pump - This button activates the mid bilge pump under the seakeeper.

2. Windlass - This 90 amp breaker protects the windlass circuitry installed at the foredeck.

3. Bow Thruster - This switch activates or deactivates the bow thruster system used to maneuver the vessel.

4. Empirbus Modules - Digital distribution modules that receive commands from the Digital Switching System in each plotter and controls devices accordingly (see DSS section for more information).

5. EGIS Modules - Battery management devices that connects the DC batteries in parallel according to voltage needs. They prioritize the engine batteries to avoid running out of power while out on the water.

6. DC Distribution Center - This panel provides overcurrent protection to DC devices.

12v Helm Breaker Panel

This panel under the helm dash provides circuit protection for all electrical components controlled at the helm, including the plotters, VHF radio, and trim tabs.

The panel is located on the starboard side of the helm underneath the steering wheel. When a breaker trips, a button on the panel pops out. To reset the breaker, push the button back in until it clicks.

The parallel button manually links all 12v DC batteries (engine, house, and electronics). This should be reserved for emergencies only.

12v Helm Breaker Panel

DC Distribution Center

The DC Distribution Center is part of the Battery Management Box and protects DC components. The Battery Management Box is on the bulkhead of the Lazarette storage compartment, forward of the Seakeeper.

When a breaker on the DC panel trips, a switch on the panel will flip off. To reset the breaker, flip the switch back on.

Battery Management Box

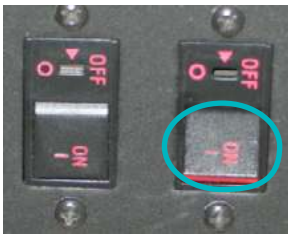
DC Distribution Center

DC Distribution Center - Resetting Breakers

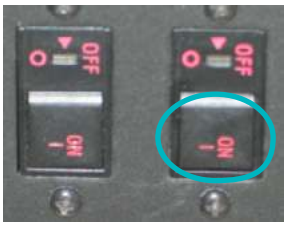
1. It is possible that one of the DC distribution system amplifier or steering pump breakers may trip from long-term arcing and heat.

To trip and/or reset this style of breaker do the following:

A. Take a small slotted insulated screwdriver from your on-board tool kit and insert it in the breaker slot until it trips. You will hear a snapping type noise. See the illustration.



B. Notice that the breaker has pushed outward from its original flush position indicating the breaker has been tripped. See the illustration.



C. To reset the breaker use your finger to press the breaker down until it locks in the “on” position. You may hear a slight noise. This is normal. The icon display should be lighted after this procedure. See the illustration.

2. Breaker will not reset - Replace the breaker. Contact the nearest Regal dealer for replacement parts.

3. Breaker continues to “trip”. Check the affected equipment to determine if it is responsible for the excessive draw to trip the breaker. If the equipment is determined to be within specifications, check for a “short” in the wiring circuit. Also, the breaker may be faulty. Contact the closest authorized Regal dealer for service and parts.

Note: It is possible under certain circumstances that a breaker may preform a “soft” trip on a circuit. The breaker may not appear to be in the tripped position but at this point, current to dedicated components is interrupted.

It is recommended to turn any equipment on the circuit to the “off” position until the breaker is reactivated. In this situation insert the insulated screwdriver blade into the breaker slot until it fully trips the breaker. Then reset the breaker by pushing the breaker down until it clicks into place. At this point energize the circuit by activating components or equipment.

EGIS Modules

The EGIS battery management system uses both Remote Battery Switches (RBSs), and Voltage Sensitive Relays (VSRs) to automatically connect the batteries in parallel whenever sufficient voltage is present. By connecting the batteries, the system can charge multiple batteries at the same time. These are all located on the new Battery Management Box detailed in the following pages.

The battery activation panel also has a "Parallel" button that connects the batteries in parallel. For newer models, this may be located on the 12 Volt Helm Breaker Panel. However, Regal insists on relying on the EGIS system, except in rare emergency situations, to avoid running out of power.

The EGIS system also disconnects the engine batteries as the voltage level drops to ensure that you are not left stranded on the water.

When the boat leaves the Regal factory, all switches and relays are set to "Auto."

Regal insists on leaving the switches on auto to avoid running out of battery power and being unable to start the engines. However, in an emergency it may be necessary to manually connect or disconnect the batteries.

To connect or disconnect the batteries from the EGIS, turn the switches on the unit to either "OFF" or "ON." Off will turn the batteries off completely. On will connect the batteries. Do not forget to disconnect the batteries or you will run out of power and be left stranded.

Only manually connect batteries in emergency situations.

NOTICE

The battery parallel features on this vessel are intended for emergency intermittent use only! When a parallel feature is required it may indicate a service battery is near the end of its useful service life.

On-Board Lighting

The on-board lighting system features a variety of fixtures in the cabin, cockpit, and deck areas. Their source of power is 12v direct current.

On-board lighting primarily uses LEDs. Consequently, there are no bulbs to change.

To use the deck pop-up light simply twist the top and turn. It will emerge from its receptacle. Push down and turn to collapse.

LED pop-up deck light

LED cabin lamp

RGBW Lighting

RGBW lighting includes deck accents and underwater lights. To toggle and change, navigate to either the Deck or Hardtop page of the Digital Switching System (DSS) as shown below, or see the Chartplotters section for more information.

Tapping the settings wheel brings up a control panel for RGBW lighting only. Tapping the color wheel itself simply toggles the lights on and off.

RGBW lighting within the DSS

RGBW lighting DSS settings

Air Conditioning

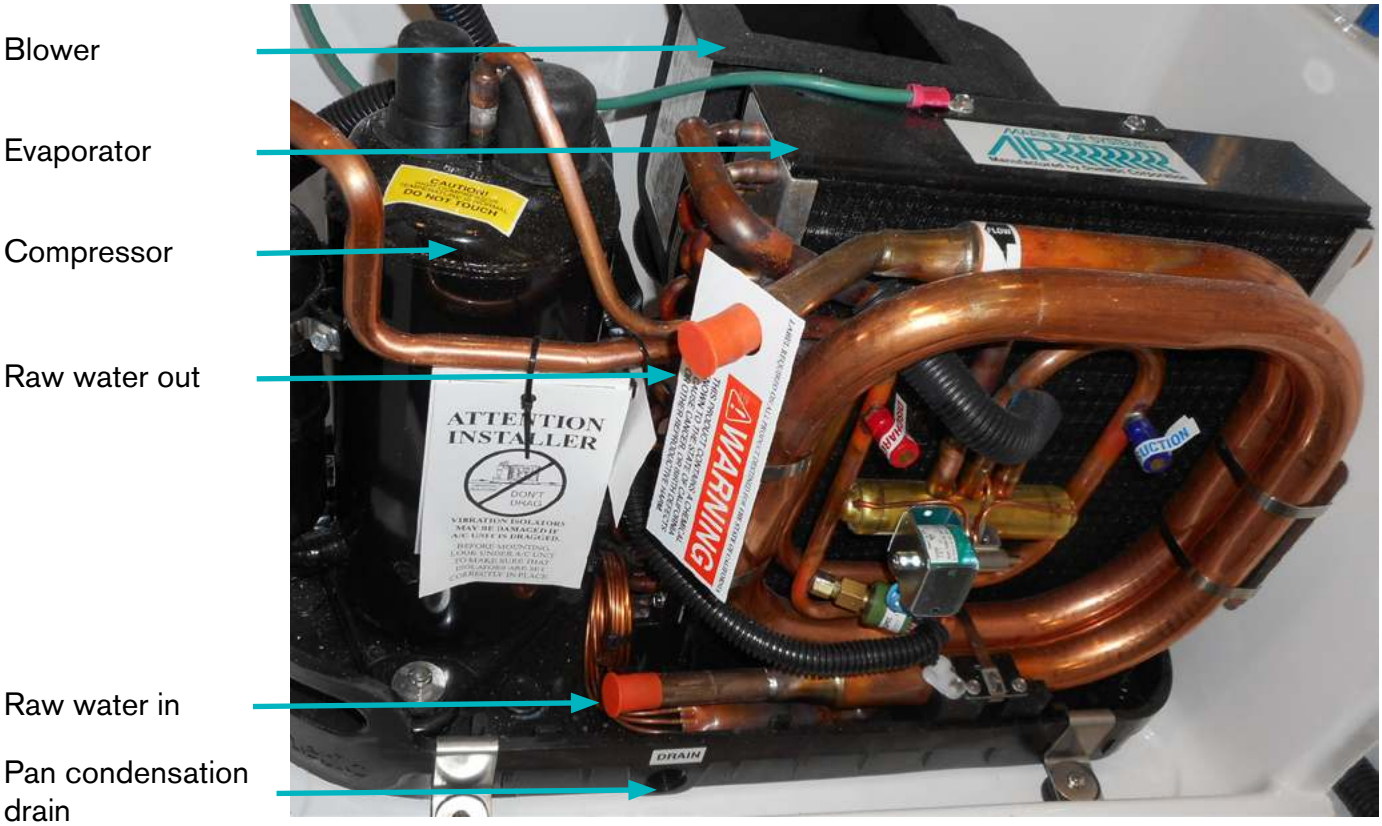
The current air conditioning system features a 12,000 BTU output at 120 volts and 60 Hz. The system utilizes a single pump which delivers cooled raw water to the evaporator/condenser. The drain pan is rust-free molded composite. Residue water exits through the shower box. Warmer raw water exits the vessel through a thru-hull fitting.

The evaporator/condenser unit incorporates a compressor to compact the R-410A refrigerant which is comprised of fluorinated greenhouse gases.

The control panel (thermostat) is centrally located in the cabin to serve the vessel needs.

The A/C pump is located in the engine room. It provides raw water to operate the A/C unit located under the v-berth floor.

Typical Air Conditioning Evaporator/Condenser Unit



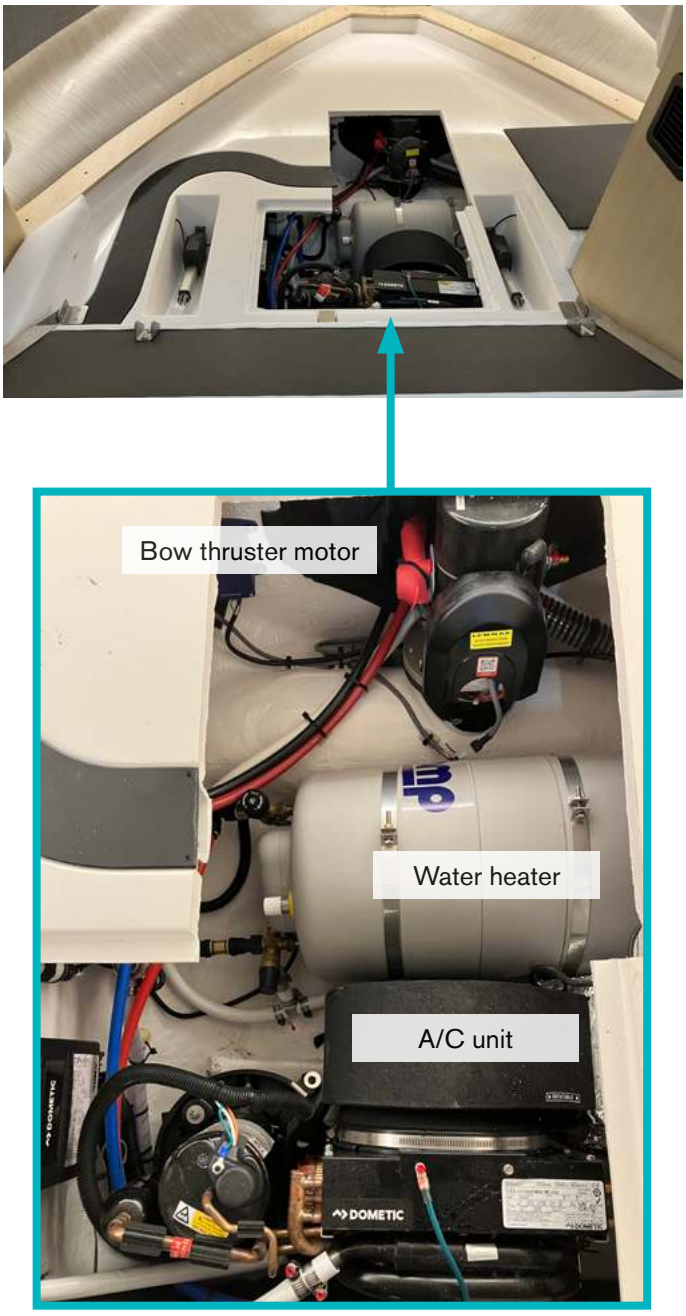
Note: If the vessel is hoisted out of the water (except for winterization) make sure the A/C seacock is turned to the "off" position before lifting the vessel. Failure to do so may cause the air conditioner to lose its prime and the A/C pump may quit on start-up do to a lack of water or cause pump failure. Remember to turn the seacock "on" before re-starting the A/C unit.

Reverse Heat

The air conditioning system features a reverse heat cycle. This can be extremely valuable to boaters in colder climates, especially for early spring and late fall cruising. The temperature of the raw water will affect the air conditioner efficiency.

The temperature variance for cooling efficiency is:
Up to 90 Degrees F. (32.2 Degrees C.)

The temperature variance for heating efficiency is:
Down to 40 Degrees F. (4.4 Degrees C.)



Air Conditioning System Operation

Below is a basic quick start-up checklist for the air conditioning system.

1. Check the A/C pump strainer for debris.

2. Make sure the A/C seacock located in the engine room is opened (handle should be in-line with the hose).

3. Activate the forward air conditioner breaker on the boat's main A/C control panel located on the cabin wall.

4. Check the hull side for a steady stream of seawater. Seeing water here is normal when the A/C pump is running. If stream is diminished or no water emits from the fitting, immediately turn the A/C pump off and investigate the cause of the problem.

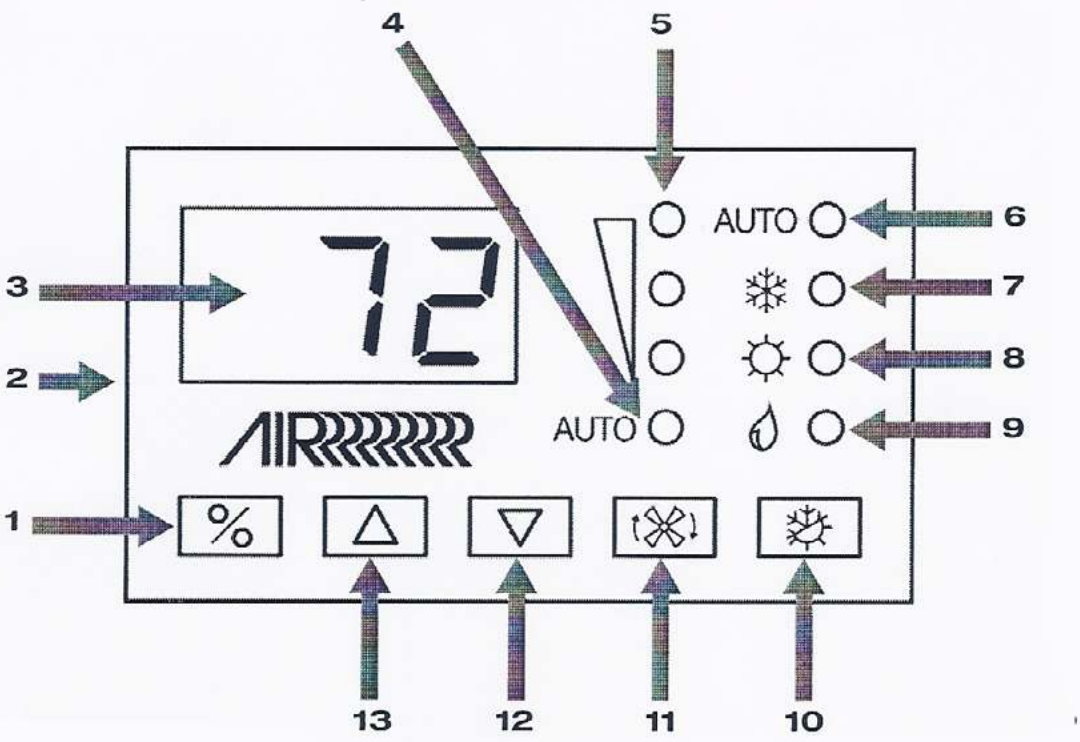
5. Press the thermostat Power button once to activate the air conditioning system. A blank screen displays when system is off and indicates present cabin temperature.

6. For cooling or heating, press and release the Mode button until the desired LED is illuminated i.e.; automatic mode.

7. Press the Up or Down button to set the desired cabin temperature. To view the set point, momentarily press and release the Up or Down button.

8. Auto fan LED lights when Auto fan speed is selected.

A/C CONTROL PANEL DIAGRAM



Elite Display - Diagram Legend

1	Power button	8	Heat Mode indicator
2	Temperature sensor	9	Moisture Mode indicator
3	Digital display	10	Mode button
4	Auto Fan indicator	11	Fan button
5	Manual Fan indicator (high, medium, low)	12	Down button - Lower temperature set point
6	Auto Mode indicator	13	Up button - Raise temperature set point
7	Cool Mode indicator		

Note: The Elite display continually monitors the system components. Should a problem develop, it sends a diagnostic code to the control (thermostat) display. Refer to the vendor air conditioning manual (troubleshooting section) to assist in identifying the problem.

Air Conditioner Inspection Tips

Raw Water Strainer

The A/C seacock strainer is located in the bilge towards aft and should be cleaned periodically of debris, which can inhibit or stop the raw water supply. Always turn the seacock handle to the off position (90 degrees to the hose fitting) before cleaning a seawater strainer. Refer to page 68 for more information.

Return Air Filter

Once a month, check the return air filter located on the face of the evaporator. To clean, rinse with fresh water, air dry, and reinstall.

Air filter

Drain Pans

As noted on an earlier page, the A/C evaporator/condenser features a 2" deep drain pan connected by a hose that runs to a pump and eventually exits overboard. Periodically, just like your home A/C, the pan needs to be rinsed clean of debris and possible mold. Contact your Regal dealer for proper maintenance in necessary.

Condenser Coil Cleaning

Periodically, the condenser coils are recommended to be cleaned. This procedure should be performed by a professional since an acid solution must be used.

Possible Air Conditioner Problems/Solutions

1. Little to no water is noticed at the thru-hull fittings and a HPF fault code shows on the display which means the high pressure switch is open.

The strainer or intake hose may be clogged, seacock may be closed a hose may be collapsed or the AC pump may be defective.

2. Air conditioner will not start. Ensure the proper AC breaker is activated on the ship's main control panel.

3. No cooling or heating. Lower or raise set point on thermostat control to offset set point being satisfied. Check for obstructed seawater flow. Remove discharge side of pump hose to purge air (air-lock). Seawater temperature too high for cooling and too low for heating.

4. Fan coil is iced. Raise or lower control set point. Clean return air filter. Switch AC to heat until ice melts or as a last resort use a hair dryer to melt ice as needed.

⚠ WARNING

Prevent injury or death! Disconnect all electrical power sources before attempting to open, repair, or replace any air conditioner components.

Garmin Chartplotter System

The onboard Garmin displays, or chartplotters, are the central control system for the vessel. The chartplotters are touchscreens that function like tablets.

There are 4 Garmin displays on the boat: two at the helm, one in the hardtop above the refreshment island, and one on the starboard wall of the v-berth. The helm and hardtop displays are fully functioning chartplotters that can access all pages such as the Digital Switching System, FLIR thermal camera, and radar maps. The cabin display is limited to lighting and fluids information.

The displays are powered by the DC battery bank. To turn on the chartplotters, make sure the DC battery bank is on. The displays should turn on automatically once the batteries are on; if they do not, tap the power icon in the lower right corner of the display itself.

The Garmin chartplotters are used for information and control over the entire vessel. To access pages within the helm chartplotters, navigate to the home screen (shown to the right). Use the preloaded icons to access the corresponding pages. Garmin chartplotters are customizable; to remove, add, or rearrange an icon, hold the icon until a drop down menu appears.

Regal programs and organizes chartplotters based on years of boating experience. Regal recommends utilizing the Garmin system as it comes delivered from the factory. Customization is best done once you become familiar with your preferences after embarking a few times.

To access additional pages, tap the “Layouts” icon at the bottom center of the screen (white bar). This will bring up a scrollable row of icons. To scroll through the bottom row, slide your finger along the screen. This’ll show layouts such as “Charts”, “Radar”, “Sonar”, “Gauges”, and more from the horizontal scroll.

For more specific Garmin operational instructions, refer to your Garmin owner’s manual included in your welcome packet.

Seakeeper Page

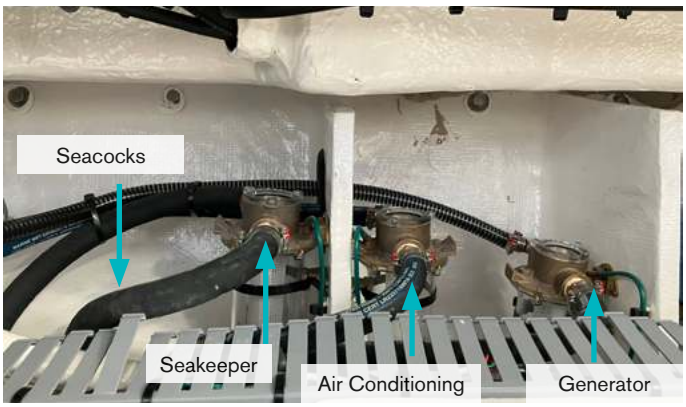
The Seakeeper is a gyroscope that counteracts boat roll and stabilizes the vessel on the water. It is controlled from its dedicated page within the chartplotters. To navigate to the Seakeeper page, tap the Seakeeper icon on the home screen. Once on the page, turn the Seakeeper on by tapping the gray power icon (ensure the seacock is open, below it is shown as closed). The button will turn blue indicating the Seakeeper is on. This can also be done by tapping the boat icon in the top left of the DSS home page to bring up a small menu of quick actions.

Monitor Seakeeper performance and boat roll using the roll angle gauge on the Seakeeper page. Refer to the manufacturer owner's manual for specific operating instructions.

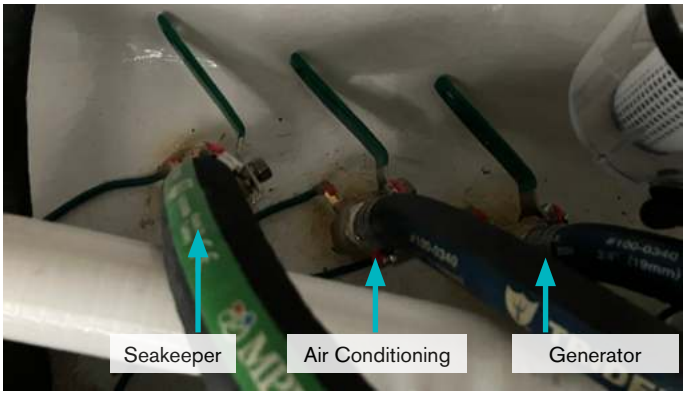
Seakeeper control page

Seakeeper DSS icons

Seakeeper location



Seacock strainers



Seacocks (closed positions)

Starlink

If chosen, connect to the Starlink Wifi by first downloading the application onto your device. Once the install is complete, follow the instructions on the screen to activate and connect to the network. There is no need to power up the satellite on any of the breakers.

FLIR Thermal Camera

This option comes equipped with a FLIR M232 Pan & Tilt Thermal Camera attached to the hardtop. The FLIR camera is a thermal camera that provides enhanced visibility when piloting the boat at night, in stormy weather, and in other low visibility conditions. Access the FLIR camera feed by tapping the "Video" icon on the chartplotter home screen (or in the "Layout" selection) and then selecting the FLIR camera from the input list.

Control the camera by dragging your finger across the screen to pan and tilt; pinch the screen to zoom. You can also use the translucent controls that appear by tapping anywhere on the screen. The camera has a 360° range of motion. Tapping the "Options" icon in the bottom right toolbar opens a menu to adjust various features such as color and input.

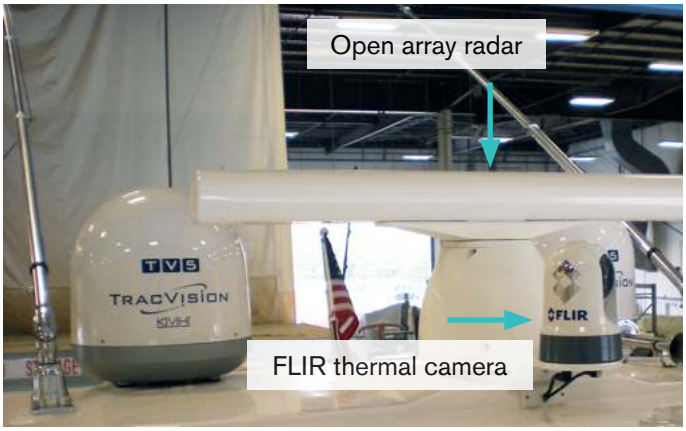
Monochrome setting with controls

Radar (Open Array)

This option comes equipped with a Garmin Fantom 4' Open Array radar installed on the hardtop. The radar system is designed to assist navigation in low visibility situations by locating land masses, other boats, and incoming weather.

Tap the "Layout" icon in the bottom center of the home page to pull up the horizontal icon scroll. Tap on the word "Radar" to bring up the radar layouts. On the radar page, there is an icon labeled "X-mit" or "transmit". Tap the icon to activate the radar.

Once the radar is active, the antenna on the hardtop will start spinning and the radar page will begin displaying readings.



Color setting

Sonar Transducers

Positioned on the hull bottom to map out the environment below the surface (depth, fish, structures, etc), the default B60 transducer periodically sends sonar pings of a single frequency through the water. If selected, the GT17M transducer uses CHIRP technology to send pings of multiple frequencies much more often, resulting in more detailed and precise information.

Unlike the radar, there is no need to manually transmit the transducer; the sonar system automatically activates and deactivates with the battery activation panel.

While underway or planing, the sonar system may have distorted performance as air passes under the hull bottom and interrupts the system. At high speeds, it is best to rely on charted depth data.

When loading onto a lift or trailer, ensure the supports are not in contact with the transducer face. This is the primary cause of damage to sonar transducers.

When cleaning the hull bottom to avoid bacterial growth, do not use a high-pressure power washer or metal scraper. Use only a soft cloth and mild soap to avoid damaging the thru-hull seals or the sensor itself. If anti-fouling painting is to be done, use specialized water-based transducer paint. Using regular copper-based paint will ruin the signal.

Digital Switching System (DSS)

The Digital Switching System controls most electrical devices on the 38 SAV. Where there were once rows of physical switches, there are now convenient and minimal touchscreen displays.

Note: Layouts may vary.

Navigating the DSS

When the vessel leaves the Regal factory, the DSS is set as one of the helm chartplotters' launch screen. To access the system, turn on the boat and power up the displays. All chartplotters will load their respective pages; the hardtop chartplotter will load the hardtop page, the cabin chartplotter will have limited functionality.

If the DSS does not appear or you would like to navigate there from another page on the display, tap the digital switching icon indicated by the Regal Boats logo.

Bilge Pumps

There are two bilge pump icons on the bottom left corner. When the pumps activate automatically, the lights will be red. Tap the icon to manually run the pumps for a short period of time. When running manually, the light will show blue for 60 seconds. Hold the icon to bypass and run the pumps continuously. When bypassed, the light will be green. Hold the icon again to turn the pump off.

Engine Flush

Press the “Engine Flush” icon to flush the engines with freshwater from the freshwater tank or shore water for 10 minutes. This is only for Mercury engines.

Freshwater Activation

Tap the “Fresh Water” icon to activate the freshwater pump. The indicator will be solid blue when activated and flashing yellow/blue when running.

Engine Blowers

Tap the “Blowers” icon to run the bilge blowers.

Seakeeper

The boat icon is a Seakeeper auto-stabilization icon. Tap it to activate the Seakeeper stabilization system instead of navigating back to the dedicated Seakeeper page.

Horn

Tap the “Horn” icon to honk the horn.

Windshield Wipers

Tap the “Wipers” icon to open the wiper control pop-up. The leftmost icon activates the portside wiper only. The two middle buttons spray freshwater onto the windshield for the respective sides. The fourth icon activates the starboard wiper. Lastly, tap the “OFF” icon to deactivate or adjust wiper speed using the “+” or “-” icons.

Wiper controls

Deck

There are 3 main pages within the DSS: the Hardtop, Deck, and Cabin pages. Shown below, the Deck page will be covered first.

Note: Layouts may vary.

1 - Fishbox Pump-outs

2 - Lazarette Compartment Hatch

3 - Raw Water Activation

4 - Live Baitwell Controls (Light + Pump)

5 - Cabin Door Lock

⚠ CAUTION

Do not sit, stand on, or try to impede actuator equipment. Doing so may damage the actuator.

6 - Main Cockpit Lighting

7 - Helm Booster Fan

8 - RGBW Lighting

9 - Anchor Windlass Control

⚠ WARNING

Prevent injury or death! Before opening or closing any actuator controlled system, ensure that all personnel are clear from the actuator operation area!

Overview

Control all on-deck devices from the “Deck” page. Tapping an icon on the boat map illuminates the icon, indicating the device has been activated.

Fishbox

To drain the fishbox, press the fish icon to activate the macerator-style pump for 4 minutes. Do not activate the pumps without running water through them.

Lazarette Compartment Hatch

To open the Lazarette hatch, tap the up arrow. Hold the down arrow to close the hatch.

Raw Water Activation

Tap the “RAW” faucet icon to activate the raw water pump. Make sure the seacocks are open and the strainers are clear of debris to allow un-obstructed flow through the pump and rest of the system. Activating the pump without water flow may damage the system.

Live Baitwell Controls

To activate the baitwell, press the fish hook icon to begin filling the baitwell with raw water. Ensure the respective seacock is open and the strainer is clear of debris. Tapping the light icon will illuminate inside the baitwell.

Cabin Door Lock

Tap the lock icon to open the lock combination pop-up. The code is 0123.

Main Overhead Lighting

Tapping the light icon in the center of the cockpit will activate the main cockpit lighting.

Helm Booster Fan

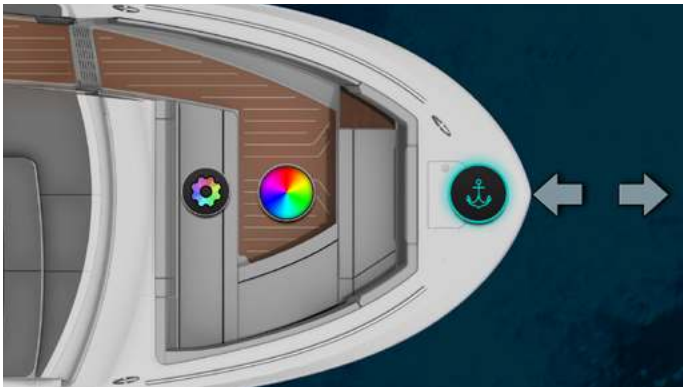
Tap the fan icon to activate the blower fans at the helm station.

RGBW Lighting

Tapping the color wheel brings up a control panel for RGBW lighting only (shown below).

Anchor Windlass

First, ensure the windlass motor is receiving power by activating the dedicated switch in the anchor locker. Then, remove the safety carabiner. Hold the anchor icon to pull up the windlass controls. The arrow pointing outboard in the image (to the right) deploys the anchor while the other (pointing inboard/left) retracts.



Hardtop

Note: Layouts may vary.

1 - Patio Lighting

2 - PowerShade Control

3 - Cockpit TV Control

4 - Navigation Lights

5 - Overhead Cockpit Lighting Control

6 - Lightbar

The “Hardtop” page controls all hardtop equipment.

Tap the “**PATIO**” lightbulb icon to turn on the lights on the aft face of the hardtop.

Tap the respective **PowerShade** arrows to extend or retract the PowerShade.

Tap the respective **Cockpit TV** arrows to raise or lower the cockpit TV.

Tap the “**NAV LIGHTS**” icon once to turn on the running navigation lights. Tap a second time to turn on the anchor light. A third tap will turn off the lights.

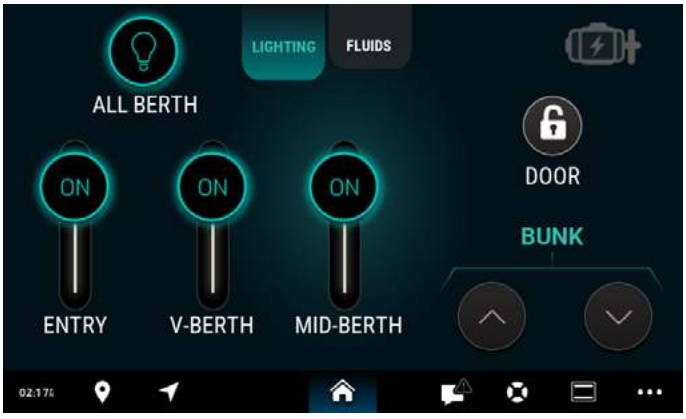
The “**OVERHEAD**” lighting slider controls the intensity of the cockpit lighting.

Tap the “**LIGHTBAR**” bulb icon to turn on the bow-facing lightbar.

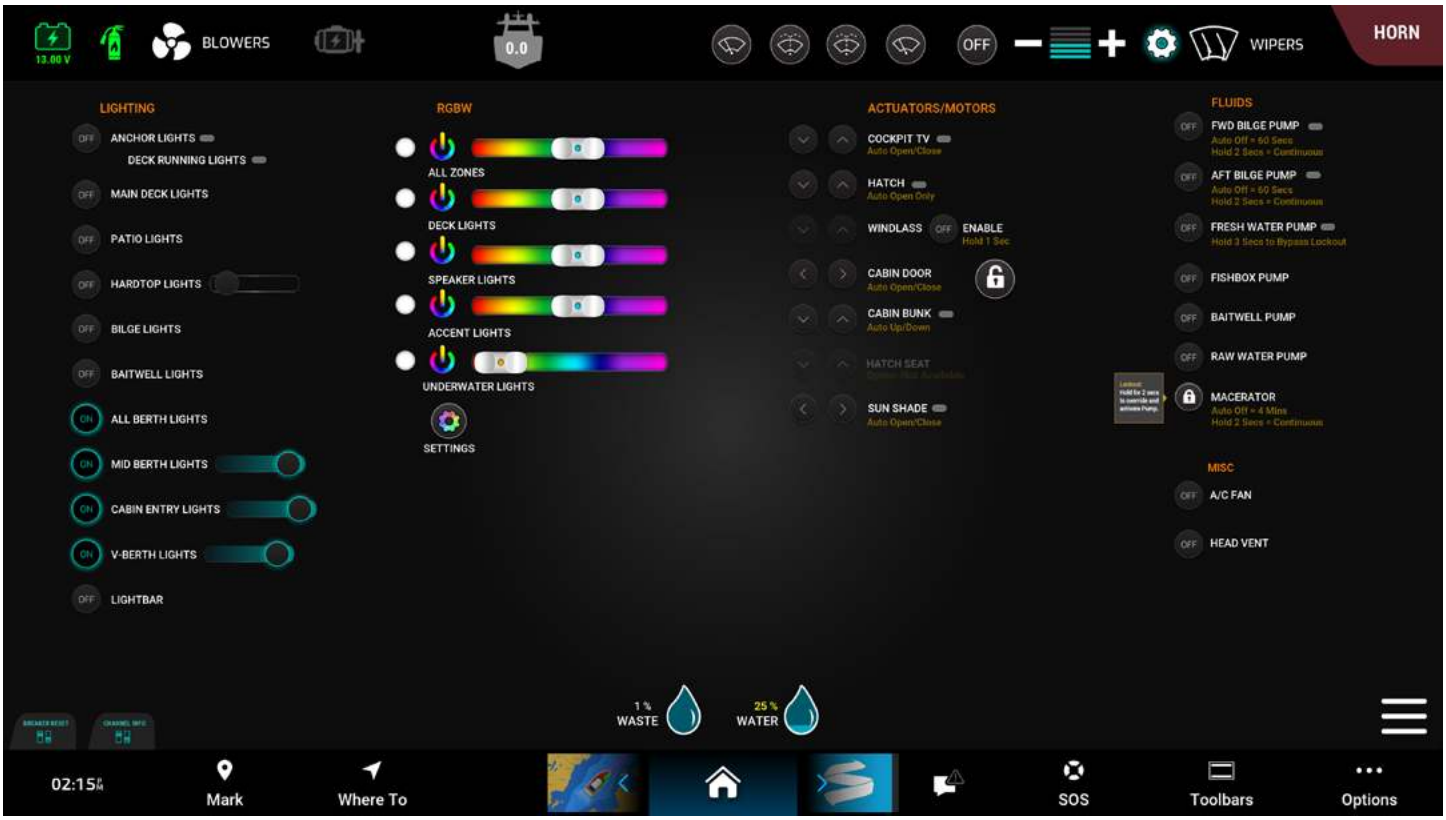
Cabin

The “Cabin” page controls all the lights in the cabin and the Lazarette compartment. It can also raise and lower the Lazarette compartment hatch and toggle the head ventilation fan.

Additionally, the chartplotter located in the cabin on the v-berth starboard wall can view fluids and lighting information as well as control the v-berth bunk actuator. Simply tap the corresponding button to raise or lower the backrest.



Backend Menu



Note: Layouts may vary.

Tapping the three white lines in the lower right hand corner of the screen will open the backend menu. The backend menu controls all DSS equipment from one screen.

Column 1 - Lighting

The leftmost column contains and toggles all basic (non-RGBW) lighting on the boat.

Column 2 - RGBW

The second column from the left contains and toggles all RGBW lighting on the boat.

Column 3 - Actuators/Motors

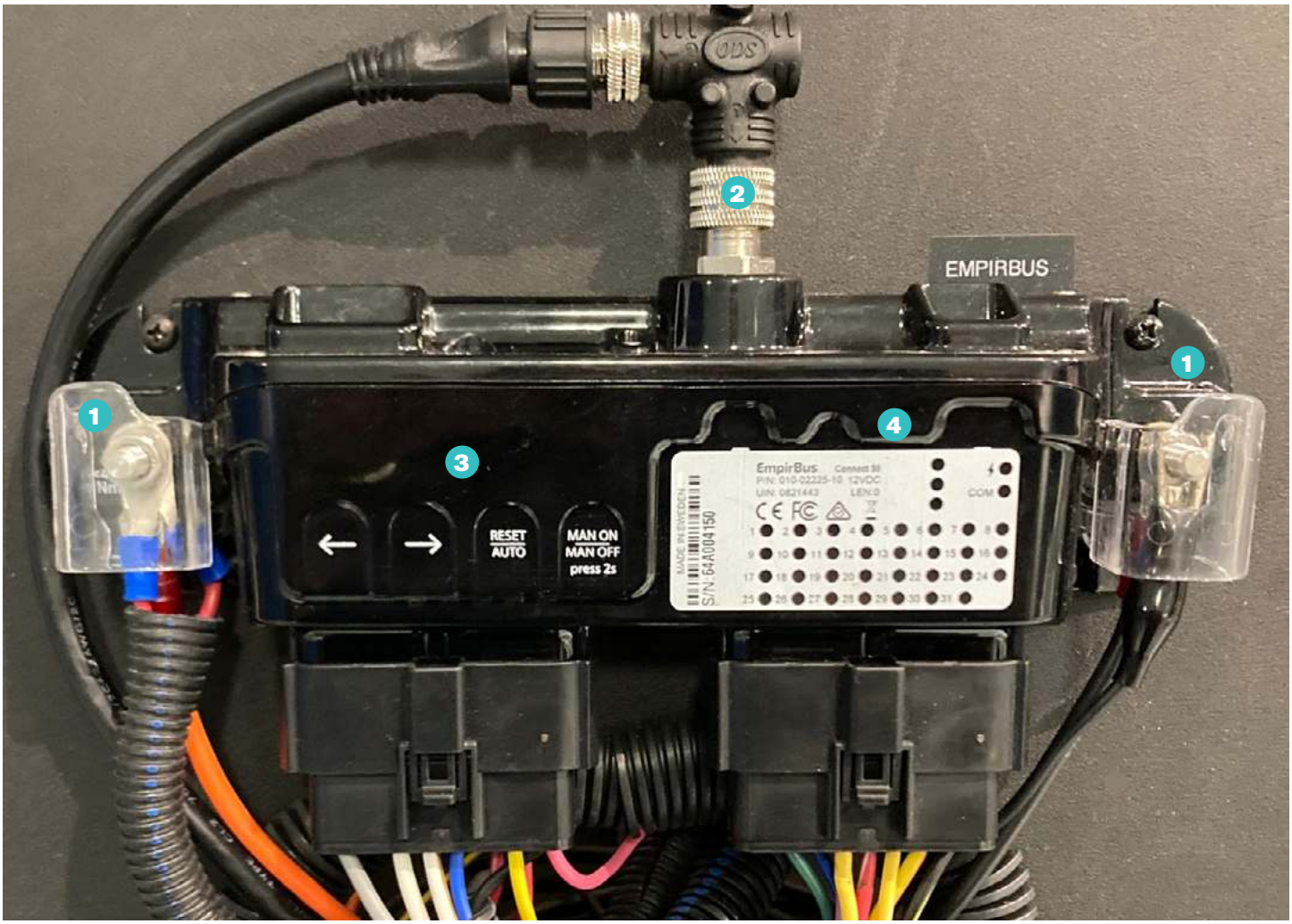
The third column contains all actuators and motors. Some actuators may require holding the icon to activate. Follow the instructions in yellow below each icon label.

Column 4 - Fluids

The final column on the far right contains all fluid controls including pumps, macerator, and optional ice maker. Follow the operational instructions in yellow below each icon.

Empirbus

An Empirbus module is a digital distribution module that receives commands from the Digital Switching System (DSS) in each plotter and controls devices accordingly. Tapping an icon in the DSS sends a signal from the chartplotter to an Empirbus module that reads the signal and powers the appropriate device.



1 - Power Supply

2 - NMEA 2000 Port

3 - Breaker Control Buttons

4 - Channel Indicator Lights

Each channel on the Empirbus has an LED light that indicates if the specific channel is active. If active, the light will be green. If the breaker for the channel is tripped, the light will be red. If there is no power flowing through the channel, the light will be off.

Some channels are always powered; others are powered only once they receive a signal from the DSS. Instructions on how to operate the Empirbus module are found on the next page.

Breakers are reset using the “Breaker Reset” page within the DSS (see next page). In the unlikely event the chartplotters go down, reset the breakers and activate the DSS controlled devices on the Empirbus modules themselves. Channel breakers are controlled using the buttons on the front module.

First, use the arrow buttons on the left side of the unit to navigate through the channels. Pressing the arrow buttons will turn off all the channel lights except for the selected channel. Use the ‘left’ and ‘right’ arrows to navigate to the desired channel. The lights will turn on and off as you cycle through the channels. Stop when the light for the correct channel is illuminated.

After accessing the channel, use the ‘Man On/Man Off’ button to turn the channel on or off. After manual operation is complete, press the ‘Reset/Auto’ button to return the channel to automatic function.

To reset the channel’s breaker, press the ‘Reset/Auto’. Contact your dealer for a channel list of all Empirbus modules.

Garmin WDUv2

The Web Display Unit, or WDU, is the translator for the DSS and is powered by the NMEA 2000 network (see below). Tapping an icon in the DSS prompts the WDU to receive, interpret, and transmit a signal to the Empirbus modules via the NMEA network.

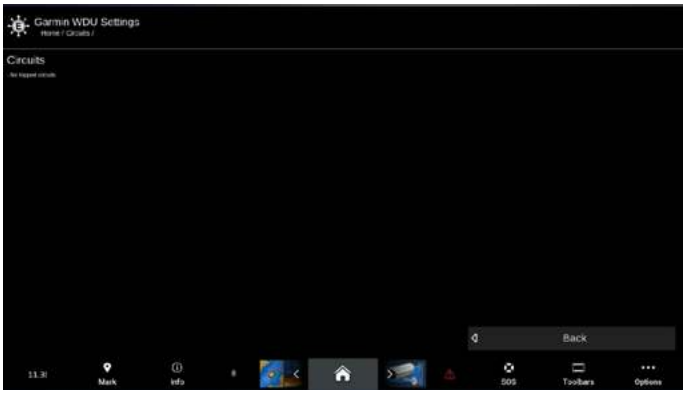
NMEA 2000

NMEA 2000 is communication network system between electronic devices. The NMEA backbone is the main hub of the system; some devices must be connected to a NMEA backbone to communicate to other devices from different manufacturers that otherwise wouldn’t be compatible. The NMEA network is spread throughout the boat and sends control commands to applicable electronic devices.

The NMEA network also makes items visible on the chartplotters. If an icon is missing or a system is no longer accessible from the chartplotters, there may be am issue with the NMEA network. Have the boat serviced by your dealer if you believe there are issues with the NMEA network.

Breaker Reset

The 'Breaker Reset' page will display any tripped breakers in the system. All breakers in the DSS are digital and can be reset by tapping the reset button when it appears on the following page shown below. An alert will also show if a breaker trips.



Breakers trip when more power is sent through the breaker than it can handle. Digital breakers can be easier to trip than physical ones. Impeding the motion of an actuator is one way to trip a breaker.

⚠ CAUTION

Do not sit, stand on, or try to impede actuator equipment. Doing so may damage the actuator.

Troubleshooting

If the DSS needs to be reset, turn the boat on and off using the battery activation panel.

Follow these steps for simple troubleshooting solutions to potential problems.

- **Screen is dark and won't come on.**
  1. Screen may be asleep. Tap the screen.
  2. Screen may be off. Turn the screen off using the power button in the lower righthand corner of the screen.
  3. Cycle power by turning the vessel on and off.

- **Screen is frozen (spinning circle).**
  1. Cycle power to reset.

- **Tap an icon, but nothing happens.**
  1. Check the digital breaker. Make sure it is not tripped.
  2. Check applicable equipment; ensure lightbulbs are new, actuators are working properly, and electrical connections are secured.
  3. Cycle power to reset. While digital breakers are more sensitive than physical breakers, if a breaker is tripped often, it may indicate an issue with the circuitry and may require the vessel to be serviced by you Regal dealer.

Propulsion System

Manufacturer Owner's Manual

It is important that you read your outboard engine manual carefully and become completely familiar with the operation as well as necessary maintenance on the engine and propulsion systems. See the section on winterization if you live in freezing climates. Extensive damage can result if proper winter storage is not followed in freezing climates. Contact your Regal dealer for information regarding technical issues and parts.

⚠ WARNING

Prevent injury or death! Read and understand the propulsion and generator's owner's manual before attempting to operate the vessel.

This chapter is intended to give general information about the location and function of typical outboard engine and controls. Control systems and engines may vary from model to model. Refer to the specific engine owner's manual for your equipment that would include the following information in greater detail.

Engine Removal

In the event the outboard engine needs to be removed from the transom, consult your Regal dealer. They have the factory trained knowledge and equipment to remove the engine safely and efficiently.

Gasoline Fuel System

In this section, a typical EPA approved domestic gasoline fuel system is introduced. The fuel system includes the fuel tank, fuel feed lines, fill/vent fittings, fuel filters, emission devices, and powered ventilation systems.

Outboards in this size range normally utilize a metal fuel tank. A special low permeability bulb and hose is supplied by the engine manufacturer to feed the fuel from the tank to the outboard engine. Sometimes it is necessary to pump the gas line bulb before starting the engine. *Note that the fuel line bulb and hose for each engine is in the lazarette compartment, towards aft.* If the need arises to replace the fuel bulb, be sure to turn the arrow imprinted on the bulb is pointed towards the engine side for correct fuel flow.

Read and understand the outboard owner's manual fuel section and safety information before attempting to use the vessel.

Note that due to a possible fire or explosion danger, never store flammable liquids and/or portable outboard fuel tanks in any onboard storage compartment such as the Lazarette compartment.

Outboard Engine Maintenance

Advanced ignition and fuel injection systems are used on outboard engines along with special factory training and tools. It is best to contact your Regal dealer for more of the detailed outboard service procedures.

Gasoline Specifications/Octane Ratings:

Gasoline Requirements - Read and understand the outboard manufacturer owner's manual. Use premium non-leaded gasoline with the following minimum octane rating mentioned in the outboard owner's manual. The use of leaded fuels will damage the catalysts and can not be used with catalytic converters.

Gasoline in the United States and other areas is blended with 10% ethanol and is known as E-10 at the pumps. Marine engines used in your Regal boat may be operated with premium unleaded gasoline blended with no more than 10% ethanol and that meets the minimum octane specification.

Do not use ethanol blends greater than 10% such as a newer blend for select motor vehicles called E-15. Your marine engine may be damaged by more than 10% ethanol. A loss of performance may occur and the engine will not be covered by the engine manufacturer's warranty.

Refer to your outboard manufacturer's operation manual for additional information regarding the proper octane level for your outboard model. Using the wrong octane level may cause permanent engine damage such as piston detonation.

Fuel Fills

The petrol fuel fill is located on the aft starboard gunwale and labeled “GAS” (see images). When fueling the boat, keep the fill nozzle in contact with the fuel fill pipe since it decreases effects of static electricity. Always use the recommended fuel octane rating as specified in your engine owner’s manual.

Extinguish all flame producing agents before fueling!

With a generator equipped, there will be two fittings further aft of the gas fill. One is labeled “DIESEL” and the other “WASTE” for dockside waste pump-outs.

A charcoal canister fitted to the fuel vent absorbs fuel vapors in compliance with EPA and CARB regulations. Absorbed vapors and particulates will drain back down into the fuel tank. When filling the tank, keep an eye on the fuel gauge on the “Engine” page of the chartplotters, or within the DSS.

Gas fill fitting

Oil

Engines need oil to lubricate internal mechanisms. Refer to the engine manufacturer’s owner’s manual for specific details on recommended oil types and the maintenance schedule.

Changing a boat’s oil is more complicated than changing a car’s oil. Contact your Regal dealer to change the oil when you take the boat in for regular maintenance.

Diesel fill fitting and waste pump-out

Fuel Filters

Fuel filters are found in the sump near the transom wall, which should be serviced periodically per the outboard motor manufacturer's instructions. In addition, Regal installs an in-line 10 micron water separator filter which is a threaded type similar to an automobile oil filter. Its main purpose is to trap small dirt, particles, and condensation (water) in fuel. It is a good idea to keep extra fuel filters on board along with a strap style filter wrench, catch container, and clean rags for emergencies. Never use automotive style fuel filters on your vessel. Dispose of all fuel residue materials in an environmentally safe fashion.

These filters are available online, through marinas, retail marine outlets, or can be ordered via your closest Regal outboard dealer.

NOTICE

Do not overfill the fuel tank! This helps avoid any overboard spills which may harm the environment.

⚠ WARNING

Avoid serious injury or death from fire or explosion, resulting from leaking fuel. Inspect system for leaks at least once a year.

Anti-Siphon Valve

INTERNAL BALL/SPRING

The gasoline fuel tank feed line that runs from the fuel tank to an engine uses an anti-siphon valve. It prevents fuel from siphoning out of the tank in the event of a fuel line rupture or disconnected fuel feed hose.

NEVER remove an anti-siphon valve as it is a fuel system safety component. The anti-siphon valve requires no normal maintenance. Symptoms indicating possible valve problems may be fuel starvation at intermediate or high rpm or in extreme cases an engine that will not start. Contact your Regal dealer for further information.

Fuel Storage On Board

Read and understand the label below regarding the storage of flammables on board the vessel. Also, do not store auxiliary portable fuel tanks on board the vessel since these portable tanks emit vapors into the atmosphere.

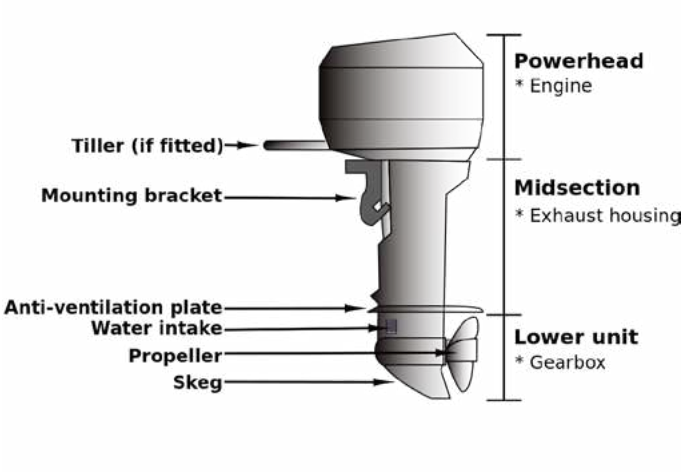
⚠ WARNING

Prevent injury or death! No ventilation provided in storage compartment. Fuel vapors are a fire and explosion hazard. Do not store fuels, flammable liquids, or portable fuel tanks on board!

Pre-Ignition Checklist

Perform the following safety and system checks before starting your engines:

1. Turn the batteries on from the battery activation panel.
2. Open the engine hatch and perform a “sniff test” to check for fuel leaks and vapors. If you smell any fuel vapors, do not start the engines. Have your boat serviced by your Regal dealers before turning on the engines.
3. Check the exhaust vents on the convertible transom seat and UltraLounge for blockage. Remove any debris that may cause vapors to accumulate in the Lazarette compartment.
4. Run your bilge blowers for at least 4 minutes to clear any lingering vapors. To run your bilge blowers, tap the “BLOWERS” icon in the top left corner of the DSS.
5. Check oil levels.
6. Check fuel levels. Remember the “one-third rule”.
7. Make sure the throttle is in neutral position.
8. Ensure clearance (of people and objects) before lowering the engines into the water.



Engine Cooling System

The engines use raw water for cooling. Impellers in the engines pump raw water through the cooling system. Service periodically according to the manufacturer’s instructions.

Do not start the engines dry. If the outdrives are not submerged, the cooling system will not take in water to cool the engines, which could cause overheating and damage. Always make sure the outdrives are fully submerged before starting. Starting the engine dry is not included in your warranty.

There is an access hole on the port side of the powerhead (see image below) which shows a visual stream of water at all times. If no water is visible with the engine running, shut down the engine, and investigate the problem. At times, this relief hole can be plugged by debris.

Impeller/Water Intake

Periodically, the coolant system’s impeller and water pump should be inspected for debris, damage or excessive wear due to use, water chemistry such as mineral and/or silt conditions. Damaged parts will affect the system’s ability to function, and may cause engine overheating or damage. Contact your Regal dealer for more information and maintenance schedules of key outboard engine systems.

Thermostat

If the temperature reading on the chartplotters starts yielding abnormal readings, it may become necessary to look at or replace the powerhead thermostat after determining whether it is functioning properly. The thermostat reads the

temperature of coolant and determines whether to open or close a valve to allow warm seawater to pass into the exhaust manifold. The thermostat may recirculate hot coolant for the purposes of reaching standard operating temperatures.

If standard operating temperatures have been reached, the thermostat will open a valve and allow hot raw water to exit through the exhaust manifold. For more information, read your outboard engine manual or contact a Regal dealer. Dealers have the necessary knowledge and tools to troubleshoot any engine related problems.

⚠ WARNING

Prevent injury due to hot surface! Avoid touching the thermostat or its components while the engine is hot.

⚠ CAUTION

To prevent engine damage due to overheating, avoid running the engine without a functioning thermostat.

Freshwater Engine Flushing

Both engine options feature a freshwater flushing system on the port side of the powerhead (shown below). After linking up to a freshwater garden hose at the flush port, water can be pumped through the engine's raw water cooling system to flush out all salt and debris that may be left behind. **Do not run the engine while using the flushing device as engine damage may occur.**

To run the engines out of the water, flushing muffs must be attached to the raw water intakes on the lower unit. Refer to the manufacturer's owner's manual for more information.

Mercury flush location

Yamaha flush location

Engine Electrical System

Your engine utilizes a great deal of electronic equipment. Select equipment sends signals between the engine and the chartplotters, while other systems set off alarms, and others are used by the engine to generate a spark and ignite the fuel.

To regularly maintain your DC electrical system, inspect the battery charge before each trip. Test all equipment prior to departure, and replace as necessary. Spark plugs should be replaced according to your engine owner's manual maintenance schedule.

Gauge Electrical Signals

Your outboard transmits signals through electrical harnesses to report engine information and status to the chartplotters. To access the "Engine" page with this information.

Alarms

When a malfunction with your outboard engine occurs, the Garmin chartplotter will show an alert. Common engine problems include overheating, low oil pressure, and/or a miscommunication with equipment. Learn the alarm systems that apply by consulting the manufacturer's owner's manual.

Stators/Alternators

Under normal circumstances, the starter battery would wear down after being used so often to generate a spark for the engine. The stators recharge the engine batteries while the engines are running. If the Power Bank is selected, they may charge the Power Bank after the engine batteries have been taken care of.

However, in an effort to conserve battery life, the battery switch should still be turned off after every trip and turned on at the start of every trip. This limits the long-term fatigue on the battery while the boat is not in use. As standard equipment, a battery charging system charges batteries while the dock side cord is hooked up.

⚠ CAUTION

Avoid engine damage or failure! Discontinue engine operation after an alarm has sounded. Address malfunction before restarting engine.

Engine Exhaust System

Exhaust gases are expelled directly from the engines both above and below water. Be mindful of wind direction and blockage of the exhausts to avoid carbon monoxide (CO) accumulation. Natural and powered ventilation built into the Lazarette compartment expels any vapors that may accumulate within the Lazarette space. Powered ventilation utilizes bilge blowers to clear fumes from the Lazarette compartment.

There are exhaust vents on the aft side of the convertible transom seat. Before embarking, check the exhaust vents for any blockage to prevent potential CO poisoning.

For the UltraLounge, exhausts are located on the base of the structure, on the port and starboard faces.

⚠ DANGER

Carbon monoxide is a tasteless, odorless, and invisible gas that can cause discomfort, severe illness, and even death. Exercise caution while operating generator or engines in confined spaces or at dock side. Do not allow exhaust outlets to become blocked or exhaust fumes can become trapped in and around the confines of the boat. During idle and slow course conditions, bilge blowers should be used.

Engine Lubrication System

Lubrication and fluids systems need regular check ups. Refer to your outboard engine owner's manual for specific details regarding the proper maintenance of the lubrication system.

Engine Oil

The purpose of engine oil is to lubricate the internal components of the engine and ensure parts that regularly move against each other have reduced friction to lessen wear and noise between components. An oil filter keeps metal particles and water out of the engine's interior. Refer to the engine owner's manual for information on oil maintenance.

Gear Case Oil

Gear case oil, sometimes called gear lubricant, keeps all the mechanical components of the prop shaft gear assembly functioning optimally. It reduces friction in the gear case as the gears revolve. Gear case oil should be inspected periodically according to factory maintenance schedules. Use outboard manufacturer's recommended oil.

⚠ WARNING

Gasoline vapors can explode! Before starting engine, check compartments and motor well for gasoline leak or vapors.

⚠ WARNING

Prevent injury or death due to fire or explosion! Run generator for at least 4 minutes before starting the generator.

Propeller System

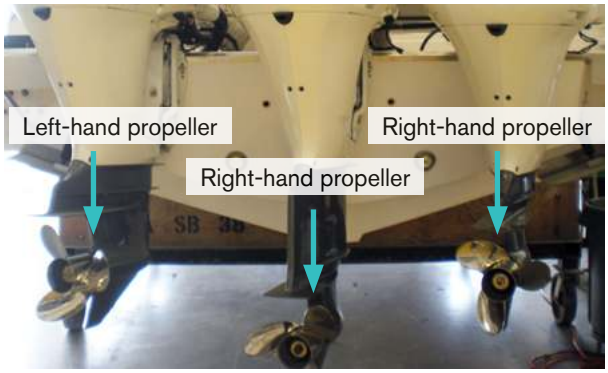
Regal has carefully tested and chosen the propellers to give your outboard boat the best possible performance based on the engines and propulsion package you choose. We have allowed for the additional weight in equipment that might be added to the boat.

The port engine rotates counterclockwise and uses a left hand propeller. The center & starboard engine rotate clockwise (standard) and use a right hand propeller. Read and understand the label below.

Refer to the outboard manual for procedures, as the application is unique to the manufacturer. Call a marine professional or your Regal dealer to order a spare propeller set.

⚠ WARNING

Avoid a possible accident! Never use a standard propeller on a counter rotation engine, or a counter rotation propeller on a standard engine. The vessel could go in the opposite direction expected.



Propeller Checklist

At least twice a year, check the propeller for:

- Loose, missing, or corroded hardware.
- Nicks, dings, or missing propeller material
- Bent propeller blades.
- Objects wrapped around the prop (fish line)
- Decomposing propeller blades (electrolysis symptom).

Contact a propeller shop or your closest Regal dealer if any of the above symptoms exist. They have purchased special equipment to refurbish both stainless steel and aluminum propellers.

Helm Systems - Yamaha

1 - Dual Garmin Chartplotters

2 - Wireless Charger

3 - Trim Tab Controls

4 - Bow Thruster Controller

5 - Kill Switch

6 - Engine Ignition Panel

7 - Fireboy Override Panel

8 - 12v Helm Breaker Panel

9 - Battery Activation Panel (under)

10 - Digital Electronic Control (DEC)
Throttle Shifter

11 - Yamaha Autopilot Control Panel

12 - Maneuverability Joystick

13 - VHF Radio

Yamaha Helm Assembly

Starting with Yamaha's Helm Master EX Package, option-specific components will be covered first. For more information, refer to Yamaha's Outboards website yamahaoutboards.com or global.yamaha-motor.com.

1 - CL5 Engine Data Display*

2 - Docking Joystick

3 - Yamaha DEC Throttle Shifter

4 - Ignition Panels and Key Fob

**Note: This display is not installed on the helm dash. Regal integrates the engine data display directly to the Garmin chartplotters at the helm.*

Ignition Panels

The ignition panel is under the steering wheel at the helm. Each engine has its own dedicated ignition button. To start the engines, begin by unlocking the ignition using the included Yamaha key fob. Once the ignition is unlocked, press the “Ignition” button to enable the ignition.

There are three ways to crank the engines:

1. Press each ignition “START/STOP” button to crank each engine individually.
2. Press the “START/STOP” button on the smaller ignition panel to crank the engines together.
3. Press the “START/STOP” button on the DEC throttle to crank the engines together.

To turn the engines off, press the “START/STOP” button(s) again.

After ignition, allow the engines to idle and warm up before embarking. While the engines are warming up, check the engine compartment for any unusual sounds or conditions including visible fuel leaks.

DEC throttle ignition button

Power switch, start/stop switch

Individual start/stop switch

Key FOB

Note: Layouts may vary.

Ignition Panel cont.

Note: Layouts may vary.

1 - High Water Alarm

The high water alarm will sound if there is too much water in the bilge.

2 - Gas Vapor Detection

This device will alert if there is a gas vapor leak.

3 - Extra Power Outlets

These outlets provide USB-A, USB-C, and a 12v, 10 amp socket for devices that cannot be powered or charged using the wireless sources on the dash. The protective covers flip upwards for access.

Helm Master EX - Throttle

Note: Layouts may vary.

The Yamaha propulsion option comes equipped with a twin control Yamaha EX Digital Electronic Control (DEC) throttle shifter. The left lever controls the port and center engines, while the right lever controls the starboard engine. This offers primary propulsion with the paired engines and precision steering and pivoting with the single engine.

Press the “Single Lever” button to control all engines using the port-side lever only.

The “Center Engine” button allows control over the center engine only (for slow trolling, for example).

The “Speed Control” switch on the left side of the throttle lever maintains and adjusts speeds without moving the throttle. From any throttle position, press “UP” or “DN” on the switch to adjust the boat’s RPMs in 50 RPM increments. To turn off speed control, move the levers either forward or back and the control will disengage.

There are four “Power Trim” switches on the throttle, with one of them being a universal switch on the port-side lever. This switch raises or lowers the angle of all engines together. The three switches on the back of the throttle raise or lower the trim angle of each outboard engine individually.

The “Neutral Hold” button keeps the engines in neutral regardless of the throttle position. Moving the throttle forward or back while neutral hold is active will rev the engines and increase RPMs, but the boat will not move.

There is also a DEC alert indicator LED on the throttle that will illuminate if there is a communication issue between the throttle and the engines. If the light illuminates, have your boat serviced by your Regal dealer.

Helm Master EX - Joystick

Note: Layouts may vary.

To engage the Yamaha joystick, make sure the engine is running and the throttle is in neutral. Press the "JOYSTICK" button to activate the joystick. Press the button again to turn the joystick off.

Press the '+' and '-' adjustment buttons to adjust joystick sensitivity.

There are three "SetPoint" buttons on the front face of the joystick. Press the "STAYPOINT" button to automatically maintain the boat's position and heading.

Press the "DRIFTPOINT" button to maintain the boat's heading, but allow the vessel to drift with the current. This is useful for drift-fishing a wreck or kite fishing.

Press the "FISHPOINT" button and the vessel will automatically keep the bow pointed into the wind or current.

Press each button again to turn the modes off.

For more information and visuals, refer to the manufacturer owner's manual and/or visit global.yamaha-motor.com/business/outboards/products/accessories/hmex/ or yamahaoutboards.com/rigging/helmmaster-ex.

Helm Master EX - Autopilot

Note: Layouts may vary.

Press “Heading Hold” to hold the boat’s compass setting. This will keep the boat pointed towards a consistent direction, though it is subject to drift from its projected path lane.

Pressing the “Course Hold” button will maintain both the direction and path lane, constantly adjusting and correcting for wind or current drift to stay on the intended course.

Press the “Track Point” button to automatically navigate the boat through a plotted path, using multiple waypoint pins as checkpoints for the boat to correct its course and follow the intended path.

The “Pattern Steer” button activates pre-selected patterns that are adjustable - Spiral, Zigzag, Pattern Search, and Williamson Turn - useful to find signs of fish at a target area.

For more information and visuals, visit global.yamaha-motor.com/business/outboards/products/accessories/hmex/ or yamahaoutboards.com/rigging/helmmaster-ex.

Helm Systems - Mercury

1 - Dual Garmin Chartplotters

2 - Wireless Charger

3 - Trim Tab Controls

4 - Bow Thruster Controller

5 - Engine Ignition Panel

6 - Fireboy Override Panel

7 - 12v Helm Breaker Panel

8 - Battery Activation Panel (under)

9 - Electronic Remote Control (ERC)
Throttle Shifter

10 - Maneuverability Joystick

11 - VHF Radio

Ignition Panel

Note: Layouts may vary.

There are several options when cranking the engines:

- Turn each key individually to two o'clock to crank each engine individually.
- Press the "START ALL ENGINES/STOP" button on the port side of the Mercury throttle shifter to crank the engines together.
- Press the three "Start/Stop" buttons on the front of the Mercury throttle shifter to turn on each engine.

1 - High Water Alarm

The high water alarm will sound if there is too much water in the bilge.

2 - Gas Vapor Detection

This device will alert if there is a gas vapor leak.

3 - Extra Power Outlets

These outlets provide USB-A, USB-C, and a 12v, 10 amp socket for devices that cannot be powered or charged using the wireless sources on the dash. The protective covers flip upwards for access.

4 - Kill Switch

If the red lanyard is removed, this component shuts down the engines.

Mercury Throttle Shifter (ERC)

The Mercury helm package comes equipped with a dual-handle, triple-engine Electronic Remote Control (ERC). The left lever controls the port engine and the right lever controls the starboard engine. If both outer engines are engaged, the central engine will auto adjust to the average of both engines. Pushing the port lever forward and the starboard lever in reverse (or vice versa), the center engine automatically shifts into neutral. Press the "1 Lever" button to control all engine together.

The screen in the middle of the throttle displays the status of advanced features like Active Trim. It will also display any faults that may occur.

Press the "Throttle Only" button to increase the engine RPM without shifting into gear.

The "Active Trim" button on the left side of the throttle automatically adjusts the angle of each engine to provide the optimal ride. There are arrow buttons above and below the Active Trim button. Use the arrows to select an Active Trim profile. Each profile is a set of programmed Active Trim parameters designed for specific situations. Adjusting the trim manually while Active Trim is engaged will turn Active Trim off.

Refer to the Mercury Marine owner's manual for more information.

Mercury Joystick

To engage the Mercury Joystick, make sure the engine is running and the engine is in neutral. A green ring will illuminate around the joystick when successfully activated. Use the "+" and "-" buttons on the front of the joystick to adjust the steering sensitivity.

Press the "Route Mode" button to allow the boat to pilot itself to a waypoint selected on the chart-plotter. Press the button again to disengage Route Mode.

Press the "SKYHOOK" button in the center of the joystick to maintain both the position and heading of the boat.

To activate "Auto Heading", put the boat into gear and then press the corresponding button. The boat will now maintain its current heading.

After engaging, adjustment lights will illuminate on the top of the joystick. Tilt the joystick left or right to adjust the heading 1° port or starboard, respectively. Twitch the joystick counterclockwise or clockwise to adjust the heading 10° port or starboard, respectively.

Refer to the Mercury Marine owner's manual for more information.

Bow Thruster Controller

Operation

The bow thruster propeller is housed in the bow of the hull and pivots the bow to port or starboard. To turn the bow thruster on, first make sure the dedicated Battery Management Box switch is in the “ON” position. Next, press the on/off button on the front of the bow thruster joystick panel. A light on the panel will illuminate to indicate the joystick is on.

To operate the bow thruster, tilt the joystick left to push the boat port or right to push the boat to starboard. Always ensure there are no swimmers in the area before using the bow thruster. Refer to the manufacturer’s owner’s manual for specific operational instructions.

Maintenance

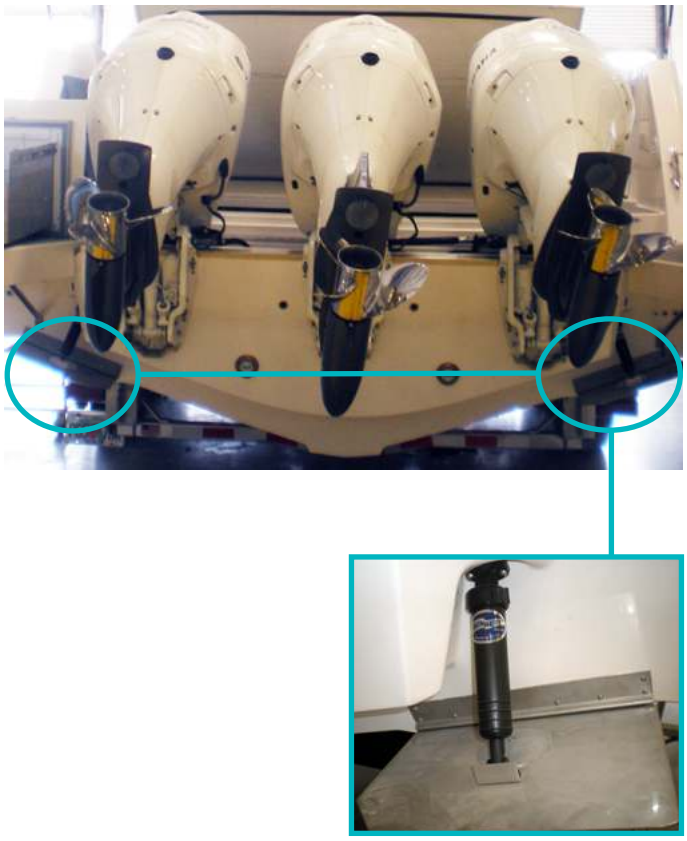
For periodic maintenance, inspect the propeller for debris and make sure it is aligned in the center of the hull tunnel and is not touching the walls. Do not operate the bow thruster when the boat is out of the water.

In the unlikely event of a runaway bow thruster, the dedicated switch on the Battery Management Box will cut off the power to the bow thruster.

Bow thruster power switch

Trim Tabs

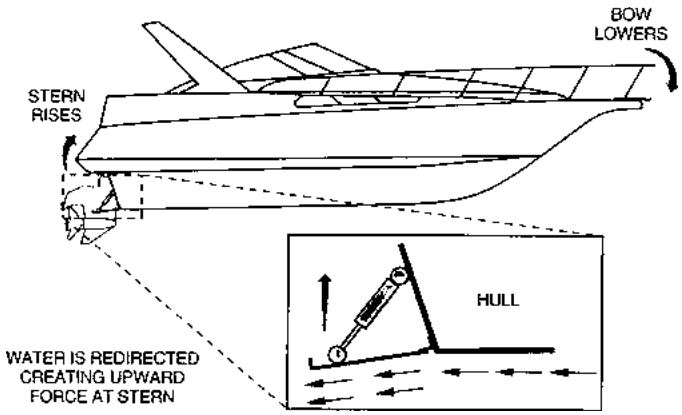
Trim tabs are located on the transom (shown below) and control the boat's pitch and roll. Unlike the engine trim, which adjusts the angle of the propeller, trim tabs adjust the running angle of the hull itself. The trim tabs will compensate for uneven weight distribution, listing, water conditions, and other factors that cause inefficient operation.



The trim tabs turn on automatically once the ignition keys are turned or the engines are cranked. The trim tabs also turn off and retract automatically once the engines are turned off. Use the helm switches to control the tabs individually. The switch display indicates the tab positions at all times.

<u>Bow down:</u>
Pressing the top of the switch lowers the tabs, forcing the stern up and the bow down. Use this to plane faster or cut through waves.

<u>Bow up:</u>
Pressing the bottom of the switch retracts the tabs, raising the bow. Use this for high-speed running to reduce drag.



Tip: Use trim tabs to get the boat flat and on plane, then use engine trim to fine-tune the propeller angle for smoothness and RPM efficiency.

⚠ CAUTION

When in a following sea with the waves behind the boat, retract the tabs fully to avoid digging the bow too low, causing bow steering and loss of control.

Fluids - Fresh Water System

Freshwater Tank

Normally the fresh water tank is manufactured from aluminum for increased strength and longevity. The tank utilizes a sender which senses the tank water level and displays an approximate amount on the fresh water indicator of the DSS. Refer to the typical tank components shown in the photo.

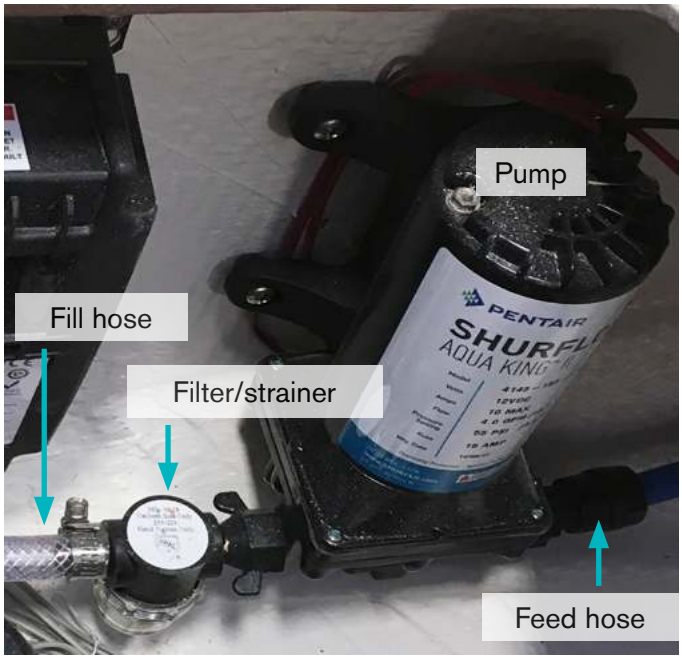
Tank Level Reading

There is a droplet icon on the left side of the DSS Deck page that shows the amount of water in the fresh water tank. Always check the fresh water level before each outing or extended cruises.

Fresh Water Fill/Vent

The fresh water tank fill is normally located on the starboard bow gunwale. Simply remove the cap on the fill labeled “water” and fill with fresh water until you see water exiting through the vent. This means the water tank is full and ready for use. Tighten the cap when finished filling system to keep debris out of the tank. Always line up the 2 blue dots for complete fitting closure.

Fresh Water Pressure Pump



Operation

The 12 volt fresh water pump supplies fresh water to various components on the vessel. The system is activated within the DSS home page, and controls the washdowns, sink faucets in the cockpit and head, and the shower. The fresh water system must be activated for any of the above components to operate.

Note that there is also a raw water pump which supplies raw water to the live baitwell and the only raw water washdown.

Periodically the water filter strainer located near the fresh water pump needs to be serviced. Inside the filter is a screen which needs to be cleaned of any debris and rinsed off with fresh water before reinstalling it.

A majority of these pressure pumps use a switch which disengages the fresh water pump after it reaches a predetermined line pressure. If the fresh water pump continues to run continuously it may be a result of the following:

- A faulty internal pressure relief valve
- A faucet on board not turned off
- A broken line or loose line connection

It is recommended that the fresh water pressure pump switch be in the “off” position when leaving the boat to help prevent damage should a leak develop in the system.

NOTICE

Avoid component damage! Never run the freshwater pump without water in the freshwater tank as pump impeller damage may occur.

Using Fresh Water System With Tank Only

This approach is mainly used while cruising without the ability to draw from a marina or shore water supply by attaching a garden hose to the shore water inlet. Also, use this approach when you are unsure of the purity and/or source of the water supply for drinking.

1. Verify through the DSS droplet icon that the fresh water tank is not empty. Running the fresh water system without water may damage the pump. Fill if needed.

2. Tap the "FRESH" icon on the "DECK" page of the DSS to activate the freshwater system. This will energize the water pressure pump to send fresh water from the water tank through the cold water lines terminating at the various faucets and related components.

3. Open a faucet. Water pressure should be present. Opening the faucet for a few seconds will purge any air in the system, especially in cases where the fresh water tank has run out of water. When water is running at a faucet it is not unusual to hear the water pump activate as it is trying to build up the pressure required in the system. Soon after the faucet is turned off, the fresh water pump sound will end, indicating the fresh water system is now up to specified system pressure.

Note not to run pressure water pump with system dry as water pump component damage may occur.

This freshwater system features a deck mounted fill and vent. Ensure the water supply is safe before attempting to fill the water tank.

The tank levels can be monitored on the Garmin chartplotter through the DSS when filling the tank. Note the blue dots on the fresh water fill fitting. When finished filling the water tank screw in the plug until the 2 blue dots line up which indicate the fitting is completely closed. This will reduce the possibility to any foreign debris entering the water system.

Note to periodically check the water fill vent located on the hull side for obstructions such as insect activity and debris.

⚠ CAUTION

Prevent property damage! Disconnect the shore water inlet hose before leaving the vessel.

Using Fresh Water System With Shore Water

1. After verifying that the water supply is safe for use, find the shore water inlet in the port aft locker containing the shore power inlets. Remove the cap and inspect for debris.

2. Connect one side of a freshwater hose to the threaded side of the connector included in the owner's satchel. Next, insert the connector into the shore water inlet. Finally, thread the other end of the hose to the onshore source. Turn on the water supply and check for leaks at the connection.

3. Check the position of the shore water shutoff valve in the head under the sink. Close the valve to pressurize the fresh water system without pulling from the limited tank supply, allowing the system to run solely off the shore water source. Refer to the blue "NOTICE" label below.

The boat's fresh water system is designed for non-potable water use only and is not suitable for drinking or cooking. Please use bottled or treated water for all human consumption. Sanitizing the system remains a priority to prevent bacterial growth and maintain water quality for showering and washing dishes. Continue to the next page for more information.

Shore water connector

NOTICE	
	Open valve to fill freshwater tank from shore water inlet.
	Close valve when tank is full.

Shore water shutoff valve

Freshwater Sanitization

It is recommended to sanitize the freshwater system at least once a year with a dedicated RV/marine freshwater system cleaner. Follow the directions on the product label for proper dilution and flushing procedures.

If flushing procedures are not listed, follow the steps below:

1. Run all faucets and the shower until the entire system in empty, including the water heater.
2. Discharge any waste water that has accumulated in the waste tank.
3. Fill the freshwater tank with the solution. Turn on the freshwater pump and open each faucet (one at a time) until the solution flows from each tap, then close it. This ensures the solution fills the plumbing lines.
4. Allow to sit for at least one hour (or as directed by chemical manufacturer).
5. Drain the solution and flush the system with freshwater until water is clear and no chemical odor remains.
6. Refill the tank.

Winterizing the Freshwater System

Note that in freezing climates make sure the fresh water system is winterized to prevent damage to hoses and components. Contact your Regal dealer since only special alcohol based products are to be used in the system.

⚠ DANGER

Avoid bodily injury or death due to poison! Never use automotive type antifreeze in a water system as it is poisonous to the human body!

Fresh Water System - Helpful Hints

1. Fresh water pressure pump cycles on and off. Normally this type of action indicates a water leak in the system. Check all fresh water system related equipment on the deck, cabin, and engine compartment for leaks. Do not forget wash down equipment including spigots. Look for puddled or dripping water.

2. Using water system the water pressure is weak. Check the freshwater pressure pump filter for debris. Also, make sure the water tank level is sufficient at the monitor panel.

3. Water at sink or shower is hammering and has air bubbles in it. Check for air leaks in the system along with low water levels in the water tank.

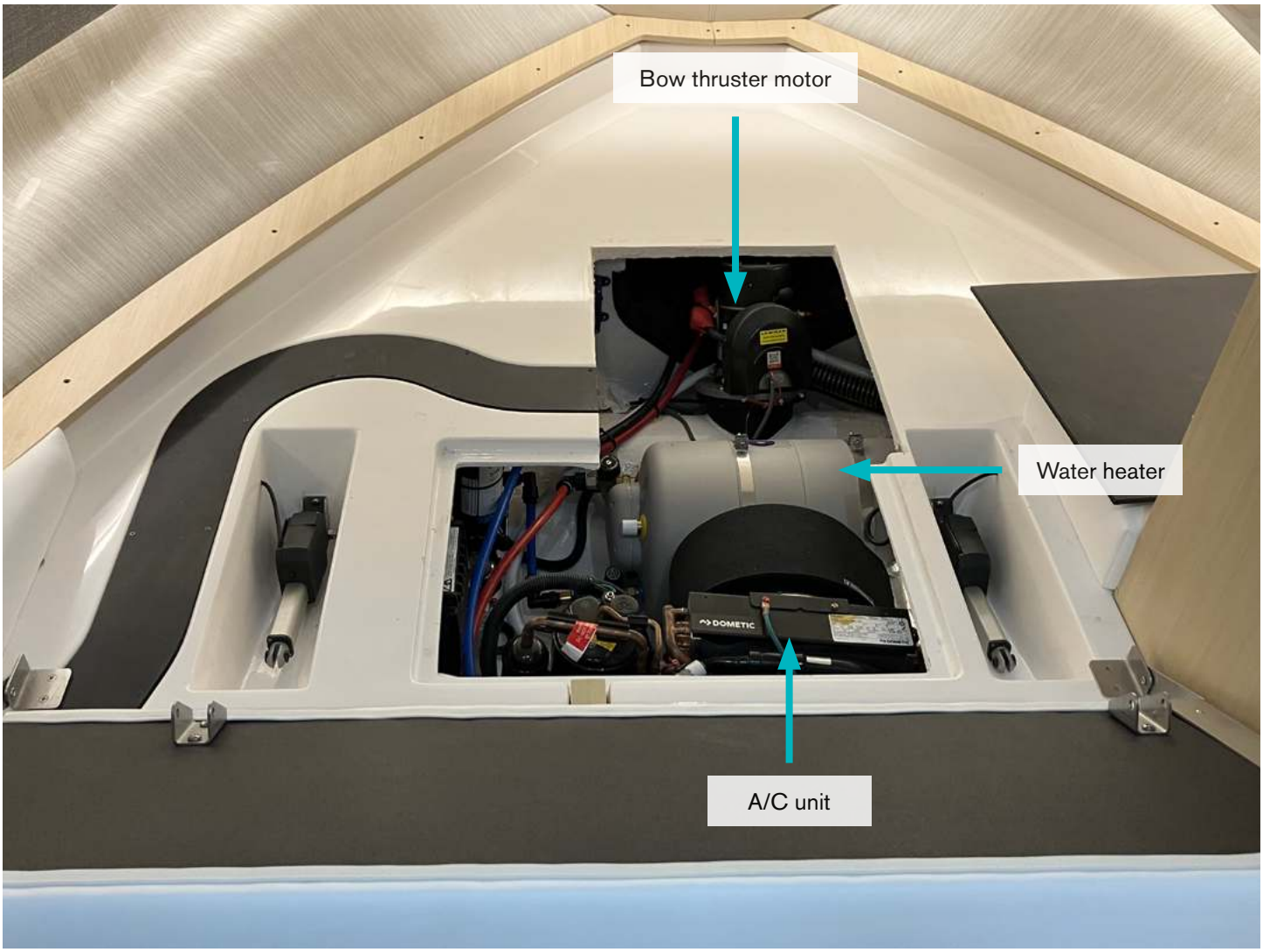
4. Water is backing up in the shower. Find the shower sump pump. If it is full of water even when running there may be a clog at the pump screen. Clean as needed.

5. There is no water at any of the fresh water related equipment such as faucets, showers and wash downs. Check to make sure the freshwater pressure pump breaker is activated. Also, check the freshwater monitor for tank levels.

6. The water system has a bad odor. Use the fresh water pressure pump to drain the fresh water system. Do not drink the water as it may be contaminated. Sanitize the water system.

7. No hot water. Check panel breaker. Check for popped tank element breaker. Reset as needed.

Hot Water Heater



The vessel is equipped with a 5.3 gallon water heater located in the v-berth (under the bunk backrest). It operates on 120v AC power supplied by shore power, the generator, or the PowerBank.

First activate the freshwater pump through the DSS Deck page and open a hot water faucet until a steady stream flows, ensuring the tank is full. Switch on the 'Water Heater' breaker on the MDP and allow 10-15 minutes for the water to reach operating temperature.

For more information refer to the water heater operator's manual.

⚠ CAUTION

Prevent water heater damage! Never activate the breaker when the water heater is not completely full or the element may be damaged!

Head

The onboard head system features a vacuum toilet using minimal water. The toilet is powered by 12v DC current and is controlled by a breaker located at the Battery Management Box.

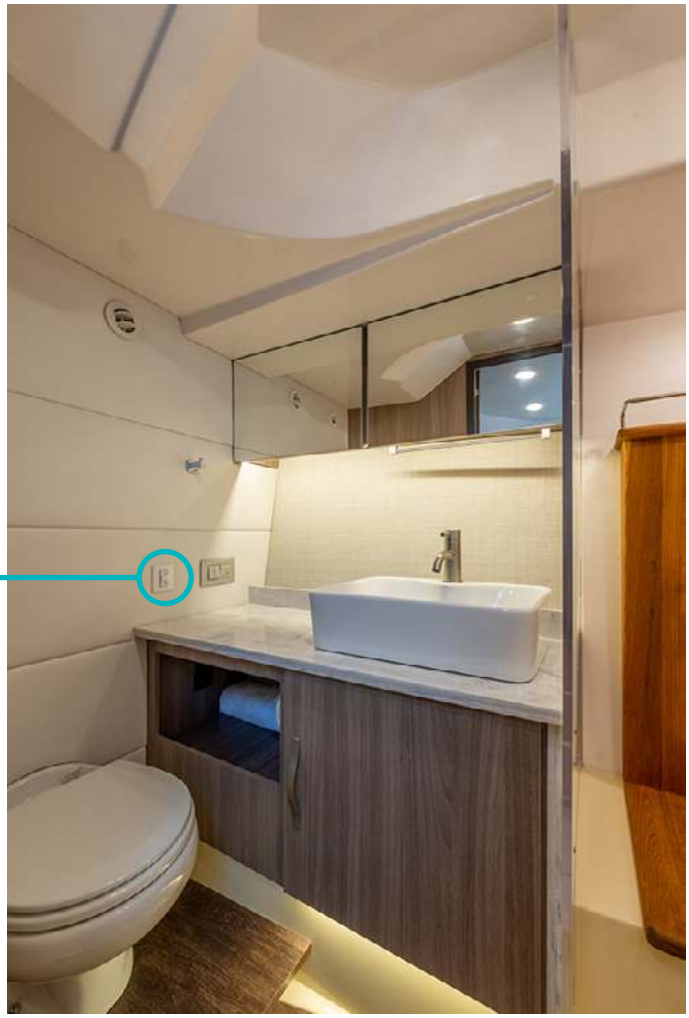
The head system operates from the onboard freshwater tank. If shore water is being used, the toilet still draws water from the freshwater tank.

The wall control switch is used to add water to the bowl and to flush the toilet. The system will automatically replace a small amount of water in the bowl to help eliminate potential odors. It is not necessary to fill the bowl to use the head. Keep an eye on water levels to avoid running out of freshwater while out on the water.

Only human waste and toilet paper should be put in the toilet. Never flush foreign materials such as paper towels, pre-moistened wipes, hygiene products, dental floss, or household garbage down the toilet. Use only RV-Marine toilet tissues that disintegrate rapidly. Do not use household type tissues.

Always disconnect the shore water system if the boat is left unattended to avoid property damage due to leakage.

If repairs are needed, use only a trained and qualified marine technician or electrician.



Single Flush Override of Flush Lockout

If the waste tank is full, the flush function will lock. For emergency use only, holding the flush button for 8 seconds will override the lock and flush the head. Do not override the lock more than twice to avoid overflow or damage to the waste management system.

⚠ CAUTION

Possible overflowing of the waste holding tank can occur due to using the single flush override function. For emergency use only.

Shower

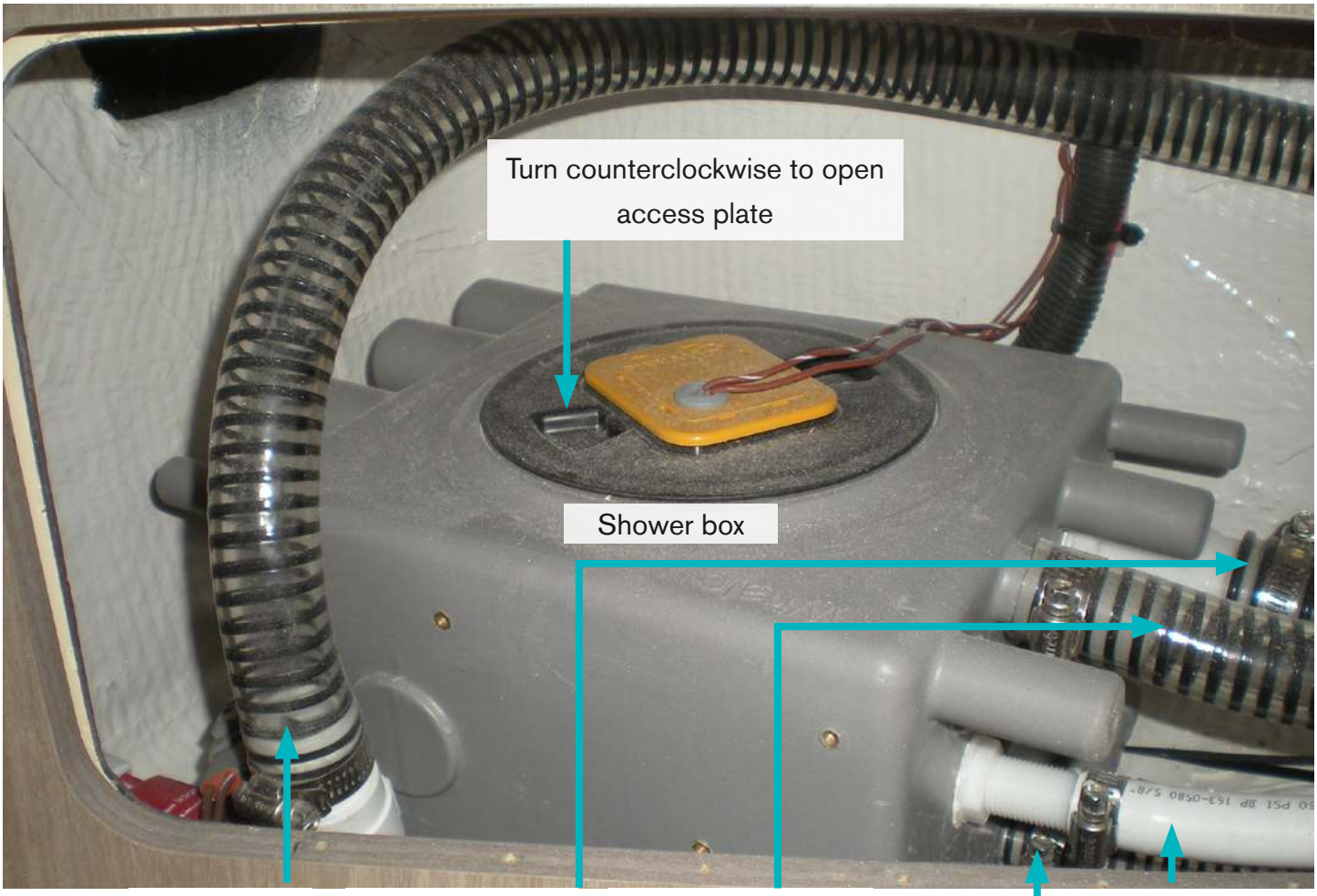
The shower is controlled by a single-lever mixing valve. Rotate the handle to open flow and adjust temperature. The shower head can be rotated as needed.

The shower floor is covered with a teak grate that can be removed by pulling upward until it releases from the Velcro style fasteners. Periodically clean the area as hair and debris can clog the drainage system. Clean the acrylic shower walls with mild soap and a soft cloth; do not use abrasive cleaners or ammonia-based products (like Windex) on the door or fixtures.

Secure the shower before embarking. The spring-loaded latch lock is located at the top of the glass door.

Note that when showering, it is recommended that water conservation measures be put in place; the volume of the hot water heater is less than home water heaters.

Shower Box



Water drains through the floor grate and down into the shower box, a collection point for waste water from the shower, head sink, and A/C unit. A gulper pump in the Lazarette then evacuates the water overboard or into the waste tank if the grey water system was selected.

Clean the shower box periodically to prevent clogging. It is located in a small storage space in the floor between both berths. The round center cover can be turned counterclockwise and removed to access the internal shower box components.

Waste Tank

The waste water system on your vessel is located in the sump, forward of the diesel fuel tank or PowerBank (depending on selected electrical package). The system features a pump-out fitting mounted on the deck labeled “WASTE”.

The waste tank can be pumped out at select marine facilities. Normally, a hose is attached to the deck waste fitting and the tank waste is then pumped into a marina facility storage container.

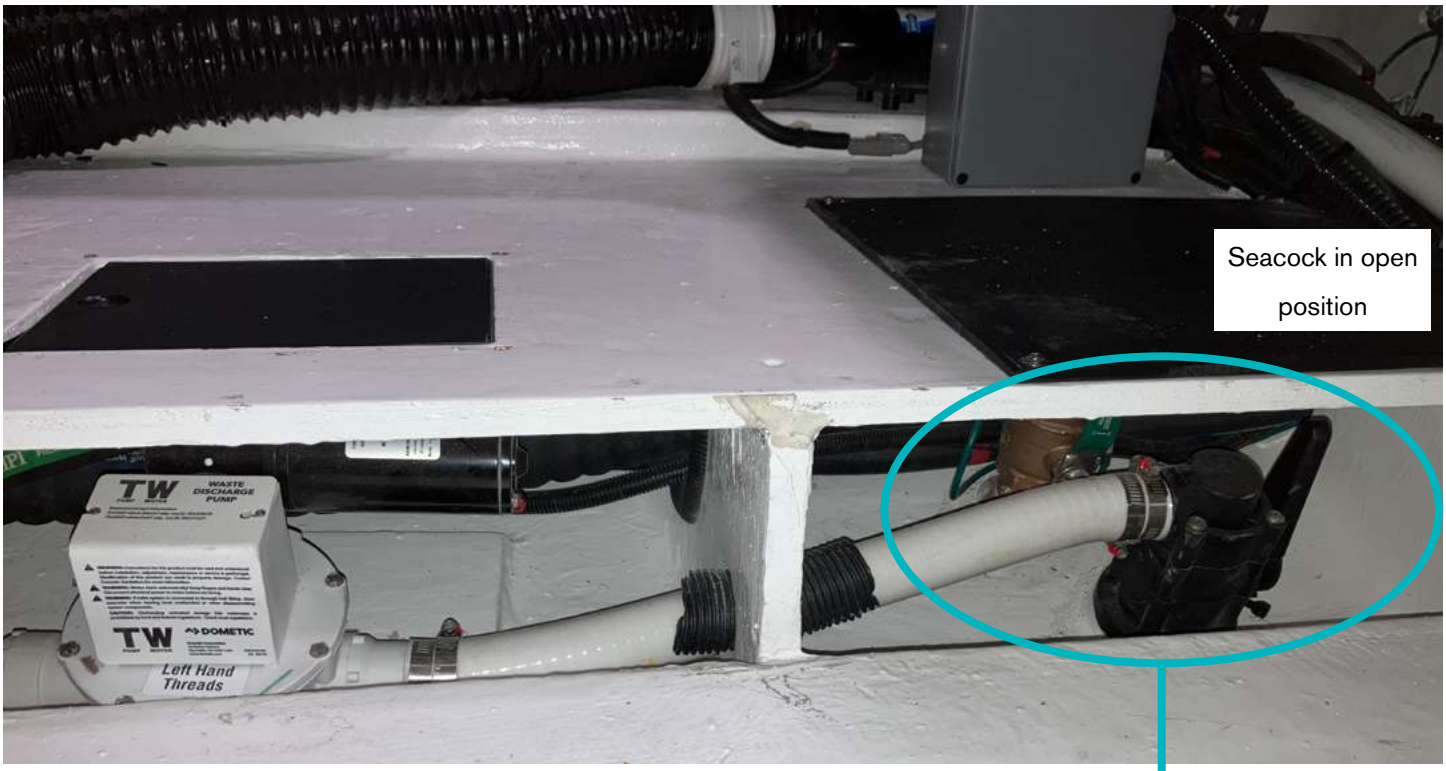
Monitoring Waste Level

Monitoring the waste tank level is important to schedule pump out procedures as waste tank levels reach maximum capacity. Always check levels before each trip. On the left side of the Digital Switching System home page, there is a water droplet labeled “WASTE”, indicating the waste tank levels. Check the waste tank level on the chart plotter as the display should show empty after pumping.

<u>To empty the waste tank:</u>

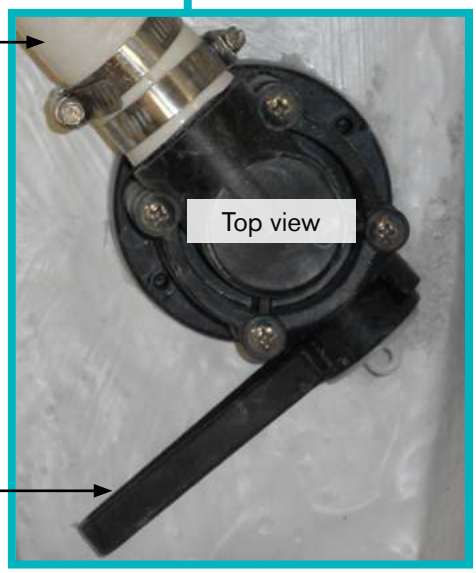
1. Remove the cap from the gunwale pump out fitting labeled “WASTE”.
2. Put on any personal protection equipment like latex gloves to avoid disease and waste contamination.
3. Remove the pump hose from the onshore pump system and lay the coil on the deck. Check for kinks or potential blockages before attaching the hose to the on-deck fitting.
4. Make sure the nozzle on the waste pump is in the off position - perpendicular to the hose.
5. Turn the pump on.
6. Put the nozzle into the on-deck fitting. Turn the nozzle to tighten until you cannot tighten any further to ensure that there is an airtight seal between the nozzle and the fitting.
7. Turn the nozzle valve on - parallel to the hose nozzle. Maintain a seal during the entire pumping process.
8. The glass on the nozzle should become cloudy as waste is pumped through the hose. The glass will clear as most waste is pumped out of the tank. Continue pumping until you are confident no more waste is flowing from the tank.
9. After the first pump out, flush water down the head, then return to the pump and pump out the remaining waste.
10. When no more liquid flows from the tank, turn the valve closed. Before removing the nozzle from the fitting, tilt the nozzle slightly and allow any liquid remaining in the nozzle to drip back down into the tank.
11. Once all the remaining liquid has dripped out of the nozzle, submerge the nozzle in a bucket of water and open the valve to clean the hose and flush any remaining waste down into the pump. Once the bucket is empty and the pump has drained all the water, let the pump run dry for a few second and then turn the valve close again.
12. Turn the pump off and replace the hose.
13. Use a garden hose to rinse any liquid in the fitting back down in the waste tank and replace the waste cap on deck before embarking.

Overboard Discharge



Macerator Operation

As an option, the vessel may be outfitted with an overboard discharge system including macerator. Waste will exit the hull through the macerator seacock turned to the open position as shown in the first photo above.



Check for local and state laws regarding pumping overboard domestically before attempting to open the hull bottom seacock as there may be stiff fines for pumping illegally. Refer to the Pollution Guidelines in the General Vessel section and the United States Coast Guard for more information on environmental waste regulations. Regal Marine Industries Inc. does not accept any liability or responsibility for the consequences of illegally dumping untreated waste.

Open the seacock before attempting to pump waste overboard. To pump overboard, use either the waste icon on the DSS home page or the backend menu (see page ##).

Vent Filter

The waste vent filter is in-line between the waste tank vent and a transom exit (exit hose missing here). As the holding tank fills up with waste, it gives off odors. The vent filter controls odors while they travel out the aft portion of the transom. The filter uses the most efficient venturi design and refined charcoal to control waste odors. The waste filter is “customer friendly” as it is designed with a union at each end for quick changeability. The unions unscrew counter clockwise for serviceability. It is recommended to change the filter yearly, normally at the end of your boating season. Mark the change date on the filter or on your vessel maintenance calendar.

For information on availability contact your closest Regal dealer.

Fluids - Raw Water System

Seacocks

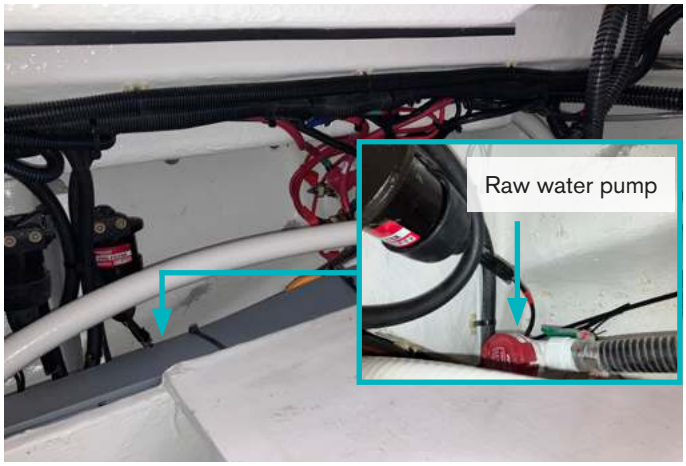
There are a total of 4 seacocks in the Lazarette compartment near the transom wall. See all images.

Port Seacock

Supplies both the live baitwell and port washdown. Closing this seacock disables both systems.

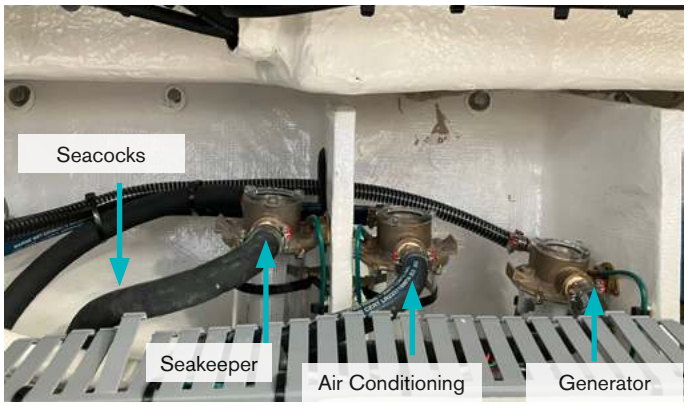
Starboard Seacocks (3)

Each one is individually dedicated to the Seakeeper, air conditioning, and generator.

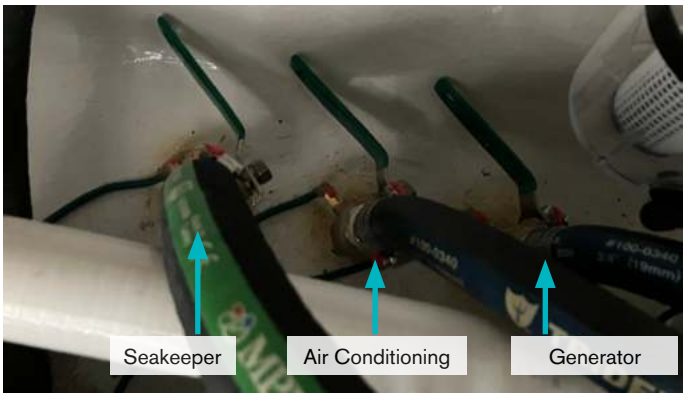


Port seacock and pump

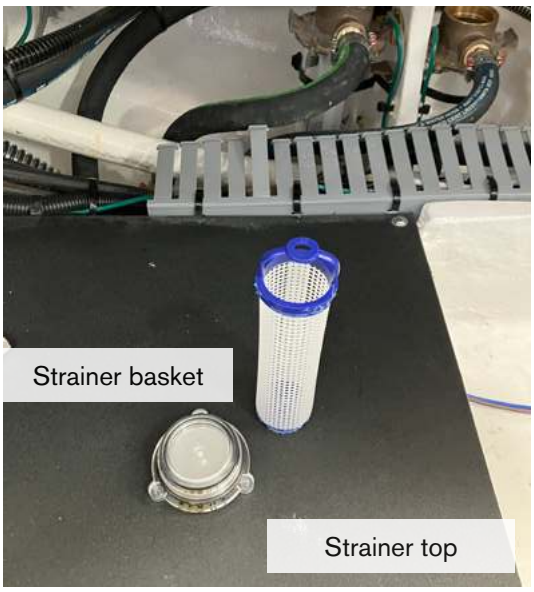
Before embarking, clear the seacock strainers of any debris. First, close the seacock to stop the flow of water. To remove the strainer basket, turn the plastic cap counterclockwise and remove the cap and o-ring inside the cap. Pull the basket out, dump any debris, and rinse clean.



Seacock strainers

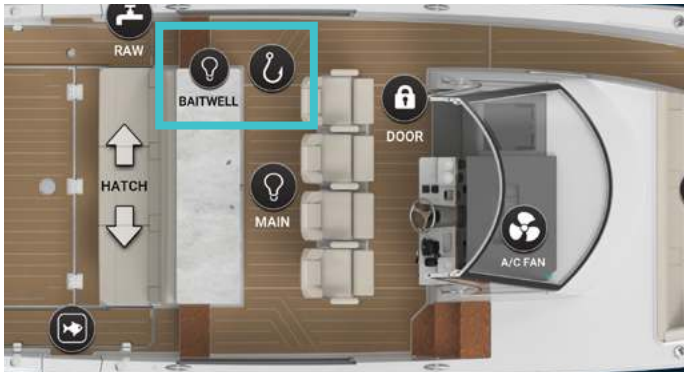


Seacocks (closed positions)



Live Baitwell

The live baitwell features a capacity of approximately 8 gallons. The baitwell is activated using the hook icon on the “Deck” page of the DSS. Tap the light icon to turn on the lights within the baitwell itself. Constant sea water is supplied by an air control



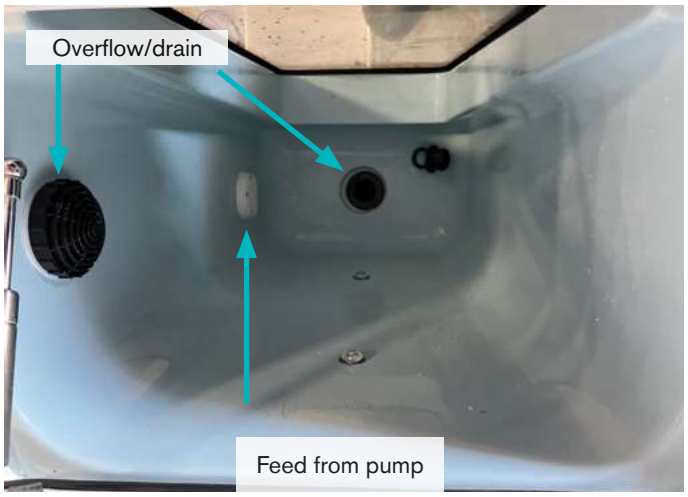
center featuring a baitwell pump and drain which promotes a self-draining cycle to ensure constant water circulation and oxygen for the bait.

Ensure the port seacock is open before activating

the raw water pump. Refer to the images on the previous page for location and cleaning procedure. A small manifold allows the port gunwale washdown to also be supplied from the same seacock.

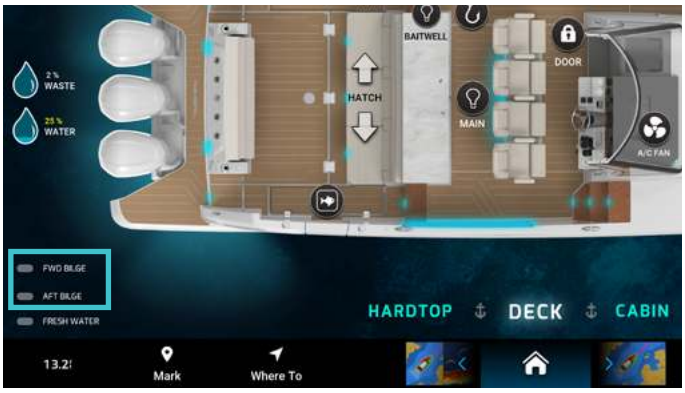
To help ensure performance quality and longevity:

1. Never use soap or bleach to clean a well. Use freshwater alone to avoid harmful residues.
2. Do not overload.
3. Avoid handling baits with bare hands. Use a de-hooker or bait net instead.
4. If possible, fill a baitwell with water where the bait was caught.
5. During hot summer days, use small sealed bags of ice in the well to help lower water temperatures without contaminating the water.



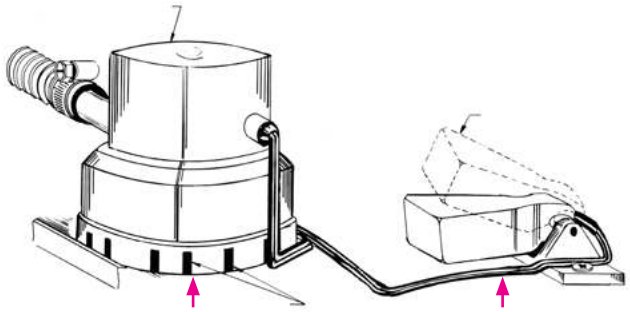
Bilge pump

The bilge pumps operate both automatically and manually. Float switches will automatically activate a pump when necessary. To manually activate the bilge pumps from the DSS, use the two icons in the bottom left corner, labeled “FWD Bilge” and “AFT Bilge”.



When the pumps activate automatically, the light will be red. Tap the icon to manually run the pumps temporarily. When running manually, the light will be blue for 60 seconds. Hold the icon to bypass and run the pumps continually. When bypassed, the light will be green. Hold the icon again to turn the pump off.

Keep an eye on the bilge pump icons; while some water is expected to accumulate in the bilge, consistent pump activation may indicate a leak somewhere in the boat. If you suspect there is a leak, have the boat serviced by your Regal dealer.



Typical bilge pump and automatic switch

Before each outing, check the operation of the bilge pump, automatic switch, and manual switch. The bilge pump should automatically activate when water reaches a pre-determined height in the engine compartment. Test the bilge pump manually via the DSS. Periodically check for bilge debris around the grates of both the bilge pump and automatic switch, and also bilge pump impeller.

Insulated Fishboxes

There are port and starboard 33 gallon insulated storage lockers integrated into the aft cockpit floor. Use the fish icon on the “Deck” page of the DSS to flush out the fishboxes. Make sure to use the gunnel washdowns to rinse the boxes and provide running water to the pumps, as running them dry may cause damage.

DSS fishbox icon

Fishboxes feature a hatch and a generous capacity for keeping the big catch for your return trip. The fishboxes utilize a macerator style pump with a vent near the top of each storage locker side that keeps a vacuum from forming with the hatch lid latched while the macerator-style pump is energized. Do not cover the vent.

Be sure to rinse out with fresh water before using. Do not use bleach or soaps.

Place ice in the locker. Pack down the ice several inches to provide a safety zone between the ice, catch, and future melting ice (water). Close the lid. Note that the lid features a seal to keep the temperature inside the fish box cooler. As fish are caught, lay in the cooler and quickly cover with a layer of ice. Continue to layer fish and ice as other fish are added to the locker.

Typical floor storage locker

Periodically monitor the locker and remove any melted ice (water) using the pump. Do not let the water get to the level of the fish as it will cause a spoilage process. Add ice to keep the catch well covered especially during the run to port. Avoid over opening the locker since this will melt the ice and raise the box temperature. Try to avoid rough handling or crushing the catch since bruised fish can alter the taste of the meat.

After the fish are removed from the locker, the pump can be run to exit ice, fluids and fish debris from the unit.

The fresh or raw water washdown can be used as needed for the cockpit floor, baitwell, or fishboxes for rinsing off debris. The fishboxes can also serve as storage lockers for non-fishing days.

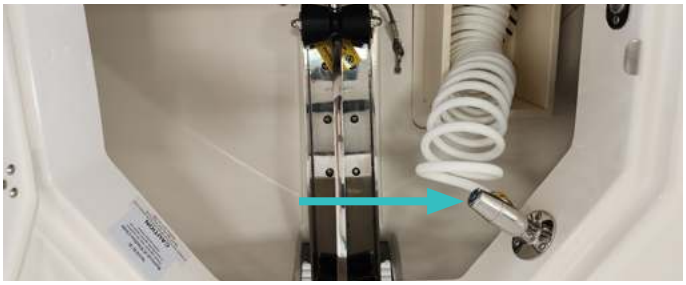
Washdowns

Washdowns are found throughout the deck. One can be found in the bow anchor locker; two more are found in the rod storage tubs flanking the cockpit seating; a final washdown is found near the transom. The only raw seawater washdown is in the port rod storage tub near the cockpit seating.

To use the transom washdown, simply twist from the end. There is a notch that allows temperature control.

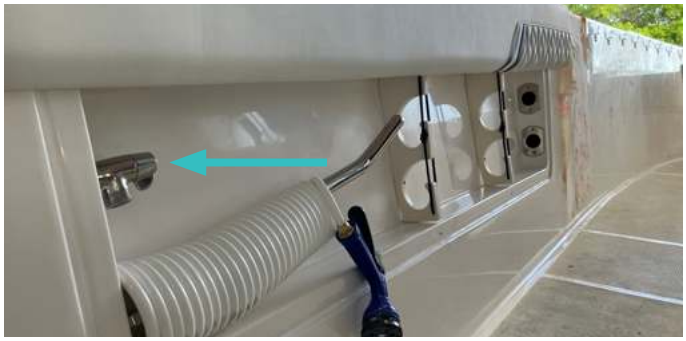
Don't forget to tap the "FRESH" icon in the bottom left corner of the DSS page. To use the raw seawater washdown, press the "RAW" faucet icon near the port gunwale, also on the DSS "Deck" page.

Transom washdown



Anchor locker freshwater washdown

Starboard gunwale freshwater washdown



Port gunwale raw water washdown

Chapter 5
Vessel Operation

Pre-departure Procedure

- Turn on the battery activation panel under the helm dash.
- Ensure all tanks (freshwater, gas, and diesel, if applicable) have been filled or have sufficient capacity for the trip. Ensure the waste tank is empty.
- Ensure all safety equipment is accounted for and easily accessible (PFDs, fire extinguishers, flares, etc.)
- Open all seacocks, if applicable.
- Disconnect shore power cord(s). Ensure batteries have enough charge.
- Check the Lazarette compartment for gas vapors and fuel leaks. Run the blowers for at least 4 minutes.
- Check the bilge/Lazarette for any water accumulation. Verify bilge pumps are functional, and run bilge pumps if necessary.
- Crank the engines and allow them to idle to warm up.
- Systems check:
  - Verify steering moves freely.
  - Test the horn and navigation lights.
  - Ensure the VHF radio is functional.
- Brief passengers on safety locations and cast off lines.

Underway Procedure

- Attach the kill switch lanyard to your belt or clothing.
- Stow away all dock lines and fenders.
- Ensure all passengers are seated.
- Close/secure all doors (transom, dive, shower glass, and cabin entrance).
- Be on the lookout for changing weather.
- Ensure outboard drives are fully submerged.
- Verify depth and route on the chartplotters.

Storing Procedure

- Ensure the ignition panel is off and the throttle is in neutral.
- Turn off all water pumps (fresh and raw water).
- Check systems for any leaks and the Lazarette for water accumulation.
- Close all seacocks.
- Ensure the fuel tank is full enough to prevent condensation.
- Ensure the vessel is properly tied to the dock or supported by the lift bunks, if applicable.
- Empty trash and refrigerator.
- Connect shore power cord(s) and verify the MDP is properly activated. The battery charger breaker must be on.
- Turn off the battery activation panel.
- Rinse the boat with freshwater to protect against saltwater corrosion.
- Cover the boat properly.

Before Fueling

- Tie the boat securely to the fuel dock.
- Make sure a working fire extinguisher is available.
- Stop engines and any electronics that can cause a spark. Turn off the blowers.
- Disembark all passengers and crew not needed for fueling. Ensure no smoking nearby.
- Close all portholes, hatches, and doors to keep vapors from blowing aboard and settling in the bilge.
- Identify the correct (gas or diesel) fuel fill.
- DO NOT use fuel containing more than 10% ethanol (E10). Using E15 or E85 will damage the engines and void the warranty.

During Fueling

- Keep the fuel nozzle in contact with the fuel fill to guard against static sparks that could ignite vapors.
- Avoid overfilling the fuel tank. Listen closely near the fuel vent for a high-pitched whistle or gurgle, signalling the fuel level is reaching the top and pushing air out. Do not rely on the pump's auto-shutoff.
- Avoid spilling any fuel. Clean up any spilled fuel with a clean rag and dispose of it on shore.

⚠ DANGER

Avoid serious injury or death! Gasoline is highly flammable and explosive material. Practice "no smoking" and extinguish all flammable materials within 75 feet of the fuel dock.

⚠ WARNING

Avoid serious injury or death from fire or explosion, resulting from leaking fuel. Inspect entire fuel system at least once a year.

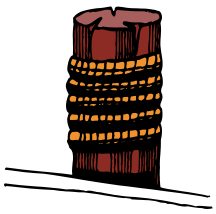
⚠ WARNING

Refer to the outboard engine manufacturer's owner's manual for the correct gas type/grade. Using the improper octane level or the wrong gasoline type can cause engine damage and void the warranty!

After Fueling

- Close all fuel fill openings tightly. Use a fuel key if needed.
- Open all portholes, hatches, and doors if applicable.
- Turn on the blowers and let run for 4 minutes.
- Sniff in the bilge and engine area for gas fumes. If fumes are detected, continue to let the area ventilate until the odor is gone. Look for any traces of fuel droplets or spillage. Do not start the engine(s), smoke, or run any electrical components until the fumes can no longer be detected.

Dock Line Basics



There is more to the basics than just bow or stern lines. Breast lines aid with boarding; spring lines keep the boat in place and prevent damage during changing tides or rough conditions.

Bow/Stern Lines

The bow line is attached to the forward cleat and extends forward. The stern line is attached to a rear cleat and extends aft of the boat. Both lines keep the boat parallel to the dock and prevent the bow/stern from swinging out. *Note: in tidal environments, keep slack in the lines to accommodate water level changes.*

Breast Lines

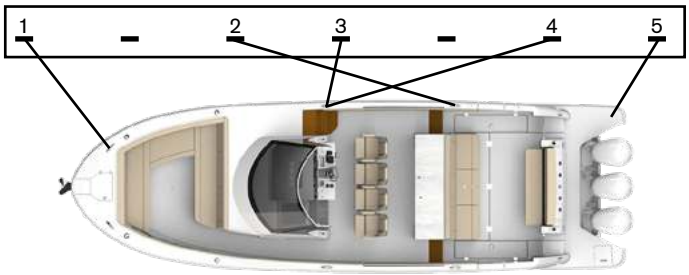
These lines are attached perpendicular to cleats to keep the boat from moving away from the dock, or are pulled in to help board the vessel.

⚠ CAUTION

Do not leave breast lines tight in tidal waters or for extended periods of time. A tight breast line can either hang the boat if the water level drops or get clipped under the dock if the water level raises.

Spring Lines

Spring lines are the most important for preventing fore-and-aft sliding of the boat and are tied in the opposite directions as the bow/stern lines, making an "X" formation. The aft spring line runs forward-to-aft, and the forward spring line runs aft-to-forward. The image below illustrates this.



1. Bow line
2. Forward spring line
3. Breast line
4. Aft spring line
5. Stern line

Single Piling Situation

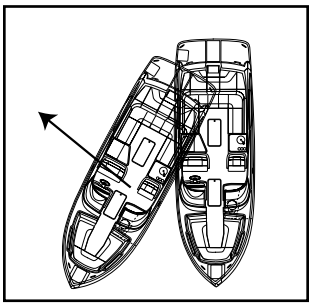
If only one piling is available, position the vessel so this point is amidships (the center of the vessel). Run both spring lines to it. These lines will be shorter but still useful. The bow and stern lines should be relatively at a 45 degree angle with the dock.

Dock Line Material and Sizing

The most often used material is nylon because of its elasticity for absorbing shock loads. It is abrasion resistant for extended life and is easier on bare hands. A vessel in the 20' to 40' range will use 1/2" diameter nylon lines.

Do not use lines that are larger than recommended. A line that is too thick will be too stiff to stretch, transferring shock loads directly to the cleats. Conversely, a line that is too small may not be strong enough to withstand the vessel's movements.

Power Trim (Engine Drives)



Outboard boats have the ability to angle in or out their drive unit in relationship to the transom. This is accomplished by hydraulic shocks located on the lower unit housing along with an electrical sender unit that reads the drive angle and sends information to the chart plotter showing a reading.

Purpose of Power Trim

The purpose of the power trim/tilt is to enable the operator to change the angle of the outboard drive while at the helm. Changing the angle of the drive or "trimming" provides the following benefits:

1. Improves acceleration onto a plane.
2. Maintains boat on plane at reduced throttle settings.
3. Increases fuel economy.
4. Provides smoother ride in choppy water.
5. Increases top speed.

In short, it is a way of fine-tuning the performance of the boat and will help get the most efficient and comfortable ride possible.

Using Power Trim

The power trim is normally used prior to accelerating onto a plane, after reaching the desired RPM or boat speed, and when there is a change in water or boating conditions. Position passengers and equipment in the boat so that the weight is balanced correctly fore and aft as well as side to side. Trimming will not compensate for an unbalanced load.

To operate the trim, push the switch until the desired bow position is reached. The trim may be operated at any boat speed or at rest. Avoid operating the trim system when running in reverse.

Operation In "Bow Up"

The "Bow Up" position is normally used for cruising, choppy following seas, or running at full speed. Excessive "bow up" trim will cause propeller ventilation, resulting in propeller slippage. Use caution when operating in rough water or crossing another boat's wake.

Operation In "Bow Down" Position

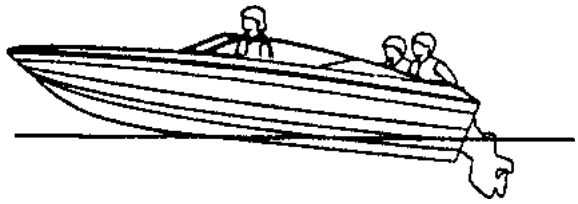
The "Bow Down" position is normally used for acceleration onto a plane, operating at slow planning speeds, and choppy head seas. It is also used when pulling water skiers, tubers, knee boarders, etc.

⚠ CAUTION

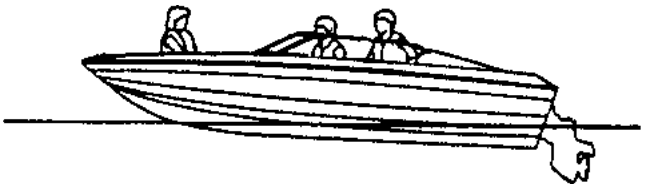
The boat trim should be adjusted to provide balanced steering as soon as possible each time you get underway. Some boat/engine/propeller combinations may create boat instability and/or high steering torque when operated at or near limits of the "bow up" or "bow down" positions. Boat stability and steering torque can also vary due to changing water conditions. If you experience boat instability or high steering torque, see your authorized dealer.

EXCESSIVE "BOW DOWN" POSITION

EXCESSIVE "BOW UP" POSITION



WELL TRIMMED "LEVEL" POSITION



Typical examples (stern drive shown)

Shallow Water Operation

Operating in shallow water presents various hazards, increasing the risk of a collision with an object such as a rock, sand bar, coral, or other unmarked objects.

Pay close attention to depth charts for descriptions of any shallow areas along with marked submerged objects. Always post a lookout when operating in shallow water. Trim the outboard drives as needed to provide adequate draft.

If your boat strikes a submerged object, stop immediately and check for hull, outboard drive, and propeller damage.

Knots

Always practice proper technique when tying to a cleat, whether it's a cleat on the deck or the dock. Use a cleat hitch (figure 8 shown below) to secure dock lines.

Do NOT secure dock lines to windshield frames, hardtop legs, or any other structure that is not a cleat. Cleats are specifically designed to handle the load of the vessel.

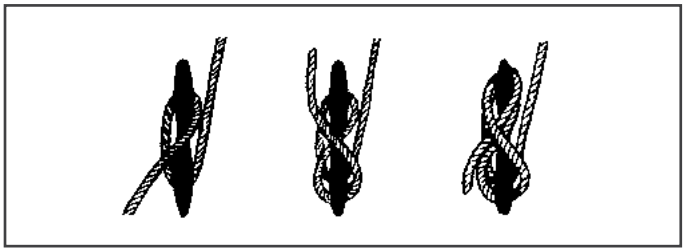


Figure 8 knot tied to cleat

The Law Of Salvage

Maritime law draws a distinct line between “towing” and “salvage”. This law applies to all vessels, including recreational boats, and the financial consequences can be severe.

In a standard towing situation, the vessel is disabled - perhaps due to a dead battery, empty fuel tank, or engine failure - but is not in immediate danger. In these cases, assistance is treated as a commercial service with a flat hourly rate agreed upon in advance.

However, if the vessel is considered to be in “peril” (taking on water, fire, a hard grounding, or drifting toward a reef or breakwater), assistance rendered in these conditions is classified as salvage. Under the Law of Salvage, the rescuer is not paid an hourly wage but is entitled to a “salvage award,” which is a percentage of the boat’s total post-casualty value. This award can range from 10% to over 50% of the vessel’s worth.

NOTICE

In the event the vessel is in distress, prior to allowing any towing company or private agency the right to pass a line to the vessel, be sure to establish that you do not agree to salvage rights. Establish with the captain or operator that you wish to be assisted in a contract basis and establish a price. Of course in certain situations, you may not have this option.

Use your best judgement!

Towing

When towing or being towed, lines should never be secured to a single deck cleat, as standard hardware is not designed to withstand such concentrated strain; it is necessary to distribute the stress.

If towing another vessel, rig a bridle to both stern cleats; this centers the tow and shares the load between two strong points. If being towed, the bow eye (trailer eye) is typically the strongest point on the vessel, located near the waterline. If the bow eye is not accessible, create a bridle between the two bow cleats.

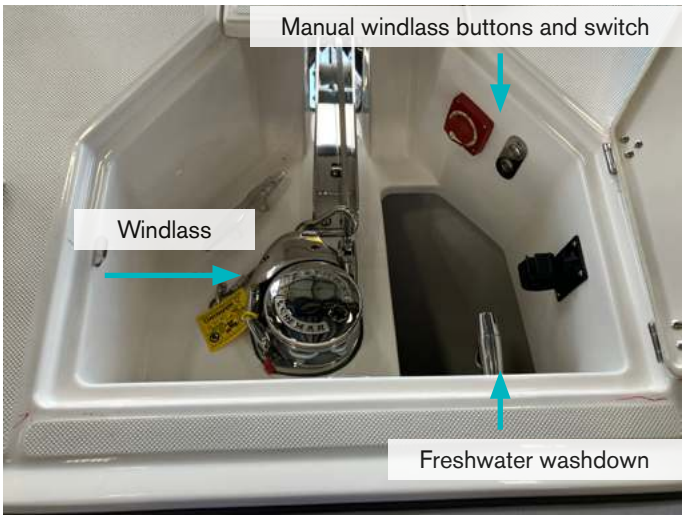
Throughout the process, always stand clear of the taut line, as any type of line breaking under stress can be extremely dangerous. The preferred line for towing is double-braided nylon, as it possesses sufficient elasticity to stretch and cushion the shock loads caused by waves and sudden movements. Always move slowly and cautiously to keep tension manageable.

Chapter 6
Auxiliary Equipment Operation

Overview

This chapter will assist the boat operator in understanding selected standard and optional equipment components on the vessel. *Select equipment described may not be installed or the images may not exactly resemble equipment on your craft.* Remember, Regal is constantly improving its product line and therefore may make changes in vendor parts and specifications without notice. For detailed information on equipment, please refer to the owner's information packet.

Anchor Locker



Note: Never use the windlass to break the anchor free from the bottom. This may cause excessive strain on the windlass motor and or hardware.

Anchor Windlass

If installed the windlass features a stainless steel polished "claw" style anchor complete with swivel. Claws include high holding power in most seabeds.

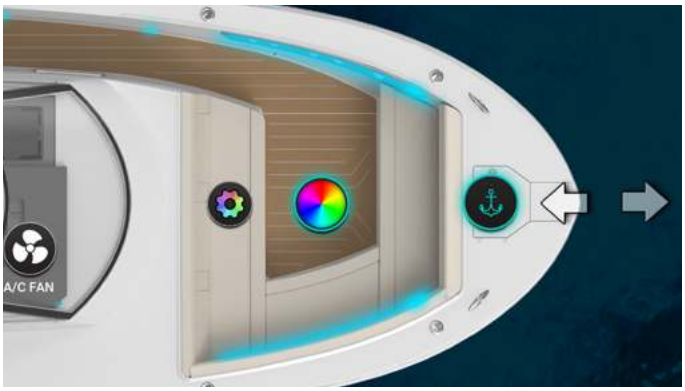
A windlass switch located at the anchor locker controls the lowering and retrieving of the anchor through the windlass. A breaker for windlass overcurrent protection is located on the Battery Management Box. There is a safety hook to add holding power when the anchor is in the stored position. The cleat is for tying off the anchor rode rather than maintaining constant pressure on the windlass itself.

Deploying the Anchor

From the anchor locker, lower the anchor using the windlass electric motor or gravity. To lower the anchor using gravity, first retrieve the clutch key, remove the safety carabiner, and loosen the clutch counterwise until the anchor starts to descend. Apply clockwise pressure to the clutch to control the anchor's descent. Lower the anchor slowly to avoid damage.

When using the buttons, first activate the windlass battery with the red switch. Press the lower anchor button to lower the anchor and the top to raise.

The windlass can also be controlled via the DSS. First navigate to the "Deck" page. Press and hold the anchor icon on the bow. Two arrows will appear. Press the forward facing arrow to lower the anchor, and the aft facing arrow to retract.



DSS windlass anchor controls

⚠ WARNING

Avoid serious injury! Ensure all body parts & clothing are kept clear of the anchor rode and windlass during operation.

Raising the Anchor

To raise the anchor, first pilot the boat towards the anchor. Raise the anchor slightly to take up the slack created in the rode as the boat approaches the anchor. Stay close, but do not navigate the boat past the anchor. Using Yamaha's StayPoint feature or Mercury's SkyHook feature may prove useful here. The rode should be close to vertical and perpendicular to the waterline. Once positioned, hold the aft facing arrow icon on the DSS or the lower button in the anchor locker until the anchor is raised.

Do not let the rode get tangled in the windlass. If the sound of the windlass changes abruptly before the anchor is fully retracted, inspect the anchor locker for a bind.

Once raised, reinstall the safety carabiner and close the anchor locker to stow.

Do not use the windlass to pull the boat. Excessive strain on the windlass may cause damage. Improper operation of the anchor and windlass could cause damage to the vessel and is not included in your warranty.

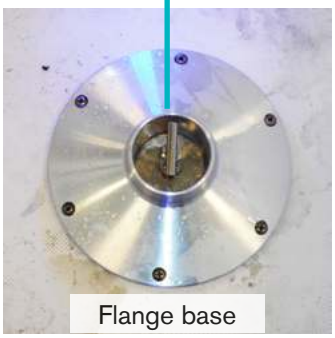
The anchor is a heavy and potentially dangerous piece of equipment. When operating, keep all body parts and clothing clear of the windlass, anchor, and rode. Have a spotter watch the anchor. Make sure the anchor is properly secured before embarking.

⚠ WARNING

Avoid serious injury! Do not "pay out" anchor until it is determined that there are no swimmers or divers near the area.

Bow Table

If installed, the optional tables are found in the Lazarette compartment. The installation equipment (flange base, table leg) is found in the following spaces shown below.



Setting Up Bow Table

1. Remove the table from the locker lid.
2. Find the flange base which is located in a bow locker under the locker lid.
3. Unscrew the flange base center hold down mechanism and the entire unit will free itself.
4 Center the flange base over the floor base and line up the center holes. Screw the hold down mechanism clockwise until tight.
5. With the table turned over loosen the knob on the table support.
6. Insert the leg into the table support. Tighten the knob until secured.
7. Lift the table and leg assembly up and insert into the flange base. Wiggle the sides of the table as needed to until the leg is completely down.
8. To disassemble table reverse the process.

Note that it is recommended that the table assembly be stored before making a major cruise into rougher seas or other adverse weather conditions.

Bow table set up

Sunshade System

Manual bow and cockpit sunshades are available for the 38 SAV. The shades feature fiberglass poles, easy to use fastening system, and durable Sunbrella canvas material. The poles are stowed at the gunnels. See photo below.

Note that instructions for use are found on the poles themselves.

Sunshade System Safety Tips/Notes

1. Do not use the sunshade system while making headway.

2. Do not pull the pole out further than the length shown.

3. Do not use the sunshade system when it rains.

4. The finish on the sunshade poles is carbon fiber which can conduct electricity. Caution must be used around power and lightning.

5. Always store poles in the gunnel storage clips.

6. Roll sunshades verses folding them.

7. Periodically clean sunshades and rinse until dry.

8. Prolonged exposure to sunlight may result in discoloration of poles.

9. Make sure the pole sockets installed in the deck are free of water which will promote rusting.

Read and understand the warning label and drawing adhered to the poles. There is a QR code on the pole label which can be scanned with your phone for the manufacturer owner's manual.

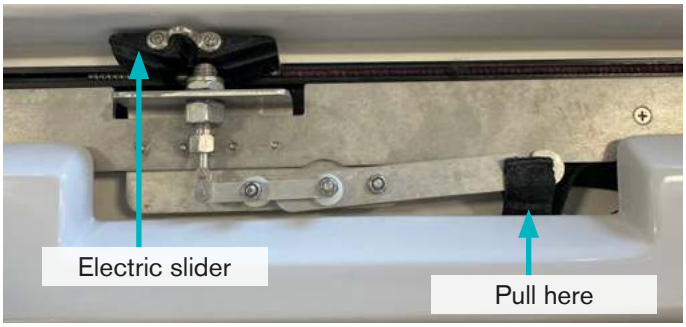
Cabin Door

The cabin door is controlled from both the DSS Deck page and physical buttons beside the door. To open, first unlock the door through the DSS by tapping the lock icon. This brings up a numberpad pop-up. The default lock code is 0123. To change the code, tap the “Change Password” icon at the bottom of the pop-up window and follow the on-screen instructions.

Manual Cabin Door Release

In the event the cabin door does not receive power for any reason, it can be manually opened from the inside and out.

From the outside, first remove the upholstery panel hiding the track shown in the image below. Next, pull the right side of the lever towards you to retract the pin from the electric slider on the track. Once the lever and pin are disengaged, the cabin door is free to move.



To reengage, simply close the cabin door fully and pull the electric slider towards the pin. However, the easiest way is to activate the electric slider whenever power is restored, as it’ll automatically latch the door once it makes contact.

To open from the inside, simply pull the fabric strap on the right to disengage the mechanism.

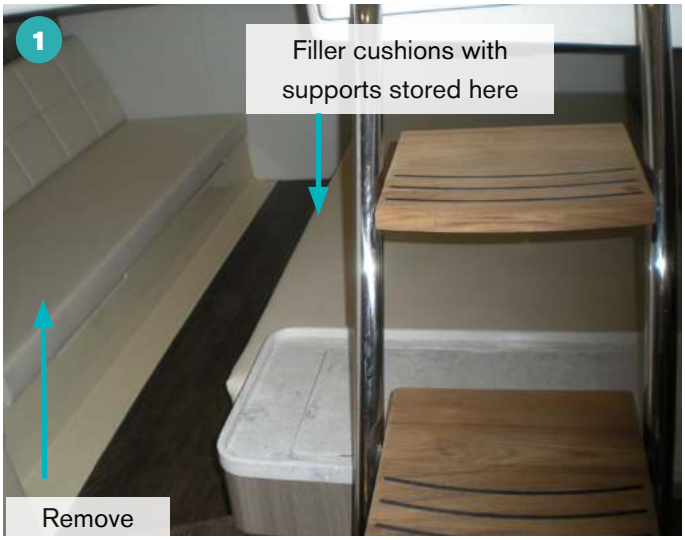
Cockpit Drainage System

The drain located just aft of the cabin door sill is critical for clearing water from the cockpit. Periodically remove the stainless steel grate to clean debris from the scupper screens, and ensure the drain path remains unobstructed. This includes all other drains around the vessel, including the bow drain shown in the image to the right.

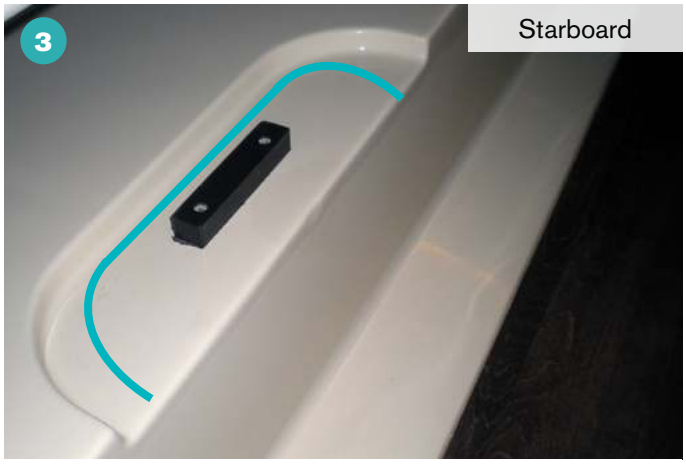
Note: ensure the floor area near the transom doors remains clear of gear, coolers, or towels. Obstructions can trap water in the cockpit, adding dangerous weight to the vessel.

Mid-Berth Setup

The mid-berth cabin can be converted to a large sleeping berth. The filler cushions are located under the portside berth cushion (see below). Under the starboard cushion are molded cut-outs. Remove the starboard cushion for an easier setup.



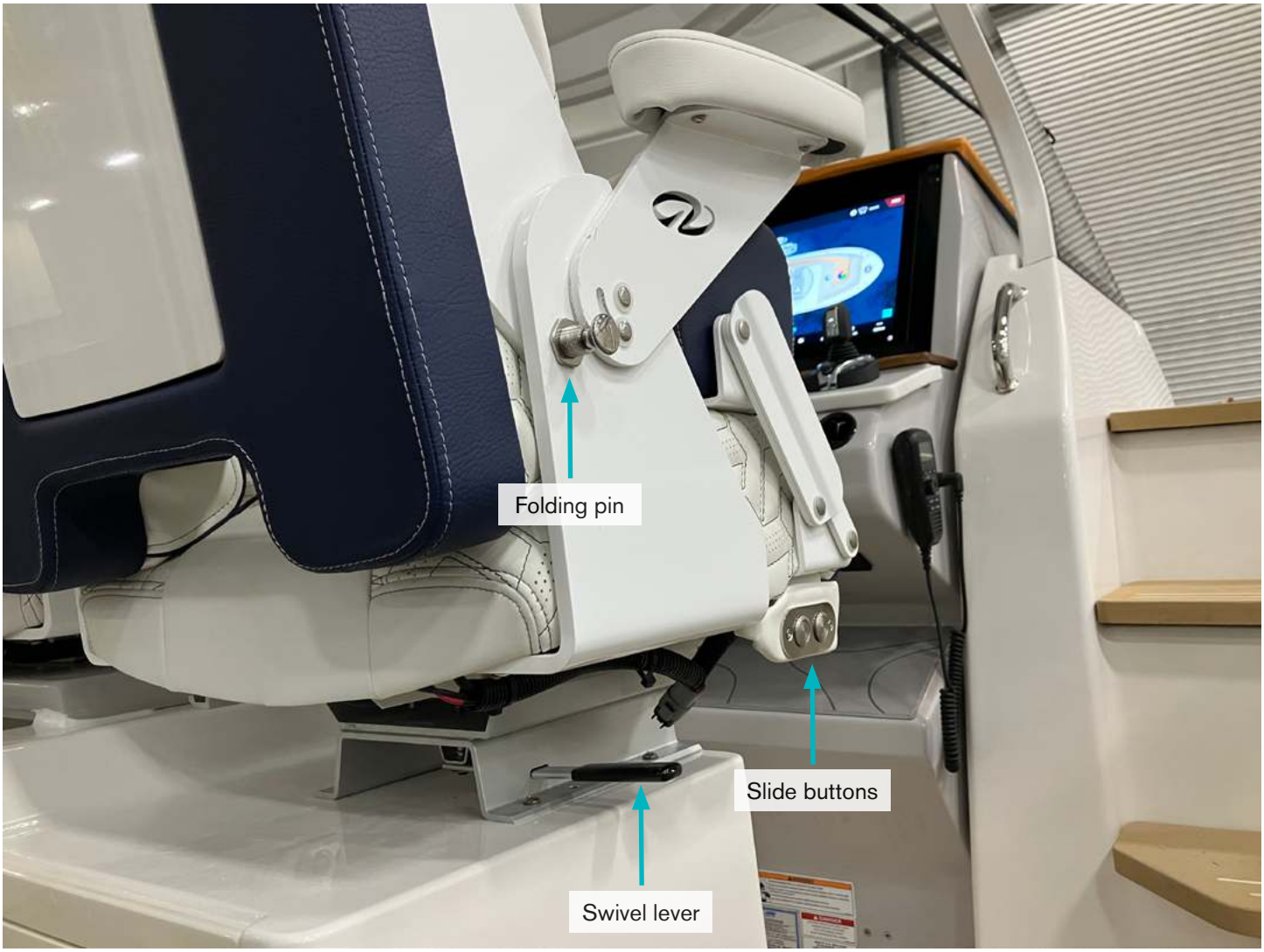
Filler cushions



Filler cushion placement location

Filler cushion in place

Mid berth setup complete



The two outer seats can swivel 180 degrees to face aft (see image to the right). To unlock, pull upwards on the swivel lever. The slide buttons adjust the seat's positioning forward-to-aft. Lastly, pull the folding pin to fold the seats down; release the pin to lock it back into place.

Swivel + folding feature

Deep Drop Outlets

Power outlets for deep drop fishing are located just above both gunwale washdowns in the rod storage tubs flanking the helm. Ensure a power cord adapter is compatible with the 3-prong 12v outlet.

Port washdown & outlet

Starboard washdown & outlet

Sunroof

The sunroof is operated manually. Squeeze the handle to unlock the latch and slide the glass toward the stern until the locking mechanism clicks into place.

Rinse out the sunroof tracks periodically to remove grime and debris. Do not apply lubrication to the sunroof tracks. Remember to close the sunroof when leaving the boat unattended for extended periods. Damage resulting from improper sunroof operation and maintenance is not included in your warranty.

Cockpit Refrigerator/Freezer (Option)

The refreshment island comes with either two refrigerators or one refrigerator and one freezer, depending on custom selection. Once the battery activation panel is turned on, the units should automatically begin cooling. Both components operate on AC power - ensure the dedicated breakers are turned on at the MDP and an AC power source is active.

The temperature control panel is found inside, under the overhang. The power button on the right will turn the refrigerator on/off. The snowflake button next to the power button will change the temperature setting. Specific operational instructions can be found in the manufacturer owner's manual included in your welcome packet.

Regal recommends turning the refrigerators on and allowing them to run for six hours prior to stocking to ensure that any perishable items are kept as cold as possible.

Cockpit Grill

Be sure to read the grill manual to become acquainted with all the safety features and proper modes of operation before attempting to use the grill. First, ensure the vessel has an A/C power source (shore power, generator, or PowerBank) and activate the dedicated breaker on the MDP.

Next, locate the grill control panel on the forward face. Push the center button to activate the grill. Change the grilling temperature by using the plus or the minus buttons on the grill control. There is a safety shutdown switch located at the aft grill corner. Power to the grill will be shut down if it activates. After grilling, be sure to let the element cool before closing the cover. Always have a fire extinguisher handy.

The grill circuit is protected by a dedicated GFCI located inside the trash compartment (see image below). If the grill fails to power on, press the RESET button to restore power.

Safety Precautions

- Do not operate the grill when underway, in rough seas, or high winds.
- Do not use charcoal or wood chips. This unit is designed for electric heating only; adding combustibles will damage the element and create a fire hazard.
- Protect canvas and upholstery. Do not operate the grill with canvas in place or nearby.
- Clean the grease tray after each use. Accumulated grease is a fire hazard.
- Let the unit cool down completely before closing the lid and covering with canvas.

Grill GFCI location

Cockpit/Cabin TVs

Cockpit TV

Cabin TV

The cockpit television drops down from the hardtop using the buttons within the DSS Hardtop page. Always position the TV before activating the “Entertainment” breaker on the MDP.

<u>Coaxial shore connection:</u>

Connect the coaxial shore cable alongside the shore power cable. In the cabin v-berth on the port side, select **Position A** (see images).

<u>Antenna connection:</u>

Select **Position B** when attempting to access cable TV while away from the dock.

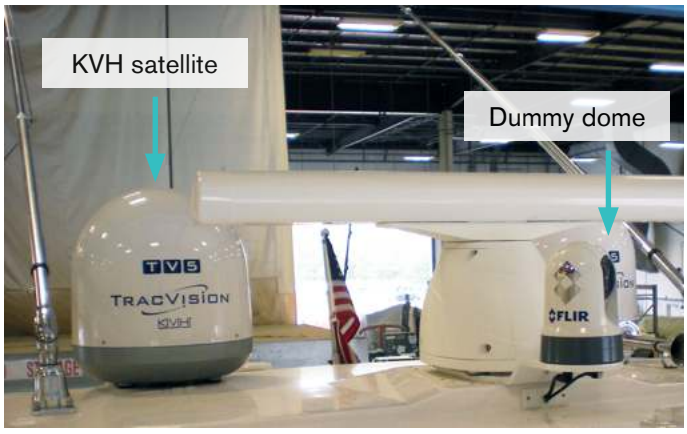
The cockpit TV is linked to the chartplotters. To mirror the chartplotter screen onto the TV, use the remote to change the input source to HDMI, allowing navigation charts and depth readings to be viewed from the aft cockpit area.

Coaxial splitter panel

Entertainment

The KVH TracVision box is found near the cabin entrance shelves shown below. This is also where the third party receiver would be installed as it provides direct connection to the HDMI input. Refer to the KVH TracVision manual for more information.

Photo at lower right shows center shelf with HDMI input and AC outlet.



KVH Satellite TV

The boat may come equipped with the optional KVH satellite system. It allows connection to satellite television, whether you are docked or offshore, and works with any third party satellite television subscription. Regal does not provide a satellite TV subscription or the third party equipment to access satellite TV. The KVH satellite package only includes the necessary hardware to receive a satellite signal.

With the KVH satellite package, make sure to contact a third party satellite television provider for subscriptions and any accessory installation necessary to access your subscription.

The KVH system runs on DC power. Make sure the DC battery bank and the entertainment breaker on the Battery Management Box are turned on before attempting to operate the TV using a satellite signal. Power on the TV using the included remote. The KVH system will be wired through the “HDMI 1” port. Use the remote to navigate to the input menu on the TV and select “HDMI 1” to access your satellite channels.

Refer to the included TV and satellite owner’s manual for more specific operating instructions. Additionally, visit the dedicated KVH/Signal Connect partnership website (link below) to guide with the connection to your third party subscription service.

https://www.kvh.com/support/tv-systems-activation/

Note: A “dummy” dome is provided for visual symmetry.

Outriggers

As an option, outriggers are installed on the hardtop, flanking overhead speakers.

Numbered for clarity, handle #1 adjusts the angle from horizontal. Rotating clockwise increases the angle, or raises the outrigger. Rotating counterclockwise will decrease the angle and lower the outrigger. Handle #2 does not come attached and is in the owner's satchel or in one of the refreshment island drawers. Insert the handle into the outrigger base and pull downwards to disengage the lock mechanism that keeps the outrigger in place. Once disengaged, the outrigger is free to be rotated completely, allowing the orientation (facing direction) to be adjusted.

Refer to the outrigger information found in the owner's information satchel which will help keep the outriggers in top condition.

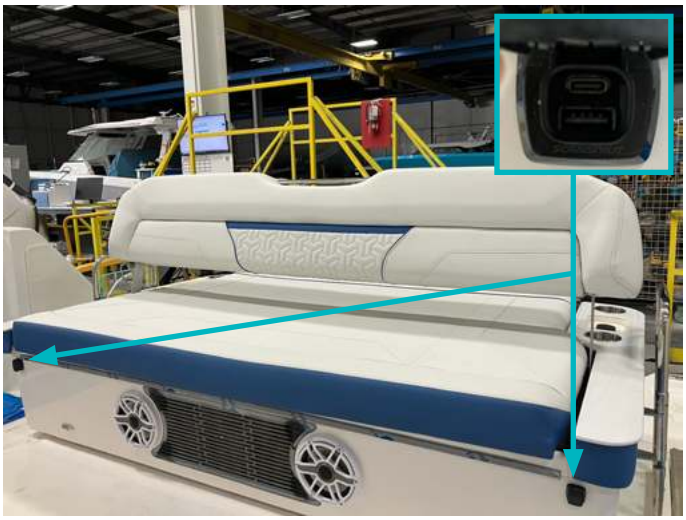
Convertible Transom Seat

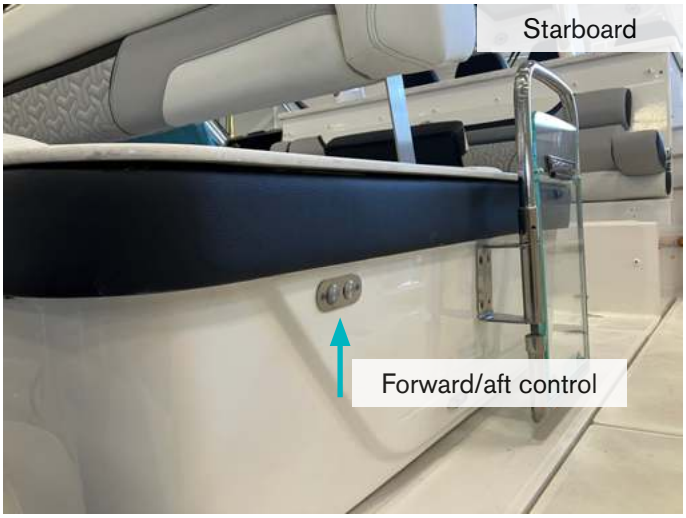
The convertible transom seat is manually deployed. Pull upwards and out to extend and straighten out the seat. On the aft face of the convertible transom seat are fishing rod holders and exhausts from the bilge blowers. Ensure the vents are never blocked.

UltraLounge

The UltraLounge can be modified in two main ways: forward rotation of the backrest to transform into a large sunpad and forward/aft positioning of the entire superstructure. This can be done through the DSS Deck page as well as physical buttons on the port and starboard faces, which control the backrest rotation and forward/aft position, respectively.

Additionally, there are USB inputs on the forward face of the structure. They are shown below.





Dive/Boarding Doors

The side boarding (dive) doors feature a 316 gauge heavy duty stainless steel hinge and latching system. It provides easy access for various mooring situations.

Door in closed/latched position

To open a boarding door from the inside press the center lock button inward while pushing the latch handle down which will release the latch from the receiver plate. See the above photo.

To close the boarding door push inward and hold the center lock button and lift the handle up until it enters the receiver plate. Release the lock button. Check to ensure the door is locked.

The door swings inward and features a magnetic stop. The doors shall be closed and latched when underway! See warning label on this page.

Door in open position

⚠ WARNING

Avoid serious injury or death from falling overboard!
Ensure doors are closed and latched when underway!

Transom Doors

The aft port and starboard transom doors provide access to the swim platform and may be useful in certain mooring situations by providing easier access while disembarking.

To open the transom door pull the latch mechanism up to release.

To close the transom door push the latch mechanism down completely to engage the latch and lock mechanism.

⚠ WARNING

Avoid serious injury or death from falling overboard!
Ensure that transom doors are secured while underway.

Fender Clips

Quick-release fender clips allow a quick and simple method to attach and remove fenders. To attach a fender using the clips, first tie the fender to the opening labeled below. Then insert into the hull slot until it is locked in place. To remove the fender, press the quick release mechanism and pull the fender out.

Do not use fender clips as cleats. Improper use is not covered by your warranty.

Chapter 7
Care & Maintenance

UltraLounge

To ensure the UltraLounge maintains smooth functionality, clean the stainless steel backrest supports and the sliding tracks. Rinse it with freshwater or pressurized air. **Do NOT** use grease to lubricate as it allows debris to stick to and build up within the UltraLounge, affecting its mobility and functionality. Clean the vinyl upholstery of the UltraLounge as well.

Metal

Keep all stainless steel and other metal parts rinsed and wiped dry. Select hardware including cleats, drains, grab rails, brake, and gas rams are all stainless steel. To maintain their finish, annually polish the steel and other metal hardware. Use commercially available metal products and read the labels carefully before use. Most marinas and boating retail outlets carry metal care products. **Do NOT** use hard bristle brushes and scratch the hardware.

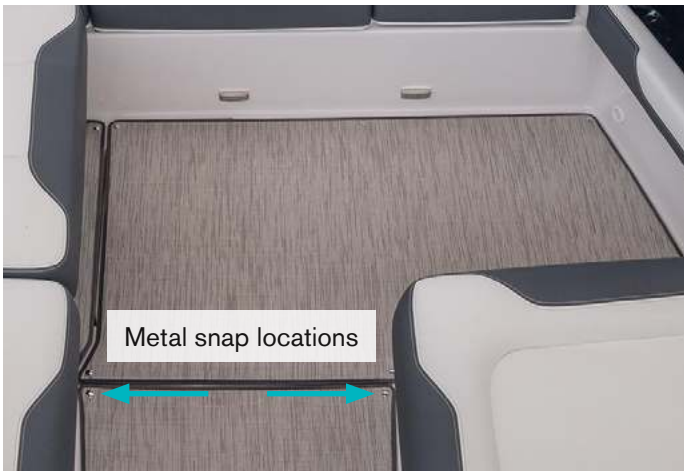
Vinyl Upholstery

Clean the UltraLounge, cockpit, and bow upholstery periodically to prevent dirt and mildew buildup. Contaminants may stain and reduce vinyl life.

Clean common stains with warm, soapy water. Scrub with a soft bristle brush to loosen dirt and grime from textured surfaces and seams. For tougher stains, use a dedicated marine vinyl cleaner.

For best results, remove stains immediately, before they penetrate the vinyl. **Do NOT** use powdered abrasives, steel wool, or industrial strength cleaners on upholstery. **Do NOT** wax vinyl. Use tanning lotion instead of tanning oil to avoid damaging the upholstery. **Do NOT** leave exposed to the sun for extended periods of time. Use canvas covers whenever the boat is not in use.

Deck Flooring - Seagrass Matting



The exterior deck flooring consists of woven Seagrass mats designed for stain and moisture resistance. Seagrass matting contains Microban, a protective antimicrobial that inhibits the growth of stain- and odor-causing bacteria, mold, and mildew.

Air out the matting after each outing. When removing matting from the cockpit, **do NOT** pull on the material itself. Instead, lift from the metal snaps.

Cleaning

- Vacuum or shake off any loose debris.
- Clean with a sponge and mild marine detergent/soap.
- Rinse thoroughly with freshwater.
- Hang to dry completely.

Seagrass mats feature urethane backing for marine environments. When storing the Seagrass mats, always roll with the backing facing in. **Do NOT** fold or crease to avoid splitting the back.

⚠ CAUTION

Remove and store all Seagrass matting before trailering. Highway speeds can generate wind loads that cause damage to the snaps and loss of the mats.

Deck Flooring - EVA Foam (ReFlex/Teak)

EVA foam is a closed-cell foam that is UV-protected, non-absorbant, and provides traction even when wet.

Cleaning

- Hose down the deck with a freshwater hose.
- Use a mild marine detergent/soap or dedicated EVA foam cleaner. Scrub with a stiff-bristle brush (**NEVER** metal) in the direction of the texture/grain.
- Rinse thoroughly with freshwater.

Warnings

- **Do NOT** use a pressure washer. The high pressure can cut the foam or peel the adhesive backing off the deck.
- **Do NOT** leave plastic water bottles or glass objects on the flooring in direct sunlight. This can magnify the sun's rays, melting or burning the flooring within minutes.
- Clean up fuel or oil spills immediately. Petroleum products can dissolve the pressure-sensitive adhesive that binds the matting to the deck.

Grey ReFlex

Synthetic Teak

High-Gloss Acrylic & Solid Surface

There are two types of acrylic-based surfaces to consider: high-gloss acrylic and solid surface acrylic.

High-Gloss: Cabin door, helm seat backs, dash panels, etc.
Solid Surface: Countertops, cabinet faces, etc.

Cleaning

- Use a microfiber towel only. **Do NOT** use paper towels; they contain wood pulp and will create fine scratches on high-gloss surfaces.
- Wipe surfaces with warm, soapy water.
- Wipe dry immediately to prevent water spots and film buildup.

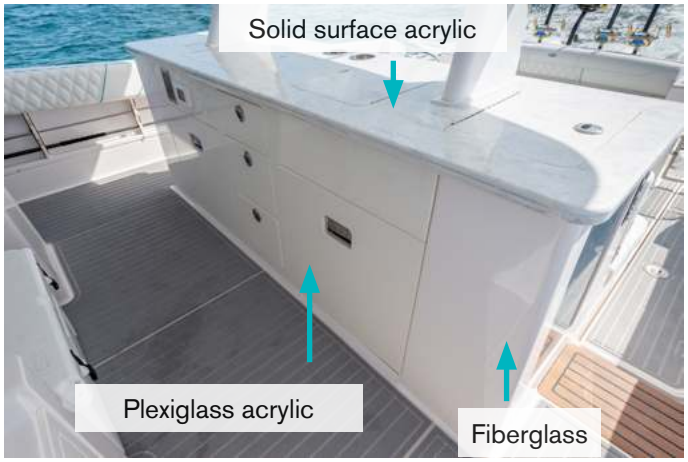
Exceptions (Solid Surface **ONLY**)

For tough stains on countertops, a 1:4 diluted bleach solution may be used (1 part bleach, 4 parts water). Rinse thoroughly with freshwater after cleaning. Avoid getting bleach on surrounding metal or vinyl upholstery.

Prohibited Products

Acrylic must never be exposed to organic solvents or ammonia. **Do NOT** use:

- Acetone/nail polish remover
- Paint thinner or comparable
- Ammonia-based cleaners (Windex)
- Benzene
- Rubbing, denatured, or other alcohol-based solutions
- Carbon tetrachloride



Fiberglass & Gel Coat

Outdoor exposure can cause the boat's gel coat to fade. Darker hull colors absorb more heat and may require more frequent attention than white hulls.

Cleaning

Wash the boat's surface monthly with freshwater and marine detergent/soap to keep it looking shiny and new. Wipe dry as you wash to avoid water spots and calcium buildup.

Do NOT use dishwasher detergent/soap, as degreaser can strip the wax off the surfaces. Avoid any kind of alkaline cleaners such as trisodium phosphate (TSP), abrasives, bleaches and ammonia. For best results use acid-based fiberglass cleaners.

Waxing & Protection

Wax the gel coat surface at least twice a year to protect the finish and prevent oxidation. Apply a high quality marine fiberglass wax to a small 3' x 3' section at a time using clean applicator cloths or a buffing bonnet. When a haze develops, hand buff with a clean microfiber towel or use a power buffer at low speed (1200-2000 RPM). **Do NOT** wax in direct sunlight, as the wax will bake into the surface and become difficult to remove.

Restoration

If routine washing and waxing no longer restore the shine, the gel coat may be oxidized (chalky appearance). This requires professional restoration using heavy-duty polishing compounds and high-speed buffers. **Do NOT** attempt to use rubbing compounds or power buffers without proper training, as incorrect use can permanently damage the gel coat finish. Contact your authorized dealer for professional detailing services.

Interior Fabrics & Textiles

Clean interior fabrics (sofas, pillows, curtains) with mild soap and warm water, or a water-based foam upholstery cleaner. Always test the cleaner on a hidden area first (such as the underside of a cushion). Refer to the specific care tags on bedding and curtains for washing instructions.

For vinyl headliner and wall coverings, wipe with a clean, damp microfiber cloth and mild soap. **Do NOT** saturate the surfaces as excessive moisture can penetrate the material and dissolve the adhesive backing, causing it to sag or detach. Wipe dry afterwards.

⚠ WARNING

Avoid serious injury or death! Waxed gelcoat surfaces can be very slippery! Do not wax any textured or nonskid surfaces such as floors, walkways, steps, ladders, or swim platforms.

NOTICE

Wire brushes, scouring pads, or other abrasive type materials and solutions should never be used on the hull or deck. They create small scratches that collect marine growth.

Canvas

The canvas used on the vessel (bimini tops, cockpit covers, sunshades, etc.) is typically woven acrylic. It is designed to be breathable and UV resistant, but it is not mold-proof. The best way to protect the canvas is with proper ventilation and storage. Ensure the canvas is completely dry. Trapped moisture is the primary reason for mold. Roll the canvas instead of folding.

Cleaning

- Gently shake or brush off loose dirt and debris.
- Gently wash with warm freshwater and marine detergent/soap.
- Scrub with a soft-bristle brush.
- Rinse thoroughly to remove all soap.

Do NOT use bleach or other harsh chemicals, as these will strip the water-repellent finish and damage the threads. Never machine wash or steam press. This will shrink the canvas.

Zippers & Snaps

Never force a zipper. Never pull on canvas to force zippers closed. Ensure the starter pin is fully inserted and aligned into the box before zipping. A dedicated zipper lubricant (wax or silicone) may help operate new zippers and maintain old ones. **Do NOT** use petroleum jelly as it melts, accumulates dirt and debris, and will stain the canvas.

Always attach and detach snap fasteners as close to the snap itself as possible. Lift from the metal snap head - never pull from the fabric edge. Lubricate as needed.

Clear Vinyl Windows (Isinglass)

The clear vinyl windows in the canvas are soft and susceptible to scratching and clouding. They require delicate care to maintain optical clarity.

Always roll; **Do NOT** fold, as it creates permanent creases that will eventually crack the material. Ensure they are completely dry and stored in a ventilated area. If possible, place a clean towel or felt sheet between layers when rolling to prevent scratching. **Do NOT** allow it to touch hot metal in direct sunlight, as the heat transfer can burn or melt the vinyl.

Cleaning

- Thoroughly rinse with freshwater to remove salt and dust. **Do NOT** wipe while it is dry, as dust will act as sandpaper.
- Use a microfiber towel and marine detergent/soap.
- Wipe dry with a clean microfiber towel.

Prohibited Products

- Ammonia/glass cleaners (Windex, etc.) - Turns vinyl yellow, cloudy, and brittle
- Paper towels - Contain wood pulp that scratches the surface
- Sunscreen - Contains oils can permanently fog the vinyl

Hull Bottom

The condition of the hull bottom directly affects the vessel's speed and fuel efficiency. Even a light build-up of marine growth (algae, slime, barnacles) can significantly create drag and reduce performance.

Wash the hull bottom periodically with a soft-bristle brush or sponge. **Do NOT** use wire brushes or highly abrasive scouring pads.

Storage & Winterization

Depending on expected temperature levels over the time the boat will be stored, proper winterization is critical to health of the vessel. Freezing temperatures can cause damage to the engine blocks, freshwater system, and waste system if not properly drained and treated. Due to variation in proper winterization procedures, Regal insists on contacting your dealer to winterize the vessel. Improper winterization may result in damage to the vessel and is not included in your warranty.

Storage Warnings

- Remove the batteries if the vessel is stored in freezing climates. Freezing can crack the battery case and leak acid.
- **Do NOT** fill the fuel tank to 100% capacity. Leave room for fuel expansion as temperatures fluctuate.
- **NEVER** block up the boat hull yourself. It must be supported by a cradle or trailer designed for your specific model. Structural damage caused by improper blocking is not covered by warranty.

Freshwater Sanitization

It is recommended to sanitize the freshwater system at least once a year with a dedicated RV/marine freshwater system cleaner. Follow the directions on the product label for proper dilution and flushing procedures.

If flushing procedures are not listed, follow the steps below:

1. Run all faucets and the shower until the entire system in empty, including the water heater.
2. Discharge any waste water that has accumulated in the waste tank.
3. Fill the freshwater tank with the solution. Turn on the freshwater pump and open each faucet (one at a time) until the solution flows from each tap, then close it. This ensures the solution fills the plumbing lines.
4. Allow to sit for at least one hour (or as directed by chemical manufacturer).
5. Drain the solution and flush the system with freshwater until water is clear and no chemical odor remains.
6. Refill the tank.

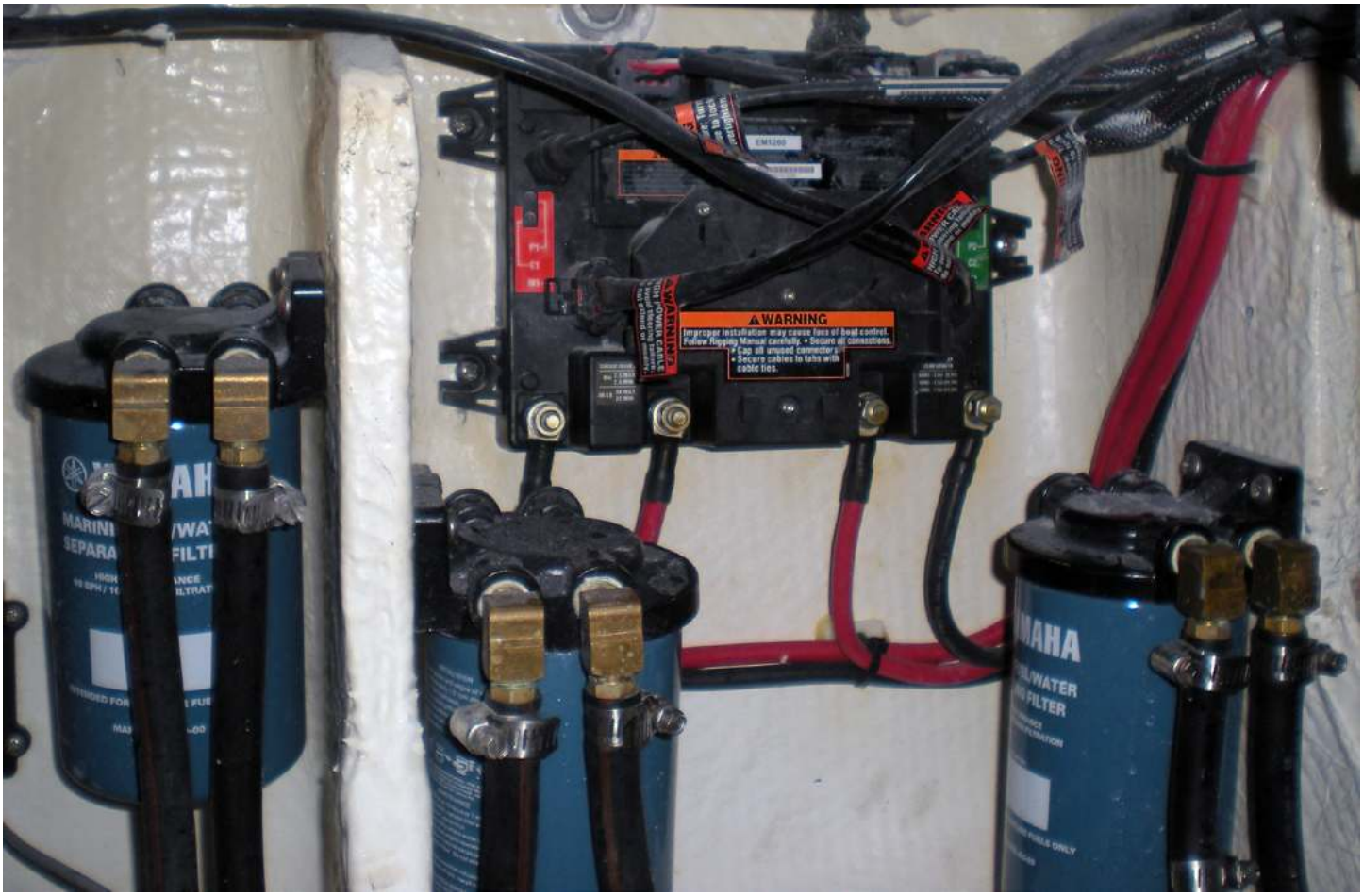
Final Acknowledgments

We would like to welcome you again to the Regal family. We are happy you are here and look forward to sharing your boating journey with you. Thank you for taking the time to read this manual and become familiar with the operation and maintenance of your Regal 38 SAV.

Please refer to third party, manufacturer owner's manuals, included in your owner's welcome packet, for detailed information on technical features, equipment, operation, maintenance, and troubleshooting. You should have received your owner's welcome packet during the new boat delivery process. If you did not receive your welcome packet, contact your Regal dealer. You can access all Regal manuals online by going to https://www.regalboats.com/owners-resources/.

For any questions or issues that you can not answer using the manuals, please contact your authorized Regal Dealer or call our customer service line at 1(800) 877-3425.

Technical Drawings



NOTICE

The following technical information and drawings can be an aid in troubleshooting electrical and mechanical problems along with the charts located in the troubleshooting chapter.

Note that all product specifications, models, standard and optional equipment, systems, along with technical information is subject to change without notice.

For more information contact your nearest authorized Regal dealer. For the location of your nearest authorized dealer call 407-851-4360 or visit the web-site at www.Regalboats.com.

Your Regal dealer has received special factory training on the entire product line and his services should be employed to solve technical problems.

SIDE VIEW

REGAL MARINE INDUSTRIES

38 SAV (SV) General Arrangements

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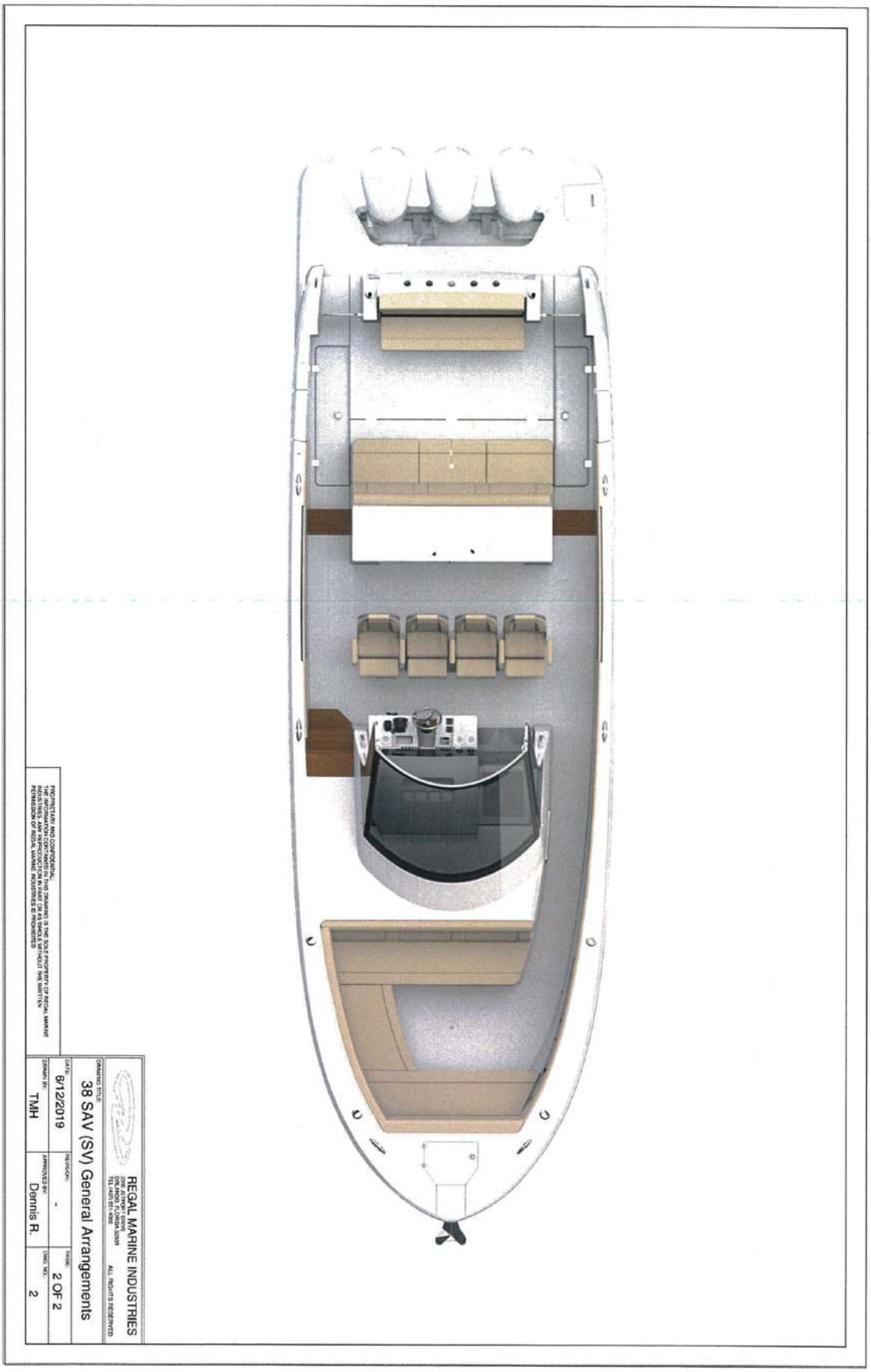
TOP VIEW



REGAL MARINE INDUSTRIES
2300 JETPORT DRIVE
ORLANDO, FL 32809
TEL (407) 851-4260

DRAWING TITLE:
38 SAV (SV) General Arrangements

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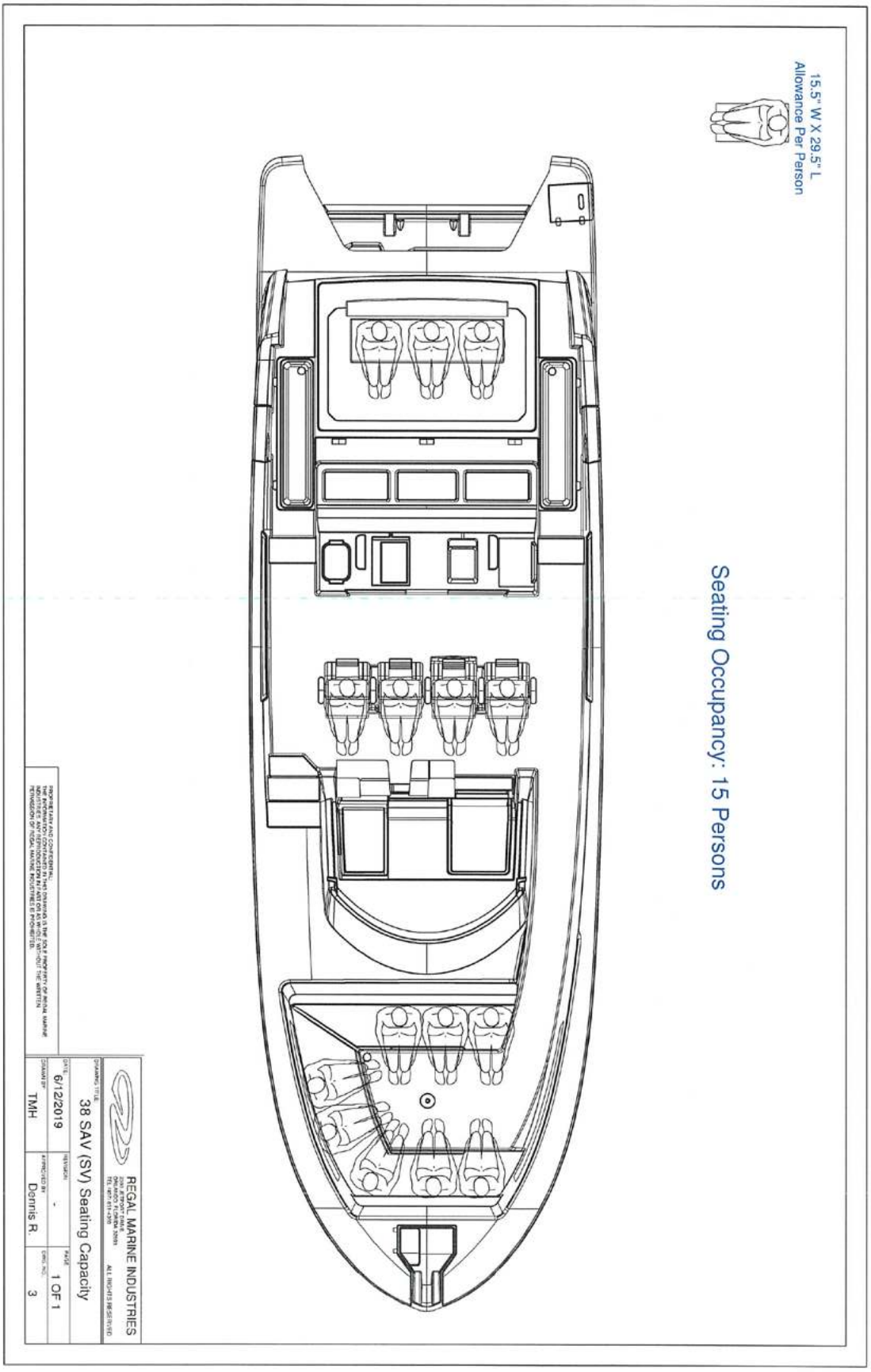
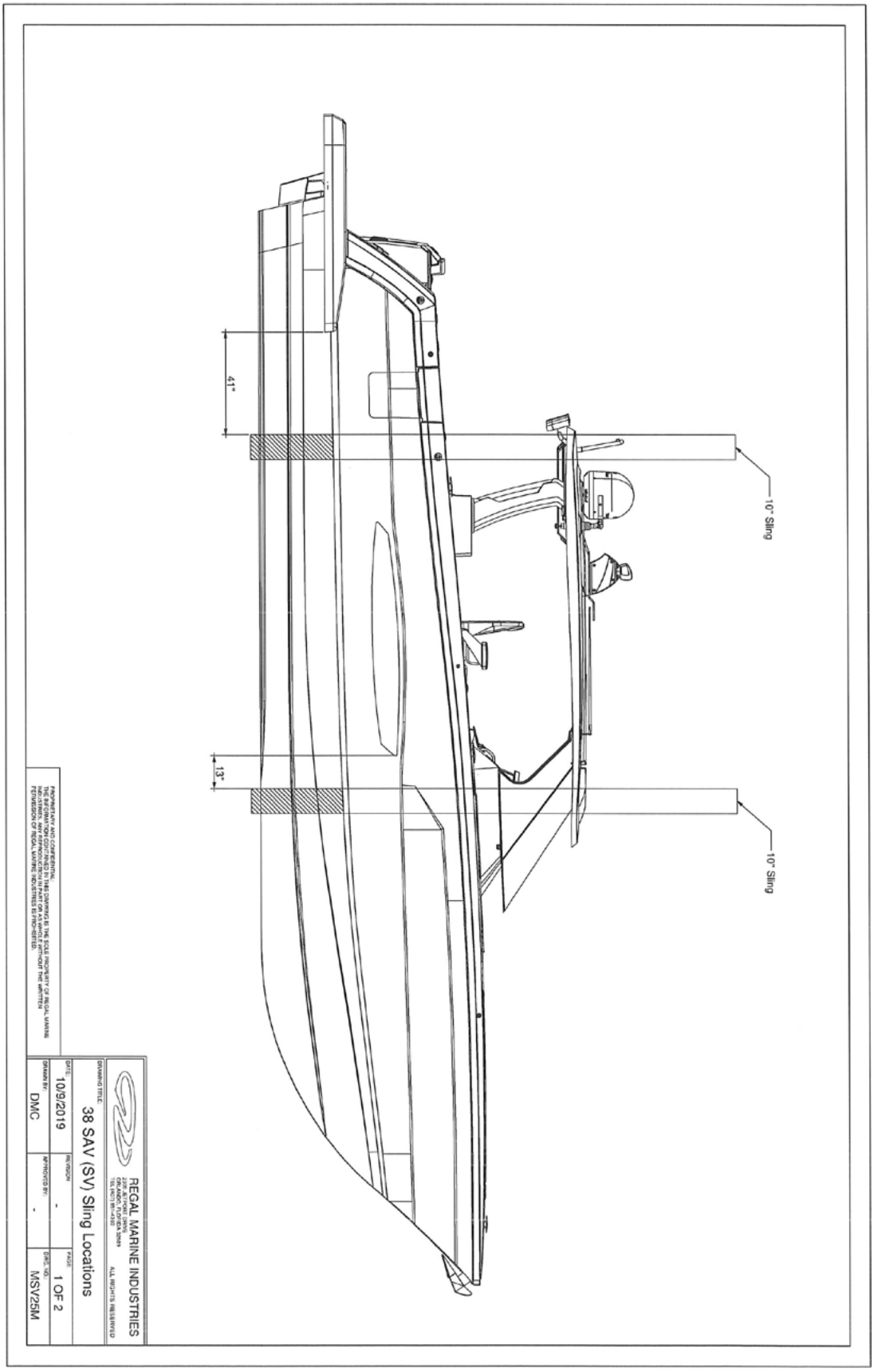
TMH	Dennis R.	2

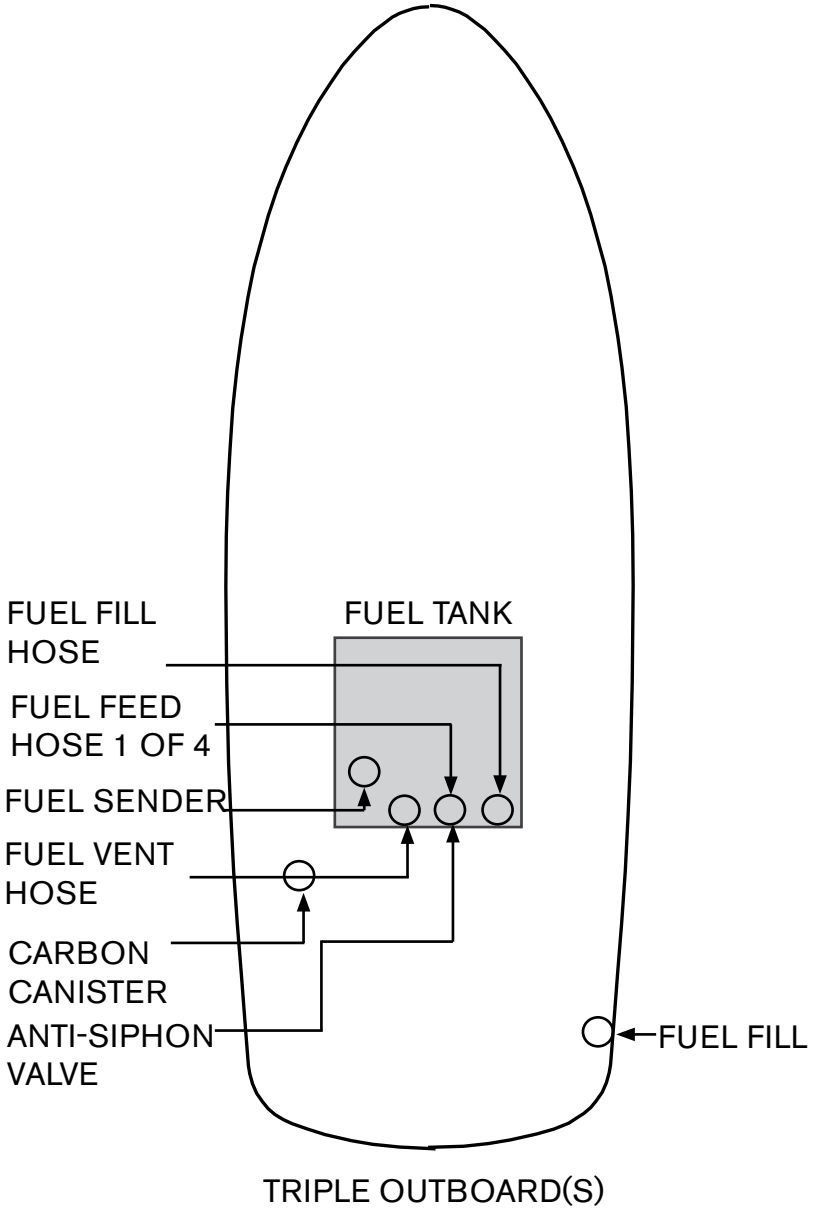
DOMESTIC SEATING OCCUPANCY



SLING LOCATIONS FOR LIFTING



TYPICAL DOMESTIC (EPA) COMPLIANT GASOLINE FUEL SYSTEM COMPONENTS



* NOTE THAT ABOVE PETRO TANK FEATURES 3 ENGINE FUEL FEEDS & 1 GENERATOR FEED

TYPICAL LABELS & LOCATIONS

WARNING
USE PROPER BLOCKING TECHNIQUES
WHEN LIFTING BOAT

NOTICE
Retrieval of Windlass Chain
Winch operator may be required to periodically spread chain out within anchor locker

Sling

LIFETIME Plus WARRANTY
REGAL LEGACY

CAUTION
AVOID POSSIBLE BODILY INJURY OR DEATH DUE TO FALLING!
THE STARBOARD BOARDING STEPS ARE FOR EMBARKING ONLY!
USE HAND HOLDS!
DO NOT OCCUPY OR USE BOARDING STEPS WHEN UNDERWAY!

NMMA CERTIFIED using ABYC standards

Sling

WARNING
AVOID SERIOUS INJURY OR DEATH FROM FIRE OR EXPLOSION RESULTING FROM LEAKING FUEL. INSPECT SYSTEM FOR LEAKS AT LEAST ONCE A YEAR.
NW-201-04

WARNING
Electrical shock and fire hazard. Failure to follow these instructions may result in injury or death.
(1) Turn off the boat's shore power connection switch before connecting or disconnecting the shore power cable.
(2) Connect the shore power cable to the boat first.
(3) If polarity-warning indicator is activated, immediately disconnect cable.
(4) Disconnect shore power cable at shore outlet first.
(5) Close shore power inlet cover tightly.
DO NOT ALTER SHORE POWER CABLE CONNECTORS

WARNING
ROTATING PROPELLER(S) MAY CAUSE SERIOUS INJURY OR DEATH!
DO NOT APPROACH OR USE LADDER WHEN ENGINE IS RUNNING.

WARNING
ROTATING PROPELLER MAY CAUSE SERIOUS INJURY OR DEATH.
SHUT OFF ENGINE WHEN NEAR PERSONS IN THE WATER.
NW-207-08

WARNING
Carbon monoxide (CO) can cause brain damage or death.
Engine and generator exhaust contains odorless and colorless carbon monoxide gas.
Signs of carbon monoxide poisoning include nausea, headache, dizziness, drowsiness, and lack of consciousness.
Get fresh air if anyone shows signs of carbon monoxide poisoning.
See Owner's Manual for information regarding carbon monoxide poisoning.

WARNING
GASOLINE VAPORS CAN EXPLODE BEFORE STARTING ENGINE. OPERATE BLOWER 4 MIN. AND CHECK ENGINE COMPARTMENT FOR GASOLINE LEAKS OR VAPORS. RUN BLOWER BELOW CRUISING SPEED.
4 MIN.

MEETS U.S. EPA EVAP STANDARDS USING CERTIFIED COMPONENTS
REGAL MARINE INC., ORLANDO, FL

Scan with your smart phone to download your owner's manual.
REGALBOATS.COM/OWNER

WARNING
AVOID PERSONAL INJURY!
INTERRUPT SWITCH MUST BE ATTACHED TO OPERATOR' WHILE ENGINE IS RUNNING. QUALIFIED OPERATOR MUST BE IN CONTROL AT ALL TIMES.
READ OWNER'S MANUAL BEFORE USE.

WARNING
CARBON MONOXIDE IS A TASTELESS, ODORLESS, AND INVISIBLE GAS THAT CAN CAUSE DISCOMFORT, SEVERE AND EVEN DEATH. EXERCISE CAUTION WHILE OPERATING A GENERATOR OR ENGINE IN CONFINED SPACES OR AT DOCK SIDE. DO NOT ALLOW HULL EXHAUST OUTLETS TO BECOME BLOCKED OR EXHAUST FUMES CAN BECOME TRAPPED IN OR AROUND THE CONFINES OF YOUR VESSEL.

THE DISCHARGE OF ALL FORMS OF PLASTIC INTO ALL WATERS IS PROHIBITED

THE DISCHARGE OF ALL GARBAGE IS PROHIBITED
into the navigable waters of the United States, and into all other waters except as specifically allowed.

ALLOWED: 3 to 12 nautical miles from land – Food waste ground to pass through a one-inch mesh screen.
ALLOWED: 12 or more nautical miles from land – Food waste ground as above, and waste water, and cleaning agents, en route as far from shore as practicable, that are not harmful to the marine environment.

MARPOL ANNEX V – SPECIAL AREAS

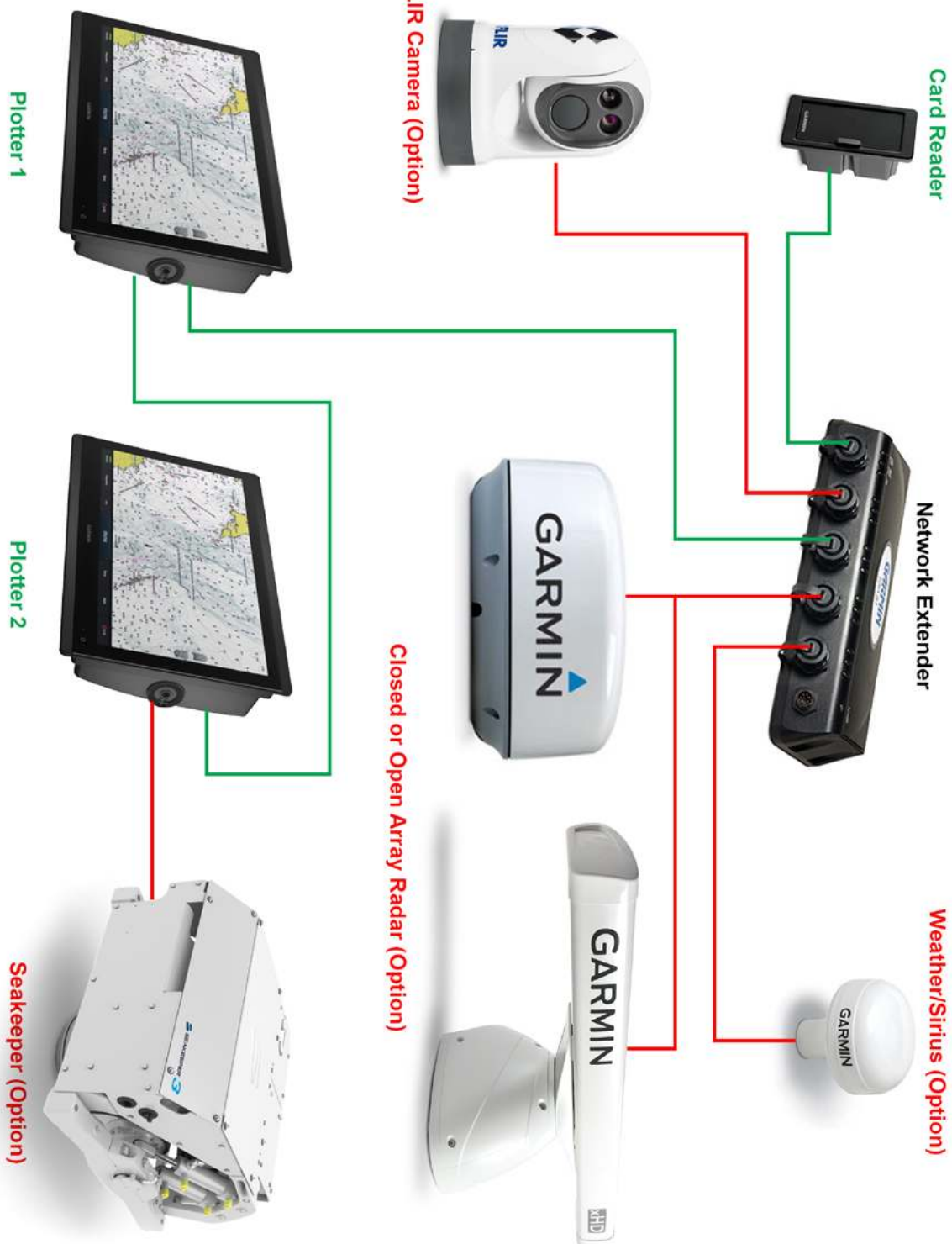
GULF OF MEXICO & CARIBBEAN SEA – Food waste en route ground to pass through a one-inch mesh screen.
WESTERN CARIBBEAN REGION – Discharge of all garbage prohibited within 12 nautical miles of land.

Any person who violates the above requirements is liable for civil and/or criminal penalties and regional, state and local restrictions on garbage discharges may also apply.

REPORT ILLEGAL DISPOSAL TO THE U.S. COAST GUARD ON VHF RADIO CHANNEL 16

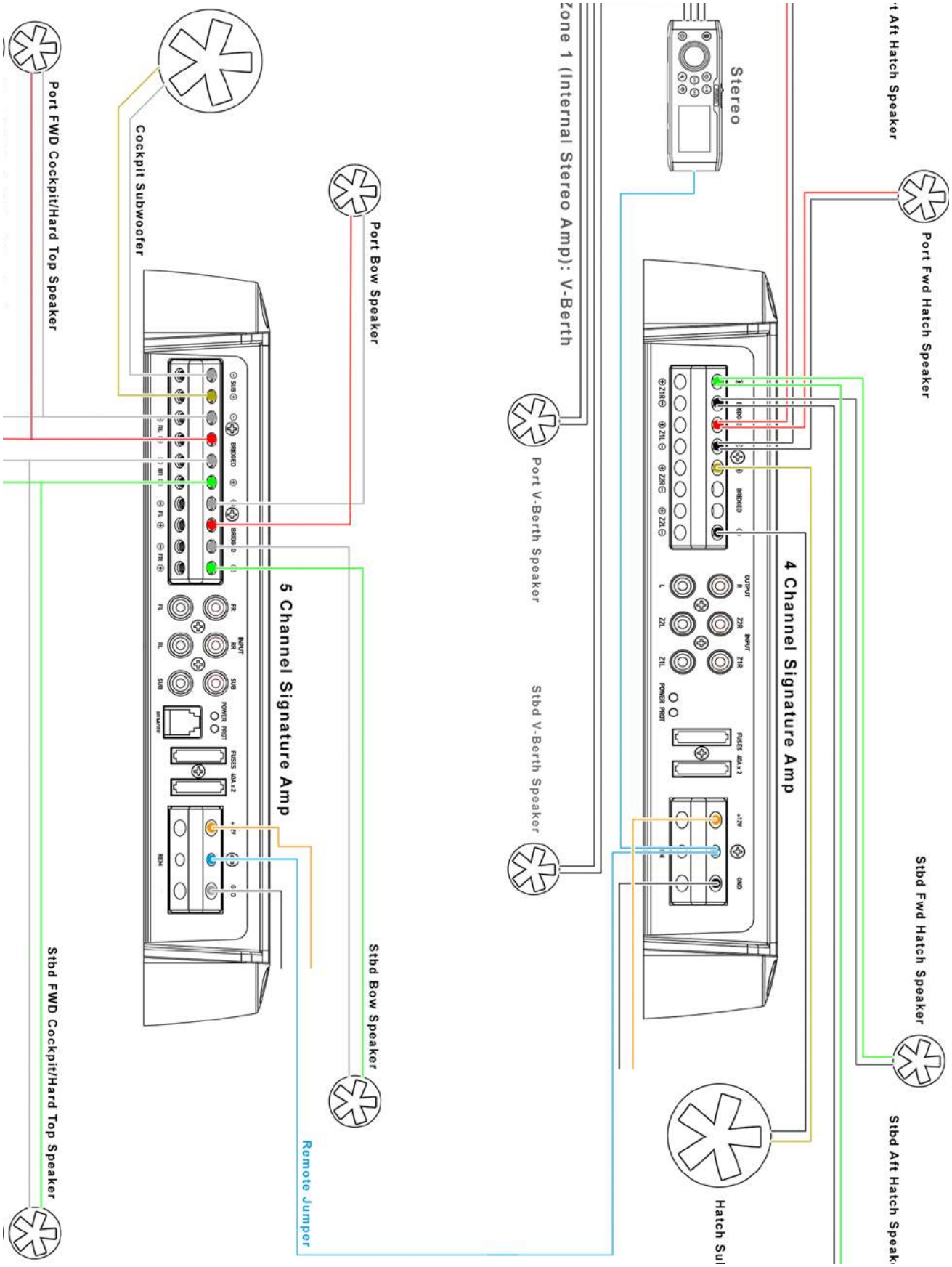
DANGER
Carbon monoxide (CO) can cause brain damage or death.
Engine and generator exhaust contains odorless and colorless carbon monoxide gas.
Carbon monoxide will be around the back of the boat when engines or generators are running.
Move to fresh air, if you feel nausea, headache, dizziness, or drowsiness.

GARMIN ETHERNET NETWORK

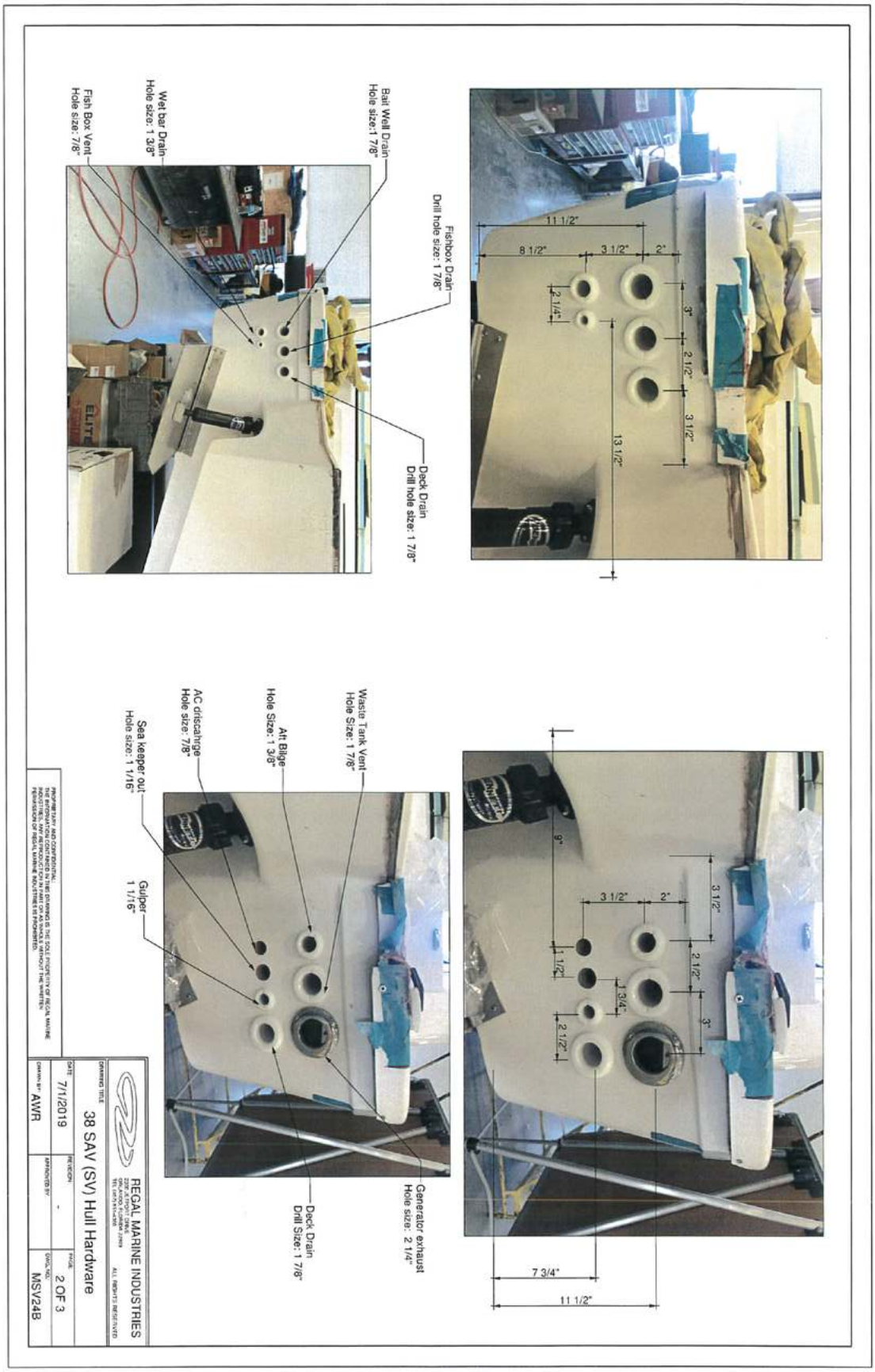


NOTE GARMIN ETHERNET NETWORK LOCATED BEHIND GARMIN STBD. PLOTTER

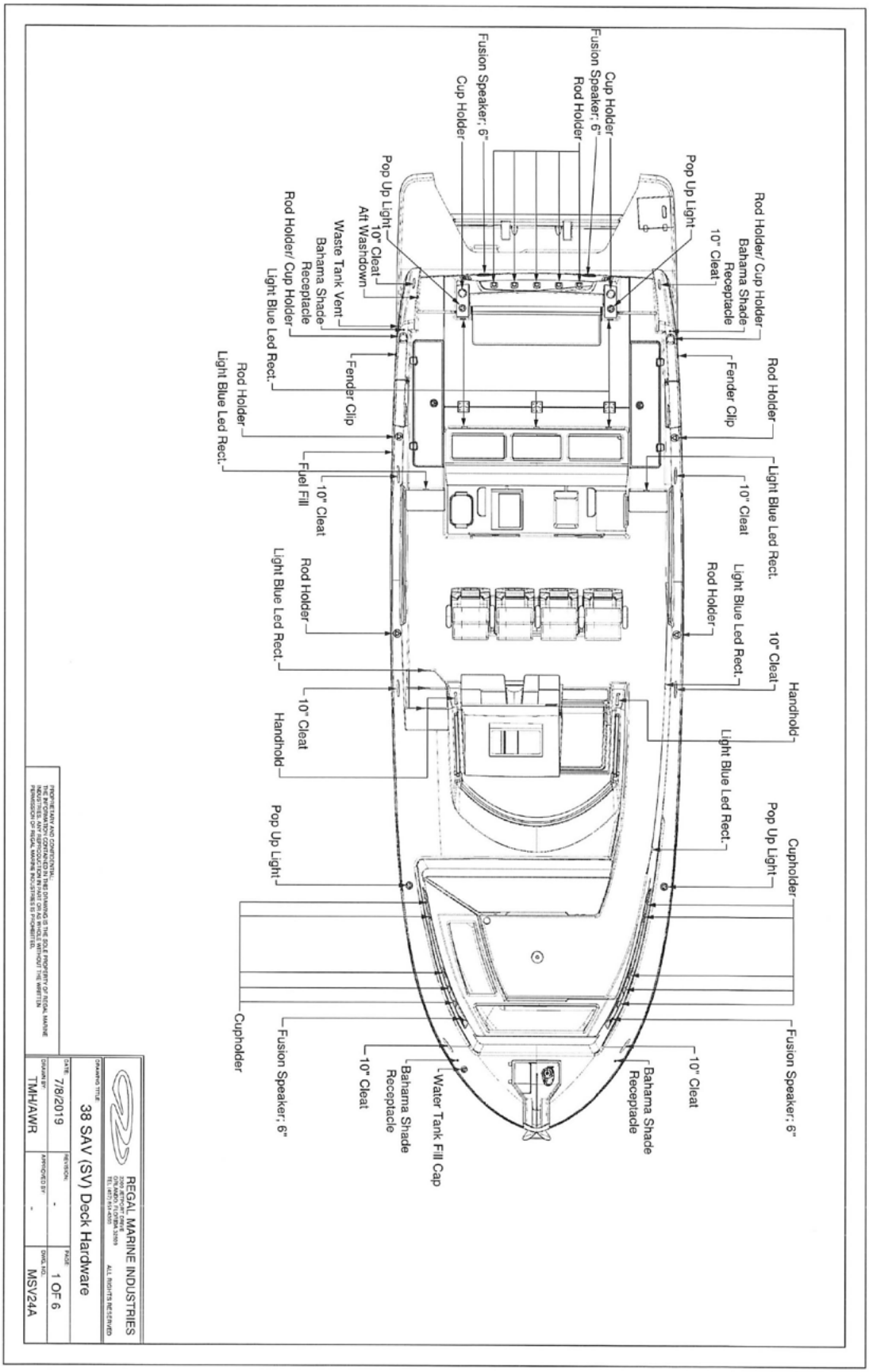
AMPLIFIER SPEAKER WIRING



HULL HARDWARE AFT THRU-HULLS



DECK HARDWARE OVERVIEW

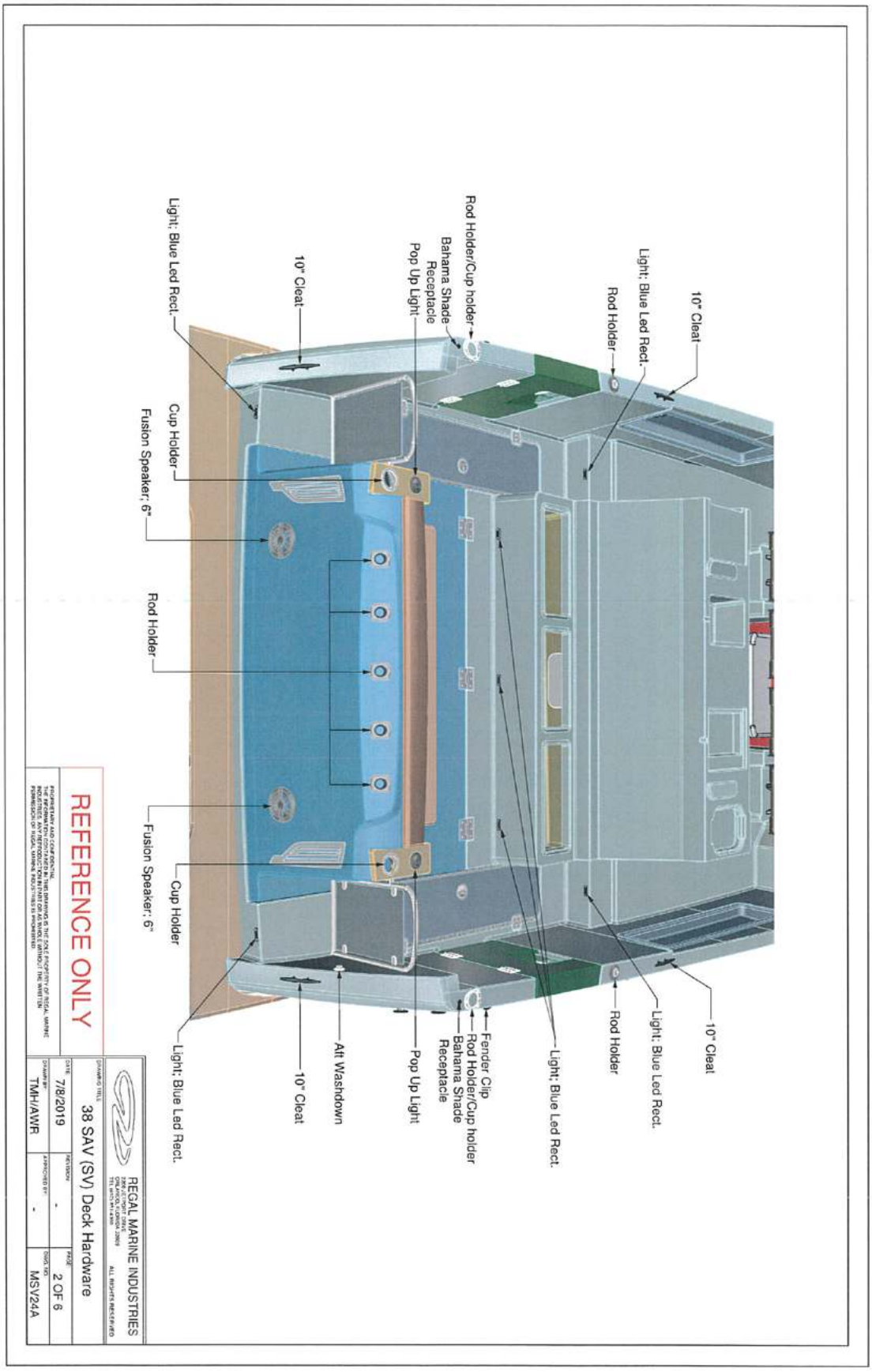


REGAL MARINE INDUSTRIES
2300 JETPORT DRIVE
ORLANDO, FLORIDA 32809
TEL 407.851.4160

DRAWING TITLE: 38 SAV (SV) Deck Hardware

DRAWN BY	DATE	REVISION	PAGE
TMH/AWR	7/8/2019	-	1 OF 6
	APPROVED BY		DRWG NO.
	-		MSV24A

DECK HARDWARE 1 AFT



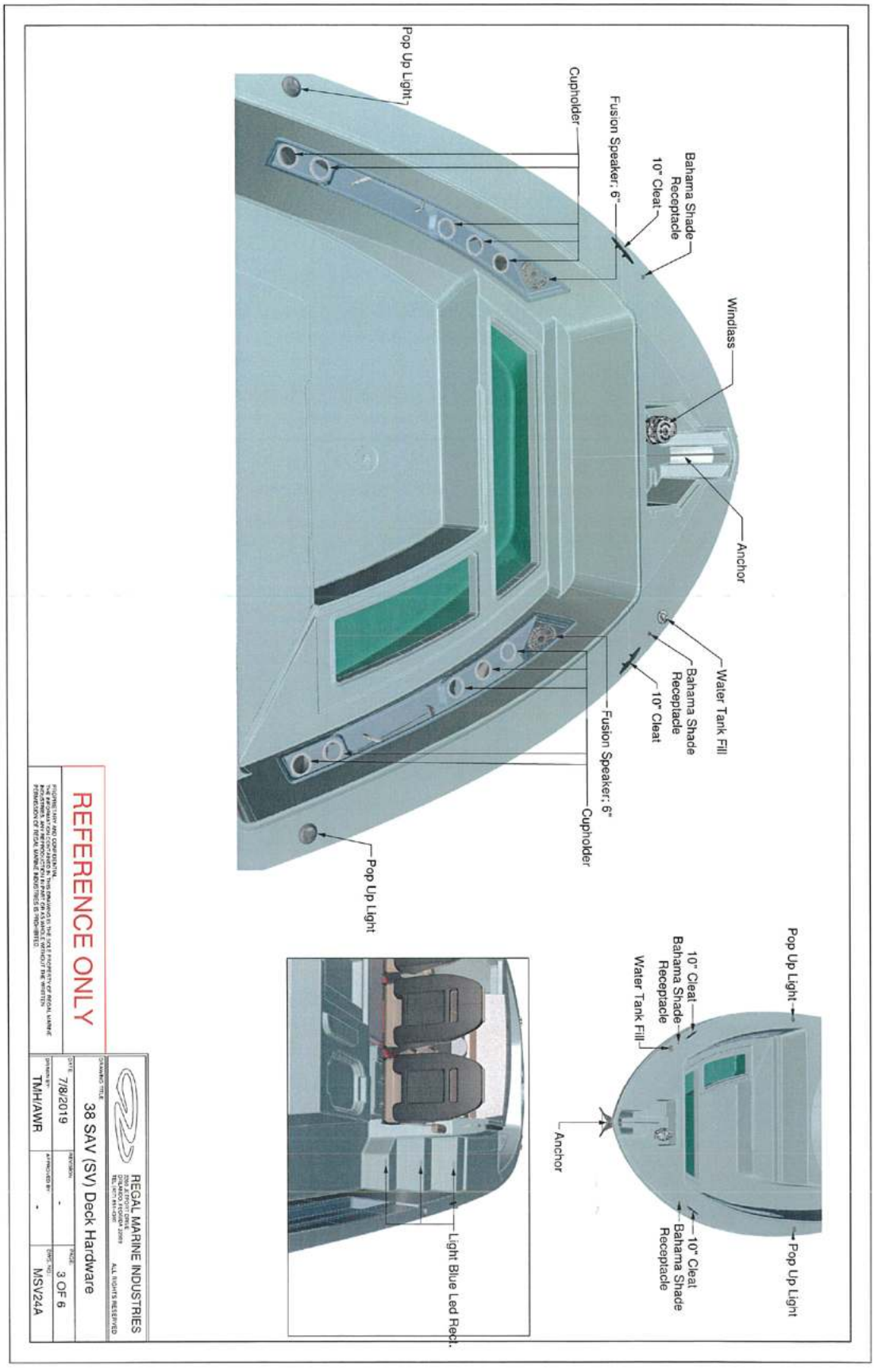
REFERENCE ONLY

REGAL MARINE INDUSTRIES

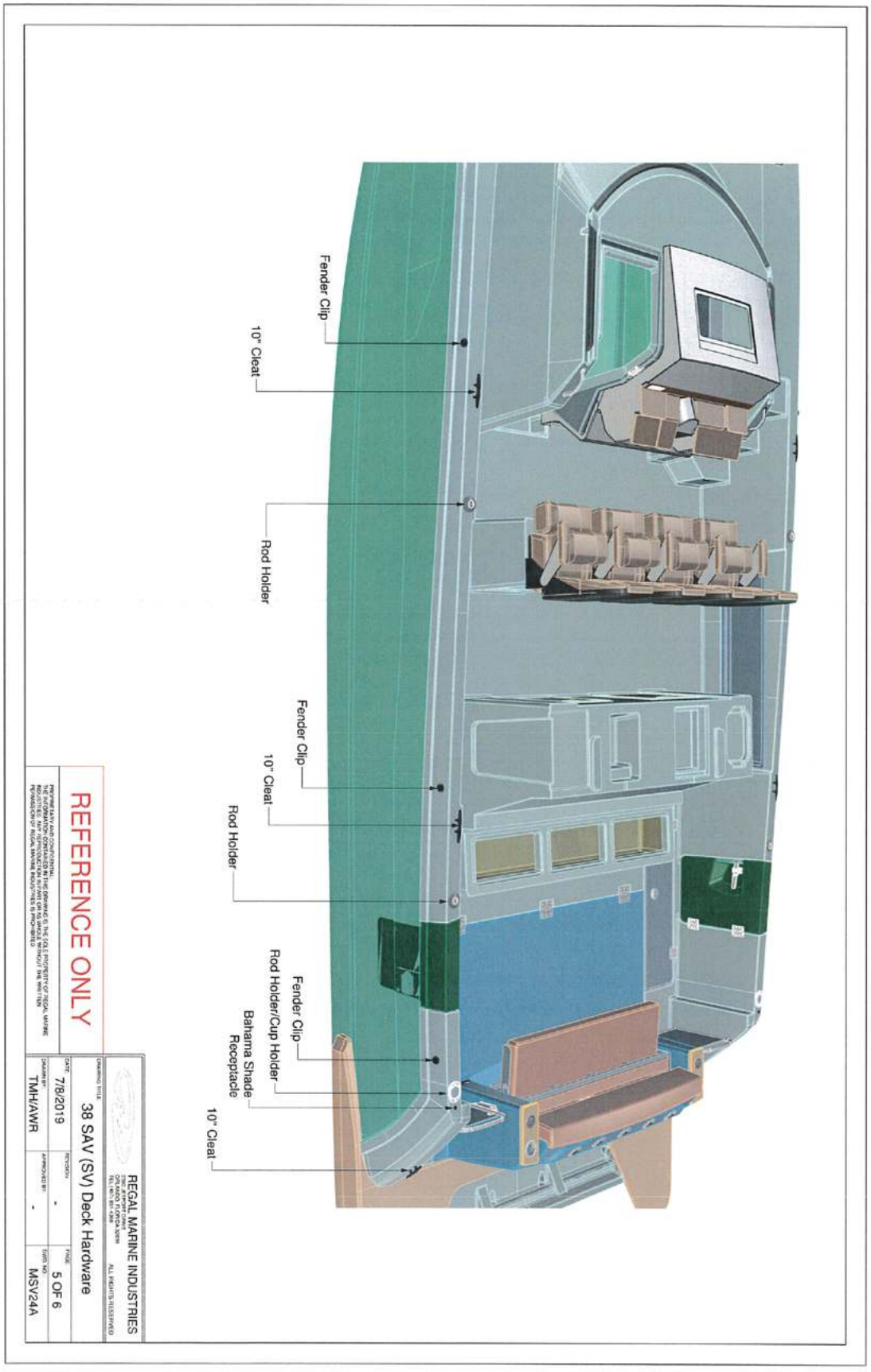
DRAWING TITLE: 38 SAV (SV) Deck Hardware

DATE	REVISION	PAGE
7/8/2019	-	2 OF 6
DRAWN BY: TMH/AWR	APPROVED BY: -	DWG. NO. MSV24A

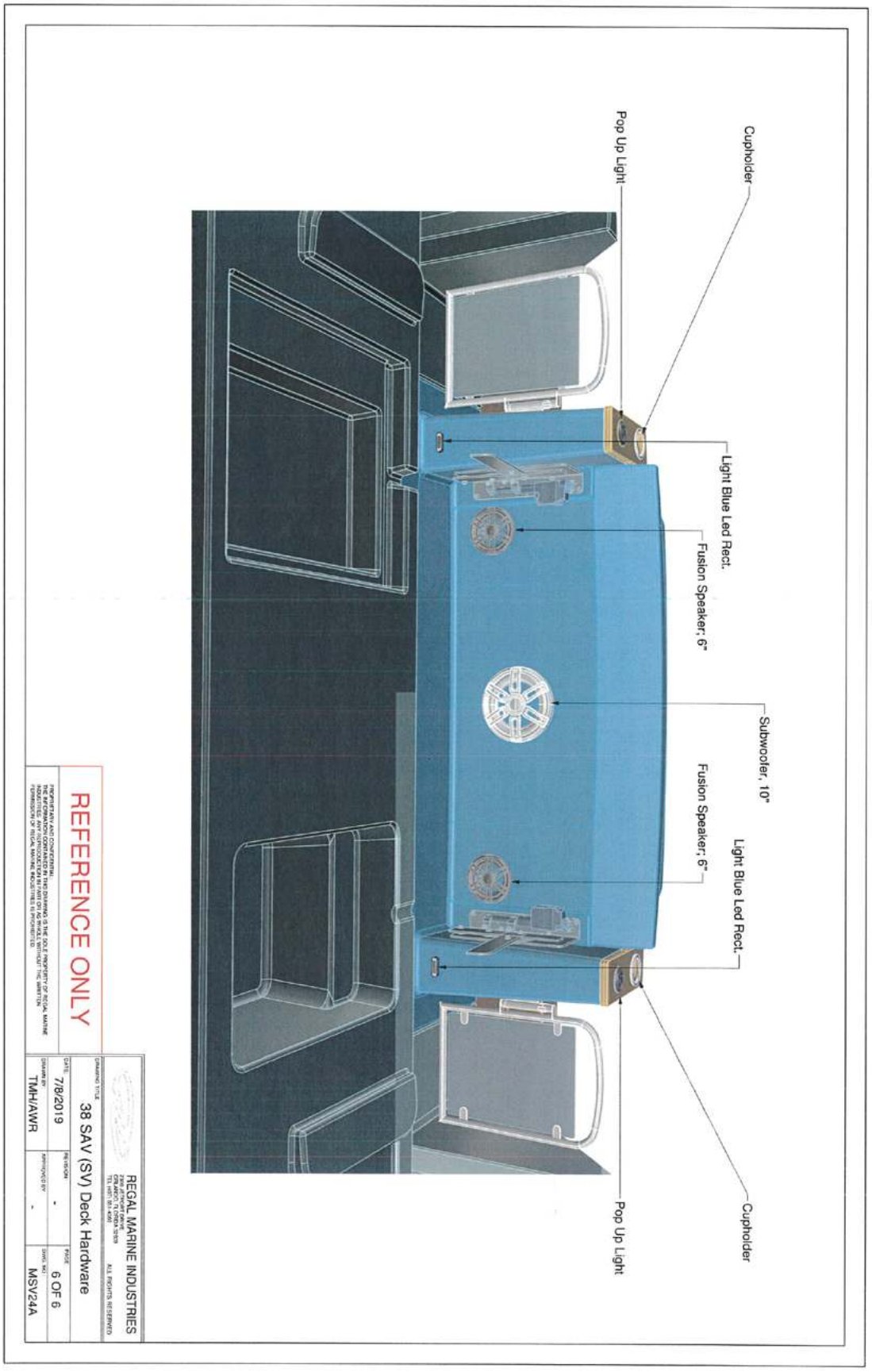
DECK HARDWARE 2 BOW



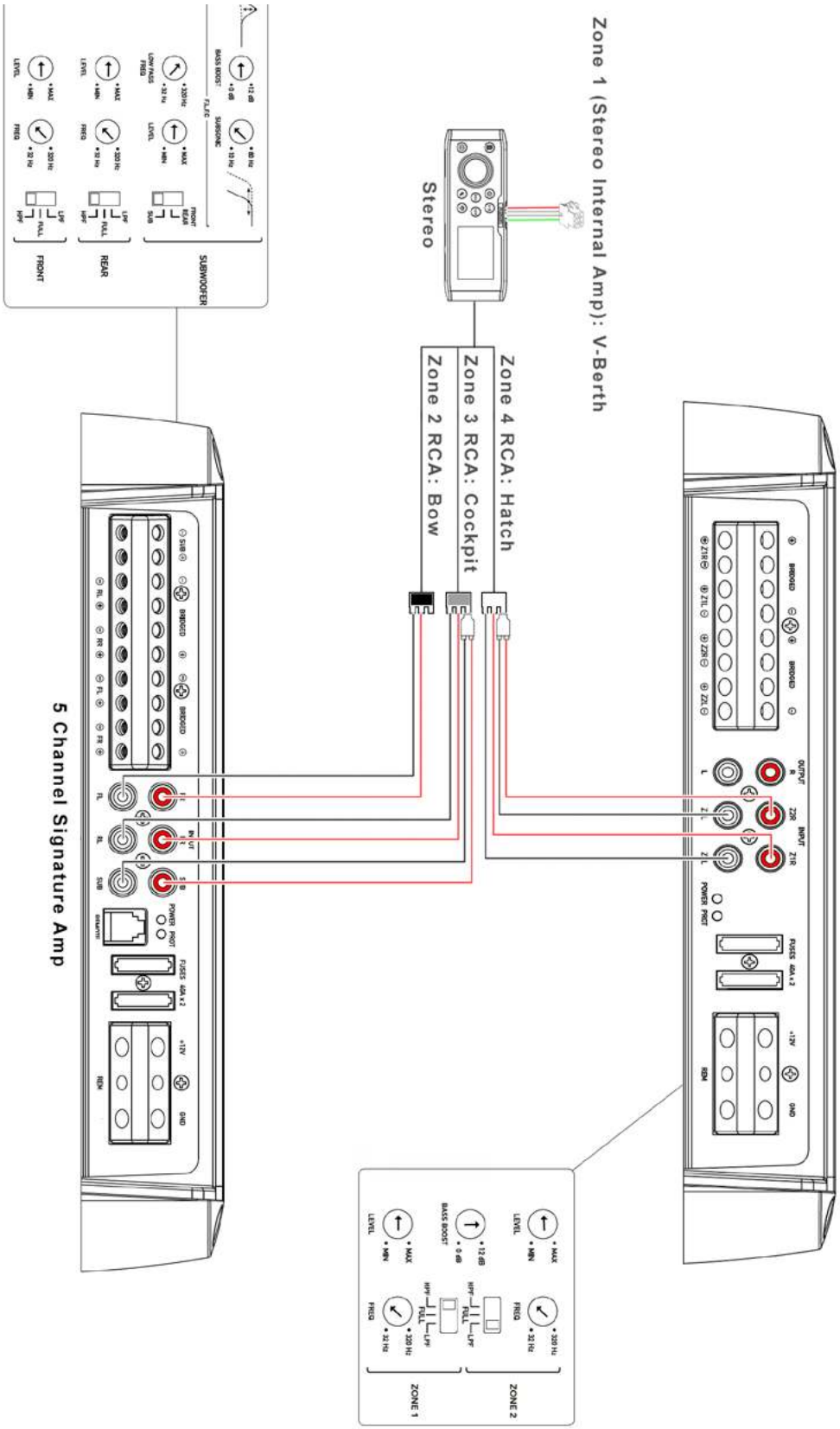
DECK HARDWARE 4 PORT



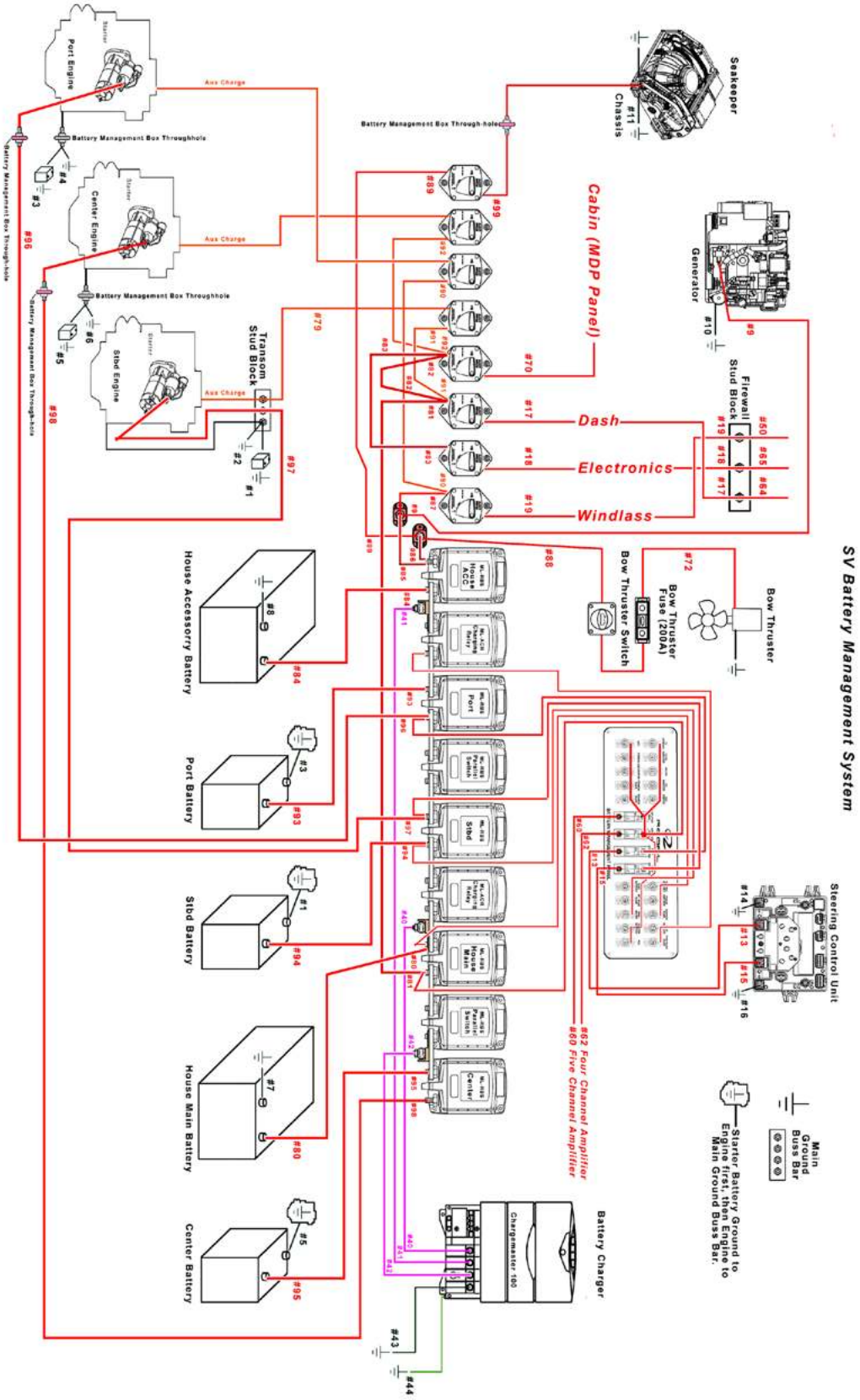
DECK HARDWARE 5 TRANSOM



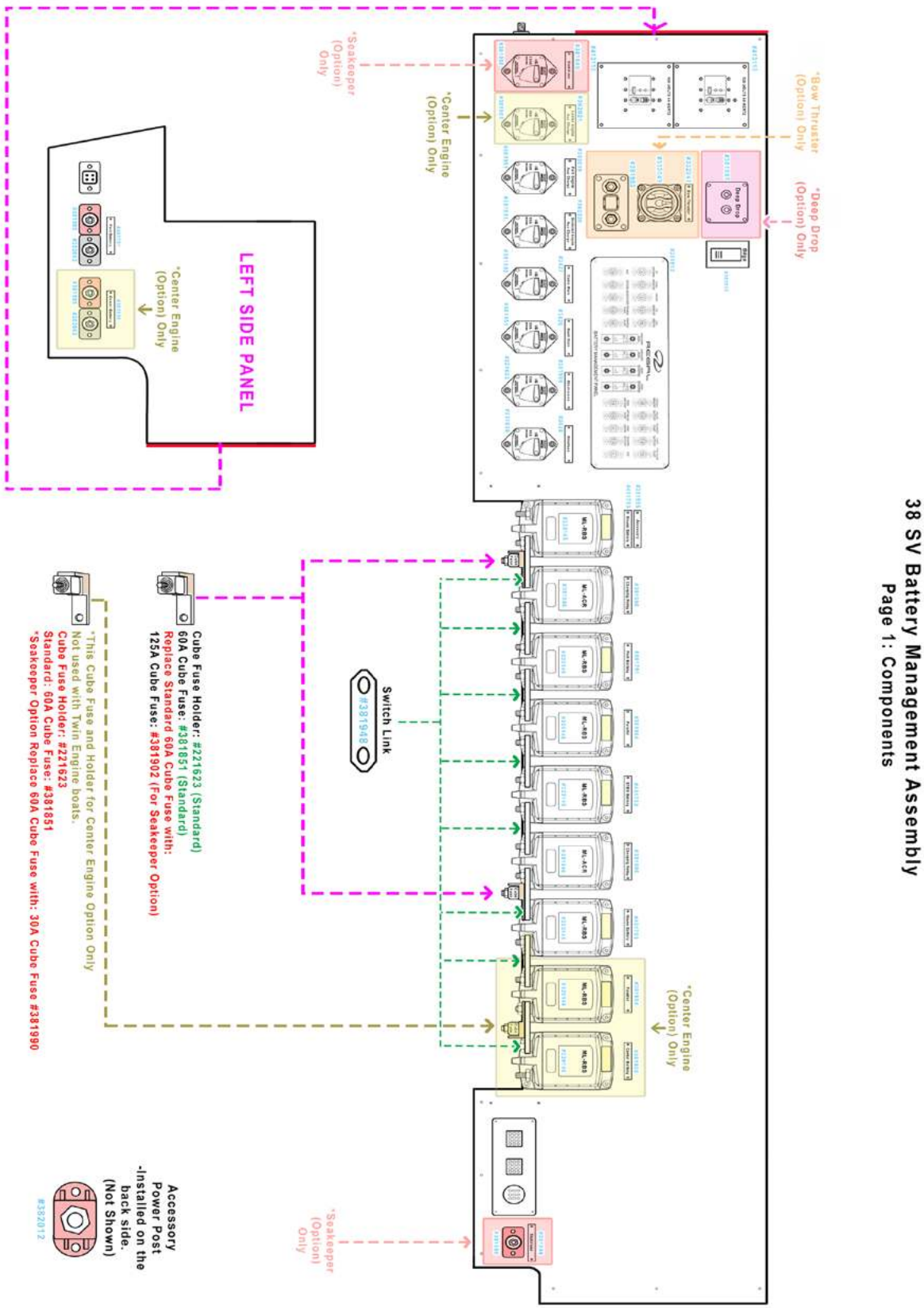
AMPLIFIER RCA WIRING/SETTINGS



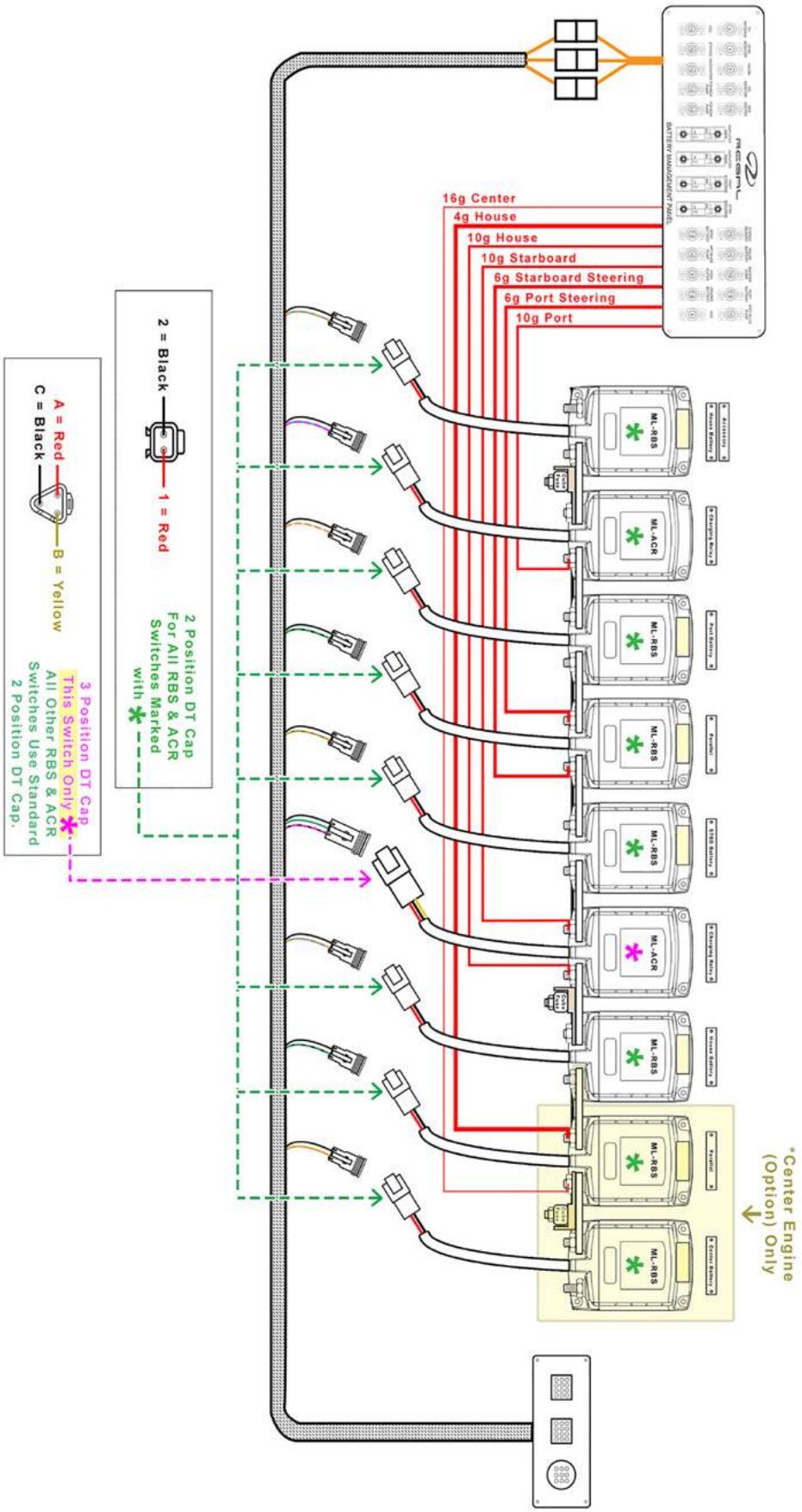
BATTERY MANAGEMENT SYSTEM OVERVIEW



BATTERY MANAGEMENT PANEL COMPONENTS

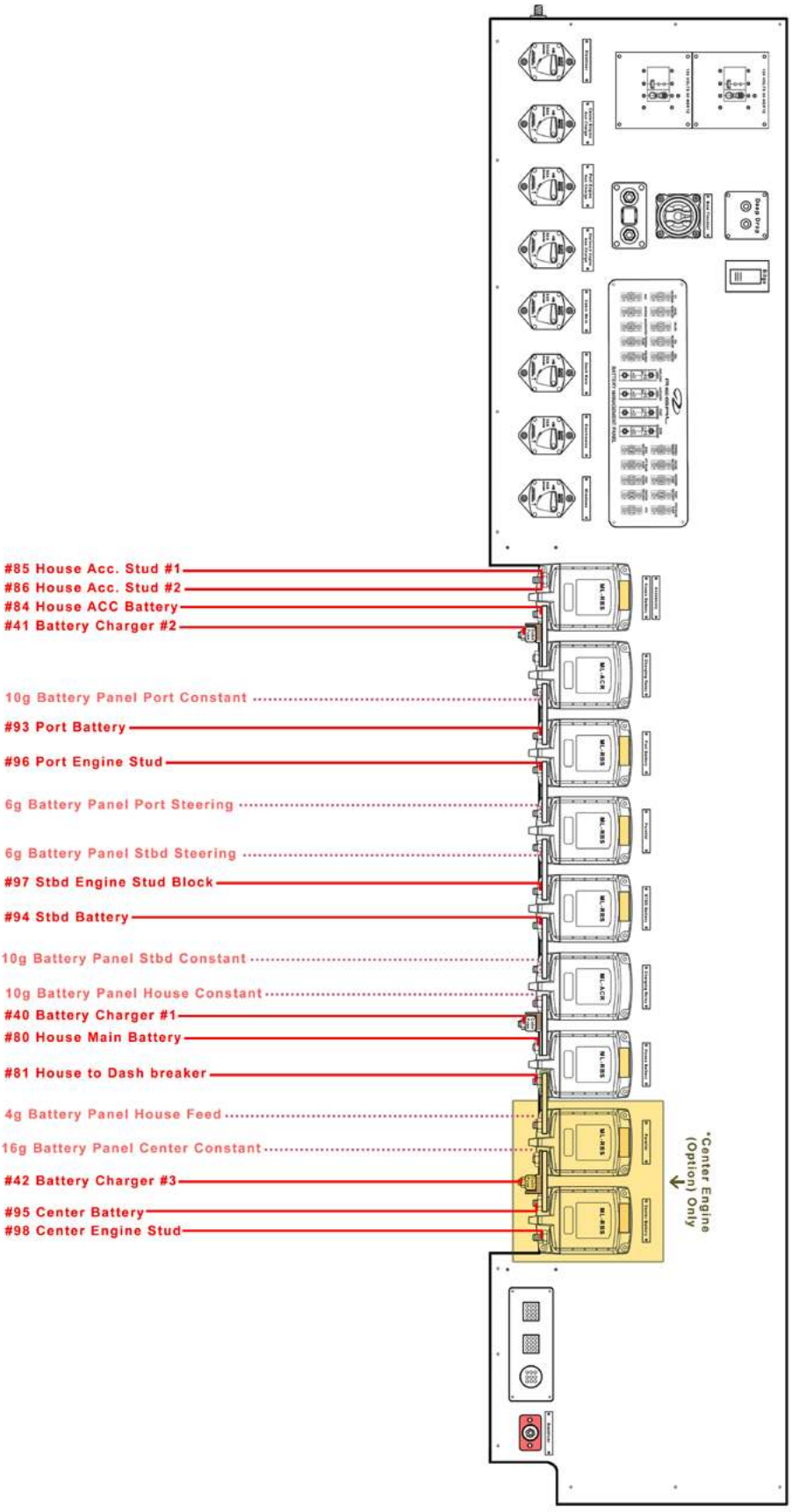


BATTERY MANAGEMENT PANEL SWITCHES/HARNESSES



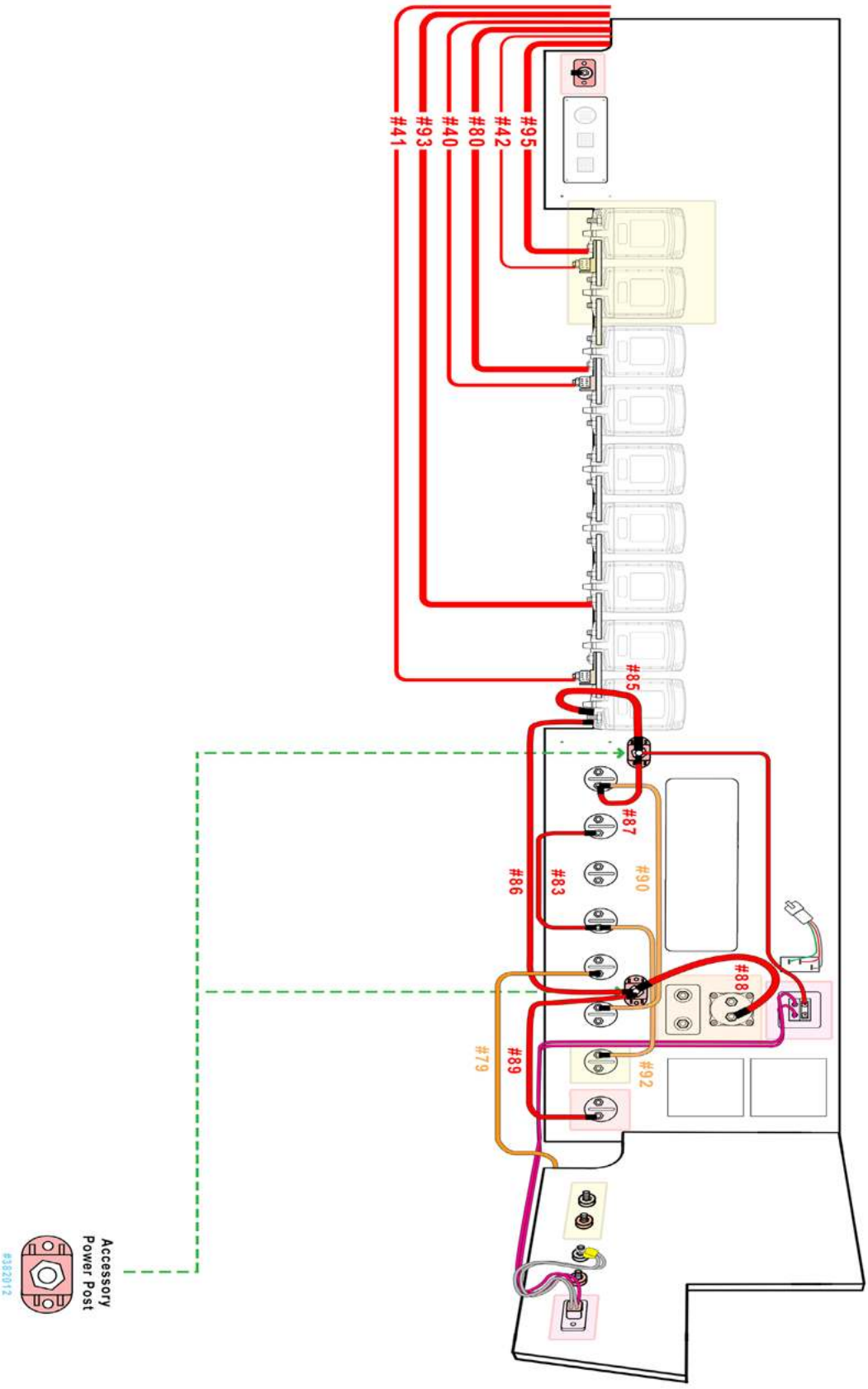
38 SV Battery Management Assembly
Page 2: Battery Switches/Harness

BATTERY MANAGEMENT PANEL- POWER CABLE OVERVIEW



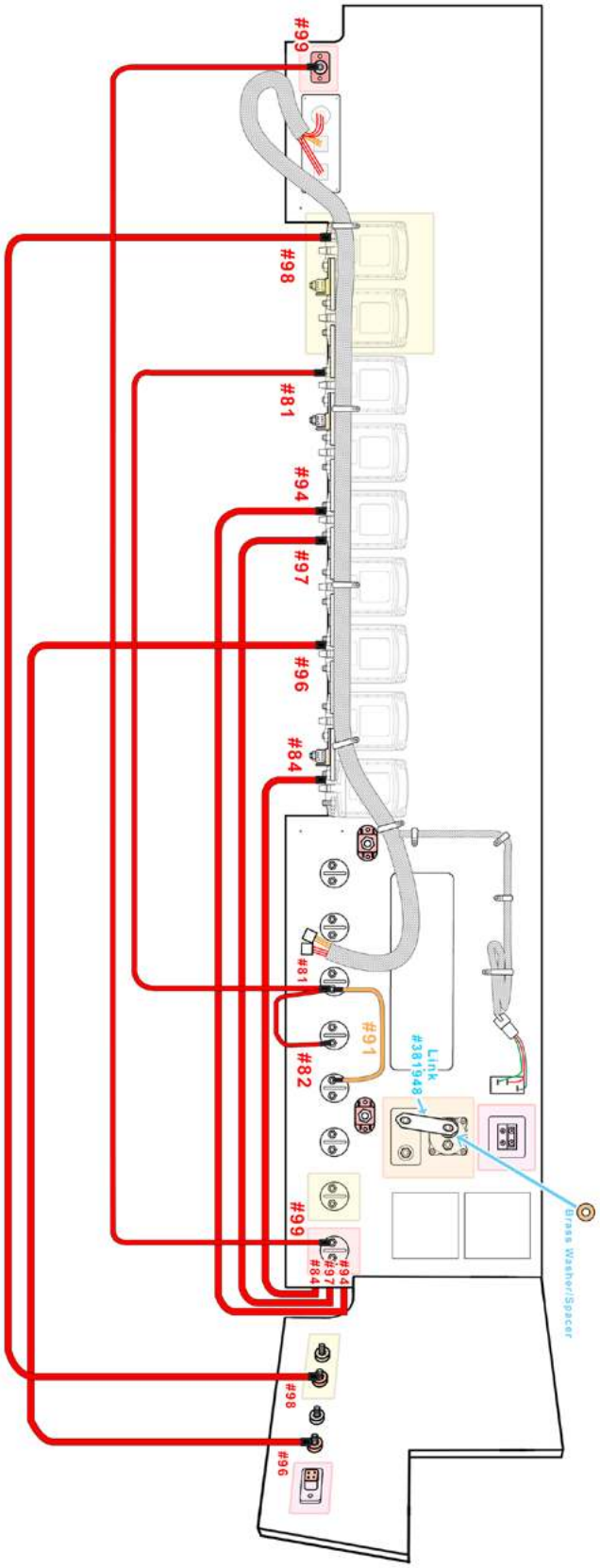
38 SV Battery Management Assembly
Page 3: Switch Power Cables

BATTERY MANAGEMENT PANEL POWER CABLES 1



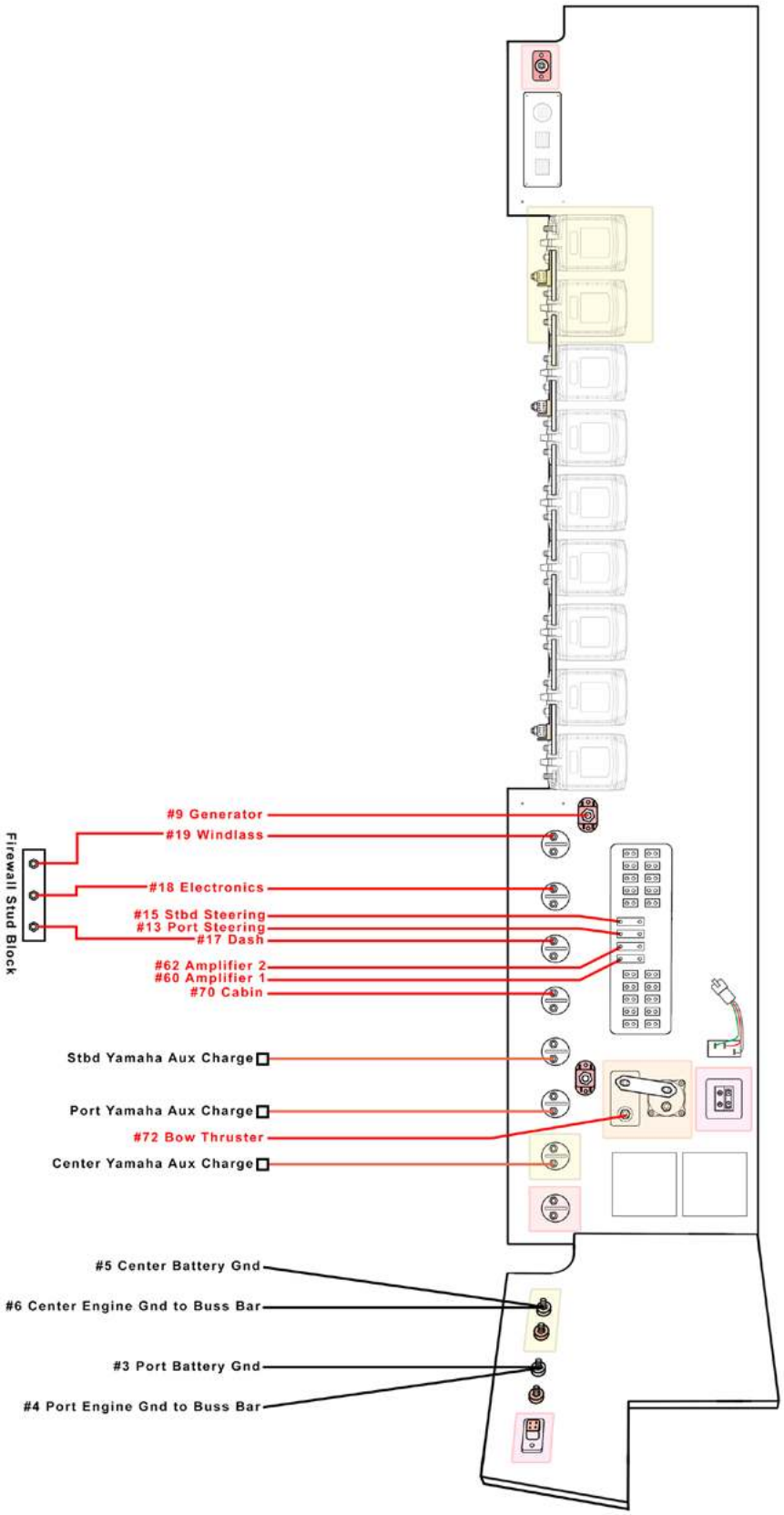
38 SV Battery Management Assembly
Page 4: Power Cables 1

BATTERY MANAGEMENT PANEL POWER CABLES 2



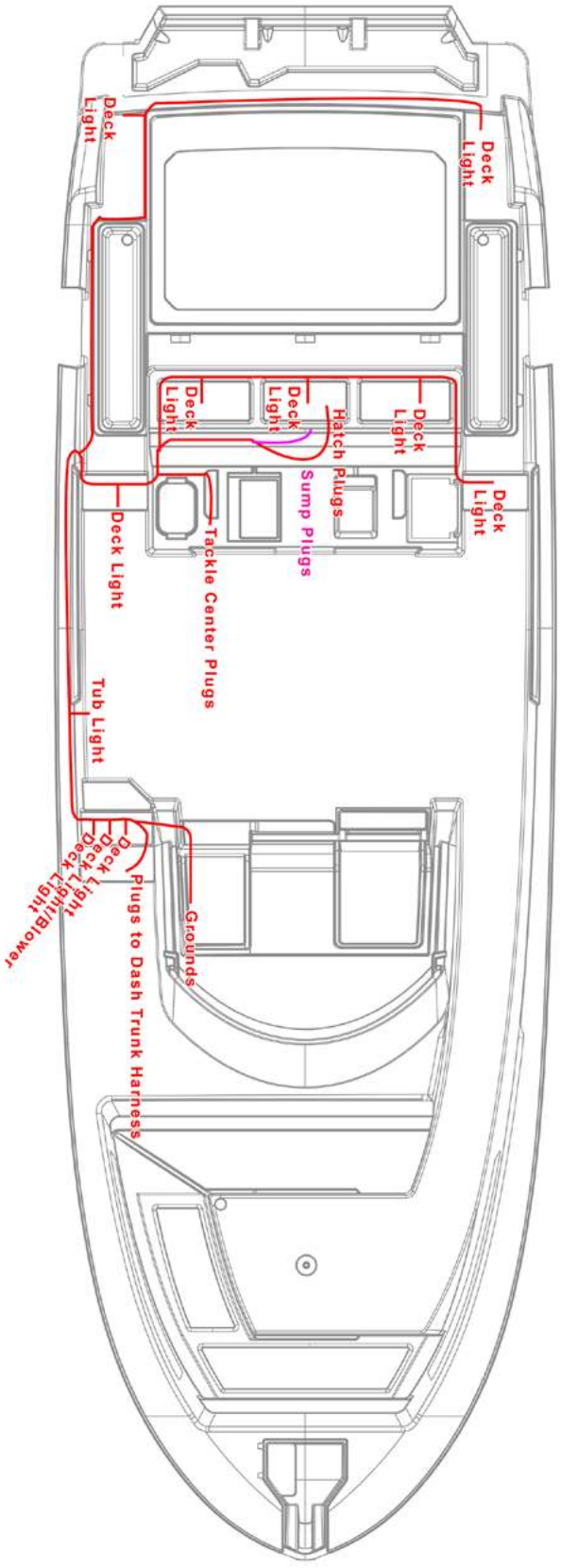
38 SV Battery Management Assembly
Page 5: Power Cables 2

BATTERY MANAGEMENT PANEL POWER CABLES 3



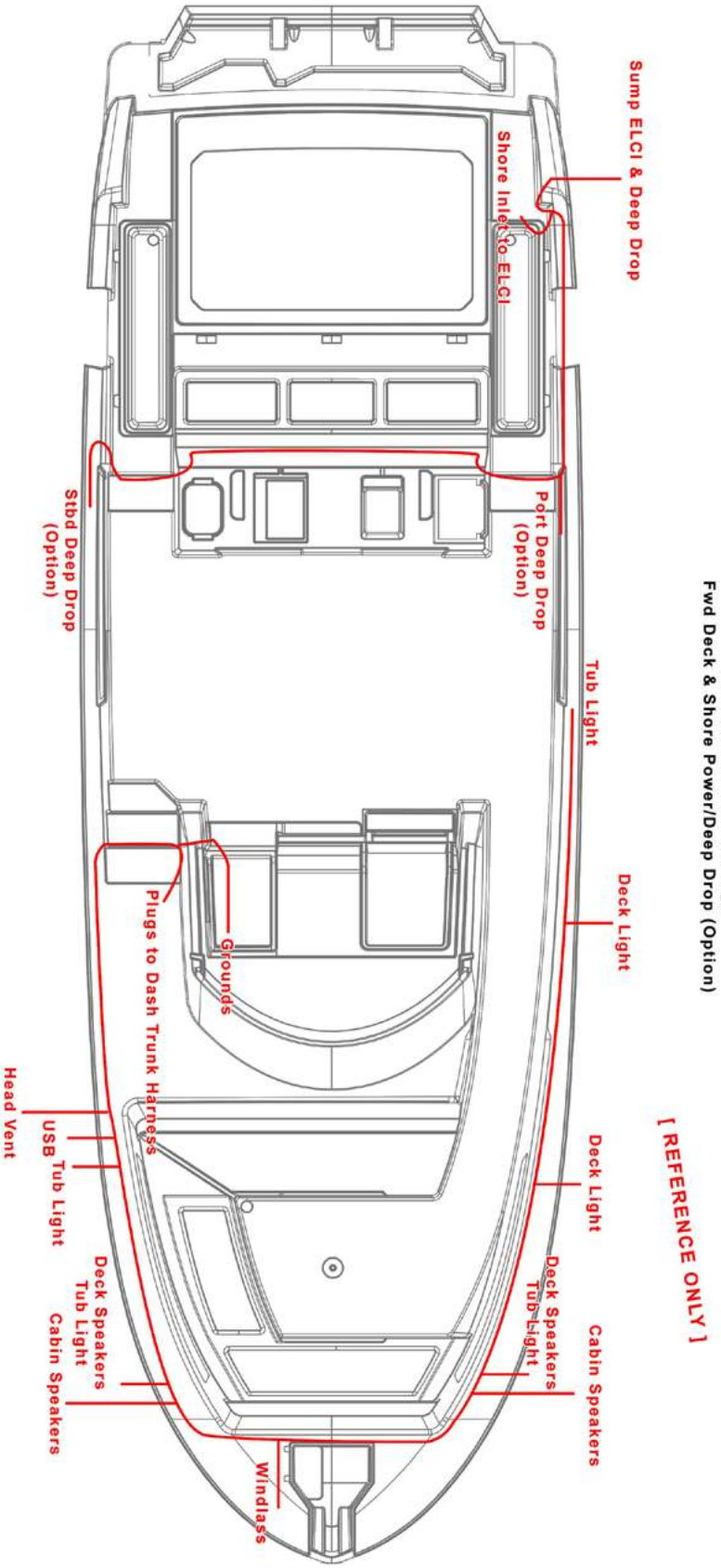
38 SV Battery Management Assembly
Page 6: Power Cables 3

DECK HARNESS ROUTING 1



SV Deck Harness Routings
Aft Deck

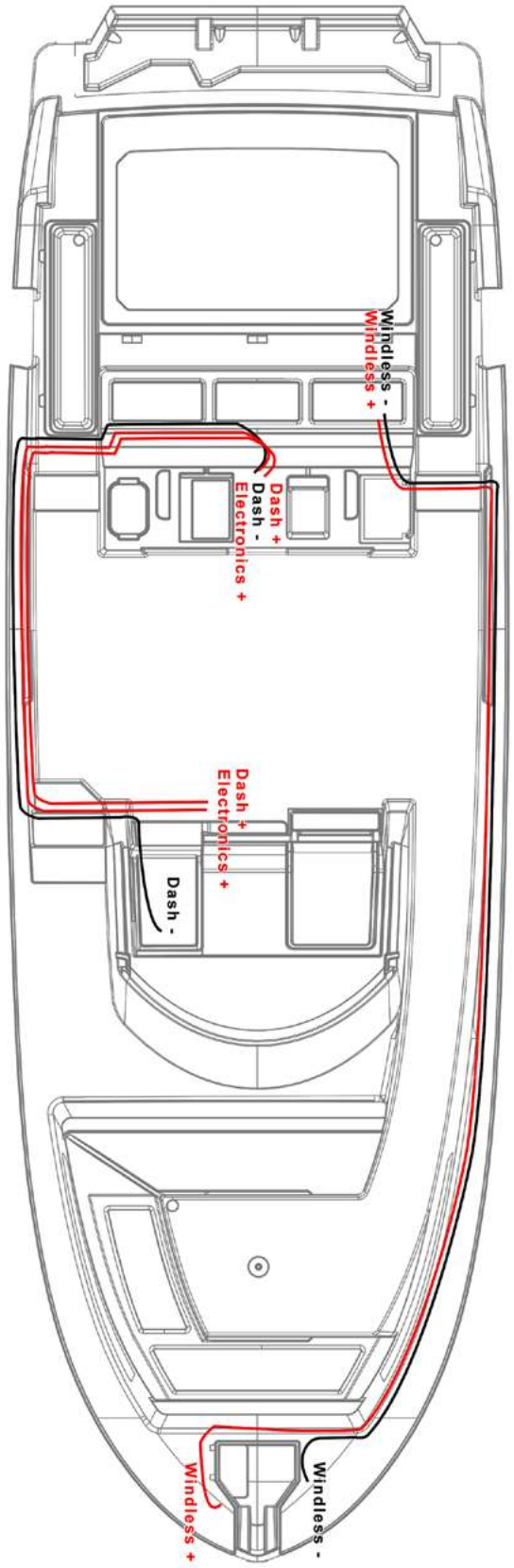
DECK HARNESS ROUTING 2



SV Deck Harness Routings
Fwd Deck & Shore Power/Deep Drop (Option)

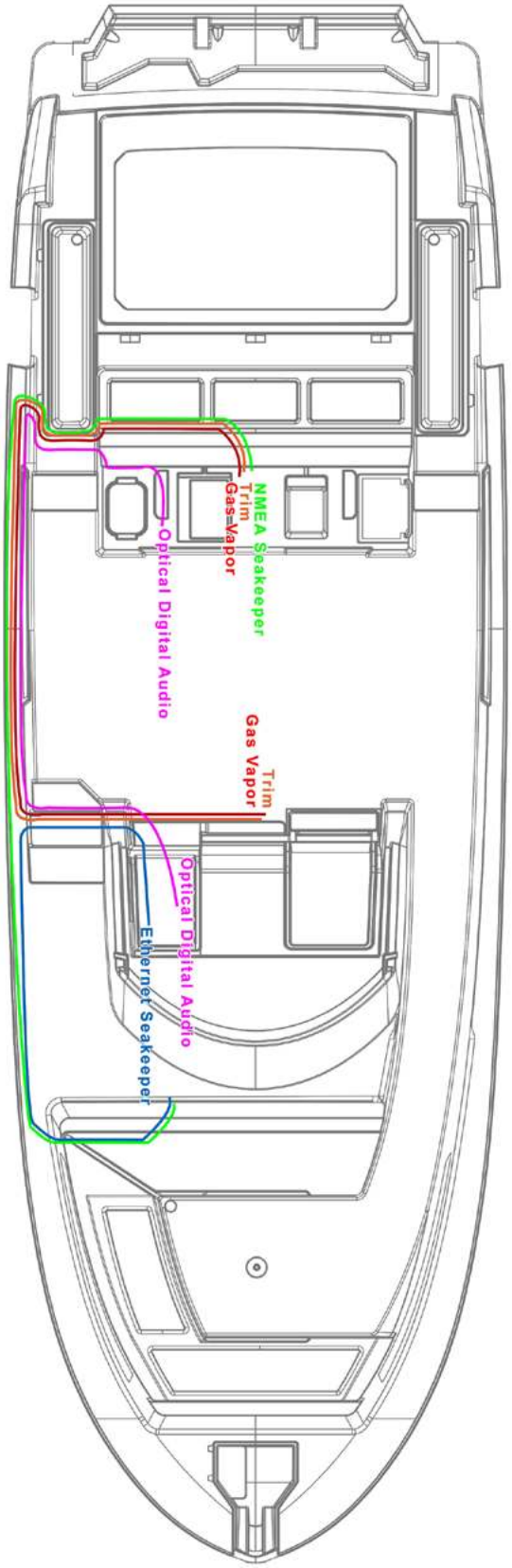
[REFERENCE ONLY]

DECK HARNESS ROUTING 3



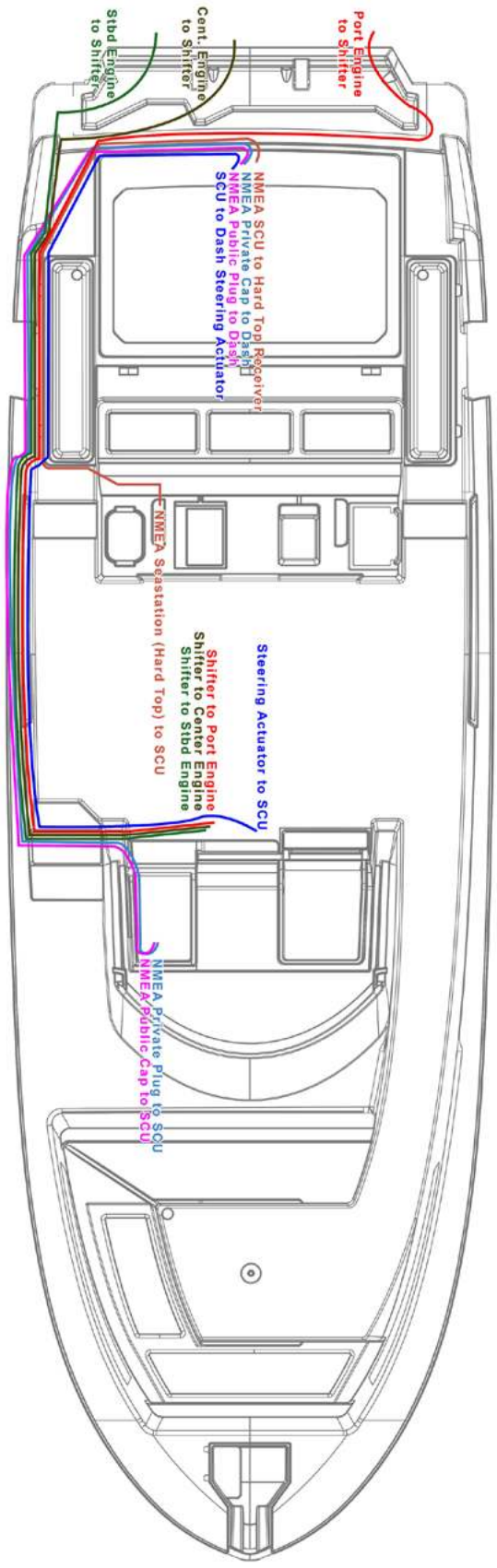
SV Deck Harness Routings
Dash and Windlass Power

DECK HARNESS ROUTING 4



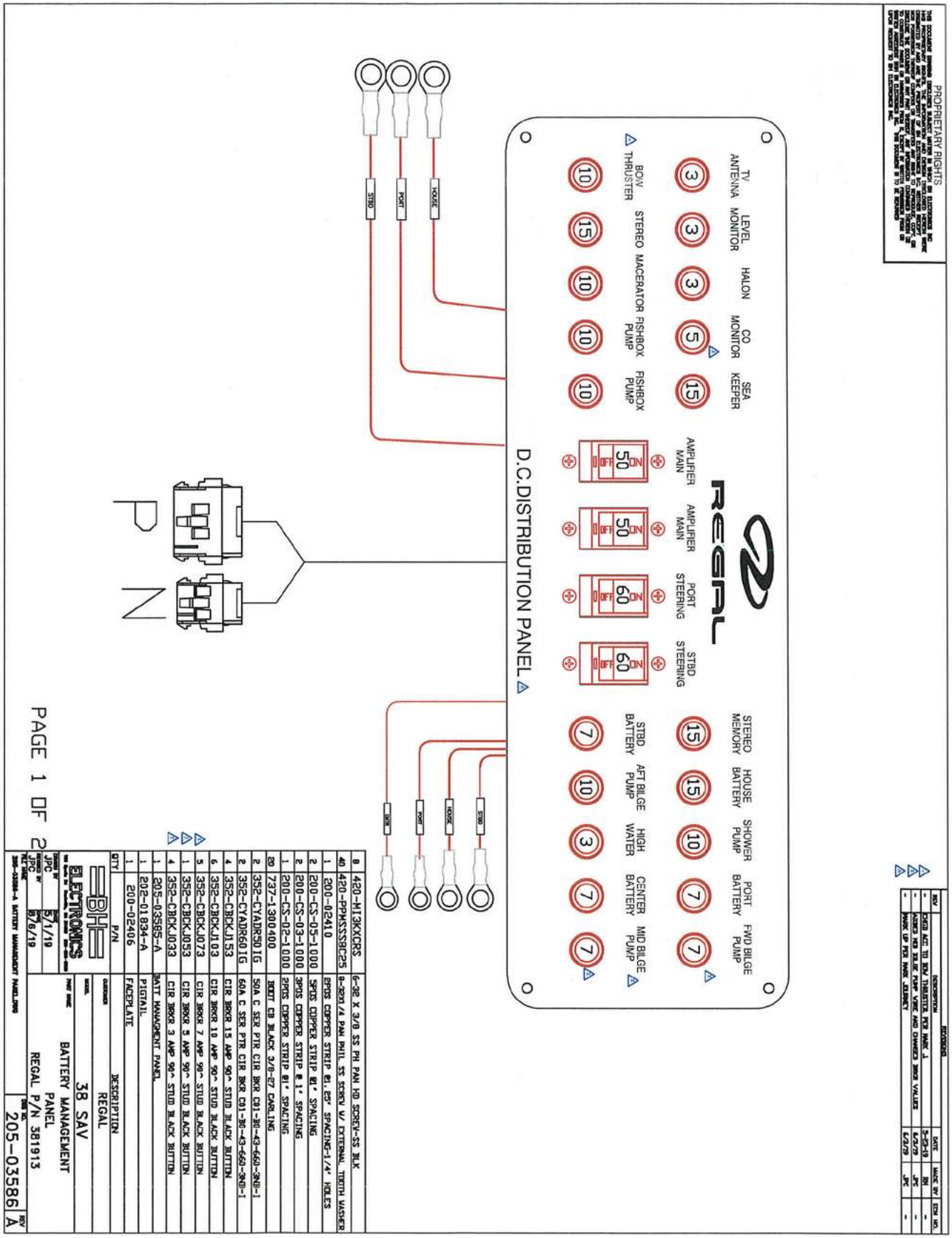
SV Deck Harness Routings
Trim, Gas Vapor, Seakeeper and Optical

DECK HARNESS ROUTING 5

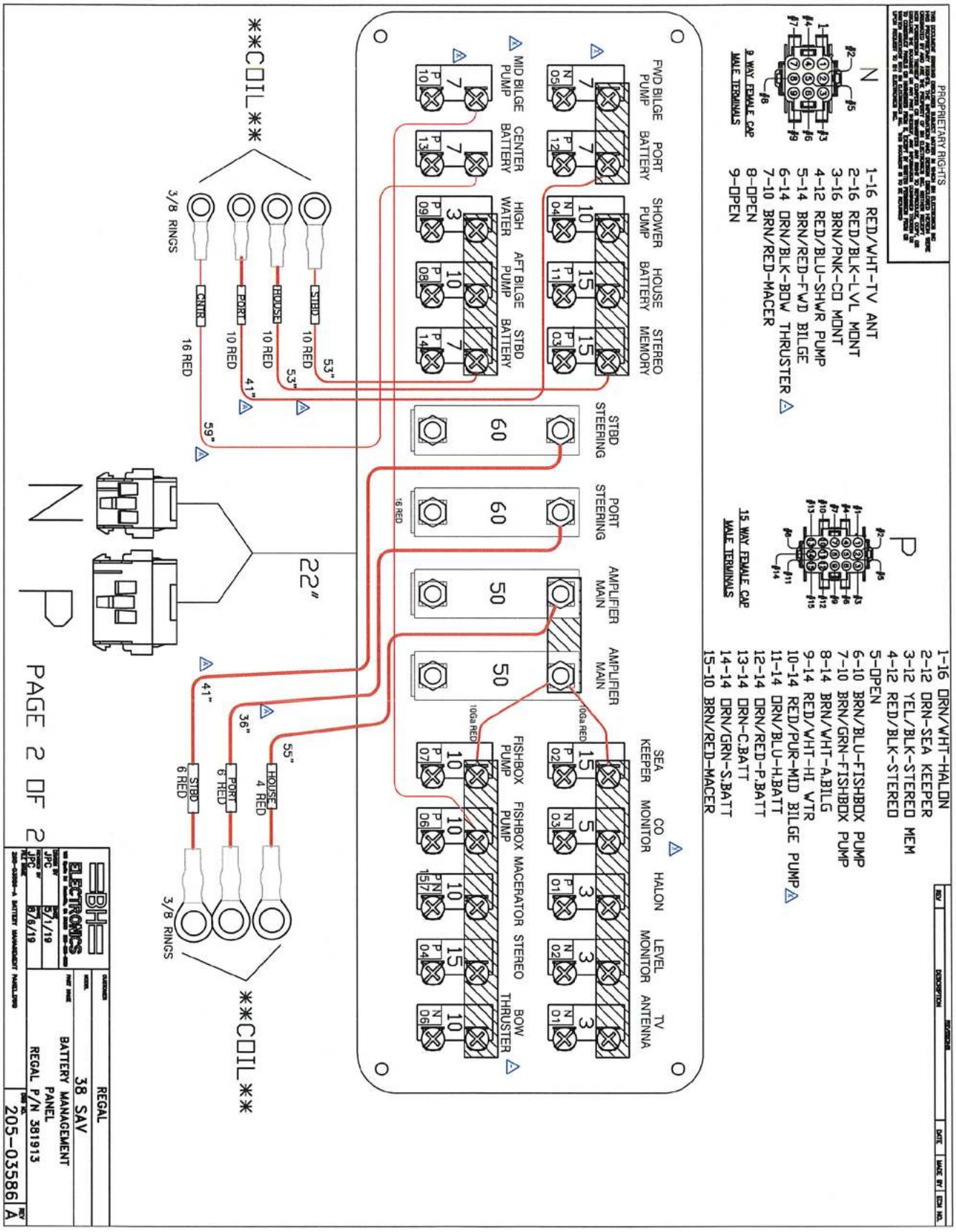


SV Deck Harness Routings
Optimus

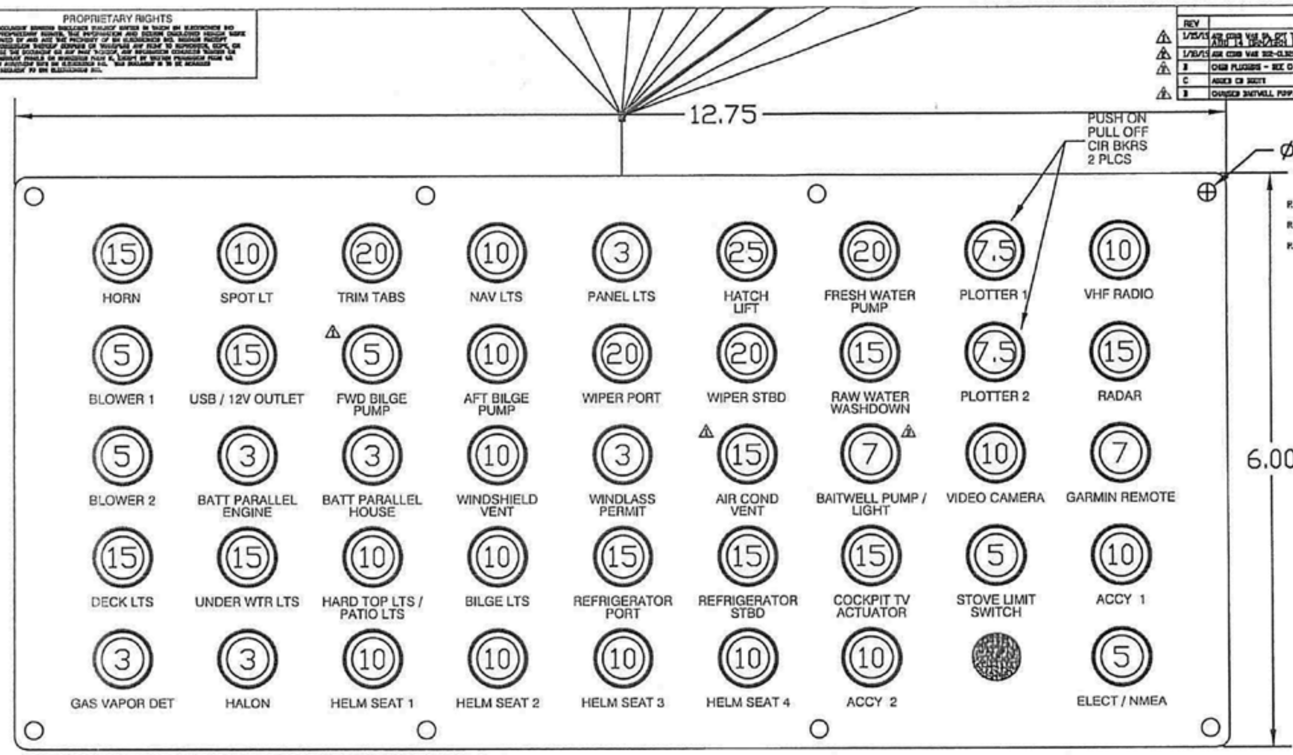
D.C. DISTRIBUTION PANEL/FRONT



D.C. DISTRIBUTION PANEL/REAR



HELM D.C. BREAKER PANEL/FRONT



1/30/19 CHANGE

Remove 14g Orange "Acc1" from D-15 and move to position H-8

Remove 14g Orange "Deck Lts" from C-4 and move to position D-15

Remove 14g Orange "Acc2" from A-7 and move to position C-4

BLACK BUTTOM BREAKERS

QTY	P/N	DESCRIPTION
44	737-1300400	CB BOOT
41	420-PPMSSS8C312	SCREW 8-32 X 5/16 EXT TOOTH SS PPH
41	420-PPMSSS8C25	SCREW 8-32 X 1/4 EXT TOOTH SS PPH
7	200-02313	5 POS .090 COPPER BUSS 1.063 C-C
1	200-02338	4 POS .090 COPPER BUSS 1.063 C-C
1	200-02314	3 POS .090 COPPER BUSS 1.063 C-C
1	200-02312	2 POS .090 COPPER BUSS 1.063 C-C
1	420-ENGF2617	3/8 HOLE PLUG
2	352B144753A11BC	7.5A CARLING M SER CB PUSH-PULL ON/OFF
1	352-CLB25327B	25A CLB CB 90 DEG SCR TERM
3	352-CBCKJ203	20A CMB CB 90 DEG SCR TERM
9	352-CBCKJ153	15A CMB CB 90 DEG SCR TERM
13	352-CBCKJ103	10A CMB CB 90 DEG SCR TERM
2	352-CBCKJ173	7A CMB CB 90 DEG SCR TERM
5	352-CBCKJ053	5A CMB CB 90 DEG SCR TERM
6	352-CBCKJ033	3A CMB CB 90 DEG SCR TERM
1	202-01790-B	PIGTAIL
1	200-02336	FACEPLATE

BH ELECTRONICS

CUSTOMER: REGAL

MODEL: 38 SAV

PART NAME: HELM BREAKER PANEL – REGAL P/N 381917

DRAWN BY: JBR DATE: 12/5/18

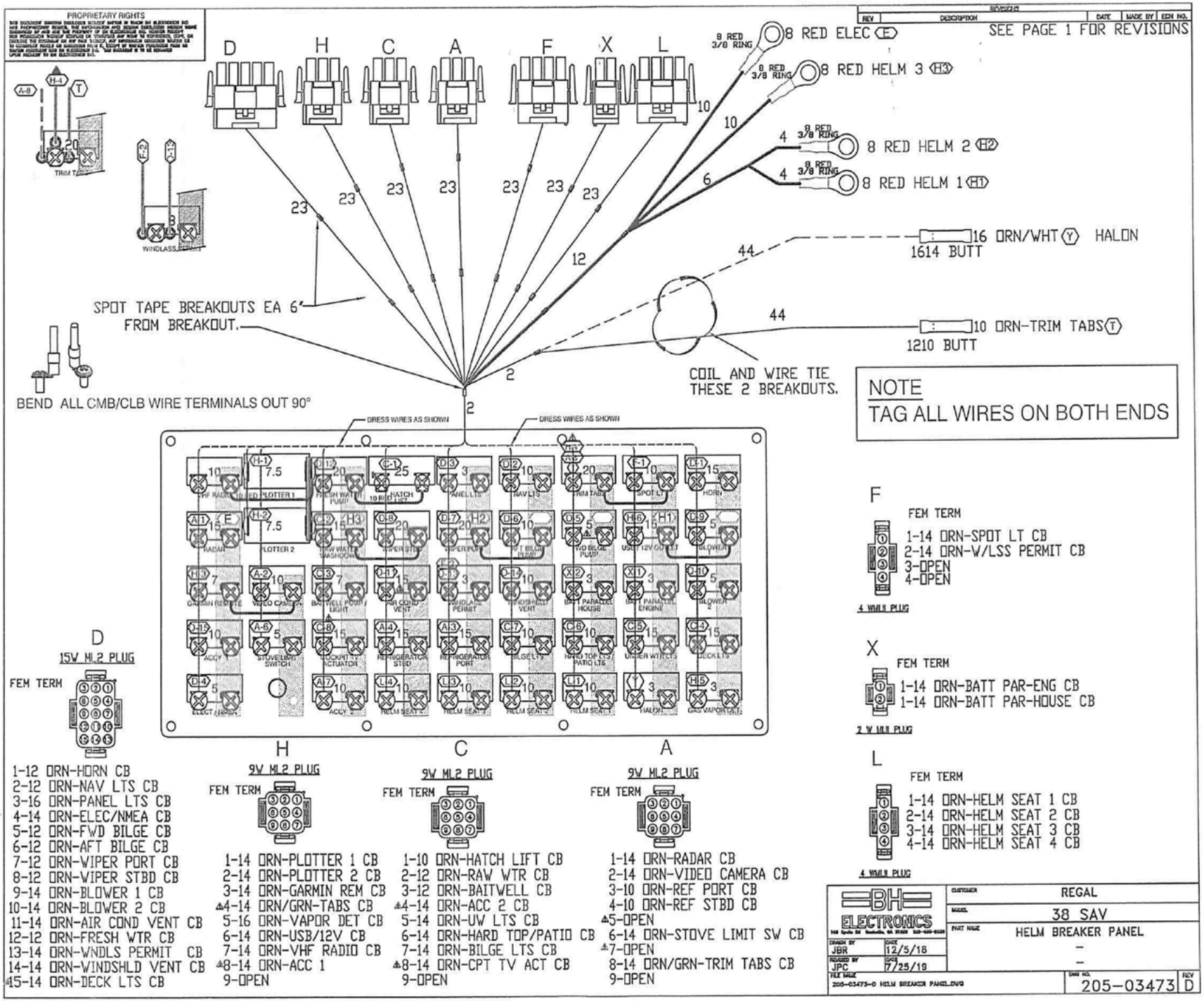
REVISED BY: JPC DATE: 7/25/19

FILE NAME: 205-03473-D HELM BREAKER PANEL.DWG

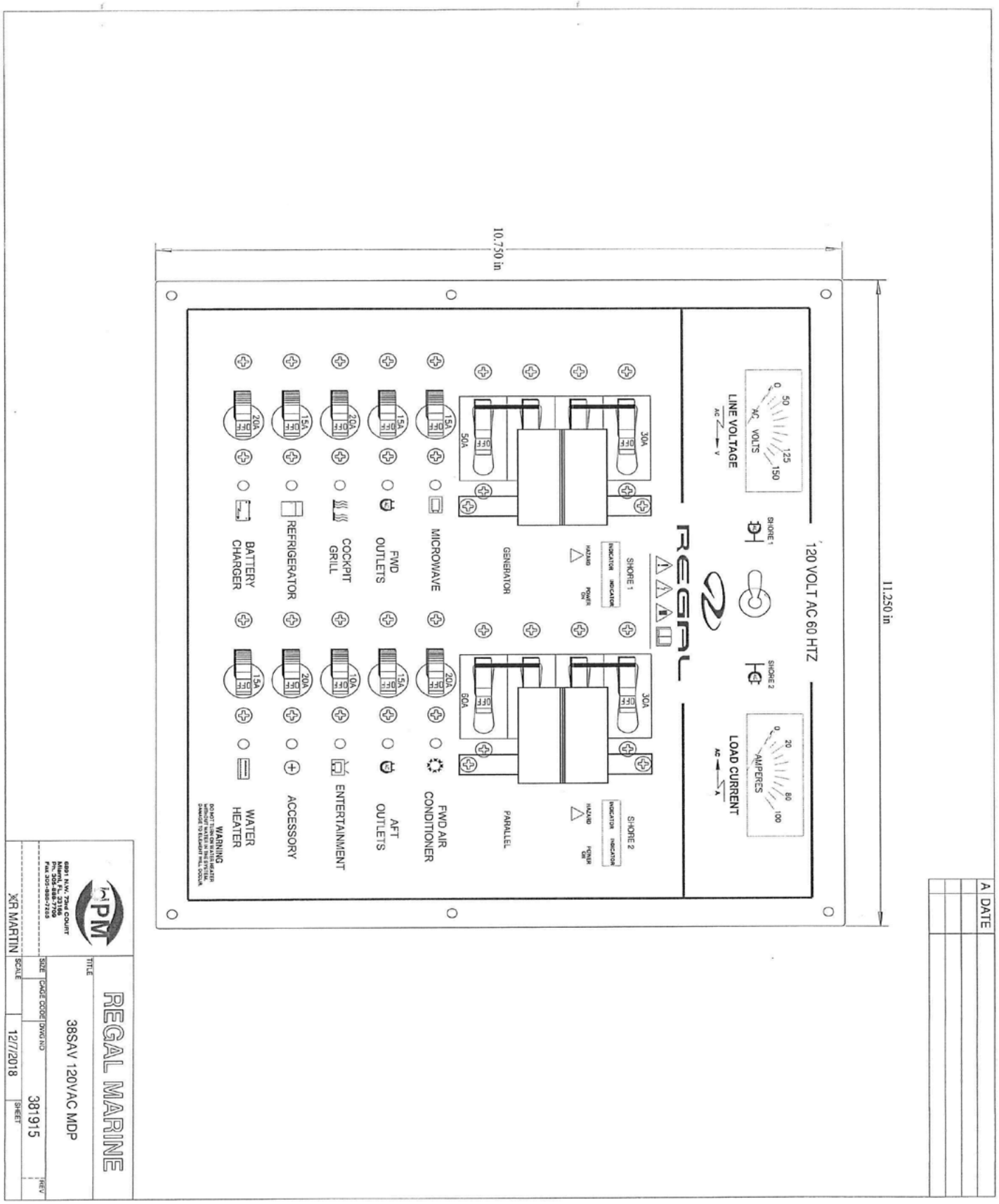
DWG NO. 205-03473 REV D

CARBIDE BLACK W/ MED TEXTURE
SCREEN: WHITE

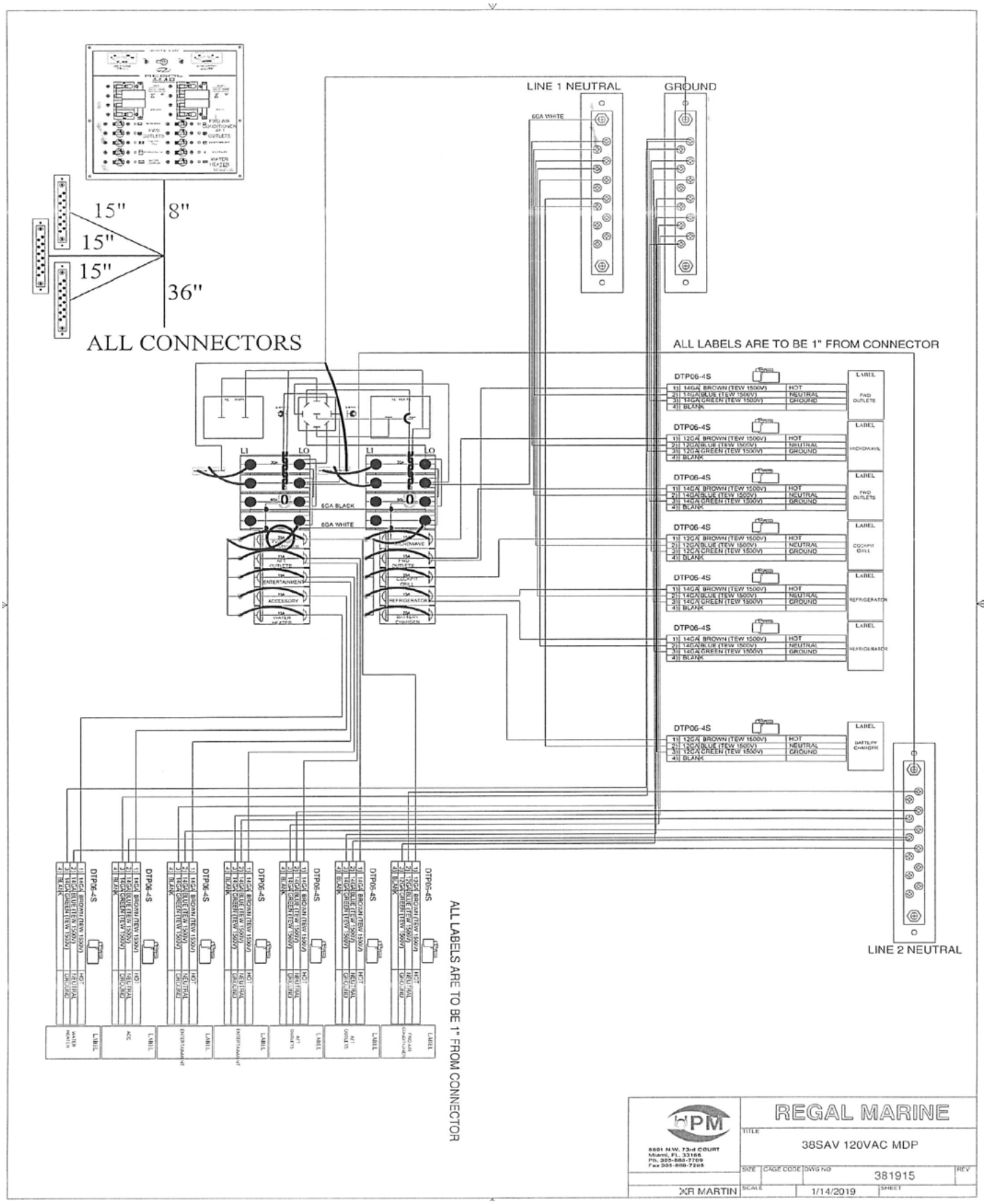
HELM BREAKER PANEL/REAR



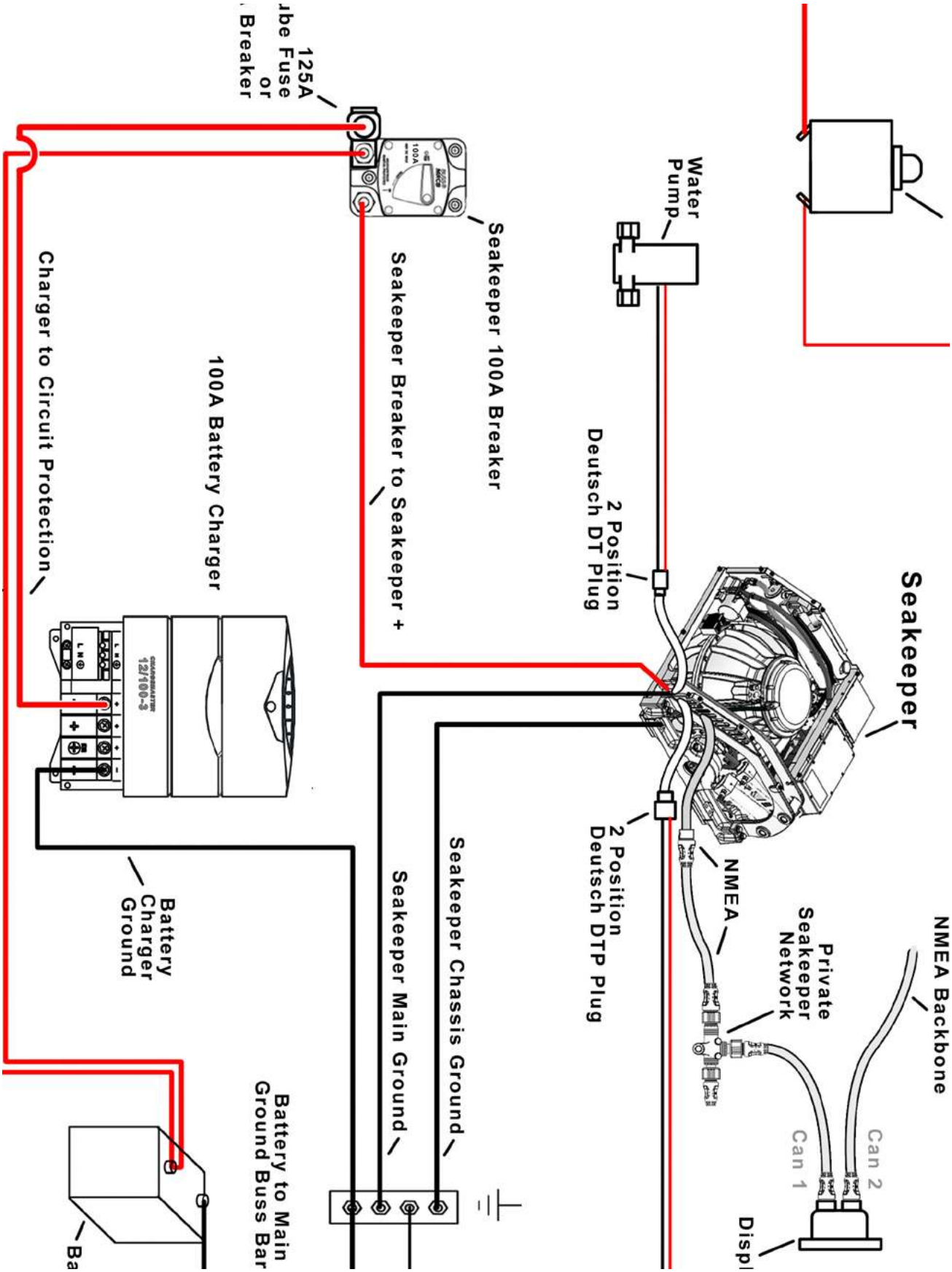
120 VOLT AC SHIP'S MAIN PANEL/FRONT



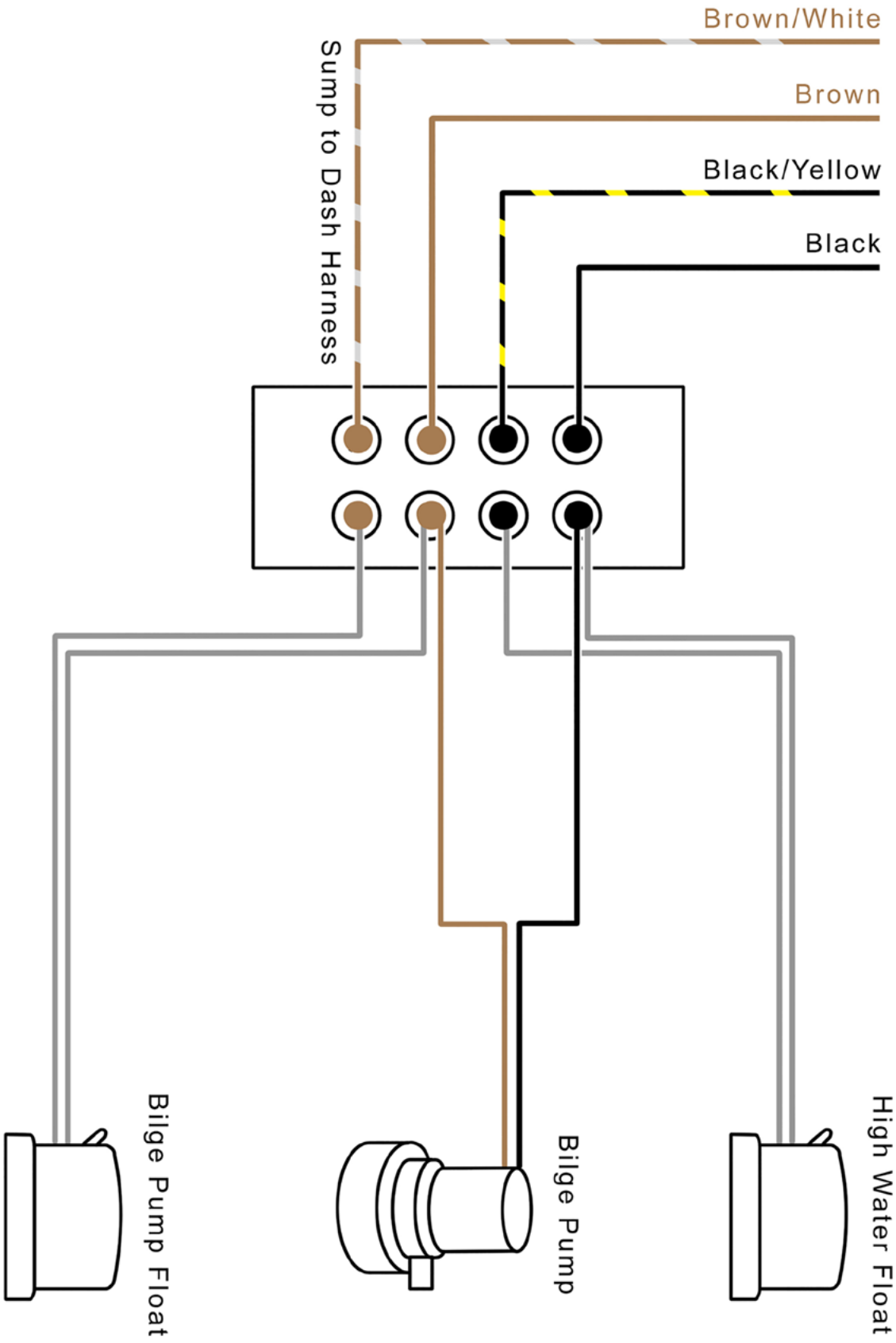
120 VOLT AC SHIP'S MAIN PANEL/REAR



SEAKEEPER WIRING



SUMP BILGE PUMP/FLOAT SWITCH WIRING



WATER HEATER COMPONENTS/FUNCTIONS

1
SEA00041LA
SERVICE THERMOSTAT
TERMOSTATO DI SERVIZIO

2
SEA00042LA
SAFETY THERMOSTAT
TERMOSTATO DI SICUREZZA

3
SDF00018AA
GASKET FOR FLANGE
GUARNIZIONE FLANGIA

4
SBE00045AA
FLANGE FOR ELEMENT
STAFFA RESISTENZA

5

6
SDF00025AA
GASKETS KIT
KIT GUARNIZIONI

7
SFD00023AA
LK 514 SAFETY VALVE 7.0 Kp/cm
VALVOLA DI SICUREZZA LK514 7BAR

8
SFD00011AA
MIXING VALVE LK550
VALVOLA MISCELATRICE LK550

9

SBE00095AA
GREY PLASTIC COVER SLIM WATER HEATERS SLIM INOX 15-20-25L
COPERTURA IN PLASTICA GRIGIA BOILER SLIM INOX 15-20-25L

SBE00047AA + SBE00199AA
GREY+WHITE PLASTIC COVER BASIC WATER HEATERS BASIC INOX 24-30-40-50-75L
COPERTURA IN PLASTICA GRIGIA + BIANCA BOILER BASIC INOX 24-30-40-50-75L

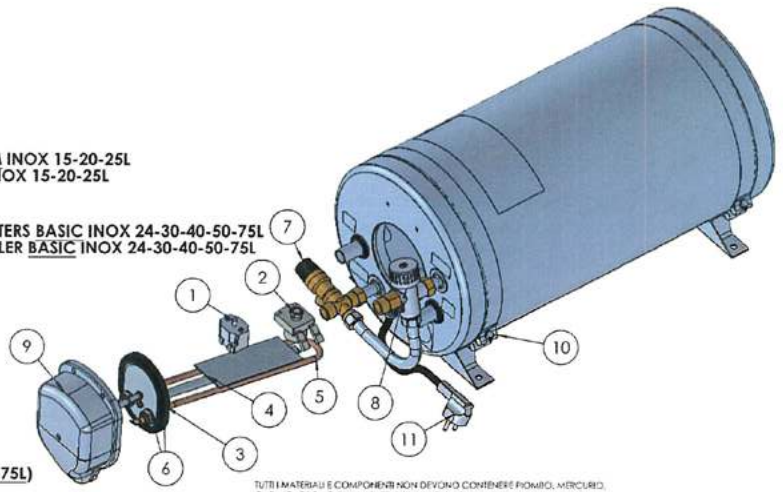
10
SGB00049AA
FIXING BRAKET KIT SLIM 15/20/25 L.
KIT FLANGIA FISSAGGIO SLIM 15/20/25L.

SGB00047AA
FIXING BRAKET KIT BASIC 24-30-40-50-75L.
KIT FLANGIA FISSAGGIO BASIC 24-30-40-50-75L.

11
SGB00096AA
POWER CABLE WITH EU PLUG
CAVO ALIMENTAZIONE CON SPINA EU

SGB00073AA
POWER CABLE WITH UK PLUG
CAVO ALIMENTAZIONE CON SPINA UK

SGB00080AA
POWER CABLE WITH USA PLUG
CAVO ALIMENTAZIONE CON SPINA USA



SEE00019LA
HEATING ELEMENT 230V/750W WITH GASKET (STANDARD 230V)
KIT RESISTENZA 230V/750W CON GUARNIZIONI (STANDARD 230V)

SEE00014HA
HEATING ELEMENT 115V/750W WITH GASKET (STANDARD 115V)
KIT RESISTENZA 115V/750W CON GUARNIZIONI (STANDARD 115V)

SEE00015LA
HEATING ELEMENT 230V/1200W WITH GASKET (OPZ. ONLY FOR SLIM VERSION 20-25L - BASIC VERSION 40-50-75L)
KIT RESISTENZA 230V/1200W CON GUARNIZIONI (OPZ. SOLO PER SLIM 20-25L - BASIC 40-50-75L)

SEE00023HA
HEATING ELEMENT 115V/1200W WITH GASKET (OPZ. ONLYFOR SLIM VERSION 20-25L - BASIC VERSION 40-50-75L)
KIT RESISTENZA 115V/1200W CON GUARNIZIONI (OPZ. SOLO SLIM 20-25L - BASIC 40-50-75L)

SEE00016LA
HEATING ELEMENT 230V/2000W WITH GASKET (OPZ. ONLY FOR SLIM VERSION 20-25L - BASIC VERSION 50-75L)
KIT RESISTENZA 230V/2000W CON GUARNIZIONI (OPZ. SOLO PER SLIM 20-25L - BASIC 50-75L)

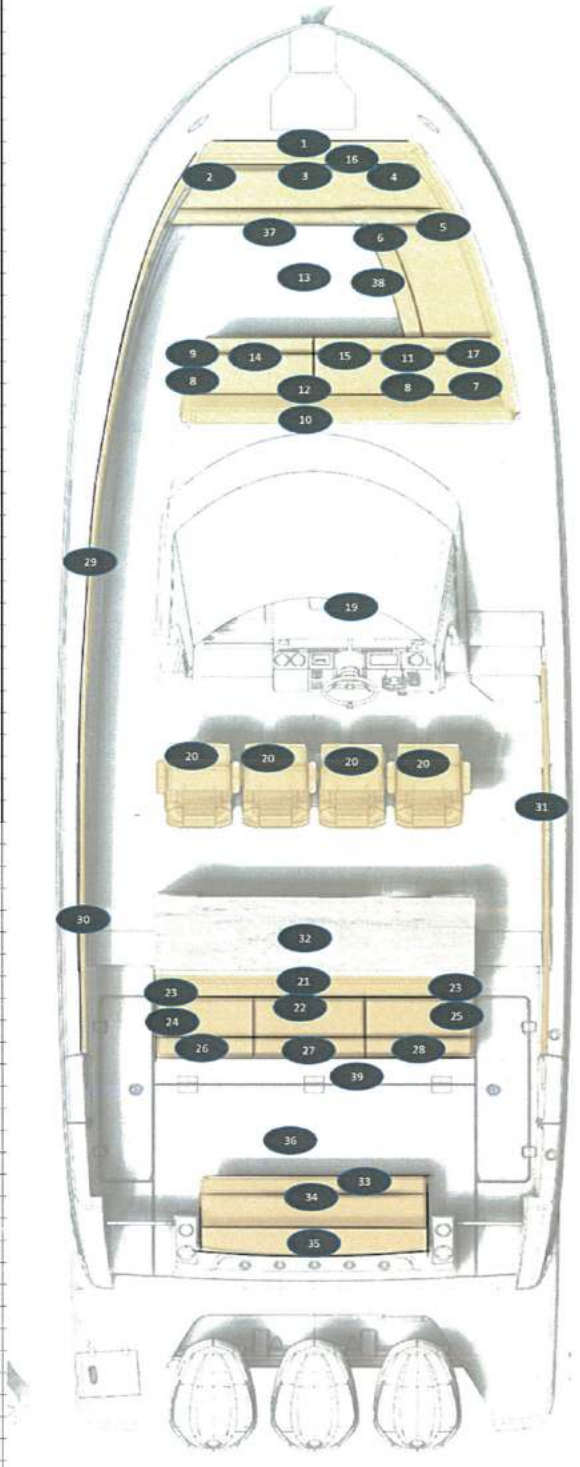
TUTTI I MATERIALI E COMPONENTI NON DEVONO CONTENERE PIOMBO, MERCURIO, CADMIO, CROMO ESAVALENTE, BIFENILI POLIBROMURATI (PBB) O ETERI DI DIFENILE POLIBROMURATO (PBDE).
(Direttiva 2002/95/CE del Parlamento Europeo e del Consiglio del 23 gennaio 2003)

BASIC/ SLIM WATER HEATERS						
Pos.	DENOMINAZIONE	Q	Materiale	Stato/Unific.	Peso	Codice

ISO 2768 - m
CRITICA
IMPORTANTE
Scala 1:10
Via dei Ranchi, 11 - 47866 Sant'Agata Feltria (RN)
Tel. +39 0541 848 031 - Fax +39 0541 848 563
Disegno eseguito con CAD vietata la modifica manuale
CODICE
A termini di legge ci riserviamo la proprietà di questo disegno con divieto di riproduzione senza la nostra autorizzazione
A2

UPHOLSTERY IDENTIFIER

38SAV SV UPH UPHOLSTERY IDENTIFIER				
Bundle	**Assembly**	**Description**	**Sub**	**Vinyl**
1	USV06A	BOW CENTER COAMING		
2	USV06B	BOW FWD PORT CUSHION		
3	USV06C	BOW FWD CENTER CUSHION		
4	USV06D	BOW FWD STBD CUSHION		
5	USV06E	BOW STBD COAMING		
6	USV06F	BOW STBD CUSHION		
7	USV06G	BOW AFT STBD UPPER BACKREST		
8	USV06H	BOW ARMREST		
9	USV06J	BOW PORT LOWER AMREST		
10	USV06K	BOW AFT CENTER UPPER BACKREST		
11	USV06L	BOW STBD LOWER ARMREST		
12	USV06M	BOW AFT CENTER LOWER BACKREST		
13	USV06N	BOW FILLER CUSHION		
14	USV06P	BOW AFT PORT CUSHION		
15	USV06Q	BOW AFT STBD CUSHION		
16	USV06R	BOW CENTER LOWER BACKREST		
17	USV06S	BOW AFT STBD LOWER BACKREST		
18	USV06T			
19	USV12A	DASH VISOR		
20	USV13A	HELM SEAT		
21	USV15A	COCKPIT UPPER BACKREST		
22	USV15B	COCKPIT LOWER BACKREST		
23	USV15C	COCKPIT ARMREST		
24	USV15D	COCKPIT STBD LOWER ARMREST		
25	USV15E	COCKPIT PORT LOWER ARMREST		
26	USV15F	COCKPIT PORT CUSHION		
27	USV15G	COCKPIT CENTER CUSHION		
28	USV15H	COCKPIT STBD CUSHION		
29	USV15J	COCKPIT FWD PORT COAMING		
30	USV15K	COCKPIT AFT PORT COAMING		
31	USV15L	COCKPIT STBD COAMING		
32	USV15M	T.V. PANEL		
33	USV17A	ENGINE HATCH CUSHION PANEL		
34	USV17B	ENGINE HATCH CUSHION		
35	USV17C	ENGINE HATCH BACKREST		
36	USV17D	ENGINE HATCH TABLE HOLDER		
37	USV18A	BOW FWD SPAGHETTI MAT		
38	USV18B	BOW STBD SPAGHETTI MAT		
39	USV18C	COCKPIT SPAGHETTI MAT		



**Note that the identifier can be used to assist in ordering upholstery needs throughout the life of the vessel*

TYPICAL DC (12 VOLT) WIRING COLOR CODE & SIZES		
BLACK	16,14,12,10,8,6,4,2,2/0,40	GROUNDS
BLACK/WHITE	16	HALON INDICATOR
BLACK/YELLOW	10,16	GRD. DIESEL TRANSFER PUMP, MERC DIESEL STOP CIRCUIT
BLACK/WHITE	10	HALON MAIN GRD. FEED
BROWN/BLACK	10	MACERATOR, SUN ROOF
BROWN	10	SUN ROOF
BROWN	14	AFT BILGE PUMP-MANUAL
BROWN/WHITE	14	AFT BILGE PUMP-AUTO
BROWN/RED	14	FWD. BILGE PUMP-AUTO
BROWN/BLUE	14	FWD. BILGE PUMP-MANUAL
BROWN/PINK	16	CO DETECTOR
BROWN/BLACK	16	SHOWER SUMP PUMP
YELLOW	12,10	BLOWER
YELLOW/WHITE	16	HEAD VENT FAN MOTOR
YELLOW/BLACK	16	STEREO MEMORY
YELLOW/RED	14	ENGINE START CIRCUIT

Note: The list above applies to a number of vessels. Vessel components/wiring specifications may vary depending on the model.

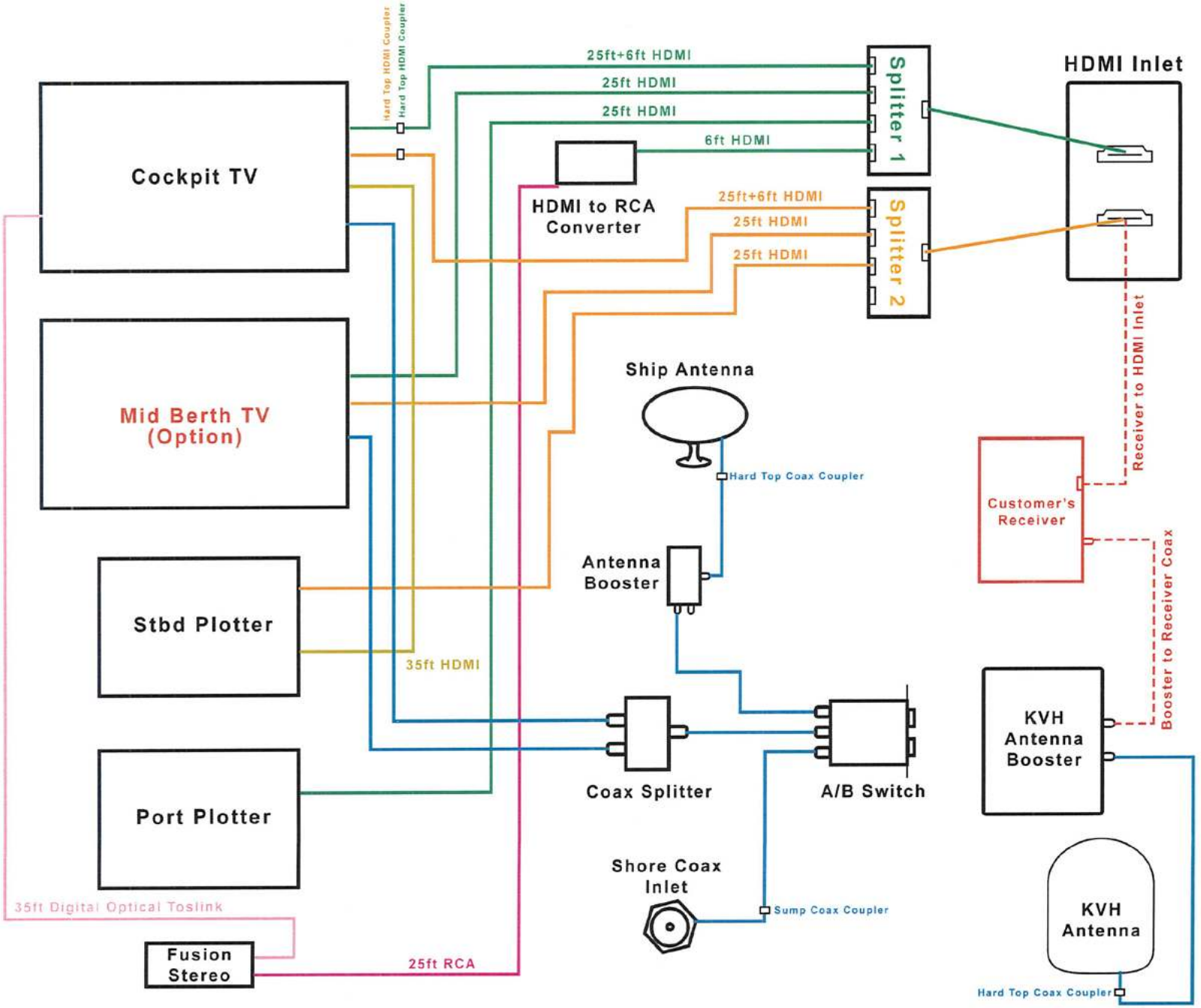
TYPICAL DC (12 VOLT) WIRING COLOR CODE & SIZES (CONTINUED)		
ORANGE	10,12	VACUUM TOILET, REFRIGERATOR, HATCH RAM
ORANGE	16	WIPER RUN
ORANGE/WHITE	16	WIPER PARK
ORANGE/BLACK	10,12,16	HORN, HATCH RAM
BLUE	14	INTERIOR LIGHTS, SWITCHED CIRCUIT
BLUE/RED	14	INTERIOR LIGHTS, CONSTANT HOT CIRCUIT
BLUE/BLACK	16	COCKPIT SOFT LIGHTS
BLUE/GREEN	16	INTERIOR SOFT LIGHTS
BLUE	10	CABIN LIGHT MAIN CIRCUIT FEED
GRAY	14	NAVIGATION LIGHTS, RUNNING, BOW, TRANSOM LIGHTS
GRAY/BLACK	14	NAVIGATION LIGHTS, AFT ANCHOR, MASTHEAD
GRAY/WHITE	14	NAVIGATION LIGHTS, MASTHEAD, FWD. RUNNING LIGHTS
RED	16	POSITIVE FEED- ELECTRONICS, GAS VAPOR DETECTOR, BREAKER TO DASH SWITCH FEEDS

Note: The list above applies to a number of vessels. Vessel components/wiring may vary depending on the model.

TYPICAL DC (12 VOLT) WIRING COLOR CODE & SIZES (CONTINUED)		
RED/WHITE	16	WINDLASS CONTROL-DOWN
RED/BLACK	16	WINDLASS CONTROL-UP
RED/WHITE	14	BATTERY PARALLEL-LOAD
RED	14	POSITIVE FEED-ELECTRONICS
RED	12	POSITIVE FEED-ELECTRONICS
RED	10	POSITIVE FEED-AUTO PILOT
RED/VIOLET	10	FUEL TANK TRANSFER PUMP AMPLIFIER POWER
RED	8	POSITIVE FEED- MAIN ALTERNATOR CHARGE
RED	6	POSITIVE FEED- MAIN ALTERNATOR CHARGE
RED	4	POSITIVE FEED-MAIN
RED	2	POSITIVE FEED- MAIN STARTER, BATTERY, GENERATOR
RED	2/0	POSITIVE FEED- MAIN, STARTER, BATTERY
PURPLE	16	STBD. IGNITION, HOUR METER-WINDSHIELD VENT
PURPLE/WHITE	16	PORT IGNITION, HOUR METER, WINDSHIELD VENT
PINK	16	STBD. FUEL TANK SENDER
PINK/BLACK	16	PORT FUEL TANK SENDER
TAN/BLUE	16	ENGINE ALARM CIRCUIT
GREEN	16	TANK LEVEL MONITOR, SPOTLIGHT
GREEN	10	SPOTLIGHT
GREEN	8	BONDING

Note: The list above applies to a number of vessels. Vessel components/wiring may vary depending on the model.

TV SYSTEM COMPONENTS/WIRING



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