390 Sport Coupe
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390 Sport Coupe

Section 1
Introduction

WELCOME ABOARD!!

Welcome to the Cruisers Yachts family of happy yacht owners.

We wish to thank you for making our **390 Sport Coupe** your recreational choice for boating enjoyment. Extensive design and engineering research went into the development of all **Cruisers Yachts**. We feel there is a beautiful balance between structural integrity and creature comforts.

Your yacht was manufactured by trained craftsmen in the tradition of meeting or exceeding existing safety and quality standards established by the United States Coast Guard and the Boating Industry of America.

Cruisers Yachts has been manufacturing boats for over 50 years. We take pride in our craftsmanship and hull performance. We are confident you will enjoy the ride. For you, the **Cruisers Yachts** name is your assurance that your yacht will hold its value while providing many years of boating pleasure. We have made a commitment to this industry and are glad to have you as a partner.

Congratulations on your choice – let us know if we can be of further service.

SKIPPER'S KIT

The Skipper's Kit contains the **390 Sport Coupe** owner's manual. Also included is information about on-board systems and components furnished by suppliers other than Cruisers Yachts.

Owner's Manual

The owner's manual contains specific information concerning the operation of the **390 Sport Coupe**. The descriptions contained within this manual will introduce you to features of the **390 Sport Coupe**, and provide you with a general knowledge of how the equipment works. This manual is divided into several sections, and each section is introduced by a table of contents to help you quickly find needed information.

The **Getting Started** owner's manual contains additional general information concerning operation and the necessary information for boating safely and care of your yacht. The **Getting Started** manual is also divided in the same manner as the owner's manual to help you quickly find needed information. Become familiar with the material in each section of both manuals. Always keep both manuals together and with your yacht for future use, and for anyone who may operate your yacht. The following are the topics found in the **Getting Started** manual:

INTRODUCTION
BOATING SAFETY
GENERAL CONTROLS AND INDICATORS
BASIC OPERATION OF SYSTEMS
GENERAL ACCESSORY ITEMS
GETTING UNDERWAY
GENERAL MAINTENANCE
STORAGE AND EXTENDED LAY-UP
TROUBLESHOOTING

Safety Symbols

Safety

In emergency situations, it may be necessary to resort to measures which are not normally practiced. Always assess the dangers of being in harm's way before the protection of equipment.

Keep a sound mind during an emergency and always think safety.

The Safety Alert Symbol means ATTENTION! Be alert to the possibility of personal injury or death.

The following precautions are used throughout this manual.

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

CAUTION

Indicates the presence of a hazard which might result in damage to property or equipment.

The “signal words” of **DANGER**, **WARNING** and **CAUTION** have specific meaning to alert you to relative level of hazard.

Section 1 contains a description of the Skipper’s Kit and information about the warranty.

Section 2 contains your yacht specifications such as dimensions and capacities. There are also layout diagrams to introduce you to floorplans as well as the locations of various components.

Section 3 contains descriptions of all the controls and indicators on the dash of the helm.

Section 4 contains principles of operation for the major systems on-board the **390 Sport Coupe**.

Owner's Manuals for On-board Systems and Components

Spend some time becoming familiar with all the information contained in the Skipper's Kit. Besides containing separate warranty information, the kit also contains literature which provides important safety information, operating and maintenance instructions for those systems and components not manufactured by Cruisers Yachts. Depending on the options you chose, the kit may contain some or all of the following literature:

- Engine
- Hydraulic Steering
- RACOR Fuel Filter/Water Separator
- Electric Stove
- Battery Charger
- Water Heater
- Trim Tabs
- Refrigerator/Freezer
- Generator
- Electric Anchor Windlass
- Air Conditioner/Heater
- Stereo System
- Compass
- Microwave/Convection Oven
- Marine Toilet
- Fire Suppression System
- Carbon Monoxide (CO) Detector
- Refrigerator/Ice Maker
- Propeller Shaft
- Washer/Dryer
- Bow Thruster
- Central Vacuum
- Spotlight Operation
- Television, DVD Player, FM Radio
- Electronic Dash Components
- Trash Compactor

WARRANTY INFORMATION

Warranties for on-board systems and components furnished by suppliers other than Cruisers Yachts are located inside the Skipper's Kit. Your Cruisers Yachts Dealer will go through these with you. It is your responsibility to fill out any warranty registration that may be required.

The warranty provided by Cruisers Yachts is printed on the last page of this manual. You and the Cruisers Yachts Dealer have certain responsibilities to fulfill to keep the warranty in force.

Dealership Responsibilities

1. The dealer will discuss the terms of all warranties and stress the importance of registering warranties with the appropriate manufacturers.
2. The dealer will provide instruction for obtaining warranty service.
3. The dealer will go over the predelivery service record with you and then sign it to certify that all work has been accomplished.
4. The dealer will provide you with thorough instructions in the operation of your yacht and all its systems.

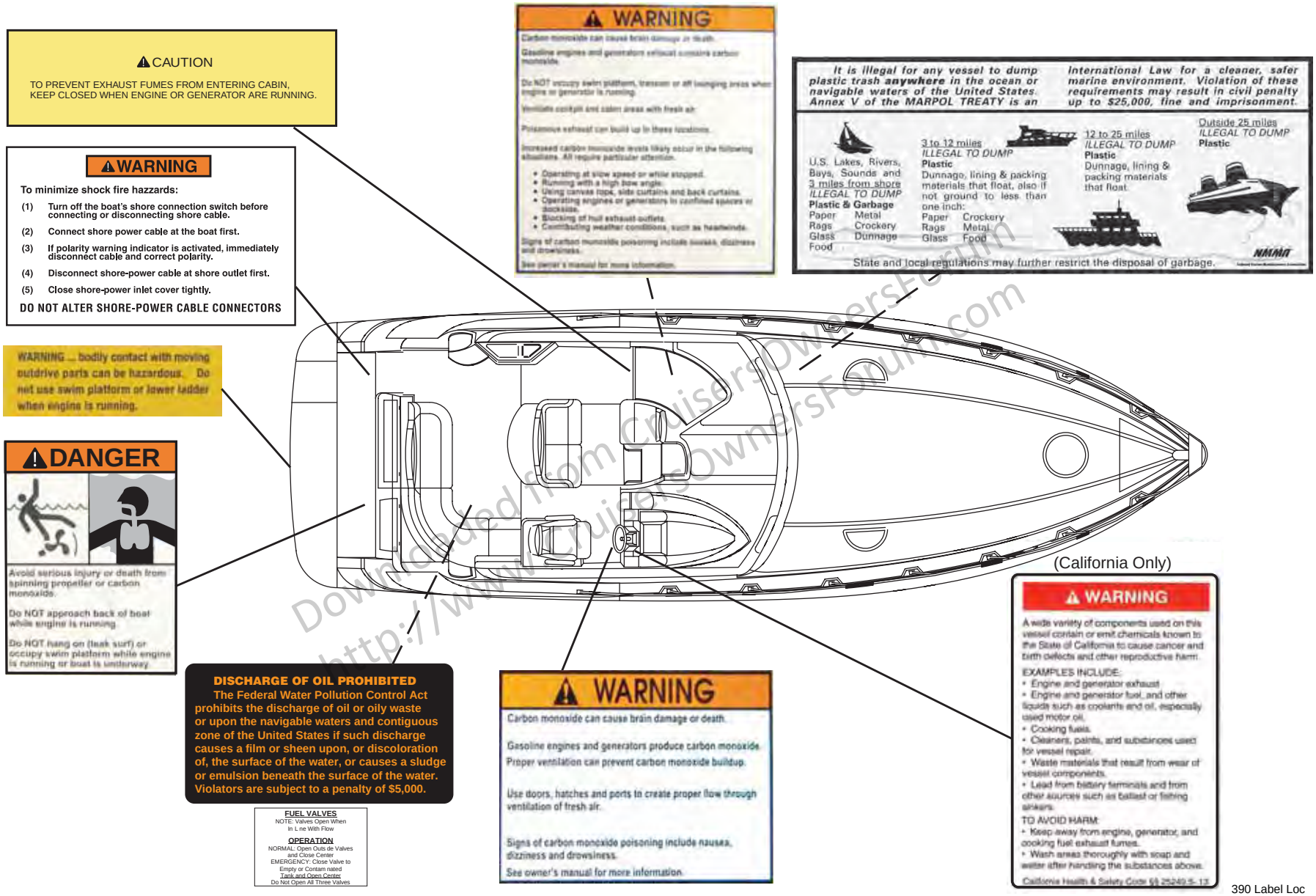
Your Responsibilities

1. Sit down with the dealer and go over all warranties. Fill in the Cruisers Yachts Limited Warranty Registration card which is located inside the Skipper's Kit. Keep a record of the hull number for future reference.
2. Inspect the boat at the time of delivery to ensure that all systems are operating properly.
3. Sit down with the dealer and go over the predelivery service record. Sign this record to indicate that it has been explained to you.
4. Operate all equipment per the manufacturer's instructions.
5. Cruisers Yachts recommends that you refer to your engine warranty for initial inspection and service requirements.
6. Perform or provide for the appropriate periodic maintenance outlined in the owner's manuals and service guides.

Warranty Service

You are entitled to all the benefits and services set down in the warranties. If a problem arises with your **390 Sport Coupe** as a result of workmanship or materials, contact your Cruisers Yachts Dealer as soon as possible. Please have your hull identification number and necessary model numbers on hand for the items that may need service or repair. Your hull identification number is located below the rub rail on the starboard side of the transom.

SAFETY LABEL LOCATION LAYOUT



390 Label Loc

Section 2
Model Specific Information

SPECIFICATIONS

Measurements	(US / Metric)
L.O.A. Hull	38'2" / 11.6 m
L.O.A. Hull with Extended Swim Platform	40'2" / 12.2 m
Beam	13'0" / 4.0 m
Approximate Weight, Gas Engines*	20,500 lbs / 9,299 kg
Approximate Weight, Diesel Engines*	22,000 lbs / 9,979 kg
Fuel Capacity	300 gal / 1,136 L
Water System Capacity	75 gal / 284 L
Holding Tank Capacity	55 gal / 208 L
Cabin Headroom	6'6" / 2.0 m
Height - Keel to Top of Hardtop	12'5" / 3.8 m
Bridge Clearance to Top of Hardtop	10'0" / 3.1 m
Draft: Hull / Underwater Gear	
Draft VD	39” / 0.99 m
Draft IPS	45” / 1.14 m
Deadrise	18 degrees
Sleeping Accommodations	6 persons

*Weights are estimates and can vary from options and equipment added.

Engines

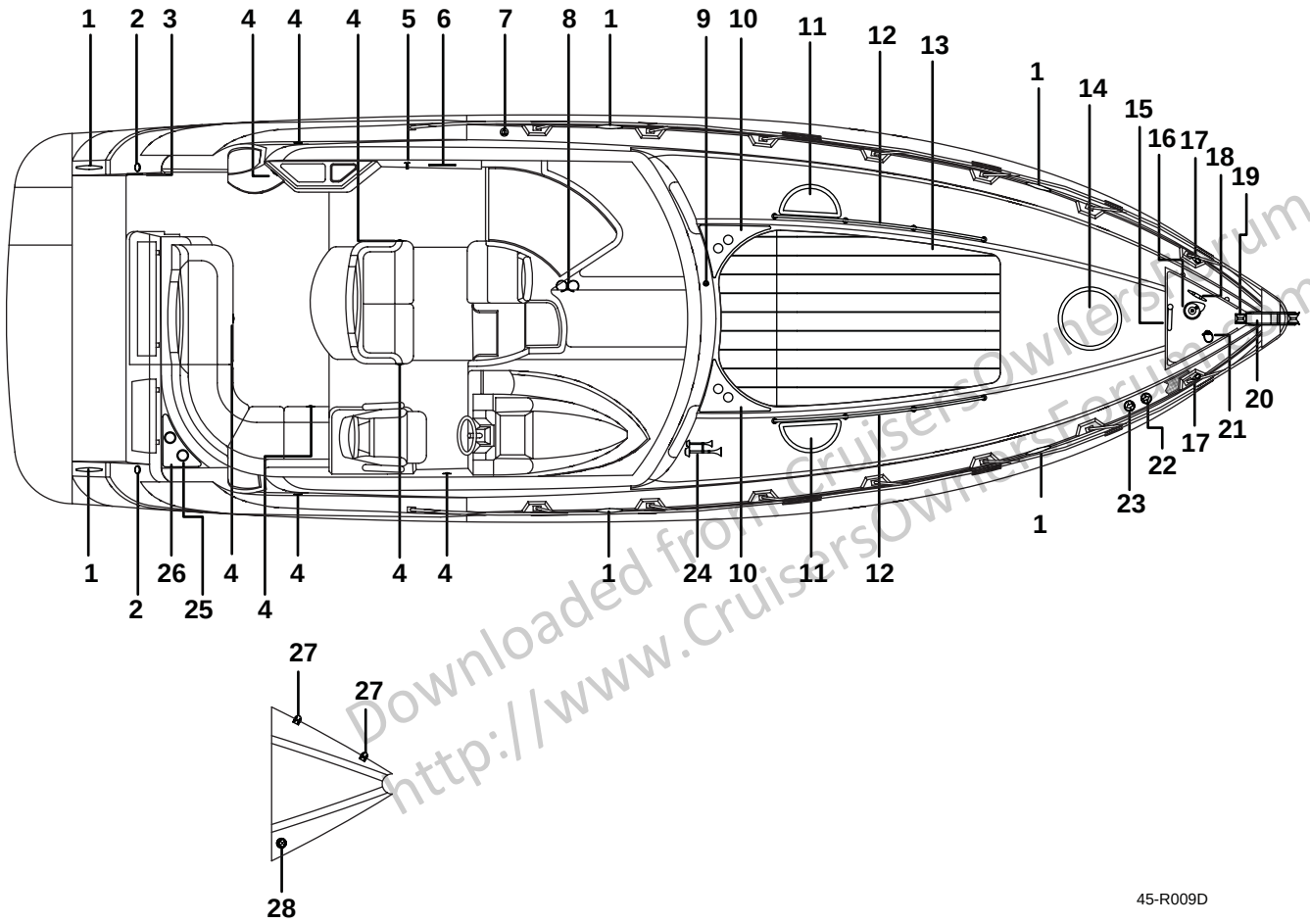
Gas:

Mercury 8.1, 370 HP (276 kW)
Mercury 8.1, 420 HP (313 kW)
Volvo Penta 8.1, 370 HP (276 kW)
Volvo Penta 8.1, 420 HP (313 kW)

Diesel:

Volvo D6, 370 HP (276 kW)
Volvo IPS 400 D6, 310 HP (231 kW)
Volvo IPS 500 D6, 370 HP (276 kW)
Yanmar 6LYA-STP, 370 HP (276 kW)

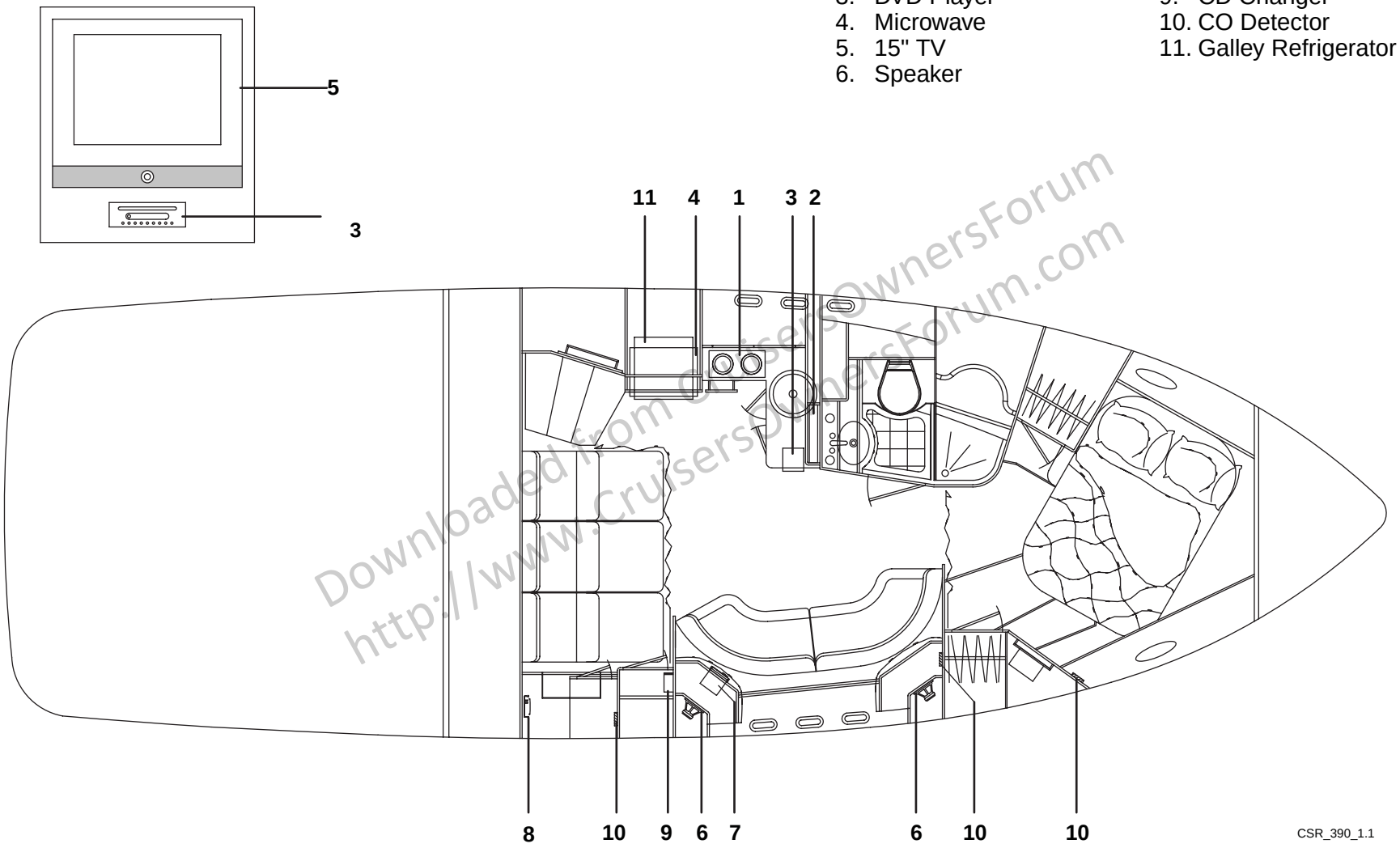
DECK HARDWARE GENERAL LAYOUT



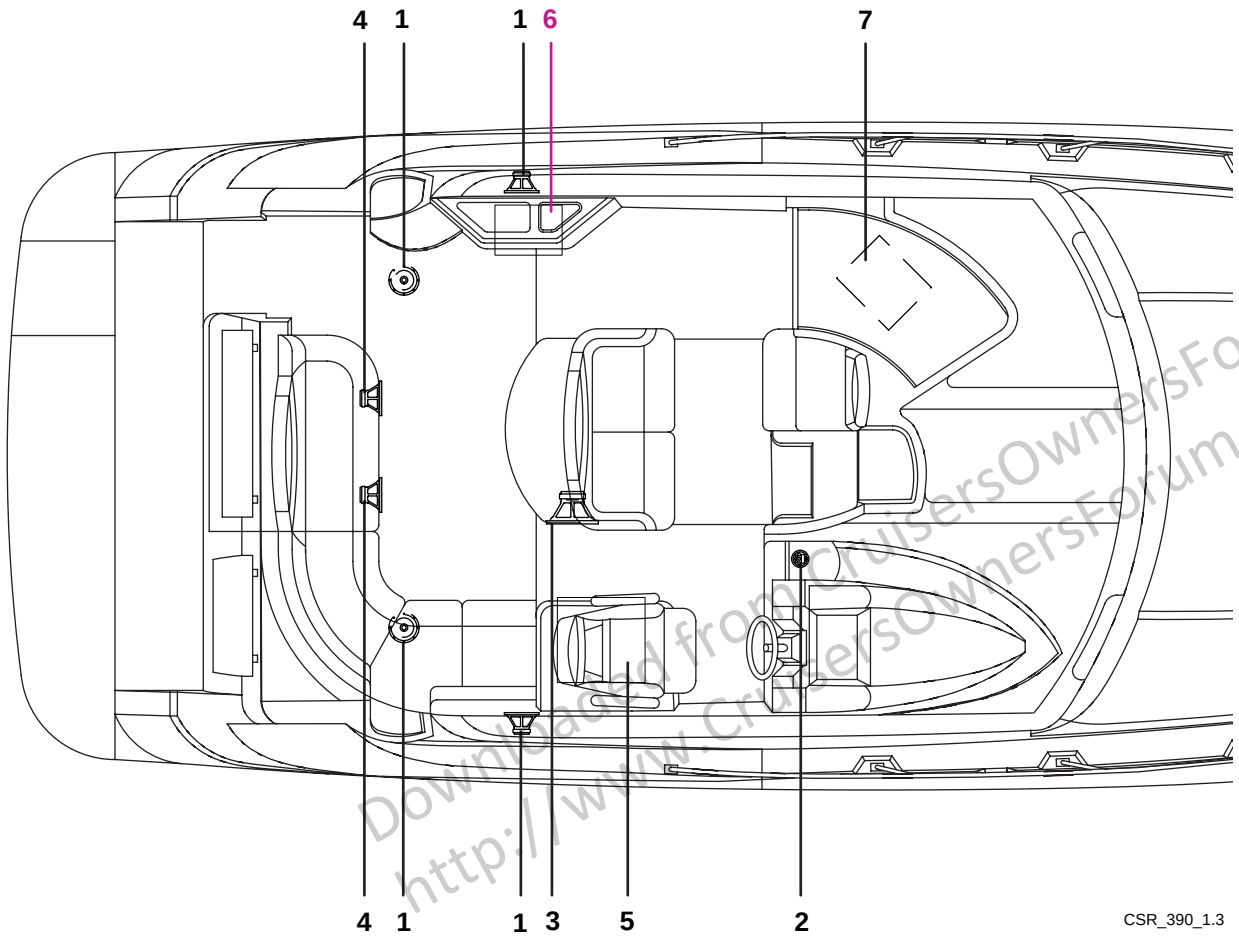
1. Cleat
2. Deck Fill Plate
3. Washdown Shower
4. Cockpit Courtesy Light
5. Door Holder
6. Access Door
7. Water Deck Plate w/o Key
8. Drink Holder
9. Magnetic Door Stop
10. Drink Holder
11. Hatch
12. Sunpad Grab Rail
13. Foredeck Cushion
14. Hatch
15. Windlass Manual Handle
16. Windlass
17. Navigation SIide Light
18. Cleat
19. Aft Bow Roller
20. Bow Roller
21. Snubber Chain Cable
22. Windlass Deck Switch (out)
23. Windlass Deck Switch (in)
24. Dual Air Horn
25. Drink Holder
26. Transom Insert
27. Hinge
28. Slam Latch

INTERIOR GENERAL LAYOUT – SALON

1. Electric Stove
2. 20" TV
3. DVD Player
4. Microwave
5. 15" TV
6. Speaker
7. Stereo
8. Stereo Amplifier
9. CD Changer
10. CO Detector
11. Galley Refrigerator



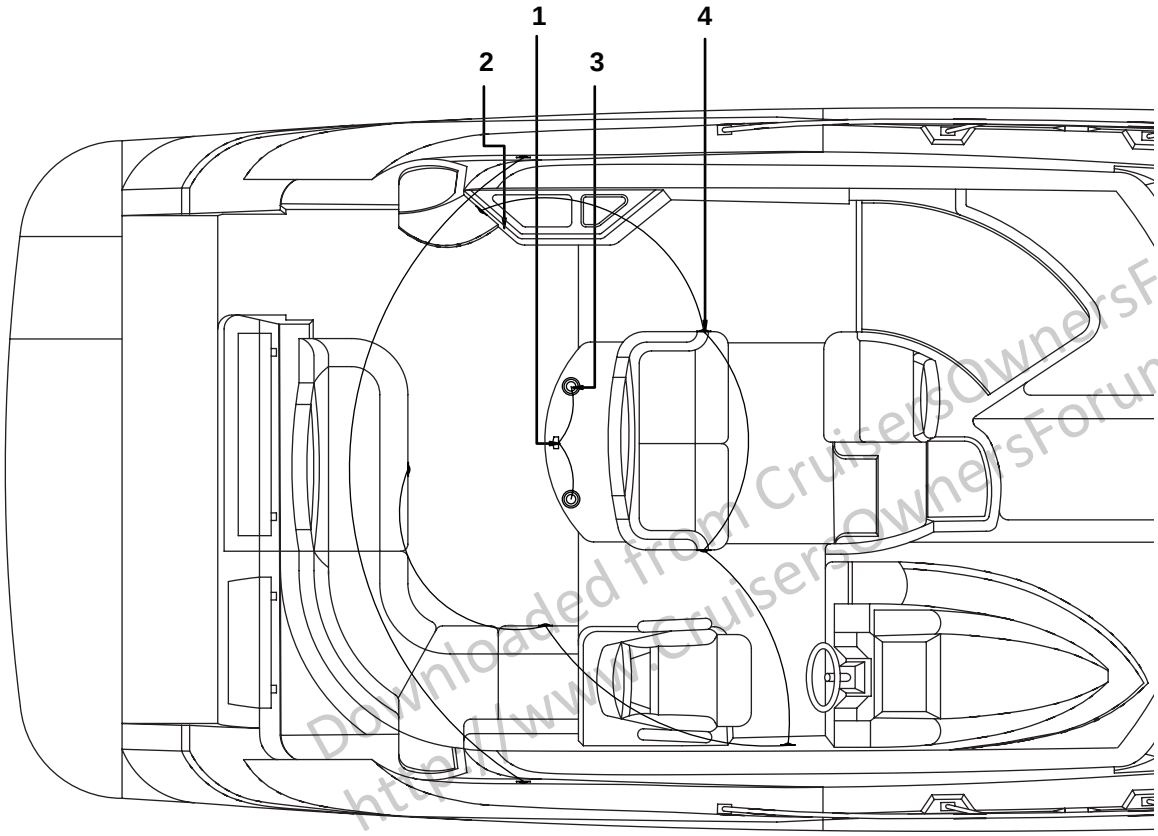
INTERIOR LIGHT PLAN / GENERAL LAYOUT – COCKPIT



1. Speaker
2. Remote Stereo
3. Subwoofer
4. Speaker
5. Single Drawer Refrigerator
6. Icemaker
7. Cockpit, Flip-down TV

Purple = optional equipment

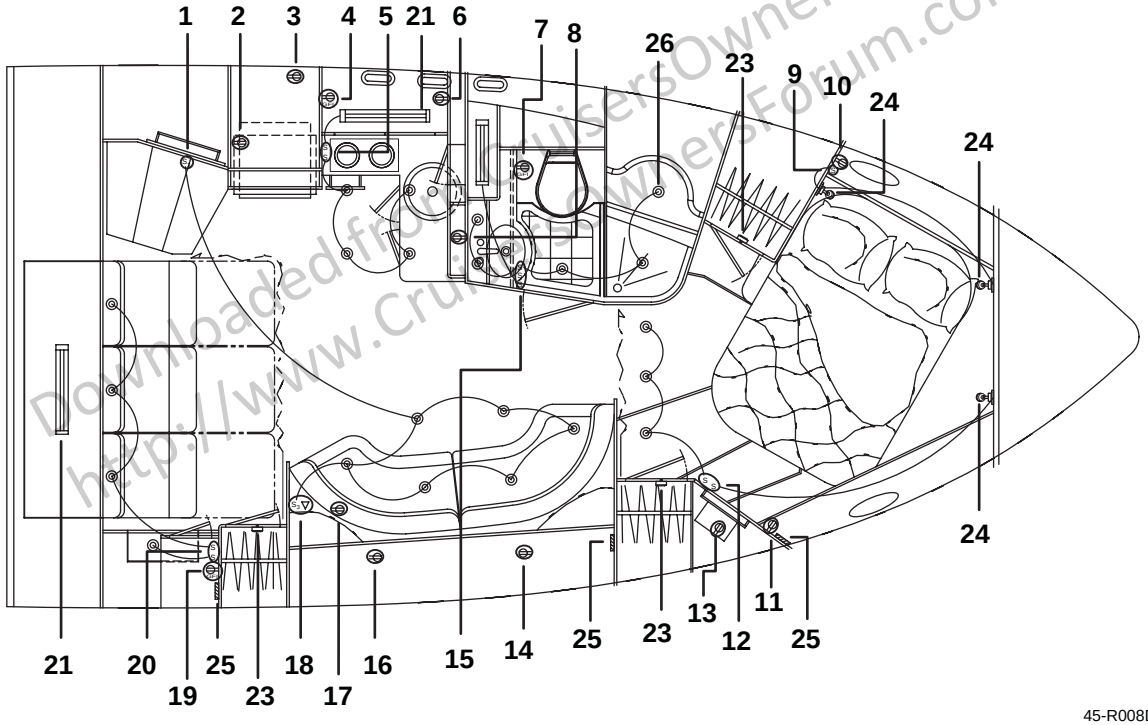
LIGHT PLAN LAYOUT – STATEROOM



1. Fluorescent Light
2. Cockpit Light Switch Pane
3. Hardtop Light
4. Cockpit Courtesy Light

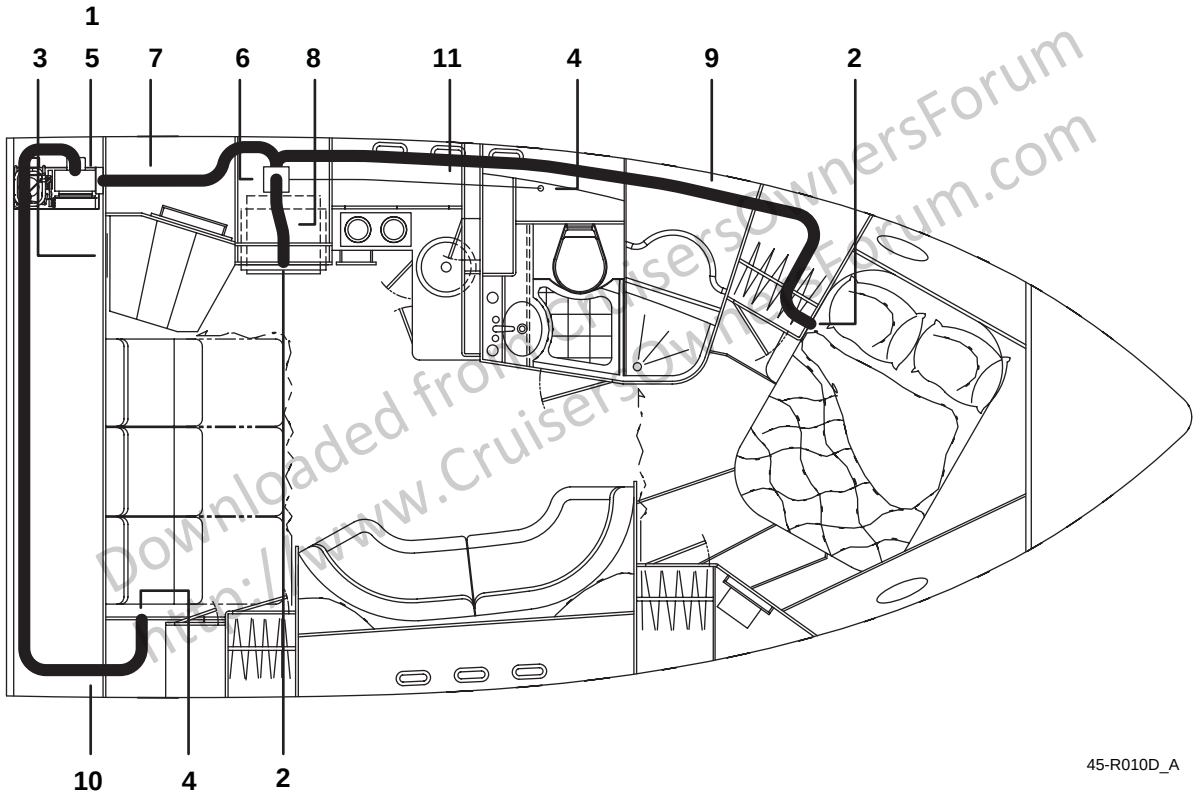
LIGHT PLAN LAYOUT – SALON

1. Light Switch
2. Dual Receptacle Box
3. Dual Receptacle Box
4. Dual Receptacle Box
5. Light Switch
6. Dual Receptacle Box
7. Dual Receptacle Box
8. Dual Receptacle Box
9. Light Switch
10. Dual Receptacle Box
11. Dual Receptacle Box
12. Light Switch
13. Dual Receptacle Box
14. Dual Receptacle Box
15. Light Switch
16. Dual Receptacle Box
17. Dual Receptacle Box
18. Light Switch
19. Dual Receptacle Box
20. Light Switch
21. Fluorescent Light
23. Closet Light
24. Reading Light
25. CO Detector
26. Overhead Light



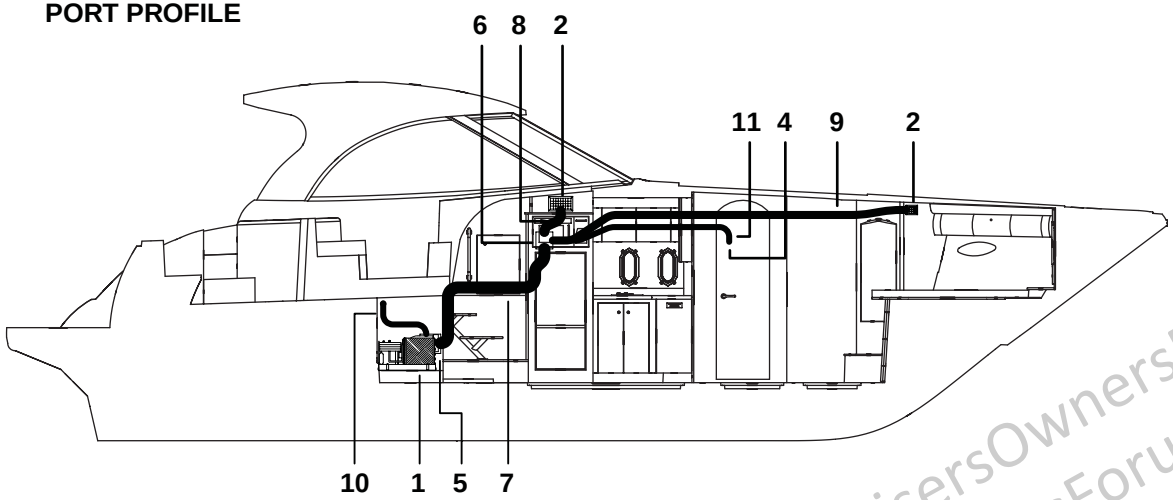
A/C PLAN VIEW

1. Air Conditioner
2. A/C Grill, 4" x 8"
3. A/C Grill, 12" x 12"
4. Round Vent
5. A/C Unit Plenum
6. Refrigerator Plenum
7. A/C Unit Plenum to Refrigerator Plenum
8. Refrigerator Plenum to Gallley
9. Refrigerator Plenum to FSR
10. A/C Unit Plenum to ASR
11. Refrigerator Plenum to Head



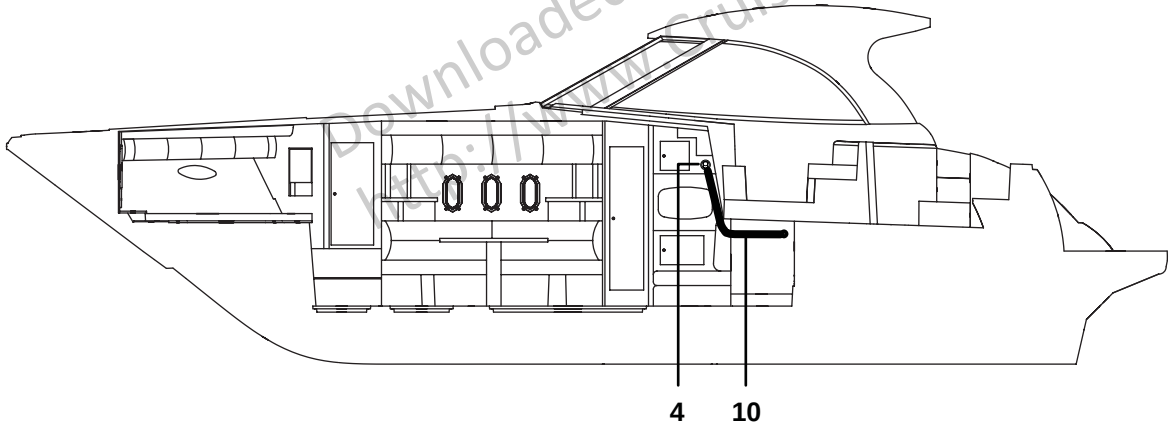
A/C PLAN VIEW (CON'T.)

PORT PROFILE



1. Air Conditioner
2. A/C Grill, 4" x 8"
3. A/C Grill, 12" x 12"
4. Round Vent
5. A/C Unit Plenum
6. Refrigerator Plenum
7. A/C Unit Plenum to Refrigerator Plenum
8. Refrigerator Plenum to Galley
9. Refrigerator Plenum to FSR
10. A/C Unit Plenum to ASR
11. Refrigerator Plenum to Head

STARBOARD PROFILE



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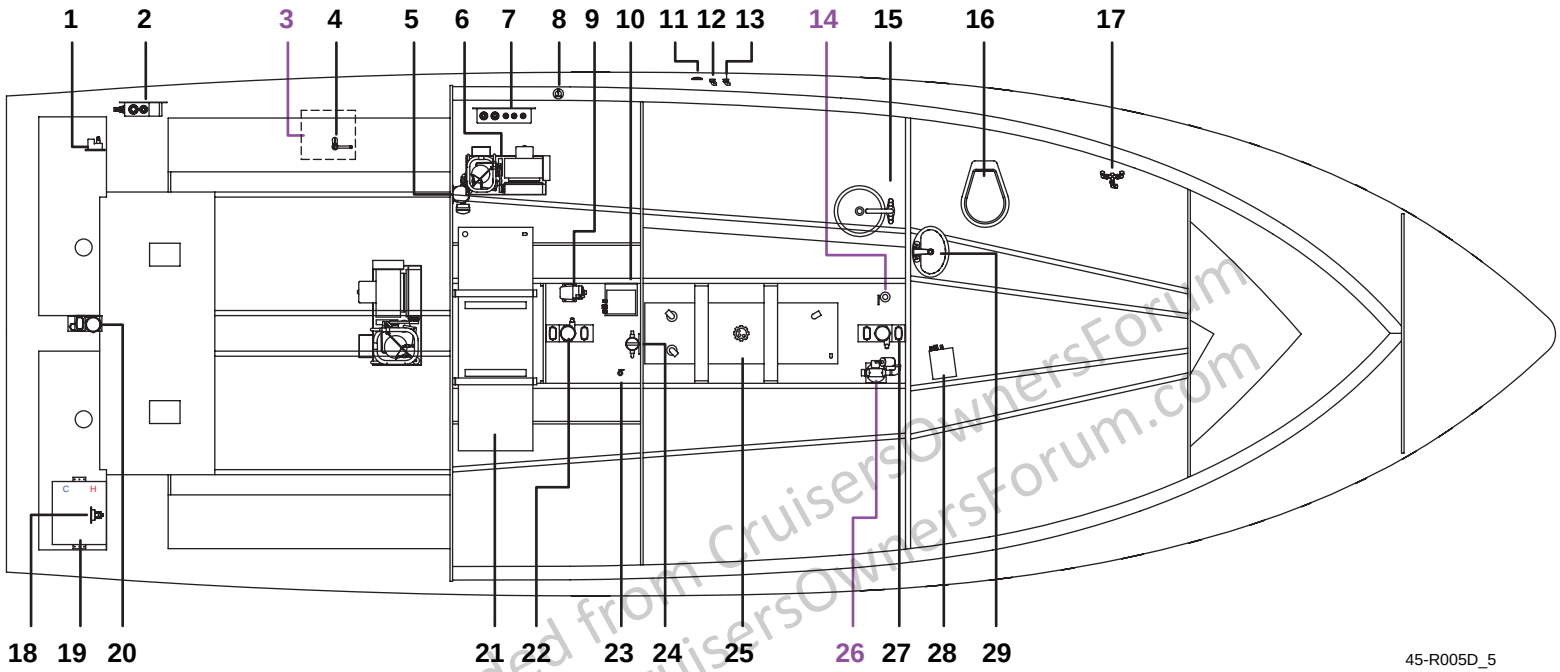
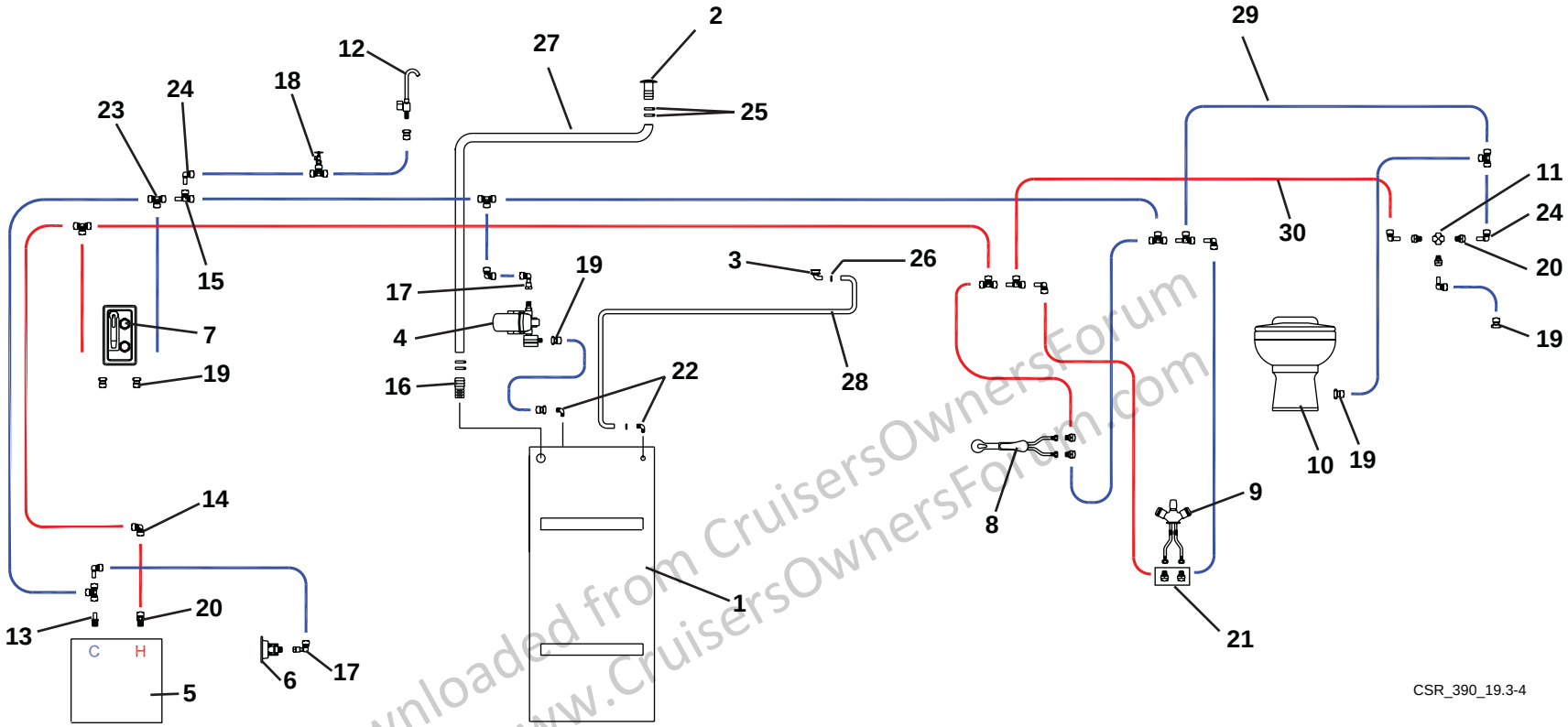
PLUMBING HARDWARE



1. Washdown Shower
2. Aft Port Plenum Box
3. Icemaker
4. Cold Faucet
5. Freshwater Pump
6. Air Conditioner
7. Forward Port Plenum Box
8. Water Deck Plate
9. A/C Pump
10. Shower Sump Pump
11. Waste Deck Plate
12. Water Vent
13. Waste Vent
14. Thru-Hull Seacock
15. Galley Faucet
16. Head
17. Shower Mixer
18. City Water Receptacle
19. Water Heater
20. Bilge Pump/Float Switch/High Water Alarm Switch
21. Water Tank
22. Bilge Pump/Float Switch
23. Intake Strainer/Seacock
24. Strainer
25. Waste Tank
26. Macerator
27. Bilge Pump/Float Switch
28. Shower Sump Pump
29. Head Faucet/Sink

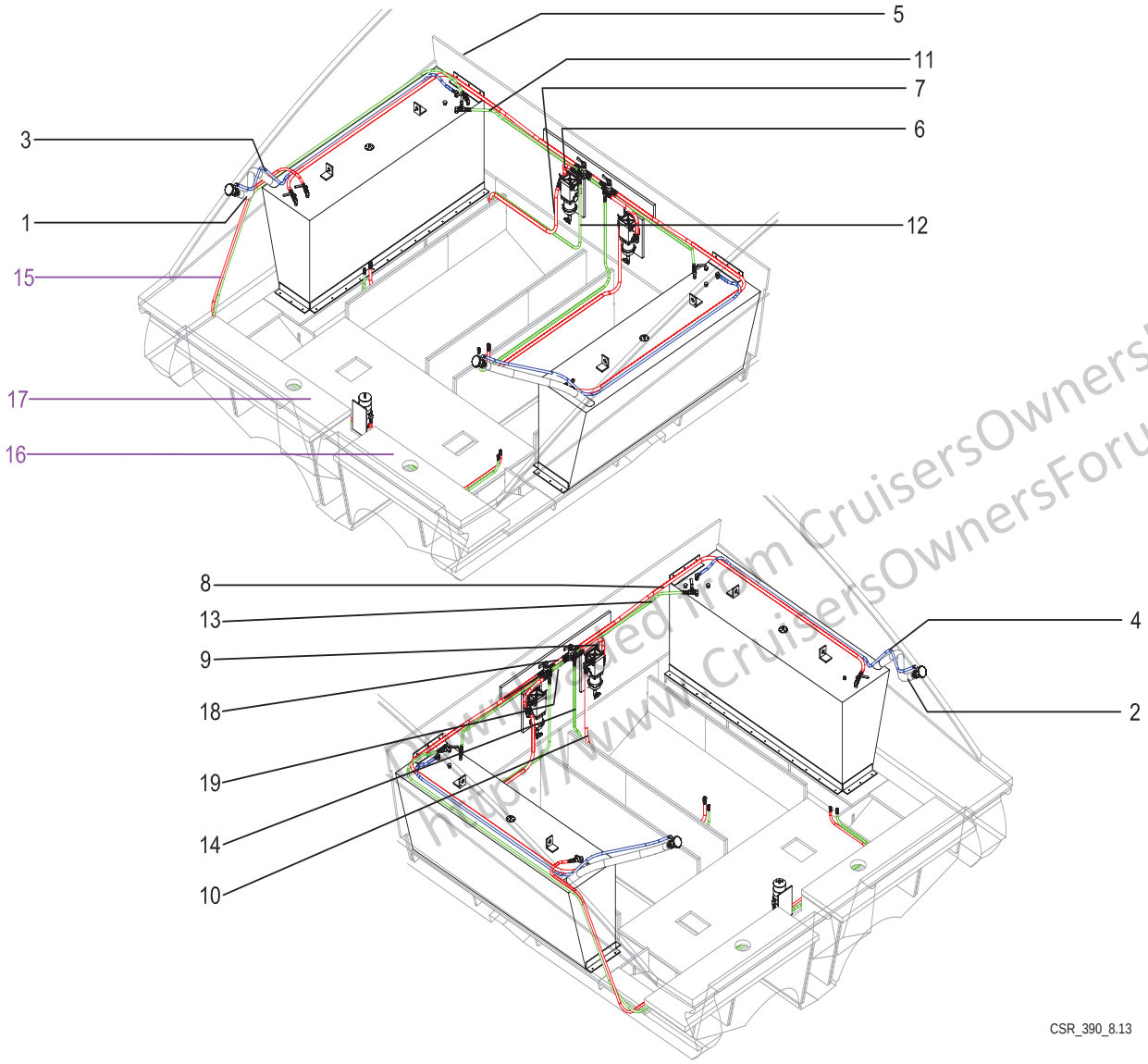
Purple = optional equipment

PLUMBING HARDWARE (CON'T.)



1. Water Tank
2. Water Deck Plate
3. Flushmount Vent
4. Freshwater Pump
5. Water Heater
6. City Water Receptacle
7. Washdown Shower System
8. Galley Faucet
9. Head Faucet
10. Head
11. Shower MIxer
12. Cold Faucet
13. Check Valve
14. Elbow
15. StemTee
16. Straight Barb
17. Elbow
18. Shutoff Tee, Ice Maker
19. Adaptor
20. Adaptor
21. Adaptor
22. Shower
23. Tee
24. Stem Elbow
25. Hose Clamp
26. Hose Clamp
27. Water Tank Fill Hose
28. Water Tank Vent Hose
29. Cold Water Hose
30. Hot Water Hose

FUEL LAYOUT – YANMAR DIESEL



1. Port Fuel Tank Fill Hose
2. Starboard Fuel Tank Fill Hose
3. Port Fuel Tank Vent Hose
4. Starboard Fuel Tank Vent Hose
5. Port Tank Feed to Crossover
6. Crossover to Port Fuel Filter
7. Port Fuel Filter to Port Engine Feed
8. Starboard Tank Feed to Crossover
9. Crossover to Starboard Fuel Filter
10. Starboard Fuel Filter to Starboard Engine Feed
11. Port Tank Return to Crossover
12. Crossover to Port Engine Return
13. Starboard Tank Return to Crossover
14. Crossover to Starboard Engine Return
15. Port Tank Feed to Genset Fuel Filter
16. Genset Fuel Filter to Genset Feed
17. Port Tank Return to Genset
18. Port Crossover to Starboard Crossover Feed
19. Port Crossover to Starboard Crossover Return

Purple = optional equipment

FUEL LAYOUT DRAWING LEGEND	
COLOR	HOSE TYPE
	FUEL FEED
	FUEL RETURN
	FUEL VENT
	FUEL FILL

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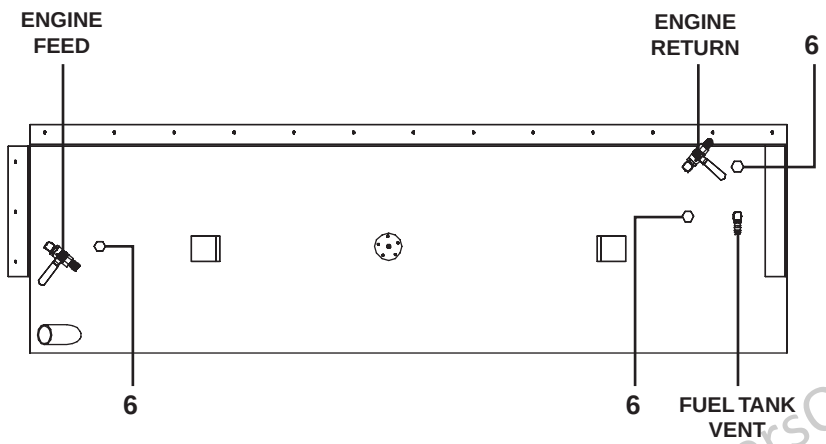
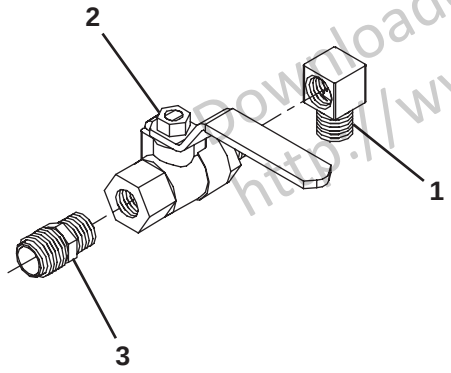
DIESEL FUEL TANK AND FITTINGS – STARBOARD

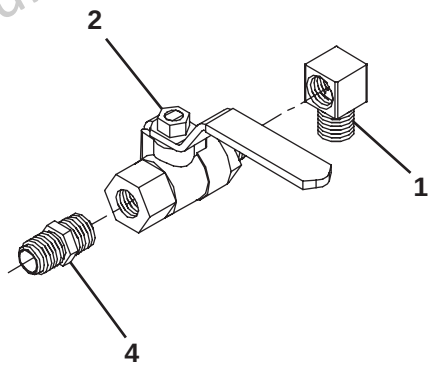


1. Elbow
2. Ball Valve
3. Aeroquip Adapter
4. Adapter
5. Hose Barb
6. Pipe Plug

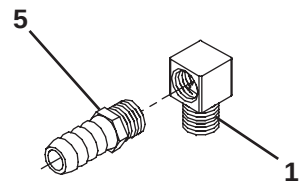
ENGINE FEED



ENGINE RETURN



FUEL TANK VENT



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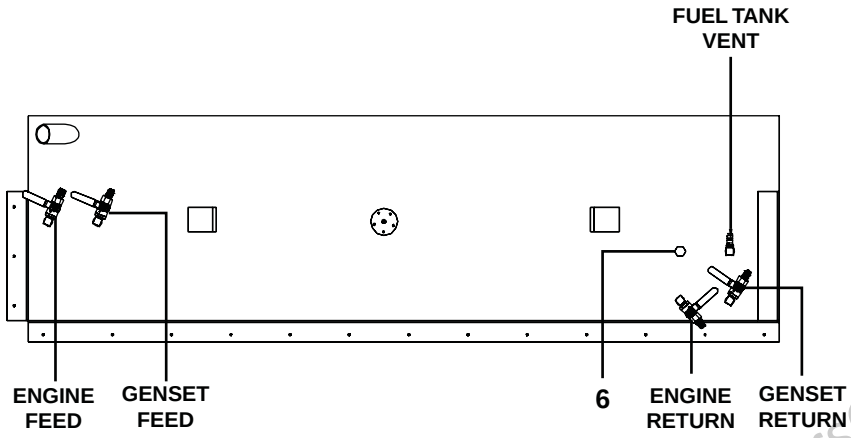
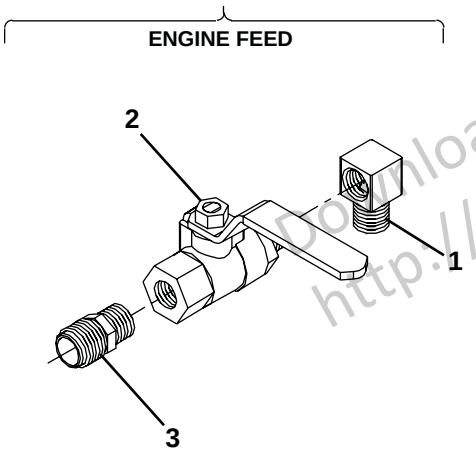
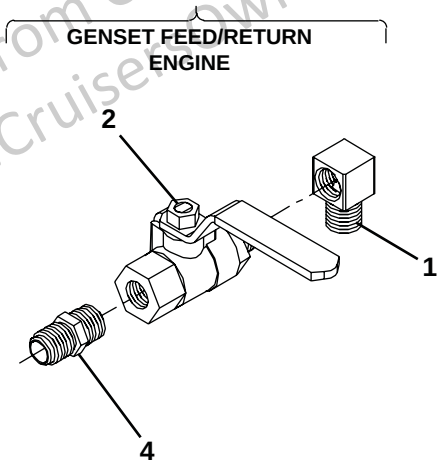
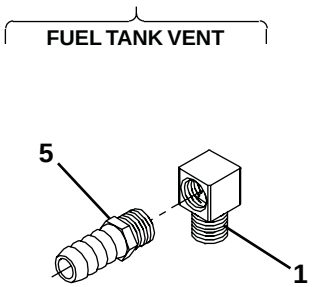
DIESEL FUEL TANK AND FITTINGS – PORT

1. Elbow
2. Ball Valve
3. Aeroquip Adapter
4. Adapter
5. Hose Barb
6. Pipe Plug









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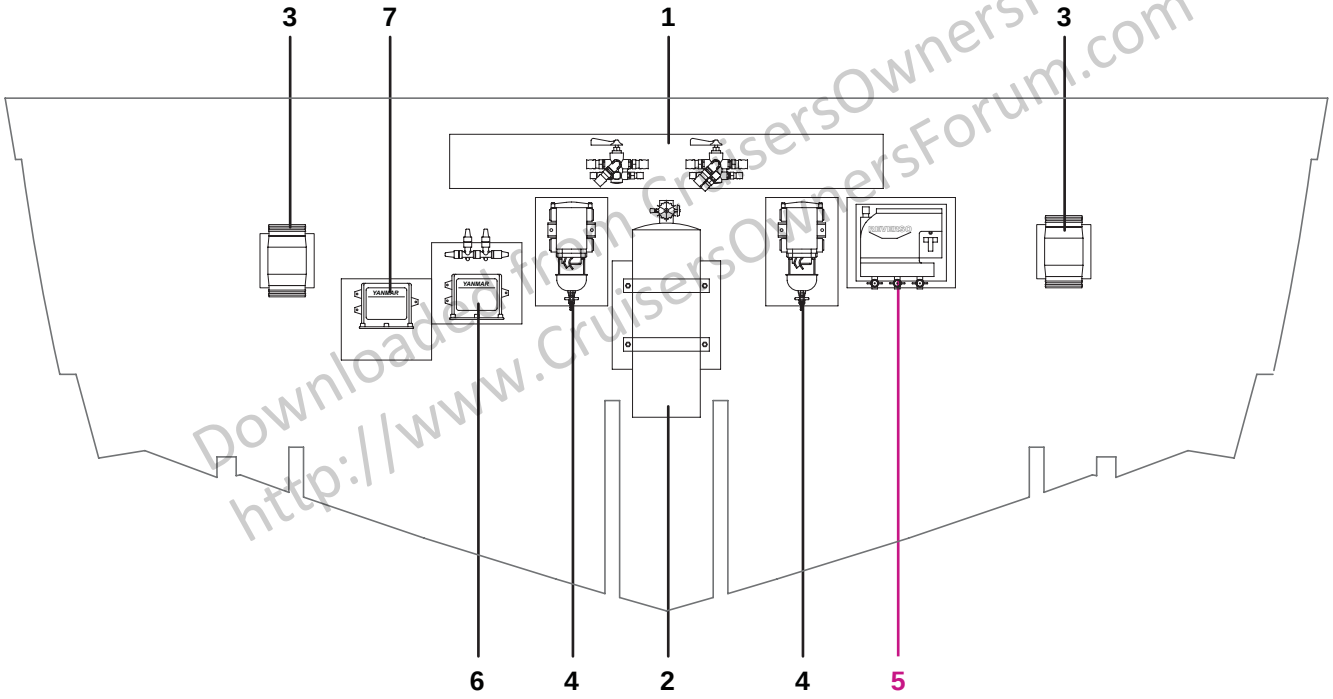
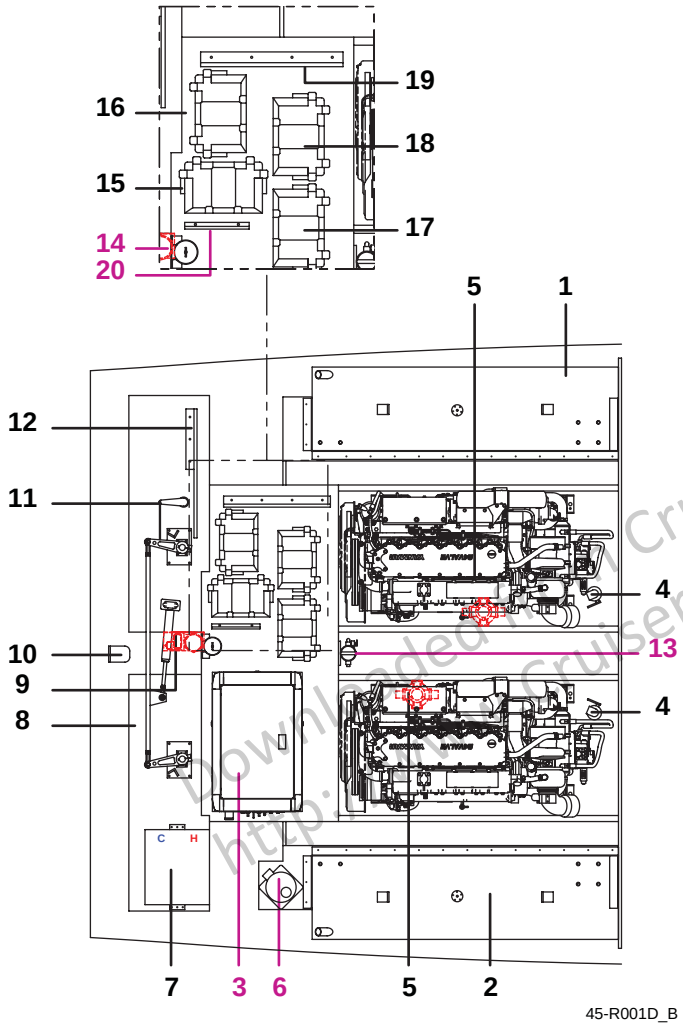
ENGINE ROOM BULKHEAD AND ELECTRICAL PANEL – YANMAR

1. Fuel Crossover Board
2. Extinguisher
3. Blower
4. Fuel Filter Separator
5. Reverso Oil Pump
6. Yanmar Control Box
7. Yanmar Control Box

Purple = optional equipment



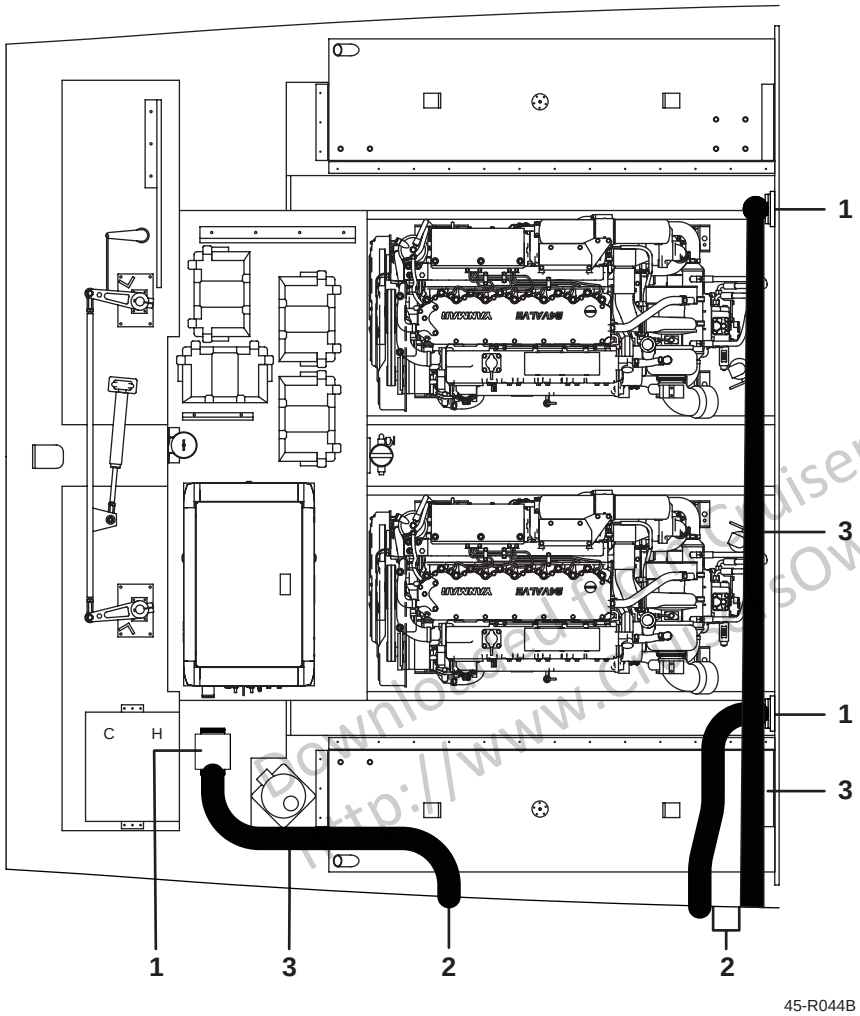
ENGINE ROOM GENERAL LAYOUT – YANMAR



1. Port Fuel Tank
2. Starboard Fuel Tank
3. Generator
4. Strainer/Thru-Hull/Seacock
5. Raw Water Strainer
6. Muffler
7. Water Heater
8. Steering System
9. Float Switch/Bilge Pump/High Water Alarm
10. Trim Tab Pump
11. Rudder Indicator
12. Battery Charger Board Assembly
13. Strainer/Thru-Hull/Seacock
14. Fuel Filter
15. Battery Box/12V Deep Cycle Battery
16. Battery Box/12V Cranking Battery
17. Battery Box/12V Deep Cycle Battery
18. Battery Box/12V Cranking Battery
19. Battery Switch Board Assembly
20. Oil Exchange

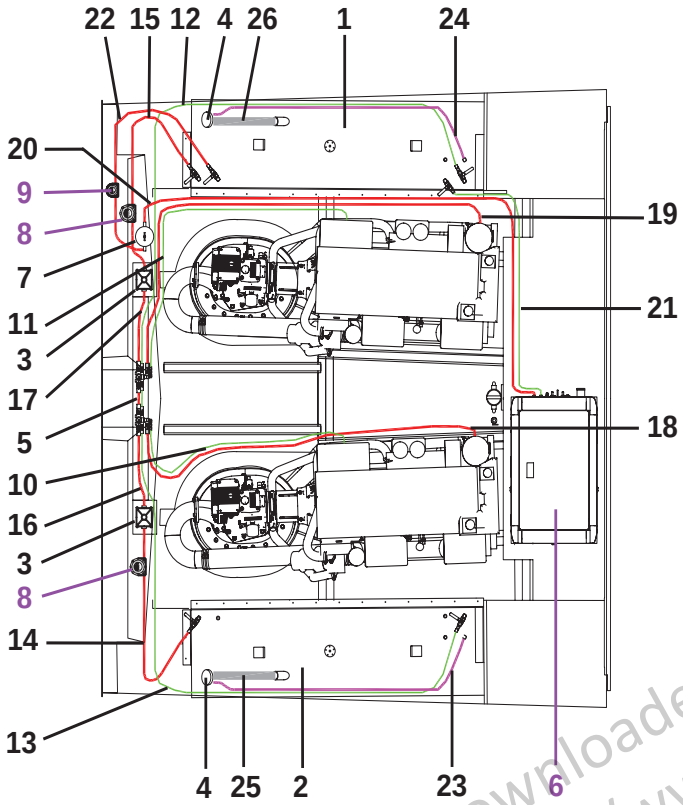
Purple = optional equipment

ENGINE ROOM VENT LAYOUT – YANMAR



1. Blower
2. Blower Vent Grill
3. Vent Hose

FUEL LAYOUT – VOLVO IPS



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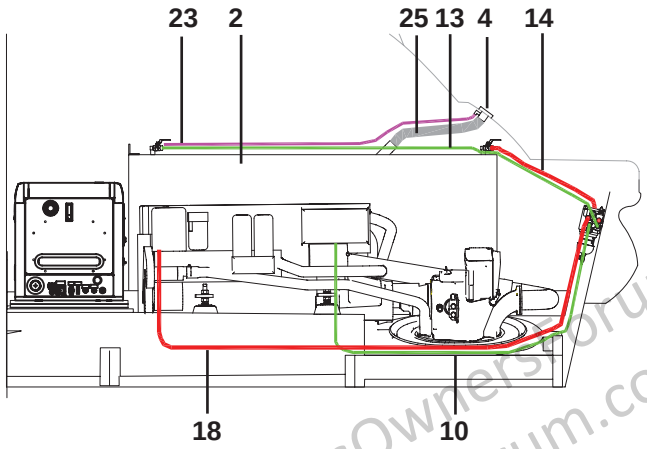
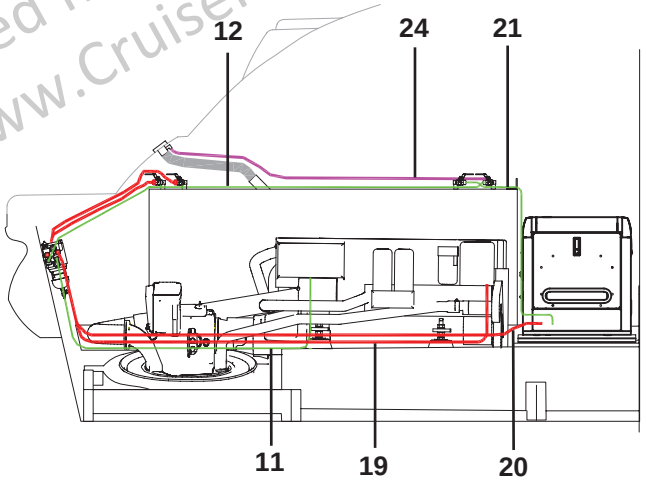
STARBOARD PROFILE



PORT PROFILE



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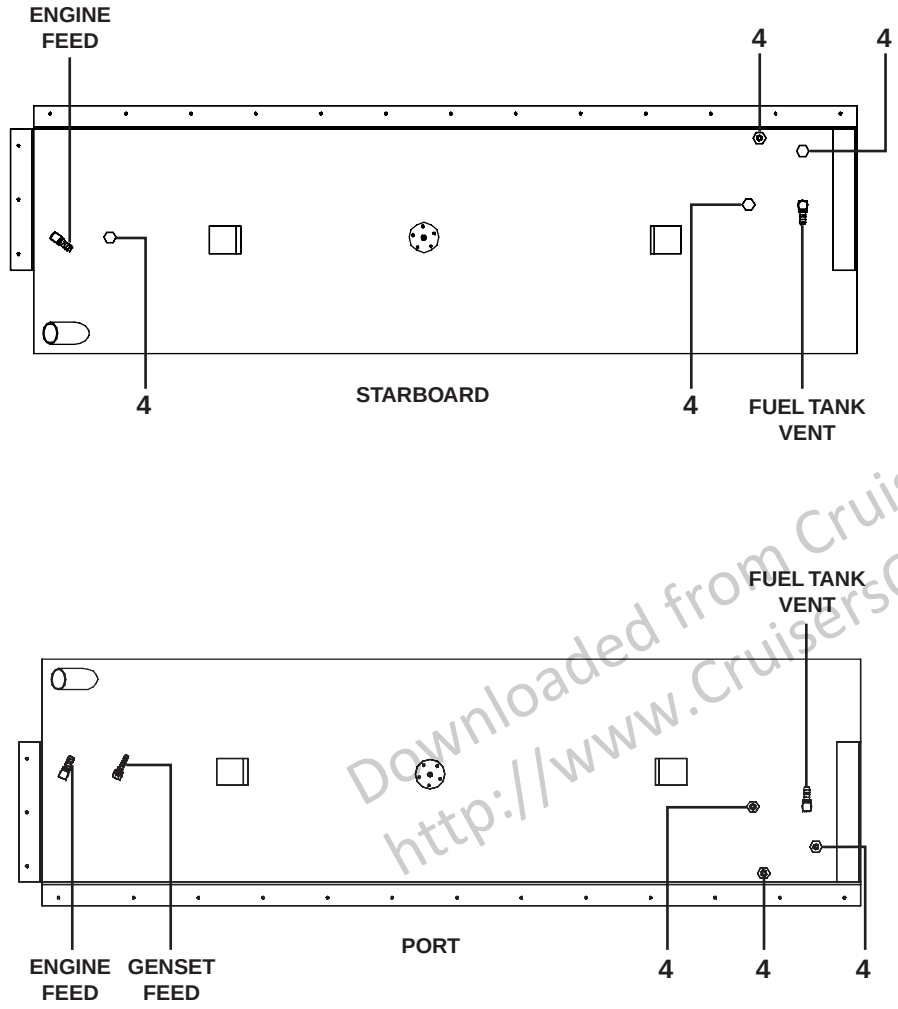
FUEL LAYOUT DRAWING LEGEND	
COLOR	HOSE TYPE
	FUEL FEED
	FUEL RETURN
	FUEL VENT
	FUEL FILL

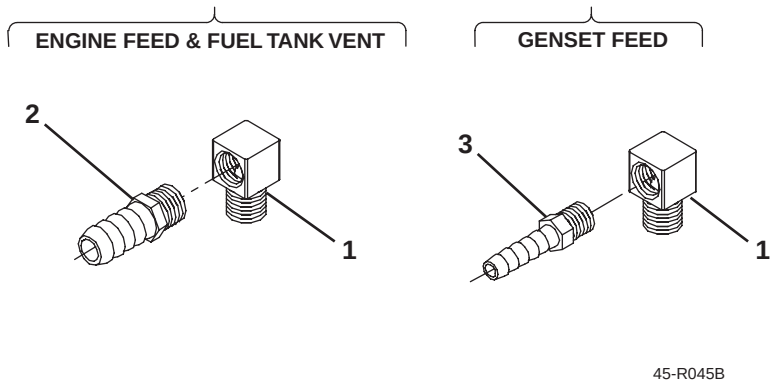
1. Port Fuel Tank
2. Starboard Fuel Tank
3. Separator Fuel Filter
4. Fill Deck Plate
5. Crossover
6. Generator
7. Fuel Filter
8. Fuel Conditioner
9. Fuel Conditioner
10. Starboard Engine Return to Crossover
11. Port Engine Return to Crossover
12. Crossover to Port Tank Return
13. Crossover to Starboard Tank Return
14. Starboard Tank Feed to Filter
15. Port Tank Feed to Filter
16. Starboard Filter to Crossover
17. Port Filter to Crossover
18. Starboard Filter to Engine Feed
19. Port Filter to Engine Feed
20. Genset Filter to Genset
21. Genset Return to Port Tank
22. Port Tank Feed to Genset Filter
23. Starboard Fuel Tank Vent Hose
24. Port Fuel Tank Vent Hose
25. Starboard Fuel Tank Fill Hose
26. Port Fuel Tank Fill Hose

Purple = optional equipment

FUEL TANK AND FITTINGS – VOLVO GAS



1. Elbow
2. Hose Barb
3. Hose Barb
4. Pipe Plug

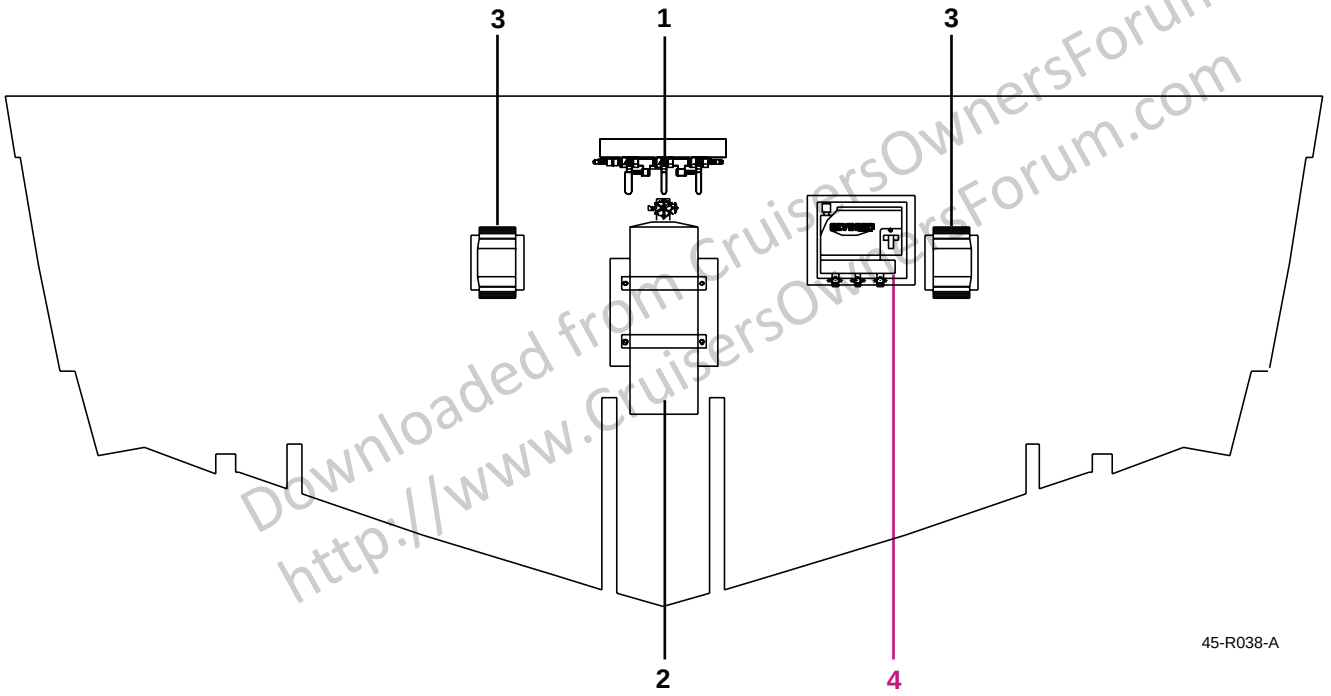


45-R045B

ENGINE ROOM BULKHEAD – VOLVO GAS

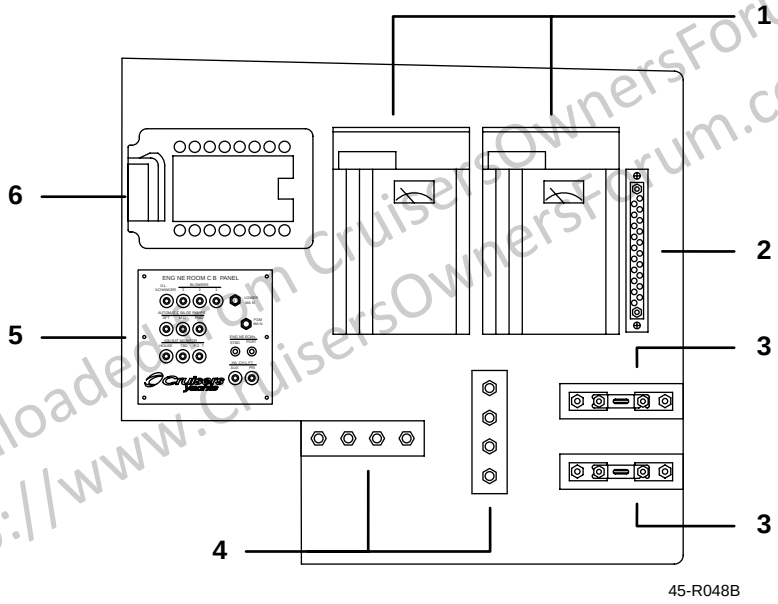
1. Fuel Crossover Board
2. Extinguisher
3. Blower
4. Reverso Oil Pump

Purple = optional equipment

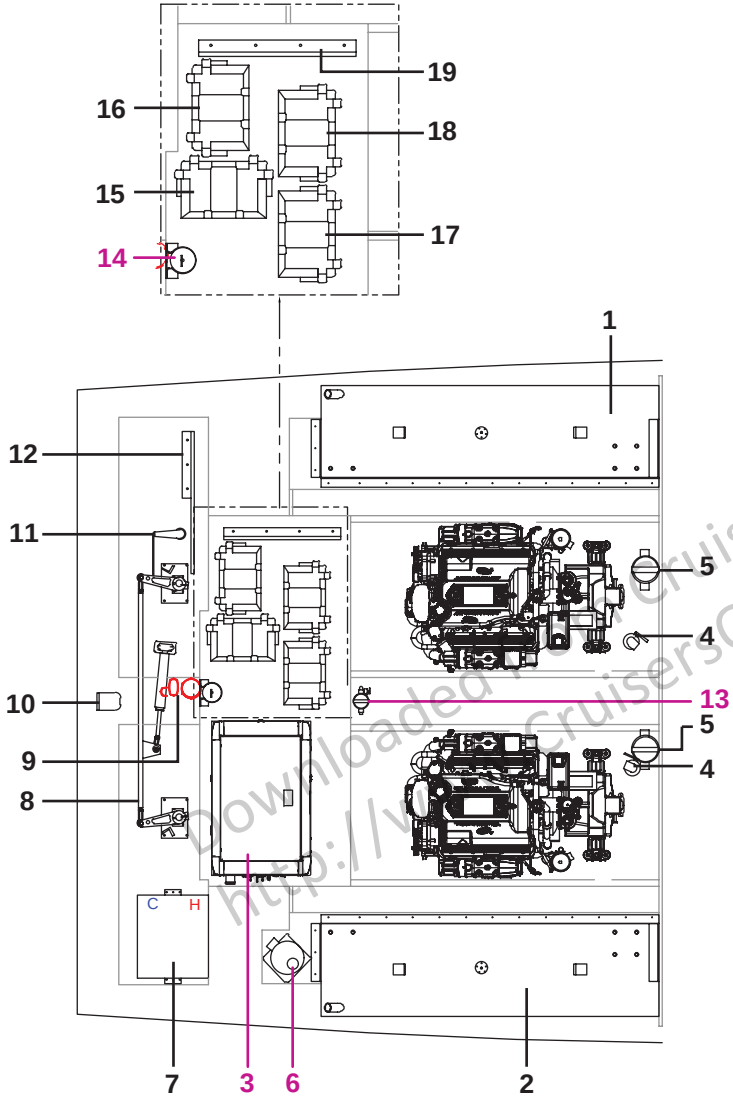


BATTERY CHARGER BOARD – VOLVO GAS

1. Battery Charger
2. Terminal Block
3. Fuse Block 150-Amp Fuse
4. Power Terminal Bar
5. Engine Room Panel
6. EPLEX PDM Module



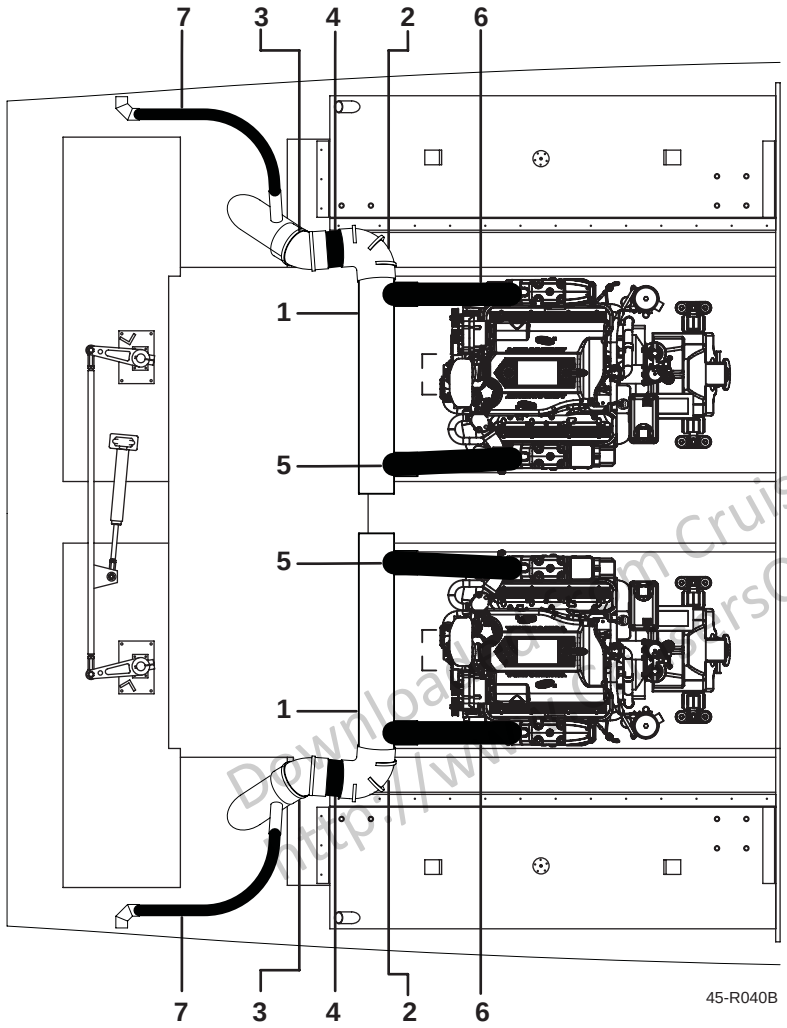
ENGINE ROOM GENERAL LAYOUT – VOLVO GAS



1. Port Fuel Tank
2. Starboard Fuel Tank
3. Generator
4. Thru-Hull/Seacock
5. Strainer
6. Muffler
7. Water Heater
8. Steering System
9. Float Switch/Bilge Pump/High Water Alarm Switch
10. Trim Tab Pump
11. Rudder Indicator/Sender
12. Battery Charger Board Assembly
13. Strainer/Thru-Hull/Seacock
14. Fuel Filter
15. Battery Box/12V Deep-Cycle Battery
16. Battery Box/12V Cranking Battery
17. Battery Box/12V Deep-Cycle Battery
18. Battery Box/12V Cranking Battery
19. Battery Switch Board Assembly

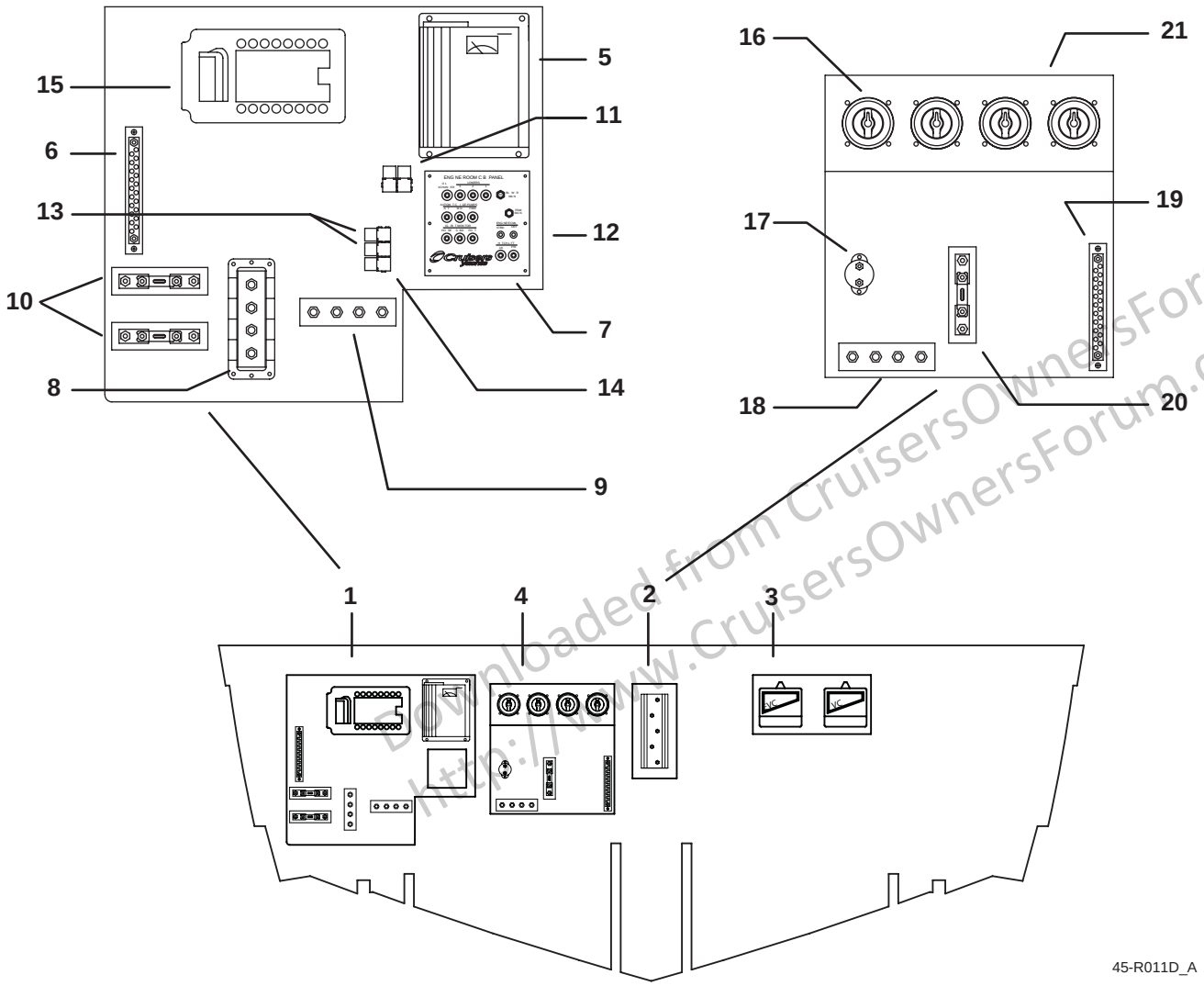
Purple = optional equipment

ENGINE EXHAUST LAYOUT – VOLVO GAS



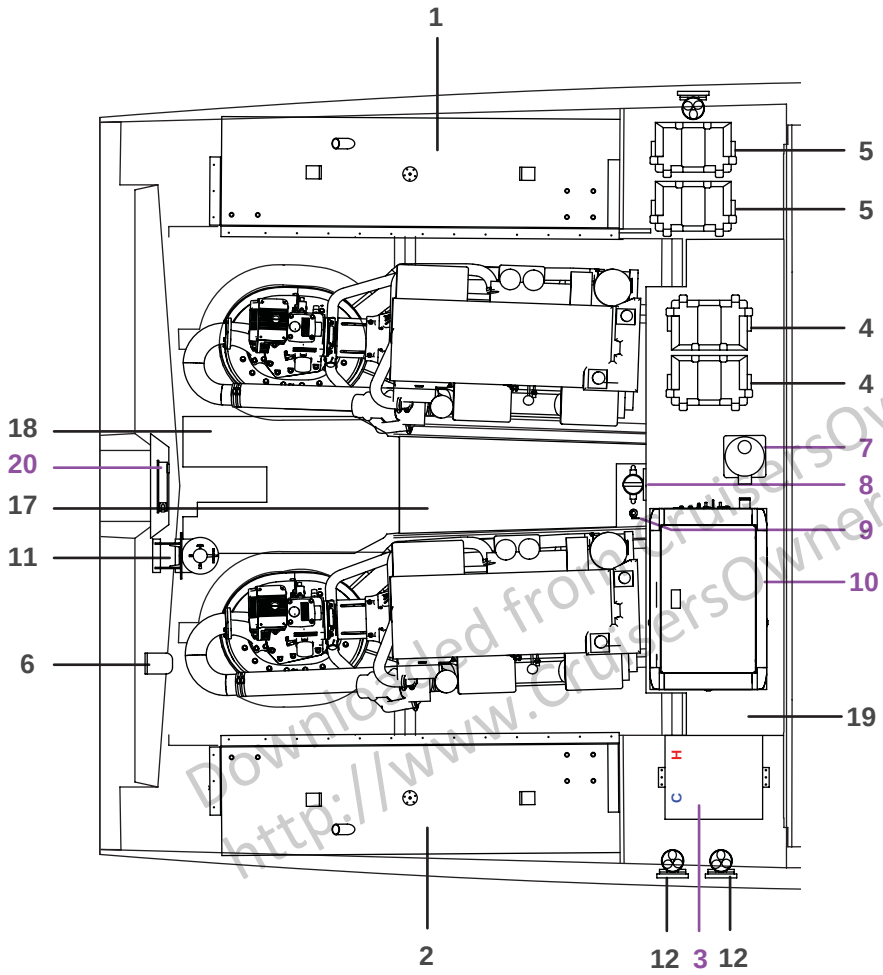
1. Exhaust Collector
2. Exhaust Elbow
3. Exhaust Elbow
4. Exhaust Hose
5. Exhaust Hose
6. Exhaust Hose
7. Exhaust Hose

ENGINE ROOM BULKHEAD – VOLVO IPS



1. Engine Room Electrical Panel
2. Battery Isolator
3. EVC Boxes
4. Battery Switch Box
5. Battery Charger
6. Terminal Block
7. Engine Room Breaker Panel Assembly
8. Power Terminal Bar (Pos+)
9. Power Terminal Bar (Neg-)
10. Fuse Block, 150 Amp
11. Yanmar Engine Relays - Yanmar Only
12. Engine Room Electrical Panel
13. PDM Box Relays
14. Blower Relay
15. EPLEX PDM Module
16. Battery Switch
17. Battery Pigtail X-Conn, 12V
18. Power Terminal Bar
19. Terminal Block
20. Fuse Block, 300 Amp
21. Battery Switch Assembly

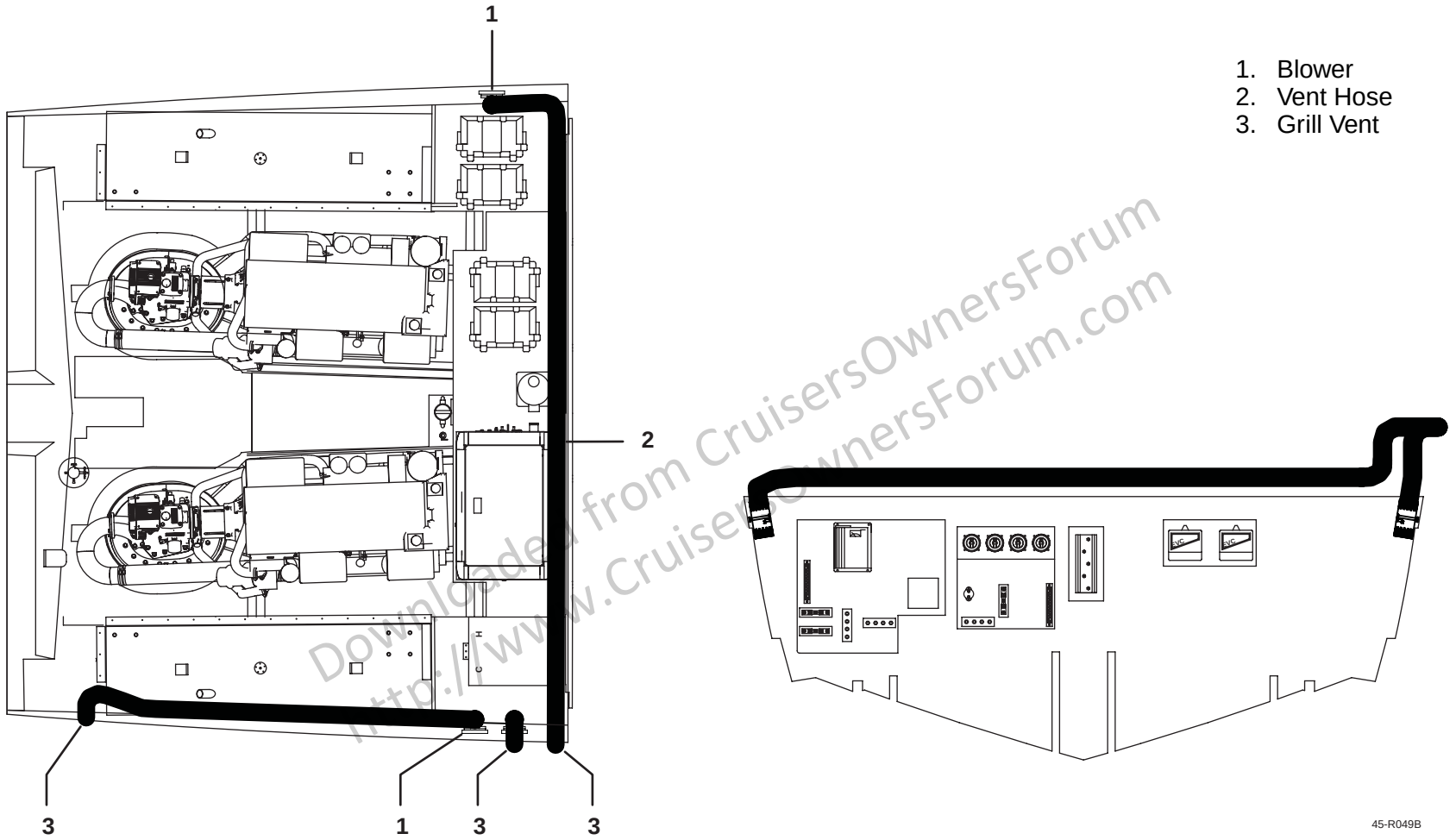
ENGINE ROOM GENERAL LAYOUT – VOLVO IPS



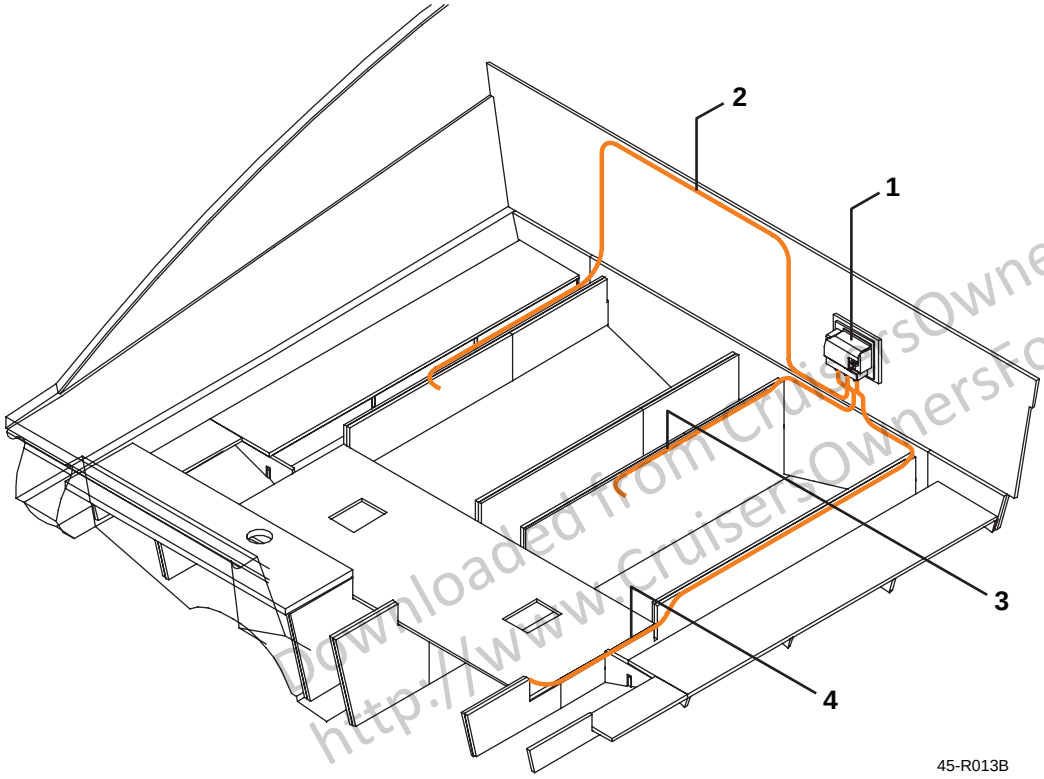
1. Port Fuel Tank
2. Starboard Fuel Tank
3. Water Heater
4. Battery Box/12V Cranking Battery
5. Battery Box/12V Deep-Cycle Battery
6. Trim Tab Pump
7. Muffler
8. Strainer
9. Seacock/Strainer
10. Generator
11. Extinguisher
12. Blower
17. Floor, Center, IPS
18. Floor, Aft, IPS
19. Floor, Gen, IPS
20. Reverso Oil Pump

Purple = optional equipment

ENGINE ROOM BLOWER RUNS – VOLVO IPS

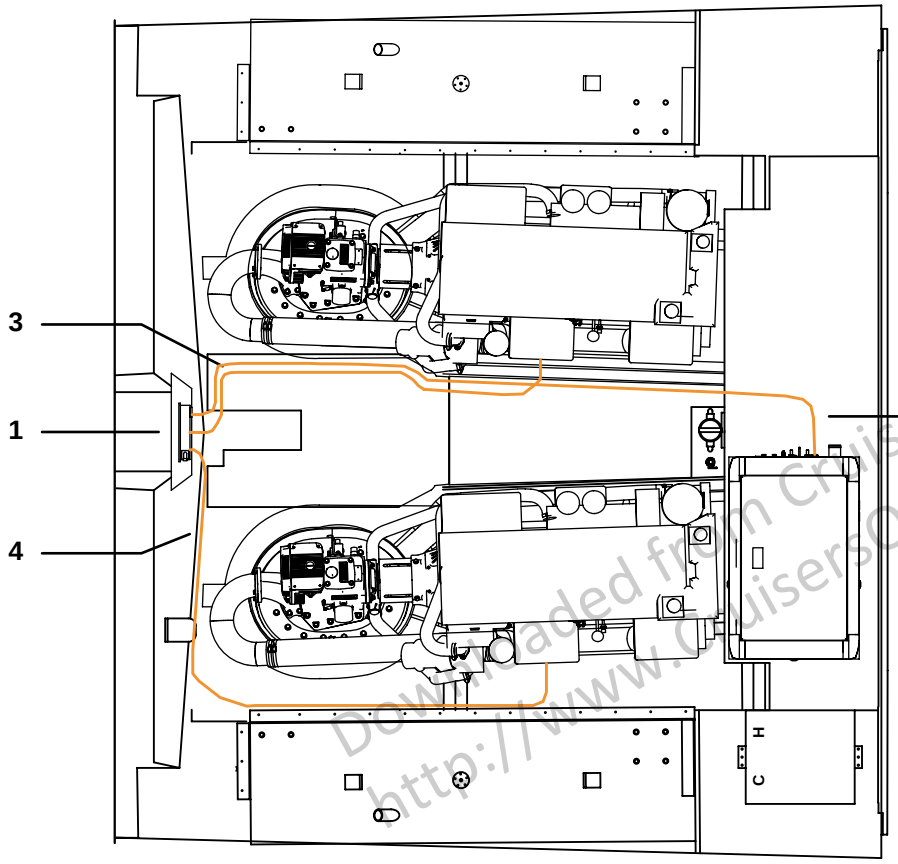


OIL EXCHANGE LAYOUT



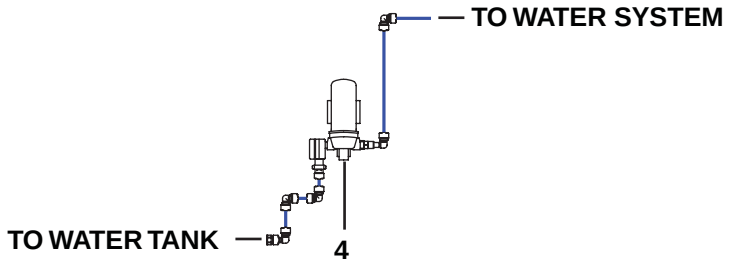
1. Reverso Oil Pump
2. Starboard Engine Oil Exchange Hose
3. Port Engine Oil Exchange Hose
4. Generator Oil Exchange Hose

OIL EXCHANGE LAYOUT – VOLVO IPS

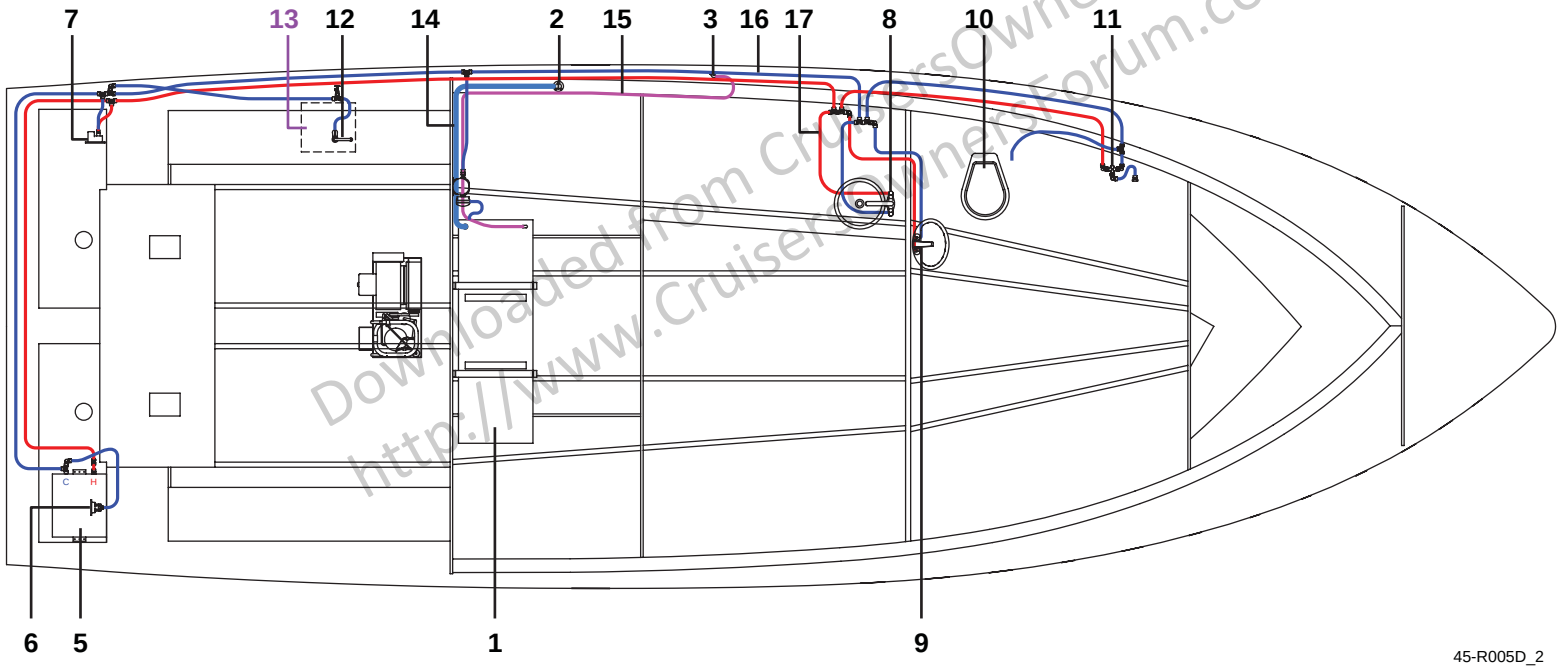


1. Reverso Oil Pump
2. Generator Oil Exchange Hose
3. Port Engine Oil Exchange Hose
4. Starboard Engine Oil Exchange Hose

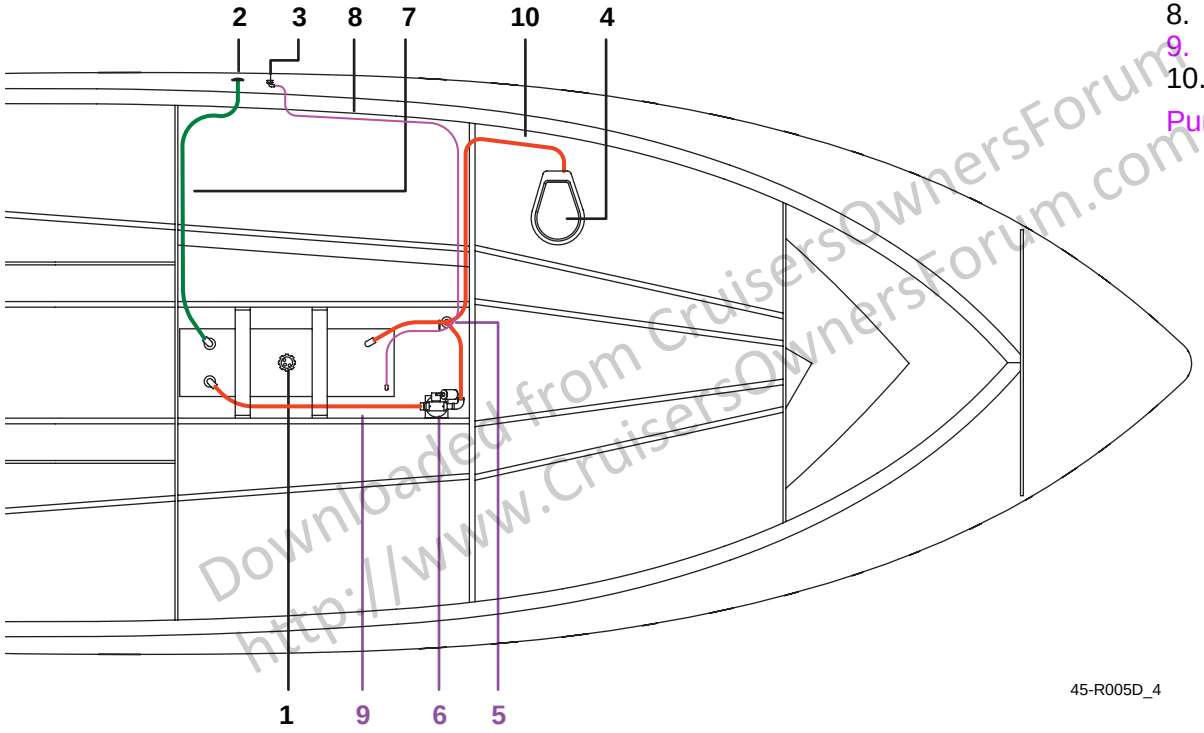
FRESH WATER LAYOUT



1. Water Tank
2. Water Deck Plate w/o Key
3. Vent
4. Freshwater Pump
5. Water Heater
6. City Water Receptacle
7. Washdown Shower System
8. Galley Faucet
9. Head Faucet
10. Head
11. Shower Mixer
12. Cold Faucet
13. Icemaker
14. Water Tank Fill Hose
15. Water Tank Vent Hose
16. Cold Water Hose
17. Hot Water Hose



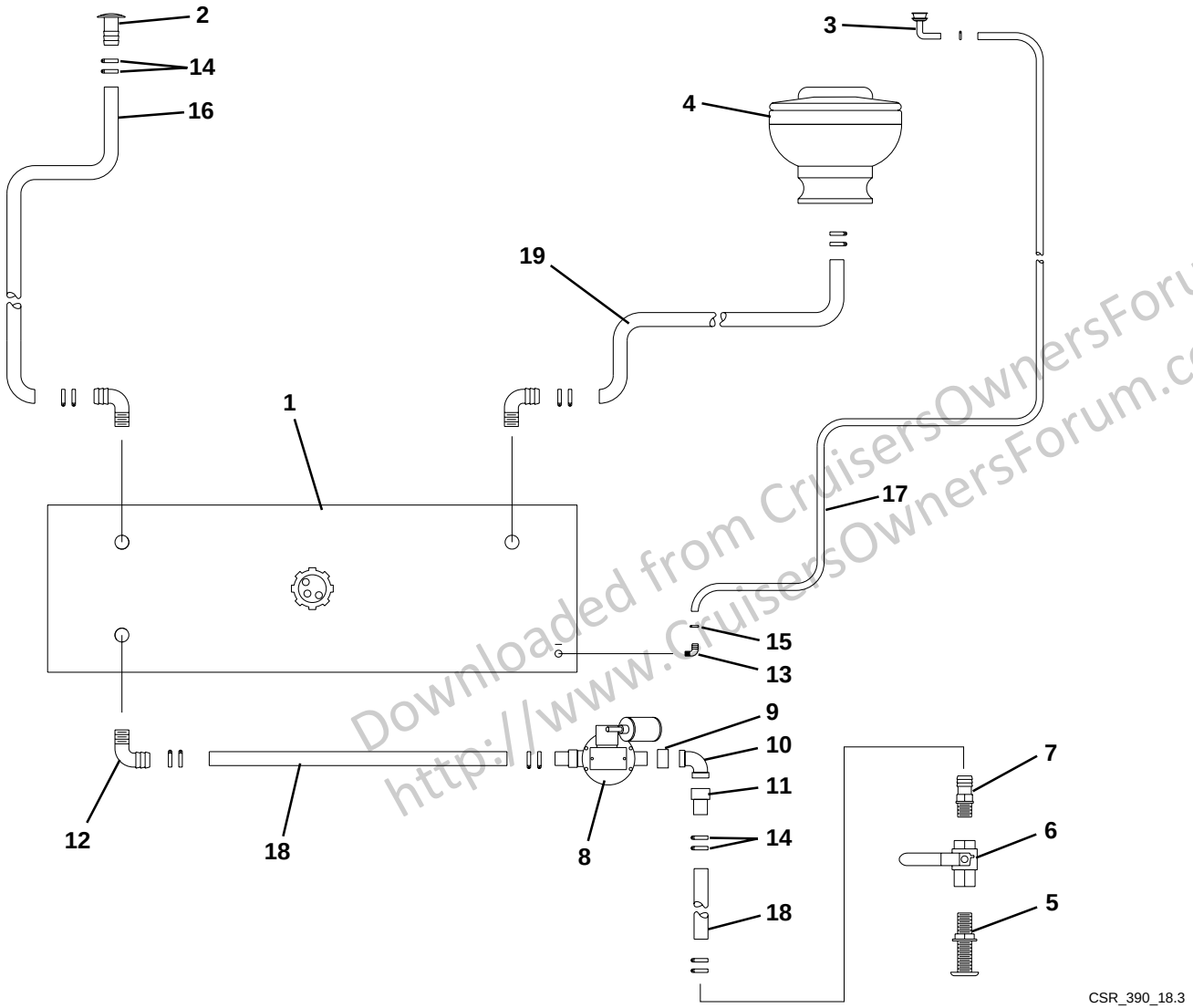
WASTE LAYOUT



1. Waste Tank
2. Waste Deck Plate
3. Vent
4. Head
5. Thru-Hull/Seacock
6. Macerator
7. Waste Tank Pump-out Hose
8. Waste Tank Vent Hose
9. Macerator Pump-out Hose
10. Head to Waste Tank Hose

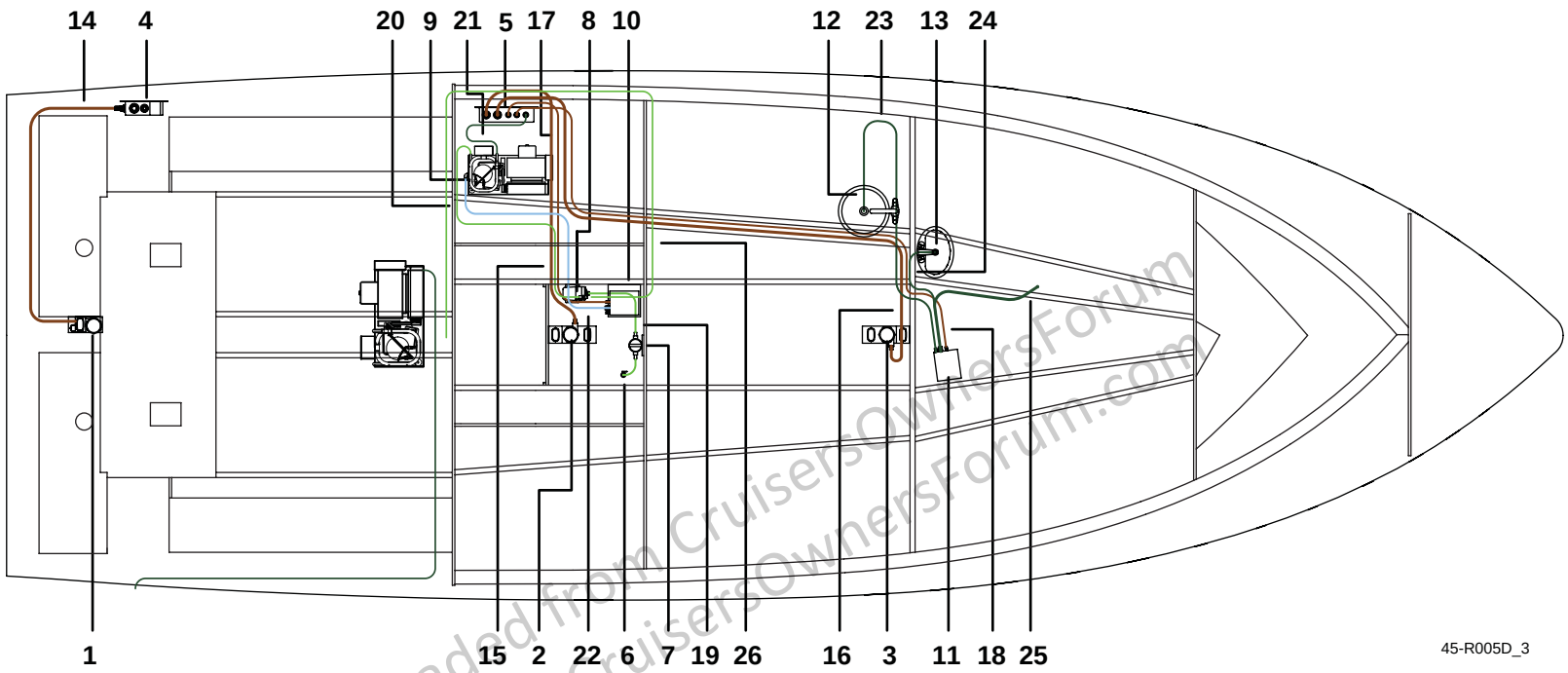
Purple = optional equipment

WASTE LAYOUT (CONT.)



1. Waste Tank
2. Waste Deck Plate
3. Flushmount Vent
4. Head
5. Thru Hull Fitting
6. Seacock, Ball Type
7. Hose Barb
8. Macerator Pump
9. Adaptor Sealed Pump
10. Adaptor
11. Elbow
12. Elbow
13. Elbow
14. Hose Clamp
15. Hose Clamp
16. Waste Tank Pump Out Hose
17. Waste Tank Vent Hose
18. Macerator Pump Out Hose
19. Head to Waste Tank Hose

RAW WATER LAYOUT



1. Bilge Pump/Float Switch/High Water Alarm Switch/High Water Alarm
2. Bilge Pump/Float Switch/High Water Alarm
3. Bilge Pump/Float Switch/High Water Alarm
4. Aft Port Plenum Box Assembly
5. Forward Port Plenum Box Assembly
6. Intake Strainer/Seacock
7. Strainer
8. A/C Pump
9. Air Conditioner
10. Shower Sump Pump
11. Shower Sump Pump
12. Strainer/Trap
13. Drain w/Trap
14. Aft Bilge Pump-out Hose
15. Mid Bilge Pump-out Hose
16. Forward Bilge Pump-out Hose
17. Aft Shower Sump Pump-out Hose
18. Forward Shower Sump Pump-out Hose
19. A/C Raw Water Pickup to Pump
20. A/C Raw Water Pickup to Unit
21. A/C Raw Water Discharge
22. A/C Condensation Hose
23. Galley Sink Drain Hose
24. Head Sink Drain Hose
25. Shower Drain Hose
26. Raw Water to Generator

LIFTING AND STORING YOUR BOAT

⚠ CAUTION

DO NOT lift a yacht with a large amount of water in the bilge! Undue stress will be put on the hull that may cause damage which is not covered under the warranty.

Slings must never contact or exert a force on shafts, struts or hardware protruding from the hull. This type of stress can damage fiberglass, bend or misalign parts, which is not covered under the warranty.

Use two web slings and 13 ft (4 m) to 16 ft (5 m) spreader bars to lift the yacht based on the width of your yacht's beam. Refer to **SPECIFICATIONS**. Slings must have a minimum width of 6 inches (0.152 m) and a capacity rating high enough to support the yacht. Spreader bars reduce the side pressure at the yacht's sheer line and prevent distortion or damage to the deck or gunwale molding.

Put slings around the hull at positions marked "SLING." The sling decal is located just under the gunwale molding. Make sure the sling contacts the bottom of the hull for the entire length with no twists in the sling.

When lifting the yacht, keep the bow slightly higher than the stern to keep water from running into engine manifold. Water can cause corrosion or damage to the engine.

⚠ CAUTION

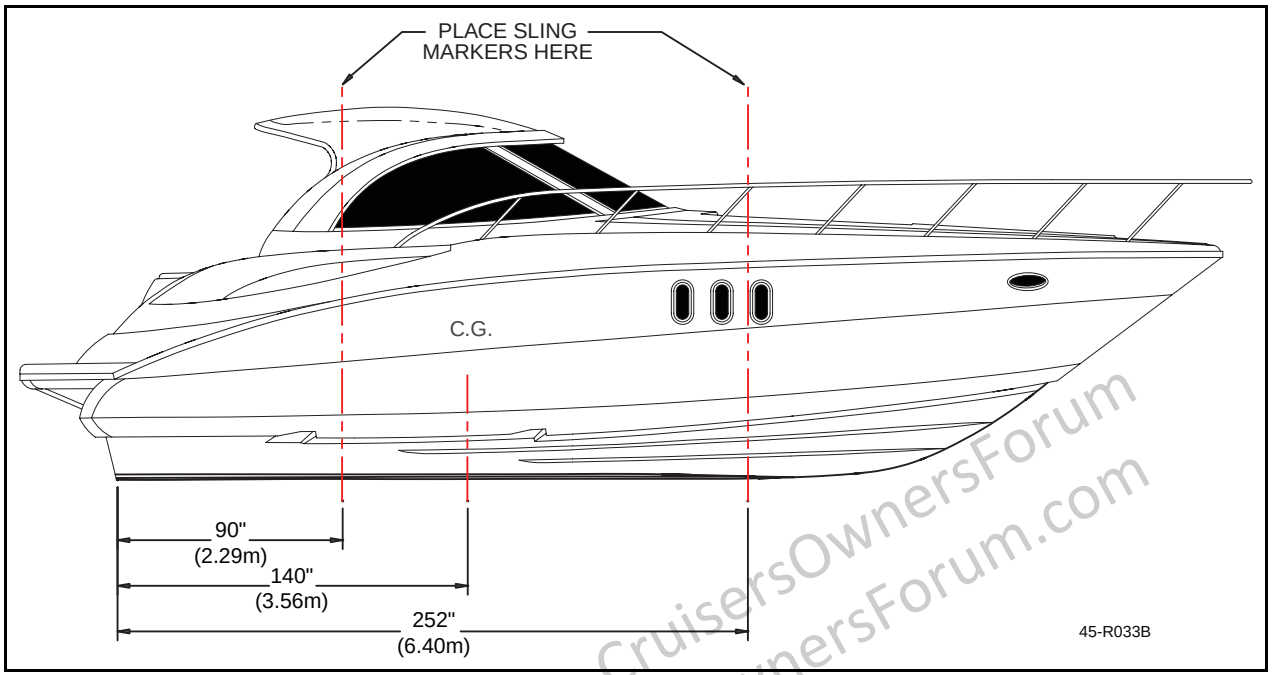
When your yacht is out of the water, it is important to support the hull correctly to avoid any hull damage.

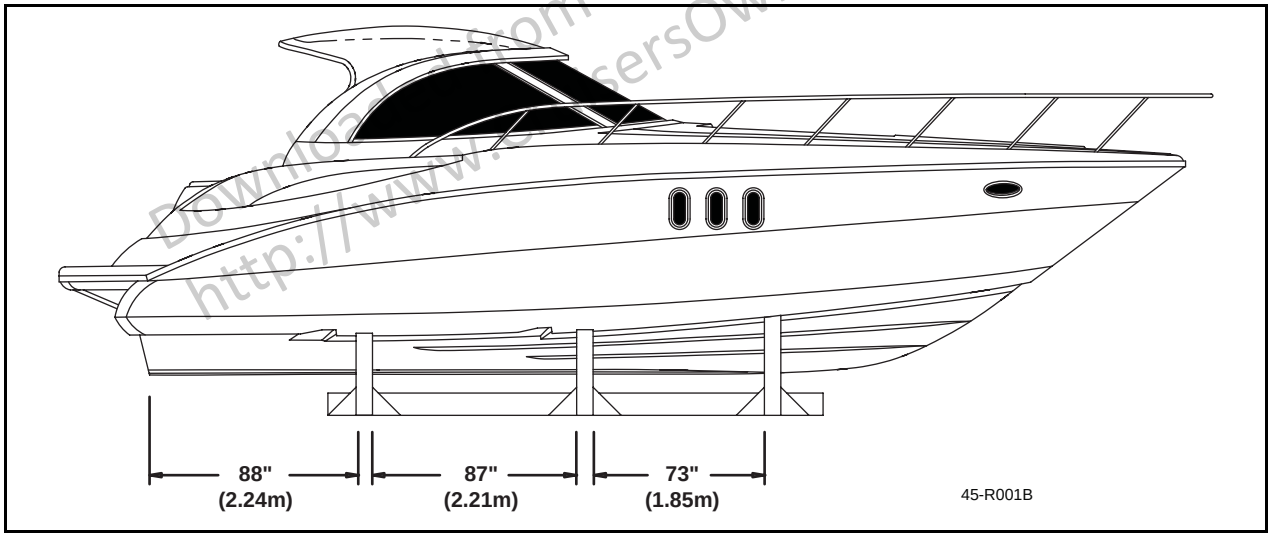
The shipping/storage-cradle will provide the proper support at the recommended positions. The load at the cradle support areas is less than 10 pounds per square inch (4.54 kg per .025 m). Make sure the cradle is level and completely supported on the ground to eliminate any cradle or hull distortion. Contact your Cruisers Yachts Dealer to order a cradle.

If a factory-supplied cradle is not available, use extreme care to support the hull as shown. Do not support yacht by resting hull on keel; the load will be more than 10 pounds per square inch (4.54 kg per .025 m)! Vertical supports must extend from chine to keel to chine with no gaps between the hull and cradle supports. Protect all items extending from the hull from resting on the support or ground. DO NOT apply any load stress to propellers, shafts, rudders, struts or drive systems.

If a cradle can not be used, use foam blocks on the keel and jackstands on the chine.

For more information on storing your yacht, refer to **STORAGE AND EXTENDED LAY-UP** in **Section 8** of the **Getting Started** manual.





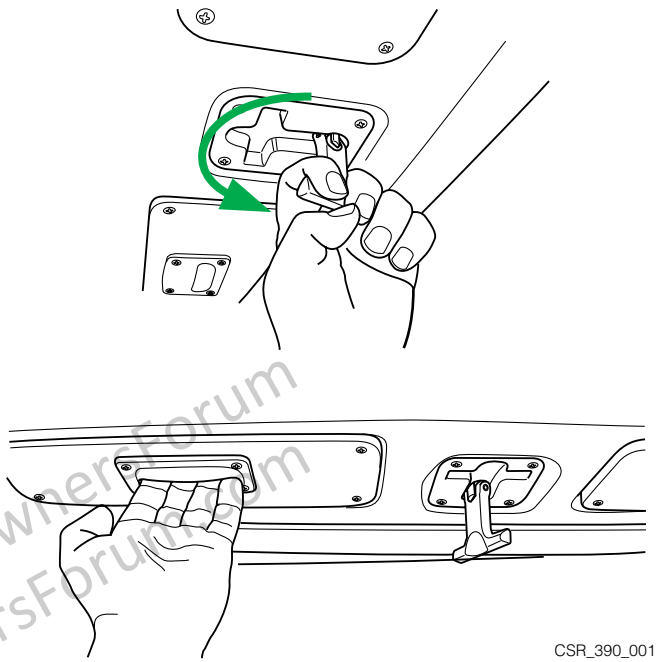
HARDTOP SLIDING SUNROOF

⚠ WARNING

The sunroof not locked in its detents can cause death or serious injury. Lock the sunroof in its detents before getting the boat underway. DO NOT stand in the opening or try to open or close the sunroof when the boat is underway.

The sunroof has three positions; closed, partially opened or fully opened.

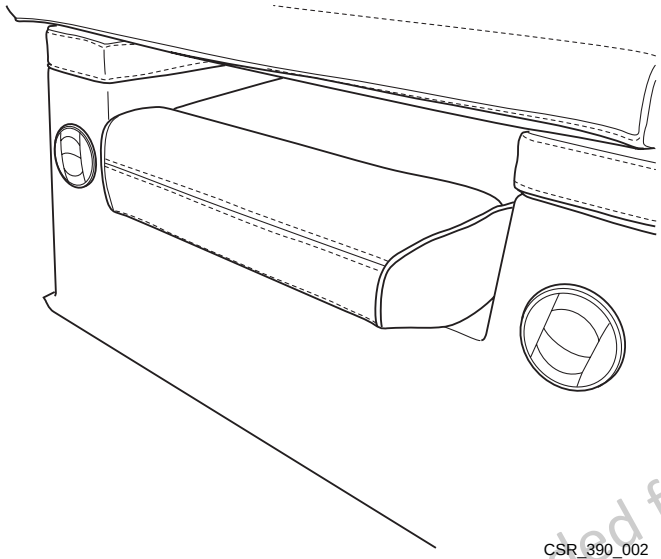
To open, turn the sunroof lock handle counterclockwise to release the sunroof lock from its detents. Grab the roof grips and slide the roof into the desired next position. Guide the roof slowly and DO NOT allow the roof to slam open or close. Return the handle back to its stowed position. Make sure the roof is in its detents before getting underway.



CSR_390_001

DOUBLE COMPANION SEAT/DINETTE/SUN BED

The double companion seat cushion is stowed under the helm passenger seat. The cushion is held into its stowed position by two strong magnets. Make sure the cushion is held by the magnets before getting underway.



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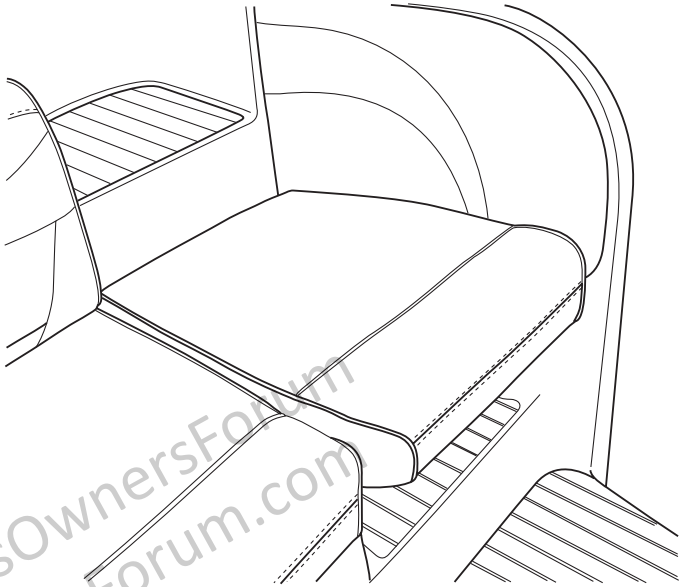
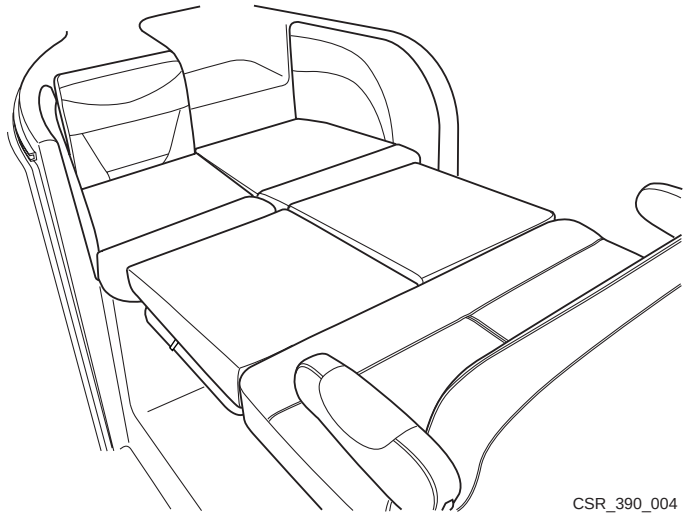
The companion cushion can be positioned into the fore deck mid step to create facing seating or, with the dinette table in place, cockpit dinette table seating.



CSR_390_003

Use the shorter dinette table pedestals and the dinette table top to create a companion sun bed.



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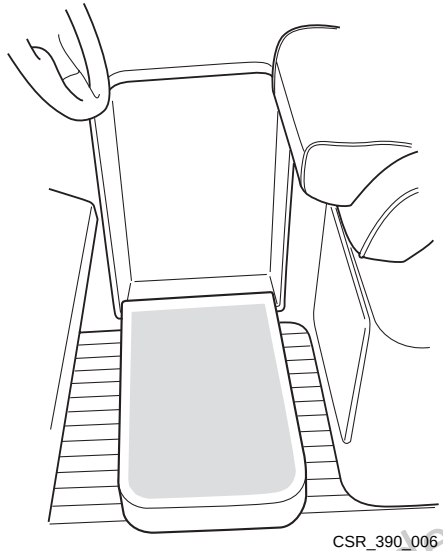
HELM BOOSTER STEP

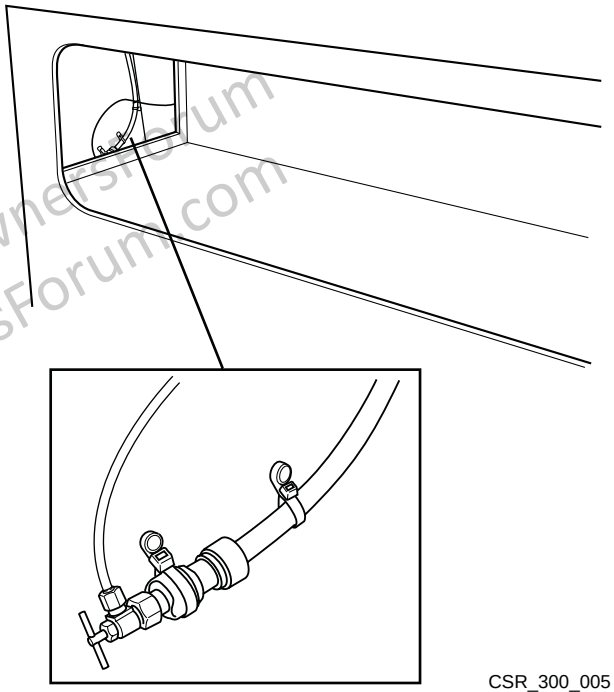
The helm booster step provides additional height to the operator. Unlock the booster step and gently lower it into position. When the booster step is in the stowed position, make sure it is locked to prevent it from opening.



CSR_390_006

WINDSHIELD WASHER SYSTEM

The windshield washer system uses the freshwater system as its source for water. The washer water valve must be open to provide water for the system. During off-season storage, the system must be winterized to protect components of the system. The valve and washer solenoid is located on the starboard gunwale, behind the starboard panel of the storage area aft of the salon couch.



CSR_300_005

Section 3
Controls and Indicators

DASH PANEL

Switch Panel Functional Description

If the switch is fitted with LEDs, the LED will illuminate when power is being supplied to the corresponding switch and its function. The switch panel switches are described port to starboard.

1 - SWITCHES

FWD/MID/AFT BILGE PUMPS
These three switches are toggle action switches that control the respective pump. When the switch or switches are pressed, the pumps will turn ON. When the opposite end is pressed, the pumps will turn OFF.

WINDSHIELD WASHER
The WASHER button is a momentary action. The washer will stay on as long as the button is pressed. If a wiper(s) is not ON, the WASHER button will energize the wiper in low speed. The system has an off delay function for the wiper(s) that were energized by the WASHER button allowing the wiper(s) to stay ON for several cycles and then, park. If a wiper was ON prior to the washer cycle, it will remain on at its commanded speed both during and after the washer cycle.

WIPER
This toggle action button controls the windshield wiper. Pressing a button will turn ON the designated wiper in the low speed mode.

Pressing it a second time will turn it ON in the high speed mode.

Pressing it a third time will turn the wiper OFF and park the wiper. The LEDs indicate if the wiper is ON and the speed mode of the wiper.

BILGE BLOWERS
Push to turn ON, push to turn OFF. The LED will indicate if the blowers are ON.

HORN
The HORN switch is a momentary switch controlling the horn. The horn will sound as long as the switch is pressed.

WINDLASS
This switch is a toggle action switch that controls the windlass.

Pressing the ? (UP) or ? (DOWN) will cause the windlass to go up or down.

WINDLASS
This switch is a toggle action switch that controls the power to the windlass.

BILGE
This switch is a toggle action switch that controls the bilge area lights.

When the switch is pressed, the lights will turn ON. When the opposite end is pressed, the lights will turn OFF.

BOARDING LIGHTS
This switch is a toggle action switch that controls the boarding lights.

When the switch is pressed, the lights will turn ON. When the opposite end is pressed, the lights will turn OFF.

COURTESY LIGHTS
This switch is a toggle action switch that controls the courtesy lights.

When the switch is pressed, the lights will turn ON. When the opposite end is pressed, the lights will turn OFF.

RED / WHITE LIGHTING
This switch is a toggle action switch that controls the red and white lighting.

When the red side of the switch is pressed, the red lights will turn ON. When the white side of the switch is pressed, the white lights will turn ON. The lights will be off when the switch is in the "middle" position.

ENGINE ROOM LIGHTS
This switch is a toggle action switch that controls the courtesy lights.

When the switch is pressed, the lights will turn ON. When the opposite end is pressed, the lights will turn OFF.

NAV/ANCHOR LIGHTS
This switch is a toggle action switch, pressing the top of NAV/ ANCHOR light switch turns ON the navigation lights. When the opposite end is pressed, the NAV lights will turn OFF and the ANCHOR lights turn ON. Pressing the switch to its NEUTRAL position (center) turns them both OFF. The indicator LEDs will illuminate when power is being supplied to the corresponding light(s).

2 - TRIM TAB CONTROLS

NOTE
Push the trim tab rocker switches in half-second bursts. Holding the rockers down too long will over trim the boat.

The trim tab switches are used to correct the trim of you boat while you are underway.

- To trim the bow of your boat down, push the top halves of both switches.
- To trim the bow of your boat up, push the bottom halves of both switches.

Refer to SUGGESTED MANEUVERING TECHNIQUES in **Section 6** of the **Getting Started** manual.

3 - THROTTLE CONTROLS

The throttle control lever for the port engine is the port side lever and the throttle control lever for the starboard engine is starboard lever. NEUTRAL is at the center, FORWARD is forward (away from you) one detent and REVERSE is aft (toward you) one detent. Gradually push forward to go into FORWARD and continue to push forward to increase engine speed. Gradually pull aft to go into REVERSE and continue to pull toward you to increase engine speed. Always return the controls to NEUTRAL when the engines are shut down and leave them there when the engines are not running.

4 - IGNITION SWITCHES

The ignition switch for the port engine is on the port side and the ignition switch for the starboard engine is on the starboard side. The ignition

5 - HELM BREAKER PANEL

6 - ELECTRONICS BREAKER PANEL

7 - WINDLASS BREAKER PANEL

8 - DEFROSTER SWITCH

This switch is a toggle action switch that controls the defroster. OFF / LOW / HIGH. Run on high for heat and use the vent diffusers to control and direct heat or air flow.

9 - FIREBOY ALARM

The display unit has an indicator lamp to indicate fire suppression automatic fire extinguisher status. The lamp should glow when the ignition switch is in the ON position indicating a charged system.

Should the system discharge, the lamp will not glow. Refer to the Fire Suppression owner's manual in the Skipper's Kit for complete details.

10 - HIGH WATER ALARM

The alarm will sound when the high water alarm float switch is activated.

11 - 12 VOLT OUTLET

This receptacle provides 12 volt DC power to portable accessories such as cellular telephones.

Dash Panel Functional Description

12 - BOW THRUSTER (OPTIONAL) OR BOW/STERN BOW THRUSTER (OPTIONAL)

⚠ WARNING

Death or serious injury can result from contact with a rotating propeller. DO NOT operate the bow thruster out of the water.

⚠ CAUTION

Damage to the bow thruster will result from operating the bow thruster out of the water. DO NOT operate out of the water.

Press both ON buttons and the indicator light will illuminate. Move the joystick in the direction you wish to move the bow (◀ = port, ▶ = starboard). For example, to move the bow to port, move the joystick to port (◀). This will engage the bow thruster propeller and move the boat to port. Turn off the bow thruster by pressing the OFF button.

The indicator light will go out showing the bow thruster is turned OFF.

If your yacht is equipped with the bow and stern bow thrusters, they can be operated at the same time. The stern bow thruster operates in the same manner as the bow, bow thruster. Move the stern bow thruster joystick in the direction you wish to move the stern (◀ = port, ▶ = starboard).

IMPORTANT
Both ON buttons have to be pressed at the same time, this is to prevent accidental starting of the bow thruster.

13 - RADIO HANDSET

14 - STEREO

Refer to the Stereo owner's manual that is included in the Skipper's Kit for a detailed description of the functions.

15 - SPOTLIGHT CONTROLS

The spotlight is controlled from the keypad mounted at the helm.

= ON / OFF

"Tortoise" (SLOW) - Press Tortoise once to select slow light movement.

"Hare" FAST - Press Hare to select fast light movement.

DIRECTIONAL MOVEMENT - The center directional buttons move the light beam. ▲ = UP, ▼ = DOWN, ◀ = port and ▶ = starboard.

Refer to the Spotlight owner's manual that is included in the Skipper's Kit for a detailed description of the functions.

16 - VHF RADIO

Refer to the VHF Radio owner's manual in the Skipper's Kit for complete details.

17 - AIR CONDITIONER/HEATER DUCTS

These ducts are directional or can be closed.

18 - YANMAR DISPLAY SCREEN

Refer to the Yanmar display screen owner's manual that is included in the Skipper's Kit for a detailed description of the functions.

19 - FUEL GAUGE

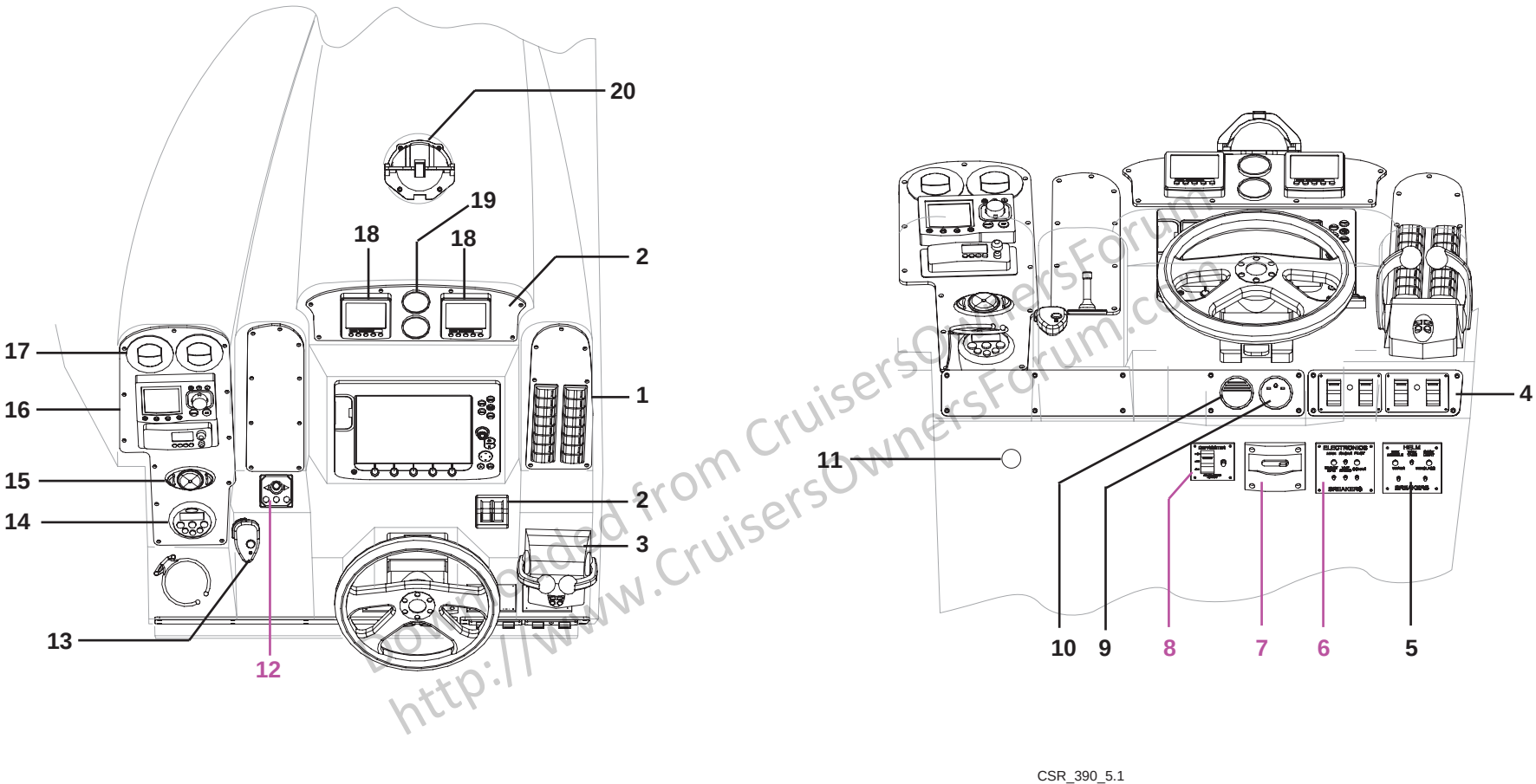
IMPORTANT
Do not rely on the accuracy of gauge. Readings are only approximate and should always be compared to the hours of use multiplied by the known fuel consumption (GPH).

This gauge indicates the approximate amount of fuel.

20 - COMPASS

The compass has not been compensated. The compensating should be performed by a qualified compass adjuster. After the compass has been adjusted, DO NOT allow any iron or steel objects to be placed in its vicinity - even temporarily. Refer to the compass owner's manual included in the Skipper's Kit for detailed information.

DASH PANEL



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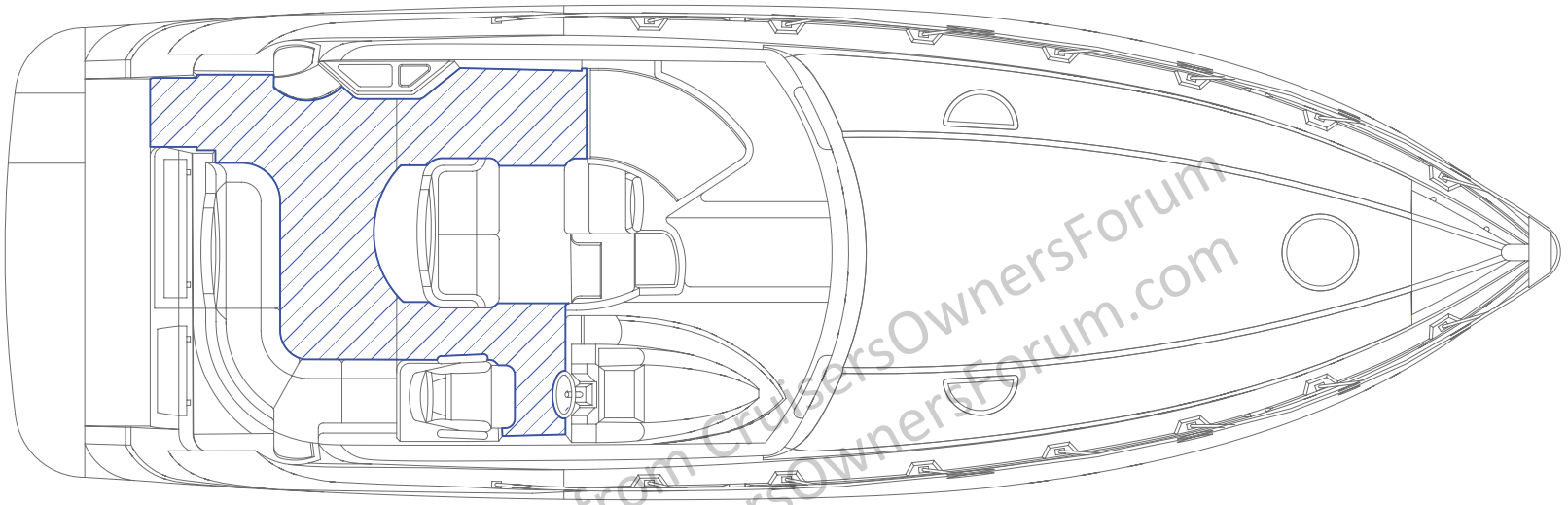
Section 4
Basic Systems Operation

WORKING DECK

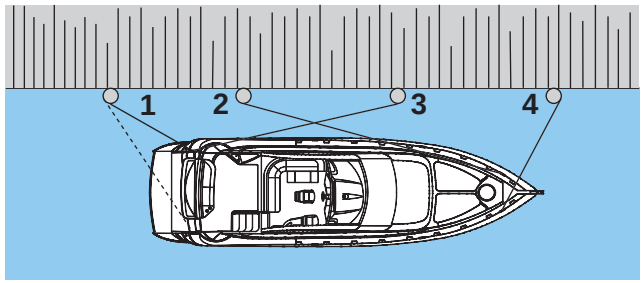


WORKING DECK

45-R031B

Handling Dock and Mooring Lines

Make sure to have enough fenders to protect your yacht from damage. Use good-quality, double-braided nylon line and chafing protectors to protect your yacht's finish. Only use cleats, bow eye and stern eyes to secure your yacht, not the handrails or windshield. The foredeck handrails should only be used for tying a “Jackline” in an emergency situation. If possible, tie up your yacht with the bow toward the waves and leave slack in the lines to allow for some wave movement or tidal action.



CSR_0003A

1. Stern Line
2. Forward Quarter Spring
3. “After” Bow Spring
4. Bow Line

Use your dock lines to help maneuver the yacht near the pier and to secure it. Follow this information to secure your yacht to a pile or dock cleat:

Fasten the bow line to the bow cleat and pull forward at about a 45° angle to keep the yacht from moving astern.

Fasten the stern line to an “after” cleat and pull astern at about a 45° angle to keep the yacht from moving forward.

Spring lines can help you control your yacht when leaving a dock. Make sure to use spring lines when yachting in waters where the waves or tide movement is significant. The forward quarter spring line is fastened to a forward cleat and heads aft. The “after” bow spring is fastened to a stern cleat and heads forward.

POWER TRAIN

Engines

Your yacht is powered by twin inboard engines. All operation, specification and maintenance information is contained in the engine owner's manual. Find this manual, which is located in the Skipper's Kit, and familiarize yourself with it. The engine is the heart of your yacht and following the manufacturer's recommendations will provide you with continued boating pleasure.

INBOARDS

The power generated by the engine is transmitted to the propeller via the transmission, shaft coupling and the propeller shaft assembly. The propeller shaft is supported and aligned with the engine by a throughhull shaft log and an outside strut.

IPS ENGINES

The IPS (Integrated Propulsion System) is a fully integrated propulsion system. The controls, propulsion, rudder and steering system are all integrated. The engine's power is transferred through the hull and into the IPS.

COOLING SYSTEM

CAUTION
The cooling system starts at the cooling water seacock, which can be shut off for a number of reasons. Make sure the seacocks are open before starting engines. The absence of cooling water will cause the engines to overheat and cause irreparable damage.

Each engine is cooled by seawater entering the yacht through a seacock in the hull bottom. The water enters the engine through the engine water jacket and is returned to the sea through the exhaust system.

A feature which is standard on diesel engines is the freshwater cooling system. This system uses the incoming seawater to cool a secondary closed-cooling system. The seawater flows through an engine-mounted heat exchanger, cools the closed-system coolant, and is returned to the sea via the exhaust system.

ALARM SYSTEMS

Alarm systems are on all boats. The alarm will sound under the following conditions:

- Engine temperature exceeds specified limits
- Engine oil pressure drops below specified limits
- Transmission oil temperature exceeds specified limits
- Ignition switches are ON, engines are OFF

To test the alarm system, turn the ignition switch to the ON position. Depending upon the engine, the alarm may sound immediately, or after a few seconds delay.

Engine Ignition Start/Stop

The engine mean breaker must be energized before the engines can be started. The breaker is located on the machinery room breaker panel.

To start the engines:

1. Operate the blowers for at least four minutes.
2. Turn on the master ignition breaker located on the DC panel in the salon to energize the rocker switches at the helm.
3. Press the engine ignition rocker switches forward one position (ignition position).

4. Press the ignition rocker switches further forward to the second position (start position).

To stop the engines:

Press the aft end of the engine ignition rocker switch or press the E stop rocker switch.

IPS

The IPS is a fully integrated propulsion system. The engine is located in the yacht (inboard) and the propulsion system is on the hull. Power from the engine is sent through the hull into the transmission and then into the propulsion system. The steering system turns the propulsion and rudder system to change the direction of thrust from the propellers. The control systems on IPS are all integrated.

Transmission

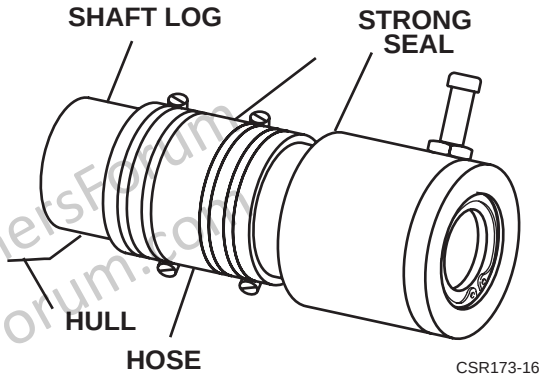
Through a series of gears, the transmission transmits the motive force of the engine to the propeller. The transmission has one forward and one reverse speed, and is shifted by the transmission selector on the dash. All the operation, specification and maintenance information is contained in the engine owner's manual.

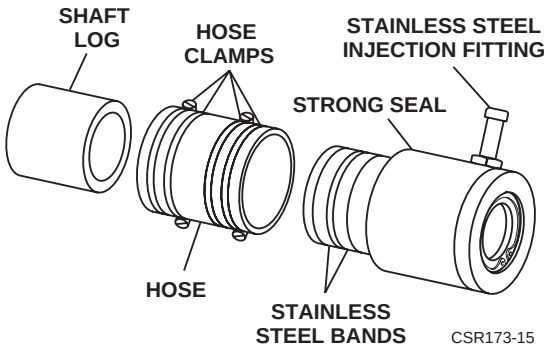
Shaft Assembly - Inboards

This assembly makes it possible for the shaft to penetrate the hull bottom without allowing water to enter around the joint. The shaft coupling is the connecting point between the engine and the shaft assembly.

SHAFT LOG - INBOARDS

The shaft log is laminated to the hull. A rubber hose is clamped to the shaft log and to the shaft seal. The flexibility of the rubber hose allows it to absorb minor engine shock, such as moving from forward to reverse, while maintaining a watertight seal on the shaft log and the shaft seal.





SHAFT SEAL - INBOARDS

⚠ CAUTION

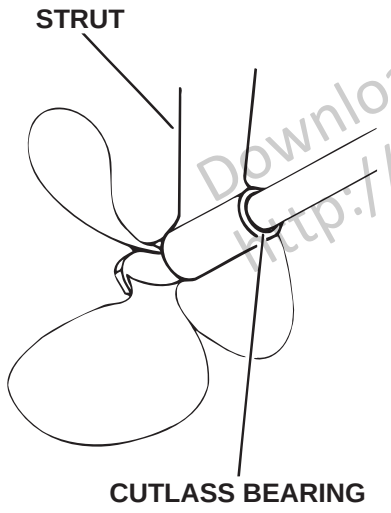
The shaft seal and rubber tubing should be inspected monthly for wear, leakage and deterioration. Excessive water entry, especially if unattended, could result in the submergence of the engine compartment, or of the entire yacht.

Strut and Cutlass Bearing - Inboards

⚠ CAUTION

The cutlass bearing is water-lubricated. Running the propeller out of the water could result in bearing failure and damage to the shaft.

The propeller shaft is supported on the outside of the hull by a strut. The strut is equipped with a water-lubricated plastic bearing that permits free rotation of the propeller shaft.



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Propellers

⚠ CAUTION

Propellers can be very sharp. Be careful when you handle them. Wear protective gloves when handling any propeller. Remove the key from the ignition switch and remove the Emergency Stop Switch Clip, if you yacht is equipped with stop switches, to prevent accidental starting of the engines. Do not use damaged propellers. Damaged propellers can damage your engine and boat.

The propellers installed on your yacht were selected because their diameter and pitch provide the optimum speed and performance under average conditions of load. Propeller selection must be based on the ability of the engine to turn the propeller and achieve the manufacturer's recommended RPM at full throttle.

NOTE

Variations from average loadings, bottom condition and/or engine condition could call for a propeller change to achieve the performance desired.

SELECTING A PROPELLER - INBOARDS

⚠ CAUTION

Improper propeller selection and installation could result in loss of the propeller, and/or excessive stresses on the power train leading to power train failure. Cruisers Yachts recommends that you consult with, and employ the skills of, your Cruiser Yachts Dealer when contemplating a propeller change.

⚠ WARNING

Dual engine installations normally include a standard rotation engine and a counter-rotation engine. If you remove the propellers, make sure the propeller is correct for the rotation of the engine before operating the yacht. Always follow the instructions in the stern drive owner's manual in the Skipper's Kit when removing, replacing and selecting a propeller.

First, ensure that the diameter and pitch provide the desired performance. The engine RPM at full throttle should be in the upper half of the recommended full-throttle operating range. If RPMs are low, a propeller with a smaller pitch will increase RPMs. If RPMs are high, a propeller with an increased pitch will lower RPMs.

Second, ensure that the propeller rotation is consistent with engine and gear box rotation. Your yacht is designed with counterrotating inboards for minimum torque effects.

Third, ensure that the installation provides adequate safety features such as a straight key, a propeller nut, a jam nut and a cotter pin.

SELECTING A PROPELLER - IPS

⚠ CAUTION

Improper propeller selection and installation could result in loss of the propellers, and/or excessive stresses on the IPS leading to IPS and engine failure. Cruisers Yachts recommends that you consult with, and employ the skills of, your Cruiser Yachts Dealer when contemplating a propeller change.

⚠ WARNING

Engine installations include a combination of standard rotation and counter-rotation engine propellers. If you remove the propellers, make sure the propellers are reinstalled correctly before operating the yacht. Always follow the instructions in the IPS owner's manual in the Skipper's Kit when removing, replacing and selecting a propeller.

First, ensure that the diameter and pitch provide the desired performance. The engine RPM at full throttle should be in the upper half of the recommended full-throttle operating range. If RPMs are low, a propeller with a smaller pitch will increase RPMs. If RPMs are high, a propeller with an increased pitch will lower RPMs.

Second, ensure that the installation provides adequate safety features and all components are used. Refer to the IPS owner's manual in the Skipper's Kit for general maintenance and removal, and installation instructions.

FUEL SYSTEM (CROSSOVER VALVE)

Your yacht is equipped with an internal fuel system meeting current federal requirements. The best materials and components available are used to assemble the fuel system.

The fuel tank outlets to the engines have a manual valve for fuel shut-off in the event of a line break. To access the manual valves or tank fittings, open the fuel access hatch. The valves are on the top of the fuel tank. These valves are attached to the fuel tank outlet and return lines. The valves are closed when the handle is perpendicular to the fuel line, and open when the handle is in-line with the fuel line.

There are also crossover valves between the tanks located at the top of the fuel tanks under the fuel access hatch.

Fuel fill caps are located on the deck walk-around of the yacht. Near the fill cap is a vent which allows air to move in and out of the tank as the fuel level changes.

The manual valves can control the fuel supply to the engines in five ways:

1. Both handles pointing outboard shuts the flow of fuel OFF.
2. When both handles point inboard, each engine can receive fuel from its respective tank; the port engine receives fuel from the port fuel tank and the starboard engine receives fuel from the starboard tank.
3. When both handles point forward, both engines receive fuel from both tanks.
4. With the port handle pointing forward and the starboard handle pointing outboard, both engines receive fuel from the port tank.
5. With the port handle pointing outboard and the starboard handle pointing forward, both engines receive fuel from the starboard tank.

⚠ WARNING

Inspect the entire fuel system regularly. Leaking fuel and fumes are a fire and explosion hazard that can explode causing injury or death.

All fuel system components must be checked before each boating season and regularly during the season for any leaks or bad hose conditions. Make sure the fuel system is leak-free.

STEERING SYSTEM

⚠ WARNING

DO NOT operate your yacht if you suspect a problem with the steering system. Have your Cruiser Yacht Dealer inspect the steering system immediately if you suspect a problem. Operating the yacht with a malfunctioning steering system could cause injury or death.

Inboard-Equipped Yachts - Your yacht is equipped with hydraulic steering. The rotation of the steering wheel results in an unbalanced hydraulic (oil) pressure in the two lines going from the helm to the rudder cylinder. The pressure differential is converted to linear motion by the hydraulic steering cylinder which is mechanically linked to the rudder tiller arms. Both rudder tiller arms are rigidly connected by a tie bar so that both rudders respond equally to the helm. In an emergency, steering can be controlled by using the throttle controls and operating one engine at a time or by disconnecting the steering arm at the rudders and directing them.

IPS-Equipped Yachts - The steering system on IPS-equipped yachts is integrated with the engine and propulsion system. In an emergency, steering can be controlled by using the throttle controls and operating one engine at a time.

Steering Wheel

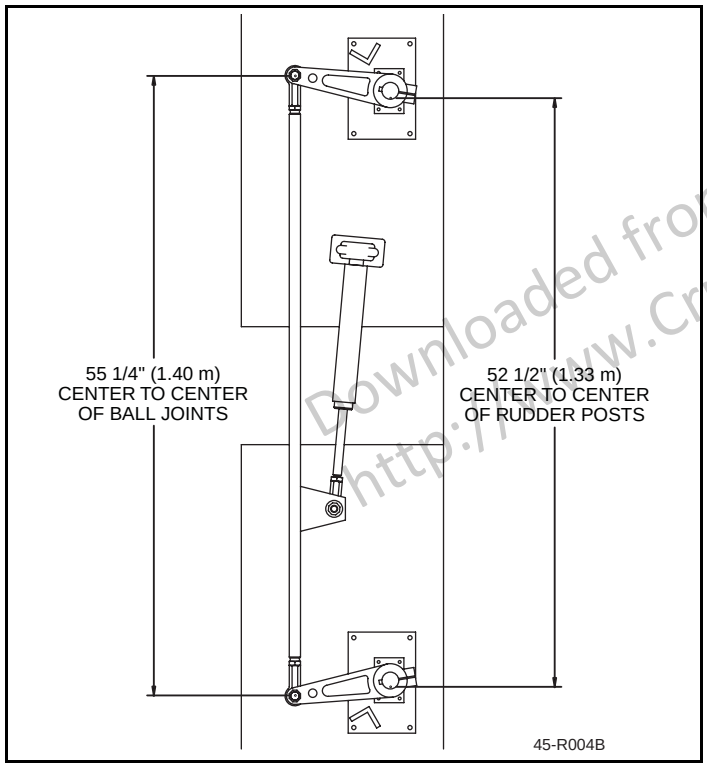
The steering wheel uses the assistance of power steering to permit turning of the steering wheel with minimum effort. It is important that you know how your yacht operates and are aware of its limitations.

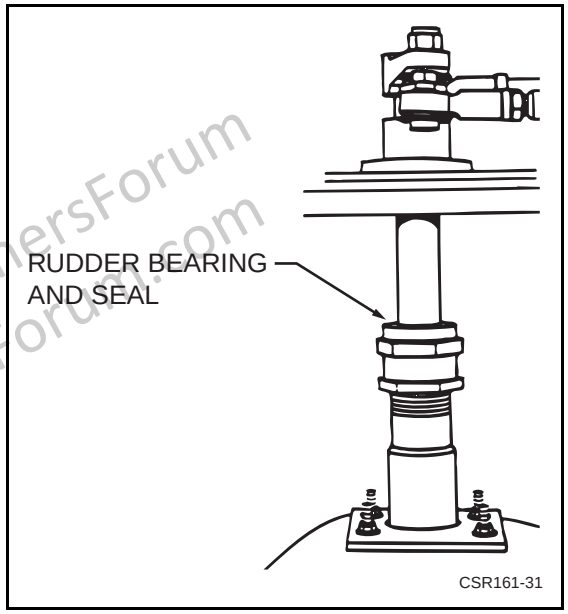
⚠ CAUTION

The carrier seal should be inspected regularly for excessive water entry. If left unattended, excessive water entry could result in the submergence of the engine compartment, or of the entire yacht.

Rudder - Inboards

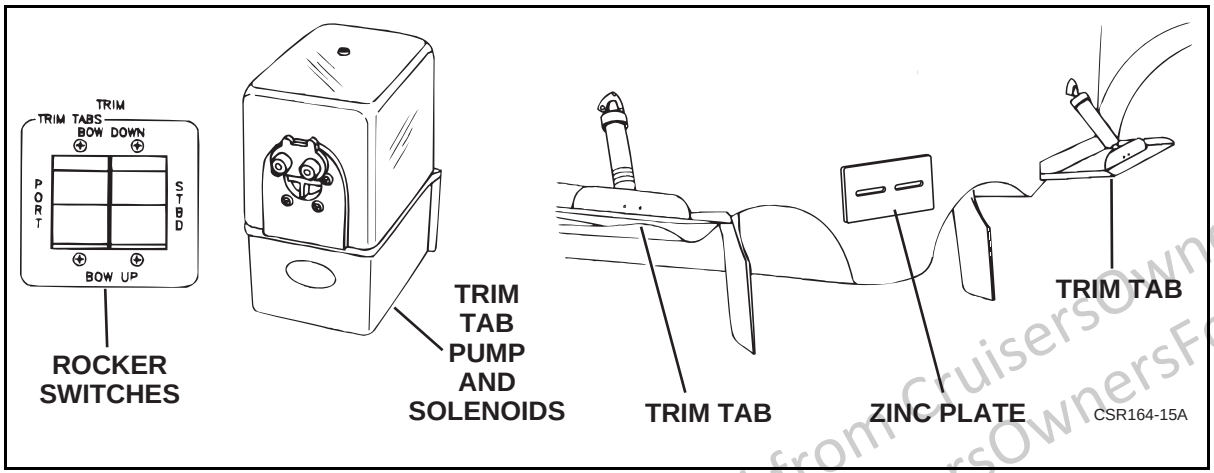
The twin rudders are offset from the shaft centerline to allow shaft removal without having to remove the rudders. Each rudder is also canted inboard slightly to allow for a constant pressure of water to act upon the rudder face. The pressure on the rudder face prevents “flutter” in a 0° rudder position.





TRIM TABS

The trim tab system is an electro-hydraulic system. Two rocker switches, marked port and starboard, control a hydraulic pump and solenoids. The pump sends hydraulic oil to hydraulic actuators (cylinders) which lower the trim tabs. To raise the trim tabs, the rocker switch is moved which allows oil to flow from the actuator to the pump.



ELECTRICAL SYSTEM

Your yacht is equipped with two electrical systems: a battery powered direct current (DC) system and a generator or shore-powered alternating current (AC) system. Both systems are controlled from the AC/DC master panel.

The DC system supplies power to all of the yacht's 12V electrical circuits (lights, pumps, blowers, ignition, etc.).

The AC system supplies power to the 120/240-volt systems when the yacht is moored at the dock or slip, or when the generator is running.

⚠ DANGER

A glowing red polarity light indicates reversed polarity electrical shock hazard exists and damage to appliances will occur. DO NOT use shore power while red light is ON. Disconnect the shore cord and have the shore outlet serviced by a qualified electrician before using.

DC Electrical System

⚠ DANGER

Considerable care has been taken to design a safe electrical system to protect you from hazardous shocks. Any modifications to the system should always be done by an authorized Cruisers Yachts Dealer not only to protect your warranty, but to protect you from hazardous shock.

Your yacht has a 12-volt DC house system. The positive wire is hot, and feeds current from the batteries to the various 12-volt systems and the negative wire is the ground.

Some yacht and engine options may be equipped with up to five batteries. There is a cranking battery for each engine or can be two batteries in parallel for 12-volt house power, a generator battery and an optional bow thruster battery. Not all yachts offer this as an option.

When the engines are running, all batteries are charged by the alternators. There is a battery charger for the house and cranking batteries. The battery chargers are powered by either the dockside or generator 120V AC power. The generator battery is charged by the generator.

The DC system wires are identified by three colors. Red wires are +12 volts, yellow wires are DC common and gray wires are DC control wires. Bonding wires are green. AC system wires utilize three colors. White wires are AC neutral. Black wires are AC hot wires in 120V AC systems. Black and red wires are the ungrounded wires in 240V AC power systems.

Individual harness wires are identified with wire number and function by lettering which is printed by an ink jet printer every 3 inches (.076 m) on the wires. This information aids in identifying wire functions for troubleshooting. Battery cables are identified by labels on both ends of each cable.

A bonding wire is extended through a #6 green wire from the bonding strip to a terminal behind the instrument panel. This will facilitate electronics installation. In addition, the handrails are attached to the bonding system.

All batteries are isolated from each other by a battery isolator. When the engines and ignition switches are OFF, the isolator prevents house battery loads from discharging the cranking batteries. When the batteries are being charged by the alternators, the isolator automatically isolates the batteries and will distribute the charge among the batteries according to individual need.

DC Master Panel

The DC master panel consists of a voltmeter, ammeter, a battery test switch, a series of switch type and resettable circuit breakers, a generator start switch and the DC main circuit breaker.

The meter is a convenience feature which allows you to check on the condition of the three batteries. With master breaker switch in OFF position, turn battery test switch to:

- STBD - to check the starboard engine cranking battery
- PORT - to check the port engine cranking battery
- GENERATOR - to check the generator cranking battery
- HOUSE - to check the house batteries and
- OFF - to disable meter and test circuit

CAUTION

DO NOT reset a breaker which has been automatically tripped without first discovering and remedying the cause of the problem.

The switch type circuit breakers allow you to manually enable or interrupt a circuit by moving the switch on or off, and they protect the system receiving the DC power by automatically opening the circuit should a short or overload condition occur.

The resettable circuit breakers protect the system receiving the DC power by automatically opening the circuit should a short or overload occur.

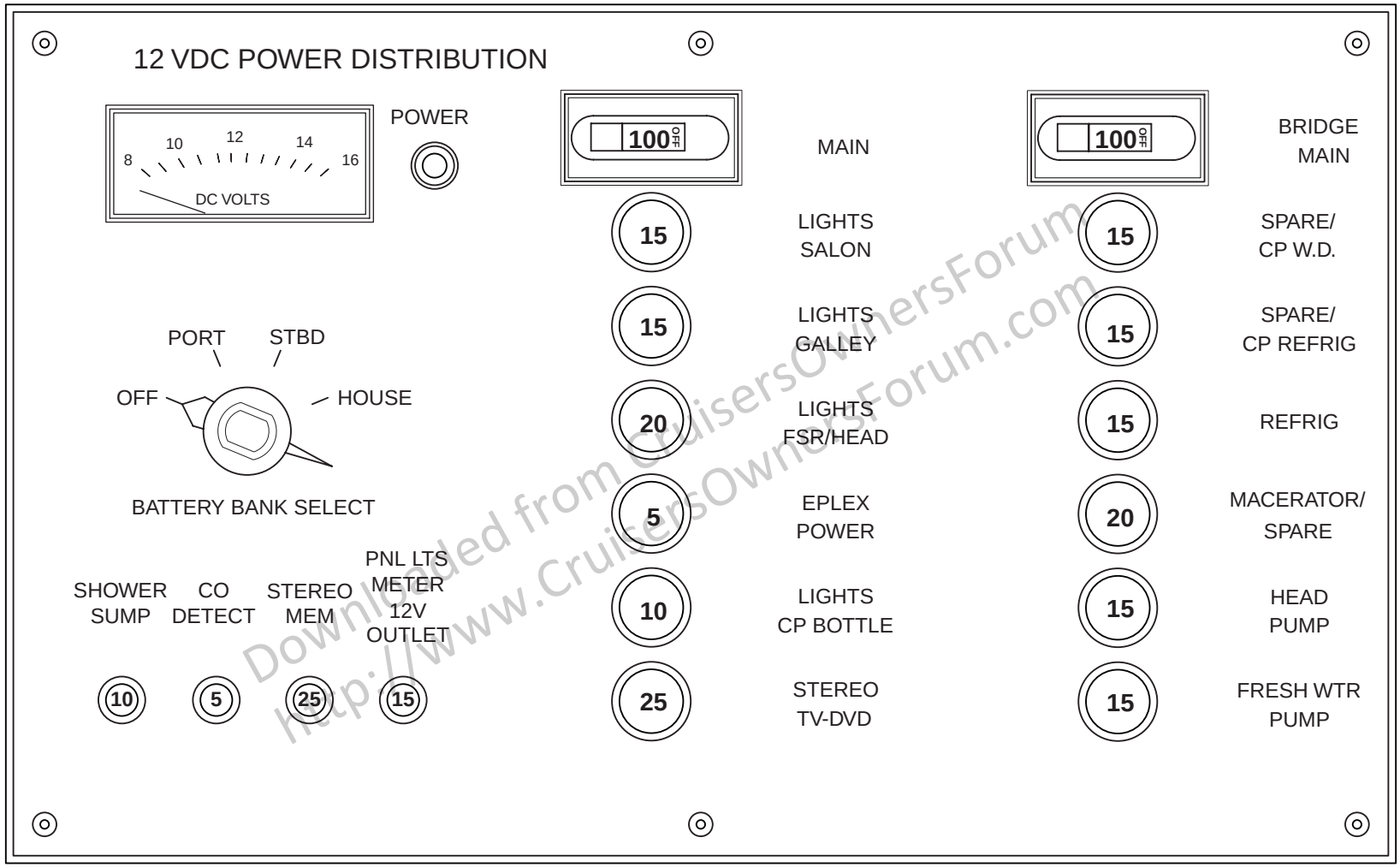
OPERATION OF DC SYSTEMS

Read through the table on the following page(s) to familiarize yourself with the DC systems on your yacht.

DANGER

A glowing red polarity light indicates a reversed polarity electrical shock hazard exists and damage to appliances will occur. DO NOT use shore power while red light is ON. Disconnect the shore cord and have the shore outlet serviced by a qualified electrician before using.

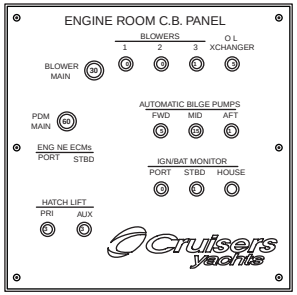
DC Panel - Without Ignition



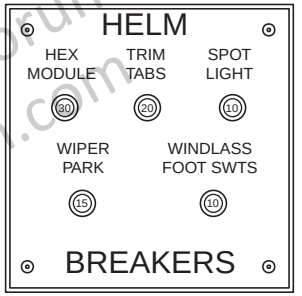
DC Panel Circuit Breaker Functions

DC Circuit Breaker	Function
DC MAIN	Put the breaker in the ON position to connect power to rest of the circuit breakers on the panel except the bilge pumps and the CO detectors. The automatic bilge pump circuit breakers are mounted on the AUTOMATIC BILGE PUMP C.B. PANEL located in the engine room. If any of the breakers are tripped, the white button popped out, reset them immediately. The STEREO MEM, SHOWER SUMPS and CO DETECTORS circuit breakers are connected to +12V DC, which is switched ON and OFF at the house battery switch. The CO DETECTORS and SHOWER SUMPS circuit breakers should be reset immediately if they are tripped. **CAUTION: If the house battery switch is OFF, the CO detectors are NOT ACTIVE. There is no CO detector warning if the house battery switch is OFF.**
LIGHTS SALON	Put the circuit breaker in the ON position to connect power to the salon light switches.
LIGHTS GALLEY	Put the circuit breaker in the ON position to connect power to the galley light switches.
LIGHTS FSR/HEAD	Put the circuit breaker in the ON position to connect power to the forward stateroom and head light switches.
EPLEX POWER	Put the circuit breaker in the ON position to connect power to the EPLEX PDM Module.
LIGHTS CP BOTTLE	Put the breaker in the ON position to connect power to the cockpit bottle storage light switch.
STEREO/TV/DVD	This breaker connects power to the stereo, TV and DVD.
BRIDGE MAIN	Put the breaker in the ON position to connect power to the bridge breakers.
CP W.D.	Put the breaker in the ON position to turn on the cockpit wash down pump, if equipped.
SPARE/CP REFRIG	Put the breaker in the ON position to turn on the cockpit refrigerator, if equipped.
REFRIG	Put the breaker in the ON position to connect power to the galley refrigerator.
MACERATOR/ SPARE	Put the breaker in the ON position to turn on the macerator, if equipped.
HEAD PUMP	Put the breakers in the ON position to connect power to the head pump. Power to the pumps must be ON or the electrically controlled VacuFlush heads will not flush.
FRESH WTR PUMP	Put the breaker in the ON position to turn on the fresh water pump and the fresh water tank gauge. The pump will turn on automatically when a fresh water demand is actuated, i.e. opening a faucet, and will run at the speed required to maintain water flow.
SHOWER SUMP	This breaker connects power to the shower sump pump for automatic pump operation. The shower sump pump is turned on by a float switch when the water level causes the float switch to rise. In addition to the showers, air conditioners and sinks drain into the sump, requiring continuous automatic operation.
CO DETECT	This breaker connects power to the CO detectors. The breaker is connected to the +12 volts house battery switch, bypassing the DC MAIN circuit breaker for continuous CO detection. Reset this breaker immediately if it is tripped.
STEREO MEM	This breaker connects power to the stereo and DVD memory.

DC Circuit Breaker	Function
PNL LTS	This breaker connects power to the panels lights.
12V OUTLET	This breaker connects power to the 12-volt outlet.
PORT ENGINE/ STARBOARD ENGINE	Energize ignition switches.
GENERATOR CONTROL	Turns OFF/ON the engine compartment blowers for when the generator is operated and to START/STOP the generator.
ADDITIONAL CIRCUIT BREAKER PANELS	There are two additional circuit breaker panels located in the yacht for localized functions. The panel locations and functions are shown.

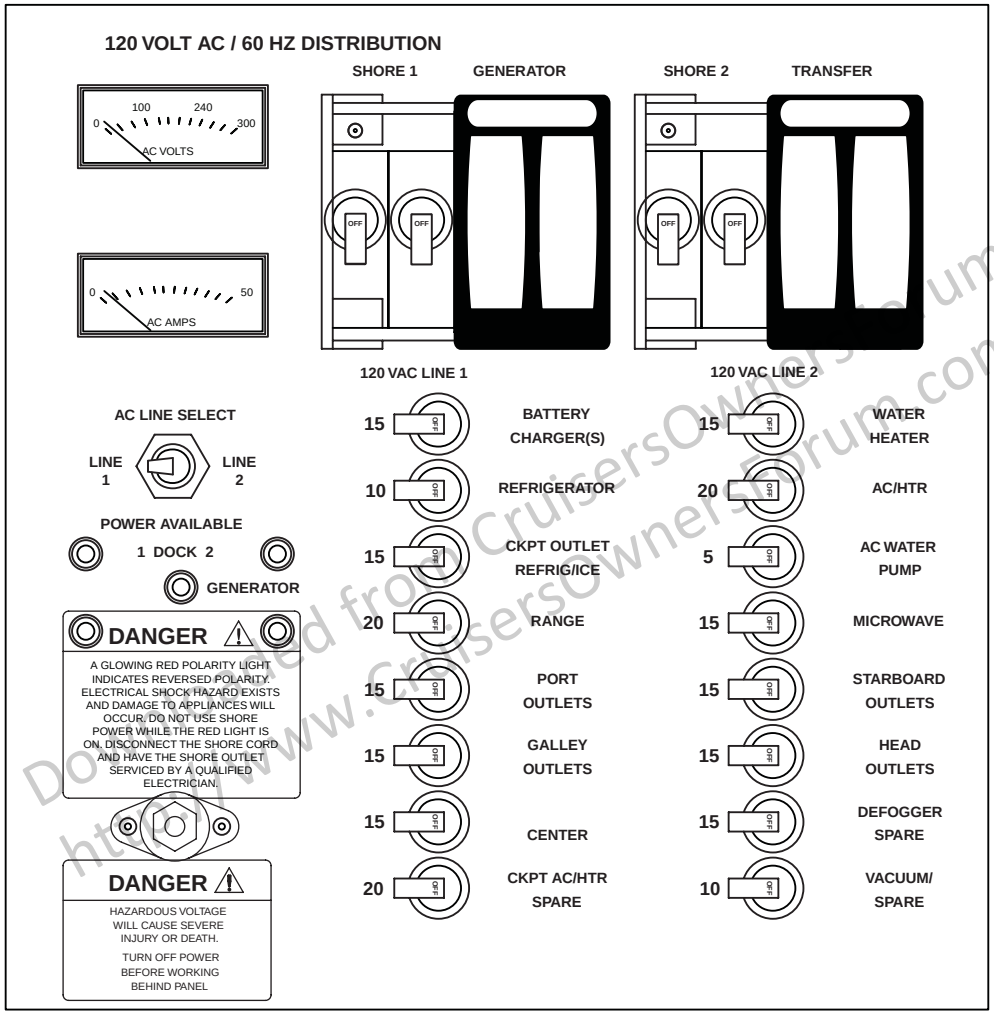


Panel is located in the port aft corner in the engine room, except IPS models.
On IPS models, the panel is located in the port forward corner of the engine room. 45-E003C



Panel located below the helm 45-E002C

US Stds 50 Amp (240V AC)



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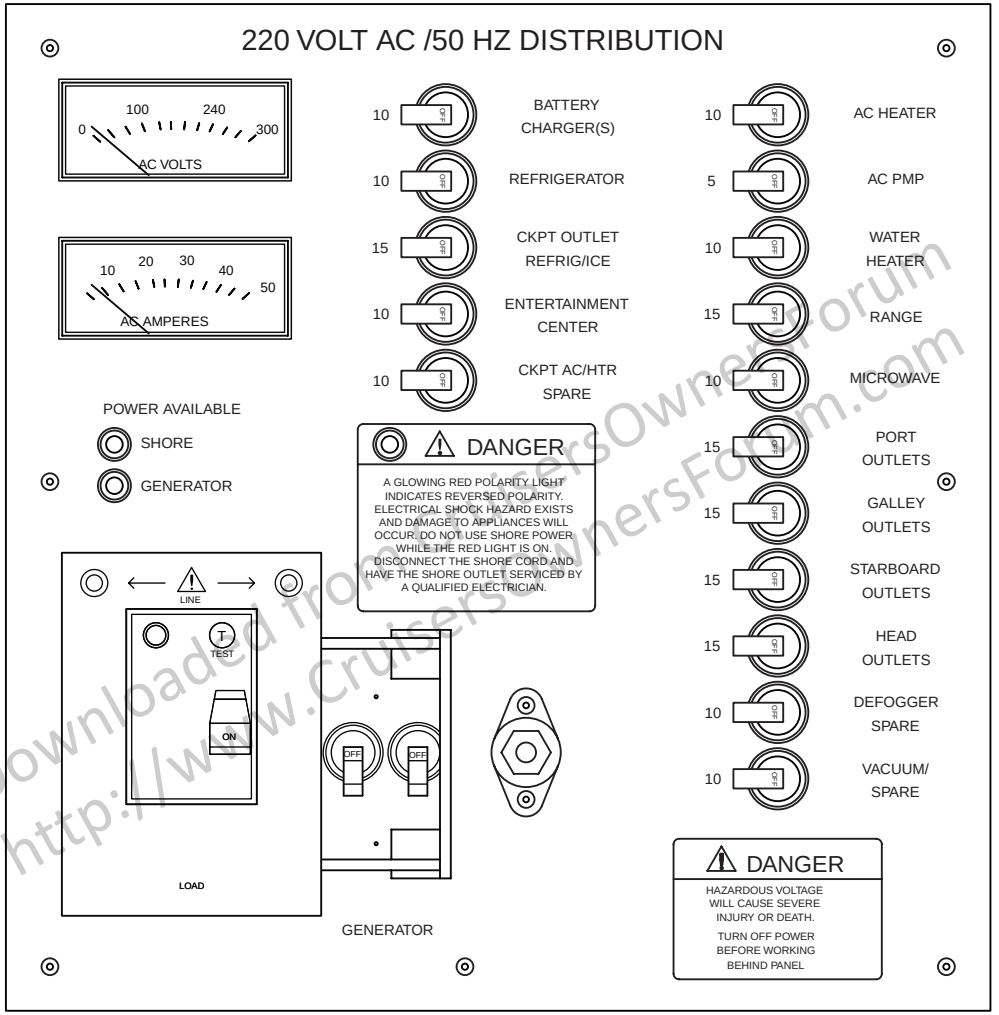
Intl Stds 32 Amp (220V AC)



45-E022D

AC Electrical System

⚠ WARNING

Considerable care has been taken to design a safe electrical system to protect you from hazardous shocks. Any modifications to the system should always be done by an authorized Cruisers Yachts Dealer not only to protect your warranty, but to protect you from hazardous shock.

AC POWER

The standard AC electrical system in the **390 Sport Coupe** is wired for 120/240 volts AC, 50 amps, single-phase, 60-hertz power. This allows the system to have two lines, L1 and L2, at 120V AC and also 240V AC.The neutral (white) conductor is connected to shore grounded neutral. The yacht ground (green wire) is connected to the dockside ground via a galvanic isolator. The galvanic isolator reduces galvanic corrosion due to stray low voltage DC currents between the yacht ground and the dockside earth ground.

An optional AC system for non-US power is wired for 220-volt, 32-amp, 50-hertz power.

AC Master Panel

United States Version

120/240V AC, 50-amp, 60-hertz single-phase is the standard power system. An on-board generator will furnish 120/240V AC single-phase power.

International Version

220V AC, 32-amp, 50-hertz single-phase is the optional international power system. An on-board generator will furnish 220V AC 50-hertz power.

The load center can receive power from dockside or the generator. For dockside power, move the slide protector over the generator breaker and turn on the dockside breaker. For generator power, move the slide protector over the dockside breaker and turn on the generator breaker.

⚠ CAUTION

DO NOT reset a breaker which has been automatically tripped without first discovering and remedying the cause of the problem.

The circuit breakers' function is twofold; they allow you to manually enable or interrupt a circuit by flipping the switch on or off, and they also protect the system receiving the AC load by automatically breaking the circuit in cases of shorts or overloads.

GENERATOR

IMPORTANT

Read the generator owner's manual contained in the Skipper's Kit before operating the generator for the first time. The manual contains important operation and maintenance information.

45-E003B

The generator may be started from the engine batteries unless your yacht is equipped with a separate battery for the generator only.

To start the generator, hold generator switch in the START position until you hear the generator has started, then release switch. The switch will automatically return to the RUN position and AC power is applied to the load center or centers selected.

Turn generator OFF by placing the generator switch in the STOP position.

The power transfer slide protector prevents accidental use of shore power and generator power at the same time. Slide protector positioning is discussed under **OPERATION OF AC SYSTEMS**.

OPERATION OF AC SYSTEMS

Connecting Shore Power Cable:

1. Make sure the shore dockside breaker, the yacht main dockside breaker and the yacht AC/DC panel DOCKSIDE breakers are in the OFF position.
2. Connect the shore power cable to the yacht receptacle and then connect the shore power cable to the dockside power source.
3. Be sure the DC MAIN circuit breaker is OFF and any 120V AC or 240V AC that should not receive power immediately are switched OFF. If the indicator lights are normal, then the DOCKSIDE 240/120V AC circuit breaker may be switched on. AC and DC circuit breakers may then be switched ON as needed.

⚠ CAUTION

DO NOT turn the DOCKSIDE 240/120V AC breaker on if the REVERSED POLARITY light is ON. Severe damage to the electrical system could result. Disconnect the cable and have the fault corrected by a qualified electrician.

4. Switch the shore dockside breaker to the ON position. Switch the yacht dockside power breaker to the ON position. Then check the AC/DC panel POWER SOURCE AVAILABLE indicator lights. The 120V AC LINE 1, V AC DOCKSIDE and 120V AC LINE 2 indicator lights should be ON. The REVERSED POLARITY light should be OFF.

Disconnecting Shore Dockside Power:

Switch the yacht DOCKSIDE 240/120V AC circuit breaker OFF. Switch the yacht dockside power circuit breaker OFF. Switch the shore dockside power circuit breaker OFF. Then the dockside power cable may be disconnected.

AC Panel Circuit Breaker Functions

When the AC panel is receiving power the following circuit breakers can be switched ON. Refer to the LIGHT PLAN LAYOUT(s) in **Section 2** for location details.

AC Circuit Breaker	Function
BATTERY CHARGER(S)	To operate the battery chargers, place the circuit breaker in the ON position. The battery chargers provide automatic battery charging. They generate 24V DC to charge the associated batteries. Move the breaker to the OFF position to turn the battery charger OFF.
REFRIGERATOR	Switch the breaker ON to connect power to the refrigerator. Refer to the Skipper's Kit for refrigerator/freezer operation instructions.
CKPT OUTLET REFRIG/ICE	Switch the breaker ON to connect power to the cockpit outlet and refrigerator/ice maker. Refer to the Skipper's Kit for refrigerator/ice maker operation instructions.
RANGE	Switch the breaker ON to connect power to the galley range. Refer to the Skipper's Kit for range operation instructions.
PORT OUTLETS	Switch the breaker ON to connect power to the port 120V AC outlets.
GALLEY OUTLETS	Switch the breaker ON to connect power to the galley 120V AC outlets.
ENTERTAINMENT CENTER	Switch the breaker ON to connect power to the entertainment center (stereo and TV).
CKPT AC/HTR SPARE	Switch the breaker ON to connect power to the air conditioner water pump or heater for the cockpit area. The pump must be switched ON when either or both air conditioners are ON.
WATER HEATER	**Switch the breaker ON to connect power to the water heater. Refer water heater instructions in the Skipper's Kit for proper operation.**
AC/HTR	Switch the breaker ON to connect power to the salon air conditioner/heater.
AC WATER PUMP	Switch the breaker ON to connect power to the air conditioner water pump. The pump must be switched ON when either or both air conditioners are ON.
MICROWAVE	Switch the breaker ON to connect power to the microwave oven. Refer to the Skipper's Kit for detailed oven operating instructions.
STARBOARD OUTLETS	Switch the breaker ON to connect power to the starboard 120V AC outlets.
HEAD OUTLETS	Switch the breaker ON to connect power to the head 120V AC outlets.
DEFOGGER SPARE	Switch the breaker ON to connect power to the bridge defogger, if equipped.
VACUUM/SPARE	Switch the breaker ON to connect power to the central vacuum, if equipped.

A DIVISION OF KCS INTERNATIONAL, INC. LIMITED WARRANTY

REGISTRATION OF PURCHASE: The "Federal Boat Safety Act of 1971" requires all boat manufacturers to maintain a record of all first retail purchasers and their current address for the purpose of notification in case of defective parts or equipment, or in case of non-compliance with standards or regulations set forth by this act. Failure to complete and return your factory warranty card for our records will waive your right to notification of defect and/or repair at manufacturer's expense. **THIS LIMITED WARRANTY CAN BE ACTIVATED ONLY BY SUBMITTING THE "LIMITED WARRANTY REGISTRATION CARD" TO CRUISERS YACHTS WITHIN THIRTY (30) DAYS OF THE DATE OF PURCHASE.**

WARRANTY COVERAGE: CRUISERS YACHTS, a division of **KCS INTERNATIONAL, INC.**, warrants to you, Consumer, subject to the limitations and exclusions described below, that those parts of the new boat manufactured by **CRUISERS YACHTS**, and purchased from an authorized Cruisers Yachts dealer, are free from defects in material and workmanship under normal use and service. The duration of this warranty is as follows: (1) The structural sections of the hull and deck for a period of 5 years beginning the date of delivery to the first consumer. (2) As the other parts and components manufactured by **CRUISERS YACHTS** for a period of 1 year beginning the date of delivery (except for exclusions listed below). (3) **CRUISERS YACHTS** warrants the gelcoat finish below the waterline against blistering for a period of (3) three years from the date of sale, provided that the boat is maintained annually and records are forwarded to the Cruisers Yachts Service Department annually.

WARRANTY CLAIM PROCEDURES: If a defect is discovered during the applicable warranty period, Consumer must promptly notify the selling dealer (or **CRUISERS YACHTS**) of such in writing. In no event shall such notification be received by the dealer (or **CRUISERS YACHTS**) later than 30 days of the discovery of the defect. All warranty claims must first be made to the dealer from whom the boat was purchased. The dealer will contact **CRUISERS YACHTS**, who at that time will determine whether the defect is covered by this limited warranty and advise the dealer. For warranty service the boat must be returned to the selling dealer or if determined by **CRUISERS YACHTS** to our factory. A boat may not be returned to the factory unless prior written authorization, in accordance with instructions set forth in **CRUISERS YACHTS** return authorization, **from CRUISERS YACHTS SERVICE MANAGER**. Transportation, preparation, disassembly and reassembly cost to and from the dealer or **CRUISERS YACHTS** will be the responsibility of the owner.

REMEDY: Within a reasonable time after notification, **CRUISERS YACHTS** will repair any defect in materials or workmanship or at its option, correct such defect by replacing nonconforming goods or parts. Such repair and/or new parts are warranted for the unexpired portion of the original warranty, or for 90 days, whichever is longer. Warranty work (parts and/or labor) shall be at **CRUISERS YACHTS** expense. These remedies are the Consumers exclusive remedies for breach of warranty.

LIMITATION AND EXCLUSIONS: This warranty applies only if the boat is used under noncommercial normal use and service, and shall not apply to the following: (1) Boats subjected to negligence, abuse, misuse, or accident. (2) Boats subjected to improper operation, trailering, maintenance or storage, commercial use or use for purposes other than those for which the boat was designed. (3) Defects or damages caused by a force or impact which exceeds design specifications, including but not limited to, exposure to harmful solvents and electrolysis. (4) Defects or damages caused by unauthorized attachments or modifications. (5) Any statements, representations or warranties given by dealers or third persons other than those provided within this warranty. (6) Any unit which is part of a rental fleet, used for racing or commercial purposes. (7) The following consequential damages: (a) loss of time, (b) inconvenience, (c) towing charges, (d) expenses for travel, lodging, telephone and fuel, (e) loss or damage to personal property or loss of revenue, (f) loss of use of the boat, (g) haul out, launch, lift charges. (8) This warranty specifically does not apply to engines, stern drives, IPS, transmission, generators, propellers, improper adjustment of controls, adjustment or realignment to any components including, but not limited to the drive train, and any other parts expressly warranted by the manufacturer thereof. (9) Also excluded are gelcoat crazing, gelcoat stress cracks, gelcoat fading, stainless steel hardware, windshields, glass breakage, all vinyl upholstery, cockpit seat wood, acrylic top enclosures, carpet, electronics, light bulbs, gauges and other equipment or accessories manufactured by manufacturers other than Cruisers Yachts, which are separately warranted by such other manufacturers (appropriate adjustments therefore being provided by their respective manufacturers). (10) Any published or announced catalog or performance characteristic of speed, fuel and oil consumptions and static or dynamic attitude in the water. (11) Cruisers Yachts shall not be effective or actionable if any repair or replacement work is performed by any unauthorized party. (12) Boats manufactured with Cruisers Yachts applied ablative bottom paint does require re-coating based on the region your boat is operated in. Re-coating is a responsibility of the owner.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DO NOT EXTEND BEYOND THE DURATION OF THE EXPRESS WARRANTIES PROVIDED HEREIN.

IN NO CASE SHALL CRUISERS YACHTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, STRICT TORT, OR ANY OTHER LEGAL THEORY. THIS LIMITATION DOES NOT APPLY TO CLAIMS FOR PERSONAL INJURY.

SOME STATES DO NOT ALLOW THE EXCLUSION AS LIMITATION OR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

TRANSFERABILITY: All rights and terms of this limited warranty may be transferred to new owners of the covered product by completing a **TRANSFER OF WARRANTY FORM** and submitting a written request to Cruisers Yachts and accompanied by a $150.00 payment to Cruisers Yachts.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

CRUISERS YACHTS reserves the right to improve its products through changes in design and/or material without being obligated to owners of boats of similar or the same model prior manufacture.

CRUISERS YACHTS, a division of KCS INTERNATIONAL, INC.
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