

189FS

Quick Guide & Schematics



KEY WEST BOATS

Welcome to the Key West Family!

Dear New Boat Owner,

On behalf of every employee at Key West Boats, we are pleased to welcome you to the Key West Family! Since 1986, Key West Boats has continuously set new safety, construction, and design standards. Our skilled team, from our laminators and riggers to our sales and engineering department, is dedicated to every boat we build, and we are constantly working to improve our product. Our dedication to each boat and inspiration for new ideas come from the most important people: our customers. We value your input and encourage you to share your thoughts and the memories you make aboard your 189FS with us! Owning a boat is a fantastic experience, and we dedicate ourselves to making sure your 189FS will be the best experience you have on the water.

Like all Key West Boats, we designed and built the 189FS to ensure owners' safety. That safety includes but is not limited to its upright and level flotation that makes the 189FS both unsinkable and guaranteed to remain upright if swamped. Although incredibly safe by design, your 189FS is only as safe as how it is operated. Regardless of your experience, we encourage you to read the generic manual we have provided with your boat and other resources for information on the rules of the road and safe boating practices to ensure you are operating your boat safely and within the rules at all times. Like all Key West Boats, we designed 189FS to be low maintenance, ergonomic, and an efficient boat to maintain and operate. Familiarizing yourself with the boat systems and working closely with your dealer will go a long way in providing that. We are pleased to provide you with this guide and schematics of the systems in the 189FS to ensure you are confident before you step aboard for your first memorable trip! Following the information in this guide and your dealer's service plan will help to provide you with many years of reliable service so that you can consistently enjoy your time on the water, experience things only possible with a boat, and discover the joy that owning a 189FS brings!

Finally and most importantly, like all Key West Boats, your 189FS was built by a dedicated and experienced team who gave it a unique and personalized story that started when you and your dealer gave it a unique and one-of-a-kind character. Over 35 years and over 50,000 boats later, we still look at each boat we build as having a unique personality and story that is vital to our family. Your 189FS is not just another "unit," and becoming the owner of this 189FS does not make you just another "customer." It makes you a part of our family, which we have been dedicated to for over 35 years and has over 50,000 unique and personalized stories. We are honored to have you as part of our family so we can include you in our story. Safe passages and tight lines!

Sincerely,

The Key West Team



Fuel System

Tank

The 189FS is equipped with a single, 35 Gallon, pressurized fuel tank. The tank is of aluminum construction and is secured/insulated with foam during the construction of the boat. The tank is located on centerline between the aft livewell and aft end of the console. There is a sending unit installed in the tank. Inspection ports in the deck and head compartment provide access to tank fittings. The 189FS fuel system “breathes” through a carbon canister located in the anchor locker that vents overboard through a vent on the starboard side of the hull.

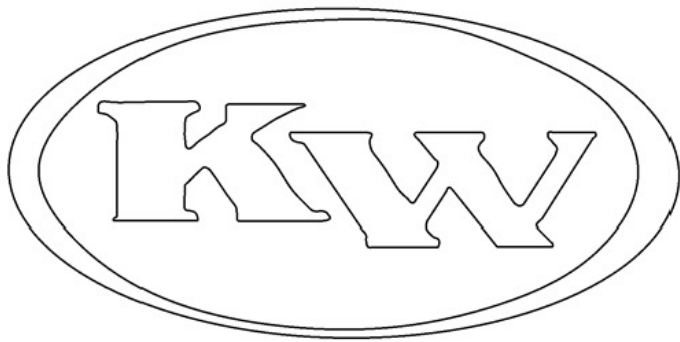
Fuel Supply

There is a fuel pickup installed in the tank. The pickup incorporates a shut off valve along with an anti-siphon valve than can be accessed through the in deck inspection plate under the leaning post. There is an on deck fuel fill located on the port side of the boat just forward of the console. Access to the fill is provided through an inspection port. The fuel fill also incorporates a vent that allows venting of the tank, It is recommended that these connections be inspected annually.

The 189FS will come pre-rigged from the factory with an engine matched fuel water separator. The fuel water separator is installed in the bilge and accessed through the bilge access hatch located in the splash well. The Fuel Water separator should be checked periodically to ensure the fuel is free of water. Fuel should be disposed of in an approved waste collection device when servicing/replacing. The filter must be filled with fuel after servicing/replacing them in order to prime the engine. A primer bulb for the engine is located in the engine splash well. It is used to prime the engine and system before starting the engine. This should be done after service or after periods of downtime for the boat. When fueling your boat, whether on trailer or at a marina, the pressurized system will prevent overfilling. Any blockage of the vent and or vent line will prematurely trigger the shut off on the fuel nozzle and will prevent you from filling the tank completely. It is recommended to inspect your fuel system annually to ensure that all hose fittings are secured and the lines are free of any kinks. All components of the 189FS fuel systems are approved for use with ethanol blended fuels up to 10%. E85 fuel should never be used. Key West recommends using non ethanol fuels whenever possible to reduce the risk of moisture retention in the fuel system, especially in areas of high heat/humidity.

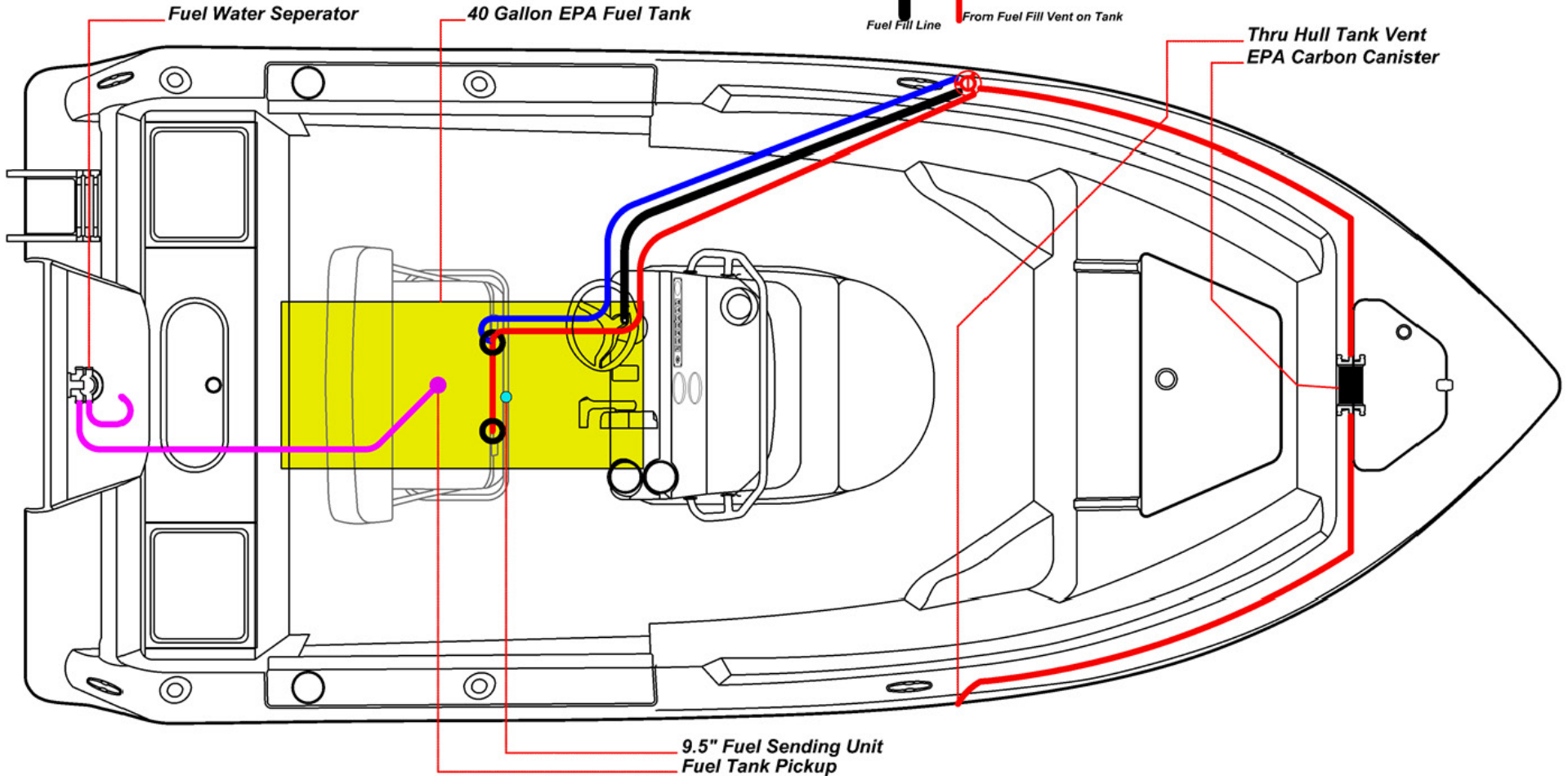
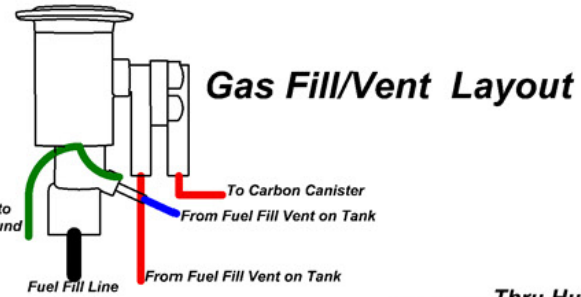
Due to the emission requirements of the EPA, certified fuel tanks and systems will not fill to the top of the tank. Instead, there will be a ullage in the top 10% of the tank. The specified capacity of the tank accounts for this ullage when the tank is static and level. Therefore, it is important to make sure the boat is as level as possible when filling the tank. Any forward or aft tilt will cause fuel to collect in one end of the tank and prematurely reach either the forward or aft tank vent When fuel reaches these vents, it triggers the shut off. When the boat is level, fuel will reach these vents at the same time and allow the maximum quantity of fuel into the tank. The tanks ullage will also affect your fuel gauge as the tanks sending unit will not reach the top of the tank, even when the tank is filled. This will cause the fuel gauge to not read full, even though it is. Do not rely on the fuel gauge exclusively as variations will occur.

The stated capacity of the tank DOES NOT reflect the quantity of usable fuel in the tank. The tank and its pickup are designed to allow as much fuel to be used as possible when on plane or in the boat’s level floating position, but it will not allow all fuel to be used. When using your boat, it is a good practice to keep a log and a running count of how much fuel you’ve used.



Fuel System Schematic

-  1-1/2" Fuel Fill Line
-  5/8" Fuel Fill Vent Line
-  1/4" Fuel Fill Orifice Tube
-  3/8" Fuel Feed Line



Raw Water System

Raw Water Supply

The boat features a single thru hull scoop pickup on the transom for raw water intake.

Livewell System

There is one 800GPH livewell pump. It is mounted directly to the thru hull pickup. The pump provides raw water to the transom livewell. The pump has an independent switch and fuse(See Electrical Schematics). The livewell pump is a centrifugal pump that is not pressure regulated. Therefore, it is recommended that the pump only be used when using the livewell. The pump is self-priming. Before activating the pump, make sure the livewell fill valve is open and than switch on the pump. It is important to check the livewell pump annually and periodically spray it with a corrosion inhibitor.

Standard Raw Water Wash System

The 189FS is equipped with a raw water wash system. The system uses the livewell pump to provide raw water to the provided washdown hose. Please note though that using the system does not allow use of the livewell. To use the system, unscrew the live well fill valve on the livewell and thread the hose onto the inlet The livewell pump is not pressure regulated. Therefore, only engage the livewell pump when you are going to use the washdown. Do not leave the pump on when not using the washdown.

Optional High Pressure Washdown system

The 189FS can be equipped with an optional high pressure, raw water washdown system. The system is fed by a pump that is located in the aft end of the port transom dry storage compartment. The pump is controlled by a switch and fuse (See Electrical Schematics). Water is supplied to the pump off of the accessory port on the livewell pump(lower hose connection on the livewell pump). Using the raw water washdown does not require the livewell pump to be on. The raw water pump features an in-line strainer for collecting any debris that could damage the pump. The strainer should be checked before using the pump. The strainer features a clear cap for easy inspection. If any debris is found, remove the strainer screen by untwisting the clear cap and clean the screen. The pump features a built-in pressure regulator that will shut the pump off when pressure is achieved in the system. The raw water washdown faucet is located on the port side, under the gunwale cap and adjacent to the port jump seat If trailering the boat or using the boat after an extended period of downtime, it will be necessary to prime the washdown pump. Before activating the pump, open the washdown faucet and than switch on the pump. When the system is free of air, you can either close the faucet or shut off the pump. It is important to check the washdown pump annually and periodically spray it with a corrosion inhibitor.

System Operation and Maintenance

When using any of the two raw water pumps, it is important to pay attention to the water you are operating the boat in. Operating the pumps in shallow /muddy water or water with high amounts of floating debris such as grass or trash may result in ingestion and damage the pumps. Loss of pressure in pumps may be the result of contaminants blocking the thru hulls, binding of the pumps impeller, clogged strainer basket and/or blockage in lines. When operating in the contaminated water, check the supply of and quality of water to the livewell and/or washdown frequently. Any loss of pressure or flow should be addressed immediately to prevent damage.

Raw Water System Troubleshooting

Baitwell and/or Raw Water Pumps Run, but do not pump water

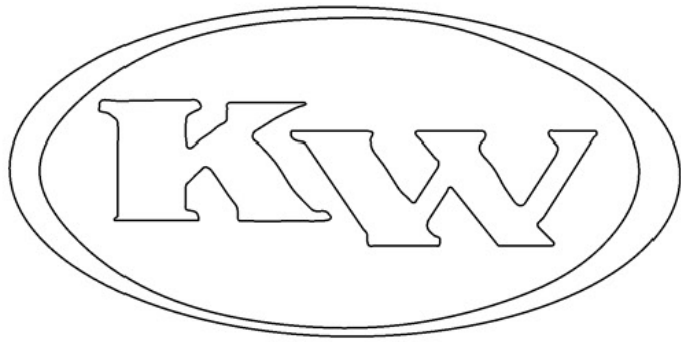
- Pickup is blocked and is preventing water from reaching the pumps. Put boat in reverse to clear the intake. If problem persists, do not continue to operate pumps. Clean intake when boat is out of water to remove debris
- There is air in the raw water washdown system. Prime the system as described on previous page
- Raw Water Pump Strainer is clogged. Clean Strainer

Baitwell and/or Raw Water pumps run but water flow is reduced

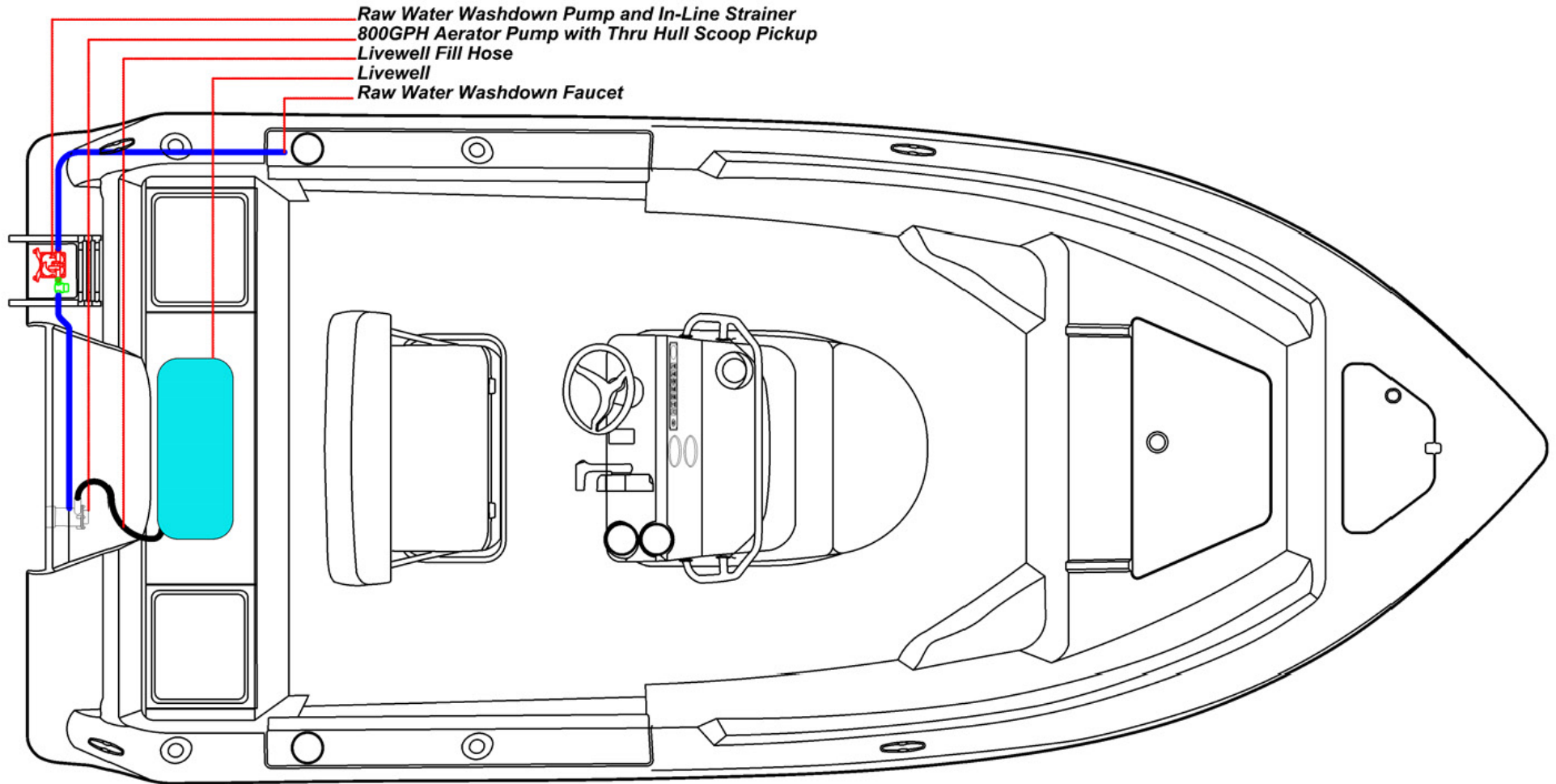
- Debris is partially blocking intake. Clear debris
- Raw Water Pump Strainer is partially clogged. Clean Strainer
- Baitwell sprayer head Valve is not fully open. Open Valve fully
- Raw Water Faucet is not fully open. Open Valve Fully
- Hose(s) are damaged and are either leaking and or sucking air. Check hoses
- Low Voltage to Pump(s). Check connections for loose or corroded wiring. Check battery voltage
- Pump(s) are damaged or defective. Replace Pump(s)

The Raw Water washdown pump continues to run, even after faucet is closed

- The intake hose going to the pump is damaged and is sucking air. Replace hose
- Intake hose is loose causing a leak and loss of pressure to the pump. Inspect connections at both the livewell pump and washdown pump to ensure they are tight.
- Discharge hose from pump to faucet is loose causing a leak and drop of pressure. Inspect connections and fittings at both the pump and faucet to ensure they are tight and not damaged. Replace if damaged
- Strainer is clogged. Clean Strainer
- Pressure switch on pump is defective. Replace pump or pressure switch
- Voltage to the pump is low. Check connections for loose or corroded wiring. Check battery voltage
- Pump is damaged or defective. Replace Pump.



Raw Water Schematic



Drainage System

General Overview

All water in the 189FS is drained either via gravity or pump. It is either drained directly overboard or to the aft bilge where it can be drained out either via the garboard drain plug or the bilge pump. It is important to check the drainage system frequently to verify water flows freely, hoses are secure and there are no leaks. The drains and discharge pumps are as follows starting at the bow:

Anchor Locker: Gravity drain along centerline of hull to aft bilge

Bow Locker: Drains into the cockpit

Console Seat Drain: Gravity drain to bilge

Console Recess Drain: Gravity drain, drains directly to the bilge

Port Cockpit Drain: Gravity drain to port transom 1-1/2" Thru Hull

Starboard Cockpit Drain: Gravity drain to starboard inboard 1-1/2" Thru Hull

Port/Starboard Transom Storage Lockers: Gravity drain directly to aft bilge

Transom Livewell Overflow Drain: Gravity drain connects via T-Connector to Transom Livewell Drain

Transom Livewell Drain: Gravity drain to starboard transom 1-1/8" Thru Hull

Aft Bilge Pump: Located in aft bilge, discharges to aft port thru hull near transom

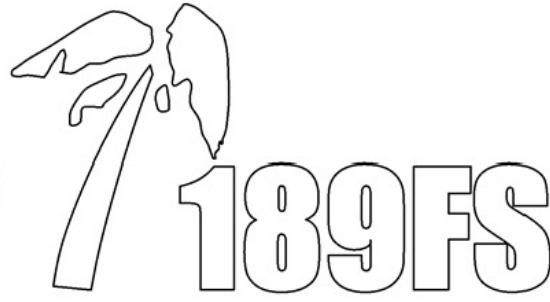
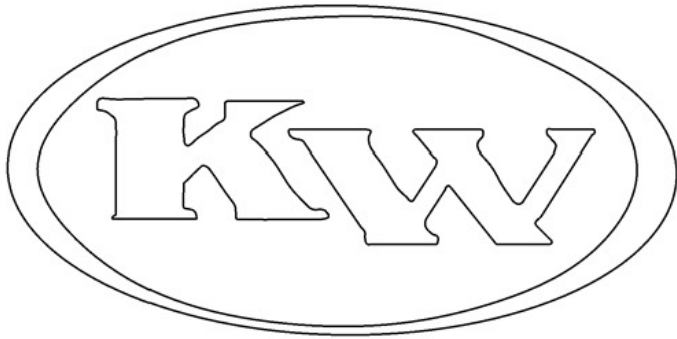
Floor Drain Overview

Two of the most important pieces of equipment on your boat are the cockpit floor drains as their operation is integral to your safety on the water. At 1-1/2" in diameter, they are designed to allow massive quantities of water to leave the cockpit of your boat in a very short period of time in the event of a swamping or extreme down flooding event. All the drains in your boat operate this way, however, the floor drains are designed so that water can only flow in one direction; out of your boat. The drain features a unique design that acts like a check valve thereby preventing back flow of water into the cockpit of your boat.

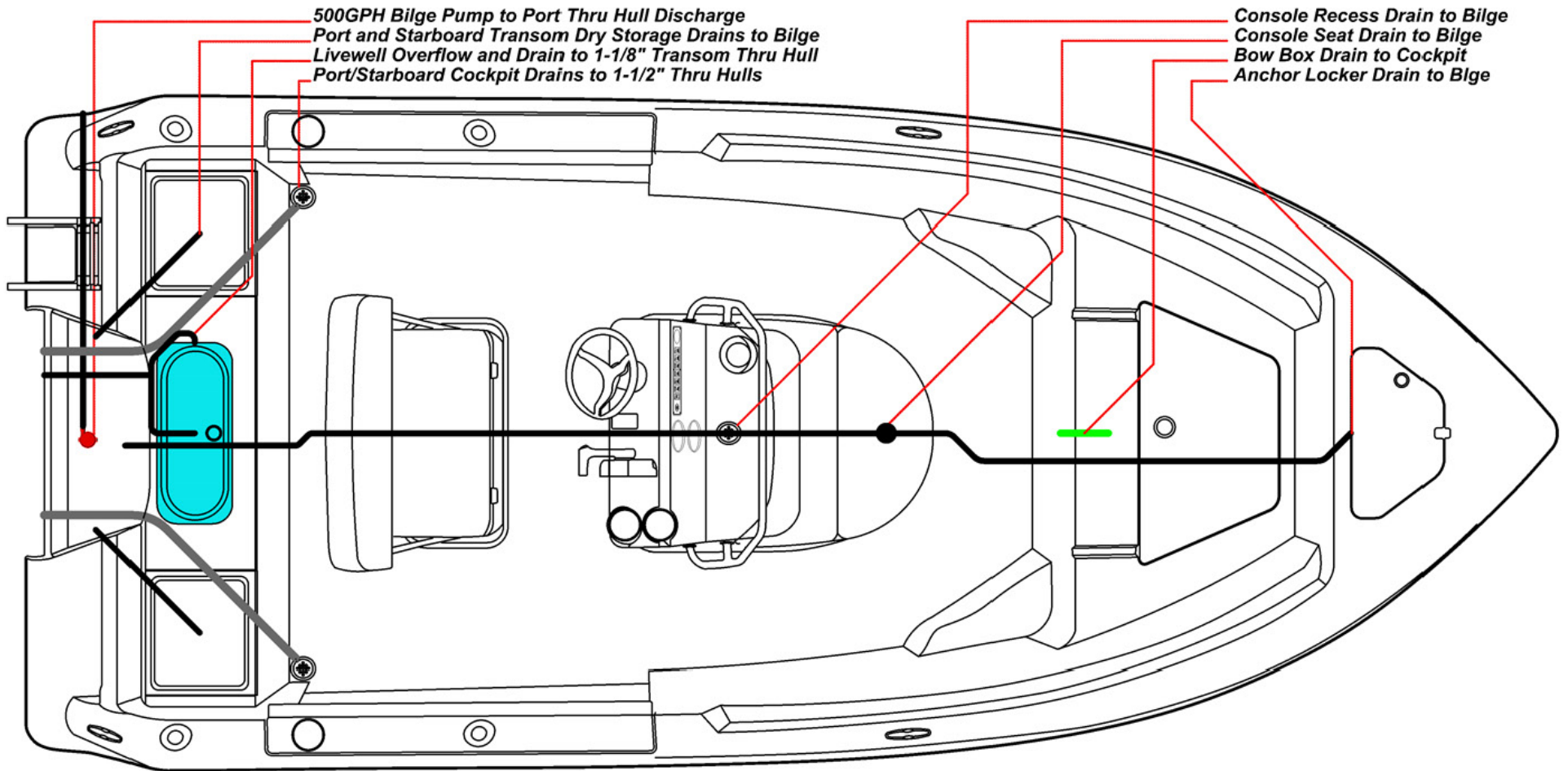
The design of the drain and its operation is solely dependent on the foam ball and seal ring. Any degradation in the foam will compromise the balls ability to seal against the seal ring. Therefore, do not apply power washers or any cleaning chemicals directly to the drain area as this will compromise the foam in the ball. When using chemical cleaners in your boats interior, use a sufficient quantity of water to dilute the chemical(s) when spraying off so that they do not affect the foam ball when draining out.

The seal ring needs to be kept free of debris so that foam ball will seal flush. The drain features a grate so that debris cannot flow into the drain. In the event that a sufficient amount of debris collects around the seal, the grate and top of the drain assembly can be removed. Use a spanner wrench to unscrew the top of the drain and clean the drain assembly. This will also provide access to the foam ball which can than be removed and replaced if necessary. Only do this if it becomes evident that ball is not sealing properly. This will be manifested by small amounts of water coming through the drain when the boat is sitting at rest in the water. **DO NOT** remove the drain while the boat is in the water.





Drainage Schematic



Drainage System Troubleshooting

Reduction in water flow from bilge pump

- Blue Intake screen on bottom of pump is clogged with debris. Clean Intake Screen
- Voltage to the pump is low. Check for corrosion and loose connections. Check battery Voltage
- Discharge hose is blocked or kink. Check discharge hose and clean/repair
- Pump is defective. Replace Pump

Bilge Pump continues to run even though bilge is dry

- Float switch on pump is stuck due to debris or build up on switch. Ensure float switch is clean and free of debris.

Bilge is full of water and pump is not running

- The Inline Fuse for the automatic bilge pump is blown. Replace the Fuse
- The battery is dead. Check voltage and charge if necessary
- The pumps impeller is clogged by debris. Clean pump impeller
- The connections/wires to the pump are corroded. Check and replace connections/wires
- The Built-In float switch is defective. Replace Pump
- The Pump is defective. Replace Pump

Bilge pump will not run when the manual switch on the helm is engaged

- ATC Fuse on fuse block is blown. Replace Fuse.
- The battery switch is off or the battery is disconnected. Turn on battery switch/reconnect battery
- The pumps impeller is clogged by debris. Clean pump impeller
- Switch is defective. Replace the switch
- The connections/wires to the pump are corroded. Check and replace connections/wires
- Pump is defective. Replace Pump

Electrical System

General Overview

The boat is equipped with a 12V DC Electrical system that can be equipped with an optional AC battery charger. The boat can only be rigged for a single motor. If the boat is rigged without an optional battery selector switch, the boat will be rigged for x1 Group 24 battery. If the battery selector switch is installed, the boat will be rigged for x2 Group 24 batteries. The battery(s) will provide power to the engine and house systems.

12V power is distributed to the 12V factory installed systems through ATC fuses located on a fuse block inside the console. All 12V systems are grounded via a single 10GA black wire attached directly to the negative post on the battery. A 30amp main circuit breaker is installed in the console to protect the house systems from overload and is connected either directly to the batteries or the optional battery selector switch. Additional circuit breakers for the auto bilge pumps and stereo memory are wired directly to either the battery or battery selector switch.

The system is designed so that turning the battery switch off will still allow the bilge pump to function in an automatic mode. Key West recommends that boats that are going to be left in the water or in a boat lift, where access to the drain plug is not feasible, be installed with a battery charger to prevent discharge by the bilge pump. Trim Tabs and optional power steering are connected directly to the battery and feature overcurrent protection. They do not energize until the engine ignition switch is turned to the “On” position.

Battery Selector Switch (Optional)

As an option, a battery selector switch can be installed. The battery selector switch is installed on the starboard side of the console. The battery switch provides power to the engine and 12V accessories. The switch is a dual circuit switch and has 4 positions (OFF, 1, 2, Both). This allows power to be supplied by either battery 1, battery 2, or both simultaneously. The switch also directs the charging current from the engine's alternator.

If position “1”: is selected on the switch, the engine and 12V accessories will receive power from Battery 1 and the engine's alternator will charge Battery 1. Battery 2 will be isolated and in reserve. If position “2”: is selected on the switch, the engine and 12V accessories will receive power from Battery 2 and the engine's alternator will charge Battery 2. Battery 1 will be isolated and in reserve. If position “Both” is selected, the switch connects the batteries in parallel and the engine and 12V accessories will receive power from both batteries. The engine's alternator will charge both batteries simultaneously as well. When the boat is underway, placing the switch in the “Both” position is recommended so that both batteries charge. When the boat is moored (Engine Off) and 12V accessories are being used, it is recommended to select position “1” or “2” so that one battery is isolated and can be used to crank the engine. When using the windlass, it is recommended to place the battery switch in the “Both” position due to the high power demand.

Electrical System

Optional T-Top

If your boat is fitted with an optional canvas T-Top, it will be rigged with spreader lights and additional courtesy lights. These lights are controlled by switches located on the port side of the electronics box. A fuse block with ATC fuses is installed inside the electronics box to provide overcurrent protection. Power is supplied to T-Top accessories via a single red wire that is connected to the 30 amp house breaker inside the console. It connects to the fuse block where power is then distributed to the T-Top accessories through their respective fuses. All T-Top/Hardtop accessories are grounded to a grounding post on the fuse block which is connected to the ground post on the main fuse block inside the console.

Battery Charger

As an option, a battery charger can be installed that will charge one or both batteries, depending on the battery installation. The battery charger converts AC power into DC power that is used to charge the batteries. The charger is powered by a plug on the console that receives a standard 110V plug from the female end of a 110V extension cord. It allows you to plug the boat into a regular 110V outlet. Please consult the battery charger's manual before using your charger for the first time. If the optional Battery selector switch is installed, it does not need to be on to direct the charge from the battery charger.

Electrical System Maintenance

All connections in the electrical harness feature deutsche connectors and heat shrink butt connectors to minimize corrosion. Key West recommends that all connections and terminals be checked at least twice a year and sprayed with a corrosion inhibiting spray at least once a year to protect and maintain the integrity of electrical connections.

Electrical System

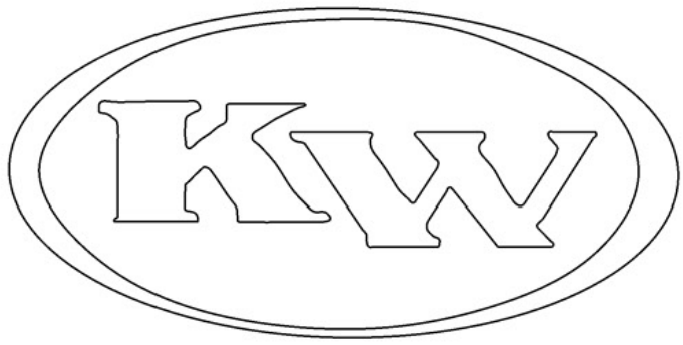
Trolling Motor Packages

The 189FS can be fitted with an optional trolling motor harness and plug. If you choose to, a 24V trolling motor can be installed at the factory. 24V trolling motors will be rigged with two batteries, rigged in series, that are located inside the bow box. A circuit breaker is installed, adjacent to the batteries, that allows you to disconnect the batteries from the trolling motor harness whenever the boat is stored or the trolling motor is not being used. The trolling motor harness features a plug and receptacle located in the bow. To use your trolling motor, insert the plug into the receptacle and make sure the trolling motor circuit breaker is closed. The trolling motor's electrical system is completely isolated from the 12V house and engine systems. The charging system on the engine is not designed to charge the trolling motor batteries. The trolling motor batteries can only be charged via the battery charger that comes with the trolling motor package. If you anticipate using your trolling motor, fully charge the batteries before each use. Low voltage in any of the two batteries will cause the motor to not function properly. Please see "Dealer Installed Equipment" section on next page for further information regarding battery installation.

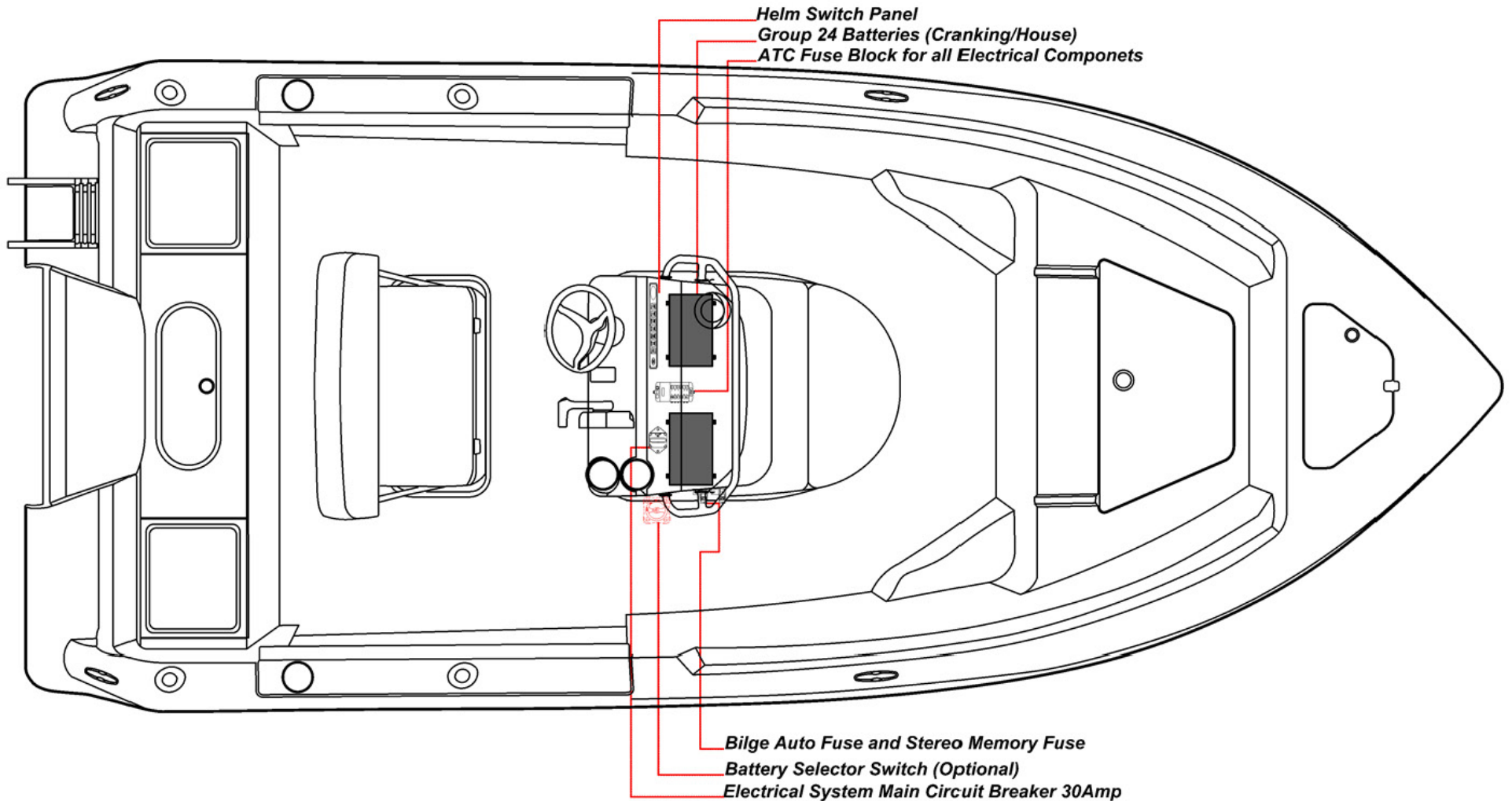
Dealer Installed Equipment

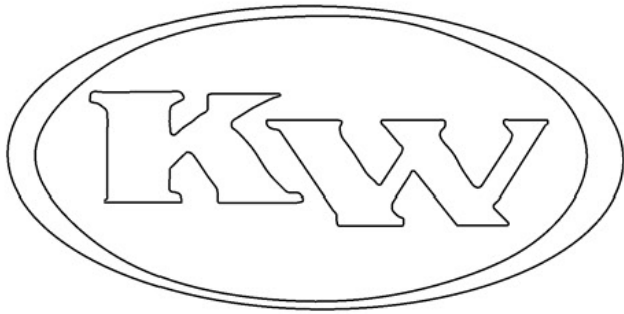
When your 189FS arrives at your dealer, the dealer will install batteries and may install additional equipment. It is important to check with your dealer regarding the batteries installed in your boat. The three common types of batteries are Wet Cell, Gel Cell and AGM Batteries. Gel Cell and AGM batteries are sealed and maintenance free. If your boat is equipped with Wet Cell batteries, they will require the following inspections and service. Regularly check the electrolyte levels in the batteries and add DISTILLED WATER if needed. If a battery charger is used regularly, the electrolyte levels will need to be replenished more often. Fluid level should be just above the plates in the battery. Do not overfill. Only use distilled water. If your boat is installed with a battery charger, before using the charger, make sure the charge mode is set to the battery type (Wet, Gel, or AGM) installed on your boat. If a battery needs to be replaced, make sure it is the same type as the other battery. It is okay to install a larger or smaller battery provided it is the same type (Wet, Gel, or AGM) as the other battery in the boat.

Consult with your dealer regarding wiring and installation of electronics installed at the factory. If equipment is connected to available accessory switches on the dash panel, your dealer's service department should verify the capacity of the equipment being installed and install the appropriately sized ATC Fuse. Verify that installed equipment does not overload the capacity of the 30amp main breaker installed inside the console when all 12V accessories are running.

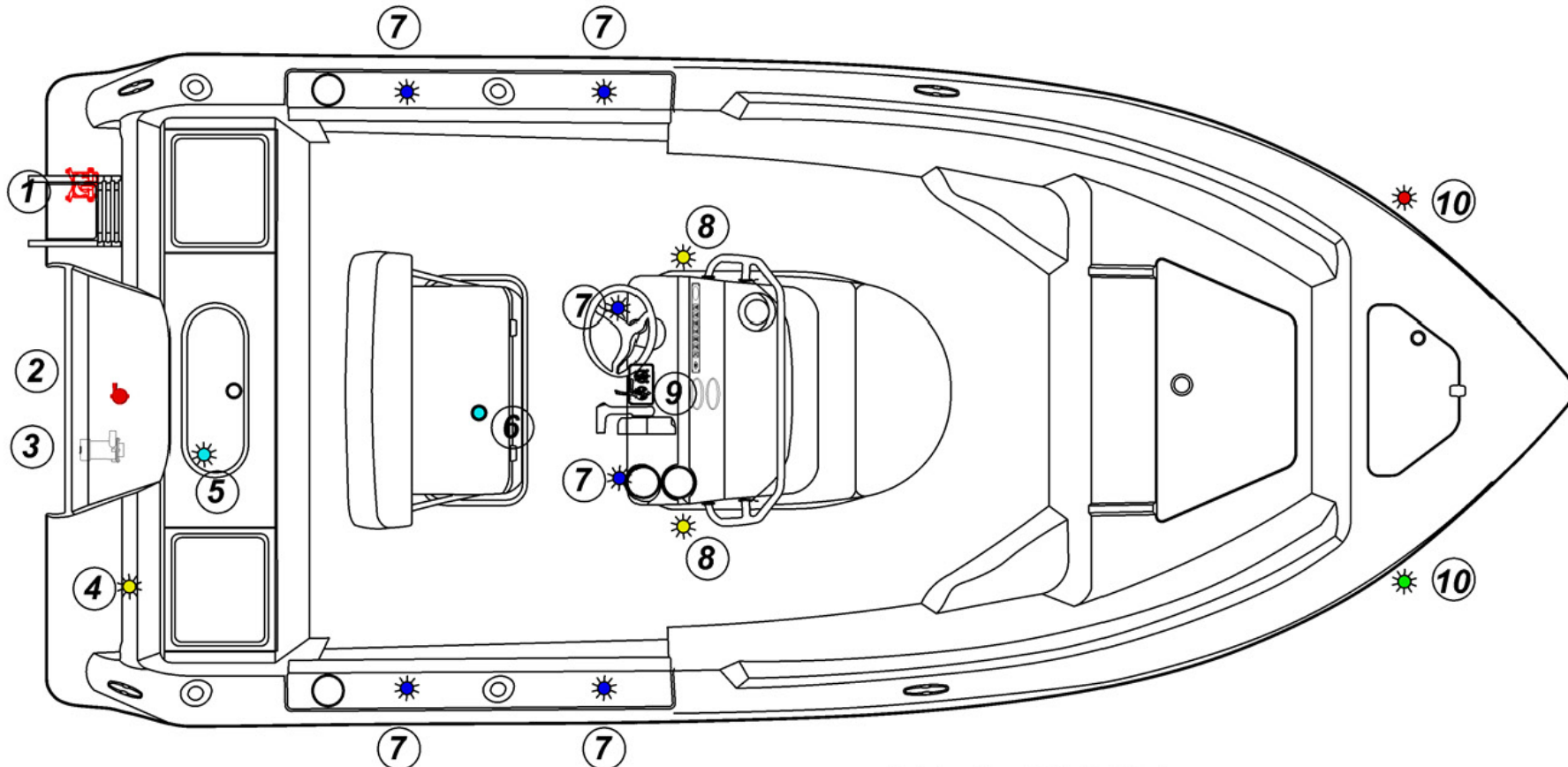


12V Electrical Schematic





12V Electrical Schematic




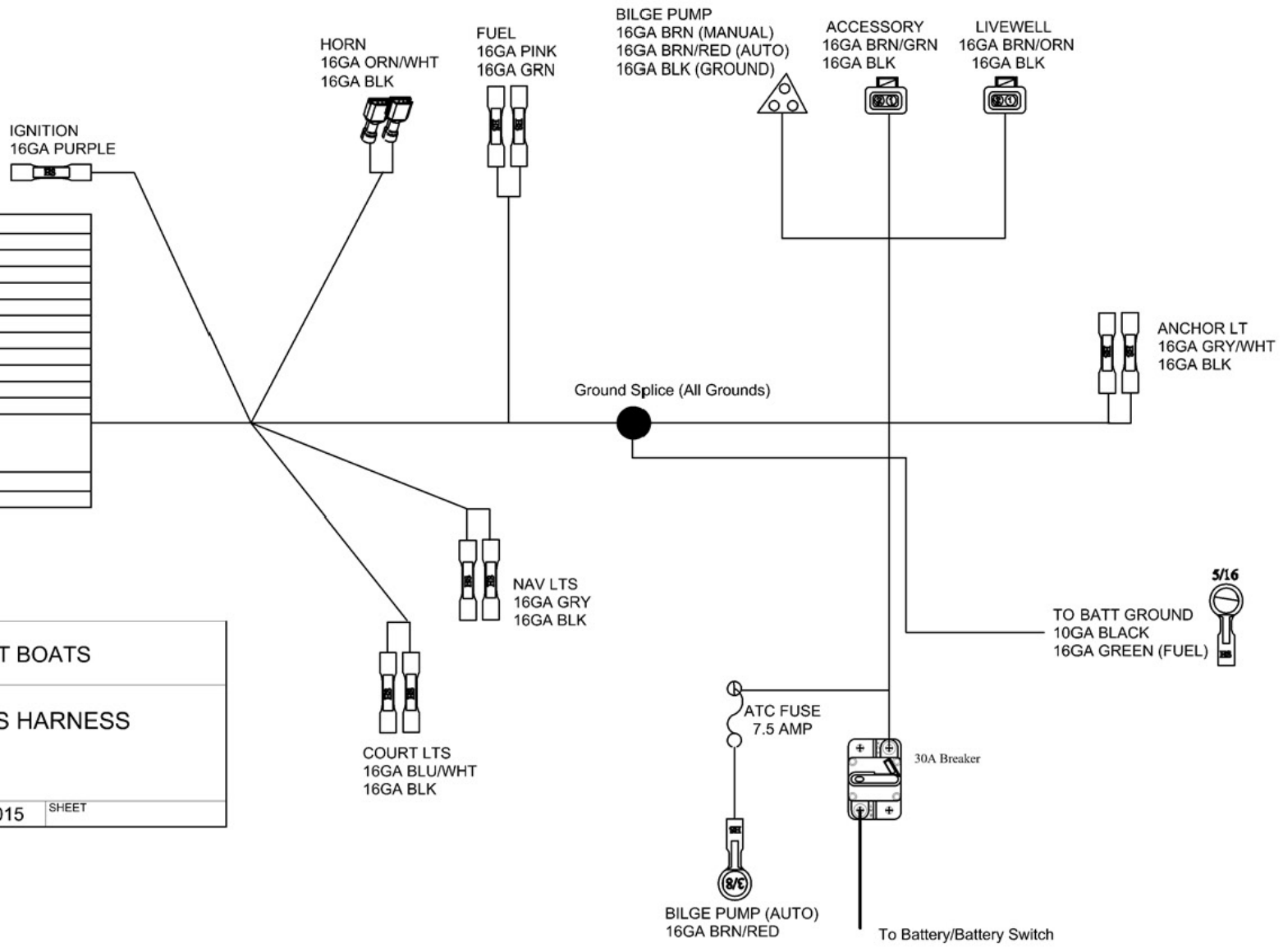
- 1) Raw Water Pump (Option) - 16GA Brown/Green
- 2) Bilge Pump Manual - 14GA Brown
- 3) Livewell Pump - 16GA Brown/Orange
- 4) Anchor Light - 14GA Grey/White
- 5) Livewell Light - 16GA Orange/Blue

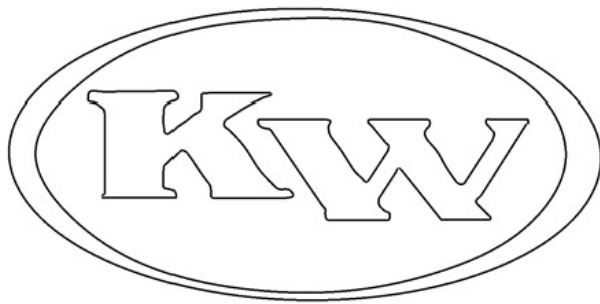
- 6) Fuel - 16GA Pink
- 7) Blue Interior LED Lights (Option) - 16GA Blue/White
- 8) Console Courtesy Lights - 16GA Blue/White
- 9) Ignition - 14GA Purple
- 10) Navigation Lights - 14GA Grey

1)	16GA	GRAY (NAV LTS)
2)	16GA	GRAY/WHITE (ANCHOR LT)
3)	16GA	ORANGE/WHITE (HORN)
4)	16GA	BLUE/WHITE (COURT LTS)
5)	14GA	BROWN/ORANGE (AFT LIVEWELL)
6)	14GA	BROWN/GREEN (RAW WATER PUMP)
7)	14GA	BROWN (BILGE MANUAL)
8)	16GA	PINK (FUEL)
9)	16GA	PURPLE (IGNITION)
10)	16GA	CAVITY PLUG
11)	14GA	CAVITY PLUG
12)	16GA	CAVITY PLUG

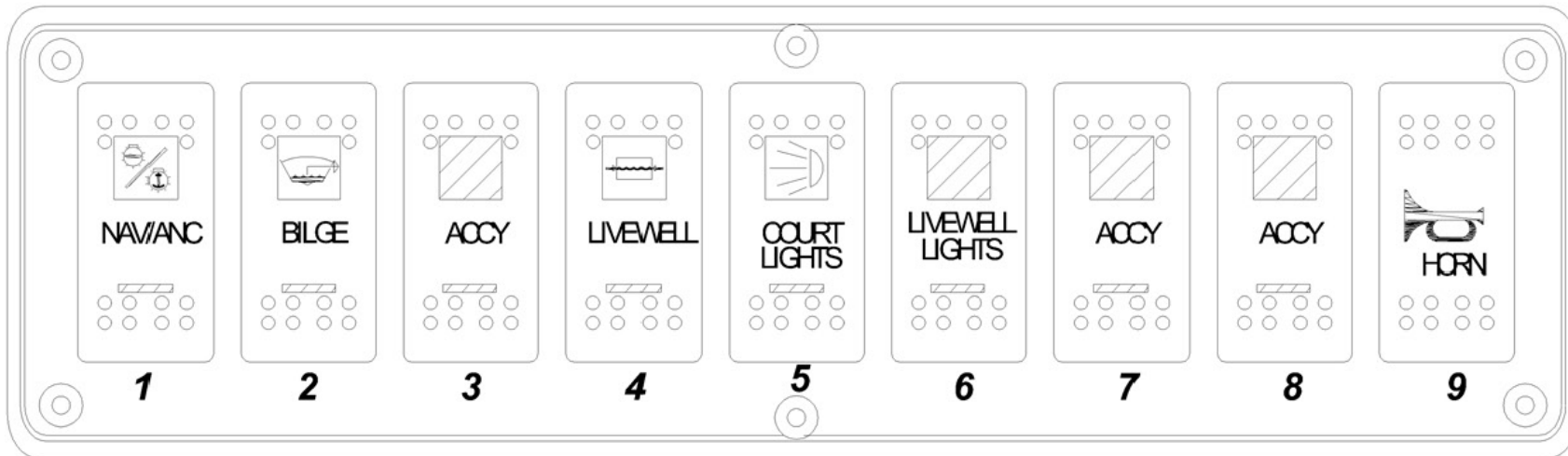
1)	10GA	RED (PANEL POWER)
2)	10GA	BLACK (PANEL GROUND)

			KEY WEST BOATS		
			TITLE 189FS/203FS HARNESS		
SCALE	07/07/2015	SHEET			





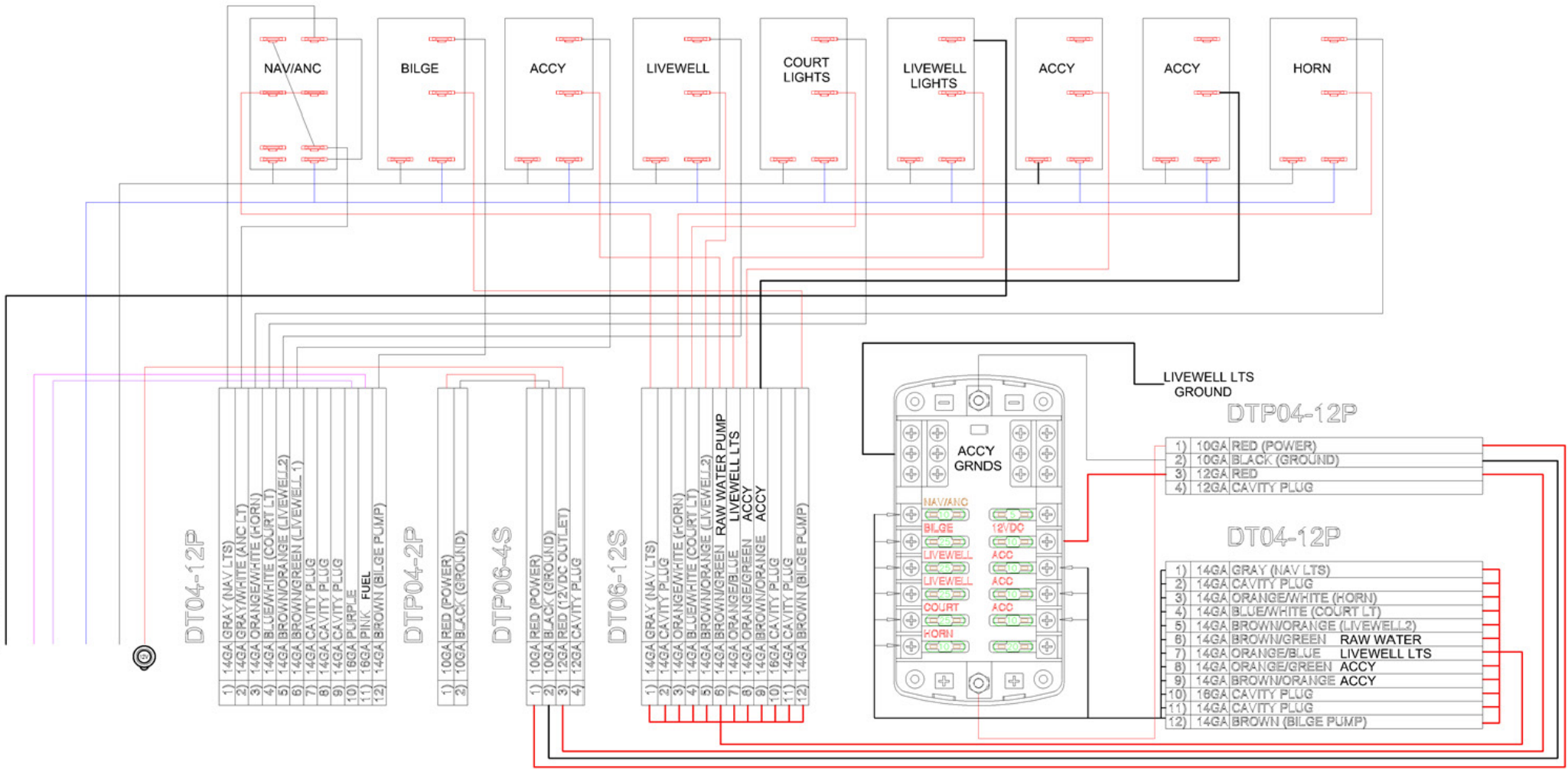
12V Switch Panel Schematic




- 1) Navigation(Top) / Off(Middle) / Anchor(Bottom)
- 2) Off(Automatic)/ON - Activates Bilge Pump in manual mode. Return to off position for Auto mode.
- 3) Off/On - Activates Accessory or Optional Raw Water Washdown Pump
- 4) Off/On - Activates Aerator Pump for Livewell
- 5) Off/On - Activates Interior Courtesy Lights including Optional Interior LED Package if installed
- 6) Off/On - Activates Livewell Light
- 7) Off/On - Activates Accessory
- 8) Off/On - Activates Accessory
- 9) Spring Loaded Off/On - Press to engage horn. Release to Disengage

Note A: If optional equipment is installed at the Factory, Accessory Switches will be used and labeled according to their function and will therefore, no longer be available as accessory switches. Please consult your dealer regarding installation of additional equipment requiring the use of an accessory switch to verify amperage requirements. Do not "piggy back" off labeled switches as it may overload the rated amperage of the Fuse.

To Livewell LTS



	KEY WEST BOATS	
	189FS/203FS HARNESS SWITCH HARNESS	
SCALE	07/07/2015	SHEET