WARNING

The entire ***gplink*** system must get its power from the same source as the engines *(not a backup system)*. This includes the grounds! The STBD and PORT boxes must be powered from an un-switched power connection from their respective engines, unless the engines share a common DC ground source. There will need to be a 5 amp fuse in between battery and ***gplink*** boxes.

If the system is not installed following these instructions, there could be damage to other vessel electronics. gplink will not be liable for damages occurring due to improper installation!

Satellite Tracking and Monitoring Solutions

Pleasure/Sport Craft Installation Guide

Contact ***gplink*** at +1.252.504.5113 **24 hours**
prior to scheduled installation for activation of units.
(48 hours on weekends)

www.gplink.com

Contents

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1. Introduction and Purpose

The scope and purpose of this document is to guide a successful installation of the ***gplink*** ® vessel monitoring system. The ***gplink*** vessel monitoring system protects a boat while away from or at the dock by monitoring engines and onboard critical systems, including bilge levels, fire alarms, low batteries, power interruption, and engine diagnostic codes - all while tracking the precise location of a boat anywhere in the world. ***gplink*** utilizes dual - band technology with GSM communications, as well as the Iridium satellite system for location tracking, monitoring, emergency notification and communication. The success of the ***gplink*** vessel monitoring system relies on proper installation of the Monitoring Tracking Module (MTM's), antennae, and RF receiver and transmitters.

1.1 Safety

As with any electronic installations, all electrical safety precautions should be observed while working around open panels. Proper caution should be used to prevent DC systems from an arc or short, causing an open flame or fire. One should ensure AC power is isolated from open DC panels, and when working around batteries, proper personal skin and eye protection should be used. In addition, extreme care should be exercised when making any penetrations through bulkheads, walls, etc. so as not to damage exterior surfaces, fuel tanks, wiring, etc. that may be on other side of wall.

1.2 Replacement Parts

When replacement parts are required for these products, we recommend using OEM replacement parts or parts with equivalent specifications including, but not limited to, physical dimensions, type, strength and material. Failure to heed this warning can lead to premature failures, product damage, personal injury or death.

2. System Overview

The ***gplink*** Monitoring Tracking Module (MTM) system remotely tracks vessel location, speed, system and engine information. The system is comprised of one primary module unit for the first engine, plus a second unit for additional engine (third and fourth require an additional kit), Radio Frequency (RF) receiver, AC monitoring remote frequency transmitter (RF), high water RF, smoke alarm RF, and two antennas. The modules are hard wired into the Electronic Monitoring Connection (EMC) harness. The ***gplink*** modules share a port/starboard designation and the RF receiver is hard wired into the primary module. AC low, high water alarm, and smoke RF's are remotely mounted and transmit radio frequency to relay information.

2.1 *gplink* Module

The ***gplink*** modules collect information from the engine ECM and RF receiver and transmits via GSM/ cell or satellite to the end user. The prime objective of the starboard module is to receive starboard engine information, and code/transfer to the port module. The port module receives the information and transmits via satellite or GSM/cell.

2.1.1 Module Power Source

The unit is powered either via an uninterrupted 12/24VDC source or from the J1939 or J1587 backbone, depending on the configuration of the engine hardware harness.

2.2 RF Receiver

The RF receiver collects fault information from the AC monitoring RF, high water RF, and smoke RF. The RF transmitters are discretely programmed to communicate only with the RF to which they are assigned. The RF receiver receives power from the MTM, from which it also monitors DC voltage.

2.3 Pancake Antennae

There is one pancake and one square antennae in the ***gplink*** MTM installation package, regardless of number of engines. The one (1) wire antenna transmits satellite information. The two (2) wire antenna transmits GPS & GSM information. The antennae must be installed so as to allow a clear line of sight for monitoring by Iridium satellites. Fiberglass and wood will allow transmission / reception of satellite, cellular and GPS communications. Metal objects such as cranes will interfere with line of sight reception.

2.4. RF Components

Radio Frequency Components are remotely mounted, wireless devices which are pre programmed for the RF receiver included in the MTM system.

2.4.1 AC RF Transmitter

AC RF Transmitter will send a signal to the RF receiver if AC power is turned off. It has been programmed to the specific RF transmitter before delivery and should be secured in an AC receptacle.

Choose the appropriate AC plug for the installation. Make sure to utilize adhesive tie wrap mounts and tie wraps to secure the AC plug receptacle in place.

2.4.2 Bilge High Water RF

The bilge high water RF will send a signal to the RF receiver if water reaches the attached water sensor. It has been programmed to the specific RF transmitter before delivery and sensor should be mounted slightly higher than existing high water alarm/pump. Transmitter portion should be mounted as high as possible in the bilge compartment. External exposure, moisture accumulation, engine room wash down is to be avoided in RF mounting location. RF sensor should be located where water accumulation and/or boat movement does not allow water contact causing false alarms by surge of collected water.

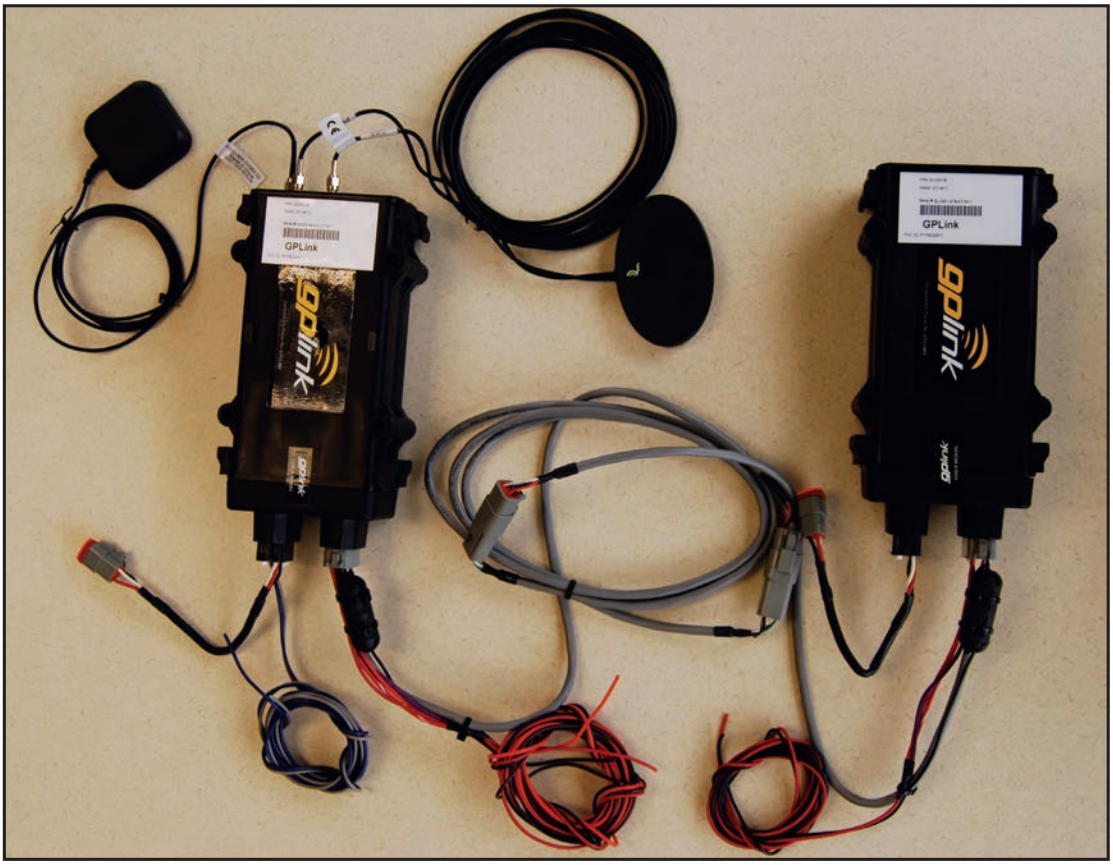
2.4.3 Smoke Detector RF

The smoke detector RF will send a signal to the RF receiver if smoke is detected or if the cover is removed. It is pre programmed to the specific RF transmitter and should be mounted in an inconspicuous location using a hook and loop adhesive strip. See appendix for recommended mounting locations.

3. Installation Instructions

3.1 Standard Base Components

Part #	Description	Quantity
MTM (Port) GWD018	Port Monitoring Tracking Module	1
MTM (Starboard) SLV001	Starboard Monitoring Tracking Module	1
HN0771	Port Four-Wire Harness	1
HN0775	Starboard Two-Wire Harness	1
HN0770	Port J19 Three-Wire Harness	1
HN0776	Starboard J19 Three-Wire Harness	1
AN0008	Antenna Square & Wire 1 (Satellite)	1
AN0007	Antenna Pancake & Wire 2 (GPS & GSM phone)	1
PPI0001	RF Receiver	1
PPI0111	RF AC Sensor	1
PPI0211	RF Bilge High Water Sensor	1
PPI0311	RF Smoke Detector	1
	#12 x 3” Stainless Steel Screws	4
	Tie Wraps	2
	Posilock two wire to one connector	2
	4 wire plug connector/RF	1
	4 wire plug connector/power (Red)	1
	Posilock blade fuse holder w/5 amp fuse	1
HN0774	Four-Wire Plug Assembly Interconnector, Primary to Secondary	1

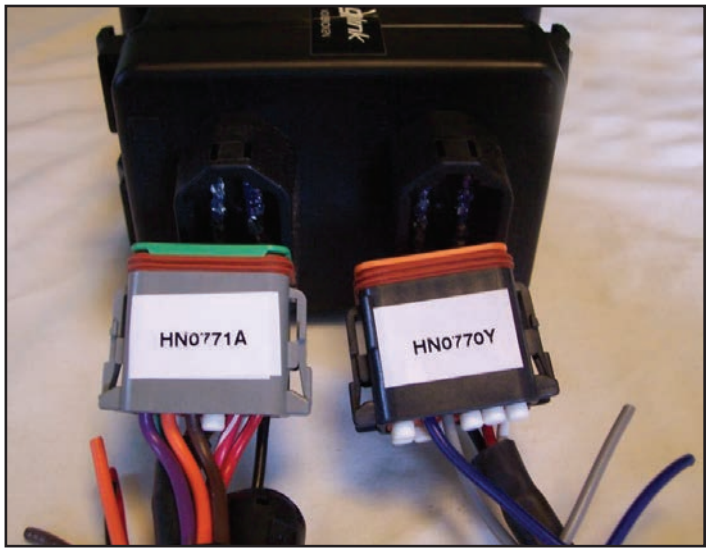


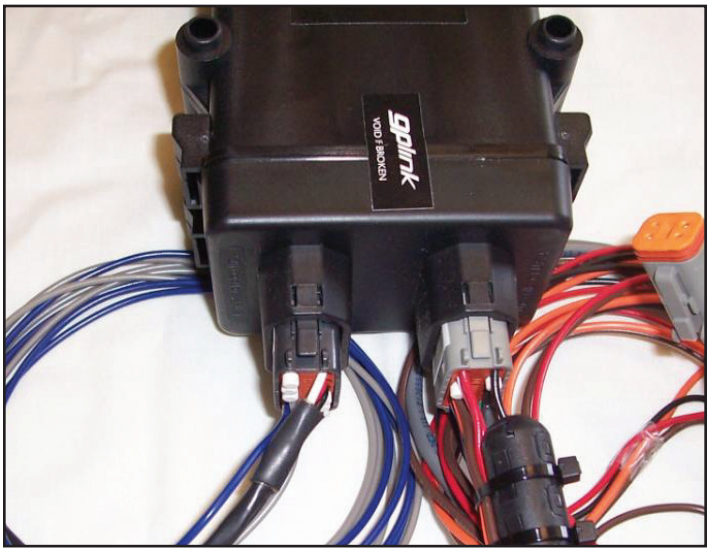
3.1.1 Inventory Components

Review installation instructions of ***gplink*** Monitoring Tracking Modules (MTM's) before performing install. Remove MTM's from box, inspect and familiarize yourself with all components & wiring harness assemblies.

3.1.2 Connect MTM Wiring Harnesses

Connect all of the wiring MTM harnesses to the port and starboard modules. Note that MTM end slots and connector plugs are notched and tab specific for proper interface. The port MTM harnesses will include two (2) each additional wires than the starboard harnesses. (See Appendix 8).

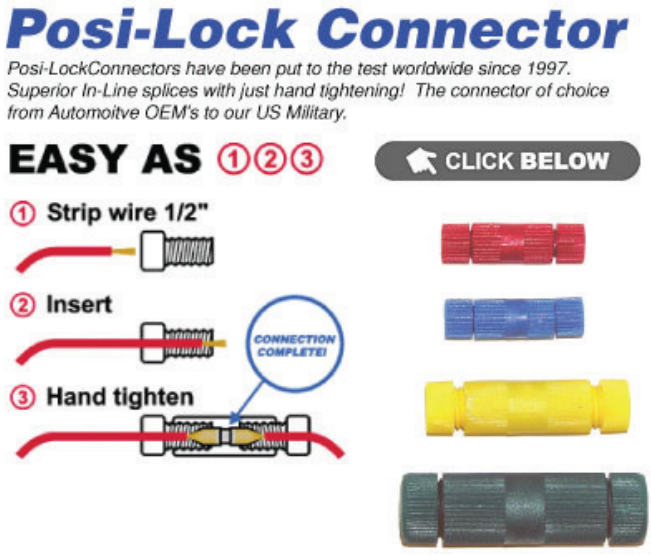


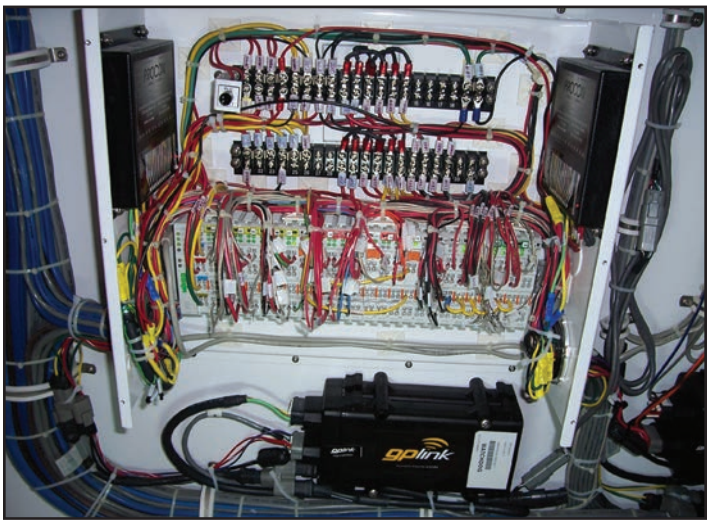


3.2 Identifying DC Power Source

Identify the best available continuous power sources (12V-30V) for the ***gplink*** MTM's before installation. Prior to investigating power supply feeds, verify that the EMC's and vessel are in their normal off position mode as if docked. The primary power supply source should be from the rear wiring interface connector harness of the EMC's. Remove the rear EMC port connector plug and insert multimeter test pointed tip leads into connector pin's to verify continuous power feed. Pin # 10 is EMC enable, pin 11 is un-switched Batt (+) and Pin #12 is Batt (-). Pin 11 & 12 are to be utilized as continuous supply feeds if found to have appropriate voltage. The supplied fuse/holder is to be utilized.

Alternate continuous power source of 12V-30V will need to be identified if EMC's are not a viable power source. If an unswitched power source cannot be located from the EMC wiring harness, a blade type fuse (included) MUST be installed in the ungrounded conductor to ABYC or other applicable standards. The continuous power source should be pinned to the 4 plug (included) and distribute power to the MTMs and RF.

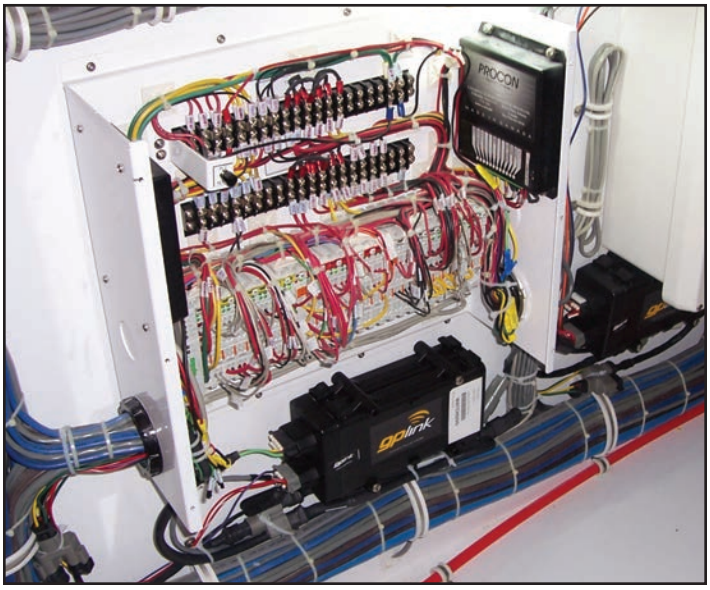




4. Installation of Main Components

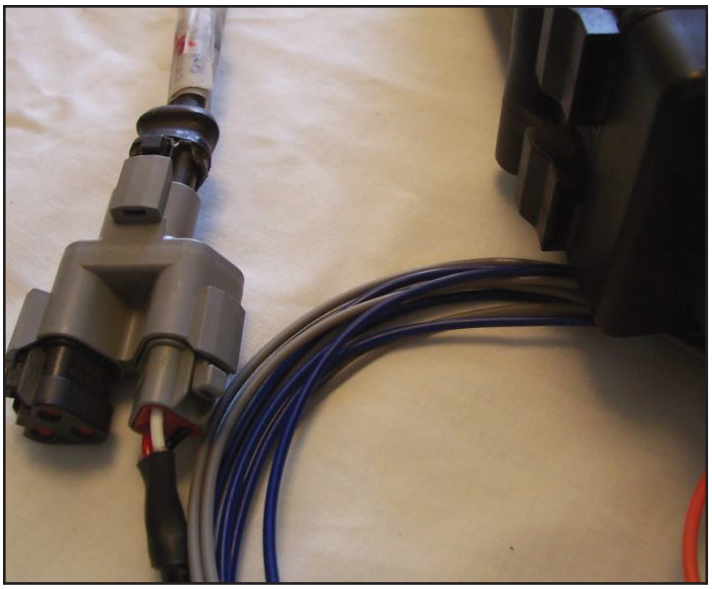
4.1 MTM Installation Considerations

Inspect the adjacent areas near/around the rear area of the EMC's for the best attachment locations of MTM's. The length of EMC interface harness with MTM harness will limit the attachment zone of MTM's. In addition, the antenna mounting location will limit location of MTM's. Perform a loose fit of MTM's, J1939 and antenna before hard mounting of MTM's. Prior installed wiring leads, the EMC harness and/or other components may need to be re-configured to allow for proper surface area to utilize in mounting of the ***gplink*** MTM's. Location of ***gplink*** MTM's should also allow easy access for removal of end connector plugs after installation.



4.2 Hard Wiring MTMs Into EMC Wiring Harness

Remove the resistor in the previously installed connector which interfaces with the Port EMC and insert a jumper three (3) pin connector and three way connector. Insert the the controls 120 ohm resistor into the appropriate connector and then insert the three (3) pin plug from the ***gplink*** port MTM into the remaining open connector port. The connection scheme is as follows: **PIN #7 (white or green) - J1939- (CAN Low); PIN #8 (red or yellow) – J1939 shield; PIN #9 (black) – J1939+ (CAN High).**



4.3 Pancake Antennae Mounting Considerations

Identify a horizontal level surface mounting area within the installation MTM/EMC enclosure area for the pancake/square antennas, which will allow a clear skyward shot for monitoring by Iridium satellites. Fiberglass and wood will allow through transmission/reception of satellite, cellular and GPS communications. Metal and other dense objects as cranes for dingy/watercraft will interfere with skyward reception. Mounting surface should be hard surface, clean, and allow secure attachment of antennas. **Antennas have an embossed logo on one side and embossed logo is to be pointed to line of sight skyward location when mounted.** Supplied double-sided adhesive pads will not affect reception if placed on skyward side.

Remove the antennas from packaging and fully extend wiring leads. Connect the antenna wiring leads to the proper interfacing port ***gplink*** MTM gold connections. Temporally locate/mount the antennas at the prior identified mounting location.

4.4 MTM Testing Procedure

Attach the round blue housing test gauge to the port MPM four (4) pin connector. A properly powered port MPM will result in an audible alarm and lit screen/readout on gauge with "WAIT" message first displayed, followed by a "COMM" display. A red backlit panel will indicate that antennas are not picking up signals which could be due to blocked skyward viewing, upside down antennas, incorrect antenna wiring leads to the port MPM gold connector points, etc. When in "COMM" mode, press the "S" tab and then press "MODE" tab to scale through GSM, SAT, GPS, MAIN & BACK. Successful communications range would be numerical 1-5 reading when in the GSM & GPS, a GPS of 160 or greater and the MAIN & BACK readings will be the power supply voltage. It may take 5-10 minutes or more for connection of signals from satellite(s) to identify MTM's. Remove the blue gauge from the port MPM four (4) pin connector and connect it to the starboard (4) pin connector. A lit gage with red backlit should be encountered on starboard MPM and only readings that will be attained in "MODE" will be the power supply voltages. Upon successful verification of both MPM's, remove the blue test gauge and connect the four (4) pin connector loop between the port and starboard ***gplink*** MPM's.

IMPORTANT

Have both EMC's powered up and contact the ***gplink*** concierge desk at +1.252.504.5113 and inform them of boat name and successful SAT, GSM, & GPS readings, along with the Port and Starboard lifetime engine hours. In-house tests will be started to verify communication of vessel ***gplink*** communication/diagnostics.

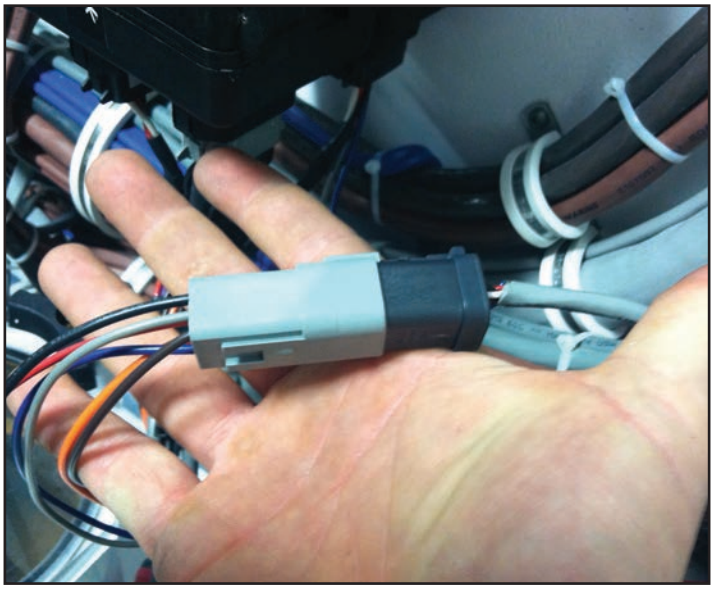
4.5 RF Receiver Mounting Considerations

If EMC's were identified as acceptable continuous power source, remove the EMC connector from back of port engine EMC. Splice into the appropriate pin wiring leads that was previously identified as continuous power feeds and butt splice/connect the EMC's appropriate positive and negative port ***gplink*** MTM power wire leads. Follow the same steps with the starboard EMC connector and ***gplink*** starboard MTM power supply leads, with the addition of spliced in pig tail leads of both positive and negative power supply source which will be utilized for power feed to the RF receiver that will be installed later. If EMC's could not be utilized, make the appropriate connections to the terminal strips/bars to attain continuous power supply feed.

Identification of appropriate vertical mounting surface area within the EMC/***gplink*** MPM enclosure area, with attachment to the additional four (4) wire leads from the port MPM will need to be performed. The RF receiver will need to be mounted on a vertical wall, away from electronic interface generating equipment/wiring, which will allow successful pickup of RF transmitters and not be exposed to damage due to movement and/or storage of items inside of the EMC/***gplink*** MPM enclosure area.

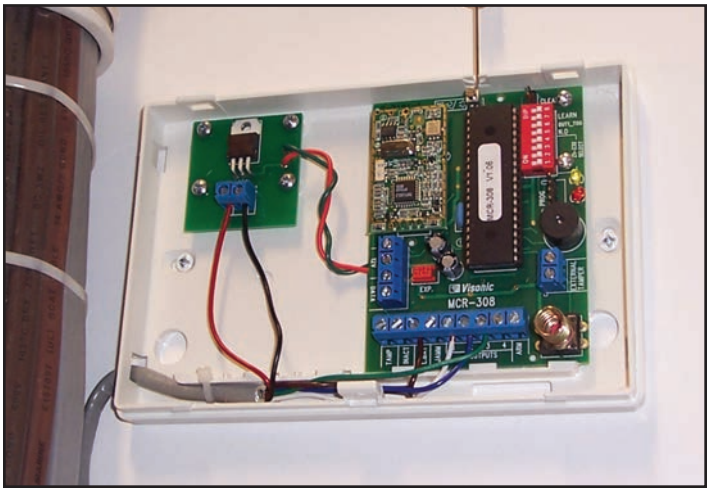
After cleaning the mounting surface (allowing for sufficient drying time) remove the adhesive strip from hook and loop strip on the RF receiver and mount in place. If adhesive mounting is not possible, remove the cover from the RF receiver and mount receiver using mounting screws so as to not damage/penetrate exterior exposed surface. Attach the antenna contained in the receiver interior cover to the top slot mounting tab on the RF receiver unit. Connect the 4 RF wires (blue, brown, gray, green) on the port ***gplink*** MTM harness into the 4-pin plug (included) and connect to the 4-pin receptacle on the RF. Connect as follows: black – black, red-red (spliced pig tail lead from power supply leads), blue-blue, brown-brown, gray-gray or gray-white and green-green.

For older ***gplink*** kits with older RF kits connect wire harness as follow: white - grey, brown - brown, blue - blue, green - orange.



5. Testing & Activation of RF Sensors

Batteries must be installed in RF Transmitters before owner commissioning. Remove the high water alarm, AC sensor and smoke detector RF transmitters from their boxes. Plug in the AC off temporarily into a 120V wall outlet, hopefully within the EMC/***gplink*** MPM enclosure area. Have a cup of "hard" water available to test high water alarm.



Butt fastener connect the red-red (spliced pig tail lead from starboard EMC/MPM power supply leads) wiring connection from the RF receiver wiring lead which will energize the RF receiver and a audible power-up signal of several continuous beeps will be sounded when panel door is off.

With the RF receiver panel cover still removed, verify voltage over zones 1, 2 & 3 and low battery by positioning the multimeter test pointed tip lead ground/common on the screw head of the negative power feed that is connected to negative wiring supply lead and the positive/voltage tip readings over the low battery, zone 1, zone 2, and zone 3 screw heads. Voltage readings of 0.017 VDC should be attained over all four reading points, which indicates a non-alarm status. A reading of 3.64 indicates alarm status. RF sensors may need to be reset if an alarm state, if not warranted, by inducing alarm and holding for 3-5 seconds. A second reset may be required each time an alarm is activated, with door off an audible alarm will be heard.

5.1 Testing RF Transmitters (At the time of test ***gplink*** conceirge should be contacted)

5.1.1 Testing High Water Sensor

Insert the high water sensor into the water container for 2 minutes, an audible beep should be encountered which indicates high water RF sensor recognized / reading and a multimeter reading over the zone three (3) screw head should indicate a 3.64VDC voltage reading. Remove the high water sensor from the water container, an audible beep should be encountered from the RF receiver and reading across zone 3 should return to 0.017VDC. Will take 2 minutes for website to receive alert.

5.1.2 Testing AC Sensor

Remove the AC power off RF transmitter from 120V outlet, an audible beep from RF receiver and 3.64VDC reading across zone 2 screw head should be attained and, after +5 seconds lapse time, the reinsertion of AC off RF sensor into 120V outlet with return to 0.017VDC across zone 2. Will take 30 minutes for website to receive alert.

5.1.3 Testing Smoke Alarm

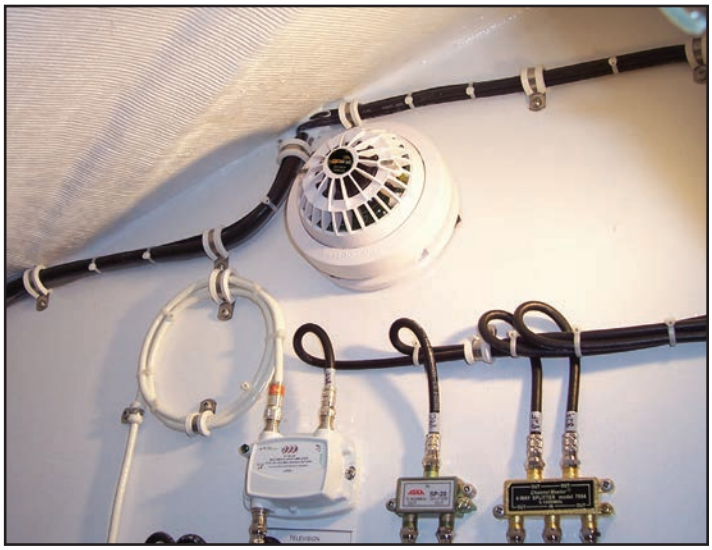
Depress the red alarm test button on the smoke detector. While continuously depressing the smoke alarm test button, take the multimeter voltage reading across zone 1 with 3.64VDC being registered and when test button is no longer depressed, the voltage should return to 0.017VDC. Reset of smoke alarm requires removal from base and then re-attachment. Will take 30 seconds for website to receive alert.

5.2 Activation Process

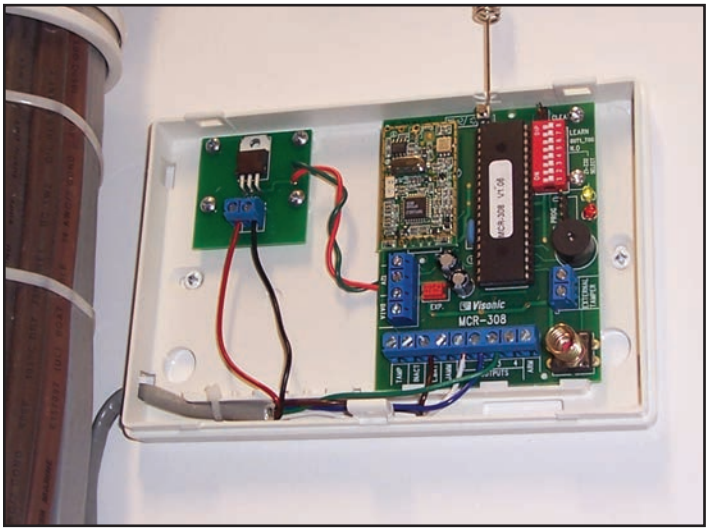
Contact the ***gplink*** concierge desk (+1.252.504.5113) and confirm that engine data is being recognized. EMC's can be turned off at this point after confirmation by ***gplink*** of successful test. Upon successful testing of all RF transmitters, they are to be mounted at their permanent locations.

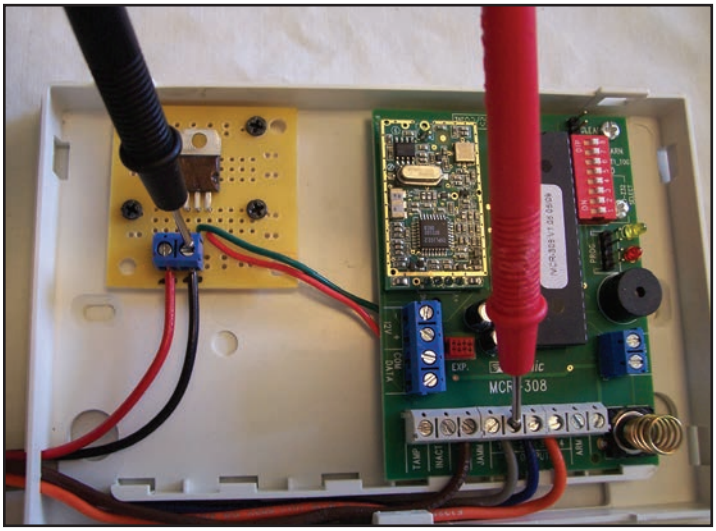
5.3 Mounting RF Transmitters

The RF AC off sensor is to be mounted (if possible) in a non GFCI protected 120V wall outlet, preferably one that is located in the computer/electronics equipment room/attic adjacent to the salon area. High water RF alarm is to be mounted in the engine room, with the RF transmitter mounted at highest point on the forward bulkhead wall and not signal blocked by metal panels/wiring, with the water sensor tip leading down to the center keel area and tie wrapped to a height just above the high water alarm height of the existing installed high water sensor. Wiring lead from RF transmitter to the sensor head is to be organized/positioned and tie wrap secured. Smoke detector is to be mounted in a location which is aesthetic in viewing, allows proper detection of smoke currents, centrally located, is not located in front of a vent or exhaust fan. Horizontal or vertical mounting can be performed and should be installed on a proper mounting pad location to allow secure attachment of smoke detector.



Testing of RF transmitters should be performed at their permanent mounting locations. Allow complete transmission of RF sensors signal before sending another signal from sensor, flashing red light. A delay of five (5) seconds would be sufficient. Remove AC off plug adapter from wall outlet and listen for audible signal, wait 3-5 seconds and reinsert and listen for audible signal. Take a cup and fill with water and position / secure cup with the sensor submerged inside, listen for audible signal and if out of hearing range, take multimeter reading across zone 3, which should be at 3.64VDC. Leave in water for 2 minutes. Remove high water sensor from water, verify return of zone 3 to 0.017VDC. Call the ***gplink*** concierge desk and be prepared to give boat name and request smoke alarm test, which will require continuous depress of test button until ***gplink*** personnel inform you that smoke alarm signal has been recognized. Prior to replacement of RF receiver cover, take readings across Zone 1, 2, 3 & low battery and confirm 0.017VDC readings. If readings are not 0.017VDC, the applicable zone sensor will need to be reset. This can be done by activating RF sensors either by removal of AC off for 10 seconds from wall receptacle, reinsertion of high water sensor for 10 seconds and/or reactivation of test button on smoke alarm for 10 seconds.



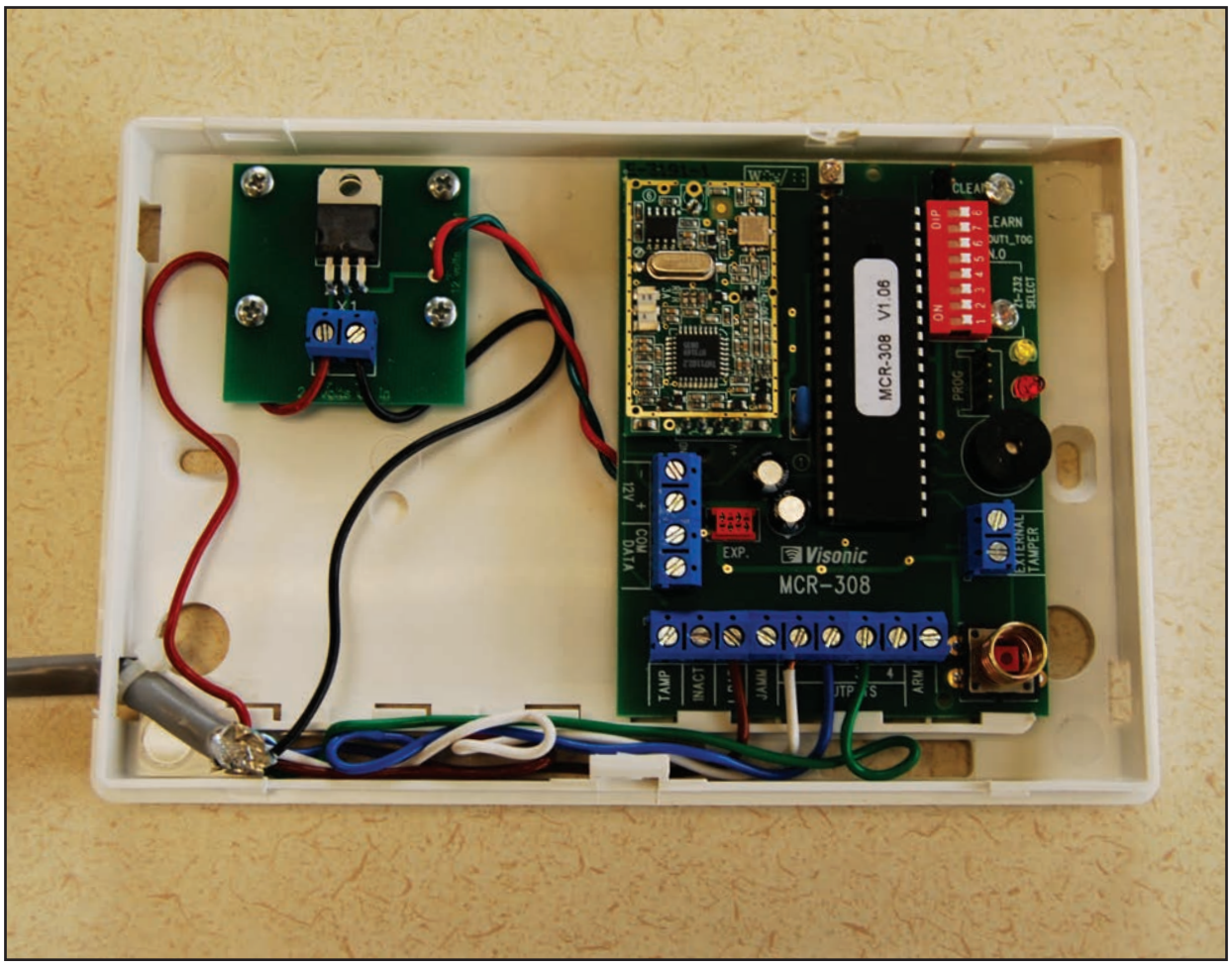


Dress all installed wiring & harnesses to ABYC or applicable standards, along with any re-configured prior installed wiring/harnesses, so that wiring/bundles are secure and aesthetically acceptable. Once all MTM's, RF Receiver, antennas, and RF Sensors are mounted, the installers forms need to be completed for submission to ***gplink***. One copy is to remain with owner, one with installer and original is to be sent to ***gplink***.

5.4 Programming RF Receivers

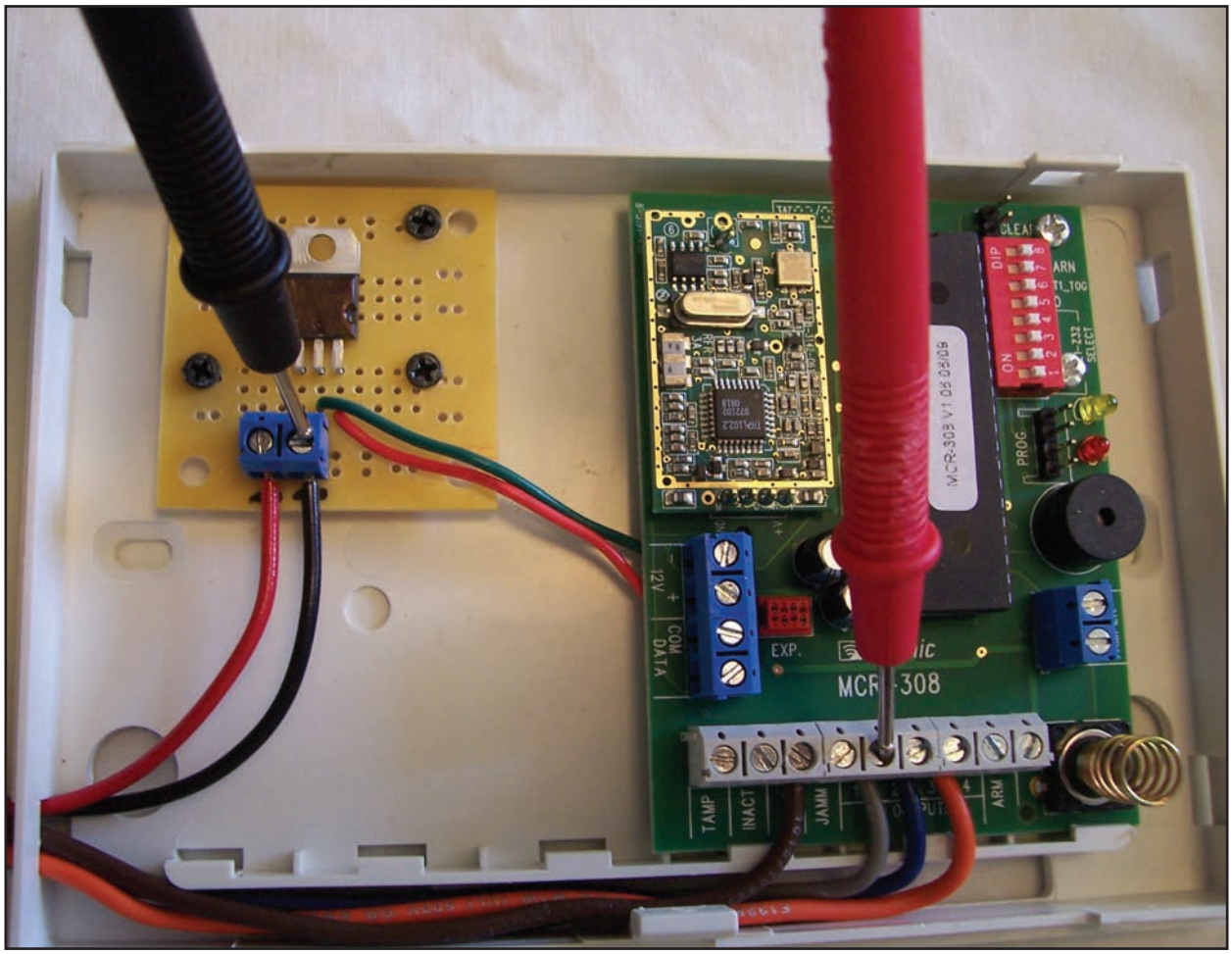
Note: RF transmitters are pre-programmed for the RF receiver with which they are shipped and should NOT require programming. Programming should only be performed on extra transmitters ordered from ***gplink***.

1. Remove RF receiver lid.
2. On toggle bar, push the applicable zone toggle(s) and learn toggle to engaged positions. Zone 1=smoke, 2=AC off, 3=high water. Review instructions on inside lid for applicable zone toggle configurations. Note for zone 3, both 1 & 2 zone toggles need to be in engaged position. Each zone has 4 bins for total registration of 4 sensors into each zone.
3. Depress the spring lid sensor one time for the applicable zone bin. Bin 1 status is first, depress again for bin 2, etc.



4. The red light should now be blinking or continuously lit for the applicable bin. Blinking red light indicates that the bin is open. A continuous lit red light indicates bin is already registered.
5. If registering a new product in an open bin, activate applicable sensor at this time. A beep sound will be heard upon activation and deactivation of sensor, along with red blinking light now continuously lit. Activation of RF should be performed for a continuous 3-5 seconds during registration. Smoke is by depressing test button, AC off is by removal of prior installed AC sensor from 115V receptacle and high water is by submersion of sensor head in water.
6. If de-registering a prior registered RF sensor and/or bin, in the applicable zone that it is registered, take a screwdriver and connect the circuit between the two metal prongs located at top of the toggle bar marked as clear. The red light should now be blinking, indicating that the bin has now been cleared.

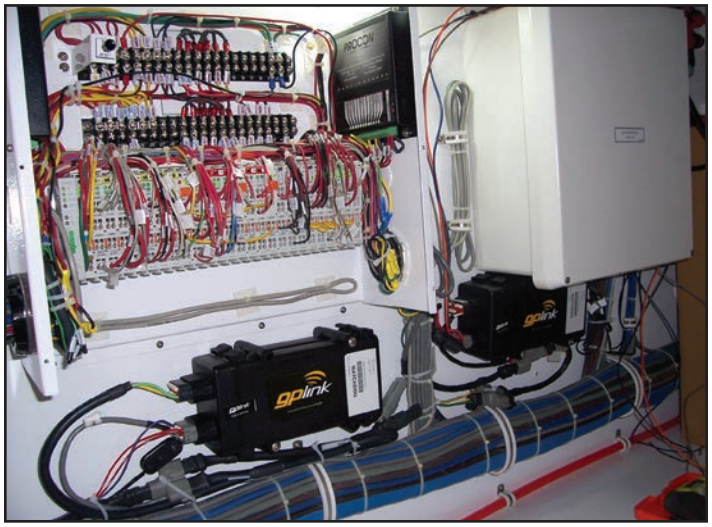
7. Upon successful RF sensor registration and/or removal, push engaged zone toggles and learn toggle back to disengaged positions. All toggle switches should be to right before attachment of lids.
8. Activate applicable RF sensor. A beep sound should be heard at activation and deactivation of RF sensor. This will confirm registration. Note that a beep sound will be heard periodically while lid is off as reminder that lid needs to be reattached. Also, sensor activation/deactivation beeps will only be heard while cover lid is off. Reminder, always activate sensor in alarm mode for 3-5 seconds.
9. With a multi meter, put the ground tip sensor on the used power supply negative screw secure head and the positive on the positive power supply secure screw head to verify power supply voltage. With the negative tip still on negative power supply screw head, take the positive lead tip and touch it to each applicable zone screw secure head that is wired to applicable feeds going into ***gplink*** modules. A reading of 0.017v indicates non-alarm status. A reading of 3.67v indicates that zone is in alarm status. If zone is in alarm status and sensor is not activated, to clear it, reactivate the sensor for 3-5 seconds. Take readings across applicable zone to confirm that correct alarm or non-alarm status.
10. Take readings across each zone to verify correct alarm status prior to reattaching RF receiver cover lid. Note that after attachment the red light may be blinking due to pickup of other signals that are not registered or those of registered signals. A yellow light indicates a system malfunction that will need to be rectified.

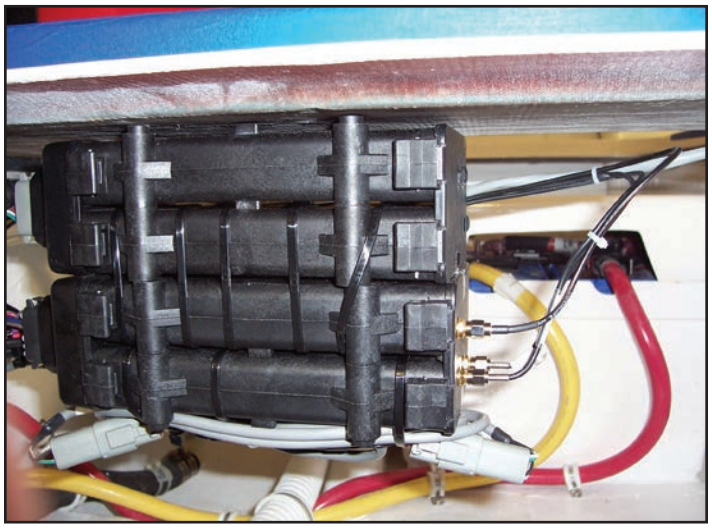


6. Troubleshooting

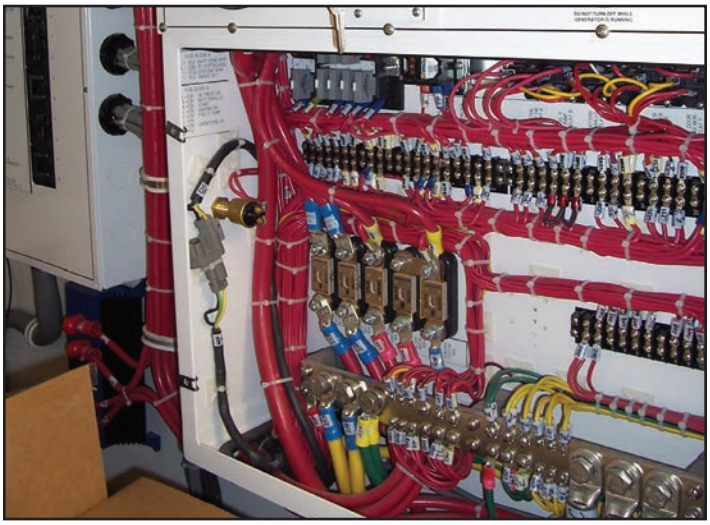
This troubleshooting guide is to be utilized within the comfort and technical capabilities of individuals performing troubleshooting. Electrical supply voltage of 12-30 volts may be encountered. Safety of the person performing inspection is paramount and also in maintaining integrity of vessel wiring.

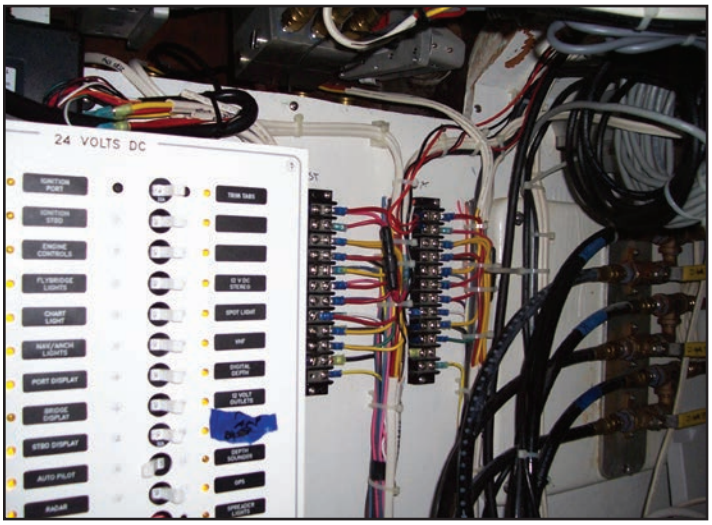
1. Locate the installation area of ***gplink*** modules.
2. Perform a visual inspection of the modules:
   A. Perform testing as identified in Section 4.4
   B. Confirm modules are attached and secure to installation surface.
   C. Verify that attached wiring harnesses are connected to modules and that they are secure/connected to each other and properly aligned along with correct A-B harness placement.
   D. Trace all harness/wiring connectors from rear attachments of both modules and confirm that they are secure by pushing them together and/or into module housing(s).
   E. Locate the three antenna wiring connections on the end of the port module (contains three gold wiring connectors) and verify that black wire leads are secure. Note the square antenna has a wiring lead connection which needs to be verified.
   F. Trace the three black wiring leads from port module gold connectors to the installed location of the two black antennas and verify that they are secure against installed surface.
   G. Trace the red and black power wiring leads from both modules end connectors to the electrical panel/power supply terminal bar supply source. Make sure all supply power connectors are secure and wiring has not been severed and or grounded/shorted out.

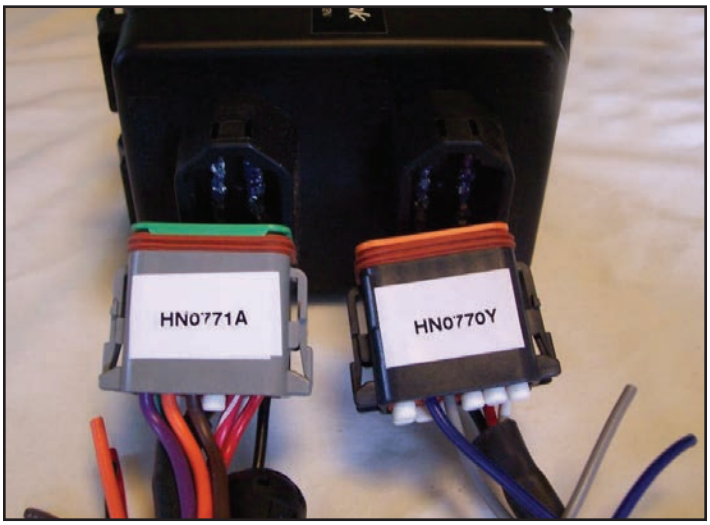


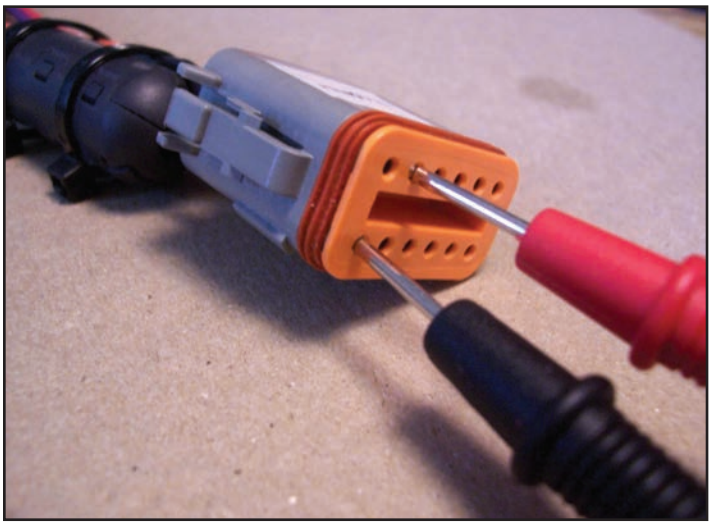


3. Perform power supply voltage verification:
   A. Using the blue gauge, verify power to units is supplied. If not, trace back power supply per the below listed applicable steps.
   B. Using a multimeter, verify that all black and red power supply wire connector points at the electrical panel/ power supply terminal bar, from both module connectors power supply leads, has sufficient power being supplied (>24V).
   C. Reset the port module by disconnecting power for thirty (30) seconds. To power down the port module you can either disconnect power connection point at either terminal power strip or unplugging receptacle AC connector from port module. Verify that reset of port module has or has not reconnected ***gplink*** to monitoring network by allowing a 30 minute wait after reconnecting power. Contact ***gplink*** concierge desk (+1.252.504.5113) during this process for monitoring assistance/support.
   D. Unplug the port module power supply connector. Attached wire ties used to secure leads/harness may need to be cut to allow access to connector to permit the unplugging of connector. On both short sides of module connector plug are lock tabs which will need to be depressed to allow removal. Connector plugs may be very secure/difficult to remove due to tight connection and/or confined installation area.
   E. Using the multimeter pointed tip leads, insert negative/common lead from multimeter into the pin connector of module plug which is directly in-line with the black wiring lead from power supply. Insert the volt/positive lead from the multimeter tip lead into the pin connector of module plug which is directly in-line with the red wiring lead from the power supply. Verify that sufficient power is being supplied (>24V). Repeat same power pin lead power supply verification with the second in-line red wire to module connector with the multimeter V/positive tip lead.









7. RF Sensor Battery Replacement

7.1 Smoke Detector Battery Replacement

1. Remove the device from the mounting plate by twisting counterclockwise 1/8 turn.
2. Open battery cover lever and replace 9V battery. Close cover
3. Depress test button on front of smoke detector for 3-5 seconds. An audible alarm should sound.
4. Replace smoke detector on mounting plate.

7.2 High Water Alarm Battery Replacement

1. Remove the high water alarm cover by unscrewing #1 Phillips screw on bottom of cover and lifting cover (see arrow)
2. Carefully remove 3V CR2 battery from holder. Replace with new battery.
3. Replace cover and screw. Test device by placing water sensor in cup of 'hard' water for 3-5 seconds. A red light will flash on the device when activated.

7.3 AC Power Alarm Battery Replacement

1. Remove the AC Power alarm cover by unscrewing #1 Phillips screw on bottom of cover and lifting cover (see arrow)
2. Carefully remove 3V CR2 battery from holder. Replace with new battery.
3. Replace cover and screw. Test device by plugging adaptor into energized AC outlet for 3-5 seconds. A red light will flash on the device when activated.

8. Appendix

8.1 Wiring Diagrams

8.1.1 Overall System

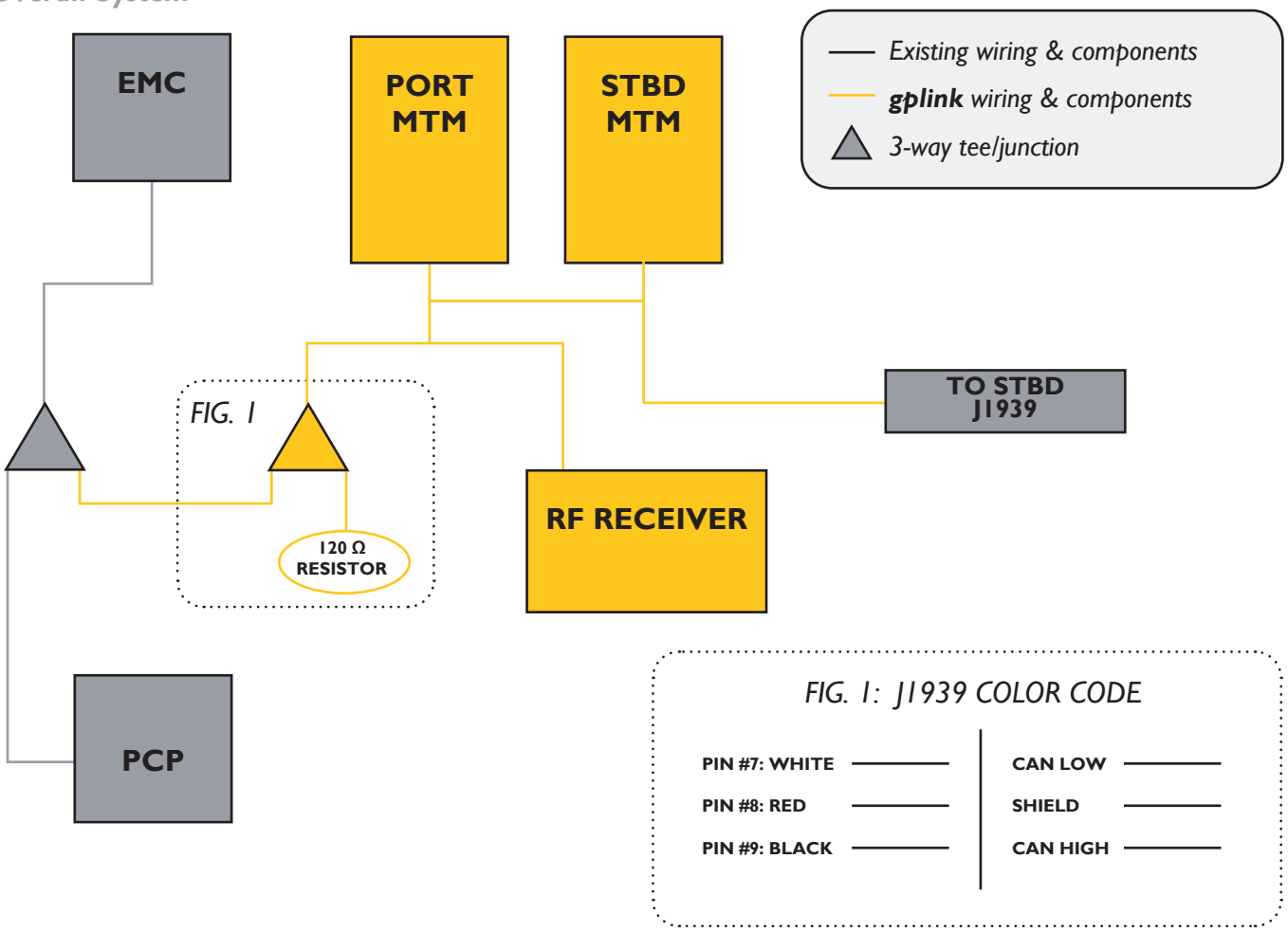
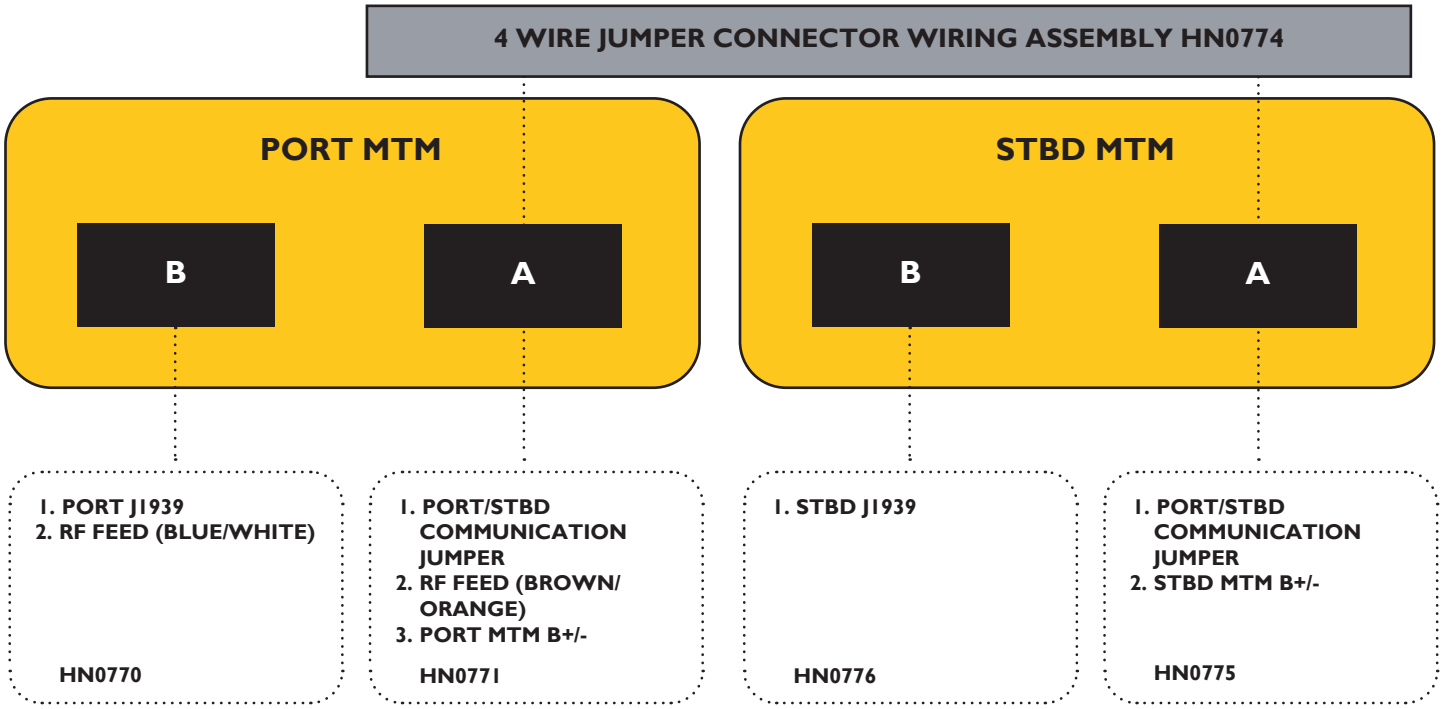


FIG. 1: J1939 COLOR CODE

PIN #7: WHITE	CAN LOW
PIN #8: RED	SHIELD
PIN #9: BLACK	CAN HIGH

8.1.2 MTM Connections



8.2 Smoke Detector Installation Recommendations

Be sure no door or other obstruction blocks the path of smoke to the detector.

Install smoke detectors as close to the center of the ceiling as possible. If this is not practical, put the detector on the ceiling, at least 10 cm (4 inches) away from any wall or corner, as shown in Figure 8.

If ceiling mounting is not possible and wall mounting is permitted by your local and state codes, locate the detectors between 10 - 15 cm (4 - 6 inches) from the ceiling.

Where NOT to install smoke detectors:

False alarms occur when smoke detectors are installed where they will not work properly. To avoid false alarms, do not install smoke detectors in the following situations:

- Combustion particles are by-products of something burning. Do not install smoke detectors in or near areas where combustion particles are present, such as kitchens with few windows or poor ventilation, where there may be motor exhaust, near furnaces, and space heaters.
- Do not install smoke detectors less than 6 meters (20 feet) away from places where combustion particles are normally present, like kitchens. If a 20-foot distance is not possible, try to install the detector as far away from the combustion particles as possible, preferably on the wall. To prevent false alarms, provide good ventilation in such places.

  IMPORTANT: Never try to avoid false alarms by disabling the detector.

- Do not mount smoke detectors in the path of fresh air intake. The flow of fresh air in and out can drive smoke away from the smoke detector; thus reducing its efficiency. Figure 10 indicates the correct and incorrect locations concerning this problem.
- Near paint thinner fumes.
- In close proximity to a motor exhaust pipe; this will damage the detector.
- In damp or very humid areas or near bathrooms with showers.
- Moisture in humid air can enter the sensing chamber, then turns into droplets upon cooling, which can cause false alarms. Install smoke detectors at least 3 meters (10 feet) away from bathrooms.
- In very cold or very hot areas, including unheated areas. If the temperature goes above or below the operating range of smoke detector, it will not work properly. Verify that the temperature range of the detector falls within the Operating Temperature, (see chapter 2. Specifications).
- In very dusty or dirty areas, dirt and dust can build up on the detector's sensing chamber, to make it overly sensitive.
- Additionally, dust or dirt can block openings to the sensing chamber and keep the detector from sensing smoke.
- Near fresh air vents or very drafty areas like air conditioners, heaters or fans. Fresh air vents and drafts can drive smoke away from smoke detectors.
- Dead air spaces are often at the top of a peaked roof, or in the corners between ceilings and walls. Dead air may prevent smoke from reaching a detector. See Figures 8 and 9 for recommended mounting locations.
- In insect-infested areas. If insects enter a detector's sensing chamber, they may cause a false alarm. Where bugs are a problem, get rid of them before putting up a detector.
- Near fluorescent lights, electrical "noise" from fluorescent lights may cause false alarms. Install smoke detectors at least 1.5 meters (5 feet) from such lights.

8.3 *gplink* Concierge & Technical Support

Phone: +1.252.504.5113
Email: concierge@gplink.com

There are a number of other ***gplink*** resources available to installers, dealers & owners.

Other *gplink* Resources

- Installation Guide (this document)
- Terms Of Service - www.gplink.com/terms-conditions/
- Demonstration Video - https://gplink.com/support/
- Operator's Manual - https://gplink.com/support/
- Instructional Videos -https://gplink.com/support/

8.4 Transferable Limited Warranty

During the first twenty four (24) months from date of original retail purchase (with a continuous subscription/activation status) of a ***gplink*** system that fails due to unit defect, the unit will be replaced at no charge to the owner, excluding the labor of uninstalling the failed unit and reinstallation of the replacement unit.

To submit a warranty claim, contact the ***gplink*** Service Center at +1.252.504.5113 or warranty@gplink.com. One of our Concierges will review the problem with you in detail. If no solution is found, you will be given an authorization number to return the product, postage paid. Package the part(s) appropriately to prevent damage while in transit. Provide your name, address, daytime telephone number, sales receipt, and a brief description of the problem to:

gplink
1500 Sensation Weigh
Beaufort, NC 28516
U.S.A.

Removal, reinstallation expenses, or any damage to the ***gplink*** system resulting from natural disasters, misuse, neglect, accident, misapplication, improper installation, unauthorized repair or alteration are not covered by this warranty. Products returned to ***gplink*** that are not covered under this warranty will be repaired or replaced at our service rates or returned to you as-is, at your option. ***gplink*** expressly disclaims any liability for incidental or consequential damage caused by product defects. Some states do not allow the exclusion or limitation of consequential damages, so the above may not apply to you. The Warranty herein is lieu of any other expressed warranty of merchantability or fitness or any other obligation on the part of ***gplink*** or the retailer. All implied warranties are limited to the initial period, as stated above. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you also have other rights, which may vary from state to state.

8.5 Notes