

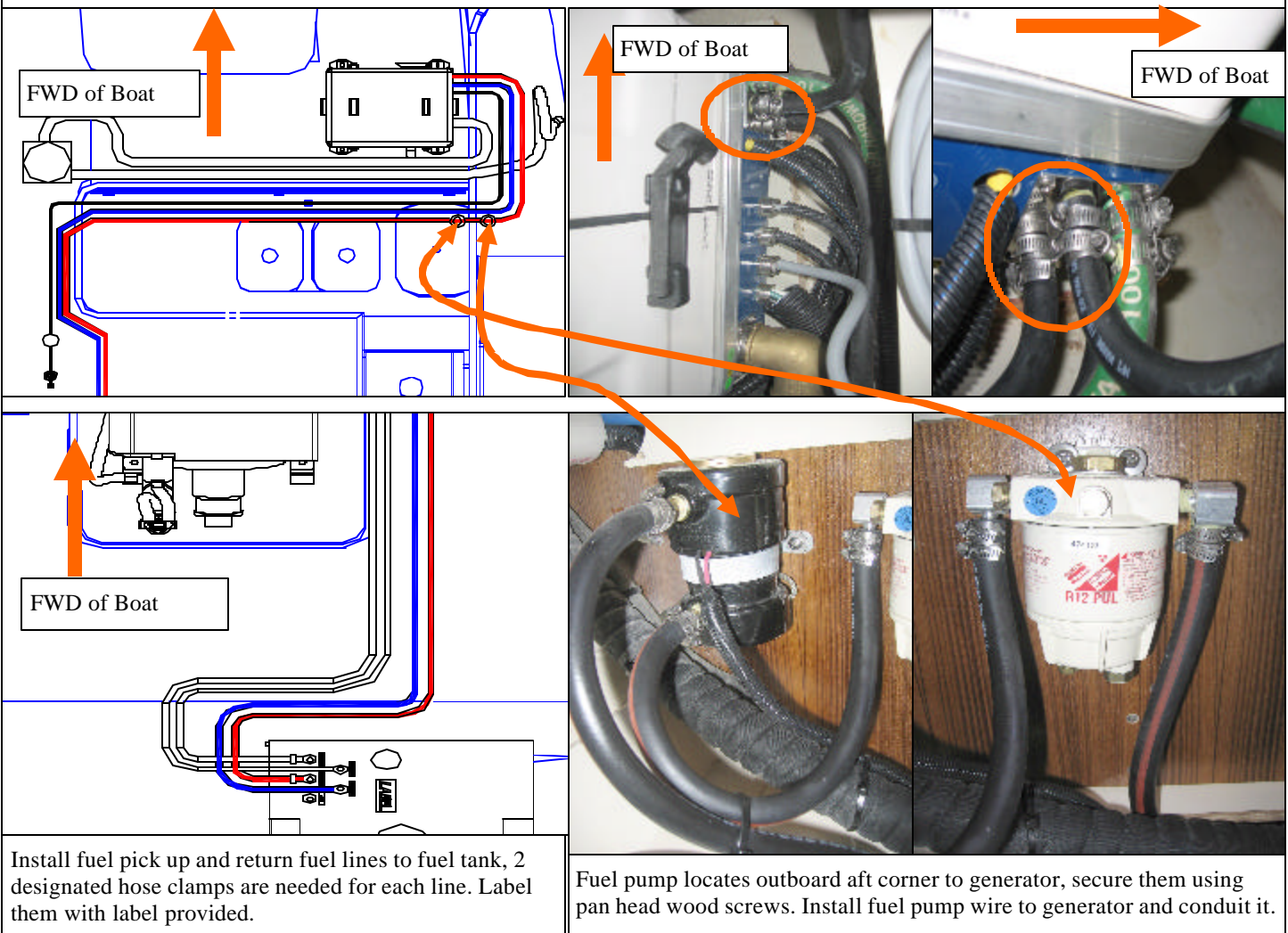
H38 Electrical Stage Generator Installation

Model:Fisher Panda PMS 4200 FCB

The generator model Fisher Panda PMS 4200 unit for this boat locates in main cabin inside starboard side main salon bunk aft compartment, the generator motor mounts are secured on generator platform in this bunk compartment. The exhaust brass outlet fitting facing outboard as when the generator unit is installed. Water lock of the generator will locate in aft keel bilge compartment fwd face of pan stringer.

Fuel line Installation:

1. Run 2 fuel lines (\varnothing 1/4") from generator platform go afterward along pan stringer inboard aft keel compartment, then engine compartment, shaft compartment then to fuel tank compartment.
2. Attach fuel pick up fuel line & return fuel line to fuel tank fuel pick up fitting and return line to fuel return fitting of fuel tank. Use 2 piece #4 s/s hose clamps on each fitting (fuel pick up fitting locates inboard side of fuel tank).
3. Mount generator fuel filter and external fuel pump on generator compartment outboard aft corner, secure fuel filter and pump on galley fwd lower face in generator compartment. Use C7 drill bit to drill mounting holes and use 2 pieces of #10 pan head s/s screws for filter and pump. Attach fuel lines to fuel filter and pump using 2 designated hose clamps. Attach and secure fuel lines to generator and secure both fuel lines using 2 designated hose clamps for each fitting.
4. Conduit all fuel lines.

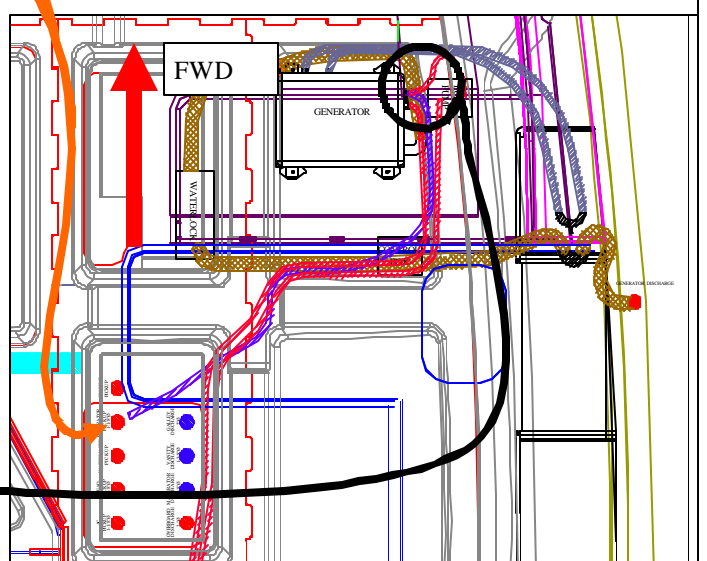
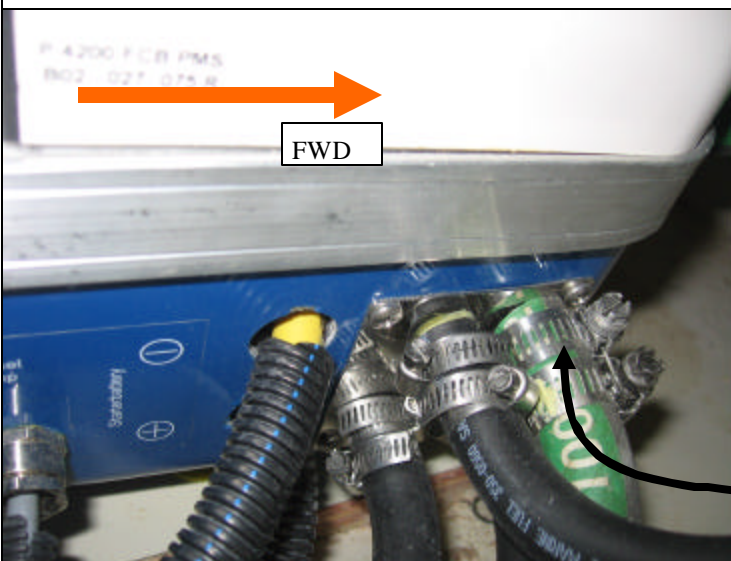


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Generator Raw water Pick Installation:

1. Run $\phi 1/2''$ hard wall water hose from generator compartment to main bilge thru hull location. Use $\phi 1-1/8''$ hole saw to cut thru hull locates aft to engine pick up thru hull fitting then apply marine sealant #5200 to caulk around brass $\phi 3/4''$ thru hull fitting and insert the fitting from overboard, caulk around bad side of wood doughnut then slide the wood doughnut onto thru hull fitting from inside then secure the brass thru hull fitting using the designated hex nut provided. (ensure thru hull fitting is 100% sealed).
2. Install generator thru hull $\phi 3/4''$ ball valve, $\phi 3/4'' \times 4''$ brass nipple, $\phi 3/4''$ brass street elbow, raw water strainer, $\phi 3/4''$ brass barb fitting then attach hard wall water pick up hose to barb fitting then secure the hose using designated hose clamps, (2 hose clamps are required). (apply pipe thread sealant for all fittings during installation and ball valve nipple facing aft with handle facing inboard when valve closes).
3. Clean up excess caulk inside & overboard.
4. Attach the water pick up hose to generator raw water pick up fitting and secure the hose using 2 designated hose clamps.



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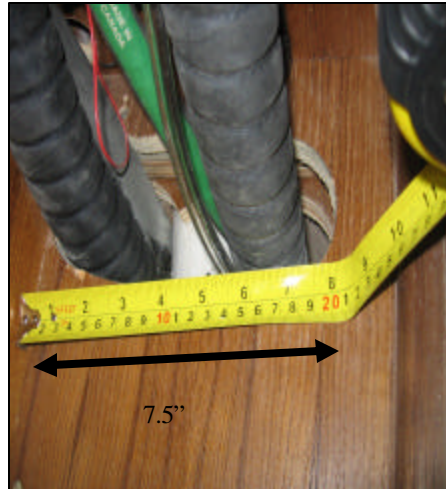
Generator Exhaust Assembly / vented loop Installation:

1. There are 3 pieces exhaust hoses with 10' , 3.33' and 5.5' and they are ϕ 1-1/2" corrugate hoses. Exhaust thru hull chrome fitting is ϕ 1-1/2" and elbow brass is 1.5"FPT x 1.5" barb fitting.
2. Exhaust hoses and generator anti-siphon vented loop will run thru galley upper shelf (fwd of dish rack), you need to drill a 7-1/2" x 3' oval cutout on the bottom of this shelf for exhaust hoses and anti-siphon to run thru.
3. Exhaust thru hull fitting locates outboard of lower settee and right under the shelf oval cutout. Drill a 2" thru hull at this location then use marine sealant 5200 to caulk around the chrome thru hull fitting and caulk around back side of wood doughnut then secure the thru hull fitting with hex nut provided, then install brass elbow to this thru hull fitting with elbow facing up.
4. Run 5.5'(genset to muffler) and 10'(muffler to anti-siphon) exhaust hoses from generator compartment inboard to main bilge compartment where the manual bilge strainer located. Generator muffler will be installed on fwd face of pan stringer of this aft compartment. Mount and secure the muffler using #10 x 1-1/4" pan head wood screws (no countersunk head) then attach and secure corrugate exhaust hoses to muffler using #24 s/s hose clamps with 2 clamps on each connection. (apply pipe thread sealant to all exhaust hose connections).
5. Fasten brass exhaust elbow facing aft of generator then attach 5.5' hose and secure the corrugate exhaust hose to this elbow. Secure this exhaust hose using 2 pieces of #24 s/s hose clamps. (apply pipe thread sealant as required).
6. Run 10' hose that is from muffler thru lower settee shelf upward with anti-siphon vented loop hoses together to galley upper shelf cabinet (water heater discharge thru hull location) then run 3.3' corrugate hose thru this location.
7. Install anti-siphon vent to vented loop hoses and install exhaust plastic 180° tube to both corrugate exhaust hoses. Secure them using designated hose clamps.
8. Attach the lower end of the 3.3' corrugate hose to exhaust thru hull fitting brass elbow then secure the hose using designated hose clamps.



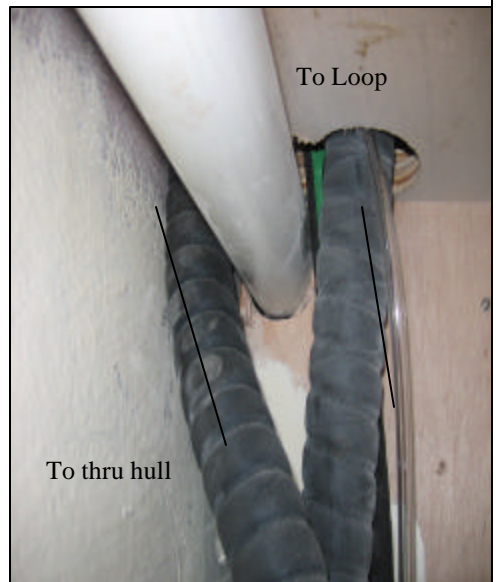
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An oval cutout is made inside water heater discharge cabinet for exhaust hoses loop, anti-siphon hose to run thru. (fwd of dish rack)

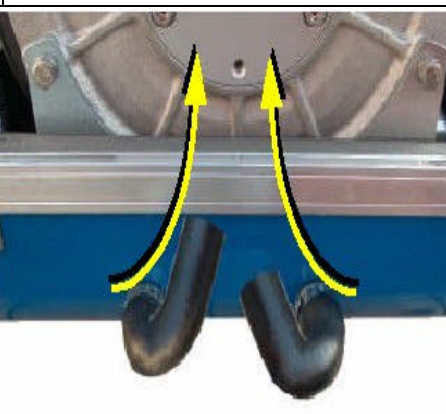
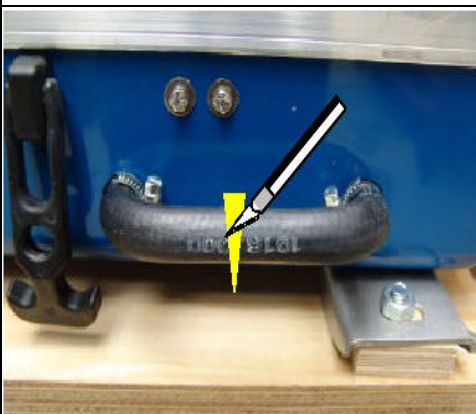
Use tie wraps to hold corrugate hoses and anti-siphon valve together in this cabinet.



Run clear hose on anti-siphon valve down to pan

Exhaust thru hull fitting, elbow to exhaust hose installation.

Exhaust hoses run thru oval cutout up to water heater discharge cabinet

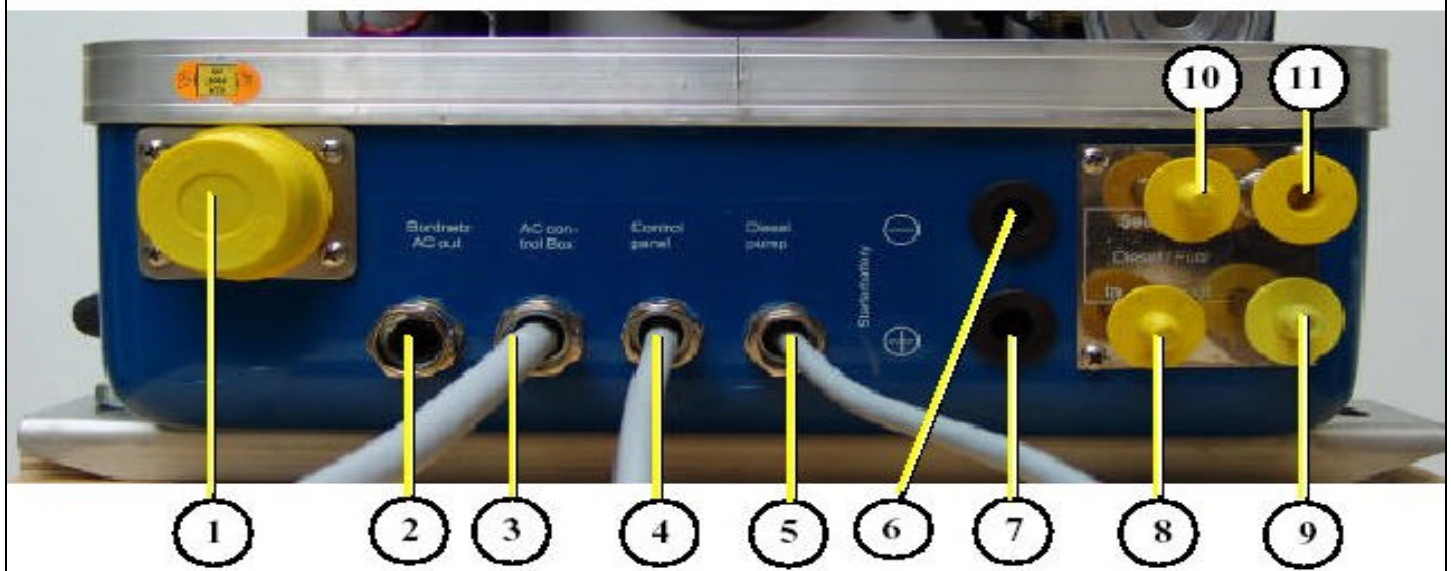


Cut this hose from middle of the loop, turn both cut ends facing out-board of the generator, then install equal fittings to both end of the hoses then install anti-siphon loop hoses to equal fittings just installed. Secure the fittings and hoses using designated hose clamps. (2 hose clamps are required for each connection.

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ATTENTION! Before working (installation) on the System read the section "Safety Instructions" on page iv in this Manual.



- | | |
|---|--|
| 1) Connection for exhaust | 7) Starter battery positive cable (+) |
| 2) Generator AC-out | 8) Connection fuel IN |
| 3) Cable for AC-Control box (VCS-control) | 9) Connection fuel OUT |
| 4) Cable for remote control panel | 10) Connection external expansion tank |
| 5) Cable for external fuel pump | 11) Raw water intake |
| 6) Starter battery negative cable (-) | |

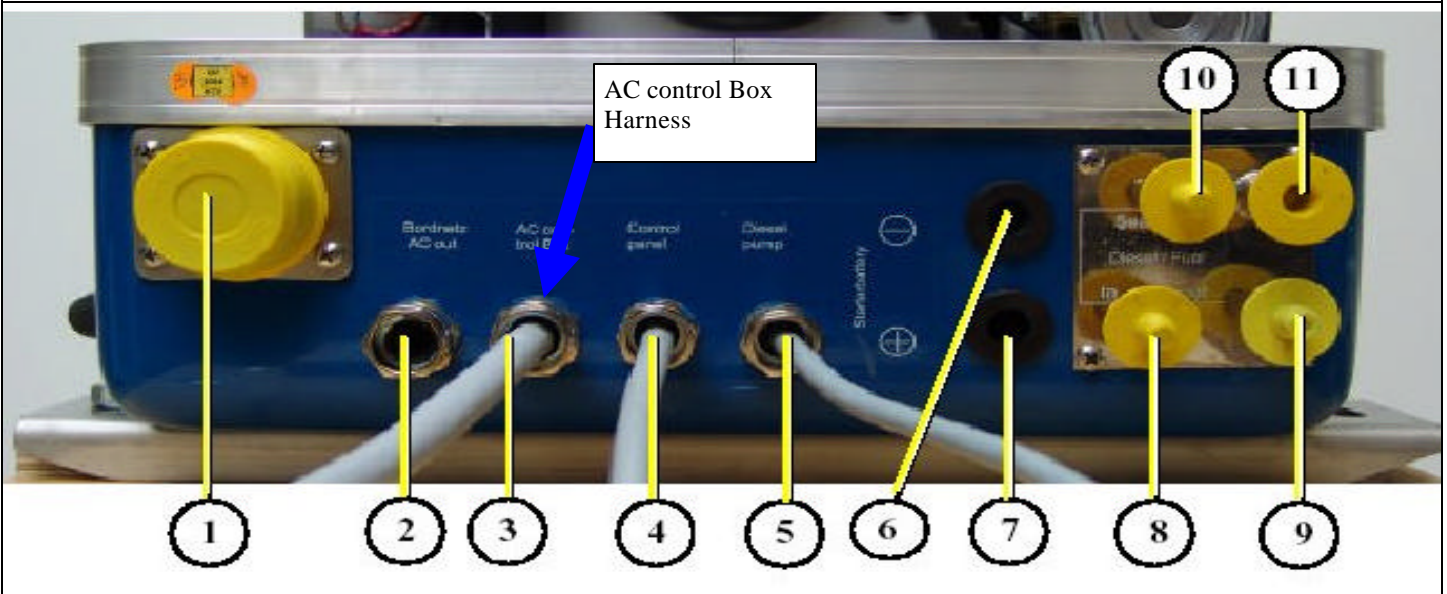


Install generator overflow bottle in fwd of exhaust thru hull, secure the overflow bottle mounting bracket on hull and use #6 x 1/2" pan head wood screws to secure the bracket to hull (wood core is in glass)

Fill up the external cooling water expansion tank with cooling water
 Note: "consider maximum level" according to marking! The cover on the external cooling water container must remain provisionally opened.

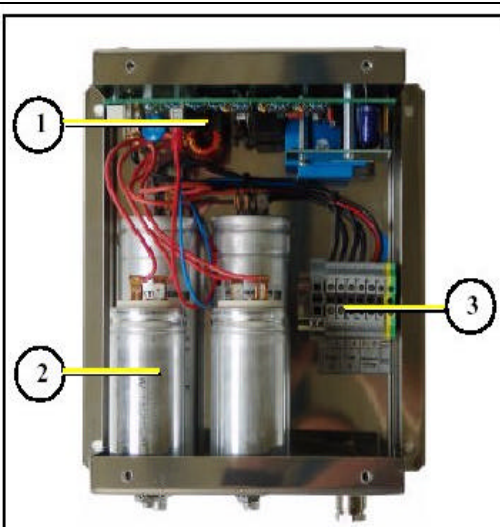
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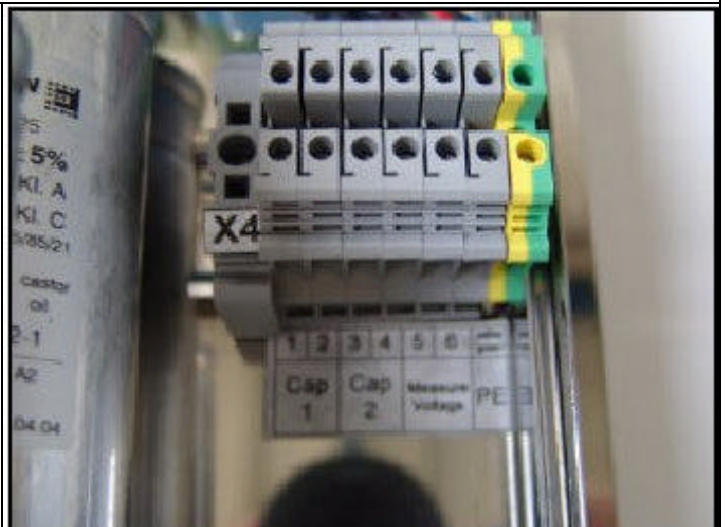


Connection of AC Control Box:

1. Loose 4 fasteners that are secured on box cover then remove the cover.
2. Run power control box that is from generator set from generator cabin inward through footboard panel cut-out then forward to underneath power control box then slide wire into power control box.
3. As standard a 7 core connection cable , those cores are numbered from 1 to 6 and PE (ground / green and yellow), you can see that on core insulation.
4. The control cables are connected to gen-set and on the back side of control panel there are terminals numbered from 1 through 7.
5. Connect the cores (1~6) of the control cable to terminals (1~6) and connect PE to its terminal then secure all those wires.
6. Conduit all wires.
7. Fasten the power control box cover back to power box..
8. Mount the power control box on Quarter berth inboard side footboard panel about 20 " fwd of lower foot-board panel cutout then use designated fasteners to secure the power control box to footboard panel.

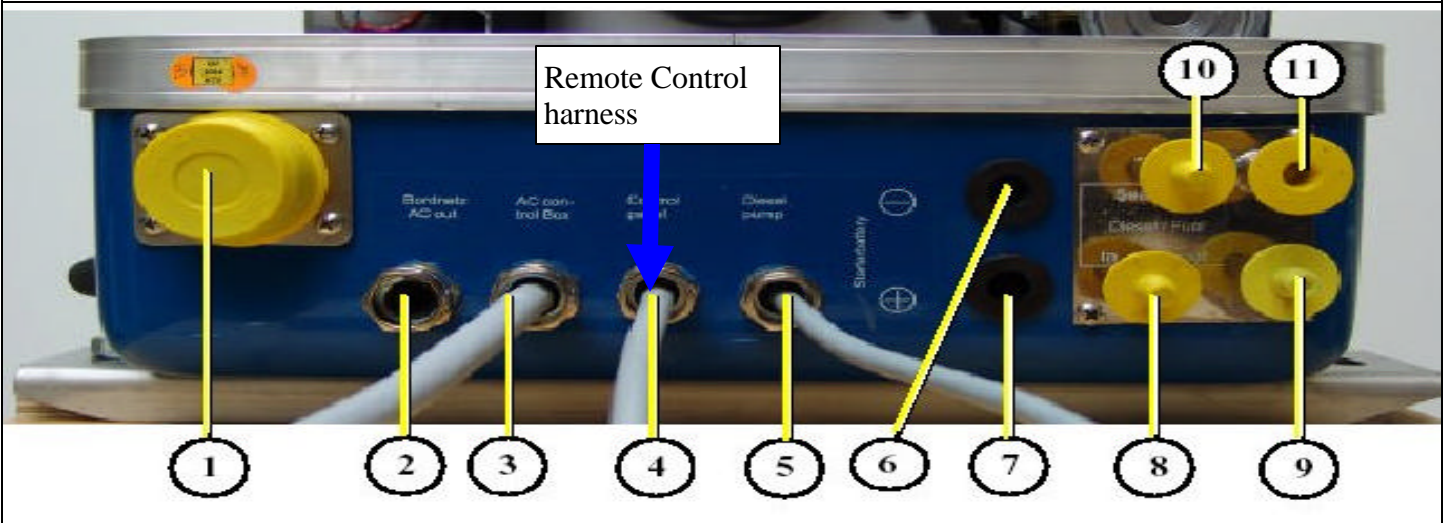


1. VCS
2. Capacitors
3. Terminal block X4



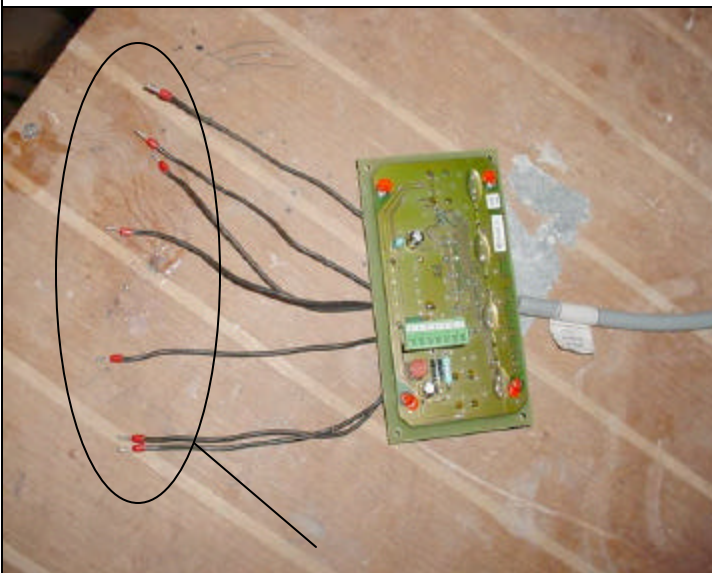
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Connection of the remote control panel.

1. Remote control panel should be located on the Navigation station instrument panel.
2. As standard a 7 core connection cable, 7 m long, included in the supply.
3. Those cores are numbered from 1 to 7, you can see that on core insulation.
4. The control cables are connected to the gen-set and on the back side of the control panel there are terminals numbered from 1 through 7.
5. Connect the cores (1~7) of the control cable to terminals (1~7) and secure them.
6. Mount the panel onto the cutout using fasteners provided.



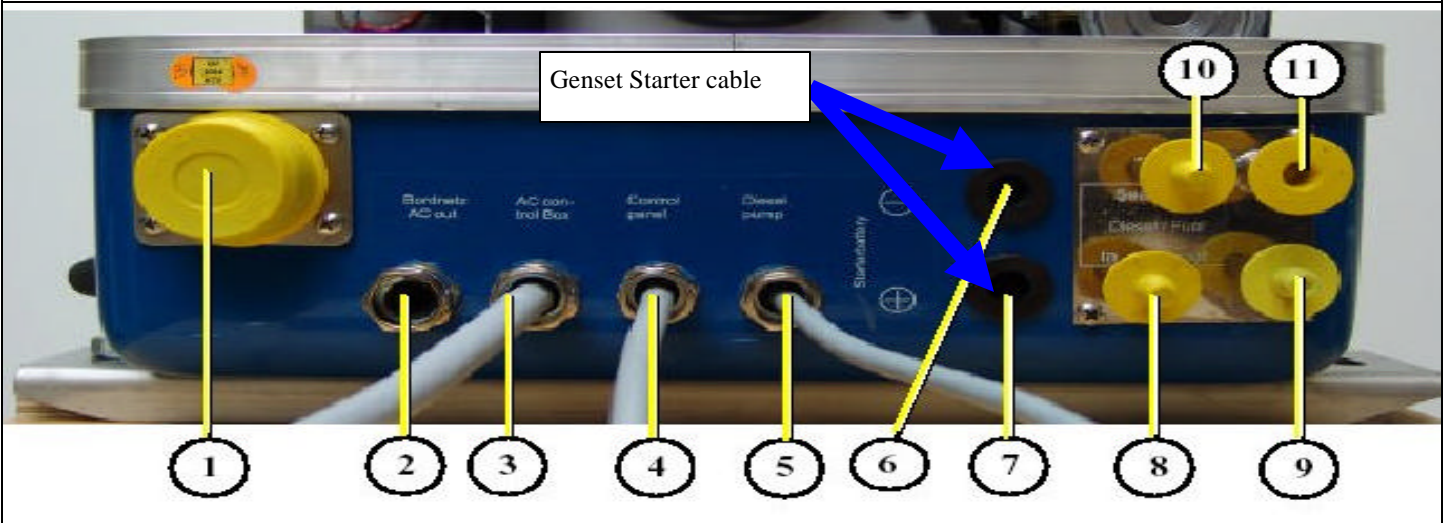
7 core connection cable, you can find numbers are marked on each wire



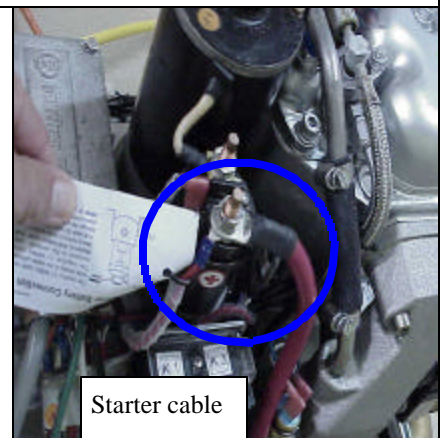
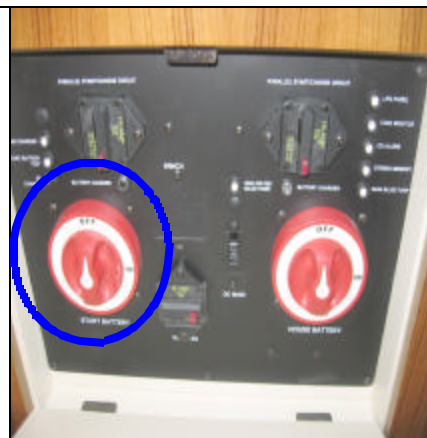
Mount the remote control panel next to VHF radio

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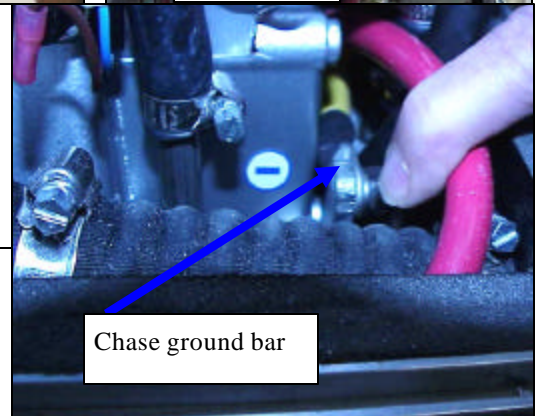
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1. Insert Attach 2 AWG starter (+/-) cables in thru hole on outboard side of generator box (label starter battery) and 5/16" eye connector go to generator.
2. Run (+) starter cable to generator starter terminal then secure the cable to stud terminal
3. Run (-) power cable 5/16" eye connector to generator **negative terminal** then secure the connector to this terminal.
4. Run the other end of (+) starter cable with (-) ground cable to battery switch panel under navigation chair, attach and secure the generator starter cable to battery switch panel (secure with engine starter cable), secure the generator starter ground to ground bus bar locates aft corner of battery switch panel compartment.
5. Conduit all DC cables, and tie wrapping conduit if necessary.



Secure the generator starter ground to ground bus bar, and the starter (+) will be attached with engine starter (+) then secure on starter switch load terminal stud. Attach and secure the starter ground to generator chase ground



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AC 6-3 wire to AC panel installation:

1. Run AC 6-3 wire to Navigation Station AC panel location from generator compartment, the 6-3 wires should come with generator.
2. Strip out the 6-3 insulation cover, slide heat shrink to the wire then attach those 3 wires with appropriate size of ring connectors (the connector will fit on 50-amps breaker) then clamp them, use heat gun to shrink the insulation.
3. On back side of AC panel, there should be 2 x single breaker for generator, you need to find out and verify those 2 breakers (front face is label generator and the breaker is 50-amps total).
4. Attach AC black wire that is from generator to line terminal that with black wire at load terminal of the breaker.
5. Attach AC white wire that is from generator to line terminal that with white wire at load terminal of the breaker.
6. Attach AC ground (green) wire that is from generator to ground bus and secure it with designated fastener.
7. Tie wrapping conduit where necessary, and ensure the wires are 100% insulated from others then secure the AC panel back in place.

