



Analog Gauge Installation Kit (Replaces 2003-2005 Faria Gateway Gauge System)

PLUS Supplementary Instructions for 2006-2007 models with operational PerfectPass





What's Included:



5" Tachometer with fuel gauge and hour meter



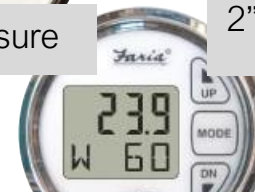
5" GPS speedometer



2" oil pressure



2" engine temp



2" air temp, water temp, depth



• 2" volt

GPS antenna, 3 ring terminals



1.5" adhesive pad



W6P Deutsch wedge



DT04-6P Deutsch conn.



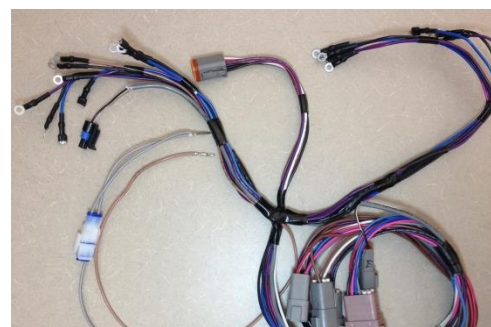
Deutsch DT pins x 6



- 16 x ss 8-32 nuts
- 16 x ss 10-32 nuts
- 2 x brass 8-32 nuts
- 2 x ss lock washers



COR 5430 25ft extension harness



COR 5428 Gauge wiring harness





Recommended Tools

5/16" socket

Crimper/cutters

Zip ties

11/32" socket

Alcohol or surface prep agent

Rag

3/8" socket

Amp/Molex pin extractor





Procedure Overview

Information about this kit:

If you have determined that the Faria Gateway box is defective, there is no direct replacement for this device which will allow you to continue to operate with the original Gateway-driven gauges. Removal of the actual Gateway box is optional, but all original gauges must be removed. The Analog Gauge Installation Kit outlined in this manual will replace both Gateway box and Gateway gauges used in Nautique boats from model years 2003 to 2005.

- 1) Remove old gauges from instrument panel
- 2) Install new gauges
- 3) Install analog gauge harness
- 4) Attach GPS antenna to bottom of dash pod
- 5) Install 25ft extension harness between dash and Gateway box at transom (if required)



Procedures

1) *Remove old gauges from instrument panel*

From behind dash pod,
disconnect

- a) Stereo remote cable
- b) Keypad
- c) Analog Instruments connector (white 12-pin)
- d) Cruise Control
- e) Faria bus cables



Remove steering wheel and detach dash pod



Disconnect Faria bus jumpers from between gauges

Remove all gauges except cruise control



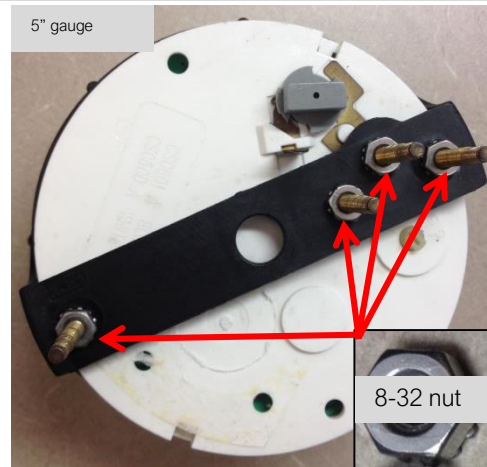
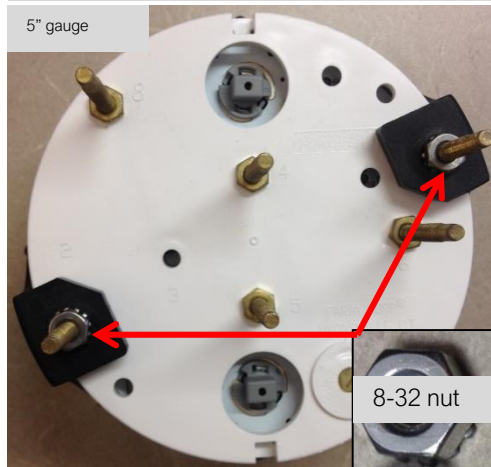
Procedures

2) Install new gauges

- Use supplied hex nuts to attach each gauge to the instrument panel.

Use caution when tightening black gauge brackets to avoid cracking the instrument panel.

Tip: use a socket without a ratchet to tighten each nut.





Procedures

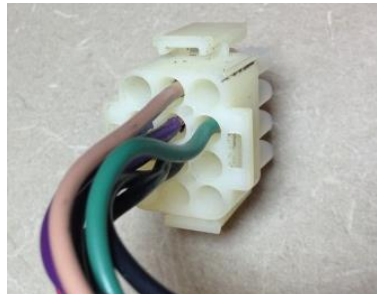
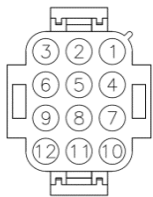
3) Install analog gauge harness



COR 5428 Gauge wiring harness



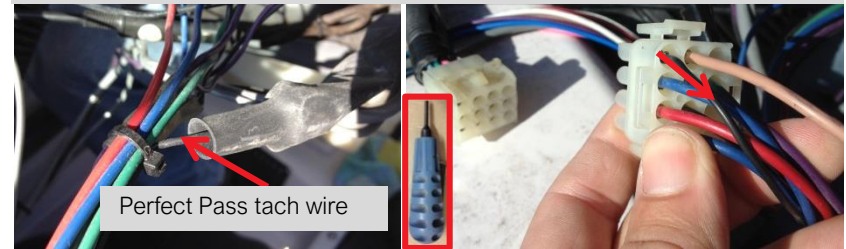
Note: connector pinout is labeled from the wire insertion view, beginning at the notch for position #1



Insert tan engine temp wire in position 2

If you don't have a pin extractor, you can cut and splice the black and gray tach wires together to supply the tach signal to Perfect Pass and Tachometer

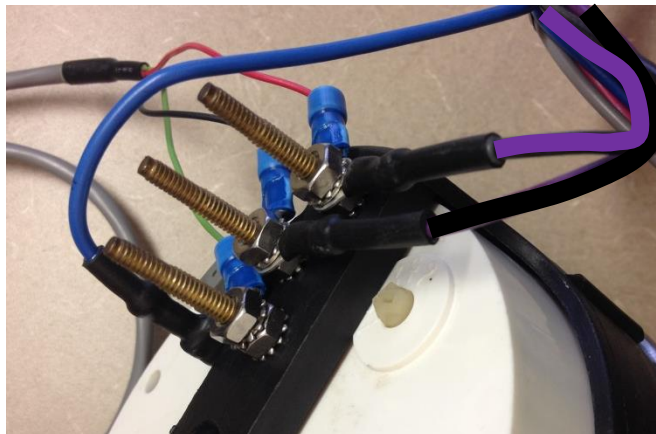
Using a pin extractor remove Perfect Pass tach wire from 12 way connector



Insert PP tach wire in the 2way connector supplied with the new gauge harness, then insert gray wires back into position 3



Attach wires to gauges by sandwiching all ring terminals between two SS nuts. See schematic to locate each wire.



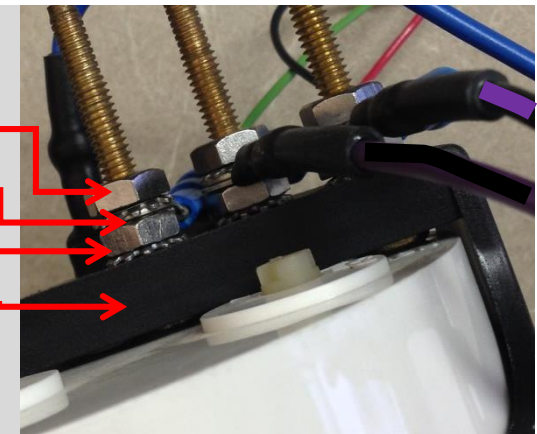
Stackup top to bottom:

SS nut

Ring terminals

SS nut

Bracket





Procedures

4) Attach GPS antenna to bottom of dash pod



Crimp three #10 ring terminals on GPS wires

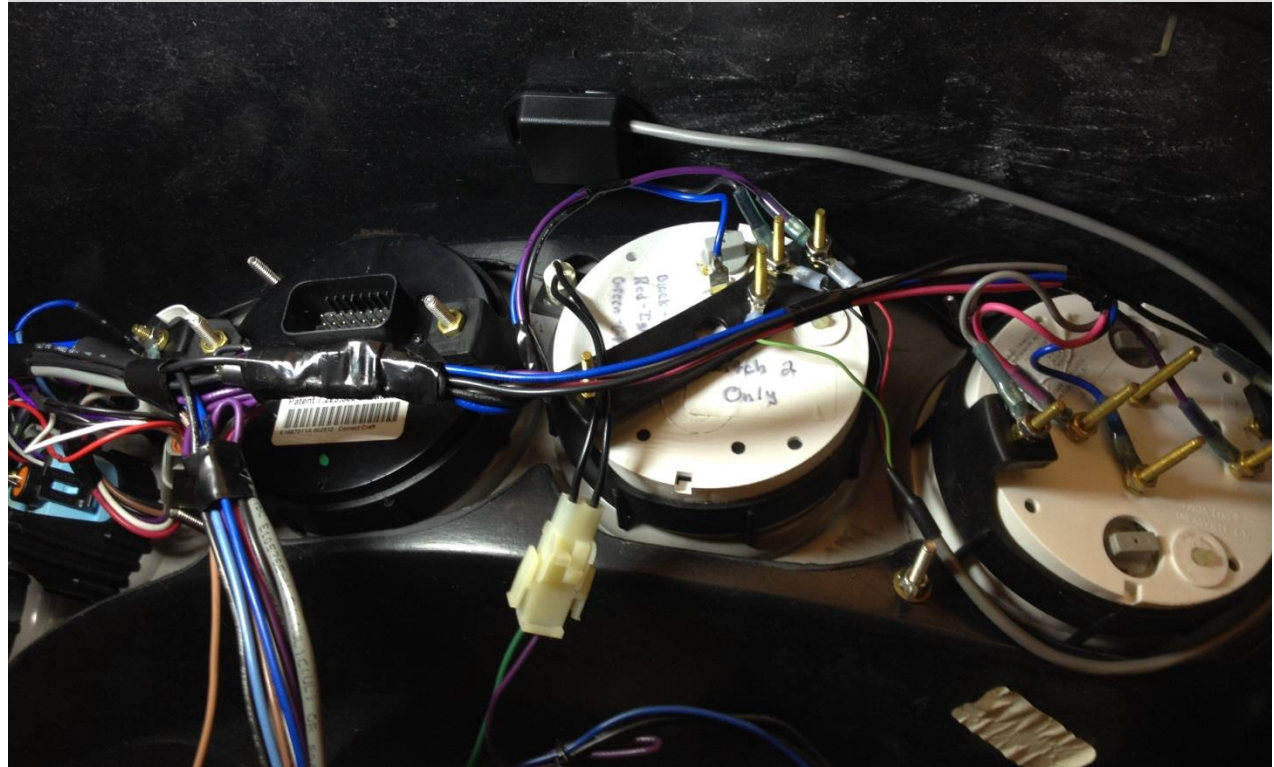


Install 1.5" x 1.5" VHB tape on bottom of GPS antenna



Prep the bottom surface of the dash pod with rubbing alcohol to remove contaminants. Remove adhesive backing and press antenna firmly into position as shown near the Speed gauge.

The orientation and exact position of the antenna is not critical, though it should be oriented with its bottom surface pointing directly upward to maximize performance.



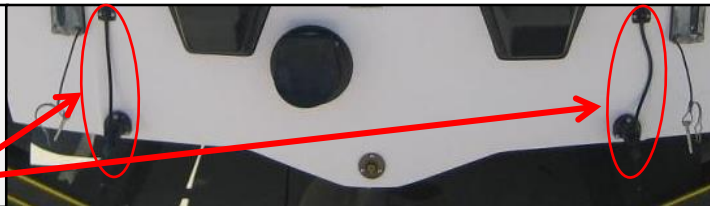


Procedures

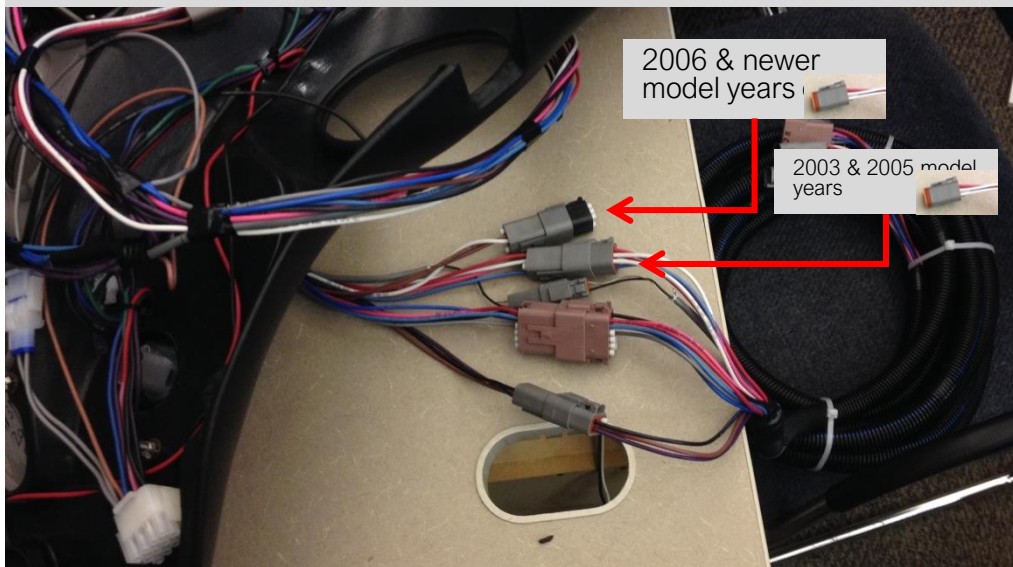
5) Install 25ft extension harness

- Identify a suitable routing for the extension harness between the gateway box and the helm, away from hot or moving parts.
- Secure it to the boat with zipties 18" apart throughout its length.
- Disconnect all wired connectors from Gateway box then connect the plugs from P2, P11, P13, and P14 into the matching receptacles from the extension harness.

Note: If old gateway box is removed from the boat when the new system is installed, be sure to plug the unused pitot tubes or remove the pickups and fill the holes to prevent leaks.

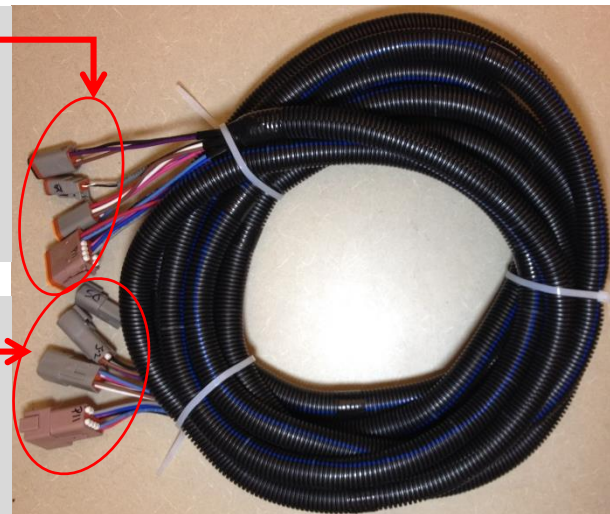


Gauge harness and extension harness interface - One 6way connector is reserved for 2006 & newer installations.

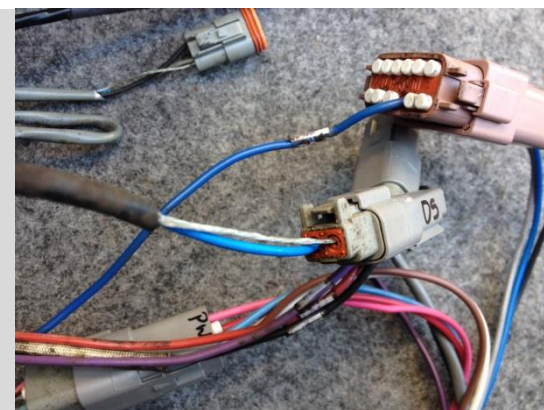


Plugs – connect these to new gauge harness at the helm

Receptacles – connect these to plugs from the old gateway box



Old Gateway plugs P2, P11, P13, & P14 connect to new extension harness receptacles



Faria Bus(P3) and J1939(P6) are not used





Post Installation System Check

- An actual water test is recommended to ensure a fully functioning delivery to the customer.
- Perform this test with the engine running.
- Check Speedometer after GPS has locked in. The needle will hover around 4mph during satellite acquisition, then drop down to zero once acquired. If Perfect Pass is installed, use the “speed adjust” feature in the Perfect Pass display to match its speed to the new Speedometer.
- Check depth, air temp, and water temp gauge. Use the UP and DN arrows to toggle between air temp and water temp.
- Check Volt, Oil pressure, and Engine Temp gauges.
- Check Fuel and RPM gauge.





Troubleshooting

Problem	Possible Solutions
Gauge does not function at all	<ul style="list-style-type: none">- Check for proper locations of gauge's ring terminals according to schematic- Check for "12v" between gauge's Ignition and Ground posts- Check for loose connection to gauge's Signal post
Gauges (multiple) do not function	<ul style="list-style-type: none">- Check orientation of Brown 12-way Deutsch connector- Check boat harness connection to engine harness
Speed readout more than 1.5mph different from "actual" speed	<ul style="list-style-type: none">- Make sure dial on back of gauge is set to 2- Use "speed adjust" setting in Perfect Pass to sync it with the new analog GPS Speed gauge
Speed readout shows 5mph, but boat is stationary	<ul style="list-style-type: none">- GPS defaults to 5mph until a satellite signal is locked. If no lock is achieved in reasonable time, try a different area, then replace antenna if unsuccessful
Speedometer does not respond	<ul style="list-style-type: none">- Check for loose connections on the back of speedometer- Check wiring schematic for proper connections at the back of speedometer- Check for "12v" between ignition and ground posts of speedometer
Hours on tachometer (RPM gauge) LCD are <u>less than</u> ECM hours in Diacomm	<ul style="list-style-type: none">- The new tachometer LCD begins hours at 0.0, regardless of engine's actual hours before installation. Only remedy is to connect Tachometer to 12v until timer catches up to ECM hours
Hours on tachometer LCD are <u>greater than</u> ECM hours after many hours of operation	<ul style="list-style-type: none">- No solution. Because tachometer hours are recorded by an independent clock when ignition power is on, it will deviate from the ECM's recorded hours. Always use Diacomm to read the boat's actual hours
Tachometer is inaccurate or does not work at all	<ul style="list-style-type: none">- Make sure the dial on the back is set to 3
Engine Temp gauge does not work	<ul style="list-style-type: none">- Check location of Tan wire in the white 12-way connector behind the dash. It should connect to a Brown or Tan wire in the mating connector.- Check boat harness connection to engine harness
Depth does not read when in favorable water, but Water and Air temp are ok	<ul style="list-style-type: none">- Check 2-way connection behind gauge- Check for damage to transducer in hull





Addendum for 2006-2007 models with operational PerfectPass

Use these notes to modify the instructions that were meant for 2003-2005 boats so the kit will work on 2006-2007 boats. Since the Perfect Pass hardware is inside the Gateway, if that part of the system was still working before you began replacing the rest of the gauges, you have to make sure any wires that Perfect Pass requires are still connected to the Gateway, and you have to make sure the Gateway power and CAN Bus/Comms connector are still plugged in.

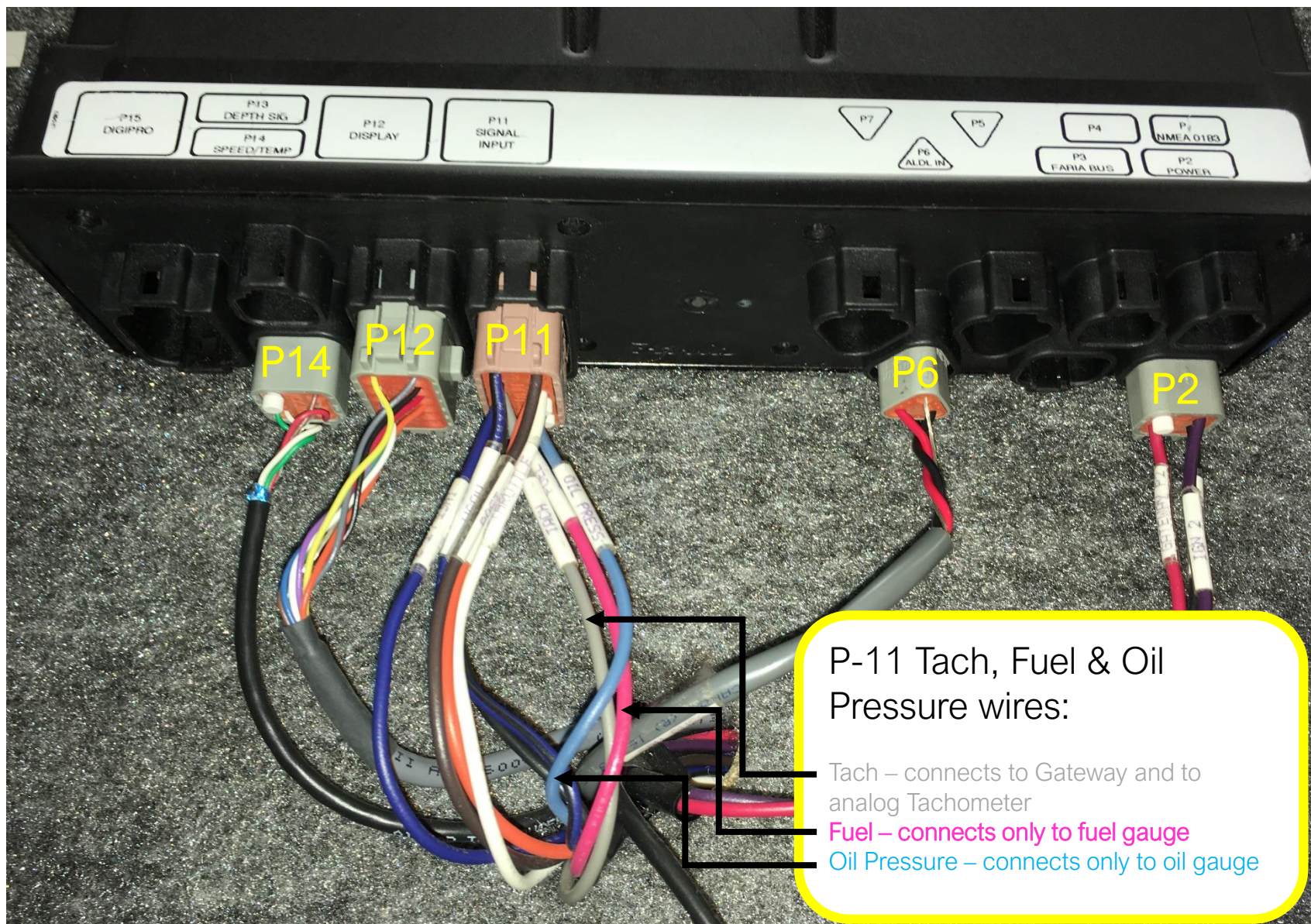
Modifications for 2006-2007 boats with functional PerfectPass (see picture on next page)

1. Connector P2 – Gateway power
 - a) Ground(black) and Ignition(purple) must be spliced and reconnected to the Gateway box to keep power supplied to it. Use spare connectors from extension harness if available to make connections easier.
 - b) Constant Power (red) must be reconnected to the Gateway box
2. Connector P6 – Gateway Comms. Reconnect to gateway box to preserve communication between it and the engine for Perfect Pass.
3. Connector P11 – Analog Inputs. Reconnect to gateway box. (do not connect it to the pinkish connector in the conversion harness)
 - a) Remove the Oil Pressure and Fuel wires from the P-11 connector and connect those wires to the conversion harness. If you are not using the extension harness, it can be cannibalized for parts to make reconnecting things easier...i.e. remove the pinkish connector from the extension harness and use it to reconnect the Pink, Light Blue, and second Gray wire to the conversion harness.
 - b) The gray tach wire must be split into two wires so that one tach wire can stay in the P-11 connector and the other ends up going to the Tach gauge.
4. Connector P12 – Perfect Pass. Reconnect to gateway box for Perfect Pass controls
5. Connector P14 – Paddlewheel and Water Temp inputs
 - a) Reconnect to gateway box for the speed signal.
 - b) Remove Brown and White water temp signal wires from the connector to connect to new 2" air/water temp gauge 6pin deutsch (see schematic for air/water temp gauge pinout)

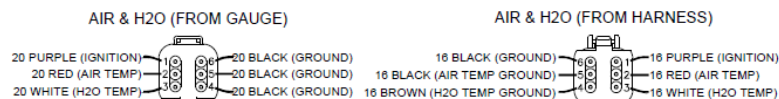
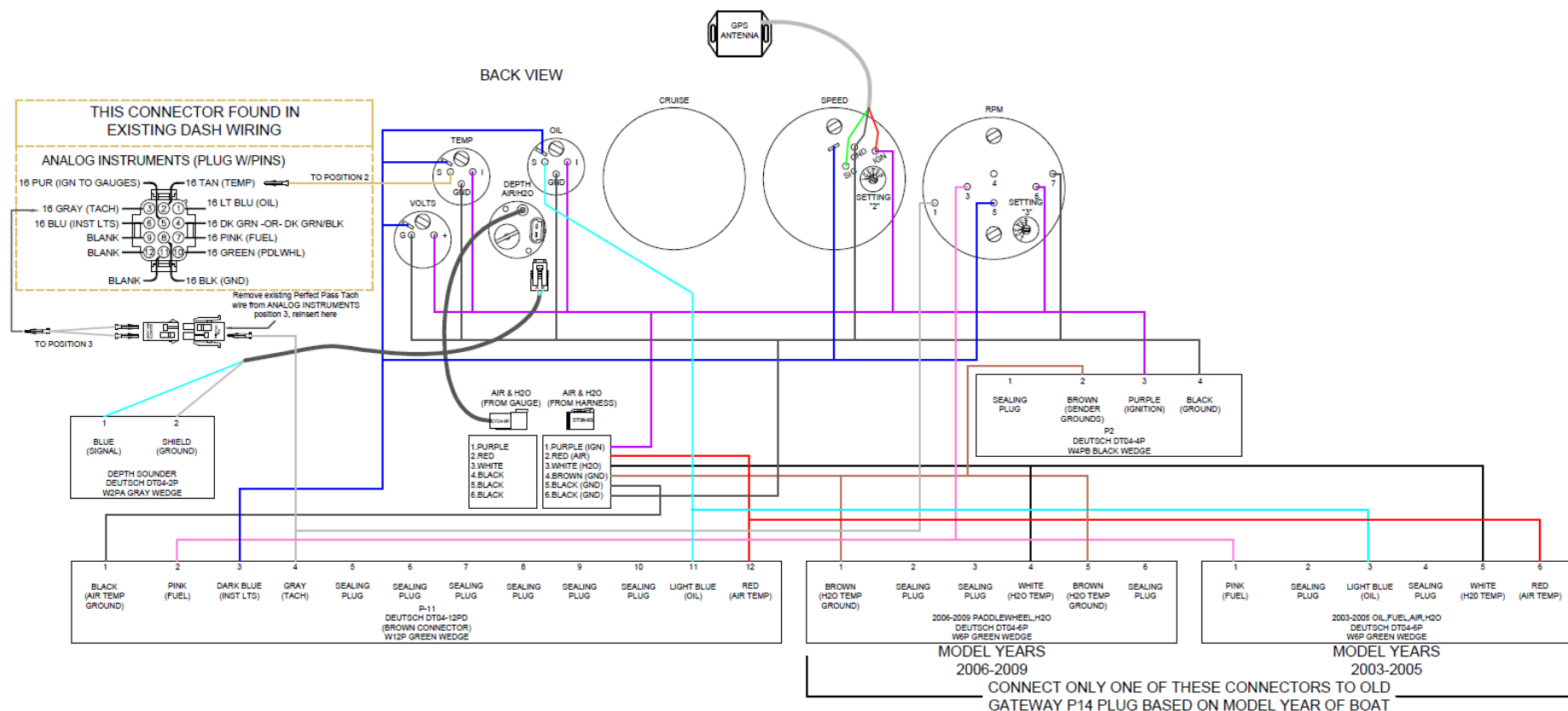




Addendum for 2006-2007 models with operational PerfectPass



2003-2005 ANALOG GAUGE HARNESS FOR FARIA GATEWAY GAUGES REPLACEMENT KIT



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MATERIAL: XXXX	DETAILER:	
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NAUTIQUE

TITLE: 03/05 ANALOG GAUGE
WIRING SCHEMATIC

SIZE DWG. NO.	REV B
XXXXXXX	
PART. NO.	SHEET 1 OF 1