Triple Gauge Kit
Assembly Instructions

Revision 4 (02-05-2011)

This kit will allow the use of an Oil Temperature, Oil Pressure, and Fuel gauges combined all into a single gauge VDO housing. This kit was designed specifically to use a 914 fuel gauge and 911 Oil Pressure and Temperature gauges. The minimum required items are a 914 Fuel/combo gauge and a 911 Oil Temperature/Oil Pressure gauge.

1. Obtain a used, serviceable 914 combination instrument with the LATE style modular fuel gauge connector as shown in Figure 1.

Figure 1. Late style 914 Combo Gauge

2. Obtain a used, serviceable 911 combination instrument (Oil Pressure/Oil Temperature) with modular connectors as shown in Figure 2.

Figure 2. 911 Combo Gauge

3. Remove the gauges (fuel gauge from 914 instrument and Oil Temperature and Oil Pressure gauges from 911 instrument) by removing the four small screws attaching each gauge to the rear of the instrument housing, and carefully remove them from the housing.

4. Remove the gauges from the rear mounting plates by removing the nut securing the center spade connector. While carefully holding the gauge with one hand, use a thin blade to evenly pry the black plastic connector from the rear of the mounting plate. The second and third spades are actually connector plug contacts which mate with connector sockets on the gauge side of the mounting plate. By prying the rear part of the connector from the front part, you are "unplugging" the connector.

5. Using a thin bladed screwdriver, slowly work around the crimped bezel on the 914 gauge housing, lifting the crimp which secures the bezel to the front of the instrument housing.
Once the crimp has been loosened, the bezel can be removed from the housing, Carefully remove the glass, inner ring, and instrument face plate from the housing.

6. Once all three gauges have been separated from their mounting plates, use an oversized twist drill (1/2" will work nicely) to drill off the flanges on the inside of the housings for each of the lamp tubes. Alternatively, you can carefully pry the crimp up from the back of the lamp tubes and remove them without damaging them. Carefully remove each of the lamp tubes, removing as little material as possible. Remember to remove the lamp tubes for the fuel gauge low indicator lamp as well as those for Oil Pressure, brake, and generator idiot lamps.

7. If using the silver center cap, use an oversized drill to drill out the flange holding the silver colored center cap holding it to the instrument faceplate. Carefully remove the silver center from the faceplate.

8. Using a nibbling tool or similar, cut out the rear of the 914 instrument housing so that only the four mounting screw holes remain (refer to Figure 3).

Figure 3. Rear of Instrument Housing

9. Using a nibbing tool or similar, cut out the original front faceplate keeping just the tabs and the outer ring. The new faceplate will be epoxied to the original faceplate and tabs (Figure 4).

Figure 4. Modified Original Faceplate

10. If using the silver center cap, drill an appropriately sized hole in the center of the new faceplate and epoxy the center cap into the newly drilled hole. A 2-part high strength epoxy such as JB-Quick or JB-Weld can be used to permanently attach the new faceplate to the modified old faceplate and mounting ears. Dabs of Clear silicone could also be used, but may not be as permanent.

11. Use 200-grit wet or dry sandpaper to roughen the surfaces to be glued. Make sure all parts are clean and dry before applying adhesive.

12. Position the new faceplate on the modified faceplate so that the tabs are in the same orientation as they were with the original faceplate (one tab is keyed). (refer to Figure 5)

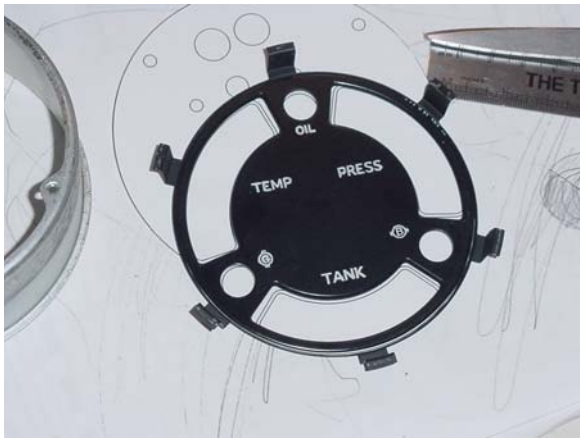


Figure 5. New Faceplate Assembly

13. Mix the epoxy according to the directions of the epoxy and glue the center cap and mounting tabs to the faceplate. The mounting ring with tabs is glued the rear side of the new faceplate and the tabs extend toward the front of the faceplate.

14. Place the lamp tubes into each of the lamp holes from the rear of the new back plate accompanying the kit. Some of the lamp tubes may be longer than others. It doesn't make any difference whether longer or shorter tubes are used for any lamp, but since the tubes are very close to one another on the rear plate, they should be staggered to facilitate inserting and removing lamps. It is recommended that two tubes of the same length should not be positioned right next to each other.

15. The lamp tubes are attached to the rear plate (make sure you are attaching the tubes to the

outside of the plate). The tubes can be soldered to make sure that they are properly grounded. The tubes can alternately be epoxied, but they may not conduct (for lamp holders that need a ground). (refer to Figure 6)

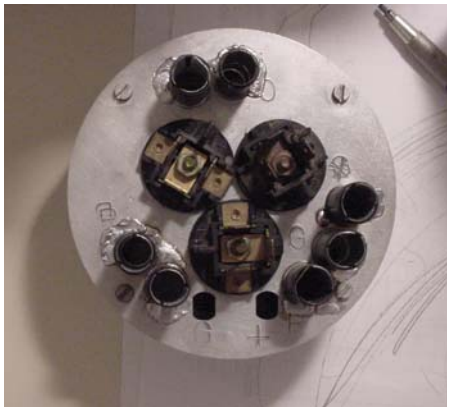


Figure 6. Backplate Assembly

16. The three idiot lights and the low fuel indicator light use extension rings on the inside of the rear plate over which the rubber tubes holding the colored lenses are fitted. These extension tubes may be epoxied to the appropriate lamp tubes (see Figure 6). Allow the epoxy to completely cure before handling either the rear plate or the faceplate.

NOTE: IN THE FOLLOWING STEPS TAKE GREAT CARE TO AVOID TOUCHING THE GAUGE INDICATOR NEEDLES. THEY ARE EXTREMELY FRAGILE.

17. Install the Oil Pressure, Oil Temperature, and Fuel gauges on the rear plate using the plastic connectors, the center threaded studs and the large spade lug, and the single nut over the threaded stud. Note that the connector pins go through the two small holes, and that the other two holes differ slightly in size. Make sure that the connector is positioned so that the larger guide protrusion on the rear of the connector goes into the larger of the two guide holes. This insures correct alignment of the gauge. Install the rubber tube for the low fuel indicator light between the extension ring and the red cellophane on the fuel gauge face. The gauge should look like this. (refer to Figure 7)

Figure 7. Gauge Assembly

18. Using a pencil, mark the areas of the gauge dial surfaces to be cut away to accommodate the rubber indicator tubes. Allow sufficient room for the rubber tube, but keep the cutaway area smaller than the shoulder of the tube (the shoulder houses the colored lens).

19. Remove the Oil Pressure/Temperature and Fuel gauges from the rear plate and carefully cut away the area marked for the rubber tubes using the nibbling tool (or similar). A dremel tool or die grinder may be used to grind the cutouts more cleanly, but care should be taken to avoid getting any ground material into the gauges. Since the rubber tubes will be covering this, the rough cuts from the nibbling tool should be OK. Remount the gauges to the backplate as in step 16, above.

20. Install the three rubber indicator tubes through the cutouts and onto the remaining extension rings. The green lens goes over the top extension ring (OIL), and the two red lenses go over the two remaining extension rings. Make sure the shoulder of the rubber tubes are flush with the gauge dial surfaces.

20. Carefully insert the gauges into the housing through the back cutout opening. It is a tight fit, but by maneuvering it should be possible. It may be necessary to make the rear opening even larger to allow enough clearance for all three gauge faces to clear the housing cutout. After you get the gauges into the housing, secure the gauges into the housing using four of the screws originally used to mount the gauges. The assembly will look like Figure 8.

Figure 8. Gauge Assembly

21. Now is a good time to temporarily hook up the gauges to the car to verify that they all work. After verifying they are all operational (or having great confidence that they all work), you are ready for the final step.

22. Clean and install the front panel with the mounting tabs holding it firmly in place. Next install the ring which holds the glass face (the one with the indentation for the glass), the glass face (clean both sides with windex), and the outer ring against the glass. The original outer bezel can now be crimped using a screwdriver blade and working it around the bezel, flattening it against the housing flange. For a professional look, a new bezel can be crimped into place at a VDO repair shop such as North Hollywood Speedometer of Palo Alto Speedometer.

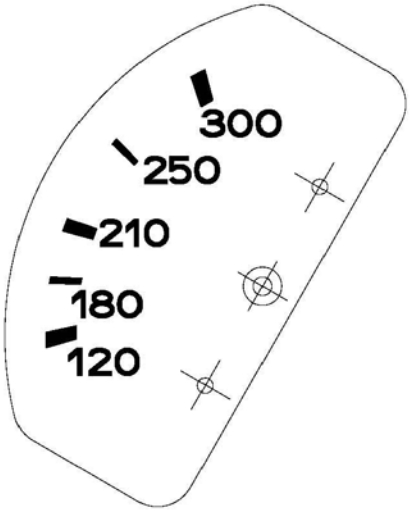
Figure 9. Completed Gauge

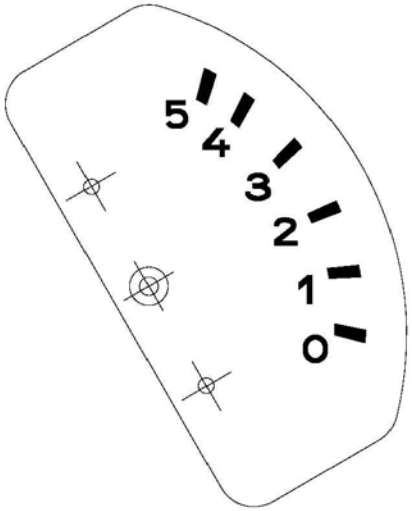
OIL TEMPERATURE/OIL PRESSURE
COMBINATION INSTRUMENTS AND SENDERS

YEAR	MODEL	INSTRUMENT PART NUMBER	SENDER PART NUMBER		
			TEMPERATURE GAUGE	PRESSURE	
				GAUGE	SWITCH
1970-72	914-6	914 641 101 20	901 641 632 00	N/A	911 613 571 00
1974	911	911 641 104 29	901 641 632 00	911 606 111 00	911 606 230 00
1975-76	911	911 641 107 30	901 641 632 00	911 606 111 00	911 606 230 00
1977	911	911 641 107 31	911 606 112 00	911 606 111 00	911 606 230 00
1978-81	911	911 641 103 03	911 606 112 00	911 606 111 01	911 606 230 00
1982-83	911	911 641 923 00*	911 606 112 00	911 606 111 01	911 606 230 00
1984-89	911	911 641 923 00*	911 606 112 00	911 606 135 00	911 606 230 00

* 911 641 103 05 Supercedes to 911 641 923 00

Source: *Parts and Technical Reference Catalog* , 911 Models 1974-1989, Porsche Cars North America, December 1995 and *Spare Parts Catalog, Type 914/914-6,* Porsche





OIL

TEMP PRESS