



Kit Includes:

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|---|------------|-------------------------|
| 1 | 450605 | Temperature Sensor |
| 1 | 450604-010 | Sensor Harness |
| 2 | 450604-009 | Shrink Tubing(1/4" x 2) |
| 2 | 450604-008 | Butt Connectors |
| 1 | IIF 1166 | Instruction Sheet |



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PLEASE NOTE: Government regulations state: Engine fluids (oils, fuel & coolants) may be hazardous to human health and the environment. Handle all fluids and other contaminated material such as rags and/or filters in accordance with these regulations. Recycle or properly dispose of all contaminated items in accordance with these regulations as well.

CAUTION

- Please read all safety instructions located in the "Safety Information" section of the Engine Service Manual or Engine Diagnostic Manual to prevent any personal injury or death.
- Shift transmission to park or neutral, set parking brake and block wheels before diagnostic and/or service procedures begin to prevent any personal injury or death.
- Remove ground cable from negative terminal of main battery before disconnecting any electrical components and always connect ground cable last to prevent any personal injury or death.

REMOVAL

Use the following procedure when replacing engine oil temperature or engine coolant sensors:

1. Turn ignition switch to the OFF position.
2. Remove ground cables from negative terminal of all batteries.

- A. Engine oil temperature sensor
- B. 2 way connector

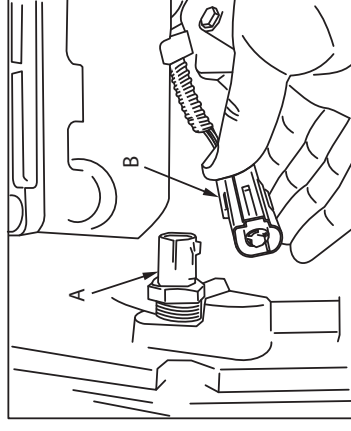
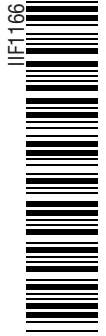


Figure 1 - 2 way connector and Engine Oil Temperature sensor(typical)

3. Disconnect 2 way connector from the sensor.

**ISO 9001
CERTIFIED**



INSTALLATION INSTRUCTIONS

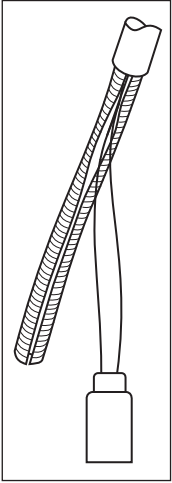
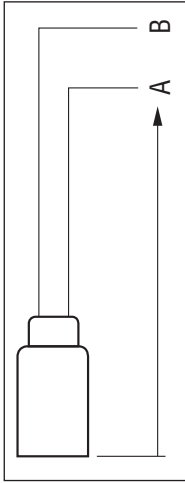


Figure 2 - Engine harness wires and convoluted tubing conduit.

4. Remove 125mm (5") of engine harness wires from convoluted tubing conduit, if applicable.



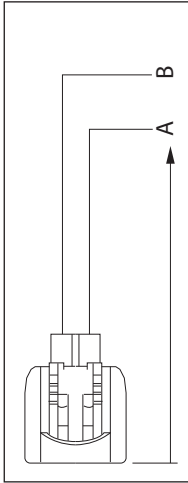
- A. 75mm (3")
- B. 100mm (4")

Figure 3 - Stagger cut engine harness wire lengths

5. Measure and stagger cut engine harness wires from front of to end of connector.(Figure 3)
6. Discard connector and attached engine harness wire section.
7. Remove and discard sensor.

INSTALLATION

1. Strip 5mm (0.2") of insulation from wire ends of the engine harness.



- A. 75mm (3")
- B. 100mm (4")

Figure 4 - New 2 way service connector

2. Measure and stagger cut the wires from the front end of the new 2 way service connector.(Figure 4)
3. Strip 5mm (0.2") of insulation from the wire ends.

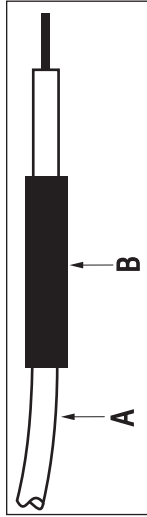
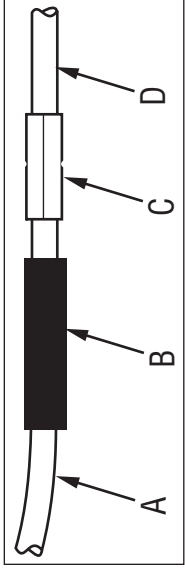


Figure 5 - Connector wire and heat shrink tube

- A. Connector wire
- B. Heat shrink tube

INSTALLATION INSTRUCTIONS

4. Position heat shrink tube over each connector wire.



- A. Connector wire
- B. Heat shrink tube
- C. Butt-splice terminal
- D. Engine harness wire

Figure 6 - Heat shrink tube and butt-splice terminal

- NOTE:** Wires cannot be improperly matched. Either connector wire can be matched to either harness wire.
5. Align new connector wires with harness wires and install butt-splice terminals.
 6. Using a ratchet crimp tool, crimp butt-splice terminals.
 7. Solder butt-splice terminals until solder flows easily into both ends of butt-splice and into wire conductors.
 8. Center heat shrink tube over each butt-splice terminal and shrink tubes with a heat guns.

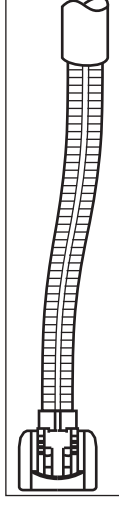


Figure 7 - New connector wires in convoluted tubing conduit

9. Insert connector wires into convoluted tubing conduit.
10. Install new sensor. Tighten sensor 27N-m (20 lbf-ft).
11. Attach the new 2 way connector to the sensor.

For questions regarding these instructions, please contact our Technical Support group at 1-866-994-3844 or locally at 678-518-6567. You may also send a fax to 678-518-6574 or email Tech@paiindustries.com for assistance. PAI Technical Support is available Monday through Friday from 8:00am to 5:00pm.(Eastern Time)