PERFORMAX

ISSPRO

AIR TEMPERATURE GAUGE AND SENSOR INSTALLATION INSTRUCTIONS

ICON KEY	
💧	**CAUTION**
⚒	Tools may be required
📖	Shown in picture

1 💧⚒ **Disconnect batteries**. Do not reconnect battery power until system is fully configured to avoid risk of shock or fire.

2 ⚒ Install Electronic Signal Processor (ESP) and ESP harness according to instructions.

3 📖⚒ Connect the Temperature Sensor Harness to the ESP Harness as follows:
   a. Remove plugs from cavities 6 and 7 of connector D (brown) of the ESP.
   b. Using a pair of needle nose pliers, pull the orange wedge lock out of connector D.
   c. Insert the terminal from the black wire (thermistor ground) into cavity 7 of connector D on the ESP, pushing until it snaps into connector D.
   d. Insert the terminal from the white wire (thermistor signal) into cavity 6 of connector D on the ESP, pushing it until it snaps in place.
   e. Note: Terminals will be close to flush with the top of the connector when fully seated.
   f. Press the orange wedge lock back into the brown connector.
   g. A firm pull of the wire will confirm whether they are properly seated.
   h. Push the orange wedge lock back into position. If any of the wires are not fully seated, the wedge lock will not insert into position.
   i. Reconnect connector D (brown) to the ESP.

Figure 1: Connector D top and bottom view. Shown with plugs and wedge-lock installed.
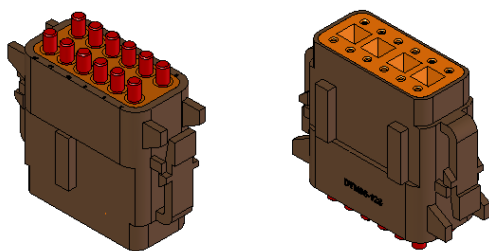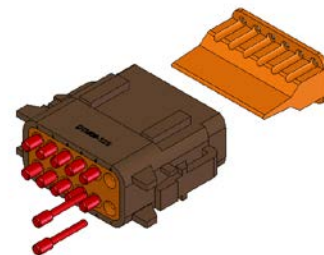
Figure 2: Remove plugs and wedge-lock as shown. Wedge-lock is replaced once wires are positioned properly.

4 Find a location where air temperature can be measured such as an existing port, or drill and tap intake tubing. If tubing is too thin to tap, add ⅛" NPT weld bung (ISSPRO R685).

5 📖 Check the thread size of the port being used. Use included adapter bushings, if required. Temperature sensor threads are ⅛" NPT/NPTF.

💣 Many Emission Control Devices are connected to temperature sensors or switches. Be careful not to disable these when installing a sensor.

💣 If an adapter bushing is necessary, do not "bottom out" or close the gap when installing sensor into adapter bushings on units with tapered threads.

6 Thread the sensor into the adapter bushing (if used) finger tight, then thread the sensor into the port finger tight. Next, tighten with a wrench approximately one half turn. If leakage occurs at the sensor, tighten one-quarter turn at a time until leakage stops. If necessary, thread sealant such as Teflon tape may be used.

💣 When using a torque wrench, tighten approximately 1.69nm/15 lb-in. or slightly more, if leakage occurs. Do not use the body of the sensor to tighten! Use only the hex and the correct wrench. Do not over tighten!

7 ⚒📖 Connect the temperature sensor to the temperature sensor harness by pressing the connector into the slot.

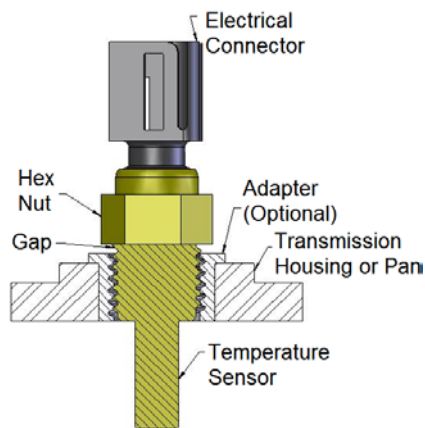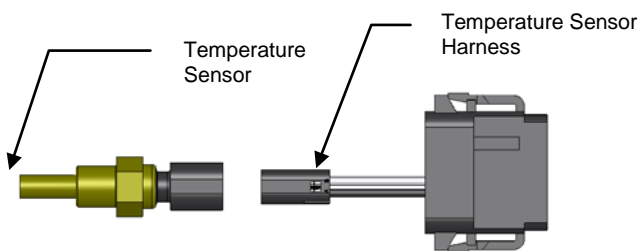**Figure 3:** Temperature sensor with adapter bushing.

Figure 4: Temperature sensor and harness.

8 ⚒📖 Connect Air Temperature gauge to the ESP. (See ESP instructions for more details on how to do this). Note: If drilling a mounting hole in a panel to mount this gauge, the hole size should be 2.040".

9 💣 Secure all wiring so that it does not interfere with moving parts or chafe on sharp edges. This may be accomplished by routing the wiring within the factory wire harness sheath, using wire ties and sheathing, and using appropriate grommets when passing through the firewall.