

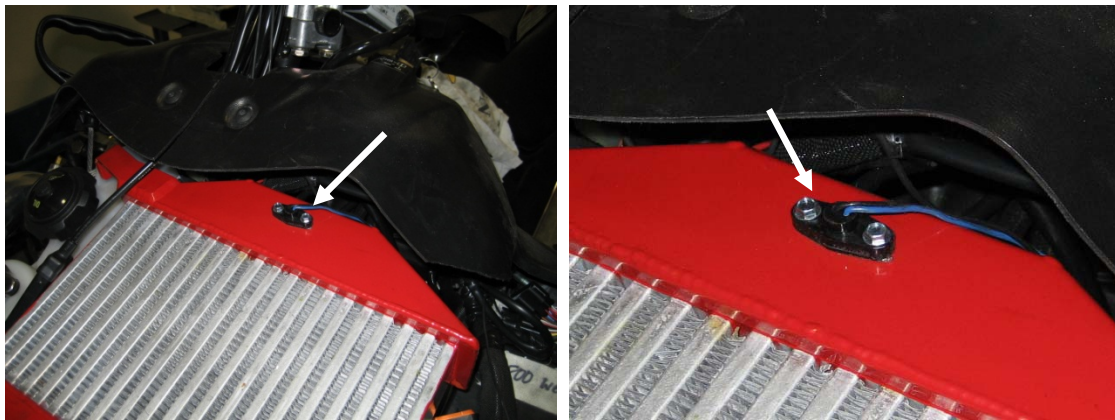


Polaris 700/800 Air Density Kit Installation Guide

The Temperature Sensor Kit includes:

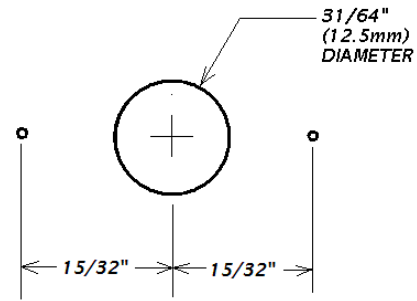
- Temperature Sensor
- Two sheet metal screws (#6 X 1/2")
- Temperature Sensor Harness
- Blue butt-splice
- Red butt-splice
- Red male quick-connect terminal
- Red female quick-connect terminal
- Resistor Assembly
- Five zip ties
- These Installation Instructions

Installing the temperature sensor:



Note: It is recommended that you remove the intercooler for this operation. If you choose not to remove it, use plenty of grease on the large drill bit to catch all the aluminum shavings so they don't fall into the intercooler.

The temperature sensor is mounted so it protrudes into the intercooler on the engine (downstream) side (see photos on previous page). Mount it as close to center as you can, both vertically and horizontally for the best access to moving air. Referring to the diagram on the right, first mark the center hole location, then mark the screw hole locations $15/32$ " (12mm) to each side of the center location. Center punch all three hole locations. Use about a $3/16$ " pilot drill **for the center hole only**. Then drill the center hole $31/64$ " (12.5mm) diameter for the sensor head. Install the sensor with a small amount of silicone gasket material. Do not get any silicone on the sensor element. Attach the sensor with two #6 self drilling and self tapping screws.



Wiring modifications:

Note on using the supplied Crimp/Heat-shrink connectors:

The supplied Crimp/Heat-Shrink Connectors, if installed correctly, will provide a reliable connection. After the wires are cut and the insulation is stripped, the connector is crimped onto the wires. The connector is then sealed by the heat-shrinking process. Adhesive inside the connector will melt and seal out moisture. Proper crimping and sealing is critical to the reliability of these connectors. When crimping, be sure to use the correct crimping tool. **DO NOT USE A CRIMPER THAT PUNCHES INTO THE INSULATION. DO NOT USE PLIERS.** After crimping, pull on the wires to be sure they are securely crimped. Then apply heat to shrink the connector's insulation tightly around the wires.

- 1) Find the TBAP sensor, which was removed from the air box. This sensor has four wires:
 - Black with blue stripe (signal ground)
 - Dark Blue (temperature signal)
 - Red/White (5V to pressure sensor)
 - Dark Green (pressure signal)
- 2) Cut the black wire with the blue stripe and the dark blue wire. (Leave at least 2" working room on each side. Strip away the harness sheath as needed.)
- 3) Strip the wires $1/4$ ". Strip the black wire on the supplied resistor assembly $1/4$ ".
- 4) Twist together the black wire from the resistor assembly and the black/blue wire from the TBAP connector, insert into one end of the red butt-splice, and crimp
- 5) Insert the black/blue wire from the stock harness into the other end of the red butt-splice and crimp.
- 6) Crimp the female quick-connect terminal onto the dark blue wire from the TBAP connector. (This will be used to restore your temperature sensor to stock configuration if you remove the control box and install the bypass jumper. This can be used for testing or for emergencies.)
- 7) Crimp the male quick connect terminal to the dark blue wire from the stock harness.
- 8) Plug this male connector into the resistor assembly.
- 9) Plug in the TBAP sensor.
- 10) Use zip ties to secure all wires away from heat and moving parts.

Installing the Temperature Sensor Harness:

If your Temperature Sensor Harness (orange and black wires) is already connected to your Turbo Pressure Transducer Harness, route this harness to the sensor and plug it in. Keep the harness away from heat and moving parts and secure with zip ties.

Otherwise, the supplied wire harness needs to be spliced into your existing Turbo Pressure Transducer Harness as follows:

- Splice the black wire from Temperature Sensor Harness to the brown wire of the Turbo Pressure Transducer Harness. Cut a 4" slit in the sleeve over the brown, orange, and green wires at the end by the 10-pin connector. Cut the brown wire about 2" from the 10-pin connector. Strip the black wire and two brown wires ¼". Twist together the black wire and the shortest brown wire, insert into one end of the blue butt-splice, and crimp. Insert the long brown wire in the other end, crimp, and heat shrink.
- Plug the orange wire into position 8 of the 10-position connector on the Auxiliary Injector Harness. (The corner position numbers 1, 5, 6, and 10 are molded into the back of the connector.) You will first have to push the rubber plug out the back of the connector.
- Zip tie this sleeve to the sleeve containing the green, blue, and brown wires.
- Route this harness to the sensor location and plug into the temperature sensor. Keep the harness away from heat and moving parts and secure with zip ties.