



Arctic Cat Air Density Kit Installation Guide

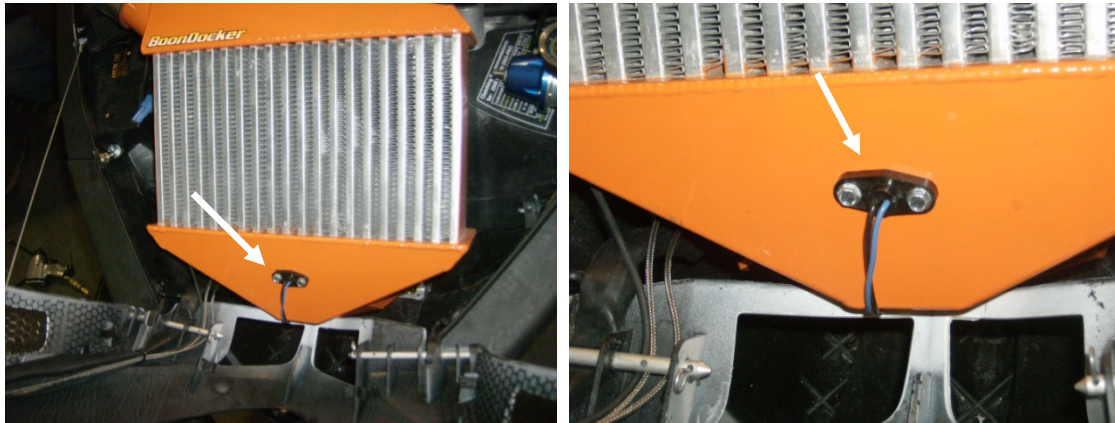
The Temperature Sensor Kit includes:

- Temperature Sensor Harness
- Blue butt-splice
- Resistor Assembly
- Connector housing
- Two sheet metal screws (#6 X 1/2")
- Four zip ties
- These installation instructions
- User Instructions

Sensor wiring modifications:

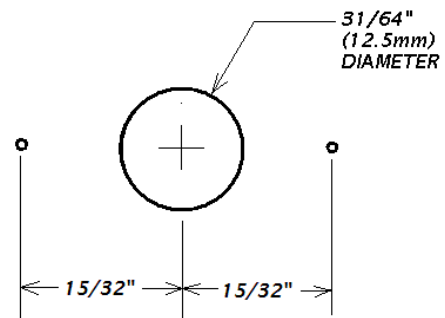
- 1) Use the stock temperature sensor you removed during turbo installation.
- 2) Remove the blue connector from the stock temperature sensor. (Release the plastic terminal latches by inserting a small jeweler's screwdriver into the front of the connector next to each terminal. Pull the terminals out the back side, noting which side of the terminal faces the latch.)
- 3) Using the correct orientation, push these terminals into the supplied natural-color connector housing until they click into place. (Polarity does not matter.)
- 4) Using the correct orientation, insert the terminals of the supplied resistor assembly into the blue stock connector housing until they click. (Polarity does not matter.)
- 5) Plug this resistor assembly into the stock harness where the temperature sensor used to be.
- 6) Use zip ties to secure this harness away from heat and moving parts.

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). Mount it as close to center as you can, both vertically and horizontally, for the best access to moving air. 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.



Installing the Temperature Sensor Harness:

If your Temperature Sensor Harness (orange and black wires) is already connected to your Auxiliary Injector 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 Auxiliary Injector Harness as follows:

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

The supplied crimp/heat-shrink connector, 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.

- Splice the black wire from Temperature Sensor Harness to the tan wire of the Auxiliary Injector Harness. First route the black wire through the sleeve on the button-connector wires (yellow and tan) starting from the 10-position connector end and ending near the button connector. Cut the tan wire, leaving plenty of working room. Cut a slit in the sleeve if necessary. Strip the black wire and two tan wires $\frac{1}{4}$ ". Twist together the black wire and the longest tan wire, insert into one end of the blue butt-splice and crimp. Insert the short tan 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 and plug it in. Keep the harness away from heat and moving parts and secure with zip ties.