

# MAXFAN INSTALLATION

Thoroughly review the following instructions and photos before beginning the installation. Use a professional automotive installer if needed.

## SENSOR

Note 1: The engine must be off and cool for the sensor installation.

Note 2: It is usually not necessary to drain the coolant if you install the sensor quickly after unscrewing the last couple of factory plug threads. Place a rag below the plug to catch any small drips.

Install the temperature sensor in the right cylinder head as follows:

1. Optional: remove the right side engine cover for better access.
2. Use an 8mm hexdriver to remove the factory plug, and quickly install the sensor finger tight.
3. Using a 19 mm (or  $\frac{3}{4}$  inch) deep socket, torque the sensor to 15 foot-pounds.

## CONTROL MODULE

Note 1: Refer to photo sheets or Large online photos. They are from a Grand Sport (non dry-sump)

Note 2: If installing the Inline Connector option, skip Steps 2 to 6 below, and use the alternate instructions with the option.

Note 3: You will be making 2 electrical connections in Steps 4 and 5. If you have soldering experience and equipment (solder not included,) you can make solder connections instead of using the red compression connectors supplied in the installation kit. Heat Shrink tubing is included for solder connections.

Step 1. Position the MaxFan module next to the fuse block as shown.

Step 2. Route the PWM control cable down to the bottom of the radiator near the fan power module for connection at the bottom.

Step 3. Carefully unplug the connector from the fan power module since it is constantly powered, then cut the small gage red wire about 1  $\frac{1}{4}$  inch from the connector, as shown. You may also need to cut back the sleeving over the cable bundle to have sufficient wire length to make the connection in Step 5 below.

Step 4. You will now make a connection from the MaxFan PWM cable to the wire you just cut. (Heat Shrink tubing is included in the installation kit if you are soldering.) Using one compression connector (or soldering), connect the MaxFan PWM Control cable RED wire to the RED wire going to the fan power control connector.

Step 5. You will now make your second connection from the MaxFan PWM cable to the other wire end created when you made the cut in Step 3. Using one compression connector (or soldering), connect the MaxFan PWM cable BLACK wire to the cut RED wire of the fan power module cable bundle.

Step 6. Some installers like to spraypaint the compression connectors black for weather protection and looks, and other have used the "Liquid Electrical Tape" (not included) on the connectors. (I do not recommend regular plastic tape.) Next, plug the fan power module connector back into the module, then secure the cables with a couple of cable ties as required.

Step 7. Connect the ground wire from the MaxFan module to the negative battery post clamp. Use the supplied 8 mm nut as shown. (DO NOT remove the existing nut on the battery post clamp. The nut is special and will not work with the ground lug.) For a dry sump engine, remove a nut at the bottom of the oil tank, and install the ground lug there.

Step 8. Route the Sensor cable from the MaxFan module to the new engine temperature sensor and carefully plug the connector into the sensor.

Step 9. Two variations of the Fuse Panel have been identified. Follow the photo that corresponds to your version. Open the Fuse Panel cover and route each of the MaxFan power cables to the locations shown in the photos. Remove the factory installed fuse at each location and install them into the Add-a-Circuit connectors. Then plug the Add-a Circuit connectors into the fuse panel where the factory fuses were removed.

Step 10. A small notch must be cut in the fuse panel cover as shown to avoid crimping the 2 power wires installed in Step 9 above. The cover can be removed and the notch cut carefully with a sharp knife. Make certain that the notch will align with the wire locations.

Step 11. The MaxFan LED indicator can be routed into the cabin how ever you want, and to where ever you desire, only take care to protect the small cable. The recommended location for the LED indicator is tied to the cable harness above the rear view mirror. The cable can then be routed under the windshield trim back to the engine compartment as shown in the photos. Cut short lengths of the foam strip to hold the LED cable up behind the windshield molding. If you start at the rearview mirror, excess cable can be hid in the engine compartment. In the photos, the cable was pulled back out of the crevices to show the routing better.

Step 12. Make certain the MaxFan module will not interfere with the hood frame structure when the hood is closed. Use a few of the plastic ties to neatly secure all the routed cables. Attach the MaxFan module as desired using the cable ties and one or two screws, but make certain you will be able to remove the module cover screws to adjust the temperature switch, if needed.

Installation of the The MaxFan system is now completed. Perform the system test.

## **SYSTEM TEST**

**Power Test:** The ignition must not have been turned on in the previous 12 minutes or you will not see the power on indication (power is still on during the delayed on period). Start the engine while watching the MaxFan LED indicator. Within 3 seconds the LED indicator will light up for 3 seconds, then turn off.

**Temperature Test:** Let the engine idle and continue to warm up. Turn OFF the Airconditioning System. Select the Coolant Temperature dash display, and watch as the temperature increases. At around 192 degrees (MaxFan default setting) the LED indicator should light up. The LED and fan will start and stop over the next several minutes as the cooling system draws in the cool radiator water and equalizes. The fan may only be running slowly during this test and therefore hard to hear.

**Engine OFF Fan Delay Test:** Turn off the engine. The latent engine heat will cause the temperature to rise and the fan will start running (if not already running). The fan will speed up to a high speed for around 6 minutes, then run at a slow speed for 4 minutes. In case of a weak battery, the delayed fan operation would stop early, and the LED Indicator will continuously blink 3 short blinks, for about 3 minutes.

Note: The battery voltage is monitored during the delayed fan operation, and will turn the fan off, if the voltage level goes below 11 volts. A good battery can run the fan at the high speed for one hour or longer. Also, at the cutoff point of 11 volts, you should still have enough energy in the battery to start the car.