MaxFan Adjustments

The most common reason to raise or lower the the Set temperature is the installation of an aftermarket thermostat (not 187 degrees) and/or when the temperature Sensor is not perfectly accurate. I have found that a <u>fan start (Set) temperature</u> of 5 degrees above the <u>thermostat temperature specification</u> works very well. For even temperature thermostats, you will have to pick 4 or 6 degrees. It is really just whether you want the fan to run somewhat more often, or somewhat less often.

Observe the fan operation and the coolant temperature during several trips. If you want the average coolant temperature a couple of degrees cooler, change the Temperature/Delay switch setting 2 degrees lower (the fan will run sooner and faster, on average). If you want the fan to run less, change the Temperature/Delay setting 2 degrees higher. Retest and readjust to make the fan operate like you want. Remember, when the fan is running near the Set temperature, it is running slowly, and uses very little energy, so don't worry about the fan running often – LED indicator on.

When is the Set temperature too low?

Probably, when the Set temperature is a couple of degrees *below* the thermostat temperature. This will cause the fan to run almost constantly, even in cool weather (like 50 degrees). Energy will be wasted to cool radiator coolant that would stay pretty cool with just the natural cool air flow. Of course, if the car is sitting idling, the fan will start running whether the fan is Set 3 degrees below the thermostat temperature, or 3 degrees above.

Changing the Set temperature

Note 1: You should remove the 2 Add-a-Circuit fuse connectors from the fuse panel for the following steps to prevent short circuits from accidental contact with circuit board components - replace when finished.

Note 2: When you open the MaxFan module in Step 1 below, you will find a small two pin plug, which can be used in case of a microprocessor failure to reconnect the ECM directly to the fan power module. Details are in the *MaxFan Bypass Plug installation and Troubleshooting* section.

- Step 1. To change the Set temperature, remove the 4 screws from the MaxFan module cover and locate the Temperature/Delay switch. See the Set Switch photo.
- Step 2. Referring to the Switch Setting Chart and using a small screwdriver, carefully push the switch tabs of each switch, 1 thru 4, to match the desired Set temperature setting.
- Step 3. Make sure the rubber grommet where the cables enter the MaxFan module is properly pushed down for a good fit to the cover. With the cover held in place, install the 4 screws.

Switch 5 Adjustment

Switch 5 only affects the operation of Track Mode. In the factory default ON position, the engine off delay is 17 minutes. In case of a weak battery, or just personal preference, you can change this to the normal off delay of 6 + 4 minutes, by changing Switch 5 to the OFF position, as shown on the Switch Setting Chart.

MaxFan Bypass Plug installation and Troubleshooting

If you have reason to believe MaxFan is not turning on the radiator fan as expected, and the engine coolant temperature is higher than usual, there could be a failure in the MaxFan unit. To diagnose this, refer to the Bypass Plug photos and perform the following steps:

Note: If you are unable to perform the electrical testing, just use the following directions to get the Bypass Plug installed. The factory components can then be professionally tested as usual. Contact me for advice and help.

- Step 1. First, please check all electrical connectors for proper installation and lack of damage.
- Step 2. If you know how, perform voltage checks on the fuses in the Add-a-Circuit adapters, otherwise skip to Step 3.
- Step 3. Remove the two Add-a-Circuit fuse connectors from the fuse panel to prevent short circuits from accidental contact with circuit board components, and then inspect the fuses for failure.
- Step 4. Remove the 4 screws from the MaxFan module cover and locate the Bypass plug and PWM cable connector.
- Step 5. Carefully pull the PWM cable connector loose from the circuit board and push the small Bypass plug into the PWM cable connector. The electrical circuit from the ECM to the radiator fan power module is now a direct connection the same as the factory configuration.
- Step 6. Reinstall the two Add-a-Circuit fuse connectors into the fuse panel to ensure the two original factory circuits are reconnected. Proceed with troubleshooting the fan motor and fan power module as you normally would.
- Step 7. The temperature sensor installed with MaxFan is the same as the factory sensor, and can be tested with an Ohm Meter if you have one.
- Step 8. If the testing seems to confirm a MaxFan micocontroller failure, contact me for directions about repair or replacement. It is possible to leave all cables installed by using the Bypass plug. It is then possible to just return the microcontroller circuit board.

Note: When reconnecting the the PWM cable to the circuit board, be certain to first unplug the Add-a-Circuit adapters, and then be aware that the connector has a polarizing tab to ensure the connector is installed in the correct direction.