

## **Porsche 928 Cooling Tips**

**Toll-Free Tech Hot Line:** 

877-FOR-928M 877-367-9286

Or

920-485-0928

Or

info@928motorsports.com



The 928 has a "right-sized" cooling system. Its just big enough to do everything it needs to so long as all the parts are in optimal condition. But, as cooling cores get partially clogged, fan shrouds get broken, and fans spin slower and slower, most 928 owners will report that their temperature gauge is starting to rise. And let's not forget — every modification to increase your HP can be expected to burn more fuel, and create more heat!

The danger is over-heating the motor, warping the heads, and blown head gaskets. A very expensive repair. Here are some ways to bring your temps back down before this happens.

**Anti-Freeze:** Do not run a higher concentration of anti-freeze than you need to protect your engine from the coldest day it is likely to encounter. Only use 50/50 anti-freeze/water mix if you are in the cold winter regions. If your climate is hotter, your engine will run cooler with 75% water and 25% anti-freeze. You must have *some* anti-freeze because we want the anti-corrosive additives and water-pump lubricants that it provides. But increasing the water content in your coolant mix will help bring your temps down, if you don't need the very lowest freezing point in your location.

**Radiator:** The stock radiator on your 928 is equipped with plastic end-tanks. They become more brittle with age until they crack and leak. We have seen all kinds of "fixes" for the cracked plastic, and non of them work for very long.

Even if your end tanks are not leaking, the coolant core will become partially clogged over time, meaning that fewer and fewer tubes are actually passing water. A new radiator with all-aluminum end tanks solves both problems.

Our radiator is manufactured to the maximum capacity possible to improve the cooling. It is 1/4" wider in the cooling core (center), and the same width and height as the largest radiator Porsche ever put in a 928. It is compatible with our supercharger kits, as well.



Our radiator installation instructions are downloadable from our website. Have a look at them!



Now lets talk fans. For simplicity, they are called "*Pusher*" fans (in front of the radiator pushing air in) and "*Puller*" fans (behind the radiator, pulling air in).

Pusher Fans, all models: Also called the "Auxiliary fan" because it only comes on when the engine is hot, or the Air Conditioning is on. The stock auxiliary fan is rated at 1200 CFM (Cubic Feet per Minute) and the new one is 2000 CFM.

Puller Fans, 1978-86 Models: These cars have a belt-driven fan off the crankshaft. There is a fan clutch in the center that is supposed to seize up and engage when the motor gets hot, driving the fan. It is likely that the clutch is not working well anymore, and that means the fan will not pull much air through the radiator. We have a kit to replace this old belt-driven fan with a modern and efficient



electric fan. It comes with its own wiring harness and is easy to install. You don't even have to drop the coolant out of your radiator to put it in.

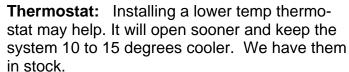
Puller Fans, 1987-95 Models: On 1987-95 928's, replace your old electric fans and plastic shroud with a more powerful fan and effective shroud system. Our new fans are much more powerful than the stock fans, and compatible with your electrical system. We also have new air dams to go on top of the radiator to hold your air intake tubes.



**Broken Fan Shrouds:** Any fan shroud that is broken is allowing air to go *around* the fan rather than through it The shroud is important! Replace a fan with a broken shroud with a new one.



Air Dams: The air dam sits on top of the radiator and seals between the radiator and the hood. In its original form, it also held the cold air intake funnels for the engine. We see these removed quite often when new "cold air intakes" are fitted, and it is a mistake. You do not want any air to be able to go *around* the radiator. If yours is lost or broken, we have nice all-aluminum air dams in stock.





**Water-Wetter:** There is an additive called "Water-Wetter" that adds a surfactant to the water so it gets into greater contact with the uneven metal inside the motor, allowing it to transfer heat faster. It works. It will not fix a bad cooling system—but on an other-wise good cooling system that is struggling to keep up, it helps.

## 1987-90 models with Moveable Louvers:

Porsche 928's from these years are equipped with moveable louvers operated by an electric motor to regulate air flow through the radiator. The system was known to cause over-heating when it failed, and they were discontinued by the factory in 1991.

Your 928 may or may not have moveable louvers. This picture shows the motor head in front of the radiator. If you see this, your car still has the moveable louver system in it. Take a moment to remove it entirely or at least disconnect it and wire the louvers open.



**The Engine Belly Pan:** Where the engine belly pan on the 16v cars was more of an option, the cooling system on the 32v cars really benefits from it. If yours is broken or missing, and you can't get the temps down even at highway speeds, then this is likely to help you. We have an all-aluminum model that is much tougher than the original fiberglass unit.