

MGA Radiator Shroud Installation Instructions

Please Read: This shroud fits all years MGA. Installation takes about 60 minutes (two hours without air-tools). It is necessary to remove the radiator to install this shroud. For best results, please follow the instructions.

1. Drain radiator fluid.
2. While fluid is draining, remove the bottom four (and loosen the top two) bolts holding the radiator in place.
3. Disconnect the top radiator hose by loosening the clamp closest to the radiator.
4. Disconnect the bottom radiator hose by loosening the clamp at the bottom of the metal "T."
5. Shut the radiator drain tap if you have not already done so.
6. Disconnect the 4" diameter air ducts on the left and right sides of the radiator to make room for pulling the radiator up and out of the car. Lay towels over the fenders and in front of the radiator (at bottom) to protect your painted surfaces from scratching.
7. Pull the radiator forward to clear the 4" metal duct pieces, then pull the radiator up and out. It is helpful to have a second person hold the bottom radiator hose to keep it from hanging up.
8. Important: make sure your fan belt is tight now! If your belt is not tight, your water pump will not circulate coolant properly, and your fan and radiator shroud will not be effective.
9. Remove and discard the long gaskets that fit on the radiator mounting flanges (sometimes they are stuck on the flanges or on the car or are missing altogether) and place the shroud on the radiator (it only fits one way; line up the flanges).
10. Lower the radiator/shroud assembly into the car. This takes a little effort, as the bottom of the shroud will press on the fan until it is in position. Again, two sets of hands are helpful but not essential. Thread two of the mounting bolts. Now reconnect the radiator hoses, and thread- but don't tighten--all six mounting bolts.
11. Move the shroud left/right and up/down as tolerances allow to center the shroud on the fan as best you can before tightening any mounting bolts.
Important: First tighten left hand (US driver's) side (3 bolts), then pull the shroud taut across the radiator with one hand while tightening the other 3 bolts. This insures a snug fit to the radiator, even when heat causes the plastic shroud to expand slightly. Make sure the fan clears the shroud at all points.*
12. Tighten the radiator hose clamps and refill the radiator with coolant.
13. Reconnect the 4" ducts.

****More information on reverse****

*This shroud fits all MGA's. If yours is not fitting, check that your engine mounts are not cracked, and your rubber blocks are in good condition. If your car is customized with a non standard fan, or engine, etc., you may modify the shroud using woodworking tools like a jigsaw or sharp chisel or router.

#P1103A

Radiator Shroud Effectiveness Data

At idle (1200 rpm), this shroud increases measured average velocity of air over the radiator surface from 13.3 feet/second to 16.0 feet/second.

This average velocity increase results from drawing air through the sides and corners of the radiator that previously (without a shroud) had very little flow. Air flow measured through the center area of the radiator showed no change.

The net effect is a 20.0% increase in average velocity which is equivalent to a 20.0% increase in the volume of air being drawn through the radiator (cfm).

This increased cooling capacity will lengthen the amount of time you are able to leave your MGA idling on a hot day before overheating, or even prevent overheating entirely, depending on the outside temperature, your idle speed, coolant mix, etc.

This shroud will not lower your normal operating temperature. That temperature is reached quickly without radiator involvement, and is determined by your thermostat (usually 160° to 180°F) The shroud will, however increase your MG's capacity to cool, thereby keeping your car from exceeding your normal operating temperature as severely or as often as without a shroud. In essence, it helps delay or prevent overheating.

At speed, the radiator shroud is much less important. Non-rigorous experimentation shows approximately an 8°F drop in operating temperature at 55 mph on a 75° day. This figure is based on operating an MGA without a thermostat (in order to reach a steady-state condition) both with and without the shroud while recording the gage temperatures.

Other Important Points for Maximum Cooling

1. Make sure you run a proper 50/50 coolant/water mixture.
2. Use a surfactant additive like Water Wetter® for greater efficiency.
3. Make sure your coolant system is full, and your radiator cap fits tightly to avoid evaporative loss.
4. Make sure you are not missing the felt packing piece (mounted on the bonnet underside) for sealing the air gap over the top of the radiator.
5. Make sure your timing is properly set. Poor timing = Overheating.
6. Make sure your thermostat opens fully to allow maximum coolant flow to the radiator.
7. If your radiator is old and filled with mineral deposits, no amount of "extras" will be a better remedy than a new core.