MGB Radiator Shroud Installation Instructions

Please Read: This shroud fits '62 through '76 MGBs. Installation takes about 90 minutes if all goes well (two hrs. without air-tools). For best results, please follow these instructions.

1. Drain coolant using the tap at bottom of radiator. Before the radiator is unfastened, protect your paint by placing a towel or rags just in front of the lower part of the radiatior (behind oil cooler).

2. While coolant is draining, remove all six bolts holding the radiator in place.

3. Remove all bolts holding the metal radiator surround in place, except for the top right (over oil cooler hoses) bolt. Loosen this bolt about half way. Lift the surround over and away from the radiator (toward rear of car) using said last bolt as a pivot.

4. Remove and discard the long gaskets that fit between the radiator mounting flanges and the metal radiator surround (sometimes they are stuck on the radiator flanges or on the surround or are missing altogether). This shroud will take their place.

5. Disconnect the top radiator hose by loosening the clamp closest to the radiator. Close the drain tap if you have not already done so.

6. 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.

7. Now, the shroud must be set in position. This is a bit tricky! Without detaching the lower radiator hose, pull the radiator up and forward so its front edge rests on the towel you placed in step (1.). This maximizes the clearance between the radiator and the fan. Orient the shroud properly (the bottom of the plastic shroud is identified by the bevel on the lower, driver's side corner), and "press" the plastic shroud down between the radiator and fan, until it snaps over the fan. This may require the radiator to be pushed off of the towel as you press down.

Note: if you need to remove the plastic shroud for any reason, it will seem to be trapped. Rotate the fan by hand as you pull the shroud up in order to "squeeze" the shroud back between the fan and radiator.

8. Replace the metal radiator surround with just one wrench-tight bolt per side. Re-mount the radiator to this surround with just one finger-tight bolt per side (thereby trapping the plastic shroud where the old gaskets of step (4.) were). Replace the upper radiator hose & clamp.

9. Now adjust shroud position until it is centered on the fan. Clearance between the shroud and the fan is tight (by design!), so take your time and be as accurate as you can. When you feel it is in place, wrench-tighten the fingertight bolts, and start the car to be sure you don't hear a rub contidion*. Replace the rest of the surround and radiator flange bolts. Refill the coolant and you are done!

*If you are unable to achieve a no-rub condition, remove the radiator completely and position the shroud on the metal surround to see its relationship to the fan. If you have a cracked motor-mount bracket(s) or old, worn rubber motor-mount blocks, your engine will be sitting too low on one side or both. Also if your MGB has ever sustained frame damage or other alteration, a standard fit to the shroud may not be possible. However, the shroud IS easily modified using sharp woodworking tools. The lower-most center portion of the shroud may be removed and discarded without significant performance reduction. The '68 - '71 6-blade metal fan also may be substituted for the original early 3-blade fan as its diameter is about 3/4" smaller..

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

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 without a shroud has 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 MG 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 MG 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 heat transfer 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 foam rubber packing piece for sealing the air gap at the top of the radiator.

5. Grille badges block air flow. Do you have more than one? Racers would even remove every other grill vane for better cooling.

6. Make sure your timing is properly set. Poor timing = Overheating.

7. Make sure your thermostat opens fully to allow maximum coolant flow to the radiator.

8. Make sure your fan belt is tight so your water pump can properly circulate coolant.

9. If your radiator is old and filled with mineral deposits, no amount of "extras" will be a better remedy than a new core.