

54CS031

## RADIATOR FAN REPAIR

First off, this is a Renault item. It is available from RENAULT WEST SERVICE CENTER in Gardena, California for \$48.00, which is considerably less than it can be purchased for at your local LOTUS dealer!! (Imagine that!). Out-of-towners check with your local Renault Dealer.

If your car begins to overheat more rapidly in traffic than usual, the chances are your troubles will be found in the operation of the thermostatically controlled radiator fan, which is bolted to the front of your radiator. To check this out, first, shut off the engine, then, with the switch on, press the fan switch on the dash to the second position. This is the manual override for the fan motor. Even if the thermostatic switch is bad, the fan should work. If your fan sounds fine, warm up the engine to 110° C. (1/32 of an inch on the hot side of the line between 90° and 130°) on your temp gauge. If the fan does not come on with the dash fan switch in the OFF position, the switch is bad. It is located on the left side of the radiator and is also a Renault item. If, however, the fan does not go on when the ignition is on, and the dash switch is in the second position, we must proceed further. First, check the fuse which is found on the right side of the engine compartment in Series One Europas. On Series Twos, the fuse block is located below the dash on the passenger side of the tunnel, if the fuse is blown, replace with a new 35 amp fuse. Do Not replace with higher amp fuse!! If the new fuse does not blow, chances are pretty good that you'll find something loose in the front compartment that got into the fan blades, stopped it, causing the fuse to blow. Always keep things up front tied down, otherwise they tend to end up in the fan! If new fuse blows immediately, you will have to check further; (a point we will pick up later in this article).

If fuse is not blown, disconnect the two fan leads from the relay box located on the top front edge of the right fender well, just above the radiator. These are the two black wires (one with a short black sleeve and one with a red sleeve). Connect the red tipped wire to the positive terminal on the battery. Connect the black tipped wire to the negative terminal. If fan operates now, the trouble is in the fan relay. This is also a Renault item. If fan still does not operate, then the fault is probably in the fan motor itself, which brings us back to the new fuse that blew earlier, because the same applies in that case.

To remove the fan motor, you must remove motor, shroud and fan as a unit, and to get at one of the four nuts that hold the unit onto the radiator studs, you must remove the right head light unit from the fender. Care must be taken in removing the chrome ring around the headlight; however, should you happen to ruin this item, it is an MGB piece! Having removed the unit, remove the fan from the motor shaft, being sure to note how the fan blades are installed, as it must be re-installed exactly as it originally was. Now, being very careful, remove the long bolts with screw heads from the other end of the motor, and remove the cap; attempting not to dislocate the brushes. If you were careful, and the brushes are still broken, worn badly, dislocated or burned, chances are this is your problem. If everything seems to look OK, it is probably your armature that is bad. Any of

the above parts that are bad can be purchased from Renault. However, should your armature be bad, and you decide to have it rewound, take it to an electric motor shop and make sure that they use wire of the same diameter as the original, and that they use the same exact number of turns as the original.

Upon re-installation of this unit, make sure when fan is running, that you can feel air being blown out of the front fender in front of the right wheel. This is mentioned because the two motor leads can be reversed which will not hurt the motor, but will cause the air to be moved away from, rattler than through the radiator.