

A Cool Gamma

By Theo Kyriacou

One of the first problems I had with my Lancia Gamma and the one out of the two times I had to resort to calling the AA for rescue was when all of a sudden there was a leak from the radiator top hose. This happened only a few weeks after I bought the car and I was quite surprised as all the hoses looked quite new and there was a receipt with the documentation I received showing that all the hoses were recently replaced. The problem was that the hose was damaged from the inside. It seems it is quite common on Gammas to remove the thermostat which normally lies in a housing at the bottom of the engine and replace it with a thermostat in the top radiator hose. The theory seems OK but in my case the thermostat used (like most 'common' thermostats) had sharp edges and managed to cut the hose from the inside. The AA man was very good and managed to bandage the hose to get me home. My task was then to replace the hose and the thermostat. At the last Consortium AGM some members were interested in my home-made thermostat modification hence this short write-up to allow anyone else to do the same to their Gamma. I went to my local motor factors who were nice enough to let me go through their stock of radiator hoses to find a suitable replacement. The best match I found was a Quinton Hazel hose (part number RH1801) which was generally the correct shape with an extra bit at one end and a larger diameter than required at the side where it fits onto the radiator. The hose looks something like figure 1 and it is intended for the Vauxhall Nova (1.0 litre) or the equivalent European Opel Corsa. The hoses should, therefore, be readily available from any Vauxhall dealer.

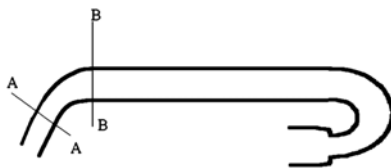


Figure 1

By cutting the hose along the line denoted by B, a hose very similar to the original is obtained. The part that fits on the radiator is, however, larger than it should be so some 'padding' is required. It also means that the larger end of the hose can be made into a very nice thermostat housing. The next task was to find a suitable thermostat. Once again my friendly motor factor people were very helpful and let me have a look through their Intermotor thermostat catalogue which contained drawings with dimensions for all the thermostats they make. I was looking for a thermostat that would fit inside the hose but without any sharp edges to cause damage to the hose. The best thermostat I found was Intermotor part number 75007 which is a thermostat for the Renault 5 (1985 onwards). Unlike most other thermostats it does not have a flange with sharp edges but instead it is like a thermostat built into a slightly tapered pipe. The opening temperature is quite low at 83 degrees C which seems a good idea for a Gamma given their unenviable reputation for overheating. There are other similar shaped thermostats with slightly different opening temperatures, for example the Renault Espace at 86 degrees C and the Renault 12 and Renault 21 thermostat at 89 degrees C. Whichever thermostat is to be used it is vitally

important to ensure some water flow even when the thermostat is closed. With the thermostat mounted so near the radiator, the engine could get hot without the thermostat 'sensing' the temperature in time unless a water flow past the thermostat is created. A small hole should be drilled in the thermostat body to allow such a flow. The size of the hole should be such that a reasonable flow is achieved without creating a cooling effect. In other words, the larger the hole the longer it will take for the engine to reach normal temperature. I decided on a 2mm hole and it seems to work fine. By cutting the hose along the line denoted by A (and discarding the part of the hose between cuts A and B) there is a short straight length of hose left between A and the end of the hose. This straight length should be about 90mm in length. The short straight length is fitted on the radiator top hose connection point and then the thermostat can be inserted into the end of the short hose. The thermostat should be fitted with its narrower side nearest the radiator (i.e. with the thermostat rod facing away from the radiator). The hole drilled in the thermostat should be at the top. The top hose then fits to the radiator over the new thermostat/hose assembly. The end result looks quite good I think as you can probably see in the photograph.

Summary:

1. Hose: Vauxhall Nova 1.0 - Quinton Hazel RH1801
2. Thermostat: Renault 5 (1985 →) - Intermotor 75007 or Halfords HTS610
3. Drill 2mm hole in thermostat body.
4. Cut hose along A and B. Use short piece from A to end of hose on radiator and fit thermostat into this short piece.
5. Fit hose and tighten all connections.
6. Refill cooling system with water and antifreeze!



The final product