

# Lagondaforum: 2 litre Thermostat

## 2 litre Thermostat

*Written by Mike Fountain at Dec 05, 2010 3:43 pm*

Can anyone please suggest a suitable unit for fitting to my 2 litre High Chassis. I can cope with some modification but would appreciate some guidance as to where to start. My downdraft head is working well but the car runs very cool.

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## Re: 2 litre Thermostat

*Written by mandb57 at Dec 08, 2010 6:54 pm*

This may not help BUT I had a similiar problem with our MG 18/80 which did not have any provision for a thermostat at all. In this case I bought a modern thermostat for a 1970 mini from the local motor factors and them machined a housing in aluminium to hold the thermostat body. The outer end of the housing was turned at both ends so the top radiator hose could be cut and the unit installed in the middle. A relief pipe was fitted between this unit and the bottom radiator pipe to allow some flow when the thermostat was closed. Whilst this worked on the MG I dont know where you could insert it on 2 litre. Our 2 Litre high chassis currently runs without any thermostat in the housing and the engine runs cold. (especially in the current cold weather!)

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## Re: 2 litre Thermostat

*Written by Mike Fountain at Dec 09, 2010 11:13 am*

Thanks Mike I will have a look at the mini unit.

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## Re: 2 litre Thermostat

*Written by Colin M34 at Dec 12, 2010 12:24 pm*

Hi Folks

Here's my contribution to the debate on thermostats for Two Litres. The same comments also apply to Three Litres with separate radiators, but not to very late Two Litres, 16/80 and Three Litres with the ZMBS chassis which all have thermostatic slats.

First let's consider the radiator. It's actually in two parts, soldered together. The core is connected to the header and footer tanks. The by-pass is made up of the sides of the shell separated internally from the core by blanking plates. This provides a short circuit path for the coolant so that when mixed with water passing through the core, it will warmer than if it all passed through the core. Very useful when the car is cold!

The header tank has a separate area connected to the by-pass, also separated by a blanking plate. When the engine is warm, because the core is a high resistance path, the by-pass needs to be blocked off, so the thermostat acts as a changeover switch to divert water to the by-pass when cold and to the core when hot. An internal spigot on the thermostat housing passes through the blanking plate and you can see the little holes in it which allow the water through the by-pass. These are blanked off by the thermostat when the engine is warm, so that if a car is running without a thermostat, on a hot day in traffic it will overheat!

The Two Litre cooling system is very efficient and I suspect anyone who has fitted an electric fan either does not have a working thermostat or the core is very badly blocked up and needs de-scaling.

For early high chassis cars such as mine, I found a generic unit with bellows linked to a rotating vane which would act as a changeover. I made up a capsule out of thin brass sheet which slid into the early housing and works well. Ideally you should avoid the 'plug' type thermostat as used on a Mini. It will not block off the by-pass when hot.

Around 1930, Lagondas were fitted with a new kind of thermostat which has a vane and a spiral bimetallic spring. The vane spindle passes through the top to a little dial. This allows the user to vary the spring tension to set the temperature the engine runs at. This is an excellent arrangement but you might find that the spring has rusted through or the whole assembly has been removed. Thermostat units containing this vane can still be found at autojumbles, I paid £20 for one at Beaulieu this year.

I hope these notes have been useful.

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Colin M34

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### Re: 2 litre Thermostat

*Written by Lagonda1928 at Feb 28, 2016 9:06 pm*

This is just a theory... however since fitting a new water pump to my High Chassis 2 litre, I have found that if running for a period above 2800 rpm on a Motorway etc that I lose water because it cant flow through the radiator quickly enough so rises up the radiator and then exits through the overflow. Whilst my radiator isnt new, it appears to be in reasonable condition. I think ideally I need something to reduce the flow from the pump and whilst I currently dont have a thermostat fitted, I suspect that the restriction this would create even when open would definately help... so that could well be another reason why fitting a thermostat is a good idea !

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