Supplemental Information for 434-156 Thermostat, with Sleeve, Bellows Type 434-155, Thermostat, with Sleeve, Wax Capsule Type

Triumph, Austin Healey, MGA, Jaguar and Sprite Midget cooling systems all incorporate a radiator bypass to allow coolant to circulate through the block and cylinder head while the thermostat is closed and the engine is warming up. This prevents localized hot spots from developing and keeps water moving past the thermostat, which, along with the entire engine, warms up faster as a result. The bypass openings vary in size but if they remain open, some coolant will circulate through the engine but it will not go through the radiator. The original thermostats incorporated a sleeve which closed off the bypass as the thermostat opened, so nearly all of the coolant would go through the radiator. When the sleeve-type thermostats disappeared, most owners simply substituted a conventional thermostat. Some blocked off or restricted the bypass with a variety of plugs, sleeves and inserts to compensate. We now offer both the original bellows type as well as a wax capsule type thermostat.

434-156 Thermostat, Bellows Type, 160°F (For 4-7 lb Radiator Cap)

For TR2-4A, AH 100, 100-6, 3000, MGA, JAG, Sprite Midget. And a long list of other British cars. This is Moss reproduction of the OE type *bellows* thermostat. It has a sleeve (1a) which moves to block off the by-pass when the thermostat opens. Suitable for systems using **4 to 7** lbs/sq in radiator caps, as originally fitted to these cars. You cannot use a 434-165 bellows type thermostat with a cap rated over 7 lbs/sq in is the pressure in the system will collapse the bellows, opening the bypass, causing increased operating temperatures and possibly, overheating. Healey: The original Healey 100 bellows thermostats opened between 158-167° F, or 70-75° C. At engine 3099 the 11K399 wax capsule thermostat was introduced to go with the 7 lb/sq in radiator cap. The new thermostat opened at 154° F or 68°C.



434-155 Thermostat, Wax Capsule Type, 160°F (For Radiator Caps Over 7 lbs)

Same applications as given above. This is a *wax capsule* type thermostat with a sleeve to block off by-pass. It is suitable for systems with pressures over 7lbs/sq. in because the wax capsule design is not affected by the higher pressure. This thermostat is also designed to fail "open" instead of closed. The sleeve (2a) is in the full raised position when cold, nearly touching the top mounting flange (2b). As this unit approaches the preset operating temperature and begins to open, the sleeve moves downward (along with the cylindrical body) to block the bypass port. When open, coolant flows through a gap between the inner cylindrical body and the top flange.

Healey: Section CCC.2 of the factory workshop manual notes that "A non-bellows wax element type of thermostat, interchangeable with the bellows type used previously, was fitted from engine No. 29F/2592 to improve the effectiveness of the car heating equipment." It opened at 182° F or 83° C.





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