



Thermostat

REMOVAL & INSTALLATION

1. Drain the engine coolant into a clean container, so that the level is below the thermostat housing.

CAUTION

When draining the coolant, keep in mind that cats and dogs are attracted by ethylene glycol antifreeze, and are quite likely to drink any that is left in an uncovered container or in puddles on the ground. This will prove fatal in sufficient quantity. Always drain the coolant into a sealable container. Coolant should be reused unless it is contaminated or several years old.

2. If necessary, disconnect the upper radiator hose at the water outlet.

Fig. 1: Thermostat mounting — Z24i engine

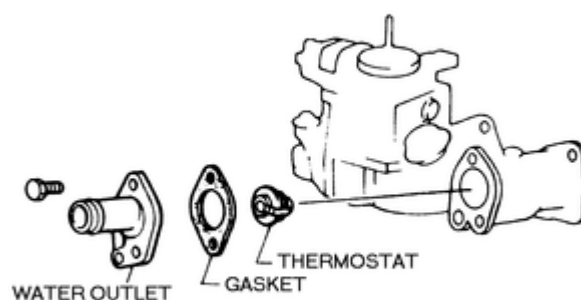


Fig. 2: Thermostat mounting — KA24E engine

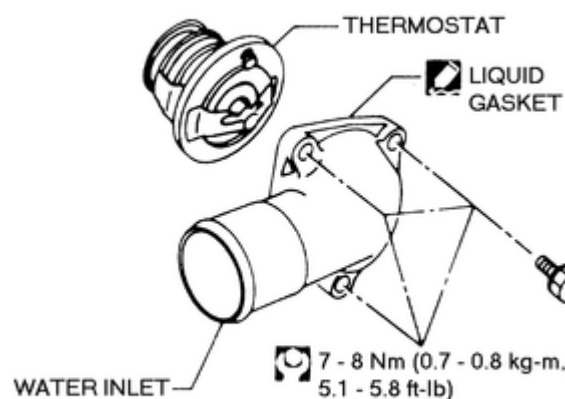


Fig. 3: The jiggle valve should always face upward —

KA24E engine

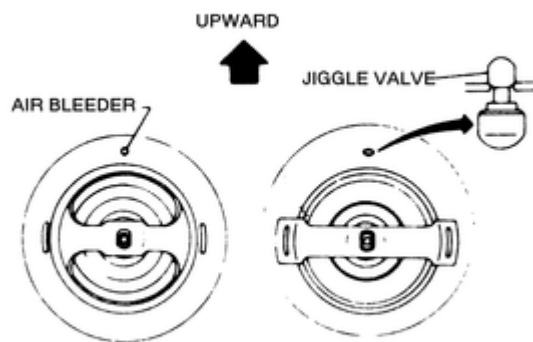


Fig. 4: Thermostat mounting — VG30i and VG30E engines

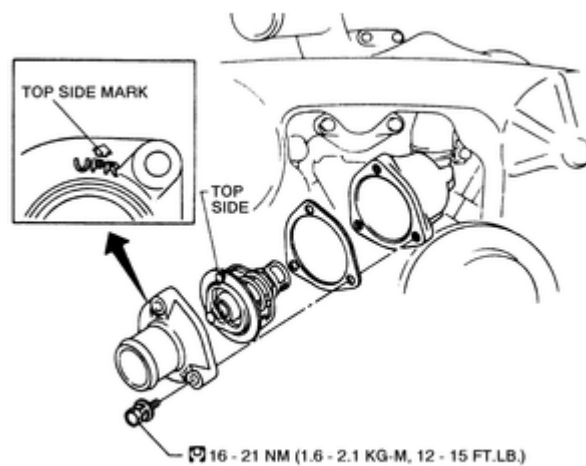


Fig. 5: Remove the thermostat assembly retaining bolts



Fig. 6: In some cases the hose may be left attached to the housing — note that the gasket is still attached to the housing. The gasket must be removed, the housing cleaned and a new gasket installed



Fig. 7: Remove the thermostat from the engine — other models similar



3. Loosen the securing nuts, then remove the water outlet, gasket, and thermostat from the thermostat housing.
4. When installing the thermostat, always use a new gasket with sealer and make sure the thermostat spring is facing the inside of the engine. The water outlet housing on VG30i and VG30E engines has the letters **UPR** and an arrow embossed on the flange edge; they should always be pointing up. The KA24E, VG30i and VG30E engines have a jiggle valve on the thermostat which should always be facing up. Water outlet mounting screws should be tightened to 12–15 ft. lbs. (16–21 Nm) on all engines but the KA24E, which should be tightened to 5–6 ft. lbs. (7–8 Nm). Refill and check the coolant level.

