



Water Pump

REMOVAL & INSTALLATION

1. Drain the cooling system.

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.

Fig. 1: Water pump assembly — Z24i and KA24E engines

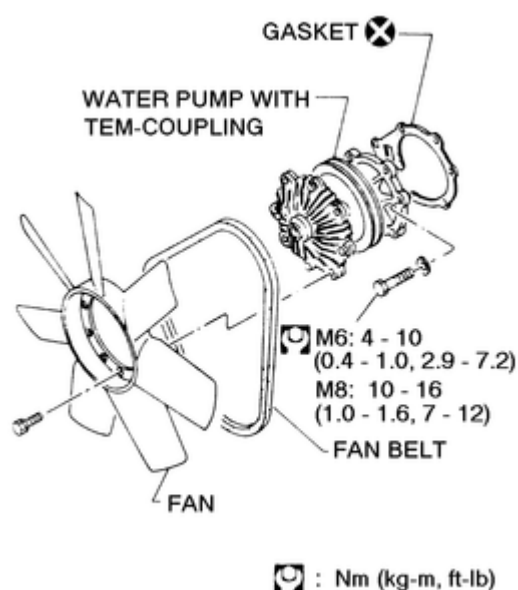


Fig. 2: Water pump assembly — 6-cylinder engines

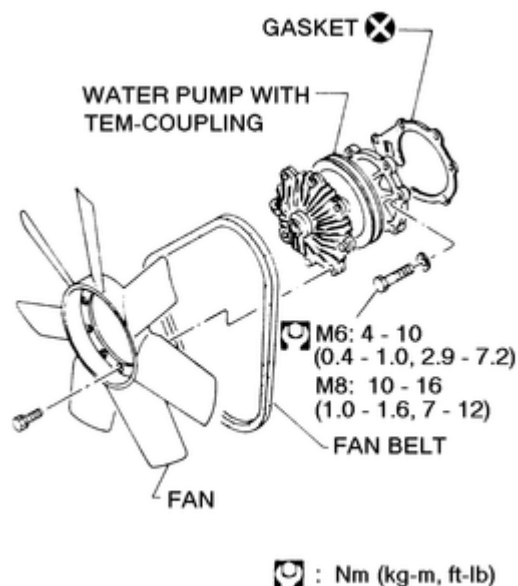


Fig. 3: View of the water pump assembly — VG30E engine



2. Remove all drive belts.
3. Unfasten the fan shroud securing bolts and remove the fan shroud assembly.
4. Unfasten the water pump retaining bolts (note the different size bolts on the VG30i and VG30E engines), then remove the water pump and fan assembly, using care not to damage the radiator with the fan.

NOTE: If the fan is equipped with a fluid coupling, do not tip the fan/pump assembly on its side, as the fluid will run out.

To install:

5. Remove all traces of gasket and/or sealant from the pump-to-cover mounting surfaces. Install the water pump and tighten the M6-size mounting bolts to 3–7 ft. lbs. (4–10 Nm). Tighten the M8-size bolts to 7–12 ft. lbs. (10–16 Nm) on Z24i engines, or 12–15 ft. lbs. (16–21 Nm) on KA24E, VG30i and VG30E engines. Always use a new gasket between the pump body and its mounting.

NOTE: The KA24E engine uses a liquid gasket. Carefully scrape any old gasket material from the mounting surfaces, then apply a 0.079–0.118 in. (2–3mm) continuous bead of liquid gasket around the entire mounting surface.

6. Install the fan shroud assembly.
7. Install the drive belt and adjust the tension.
8. Refill and bleed the cooling system (refer to Section 1), then start the engine and check for coolant leaks.

