1991 - 1995 Toyota MR2

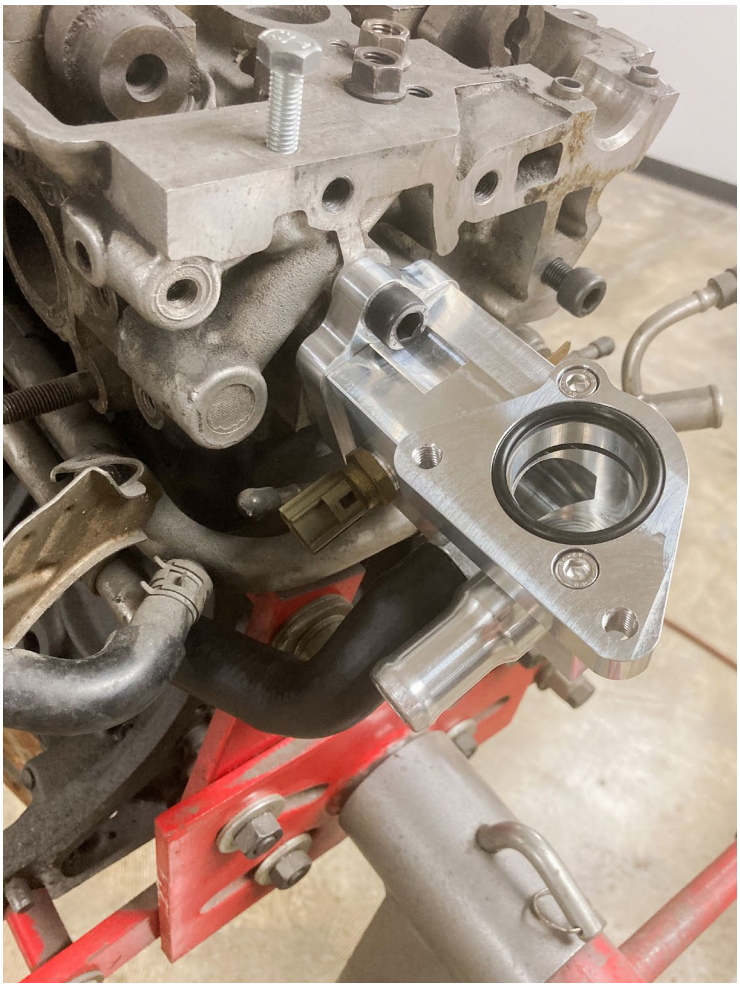
COOLANT TREE

INSTALLATION GUIDE PART NO. RXF-011202

INSTALL TIME: 1 - 2 hours

DIFFICULTY LEVEL: 3

TOOLS NEEDED: socket driver
13 mm socket (Gen 3)
17 mm socket
19 mm socket
7/8” wrench
6 mm allen key
8 mm allen key



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1. Begin by removing the OEM coolant tree from your vehicle. Please use the OEM Toyota service manual for this procedure. The coolant tree installation requires you to bleed the coolant system, if you are not capable of completing this task correctly we recommend not installing the product or having it installed by a professional mechanic.

Remove Racer X coolant tree from product box to begin pre-assembly. (Fig 1 and Fig 2)

Figure 1

Figure 2

2. Remove the (2) hose barbs from the coolant tree. Install the extended hose barb as pictured below, hand tight will be sufficient. Then, depending on which generation MR2 you have, install the remaining hose barb. The Gen 2 will use the smaller 5/8” hose barb, while the Gen 3/4/5 will use the larger 3/4” hose barb. (Fig 3, Fig 4 and Fig 5)

NOTE: The fittings below are designed to seal on the o-rings supplied. If the fittings are missing o-rings, please contact Racer X for replacements. **DO NOT** use any type of thread sealant on these fittings as this will lead to a leak.

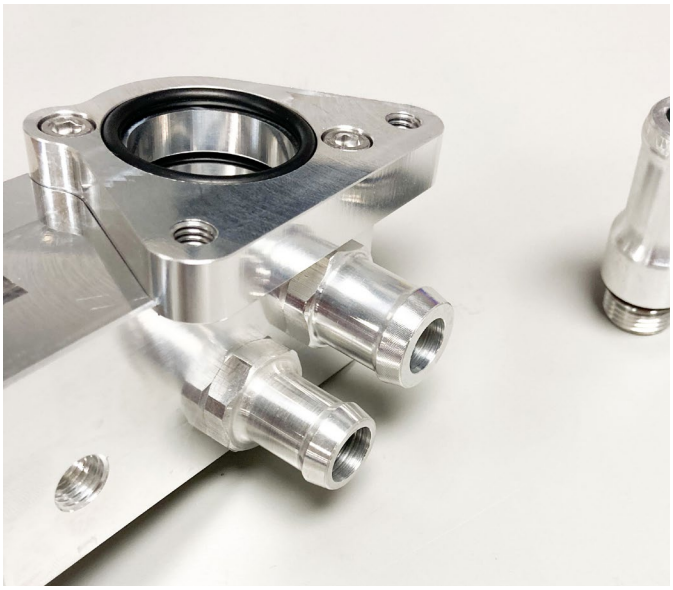

Figure 3

Figure 4

Figure 5

3. The hardware included inside the product box is to be used with the Gen 2. If you purchase the Gen 3/4/5 coolant tree, another box will contain the adapter plate and hardware for the installation. Gen 2 hardware will not be used with the Gen 3/4/5. (Fig 6)

Figure 6

4. Remove the coolant temp sensor using a 19 mm deep well socket and the gauge sensor using a 17 mm deep well socket. The parts circled will **NOT** be used in the new installation. (Fig 7)

NOTE: The cold start injector switch will not be used and is eliminated in the Racer X coolant tree installation. The kit also does not use the small coolant barb on the back of the coolant tree, this hose will need to be removed and capped at the supply source.

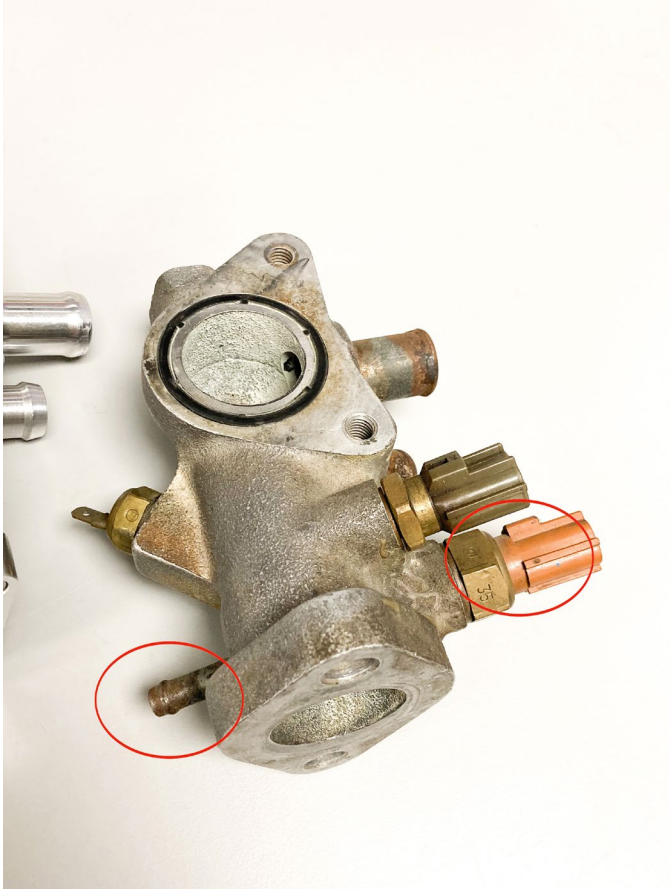

Figure 7

5. Remove the o-ring and crush washer from the plastic. Install the o-ring on the temp sender and install on the back side of the Racer X coolant tree. When the o-ring touches the surface, turn the fitting another 1/4 to 1/2 of a rotation. Do NOT over tighten this fitting as it will tear the o-ring and lead to a leak. The coolant sensor will be installed on the opposite side with a 12 mm crush washer below. Ensure that the crush washer sits on the conical portion of the sensor seat. Tighten the fitting until the washer touches the surface, then turn another 1/4 to 1/2 of a rotation. This will seat the washer. (Fig 8, Fig 9 and Fig 10)

NOTE: Crush washers are designed to seal with force, on machined surfaces. If there is debris or contaminants on either surface it can lead to a leak path.

Figure 8

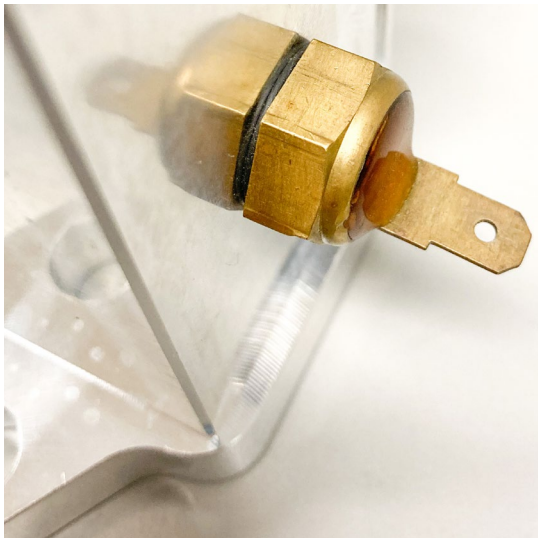

Figure 9

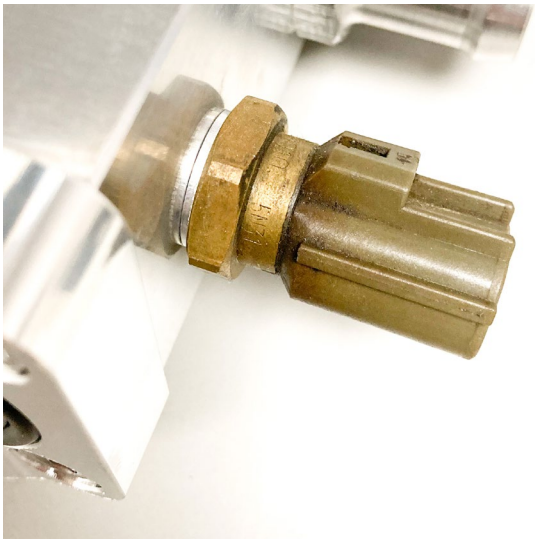

Figure 10

6. Make sure the cylinder head mating surface is clean and free from defects. **DO NOT** use acetone to clean this surface, as it will react with the o-ring material and lead to a leak. We recommend warm water and dish soap. (Fig 11)

Figure 11

7. **FOR GEN 3 INSTALLATION OF COOLANT TREE ADAPTER:**
Remove the M8 studs that are circled in red. Install the M8 studs provided in the adapter plate product packaging.

Make sure the mating surface on the cylinder head is clean. A new gasket will need to be installed between the cylinder head and adapter plate. Install (1) flange nut onto the single stud that is not removed.

Continue with installation instructions. (Fig 12 and Fig 13)

Figure 12

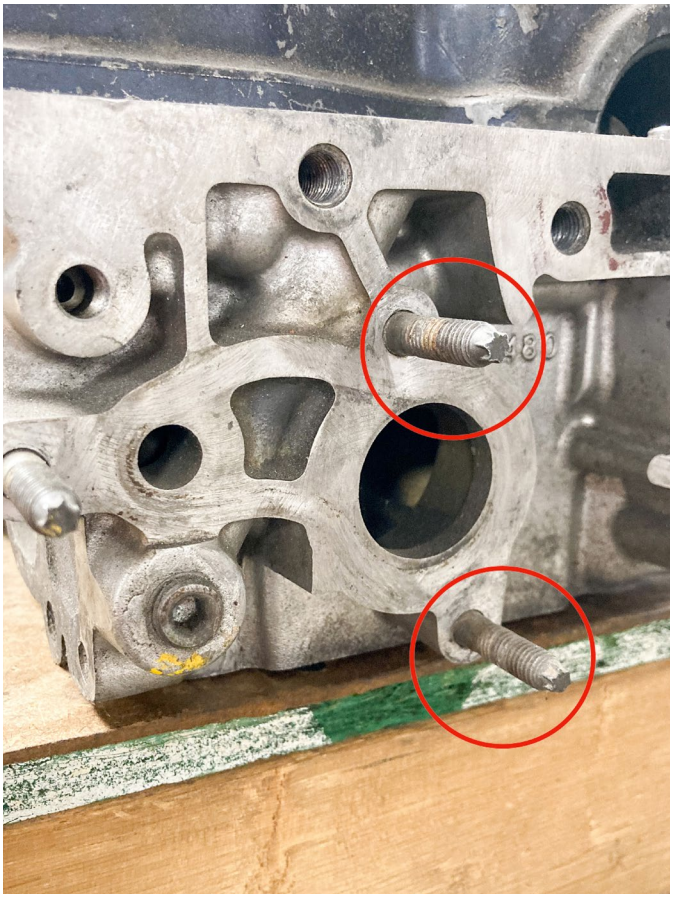

Figure 13

8. Install supplied hose onto engine hard line. Use a small amount of lubricate on the metal hardline to ease installation. Install spring into opposite side and push spring down roughly 3/4". It will need to touch the hose barb on the coolant tree. (Fig 14, Fig 15 and Fig 16)

NOTE: The spring is used to prevent the hose from collapsing and kinking. The spring must be installed for correct functionality.

Figure 14

Figure 15

Figure 16

9. Install the hose onto the shorter fitting. Be sure to slide the OEM spring clamps on first before pressing hose onto fitting.

With the hose installed, position the coolant tree to install the top bolt and finger tighten a few turns. Then rotate the bottom of the coolant tree and install the remaining bolt. The assembly will be difficult to turn, this is due to the spring and hose.

Tighten the (2) bolts on the cylinder head. (Fig 17, Fig 18 and Fig 19)

Figure 17

Figure 18

Figure 19

10. Installation is complete! Please visually check that hose is not kinking.

Re-install coolant neck with supplied stainless hardware using an M6 allen key.

Bring vehicle up to operating temperature after you refill coolant system and check for leaks. If you have a leak at either of the sensor fittings, turn them 1/8 of a rotation until leaking stops.

You will need to bleed the coolant system once installation is complete. Please do so by following the service manual procedure. (Fig 20 and Fig 21)

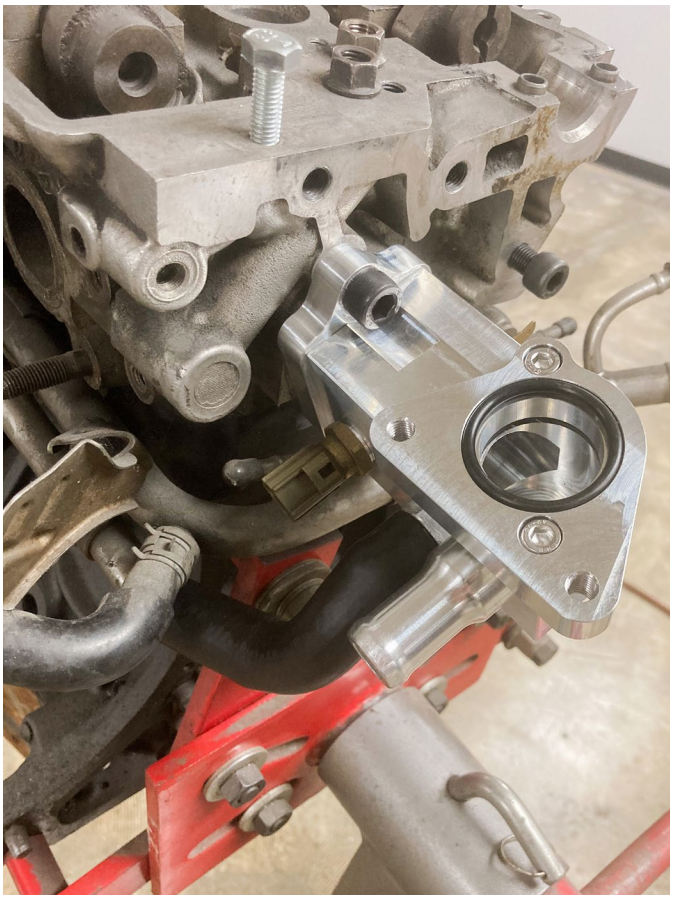

Figure 20

Figure 21