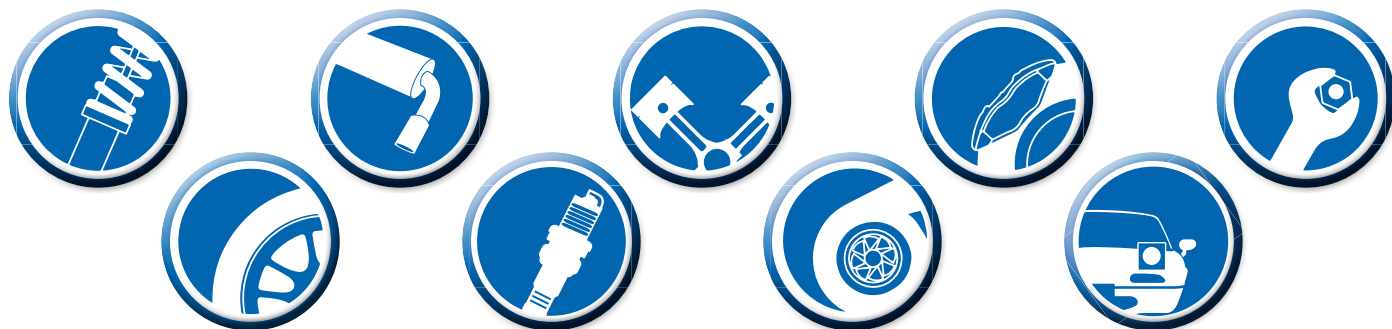


Flyin' Miata

INSTALLATION INSTRUCTIONS



NC RACE RADIATOR 09-19000



Thanks for purchasing our NC Race Radiator. If you have any questions during installation or suggestions for improvement to the product or the instructions - please don't hesitate to call or email.

WARNING: Not everyone can perform every installation. It is critical that you be honest with yourself in regards to your ability. We're more than happy to help, but there are only so many things we can do from the other end of a phone / computer. If in doubt, discuss the install with us before you dive in. Improper installation could cause injury and / or death!

Required tools:

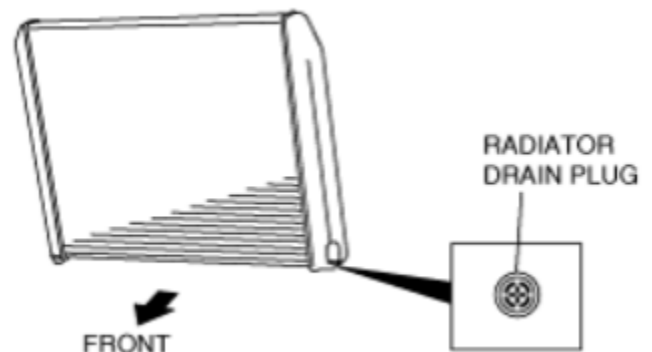
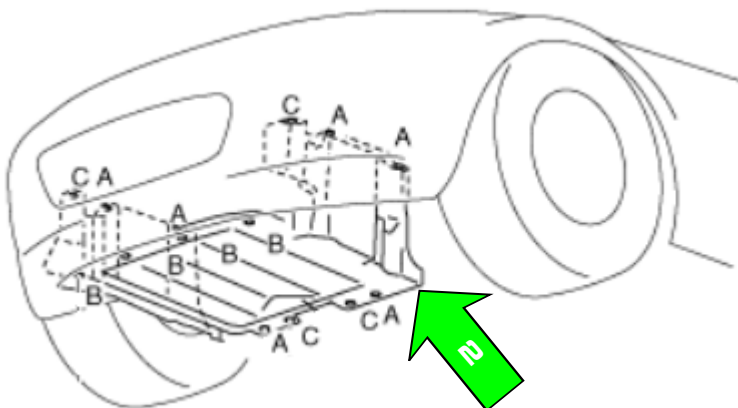
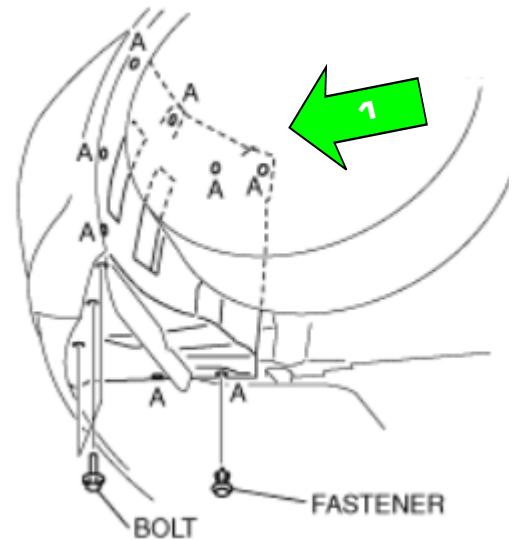
- Basic metric tool set (sockets/wrenches)
- Small flat blade screwdriver
- #2 Phillips screwdriver
- Drain pan
- Pliers
- Coolant
- Hose pick (recommended)

Torque specs

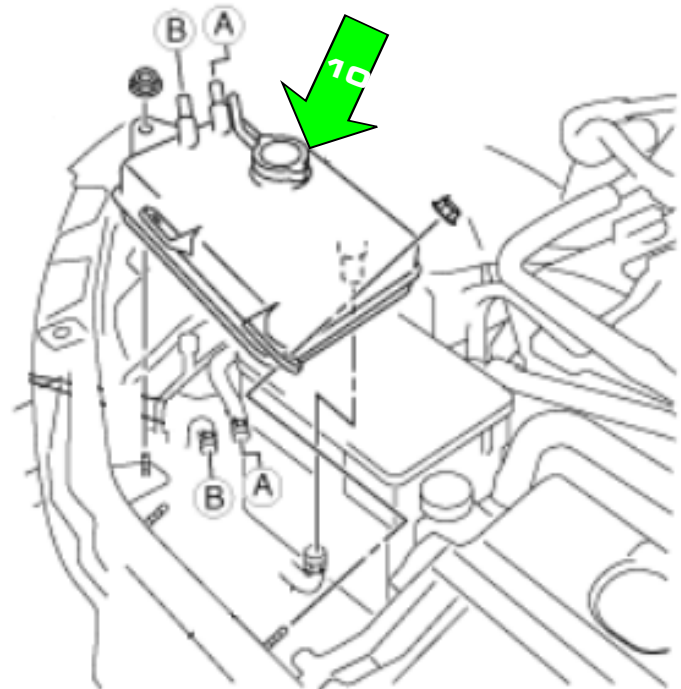
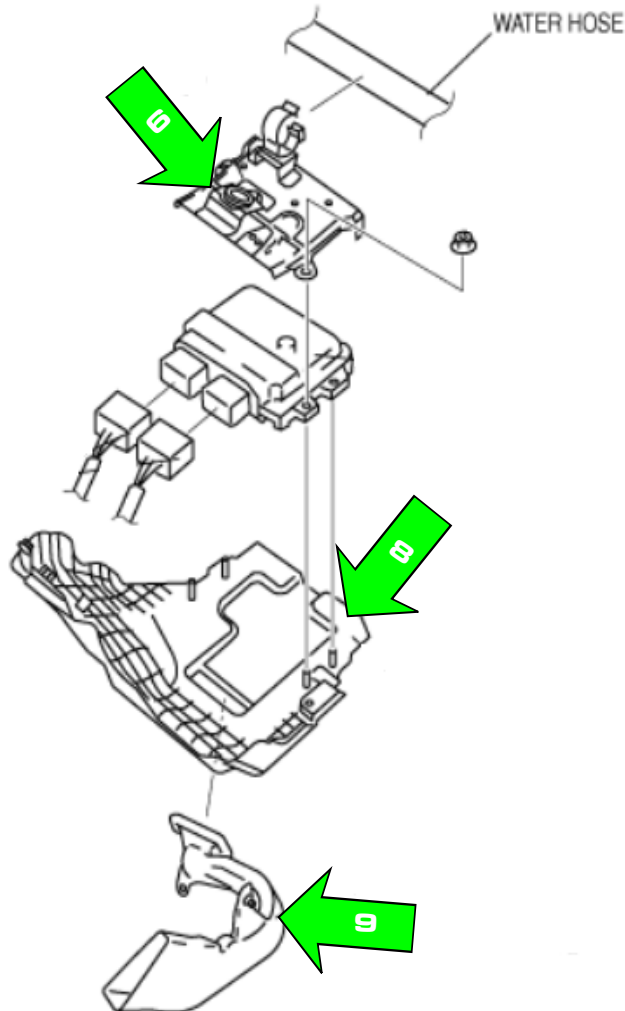
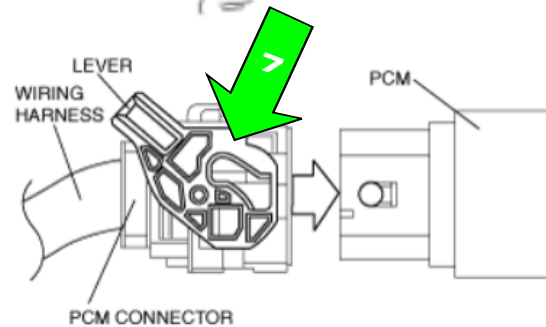
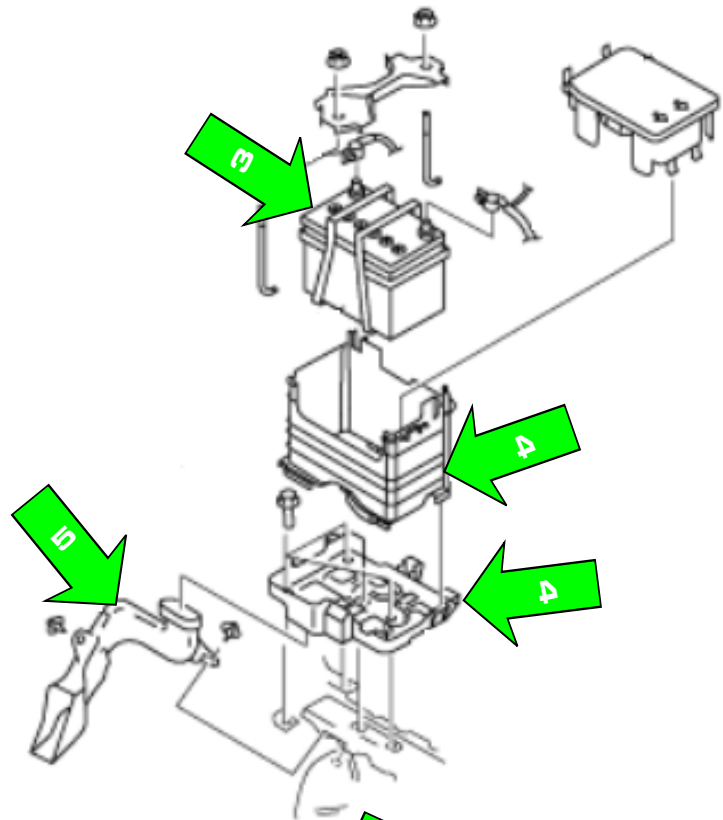
- Lower radiator brackets: 18 lb-ft
- Upper radiator brackets: 95 lb-in (not lb-ft!)
- Condensor mounting bolts: 86 lb-in (not lb-ft!)
- Power steering cooler mounting bolts: 95 lb-in (not lb-ft!)

These instructions follow the procedure laid out by the factory service manual, which leaves the AC condensor connected and in place while removing the radiator. This requires the installer to take extra care not to damage components when sliding the radiator out from behind the condensor. Alternatively, the AC can be evacuated and the condensor fully removed. While this does make things easier, however the requirement of recharging the AC is a considerable downside.

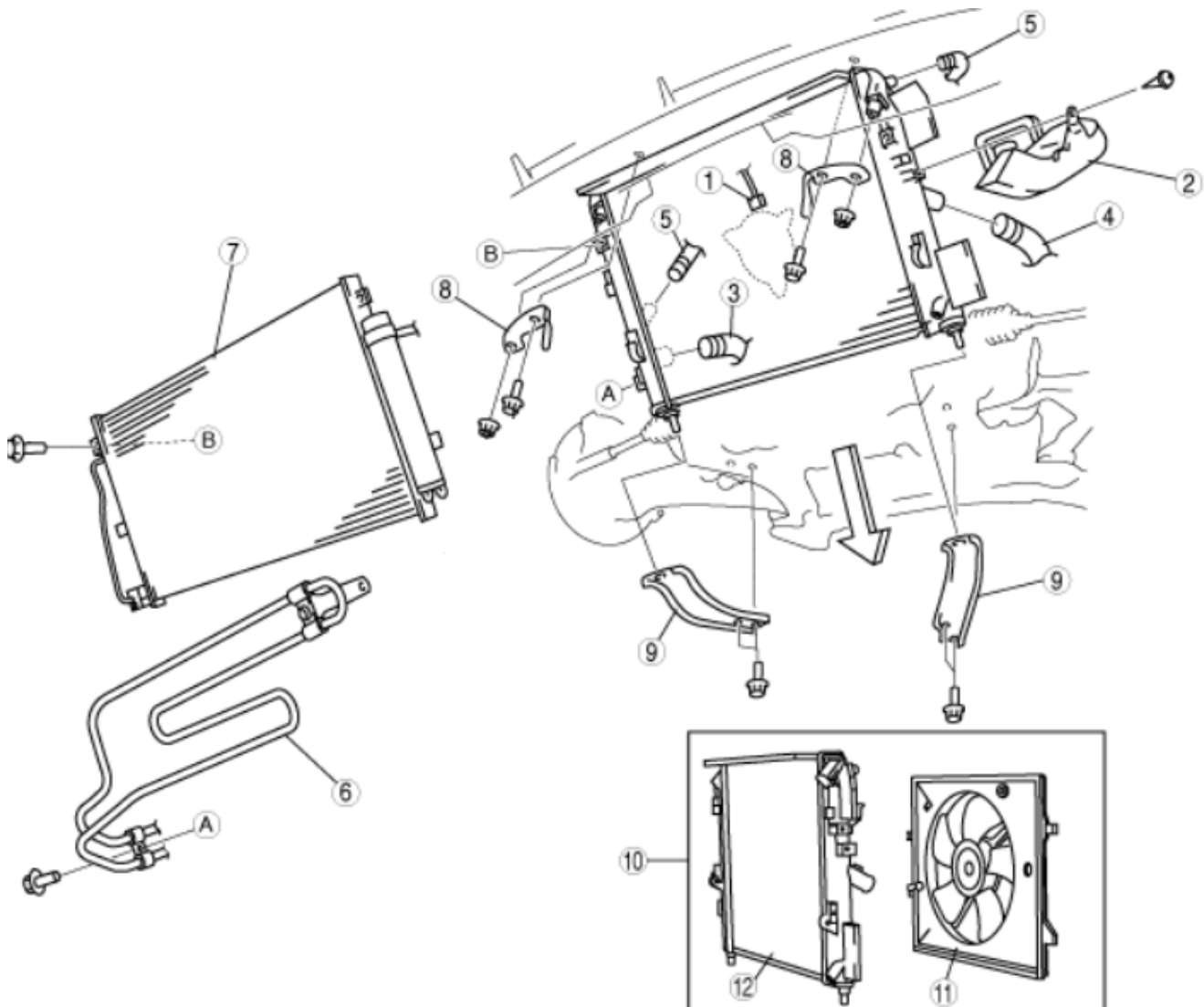
1. Allow the car to fully cool. Never remove the cooling system cap or loosen the radiator drain plug while the engine is running, or when the engine and radiator are hot. Scalding engine coolant and steam may shoot out and cause serious injury.
2. The car must be lifted and supported high enough that the radiator can come out from the bottom of the car. The minimum distance required will be around 18" , but additional height will make things easier.
3. Remove the forward fender liners(1) and the under tray(2).
4. Drain the engine coolant.



5. Remove the battery (3), battery tray (4), and battery cooling duct (5).
6. Remove the upper and lower air box sections.
7. Remove the metal shield above the PCM (6). At each PCM connector, depress the lock tab to allow the PCM plug levers to rotate away from the PCM (7). Then remove the PCM and plastic baffle (8). Then remove the PCM cooling duct (9).
8. Remove the coolant overflow tank (10). There are three nuts retaining the tank. A forth nut on the passenger side bracket can be loosened to aid removing the tank. Remove the three coolant lines from the tank.



9. **Automatic transmission cars only:** Disconnect and plug the automatic transmission fluid cooler hoses from the radiator.
10. Unplug the cooling fan electrical connector.
11. Disconnect the upper and lower radiator hoses (3&4) as well as the overflow tank hoses (5 - x2) from the radiator.
12. Unbolt the power steering cooler pipe from the radiator (6), but leave the hoses connected.
13. Unbolt the AC condenser from the radiator (7), but leave the AC lines connected. Then slide the condenser up out of the tabs on the radiator. The AC lines are sufficient to support the condenser, however, take extra care not to pull on the condenser.
14. To ensure no damage occurs to either the radiator or the condenser, we recommend cutting a sheet of cardboard to be a little bigger than the radiator and slip it in between the radiator and condenser.
15. Remove the nuts on each side the secures the radiator to the upper radiator mount brackets (8). For the bolts securing the brackets to the chassis, loosen them, but leave the brackets in place.
16. Remove the lower radiator mount brackets (9).
17. Remove the radiator and fan shroud assembly (10).
18. Remove the cooling fan shroud assembly (11) from the radiator (12).



19. Assemble the cooling fan shroud assembly to the radiator.
20. With the fan shroud and radiator assembly complete, slip the radiator into place, being careful about the AC condenser and its lines. If you hadn't already done so in step 14, we recommend putting a piece of cardboard in between the radiator and condenser to prevent damage as the slide past each other. Just be sure to remove the cardboard once installed! Hook the rubber isolators at the top of the radiator over the upper radiator brackets and let it hang temporarily.
21. Slip the AC condenser into its slots on the front of the radiator, then bolt the condenser to the radiator. Bolt the power steering cooler line to the radiator.
22. Reinstall the lower radiator brackets and tighten the hardware on the upper brackets to fully secure the radiator.
23. Reconnect the hoses to the radiator.
24. Connect the fans electrical connector.
25. Reinstall the plastic PCM panel, the PCM, the PCM metal cover, the expansion tank, and both halves of the airbox, in that order.
26. Reinstall the battery cooling duct, battery tray, and battery.
- 27. Automatic transmission cars only:** Inspect the ATF level and fill as necessary. Refer to your owners manual.
28. Refill the engine coolant and check for leaks. If no leaks are present, start the car and let it fully warm up. Confirm there are still no leaks and check to see if the fan comes on with temperature. Alternatively you can turn on the AC to confirm the function of the fan and fan wiring.
29. If everything checks out, reassemble the under-tray and fender liners. Top off the coolant as needed.
30. That completes it, go and enjoy your cooler car.