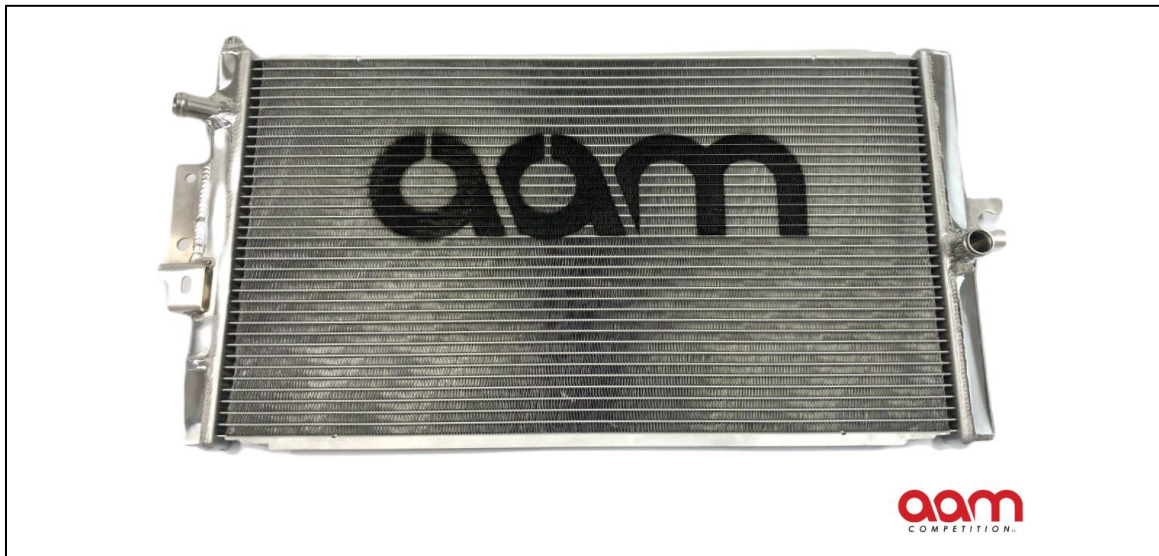




## AAM Competition Q50/Q60 High Capacity Heat Exchanger



# INSTALLATION INSTRUCTIONS

(DESIGNED FOR ONLINE USE AND COLOR PRINTING)

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### **\*\*\*WARNING: PRODUCT(S) ARE DESIGNED FOR OFF-ROAD / COMPETITION USE ONLY\*\*\***

Read all directions before attempting installation. This product requires above average mechanical ability to install properly, professional installation recommended. Installation requires appropriate tools for proper installation of this kit. As with all mechanical projects, take appropriate precautions for your personal safety and for the proper care and treatment of the vehicle being serviced. AAM Competition, LLC offers no warranty and accepts no liability caused by improper installation, modification and/or use of this product. Installation may void factory's manufacturer's warranty. Contact AAM Competition LLC or an authorized Dealer with questions or problems regarding this product. When removing Stock/OEM parts read and follow the factory service manual for proper procedures. *Copyright AAM Competition, LLC 2016*



**Tools Needed:**

- 1/4" Drive Ratchet
- Ratchet Extensions
- Swivel Sockets or Swivel Attachment (optional)
- Socket set (8mm, 10mm, 12mm, 13mm)
- Trim Clip Removal Tool
- 22mm Wrench
- Lug Wrench or Lug Nut Removal Tool
- Air Lift/Vacuum Venturi System
- Pick tools
- Pliers
- Zip tie
- Drain pan

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**WARNING: USE OF POWER TOOLS DURING INSTALLATION MAY CAUSE DAMAGE. WE RECOMMEND THE USE OF HAND TOOLS ONLY DURING INSTALLATION.**

**Note: "Left Side" and "Right Side" of vehicle is from the perspective of sitting in the driver seat of the vehicle and looking forward**

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## Installation

### **Bumper and crash beam disassembly:**

#### **Steps 1 and 2 Performed from Top of Engine Bay Under Hood**

- 1.** Remove the battery cover using the push tabs, then remove the battery trim by releasing all 8 push clips.
- 2.** Remove the engine bay side trim by releasing push clips (2 per side).

#### **Steps 3-9 Performed from Under Vehicle**

- 3.** Remove front wheels from the vehicle using the proper wheel lug removal tool and socket.
- 4.** Remove the undertray by disconnecting the 3 push clips and 18 bolts (10mm).
- 5.** Remove the 6 push clips that hold the trim to the wheel well.
- 6.** Remove the wheel well liners on each side by disconnecting the 8 push clips.

- 7.** Disconnect the electrical harnesses from the bumper.
- 8.** Remove the bolt in each wheel well holding the trim to the bumper (2 bolts total).

#### **Steps 9 and 10 Performed from Top of Engine Bay**

- 9.** Remove the two 10mm retaining bolts from the top of the bumper and disconnect the 2 push clips. Carefully slide the bumper off of the vehicle.
- 10.** Remove the foam piece attached to the crash beam on the car. Place both the bumper and foam in a safe area.

#### **Steps 11-30 Performed from Front of Bumper**

- 11.** Disconnect the ICC unit and unclip its wiring harness.
- 12.** Disassemble the trim shrouding near the crash beam by disconnecting the 8 push clips.

- 13.** Use a 12mm socket and a 12mm wrench to loosen the four bolts on each side of the crash beam (8 bolts total). Remove 3 on each side, leaving one per side to keep the crash beam steady.



- 14.** Prop up the crash beam so that it will not fall, then remove the last bolts from each side. Store bolts and beam in a safe place. Tip: Have a buddy hold this piece when removing it. It's quite a bit easier!



- 15.** Remove the seven 10mm bolts from the oil cooler, then use zip ties to keep it out of the way.

**IMPORTANT: Step 16 drains the OEM exchanger. Use caution when draining fluids, and use the proper safety equipment. Goggles and gloves are strongly recommended. Fluid may be hot.**

- 16.** Place a drain pan under the left radiator hose, then carefully remove the hose to drain the intercooler. Open the bleed screw

on top to allow air to enter into the OEM exchanger quicker. Let the exchanger drain completely before continuing.

- 17.** Remove the four 13mm bolts from the crash beam mount on the right side. **Keep these bolts labeled, so that they do not get mixed with the 12mm crash beam bolts.**



- 18. For Redsport models only:** Your car has a secondary water pump to maintain cooler temperatures during heavy engine load and high heat situations, a much-needed part to keep your engine and turbos healthy. Remove the electrical harness and brackets from the secondary pump, then move the pump out of the way. Finally, remove the final 2 plastic shroud pieces to gain access to the full front end of the heat exchanger.

- 19.** Remove the right side headlight by unscrewing the three 10mm bolts located on the top, side, and front (See next page)



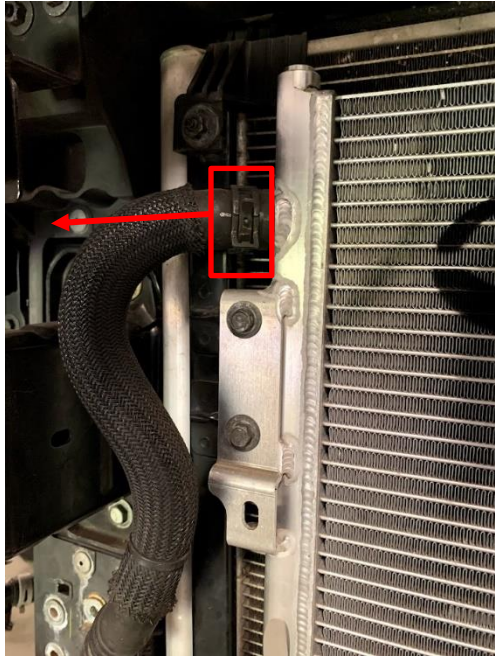


**20.** Remove the four 10mm bolts securing the intake airboxes on both sides (8 bolts total).

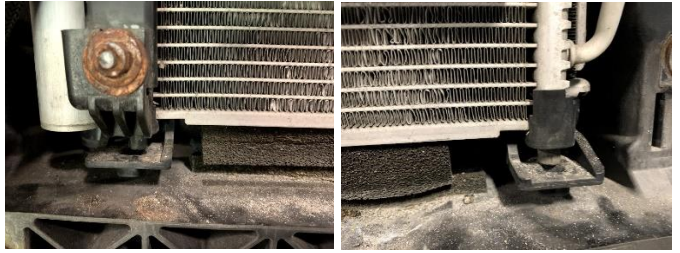
**21.** Remove the 10mm radiator support bolts on the top of the engine bay. For reference, the same image was used from before the passenger headlight was removed.



**22.** Remove the coolant hoses by sliding the spring clamps up each hose and pulling the hoses off of their ports. Make sure to position the drain pan under the hoses, and use pliers to compress the clamps.

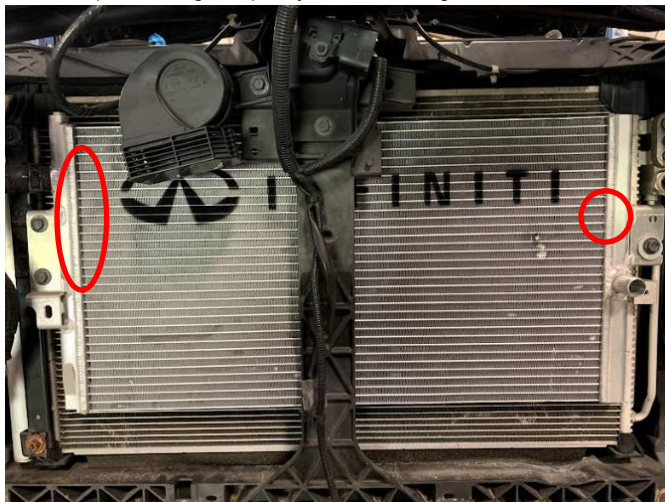


- 23.** Remove the three 10mm heat exchanger and condenser bolts (2 nuts, 3 bolts), and transfer the OEM grommets to the AAM Competition High Capacity Heat Exchanger.



### Installation of your AAM Competition High Capacity Heat Exchanger

- 25.** Slide the OEM Heat Exchanger to the right and out of the car, being careful not to spill excess coolant that was not bled.
- 26.** Place the OEM grommets into the AAM Competition heat exchanger
- 27.** Carefully slide your AAM Competition High Capacity Heat Exchanger in front of the condenser.
- 28.** Carefully reconnect all exchanger hoses to their respective locations by sliding the spring clips down the pipes and securing them to the ports. Tighten down the AAM Competition High Capacity Heat Exchanger bolts at this time.
- 29.** Reassemble the car by reversing the Bumper and Crash Beam Disassembly section (Steps 1-26).



- 24.** Carefully push the lower pegs out from their respective holes, then adjust both the radiator and exchanger back to gain space.

**Warning:** Do not lift the radiator by the plastic ends! Lift at the base of the rubber mounts.

### Bleeding:

- 30.** The use of an Air Lift/Vacuum Venturi System is required for this step. Failing to do so may result in system damage due to air getting into the intercooler pumps, preventing them from pumping any coolant. They draw a vacuum in the intercooler lines, removing all air before filling them with coolant. Almost no bleeding is required after using these machines. Please follow the machine manufacturer's instructions for proper use.
- 31.** Test drive your vehicle and check the coolant level. Once the coolant has risen to a constant level, remove the reservoir cap and crack open the bleeder on the AAM Competition High Capacity Heat Exchanger. There should not be much air in the heat exchanger if properly bled, however it is possible for some



air to be trapped inside. Close the bleeder and the reservoir, continue to test drive, and repeat this step until the coolant level is stable.

**32.** Once the bleeding process is finished, the car is ready to run!



**Congratulations!**

**You have successfully installed the AAM Competition Q50/Q60  
High Capacity Heat Exchanger! Enjoy!**