

# AMS SST Transmission Cooler Kit

The goal of AMS is to provide the highest quality, best performing products available. By utilizing research and development, and rigorous testing programs AMS will never compromise the quality or performance of our products. In addition, AMS will only provide the finest customer service offering only parts and advice that are in the best interests of the customer. AMS was built on a foundation of integrity. This is who we are; this is what you can count on.

A vehicle modified by the use of performance parts may not meet the legal requirements for use on public roads. Federal and state laws prohibit the removal, modification, or rendering inoperative of any part or element of design affecting emissions or safety on motor vehicles used for transporting persons or property on public streets or highways. Use or installation of performance parts may adversely affect the drivability and reliability of your vehicle, and may also affect or eliminate your insurance coverage, factory warranty, and/or new OEM part warranty. Performance parts are sold as-is without any warranty of any type. There is no warranty stated or implied due to the stresses placed on your vehicle by performance parts and our inability to monitor their use, tuning, or modification.

These instructions are provided as a guide only as there are many variables that cannot be accounted for concerning your particular vehicle, including but not limited to model year differences, model differences, the presence of non-OEM parts, and modifications that may already be or were previously installed. A basic knowledge of automotive parts and systems is helpful but a better understanding of the parts and systems on your particular vehicle may be required.

The SST Twin Clutch transmission in the Mitsubishi Lancer Evolution X's and Ralliarts is a great transmission, but like most auto style transmissions its main enemy is heat. The factory transmission cooler is well suited for a stock daily driven car but if you plan to modify or race your SST equipped vehicle the AMS transmission cooler kit will keep your transmission running cooler and working properly.

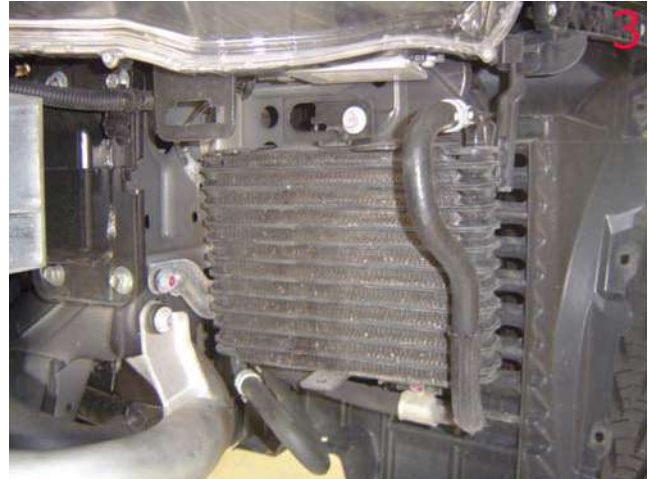
### **Packing List:**

- 1 – Cooler w/ Fan Attached
- 2 – Thin Spacers
- 2 – Thick Spacers
- 2 – M8x1.25 30mm Bolts w/ Washers
- 2 – M6x1 20mm Bolts w/ Washers
- 2 – M6x1 12mm Bolts w/ Washers
- 2 – M6 Nuts
- 2 – Hose Clamps
- 1 – 36" Piece of Red 16G wire w/Connector
- 1 – 28" Piece of Wire Loom
- 1 – Wire Butt Connector
- 1 – 120 Degree -8 Fitting
- 1 – 45 Degree -8 Fitting

1. The undertray is held on by many plastic clips and 6 bolts in the front. Pliers made to remove plastic clips are very helpful when doing this.
2. To remove the front bumper begin by removing the 3 plastic clips and 1 bolt in each wheel well that hold the bumper to the splash guard and fender. To each side of the intercooler opening you will see a bolt, remove those also. Up top begin by removing the plastic cover, and then there are 5 more bolts and one plastic clip under there. Then unclip the fog light harness which is under the rubber cover that the clip held on.
3. After all fasteners are removed the bumper will still be tightly in place. This is because on each fender there is a plastic bracket that the bumper is press fit into <sup>1</sup>. It has to be pulled out. Grab the bumper near the top of the wheel well and pull back, it will pull out of the bracket with some force.



4. Remove the factory transmission cooler duct, it is held on by 3 clips <sup>2,3</sup>.



5. Place a clean container under the transmission cooler <sup>4</sup>, disconnect lines and let them drain into the pan. You MUST catch all fluid and put it back into the transmission when done, there is no way to measure the fluid level in the transmission. You can now also remove the transmission cooler and drain all of the fluid from it into the pan also, make sure not to get any dirt or debris

into the pan as the fluid must be re-used. **IF you opt to change the fluid at this time or if fluid is lost during the installation process please refer to the drain and re-fill procedure at the end of these instructions.**

**The AMS upgraded cooler holds and additional ½ quart so be sure to add the additional fluid when done.**



6. Install the passenger side mount using the longer included bolts and the thicker spacers. The spacers go in between the mount and the car to clear the lip on the bumper bracket. See picture below for details <sup>5</sup>. Bolt the driver's side bracket to the cooler. The driver's side bracket attaches to the fan shroud on the cooler using the bolts already on the shroud.





7. Now on the cooler install the -8 adaptor fittings, they are sealed with o-rings on the side that goes into the cooler so make sure to use a little lube to prevent the o-ring from tearing, go ahead and tighten these all the way. Now install the -8 barb fittings loosely as shown below 7.



8. Now loosely install the cooler and cut the hoses so they can be pushed onto the fittings while still allowing enough movement to not put tension on the hose. The long hose goes to the top fitting. In most cases the longer hose will be cut about 2.5" closer to the transmission from the heat shield on it <sup>8,9</sup>. On the short hose cut right after the slight bend in the hose <sup>10,11</sup>. Variances are always possibly, double check before cutting.



10. Now remove the cooler from the car and push the fittings onto the hose and clamp tightly <sup>12</sup>. The fittings fit very tightly into the hose, heating the hose up helps it to expand and fit over the fittings, a little transmission fluid on the barbs will also help the fittings slide in easier. The 120 degree fitting goes on the longer/top hose, the 45 degree fitting goes on the shorter/lower hose.





11. Now install the oil cooler <sup>13</sup>. Connect and tighten the lines.





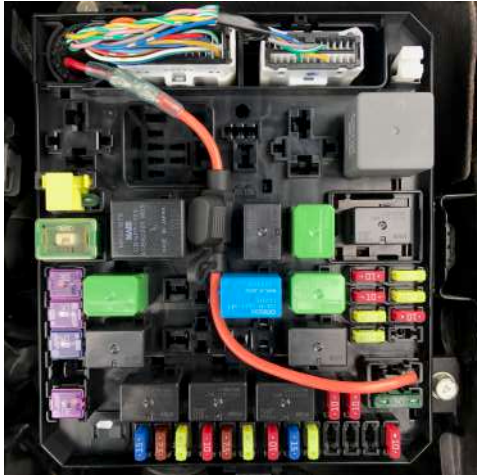
## Wiring

1. Connect the blue wire to the ground as shown in the picture <sup>1</sup>.



2. Connect the blade connector to one end of the fuse holder and the red wire to the other end using the supplied butt connector. Connect the blade connector to the terminal as shown <sup>2</sup>. Run the wire out of the box to the side of the grommet <sup>3</sup>.





3. Using the included wire loom run the red wire down to the transmission cooler and connect it to the black wire using the included butt connector. The connector utilizes heat shrink tube and after crimping the connector heat the connector ends to shrink the tube and seal the connection. Install the supplied 15A fuse. The fan should now run anytime the key is ON.
4. Refill any fluid that came out of cooler. The AMS upgraded cooler holds and additional  $\frac{1}{2}$  quart so be sure to add the additional fluid when done.

## TRANSMISSION OIL CHANGE

M1225008100015

1. Remove the engine compartment under cover front B assembly. (Refer to GROUP 51 –Under Cover [P.51-16.](#))
2. Remove the oil drain plug to drain the oil.  
*NOTE: Because the oil in the oil cooler and oil filter cannot be drained, the amount of drained oil will be approximately 5.5 dm<sup>3</sup>.*
3. Tighten the oil drain plug to the specified torque.  
**Tightening torque: 25 N· m (19 ft-lb)**
4. Remove the air cleaner element, air cleaner intake duct, and air cleaner body. (Refer to GROUP 15 –Air Cleaner [P.15-10.](#))
5. Remove the oil filler plug, then fill the oil.  
**Brand name: Mitsubishi genuine Dia-Queen SSTF-I**  
**Filling amount: Approximately 5.5 dm<sup>3</sup> (approximately 5.8 quarts)**
6. Tighten the oil filler plug to the specified torque.  
**Tightening torque: 25 N· m (19 ft-lb)**
7. Install the air cleaner element, air cleaner intake duct, and air cleaner body. (Refer to GROUP 15 –Air Cleaner [P.15-10.](#))
8. Start the engine, then let it idle for 1 to 2 minutes.
9. Move the shift lever to every position, and then move it to the P or N range.
10. Stop the engine, then perform Steps 2 to 5 again.
11. Check the oil level and oil fouling. (Refer to [P.22C-328.](#)) If fouling is found, repeat Steps 2 to 5 until the fouling is eliminated.
12. Install the engine compartment under cover front B assembly. (Refer to GROUP 51 –Under Cover [P.51-16.](#))

