## **1HD-T Intercooler Installation**

## Air to Air Intercooler Kit



## Water to Air Intercooler Kit



# **Removing OEM Piping.**

Loosen all 4 bolts connecting the pipe to the engine manifold.



Remove the small pressure hose for boost compensation on the pipe.



Loosen the clamp on the turbo hose's.



The factory piping can be taken off.

Precaution: Be extremely careful to not drop anything, tools, dirt, dust, inside the turbo and the engine manifold. A plastic or paper cover is a good idea. Also check the intercooler and all parts for any dust, dirt, or other rubbish. Anything in the air intake piping can cause serious engine damage.



## Installation of 4 threaded support Bolts.

From the front of the engine, remove the screws number:

- 4 left and right
- 7 left and right

Install the special bolt in these positions, long bolts at the rear and short bolts at the front.



## Installation of the aluminum intake elbow

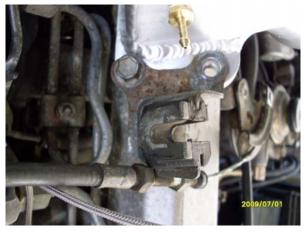
Clean the surfaces on the manifold and add a very thin layer of sealer if damaged.

Mount and tighten the aluminum elbow in position with the factory bolts and the very long special bolt.

Install carefully the throttle cable support. Minor grinding on this support might be needed for perfect fit.



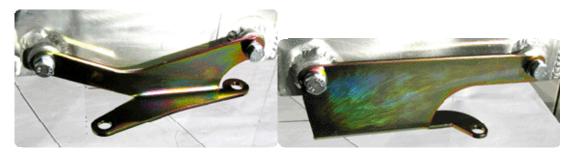




## Installation of the 2 intercooler supports on the intercooler core

Screw the 2 support brackets on the intercooler (as shown in the top pictures) using the spring washers. Leave the screws loose to make final assembly easy.

Front bracket viewed from the front of the intercooler and rear bracket viewed from the rear of the intercooler.



Bring the intercooler with the 63mm silicone elbow and the 2 clamps on, on your engine. Place the silicone elbow on the aluminum elbow and bring it into position in front of the 4 threaded special bolts. Screw it in position with the 4 cap screws and flat washers.





When the intercooler is in position, tighten all screws.

#### **Connect intercooler to Turbo**

Assemble the straight and the 90 degrees bent silicone hoses with the straight aluminum pipe. Install the clamps with tightening screws in the most accessible position.



Connect the boost compensator hose and tight all clamps.



#### For Water to Air Intercooler Installations

1. Mount the pump using the bracket supplied.



- 2. Remove the front plastic grill.
- 3. Mount the radiator on the left side of centre using the left most bonnet catch bolt and the supplied bolt in the factory hole in the cross member.
- 4. The lower mounting point of the radiator will line up with a factory hole in the lower cross member.
- 5. Cut and connect the first hose from the front lower intercooler fitting using the 90 degree hose fitting to the centre fitting of the pump. This hose can run down between the engine and intake manifold.
- 6. Cut and connect a  $2^{nd}$  hose from the second pump connection to the lower connection of the front

radiator.

- Cut and connect the remaining hose from the top rear intercooler fitting using the second 90 degree hose fitting to the top connection of the front radiator. This hose can run along the firewall.
- 8. The pump draws very little current and can be directly connected into the wiring (white wire with red strip) as shown.

NB: Left hand drive models may require different mounting positions to that shown.

- 9. Fill the intercooler with an anti-freeze water mix as recommended on the anti-freeze being used. The front radiator will fill and bubble back through the radiator. When fill turn on the pump and keep filling the intercooler until the bubbling stops.
- 10. The intercooler overflow connection can be connected to the main radiator overflow tank to capture and reuse any overflow.

