

## Front Mounted *TT* Intercooler



The original intercoolers are removed completely, this involves removing the front bumper panel. This can be carried out as follows.



The vehicle was safely supported so that the front wheels could be removed. It was then necessary to remove the Hex screws that hold the wheel arch liner and the small lip spoiler in place.



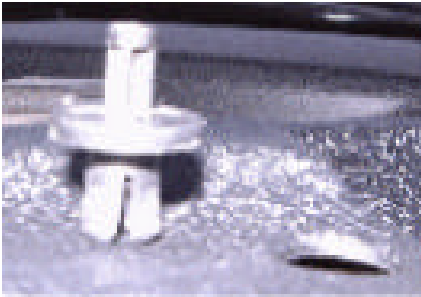
With the wheel arch liner out of the way the two 10mm nuts that hold the front panel to the wing were removed. Obviously these first two steps needed repeating on both sides of the vehicle.



It was also necessary to disconnect the feed to the headlight washers. A small "U" clip allowed the hose to be separated. Prepare yourself with a suitable bucket or hose clamp before disconnecting as the entire reservoir will drain.

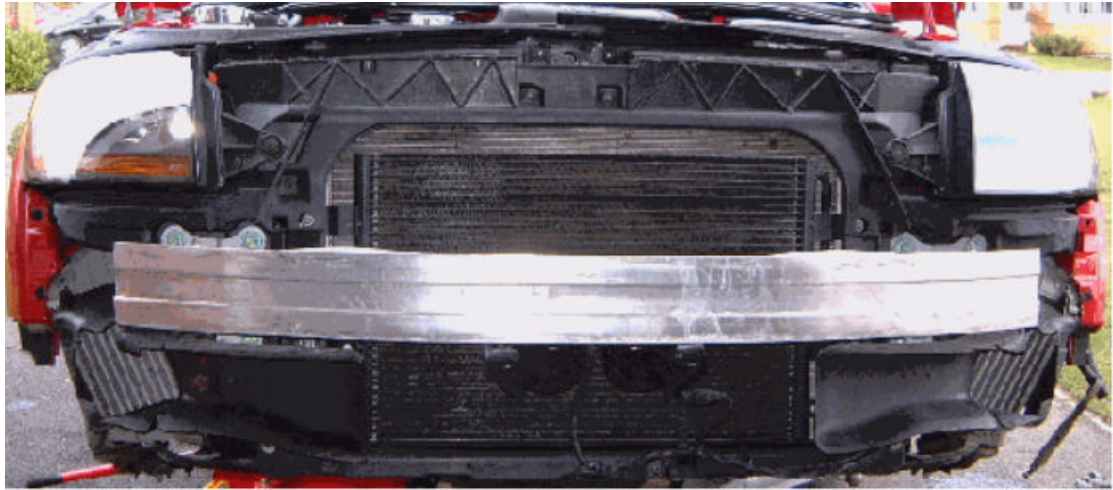


Next the bonnet landing panel plastic cover was removed by pressing the pins through the plastic clips. Then the bumper top mounting hex bolts were removed, although we left one in place until we were ready to lift the panel off, so that it didn't drop unexpectedly.



Underneath the front you there are also two "Phillips" screws that needed removing.

Before the final step, which was to lift the panel off, we decided where it was going to be stored and laid down protective material (a blanket). Then we removed the last top bolt which was left it in place.



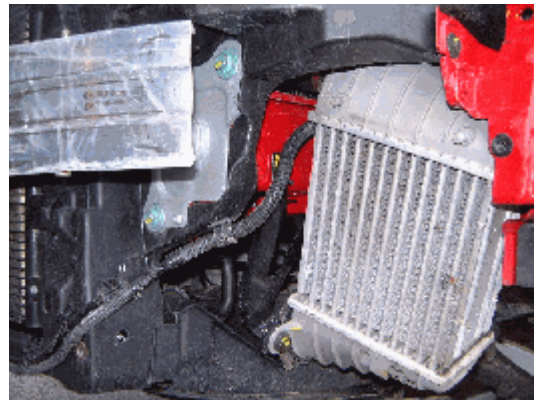
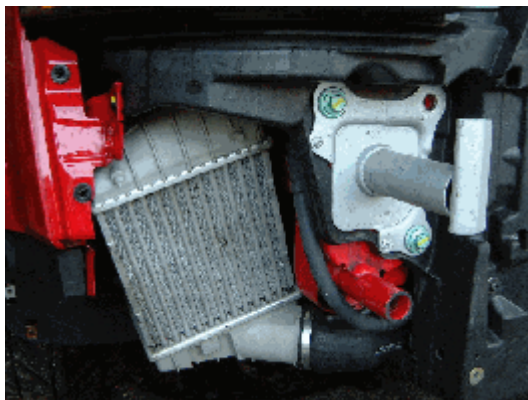
With the plastic front panel out of the way, the front alloy bumper was removed, it is held in place by 13mm nuts on "Allen" bolts. The two horns needed to be disconnected.



The head lights\* were removed by disconnecting the three plug connectors on the rear and removing the two top Hex bolts and the front Hex bolt



The next step was to remove the existing intercoolers



**\*If the Xenon headlights are fitted great caution must be taken as high voltages are involved, Disconnection of the battery is a must!**



Also where the Xenon units are installed it is necessary to remove the right hand side transformer in order to gain access to the two 10mm bolts that are underneath and hold the intercooler bracket in place

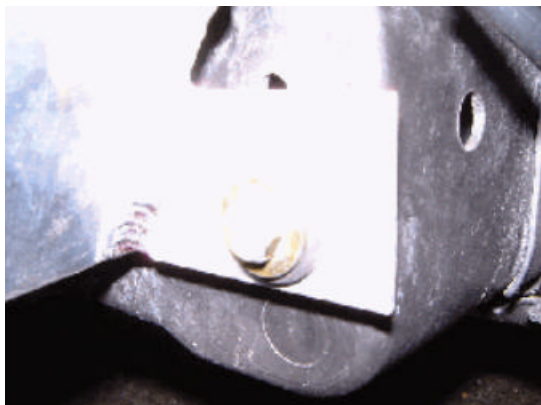
Along with the intercoolers we removed the hoses, leaving the turbo outlet side hose in place.



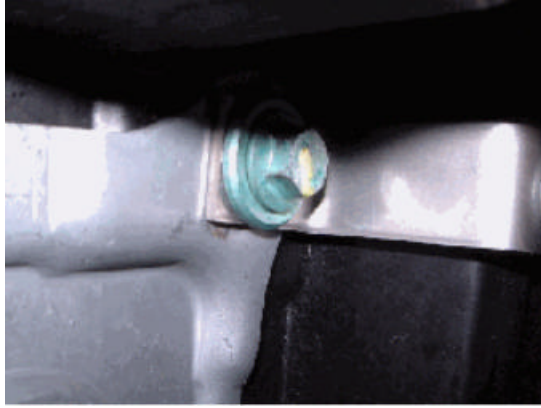
Next we needed to get ready for the new intercooler so we removed the 10mm bolt holding the ambient air temperature sensor in place. (sited on the lower front of the vehicle) and also the rubber mountings from the OEM intercoolers which need to be inserted into the 16mm holes on the Forge unit



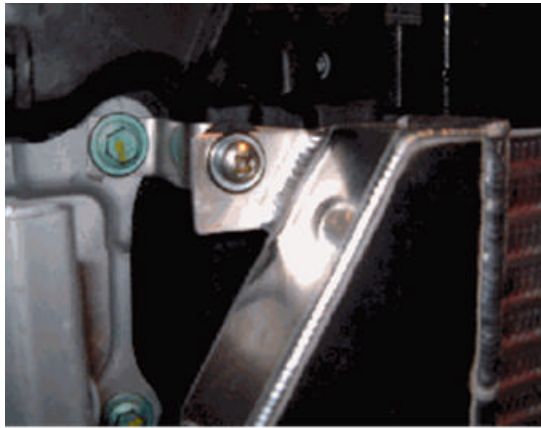
*The centre tubes are pushed out first, then the grommet is easily removed.*



The new intercooler is mounted at four points using the 6mm bolts that were removed from the OEM intercoolers. The bottom two bolts screw into the captive nuts in the radiator panel



For the top mounting it was necessary to install the angular bracket to the bumper mounting posts.



The intercooler mounting 6mm bolt was then passed through the rubber mounting into and secured in the captive nut on the angular bracket.

The hoses for the intercooler are connected on both sides, utilising the supplied hoses and pipe work, ensuring that the each connection is secure.

The Horn and Temperature sender needed to be relocated on the right hand side using the OEM intercooler bracket mountings. ( 10mm captive bolts)

The headlight units, front alloy bumper and plastic front panel were then replaced by reversing the removal procedure.

After a quick check to make sure that no tools had been left lying in the engine bay, it was off to road test!