



PORSCHE 996 TWIN TURBO INTERCOOLER INSTALLATION



Tools required:

Torx T20/T25 and T30 screwdrivers

Phillips head screwdriver

10mm/12mm/13mm socket and suitable ratchet

Dremel or similar with sanding disc

Flat head screwdriver

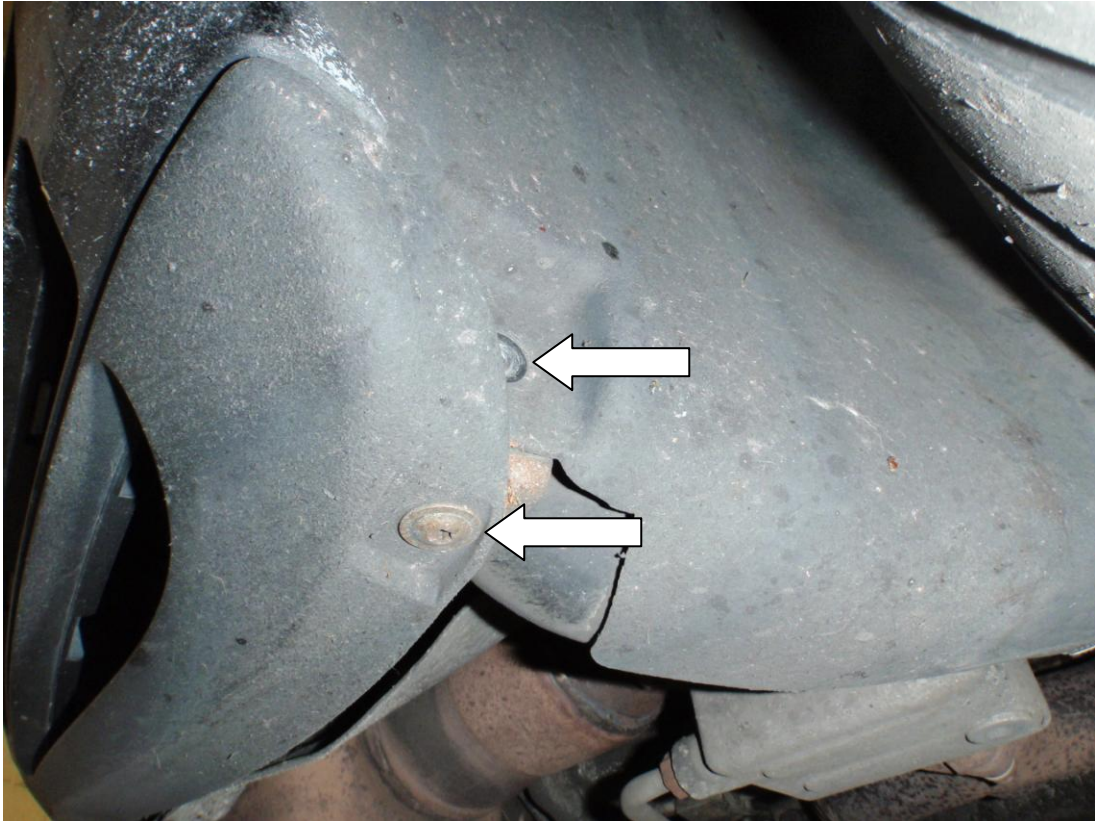
1. Although it's possible to install the intercoolers with the car on the floor, it is quite awkward to remove the screws in the wheel arch. This can be performed by jacking up each side of the car in turn however, which gives enough clearance. With the car on level ground, open the engine cover and remove the two Phillips head screws down the side of each light, then pull the light towards you and remove the electrical connection on the rear.



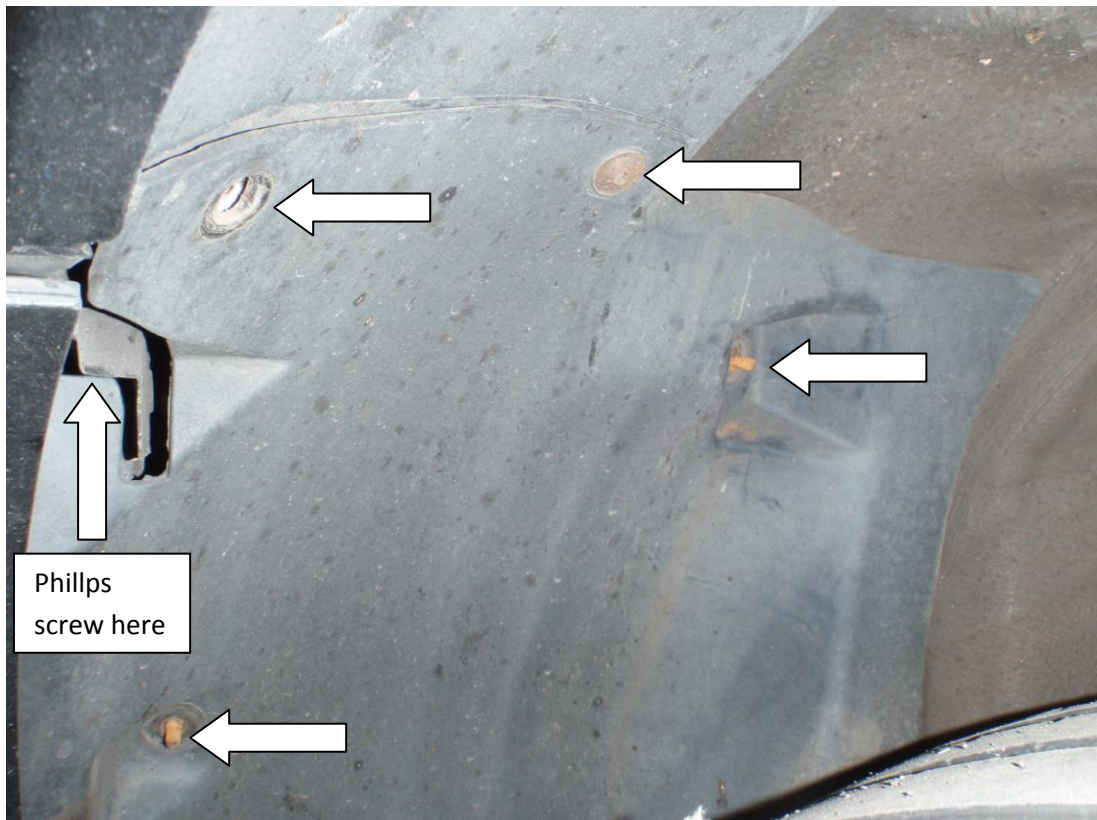
2. With both lights removed, undo the four Phillips head screws that hold the metal edging on the top of the bumper and remove from the car.



3. Working on the lower edge of each wheel arch, unto the two torx screws shown below.



4. Working in each wheel arch, remove the two plastic 10mm head nuts, and the two torx screws on the edge. Now remove the single Phillips head screw which goes vertically upwards into the rear wing.



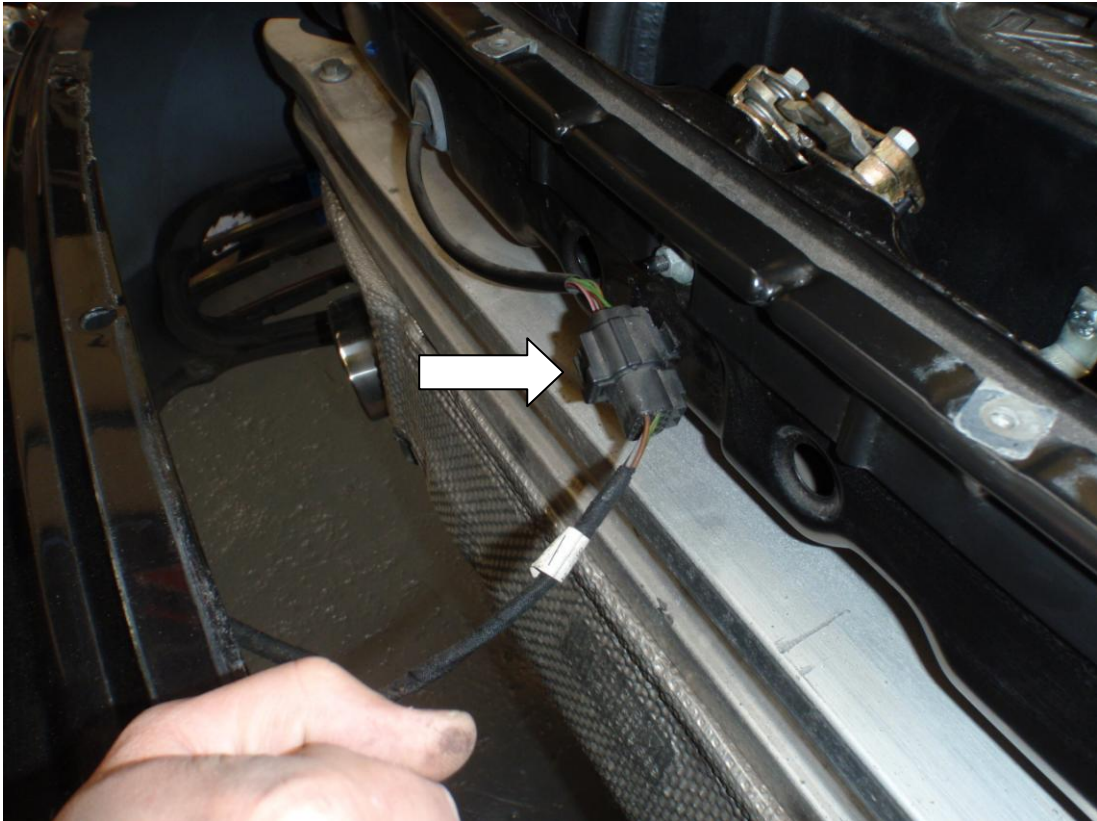
5. Finally remove the two torx screws at the bottom edge of the arch liner, then pull the arch liner off the studs and remove from the car on each side.



6. Now to fully release the bumper, remove the single torx and single Phillips head screw either side of exhaust pipe on each side.



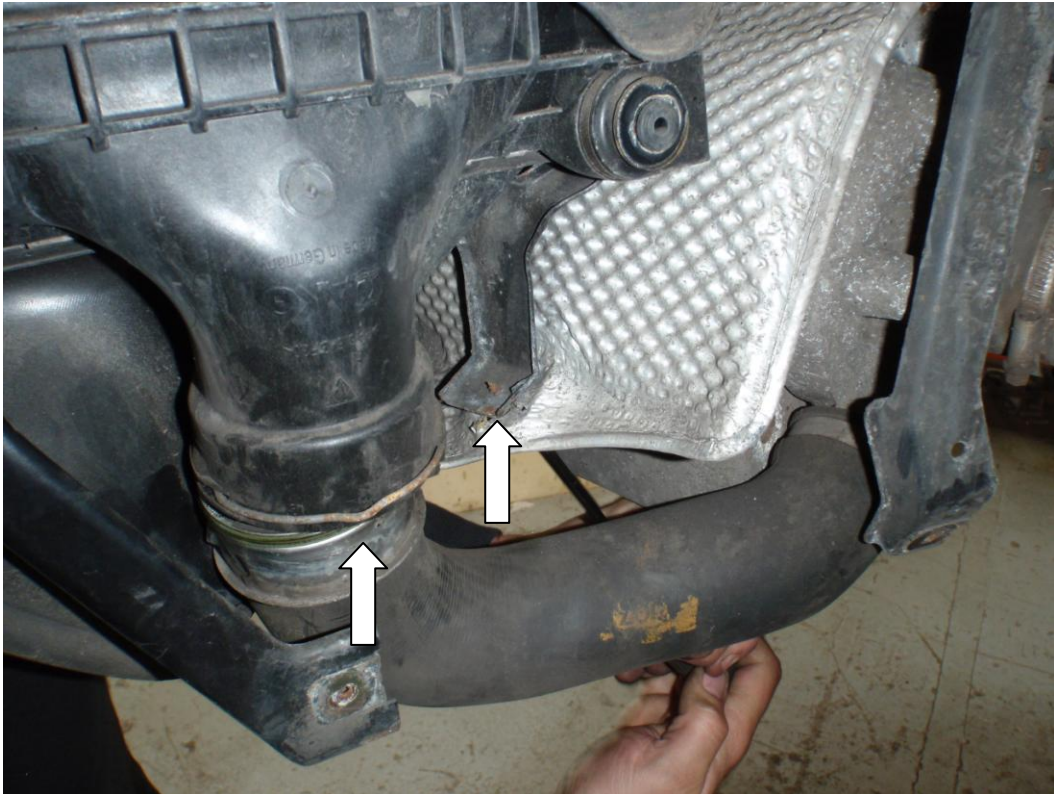
7. Now with the help of an assistant, tug the bumper rearwards off the plastic runners in the rear wings. When the bumper is pulled away enough, you will need to disconnect the electrical plug for the parking sensors and lights before removing the bumper completely and storing it somewhere safe.



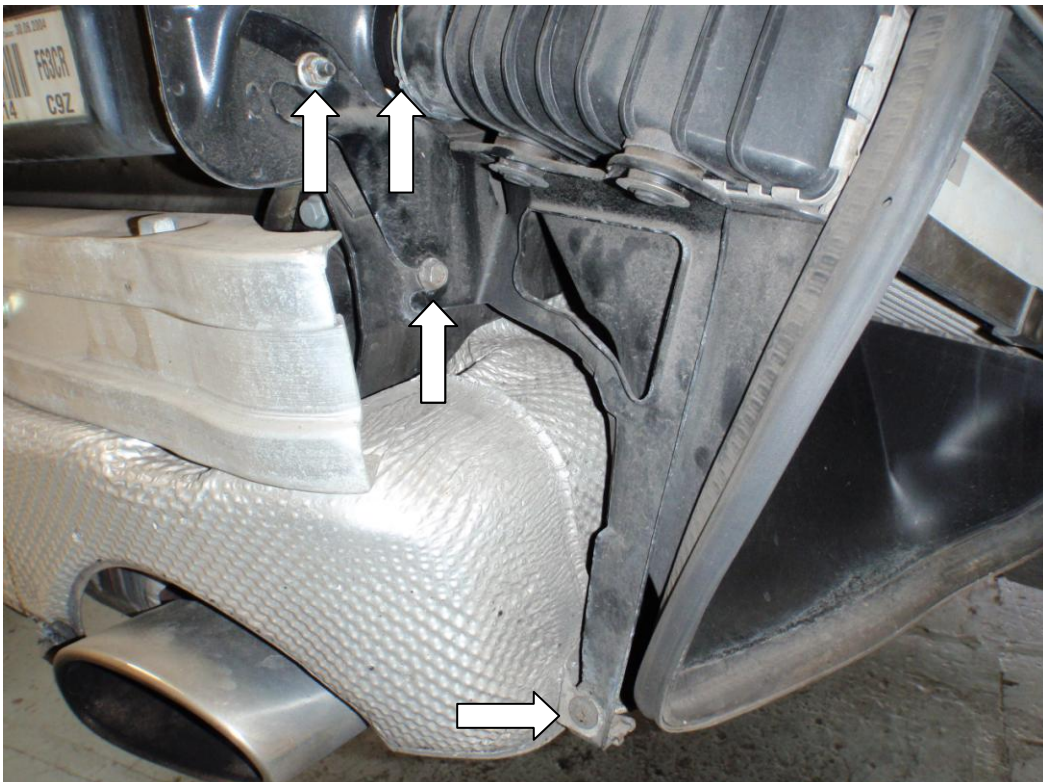
8. On the end of the intercooler nearest the wheel, remove the two bolts and single nut holding the end of the intercooler frame to the chassis.



9. Now release the intercooler hose by inserting a screwdriver in the raised section of the clip and pulling it outward to release the hose. The other end is joined to the intercooler with a simple jubilee clip. Also undo the single torx screw holding the intercooler frame to the exhaust heat shield.



10. On the other end of the intercooler, remove the clip securing the intercooler outlet hose and pull it out into the engine compartment. The hose can now be removed from the engine. Remove the torx screw holding the frame to the exhaust heat shield, and the nut and bolt holding the frame to the car. The intercooler and frame can now be manipulated out of the car.



11. To remove the intercooler from the frame, prise the circlip out from each rubber mount, four in total. This will allow the grommet to be pushed through the frame and the intercooler with its plastic ducting to be removed. Retain the circlip and washers from each grommet for later use.



12. Unclip the upper and lower plastic ducting from the intercooler by pulling back on the end of the metal clips – again you may need a screwdriver as these are tight.



13. The new cores are slightly thicker so using a dremel or similar, you will need to remove plastic from both sides of the ducting as shown below, just leaving the vertical strips of plastic holding the clips on one side, and the clip receptacles on the other.



14. Of the two Forge intercoolers supplied, find the correct one for the side you are working on and reassemble it into the plastic ducting. Ensure that the ducting is central to the core as you fasten all the clips.



15. Line the threaded holes on the intercooler up with the rubber grommets on the frame. This time assembly is a little different – push the circlip onto the aluminium boss supplied FIRST, then place the washer under the circlip, then bolt the whole lot to the intercooler through the rubber grommet as shown below. You **MUST** use Loctite or a similar product in order to seal the threads as they protrude into the intercooler endtanks.



16. You will have noticed that the fourth grommet does not have a threaded boss in the intercooler – simply bend the unused grommet out of the way of the core.



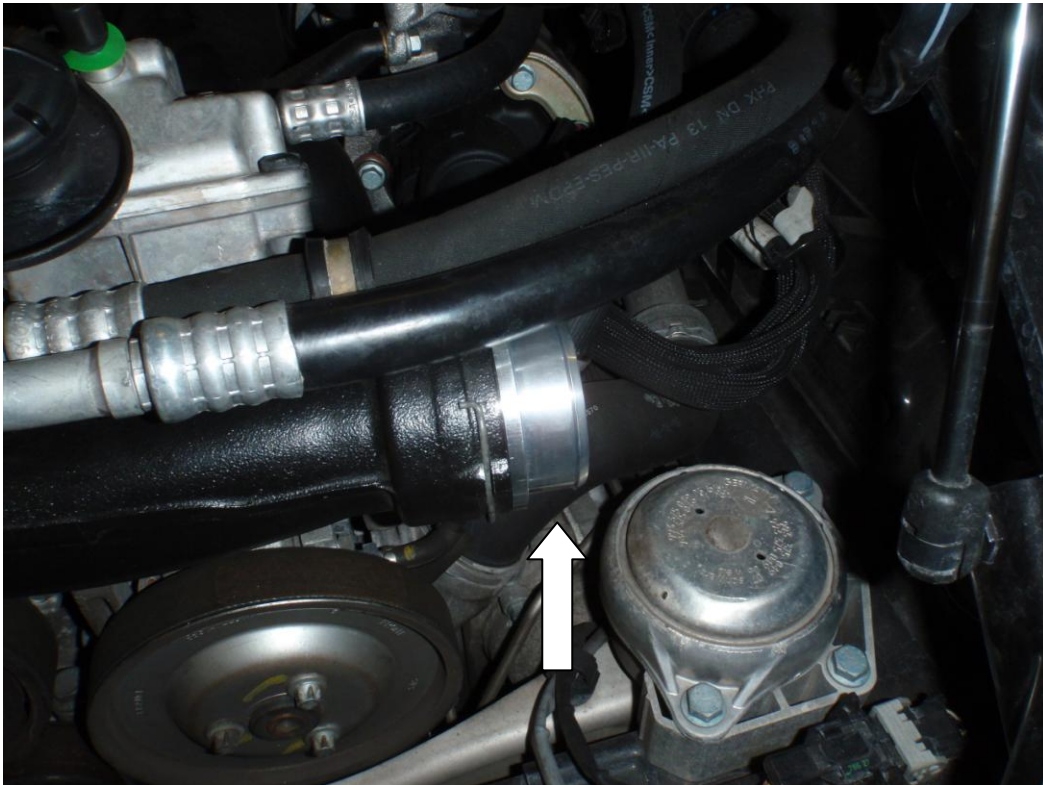
17. Remount the intercooler to the car following steps 9&10 excluding the guidance on the hoses.



18. Find the hoses you removed earlier FROM THE ENGINE BAY and carefully remove the rubber seal from the end which connected to the engine.



19. Place the rubber seals on the couplers provided, and push them securely into the crossover pipe in the engine bay until they securely 'click' into place.



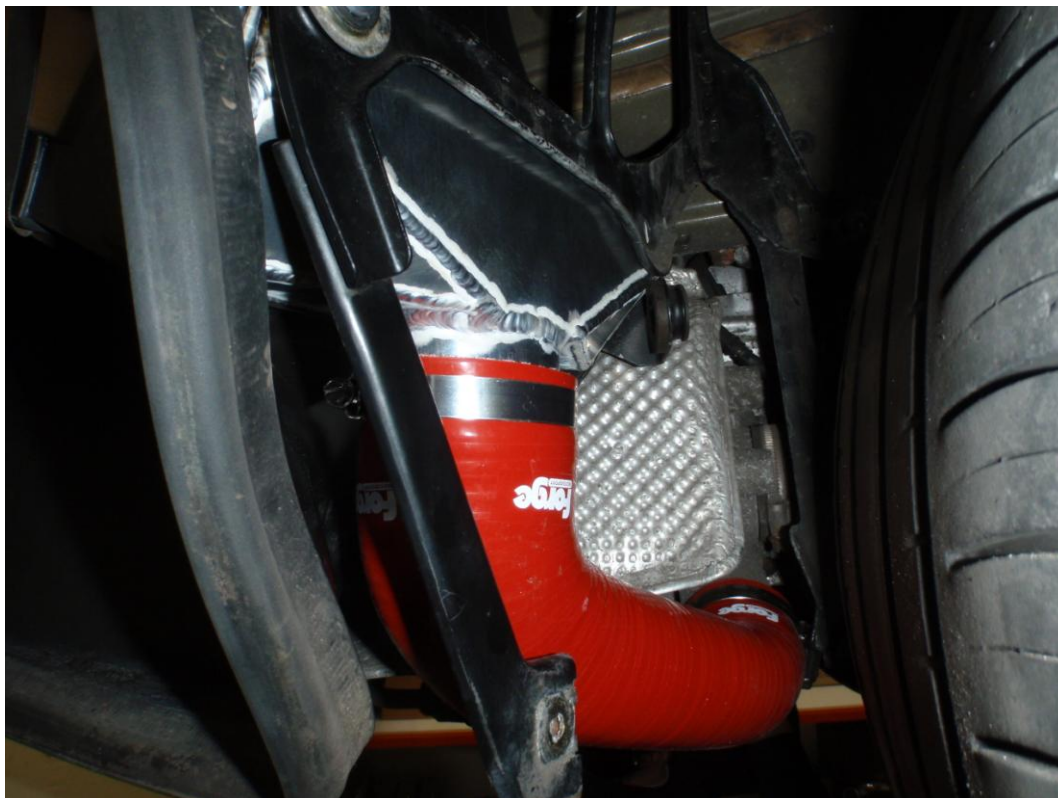
20. Position a jubilee clip over the end of the intercooler where it passes through the chassis and into the engine bay. You may need to completely undo the jubilee clip to pass it around the intercooler pipe. On the right side of the car, use the hose shown below, and a little silicon spray as lubricant to push it over the pipe on the intercooler first, then onto the coupler in the engine bay. Tighten the jubilee clips.



.....and on the left side of the car use this hose



21. On the lower intercooler pipe, use the silicon hose supplied and secure with jubilee clips. The hose is subtly different each side so they cannot be mixed up.



Installation is now complete. Please reassemble the car using steps 7-1 in reverse order.