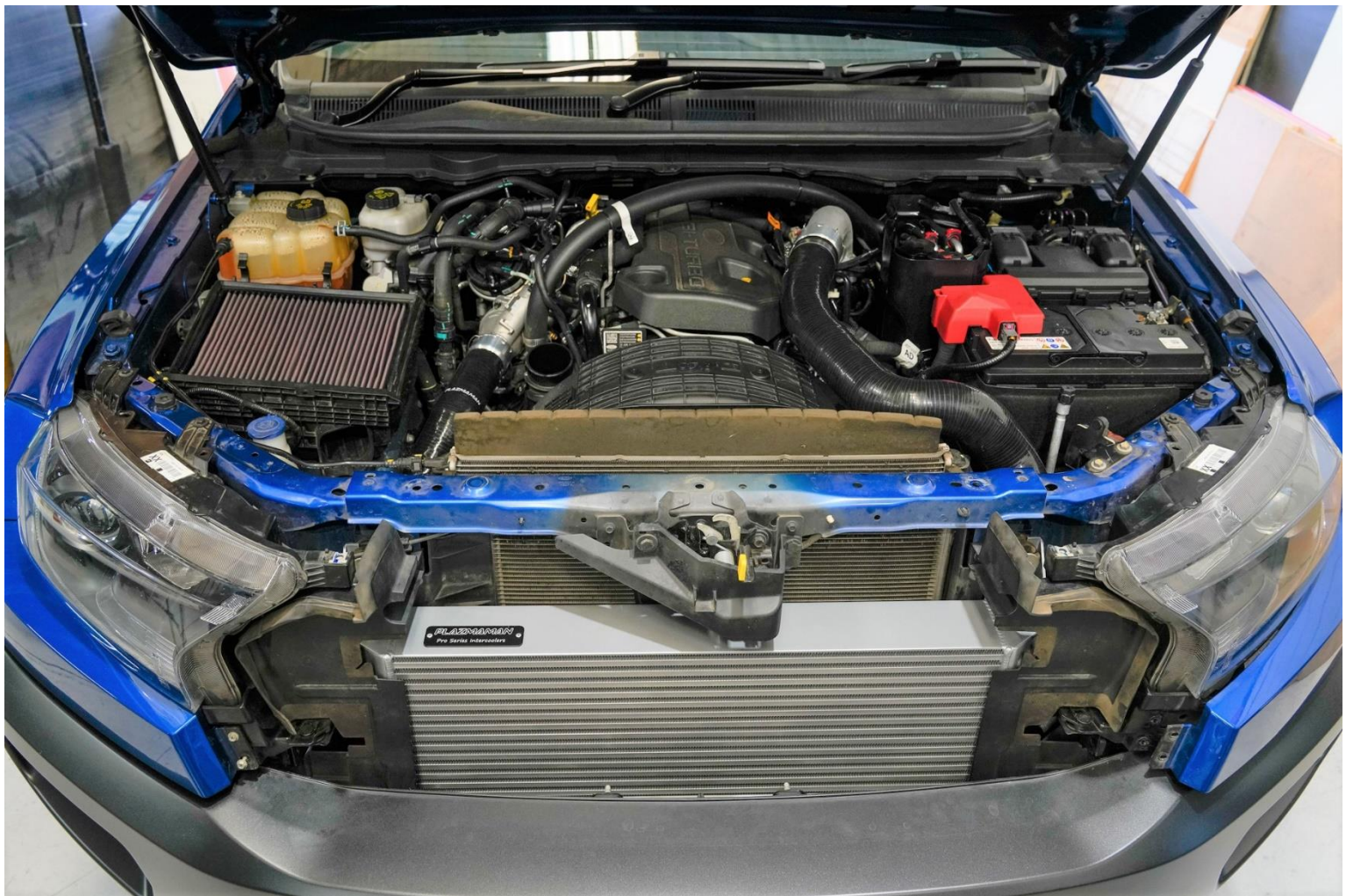


PLAZMAMAN

FORD RAPTOR 18-21+2.0L INTERCOOLER KIT INSTALLATION GUIDE



OEM INTERCOOLER REMOVAL

1. Removing of the OEM air diverter panel.

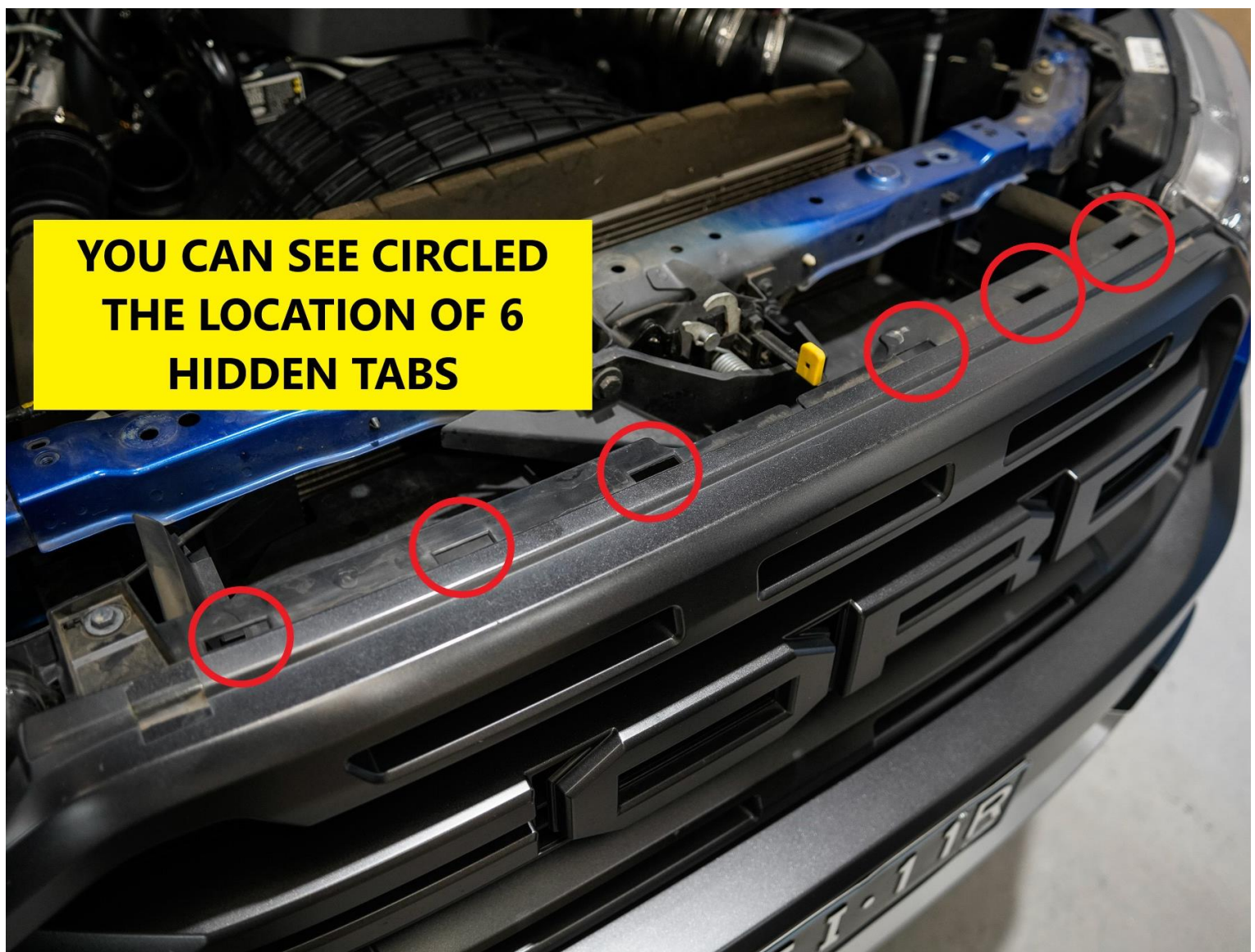
Undo 2x bolts securing the air box ducting.

Use a plastic push rivet removal tool to pop all the plastic push rivets from the top of the diverter panel. **Be careful to not damage or loose these clips, they are needed for reinstallation.**



Now lift the rear of the diversion panel and reach underneath into the grill section. Carefully unclip the 6 hidden tabs that attach the front of the diverter panel to the front grill.

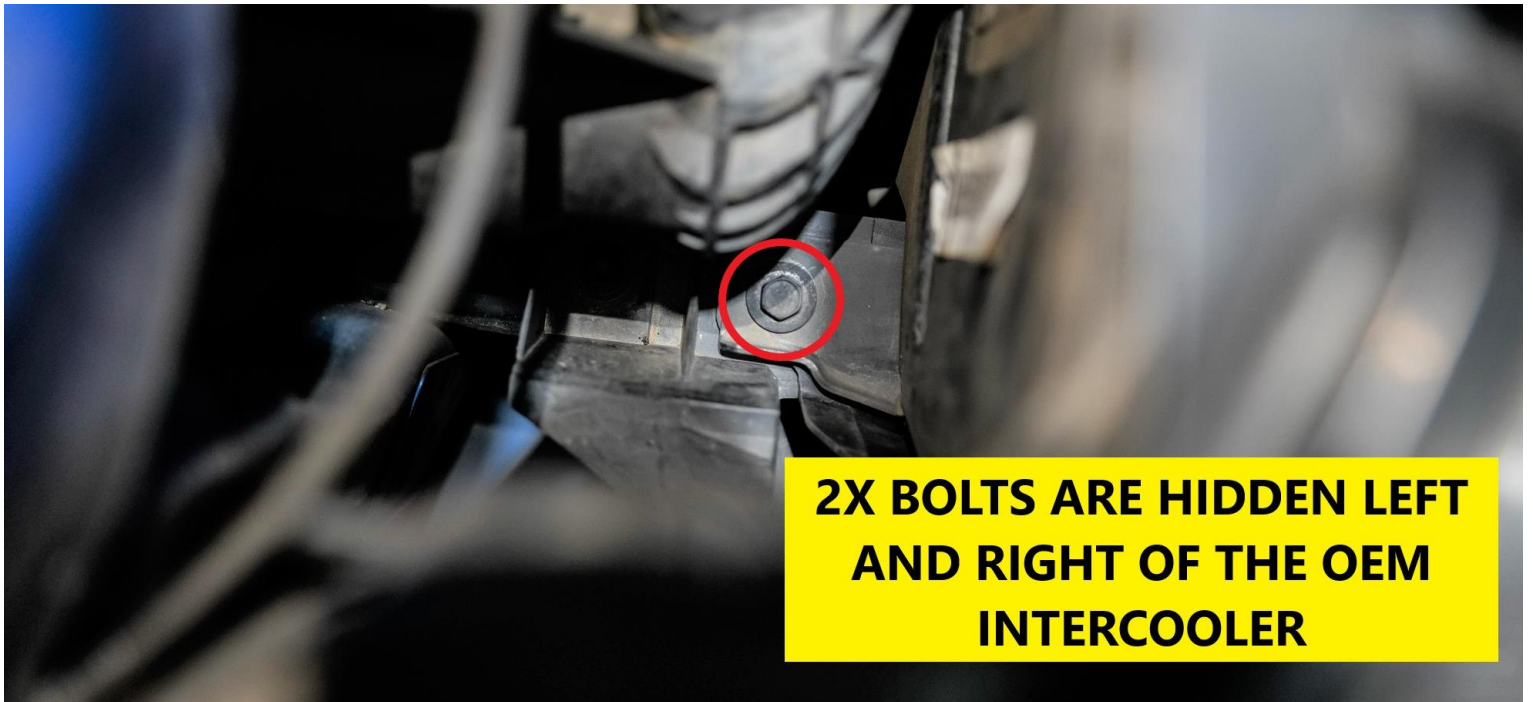
Note! These tabs are very fragile. Take Care!



2. Removing the front grill.

Remove 4 bolts attaching the grill to the vehicle.

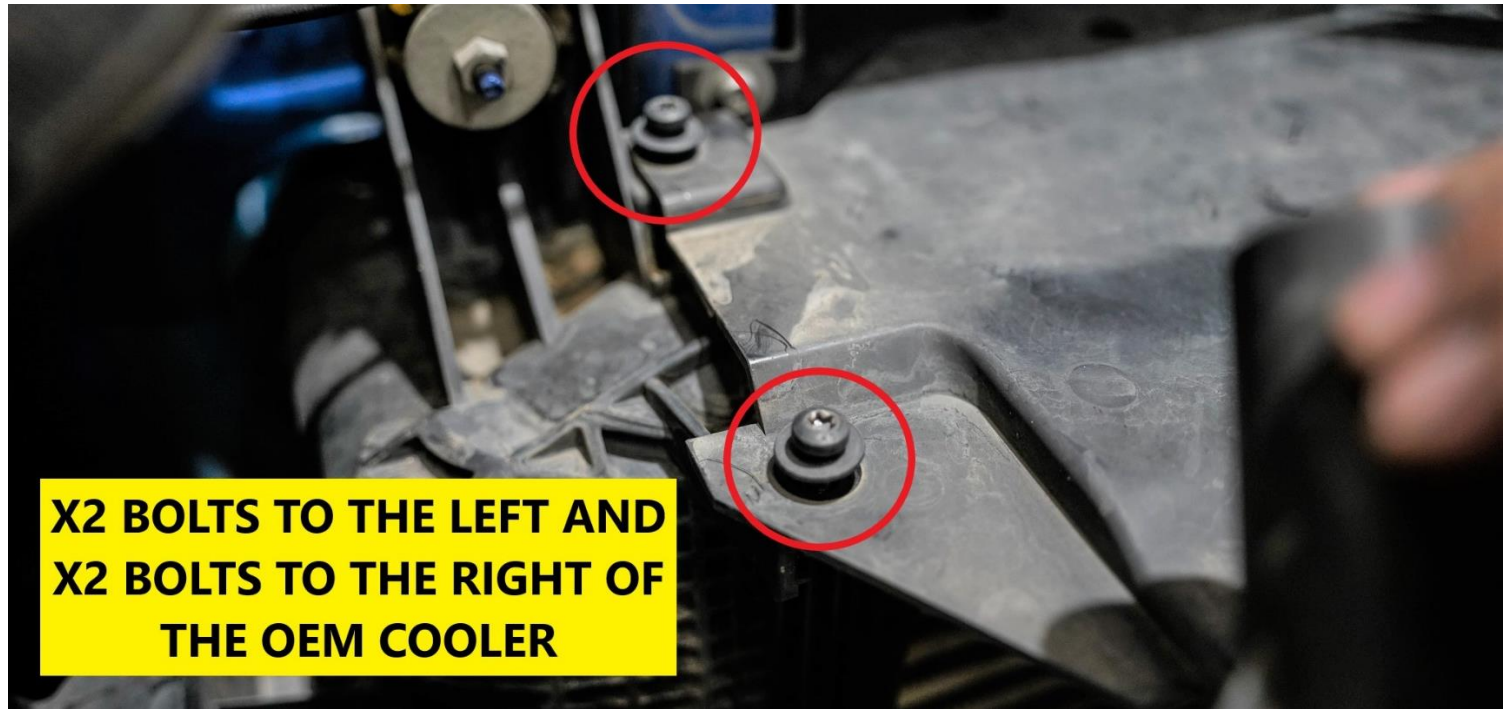
See Fig 2 for lower bolt location



**2X BOLTS ARE HIDDEN LEFT
AND RIGHT OF THE OEM
INTERCOOLER**

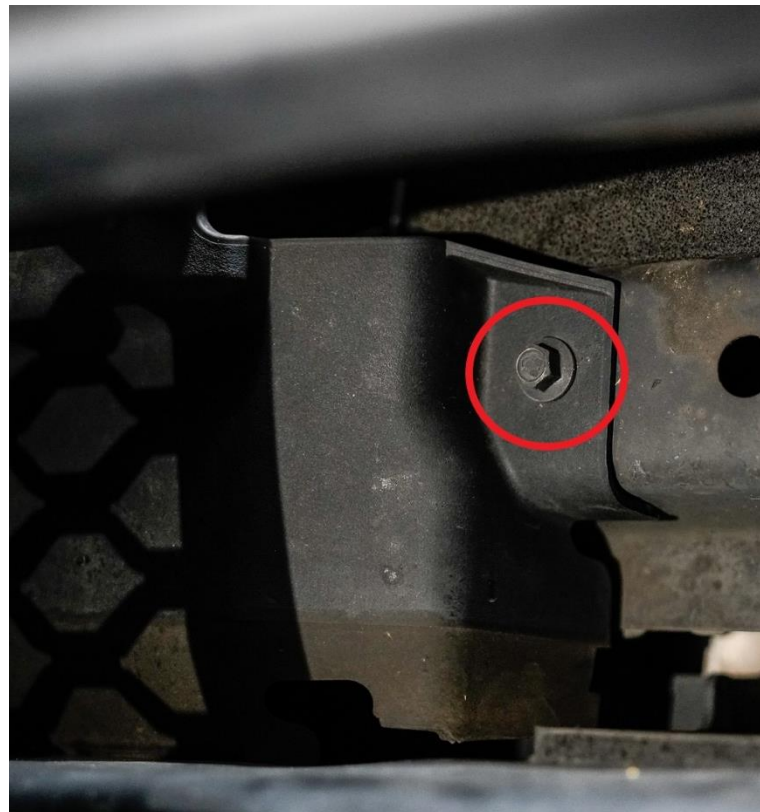
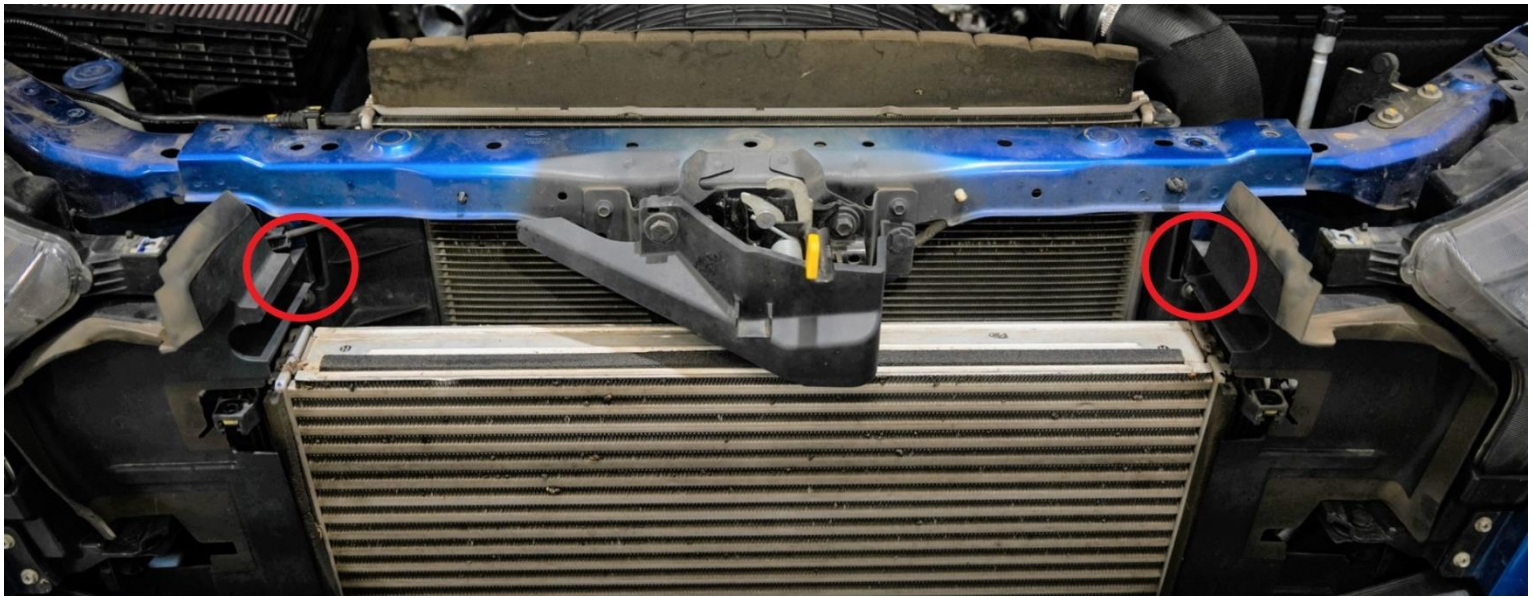
3. Removing of the secondary air diverter located on top of the OEM cooler.

Remove the 4x torx bolts shown in Fig. 1.



Now loosen the left and right air diverter panels to gain better access around the intercooler.

Remove all plastic push rivets and bolts attaching diverter panel to the vehicle.



4. Disassemble OEM intercooler piping.

Remove the airbox lid and turbo intake hose by unfastening the hose clamps and associated clips.

We suggest covering all exposed openings into the engine from debris to avoid serious damage to your engine.

Now disconnect the factory hose connections.

Lift the retainer latch holding the circlip in place (see Fig. 1.) then pry the circlip out from its groove (Fig.2.).



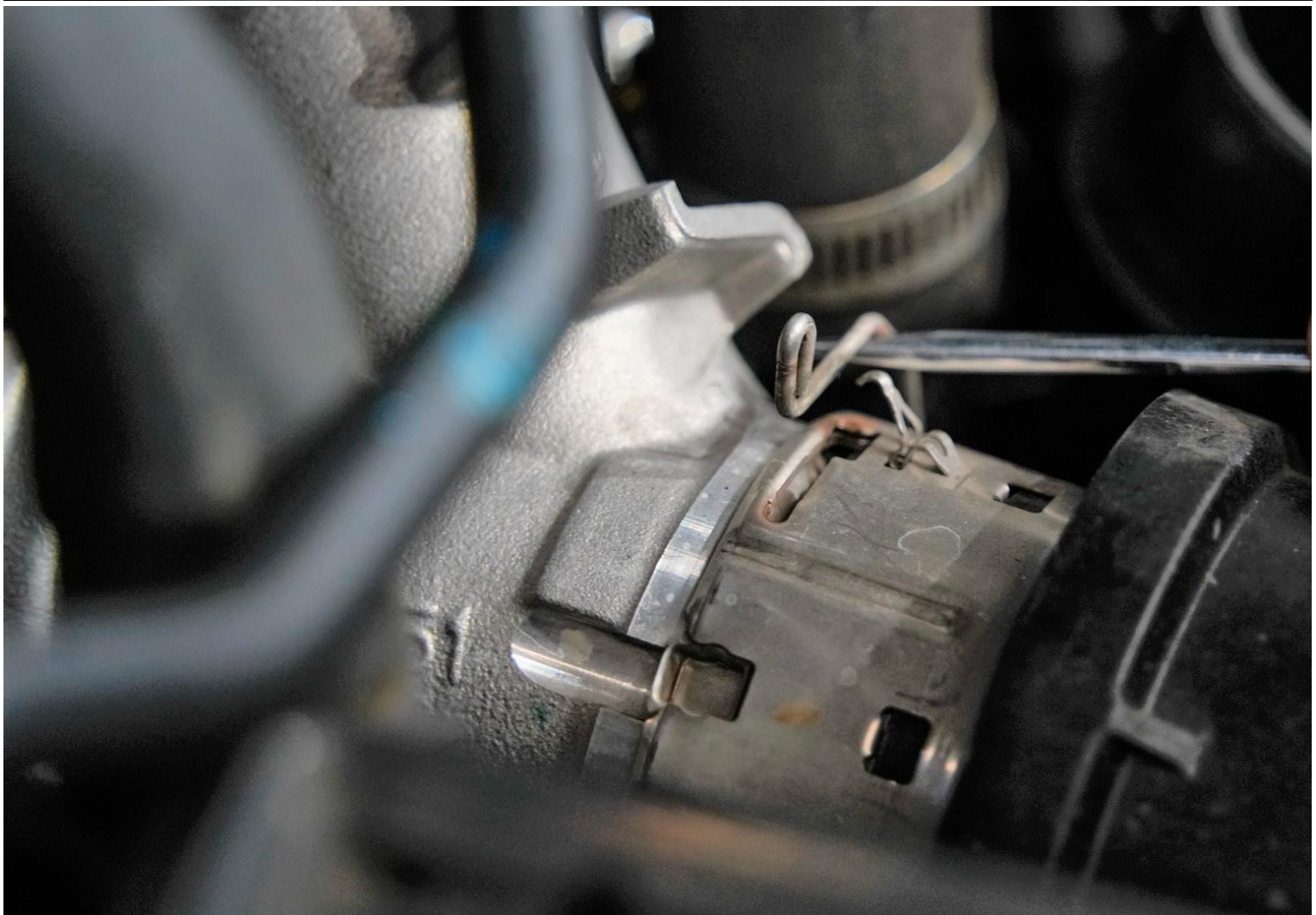


Fig.2.

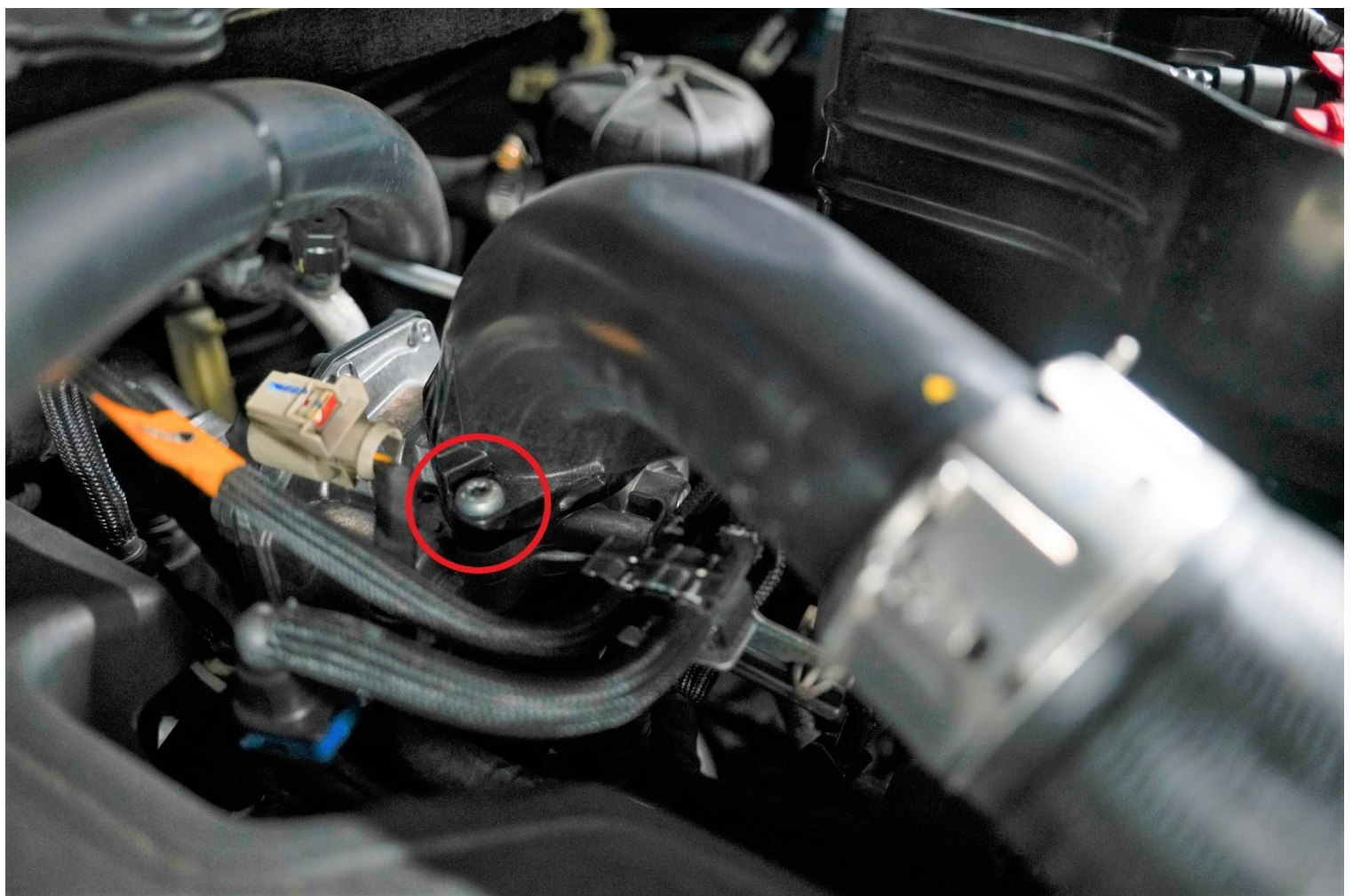
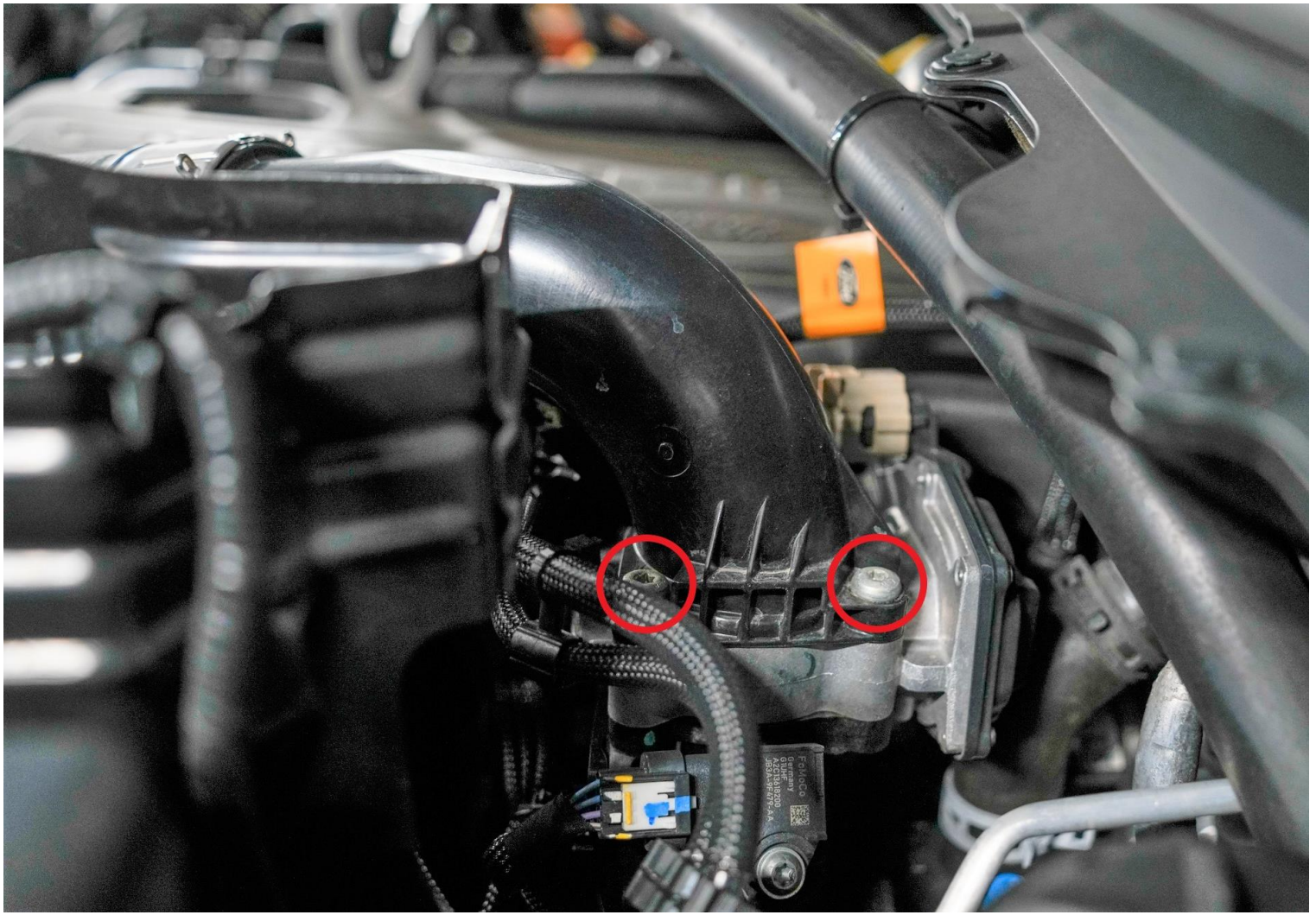
Once all 4 circlips have been released from their groove, you can remove the factory intercooler piping from the vehicle.



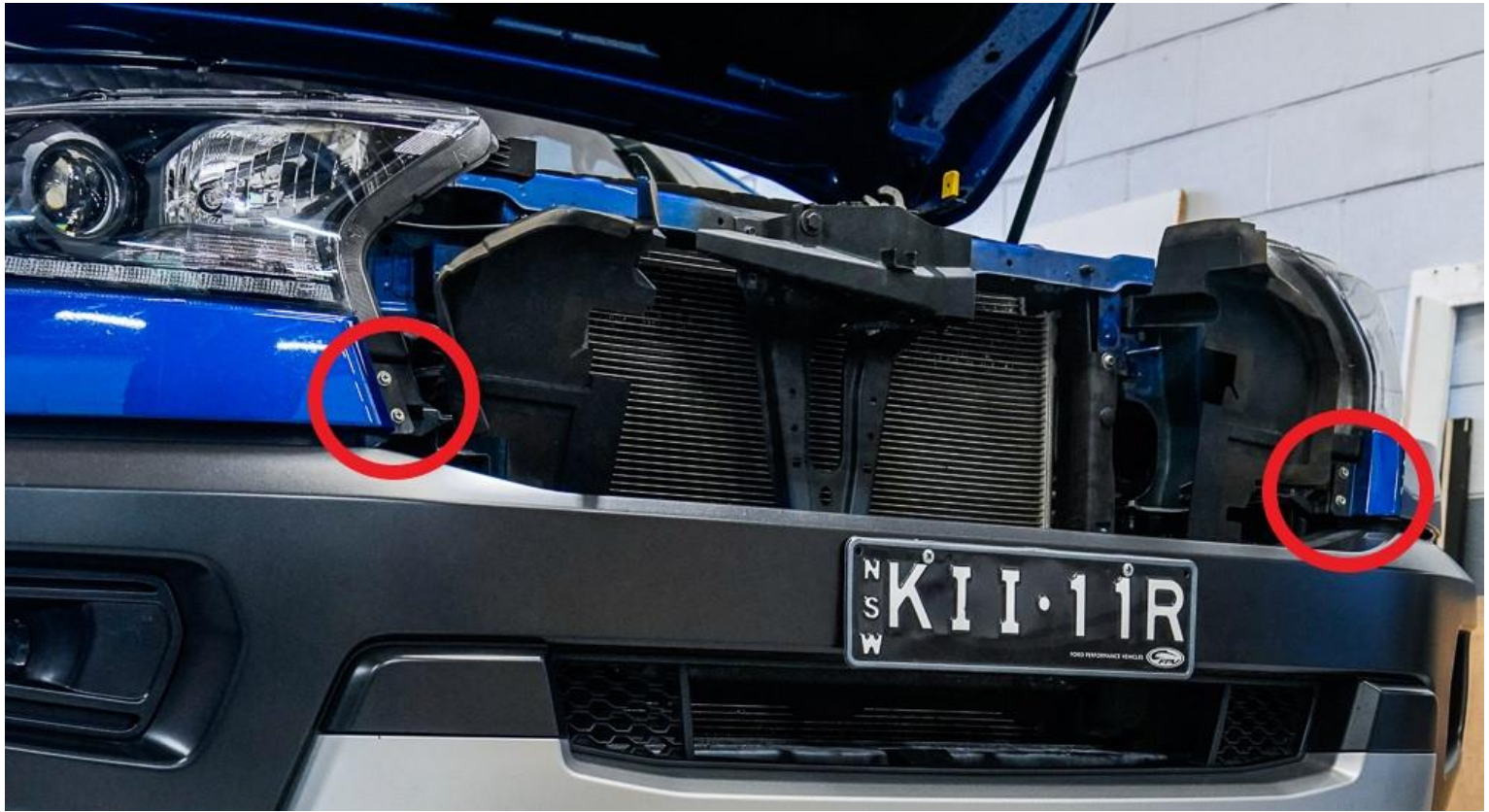


5. OEM plastic throttle body elbow.

Whilst holding the plastic elbow in place, undo the X3 Torx head bolts. **Do not loose or misplace these bolts or the factory O-ring as these will be reused later.**

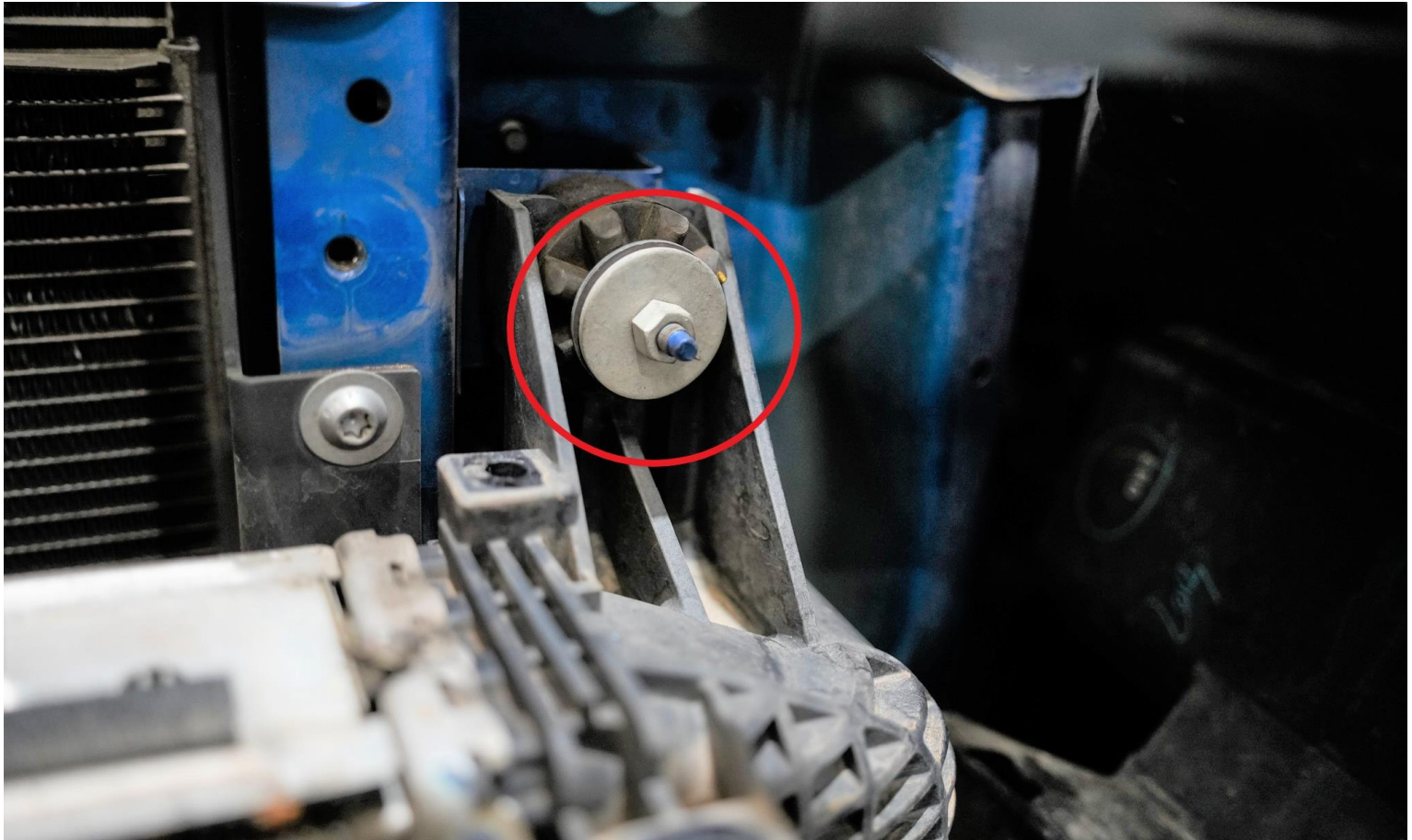


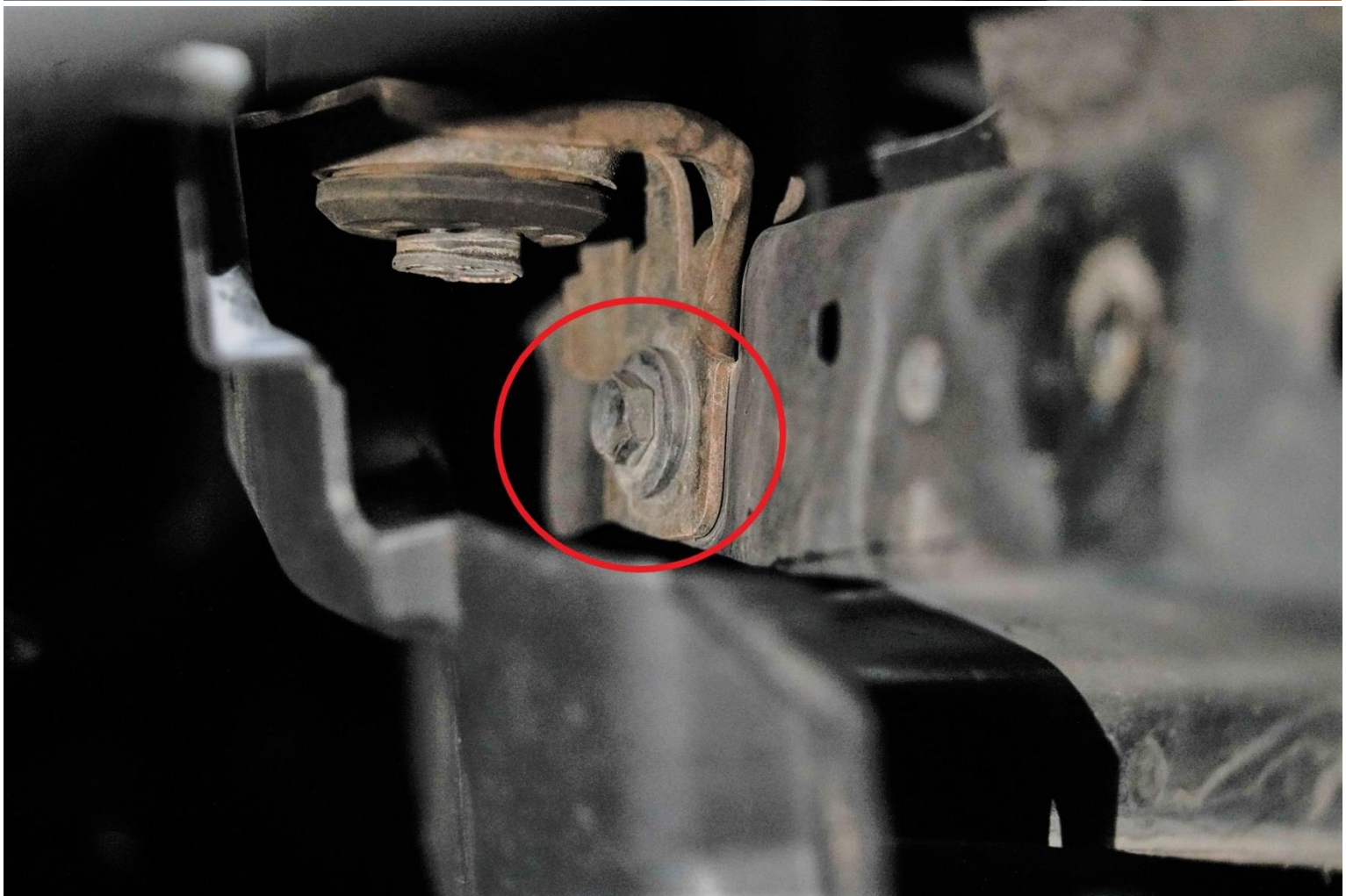
6. For extra clearance, carefully remove 4 bolts underneath each headlight and pop the panel partially out. **Take extra care not to damage this panel.**



7. Removing the OEM intercooler.

Undo the 2 x nuts at the top and bottom corners of the intercooler.





Now carefully remove the old intercooler from the vehicle.

Try not to damage anything during this process.



INTERCOOLER KIT INSTALL

8. Preparing the Plazmaman Pro Series intercooler for installation.

Transfer the OEM mounting rubbers to your new Plazmaman intercooler.

The factory lower steel brackets are no longer required. **Install the 2 new sleeve washers provided into the lower rubbers.**

It is time to fit your new Plazmaman intercooler into its new home.

We suggest some extra hands to help position the intercooler in place.

This can be a tricky process to install.

Extra caution must be taken during this process.



Reinstall the 2 upper nuts using the new hardware provided.

Secure the bottom of the intercooler through the rubbers into the existing threads.

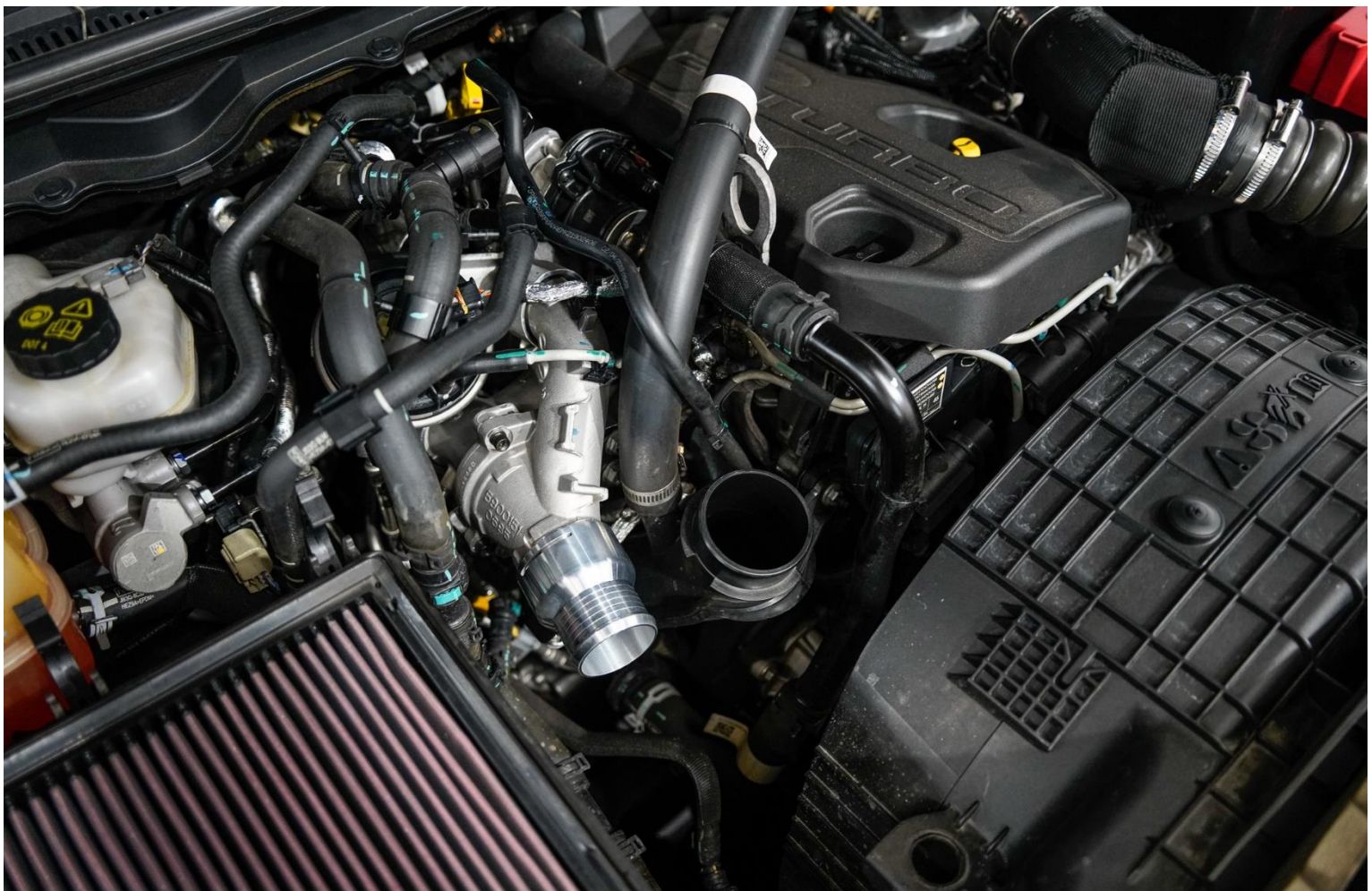
9. Install your new Plazmaman heavy duty throttle body elbow supplied in the kit.

(You must reuse the factory O-ring from the old elbow and X3 torx head bolts.)

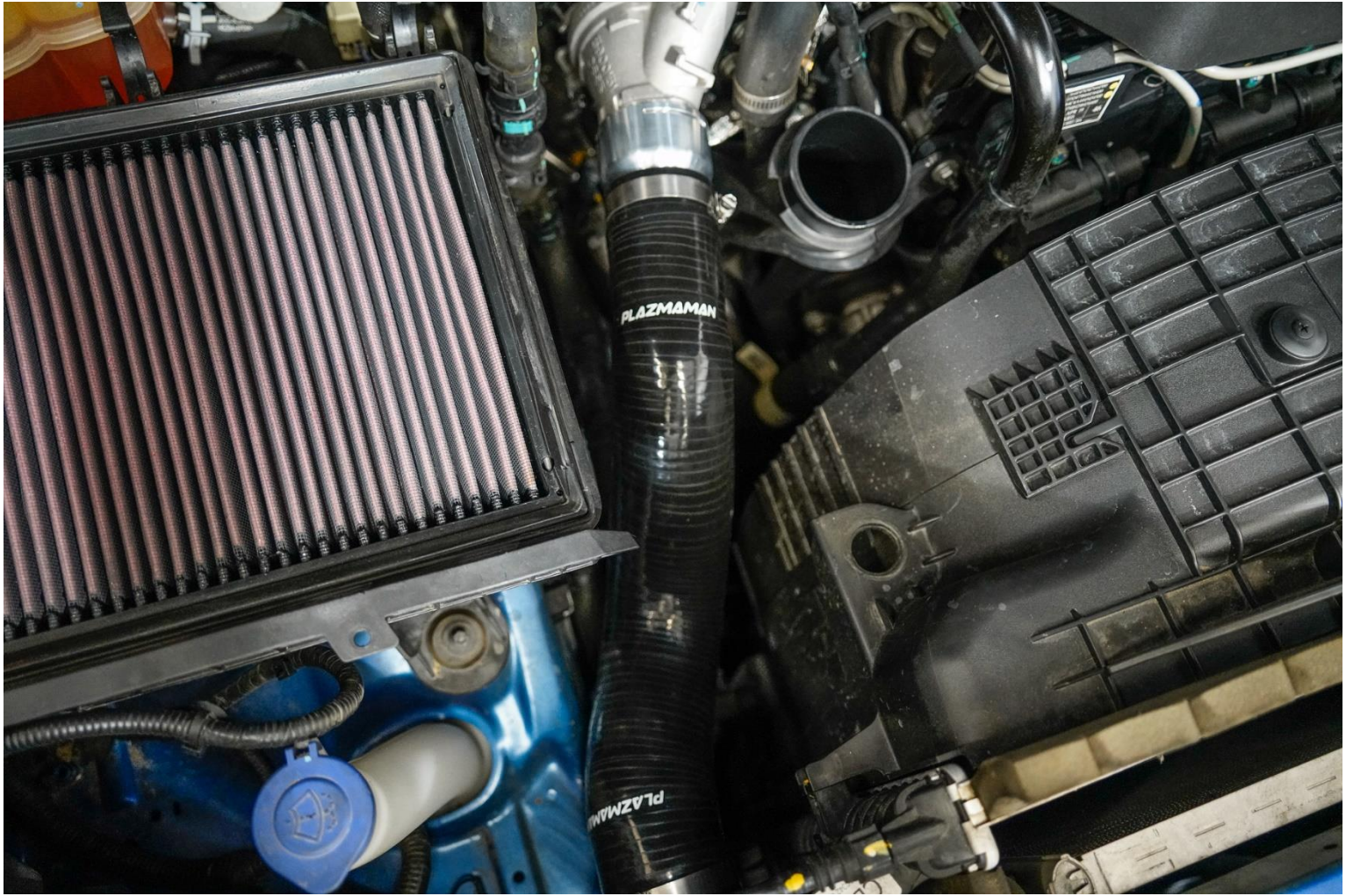


10. Install the supplied circlip adapter fittings to the turbo outlet and throttle body elbow. Install the supplied wire circlips to the adaptor fittings.

Rotate the turbo side circlip adapter until it pushes all the way into its correct position. **Double check the adapter fittings are secured.**



11. Your new Plazmaman intercooler hoses can now be installed.





Now is a good time to check that all circlips, hose clamps and intercooler hoses are fitted correctly.

It is especially important that the hoses are not rubbing/touching anywhere as this will reduce the lifespan of the hoses.

Proceed to follow these disassembly instructions in reverse for the airbox, left and right diversion panels, under headlight plastics, grill, upper diversion panel and airbox ducting all in the correct order.

