



## HDJ79 1HDFTE ULTIMATE INTERCOOLER

### **WARNING**

WARNING: Failure to follow this procedure will void your warranty.

- Do not use this product in any other motor vehicle for which it is not designed.
- Do not use any other mounting location / method other than described in this instruction.
- It is advisable to seek assistance of another person when installing this product.
- Do not repair or modify this product and / or its mounting bracket in any way - repair or modification may affect proper operation of the vehicle or cause destruction of property.
- Be sure to clean and remove any loose debris before removing pipe work as debris entering the engine could be detrimental to the engine and or components

START WITH THE REMOVAL OF THE FACTORY UNDER BONNET SOUND DEADENING FOLLOWED BY THE CROSS OVER PIPE, SILICONE AND TURBO PIPE. REMOVE EGR PIPE. REMOVE THE STEEL ROCKER COVER COVER. THE VAC LINE GOING INTO THE COVER WILL BE REPLACED.

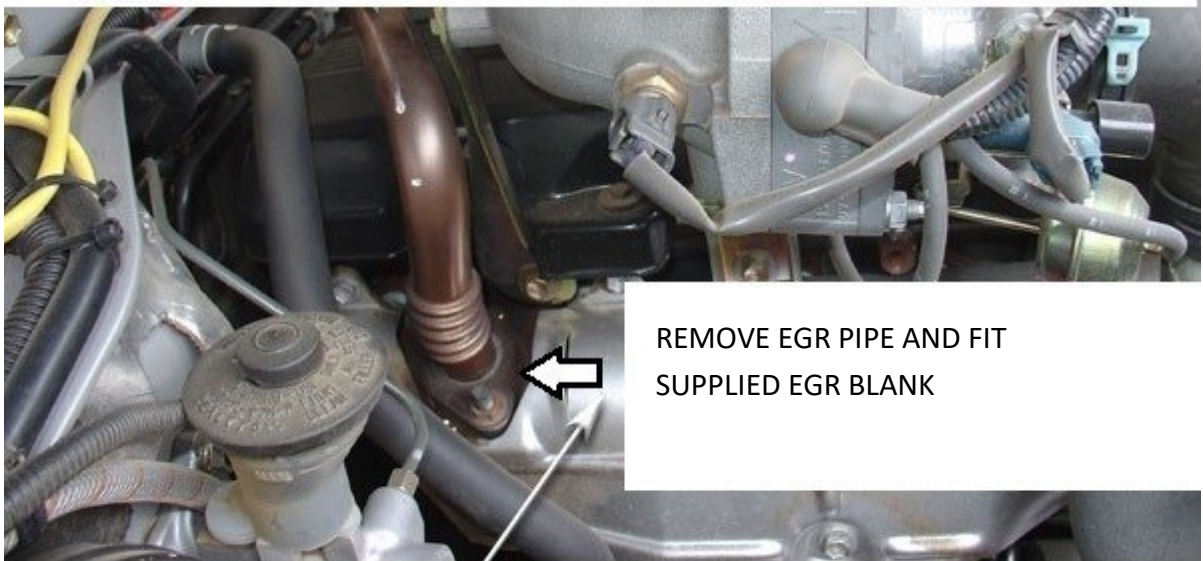
UNBOLT WIRING LOOM OFF CROSSOVER PIPE AND INTAKE HEATER ETC AND REMOVE LOOM MOUNTING BRACKET OFF THE INTAKE MANIFOLD. INSULATE WIRE PREVIOUSLY RUNNING TO INTAKE HEATER. PUT LOOM ASIDE FOR NOW.

REMOVE ALL EGR RELATED SOLENOIDS. KEEP MAP SENSOR AND THE BLUE SOLENOID. DO NOT REMOVE THE BLUE SOLENOID FROM THE SOFT SHUT OFF VALVE. REMOVE TEMP SENSOR FROM INTAKE PIPE.

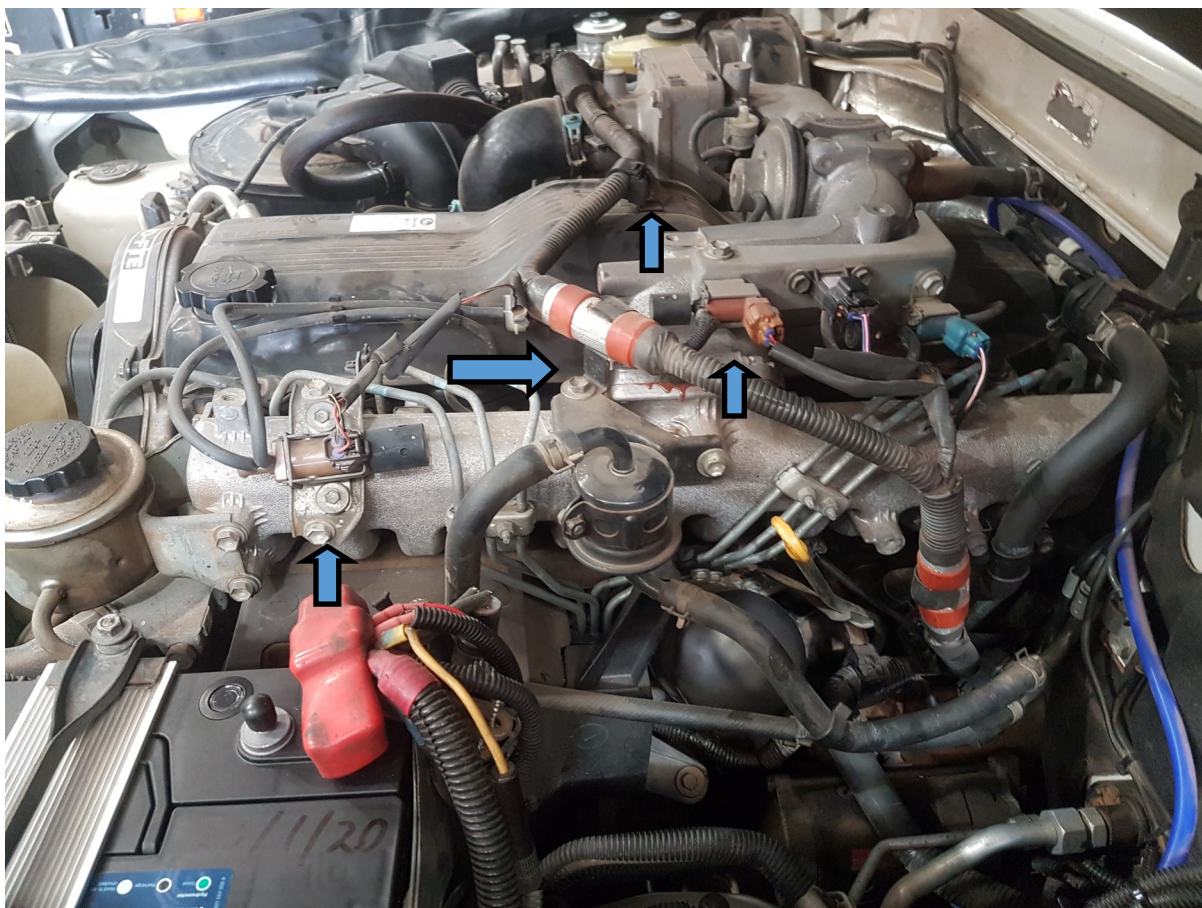


WITH THE CROSSOVER PIPE OFF, SEPERATE THE SOFT SHUT OFF VALVE . WITH SILICONE SEALER BOLT TO THE NEW CROSSOVER PIPE AS SHOWN BELOW USING THE 3 M8X30 BOLTS LEAVING THE BOLT HOLE CLOSEST TO THE MOTOR FREE.

Fit factory throttle body to the new pipe with the bolts supplied



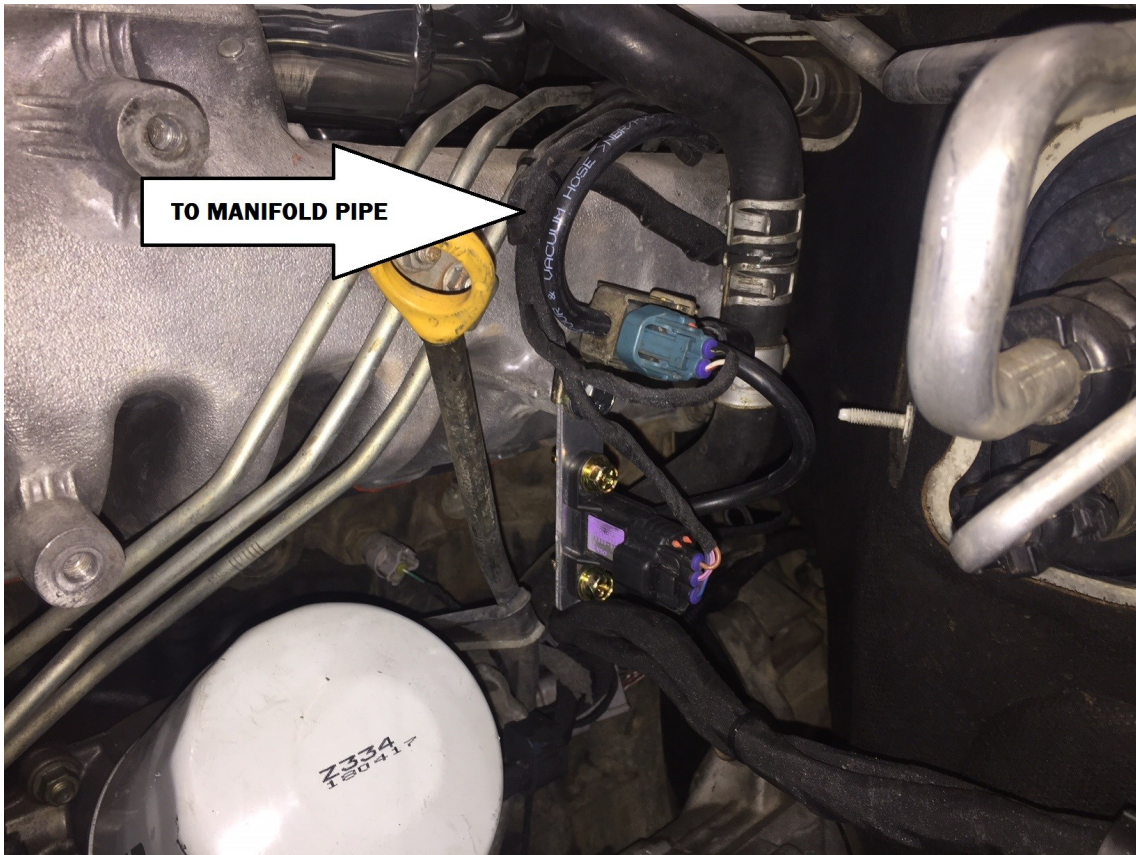
**Exhaust Manifold & Heat Shield**



REMOVE ABOVE SOLENOIDS AND BRACKETS AND DISREGARD.

REMOVE MAP SENSOR AND BLUE SOLENOID AND MOVE DOWN WITH SUPPLIED BRACKET AS SHOWN BELOW





LOOP VAC HOSE FROM MAP SENSOR TO THE SOLENOID AND FROM THE SOLENOID TO THE BARB ON THE NEW CROSSOVER PIPE WHEN FITTED. THERE IS A SPARE PORT ON THE CROSSOVER PIPE FOR A BOOST GUAGE IF NEEDED.

FIT TEMP SENSOR TO TURBO PIPE.  
FIT TURBO PIPE USING HIGH TEMP SILICONE SEALANT USING FACTORY BOLTS.  
NOTE OLD STYLE PIPE SHOWN.  
IF AFTERMARKET TURBO FITTED USE SILI-  
CONES SUPPLIED TO FIT.



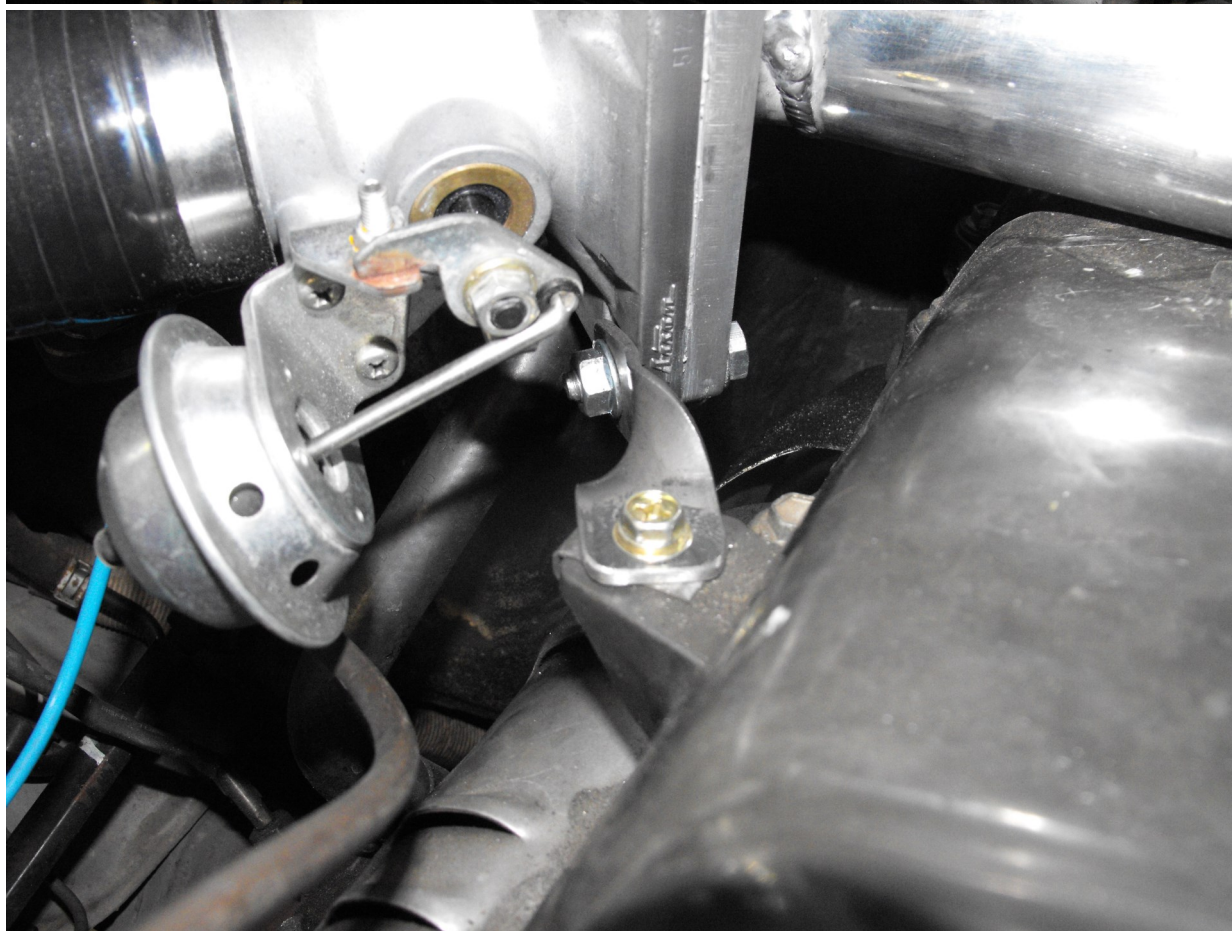
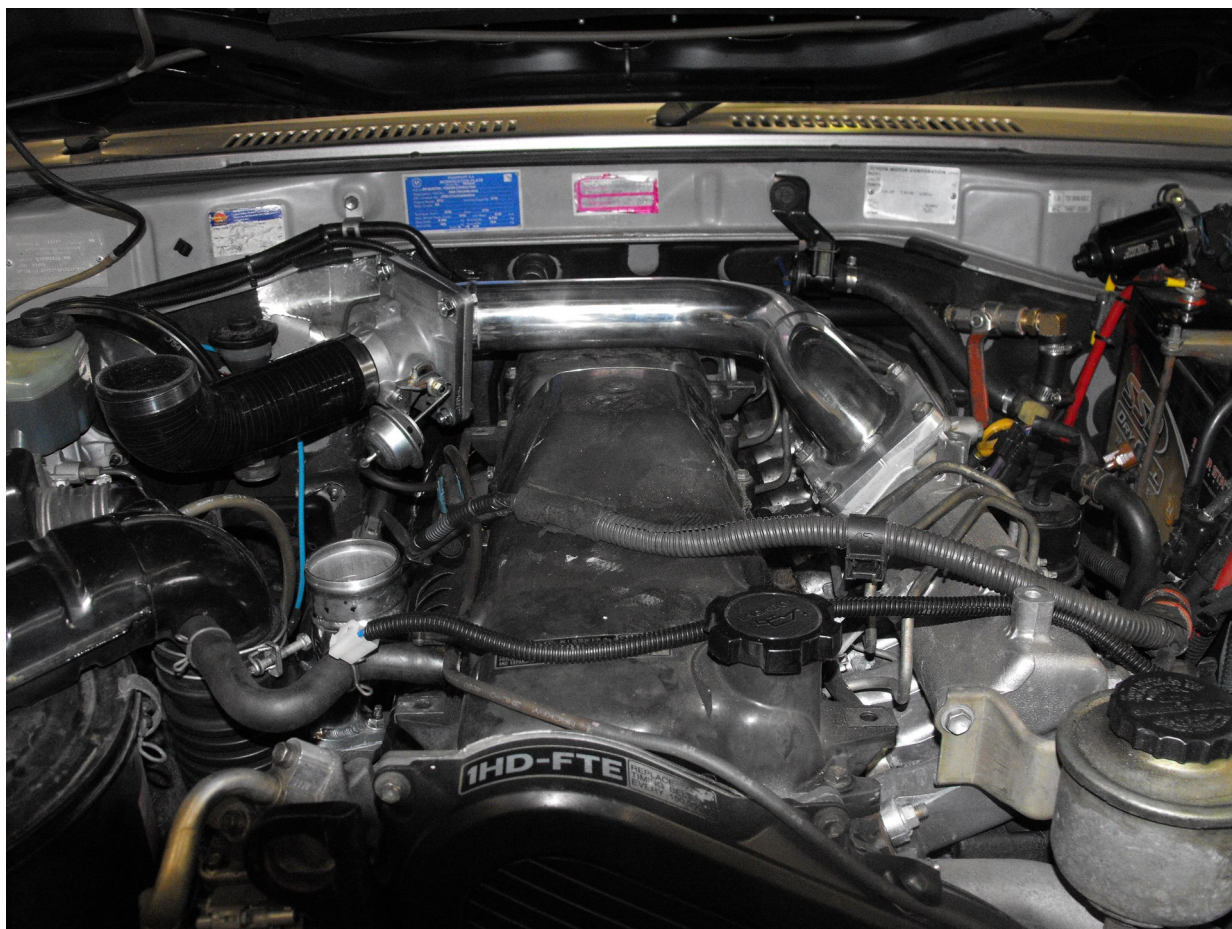
Fit air temperature into the new pipe supplied

Insure the terminal is insulated as it is no longer needed

CUT FUEL DAMPER BRACKET AS SHOWN AND ROTATE 180 DEGREES AND FIT AS SHOWN TO THE FUEL RAIL MOUNTING BRACKET BOLT.



FIT CROSSOVER PIPE USING SILICONE SEALANT AND FACTORY NUTS AND BOLTS. LEAVE LOOSE. FIT SUPPORT BRACKET AS SHOWN BELOW WITH SUPPLIED M8X35 BOLT AND M6 PANEL BOLT. NOW TIGHTEN INTAKE MANIFOLD TO CROSSOVER PIPE BOLTS FOLLOWED BY THE SUPPORT BRACKET BOLTS.



RUN THE LONG VACUUM HOSE SUPPLIED FROM THE SOLENOID ON THE SOFT SHUT OFF VALVE TO THE VACUUM PUMP AS SHOWN .



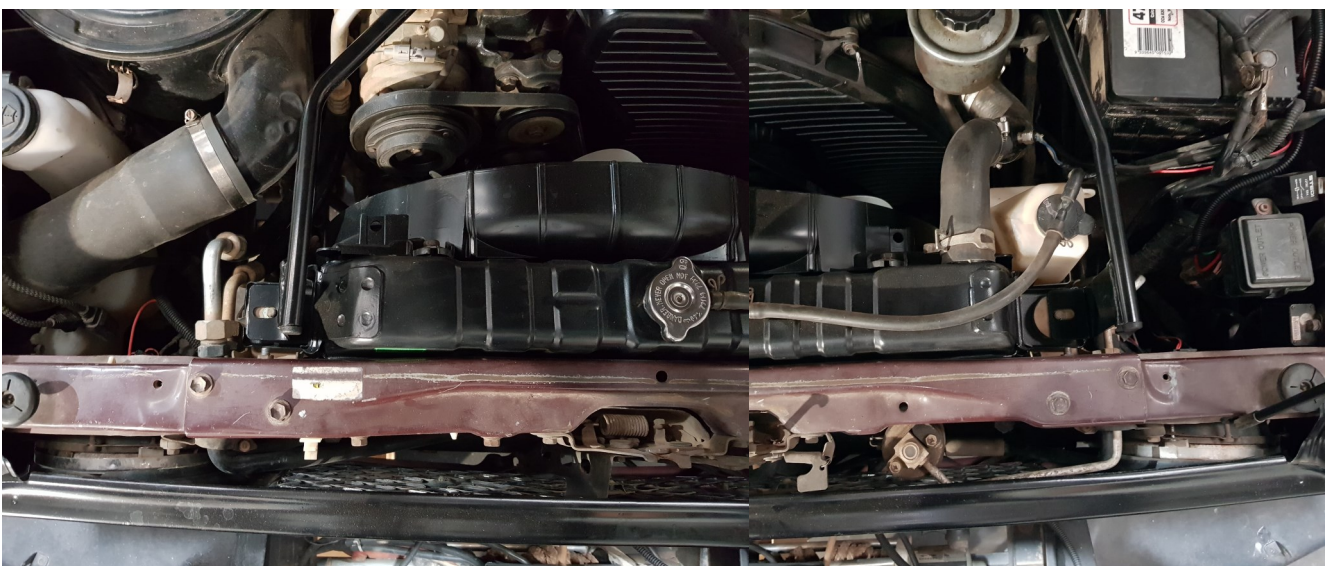


FIT ASSEMBLED SILICONES AS SHOWN.



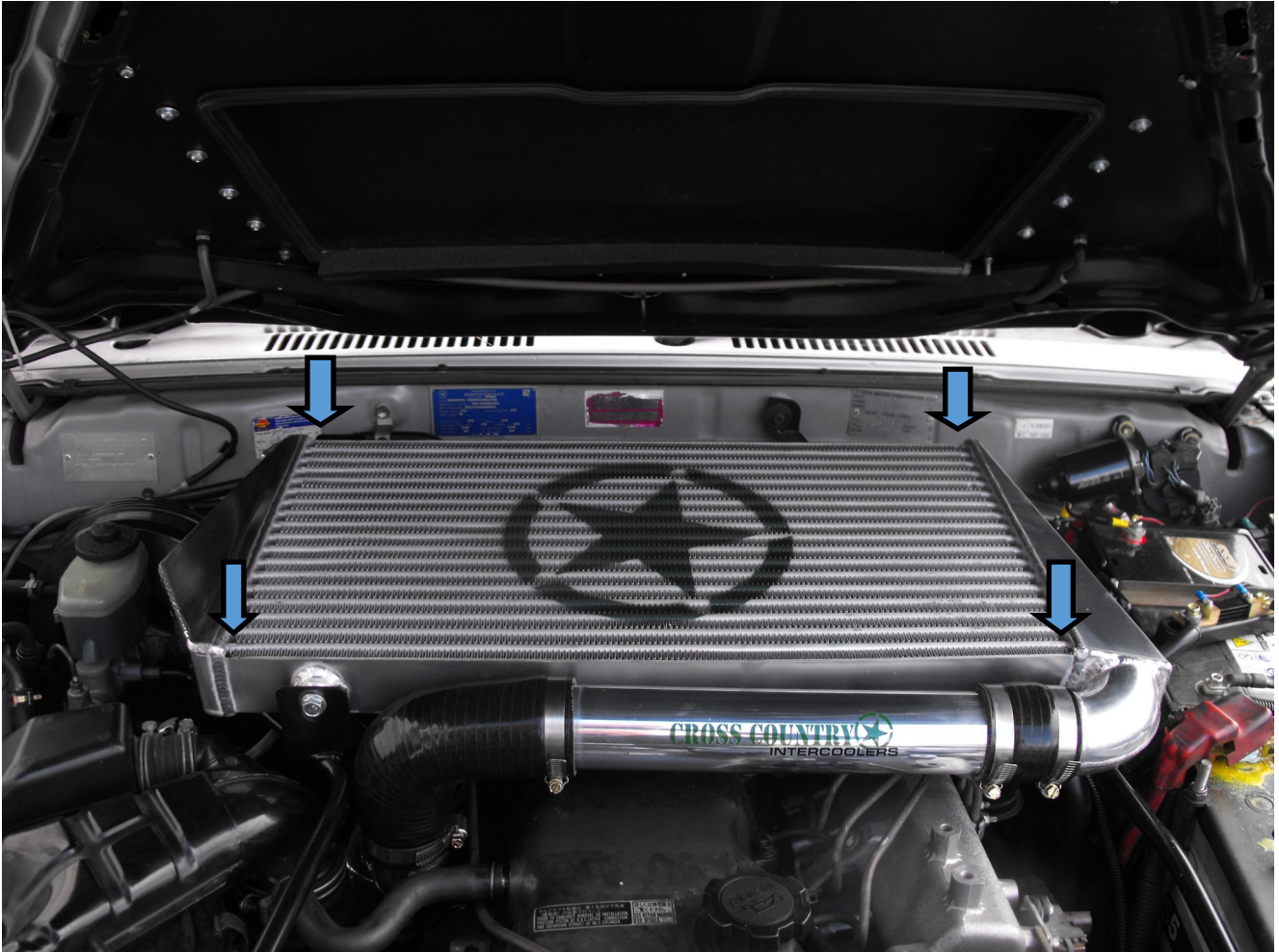
ASSEMBLE THE TWO FRAME RAILS TO THE INTERCOOLER USING THE 4X M8X16 BOLTS SUPPLIED. LIGHTLY TIGHTEN MOUNTING BOLTS IN THE BOTTOM OF THE SLOTS ON THE FRAME (END CLOSEST TO FRAME RAIL).

UNDO THE TWO RADIATOR MOUNT NUTS AND LOOSEN REAR CLAMPING BOLTS LEAVING THEM ON THE FRAME. CAREFULLY FIT INTERCOOLER MAKING SURE THE FRAME TAG IS ON TOP OF THE LIP OF THE FIRE-WALL AND THE CLAMPING PIECE IS UNDERNEATH. PUSH SILICONE ONTO INTERCOOLER.



GENTLY SLIDE COOLER SIDE TO SIDE SO THE INTERCOOLER IS SITTING IN A NEUTRAL POSITION. CONFIRM THE FRAME RAILS ARE SITTING CORRECTLY WITH THE FRAME TAGS SQUARE TO THE INTERCOOLER. TIGHTEN FRAME TO INTERCOOLER BOLTS. TIGHTEN FRONT FRAME BOLTS AND REAR CLAMPING BOLTS TO THE FIREWALL LIP.

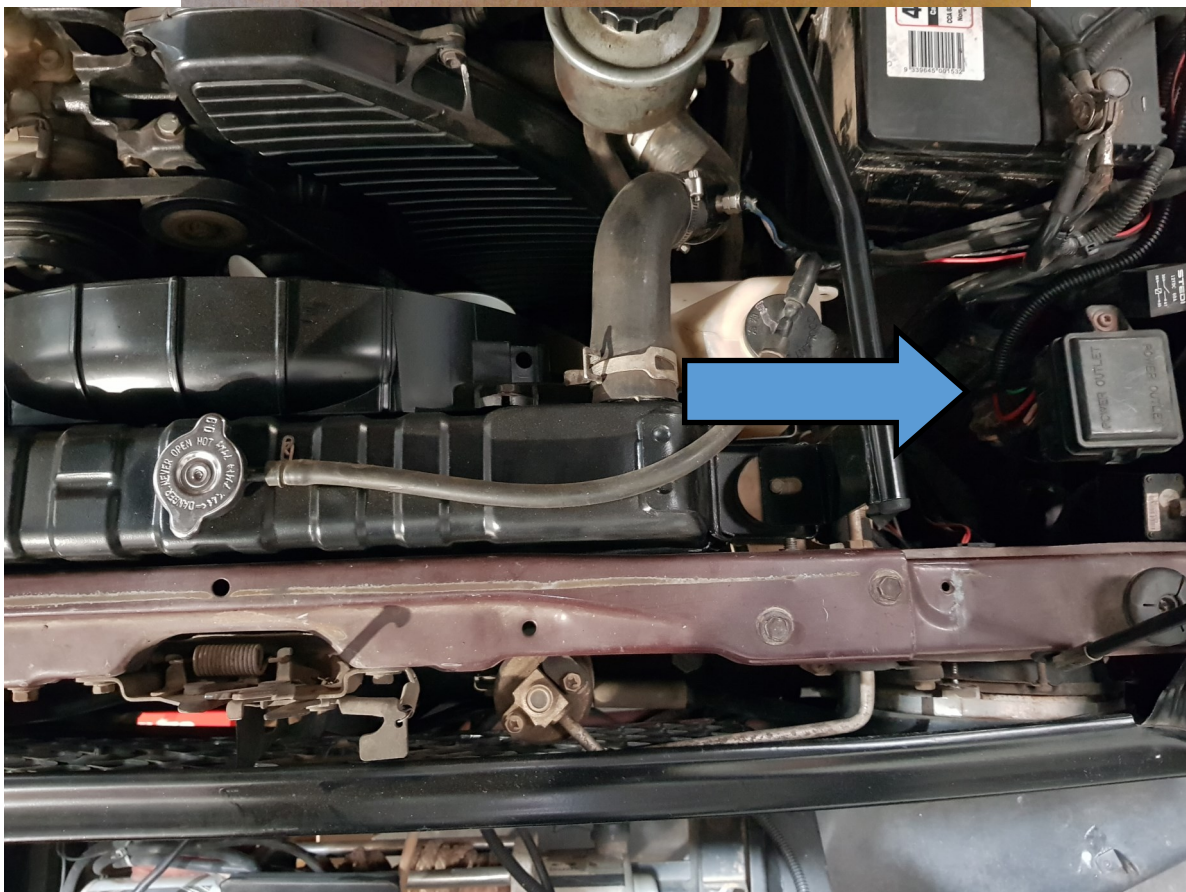
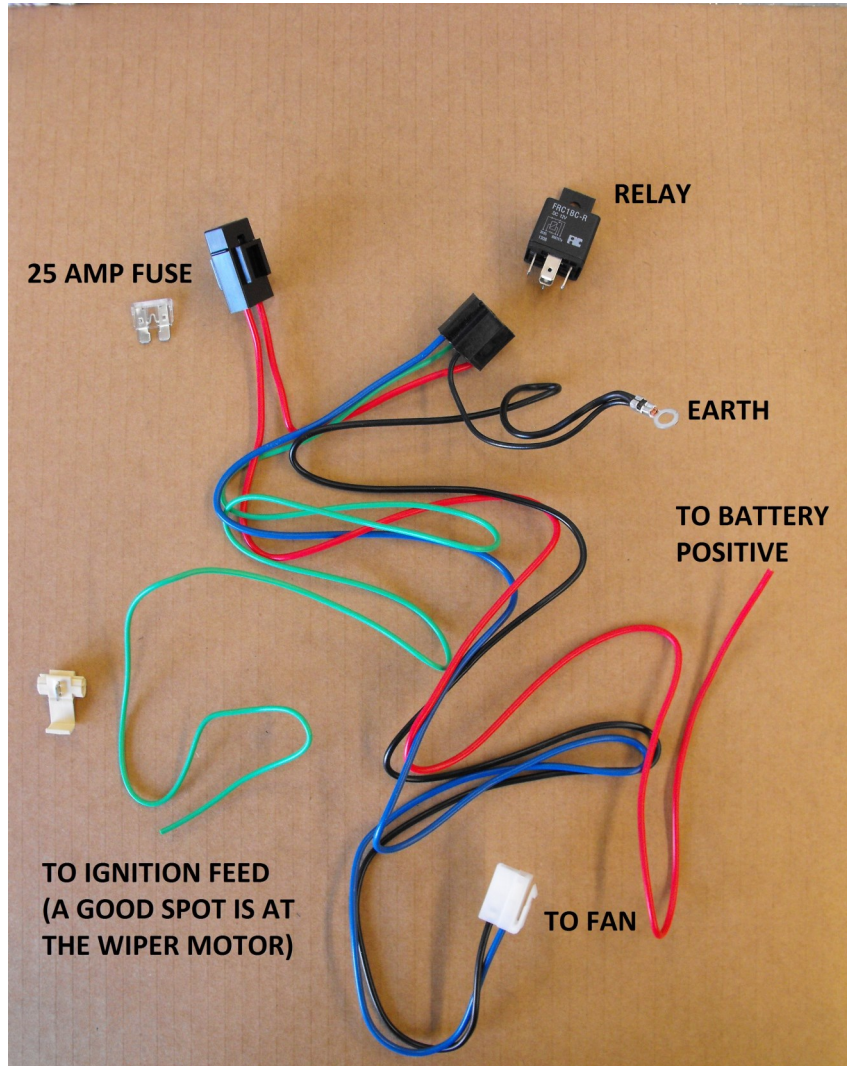
FIT THE TURBO TO INTERCOOLER PIPE WORK AS SHOWN. TIGHTEN ALL HOSE CLAMPS



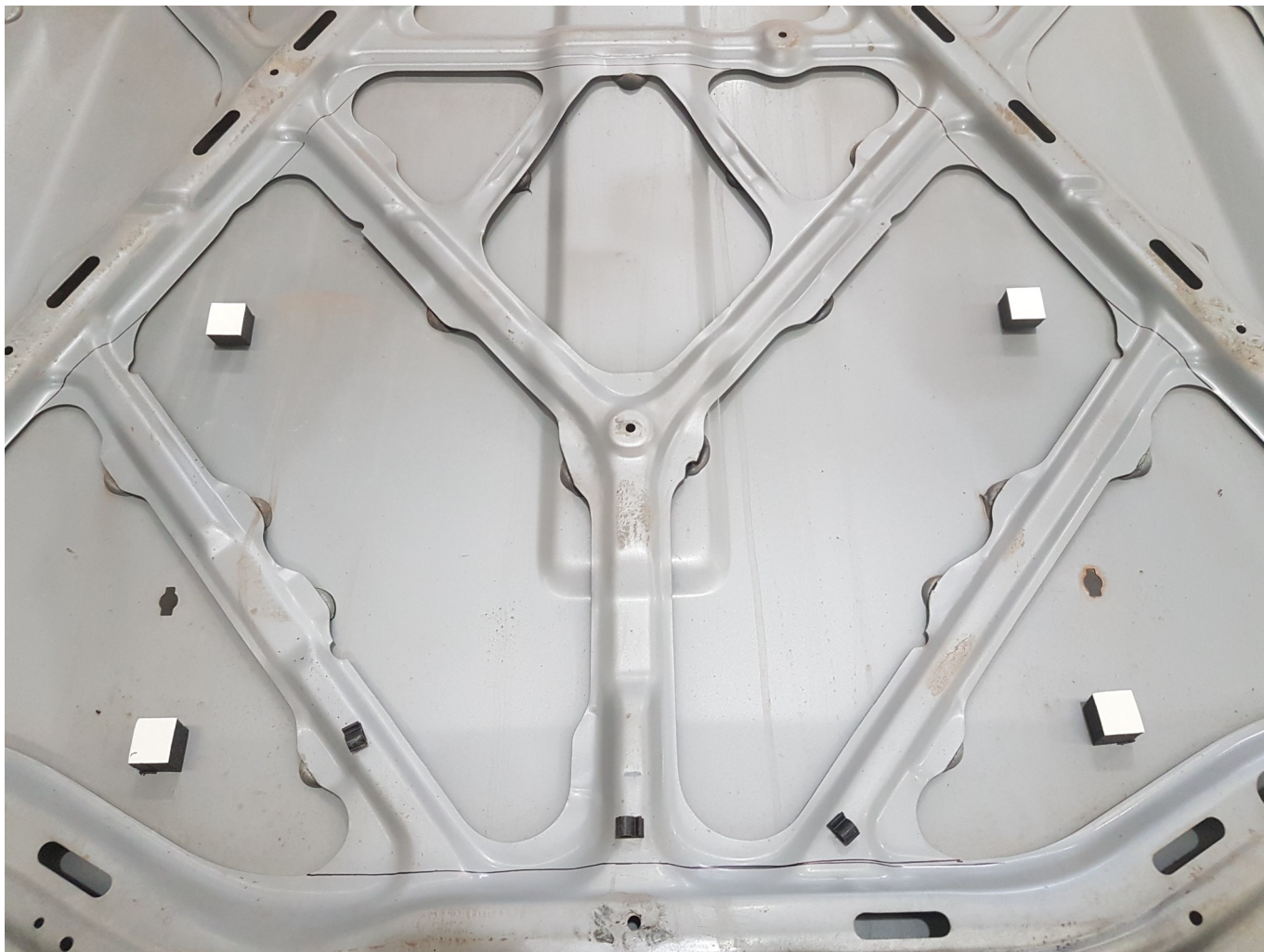
ONCE THE INTERCOOLER IS FITTED PLACE THE 4 FOAM SQUARES SUPPLIED ON THE OUTSIDE EDGES OF THE INTERCOOLER STICKY SIDE UP.

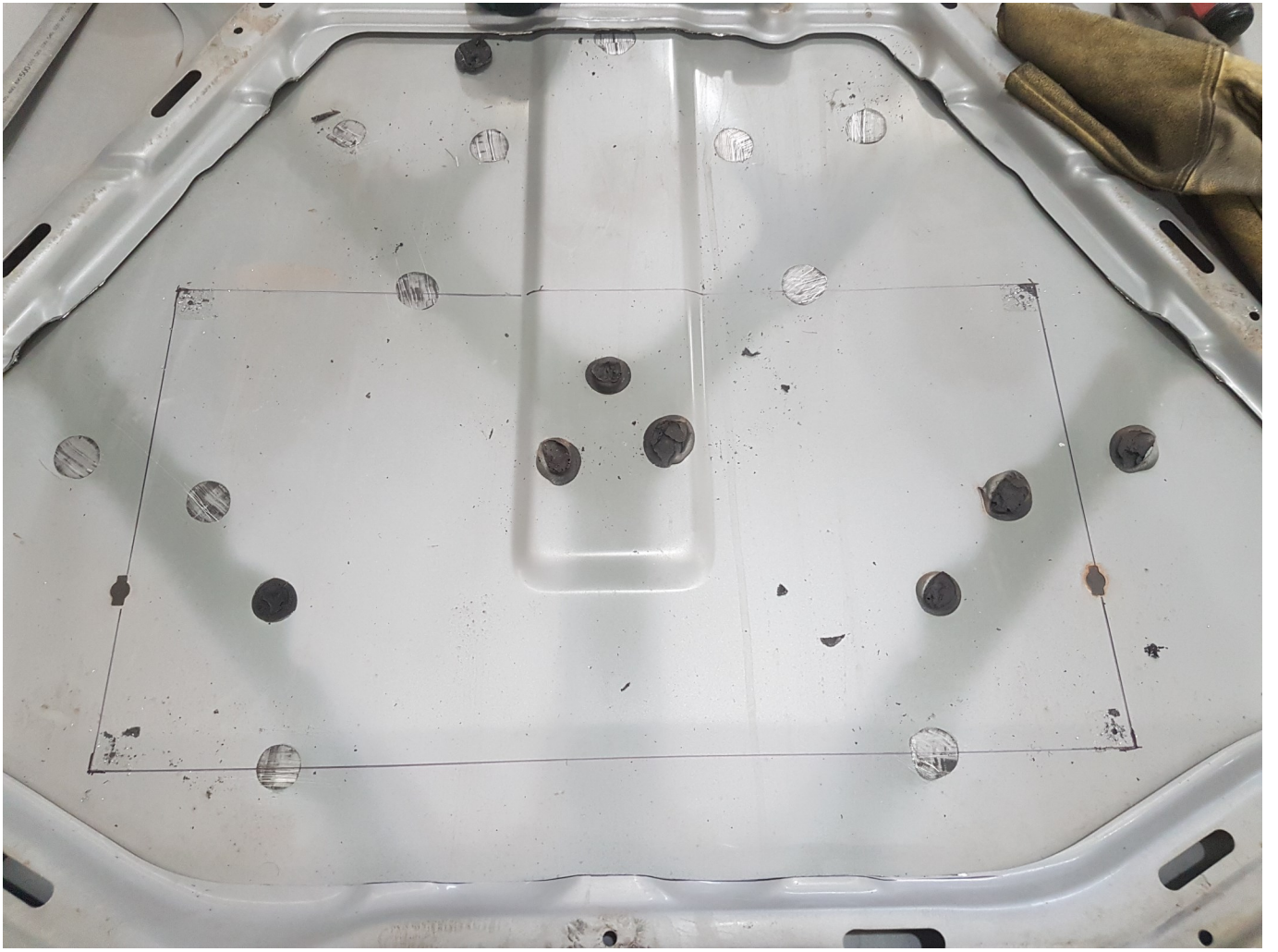
CAREFULLY LOWER THE BONNET DOWN SO THE FOAM SQUARES TRANSFER TO THE BONNET. LIFT UP AND REMOVE THE BONNET. PLACE ON STANDS READY FOR CUTTING.

AFTER THE BONNET IS REMOVED WIRE THE FAN AS SHOWN BELOW. A GOOD PLACE FOR IGNITION FEED ON THE 70 SERIES IS THE BREAK OUT BOX IN THE ENGINE BAY



WITH THE BONNET OFF FOLLOW THE INSTRUCTIONS SUPPLIED WITH THE SCOOP.





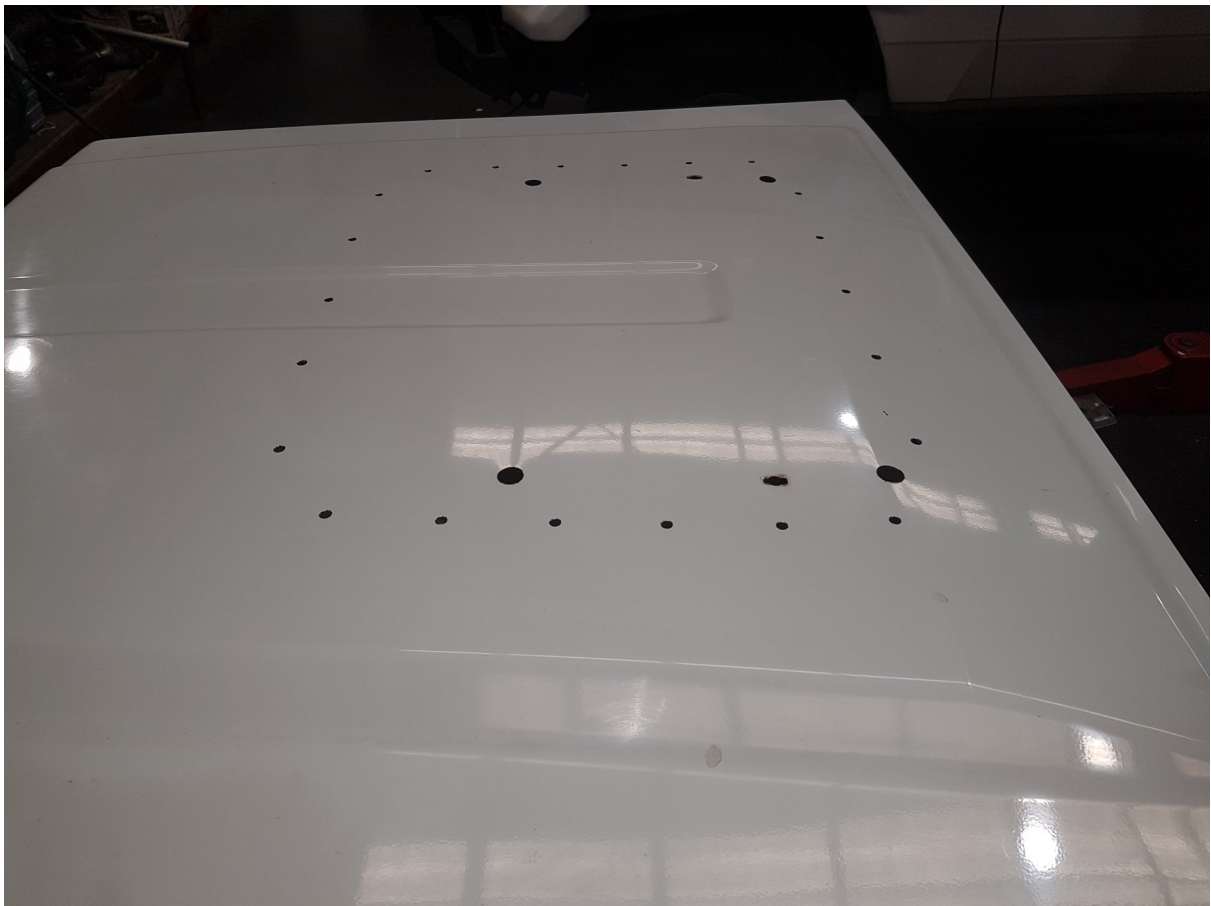
AFTER CUTTING THE WEBBING AND DRILLING THE PILOT HOLES AS SHOWN FLIP THE BONNET OVER AND PLACE TEMPLATE ON TOP. FOLLOW INSTRUCTIONS ON THE TEMPLATE. ON THE HDJ79'S WE LIKE TO PLACE THE SCOOP WITH THE UNDERSIDE LIP AS CLOSE TO THE INTERCOOLER HOLE AS POSSIBLE.

IF YOU HAVE ANY QUESTIONS AT THIS POINT FEEL FREE TO CALL US ON 08 8357 5993.

ONCE THE SCOOP IS IN ITS FINAL LOCATION TAPE THE EDGES DOWN AND PROCEED TO DRILL MOUNTING HOLES.

THE WASHER JETS WILL NEED TO BE MOVED OUTWARDS. DRILL NEW HOLES APPROX 20-30MM FROM THE OUTSIDE OF THE SCOOP EDGE IN THE SAME LINE AS ORIGINAL WASHER JETS.

ONCE ALL HOLES ARE DRILLED CUT OUT THE INTERCOOLER HOLE.



PREPARE SURFACES FOR PAINT, PRIME AND PAINT ALL DRILLED AND CUT SURFACES.

ONCE THE PAINT HAS DRIED ATTACH SUPPLIED PINCH WELD.

ATTACH THE FOAM THAT CAME WITH THE SCOOP ON THE UNDERSIDE OUTSIDE EDGE OF THE SCOOP.

WITH THE 5MM FOAM SUPPLIED IN THE KIT PLACE THAT ON THE UNDER SIDE OF THE SCOOP WHERE THE BONNET DIPS AT THE FRONT AND AROUND THE REAR OF THE SCOOP WHERE THE BONNET FALLS AWAY.

ATTACH SCOOP USING SUPPLIED FIXINGS.

INSTALL SUPPLIED WASHER JETS AND RUN NEW WATER HOSE AS SHOWN

THE UNDER BONNET INSULATION CAN BE REINSTALLED. SOME NEW MOUNTING HOLES MAY NEED TO BE DRILLED FOR THE RETAINING CLIPS.

REINSTALL BONNET AND TEST DRIVE VEHICLE AFTER A FEW HEAT CYCLES RE TENSION THE HOSE CLAMPS AND CHECK PERIODICALLY AT EACH SERVICE.



