



NISSAN PATROL ZD30 DIRECT INJECTION ULTIMATE INTERCOOLER FITTING INSTRUCTIONS

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 THE INTERCOOLER INSTALL BY REMOVING THE SOUND INSULATION ON THE UNDER SIDE OF BONNET KEEPING BOTH INSULATION AND CLIPS. REMOVE BONNET SCOOP AND SHROUD. REMOVE ENGINE COVER AND DISCONNECT MAP SENSOR. REMOVE INTERCOOLER FOLLOWED BY ALL INTERCOOLER PIPEWORK. CLEAN TURBO OUTLET AND MANIFOLD INLET SO NO OIL IS PRESENT.



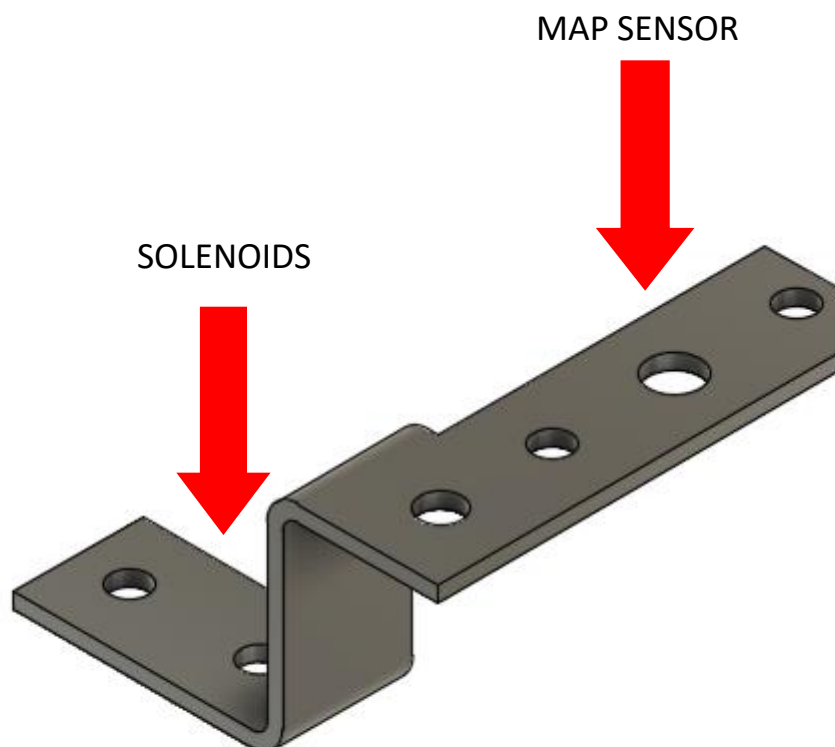
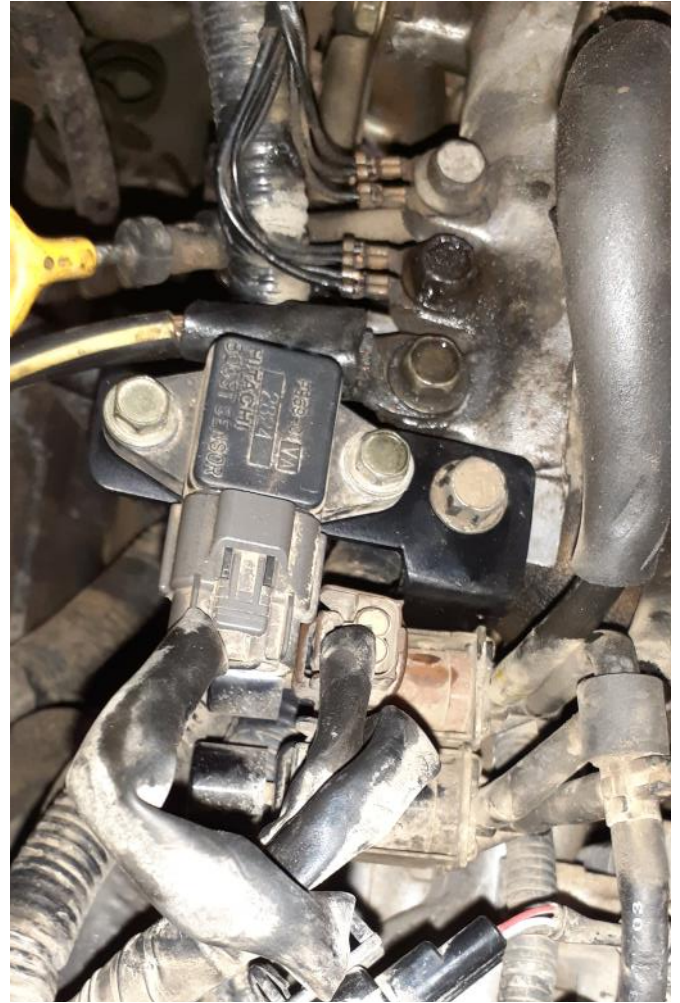
REMOVE BRACKET FROM TOP OF MANIFOLD FOR CLEARANCE TO THE INTERCOOLER.



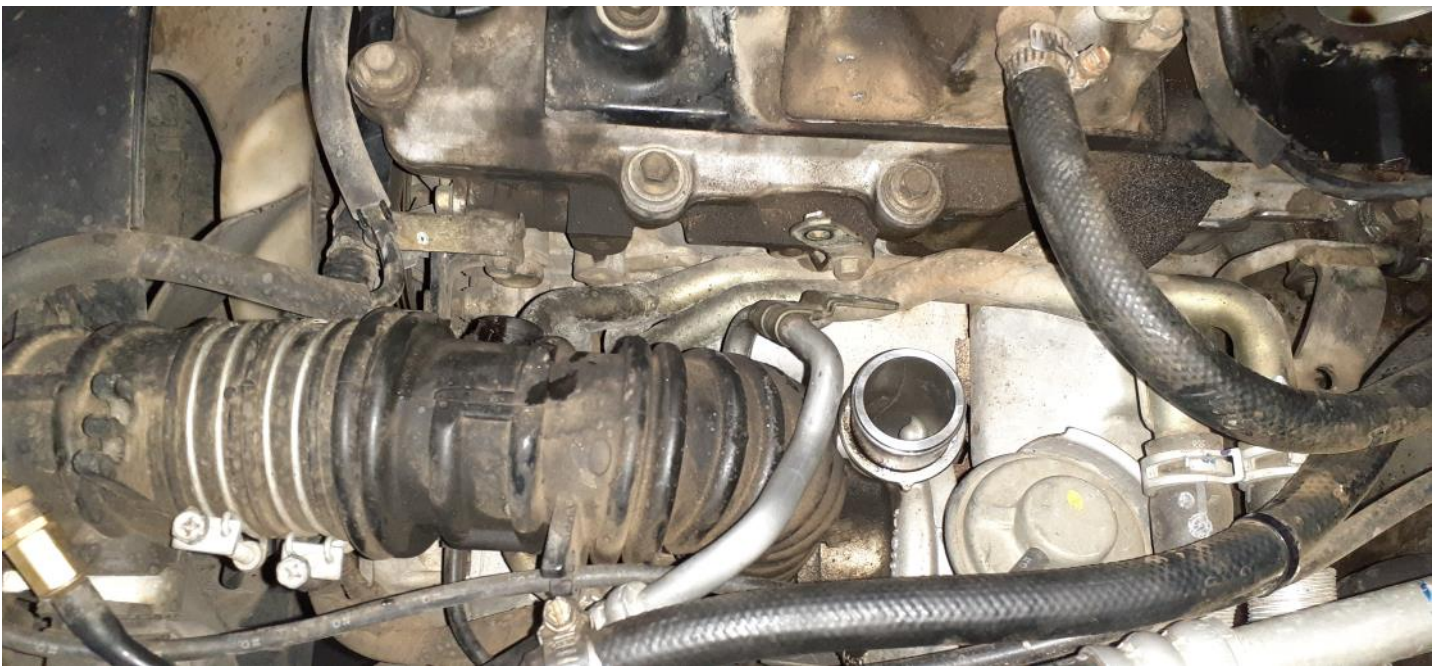
REMOVE BRACKET SHOWN AND UN BOLT SOLENOIDS. THE VACUUM LINES CAN BE PERISHED. CHECK CAREFULLY.



GENTLY BEND THE TWO STEEL VACUUM LINES AS SHOWN FOR CLEARANCE TO THE INTERCOOLER. REMOVE MAP SENSOR FROM THE FACTORY INTERCOOLER AND INSTALL ON NEW MAP SENSOR BRACKET (BELOW) INSTALL THE SOLENOIDS AS SHOWN TO THE NEW MAP SENSOR BRACKET USING ORIGINAL NUTS. INSTALL MAP SENSOR TO MOTOR.



UNBOLT THE SMALL AIRCON LINE FROM THE MOTOR AND GENTLY BEND DOWN AS SHOWN TO ALLOW CLEARANCE TO THE INTERCOOLER.

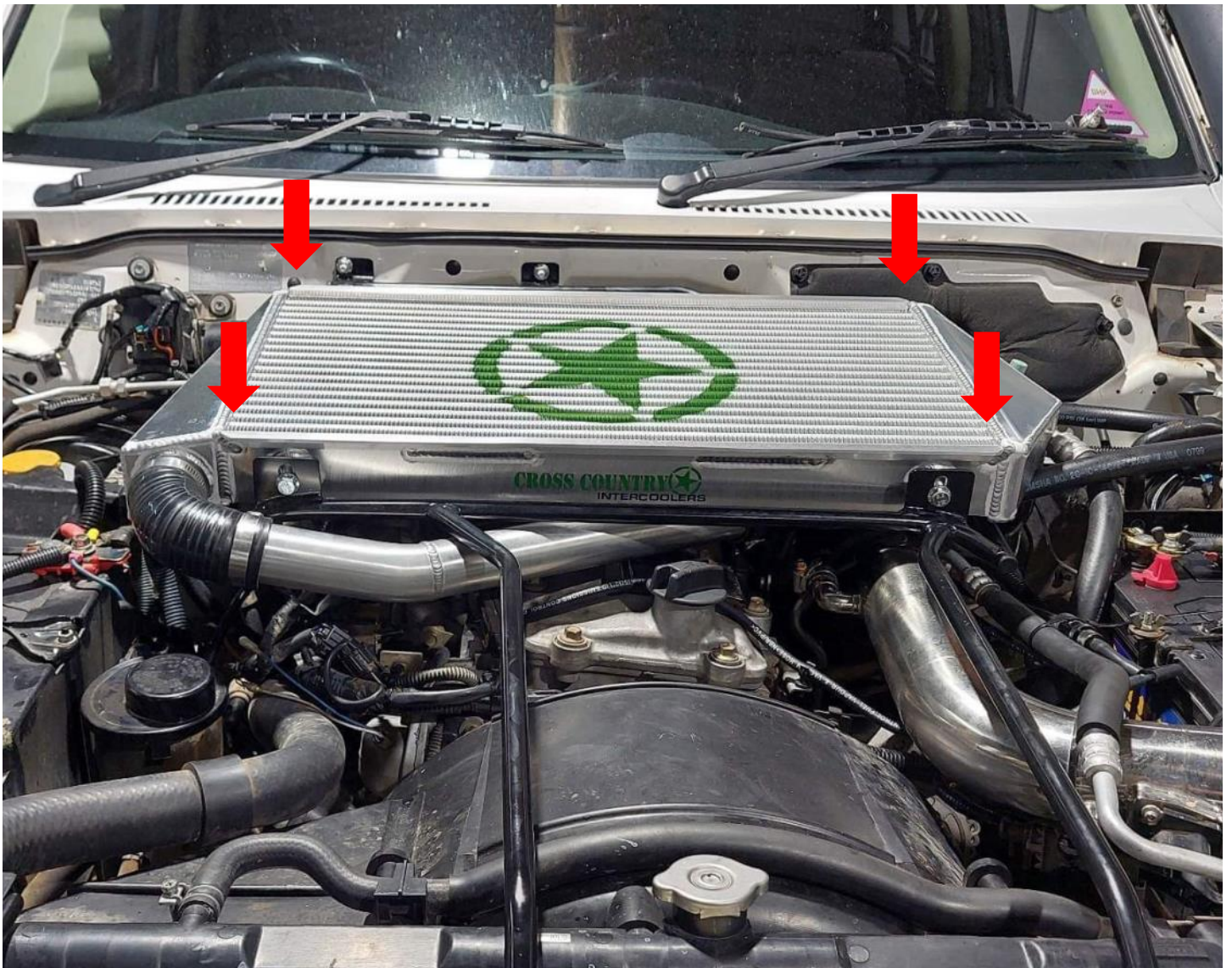


USING A PRY BAR LIKE SHOWN SUPPORT THE AC LINE AT THE FIREWALL (NOT ON THE PIPE ITSELF BUT THE CONNECTING BLOCK). CAREFULLY PULL THE AC PIPE TO THE PASSANGER SIDE OF THE VEHICLE UNTIL SUFFICIENT CLEARANCE FOR THE INTERCOOLER IS ACHIEVED. THE AC LINES VARY BETWEEN VEHICLES AND MAY BE DIFFERENT TO SHOWN. BE EXTRA CAREFUL IF THE CAR IS FITTED WITH REAR AIR.



INSTALL THE INTERCOOLER AS SHOWN (THE INTERCOOLER WILL BE REMOVED AGAIN AFTER THE FOLLOWING STEPS). TIGHTEN THE TWO REAR MOUNTING NUTS. MARK THE FRONT MOUNTING HOLES OF THE FRAME TO BE DRILLED. PLACE SUPPLIED FOAM SQUARES STICKY SIDE UP ON THE OUTSIDE EDGES OF THE INTERCOOLER. GENTLY CLOSE BONNET AND PUSH DOWN. OPEN THE BONNET AND THE FOAM SQUARES WILL HAVE TRANSFERRED TO THE UNDERSIDE OF THE BONNET SHOWING THE LOCATION OF THE INTERCOOLER.

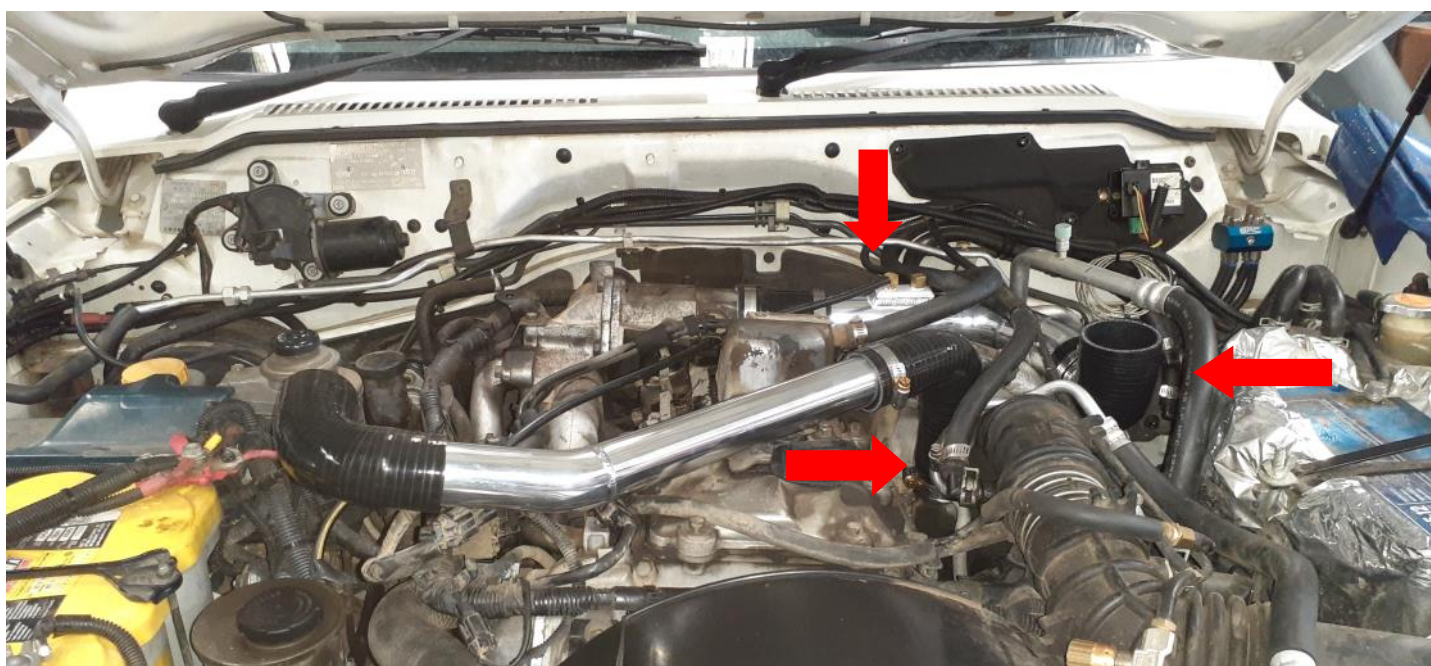
REMOVE INTERCOOLER. DRILL THE FRONT MOUNTING HOLES BEING CAREFUL NOT TO DRILL THROUGH WIRES OR AC CONDENSOR.



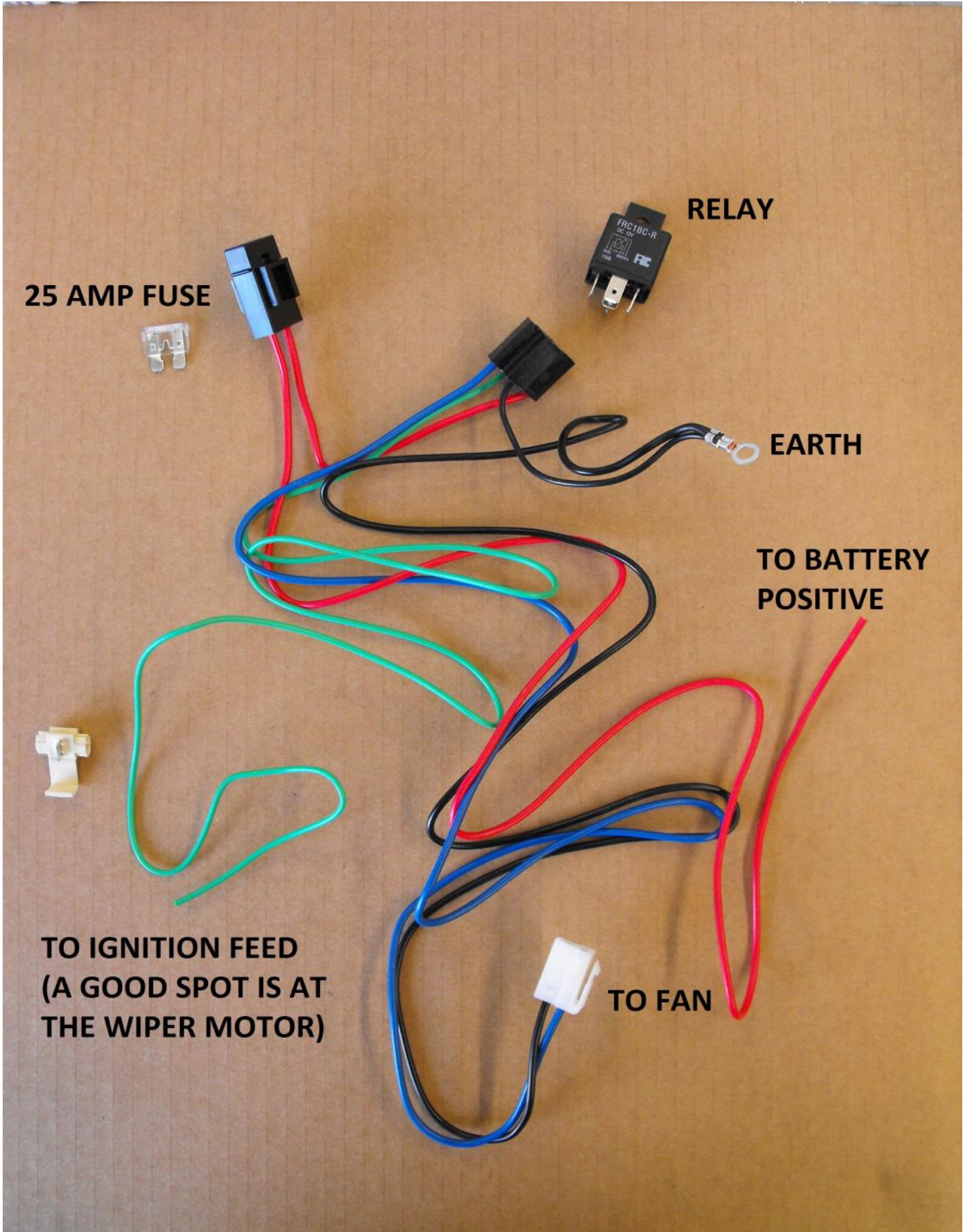
WITH A GRINDER REMOVE MATERIAL FROM THE HEATER HOSE SUPPORT BRACKET (REAR PASSANGER SIDE) AS SHOWN FOR CLEARNCE FOR THE INTERCOOLER PIPEWORK.



INSTALL PIPEWORK AS SHOWN. INSTALL THE LONGEST LEG 1 3/4" SILICONE TO THE TURBO OUTLET. AND THE SHORTEST LEG 2 1/4" SILICONE TO THE INTERCOOLER INLET. RUN SUPPLIED 4MM HOSE FROM MAP SENSOR TO THE FITTING ON THE INTERCOOLER PIPEWORK. REINSTALL THE INTERCOOLER CONNECTING THE SILICONE HOSES. ONCE FITTED AND ADJUSTED TIGHTEN ALL HOSE CLAMPS.



INSTALL WIRING LOOM AS BELOW



25 AMP FUSE

RELAY

EARTH

TO BATTERY POSITIVE

TO IGNITION FEED
(A GOOD SPOT IS AT
THE WIPER MOTOR)

TO FAN

BONNET SCOOP FITTING INSTRUCTIONS

After fitting the intercooler, use the supplied foam squares to transfer the intercooler hole location to the bonnet. Depending on what intercooler you have place the foam squares sticky side up on the outside corners of the foam or if your intercooler has small angle place them on the outside corners of the core itself. Some packers may be needed.

Remove the bonnet from the vehicle. Double check the measurements of the foam squares against where the intercooler sits. THE HOLE FOR THE INTERCOOLER IS ONLY TO BE THE SIZE OF THE CORE ITSELF. Confirm which side of the foam squares need to be marked by measuring the intercooler core size and comparing the measurement to the foam squares on the bonnet. After confirming the position drill a 3mm pilot hole in each corner. DO NOT cut the hole out for the intercooler yet.

Cut out the appropriate under bonnet webbing as shown in pictures and deburr all edges.

Once finished turn the bonnet over (top of bonnet facing up) and place paper template on the bonnet.

Take measurements from the back edge of the scoop to the rear lip of the bonnet. This location varies on what vehicle you have. Please see below list for the approximate fitting position.

GQ patrol just in front of washer jets (excluding Extreme)

GU PATROL 5-10 mm

60 LANDCRUSIER 80 mm

75/79 LANDCRUISER 140 mm

80 LANDCRUSIER 45 mm

100/105 LANDCRUSIER just in front of washer jets

200 LANDCRUSIER 50mm

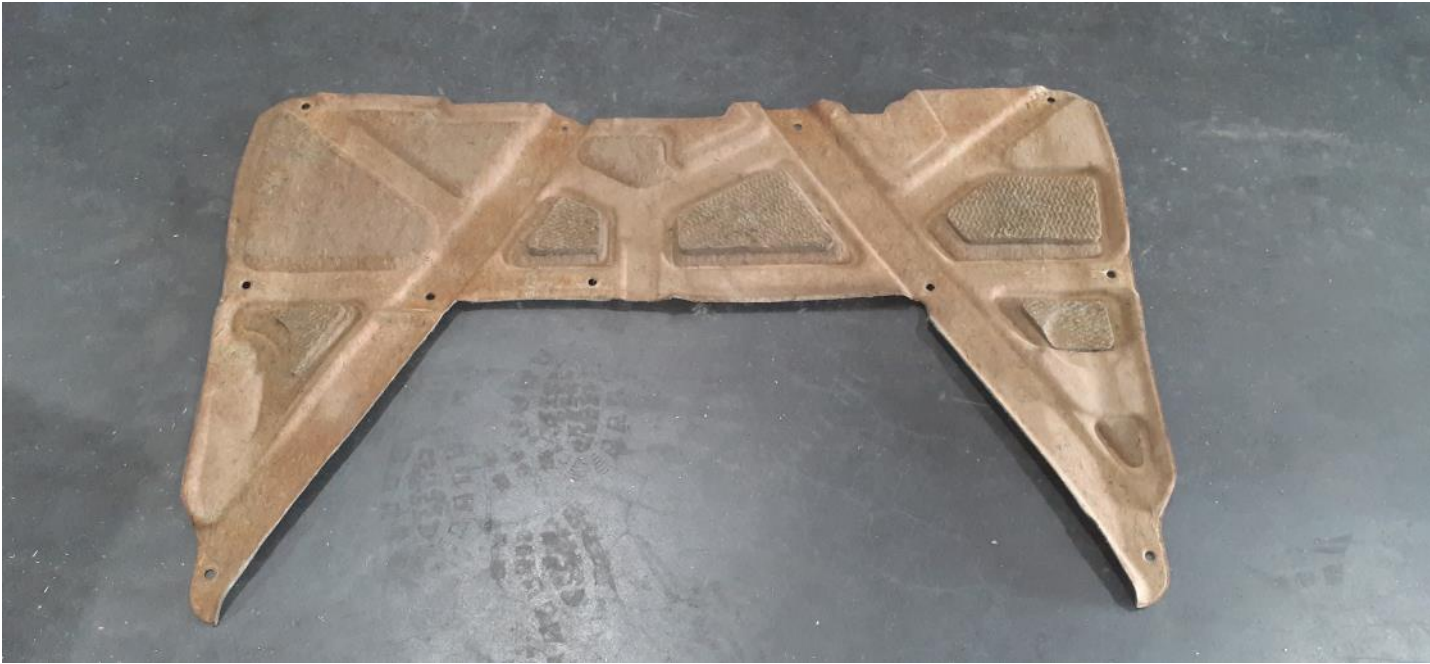
Confirm the scoop will not interfere with the intercooler hole cut out by using previously drilled pilot holes and compare to scoop template. When in correct position tape down the edges of the template making sure there are no creases. Drill 3mm pilot holes through the mounting points marked on the scoop template. Going through the bonnet skin and any webbing underneath.

Turn the bonnet over and if applicable drill the holes going through the under-bonnet webbing NOT THE BONNET SKIN to 20mm to allow clearance for the washers. Once the clearance holes are drilled, drill the holes going through the bonnet skin to 8mm. Deburr all holes.

Mark out the hole for the intercooler using the 4 pilot holes as reference points and cut out with a grinder with a 1mm disc, making multiple shallow cuts reduces the likelihood of the paint blistering. Once cut clean up any burrs.

WITH THE BONNET CUT AND SCOOP MOUNTING HOLES DRILLED, PRIMER AND PAINT THE BONNET. INSTALL THE BONNET INFILL PANEL AS SHOWN. INSTALL SUPPLIED PINCHWELD. ATTACH THE SCOOP TO THE BONNET USING SUPPLIED FASTENERS. THE SOUND INSULATION CAN BE TRIMMED AND INSTALLED AS SHOWN.







REINSTALL THE BONNET AND RE ATTACH WASHER HOSE. MAKE SURE ALL BOLTS AND HOSE CLAMPS ARE TIGHT. CHECK FAN OPERATION AND TEST DRIVE VEHICLE AND CHECK FOR ANY LEAKS.

RE TENSION HOSE CLAMPS AFTER 100KM OF DRIVING AND CHECK AT REGULAR SERVICE INTERVALS.

IF INTERCOOLER IS REMOVED CLEAN THE PIPE OUTLETS AND INSIDE THE ENDS OF THE SILCONES WITH A SOLVENT SO NO OIL IS PRESENT AT TIME OF INSTALLATION