

PLAZMAMAN

NISSAN NAVARA D23 NP300 DURAMAX INTERCOOLER UPGRADE

Parts supplied

- 1x Plazmaman Intercooler
- 1x Hot side silicone hose
- 1x Hot side circlip adapter
- 1x Cold side silicone hose
- 1x Driver side lower intercooler bracket
- 1x Passenger side lower intercooler bracket
- 1x Bar support
- 2x Top intercooler brackets
- 1x Water hard line support bracket
- 1x Radiator hose support bracket
- 1x Hose support bracket
- 1x Fan shroud cover
- 1x 2" P-Clamp
- 4x #36 Hose clamps
- 2x M8x12mm Hex Bolts
- 2x M8 Spring washer
- 2x M8 Flat washer
- 1x M6x20mm Hex bolt
- 2x M6 Spring washer
- 3x 6mm Self tapping screws
- 1x M6 x16mm Hex Bolt

Procedure

1. Remove FOUR top grill clips.



2. Remove FOURTEEN bolts from the bottom of the bumper and stone.



3. Remove screw from inside of the wheel well.
Repeat for other side.



4. Pull the plastic from inside the wheel well away from the front bumper to expose the 10mm bolt holding the bumper to the guard and remove.
Repeat for other side.



5. Using a flat blade screw driver, turn to unlock the FOUR plastic fasteners hidden inside the front of the grill.



6. Release the SIX tabs hidden behind the front grill while pulling the grill forward to release it from the radiator support.



7. Using a Philips screw driver, remove the THREE fasteners from the top of the bumper.
- 8.



9. Carefully pull the bumper away from the headlight area to release it from the vehicle, this should be done simultaneously on both sides with two people. Disconnect the front fog lights when the bumper is pulled away.



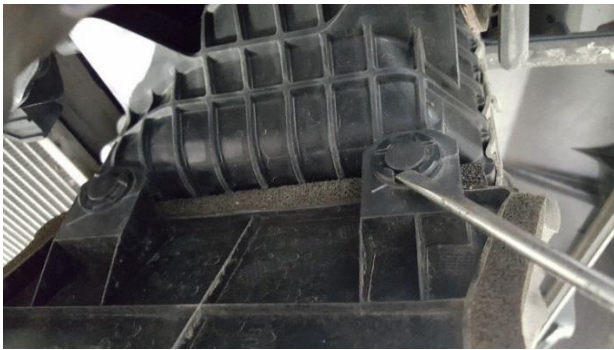
9. Release the FOUR clips from the sides of the intercooler duct and remove.



10. Remove the TWO 10mm bolts holding the stone tray and remove.



11. Release the FOUR remaining clips retaining the side intercooler ducts and remove.



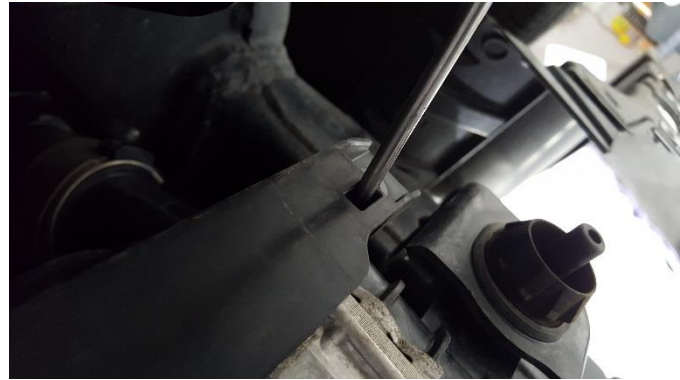
12. Remove the TWO 10mm bolts holding the fan shroud to the intercooler.



13. Remove the 10mm bolt holding the radiator hose to the fan shroud.



14. Pry the fan shroud retaining clips away from the intercooler to release.



15. Remove the TWO 13mm nuts from the top intercooler brackets.



16. Remove the FOUR 13mm bolts holding the intercooler bracket to the chassis rail and remove.



17. Remove the standard air intake hose and cover the turbo inlet with masking tape to avoid small part ingestion. This will expose the hot side circlip.



18. Using a flat blade screw driver, gently pry the circlip into the locked open position, repeat for the opposite side of the coupling. Take care to not use excessive force, the pipe should pull away easily.



19. For the cold side, simply undo the hose clamp on the hose. The intercooler should now be easily removed from under the vehicle with the factory hoses still attached to the intercooler.



20. Remove TWO 10mm nuts holding the centre bar support and remove.



21. Undo the 10mm bolt holding the water hose hard line the passenger side pump bracket. Retain the bolt.



22. Release the FOUR plastic hose separators and set aside for later.
23. Remove the FOUR steel clips holding the rubber mounts to the brackets. Retain for later.



24. Remove the FOUR 13mm nuts holding the pump brackets and remove the brackets, retain the nuts.



25. Remove the TWO 12mm nuts from the lower bonnet latch support.
26. Carefully pull the latch support forward and tuck the hard-line water hose behind it.



27. Install the Plazmaman hose support bracket under the driver side latch support nut and tighten, followed by the passenger side nut.

28. Ensure that the hose sits snugly between the latch support and the crossmember.



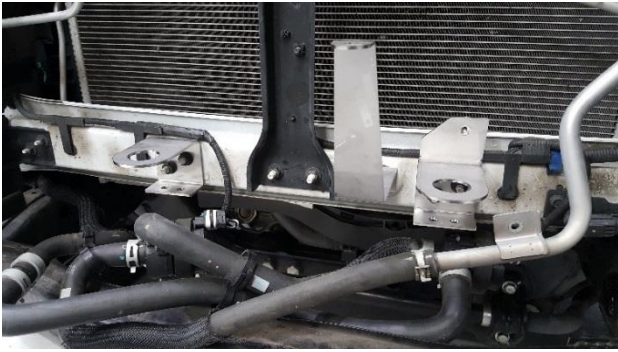
29. Install the Plazmaman bar support.



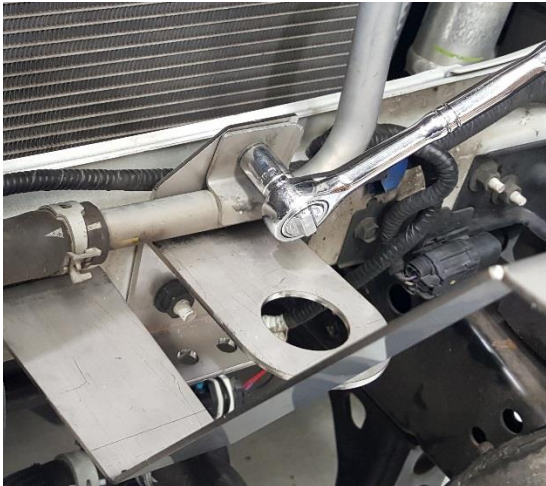
30. Install the Plazmaman hard line support bracket in between the chassis crossmember and passenger side intercooler bracket



31. Install the Plazmaman intercooler support bracket, these are side specific.



32. Fasten the hard line to the hard-line support bracket.



33. Disconnect both water pump electrical plugs and fit both water pumps to their corresponding Plazmaman brackets and install the factory retaining clips.



34. Install the supplied 2" P-Clamp on the rearward end of the Plazmaman hose support bracket, just under the a/c condenser

Ensure all hose except for the hard-line hose tucked behind the latch support sit neatly below the a/c condenser. It will be necessary to rotate the water pumps in their rubber mounts to remove any kinks in the hoses. Slide the factory anti-chafe hose cover into any position where rubbing might occur, such as behind the bonnet latch support. Fit the factory hose separators as per shown in the pictures.



BEFORE CONTINUING TAKE THIS TIME TO ENSURE THAT THERE ARE NO KINKS IN THE HOSE SYSTEM, SKIPPING THIS STEP MAY LEAD TO MECHANICAL DAMAGE.

35. Reconnect the water pump electrical connectors.

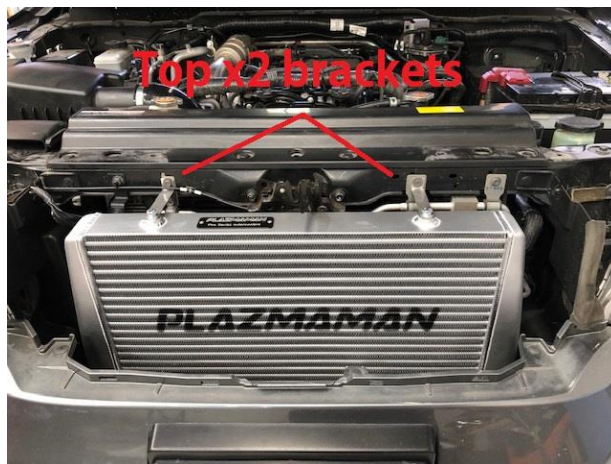
36. Install the Plazmaman Radiator fan shroud using the self-tapping screws into the bottom of the fan shroud taking care not to damage the radiator.



37. Fit the factory rubber dampers taken from the original intercooler lower brackets and install them on the Plazmaman supplied lower intercooler brackets.



38. Fit the Plazmaman intercooler into the lower mounts, note that it can only be fitted one way and should sit centred in between the headlights.
39. Fit the top two Plazmaman intercooler brackets and tighten.



40. Install the circlip into the circlip to hose clamp adapter and install onto the hot side turbo outlet pipe.

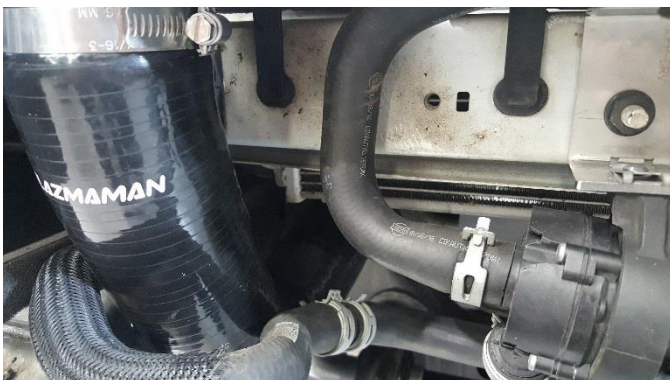


41. Loosen and rotate the lower coolant bottle hose 180 degrees to clear the Plazmaman hot side hose as shown below.



42. Fit the Plazmaman hot and cold side hose with the supplied hose clamps and tighten, make sure that none of the hoses rub any other parts.

43. Remove the tape covering the turbo inlet and install the factory air intake hose or Plazmaman hose if purchased separately and tighten clamps.



44. Make one last inspection to make sure that all fasteners and clamps are tight, and all hoses are without kinks or chafe. **IF YOU ARE UNSURE PLEASE CONTACT US.**
45. Now you can reinstall the front bumper and grill in reverse of removal and enjoy your new Plazmaman intercooler upgrade.