

PLAZMAMAN

NISSAN NAVARA D23 NP300 S4 (April 2019+) 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 screwdriver, 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 screwdriver, 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.



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



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



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



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



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



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



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



8. 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.



9. Using a flat blade screwdriver, 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.

11. Remove TWO 10mm nuts holding the centre bar support and remove. **Note* Series 4 models do not have the coolant hard line pictured.*

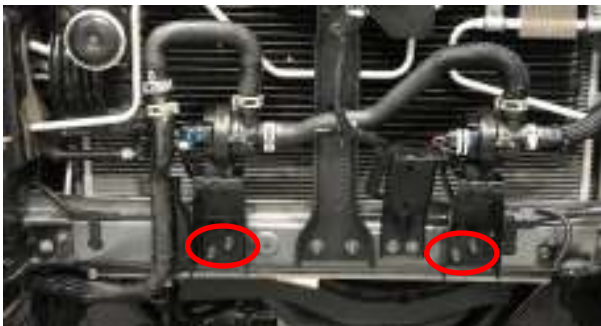


10. For the cold side, simply undo the hose clamp on the hose. The intercooler should now be easily removed from under the vehicle with the factory hoses still attached to the intercooler.

12. Remove the FOUR steel clips holding the rubber mounts to the brackets. Retain for later.



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



14. Install the Plazmaman bar support.



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

Note Series 4 models do not have the hard line as pictured, the bracket must be installed for correct fitment, however.

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



17. Disconnect both water pump's electrical plugs.

18. Pinch the factory water pump hoses shut near the headlights in the engine bay with a suitable tool, in order to minimize coolant loss whilst the plumbing is disconnected.
19. Disconnect the passenger side water pump hose from the hard line, located between the passenger side headlight and the AC condenser. Disconnect the hose from the water pump too. ***Note* Engine coolant will spill from the plumbing, this should be minimal provided the hose in the engine bay is pinched.**



20. Secure the water pumps upside down to the new Plazmaman water pump mounts using the previously removed clips.



21. Disconnect the driver's side water pump hose from the hose join in the factory plumbing as pictured below.



22. Cut the **LONG** driver's side water pump hose at the white line in the above and below pictures. The cut should be approximately **3 BENDS BACK** from the original hose end. A hose cutter should be used to ensure a clean, straight cut.



23. Once cut, the hose can be reconnected to the U hose using the original Nissan hose joiner and clamps. The hoses should sit naturally with no kinks.

24. 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.



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



26. 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.
27. Fit the top two Plazmaman intercooler brackets and tighten.



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



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



30. 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.



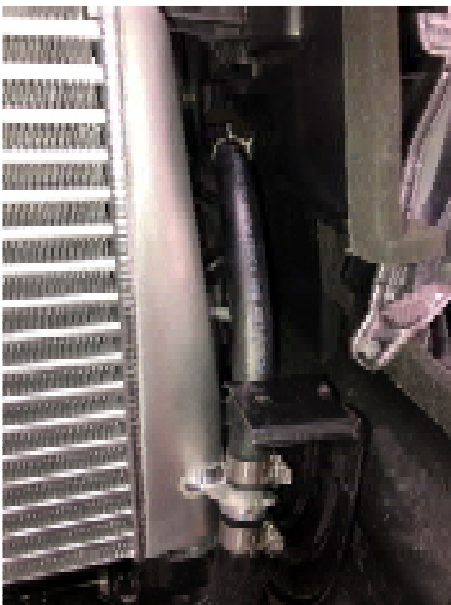
31. Remove the tape covering the turbo inlet and install the factory air intake hose or Plazmaman hose if purchased separately and tighten clamps.



32. Connect the previously removed passenger side water pump hose and reconnect it to the passenger side water pump in the **REVERSE ORIENTATION**. The hose should line up with the barb fitting on the passenger side intercooler tank as shown below. Use the supplied hose clamps to tighten the hose in place. Ensure there are no kinks.



33. Connect the supplied 19mm hose to the factory hard line near the headlight, and the opposite side of the hose barb located on the intercooler tank. The connection should look as pictured below. Fasten the hose with a Nissan clamp at the headlight end, and a supplied hose clamp on the intercooler end.



34. Once all the hoses are installed, the water pump plumbing should look like the below pictures do.

Note It is critical to ensure there are no kinks in any of the coolant lines at this stage in order to avoid possible engine damage.

35. Remove the previously installed water pump hose pinching tools and refill the engine's coolant system with the appropriate spec coolant to suit the vehicle.

Note The coolant system **MUST** be bled of air pockets at this stage to ensure correct cooling performance and avoid damage.



36. 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.**
37. Now you can reinstall the front bumper and grill in reverse of removal and enjoy your new Plazmaman intercooler upgrade.