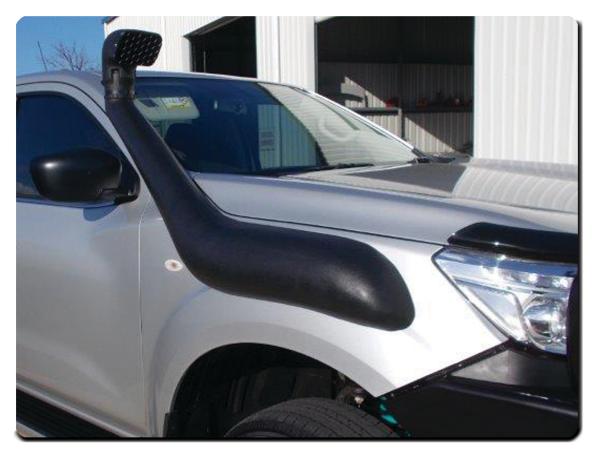
INSTALLATION GUIDE



Navara D23 Wide Body Thai Built Models Only 2015on DIESEL 2.3L TDI 14
DOES NOT SUIT RX/DX MODELS

SN45-3465



This Snorkel will take approximately 5 hours to install

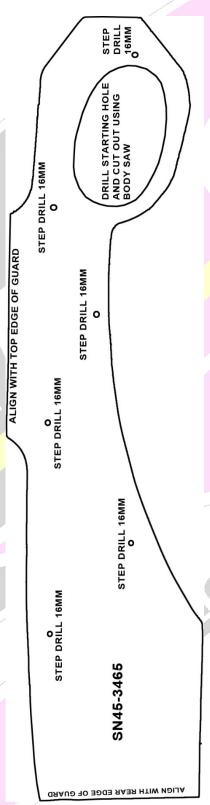
Tools required are

- Body Saw or pneumatic hacksaw
- Step Drill, drill bits and Electric drill
- Masking Tape
- Sensor safe Sealant (Sikaflex 227 Recommended)
- Touch up Paint and small brush or cotton bud
- Allen keys & Spanners
- Pop rivet gun
- Small Square file
- Screw Drivers
- Centre Punch and Hammer
- Angle grinder

Dobinsons bullbars should be installed by a qualified installer and it is the installer's responsibility to ensure correct fitment.

Fully read and understand the instructions before beginning the installation







Fitting Guide

- Masking tape the guard, it is best to tape the whole guard to prevent scratches whilst working.
- Remove the RH mud flap and plastic wheel arch guard by removing the screws and clips on the guard edge and plastic clips inside the wheel arch.
- 3. Remove the air filter assembly
- 4. Remove the washer bottle assemble and filler neck, keeping the fluid
- 5. Disconnect the battery.
- 6. Remove the ECU, Idle control module, relay box, earth strap and airbox mounting bracket.



 The original airbox intake duct, ECU mount and Idle control module mounts are no longer required as below.





- 8. Check the template against the snorkel body. Align the template on the vehicle as seen in picture on page 2, and tape it down ensuring it is aligned with the top and rear guard edges and then pulled tight to the outer guard edge. and double check again.
- Once you are happy with the alignment of the template centre punch the 6 holes and mark the snorkel body outlet cutout.
- 10. Drill the 6 holes with a small pilot drill.
- 11. Remove the template and using the step drill, drill the 6 stud holes out to 16mm to clear the studs to ensure the studs clear the body.
- 12. Drill a starting hole in the snorkel body outlet cutout and cut the shape out using a body saw or similar. You can also use a larger hole saw on each end of the oval to allow a nicer start for each cut



- 13. Remove the burrs from all holes with file or deburrer.
- 14. Fit the upper snorkel body mount to the snorkel with the bolts supplied. Only do up finger tight for now as this will be removed shortly.
- 15. Fit the 6 studs to the snorkel body with thread lock and tighten with Allen key, DO NOT overtighten.
- 16. Put some masking tape on the A-Pillar approximately where the upper bracket will mount.



- 17. Test fit the snorkel carefully.
- 18. Mark the top Mounting bracket by marking the inside edge with a pen and the top and bottom edges.



- 19. Remove the snorkel body and remove the bracket from the snorkel body.
- 20. Sit the bracket back in the marked position and mark the holes and centre punch.



21. Pilot drill the holes, and then drill suit the rivets supplied. It is a good idea when doing this to drill through a block of wood or equivalent spacer so that only about 5mm of the drill tip sticks out so you do not drill

through your interior or air bags.



- 22. Remove the burs from these holes, remove masking tape, paint all bare metal surfaces including the holes drilled in the quarter panel, and remove all metal fillings from the A-Pillar gutter and quarter panel.
- 23. Apply a small amount of sealant to each hole.

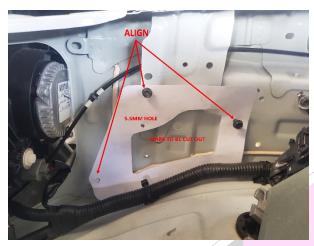


24. Using rivets supplied, attach the top bracket to the holes drilled in previous steps.



25. Fit the inner guard template to the inner guard aligning the stud and 2 bolt holes and bolt the template to the guard. Mark the position for the 5.5mm hole and mark the cut out.





- 26. Drill a starting hole with a step drill in each corner and cut the centre section out with a body saw or similar.
- 27. Drill the hole to 5.5mm and fit a 5mm bolt, nut and washers to bolt the 2 inner guards together. Clean away the metal shavings, remove the burrs and rustproof the bare metal.



28. Drill a 4mm hole 35mm in from the end of the airbox mount and cut down the airbox mount at 60mm so it clears the new cut out in the inner guard, remove the burrs and rust proof.





29. Fix the airbox mount back to the vehicle in its original position and drill through the 4mm hole, rust proof and pop rivet the cut down bracket in place.



30. Mount the ECU to the new ECU bracket supplied used the bolts and washers supplied and the original vehicle flange nuts.







31. Fit the idle control module to the new bracket supplied with the bolts nuts and washers supplied, putting 2 washers between the module and the bracket as spacers to space it away a little from the bracket.





32. Remove the small module in the back corner of the engine bay on the inner guard and install the ECU support bracket (some vehicles do not have this installed).



33. Re-install the ECU with the new mount and tighten all bolts



34. Install washers on the 2 studs in front of the brake booster and fit the new relay box base mounting bracket with the nuts and washers supplied and tighten – keep all holes in the base bracket aligned with the holes in the wheel arch panel for the earth strap and mounting holes.





- 35. Install the Relay Box mount to the relay box base mounting bracket and tighten.
- 36. Fit the relay box to the new mount and tighten using the original bolt.
- 37. Reconnect the wiring plugs to the ECU and fit the Idle control module bracket to the relay box base bracket and tighten using the M6 bolts nuts and washers supplied.
- 38. Re-fit the earth strap to the front base of the Idle control module bracket.



- 39. Remove the tube from the airbox base
- 40. Cut out the airbox template and fit to the airbox.
- 41. Mark the 2 holes and the centre cutout.



- 42. Drill the 2 holes to 4.5mm and cut out the centre section with a body saw.
- 43. Mark down 25mm from the top of the airbox and grind the ribs away with a grinder to allow the rubber airbox entry hose to seal.



44. Use a body saw or grinder to remove the ribs and panels as shown from the front right hand corner of the airbox. Grind them down flush so the rivets can be installed easier.



- 45. Apply masking tape to the outer edge of the airbox where the air-entry hose will seat,
- 46. Sit the air entry hose in place, with the steel clamping plates as a template, align the 2 holes drilled earlier and mark the rest of the holes and drill you may be able to drill some



- holes without marking by drilling through the clamping plates as a template.
- 47. Drill the remaining holes to 4mm or 4.5mm to suit the rivets.



- 48. Apply some sensor safe sealant to the airbox mounting surface and fit the air entry hose.
- 49. Sit the rivet clamping plates in position on the outside of the rubber hose.
- 50. Install the 4mm X 20mm rivets into the bottom side from the outside and apply washers on the inside of the airbox plastic and tighten the rivets.
- 51. Rivet all remaining holes from the inside out ensuring that the rivet clamping plate is fitted to the outside of the rubber entry hose to prevent the rivets pulling through. On the 2 corner holes without the clamping plates you will need to put a 6mm washer and 4mm washer under the rivet head
- 52. Remove the excess sealant and blend in sealant for a water tight seal.
- 53. Install the rubber air blank off cap to the airbox with the hose clamp supplied



54. The installer may chose to seal the drain hole in the base of the airbox – this is recommended.



55. Re-install the airbox, squeezing the new air entry hose through the hole cut in the inner guard earlier and from the underside of the guard slide the hose clamp on. Ensure that the hose does not rub on the cut edge and if there are sharp edges they can be removed or rubber edging installed.



- 56. Tighten the airbox in place.
- 57. Slide the large hose clamp over the rubber joiner from inside the outer guard.
- 58. Fit the snorkel body to the quarter panel and on each stud put a large flat washer supplied and a nyloc nut and do up finger tight aligning the snorkel body outlet with the airbox entry



hose. Insert the upper bracket mounting bolts.



- 59. Tighten the nyloc nuts on the studs and upper holts.
- 60. Tighten the hose clamp onto the rubber air entry hose.
- 61. Apply a small amount of grease to the washer bottle slide clamp and re-install the washer bottle, reinstall the hoses, wires and the filler neck and re-fill with fluid.
- 62. Fit your Dobinsons 4x4 Ram Head to the top of the snorkel with the black hose clamp supplied.
- 63. Refit all nuts and bolts to the air box, the breather hose, refit the air filter and air box cover and any other items removed during installation.
- 64. Refit the inner guard and mud flap.
- 65. RE-install the air filter, air box lid, air sensors, battery terminal, mud flap and anything else removed during the installation.
- 66. Allow the sealant to cure before running the vehicle.



