INSTALLATION GUIDE



Nissan Patrol GU/Y61 Series 4 on

SN45-3401 & SN45-3402



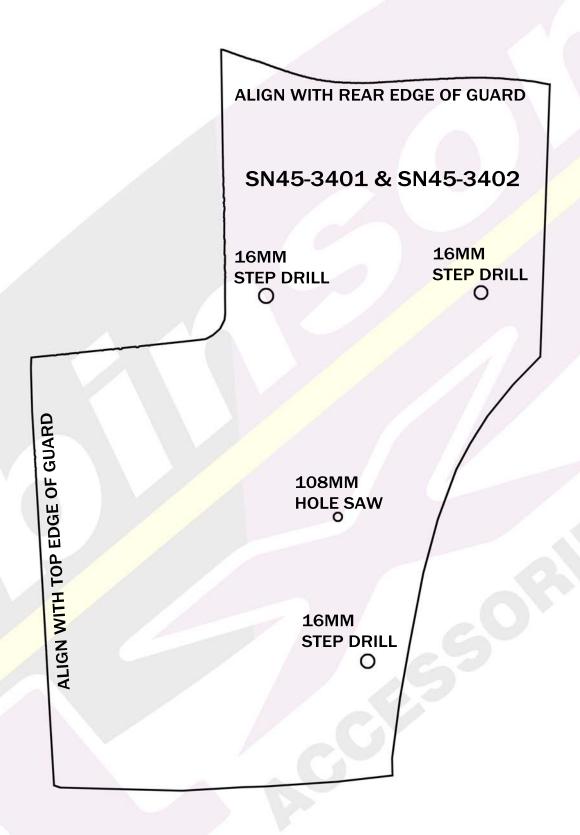
This Snorkel will take approximately 3 hours to install and is installed to the Left Hand Side of the vehicle.

Tools required are:

- 108mm & 95mm hole saw
- Step Drill, drill bits and drill
- Masking Tape
- Sensor safe Sealant (Sikaflex 227 Recommended)
- Touch up Paint and small brush or cotton bud

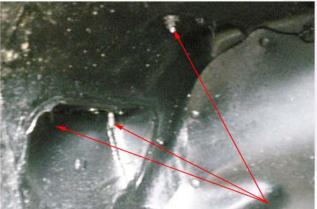
- Allen keys & Spanners
- Pop rivet gun
- Small Square file
- Screw Drivers
- Centre Punch and Hammer

TEMPLATE OUTLAY





- 1. Remove the LH plastic inner wheel arch guard.
- 2. Remove the air-box top cover and filter.Remove the aerial. 4.8L models also remove radiator overflow bottle.
- 3. Remove the 3 nuts as seen in picture on the air-box studs from the inside of LH wheel arch, then the 2 bolts and 1 nut on the air-box, the air box should now slide out.



4. Remove the original air-box to air duct adaptor, 3 x 10mm bolts.



5. Now from inside the wheel arch remove the original air duct. There is 5 bolts, one bolt is right up underneath the foam pre-filter towards the rear of the duct. Cut the cable tie holding the duct to the pre filter and remove the duct. NOTE: you may have to wriggle it up and down a bit as they are also glued to the guard and needs to be loosened. 4.2TDi & TB48 models will require you to drill back through the above hole from the inside of the guard with an 95mm hole saw to allow the new 90 degree elbow to fit. Flatten approx. 35mm of the raised edge of the diagonal brace for clearance. 6. Remove the foam pre-filter from the inner guard duct.



- 7. Some models may require you to remove the patrol badge.
- 8. Apply masking tape to the LH quarter panel, it is a good idea to cover the whole panel so you do not scratch it when working around it.
- 9. Check the template against the snorkel body. Align the template on the vehicle as seen in picture on page 2, and tape it down and double check again.
- 10. Once you are happy with the alignment of the template centre punch the 4 holes.
- 11. Drill the 4 holes with a small pilot drill.
- 12. Using the step drill, drill the 3 stud holes out to 16mm to clear the studs to ensure the studs clear the body.
- 13. Using a 108mm hole saw on low speed drill the hole to clear the snorkel body outlet.



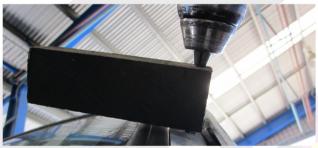
- 14. Remove the burrs from all holes with a file or deburrer.
- 15. Fit the upper snorkel body mount to the snorkel with the bolts supplied so that the holes that bolt the bracket to the body are towards the top of snorkel. *Do not* over tighten
- 16. Fit the 3 studs to the snorkel body with thread lock and tighten with Allen key, DO NOT over-tighten.
- 17. Put some masking tape on the A-Pillar approximately where the upper bracket will mount.



18. Test fit the snorkel carefully and mark the top Mounting bracket holes, remove the snorkel and centre punch.



19. Pilot drill the holes, and then drill to 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.



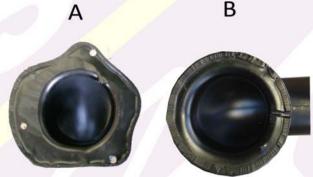
- 20. Remove the burs from these holes and remove masking tape.
- 21. Paint all bare metal surfaces including the holes drilled in the quarter panel. Remove all metal fillings from the A-Pillar gutter and quarter panel.
- 22. Pop Rivet the upper mounting bracket to the vehicle with the rivets supplied.



23. Install the rubber joining hose supplied onto the end of long inner guard duct using the hose clamps supplied. Slide the new inner guard duct inside the guard aligning the large end with the 108mm hole drilled.



Your snorkel will be equipped with either of the 2 styles of 90 degree elbows as seen below.



For elbow style "A" see below or for elbow style "B" skip to step 27.

24. Elbow style "A". Use the template provided to mark & drill the holes to 6.5mm.





25. Use the remaining small template to trim the airbox mounting flange to allow fitment. Drill the 3 bottom airbox mounting holes to 11mm on diesel models.

26. Bolt the elbow duct to the inner guard aligning the other end into the rubber hose installed in step 23 and tighten both hose clamps. Remove the foam from the airbox mounting flange and apply a liberal bead of sealant to the mounting face of the elbow and airbox mounting flange. Carefully re-install the airbox. Skip to step 29.







27. Elbow style "B". Trim the insulation to allow the elbow to seat neatly against the inner guard.

28. Install the elbow through the hole in the guard and align the intake side with the rubber joiner installed in step 23 and tighten both hose clamps. Remove the foam from the airbox mounting flange and apply a liberal bead of sealant to the mounting face of the elbow and airbox mounting flange. Carefully re-install the airbox. (NOTE: Some TB48 models have a different style airbox to the one on the bottom left. For these models remove the clip on the airbox to guard intake duct mounting flange and drill to 8mm. Apply a thick bead of sealant to the elbow flange and mounting face of the airbox duct and install the elbow through the hole in the guard aligning the intake side with the rubber joiner installed in step 23. Bolt the airbox duct and elbow to the guard and tighten both hose clamps in the guard). 29. Apply a bead of sensor safe sealant to the inside of the inner guard duct.



30. Now fit the snorkel body to the quarter panel, taking care to align the snorkel body out let to the intake of the inner guard correctly, and not to scratch the paint. This may require 2 people.

31. With the body in position install a large flat washer supplied and a nyloc nut on the front stud and bottom stud and do up finger tight.



- 32. Install the bolts to the top mounting bracket.
- 33. Install the last nut and washer to the top stud this can be quite difficult if the aerial is not removed.
- 34. Tighten the nyloc nuts on the studs, and tighten the upper bracket bolts.
- 35. Install a screw into the snorkel body outlet and inner guard duct join to ensure a strong connection.



- 36. Fit your Dobinsons 4x4 Ram Head to the top of the snorkel with the black hose clamp supplied
- 37. Seal the drain hole in the airbox.



- 38. Refit all nuts and bolts to the air box, refit the air filter and air box cover.
- 39. Refit the inner guard, aerial, washer bottle and anything else removed during the installation.

40. Allow the sealant to cure before running the vehicle.

