## **INSTALLATION GUIDE**



# Toyota Prado 150 SN59-3446



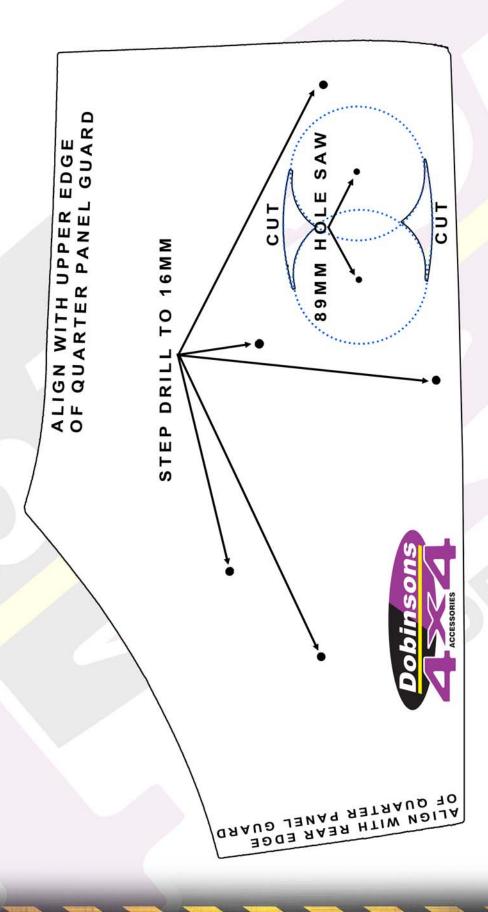
This Snorkel will take approximately 3 hours to install and is installed to the Right Hand Side of the vehicle.

### **Tools required are:**

- 89mm 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
- Pneumatic Hacksaw or equivalent

# TEMPLATE OUTLAY





### Fitting Guide

- 1. Remove the RH plastic inner wheel arch guard.
- 2. Remove the air box assembly and air box intake duct located inside the wheel arch.
- 3. Apply masking tape to the entire quarter panel to prevent scratching.
- 4. Check the template against the snorkel body. Align the template on the vehicle as seen in picture on page 2 ensuring it follows the curve of the guard, tape it down and double check again.
- 5. Once you are happy with the alignment of the template centre punch the 7 holes and mark the outsides of the oval sections as seen on page 2 between the 89mm hole saw holes.
- 6. Drill the 7 holes with a small pilot drill.
- 7. Using the step drill, drill the 5 stud holes out to 16mm to clear the studs to ensure the studs clear the body. Using an 89mm hole saw on low speed drill the remaining 2 holes ensuring you are square to the guard.
- 8. Using a pneumatic hacksaw cut away the marked sections top and bottom between the 2 hole saw holes to create an oval.
- 9. Remove the burrs from all holes with file or deburrer.
- 10. Fit the upper snorkel body mount to the snorkel with the bolts supplied. DO not over tighten
- 11. Fit the 5 studs to the snorkel body with thread lock and tighten with Allen key, DO NOT over-tighten.
- 12. Put some masking tape on the A-Pillar approximately where the upper bracket will mount.
- 13. Apply the self adhesive foam to the back side of the snorkel body ensure it sticks down correctly and is aligned neatly along the front and top edges of the snorkel body.
- 14. Using compressed air, clear the snorkel body to ensure its free of any dust or debris.
- 15. Test fit the snorkel carefully and mark the outside edges of the upper snorkel bracket, to allow you to mark the holes for drilling in the next steps.

- 16. Remove the snorkel body from the guard and remove the upper mounting bracket from the snorkel.
- 17. Hold the upper mounting bracket in line with the previously marked outline (step 15),mark the holes, remove the bracket and centre punch.
- 18. Pilot drill the holes, and then drill to 7.5mm. It is a good idea when doing this to drill through a block of wood or an equivalent spacer so that only about 5mm of the drill tip sticks out so you do not drill through your interior or air bags.





- 19. 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.
- 20. Apply a small amount of sealant to each of the a-pillar holes and fit the plastic screw clips to the A-Pillar mounting holes.
- 21. Fit the upper bracket to the A-pillar with the screws provided.
- 22. 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.



### Fitting Guide

- 24. Fit the bolts supplied through the upper mounting bracket into the snorkel body.
- 25. Tighten all bolts and nuts on the upper bracket and snorkel body.
- 26. Using a grinder or file remove the 2 retaining tabs from the air cleaner intake pipe.
- 27. Use a sharp knife or file to trim the locating tab back to the shoulder of the air box to leave a smooth round surface for the rubber joining duct to seal to.
- 28. Inside the air box there is a drain valve which may allow water to enter the air box, it is up to the installer whether these are sealed off or not with sealant.
- 29. Shape the large hose clamp around the oval shaped end of the rubber joining duct, with the adjustment screw of the hose clamp towards the rear of the bottom edge pointing down and forwards on approximately a 45 degree angle. This will provide the best clamp around the hose.



- 30. Apply a liberal bead of sealant around the inside of each end of the rubber duct.
  31. Install the rubber duct into the inner guard aligning the oval end with snorkel body outlet as seen above, and aligning the round end through the hole in the engine bay ready for alignement with the airbox.
- 32. Carefully tighten the hose clamp.
- 33. Loosely fit the smaller hose clamp around the circular end of the rubber joining duct inside the engine bay.
- 32. Re- install the airbox aligning the intake with the rubber duct. For diesel models, you will need to also utilise the rubber reducing strip provided to reduce the outlet of the rubber joining hose

to the diameter of the air box outlet. This may require assistance.

#### **REDUCING STRIP**



**DIESEL MODELS** 

- 36. Tighten both hose clamps carefully ensuring a water tight seal.
- 37. Fit your Dobinsons 4x4 Ram Head to the top of the snorkel with the black hose clamp supplied
- 38. Refit all nuts and bolts to the air box, refit the air filter and air box cover.
- 39. Refit the inner guard.
- 40. Re-fit any other components removed during installation
- 41. Allow the sealant to cure before running the vehicle.

