

## INSTALLATION GUIDE

## **ISNORKEL010**

TO SUIT TOYOTA LANDCRUISER 200 SERIES 1VD-FTV 4.5L V8 Twin Turbo Diesel and 2UZ-FE 4.7L V8 DOCH Engines



- Ironman 4x4 Snorkel to suit Toyota Lancruiser 200 Series and fits to the right hand side of the vehicle.
- It will take about 3 hours to install.
- Below is a list of some required tools for installing your Ironman 4x4 Snorkel:
- Hole Saw (114mm)
- Step Drill
- Air Hacksaw
- Spanner (13mm)

NOTE: Only use "sensor safe" sealant during installation

**IMPORTANT:** Snorkel installations should only be done by a qualified person and it is the responsibility of this person to ensure correct and water tight fitment.

**1.** Before installation check snorkel application is compatible with your vehicle.

**2.** Remove right hand front muguard liner, air box and air entry duct to air box.



**3.** Apply masking tape to right hand front mudguard and right hand windscreen pillar.



**4.** Tape template to mudguard making sure it is lined up with top of mudguard (bonnet opening) and rear of mudguard (door opening).



- **5.** Using a felt tipped pen, mark all holes through template onto mudguard. Remove template.
- **6.** Drill all mounting holes to 16mm and using a 114mm hole saw, cut the remaining hole for air entry hose.



7. Air entry hole will then need to be extended towards the front of the vehicle by 15mm. To do this place a mark 15mm forwards of air entry hole and using 114mm holesaw as a guide mark the cutline as shown and cut using an air hack saw or similar.





- **8.** De-burr and rust-proof all holes (this applies to all holes drilled after this step).
- **9.** Using thread-lock screw all studs into snorkel body and attach pillar mounting bracket loosely to snorkel using M6 bolts provided.
- **10.** Hold snorkel body in position on mudguard and mark position of pillar bracket on pillar. Remove snorkel.

Remove bracket.



**11.** Hold bracket in position previously marked on pillar and mark mounting holes.

Drill mounting holes in pillar to 7.5mm. Apply silicone sealant. Insert mounting plugs and attach mounting bracket using three self tapping screws provided (When drilling mounting holes, only drill through outer skin and no further.)





**12.** Install snorkel body to vehicle using M8 Nylock Nuts and body washers provided and attach to pillar bracket using M6 bolts provided.

NOTE: For diesel models install anti-vibration bracket to lower mounting stud second from the front and attach to factory bracket using OE Bolt.



**13.** Attach rubber joiner to snorkel with outlet towards front of hole in engine bay and secure with hose clamp provided.



**14.** Remove foam seal from air box intake.



**15.** Refit air box for vehicle, attach to rubber joiner and attach with hose clamp provided.



**16.** Check all hose connections and air box for potential leaks and seal as required.



- **17.** Refit guard liner.
- **18.** Fit Ironman 4x4 Air Ram and secure with hose clamp provided.



