

## INSTALLATION GUIDE

## **ISNORKEL001**

TOYOTA HILUX 2005 Model 3.0L D4D TDI (1KD-FTV Engine) & Model 4.0L VVT-i V6 Petrol (1GR-FE Engine)



- Ironman 4x4 Snorkel fits to the right hand side of the Toyota Hilux.
- It will take about 2 hours to install.
- Below is a list of some required tools for installing your Ironman 4x4 Snorkel:
- Hole Saw (108mm)
- Step Drill
- Drill (8mm)
- 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 fitment and to ensure the installation is water tight.

- 1. Before installation check snorkel application is compatible with your vehicle.
- 2. Remove mudguard liner and air intake duct.

PETROL: Remove air cleaner intake hose and cyclonic pre-cleaner.

DIESEL: Remove air cleaner assembly.

3. Apply masking tape to right hand front mudguard and 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 mounting holes to 16mm and using a 108mm hole saw, cut the remaining hole for air entry hose.





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



10. 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.)



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

12. Attach rubber joiner to snorkel and secure in position with hose clamp provided.





## **PETROL ENGINE**

13. Remove three raised plastic sections from cylconic precleaner to allow rubber adaptor to be fitted over it.



14. Apply silicone sealant to outside of rubber joiner in engine bay and attach rubber adaptor to it using hose clamp provided.



15. Refit cyclonic air intake and air intake hose to air cleaner.



## **DIESEL ENGINE**

- 16. Refit air cleaner assembly and attach to rubber joiner using hose clamp provided.
- 17. Check all hose connections and air box for potential leaks and seal as required.



18.	Re-fit guard liner.
19.	Fit Ironman 4x4 Air Ram and secure with hose clamp provided.

