

# INSTALLATION GUIDE

### **BBT005/ BBC005/ BBCD005**

TOYOTA LANDCRUISER 105 SERIES Live Axle



- Ironman 4x4 BBT/ BBC/ BBCD005 Bull Bars fit to a Live Axle Toyota Landcruiser 105 Series.
- It will take about 2 hours to install.

NOTE: This product has been tested for air bag compatibility and therefore the mounting system MUST NOT be modified

1. Before installation check bull bar application is compatible with your vehicle.

2. Remove front bumper.



3. Remove recovery hooks.



4. Fit chassis bracket to chassis and secure using hardware provided.



5. Refit recovery hooks using original bolts.





6. Mask and paint lower lips of mud guards satin black.



- 7. If winch is being installed refer to winch installation instruction.
- 8. Unwrap bull bar. Check over riders and light assemblies are tight in bull bar before installation.
- 9. Fit bull bar to chassis bracket using M12 bolts, flat washers, spring washers and nuts provided.

10. Align bull bar with vehicle leaving a 15-20mm gap between bull bar wing and mud guard to allow for movement between body and chassis.



11. Once bar is aligned with vehicle and tightened, drill through pinning holes between bull bar and chassis brackets. Secure with hardware provided.





12. Fit protection plate to underneath of bull bar using M8 bolts, spring washers and flat washers provided.



13. Connect park lights and indicators as per wiring diagram on page 9.



## **Winch Installation**

IMPORTANT: Before winch is installed to winch cradle, the clutch handle will need to be rotated to a more convenient position for access through bull bar.

1. Stand winch vertically on motor with gearbox facing upwards.



2. Undo and remove 2 chrome Allen head bolts which hold the gearbox to the tie rods.



3. Lift gearbox off winch.



NOTE: If shaft comes out of cable drum remove it from the gearbox and place it back into the drum making sure it engages with the brake.





NOTE: Also make sure that the drum support bush remains in the end of the drum support housing with the locating tang in the correct position.



4. Undo and remove 10 Allen head bolts that hold the gearbox housing to the drum support housing and rotate the drum support housing to the desired location.

For most Ironman 4X4 bull bars the gearbox will need to be rotated 2 holes in an anti clockwise direction. Make sure the gearbox gasket does not tear.



5. Re-install 10 bolts and tighten firmly. NOTE: Take care not to over-tighten.



6. Refit gearbox to winch, refit and tighten Allen head bolts into tie rods.





7. Bolt winch to cradle with gearbox to the left hand side of vehicle and cable spooling from bottom of the cable drum using bolts and washers provided.



8. Bolt roller fairlead to recess in front of bull bar using bolts, washers and nuts provided.



- 9. Fit bull bar to vehicle referring to steps 8 13 of bull bar fitting instructions.
- 10. If winch control box is being fitted to top of bull bar remove control box bracket from control box.
- Place control box on top of centre pan of bull bar with socket for hand controller facing outwards from vehicle. Mark position of the four mounting bolts.

Drill four holes to 6.5mm. Rust proof and de burr and attach control box to bar.



12. Connect three colour coded cables to the corresponding poles on winch motor.





13. Connect the thin black earth wire and negative battery cable to the earth connection on the opposite side of winch motor.



14. Run the positive and negative battery cables into the engine bay taking care to secure cables away from any sharp or moving objects.

Connect negative battery cable to the main battery.

15. Find a convenient location close to main battery to mount battery isolation switch.

Connect positive battery cable to one side of isolation switch and connect other side to the positive battery terminal of main battery.

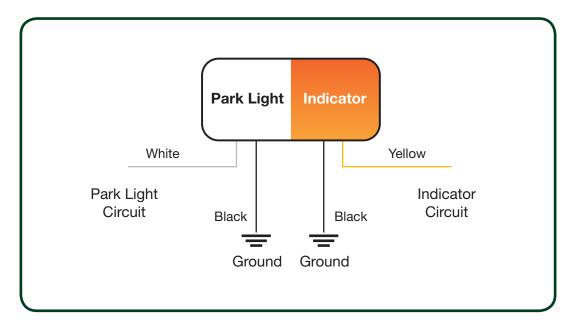


16. Once completed, refer back to step 8 of bull bar fitting instructions.



## **Wiring Diagrams**

#### **PARK LIGHT & INDICATOR**



#### **FOG LIGHTS**

