

FITTING INSTRUCTIONS – RHS WHEEL CARRIER TO STANDARD BAR Suitable for TOYOTA 100 SERIES LIVE AXLE MODEL (K1160)

1. Remove original bumper including the metal support panel. (To release the bumper side panels – undo the three mudflap screws on each side and push the bumper sides in toward the car to release the plastic clips).
2. If the vehicle has a towbar fitted, then the towbar **MUST** be removed and the two 6mm packers welded to the first two holes, on the towbar arms must be removed. The wheel carrier bracket will take the place of these. Drill the 1/2” hole in the towbar arm as shown.



- 3.
4. Remove the original chassis side bracket ('U' bracket). This is the bracket which supported the metal bumper stiffening panel. Knock out from the inside of the chassis, the two captive nuts which held this bracket on and drill the two holes out to 12mm.



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5. Fit the gold bracket to the chassis using two M12 x 35 fine thread bolts in the first two holes, slide the flat plate with the two nuts and a wire welded on into the chassis to screw these bolts into. Slide the single block with a threaded hole and wire welded on, inside to the front most hole. **NOTE:** You may have to lower the muffler to get this bolt in.

IMPORTANT: Measure between the tailgate and the corner bracket. Add packers only if needed to achieve a gap of at least 25mm.



Slide the flat plate with 4 10mm nuts welded to it into the chassis (Note which way it goes in to align the four holes in the side of the chassis) and fit the four 10mm bolts through the chassis into the plate.

6. Using the gold catch bolt plate as a template, mark the two holes in the chassis crossmember to take the catch bolts. Follow the steps on this page.



1. Position the No.1 plate (welded on spacer bar to the top) with the depressed centre into the hole in the chassis which is the first hole from the bend in the chassis
2. Fit the No.2 backing plate inside the chassis (welded on spacer bar to the bottom). Screw the two plates together with the countersunk head screw, firmly. **MAKE SURE THEY ARE STRAIGHT AND PARALLEL WITH THE CHASSIS.**
3. Spot through the No.1 plate into the chassis with a 12mm drill to mark the hole centres. Remove the two plates
4. Drill the two holes out to 12mm
5. Re-assemble the two plates making sure they are straight on the chassis and that the four 10mm bolts screw easily into the backing plate. Remove the four bolts.
6. **Return to Step 7**

7. Fit the wiring loom into the existing wiring underneath the rear of the vehicle. The trailer / lights wiring loom is a large grey plug located to the right of centre up above the chassis, it has a blanking plug fitted to it. Run the wiring through the rear chassis crossmember. Bring the wire ends out through the further most hole in the crossmember on each side.
8. Fit the large black wheel carrier pivot bracket over the corner edge of the bumper to mark the two holes then drill the two holes through the plastic as shown. If your towbar is the Toyota factory towbar, re-fit it now.
9. The metal bumper support needs to be trimmed off on the wheel carrier end using a hacksaw (**See Diagram 6**).



10. Fit the metal bumper support panel (Evenly from side to side) using original nuts onto the original chassis bracket on the left side and the two slotted holes in the gold corner bracket on the opposite side. See auxiliary light fitting instructions later in these instructions.
11. Slide the bumper onto the metal support making sure the four plastic clips in the top edge of the bumper, clip into The Toyota factory towbar usually distorts the bottom of the plastic bumper. Most Toyota towbars do not allow the plastic bumper to sit in it's original position. This distortion does not allow our catch to work correctly. A small cut out in the bottom of the bumper will allow it to sit back into the original position. Remove the bumper to do this.



12. Secure the bumper with the original hardware.
13. Fit the shaft holding bracket over the bumper corner as previous and loosely fit the two top 12mm x 35 bolts **WITH STAR WASHERS ONLY**.

14. Fit the three 12mm x 30 bolts with large flat and spring washers to the three slots underneath.
15. Slide the wheel carrier onto the shaft pivot. Fit the top bearing (making sure it is greased first) washer and nut. Tension so as it is firm, **NOT TIGHT. FILL CAP WITH GREASE.** Fit split pin and cap. Swing the carrier into the position against the bumper, make sure it is sitting straight and the main bottom rail is parallel with the bottom of the tailgate then tighten all bolts starting with the top two. ****CAREFULLY LOWER THE TAILGATE TO CHECK THAT IT CLEARS THE TOP BOLTS IN THE CORNER****
16. With the carrier in position against the bumper, fit the handle lock catch as shown. It is vital to maintain the 35mm gap for the catch to work correctly.

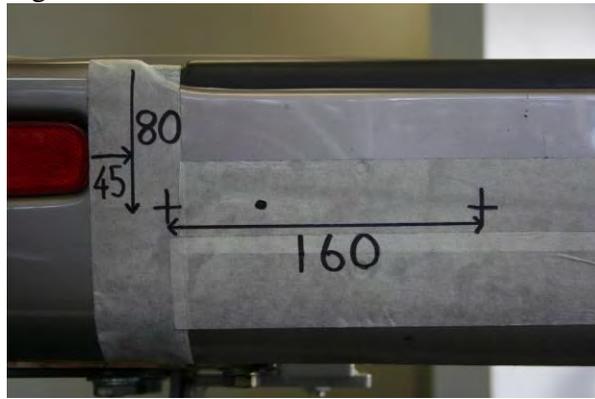


17. Make sure the catch is sitting flat and straight against the bumper, then mark the centre of the four holes. Drill four 14mm holes through the plastic bumper only. Using a hole saw is the neatest way of doing this.
18. Fit the lock catch with the four 10mm x 50 bolts and washers. The handle must be firm to close but not tight, the tension can be adjusted by levering the hook of the catch base in or out. **** Do not have the handle loose when it is closed.**
19. If your towbar is a Kaymar or Hayman Reece, it can be refitted now.
First – remove the two fine thread bolts from the bottom of the corner bracket. Lift the towbar into its original position being very careful to line up the bolt on the wire through the new hole you drilled in the towbar arm. All bolts can now be re-fitted and tightened.
20. See auxiliary light fitting instructions on next page.
Wire the lights using the following code:
Yellow - left hand flasher
Green - right hand flasher
Brown - tail light
Red - stop light
White - earth

AUXILIARY LIGHT FITTING SHEET

To be done while bumper is off vehicle.

1. Remove LED lens from black plastic housing.



2. Mark bumper as per photo. Drill two outer holes to 6mm and hole for wiring to 10mm. About 50mm in from screw holes.

3. Fit black plastic housing to bumper, using M5 screw plus M5 whizz nut supplied.

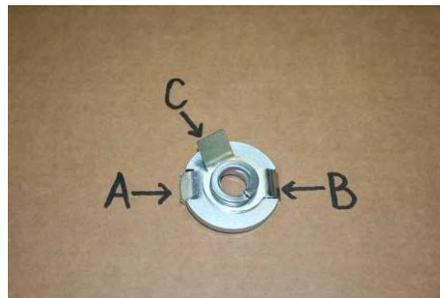


4. Feed wiring through 10mm hole. Clip LED lens back into housing.
5. Fit terminals and connect to wiring harness.
6. Repeat other side.

LOCK TAB WASHER

1. Fit the top slide (wheel holder) into the wheel carrier.
2. Fit spring washer and small lock tab washer onto 16mm bolts.
3. Fit large 5mm thick washer onto bolt with lug (A) facing away from the head of the bolt.
4. Apply a thin film of grease to the bolts.
5. Screw 16mm bolt through the slots in the wheel carrier housing into the top slide. Make sure that the lug (A) fits into the slot first. Make sure you fit both bolts.
6. Fit the wheel and wheel lock plate.
7. Open the wheel carrier and stand behind it. **PULL THE TYRE INTO THE CARRIER FRAME SO THAT THE TYRE SITS HARD AGAINST THE FRAME.**
8. Tighten the two 16mm bolt to at least 140nm, make sure tab (B) fits into the cut-out in the 5mm washer.
9. Continue turning the bolt unit one flat on the hexagon is aligned with tab (C) of the lock tab washer.
10. Flatten tab (C) onto a flat of the hexagon on the bolt head. Make sure the whole tab sits flat on the bolt head.

THIS MUST BE DONE



Note: You will need to splice an extra wire off brown to allow for no. plate light.
It is advised you use a male/female connection here for easy removal of carrier if necessary.

Run wiring along bottom of carrier arm and up to wheel mount.
Use a male/female connection here for ease of removal of carrier if necessary.

21. Check that all lights are working correctly .
22. Fit the wheel onto the carrier and secure with the wheel lock plate and wheel nuts. See no. plate instructions.

23. If your vehicle is a barn door model, see the separate sheet on door stop arm adjustment.



STANDARD MODEL ONLY

BARN DOOR ADJUSTMENT

The door stop must be adjusted so as the door cannot open far enough to hit the wheel carrier

Remove the pivot pin 2 by gently tapping it upward with a small hammer

Remove the two 6mm bolts which hold the bracket 1 to the body

Slot the two bolt holes so as the bracket can move toward the front of the vehicle 5-6mm

Re-assemble on the vehicle if twin carriers are fitted this must be done to both doors