



FITTING INSTRUCTIONS

PART NUMBER AND DESCRIPTION:
3614140 – SUMMIT RAW REAR STEP TOW BAR (RSTB)
SUITED TO VEHICLE/S:
Toyota Hilux 2015 ON

WARNING

NOTE THE FOLLOWING:

- ◆ This product must be installed exactly as per these instructions using only the hardware supplied.
- ◆ In the event of damage to any tow bar component, contact your nearest authorised ARB stockist.
- ◆ Do not use this product for any vehicle make or model, other than those specified by ARB.
- ◆ Do not remove labels from this tow bar.
- ◆ This product or its fixing must not be modified in any way.
- ◆ The installation of this product may require the use of specialized tools and/or techniques
- ◆ It is recommended that this product is only installed by trained personnel.
- ◆ These instructions are correct as at the publication date. ARB Corporation Ltd. cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer.
- ◆ During installation, it is the duty of the installer to check correct operation/clearances of all components.
- ◆ Work safely at all times.
- ◆ Unless otherwise instructed, tighten fasteners to specified torque.
- ◆ The eyelets on the rear bar have been designed and tested for connection of trailer safety chains. They are not to be used for recovery or direct towing.
- ◆ For recovery, fit a suitable and rated tow hitch to the central tow hitch receiver.
- ◆ Position high lift jack at lift locations beneath the middle of the side tube of the RSTB.

ARB 4x4 ACCESSORIES

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GENERAL CARE AND MAINTENANCE

By choosing an ARB Bar, you have bought a product that is one of the most sought after 4WD products in the world. Your bar is a properly engineered, reliable, quality accessory that represents excellent value. To keep your bar in original condition it is important to care and maintain it following these recommendations:

- Prior to exposure to the weather your bar should be treated to a Canuba based polish on all exposed surfaces. It is recommended that this is performed on a six monthly basis or following exposure to salt, mud, sand or other contaminants.
- As part of any Pre-Trip Preparation, or on an annual basis, it is recommended that a thorough visual inspection of the bar is carried out, making sure that all bolts and other components are torqued to the correct specification. Also check that all wiring sheaths, connectors, and fittings are free of damage. Replace any components as necessary. This service can be performed by your local authorized ARB Stockist.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

BASIC TOOL KIT	SIDE CUTTERS
INSULATION TAPE	70MM HOLE SAW BIT
DEUTSCH CRIMPING TOOL	WIRE STRIPPER
NEEDLE NOSE PLIERS	POWER DRILL
ALLEN KEY SET	SOCKET SET
FINE ROUND FILE	TAPE MEASURE
MASKING TAPE	RUST PREVENTATIVE PAINT

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

Protective eyewear		Hearing protection	
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NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where to avoid a potentially hazardous situation it is suggested that protective safety gear be worn or a safe work procedure be employed. If these notes and warnings are not heeded, injury may result.

FASTENER TORQUE SETTINGS:

SIZE	Torque Nm	Torque lbft
M6	9Nm	7lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12x1.75	77Nm	57lbft
M12x1.25	95Nm	71lbft

RSTB PARTS LISTING

APPLICATION	PART NO.	QTY	DESCRIPTION
PREPARE REAR STEP TOW BAR (RSTB)	4654364	1	ASSY RSTB HILUX 15ON WELDED
	6151715	18	NUT M6 CAGED 3.6-4.5MM 836-D
RSTB TO VEHICLE	3789470	1	TEMPLATE HILUX 2015 NUMBER PLATE
	6523214R	1	PNL BEAVER RH-TRADESMAN RSTB
	6523214L	1	PNL BEAVER LH-TRADESMAN RSTB
	6821189	4	PLASTIC SNAP-IN LARGE GROMMET
	6151480	4	NUT HX FL M12 x 1.25 ZP
	6151384	4	SCREW ST PHDCOL PH 5.2 x 16 TBZP480
	5848302	4	PACKER RB NYLON
	6151213	4	BOLT M6 x 1.0 x 20 Gd8.8 BZ
	4584295	16	WASHER FLAT M6 x 12 x 1.3 BLK ZN
	6151459	4	SCREW BTN HD M6 x 16 BZ
	6151549	8	NUT NYLOC M6 x 1.0 GR8.8 BTZP480
	4581082	2	WASHER FLAT M6 x 19 x 1.6 BLK ZN
	3750339	1	BRKT NUMBER PLATE FRAME
	3750336R	1	BRKT NUMBER PLATE MOUNT RH
	3750337L	1	BRKT NUMBER PLATE MOUNT LH
	6602011	2	CANOE CLIP
	5670039R	1	SPRING LICENCE PLATE RH
	5670039L	2	SPRING LICENCE PLATE LH
	6151545	14	BOLT FL HXHD M12 X 1.25 X 35 CL8.8 ZP
	4584363	14	WASHER FLAT M12X26X4 HV300 TZP480
	3194821	2	PLATE ASSY CHASSIS
	3194820	2	PLATE INFILL
	3195046	1	PLATE EXTRUSION-RSTB
6151256	10	SCREW BTN HD M6 x 16 SS	
PREPARE RSTB/VEHICLE FOR PANELS	6151315	2	NUT CAGED M8 0.7-1.6
	3195067	1	PLATE DIFFUSER MOUNT
	6151256	10	SCREW BTN HD M6 x 16 SS
	4581304	10	WASHER FLAT M6 S/S
	6523205	1	PANEL DIFFUSER RH NO SENSOR
	6523207	1	PANEL DIFFUSER LH NO SENSOR
TOW TONGUE	4761170	1	TOW TONGUE 45 DEG
	55010	1	TOW BAR PULL PIN
	55020	1	SPRING CLIP
	180302	10	CABLE TIE 200MM

TRAILER WIRING

The following trailer wiring solutions can be purchased from ARB. Purchase the main wiring harness with ECU (Part no. 3600010) in conjunction with the appropriate socket and tail listed below. Alternatively, this product is compatible with the factory trailer wiring solution.

To install this loom, a crimping tool suitable for crimping contact typesize16Deutsch pins is required. Suitable crimping tools can be purchased from auto electrical wholesalers as shown.



APPLICATION	PART NO.	QTY	DESCRIPTION
TRAILER WIRING	3600010	1	RSTB WIRING INCLUDING ECU
	3600020	1	RSTB SOCKET & TAIL 7 PIN FLAT
	3600030	1	RSTB SOCKET & TAIL 12 PIN FLAT
	3600040	1	RSTB SOCKET & TAIL 7 PIN ROUND LRG
	3600050	1	RSTB SOCKET & TAIL 7 PIN ROUND SML

OPTIONAL ACCESSORIES

The following ARB accessories can be fitted to this product:

APPLICATION	PART NO.	QTY	DESCRIPTION
OPTIONAL ACCESSORIES	171403	1	ARB AIR LINE FITTING
	10600030	1	ARB TRAILER CAMERA KIT
	58X22/A	1	RECOVERY HITCH AND SHACKLE
	6594050	1	50 AMP ANDERSON PLUG

			
AIR LINE FITTING	TRAILER CAMERA KIT	RECOVERY HITCH	ANDERSON PLUG

GENUINE ACCESSORIES REMOVAL

Removal of rear bumper bar:

1. Disassemble the bumper bar from the chassis bar by removing 2 M12 bolts from each side as shown.



2. If fitted, remove the 2 M8 bolts from the headlight levelling sensor guard and then remove the M8 bolt from the cable clamp



3. Remove the spare wheel from beneath the tub using the wheel nut wrench and jack handle pieces supplied with the vehicle. Insert as shown through the access slot above the number plate position and rotate counter-clockwise to release the wheel.

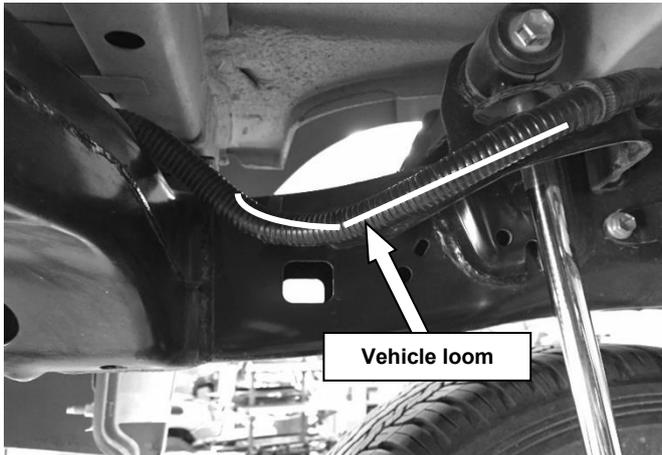


VEHICLE/RSTB WIRING

A trailer wiring solution that incorporates a smart ECU is available for this vehicle. To fit this solution, the rear vehicle wiring harness must be cut and high quality, waterproof Deutsch connectors installed to provide signal pickup points for the ECU.

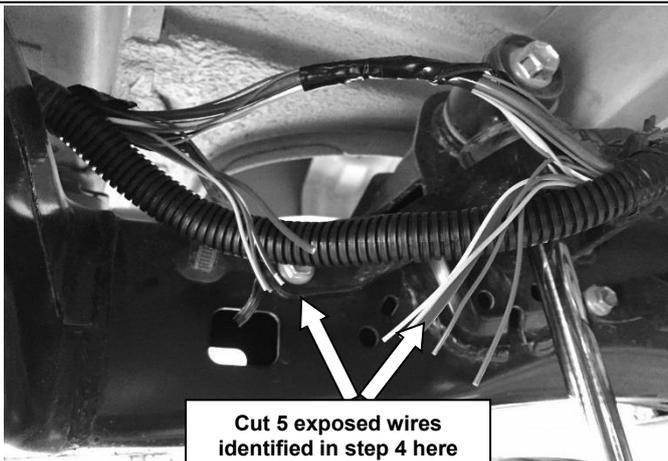
To install this loom, a suitable crimp tool is required. Refer to Page 4 for more details about the crimp tool.

Follow the steps below to install the trailer wiring solution:



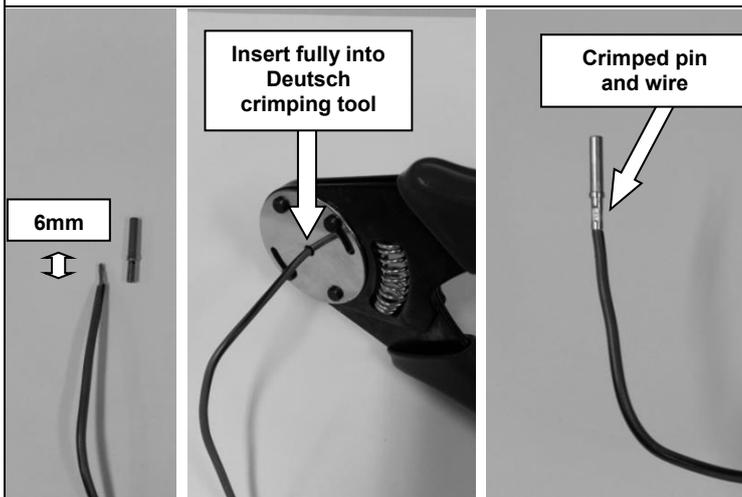
4. Locate the vehicle loom on the left hand chassis rail near rear shock absorber mount as shown. Remove tape if present and expose 200mm of the following coloured wires from the split corrugated tubing:

Yellow	(LH Indicator)
Red	(Reverse)
Light Blue	(RH Indicator)
Blue	(Brakes)
Green	(Clearance)



Note: Prior to cutting the exposed wires, please ensure and re-check (with a test light or multimeter) that the correct wires have been identified as per their corresponding function, as there are multiple wires of the same colour in the vehicle loom.

5. Cut a 90mm section from the centre of the 5 exposed wires. This will leave ~55mm of wire before they re-enter the corrugated tubing at each end.



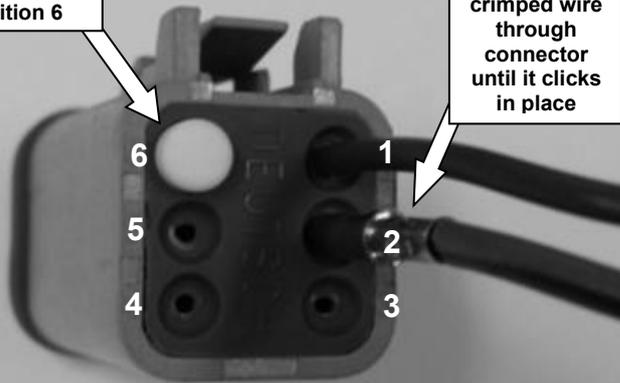
6. Remove 6mm of the plastic insulation coating from the end of each newly cut wire.

7. Insert each wire into the shorter end of a metal Deutsch pin.

8. Insert the longer end of the metal Deutsch pin into a crimping tool and crimp the wire and pin together as shown.

VEHICLE/RSTB WIRING

White blank pin
in position 6



9. Insert one set of wires into a male 6-pin connector from the back in the following order:

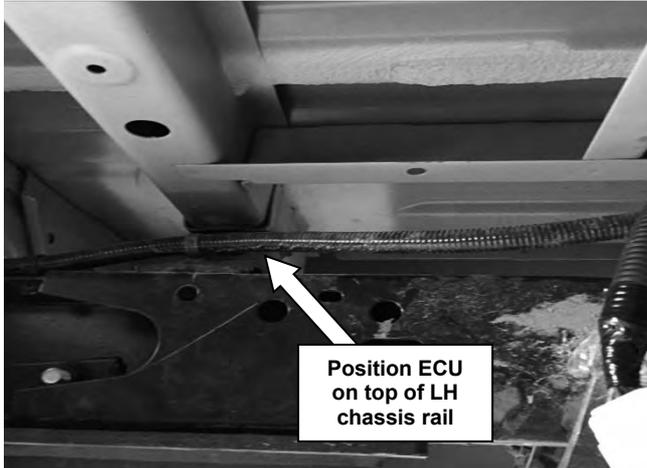
Pin position	Wire colour
1	Yellow
2	Red
3	Light Blue
4	Blue
5	Green

Note: Pin positions are shown on the back of the connector.

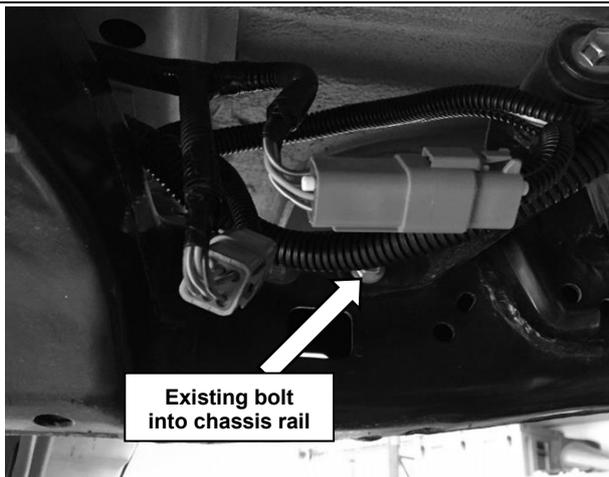
Plastic cover on
the front side of
connector



10. Insert the white blank pin into position 6 as shown in the previous step.
11. Insert the plastic cover to the front of the connector as shown.
12. Repeat steps 17-19 for the other connector.

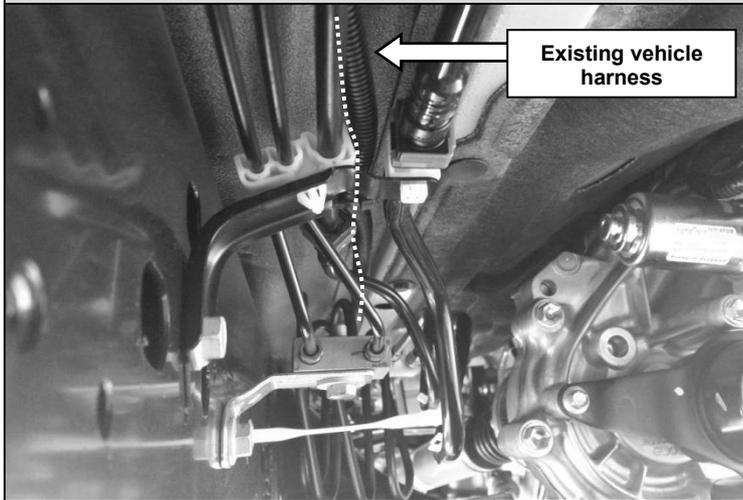


13. Position ECU on top of LH chassis rail behind cross member as shown. Secure using the ECU mounting holes and chassis rail holes with 2 cable ties.
14. Connect the ECU unit to the RSTB wiring harness using the large 12 pin connector.



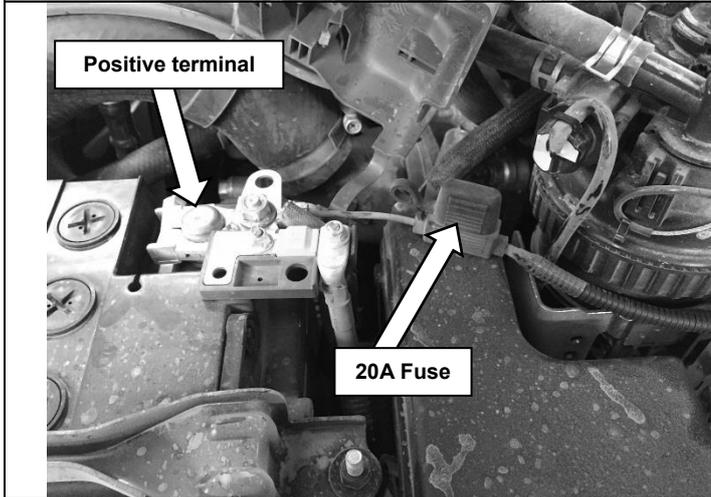
15. Connect the ground wire of the RSTB harness to the bolt on the LH chassis rail near the rear shock absorber mount.

VEHICLE/RSTB WIRING



Existing vehicle harness

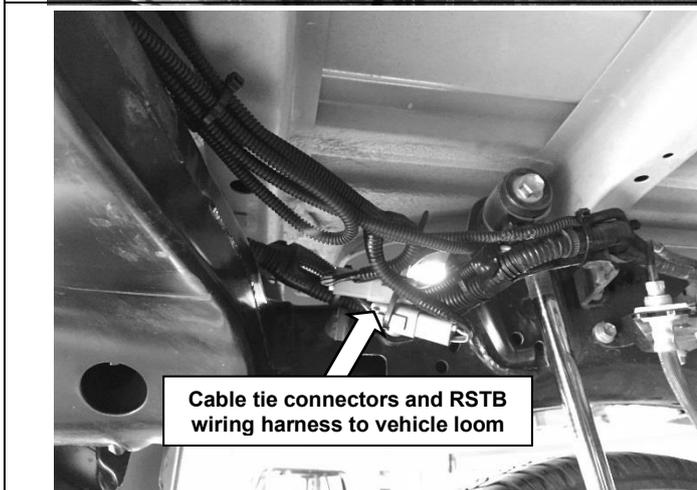
16. Route the positive supply wire to the front of the vehicle following the existing vehicle harness along the left chassis rail.



Positive terminal

20A Fuse

17. Continue routing the positive supply wire through the engine bay to the battery.
18. Connect the positive supply wire to the positive terminal of the battery using the existing bolt as shown.



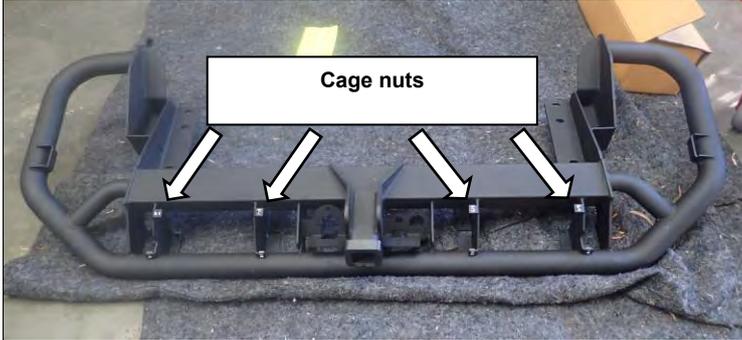
Cable tie connectors and RSTB wiring harness to vehicle loom

19. Connect the RSTB wiring harness to the 2 male 6-pin connectors.
- Note: The RSTB wiring harness is not polarity sensitive in this region so the male 6-pin connectors can be connected to either female connector.**
20. Ensure vehicle tail lights function correctly.
21. Fasten the connectors to the vehicle loom using the cable ties provided.

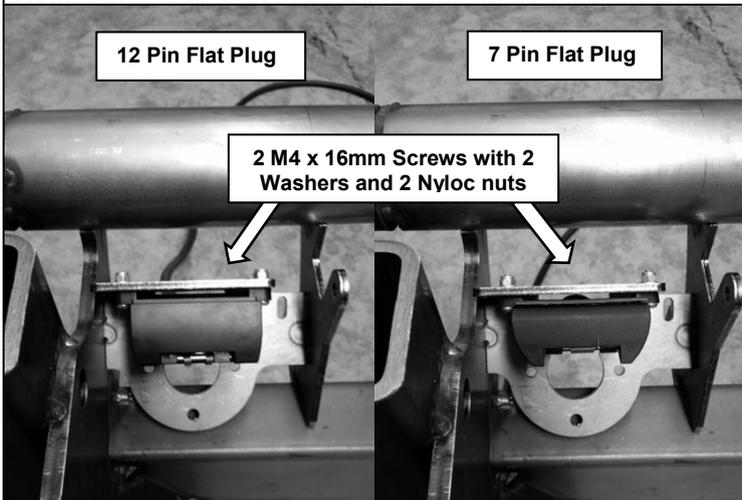


22. Re-wrap the un-cut wires with the existing split corrugated tubing and new tape.
23. Tidy and fasten all wiring using the cable ties provided.
- Warning: Make sure all wires are securely fastened away from any hot, sharp or moving surfaces. Do not fasten wiring harness to fuel or brake lines.**
24. Ensure vehicle tail lights function correctly.

PREPARE REAR STEP TOW BAR (RSTB)

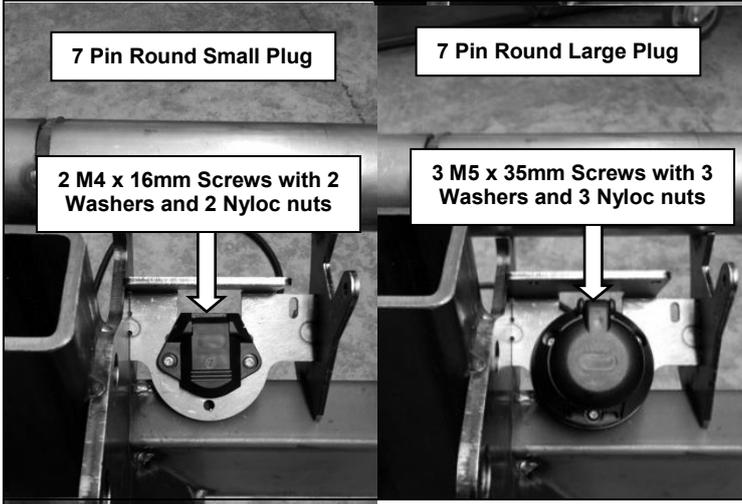


25. Place the RSTB on a flat surface that will not damage its coating as shown.
26. Fit 8 long-leg M6 caged nuts to the RSTB. Fit 4 caged nuts to the right side as shown and 4 cage nuts to the left-hand side.



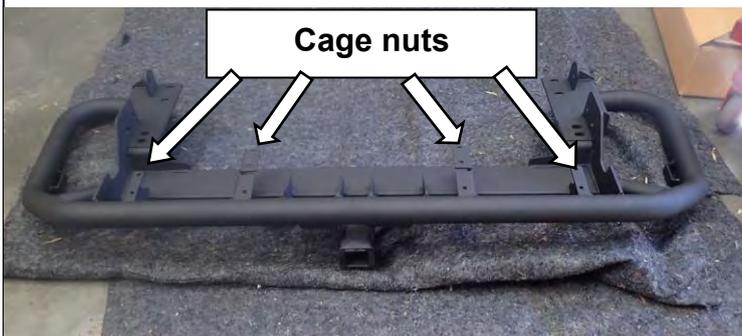
For fitment of flat trailer plugs:

27. Using the appropriate mounting holes as shown and fasteners supplied with the trailer plug, attach the trailer plug to the trailer plug bracket on the RSTB.



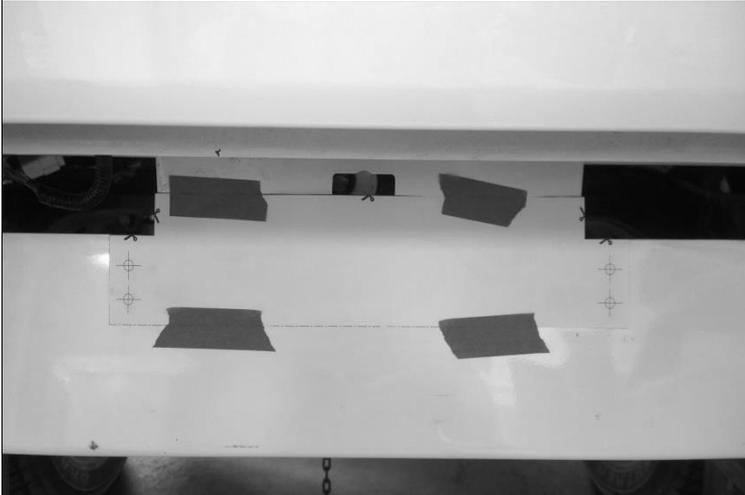
For fitment of round trailer plugs:

28. Using the appropriate mounting holes as shown and fasteners supplied with the trailer plug, attach the trailer plug to the trailer plug bracket on the RSTB.

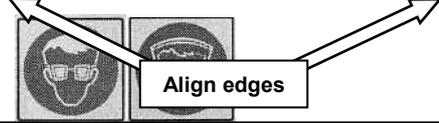


29. Rotate the RSTB 90° so it is now resting flat on the ground as shown.
30. Fit 10 long-leg M6 caged nuts to the RSTB. Fit 6 caged nuts to the right side as shown and 6 cage nuts to the left-hand side.

RSTB TO VEHICLE



31. Place the number plate drilling template on the rear panel of the tub as shown. When aligned use masking tape to hold in place
32. Center punch the 4 holes, remove template and drill to $\text{Ø}6.5\text{mm}$ and de-bur each holes to remove all sharp edges.



Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.



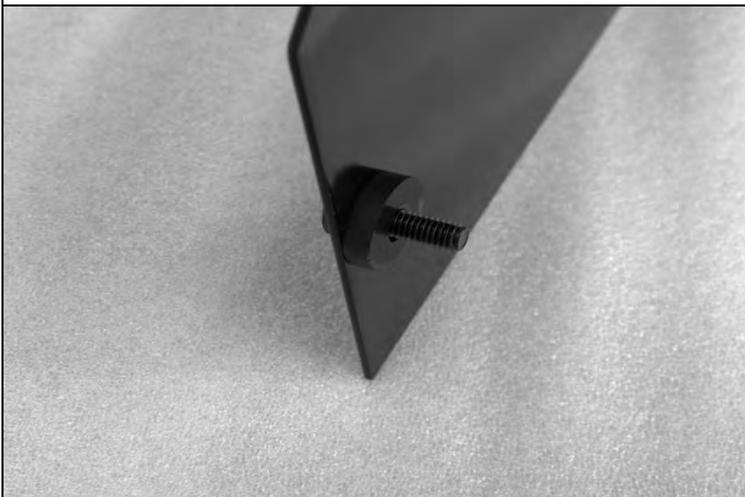
33. Temporarily fasten beaver panel to rear of tub and align upper edge of beaver panel so it is parallel with tailgate lower edge.



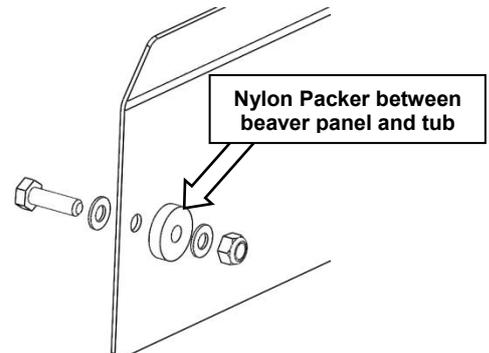
34. When the alignment is achieved drill $\text{Ø}6.5\text{mm}$ hole through tub face. Remove temporary fasteners holding beaver panel in place. De-bur the hole to remove all sharp edges.
35. Treat all raw edges with a rust preventative paint.



Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.



36. Insert M6X20 bolt and washer through beaver panel and position spacer as shown



RSTB TO VEHICLE

37. Attach beaver to rear of tub as shown using single M6 fastener

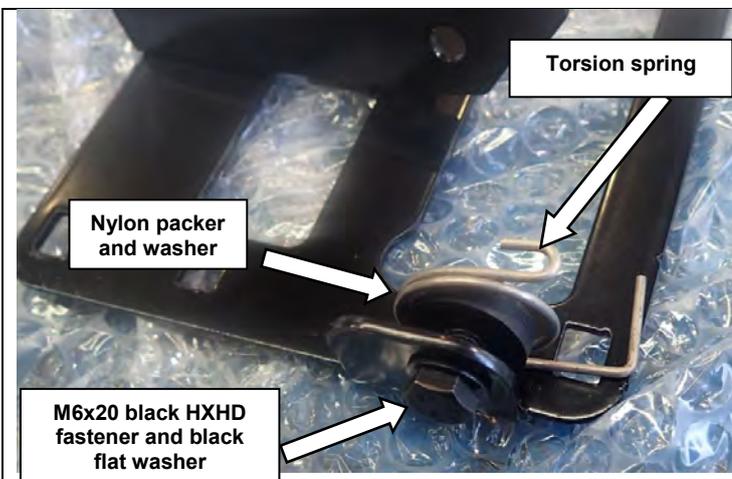
 M6 X 1.0 - 9 Nm.

38. Repeat steps 33 to 37 for left hand side.

39. Place tape in center section to temporarily hold beaver panel in place

Place tape on lower of
beaver panel and tub

40. Insert canoe clip into both LH and RH
number plate mount brackets as shown.



41. Assemble LH license plate bracket as shown taking note of mounting bracket orientation. Repeat step for opposite side of license plate bracket.
42. Tighten the screws enough so the brackets can be rotated by hand but not freely by themselves.



43. Complete assembly should look like picture shown.



44. Tighten the M6 bolts on both LH and RH brackets enough so the brackets can be rotated by hand but not freely by themselves.

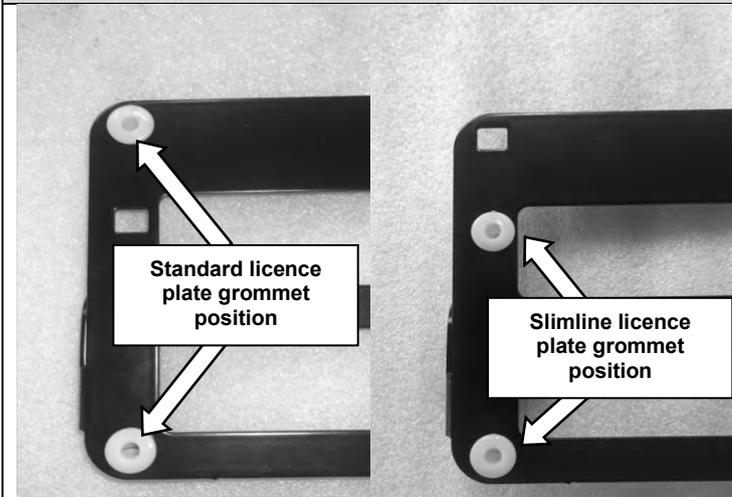


45. Fix the license plate assembly to the beaver panel using 4 M6x1.0x16 button head screws, 8 M6 flat washers (black), and 4 M6 nyloc nuts as shown.
46. Tighten all screws to the specified torque.



 **M6 X 1.0 - 9 Nm.**

RSTB TO VEHICLE

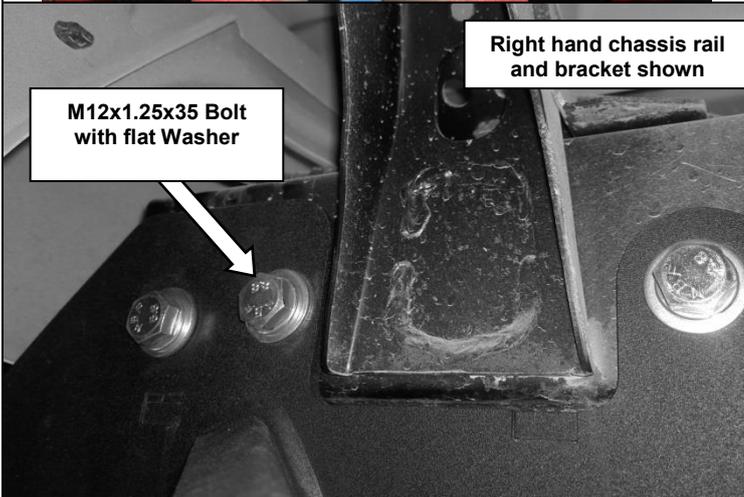


47. Insert 4 plastic grommets into number plate frame to suit licence plate size



48. With the assistance of other people or a lifting device, lift the RSTB up beneath the chassis rails aligning the threaded holes in the side of the chassis with those in the vertical surfaces of the RSTB.

Note: Take care to ensure the trailer plug wiring is not damaged during this step.



49. Fix the vertical plates of the RSTB to the threaded holes in each chassis rail using 3 M12x1.25x35 (fine pitch) hex head bolts and 3 M12 flat washers per chassis rail. Leave finger tight at this stage.

RSTB TO VEHICLE

Left hand chassis rail shown

50. Fix the front two horizontal mount points using M12x1.25x35 (fine pitch) hex head bolts, flat washer and nut.
51. Insert chassis plate in chassis and fasten the remaining horizontal mount points using 2 M12x1.25x35 (fine pitch) hex head bolts and 2 M12 flat washers
52. Check RSTB spacing to vehicle and tighten all fasteners to the specified torque.



M12 X 1.25 - 95 Nm.

Trailer plug loom connection

53. Route the trailer plug loom through the RSTB and attach to the appropriate connector on the RSTB wiring harness or vehicle loom as shown.
54. Ensure all trailer tail lights function normally.

Note: Test that the trailer park, brake and reverse lights function normally. Also test the left and right indicators along with the hazard setting.

VIC - STAY ALERT STAY AL

Cable tie wiring to slots in bracket here

55. Tidy and fasten all wiring using cable ties and the slots in the RSTB brackets, as well as existing fastening locations.

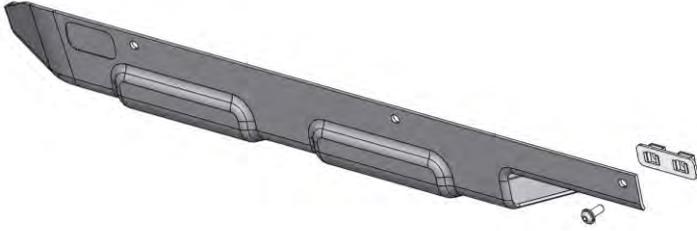
Warning: Make sure all wires are securely fastened away from any hot, sharp or moving surfaces. Do not fasten wiring harness to fuel or brake lines.

56. Ensure trailer tail lights function normally as per step 54.

Left hand side shown

57. Fit infill plate on either side of licence plate as shown using 1 M6 X 16 Stainless button head screw per infill plate. Only hand tighten fastener at this stage ensuring second hole is aligned.

RSTB TO VEHICLE



58. Fit the diffuser mount plate with an M6 x 16 M6 Stainless Steel button head screw and M6 flat washer to either the LH or RH diffuser as shown,

Right diffuser panel shown



59. Position the diffuser panels on either side of the receiver tube as shown.



60. Attach the diffuser panels to the RSTB using 10 M6x16 button head screws and M6 stainless flat washers.

 M6 X 1 -9 Nm.



61. Position each diffuser panel so there is an even gap between the panel and the RSTB tube. Tighten fasteners to the specified torque.

 M6 X 1 -9 Nm.



62. Attach the step plate extrusion to the RSTB using 8 M6x1.0x16 button head screws. Proceed to tighten fasteners installed in step 61

NOTE: Do not install washers under the 8 M6 button head screws that are fixing the step plate extrusion to the RSTB

63. Reattach the spare wheel beneath the vehicle.

FITTED PRODUCT

