

# PART NUMBER AND DESCRIPTION: 3648210 – SUMMIT REAR STEP TOW BAR (RSTB)

SUITED TO VEHICLE/S: ISUZU DMAX 2012 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 wings and corner of the RSTB. Do
  not lift directly from the end of the wing.
- When using the tow hitch receiver, the centre panel should be in the raised position.

# **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 Carnauba 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       |
| 6.5MM DRILL BIT        | WIRE STRIPPER           |
| DEUTSCH CRIMPING TOOL  | POWER DRILL             |
| NEEDLE NOSE PLIERS     | SOCKET SET              |
| ALLEN KEY SET          | TAPE MEASURE            |
| FINE ROUND FILE        | RUST PREVENTATIVE PAINT |
| MASKING TAPE           | SOLDERING IRON + SOLDER |
| HEAT SHRINK + HEAT GUN | T40 TORX BIT            |
| MULTIMETER             |                         |

#### HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

**Protective eyewear** 



**Hearing protection** 



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

| RSTB PARTS LISTING        |                    |     |   |  |
|---------------------------|--------------------|-----|---|--|
| APPLICATION               | PART NO.           | QTY | DESCRIPTION   |  |
|                           | 6523002            | 1   | LIFT UP PANEL   |  |
|                           | 5670026            | 2   | SPRING EXT 11.25 OD x 43  |  |
| PREPARE REAR STEP TOW BAR | 6602011            | 2   | CANOE CLIP BLACK  |  |
| (RSTB)                    | 6151256            | 2   | SCREW BTN HD M6 x 16 SS   |  |
|                           | 6151549            | 2   | NUT NYLOC M6 x 1.0 GR8.8 BTZP480                                  |  |
|                           | 4584295            | 4   | WASHER FLAT M6 x 12 x 1.3 BLK ZN                                  |  |
|                           |                    | •   |   |  |
|                           | 3759108            | 2   | CHASSIS WELD NUT PLATE  |  |
|                           | 6151096            | 10  | BOLT HXHD M12 x 1.25 x 40 CL8.8 ZP                                |  |
| RSTB TO VEHICLE           | 4581050            | 10  | WASHER SPRING 1/2 x 3/16 x 3/16 ZP                                |  |
|                           | 4581007            | 10  | WASHER FLAT 1/2 x 1 1/2 x 4 SILVER TZP                            |  |
|                           | 1                  |     | L   |  |
|                           | 6523098            | 1   | BEAVER PANEL DMAX   |  |
|                           | 3759642            | 1   | LICENSE PLATE MOUNT   |  |
|                           | 3759695R           | 1   | LICENSE PLATE BRACKET RH  |  |
|                           | 3759695L           | 1   | LICENSE PLATE BRACKET LH  |  |
|                           | 3194833            | 1   | PLATE 10MM SPANNER  |  |
|                           | 6821189            | 4   | PLASTIC SNAP-IN LARGE GROMMET                                     |  |
|                           | 6151384            | 4   | SCREW ST PHDCOL PH 5.2 x 16 TBZP480                               |  |
|                           | 6151295            | 6   | SCREW BTN HD M8 x 20 SS   |  |
| BEAVER PANEL TO VEHICLE   | 4581081            | 6   | WASHER FLAT M8 SS   |  |
|                           | 4581063            | 4   | WASHER FLAT M8 x 25 x 3 ZN  |  |
|                           | 4581082            | 2   | WASHER FLAT M6 x 19 x 1.6 BLK ZN                                  |  |
|                           | 6151549            | 6   | NUT NYLOC M6 x 1.0 GR8.8 BTZP480                                  |  |
|                           | 6151213            | 8   | BOLT M6 x 1.0 x 20 Gd8.8 BZ                                       |  |
|                           | 4581287            | 2   | WASHER SPRING M6 x 2.5 x 1.6 BLK ZN                               |  |
|                           | 4584295            | 14  | WASHER FLAT M6 x 12 x 1.3 BLK ZN                                  |  |
|                           | 5848302            | 2   | PACKER RB NYLON   |  |
|                           | 1                  | •   |   |  |
|                           | 3194759            | 1   | STEP PLATE EXTRUSION DMAX   |  |
|                           | 3163125            | 1   | LIGHT BEZEL MOULDING  |  |
|                           | 3750395            | 1   | LED MOUNT BRACKET   |  |
| STEP PLATE TO RSTB        | 6151256            | 8   | SCREW BTN HD M6 x 16 SS   |  |
|                           | 6151715            | 16  | NUT M6 CAGED 3.6-4.5mm 836-D                                      |  |
|                           | 6821270            | 1   | NARVA 90810 LED LAMP KIT  |  |
|                           | 6821116            | 2   | PLASTIC SNAP-IN SMALL GROMMET                                     |  |
|                           | 0700500            | 4   |   |  |
|                           | 3789532            | 1   | TEMPLATE RSTB DMAX WING H/CUT                                     |  |
|                           | 3759681R           | 1   | BRKT CLRADO/DMX WING R MNT RH                                     |  |
|                           | 3759681L           | 1   | BRKT CLRADO/DMX WING R MNT LH                                     |  |
| PREPARE RSTB/VEHICLE FOR  | 3759680R           | 1   |   |  |
|                           | 3759680L           | 1   | BRKT CLRADO/DMX WING F MNT LH                                     |  |
|                           | 3194723<br>3194724 | 2   | WING DOUBLE NUT PLATE<br>WING TRIPLE NUT PLATE                    |  |
|                           | 4581048            | 2   | WING TRIPLE NOT PLATE<br>WASHER SPRING M10 TZP480                 |  |
| PANELS                    | 6151022            | 6   | BOLT M8 x 1.25 x 25 Gd 8.8 ZP                                     |  |
|                           | 4581063            | 6   | WASHER FLAT M8 x 25 x 3 GOLD ZN                                   |  |
|                           | 4581046            | 6   | WASHER FLAT M8 x 25 x 5 GOLD ZN<br>WASHER SPRING M8 x 3/32 x 3/32 |  |
|                           | 6151204            | 2   | BOLT M10 x 1.5 x 35 Gd 8.8 ZP                                     |  |
|                           | 4581040            | 2   | WASHER FLAT M10 x 25 x 3 ZP                                       |  |
|                           | 6151302            | 2   | NUT CAGED M10 1.8-3.2   |  |
|                           | 3194869            | 2   | CAGE PLATE 225mm  |  |
|                           | 3194869            | 2   | CAGE PLATE 225MM  |  |

| RSTB PARTS LISTING     |          |    |                                  |  |
|------------------------|----------|----|----------------------------------|--|
|                        | 6151022  | 8  | BOLT M8 x 1.25 x 25 Gd 8.8 ZP    |  |
|                        | 4581063  | 16 | WASHER FLAT M8 x 25 x 3 GOLD ZN  |  |
|                        | 4581046  | 4  | WASHER SPRING M8 x 3/32 x 3/32   |  |
|                        | 6151032  | 8  | NUT NYLOC M8 x 1.25              |  |
|                        | 6151256  | 8  | SCREW BTN HD M6 x 16 SS          |  |
|                        | 4581304  | 8  | WASHER FLAT M6 SS                |  |
|                        | 6151213  | 2  | BOLT M6 x 1.0 x 20 Gd8.8 BZ      |  |
| PANELS TO RSTB/VEHICLE | 4581082  | 2  | WASHER FLAT M6 x 19 x 1.6 BLK ZN |  |
|                        | 4584295  | 2  | WASHER FLAT M6 x 12 x 1.3 BLK ZN |  |
|                        | 6151549  | 2  | NUT NYLOC M6 x 1.0 GR8.8 BTZP480 |  |
|                        | 6151710  | 4  | M8 x 25 TORX GR8.8 BZ480         |  |
|                        | 3194718  | 2  | WING WASHER PLATE                |  |
|                        | 3131521R | 1  | DMAX WING RH                     |  |
|                        | 3131521L | 1  | DMAX WING LH                     |  |
|                        | 6523048  | 1  | DIFFUSER PANEL RH                |  |
|                        | 6523049  | 1  | DIFFUSER PANEL LH                |  |
|                        |          |    |                                  |  |
|                        | 4761170  | 1  | TOW TONGUE 45 DEG                |  |
| TOW TONGUE             | 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.

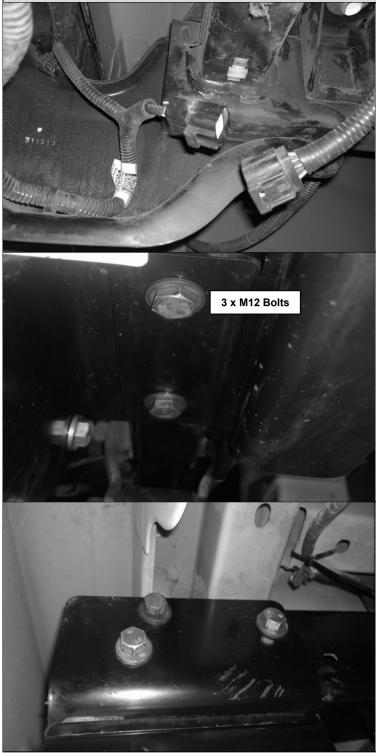
To install this loom, a crimping tool suitable for crimping contact type size 16 Deutsch pins is required. Suitable crimping tools can be purchased from auto electrical wholesalers as shown.



| APPLICATION    | PART NO. | QTY | DESCRIPTION                          |
|----------------|----------|-----|--------------------------------------|
|                | 3600010  | 1   | RSTB WIRING INCLUDING ECU            |
|                | 3600020  | 1   | RSTB SOCKET & TAIL   7 PIN FLAT      |
| TRAILER WIRING | 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  | APPLICATION PART NO. QTY DESCRIPTION |     |                            |  |  |
|  | 171403                               | 1   | ARB AIR LINE FITTING       |  |  |
| OPTIONAL ACCESSORIES   | 10600030                             | 1   | ARB TRAILER CAMERA KIT     |  |  |
| OF HOMAE ACCESSORIES   | 58X22/A                              | 1   | RECOVERY HITCH AND SHACKLE |  |  |
|  | 6594050                              | 1   | 50 AMP ANDERSON PLUG       |  |  |
|  |                                      | • > |                            |  |  |
| AIR LINE FITTING TRAI  | ER CAMERA KIT                        | REC | OVERY HITCH ANDERSON PLUG  |  |  |

### **GENUINE ACCESSORIES REMOVAL**



- Remove the spare wheel from beneath the tub using the wheel nut wrench and jack handle pieces supplied with the vehicle.
- 2. Disconnect the licence plate lamp and/or tow wiring looms from the vehicle loom at the location shown.
- 3. Disconnect the connector as shown.
- 4. Remove the bumper bar from the vehicle by removing M12 bolts from each chassis rail as shown.
- 5. Remove licence plate loom from bumper and set aside for later use.

#### For vehicles fitted with a tow bar:

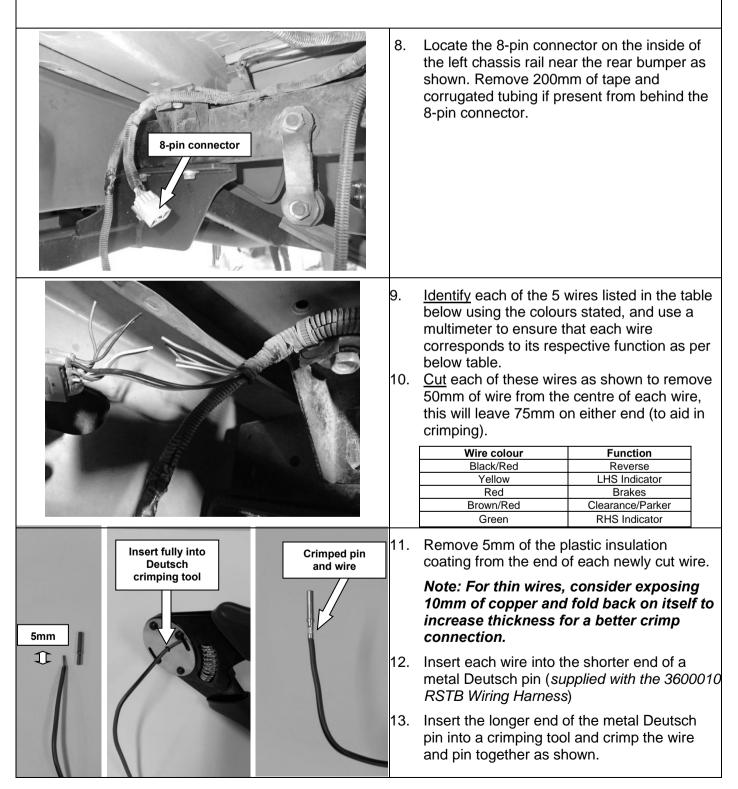
- 6. Remove the factory tow bar from the vehicle by removing the M12 bolts from each chassis rail.
- Disconnect the trailer plug from the tow bar by removing the loom fasteners. Place the plug to the side where it will not be damaged during fitment of the Rear Step Tow Bar (RSTB).

# **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:

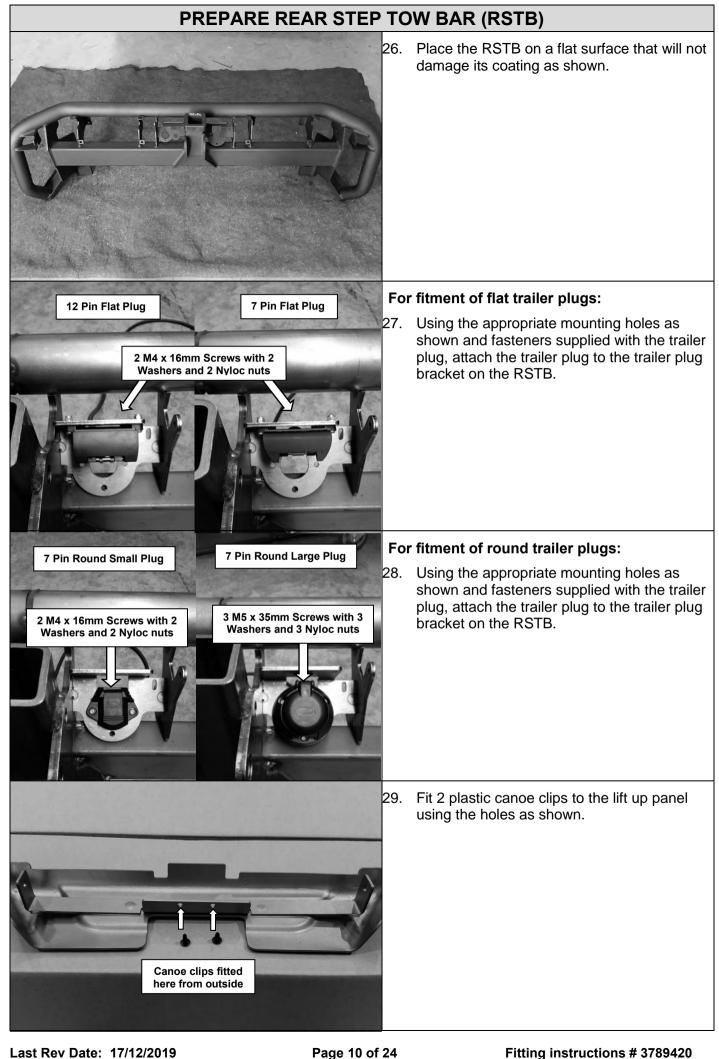


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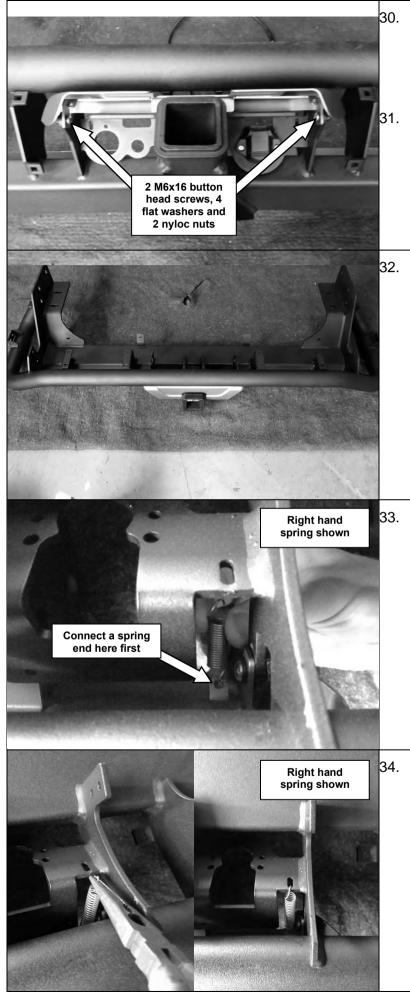
#### **VEHICLE/RSTB WIRING** Push 14. Insert one set of wires into a male 6-pin White blank pin crimped wire in position 6 connector (supplied with the 3600010 RSTB through Wiring Harness) from the back in the connector until it clicks following order: in place Pin position Wire colour Yellow (LH Ind) 1 2 Black/Red (Rev) 3 Green (RH Ind) 4 Red (Brake) 5 Brown/Red (Clr/Park) Note: Pin positions are shown on the back of the connector. 15. Insert the white blank pin into position 6 as shown in the previous step. Plastic cover on the front side of connector Insert the plastic cover to the front of the 16. connector as shown. 17. Repeat steps 14-16 for the other connector 18. Position the ECU on top of cross member beneath tub as shown. Secure using the ECU mounting holes and vehicle harness with 2 ECU cable ties. 19. Connect 12-pin connector on RSTB Wiring Harness to ECU 20. 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.

| VEHICLE/RSTB WIRING     |            |  |  |  |
|-------------------------|------------|--|--|--|
| Positive<br>Supply Wire | 21.        | Route the positive supply wire to the front of<br>the vehicle following the existing vehicle<br>harness along the left chassis rail.   |  |  |
| Positive<br>Supply Wire | 22.        | Connect the positive supply wire to the positive terminal of the battery as shown.   |  |  |
|                         | 23.        | Connect the ground wire of the RSTB<br>harness to the bolt on the inside of the rear<br>chassis rail as shown.   |  |  |
|                         | 24.<br>25. | Tidy and fasten all wiring using the cable ties<br>provided.<br>Warning: Make sure all wires are securely<br>fastened away from any hot, sharp or<br>moving surfaces. Do not fasten wiring<br>harness to fuel or brake lines.<br>Ensure vehicle tail lights function correctly |  |  |
| KIAA                    |            |  |  |  |



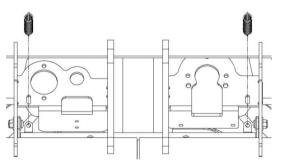
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### PREPARE REAR STEP TOW BAR (RSTB)



- 60. Attach the lift up panel to the pivot plates on the RSTB using 2 M6x1.0x16 button head screws, 4 M6 flat washers (black) and 2 M6 nyloc nuts.
- 81. Tighten the screws enough to ensure the lift up panel is centralised with minimal sideways movement, but still able to lift up and down freely.
- 2. Rotate the RSTB 180° so it is now resting flat on the ground as shown.

3. Connect 2 springs between the RSTB and lift up panel. From above, first connect one end of each spring to the lift up panel as shown.

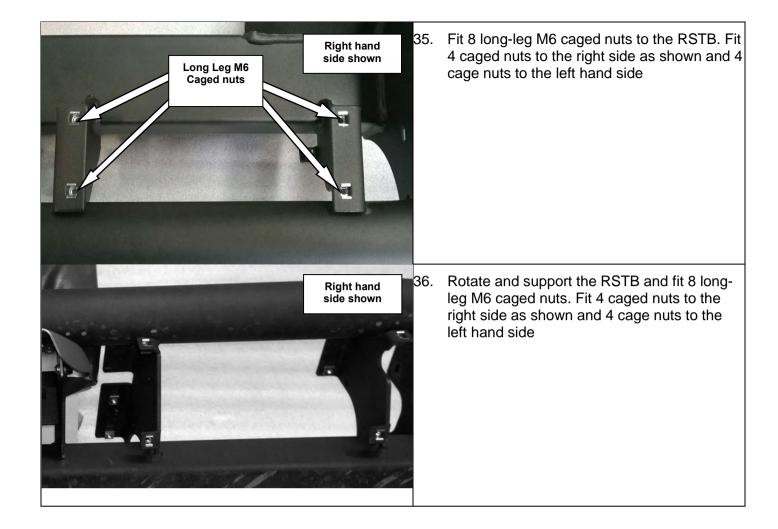


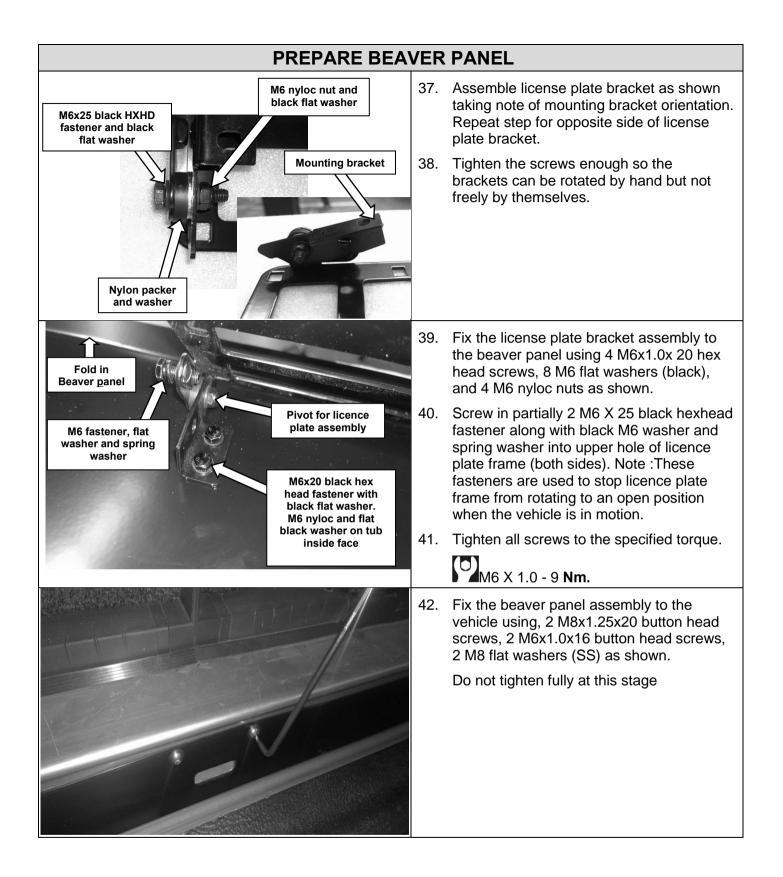
Using pliers, stretch the free end of each spring up to the bracket on the RSTB as shown.



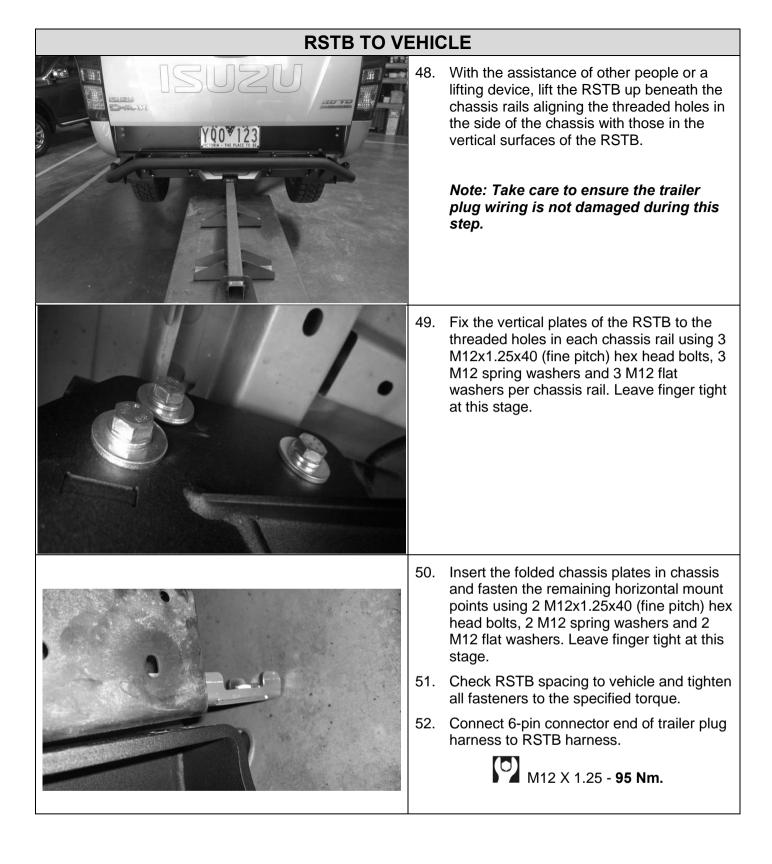
*Warning:* Safety glasses should be worn for this operation as the spring may slip off the pliers if not clamped tightly.

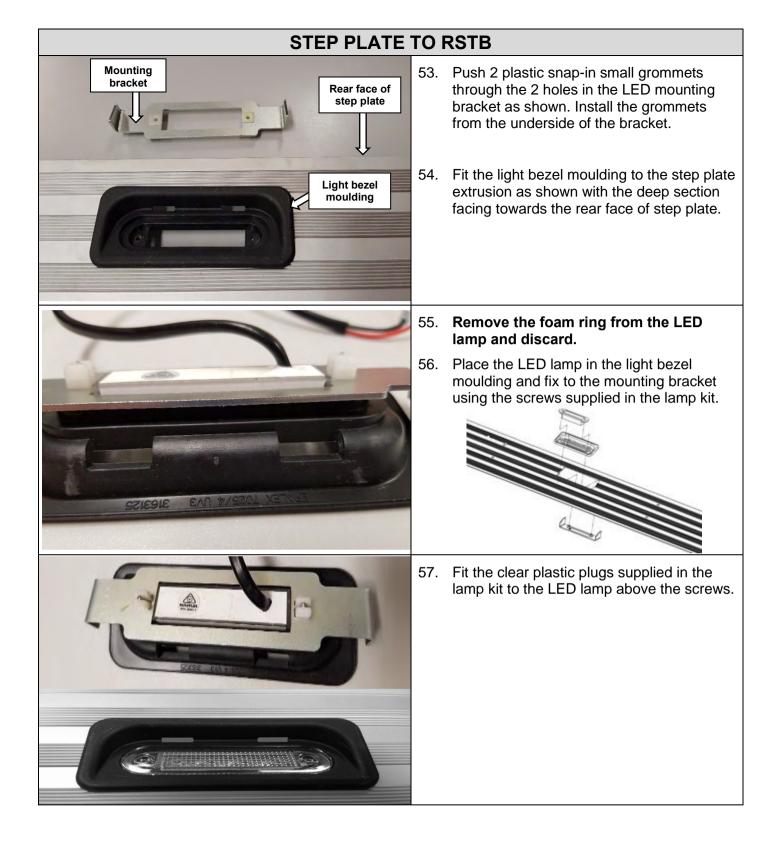
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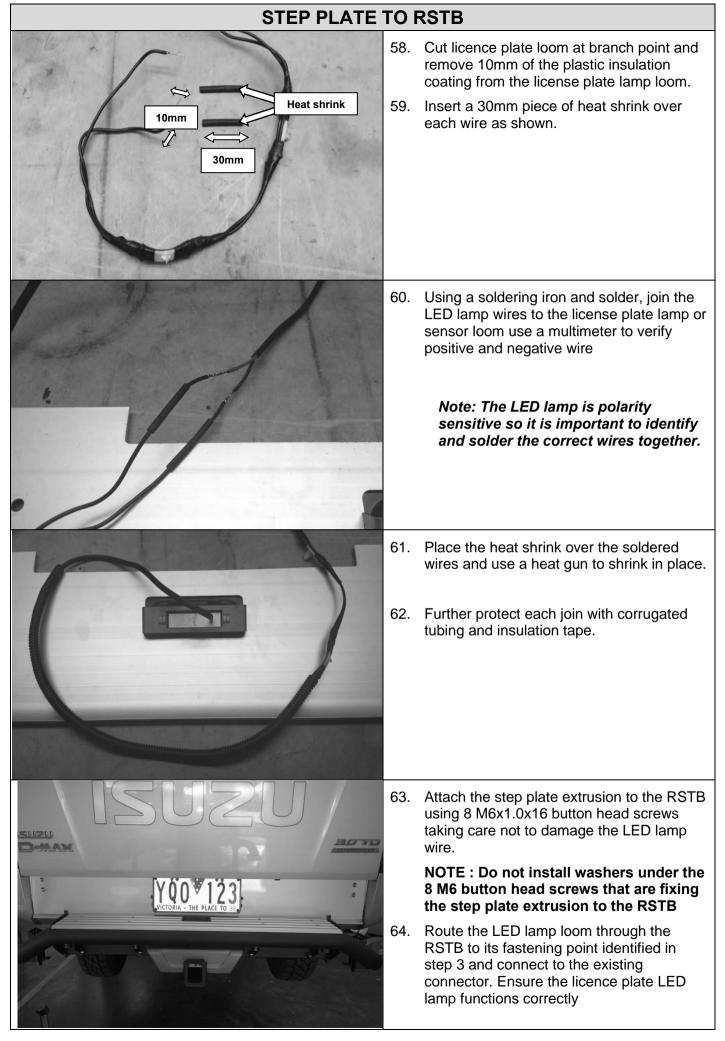






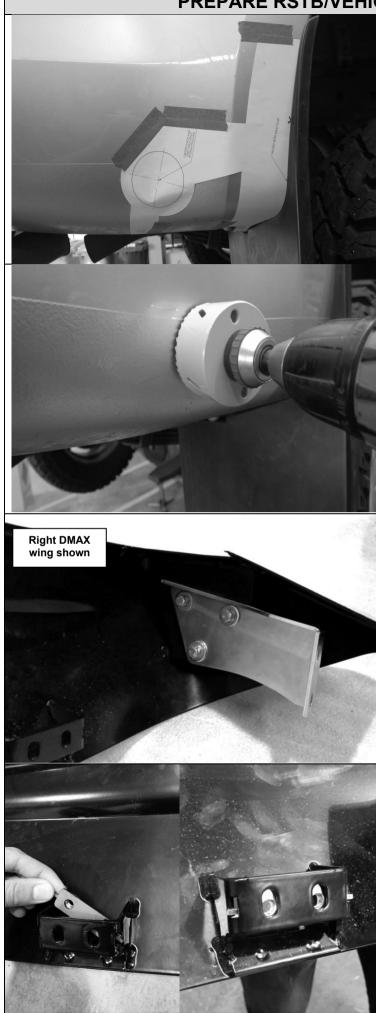






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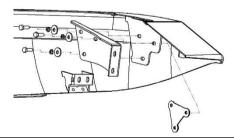
# PREPARE RSTB/VEHICLE FOR PANELS



- 65. Place the cutting template on the right hand rear side panel of the tub aligning it with the mud flap and bottom edge of the tub. Use masking tape to hold in place.
- 66. Mark the centre of the cutting hole on the rear side panel and then remove the template.
- 67. Using a Ø70mm hole saw, drill through the rear side panel using the mark from the previous step as the centre point of the hole.



- 68. Repeat steps 59-61 for the left hand rear side panel using the opposite side of the template.
- 69. De-bur each hole to remove sharp edges.
- 70. Treat raw edges with a rust preventative paint.
- 71. Fix a wing mount bracket to each DMAX wing using 3 M8x1.25x25 hex head bolts, 3 M8 spring washers, 3 M8 flat washers and a wing triple nut plate. Orientate each bracket as shown. Leave bolts finger tight at this stage.



72. Place a wing double nut plate inside the middle bracket of each DMAX wing as shown.

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|   |                          | 73.  | Insert 1 M10 caged nut into each cage nut plate as shown.  |
|---|--------------------------|------|--|
|   | Right hand<br>side shown | 74.  | Insert cage nut plate rearwards through a hole on the inner chassis rail face into the chassis rail as shown.  |
|   | Right hand<br>side shown | 75.  | Position the caged nut in line with the hole<br>on the outer chassis rail face approximately<br>150mm rearwards of the inner hole and<br>hold in place.  |
| Mount hole between tub<br>mount and spring hanger | Front of vehicle         | 76.  | Position a wing mount strut under the tub<br>and fix to the cage nut plate in the chassis<br>rail using 1 M10x1.5x35 hex head bolt, 1<br>M10 spring washer and 1 M10 flat washer.<br>Leave finger tight at this stage. |
|   |                          | Note | e: Strut should be positioned with notched face leading towards wheel arch as shown.   |
| A.L.  |                          | 77.  | Repeat steps 74-76 for the opposite side.  |

# PANELS TO RSTB/VEHICLE

78. Pass the front bracket of each DMAX wing through the Ø70mm hole in the tub and fasten to the wing mount strut using 2 M8x1.25x25 hex head bolts, 4 M8 flat washers and 2 M8 nyloc nuts. Leave bolts finger tight at this stage. 79. Fix the wing mount bracket of each DMAX Right wing mount wing to the RSTB using 2 M8x1.25x25hex bracket shown head bolts, 4 M8 flat washers and 2 M8 nyloc nuts. Do not fully tighten at this stage. 2 M8 bolts, 4 M8 washers and 2 M8 nyloc nuts 80. Fix the middle mount bracket of each DMAX wing to the RSTB using 2 M8x1.25x25 torx head bolts, 2 M8 spring washers and retainer plate as shown. Do not fully tighten at this stage. Note: Position the retainer plate under the head of the torx head bolts and spring washers in place of a conventional washer Position each DMAX wing so there is an 81. even 6-8mm gap to the side vehicle panels.

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| Even gap to<br>mud flap along<br>this edge  | 82. | Position each DMAX wing so they there is<br>an even gap to the mud flap as shown.  |
|---|-----|--|
| 2-3mm gap<br>along this edge  | 83. | Position each DMAX wing so they sit<br>evenly on the step plate extrusion and<br>there is an even gap to the tube as shown.  |
|   | 84. | Tighten all the M8 bolts that retain each<br>DMAX wing to the specified torque. Tighten<br>the M10 bolts that secure the wing mount<br>strut to chassis to the specified torque.<br>M8 X 1.25 - 22 Nm.<br>M10 X 1.5 - 44 Nm.<br>Note: Check that all clearances are<br>maintained as the fasteners are |
|   | 85. | <i>tightened.</i><br>Attach the diffuser panels to the RSTB  |
|   |     | using 8 M6x16 button head screws and M6 stainless flat washers.  |
| Outside hole- M6X20 Hex<br>head black bolt and M6x19<br>black washer.<br>Inside face - M6 X12 black | 86. | For the outer most holes on each panel,<br>use M6X20 Hex head black bolt and<br>M6x19 black washer, M6 X12 black washer<br>and M6 nyloc nut as shown   |

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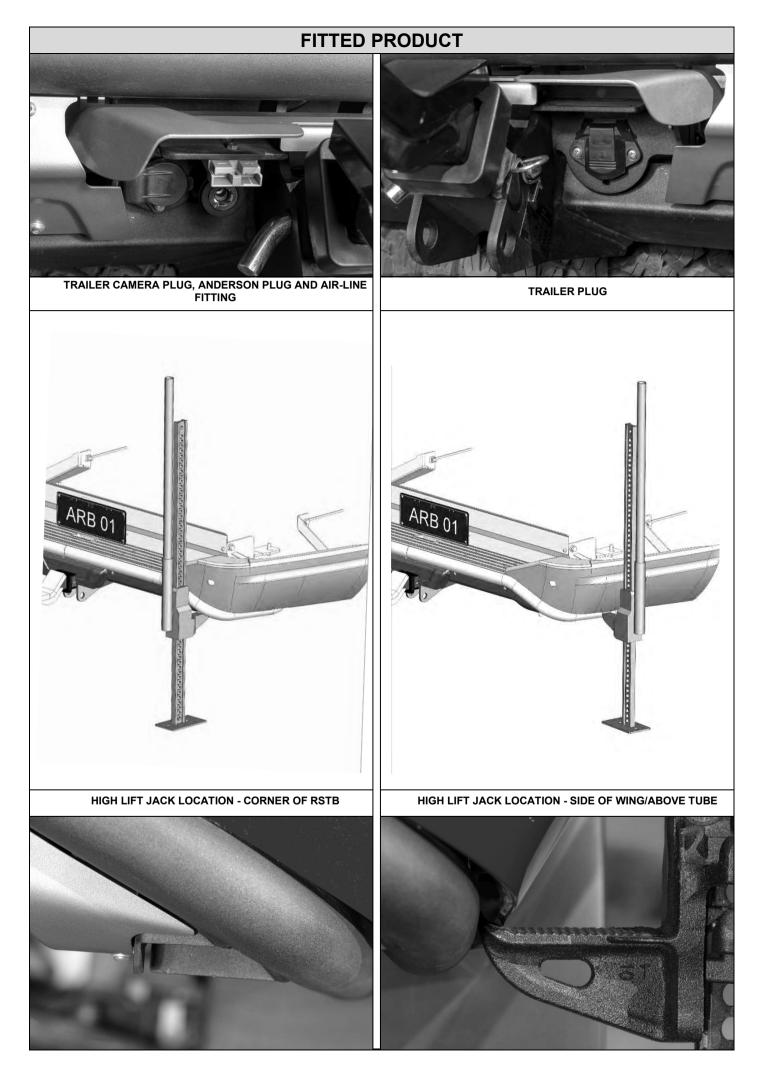
| PANELS TO RSTB/VEHICLE             |     |  |  |  |
|------------------------------------|-----|--|--|--|
| ©<br>Even gap along<br>these edges | 87. | Position each diffuser panel so there is an even gap between the panel and the RSTB tube. Tighten fasteners to the specified torque.               |  |  |
|                                    | 88. | Reattach the spare wheel beneath the vehicle tub as shown.   |  |  |
| RT STAY ALIVES                     | 89. | Using the 10mm spanner provided tighten<br>the licence plate retaining bolt on both<br>sides to secure the licence plate in an<br>upright position |  |  |
|                                    | 90. | Store tow tongue, pull pin and R-clip in a safe and secure location when not in use.   |  |  |

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