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Land Rover Defender 110 Station Wagon (L183) Fitting Instructions

Unwrap the roll cage and unpack the individual fitting kits. At this point it is recommended that all components are checked against the assembly drawing on page 8 of these instructions. Should any parts or fixings be missing at this stage, or during installation, please contact your stockist.

The assembly process of this roll cage is separated into several different sections, each section having its own fitting kit containing all nuts, bolts, washers and fitting plates required:

Section 1 - The next step in installing the roll cage is to prepare the two mounting points on the front wings of the vehicle.

1.1 - Remove front wing eyebrows and outer skins (split wing)

1.2 – Located in the top corner of the outer wing skin is a gusset pop riveted to the wing itself. Drill these pop rivets and remove the gusset.

Fig 1.1

Fig1.2

1.3 – Mask the upper rear corner of the front wings. The square hole for the front roll cage leg should be marked using the front leg gripper/slave plate. The edges of the mounting plate should be aligned with the edge of the outer wing skin.

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1.4 - Mark all 4 holes in the front wing, then drill to 12mm before removing the centre section, creating a square hole.

Fig 1.3

Fig 1.4

1.5 - On the vehicle there is a lower flange that runs rearwards under the doors. The edge of this flange should be cut away completely from just rearward of the hole for the retaining strap, all the way back to the hinge pillar. Leave 6mm (0.25”) on the top of flange, i.e. cut 6mm (0.25”) away from the bend. The corresponding material can now be cut out of the wing flange also.

Fig 1.5a

Fig 1.5b

1.6 – With the front wing supported on a work bench, locate the under wing support into position to achieve the best fit, the square mount should protrude through the square hole. Mount and tighten the gripper plate to ensure the support is positioned correctly. Drill a 3mm hole through both the lower part of the rear wing flange and under wing support. This should then be pop riveted to attach the two parts together.

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Fig 1.6a

Fig 1.6b

1.7 – To allow fitment of the lower chassis outrigger bracket you will first need to remove the long bolt that passes through the outrigger from front to rear. At this point you may find a selection of washers between the outrigger and the bulkhead, or on more recent vehicles a tube welded to the outrigger. If washers are present they should be removed to create sufficient clearance for the bracket. If a welded tube is present then it must be trimmed down to allow the bracket to drop into position.

1.8 – The bolt can now be reinserted loosely, it will be tightened fully when the wing is back in position.

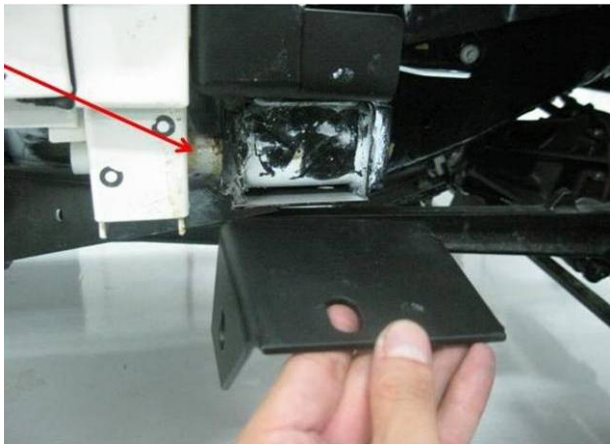

Fig 1.7

Fig 1.8

1.9 - Replace the spire clips in the front bulkhead ('A' Post) with the 'J' nuts provided in the kit.

1.10 - Bolt the wings back onto the vehicle using the existing mounting positions as well as the new chassis mounting on the outrigger. You may find that there is a slight gap between the lower part of the wing bracket and the chassis bracket due to vehicle variances. If so we have supplied several M10 Heavy Penny washers which can be used to fill the gap if required.

1.11 - The chassis cross member bolt can now be fully tightened.

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Section 2 - The next section of the roll cage to be installed is the internal B hoop.

2.1 – Remove both front and centre headlining sections.

2.2 – Remove the upper seat belt mountings from the B pillar, followed by the inertia reel from the rear of the seat riser. Reinstall the lower inertia reel bolts and fully tighten these mounting positions as they will not be used once the roll cage is installed.

2.3 - Position the 'B' hoop into the vehicle, locating the forward facing brackets at shoulder height against the seat belt mounts. Position the two spacers on the outside of the B hoop mountings and bolt into position using the bolts supplied in the kit. The upper seat belt mounting can be reinstalled in the new location on the hoop bracket using the existing bolts.

2.4 - The lower hoop angled floor brackets should be pushed forward against the riser of the vehicle. It may be necessary to support the floor brackets in their most forward position. The brackets located on top of the hoop should be parallel with the roof of the vehicle and positioned rearwards of the roof channel as shown. Due to vehicle build tolerances there are spacers supplied to prevent roof distortion.

2.5 - Mark the hole positions through the roof brackets and floor brackets centrally in the slots, and remove the B hoop. All 4 roof hole positions should be drilled to 11mm. All 4 floor hole positions should be drilled to 13mm. It is important that the supporting brackets beneath are also drilled through at this time.

Fig 2.5

Fig 2.6

2.6 – The B hoop should now be reinstalled and all bolts tightened. Between the inner floor of the vehicle and the brackets beneath there will be a gap into which the 4 spacers provided should be positioned to ensure the brackets won't be deformed when tightened.

2.7 - The door check strap will need to be relocated onto the fixing provided on the B hoop and secured using the M8 nyloc nut provided. The nut should be tightened sufficiently for the check strap to be held in place whilst still being able to rotate on the thread when the door is opened and closed.

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Fig 2.6

2.7 – With the B hoop installed the headlining will need to be trimmed to suit - we do not provide specific details as each vehicle will be slightly different. The photos give a general idea as to what the headlining should look like when completed. This will not be reinstalled until the external sections of the cage have been assembled and all bolts have been fully tightened.

Fig 2.7

2.8 - There is an option to have a V brace installed in the hoop - if this has been supplied this should be fitted before the final tightening takes place.

Section 3 – The external sections of the cage should now be installed onto the mounting positions.

3.1 - Remove both gripper plates from the front wing mountings.

3.2 - Locate the left hand front leg onto the wing support and onto the roof above the B hoop. Insert but do not fully tighten bolts.

3.3 - Position upper and lower screen rails to front left leg. Insert but do not fully tighten bolts. It is important that sufficient sealant (Wurth PU 08901001) is applied around these holes before the bar is finally positioned. The nuts and washers can be installed internally but not fully tightened.

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Fig 3.3a

Fig 3.3b

3.4 - Locate right hand front leg onto roof, front wing support and upper and lower screen rails. Insert but do not fully tighten bolts.

3.7 - With all external components installed, the next task is to tighten all bolts on the roll cage. Due to vehicle tolerances it is not uncommon for the cage to be sitting slightly to one side or another, so the order in which bolts are tightened is critical in the final cage alignment.
To correct any misalignment on the vehicle the external joints should all be tightened gradually whilst checking the cage is central on the vehicle when viewed from front/rear and from the side. In the side view it is important to ensure that the hoops are upright and that there is sufficient clearance between the cage and the vehicle body at all points.

Section 4 - Internal section of the roll cage.

4.1 - The rear body should be trimmed as per the drawing on page 9 of these instructions.

4.2 - The hoop can be located and the hoop supports joined from underneath. The chassis brackets can also be attached to the hoop feet and positioned against the chassis.

4.3 - The chassis should be drilled out using the brackets as a guide and bolts inserted loosely.

4.4 - The side assemblies can be installed up against the B and D hoops and bolted loosely into position.

4.5 - The lower end of these assemblies can then be bolted into position behind the rear door shut using the angle plates as supplied.

4.6 - The lower side rails and diagonal bracing can all be installed and loosely bolted up.

4.7 - When installing many of these parts on later vehicles it may be necessary to trim the interior trim panels to suit.

4.8 - All nuts and bolts used in joining the internal elements of the cage can now be fully tightened up.

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Section 5 – These are the final few processes to complete the installation.

5.1 - The bolts through the seat belt mountings, B hoop roof and B hoop floor should all be tightened.

5.2 - The headlining should be reinstalled.

5.3 - The upper seat belt mounting should be located to the new locations on the two B hoop mountings.

5.4 - The original inertia reel fixings will be obstructed by the base of the B hoop. As a result, the fixing should be bolted to the lower B hoop angle brackets using the replacement bolt provided.

5.5 – On more recent vehicles the original plastic inertia reel cover may be obstructed by the B hoop base. A replacement surround for the inertia reel is available to prevent damage. The new surround should be assembled around the reel and bolted together. The complete assembly can then be bolted into position.

Fig5.5a

Fig5.5b

Fig5.5c

Fig5.5d

Your Safety Devices roll cage is now fully installed!

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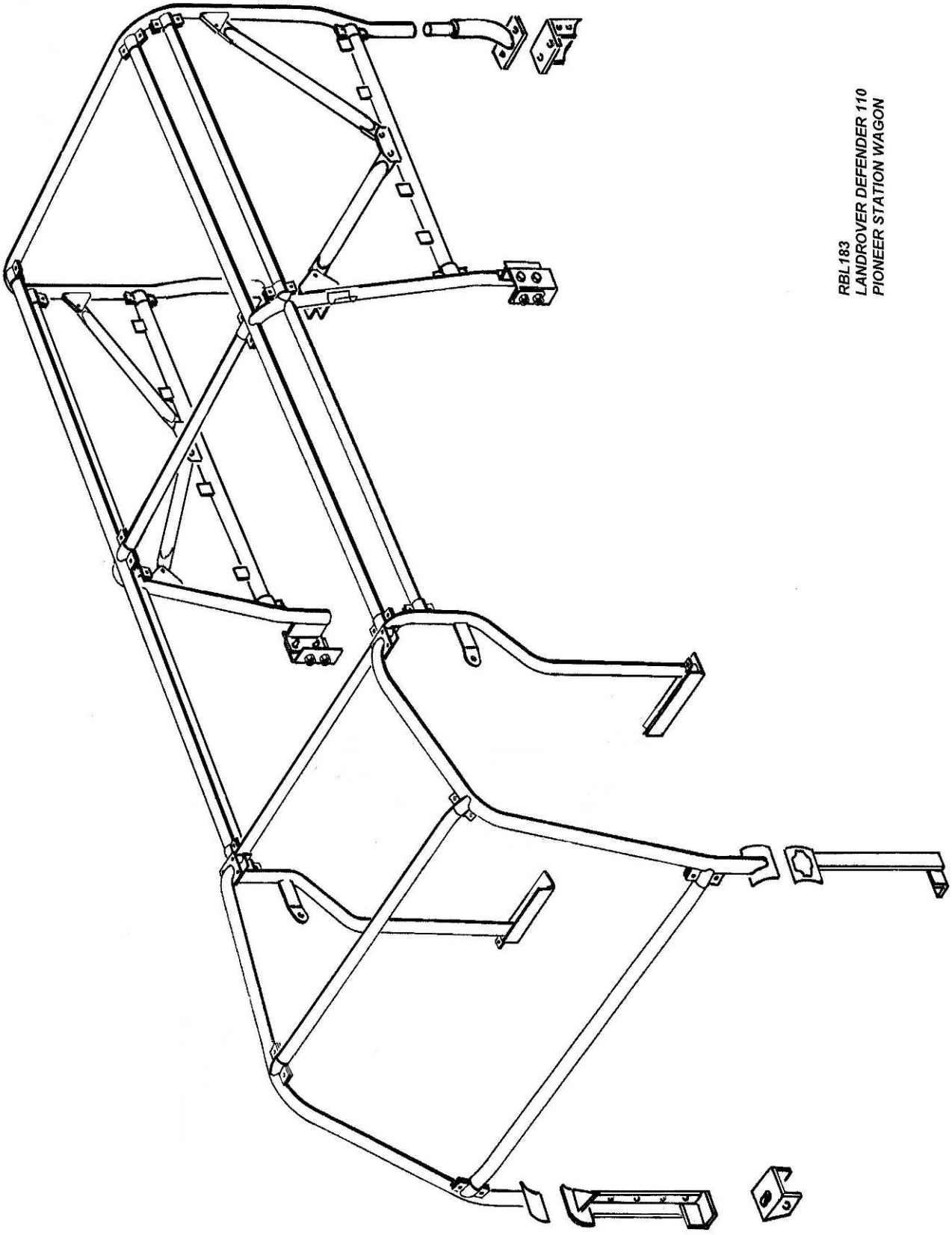

RBL183
LANDROVER DEFENDER 110
PIONEER STATION WAGON

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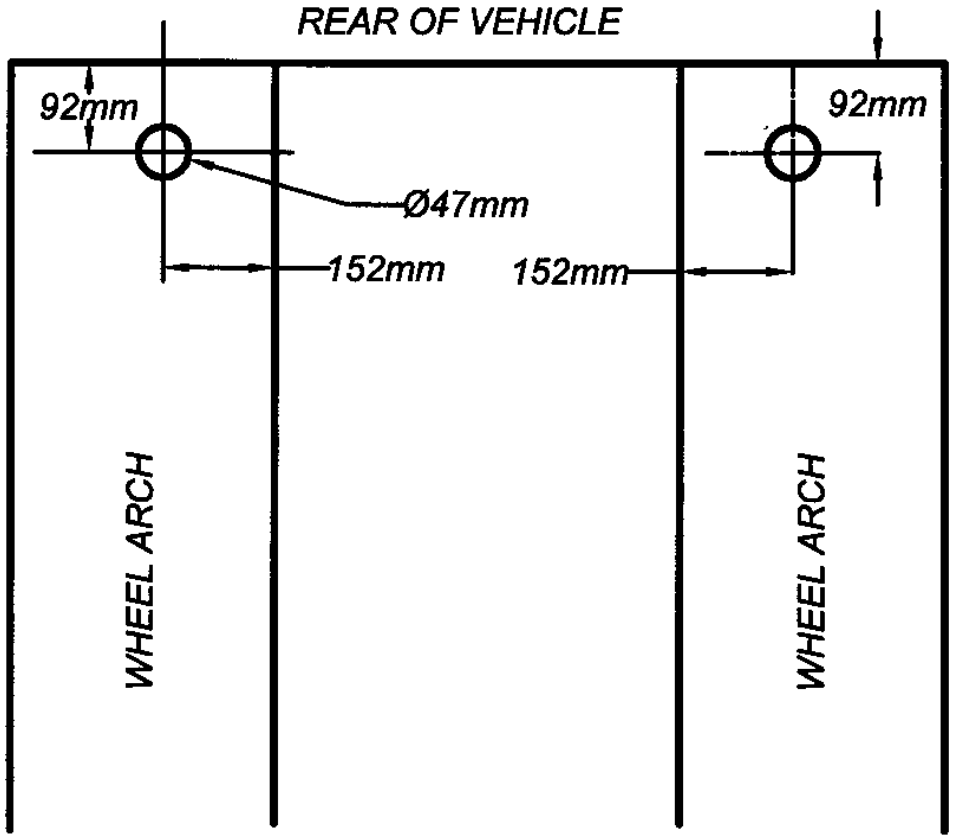

Holes in wheel boxes for rear hoop