

Land Rover Defender 90/110/130 60th Anniversary Style Front Cage Fitting Instructions

Unwrap the roll cage and unpack the individual fitting kits. At this point it is recommended that all the main components are checked against the assembly drawing provided on page 7 of these instructions. Should any parts or fixings be missing at this stage, or during installation, please contact your stockist.

Throughout the assembly we shall use a variety of different fasteners; the torque setting for each different size is listed below:

M8 - 25Nm M10 - 45Nm M12 - 70Nm M14 - 95Nm 7/16th - 55Nm

During the installation, it will be necessary to cut and drill the vehicle. It is important to primer and paint the exposed areas to prevent rust and corrosion.

During the installation, you will find it beneficial and in some cases essential to have the following tools/consumables:

- A comprehensive socket set with star drives, hex heads and extension bars
- A comprehensive set of ring and open spanners
- A selection of screwdrivers and trim removal tools
- A drill with a variety of drill bit sizes, hole saws and a step drill
- An air saw or equivalent as well as an angle grinder
- A welder and plasma cutter with a fire blanket/cardboard to protect the vehicle
- Taps make to be a useful tool on tight fitting threads
- Masking tape, a tape measure, marking implements and scissors
- Sealant, copper grease, primer and paint to suit the vehicle
- Safety equipment- goggles, gloves, ear defenders and steel toe capped boots.

Bag / Box Number	Description	Quantity
RBL230 3SSS-FK	L230 Anniversary Style Fitting Kit	1

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 – Vehicle Preparation	Pg (2)
Section 2 – Front Wing Preparation	Pg (2 – 4)
Section 3 – Chassis Mounting Point Preparation	Pg (4 – 5)
Section 4 – Cage Installation	Pg (5 – 6)
Section 5 – Roll Cage Maintenance	Pg (6)

Section 1 – Vehicle Preparation

- 1.1 Working inside the vehicle, it will be necessary to drop the front section of the headlining.
- 1.2 Working outside the vehicle remove front wing arch extensions and outer skins.

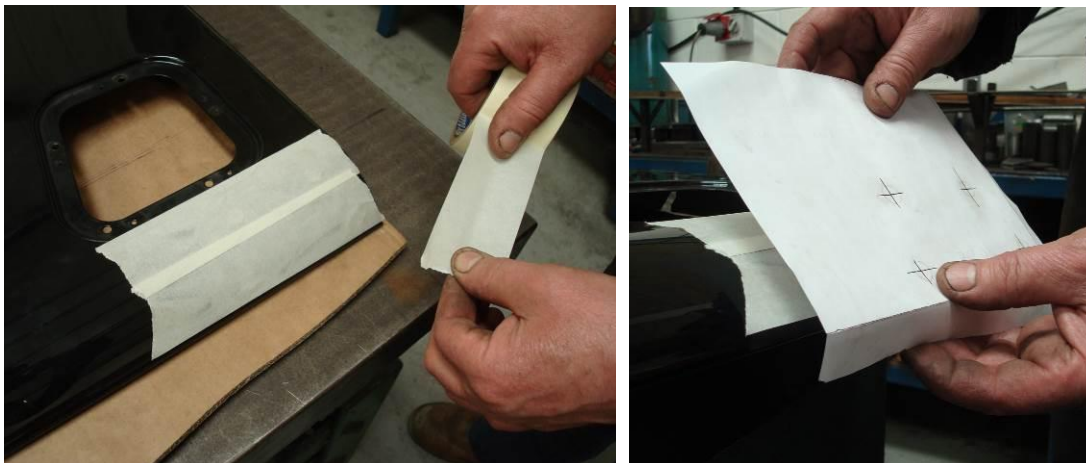


Section 2 - Front Wing Preparation

- 2.1 Inside the outer skin in the top corner there is a gusset pop riveted to the wing itself. Drill these pop rivets out and remove the gusset.



- 2.2 Apply masking tape to the wing and create a template for the hole positions. This should be done using either the support/upright plate or the A hoop foot plate to ensure accuracy.



- 2.3 Mark the holes from the template onto the masking tape and drill out to 11mm and remove any sharp edges.



- 2.4 With the wing on the bench and the holes drilled, offer the under-wing support up and achieve the best fit by seating the angle into the corner of the wing. Ensure the holes on the plate are lined up with the holes drilled in the wing and then secure the support with grips/clamps.



- 2.5 Drill two 3mm holes through the wing and support, equally spaced along the length, and pop rivet through to secure the two parts together.



Section 3 – Chassis Mounting Point Preparation

- 3.1 On the vehicle there is a lower flange that runs backwards under the doors. The top edge of this needs removing just rearward of the hole for the retaining strap. Cut the flange away right back to the hinge pillar but leave 5-6mm of the top of flange, i.e. leave some material bent round to maintain a factory finished when reinstalled. See pictures for reference.



- 3.2 Also cut the corresponding material out of the wing flange.



- 3.3 Stand the chassis mount in position on the chassis outrigger. Bolt the bracket in place using the original bolt.



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



- 3.5 Bolt the modified wings back onto the vehicle and refit the arch extensions.

Section 4 – Cage Installation

- 4.1 Position the front wing gasket onto the mounting point. The hoop can now be mounted onto the front of the vehicle and bolted into position.



- 4.2 Insert each side rails into position and mark the roof ready for drilling - please ensure that the hoop is parallel with the windscreen of the car when viewing from the side.



- 4.3 Mark the holes using the plate as a guide. Centre punch and drill with a 5mm bit before opening up to 11mm - remove any sharp edges.
- 4.4 Attach the roof gasket between the bodywork of the vehicle and the side rail foot plate. Now the internal curved plates (two per side) can be bolted into position. Note that one nut is attached to each plate – this is to make installation easier as access is difficult for one of the nuts.
- 4.5 Refit the headlining back into the vehicle.
- 4.6 Bolt in screen rail to finish.

Section 5 – Roll Cage Maintenance

The roll cage should be kept clean and the fasteners checked regularly - if this is not carried out then you may find it difficult to remove the roll cage from the vehicle if required at some point. The roll cage should also be inspected for damage if in regular use.

Industrial coatings are no different to the paint on your car – they need cleaning and maintaining. Accumulated dirt may affect the design life of the system, and any mechanical damage almost certainly will. Therefore regular inspections should take place and minor damage must be touched up. The roll cage is powder coated with zinc primer followed by a topcoat so does provide a hardwearing surface. Should you damage the surface and expose bare metal this needs to be repaired to prevent rust spreading under the powder coat.

Damaged areas must be clean and free of grease or rust. Dry sand the area with 600-grade paper until the metal is exposed. The area must be completely free of dust and cleaned with a non-aggressive solvent before proceeding. Spray zinc based primer onto the area and allow it to dry fully. An acrylic or polyurethane topcoat of matching colour (RAL9005 Black Satin) should then be applied and allowed to dry.

The installation of your Safety Devices roll cage is now complete.

