

Superior Engineering Installation Instructions

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PREMIUM 4X4 ACCESSORIES

499 Uhlmann Rd
Burpengary QLD 4505
Australia

Part Description: Landcruiser 80/105 Castor Plates
Part Number: LCR5CP

NOTE: Read and understand these Installation Instructions before beginning the installation process. Retain these installation Instructions for future reference. It is recommended this item is installed by a Qualified Person.

Kit Includes:

QTY	DESCRIPTION
4	Castor Plates
6	M16 x 90mm Bolts
6	M16 Nylock Nuts
2	Crush Tubes

NOTE: Castor bushes must be changed for standard bushes before castor plates can be fitted.

CAUTION

Please ensure all bolts are tightened to correct torque setting. Recheck in 500km.

Size	Torque (Nm)	Torque (ft-lb)
M16	215	157

1. Start with the vehicle on a hoist and loosen 4 x M16 bolts that hold the factory radius arm to the diff. **NOTE: do not remove these bolts yet.**

WARNING

Castor Plates can be fitted on a hoist but for anyone who has not done this procedure it is recommended to do it on the ground.

2. Remove ONLY the front bolts from both Radius arms.
NOTE: The white line on the diff plate in Figure 1, shows the approx area that needs to be trimmed off with a grinder.
3. With the diff supported by a gearbox stand or similar, starting on the passenger side remove the nut on the rear and place the correct castor plate on.
NOTE: This is the best way to get an idea of how much to trim off the diff plate.
4. The castor plate must be up enough to line up the top bolt hole in the diff plate and the castor plate.

Figure 2 shows the plate fitted and note how the half washer sits under the diff housing when cut.

NOTE: see how the top bolt fits through the diff plate and the castor plate and with the trimming done the "half washers are up hard against the plate that was cut.

5. Once you have cut the diff on the passenger side, you can progress to fit the radius arm in the passenger side
NOTE: you may need to rotate the diff to get all 3 bolts in place.
6. Place the nuts on the bolts but do not tighten yet.
7. The driver's side can now be done like the passenger side, starting with cutting the diff housing to allow the castor plates to lift up enough so as the top bolt will fit through both plates as well as the diff.
8. Now that you have done this you can fit the radius arm in place.
9. The top bolt on both sides will require the steel crush bar to be placed in between the diff plates to stop the diff plates from bending inwards.
10. Once you have all 3 bolts and crush bars in both sides you may now tighten them all up to specifications.

Please take note of the following

The radius arms may also need to have slight modification, if the tie rod makes contact.

You will not be able to tell if you need to modify the radius arm until the plates are completely fitted.

The castings are slightly different in some models and wear and tear on the bushes has a governing factor on the contact area of the radius arm to tie rod.

Figure 3 shows two white marks that are an approx. area that may need to have a slight grinding to the top casting area.

To see if you need to modify your radius arm rotate the steering from left to right at full lock, this is done best with the wheels off the vehicle and stands under the diff.

As you turn the steering lock to lock take note if the tie rod clears the radius arm with at least 4-5 mm clearance, if it is okay than you can refit the wheels, double check all the bolts are tight and test drive.

If the Tie rod makes contact with the radius arm you will need to modify the radius arm.

After marking the approx. area on the radius arm that needs to be ground remove the radius arm and place in a vice, carefully grind only enough to allow the clearance needed.

It is recommended finish the grinding process with a sanding pad to take out any stress points that may be formed due to "rough grinding"

Paint the arms and refit as per the vehicle service manual.



Figure 1: note cut line in white



Figure 2: NOTE Half washer hard against cut diff plate



Figure 3: NOTE white marks on radius arm.