

INSTALLATION INSTRUCTIONS

PART DESCRIPTION: Nissan Patrol GQ-GU Hybrid Radius Arm			
PART LISTING			
ITEM#	Check	QUANTITY	DESCRIPTION
1		2	LONG RADIUS ARM
2		2	HYBRID DROP BOXES
3		2	HYBRID DROP BOSS
4		2	M16 X 75mm BOLT
5		2	M16 NYLOCK/ CONELOCK NUT
6		2	M18 X 100mm BOLT
7		2	M18 NYLOCK / CONELOCK NUT
8		4	M18 FLAT WASHER
9		6	6mm P clamps for abs if required
10		6	M5 x .8 x 40mm counter sunk for abs if required
11		6	M5 nylock nuts for abs if required
12		6	M5 washers for abs if required

NOTES: Read and understand these installation instructions before beginning the installation process. Retain these installation instructions for future reference. It is recommended that this item is to be installed by a qualified person.



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WARNING

- Approximate installation time: 4 HRS
- Ensure all parts have been received correctly.
- Ensure parts are suitable for the vehicle prior to undertaking the installation.
- Make sure all fasteners are tightened to the correct torque setting and have 262 Loctite
- Recheck all fasteners in 500Ks and every service interval
- Check all components clear through the full range of suspension movement.
- The following steps are the installer's responsibility.
- This product must be installed as per these instructions, only using the hardware supplied by Superior Engineering unless given prior written consent from Superior Engineering.
- This product is not to be fitted differently or modified in any way other than specified by Superior Engineering.
- This product is not to be used on any other vehicle than those specified by Superior Engineering.

Size	Torque (Nm)	Torque (lbft)
M10	49	36
M12	85	64
M14	135	96
M16	215	157
M18	295	227

NOTE

HOLES FOR ABS LINES ARE NOT DRILLED UNLESS REQUESTED AT TIME OF ORDERING.

CAUTION

Please ensure all bolts are tightened to correct torque setting.
Recheck in 500km.
It is recommended the vehicle be wheel aligned after fitting this item.

WARNING

Caution should always be taken when working around the brake and ABS lines as failure can cause injury or death.

1. Chock wheels front and rear with the vehicle in gear or park with the handbrake on.
2. Remove the tie rod (BAR BEHIND THE FRONT DIFF) and front sway bar as per the vehicle's service manual. If fitting the off-road series hybrid arm, the whole sway bar assembly will need to be removed including the sway bar mounts. Offroad series does not have sway bar holes pre drilled.
3. Place a trolley jack under the pinion to hold the diff in position.
4. Remove the factory radius arms following the vehicle service manual.
5. With a suitable lifting aid or another trolley jack support and unbolt the crossmember from the chassis. Lower the crossmember down enough to allow the hybrid drop box to slide between the underside of

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the chassis and the top side of the gearbox crossmember, approximately lower by 15mm. Refit OE crossmember bolts loosely.

6. Fit supplied stepped steel boss through the OE mount position of the radius arm. The steel boss will go through the chassis from the rear and butt up against the drop box at the front face. If you are finding it hard to push the boss into the chassis there will be a build-up of rust and or rubber/ grease / grime, this will need cleaning.
Fit the supplied M16 x 75mm bolts through the drop box, and the steel boss, secure with the supplied M16 Nylock/Conelock nut. (As in *figure 1*)
7. Hold the front of the drop box up so the plate is hard up against the chassis rail. Fully tighten the main horizontal M16 bolt clamping the stepped boss through the chassis and the drop-box, then tighten the crossmember bolts, to correct torque settings. Ensure no gaps at the bolted points and the chassis.
The chassis does have a slight curve in the design from factory. **NOTE: Use 263 Loctite on all bolts**
8. Fit one hybrid radius arm into the hybrid drop box and fit the supplied M18 x 100mm bolt, nut and washer. (Do not tighten yet)
9. Push the front of the arm up into the factory mounting position on the diff. Reuse the OEM M16 x 90mm bolts. Sometime a floor jack helps as the arms are heavy.
NOTE: Both the front bolts may not fit. If this is the case, just fit either top or bottom. The other bolt will fit once both arms are properly located.
10. Fit the opposite side radius arm into the hybrid drop box, following the same procedure as the previous side, now you can move the pinion up or down to fit the remaining bolts in place.

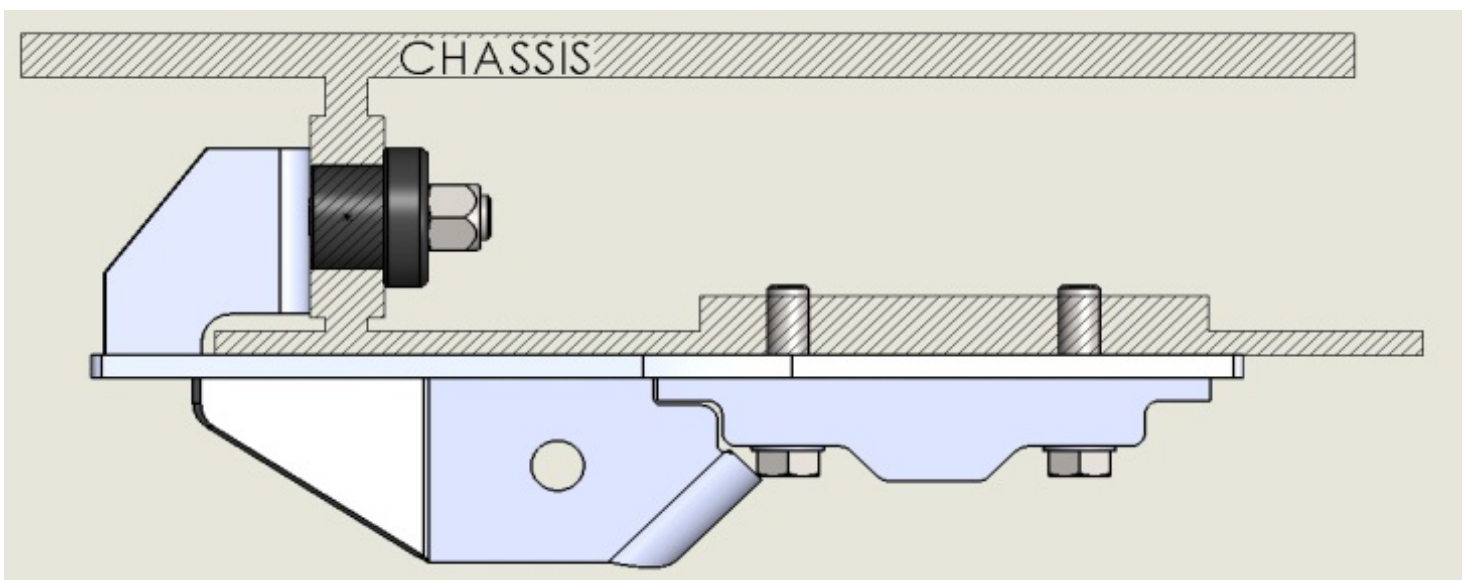


FIGURE 1: FITTING OF THE STEEL BOSS

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11. If your vehicle is equipped with ABS, remove the OE ABS bracket being extremely care full not to pull or damage the wire. Fit ABS P-Clamps to secure the ABS wire. **IMAGE 2**
12. **NOTE: Check ABS sensor lines are free to move through the full range of travel.**
13. Re-fit sway bar (if performance series radius arms) and tie rod as per vehicle service manual.
14. Tighten all the bolts up to recommended torque settings. Make sure to use 263 Loctite



Image 2: ABS LINE P-Clamp brackets x 3 per side fitted

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Image 3: HYBRID ARM FITTED CORRECTLY without abs lines

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Image 4: HYBRID ARM FITTED CORRECTLY without abs lines