### Fitting Instructions #TRC8540IS

# Nissan Navara D40 2005 – 2015 NP300 2015 – Current Adjustable Camber/Caster Upper Control Arms



- 1. Before beginning any alignment work, always check for loose or worn parts, correct tyre pressures, and odd tyre wear patterns. Replace any loose or worn parts before setting alignment.
- 2. Raise vehicle by the chassis and support with jack stands. Remove front tyre and wheel assemblies.
- 3. Remove split pin and nut holding OEM ball joint to spindle. Break the taper between the ball joint stud and spindle and remove the ball joint from the spindle. Support the spindle so no strain is applied to ABS wiring or brake lines.
- 4. Remove the nut mounting bolts and remove the bolts and arm.

**Note:** To provide clearance to remove the rear bolt on the driver's side, it is necessary to remove bolt holding steering shaft to the rack. (Before removing bolt on steering shaft, mark position with a marker to maintain alignment when reassembling if shaft becomes separated) Once the bolt on the steering shaft is removed, move the shaft so the bolt can be removed (shaft may need to be removed to remove bolt), additional components in the engine compartment may need to be removed.

#### Note: The LH and RH arms are symmetrical, so any arm can be used on any side.

- 5. Using supplied grease only, lightly coat the ends of the bushing.
- 6. Install the control arm to the vehicle.

Note: The ball joint comes preinstalled and torqued to spec in a position suited for a 50mm lifted vehicle. Please see the alignment tuning guide on the next page if you wish to modify the wheel alignment settings.

**Important:** Unlike bonded or rubber bushings, SuperPro bushings pivot freely and so can be torqued without applying vehicle weight.

- 7. Insert the ball joint stud into the spindle, install the supplied castle nut and torque to 110Nm. Tighten further until the supplied split pin can be installed.
- 8. Re-install the tyre and wheel assembly. Lower the vehicle and check for clearance and wheel align. Optimum camber, caster and set back can be set by the OEM lower control arm camber pins. It is advisable to not exceed more than 0.75° Camber.

#### Fitting Instructions #TRC8540IS contd.

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## **Alignment Tuning Guide**

The unique advantage of the SuperPro adjustable ball joint system, offers fine tuning of alignment settings or to adjust the clearance on either the coil spring at full droop or the sidewall of oversize tyre and wheel packages at ride height. This is achieved by sliding the upper ball joint outwards on either or both sides. After adjustment re-tension ball joint nut to 143Nm.

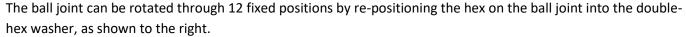
Below outlines how to fine-tune the wheel alignment for your vehicle using the SuperPro adjustable upper control arms.

A general rule of thumb on the Navara is that 10mm of ball joint movement roughly equals a 1-degree change in camber or caster.

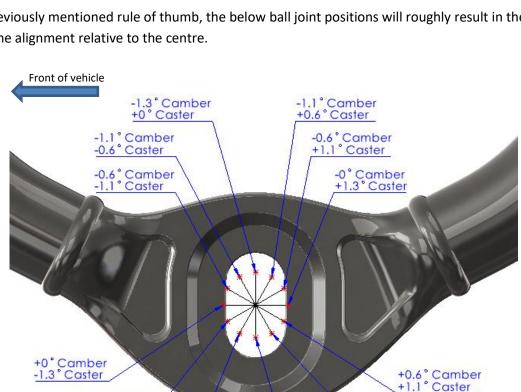
+0.6° Camber -1.1° Caster

+1.1° Camber

-0.6° Caster



Using the previously mentioned rule of thumb, the below ball joint positions will roughly result in the following changes to the alignment relative to the centre.



In conjunction with rotating the ball joint, the ball joint can slide in and out in the slot, which allows for +/- 0.9 degrees of additional camber adjustment.

+1.1° Camber +0.6° Caster

+1.3° Camber +0° Caster

Please note: The ball joint bolt top nut needs to be torqued to 143Nm.



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Recommended settings for 50mm lift (2")	Recommended settings for 75mm lift (3")
	4.0
Position the ball joint pointing straight inwards and slide the ball joint all the way out.	Position the ball joint to the first position angled rearward and slide the ball joint 4.0mm from the outside.
This configuration roughly equates to the following	This configuration roughly equates to the following
changes over the OE UCA:	changes over the OE UCA:
Camber: -0.4 deg	Camber: -0.6 deg
Caster: +0.7 deg	Caster: +1.3 deg