

# FITTING INSTRUCTIONS

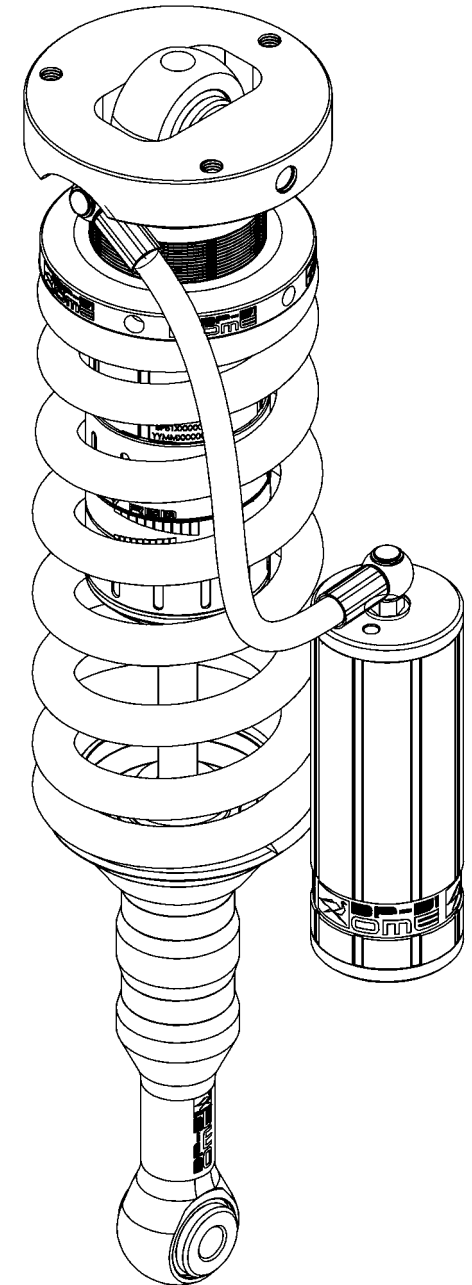
**BP5190004L & BP5190002R**

**TOYOTA PRADO 150 KDSS FRONT**

## WARNING

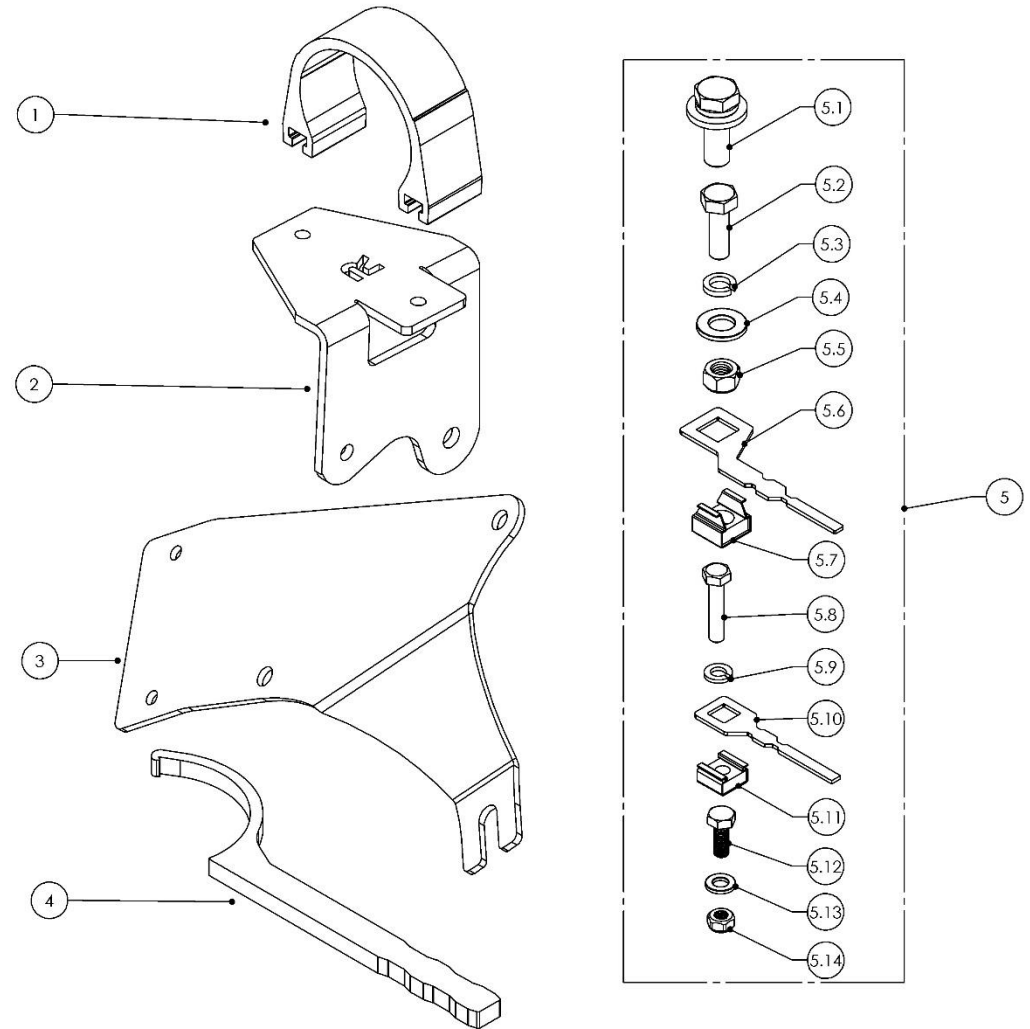
- ◆ This product must be installed exactly as per these instructions using only the hardware supplied.
- ◆ In the event of damage to any suspension component, contact your nearest authorised ARB stockist. Repairs or modifications to the suspension system components must not be attempted.
- ◆ Do not use this product for any vehicle make or model, other than those specified by ARB.
- ◆ Do not remove labels from suspension components.
- ◆ This product or its fixing must not be modified in any way.
- ◆ The installation of this product may require the use of specialized tools and/or techniques
- ◆ It is recommended that this product is only installed by trained personnel
- ◆ These instructions are correct as at the publication date. ARB Corporation Ltd. cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer
- ◆ During installation, it is the duty of the installer to check correct operation/clearances of all components
- ◆ Work safely at all times

**Note:** These fitting instructions should be read in conjunction with the vehicle workshop manual.



### FITTING KIT CONTENTS – VM80010009

Item	Description	Qty	Part No.
1	RESERVOIR CLAMP	2	VE10010003
2	PRADO FJ 4RUNNER RESI BRACKET FRONT	1	VE10020029R
3	PRDO (KDSS) RESI BRACKET FRONT	1	VE10020012
4	ADJUSTER TOOL	1	VC10010071
5	PRADO KDSS FASTENER KIT FRONT	1	VM60010005
5.1	M10 X 1.5 X 20MM BOLT KIT	6	6151555
5.2	M8 X 1.25 X 25MM BOLT	3	6151546
5.3	M8 SPRING WASHER	1	4581047
5.4	M8 FLAT WASHER	5	VE70020004
5.5	M8 NYLOCK NUT	2	VD60010004
5.6	M8 CAGED NUT BRACKET	1	VE10040002
5.7	M8 CAGED NUT	1	6151303
5.8	M6 X 30MM BOLT	1	6151228
5.9	M6 SPRING WASHER	1	4581287
5.10	M6 CAGED NUT BRACKET	1	VE10040001
5.11	M6 CAGED NUT	1	6151315
5.12	M6 X 16MM BOLT	4	VD60030003
5.13	M6 WASHER	5	VE70020005
5.14	M6 NYLOCK NUT	4	VD60010003



## DAMPER PREPARATION

Before fitment the spring preload may need to be adjusted to suit your front accessory fitment and desired ride height.

**Use workshop tool kit VM80020001 to aid spring adjustment.**

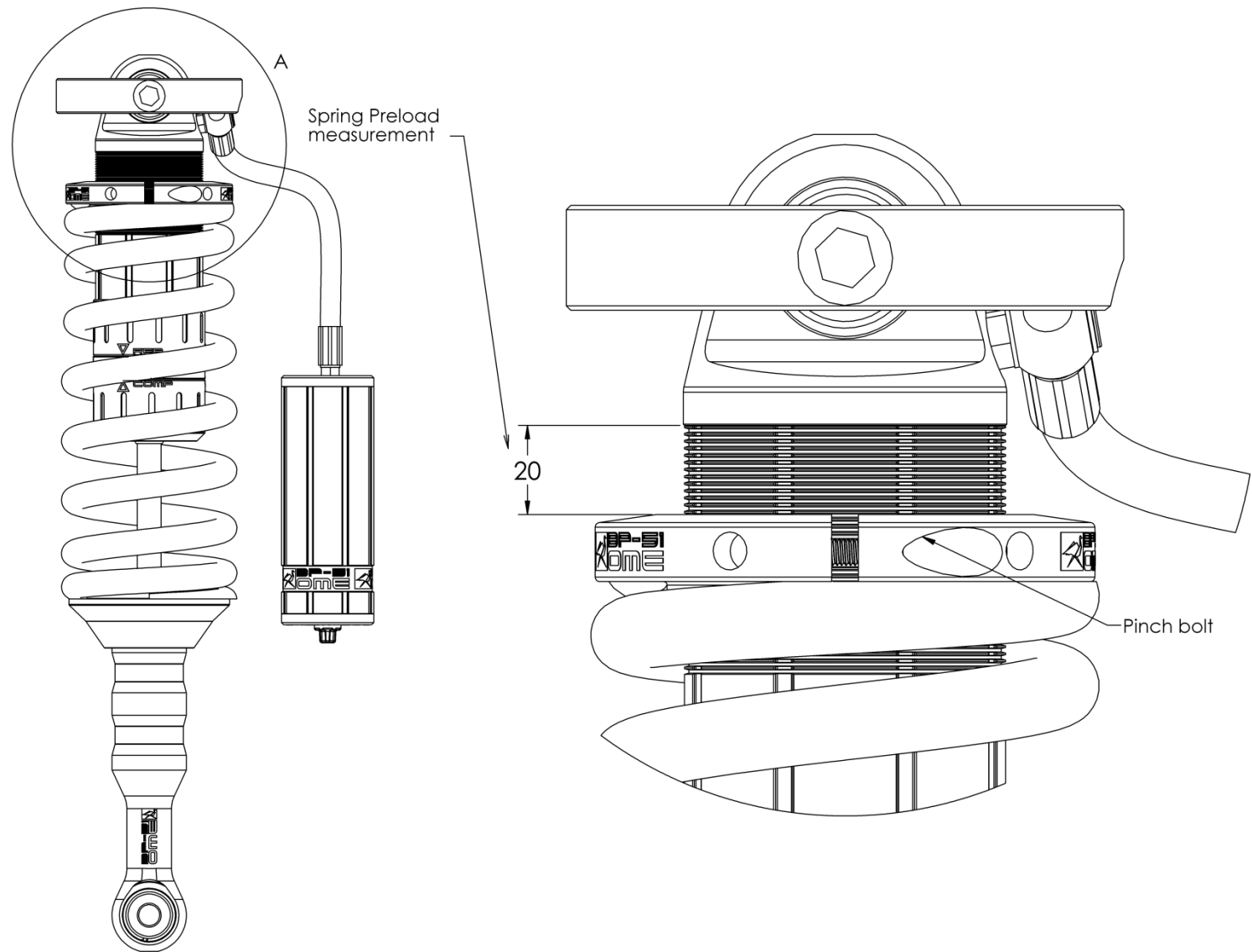
The preload is set at the factory to 20mm as shown by the diagram. This aims to achieve 30-40mm increase in ride height over OE when a Bull Bar and winch are fitted.

It is required to set the preload before the strut assembly is fitted to the vehicle. Use a spring compressor to compress the spring, loosen the pinch bolt on the preload ring and adjust to the desired setting. Tighten the pinch bolt and remove the strut assembly from the spring compressor.

As a guide, set the preload as specified below to achieve 30-40mm increase in ride height.

<u>Front accessories</u>	<u>Preload</u>
Bar & winch	20 mm
Bar only	15 mm
No accessories	10 mm

**Spring preload must only be adjusted when a spring compressor is used to take load off the preload ring.**

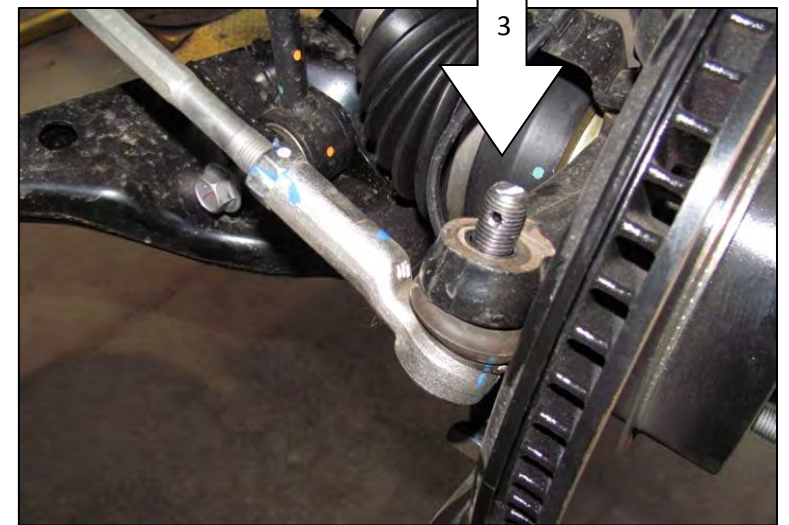
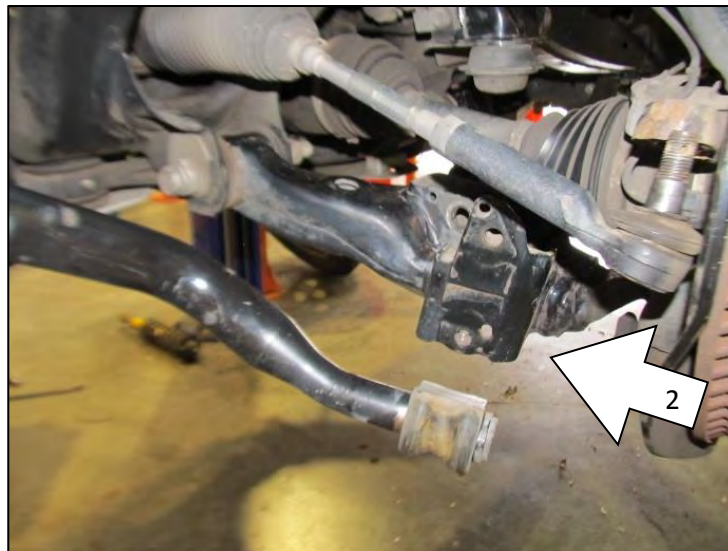
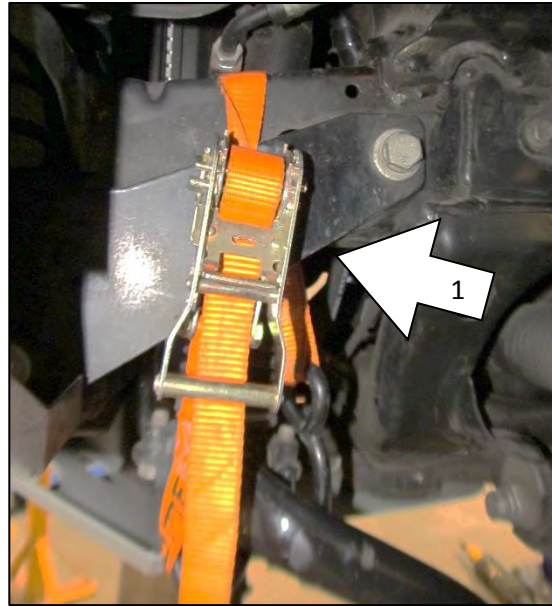


## DAMPER MOUNTING SEQUENCE

Remove old dampers from vehicle.

Prevent the KDSS piston from extending by strapping the sway bar to the chassis rail on the LH side (1).

For LH and RH detach sway bar link from lower control arm (2) and ball joint from steering arm (3).



## DAMPER MOUNTING SEQUENCE

**Left Hand Side and Right Hand Side are different.**

The right has a banjo fitting on the reservoir and the left (shown by photo) has a straight fitting and longer hose.

R should be etched on the right hand damper part number.

When mounted in the vehicle the hose and reservoir should be towards the front.

Fit the damper and secure the top mount with bolts and washers finger tight. (1)

Secure bottom mount using original bolt and nut. (2)

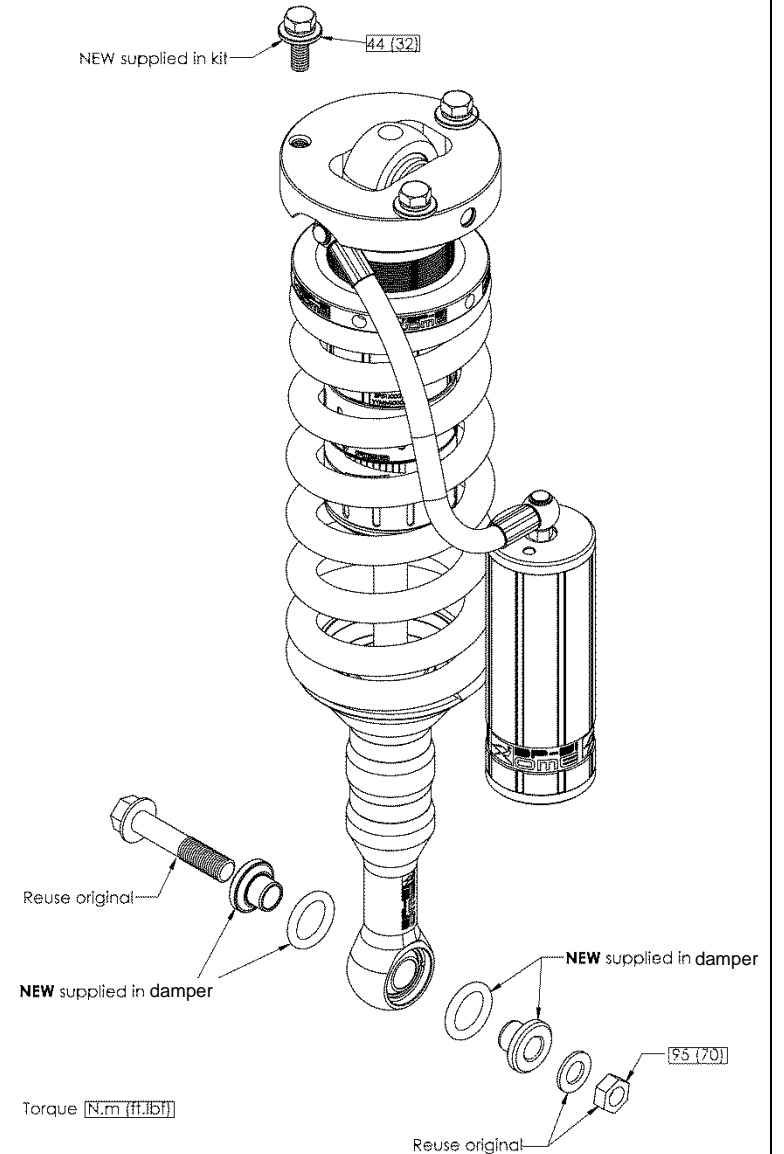
Fasten top three bolts and bottom bolt securely.

Refit sway bar to control arms

Shown below BP5190004L (Left hand side)



Shown below BP5190002R (Right hand side)



## RESERVOIR MOUNTING SEQUENCE (RH SHOWN)

Fit M6 bolts to mounting bracket and secure with nyloc nut and flat washer (1).

Secure finger tight only at this stage.

Bend the new nut plates (2) by hand 90 degrees and assemble with 2 x M6 and 1 x M8 cage nuts.

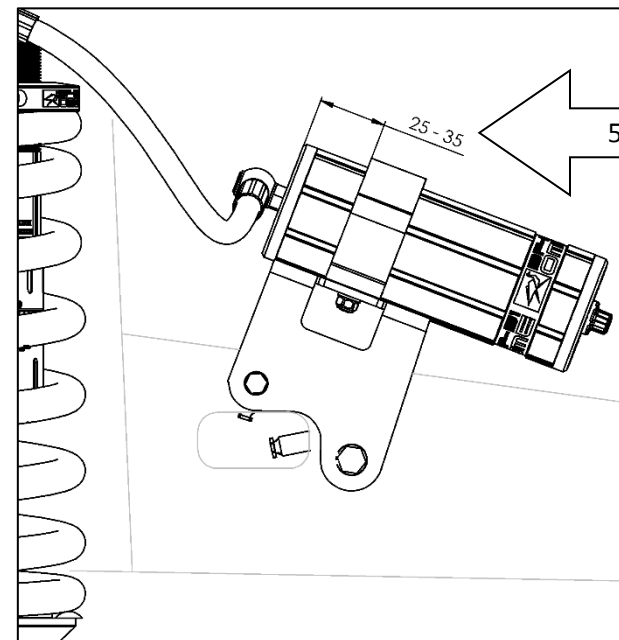
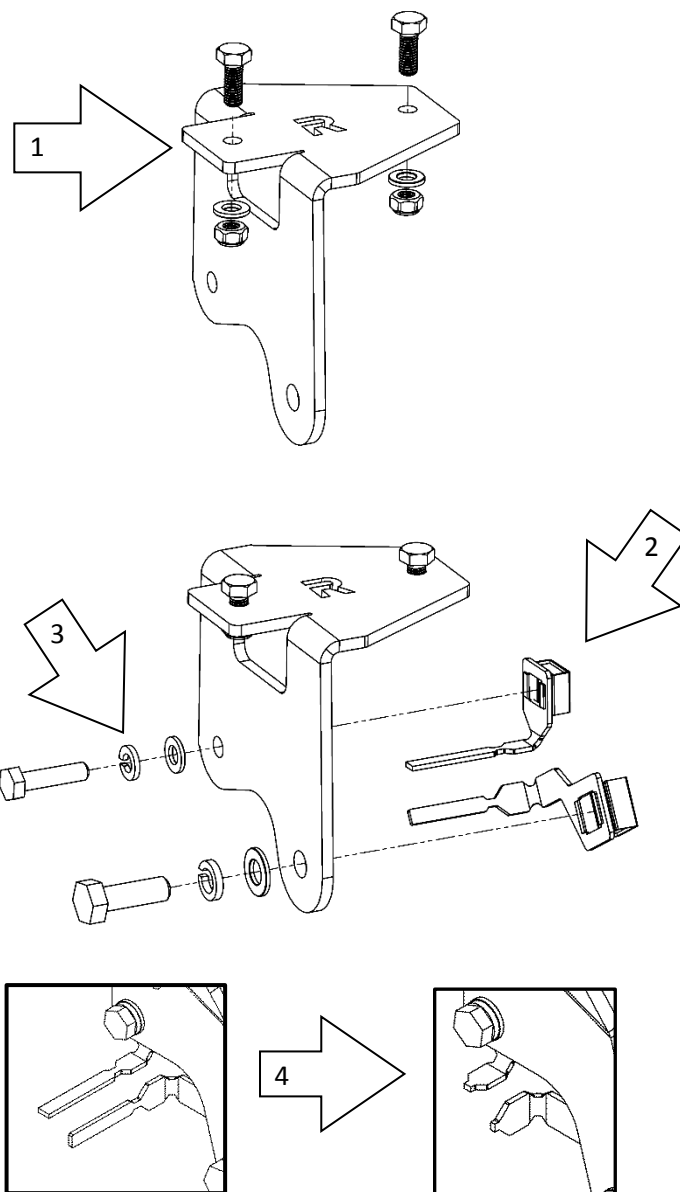
Fit the reservoir mounting plate to the **outside of the chassis rail**. Insert plates through opening in chassis rail and secure with new M8 and M6 bolt, flat and spring washer (3). Insert plates through opening on chassis rail.

A threaded hole is present for new M8 bolt on LH chassis rail, no cage nut required.

When bolts are secured, break the tabs away from the nut plate (4).

Fit the mounting saddle to the reservoir and slide over the heads of the bolts in the mounting plate. Centralise the saddle on the plate and adjust the position of the reservoir as shown (5).

Reservoir should not make contact with any engine components or vehicle body. Securely fasten M6 nuts.



## RESERVOIR MOUNTING SEQUENCE

### BP5190004L (LH)

Fit M6 bolts to mounting bracket and secure with nyloc nut and flat washer (1). Secure finger tight only at this stage.

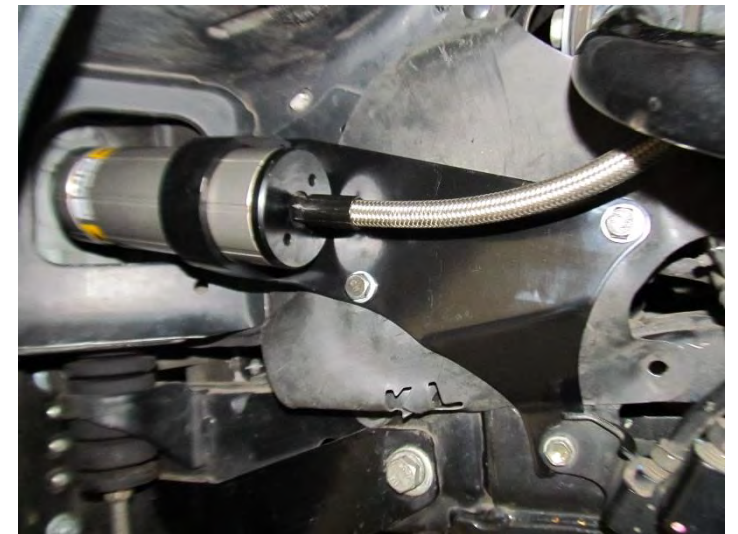
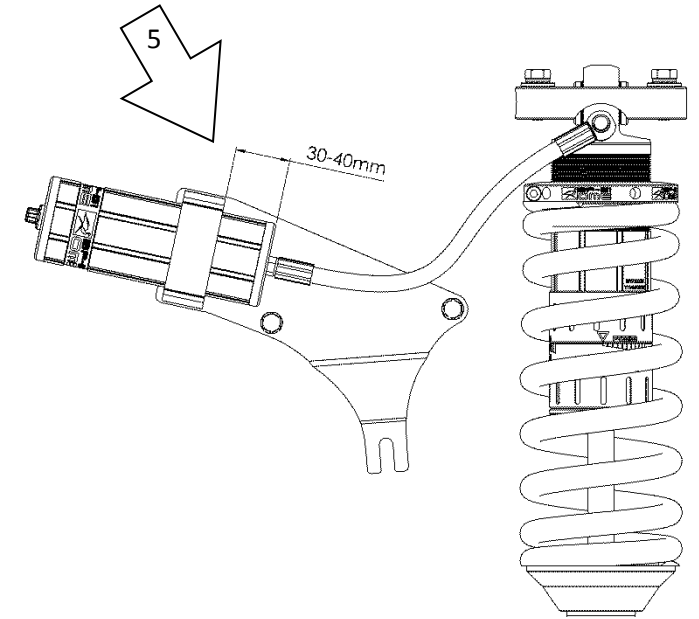
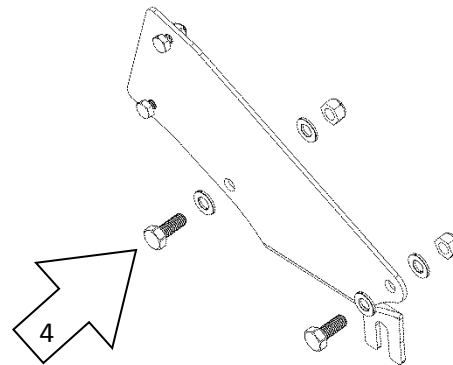
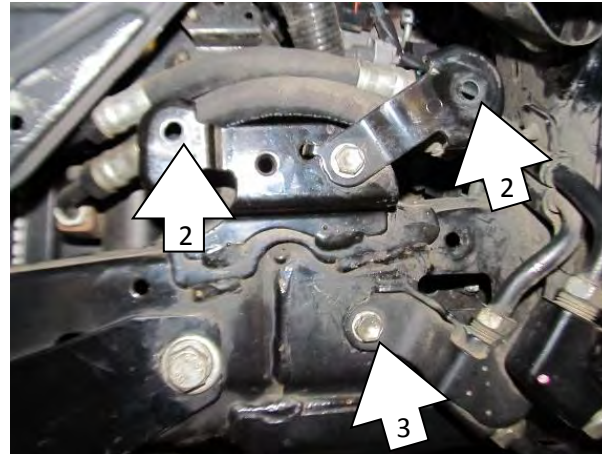
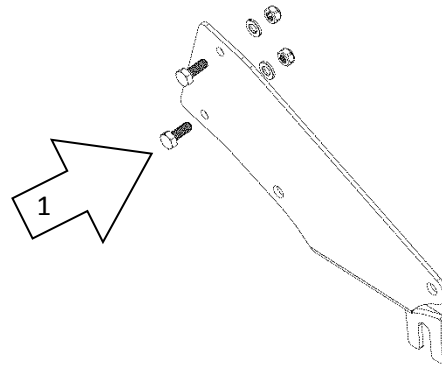
Pull back mud flap and locate the holes for mounting the resi bracket (2). Slide the resi brackets slotted tab over the (loosened) bolt (3) behind the existing hydraulic bracket. Then attach the resi bracket using the supplied M8 bolts, washers and nyloc nuts (4). Fit mud flap in between the brackets as shown in the far right image.

Fit the mounting saddle to the reservoir and slide over the heads of the bolts in the mounting plate. Centralise the saddle on the plate and adjust the position of the reservoir as shown (5).

Reservoir should not make contact with vehicle body. Securely fasten M6 nuts.

Check all fasteners are tightened securely as per table below.

Fastener	Torque N.m (ft.lb)
Sway bar to lower control arm	70 (52)
Steering tie rod end to upright	88 (65)
Strut top hat	44 (32)
Strut to lower control arm	95 (70)



## DAMPING ADJUSTMENT

These dampers have been set in the factory to be used for a vehicle with Bull Bar and Winch fitted.

If your accessory fitment differs, use the table below as a guide for recommended Compression and Rebound adjuster settings.

Refer to the Owner's Manual for more information.

Front Accessories	Compression	Rebound
Factory setting	4	6
Bar & winch	4-8	6-10
Bar only	2-6	5-9
No accessories	0-4	4-8

## SPECIFICATIONS

- 1 Extended Length 545 mm
- 2 Compressed Length 439 mm

## SPARE PARTS

Refer to Service And Parts Manual, section:  
**BP-51 S&P 3.1-BP5190002R & BP5190004L.**

