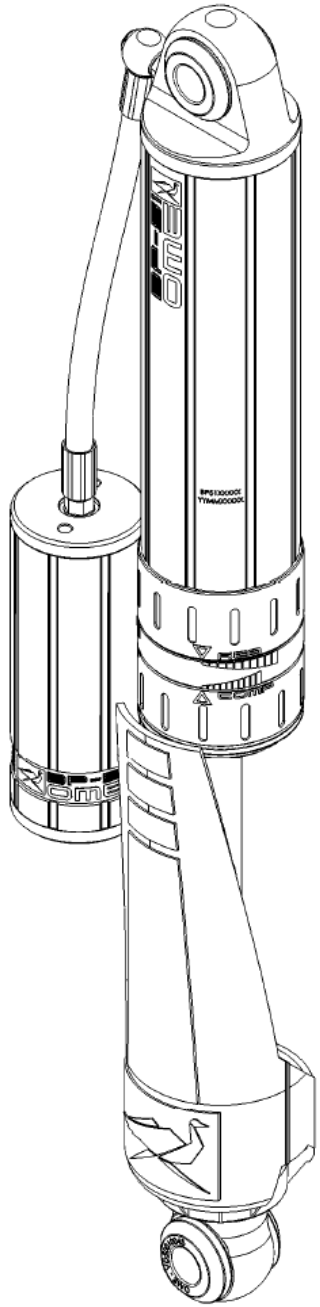
FITTING INSTRUCTIONS

BP5160006 & BP5160039 SUITS GU/GQ PATROL REAR

BP5160008 & BP5160041 SUITS GU/GQ PATROL REAR LONG



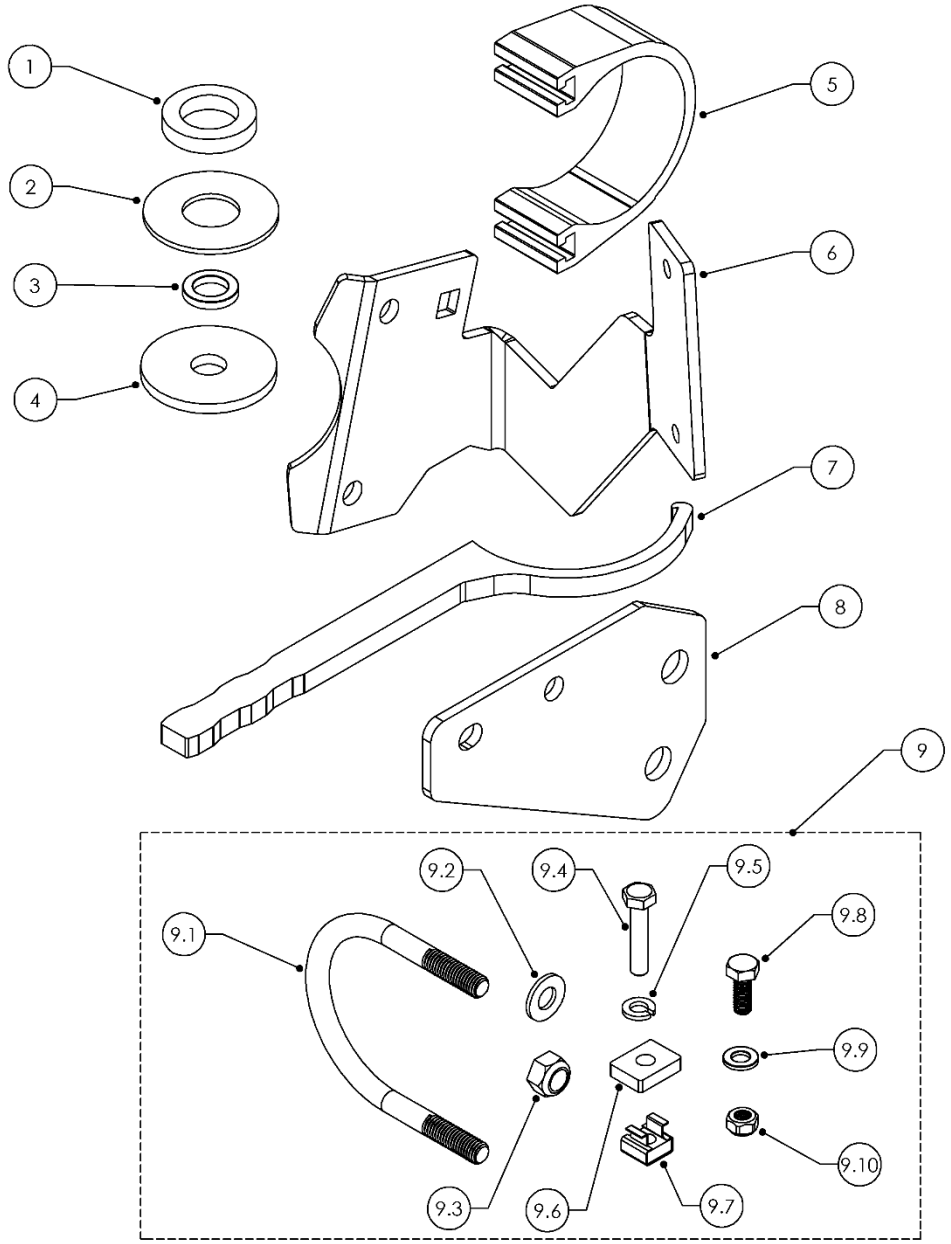
WARNING

- **BP5160008 and BP5160041 are designed for Modified 4” Lift Kits only, not 2” Lift Kits.**
- **ARB is NOT responsible for the fitment of the modified 4” Lift Kit. Extensive modification must be undertaken before fitting this product such as extended sway bar links, brake lines, electrical lines, bump stops etc.**
- 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 – VM80010041

Item	Description	Qty	Spare Part No
1	WASHER: ID20 OD32 T6	2	VE70020008
2	WASHER: ID19 OD46 T2	4	VE70020006
3	WASHER: SPACER (12X19X3)	4	VE70020001
4	WASHER: ID14 OD46 T6	4	VE70020016
5	RESERVOIR CLAMP	2	VE10010003
6	REAR RESI BRACKET LEFT	1	VE10020038L
	REAR RESI BRACKET RIGHT (SHOWN)	1	VE10020038R
7	ADJUSTER TOOL	1	VC10010071
8	BPV BRACKET	1	VF60050047
9	GU/GQ BP51 REAR FASTENER KIT	1	VM60010022
	9.1 M8 U BOLT	2	6151973
	9.2 M8 FLAT WASHER	4	4581044
	9.3 M8 NYLOC NUT	4	6151032
	9.4 M6 X 30mm BOLT	2	6151228
	9.5 M6 SPRING WASHER	2	4581287
	9.6 M6 SQUARE WASHER	6	4584413
	9.7 M6 CAGED NUT	2	6151715
	9.8 M6 X 16mm BOLT	4	VD60030003
	9.9 M6 WASHER	6	VE70020005
	9.10 M6 NYLOC NUT	4	VD60010003



DAMPER PREPARATION

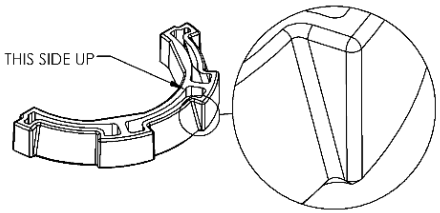
SECURING SHAFT GUARDS

The shaft guards are designed to protect the shaft from stones thrown from the front wheels and are mounted to the front side of the damper.

It is easiest to secure the shaft guards before the dampers are fitted to the vehicle.

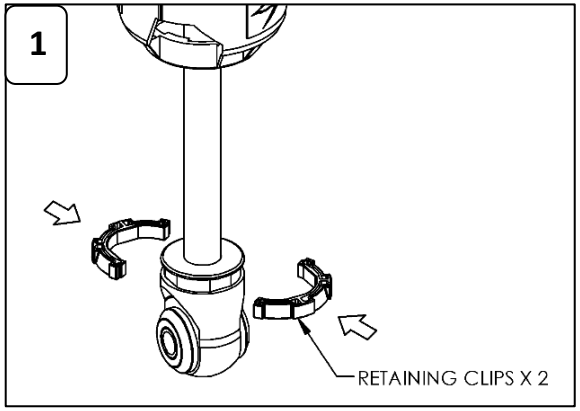
Please follow steps 1-3.

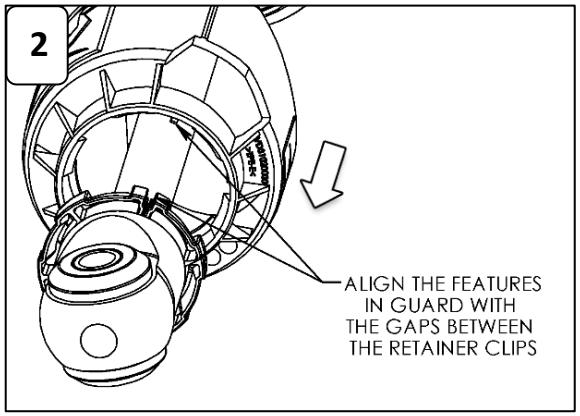
1. Fit the two retainers to the eyelet as shown. Note the orientation.

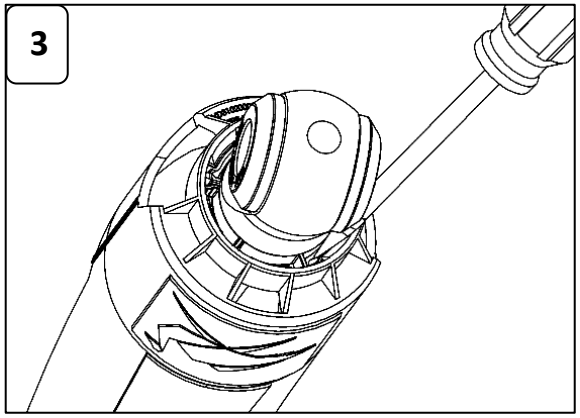


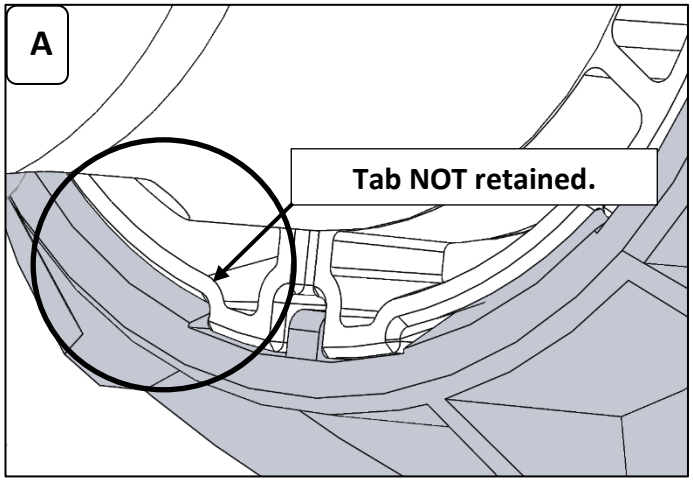
2. There are features on the shaft guard that locate in the gaps between the two retainers. Align the guard with these gaps and firmly pull the shaft guard down over the retainers to secure in place.

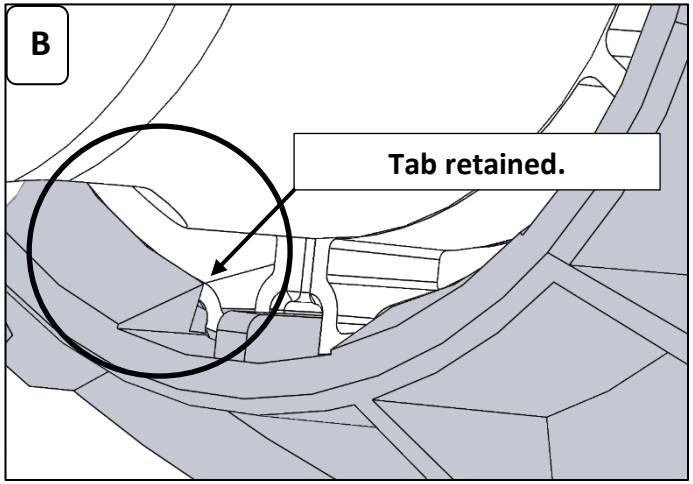
3. Check retainers are completely secured by guard. Use a flat blade screwdriver to poke retainers under tabs on guard if required. Refer to pictures **(A)** and **(B)** for correct fitment. **IMPORTANT: Ensure ALL tabs are fully retained.**











IMPORTANT: Ensure ALL tabs are fully retained

BRAKE PROPORTIONING VALVE BRACKET MOUNTING

The new Brake Proportioning Valve bracket is designed to create clearance around BP-51 hose fitting to avoid damage.

Remove old bracket from the chassis. Bracket MUST be removed in correct sequence to avoid any damage to the break lines. Refer to workshop manual if required.
Keep all the fasteners.

Install the new supplied BPV bracket to the chassis as shown in the picture.

Securely tighten all fasteners.
Torque (refer to workshop manual).



DAMPER MOUNTING SEQUENCE

Remove old dampers from vehicle.

NOTE: It's easiest to fit the damper with the axle in droop. Ensure the axle is supported and take care not to overstretch any brake lines or ABS wires.

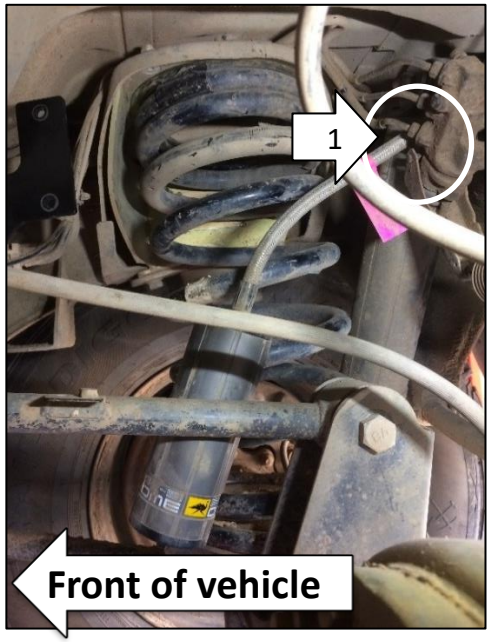
When mounted in the vehicle, the hose and reservoir should be towards the centre of the vehicle.
For right hand side, place the hose and the reservoir towards the front and ensure the hose is fed above the BPV linking bracket as shown (1) as BP-51 top mount is being fitted to the pin.

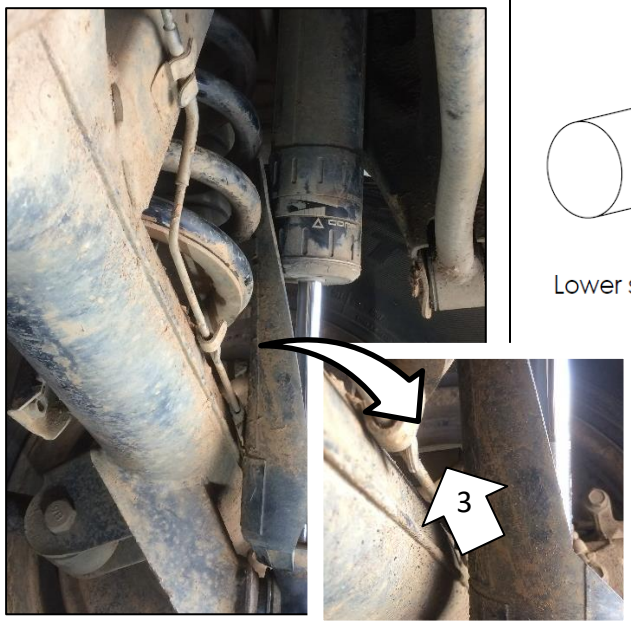
Top Mount:
Fit the damper and secure the top mount with correct fasteners in correct sequence as shown (2.1).

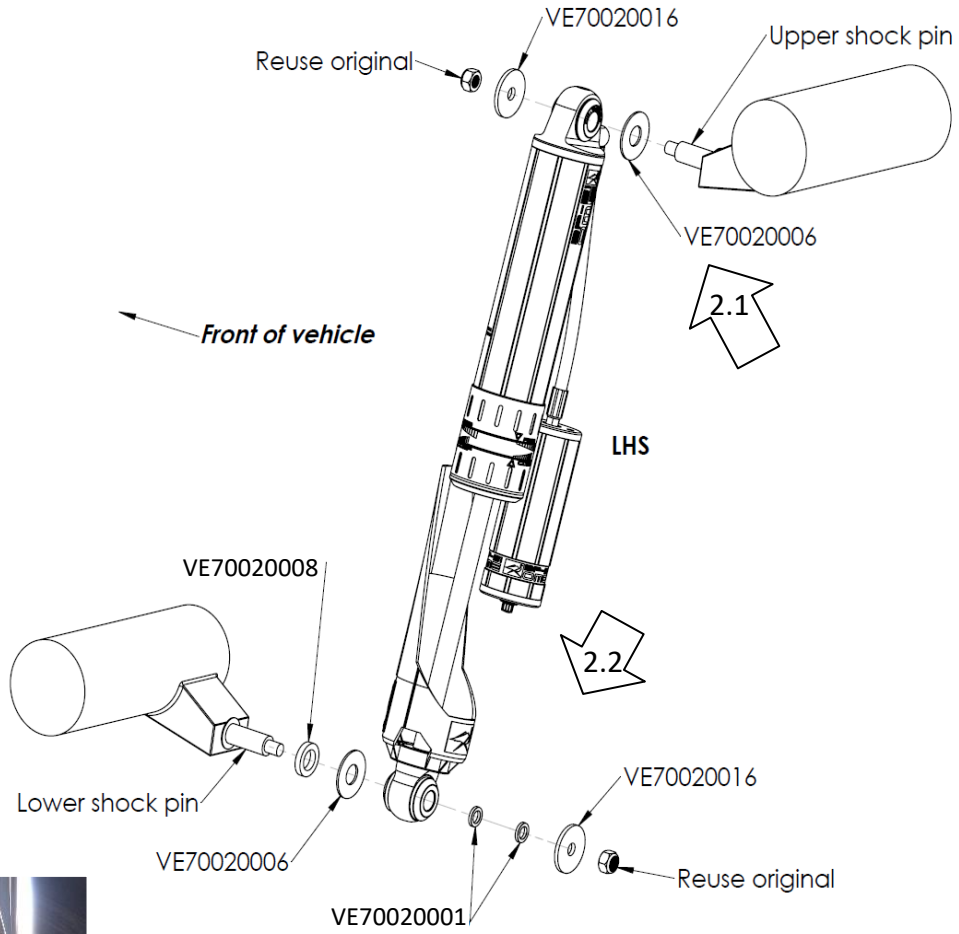
Bottom Mount:
Fit the bottom mount to the vehicle with correct fasteners in correct sequence as shown (2.2).

Securely fasten the top and bottom mount.

NOTE: Ensure that there is adequate clearance between the shaft guard and the bump stop plate on the axle (3). If not remove an appropriate amount of material on the bump stop mount.







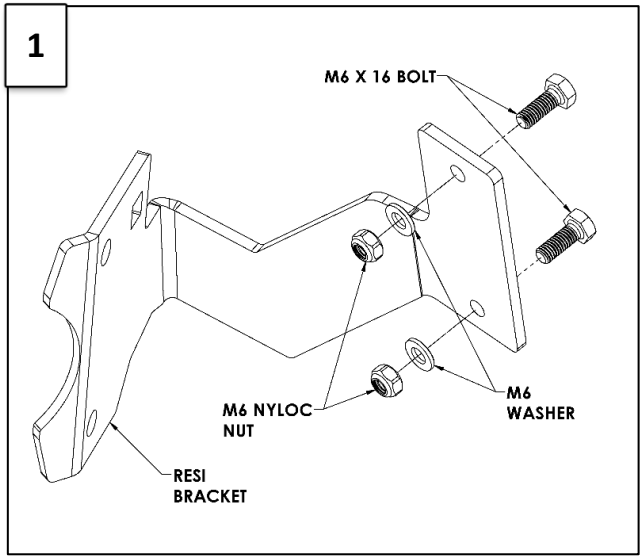
RESERVOIR MOUNTING SEQUENCE

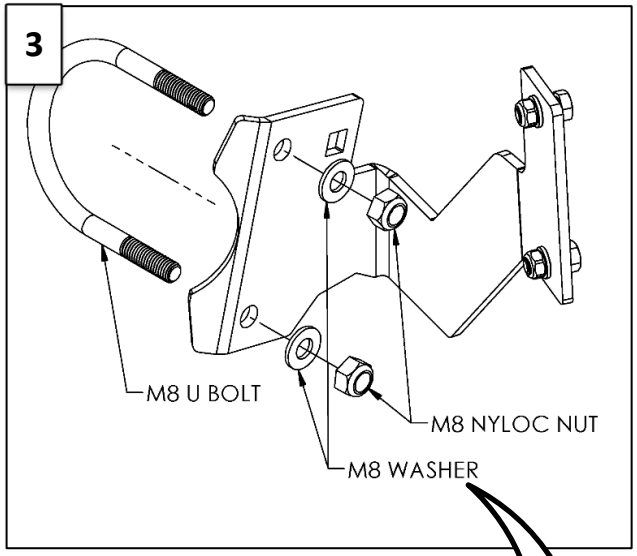
(FOR VEHICLE **WITHOUT** FACTORY DIFF LOCKS)
Left and right are the same. (RH SHOWN)

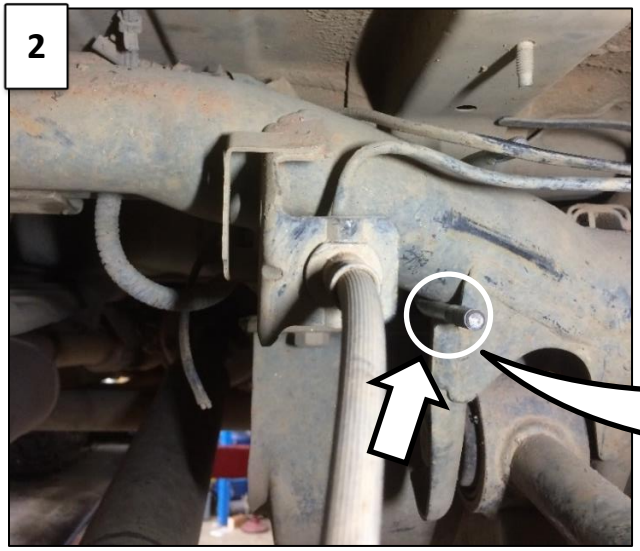
1. Pre assemble the reservoir bracket with supplied fasteners as shown.

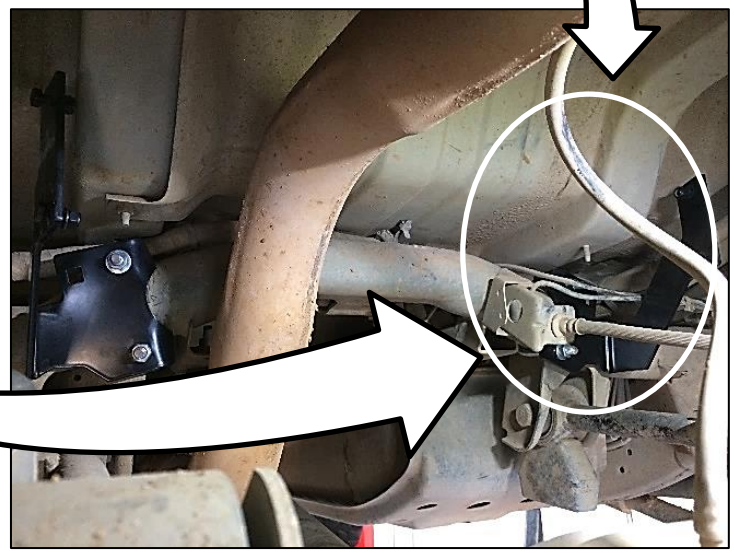
2. Fit the supplied U bolt to the frame as shown. Ensure the bottom of the U bolt locates between the tube and trailing arm mounting bracket.

3. Fit reservoir brackets to the U bolts against the frame with supplied fasteners in sequence as shown. Tighten the M8 nuts until there is little movement for the bracket.









RESERVOIR MOUNTING SEQUENCE

(FOR VEHICLE **WITHOUT** FACTORY DIFF LOCKS CONTINUED…)

4. Adjust the reservoir brackets such that the corner of the bracket shown in the picture has 10-15mm of clearance from the vehicle body.
   Further fasten the M8 nuts.

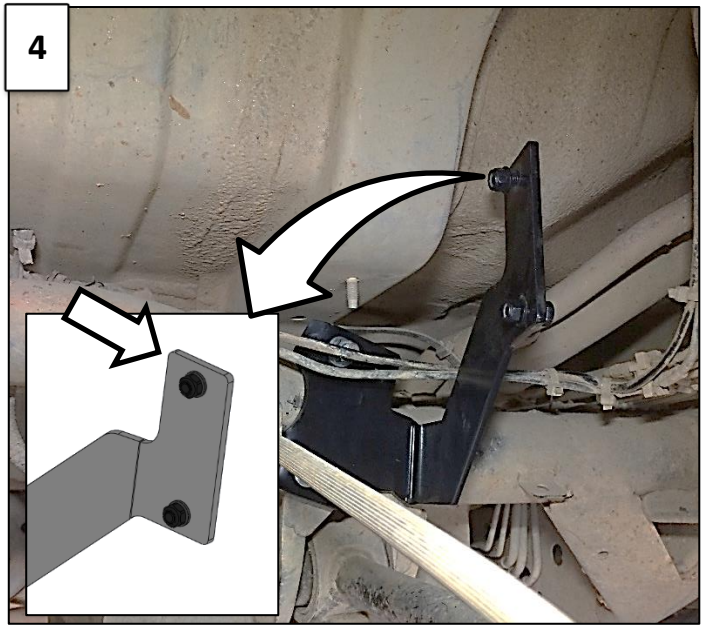
5. Slide the reservoir saddle onto the reservoir and over the heads of the bolts. Properly position the saddle on the mounting bracket and adjust the position of the reservoir as shown. Follow further steps before securely tightening the fasteners.

6. Ensure there is adequate clearance between the reservoir and the brake line as shown. Adjust position of the reservoir if required. You may also adjust the brake line position to create clearance. Caution must be taken when adjusting the brake lines.

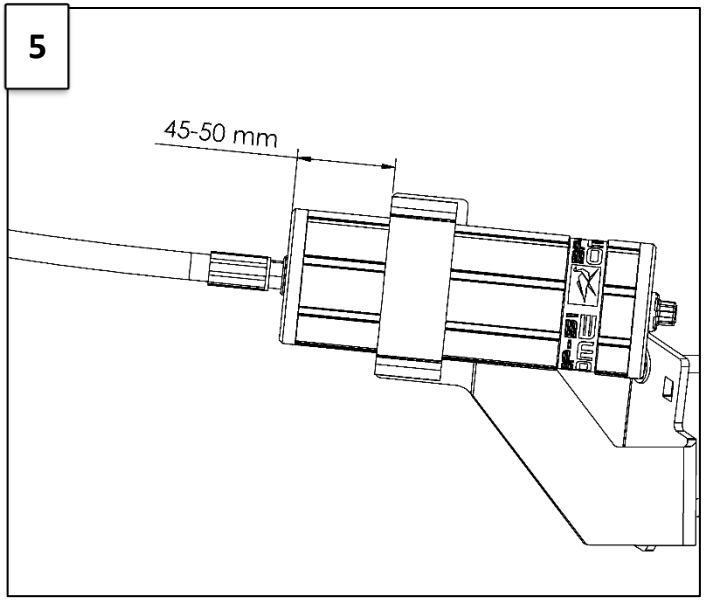
7. Ensure the reservoirs and brackets have adequate clearance of 10-15mm from the vehicle body. Adjust if required.

   Caution:
   Having too much clearance will result in trailing arm and reservoir bracket contact when the vehicle is at full bump.

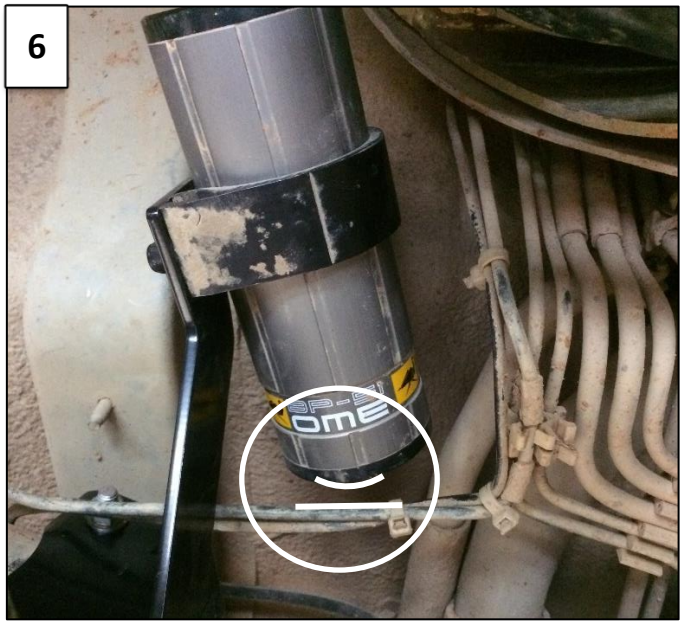
4



5



6



7



RESERVOIR MOUNTING SEQUENCE

(FOR VEHICLE **WITHOUT** FACTORY DIFF LOCKS CONTINUED…)

8. Ensure the reservoir hose arcs away from the coil spring. Rotate reservoir to orientate.

9. Ensure there is adequate clearance between the hose and other components.

   Once satisfied with the clearance, securely fasten all fasteners.
   Torque M8 nuts on U bolts to 12 N.m (9 lbf ft).
   Torque M6 nuts to 12 N.m (9 lbf ft).

9



10



Pictures for reference

RHS



LHS



RESERVOIR MOUNTING SEQUENCE

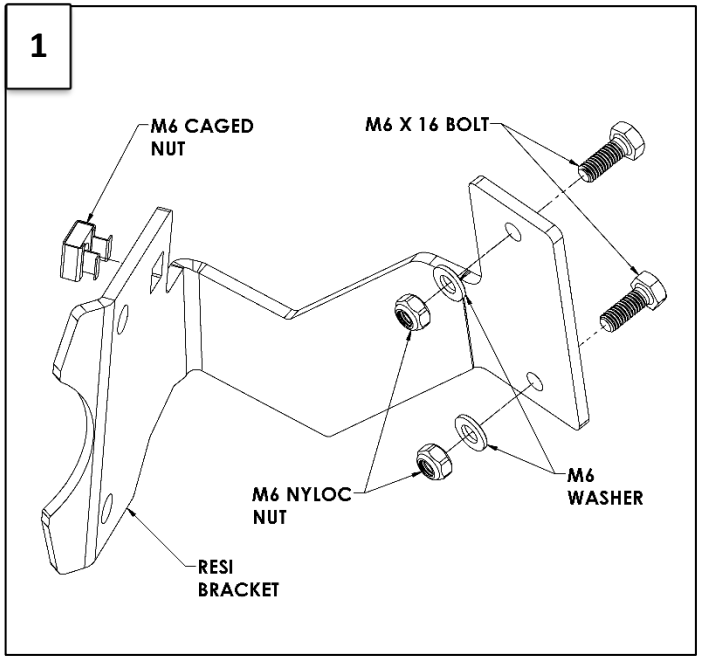
(FOR VEHICLE **WITH** FACTORY DIFF LOCKS)
Left and right are the same. (RH SHOWN)

1. Pre assemble the reservoir bracket with supplied fasteners as shown.

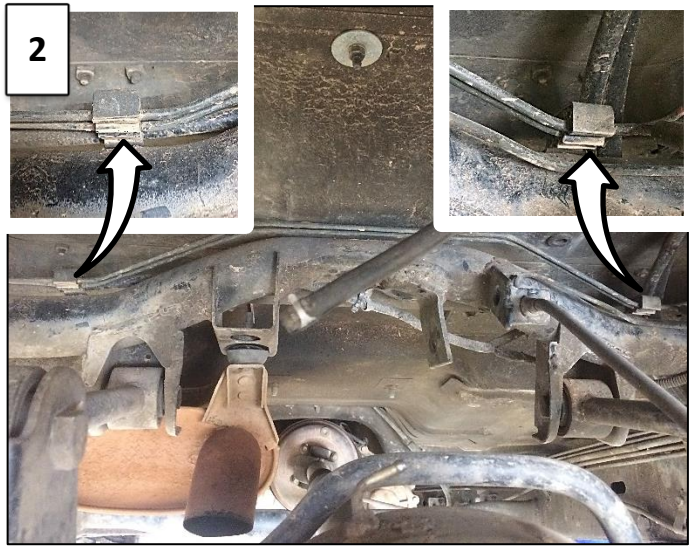
2. Remove diff lock solenoid lines from brackets shown in the picture and remove brackets from frame. Keep the brackets.

3. Fit the supplied U bolt to the frame as shown. Ensure the bottom of the U bolt locates between the tube and trailing arm mounting bracket.

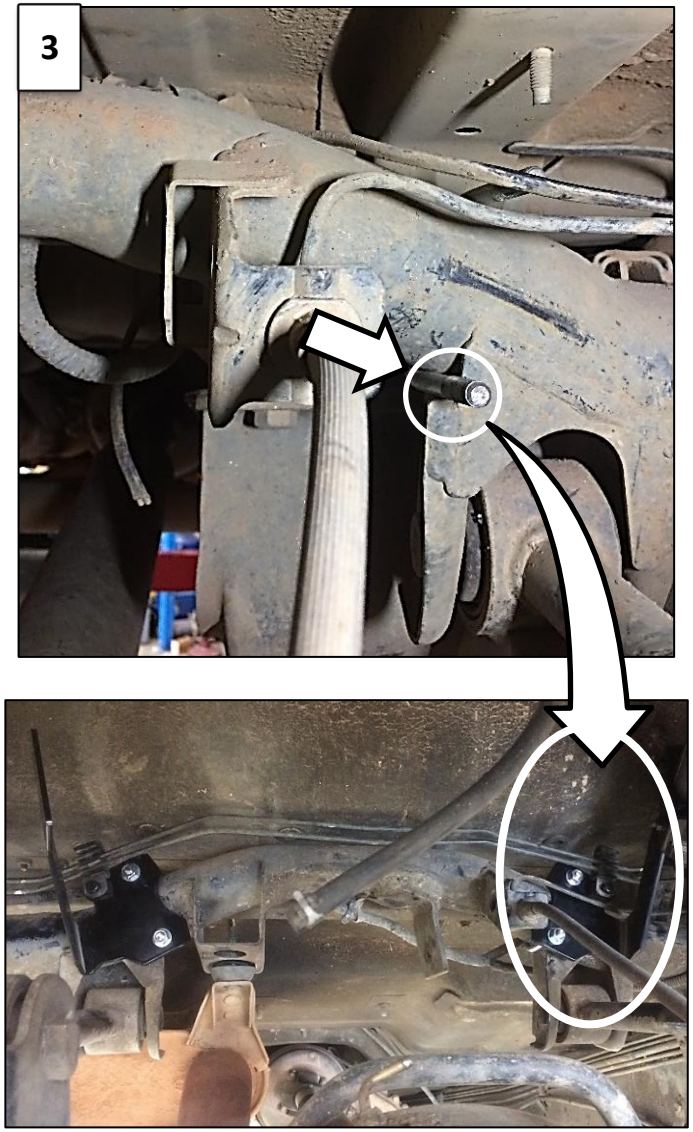
1



2



3



RESERVOIR MOUNTING SEQUENCE

(FOR VEHICLE **WITH** FACTORY DIFF LOCKS)

4. Fit reservoir brackets to the U bolts against the frame with supplied fasteners in sequence as shown (RH). Tighten the M8 nuts until there is little movement for the bracket.

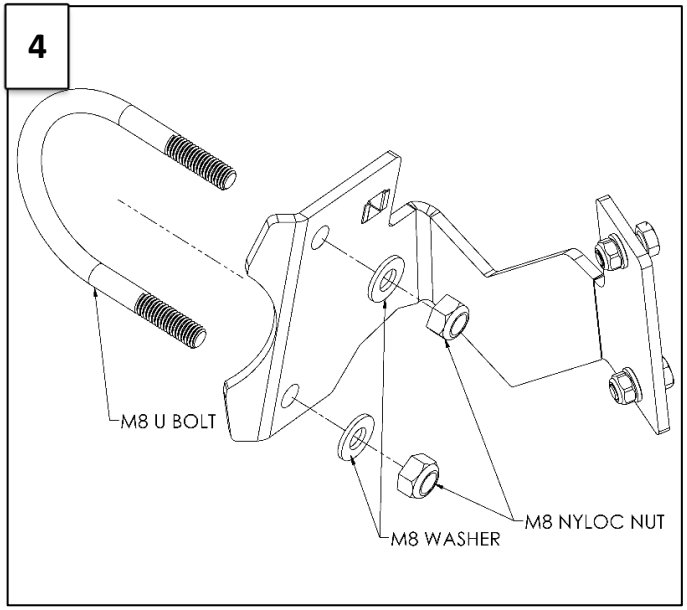
5. Fit the diff lock solenoid line brackets to the reservoir bracket with supplied fasteners in sequence as shown. Fasten the bolt finger tight only.

6. Fit the solenoid lines to the brackets using the two lower clips as shown. Solenoid lines may be adjusted to achieve fitting.

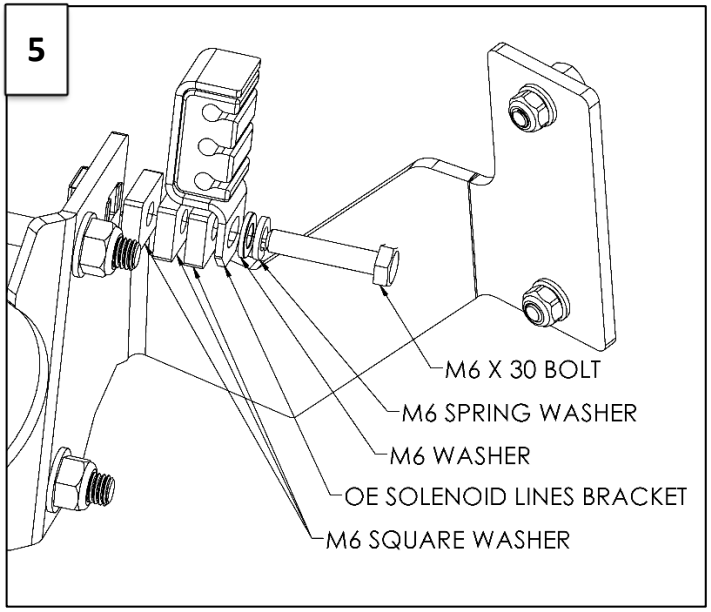
7. Ensure the solenoid lines have clearance from other components on the vehicle. Lines may be adjusted to achieve clearance.

8. Fit the reservoirs to the brackets following steps 5-10 where necessary in RESERVOIRS MOUNTING SEQUENCE FOR VEHICLE **WITHOUT** FACTORY DIFF LOCKS.

4



5



6



7



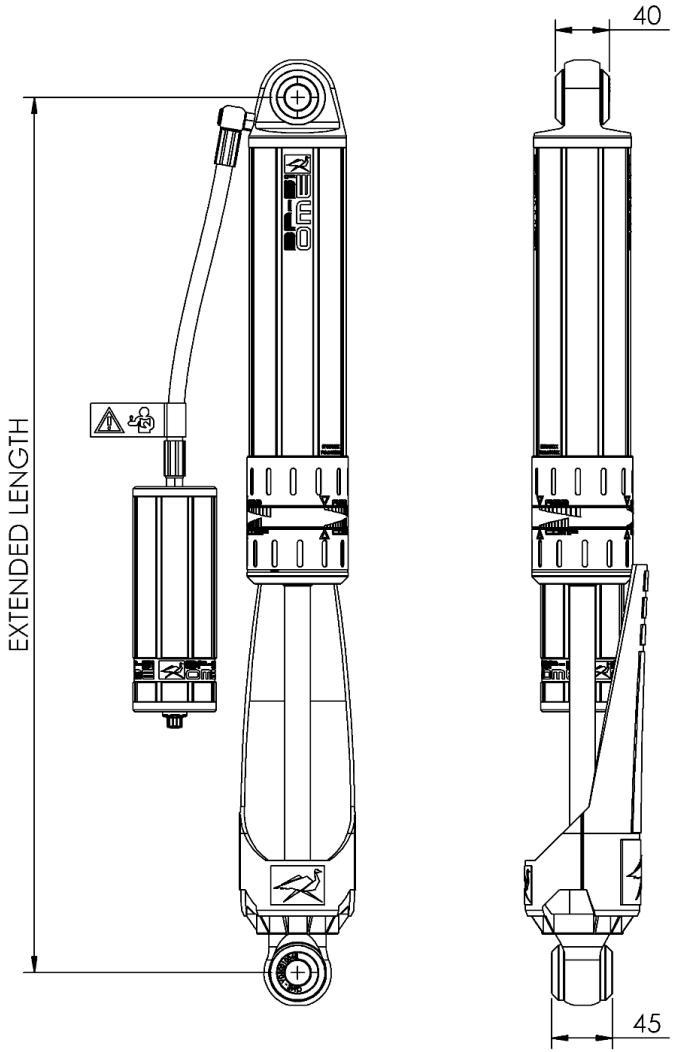
DAMPING ADJUSTMENT

These dampers have been set in the factory to be used for a vehicle with certain load.
If your load or accessory fitment differs, use the table below as a guide for recommended compression and rebound adjuster settings.

Part Number	Rear Pay Load (kg)	Compression	Rebound
BP5160006	0 - 200	0-3	0-3
	200 - 400	3-6	3-16
	400 +	6-10	6-10
Factory setting		5	6
BP5160039	0 - 200	0-3	0-3
	200 - 400	3-6	3-6
	400 +	6-10	6-10
Factory setting		0	4
BP5160008	0 - 200	0-3	0-3
	200 - 400	3-6	3-6
	400 +	6-10	6-10
Factory setting		5	6
BP5160041	0 - 200	0-3	0-3
	200 - 400	3-6	3-6
	400 +	6-10	6-10
Factory setting		4	6

SPECIFICATIONS

1	BP5160006 & BP5160039	Extended Length	651 mm
		Compressed Length	405 mm
2	BP5160008 & BP5160041	Extended Length	711 mm
		Compressed Length	435 mm



SPARE PARTS

Refer to Service And Parts Manual section:

- For BP5160006 see **BP-51 S&P 3.1-BP5160006**
- For BP5160008 see **BP-51 S&P 3.1-BP5160008**
- For BP5160039 see **BP-51 S&P 3.1-BP5160039**
- For BP5160041 see **BP-51 S&P 3.1-BP5160041**

REVISION					
REV	DESCRIPTION	PREPARED BY	APPROVED BY	DATE	ECN No.
A	Released	E. TAW			