FITTING INSTRUCTIONS

TJ & TJ UNLIMITED JEEP REAR BAR & WHEEL CARRIER

- **PART No 565 0010 REAR BAR.**
- **PART No 575 0012 WHEEL CARRIER.**
- **PART No 575 0020 TOW HITCH. (ACCESSORY)**
- **PART No 575 0030 HI-LIFT JACK ATTACHMENTS. (ACCESSORY)**
- **PART No 575 0040 WHEEL LOCKING NUTS – SET OF 4. (ACCESSORY)**
- **PART No 575 0050 LICENCE PLATE LAMP RE-LOCATION KIT (ACCESSORY)**

WARNING

NOTE THE FOLLOWING:

- This product must be installed exactly as per these instructions using only the hardware supplied.
- In the event of damage to any bull bar component, contact your nearest authorised ARB stockist. Repairs or modifications to the impact absorption system 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 this bull bar.
- 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
- Unless otherwise instructed, tighten fasteners to specified torque

GENERAL CARE AND MAINTENANCE

By choosing an ARB Bar, you have bought a product that is one of the most sought after 4WD products in the world. Your bar is a properly engineered, reliable, quality accessory that represents excellent value. To keep your bar in original condition it is important to care and maintain it following these recommendations:

- Prior to exposure to the weather your bar should be treated to a Canuba based polish on all exposed surfaces. It is recommended that this is performed on a six monthly basis or following exposure to salt, mud, sand or other contaminants.
- As part of any Pre Trip Preparation, or on an annual basis, it is recommended that a thorough visual inspection of the bar is carried out, making sure that all bolts and other components are torqued to the correct specification. Also check that all wiring sheaths, connectors, and fittings are free of damage. Replace any components as necessary. This service can be performed by your local authorised ARB Stockist.

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

METRIC SOCKET SET, METRIC RING AND OPEN ENDED SPANNER SET, PHILLIPS AND FLAT SCREW DRIVER SET, ELECTRIC DRILL AND METRIC DRILL BITS 6 mm, 13 mm AND 17 mm, LARGE HAMMER, CENTRE PUNCH, HEX KEY SET, PIN PUNCH, GREASE, METAL SCRIBE .

WIRE CUTTERS , SOLDERING IRON & SOLDER, INSULATING TAPE AND ELECTRICAL TERMINAL CRIMPERS (IF RE-CONNECTING THE FACTORY HI LEVEL STOP LAMP).

NOTE :- The bearings & seals for the wheel carrier are available as spare parts.

PART No	QTY	DESCRIPTION
732 0003	2	SEAL
732 0002	2	BEARING

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

Protective eyewear		Hearing protection	

NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where to avoid a potentially hazardous situation it is suggested that protective safety gear be worn or a safe work procedure be employed. If these notes and warnings are not heeded, injury may result.

FASTENER TORQUE SETTINGS:

SIZE	Torque Nm	Torque lbft
M6	**9 Nm**	**4 lbft**
M8	**22 Nm**	**16 lbft**
M10	**44 Nm**	**32 lbft**
M12	**77 Nm**	**57 lbft**

USE	PART No	QTY	DESCRIPTION
FITTING SLIDER TO REAR STEP.	566 5677	1	SLIDER
	682 1116	2	SQUARE PLASTIC PLUG
	615 1283	2	SELF TAPPING SCREWS
FITTING CATCH HOOK TO REAR BAR.	459 0007	1	CATCH HOOK
	615 1303	2	CAGE NUT M8 SHORT LEG
	615 1022	2	BOLT M8 x 25 mm LONG
	458 1046	2	SPRING WASHER M8
	458 1044	2	FLAT WASHER M8
	3756746	2	PACKER CATCH HOOK
FITTING BUMP STOP TO REAR BAR.	584 8322	1	BUMP STOP
	615 1312	2	M6 BUTTON HEAD CAP SCREW x 25 mm
	615 1162	2	M6 NUT NYLOC
FITTING GRABBER TO REAR BAR.	375 6677	1	GRABBER
	615 1303	2	CAGE NUT M8 SHORT LEG
	615 1022	2	BOLT M8 x 25 mm LONG
	458 1046	2	SPRING WASHER M8
	458 1063	2	PANEL WASHER M8
PIVOT LOCKING BOLT	615 1222	1	BOLT LOCKING M8 x 50 mm LONG (FINE PITCH)
INSTALLATION OF COMPONENTS TO WHEEL CARRIER.	459 0011	1	CATCH ASSEMBLY
	615 1263	4	SOCKET HEAD CAP SCREWS M8 x 20 mm LONG
	458 1046	4	SPRING WASHERS M8
	626 0002	1	STOPPER
	458 1046	1	SPRING WASHER M8
	458 1044	1	FLAT WASHER M8
	615 1028	1	NUT M8
	626 0001	1	GRABBER BUFFER
	615 1331	2	CAP SCREW COUNTERSUNK M6 x 30 mm LONG
	615 1162	2	NUT NYLOC M6
	459 0001	1	GAS STRUT ASSY (inc 1 strut, 2 clips, 2 spheres)
	615 1132	2	NUT FLANGED M8
	458 1044	2	FLAT WASHER M8
	459 0008	1	LOCKING PIN
	459 0009	1	LOCKING PIN SPRING
	459 0010	1	ROLL PIN
REINFORCING BRACKET FITMENT TO CHASSIS.	375 6886 R	1	BRACKET RIGHT HAND
	375 6886 L	1	BRACKET LEFT HAND
	615 1291	6	TAB BOLT M12 x 40 mm LONG FINE PITCH
REINFORCING BRACKET FITMENT TO CHASSIS CONTINUED.	458 1049	22	FLAT WASHER M12
	458 1050	14	SPRING WASHER M12
	615 1135	6	NUT M12 FINE PITCH
	615 1250	2	BOLT M12 x 90 mm LONG COARSE PITCH
	472 1570	2	DIA 17 mm CRUSH TUBE x 60 LONG
	615 1255	4	BOLT M12 x 40 mm LONG COARSE PITCH
	615 1189	8	NUT M12 COARSE PITCH
	615 1340	2	BOLT M12 x 50 mm COARSE PITCH

USE	PART No	QTY	DESCRIPTION
BACKING PLATE TO CHASSIS BEAM.	319 9850	1	PLATE CHASSIS BEAM
	615 1300	2	CAGE NUT M6
	615 1017	2	BOLT M6 x 16 mm LONG
	615 1046	2	FLAT WASHER M6
	615 1042	2	SPRING WASHER M6
	615 1306	2	CAGE NUT M12 SHORT LEG
	615 1340	2	BOLT M12 x 50 mm
	458 1049	2	FLAT WASHER M12
	458 1050	2	SPRING WASHER M12
WHEEL CARRIER TO REAR BAR.	615 1330	1	NUT M20 NYLOC
	615 1329	1	BOLT M20 x 190 mm LONG
	636 4506	1	BUSH – ARM ASSY
	625 0002	2	SPACER THIN – 9 mm THICK
MISC ITEMS TO REAR BAR AND WHEEL CARRIER.	180 302	4	CABLE TIES - BLACK
	458 1299	5	WASHER FLAT NYLON
WHEEL MOUNTING PLATE TO WHEEL CARRIER.	375 6909	1	WHEEL MOUNTING BRACKET
	615 1382	3	WHEEL STUDS ½ " WITH WHEEL NUT
	615 1305	2	CAGE NUTS M12 LONG LEG
	615 1355	2	BOLT M12 x 35 mm LONG
	458 1007	2	PANEL WASHER M12 GOLD
	458 1050	2	SPRING WASHER M12
WHEEL MOUNTING PLATE TO WHEEL CARRIER PINNING BOLT .	615 1357	1	BOLT M10 x 30 mm LONG (WITH WASHERS)
	458 1063	1	FLANGE NUT M10
HIGH LEVEL STOP LAMP TO WHEEL CARRIER .	615 1301	4	CAGE NUTS M8 LONG LEG
	615 1234	4	BOLT M8 x 25 mm LONG BLACK
	458 1047	4	SPRING WASHER M8 BLACK
	458 1045	4	FLAT WASHER M8 BLACK
	682 1195	1	REAR DOOR BLANKING GROMMET
HIGH LEVEL STOP LAMP WIRING LOOM EXTENSION TO TAIL LAMP ON VEHICLE .	6821194	1	TWIN CORE CABLE - 750 mm LONG
	CR 07	1	CONVOLUTE TUBING - 7 mm x 750 mm LONG
	320 104N	1	TAIL LAMP HOUSING WIRING GROMMET
	666 005	1	RING TERMINAL
	180 701	1	SCOTCH LOCK CONNECTOR
	180 302	6	CABLE TIES - BLACK
COVER PANEL FITMENT TO REAR BAR.	455 8424	1	COVER PANEL
	615 1300	4	CAGE NUT M6
	615 1312	2	SOCKET HEAD CAP SCREW M6 x 25 mm LONG
	615 1270	2	BOLT M6 x 40 mm LONG
	615 1046	4	FLAT WASHER M6
	458 1036	4	SPRING WASHER M6
	584 8302	2	PACKER BLACK NYLON
	625 0003	2	SPACER 8 mm THICK

PREPARATION OF THE VEHICLE



1. REMOVAL OF THE FACTORY SPARE WHEEL CARRIER.

Remove the spare wheel from the vehicle.

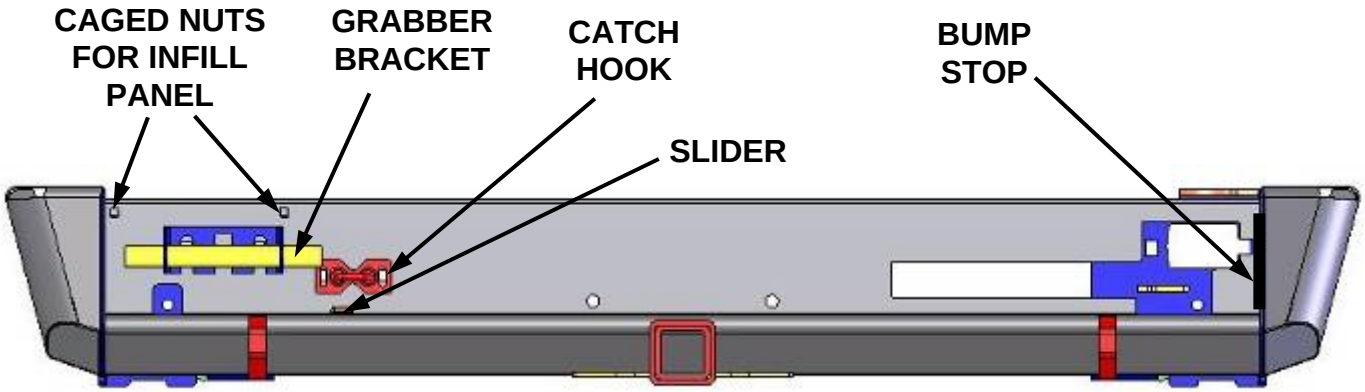
Unbolt the factory hi – level stop lamp and disconnect the wiring loom.

Remove the five bolts that hold the carrier to the rear door – remove the carrier and replace the five bolts in their original positions and tighten. Fit a nylon washer under the head of each bolt.

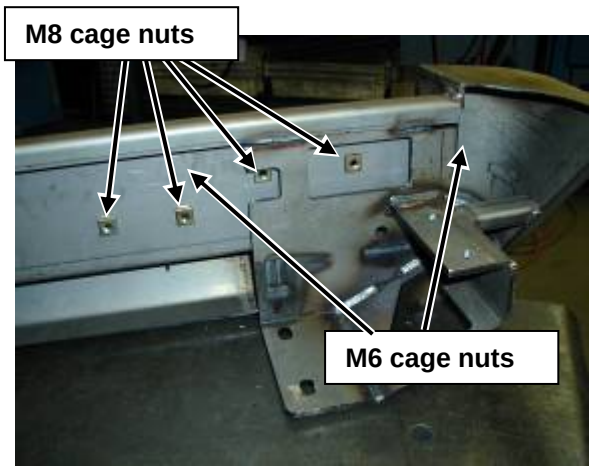
Remove the rear bumper bar from the vehicle (On Australian vehicles keep the licence plate lamp loom as it is re-used when fitting the optional licence plate lamp kit) .

Remove the lower rubber tire stopper.

THE FOLLOWING COMPONENTS CAN BE INSTALLED ONTO THE REAR BAR BEFORE IT IS FITTED TO THE VEHICLE.



PRE - ASSEMBLY OF REAR BAR

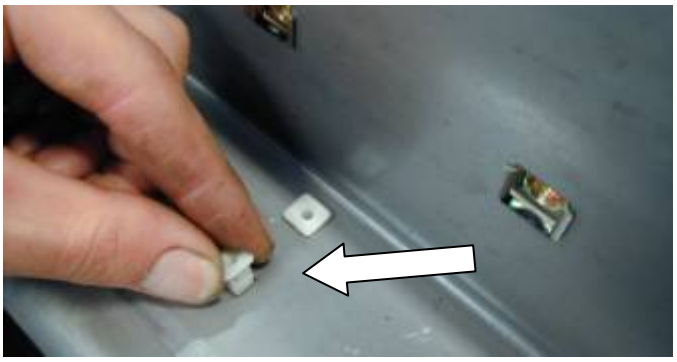


2. INSTALLATION OF THE CAGE NUTS

Install four M8 cage nuts (short leg) from the back of the bar as shown. These cage nuts will be used to fasten the grabber bracket and the catch hook, as shown in the diagram above.

Install two M6 caged nuts in from the back of the bar as shown. These caged nuts will be used to fasten the infill panel.

PRE - ASSEMBLY OF REAR BAR





3. INSTALLATION OF THE SLIDER

Insert two plastic square plugs into holes in the rear bar. The plugs should snap into the square holes as shown.

Fasten the slider to the rear bar using the two black self-tapping screws provided.

<u>NOTE: - Place the tapered face of the slider towards the front face of the rear bar as shown in the photo.</u>





4. INSTALLATION OF THE CATCH HOOK

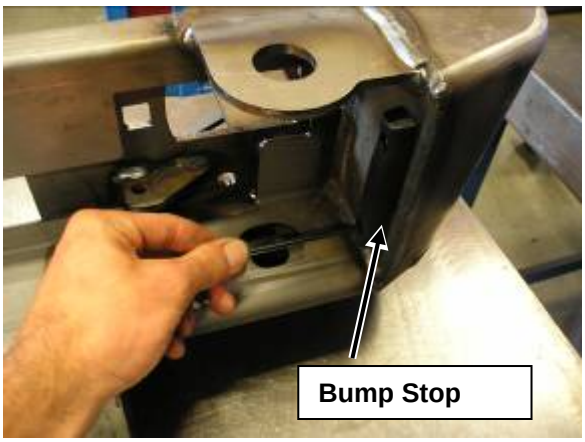
Fasten the catch hook to the rear bar as shown.

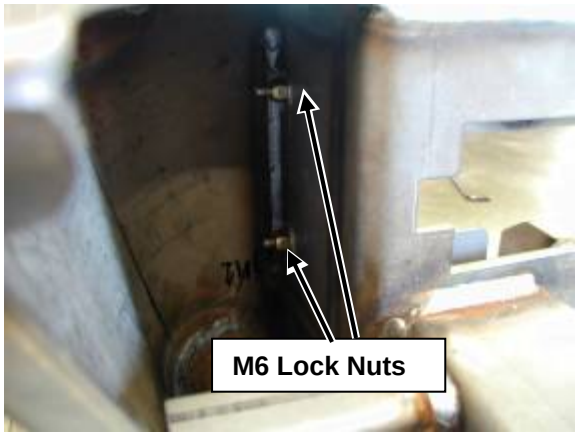
Use the M8 x 25 mm bolts, spring washers and panel washers supplied.

Make these bolts finger tight only at this stage.

They will be tightened after the wheel carrier has been adjusted.

PRE - ASSEMBLY OF REAR BAR

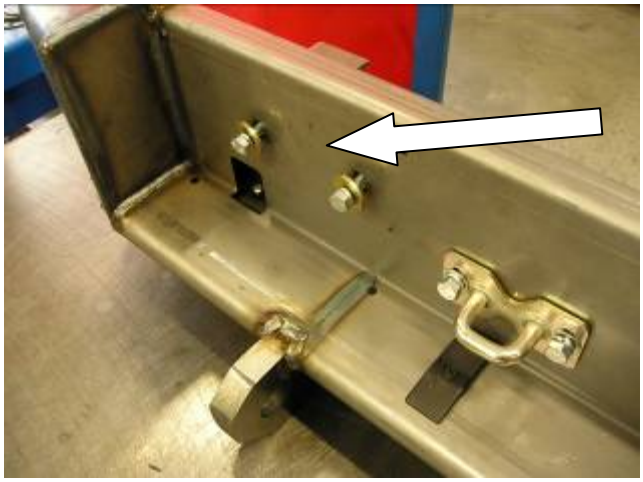




5. INSTALLATION OF THE BUMP STOP

Fasten the bump stop to the rear bar using two M6 x 25 mm stainless steel button head cap screws, flat washers and nyloc nuts. Place the washers and nyloc nut inside the right hand wing as shown.

NOTE: Do not over tighten.



6. INSTALLATION OF THE GRABBER BOLTS.

Fit the two M8 x 25 bolts with, spring washers and flat washers to the bar as shown engaging only a few threads.

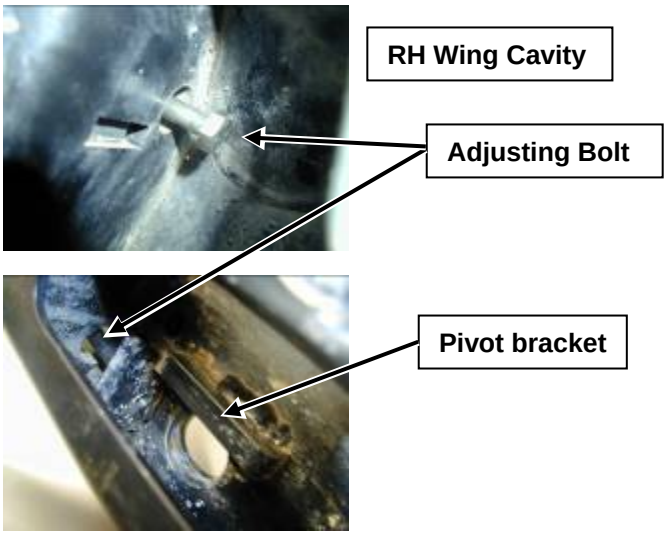


7. INSTALLATION OF GRABBER

Slide the grabber bracket over the bolts as shown in the photo.

Leave these bolts finger tight only at this stage. The grabber will require adjustment when the wheel carrier is fitted.

PRE - ASSEMBLY OF REAR BAR



8. INSTALLATION OF PIVOT ADJUSTING BOLT

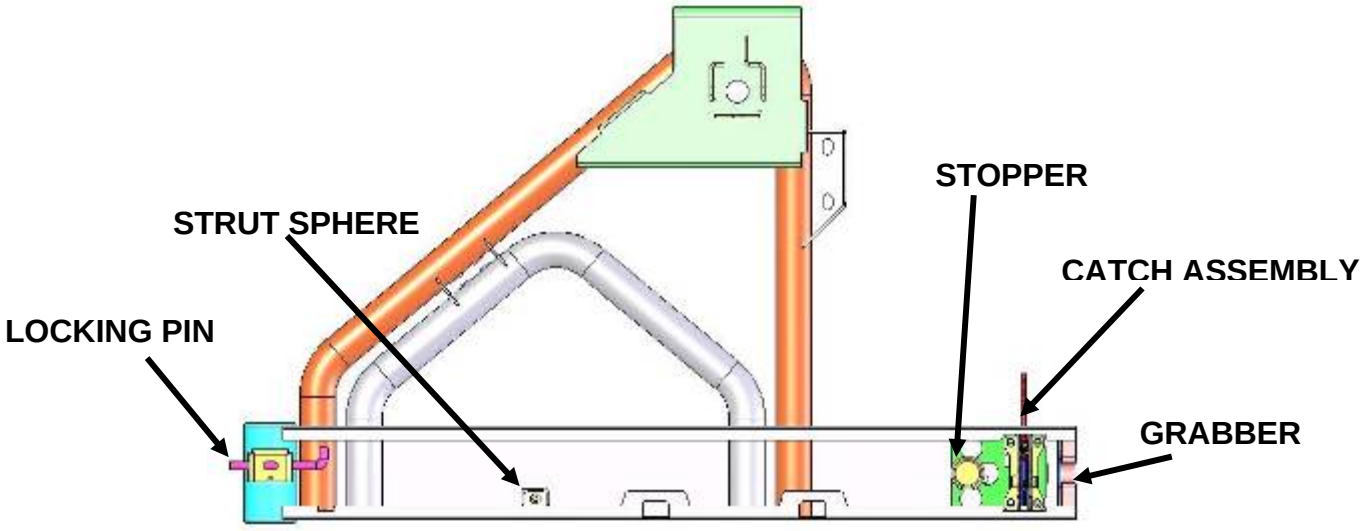
Insert the M8 x 50 mm adjusting bolt (as shown in the photo) through the hole in the upright located in the right hand wing cavity.

There is a corresponding tapped hole in the pivot bracket that has been pre-drilled and threaded. Wind the bolt in until a few threads protrude through the bracket.

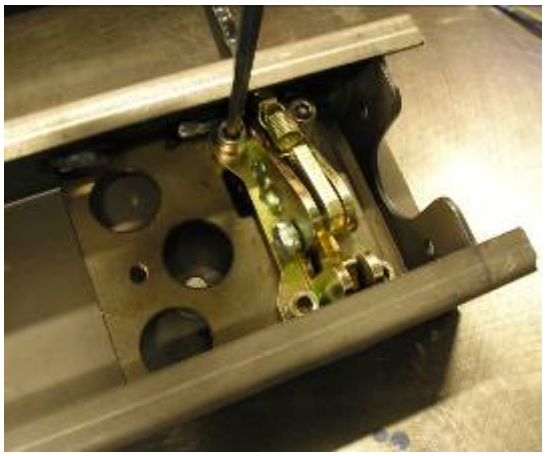
PRE - ASSEMBLY OF WHEEL CARRIER

THE FOLLOWING COMPONENTS CAN BE INSTALLED INTO THE WHEEL CARRIER BEFORE IT IS FITTED TO THE REAR BAR .

NOTE :- THE BEARINGS AND SEALS ARE PRE - ASSEMBLED INTO THE WHEEL CARRIER BUSH TO AID ASSEMBLY , THESE PARTS ARE LISTED IN THE PARTS LIST .



PRE - ASSEMBLY OF THE WHEEL CARRIER

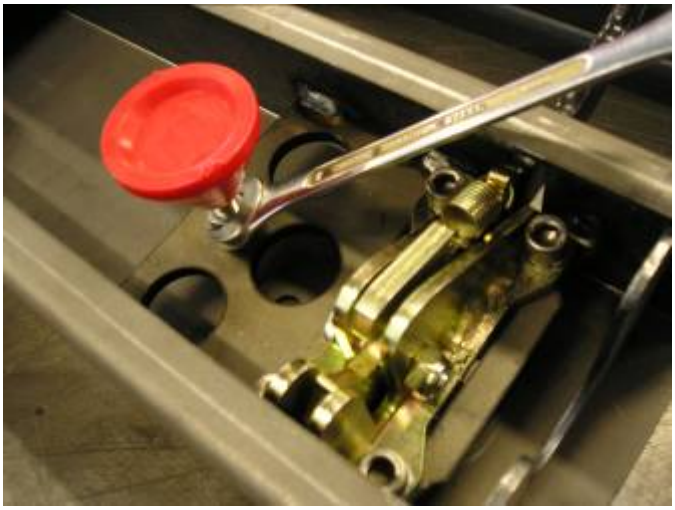


1. INSTALLATION CATCH ASSEMBLY

Install the catch assembly using the four M8 x 20 mm socket head cap screws and spring washers provided and fully tighten.

NOTE:- The mounting plate has been pre - tapped to accept the socket head cap screws.

PRE - ASSEMBLY OF THE WHEEL CARRIER

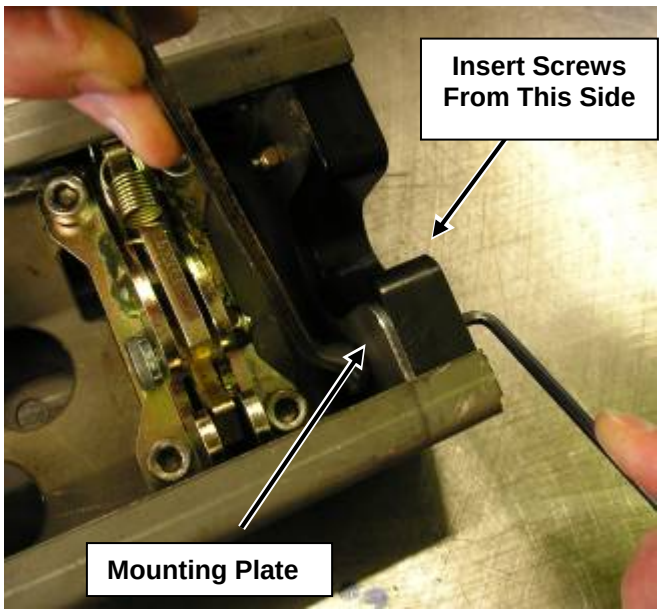


2. INSTALLATION OF THE STOPPER

Install one M8 nut, spring washer and flat washer onto the threaded section of the stopper.

Fit the stopper to the wheel carrier plate as shown (the plate is pre – tapped). The spring and flat washers should be placed between the M8 nut and the treaded plate.

Do not tighten the nut at this stage. The stopper will be adjusted after the wheel carrier is fitted to the rear bar.



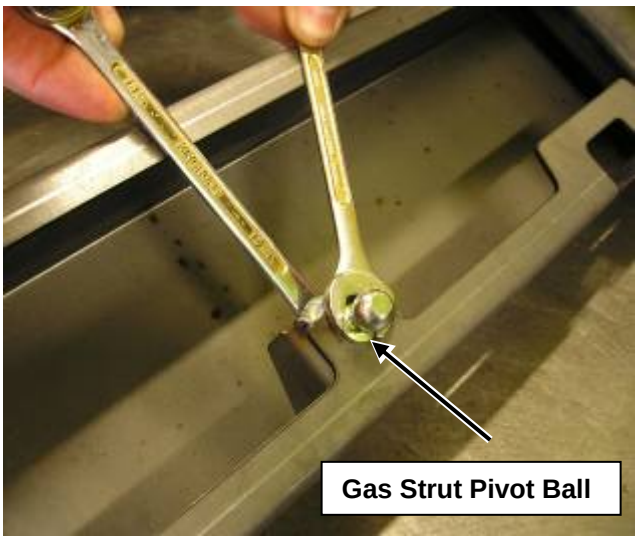
3. INSTALLATION OF GRABBER BUFFER

Install the grabber using the two M6 countersunk cap screws and lock nuts provided. The grabber buffer should be installed on the outer face of the mounting plate as shown.

When tightening the bolts, start at the top first. Pull the centre of the grabber towards the top (stretching out the buffer) and tighten the top bolt, repeat this for the bottom of the arm as shown.

This will increase the grabber opening.

Ensure the buffer cut out is central to the cut out in the mounting plate.



4. INSTALL STRUT PIVOT BALL

Install the gas strut pivot ball into the wheel carrier as shown using the M8 flange nut and flat washer provided.

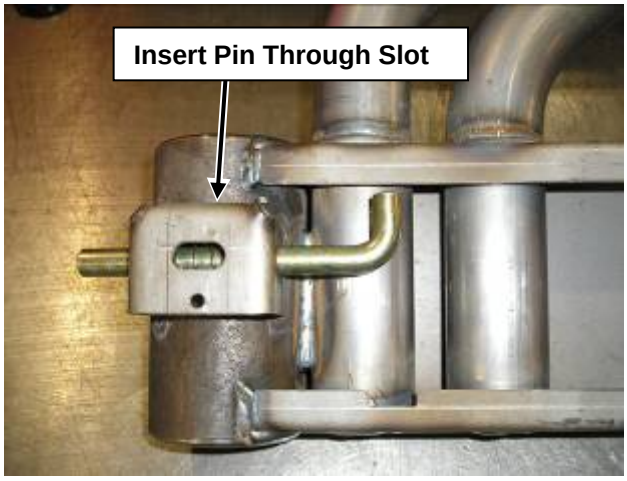
PRE - ASSEMBLY OF THE WHEEL CARRIER

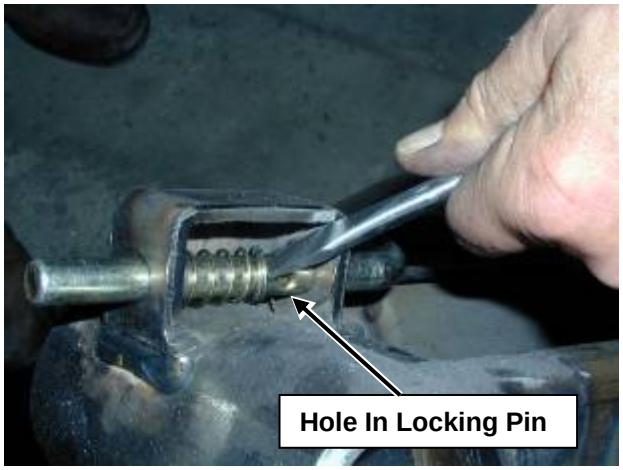


5. INSTALLATION OF THE LOCKING PIN

Place the spring inside the locking bracket as shown in the photo.

Feed the locking pin through the bracket and the spring as shown with the upturn of the locking pin pointing upward.





Using a large flat bladed screwdriver, pull back the spring as shown and insert the dowel pin through the slot in the top of the locking bracket.

Align the dowel pin with the hole in the locking pin.

<u>Ensure the pin is behind the spring.</u>

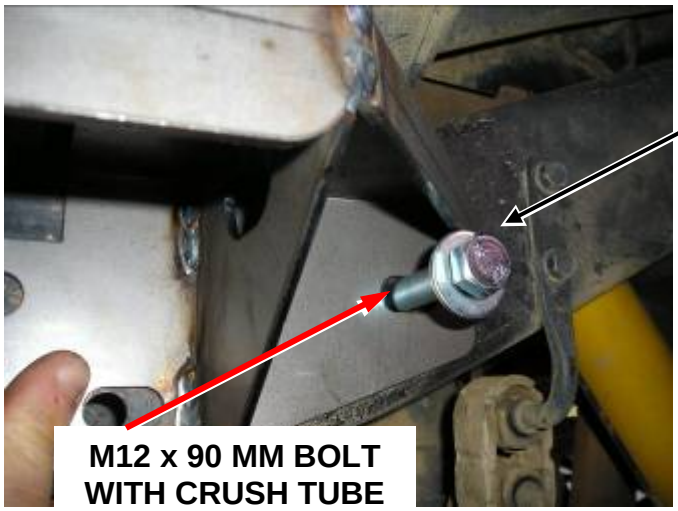


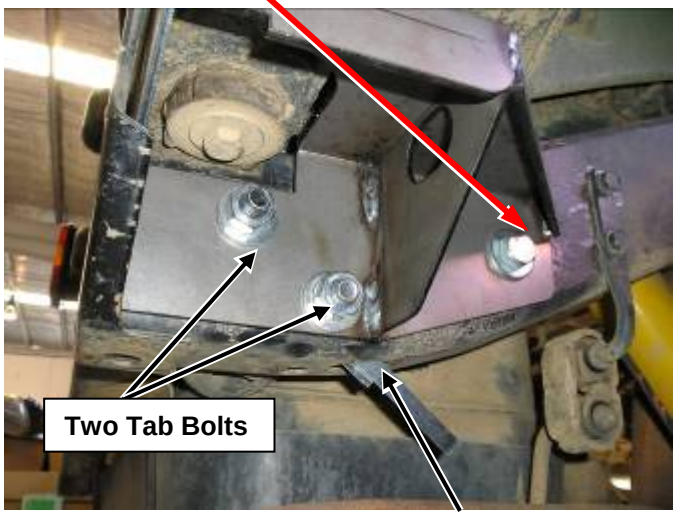
Using a hammer, drive the dowel pin through the hole until it sits flush with the top surface of the bracket.

REINFORCING BRACKET FITMENT TO VEHICLE



RIGHT HAND SIDE SHOWN





6. REINFORCING BRACKET FITMENT TO CHASSIS. RIGHT HAND SIDE SHOWN.

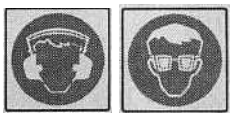
Insert an M12 x 90 mm bolt and flat washer through the chassis reinforcing bracket as shown. Place an M12 crush tube over the bolt

Fit the reinforcing bracket against the side of the chassis rail as shown. Pass the M12 bolt and crush tube through the chassis. Fasten this bolt using a M12 flat washer, spring washer and nut.

FOR JEEP UNLIMITED VEHICLES
The hole for the M12 X 90 mm bolt must be drilled. Mark the position of the hole using the bracket as a reference. Drill a 13 mm hole through the inner and outer surfaces of the chassis. Enlarge the hole in the outer surface of the chassis to 17 mm.

NOTE: Take care when drilling holes not the damage the fuel tank.

WARNING: Wear eye and ear protection when using drill.



Insert two M12 x 35 mm tab bolts up through the access hole in the lower chassis as shown. Guide the bolt up through the chassis and through the side hole in the chassis bracket (the tab on the bolt may need to be bent to achieve this).

Fasten the bolts using a M12 flat washer, spring washer and nut.

Make these bolts finger tight only at this stage. They will be tightened after the rear bar has been fitted to the vehicle.

REPEAT STEP 6 AS DESCRIBED ABOVE FOR THE LHS OF THE VEHICLE.

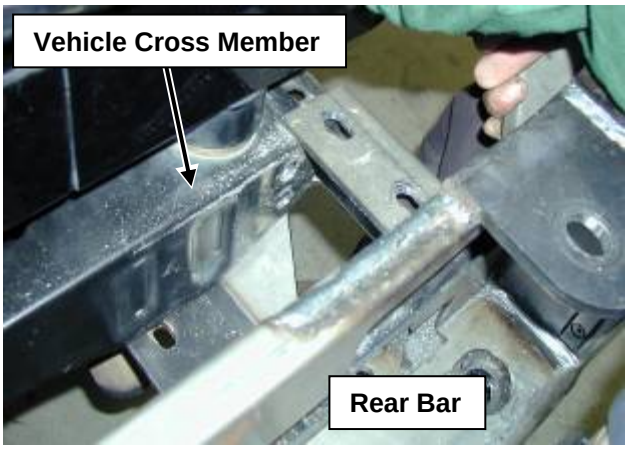
FITTING THE REAR BAR TO THE VEHICLE



7. INSTALLATION OF THE REAR BAR TO THE VEHICLES REAR CROSS MEMBER.

With the assistance of another person lift the rear bar into position and fit to the back of the vehicle.

Slide the bar forward on the vehicle until the uprights touch the rear cross member.



8. POSITIONING OF REAR BAR ON VEHICLE.

Align the holes in the rear bar so that the holes line up with the holes in the base of the chassis.

There should be equal spacing between the wing and quarter panel on both sides of the vehicle.



RIGHT HAND SIDE SHOWN



LEFT HAND SIDE SHOWN

9. ALIGN REAR BAR ON VEHICLE

Align the rear bar so that the gap between the body and rear bar is parallel and level.

Insert two M12 x 40 mm bolts & flat washer through the front of the bar as shown.

Fasten these bolts with M12 flat washers, spring washers and nuts.

NOTE: The bolts will pass through the rear bar, the chassis cross member and the chassis reinforcing bracket.

Do not tighten these bolts, as the rear bar will be removed temporally after step 10.

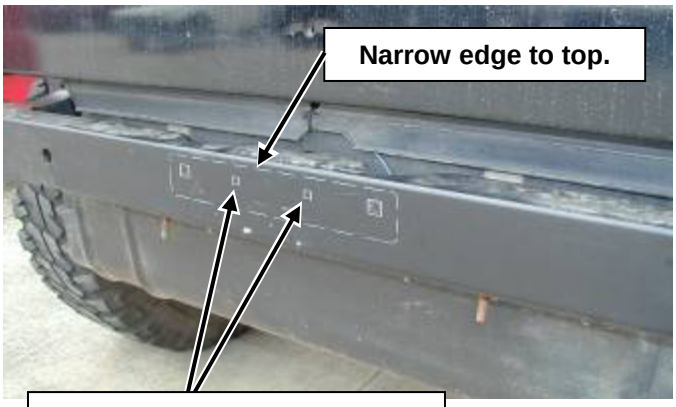
FITTING THE REAR BAR TO THE VEHICLE



10. MARKING THE REAR BAR POSITION TO THE VEHICLE.

With the rear bar in position on the back of the vehicle, mark the two holes in the centre of the rear bar onto the rear cross member of the vehicle. Use a metal scribe or felt tip marker to do this.

Remove the bolts described in step 9 and remove the rear bar to enable the holes to be drilled (refer to step 11.)



WARNING: PLACE A BOARD BETWEEN THE CHASSIS CROSS MEMBER AND THE FUEL TANK WHEN DRILLING. THIS IS TO PREVENT DAMAGE TO THE FUEL TANK.

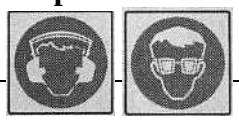
11. POSITIONING THE BACKING PLATE TO THE REAR CHASSIS BEAM.

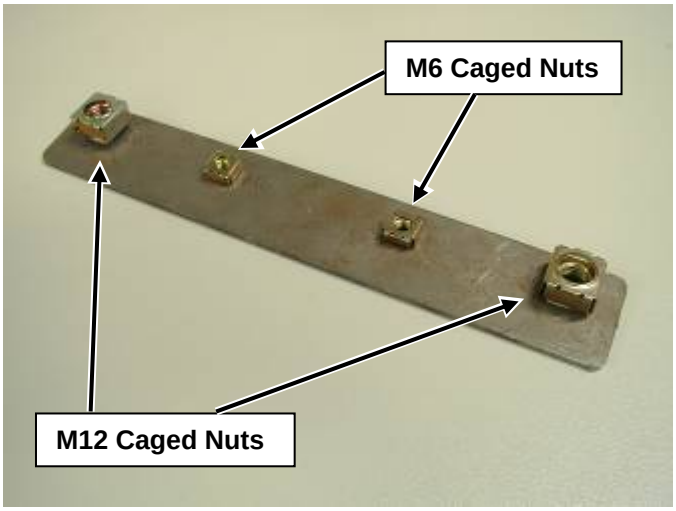
Align the outer holes in the chassis beam plate (supplied in the fitting kit) with the newly marked holes on the cross member. Mark the position of the two smaller holes.

NOTE: The smaller edge of the bracket is to the top.

Centre punch the position of the four holes. Drill the smaller holes using an 8 mm drill bit and the two larger holes with a 13 mm drill bit.

WARNING: Wear eye and ear protection when using drill.





12. INSTALLATION OF THE BACKING PLATE TO THE CHASSIS BEAM

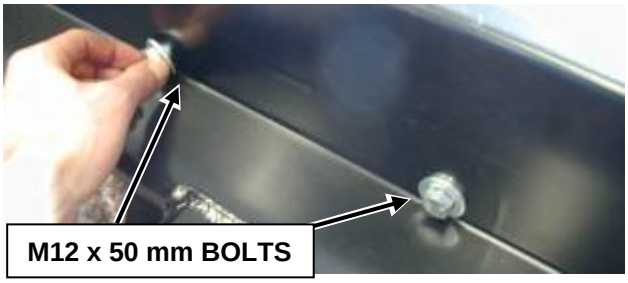
Insert an M12 (short leg) cage nut into the two outer holes as shown. Insert an M6 cage nut into the two inner holes as shown.

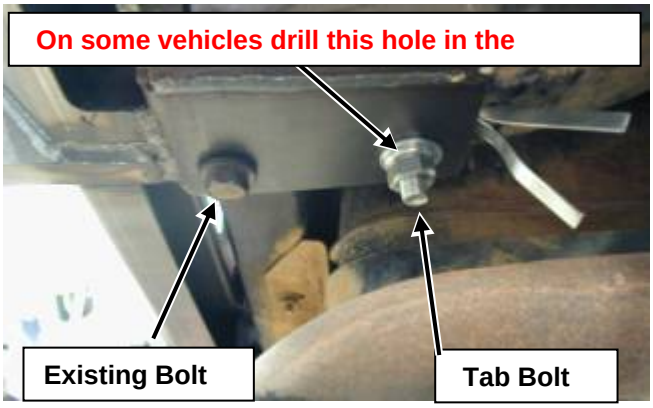
Place the assembled chassis beam plate in behind the chassis cross member and align the smaller inboard cage nuts with the drilled holes. The position of the bracket is shown dotted in the above photo.

Bolt the backing plate to the chassis beam using the M6 bolts, flat washers and spring washers. Tighten both bolts.

Reinstall the rear bar and hardware by repeating steps 7 – 9.

FITTING THE REAR BAR TO THE VEHICLE





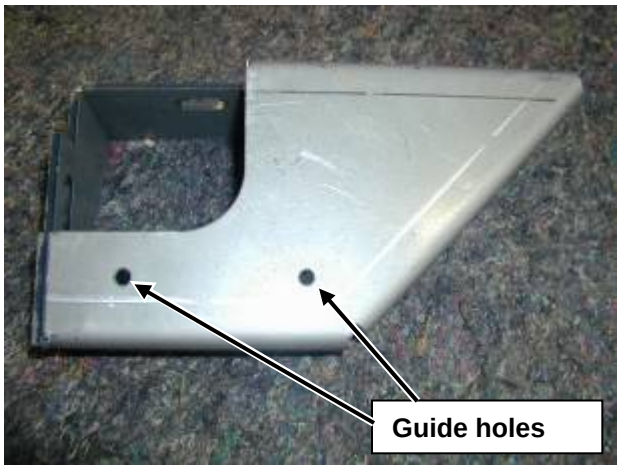
13. INSTALLATION OF THE REAR BAR

With the rear bar back on the vehicle insert two M12 x 50 mm bolts, spring washers and flat washers through the rear step and chassis rear cross member. Thread and tighten these bolts into the caged nuts in the chassis beam plate.

14. <u>Bottom bolts on chassis bracket RHS.</u>

Re-use one of the bolts from the factory bumper bar as shown.

Insert another M12 x 35 MM tab bolt (as previously described in step 6) through the chassis (existing hole) and bracket as shown. On some vehicles this Dia 13 mm hole may need to be drilled in the chassis . Fasten the bolt using an M12 spring washer, flat washer and nut.

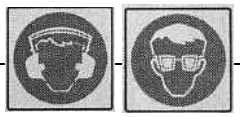


RIGHT HAND BRACKET SHOWN

15. INSTALLATION OF THE REAR BAR
Drilling the pinning bolts.

With the rear bar and the chassis bracket fully positioned the rear bar can now be drilled and pinned.
Using the two small holes in the chassis bracket as a guide, drill up through both the chassis bracket & rear bar top plate using an electric drill.
Use a 6 mm drill bit first as a pilot hole and then a 13 mm as the final size.

WARNING: Wear eye and ear protection when using drill





RIGHT HAND SIDE SHOWN

16. INSTALLATION OF THE REAR BAR
Fastening of the pinning bolts.

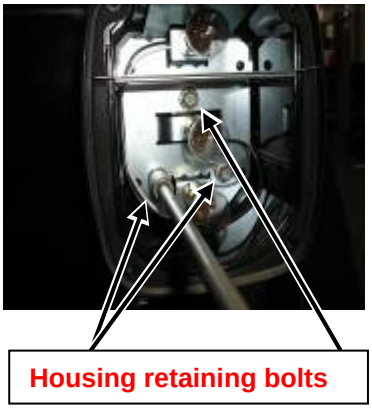
Insert two M12 x 40 mm bolts and flat washers through the top of the bar as shown. Fasten these bolts with M12 flat washers, spring washers and nuts on the chassis bracket side.
Do not fully tighten these bolts until the left hand side has been fully bolted .

WITH THE RHS OF THE REAR BAR BOLTED AND PINNED IN POSITION, THE FASTENERS ON THE LHS CAN BE SECURED. THIS IS DONE BY REPEATING STEPS 9 - 12

<u>IMPORTANT: -</u> ONCE COMPLETE, TIGHTEN ALL BOLTS BEFORE PROCEEDING.

FITMENT OF WHEEL CARRIER TO REAR BAR





1. REMOVE RIGHT HAND TAIL LIGHT

The right hand tail light lens and housing will need to be removed as shown , to allow the pivot bolt (as per step 4) to be aligned and fitted . Remove the lens from the housing , remove the divider plate that separates the two lower bulbs from the housing to access the three housing retaining bolts – remove as shown .

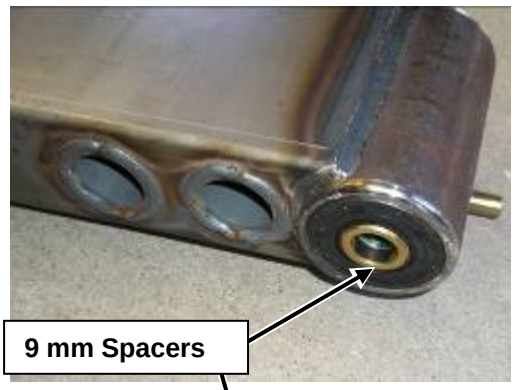
Tie or tape the housing out of the way to prevent damage to the tail light housing or the vehicle.



2. FIT PIVOT LOCK NUT
(fitted up from the underside)

Insert the M20 pivot lock nut below the lower pivot plate as shown.

Position the nut so that it is central with the hole on the lower pivot plate.





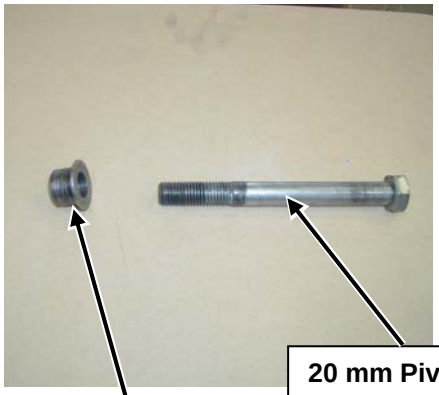
3. INSERT PIVOT SPACER

Cover both the top and bottom seals and bearing hubs with a liberal amount of grease. This will help waterproof the hub and aid with assembly. It will also hold the spacer into the hub as covered in the next step.

Insert a 9 mm spacer up into the underside of the hub of the wheel carrier as shown in the photo (the grease will hold it in position). Push the spacer up through the seal.

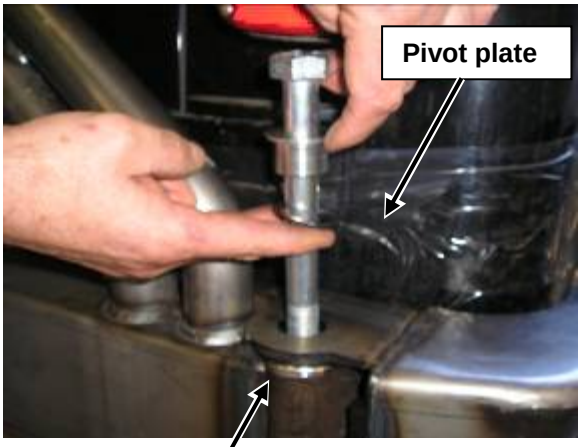
Place the other 9 mm spacer into the lower hole of the rear bar shell as shown.

FITMENT OF WHEEL CARRIER TO REAR BAR



4. FIT WHEEL CARRIER

Assemble the 20 mm pivot bolt with the bush . The bush when assembled fits into the top bearing seal and will press against the bearing.



With assistance, fit the wheel carrier pivot between the upper and lower pivot plates.

Insert the M20 pivot bolt assembly through the pivot plates and the top & bottom bearings.

Align the bolt into the 20 mm lock nut (installed previously) and - finger tight only at this stage.

<u>NOTE: -</u> To Aid installation a 15mm – 18 mm rod or aligning pry bar can be use to centralise the bearings, spacers and nut so the pivot bolt assy will pass through all components easily.



5. TIGHTEN PIVOT BOLT

Tighten of the pivot bolt to preload the bearings.

Tighten the bolt until the free play has been removed from the pivot assembly.

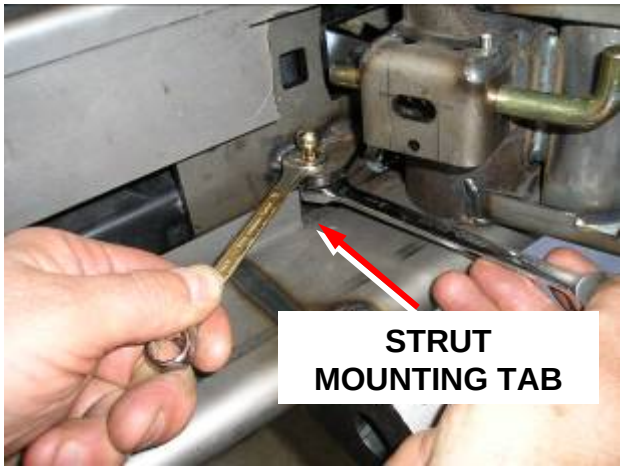
Back the bolt off by half a turn once this has been achieved.

The wheel carrier should now swing freely.

FITTING OF THE GAS STRUT

DESCRIPTION OF STRUT



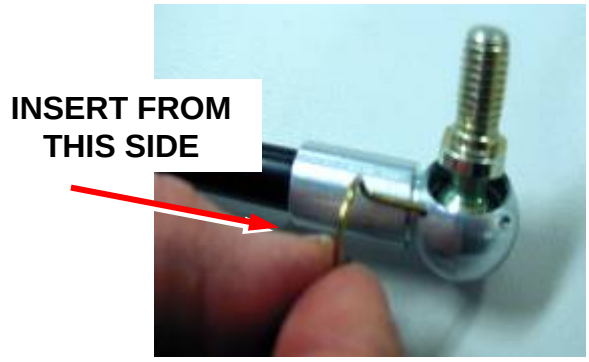


6. FITTING THE STRUT TO REAR BAR

Open wheel carrier to gain access to the strut mounting tab (located on the carrier).

Insert the body pivot ball (A) - through the strut mounting tab as shown.

Fasten the threaded section of the pivot ball to the rear bar using the M8 flange nut.



7. INSERT THE LOCKING CLIPS

Press the rod socket (B) over the pivot ball in the wheel carrier as shown.
Insert the locking pin into the rod socket.
Place the straight piece of the clip through the holes in the side of the sphere.

Roll the 'C' shaped clip over the shaft to lock the pivot ball in place.

This needs to be done to both ends.

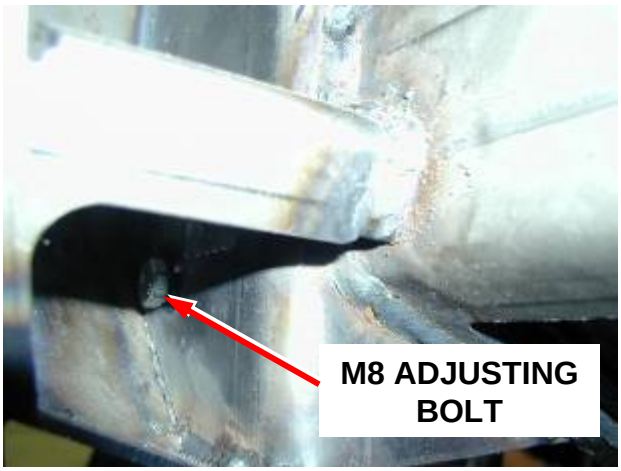


8. FITTING THE GAS STRUT TO THE WHEEL CARRIER

Insert the pivot ball - through the strut mounting bracket as shown.
Fasten the threaded section of the pivot ball to the wheel carrier using the M8 flange nut.

NOTE: - The strut must be compressed slightly to make the threaded section of the pivot ball align with the gas strut bracket on the wheel carrier.

ADJUSTMENT OF WHEEL CARRIER

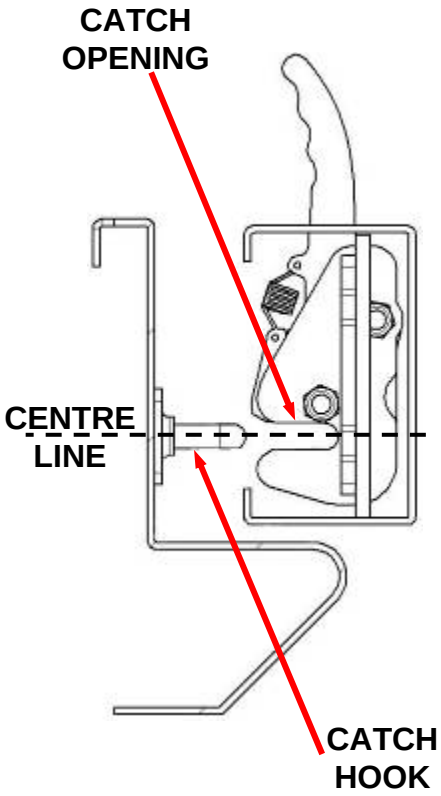


9. ADJUSTING THE HEIGHT OF THE WHEEL CARRIER

The wheel carrier should sit parallel with the rear step when viewed horizontally.

The height of the wheel carrier arm can be adjusted using the M8 bolt located inside the right hand wing cavity.

Turning the bolt in raises the arm, raise until the arm is parallel with the shell of the rear bar.



10. ADJUST THE CATCH HOOK

Make sure that the bolts attaching the catch hook to the rear bar are finger tight.

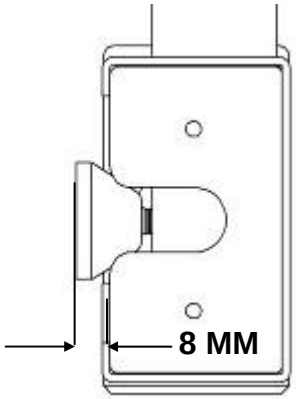
Slowly close the wheel carrier until the catch almost contacts the catch hook. Check that the hook is positioned centrally about the catch opening. If necessary, adjust the height of the catch hook. When hook is in the correct position, tighten the bolts.

Shut the wheel carrier so that the catch engages. The catch should make a crisp 'click' sound.

Standing behind the vehicle, pull the catch lever towards you. The catch should make a crisp 'click' sound again and the wheel carrier should be opened by the gas strut.

If the catch does not behave in this manner, the catch hook requires further adjustment. If the top surface of the hook shows evidence of scoring or is marked, the hook should be moved lower down. If the bottom surface of the hook is scored, the hook should be moved upward.

Continue adjusting the catch hook until the catch locks and unlocks freely.



11. ADJUSTING THE STOPPER

Screw the stopper out until it protrudes 8 MM past the inside edge of the wheel carrier.

Shut the wheel carrier so that the catch engages. If the catch will not lock ('click') - screw the stopper in. If there is free play between the wheel carrier and the rear bar - screw the stopper out. Continue to screw the stopper out until the free play is removed. When happy with the stopper position, tighten the M8 flange nut against the steel mounting plate.

ADJUSTMENT OF THE REAR STEP COMPONENTS

12. ADJUSTING THE GRABBER BRACKET

With the bolts attaching the catch grabber bracket finger tight, shut the wheel carrier. This will centralise the grabber bracket.
Taking care not to knock the grabber bracket, release the catch and swing the wheel carrier out into the open position.

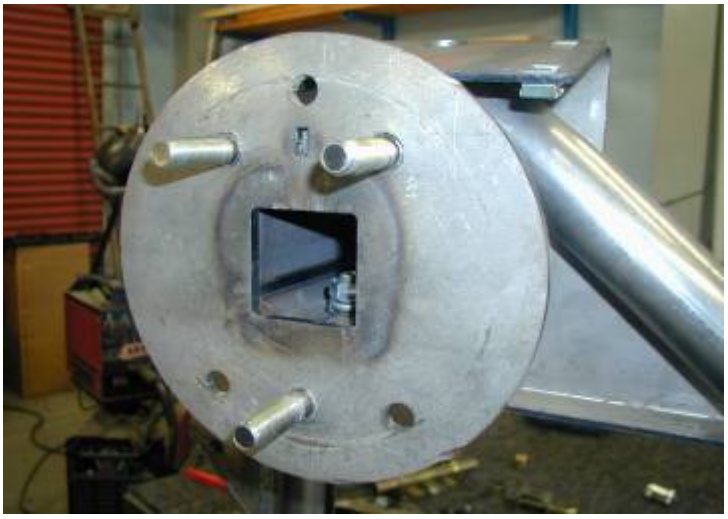
Tighten the bolts securing the grabber bracket to the rear bar.

FINAL CHECK AND ADJUSTMENT ON THE WHEEL CARRIER

With all of the bolts now tightened, shut the wheel carrier until the catch locks. The arm should meet little resistance as it shuts and the catch should make a crisp 'click' sound as it closes.
At this point, it should not be possible to pull the wheel carrier open without releasing the catch.
There should be no free play between the wheel carrier and the rear bar.
Stand behind the vehicle and pull the catch lever. The catch should make a crisp 'click' sound and the arm should open without further assistance.

IMPORTANT: - IF THE ARM DOES NOT OPERATE IN THIS MANNER REPEAT STEPS 10 TO 13.

FITTING THE WHEEL MOUNTING BRACKET



Studs positioned in the 5 x 4 ½" pattern.

Vacant holes are used for 5 x 5 ½" pattern

1. STUD LOCATIONS ON THE WHEEL MOUNT BRACKET

Studs can be fitted to the wheel mount bracket in either a 5 x 4 ½" or 5 x 5 ½" pattern.

The photo to the right shows the studs in the 5 x 4 ½" pattern.

The studs are installed in the vacant holes to achieve the 5 x 5 ½" pattern.

Installation of the studs is covered in step 2.

FITTING THE WHEEL MOUNTING BRACKET TO THE CARRIER



2. INSTALLATION OF THE STUDS TO THE BRACKET

Using a steel vice or similar place the stud through the appropriate holes. NOTE: - 5 x 4½" has two studs at the top and one in the bottom.

Using a large hammer hit the back of the stud until it is fully bottomed out as shown.

Once all three studs are installed it will look like the example shown above in step 1 .



3. WHEEL MOUNTING BRACKET COMPONENTS

Fit two M12 cage nuts (long leg) to the wheel mount bracket as shown.

NOTE: The body of the cage nuts should be on the inside of the channel as shown.



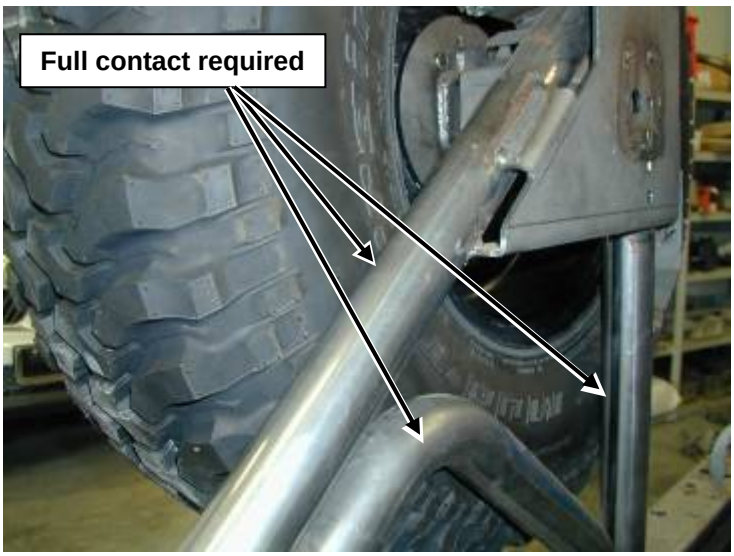
4. WHEEL MOUNTING BRACKET TO CARRIER

Slide the wheel mount bracket into the wheel carrier as shown in the photo.

Using the M12 bolts, spring washer and body washer bolt the wheel mount bracket to the wheel carrier both sides.

Do not fully tighten these bolts, as the bracket must now be adjusted.

FITTING THE WHEEL MOUNTING BRACKET TO THE CARRIER

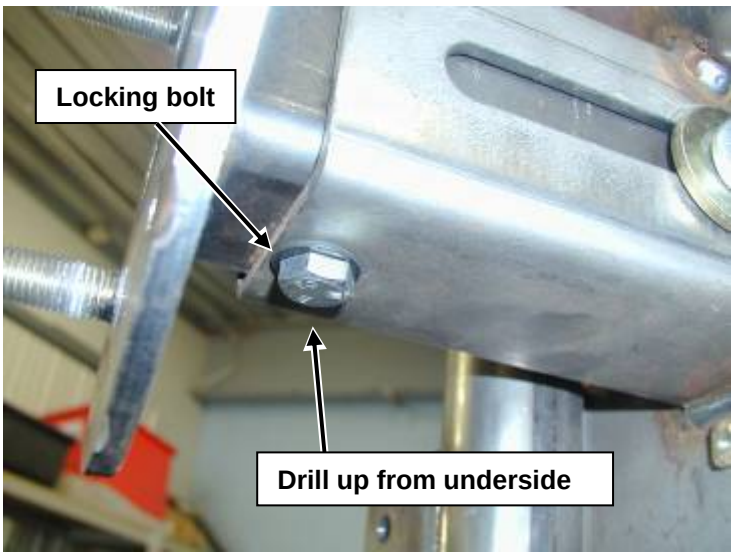


5. INSTALLATION OF THE SPARE WHEEL TO THE BRACKET

Fit the spare wheel to the carrier and ensure all three wheel nuts are fully engaged. Slide the spare wheel and carrier back towards the frames.

The tyre must have full contact with the frames. Using a marker or scribe mark the position of the bracket in relation to the housing (in case it moves when removing the spare wheel). Remove the spare wheel.

To enable the tyre to be Pre -loaded on the frame, push the bracket a further 5 mm inward. Tighten the two M12 side bolts.



6. WHEEL MOUNTING BRACKET DRILL AND PINNING

From the underside of the wheel carrier channel, there is a predrilled pilot hole for the locking bolt.

Using a 10 mm drill bit in an electric drill, drill through the lower wall of the wheel mounting bracket . Ensure eye protection is used.

Place the M10 bolt up through the drilled hole and fasten on the inside with the M10 flange nut .

Tighten the nut and bolt .

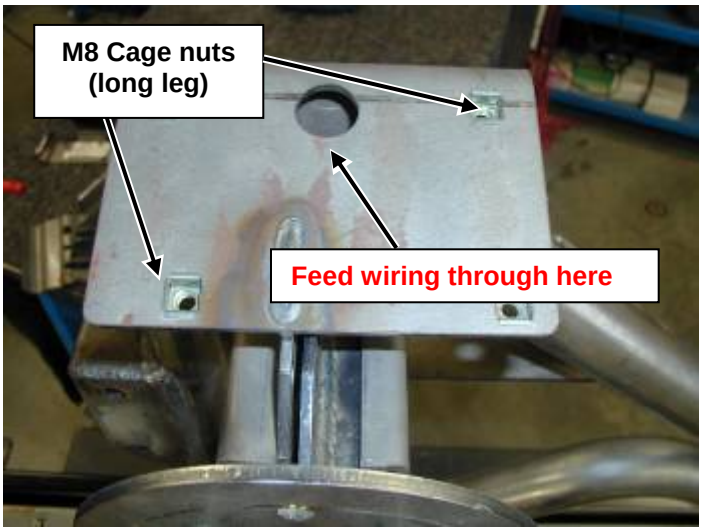


7. WHEEL MOUNTING BRACKET TO WHEEL CARRIER

The wheel mounting bracket has been designed to attach to the wheel carrier and can slide forward and reward to accommodate different size tyres and wheel offsets .

The two components although bolted together can be removed with the tyre in place . It is recommended that a padlock (not supplied) is used to secure these items to the vehicle.

RE-FITTING THE HI LEVEL BRAKE LAMP TO THE WHEEL CARRIER



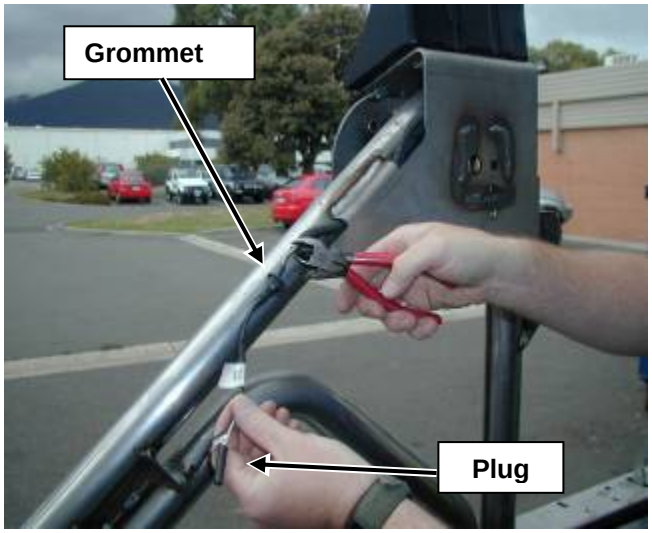
8. INSTALLATION OF THE CAGE NUTS INTO THE BRACKET

Fit the four M8 cage nuts (long leg) to the top of the stop lamp bracket using a small flat bladed screwdriver.

Note:- The body of the cage nut sits on the underside of the bracket .

Refit the factory high level stop lamp by aligning the holes in the base of the lamp with the cage nuts.

Feed the wiring through the hole as shown .



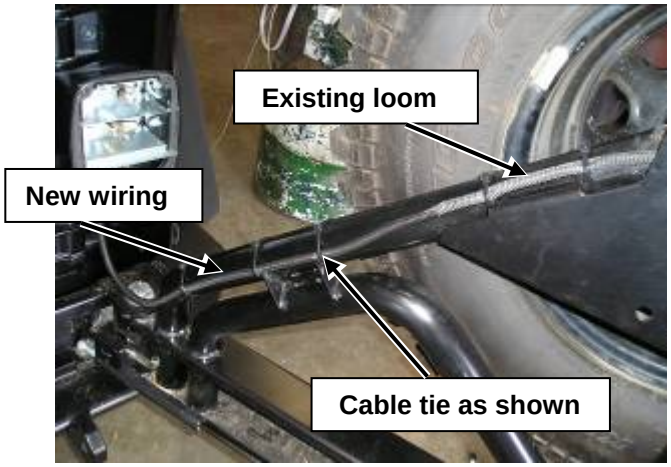
9. BOLTING THE HIGH LEVEL STOP LAMP TO THE BRACKET

Use four black M8 bolts , spring washers and flat washers fasten the lamp to the bracket as shown .

Cut the wiring loom in between the door grommet and the protective tubing as shown .

The two brake lamp wires will need to be extended . Solder the wires supplied in the fitting kit to the factory loom .

Insulate the wires where they are joined to the original loom .



10 . Partially cover the new wiring with the convoluted tubing starting at the new join in the loom .

Run the convoluted tube from the existing loom along the new section of cable and using the cable ties provided , tie the wiring loom back to the wheel carrier frame as shown .

Leave the (lamp) end of the wiring uncovered (no tubing) at this stage .

VEHICLE WIRING MODIFICATIONS FOR HI – LEVEL STOP LAMP

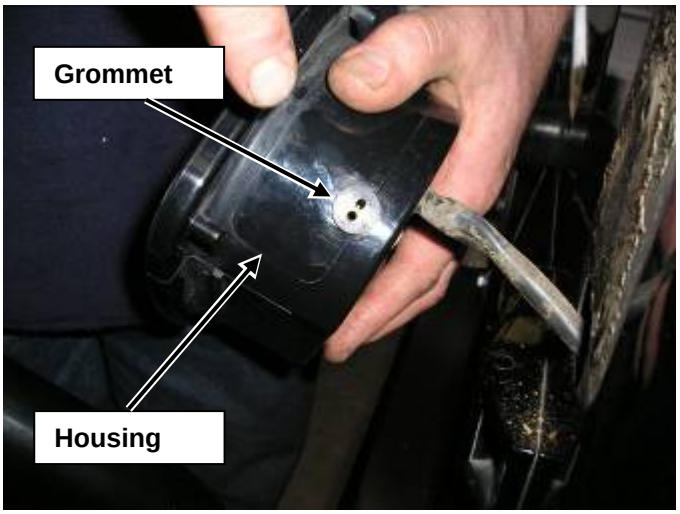


11. DRILLING THE TAIL LAMP HOUSING

Turn the tail lamp housing upside down as shown .

Using a 12 mm drill bit , drill a hole in the bottom of the housing in the centre on the faint mould line as shown .

Ensure the drill bit does not protrude to far into the housing when drilling causing damage to the housing or wiring .



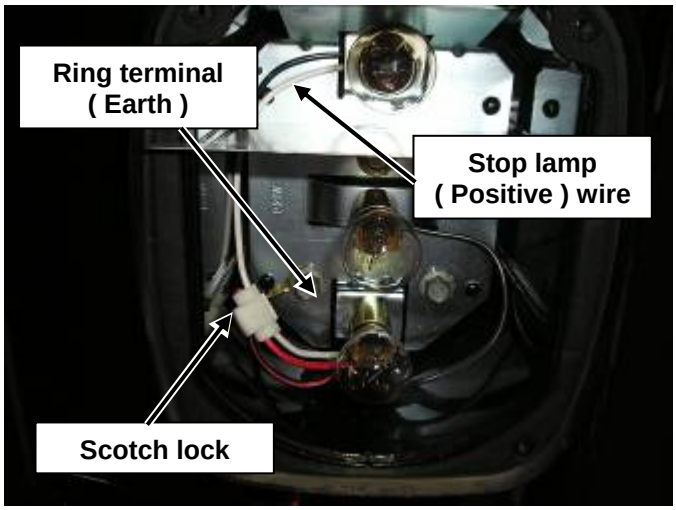
12. GROMMET AND WIRING TO TAIL LAMP HOUSING

Push the grommet into the hole in the tail lamp housing .

Re-fit the tail lamp housing to the vehicle using the top bolt only at this stage .

Split the twin core wire and push it through the grommet into the housing

Allow approx 100mm of the wire inside the housing .



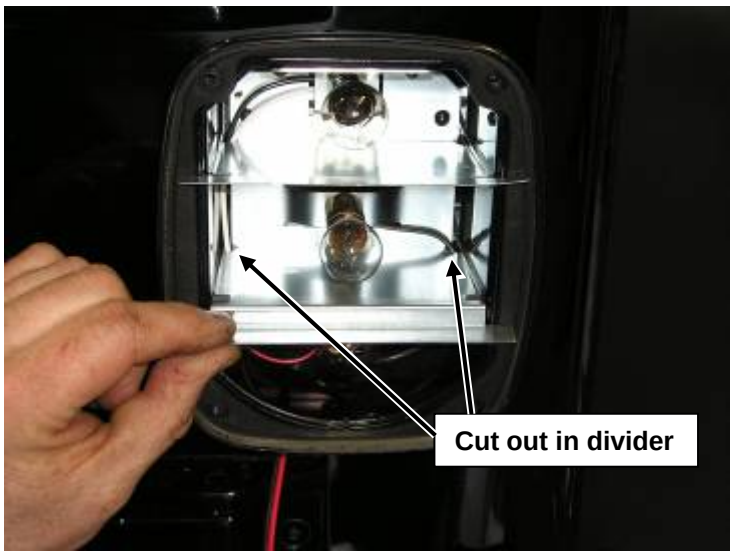
13. WIRING THE LOOM TO THE TAIL LAMP

Crimp the ring terminal to the earth wire (red with a black trace) and place the terminal under the head of one of the two remaining bolts .

The two remaining bolts can now be re-fitted to the tail lamp housing as shown .

Attach the scotch lock to the (white) stop lamp positive wire and also secure the red loom wire – crimp the scotch lock together as shown .

RE-FITTING THE TAIL LAMP TO VEHICLE



14. DIVIDER PLATE TO TAIL LAMP HOSING

Re - fit the divider to the housing .

Ensure the wiring sits in the cut out provided on each side at the back .

Note :- The folded edge of the divider is on the lower side .

On the tail gate where the factory high level stop lamp loom passes through there is an exposed hole – Use the blanking grommet supplied in the fitting kit to cover it .



15. LENS TO TAIL LAMP

Re – fit the tail lamp lens to the housing .

With the wheel carrier door open , trim the remaining end of the convolute tubing to sit under the tail lamp as shown .

Check that the high level brake lamp is operational and the loom is tie to the frame securely (step 10) and does not hang in the pivot area .



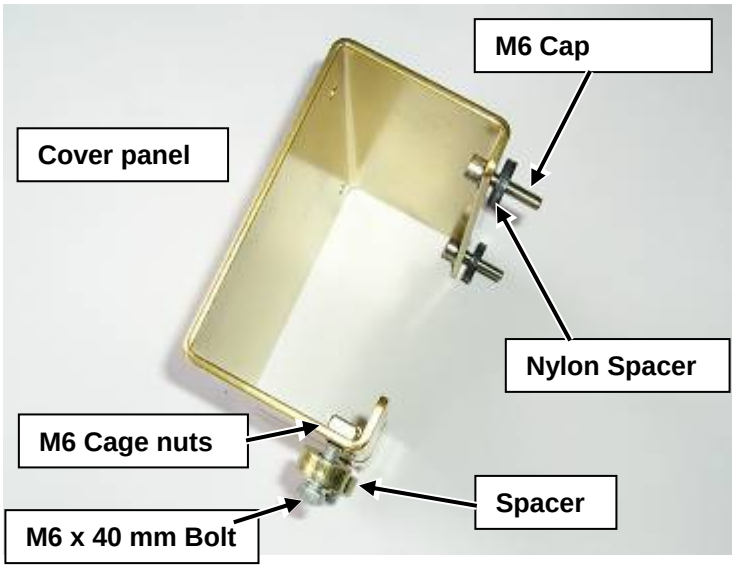
16. RE - FIT THE SPARE WHEEL

Re-fit the spare wheel using the wheel nuts provided.

Locking wheel nuts are available as an accessory from your ARB stockist . (part number 575 0040) .

A Hi-Lift jack mounting bracket is available as an accessory from your ARB stockist (part number 575 0030).

FINAL - ASSEMBLY OF THE REAR BAR



COVER PANEL ASSEMBLY

Now that all adjustments & operations have been done and checked on the rear bar and spare wheel carrier, the cover panel can be fitted. Fit the two M6 cage nuts to the cover as shown.

Fit the socket head cap screws into the cover with the black nylon spacers on the other side.

Place the bottom spacers over the corresponding holes in the surface of the rear bar.



INSTALLATION OF THE COVER TO THE REAR BAR

To fix the cover to the rear bar, place a hex key through the access hole in the cover as shown. Thread the two M6 socket head cap screws into the caged nuts installed at step 2.

The lower part of the cover is fixed by inserting two M6 bolt from the underside of the bar. These bolts pass through the rear bar, through the spacer and into the caged nut (previously installed) .

Tighten the four bolts.



RE - FIT THE LICENSE PLATE

Refit the license plate to the vehicle as shown .

Note :- If the vehicle is not fitted with a body lift / spacer kit , the license plate will not fit as shown it will be necessary to purchase the additional license plate kit as listed below .

A licence plate relocation kit is available as an accessory from your ARB stockist (part number 575 0050).