



# FLEXIGLASS FITTING MANUAL - SECTION 3.2G

## HOLDEN COLORADO RG DC W.B.R. TRAY FIT - ISSA2

**Note:** Familiarise yourself with the instructions before you start to ensure you are clear on all aspects of the fit

### SAFETY EQUIPMENT

- Hearing protection as required
- Eye protection as required

### TOOLS REQUIRED

- Pneumatic / electric drill
- Pneumatic / electric hacksaw
- Drill bits: 21/64", 1/4" & 3/16"
- Sockets: 10, 13 & 18
- Wurth Cable strippers
- Pneumatic driver
- Rivet gun with 5mm tip
- 243 Loctite
- Toledo cable strippers

These instructions will be suitable for the Flexiglass Deluxe Tray with the substitution of 4 of PAN500 mudguard panels in place of 2 each PAN440 & PAN450.

<b>TRFITCOLD12 Tray Fit Colorado DC 12 - Kit BOM</b>				
Type	No.	Description	Quantity per	Unit of Measure Code
Item	TRSTDFITKIT	Tray STD Fitting Kit	1	KIT
Item	BLK200C	Block For Cross Bars 40MM Coat	4	EACH
Item	BLTHHZP1290	Bolt & Nut Hex ZP 12X90mm	4	EACH
Item	NUT12C	Nut Channel M12	6	EACH
Item	NUT6N	Nut Nyloc M6	29	EACH
Item	NUT8N	Nut Nyloc M8	12	EACH
Item	PLT390C	Fish Plate forTrayBearers Coat	6	EACH
Item	SCRHHSS620	Screw Set Hex Head S/S 6x20mm	29	EACH
Item	SCRHHSS825	Screw Set Hex Head S/S 8x25mm	12	EACH
Item	SPACER40	Mounting Cross Bar Spacer	6	EACH
Item	TIE100	Tie Cable BLK 4.8x300mm	6	EACH
Item	WSH220	Washer 5/16 X 3/4 Flat	12	EACH
Item	WSH240	Washer 1/2X 1 1/8 ZP Flat	6	EACH
Item	WSH300	Washer Spring Z/P 12x2.5x2.5mm	6	EACH
Item	BAR310FC	Bar Universal Cross Mount Coat	3	EACH
Item	SPACER50	Spacer Mounting Block 10MM	4	EACH
Item	WSH180	Washer Brt Z/P 1/4x5/8x18G	4	EACH
Item	PLT380C	Hilux/RA Mount Fish Plate Coat	2	EACH
Item	SPACER30	Mounting Spacer 50 X 50 X 3	2	EACH
Item	SPACER60	Spacer Packer Plastic 4.5	2	EACH
Item	BLTHHZP1250	Bolt & Nut Hex ZP 12x50mm	2	EACH
Item	FUELSTAY10	Fuel Neck Hilux Stay	1	EACH

**When removing the well body from the vehicle cut the wiring to the rear lights between the multi connector and the lights unless the tub is required to be left intact.**

**When the replacement lights are connected to these short lengths the lights will then be easily connected/disconnected using the multi connectors on the vehicle wiring harness.**

- A** If the Holden genuine tow hitch has been fitted to the vehicle it has some common bolts with the rear bumper bar. Disconnect the licence plate lamps at the socket on the main harness and free the wires from any retaining clips. Release only the bolts that secure the bumper and loosen the remaining tow bar bolts so that the bumper can be slid out from between the tow hitch and the chassis rail.

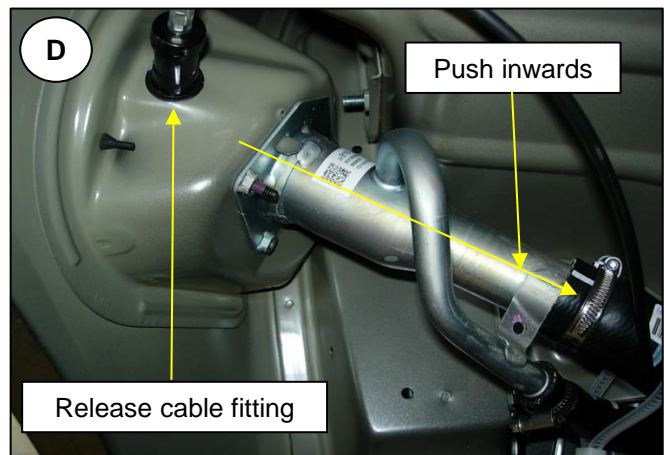
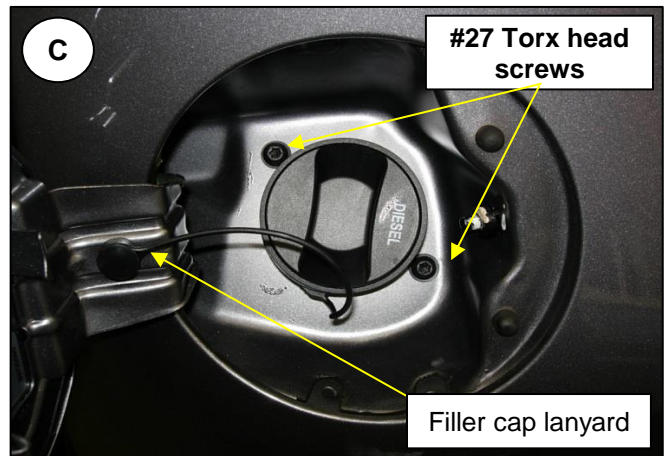
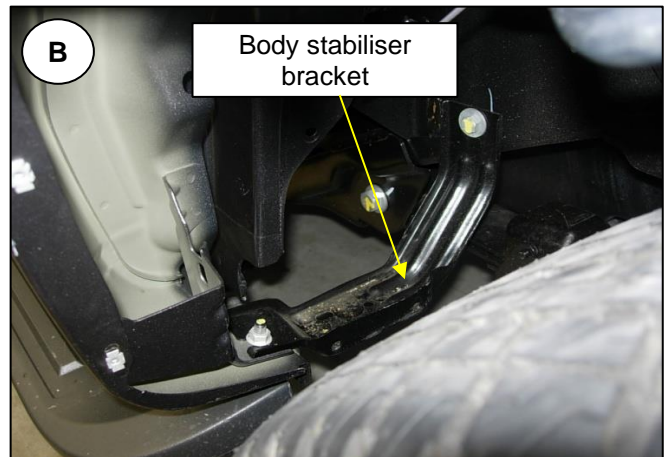
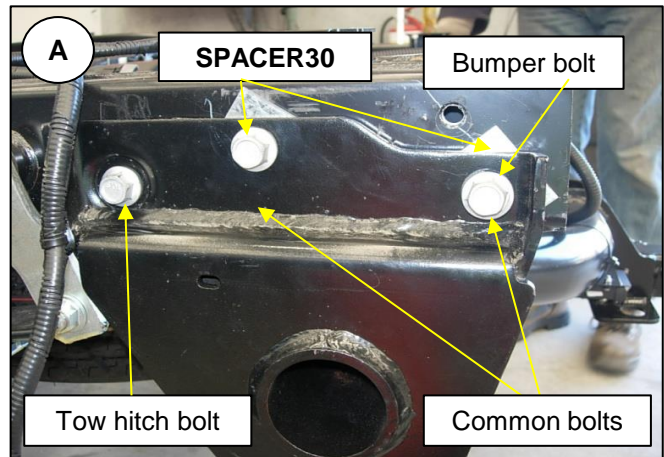
The tow hitch can now be bolted back in place but a **SPACER30** will need to be inserted at each bolthole (total 4 pieces) to replace the thickness of the bumper brackets. All bolt heads are 17mm hex.

- B** In the passenger side wheel well, remove all seven of the #20 Torx head securing screws around the plastic splash shield, mud flap and the 10mm hex screw in the middle. Remove both items from the wheel well and remove the stabiliser bracket from the front. See **ILL B**.

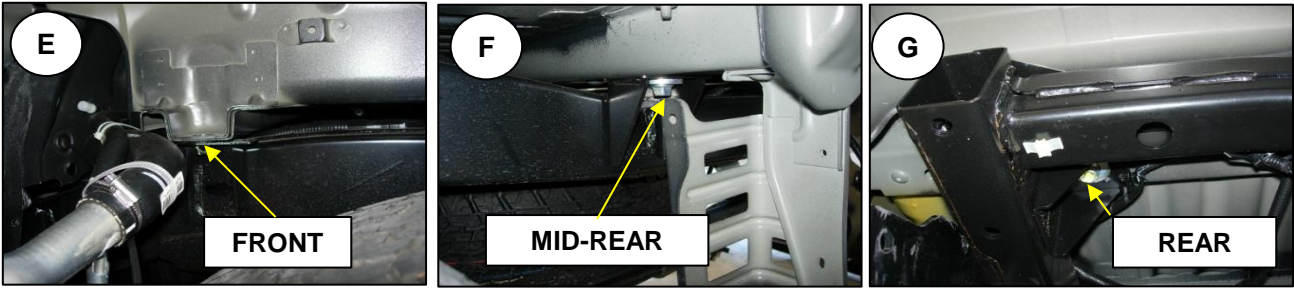
- C** Repeat on drivers side.

- D** Unscrew the two #27 Torx head screws that secure the filler neck to the body and carefully prise out the lanyard plug from the cover hinge. See **ILL C**. Remove the fuel cap temporarily.

- E** Rotate the fuel cap cover release cable from the body recess by twisting the plastic fitting a quarter turn anti-clockwise and withdrawing from its hole, let it hang down clear of the body. Push the filler neck into the wheel well until it clears its hole and let it hang down. See **ILL D**.



**F** Remove the six 17mm hex head screws that secure the tub to the chassis. See **ILL E,F,G**.

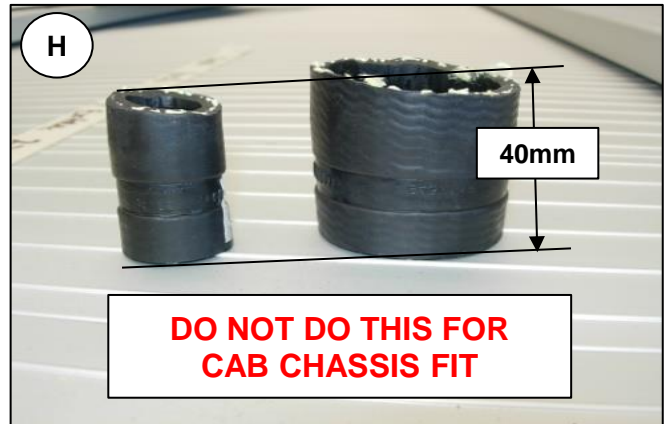


**G** Disconnect all wiring that still connects the tub to the chassis and ensure all clips and restraints are free.

**H** Lift tub free of the chassis and remove to a storage area.

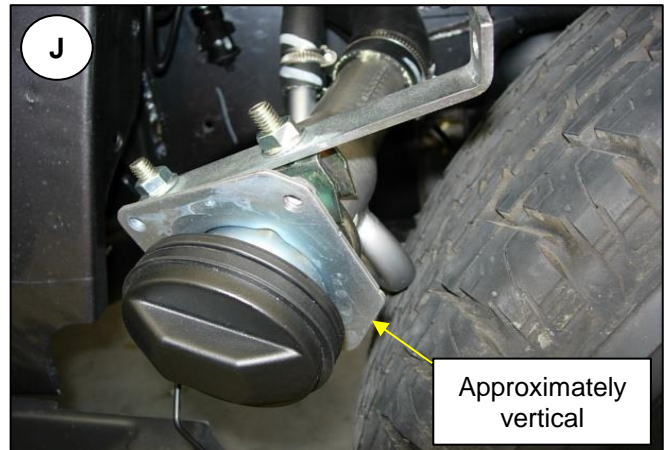
**J** Slacken the hose clamps on the filler and breather hoses and remove the filler neck.

**K** With a sharp knife or a pair of heavy shears cut approximately 40mm from the end of each hose. **DO NOT CARRY OUT STEPS J AND K ON CAB CHASSIS VEHICLES.**

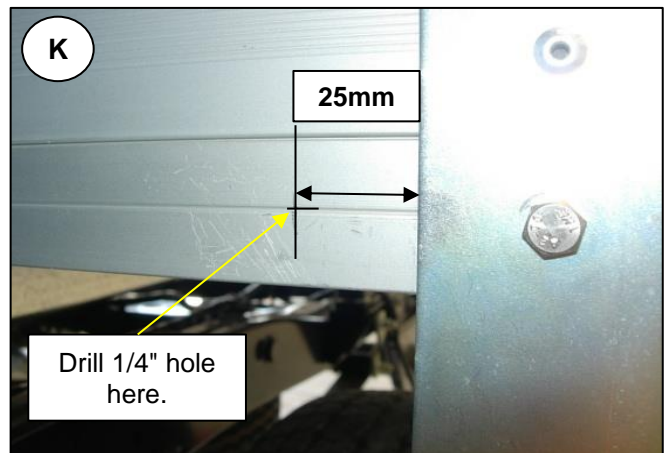


**L** Re-fit filler neck and position it so that the clipped corner of the fixing plate is running approximately vertically. See **ILL J**.

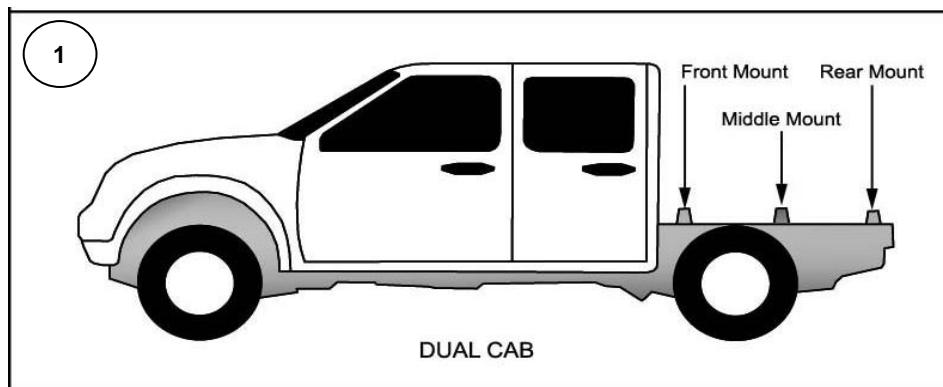
**M** Fit the stay bar and clamp from a **FUELSTAY10** to the filler neck, as shown, but do not fully tighten.



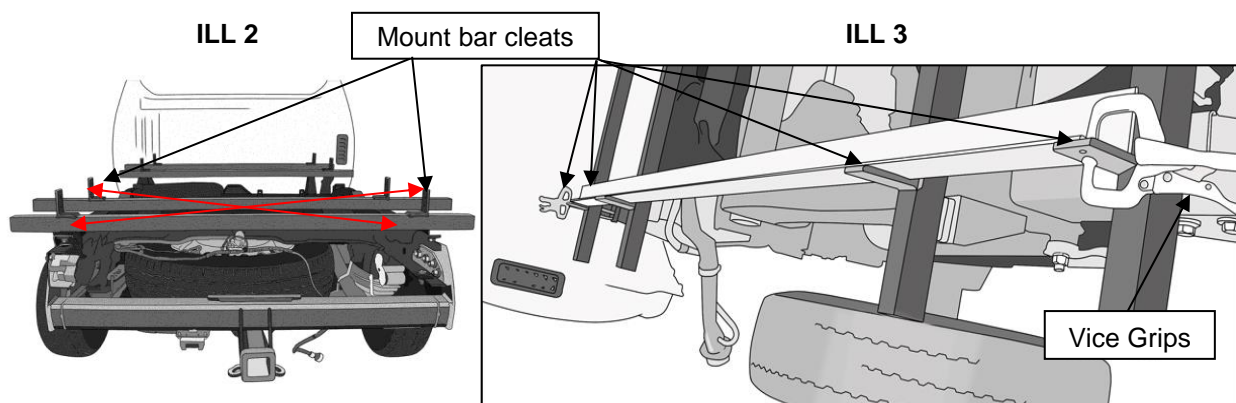
**N** At the front passenger side corner of the Flexiglass tray, drill a 1/4" (6.25mm) hole on the front face of the front floor plank. See **ILL K**.



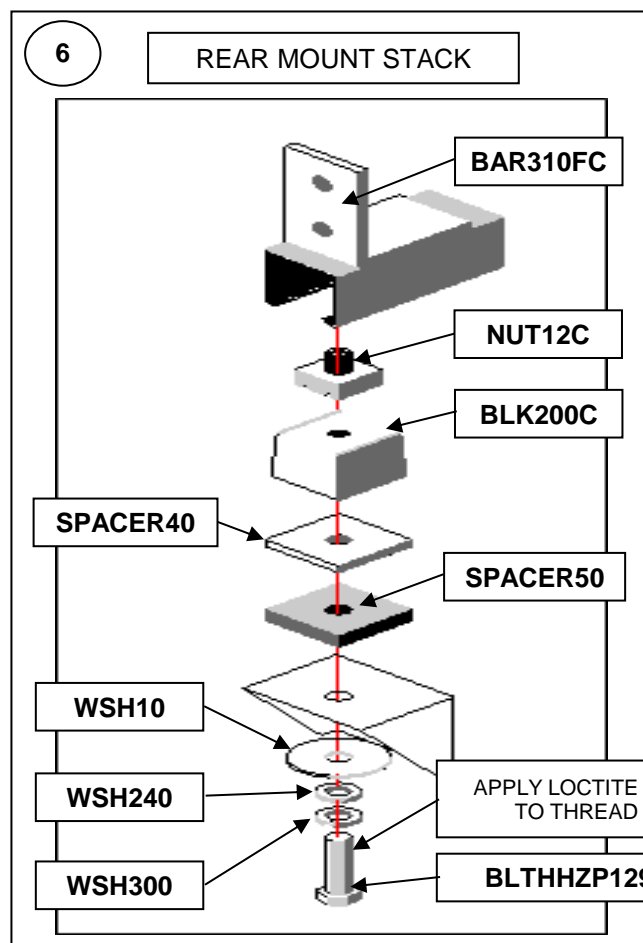
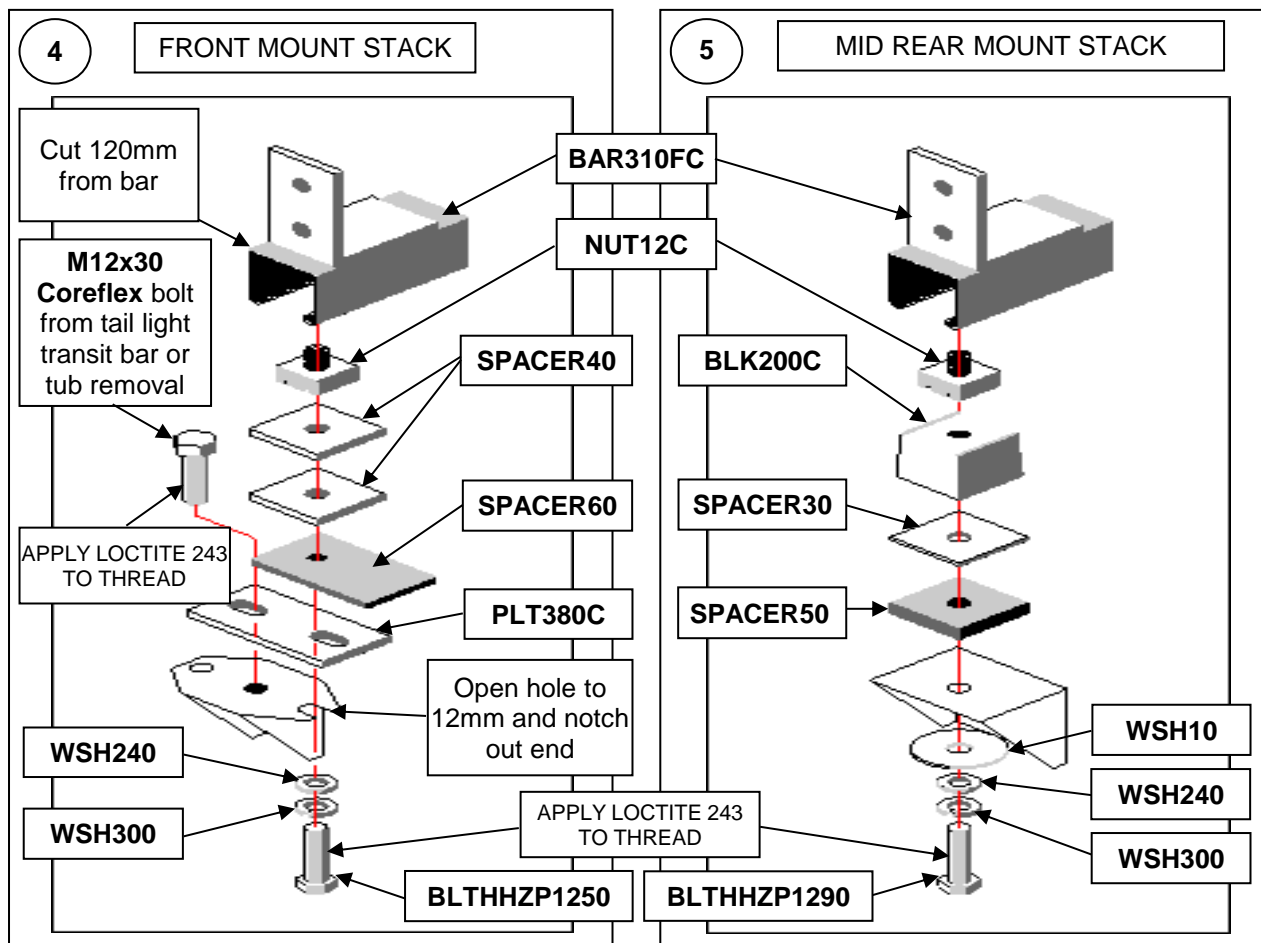
- 1 Refer to **ILL 1** showing dual cab mounting positions. Locate these positions on the vehicle.  
**Note:** All mount points on the vehicle must be used when fitting a Flexiglass Tray.
- 2 Refer to mount diagrams on **Page 5** which illustrate standard part usage for mounts on RG Colorado Dual Cab and Flexiglass Tray.
- 3 Fit the mounts in place on the chassis, using the parts and applying lock tight to thread as shown in the three diagrams on **Page 5**.  
**Note:** Ensure that, on the front mount, the body bolt and the tray mount bolt are hard up to the inner ends of the slotted holes of the **PLT380C** so that the mount bar is brought over the body mount and the bolt is seated as far into the notched hole as possible.



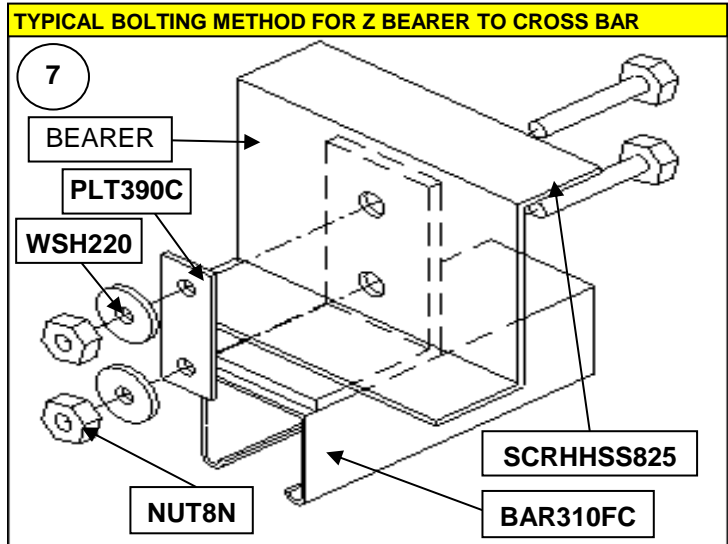
- 4 With all parts in place and the bolts still loose check the front and rear mounts are central over the chassis by measuring from the inside of one mount cleat to the inside of the opposite chassis rail. Repeat this for the other mount cleat and rail, sliding the mounting cross bar "to and fro" until the measurements are equal. See **ILL 2**.
- 5 Tighten the four bolts securing the front and rear mount bars to the chassis mounts .
- 6 Place a length of **ALUM10** between the vertical faces on one side of the front and rear mounting cross bar cleats and clamp it to them. See **ILL 3**.
- 7 Slide the middle mount cross bar across until the cleats are against the same face of the angle as the front and rear cleats.  
**Note:** This ensures that all three bars are now central and in line with each other.
- 8 Tighten the two bolts securing the middle mounting cross bar.



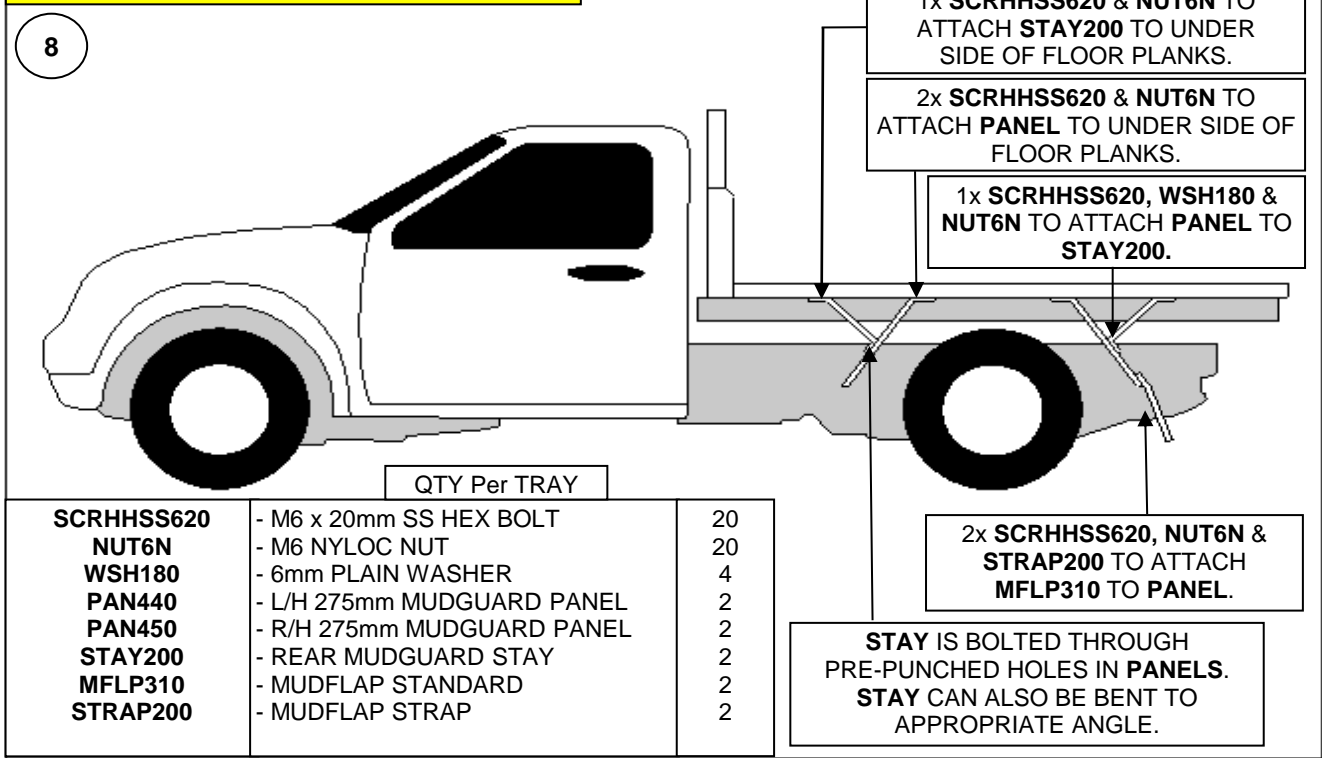
- 9 Place the Flexiglass Tray in place on the mounts.  
**Note:** There must not be more than 700mm overhang of the tray bearer from the rear mounting position.
- 10 The front section (Z Bearer) of the tray needs to be at least 25mm back from the cab to allow for chassis twist.



- 11 Once the tray is lined up, drill 21/64" holes into the bearers using the mounting cross bar as a guide. See **ILL 7**.
- 12 Secure tray to the bearers as shown in the **Diagram 7**.

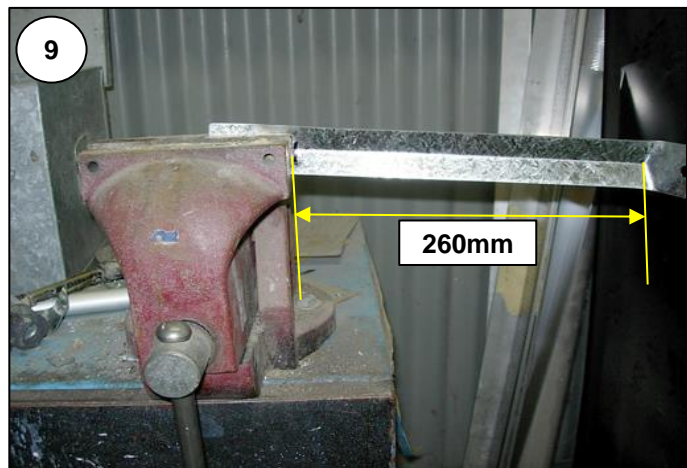


**MOUNTING OF TWO PART MUDGUARDS**

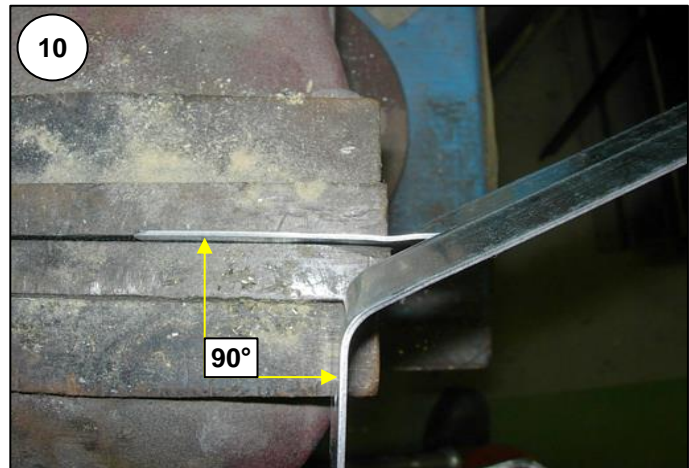


**Note:** Two of the mudguard stays will need to be modified in the following way for the front mudguard panels.

- 13 Measure and mark 260mm from the bottom end of the stays.
- 14 Put the top end of the stays in a vice up to the mark as in **ILL 9**.
- 15 Tighten the vice to flatten the end as much as possible. Remove stay and finish flattening with a hammer onto a flat surface. (Do not hit too hard).



**16** Return to the vice and bend as in **ILL 10**. Use the top end of another **STAY200** to obtain the correct angle.



**17** Shorten the re-bent end by about 25mm and drill with a 1/4" (6.25mm) drill bit. See **ILL 11**.



**18** The front mudguard panels are mounted as shown in **ILL 12 & 14**.

**19** The stays are mounted to the mudguards in pre-drilled holes using 1 of **SCRHHSS620**, **WSH180** & **NUT6N**.

**20** Mount the mudguards to the underside of the tray deck by lining up the pre-punched holes in the mudguard with one of the ribs running along the underside of the tray. Drill 1/4" holes and attach with 2 of **SCRHHSS620** & **NUT6N**. **Note:** Make sure the spacing between the mudguard and wheel is sufficient for both aesthetic and functional purposes. See **Diagram 8**.



**21** Attach the other end of the stay to the underside of the tray using same method but with only one fixing.

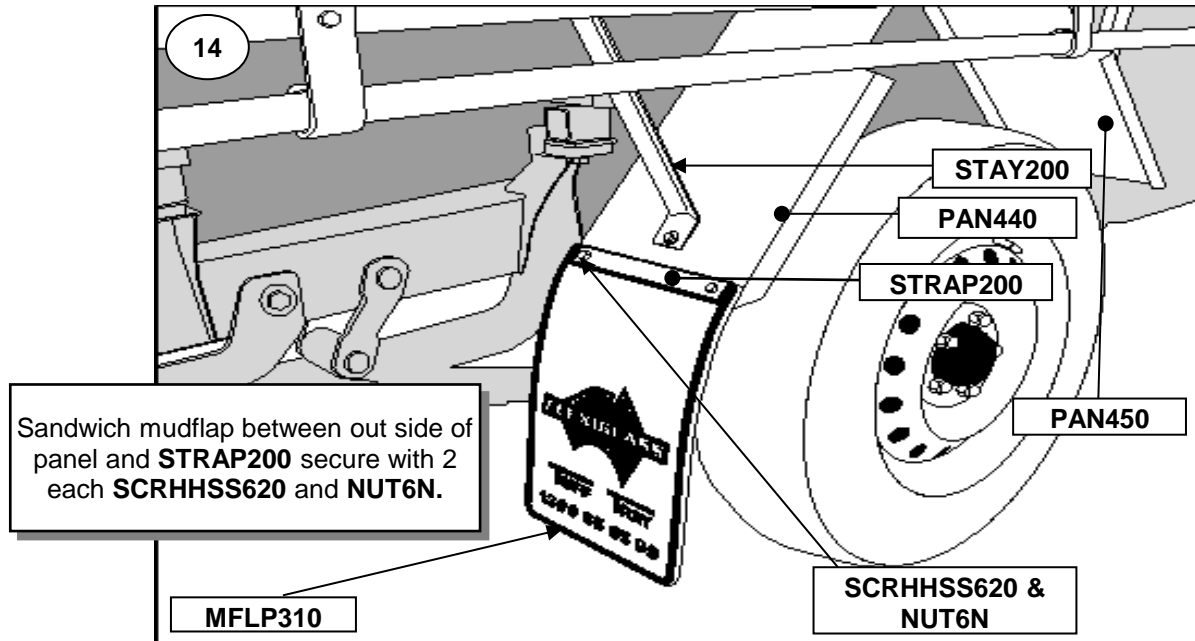
**22** Attach the **FUELSTAY10** bar to the front plank using the pre-drilled hole, adjust the position of bracket, filler neck etc to maximise clearance and slope angle, then tighten all nuts securely. See **ILL 13**.

**23** Drill a 6mm hole through the headboard upright angle as shown and attach filler cap lanyard.



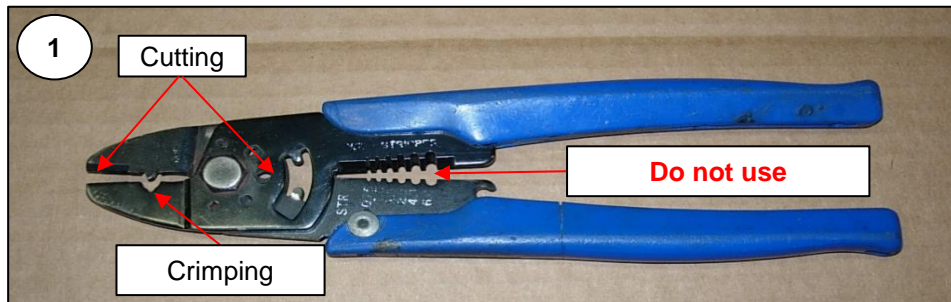
- 24** Attach both **MFLP310** mud flaps to the mudguards using 4 of **SCRHHSS620** & **NUT6N** as well as 2 of **STRAP200** as shown in the diagram below.

**Note:** Diagram only shows one side and requires only 2 bolts, washers, nuts and 1 strap.



### ELECTRICAL WIRE STRIPPING SAFETY PROCEDURE

It is Flexiglass policy that the use of combination electrical cutting/crimping and stripping pliers be restricted to cutting and crimping use only.

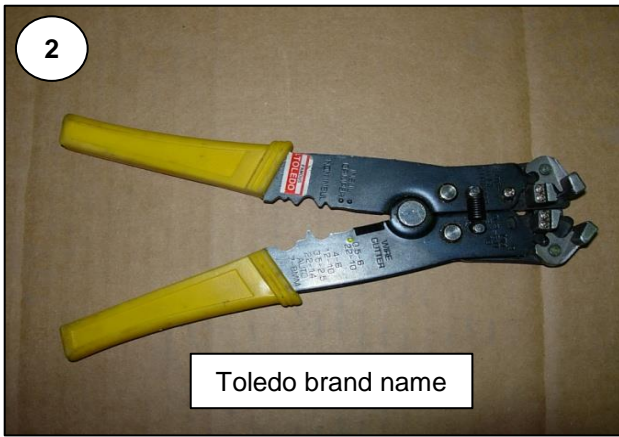


It is a documented fact that the use of these pliers can cause personal injury due to the fact that they are reliant upon holding the cable in one hand while pulling with the pliers with the opposite hand. Any attachments to the gripped end can be pulled into and through the palm of the gripping hand causing injury.

The single hand action strippers are to be used at all times for stripping cable ends ready for joining or connecting.

Two types of cable strippers are recommended, one operates with the pliers at 90° to the cable **(2)** the other operates in-line with the cable **(3)**.





The tool in **ILL 2** is a generally stronger and harder wearing item but the other is very useful for getting to cables in restricted space, it is therefore recommended that both types be available.

**OPERATING INSTRUCTIONS**

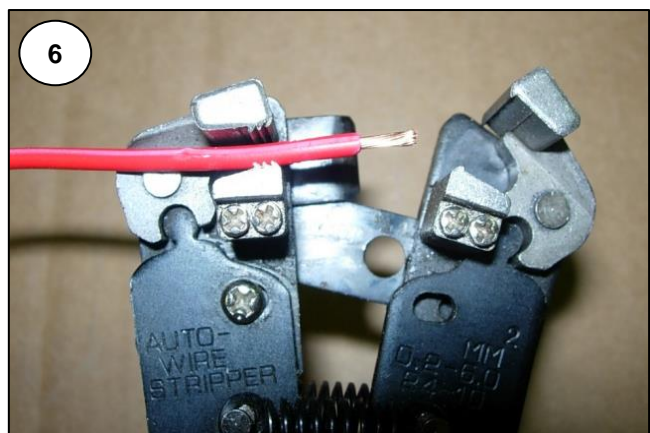
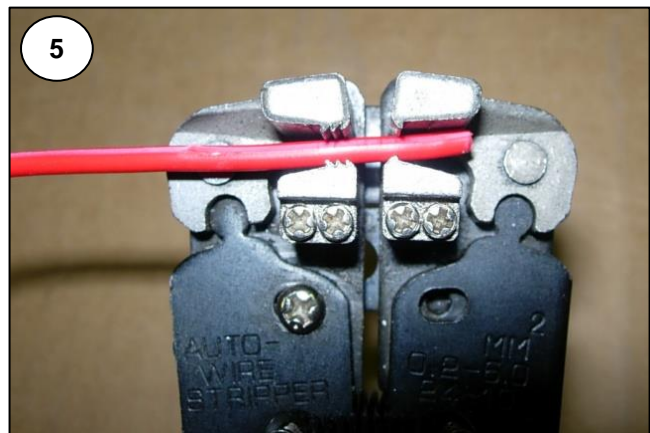
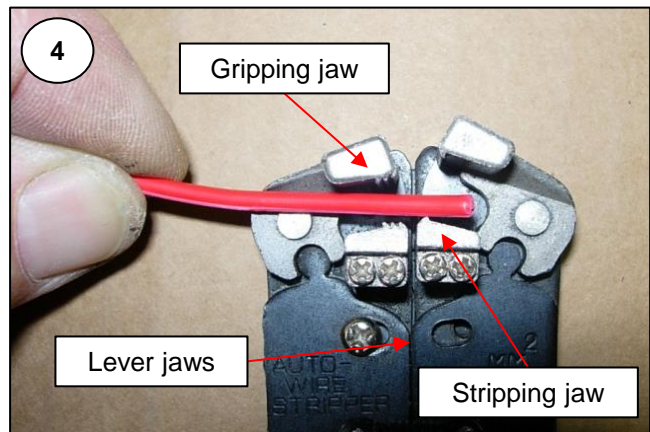
- 1 Squeeze handles sufficiently to bring the lever jaws together. Lay cable between stripping jaws as shown in **ILL 4**.

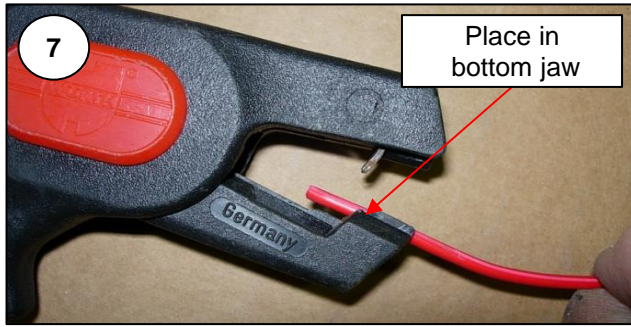
**Note:**

There should be no necessity to strip more than 10mm of sheathing from the cable end for any of the connectors used by Flexiglass. If for any reason a longer stripped end is required, do it in repeated 10mm bites, the pieces can then be slid off the end using the fingers.

- 2 Continue squeezing the handles together to engage the gripping and stripping jaws.

- 3 Increase the pressure slightly as you continue to squeeze. The stripping jaws will then move independantly of the pliers cutting and stripping the end of the wire until with a sharp click both sets of jaws will automatically disengage.





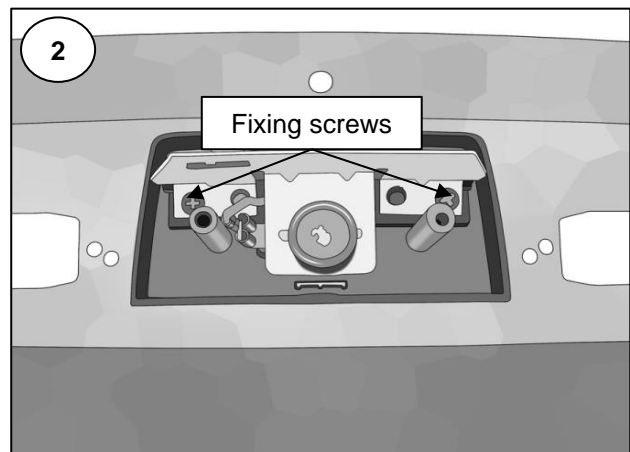
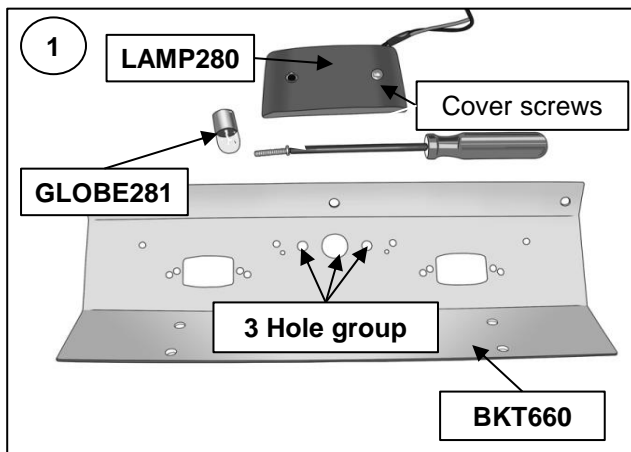
- 4 The Wurth pliers are simpler in operation. After placing the cable in the "V" of the bottom jaw, **ILL 7**, squeeze the handles together. The squeezing action brings the jaws together and forces the bottom jaw forward both cutting and pulling the sheath from the cable. See **ILL 8 & 9**.



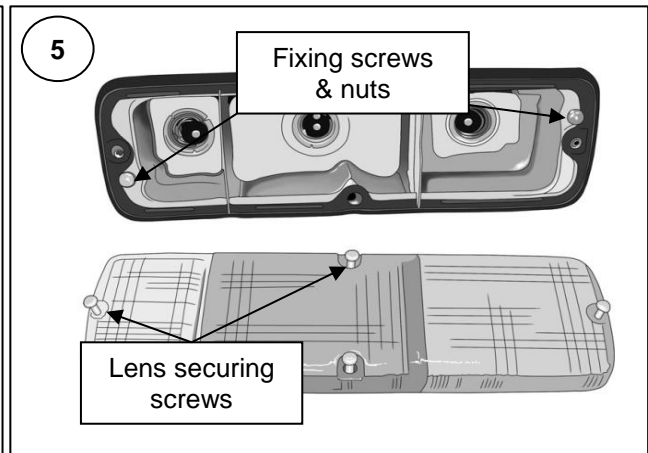
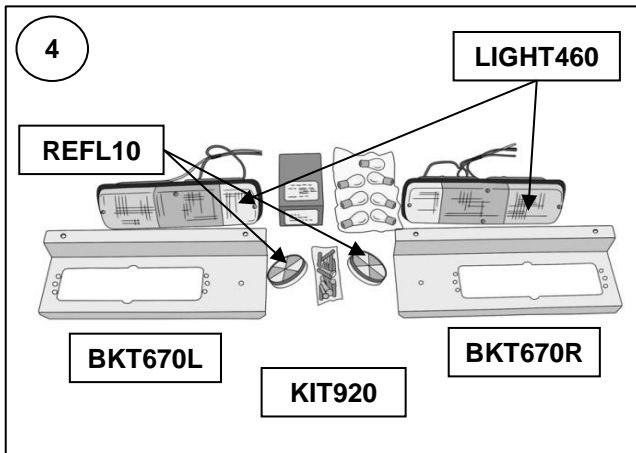
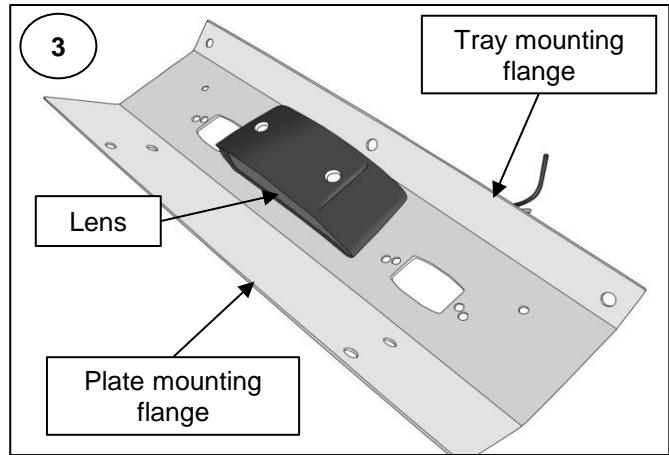
**KIT920 Kit Tail Light Set Tub Removal - Kit BOM**

Type No.	Description	Quantity per	Unit of Measure Code
Item BKT670R	Bracket Tail Light Narva Right	1	EACH
Item BKT670L	Bracket Tail Light Narva Left	1	EACH
Item LIGHT460	Light Rear Comb/Lamp Narva	2	EACH
Item REFL10	Reflector Large Tail Light	2	EACH
Item GLOBE380	Globe Single Filament T/Light	4	EACH
Item GLOBE400	Globe Twin Filament T/Light	2	EACH
Item SCRHHSS620	Screw Set Hex Head S/S 6x20mm	6	EACH
Item NUT6N	Nut Nylon Insert Lock 6MM ZP	6	EACH
Item CON110	Connector Joiner Red 2.5-3mm	10	EACH
Item LIGHT280	Light Licence Plate Lamp	1	EACH
Item GLOBE281	Light Globe Licence Plate Lamp	1	EACH

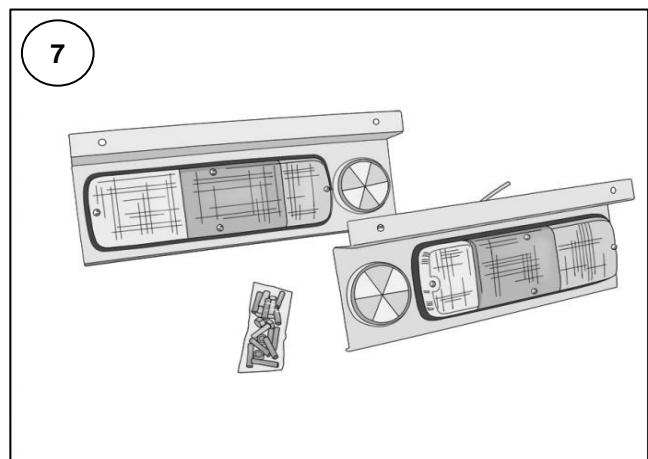
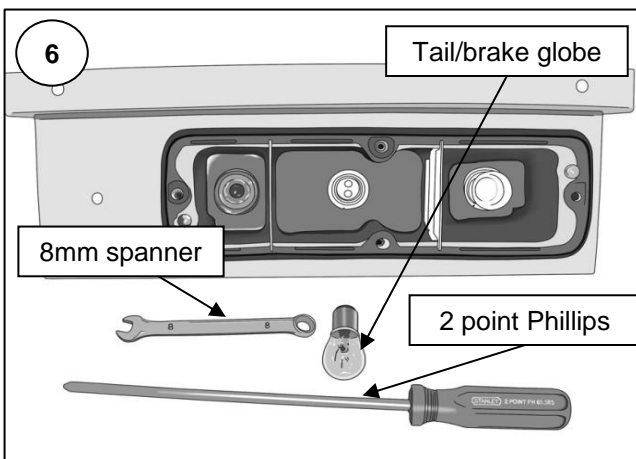
- 1 Assemble the **BKT660** and **LAMP280** by following the three point instruction below.
- A Dismantle the two parts of the lamp cover by undoing the two Phillips head screws. See **ILL 1**.



- B** Place the lamp base over the three hole group with the wires passing through the large central hole and fix using the two Phillips head self tapping screws provided. See **ILL 2**.
  - C** Fit the light globe (supplied separately) into the holder then re-attach the cover and lens using the two screws removed in **Step A**.
- 2** Assemble the tail lamp clusters by following the instructions below.
- A** Use a 2 point Philips screw driver to remove the four lense securing screws and remove the lense. See **ILL 5**.

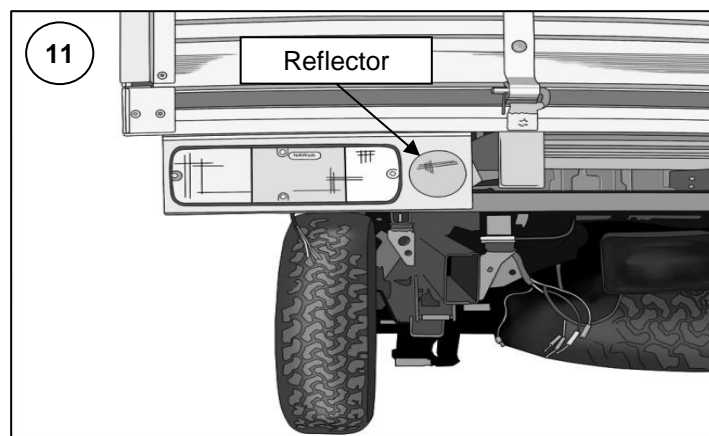
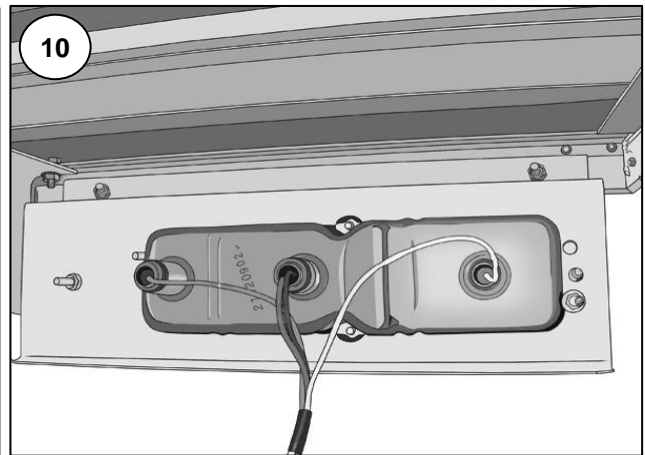
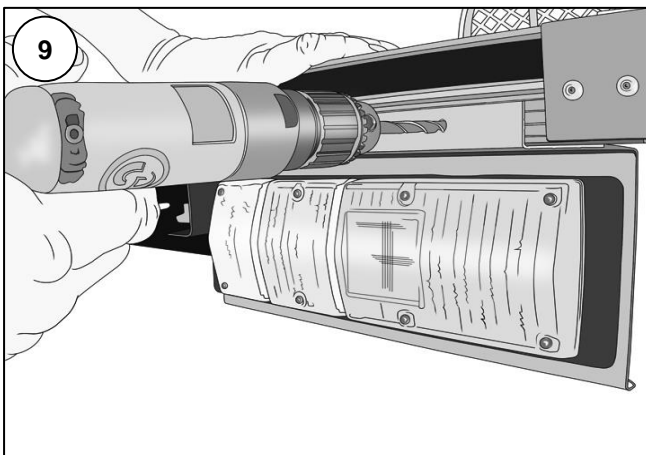
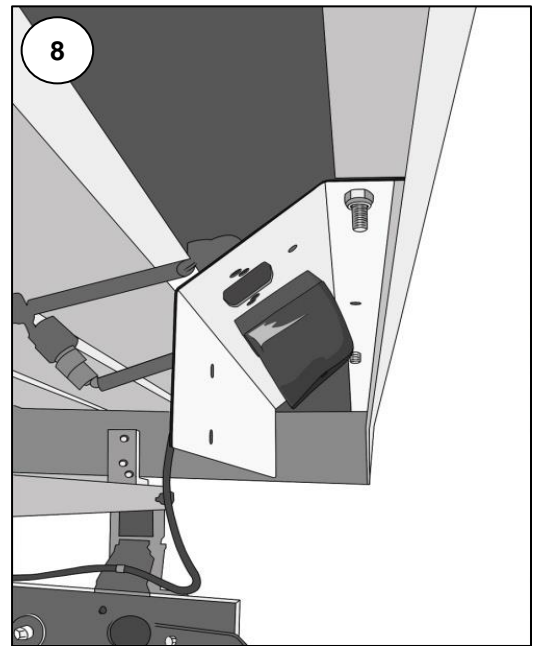


- B** Use the Philips screw driver and an 8mm spanner to remove the nut and washer from the lamp fixing screws. See **ILL 5 & 6**.
- C** Insert the lamp body into the opening in the bracket and secure with the fixing screws nuts and washers.
- D** Fit the lamp globes into the sockets provided, the centre globe has double elements and staggered bayonet pins, do not mix it up with the other two. See **ILL 6**.



- E** Replace the lamp lens and secure with the four screws.
- F** Remove the flange nut (8mm) from the thread on the back of the **REFL10**. Insert the thread through the bracket, re-fit and tighten the nut to secure.
- G** Repeat for the opposite lamp assembly.

- 3 Attach the license plate bracket assembly to the underside of the rear plank as shown in **ILL 8** using two each **NUT6N** & **SCRHHSS620**.
- 4 Use the tail lamp bracket assemblies as templates to drill 1/4" holes through the rear of the rear tray plank. See **ILL 9**.
- 5 Use two each **SCRHHSS620** & **NUT6N** to secure each bracket assembly as shown in **ILL 10**. Ensure that the reflector is positioned at the inboard end of the brackets. See **ILL 11**.



- 6 If the wiring, complete with multiconnectors, has been cut from the well body lights. Then the **LIGHT460**'s should be connected to it with **CON110** in the following manner.

Function	LIGHT460	RG Colorado
Brake	Red	Red
Tail Lamp	Green	Brown
Reverse Lamp	Blue	Green / Brown
Indicator	Yellow	Blue
Earth	See below	Black

Attach an eye terminal to the earth line and clamp it under the **REFL10** securing nut.  
The tail lamps can now be re-connected to the main harness with the original multiconnectors.

- 7 If the tail lamps in the well body are not to be damaged then the multi connectors will have to be cut off and the main vehicle harness connected to the **LIGHT460**'s with **CON110**.

**NOTE:**

LX models of the RG Colorado will be found to have a single red wire going to the brake/tail lamp. These combination incandecent lamps are designed to run on two levels of power, to connect to this system it is only necessary to connect the brake lamp wire of the **LIGHT460** to the single wire of the vehicle harness. The green **LIGHT460** wire should be wrapped and taped to the red wire to keep it out of the way

Function	LIGHT460	DC RG Colorado
Brake	Red	Red
Tail lamp	Green	N/A
Reverse lamp	Blue	Green
Indicator	Yellow	Blue
Earth	See below	Black

- 8 If the tail lamp wiring has been disconnected at the multiconnector the **LIGHT460** will need to be tapped into the main harness as shown below, Note that there are left and right hand colour codes.

Function	LIGHT460	DC RG Left hand
Brake	Red	Grey/yellow
Tail lamp	Green	N/A
Reverse lamp	Blue	Green/white
Indicator	Yellow	Blue/white
Earth	See below	Black
Function	LIGHT460	DC RG Right hand
Brake	Red	White/yellow
Tail lamp	Green	N/A
Reverse lamp	Blue	Green/white
Indicator	Yellow	Blue/purple
Earth	See below	Black

- 9 Connect the license plate lamp in the same manner as either of the methods given above.  
10 Clean and detail tray as necessary for delivery to the customer.