



ARB WINCH/NONWINCH BULLBAR TO SUIT HJ100 IFS

PRODUCT No. 3413050 (Pre 09/2002)

WARNING

FOR VEHICLES EQUIPPED WITH SRS AIRBAG

**WHEN INSTALLED IN ACCORDANCE WITH THESE INSTRUCTIONS, THE
FRONT**

PROTECTION BAR DOES NOT AFFECT OPERATION OF THE SRS AIRBAG.

TAKE NOTE OF 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.**

IMPORTANT

- **This bull bar is suitable for Warn 9000lb, 9500lb High Speed, 10000lb, and 12000lb winches. Note: if fitting a 10000lb or 12000lb winch cable kit 6171397 is required.**

Optional Extras suited for this bar includes a range of IPF driving lights and durable driving light covers. Contact your nearest ARB stockist for further information.

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 Carnauba 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 authorized ARB Stockist.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

| | |
|---|---------------------------------|
| Basic tool kit including 10, 14, 18, 19 and, 22mm Spanners and Sockets. | Phillips head screwdriver |
| hacksaw | Power drill and 10mm drill bit. |
| Torque wrench capacity 2Nm to 77Nm | |

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 | 9Nm | 7lbft |
| M8 | 22Nm | 16lbft |
| M10 | 44Nm | 32lbft |
| M12 | 77Nm | 57lbft |
| M14 | 121Nm | 90lbft |

| USE | PART No | QTY | DESCRIPTION |
|-------------------------|---------|-----|------------------------------|
| MOUNT ASSY TO VEHICLE | 6151257 | 2 | BOLT M12 X 200mm |
| | 4584298 | 6 | WASHER FLAT 14mm |
| | 4721469 | 2 | TUBE PACKER |
| | 5846282 | 2 | CHANNEL PACKER |
| | 4581050 | 2 | WASHER SPRING M12 |
| | 6151189 | 2 | NUT M12 |
| | 6151258 | 2 | BOLT M14 X 80mm |
| | 4581052 | 4 | WASHER SPRING M14 |
| | 5846283 | 4 | PACKER 10mm THICK |
| | 3756202 | 1 | MOUNT ASSY. |
| BULLBAR TO MOUNT ASSY | 6151255 | 6 | BOLT M12 X 40mm |
| | 4581050 | 6 | WASHER SPRING M12 |
| | 4581007 | 6 | WASHER FLAT M12 LARGE |
| | 6151045 | 2 | BOLT M10 X 25mm |
| | 4581039 | 4 | WASHER M10 FLAT |
| | 4581048 | 2 | WASHER M10 SPRING |
| | 6151026 | 2 | NUT M10 |
| WINCH | 4581040 | 4 | WASHER 3/8" |
| CONTROL BOX FITMENT | 3756220 | 1 | CONTROL BOX BRACKET |
| | 6151017 | 2 | BOLT M6 X 16MM |
| | 6151128 | 2 | NUT FLANGE M6 |
| | 6151046 | 2 | WASHER M6 |
| ROLLER FAIRLEAD FITMENT | 6151255 | 2 | BOLT M12 X 40mm |
| | 4581050 | 2 | WASHER SPRING M12 |
| | 4581049 | 4 | WASHER FLAT M12 |
| | 6151189 | 2 | NUT M12 |
| WINCH COVER FITMENT | 6151128 | 2 | NUT FLANGE M6 |
| | 6151256 | 2 | SCREW M6 S/STEEL BUTTON HEAD |
| | 6191001 | 1 | WINCH COVER EXTRUSION |
| | 6521036 | 1 | WINCH COVER (Pre 09/2002) |
| | 6522018 | 1 | WINCH COVER (09/2002 On) |
| | 6151046 | 2 | WASHER M6 |
| BUFFERS | 3500170 | 1 | BUFFER KIT WITH 8 M6 NUTS |
| NUMBER PLATE FITMENT | 6151017 | 4 | BOLT M6 X 16mm |
| | 6151128 | 4 | NUT FLANGE M6 |
| | 3756234 | 1 | BRACKET NUMBER PLATE |
| | 4581304 | 2 | WASHER M6 S/S |
| WIRING | 3500080 | 1 | INDICATOR KIT |
| | 180302 | 6 | CABLE TIE |

ASSEMBLY SEQUENCE FOR BULLBAR.

1.



1. Remove the bumper bar and grill.
2. Remove the cross member and tow brackets. See picture.
3. Bend the sheet metal returns located under the light area down so they don't interfere when the bar is fitted. Mask under the light trim and guard and paint flat black.
4. Bend the center bracket back approx 90 degrees.

2.



1. Insert the tube packers, one in each chassis arm. Line the bottom of the tube to the bottom hole of the chassis rail. Rest the top of the tube to the front of the chassis rail. The tube should be angled forward.

3.



1. Slide the mount assy. over the chassis rails. Try not to shake the vehicle too severely as the tube packers may fall out of place.
2. Insert the channel packers from the rear. Make sure the hole correspond to the holes in the mount.
3. Push the entire mount as far back as possible.

ASSEMBLY SEQUENCE FOR BULLBAR.

4.



1. Using a long screwdriver insert it through the bottom hole so it passes through the tube packer. This may require a visual check from under the vehicle to see the position of the tube.
2. Using the screwdriver twist around until the packer is inline with the top hole.

5.



1. Insert the M12 X 200mm bolt through the top hole using one of the 10mm thick packers. Push through while removing the screwdriver from underneath until the bolt locates right through.

Note: For turbo diesel models remove the intercooler hose to gain access for the M12 X 200mm bolt.

6.



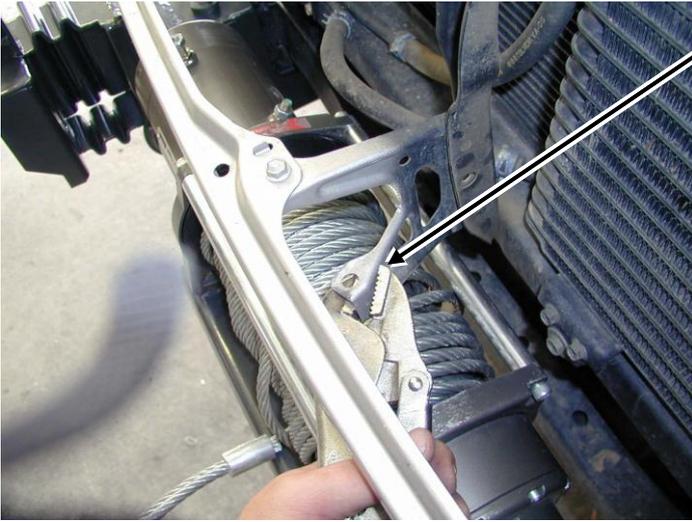
1. Fasten the remainder of the mount using:
 - 2 M14 bolts removed earlier from tow bracket
 - 2 M14 bolts from fitting kit
 - 6 M14 flat washers
 - 4 M14 spring washers
 - 2 10mm thick packers
 - 2 M12 nuts
 - 2 M12 spring washers

Note: Assemble with the tow brackets.

Tighten all to specified torque

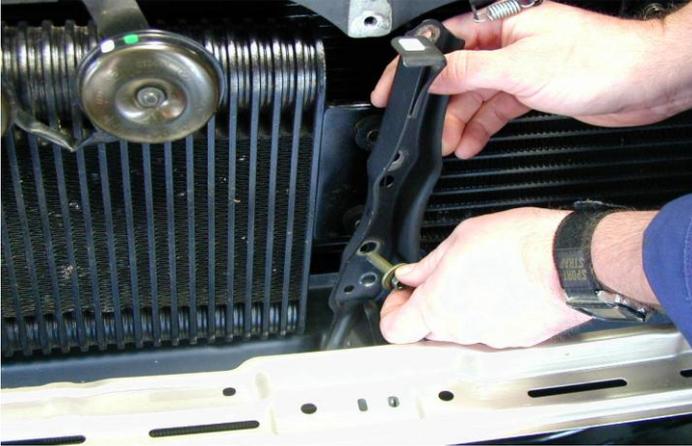
ASSEMBLY SEQUENCE FOR BULLBAR.

7.



1. For pre 09-2002 models use vice grips, multi grips or pliers bend back the bumper mounting arm approximately 90 degree's to clear winch bumper when assembled.

8.



1. On models built after 09-2002 if you are fitting a 10000lb or 12000lb winch you will need to remove the upright support and cut a section of it out.

9.



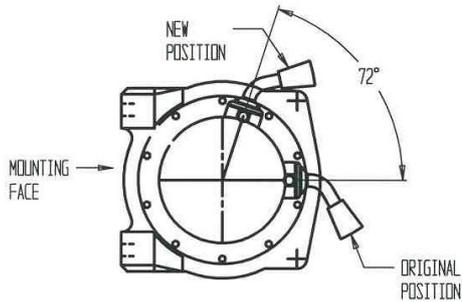
1. Once removed hold the upright in a vice and cut out the section shown with a hacksaw.
2. Replace the upright and continue fitting the winch.

ASSEMBLY SEQUENCE FOR BULLBAR.

8.

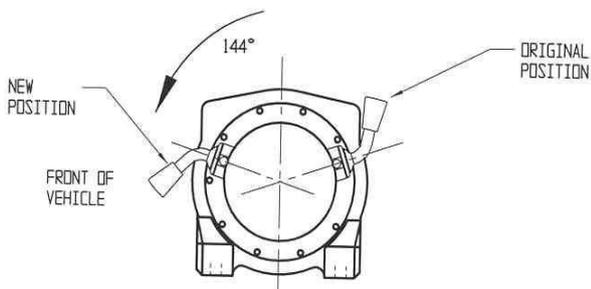
Viewed from passenger side, gearbox end.

9000lb & H/S 9500lb



Viewed from passenger side, motor end.

10000lb & 12000lb



(If fitting with winch)

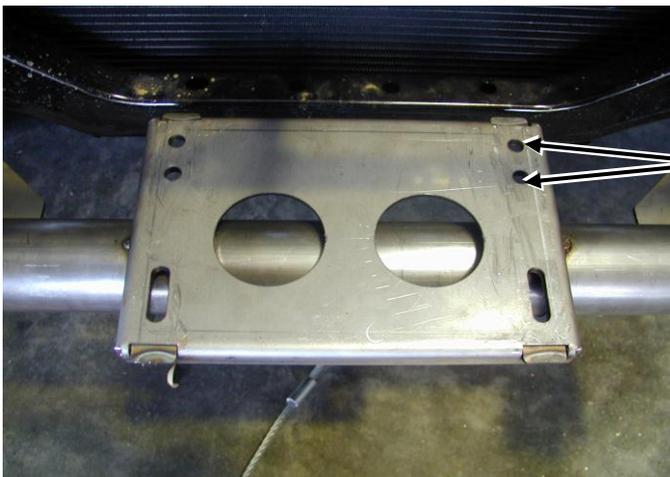
To place the clutch handle in a convenient location the winch gearbox must be rotated.

1. Place the winch on its end and remove all gearbox bolts.
2. Gently raise the motor just enough to rotate it.
3. Do not completely remove the motor and avoid damaging the gasket.

4. Refit and tighten all bolts to specified torque

Note: Take care not to lift the assembly more than a couple of millimeters while rotating to the desired position to avoid unmeshing the gears.

9.



(If fitting with winch.)

1. Place the winch on the mount assembly.
2. Bolt from underneath using bolts supplied with winch and the 3/8" washers supplied in the fitting kit. Refer to Warn installation instructions for correct procedure.

Note: If fitting 9000lb or 9500lb high speed winches mount on the front hole positions. If fitting 10000lb or 12000lb winches mount on the rear hole position. Fasten the two front bolts first then push the winch to the back position. Fasten the two rear bolts then tighten all bolts. Move front lower tie rod to rear lower position for 10000lb and 12000lb winches.

ASSEMBLY SEQUENCE FOR BULLBAR.

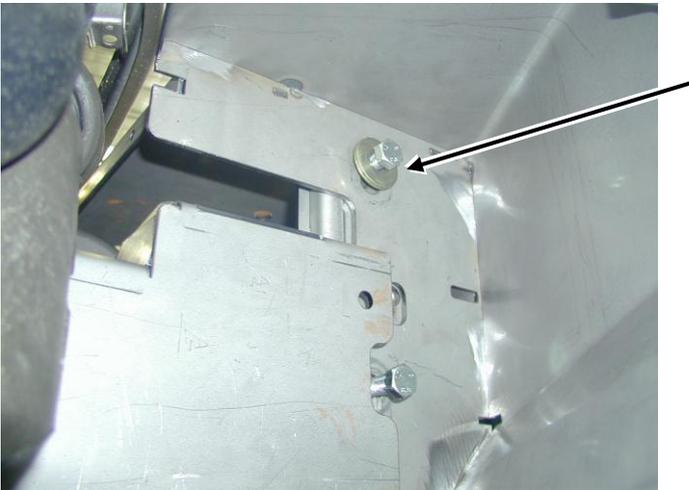
10.



(If fitting with winch)

1. Bolt the roller fair lead to the winch bumper using the M12 X 40mm bolts, washers, spring washers and nuts.

11.



1. Fasten the indicator lights to the bar.
2. Position the bar on the mounts and fasten the bar to the mounts using the M12 X 40mm bolts, large washers and spring washers.
3. Line up the end of the wing to the wheel arch and leave approximately a 15mm gap between the bar and the vehicle.

Tighten all bolts to specified torque

Note: The lower bolt can be accessed through the cutout at the front of the wing.

12.



(If not fitting winch)

1. Wrap rubber extrusion around winch cover.
2. Place stainless steel washers over the winch cover fixing holes located on the top middle face of the winch bumper.
3. Place the winch cover on top of the winch bumper inline with the mount holes.
4. Bolt together using the M6 button head stainless steel screws and M6 nuts.

ASSEMBLY SEQUENCE FOR BULLBAR.

13.



1. Next step is to lock pin the bar so there is no movement by drilling a 10mm hole on both sides of vehicle, fasten with 10mm x 25mm bolts plus 10mm hardware.



WARNING: This operation may result in flying metal debris, safety glasses should be worn

14.



(If fitting with winch)

1. Feed the winch cable through the roller fair lead. Mount the hook to the end of the cable.

15.



Fitting with winch



Fitting without winch

(If fitting with winch.)

1. Bolt the number plate to the number plate bracket using the M6 bolts and M6 flange nuts.
2. Bolt the assembly to the bar as shown in the illustration using the M6 bolts and M6 flange nuts.

(If not fitting with winch.)

1. Bolt the number plate through the top holes using M6 X 16mm bolts and M6 flange nuts.

ASSEMBLY SEQUENCE FOR BULLBAR.

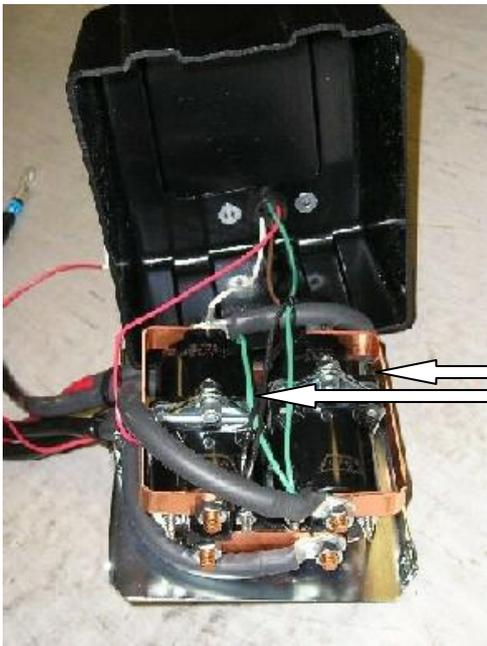
16.



1. If fitting the **XP 9.5 winch**, remove the cover from the control box.

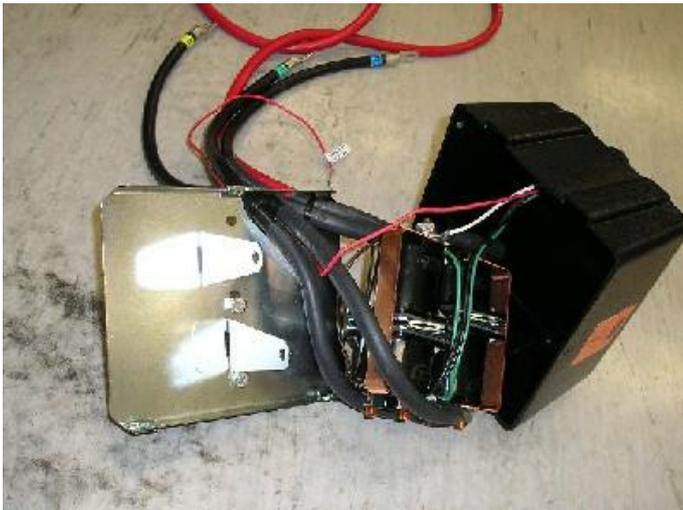
For any other winch, go to step 22.

17.



1. Remove the two cap screws, nuts and spacer washers that hold the four solenoids in place.

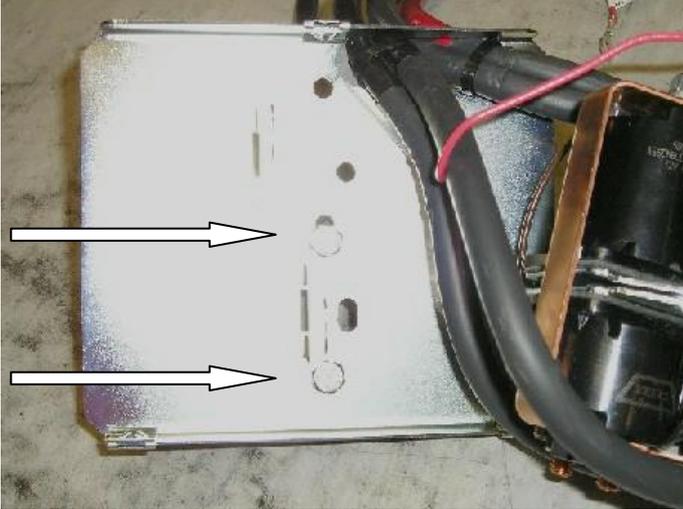
18.



1. Remove the four solenoids from the base of the control box using the copper bus bar as an aid and hold to one side.

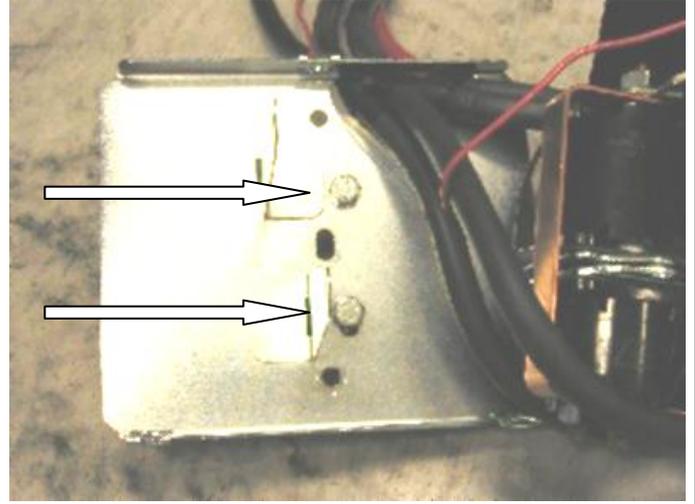
ASSEMBLY SEQUENCE FOR BULLBAR.

19.



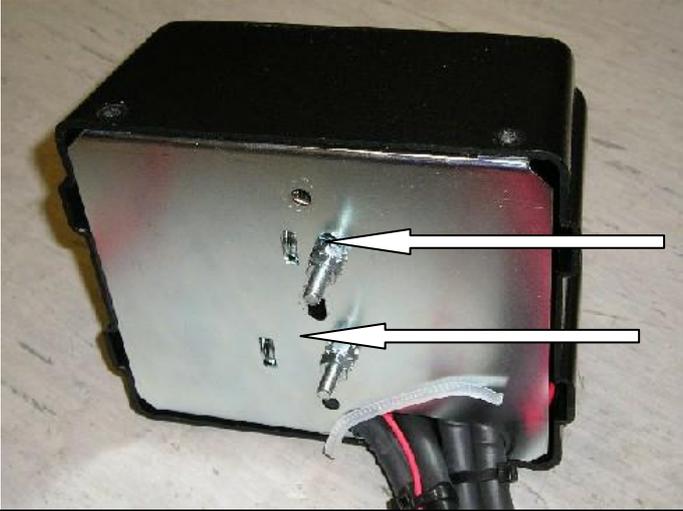
Before

1. Remove the two bolts in the base of the control box and reposition them into the more centralised holes



After

20.



1. Place the 4 solenoids over the 2 metal stands that are facing upwards. Make sure they line up with the holes in the base.

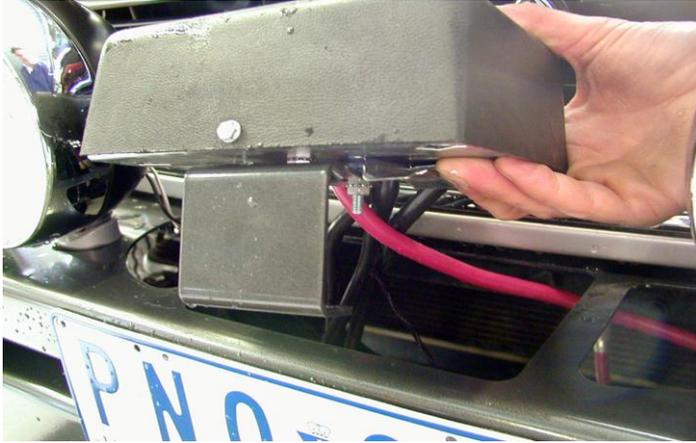
21.



1. Replace the 2 cap screws, washers and nuts removed in step 17 above into original holes.
2. Replace the black cover and refit the three cover screws (DO NOT OVER TIGHTEN)

ASSEMBLY SEQUENCE FOR BULLBAR.

22.

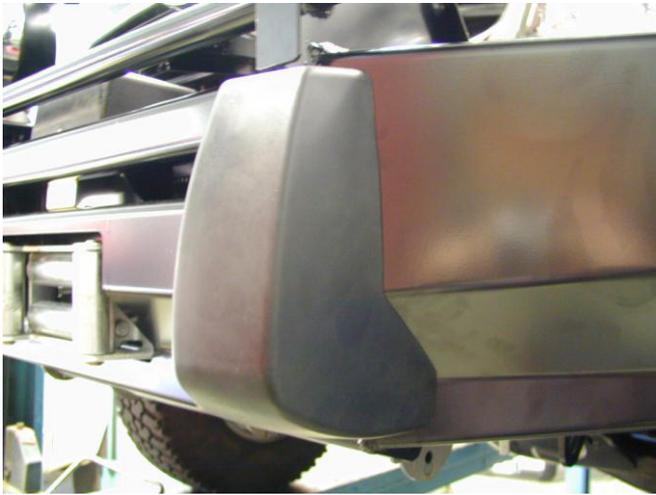


(If fitting with winch)

1. Assemble the control box bracket to the control box using M6 nuts located on the control box bolts.
2. Mount the control box to the bar using M6 X 16 bolts and M6 flange nuts. Fasten the control box to the front of the cutout on the top pan. This should leave an opening at the rear for viewing the cable drum while operating the winch.

Note: If fitting a 10000lb or 12000lb winch cable kit 6171397 is required. Replace the control box cables with the new longer cables.

23.



1. Fasten the buffers using the M6 flange nuts supplied.

NOTE: Do not over torque nuts on buffer threads or permanent damage to buffer may result



M6 – 1.5Nm Buffer threads only

24.

(If fitting with winch)

Connect the winch control box cables to the winch motor. Refer to the Warn handbook for additional information. Connect the long winch + & - cables to the vehicle after the bar is installed. Refer to the Warn winch manual for vehicle wiring instructions. Note: if fitting a 10000lb or 12000lb winch cable kit 6171397 is required. Use the longer leads to replace ones on control box.

Ensure that these cables are installed well clear of sharp, hot or moving objects. Secure the winch cables to the vehicle and winch bumper with the supplied cable ties.

25.

Wire the turn signal lights to the vehicle wiring.