



FITTING INSTRUCTIONS

Part Number: **3452020**

Product **COMBAR DODGE RAM 2003-05**

Description:

Suited to **1500 2002-05** **ADD BRACKET KIT# 3552010**

vehicle/s: **2500/3500 2003-05** **ADD BRACKET KIT# 3552020**

WARNING

REGARDING VEHICLES EQUIPPED WITH SRS AIRBAG:

When installed in accordance with these instructions, the front protection bar does not affect operation of the SRS airbag.

ALSO, 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

ARB 4x4 ACCESSORIES

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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:

| | |
|-------------------------------------|--|
| METRIC SPANNER and SOCKET TOOL SET | Sikaflex© Black |
| PHILIPS and FLAT BLADE SCREWDRIVERS | DIA 19mm HOLESAW |
| POWER DRILL DIA 13mm CHUCK CAPACITY | DRILL BITS, DIA 7.0 (@100mm min), 10.0mm |
| STEEL RULE 300mm | SCRIBER |

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 | 4lbft |
| M8 | 22Nm | 16lbft |
| M10 | 44Nm | 32lbft |
| M12 | 77Nm | 57lbft |

PARTS LISTING

| APPLICATION. | PART NO. | QTY | DESCRIPTION |
|---|----------|-----|--------------------------------|
| MOUNT BRACKETS TO VEHICLE 1500 MODEL ONLY (BRACKET SET 3552010) | 3756934L | 1 | BRACKET BAR MOUNT LHS |
| | 3756934R | 1 | BRACKET BAR MOUNT RHS |
| | 6151299 | 2 | BOLT M10 X 100 |
| | 6151321 | 2 | NUT M10 FLANGED |
| | 4581040 | 2 | WASHER M10 X 3mm |
| | 5811029 | 2 | SLEEVE @ 70mm |
| MOUNT BRACKETS TO VEHICLE 2500/3500 MODELS ONLY (BRACKET SET 3552020) | 3756938L | 1 | BRACKET BAR MOUNT LHS |
| | 3756938R | 1 | BRACKET BAR MOUNT RHS |
| | 6151299 | 2 | BOLT M10 X 100 |
| | 6151321 | 2 | NUT M10 FLANGED |
| | 4581040 | 2 | WASHER M10 X 3mm |
| WINCH | 180302 | 8 | CABLE TIE |
| TOW HOOK RELOCATION | 6151365 | 2 | EYEBOLT M24 2.5T SWL |
| | 6151361 | 2 | NUT M24 GR8 ZP |
| | 3756765 | 2 | BRACKET NUT RETAINING |
| | 4581300 | 2 | WASHER M24 EYEBOLT |
| | 6151046 | 2 | WASHER M6 |
| | 6151017 | 2 | BOLT M6 X 16mm |
| | 6151128 | 2 | NUT FLANGE M6 |
| CONTROL BOX FITTMENT | 4581291 | 2 | WASHER M10 BZ |
| | 6151321 | 2 | NUT FLANGED |
| | 6151364 | 2 | SCREW CAP M10X30 ZP |
| | 3756775 | 1 | BRACKET STD CONTROL BOX IN PAN |
| | 3199790 | 1 | TRIM PLATE FOR 16500LB CONTROL |
| NUMBER PLATE FITTMENT | 6151017 | 4 | BOLT M6 X 16mm |
| | 6151128 | 4 | NUT FLANGE M6 |
| | 6151046 | 4 | WASHER M6 |
| | 3751313 | 1 | BRACKET NO.PLATE |
| WINCH COVER FITTMENT | 6151128 | 2 | NUT FLANGE M6 |
| | 6151256 | 2 | SCREW M6 S/STEEL BUTTON HEAD |
| | 4581304 | 2 | WASHER M6 S/S |
| | 6191013 | 1 | EXTRUSION WINCH COVER @ 1757 |
| | 6522048 | 1 | PANEL WINCH COVER |
| BAR TO MOUNT ASSEMBLY | 6151255 | 6 | BOLT M12 X 40mm |
| | 4581050 | 6 | WASHER SPRING M12 |
| | 4581049 | 12 | WASHER FLAT M12 |
| | 6151321 | 2 | NUT M10 FLANGED |
| | 6151232 | 2 | BOLT SEMS M10 X 30mm |
| | 6151189 | 6 | NUT M12x1.75 |

| | | | |
|-----------------------|----------|---|-----------------------------|
| INDICATOR ASSY | 6821151R | 1 | INDICATOR ASSY RHS |
| | 6821151L | 1 | INDICATOR ASSY LHS |
| | 6151308 | 4 | SCREW SELF TAPPING |
| | 6821116 | 4 | NUT NYLON PLUG |
| | 6821152 | 2 | LOOM |
| | 180701 | 6 | SCOTCH LOCKS |
| | 180302 | 4 | CABLE TIE |
| RETAINER FENDER LINER | 3756948R | 1 | PLATE RETAINER FENDER LINER |
| | 3756948L | 1 | PLATE RETAINER FENDER LINER |
| | 6151300 | 4 | NUT CAGED M6 |
| | 6151213 | 4 | BOLT M6X20 BZ |
| | 4581082 | 4 | WASHER M6 BZ |
| FOG LAMPS | 3756949 | 2 | ADAPTER BRACKET |
| | 6821189 | 2 | GROMMET |
| | 6151300 | 6 | NUT CAGED M6 |
| | 6151017 | 6 | BOLT M6 X 16 |
| | 6151046 | 6 | WASHER M6 |
| | 4581036 | 6 | WASHER SPRING M6 |
| | 3162457 | 1 | LIGHT APERTURE MOLDING RH |
| | 3162456 | 1 | LIGHT APERTURE MOLDING LH |

***** NOTE:**

- **FOR IPF OPTIONAL FOG LAMPS, ORDER SUPPLIMENTARY KIT# 9381FCK.**
- **IF REFITTING OE FOG LAMPS, ADAPTER BRACKETS ARE SUPPLIED STANDARD WITH THIS BULL BAR FITTING KIT TO MOUNT THESE LAMPS.**

REMOVAL OF BUMPER



1. If fog lights fitted in bumper, undo fog light loom connection (connection located on LHS of bumper)
2. Remove bumper by undoing 4 x M12 nuts on 'U' bolts through chassis and withdrawing bumper off chassis mount position, set aside. Retain bumper retaining 'U' bolts and nuts.

Note: For 2500 turbo diesel shown (and 3500 TD), undo and remove intercooler top mount bolts and rubber suspension blocks, this will allow the intercooler to tip back at the top and clear of the bumper U bolts allowing removal).



3. If OE fog lights fitted and are required for re-fitment into bull bar, remove each light and bracket assembly and then remove lights as shown by prising the lug each side from the case and undoing the adjuster screw.
4. Also, if OE fog lamps are to be reused, remove fog lamp loom fitted to bumper for re-use.



FITTING PROCEDURE GENERAL



**FOR 1500 MODEL VEHICLES
FOLLOW STEPS 5 - 11, FOR 2500
AND 3500 VEHICLES STEPS 12 – 18.**

5. Fit mount brackets to chassis rails and using existing U bolt sets, refasten.



6. Bracket set on vehicle.

FITTING PROCEDURE GENERAL



7. Create a starter point with Dia 10.0mm drill using pilot hole in mount bracket for alignment. This will be a guide for Dia 7.0 through hole, which will in turn be used to create a guide hole for Dia 19.0mm hole saw Step 9.
8. Using the 7.0mm drill, drill right through both sides of the chassis.



Warning: Drilling operations can result in flying metal debris, safety glasses should be



9. Use the Dia 19.0 hole saw, as shown, with 7.0mm hole as a guide to drill a hole through outer wall of chassis.



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10. Then, as shown, using a Dia 10.0 drill, drill hole through inner wall of chassis.



Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

FITTING PROCEDURE GENERAL



11. As shown, fit M10x100 bolt, sleeve, M10 x 3mm washer and flange nut and do up tight.

Note: *Bolt head and washer outboard as shown, nut to be on inside face of bracket.*



2500 AND 3500 ONLY STEPS 12 - 18

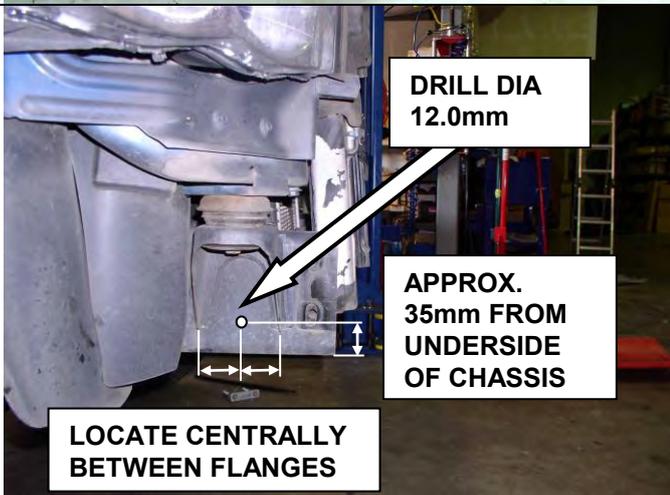
12. Fit chassis brackets as shown.



13. Insert original U bolts, entering from **inboard** face of chassis (you may have to tilt intercooler to gain sufficient clearance to allow U bolt to enter this side).

14. Set brackets so front edge is vertical then do bolts up tight.

15. Replace the intercooler suspension blocks and bolts if removed for U bolt removal.



16. Mark the position for the pinning hole centrally between the body mount bracket flanges as shown on the outboard face of the chassis rails.

17. Drill through both sides of chassis and mount bracket flange Dia 10.0mm. ****CAUTION**

18. Fit M10 x 100 pinning bolt, M10 x 3MM washer and flange nut set and do up tight.



CAUTION: TAKE CARE NOT TO DRILL THROUGH INTO THE RADIATOR ON THE INSIDE OF CHASSIS.

Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

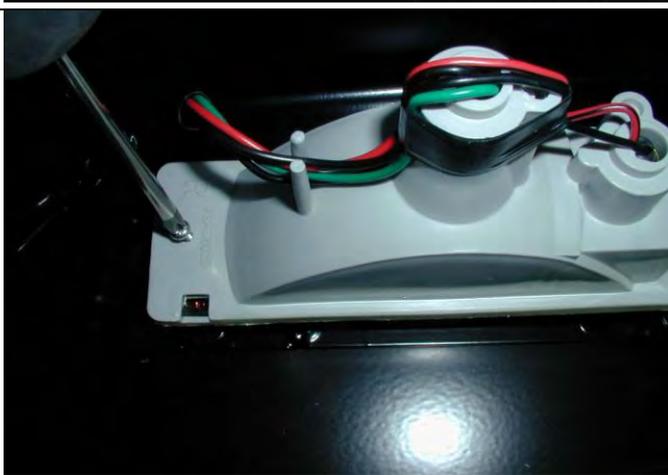
FITTING PROCEDURE GENERAL



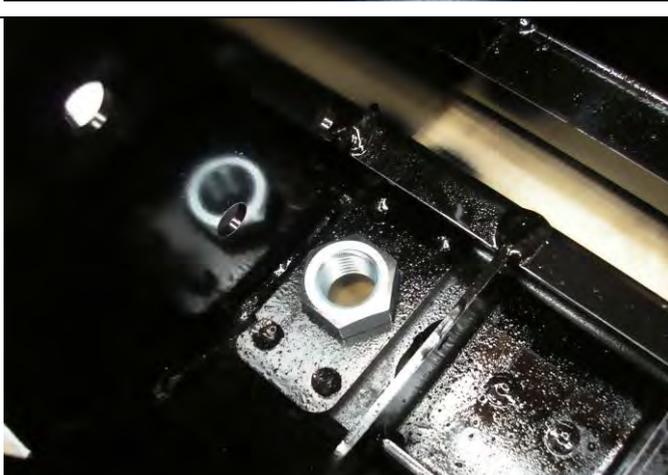
19. Remove lights from cartons and then remove screws and speed nuts from each light. These fasteners are not to be reused – new screws are supplied in the fitting kit



20. Insert nylon nuts into square holes in light brackets inside wing area



21. Fit lights using screws supplied in fitting kit, taking note of RH and LH light bodies, they are different and must be placed on the correct side of bull bar.



22. Fit large eyebolt nut into the plate on the inside of the bar.

FITTING PROCEDURE GENERAL

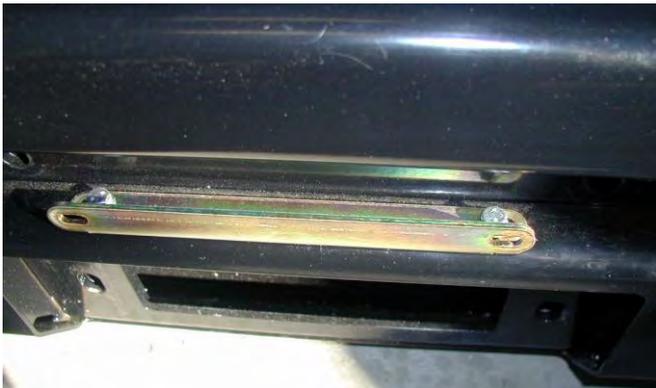


23. Screw in the eyebolt using the large washer. Eyebolt can be positioned to sit vertically by rotating the large nut to the correct position

NOTE: EYEBOLTS SHOULD BE REMOVED FOR SAFETY REASONS WHEN TRAVELLING ON PUBLIC ROADS.



24. When the large nut is in its final position, secure with the nut retaining bracket using an M6 bolt, washer and flange nut.



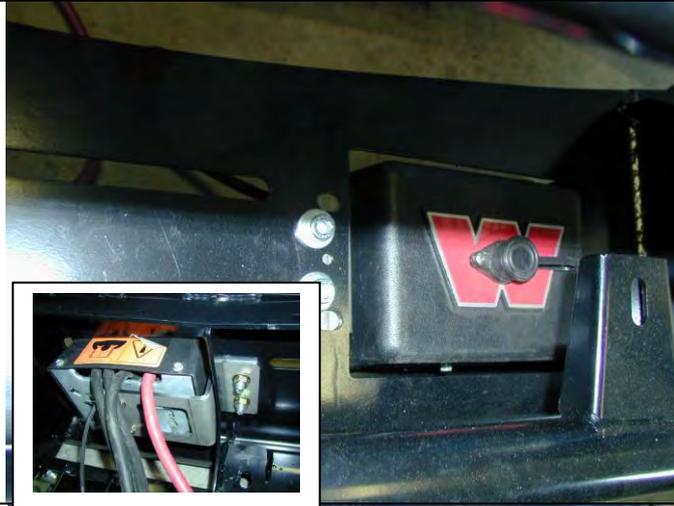
25. Secure the number plate bracket using M6 bolts, flat washers and flange nuts. Attach the longer side to the bullbar and the shorter side to the number plate.



Note: As supplied from Warn, the winch handle on 1500 and 16500lb winches should be in the position as shown. This is correct orientation for this bar.

26. Remove cable retaining band and position cable loop so it will go through roller fairlead when it is placed in bull bar.

FITTING PROCEDURE WINCH



Fit control box to pan:

- For 9500-12000lb winches, use universal control box bracket supplied, attaching to rear of control box mount studs.
- Slide bracket flange under pan and align with mount slots.

27. Fasten in position with 2 x M10 cap screws, black washers and flange nuts



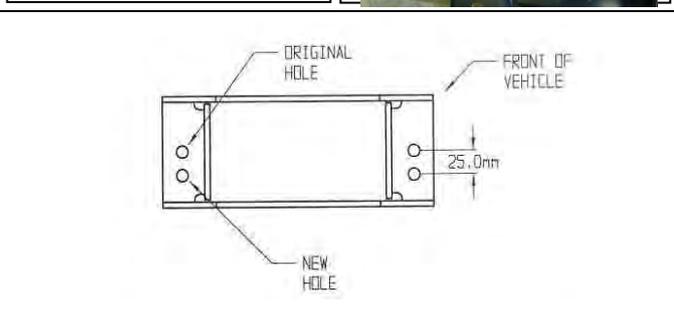
- For 15000lb winches, use Warn supplied control box bracket, attaching to rear of control box mount studs.
- Slide bracket flange under pan and align with mount slots.

28. Fasten in position with 2 x M10 cap screws, black washers and flange nuts.



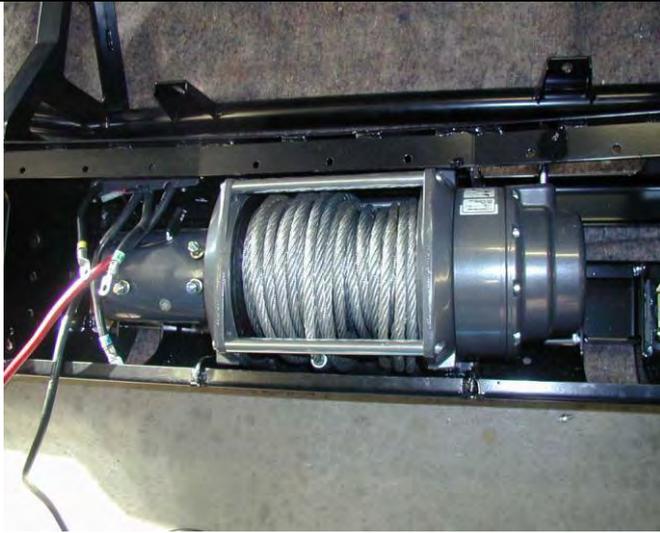
- For 16500lb winches, apply Sikaflex (or similar product) to rear of control box trim plate from fitting kit (note orientation critical to suit final position with control box profile in pan opening).
- Position trim plate on top of pan centrally about control box opening and line up with mount slots.

29. Fasten in position with 2 x M10 cap screws and flange nuts from fitting kit.



30. In some cases, the roller fair lead bracket must have a second set of holes drilled to line up with holes in winch bracket. If required, mark out as shown and using a 13.0 mm drill bit, drill two holes as shown in diagram.

FITTING PROCEDURE WINCH



31. Viewed from front of vehicle the winch clutch (handle) must be positioned on the LH side (same side as smaller square access hole in pan). Cable must spool from the bottom of winch. Draw off enough cable so cable crimp can be pulled through roller fairlead.

32. Bolt winch in position with the roller fair lead in place.

Hint: To increase access to mount bolts in front of roller fairlead, remove circlips from bottom of each vertical roller shaft, push shaft up so roller can be dislodged sideways. Do up bolts in fairlead and winch, then refit circlip.

33. 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.**



34. **Fitting number plate – with winch**

Bolt number plate to the bracket with the M6 X 16mm bolts and M6 flange nuts through the lower holes of the number plate.

If not fitting winch.

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



View from above, rear of bull bar

35. **If not fitting winch cont.**

36. Wrap rubber extrusion around winch cover.

37. Place stainless steel washers over the winch cover fixing holes located on the top middle face of the winch bumper.

38. Place the winch cover on top of the winch bumper inline with the mount holes.

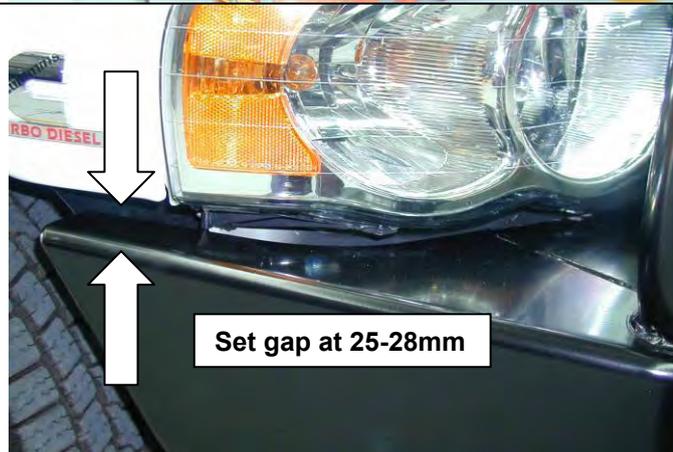
39. Bolt together using the M6 button head stainless steel screws and M6 nuts.

FITTING PROCEDURE BAR ON VEHICLE



40. Using two people, three if winch fitted, position the bar assembly on the vehicle mounts.

Caution: *This product is heavy, especially if a winch is fitted. Do not attempt to lift it and fit it by yourself. Have some assistants help you or use a mechanical aid such as this hydraulic lift table as shown.*



40. Bolt the bar to the mounts using M12 bolts, large flat washers and spring washers. Bolt the bar to the mounts using M12 bolts, large flat washers and spring washers.

41. Align the bar to the profile of the guards, grille and light profile setting the clearance gap to fender from wing to 25-28mm as shown, level bar and nip up bolts

NOTE: *Check and ensure that the hood latch is accessible and can be operated*



42. When bar is fully aligned and you are comfortable with the position, tighten bolts to specified torque.



43. Using the M10 pilot holes in mount brackets, drill pinning hole through uprights on bull bar. Fit M10 screw, washer set and flange nut and do up tight.



Warning: *Drilling operations can result in flying metal debris, safety glasses should be worn.*

FITTING PROCEDURE BAR ON VEHICLE



If fitting optional accessory fog lamps kit 9381FCK follow fitting instructions supplied with kit. If fitting OE fog lights follow steps 44 – 49.

44. Fit M6 cage nuts and grommet to adaptor bracket as shown.



45. Fit light to adaptor bracket by locating mount lugs in light body into holes in adaptor bracket flanges.
46. Screw adjuster into grommet so that light is approximately parallel to bracket.



47. Fit adapter bracket and fog lamp assembly into brackets in bull bar wings, as shown.
48. Bolt in place with M6 x 16 bolt and washer sets into cage nuts.
49. Route OE fog lamp loom and connect to lamps.



Fitting plastic fog lamp aperture moldings.

50. If fog lamps are fitted, cut centre panel out of light aperture moldings using a hack saw blade.
51. If fog lamps are not fitted leave centre panel in place.

FITTING PROCEDURE BAR ON VEHICLE



52. Note that the aperture moldings are handed (RH or LH), select correct hand for each wing aperture. Apply Sikaflex to recess in aperture molding flange then fit to aperture in wing. Use adhesive tape to secure plastic mold while Sikaflex cures.



53. Use adhesive tape to secure plastic mold while Sikaflex cures.

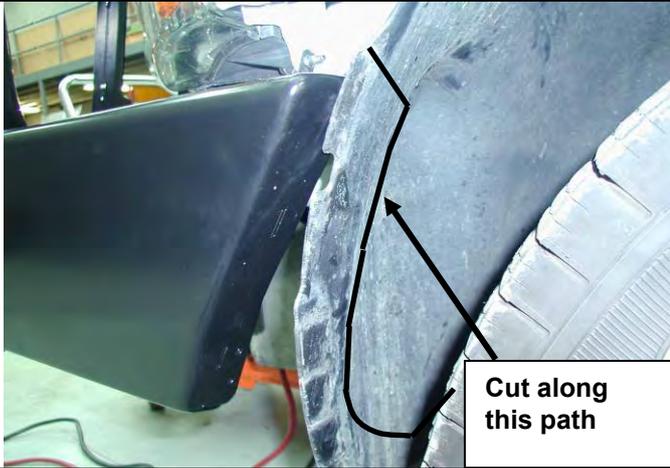


54. Wire up indicators and running lamps. Wire loom extensions are supplied in fitting kit.



55. If winch fitted, fit off winch hook.

FITTING PROCEDURE BAR ON VEHICLE



56. Trim fender liner with air hacksaw or similar tool along line as shown. Cut away the outboard flap, which normally fits in the end of the bumper wing. This is so the liner can be held back easily by the retaining bracket at step 56.



57. Fit liner retainer bracket with black M6 bolt and washer sets into M6 cage nuts in wing returns each side as shown.

FITTED PRODUCT ON 1500 MODEL

