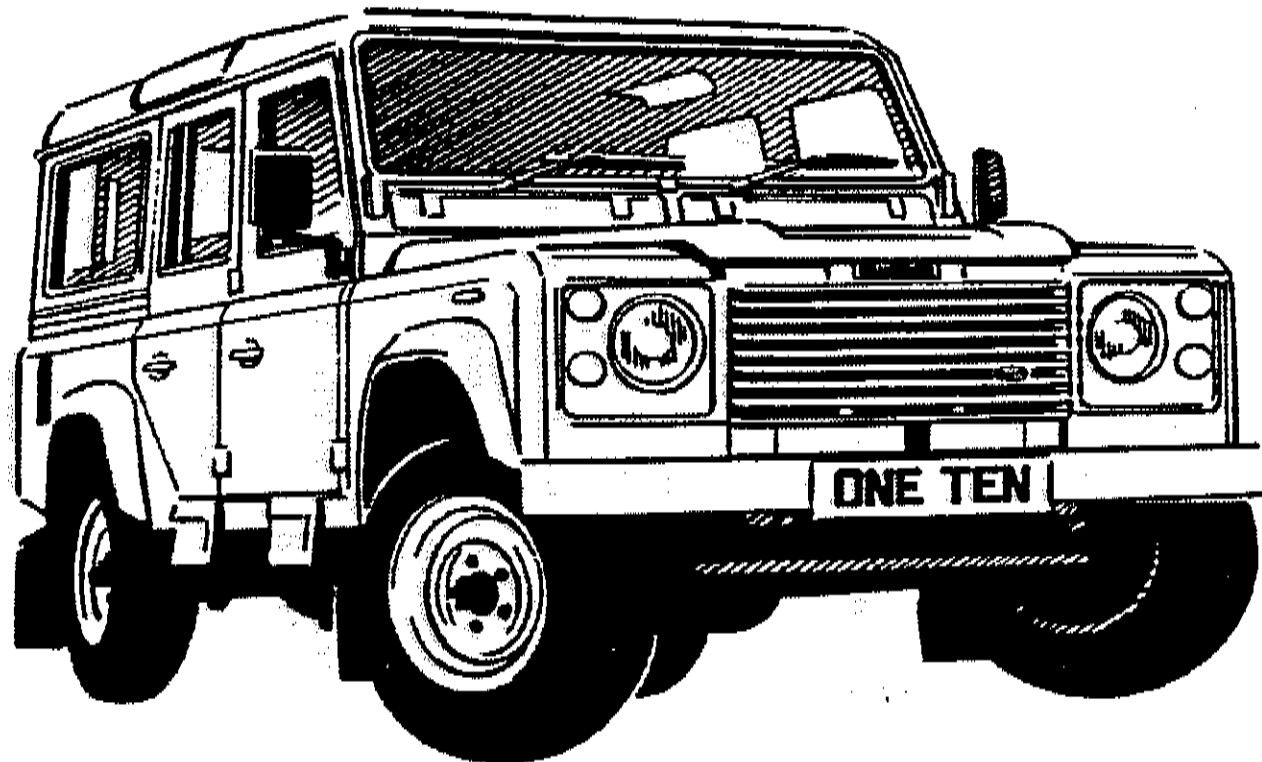


Defender Water Ingress



Service Rectification Processes

Section 1

Introduction

This manual has been developed to provide a method of rectifying water ingress problems found in Land Rover Defenders, with the aim of improving customer satisfaction. It provides a means of finding the source of water ingress along with the appropriate rectification method.

It is intended as a service manual only to be used by service centres at approved Land Rover Dealers.

Assumptions

It is assumed that the service technicians using the manual will have a certain level of expertise that will enable them to perform the rectification processes effectively. For example, in a process that involves sealing inside a door frame, it is assumed that the technician would have the expertise to know that the door casing must first be removed before performing the sealing process.

The same applies for tasks such as carpet and mat removal, although care points are noted where needed.

How To Use The Manual

Once a customer has reported a water leak in their vehicle this manual should be used firstly to find out where the water is leaking in from. Due to the nature of the design and construction of the Defender vehicle this can prove to be fairly difficult. The fact that water moves in seemingly random directions also adds to the problem.

The technique used to locate water ingress paths involves spraying the vehicle all over with a hose. The vehicle should be sprayed continuously for a good four to five minutes with all areas being thoroughly covered.

Before spraying, interior carpets/mats are removed from the front and rear of the vehicle (depending on the derivative i.e. pick-up truck or twelve seater), this assists in the identification of water ingress. The vehicle is then sprayed. Two technicians should sit in the front and back of the vehicle watching for water leaks. If a leak is spotted, the general area of its origin is noted down.

Upon identification of a leak, the local area surrounding it is focused on. This involves one technician standing outside the vehicle spraying a hose at the suspected water ingress area. Simultaneously, another technician would be positioned inside the vehicle looking for the leak path. Once the water leak path has been identified the appropriate rectification processes is used to cure the problem.

The rectification process is found by referring to the table of water ingress paths. For each leak path there is a corresponding 'Process Reference Code'. The code represents the appropriate rectification process that can be found in the pages after the table. All process are listed in numerical order.

Section 2

Sealant Specification:

Clear Sealant -	Produced by "Kent" Name: Leak Chek Part Number: 30040	Address: 36/48 QUEEN ST. RD HOLSTON WEST SUSSEX BN1 1TE SPO ENGLAND
Under-seal -	Standard black underseal	
Dum Dum Strips -	Produced by Evode Ltd Name: Glasticord Product Number: 305B Section: 6mm	Address: Common Road, Stafford, ST16 3EH, England.
Dum Dum -	Produced by Evode Ltd Name: Glasticon Product Number: 303	Address: Common Road, Stafford, ST16 3EH, England.

***NOTE: IT IS OF KEY IMPORTANCE THAT THE DIRECTIONS OF
USE ON SEALANTS ARE FOLLOWED AT ALL TIMES.***

TABLE OF LAND ROVER DEFENDER WATER INGRESS PATHS AND ASSOCIATED RECTIFICATION PROCESS NUMBERS.

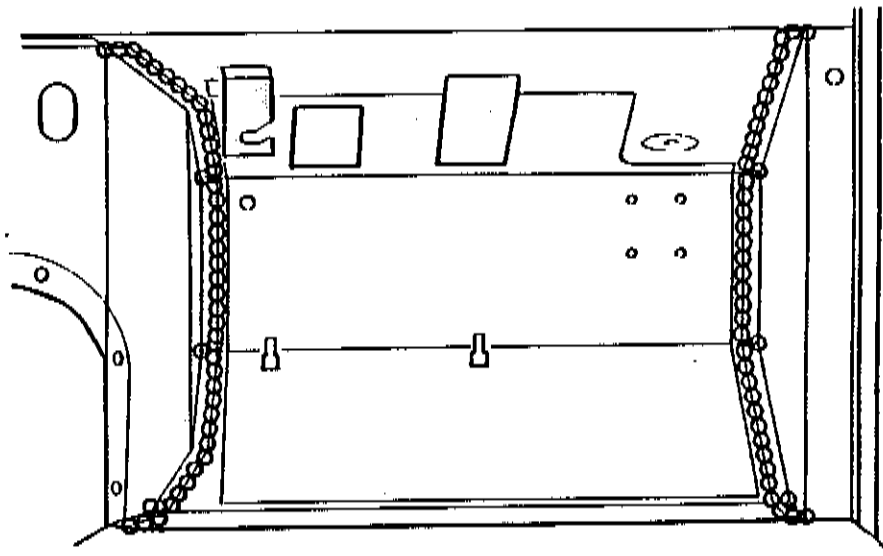
ITEM	LEAK	PATH	PROCESS REFERENCE CODE
1	FOOTWELLS	PAINT SHOP/BIW SEAMS	1.1
		DIAPHRAGM/FLOOR	1.2
		PAINT SHOP SEAMS - BONNET PULL GROMMET	1.3
		BIW SEAMS - BRAKE PIPE CLIP	1.4
		DIAPHRAGM/FLOOR - HEATER BOLTS	1.5
2	'A' POST	BIW TOP HINGE	2.1
		DOOR SEAL KINK	2.2
		CHECK STRAP BRACKET	2.3
		SCREEN HINGES	2.4
		'A' POST DOOR SEAL TOP	2.5
3	PANTRY DOOR	HOLE 1" SQUARE ABOVE LOCK AREA-INNER SKIN	3.1
		DEFORMED PANEL AROUND LOCK AREA	3.2
4	FRONT DOOR LOCK	HOLES AND SEAM IN INNER PANEL ADJACENT TO LOCK	4.1
5	LOWER BODY SIDE RIVETS	THROUGH RIVET	5.1
6	FRONT DOOR CURTAINS	THROUGH BUTYL SEAM AND CHECK STRAP	6.1
7	PANTRY DOOR CURTAINS	WATER DEFLECTOR	7.1
		WATER DAM AT BOTTOM	7.2
8	CLUTCH LEAKS	PEDAL BOX	8.1
9	REAR END BODY PANLES	UPPER BODY QUARTER PANLES	9.1
		LOWER BODY CPA	9.2
		DOWEL PLATES	9.3
		REAR WAIST SEALS	9.4
10	REAR DOOR WAIST SEAL	B POST	10.1
		D POST	10.2
		AROUND WAIST SEAL	10.3
11	ROOF	ROOF SEAMS	11.1
		REAR CORNER SEAMS	11.2
		DRAIN CHANNLE SEAL	11.3
		FRONT SCROLL	11.4
		ALPINE LIGHT	11.5

TITLE: FOOTWELL LEAK

PROCESS NO: 1.1

LEAK PATH: PAINT SHOP/BIW SEAMS

ILLUSTRATION:



TOOL/S: PAINT BRUSH

SEALANT: CLEAR SEALANT

PROCESS:

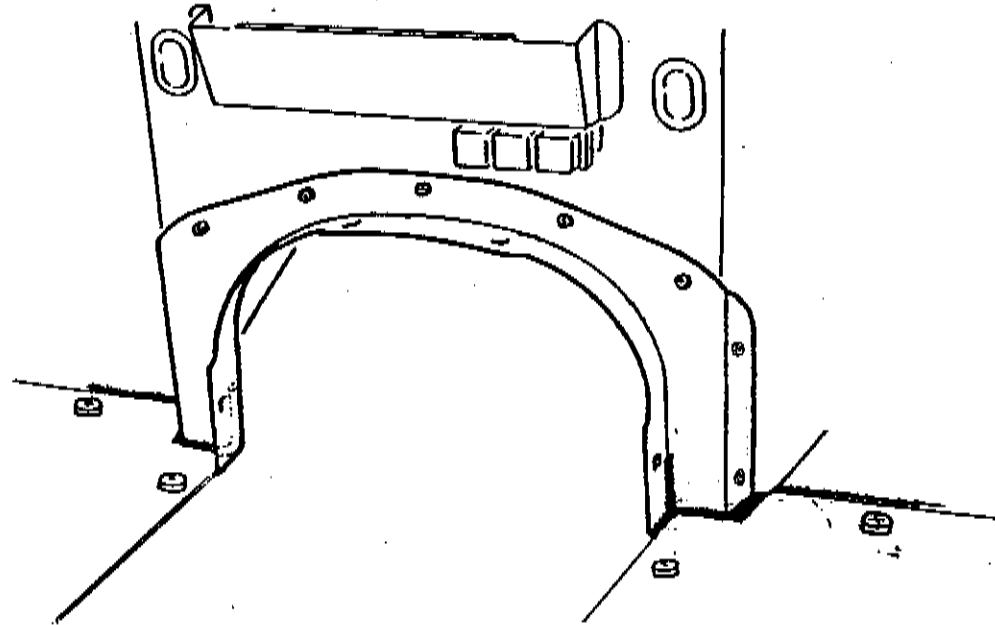
- REMOVE CARPETS OR MATS FROM FOOTWELL AREA.
NOTE: WHEN REMOVING THE DIAPHRAGM CARPET TAKE CARE NOT TO DAMAGE THE FITMENT TAPE.
- APPLY SEALANT TO THE APPROPRIATE FLANGED AREA.
- APPLY SEALANT TO THE PIN HOLES.

TITLE: FOOTWELL LEAK

PROCESS NO: 1.2

LEAK PATH: DIAPHRAGM/FLOOR

ILLUSTRATION:



TOOL/S: N/A

SEALANT: DUM DUM STRIPS

PROCESS:

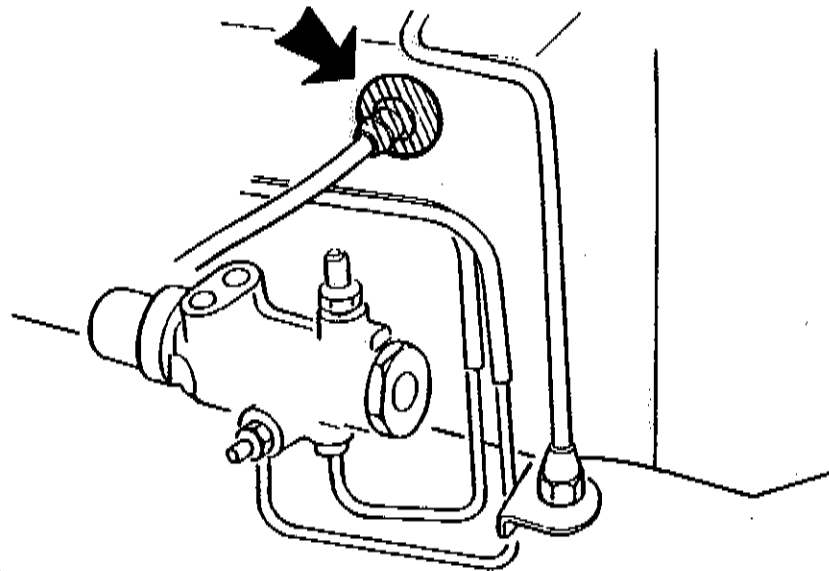
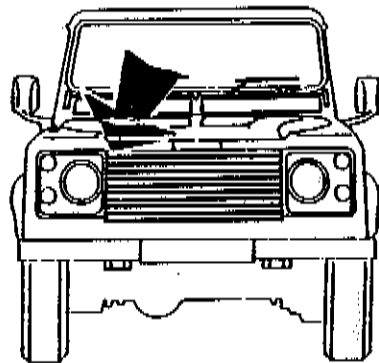
- REMOVE CARPETS OR MATS FROM FOOTWELL AREA.
- NOTE: WHEN REMOVING THE DIAPHRAGM CARPET TAKE CARE NOT TO DAMAGE THE FITMENT TAPE.
- GET 2 OFF PIECES OF DUM DUM APPROXIMATELY 300mm LONG
- APPLY DUM DUM TO RIGHT HAND SIDE OF DIAPHRAGM AND TOE PANEL. ENSURE THAT THE DUM DUM FOLLOWS THE CONTOUR OF THE SEAL TAPE AND IS TIGHTLY UP AGAINST IT.
- USE THE SAME PROCESS AS ABOVE FOR LEAKS ON BOTH SIDES OF THE TUNNEL.

TITLE: FOOTWELL LEAK

PROCESS NO: 1.3

LEAK PATH: PAINT SHOP SEAMS - BONNET PULL GROMMET

ILLUSTRATION:



TOOLS: PAINT BRUSH

SEALANT: UNDER SEAL

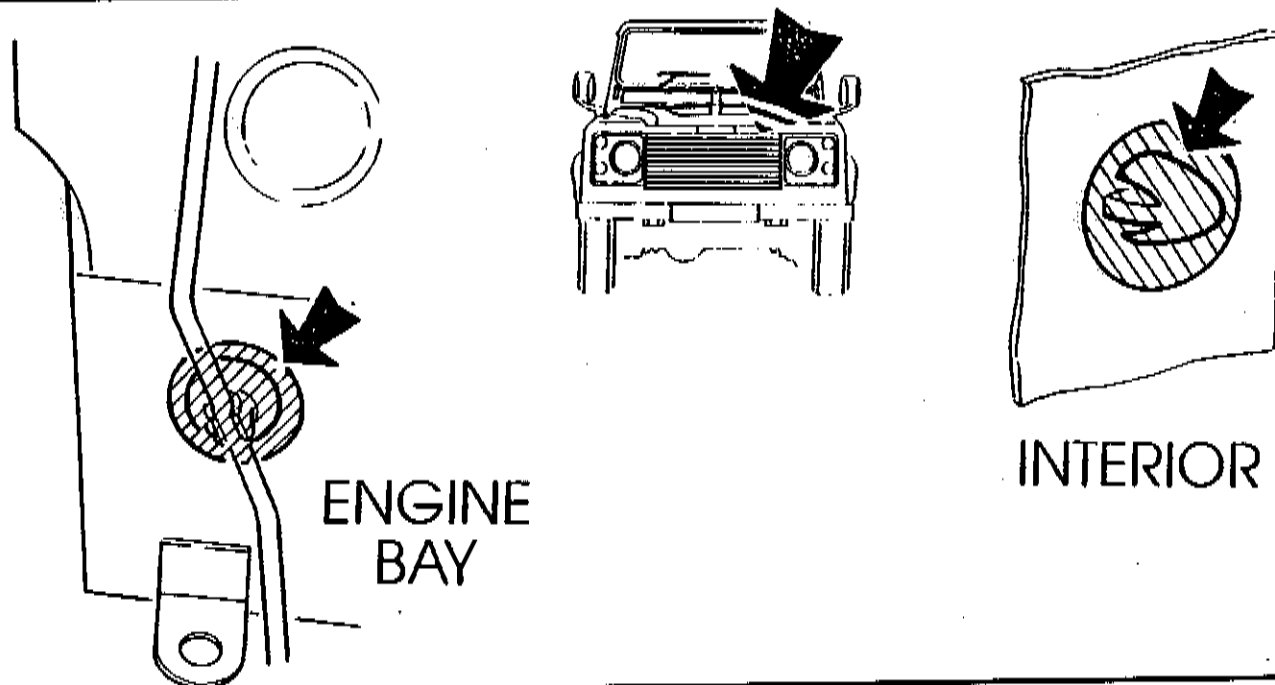
PROCESS: - APPLY SEALANT AROUND GROMMET AREA, ON THE ENGINE BAY SIDE, MAKING SURE TO COVER ALL POSSIBLE GAPS.

TITLE: FOOTWELL LEAK

PROCESS NO: 1.4

LEAK PATH: BIW SEAMS - ABS PIPE CLIPS

ILLUSTRATION:



TOOL/S: PAINT BRUSH

SEALANT: UNDER SEAL

PROCESS:

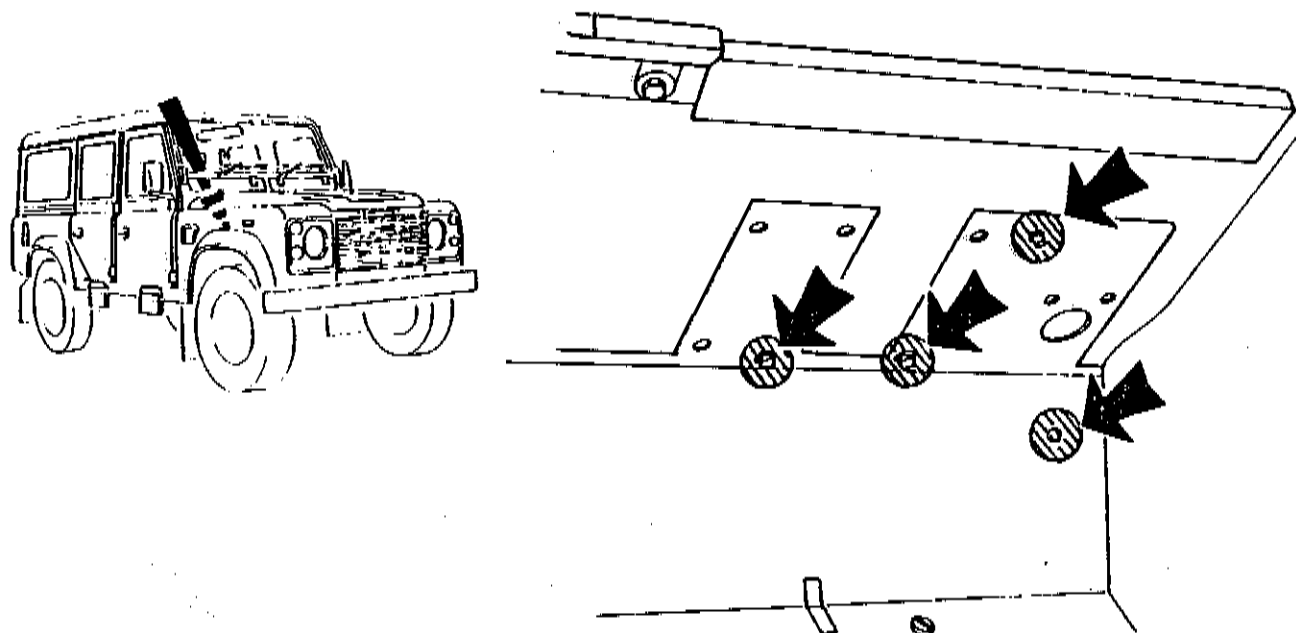
- REMOVE CARPETS OR MATS FROM FOOTWELL AREA.
- NOTE: WHEN REMOVING THE DIAPHRAGM CARPET TAKE CARE NOT TO DAMAGE THE FITMENT TAPE.
- PAINT SEALANT AROUND THE CLIP, ENGINE AND CABIN SIDE, MAKING SURE TO FILL IN ANY GAPS.

TITLE: FOOTWELL LEAK

PROCESS NO: 1.5

LEAK PATH: DIAPHRAGM/FLOOR - HEATER BOLTS, RIVETS, FIXINGS

ILLUSTRATION:



TOOLS: PAINT BRUSH

SEALANT: CLEAR SEALANT

PROCESS:

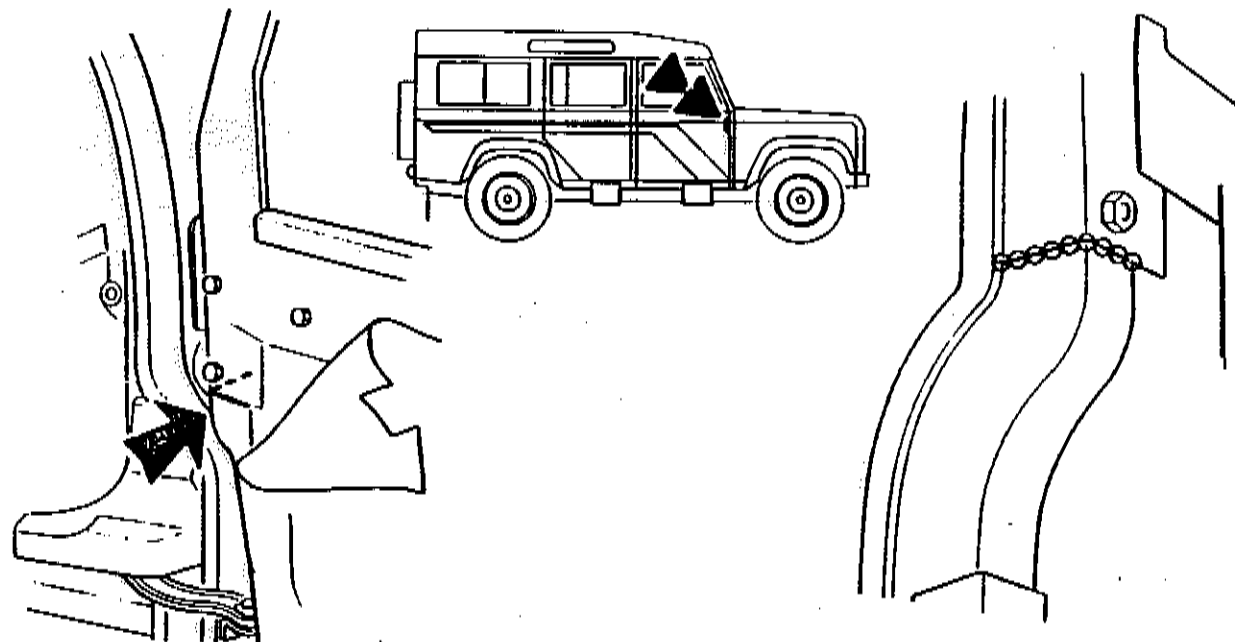
- REMOVE CARPETS OR MATS FROM FOOTWELL AREA.
- NOTE: WHEN REMOVING THE DIAPHRAGM CARPET TAKE CARE NOT TO DAMAGE THE FITMENT TAPE.
- APPLY SEALANT ALL OVER THE LEAKING FIXING MAKING SURE TO FILL ALL GAPS.

TITLE: 'A' POST LEAK

PROCESS NO: 2.1

LEAK PATH: BIW TOP HINGE CLINCH

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR

SEALANT: CLEAR SEALANT

PROCESS:

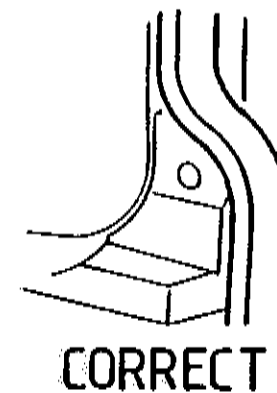
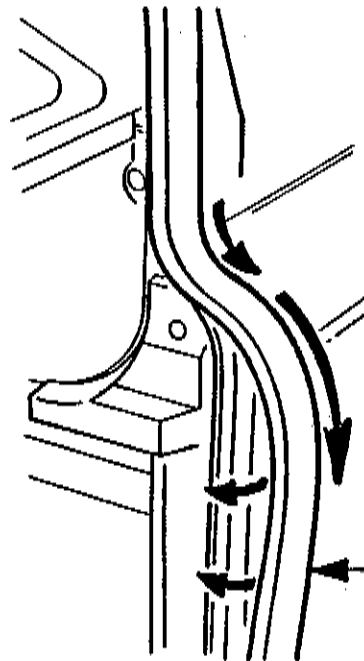
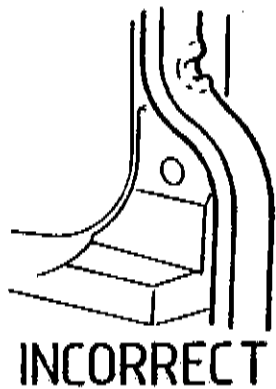
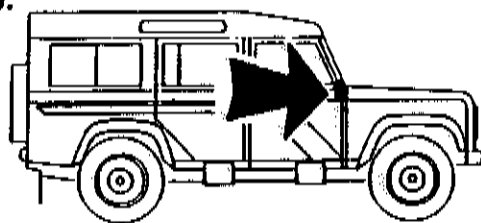
- APPLY SEALANT TO THE LEAKING AREAS MAKING SURE THAT IT IS PUSHED UP INTO THE GAPS.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: 'A' POST LEAK

PROCESS NO: 2.2

LEAK PATH: KINK IN DOOR SEAL AT DOG LEG

ILLUSTRATION:



TOOL/S: N/A

SEALANT: N/A

PROCESS:

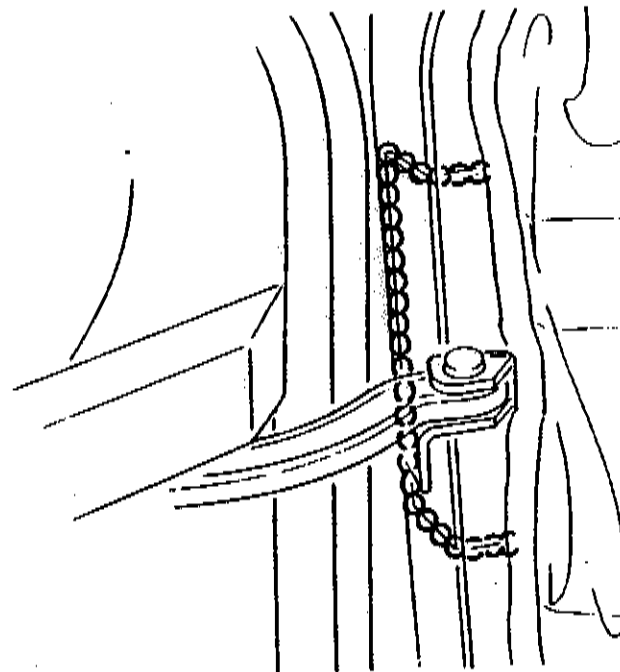
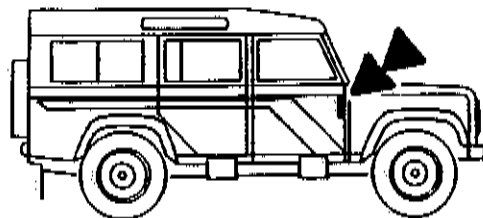
- REMOVE SEAL (TO JUST ABOVE DOG LEG) AND PULL IT TAUGHT.
- REPLACE SEAL KEEPING IT TAUGHT AT ALL TIMES.

TITLE: 'A' POST LEAK

PROCESS NO: 2.3

LEAK PATH: CHECK STRAP BRACKET

ILLUSTRATION:



TOOL/S: PAINT BRUSH

SEALANT: CLEAR SEALANT

PROCESS:

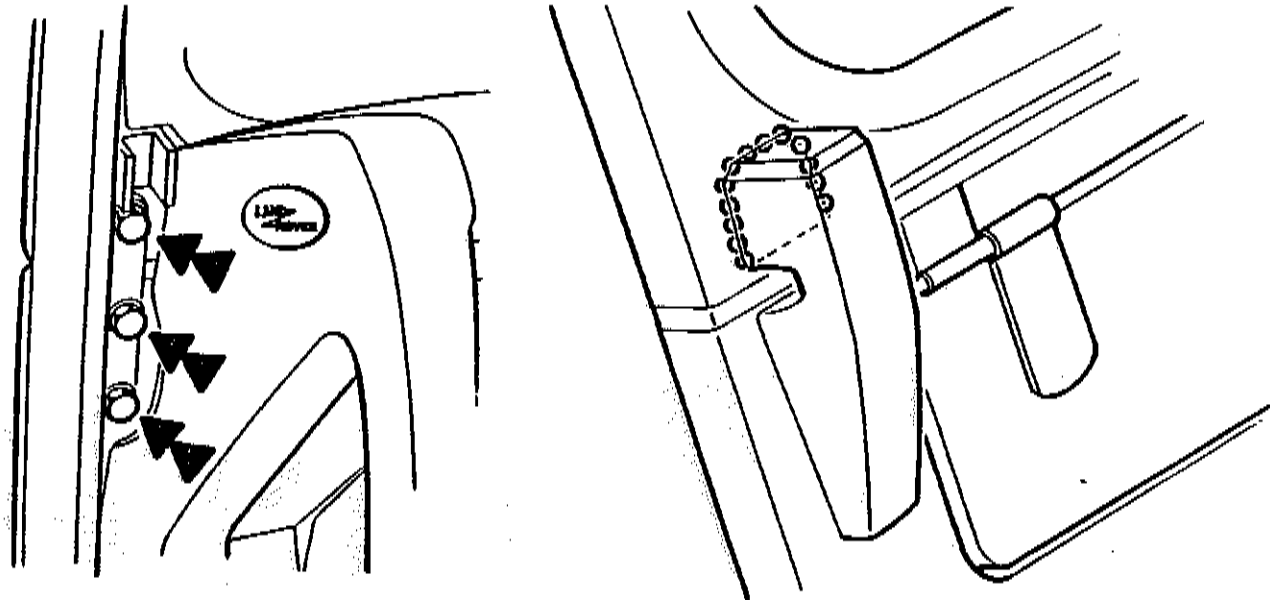
- APPLY SEALANT TO THE LEAKING AREAS MAKING SURE THAT IT IS PUSHED UP INTO THE GAPS.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: 'A' POST LEAK

PROCESS NO: 2.4

LEAK PATH: SCREEN HINGES

ILLUSTRATION:



TOOLS: SOCKET SET AND WRENCHES

SEALANT: DUM DUM

PROCESS:

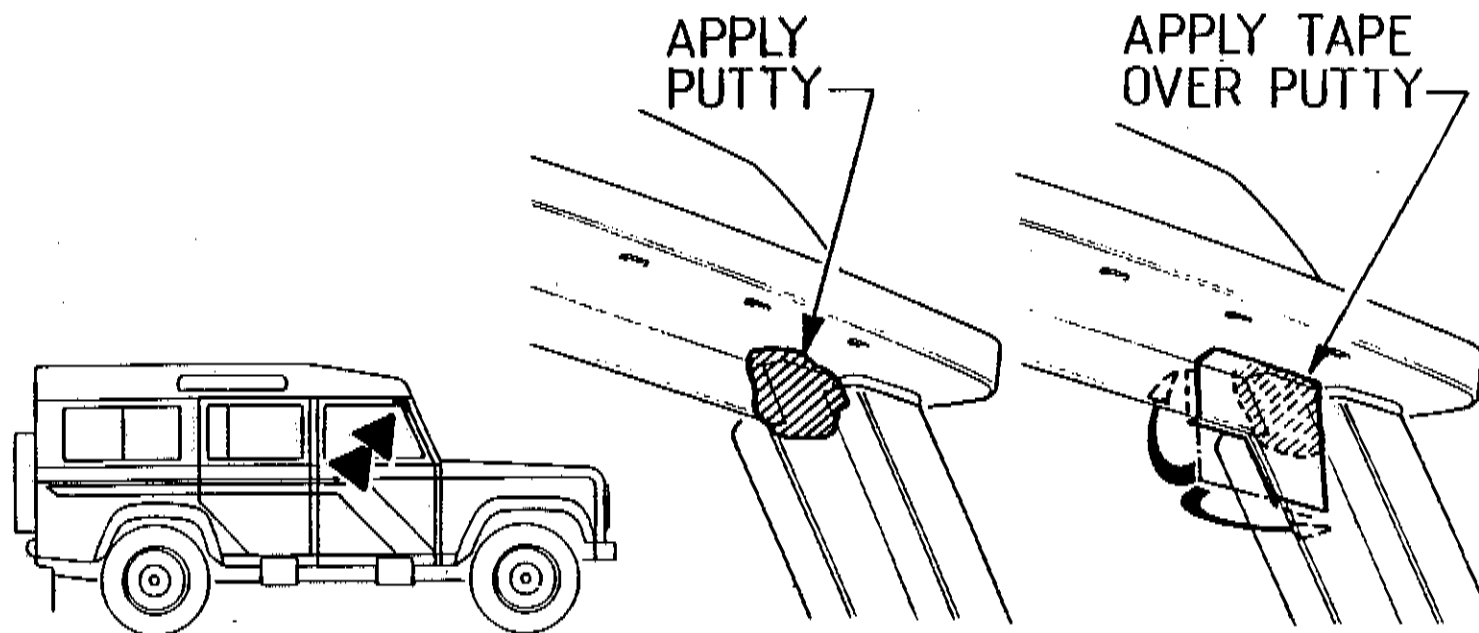
- TIGHTEN BOLTS AND RE-TEST FOR WATER LEAKS.
- IF LEAKS PERSIST, LOOSEN OFF ALL THREE BOLTS SO THAT HINGE CAN BE MOVED SLIGHTLY.
- APPLY A 50mm STRIP OF DUM DUM AROUND THE TOP OF THE HINGE.
- RE-TIGHTEN THE NUTS.
- WIPE OFF ANY EXCESS DUM DUM USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: 'A' POST LEAK

PROCESS NO: 2.5

LEAK PATH: 'A' POST DOOR SEAL AT TOP

ILLUSTRATION:



TOOL/S: KNIFE

SEALANT: DUM DUM

PROCESS:

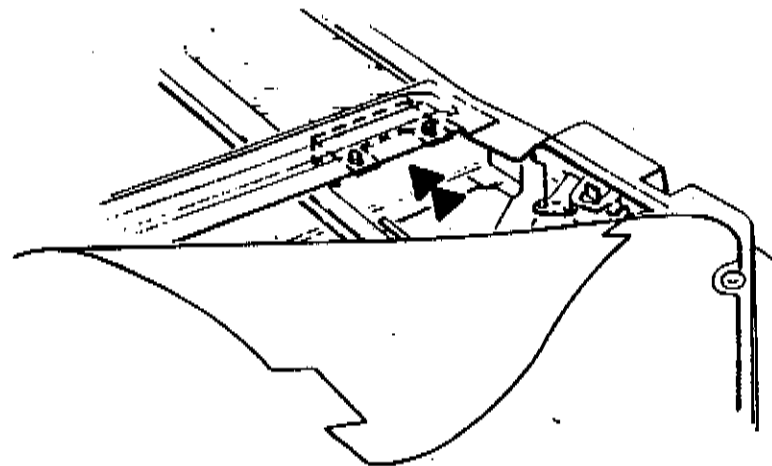
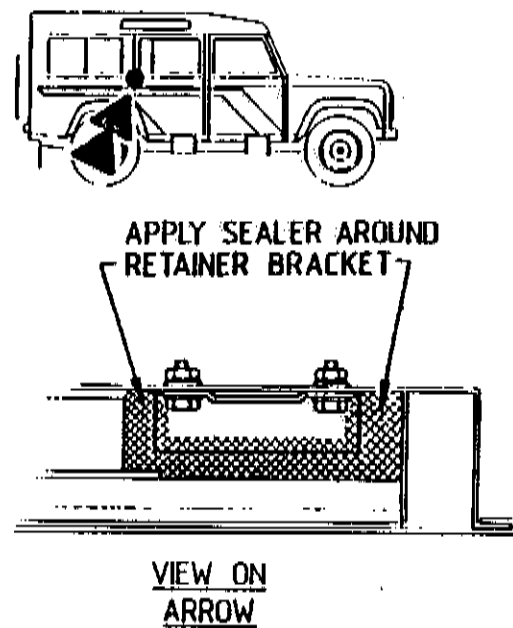
- REMOVE PART OF THE DOOR SEAL AS INDICATED ABOVE.
- WORK ENOUGH DUM DUM INTO THE AREA SHOWN TO BRING THE DOOR SEAL INTO TO CLOSER CONTACT WITH THE DOOR FRAME.
- ENSURE ALL GAPS ARE FILLED BY PUSHING DUM DUM INTO SMALL AREAS WITH KNIFE.
- GET A ROLL OF BLACK TAPE, TEAR OFF APPROXIMATELY 40mm x 40mm AND STICK OVER PREVIOUSLY APPLIED DUM DUM.
- ENSURE THE TAPE COVERS ALL OF THE DOOR FRAME (AS SHOWN).
- REPLACE THE SEAL MAKING SURE TO FIT THE CORNER SECTION FIRST.

TITLE: PANTRY DOOR LOCK LEAK

PROCESS NO: 3.1

LEAK PATH: HOLE 1" SQUARE ABOVE LOCK AREA - INNER SKIN

ILLUSTRATION:



TOOLS: N/A

SEALANT: DUM DUM

PROCESS:

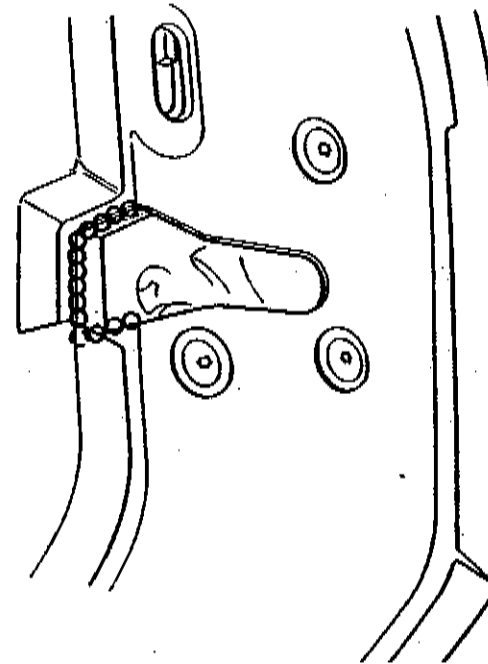
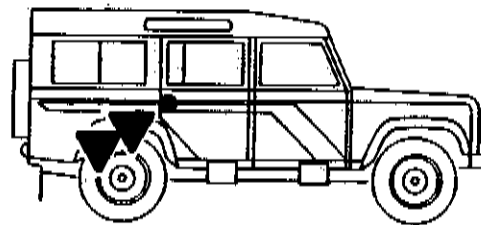
- REMOVE FIRST HALF OF CURTAIN.
- APPLY DUM DUM TO THE AREAS SHOWN IN THE ILLUSTRATION.

TITLE: PANTRY DOOR LOCK LEAK

PROCESS NO: 3.2

LEAK PATH: DEFORMED PANEL AROUND LOCK

ILLUSTRATION:



TOOL/S: N/A

SEALANT: DUM DUM

PROCESS:

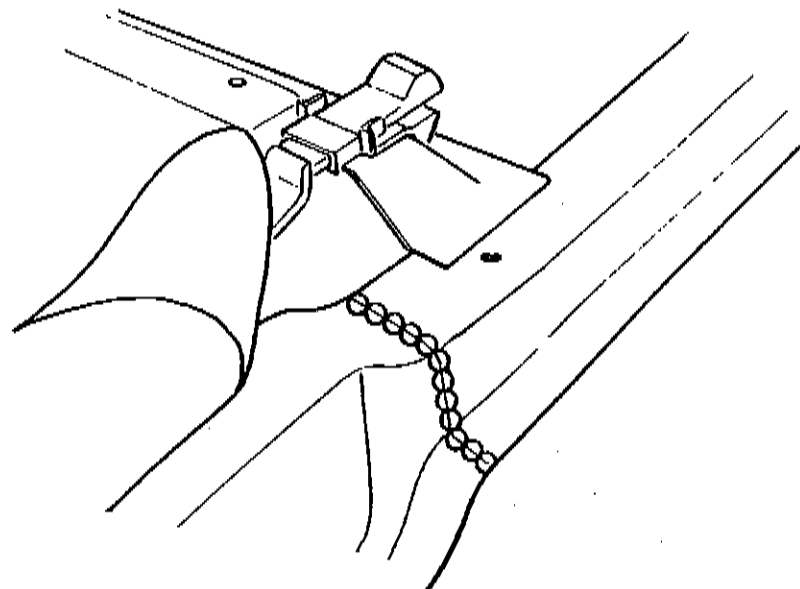
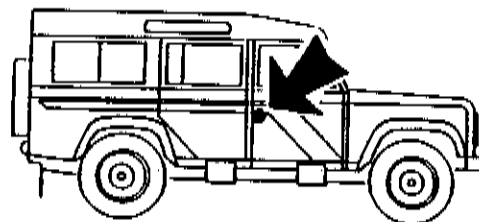
- APPLY DUM DUM TO THE AREAS SHOWN IN THE ILLUSTRATION.
- WIPE OFF ANY EXCESS DUM DUM USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: FRONT DOOR LOCK LEAK

PROCESS NO: 4.1

LEAK PATH: HOLES AND SEAM IN INNER PANEL ADJACENT TO LOCK

ILLUSTRATION:



TOOL/S: N/A

SEALANT: CLEAR SEALANT

PROCESS:

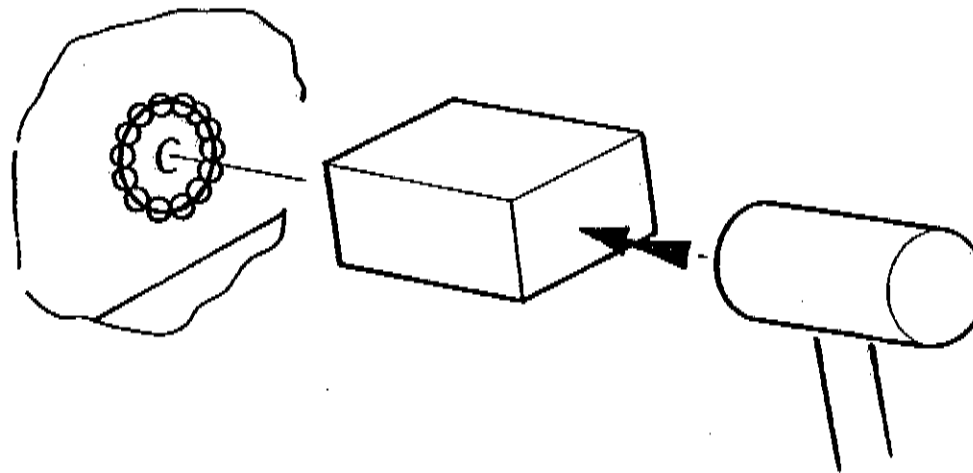
- APPLY SEALANT TO THE AREAS SHOWN IN THE ILLUSTRATION.
- WIPE OFF ANY EXCESS DUM DUM USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: LOWER BODY SIDE RIVET LEAK

PROCESS NO: 5.1

LEAK PATH: THROUGH RIVET

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR, MALLET, NYLON OR TUFNELL BLOCK

SEALANT: CLEAR SEALANT

PROCESS:

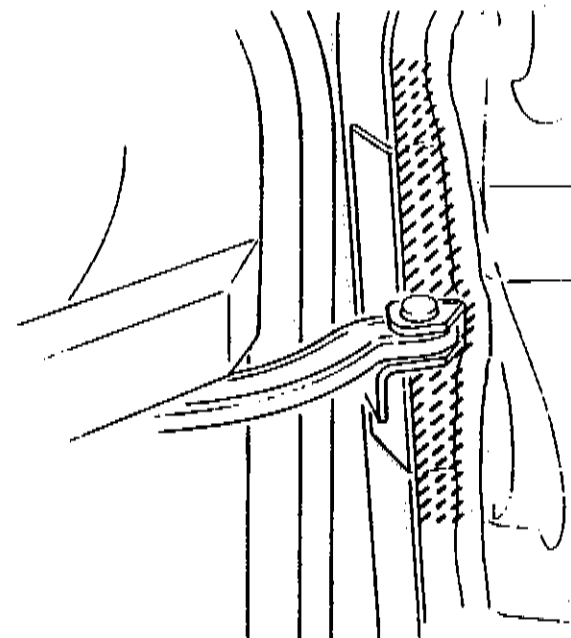
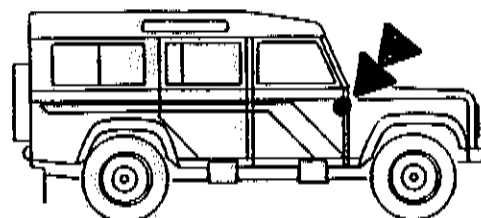
- APPLY SEALANT TO LEAKING RIVET ENSURING ADEQUATE AMOUNTS ARE WORKED INTO GAP AREAS.
- PLACE THE CHOSEN BLOCK OVER THE RIVET AND HIT TWICE WITH MALLET.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: FRONT DOOR CURTAIN LEAKS

PROCESS NO: 6.1

LEAK PATH: THROUGH BUTYL SEAM COVERING CHECK STRAP

ILLUSTRATION:



TOOL/S: PAINT BRUSH

SEALANT: CLEAR SEALANT

PROCESS: - APPLY ADDITIONAL SEALANT AROUND THE AREA SHOWN IN THE ILLUSTRATION.

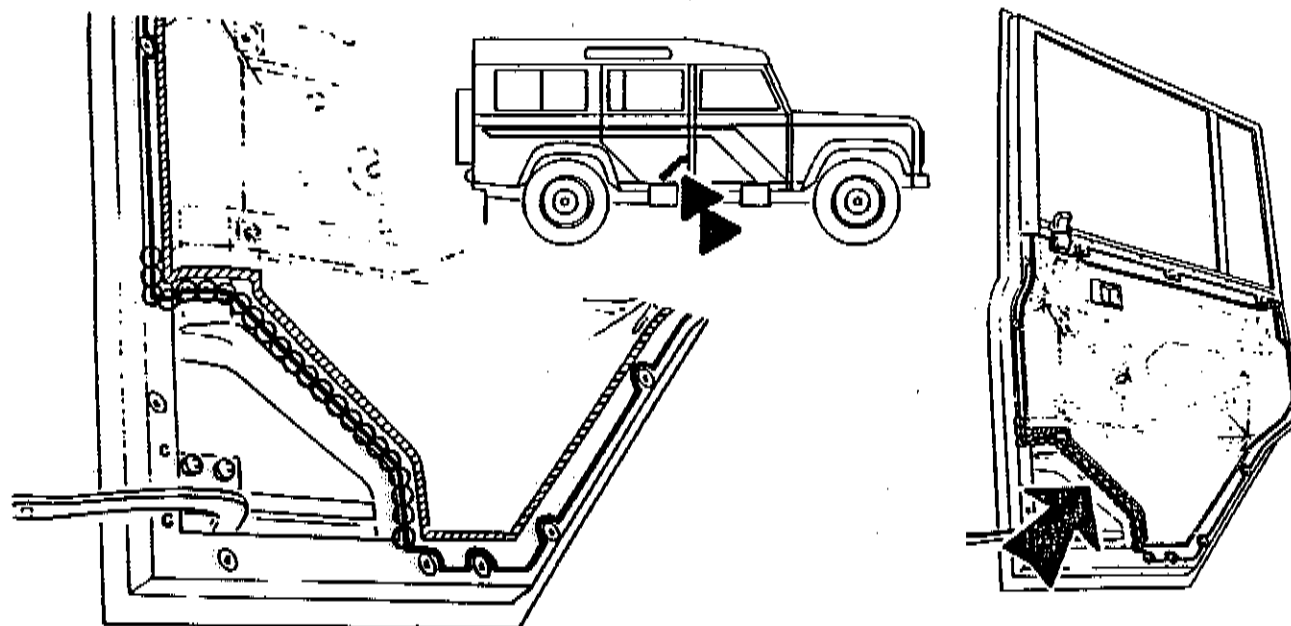
NOTE: IF LEAKING PERSISTS CHECK THAT THE DRAINAGE HOLES AT THE BOTTOM OF THE DOOR ARE NOT BLOCKED.

TITLE: PANTRY DOOR CURTAIN LEAK

PROCESS NO: 7.1

LEAK PATH: WATER DEFLECTOR LEAK

ILLUSTRATION:



TOOL/S: PAINT BRUSH

SEALANT: CLEAR SEALANT

PROCESS: - APPLY ADDITIONAL SEALANT AROUND THE AREA SHOWN IN THE ILLUSTRATION.

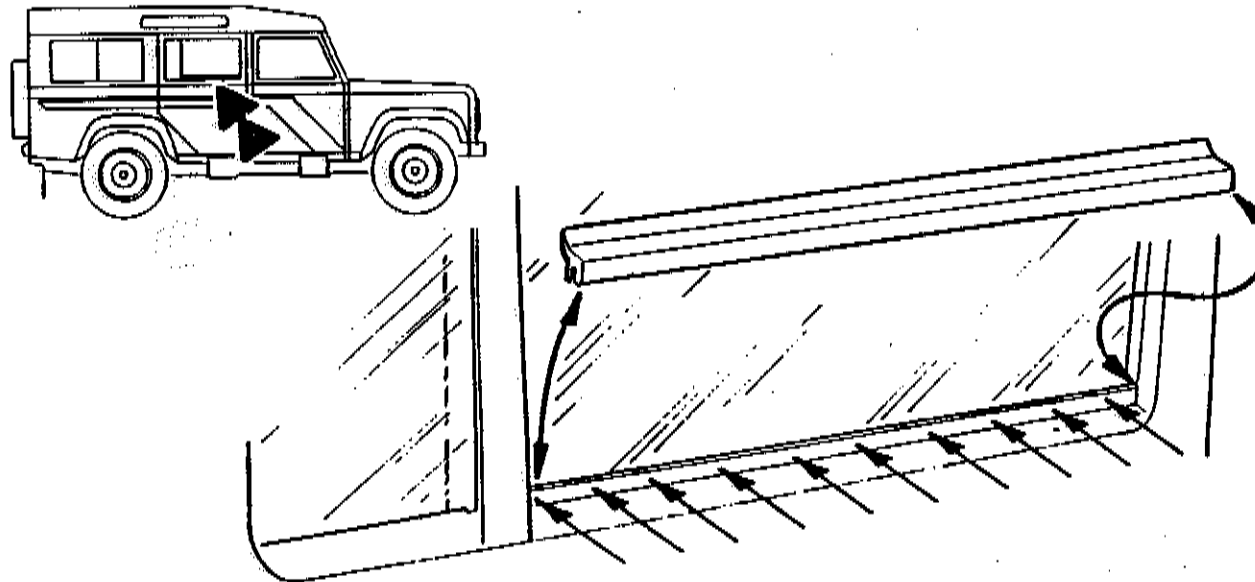
NOTE: IF LEAKING PERSISTS CHECK THAT THE DRAINAGE HOLES AT THE BOTTOM OF THE DOOR ARE NOT BLOCKED.

TITLE: PANTRY DOOR CURTAIN LEAKS

PROCESS NO: 7.2

LEAK PATH: WATER DAM AT BOTTOM

ILLUSTRATION:



TOOL/S: NYLON OR TUFNELL BLOCK, MALLET

SEALANT: N/A

- PROCESS:**
- REMOVE WINDOW LIFT SEAL FROM FLANGE.
 - PLACE WOODEN BLOCK ONTO FLANGE AND HIT WITH MALLET ALONG ITS ENTIRE LENGTH.
 - REPLACE WINDOW LIFT SEAL.

NOTE: IF LEAKING PERSISTS CHECK THAT THE DRAINAGE HOLES AT THE BOTTOM OF THE DOOR ARE NOT BLOCKED.

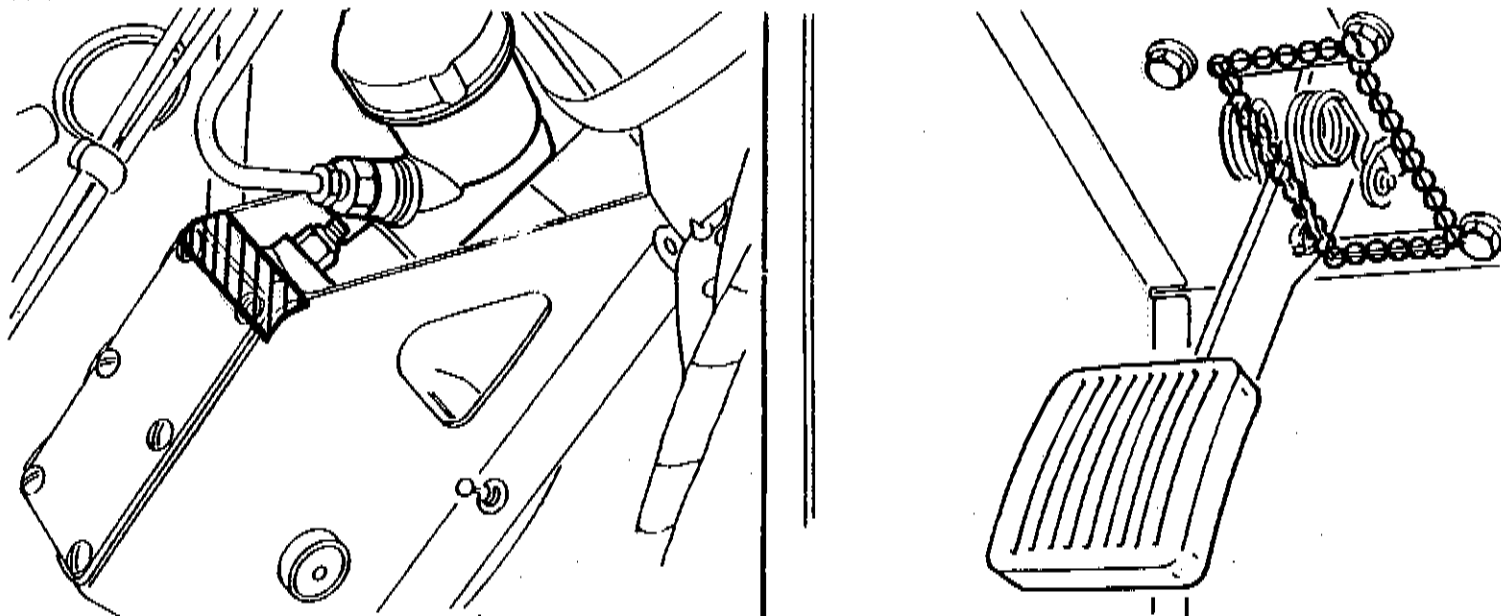
CARE POINT - WHEN REMOVE WAIST SEAL. TAKE CARE NOT TO BEND IT.

TITLE: CLUTCH LEAK

PROCESS NO: 8.1

LEAK PATH: PEDAL BOX

ILLUSTRATION:



TOOLS: N/A

SEALANT: DUM DUM

PROCESS:

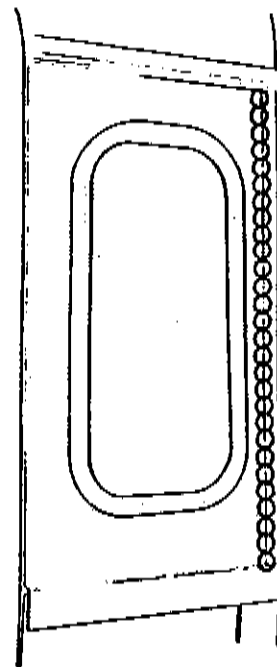
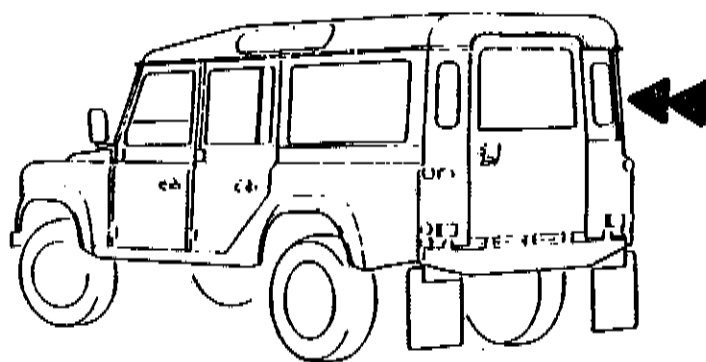
- REMOVE CARPETS OR MATS FROM FOOTWELL AREA.
NOTE: WHEN REMOVING THE DIAPHRAGM CARPET TAKE CARE NOT TO DAMAGE THE FITMENT TAPE.
- APPLY STRIPS OF DUM DUM AROUND THE ENTIRE CLUTCH PEDAL APERTURE.
- DUM DUM SHOULD BE APPLIED TO BOTH THE ENGINE BAY AND CABIN SIDE.

TITLE: REAR END PANEL LEAKS

PROCESS NO: 9.1

LEAK PATH: UPPER BODY QUARTER PANELS

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR

SEALANT: CLEAR SEALANT

PROCESS:

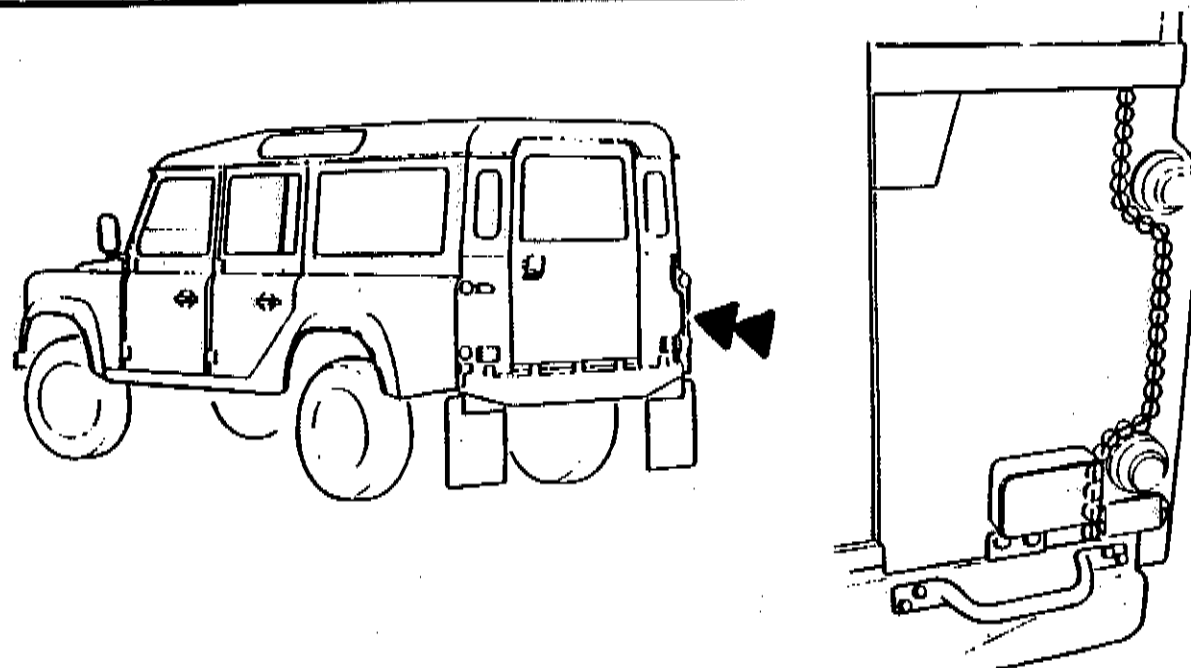
- APPLY SEALANT ALONG THE ENTIRE LENGTH OF THE LEAKING JOINT, AS SHOWN IN THE ILLUSTRATION.
- THOROUGHLY WORK THE SEALANT INTO THE GAPS
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: REAR END PANEL LEAK

PROCESS NO: 9.2

LEAK PATH: LOWER BODY CPA

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR

SEALANT: CLEAR SEALANT

PROCESS:

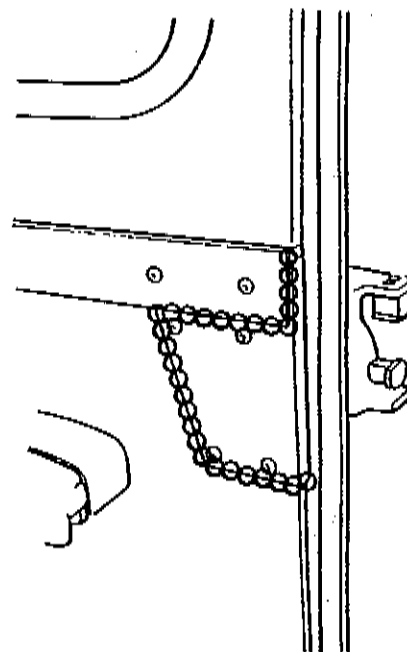
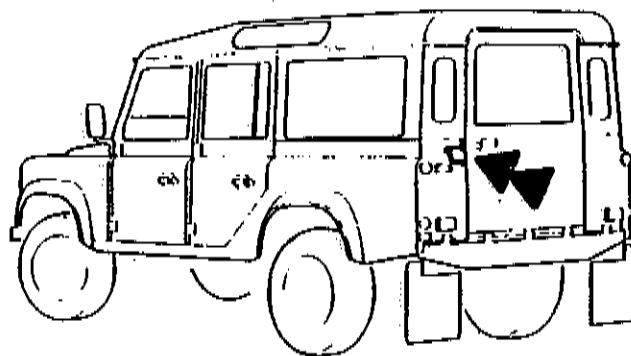
- APPLY SEALANT ALONG THE ENTIRE LENGTH OF THE LEAKING JOINT, AS SHOWN IN THE ILLUSTRATION.
- THOROUGHLY WORK THE SEALANT INTO THE GAPS
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: REAR END PANEL LEAK

PROCESS NO: 9.3

LEAK PATH: DOWEL PLATES

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR

SEALANT: CLEAR SEALANT

PROCESS:

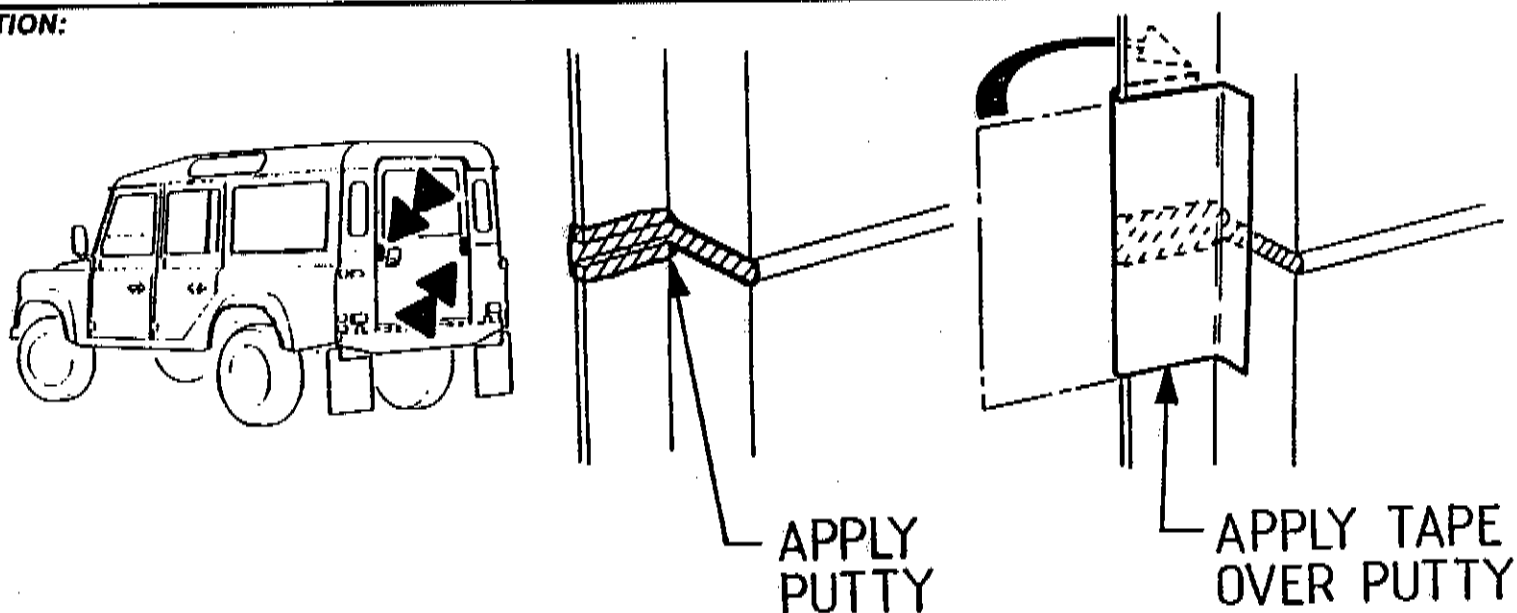
- APPLY SEALANT ALONG THE ENTIRE LENGTH OF THE LEAKING JOINT, AS SHOWN IN THE ILLUSTRATION.
- THOROUGHLY WORK THE SEALANT INTO THE GAPS
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: REAR END PANEL LEAK

PROCESS NO: 9.4

LEAK PATH: REAR WAIST SEAL

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR

SEALANT: CLEAR SEALANT

PROCESS:

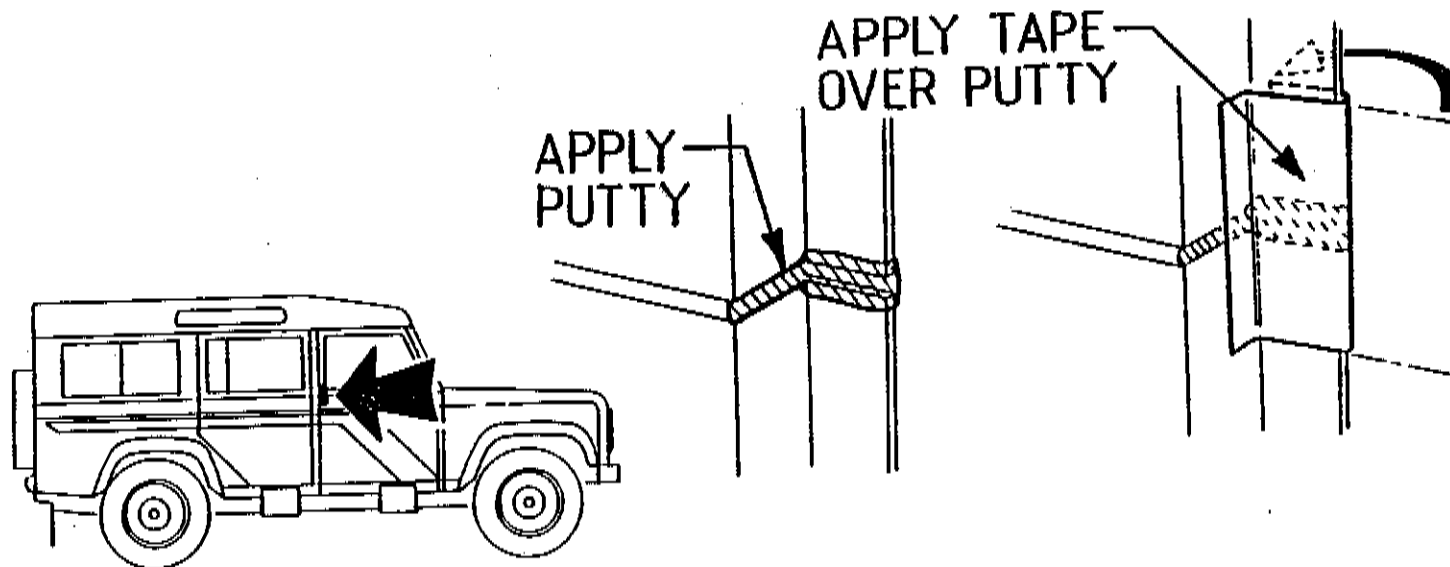
- APPLY SEALANT ALONG THE ENTIRE LENGTH OF THE LEAKING JOINT, AS SHOWN IN THE ILLUSTRATION.
- THOROUGHLY WORK THE SEALANT INTO THE GAPS
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.
- APPLY EXTRA DUM DUM INTO CORNER SECTION AS THIS IS THE MOST LIKELY AREA FOR LEAKAGE.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: SIDE DOOR WAIST SEAL LEAK

PROCESS NO: 10.1

LEAK PATH: B' POST

ILLUSTRATION:



TOOL/S: KNIFE

SEALANT: DUM DUM

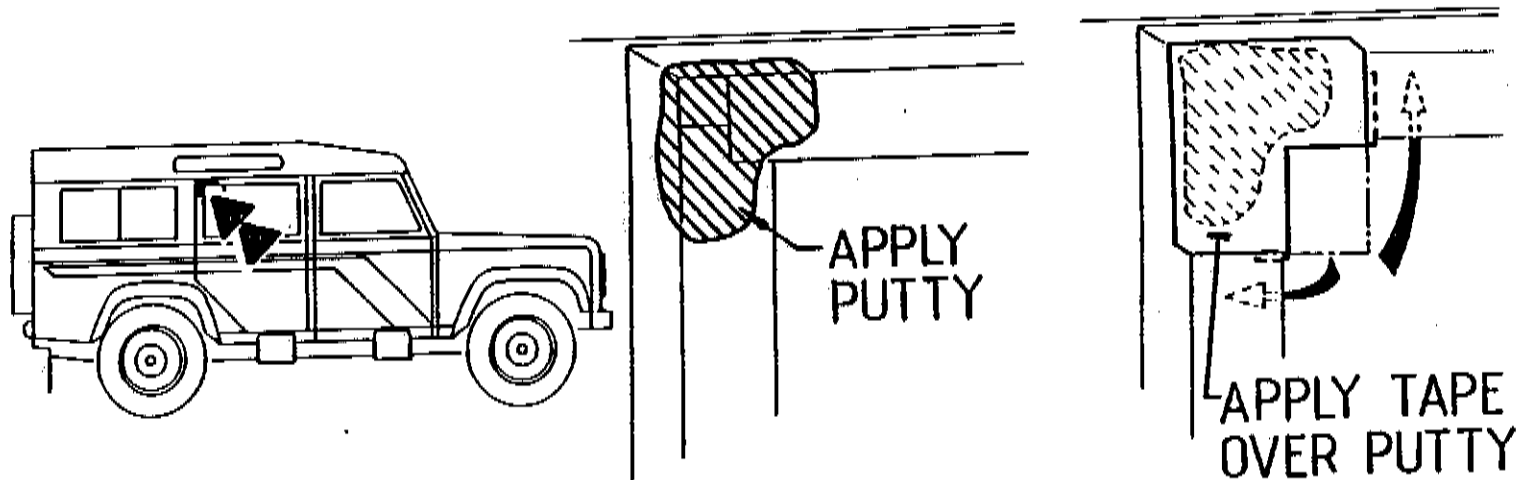
- PROCESS:**
- REMOVE PART OF THE DOOR SEAL AS INDICATED ABOVE.
 - WORK ENOUGH DUM DUM INTO THE AREA SHOWN TO BRING THE DOOR SEAL INTO TO CLOSER CONTACT WITH THE DOOR FRAME.
 - ENSURE ALL GAPS ARE FILLED BY PUSHING DUM DUM INTO SMALL AREAS WITH KNIFE.
 - GET A ROLL OF BLACK TAPE, TEAR OFF APPROXIMATELY 40mm x 40mm AND STICK OVER PREVIOUSLY APPLIED DUM DUM.
 - ENSURE THE TAPE COVERS ALL OF THE DOOR FRAME (AS SHOWN).
 - REPLACE THE SEAL MAKING SURE TO FIT THE CORNER SECTION FIRST.

TITLE: SIDE DOOR WAIST SEAL LEAK

PROCESS NO: 10.2

LEAK PATH: 'D' POST

ILLUSTRATION:



TOOL/S: KNIFE

SEALANT: DUM DUM

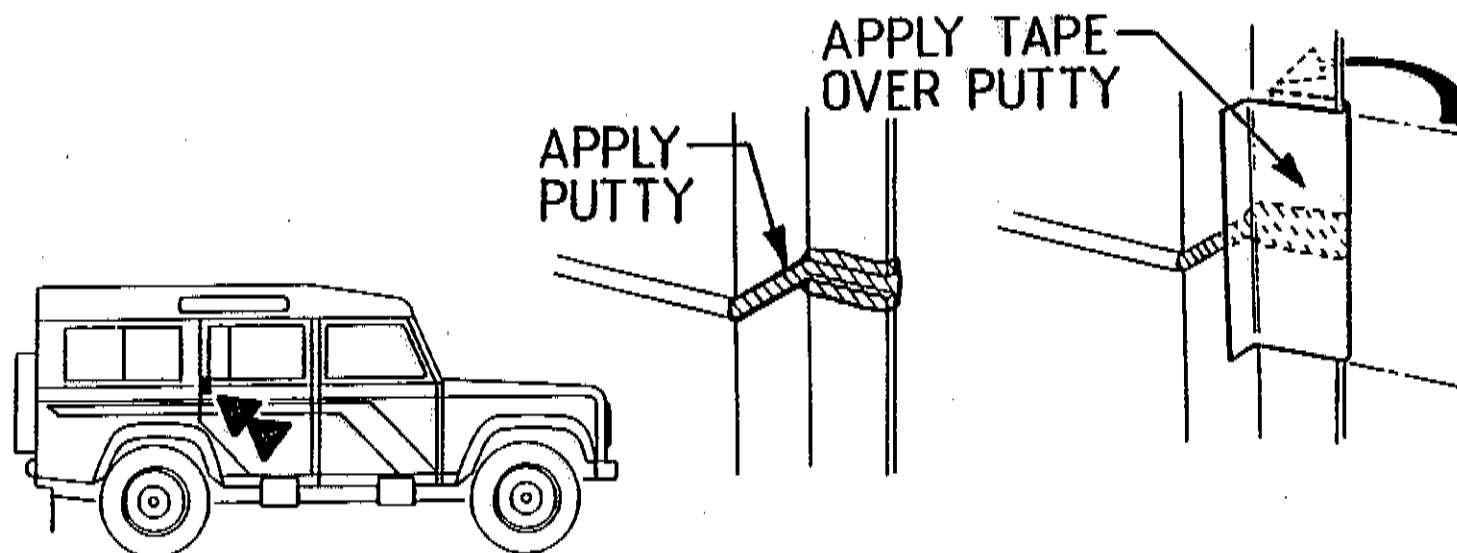
- PROCESS:**
- REMOVE PART OF THE DOOR SEAL AS INDICATED ABOVE.
 - WORK ENOUGH DUM DUM INTO THE AREA SHOWN TO BRING THE DOOR SEAL INTO TO CLOSER CONTACT WITH THE DOOR FRAME.
 - ENSURE ALL GAPS ARE FILLED BY PUSHING DUM DUM INTO SMALL AREAS WITH KNIFE.
 - GET A ROLL OF BLACK TAPE, TEAR OFF APPROXIMATELY 40mm x 40mm AND STICK OVER PREVIOUSLY APPLIED DUM DUM.
 - ENSURE THE TAPE COVERS ALL OF THE DOOR FRAME (AS SHOWN).
 - REPLACE THE SEAL MAKING SURE TO FIT THE CORNER SECTION FIRST.

TITLE: SIDE DOOR WAIST SEAL LEAK

PROCESS NO: 10.3

LEAK PATH: AROUND WAIST SEAL

ILLUSTRATION:



TOOL/S: KNIFE

SEALANT: DUM DUM

PROCESS:

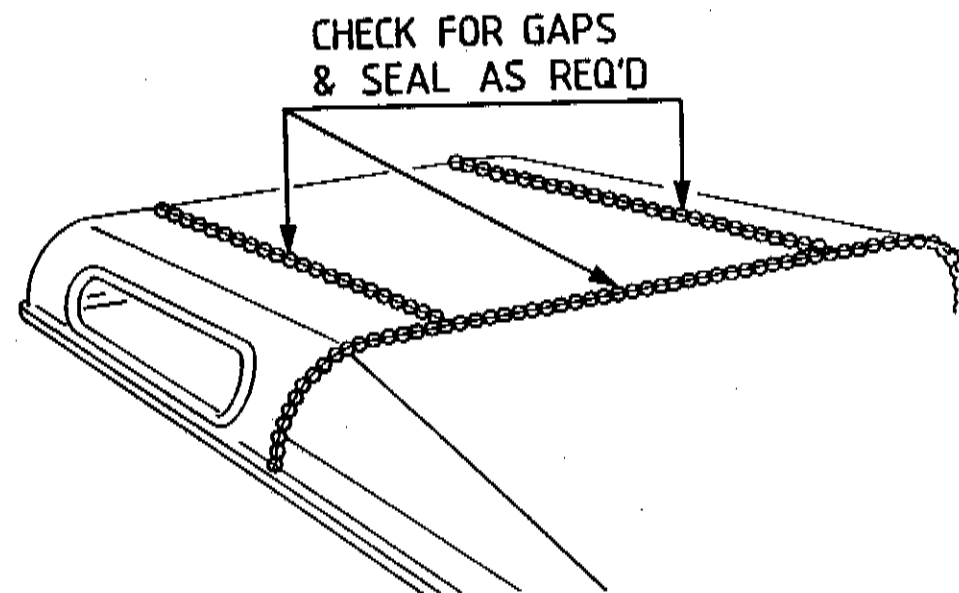
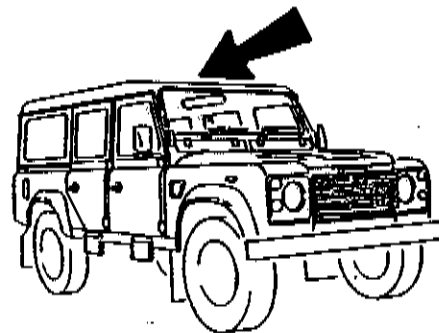
- REMOVE PART OF THE DOOR SEAL AS INDICATED ABOVE.
- WORK ENOUGH DUM DUM INTO THE AREA SHOWN TO BRING THE DOOR SEAL INTO TO CLOSER CONTACT WITH THE DOOR FRAME.
- ENSURE ALL GAPS ARE FILLED BY PUSHING DUM DUM INTO SMALL AREAS WITH KNIFE.
- GET A ROLL OF BLACK TAPE, TEAR OFF APPROXIMATELY 40mm x 40mm AND STICK OVER PREVIOUSLY APPLIED DUM DUM.
- ENSURE THE TAPE COVERS ALL OF THE DOOR FRAME (AS SHOWN).
- REPLACE THE SEAL
- WIPE OFF ANY EXCESS DUM DUM USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: ROOF GENERAL

PROCESS NO: 11.1

LEAK PATH: ROOF SEAMS

ILLUSTRATION:



TOOLS: TUBE APPLICATOR.

SEALANT: WHITE SEALANT (WHITE ROOF) BLACK SEALANT (COLOUR MATCHED ROOF)

PROCESS:

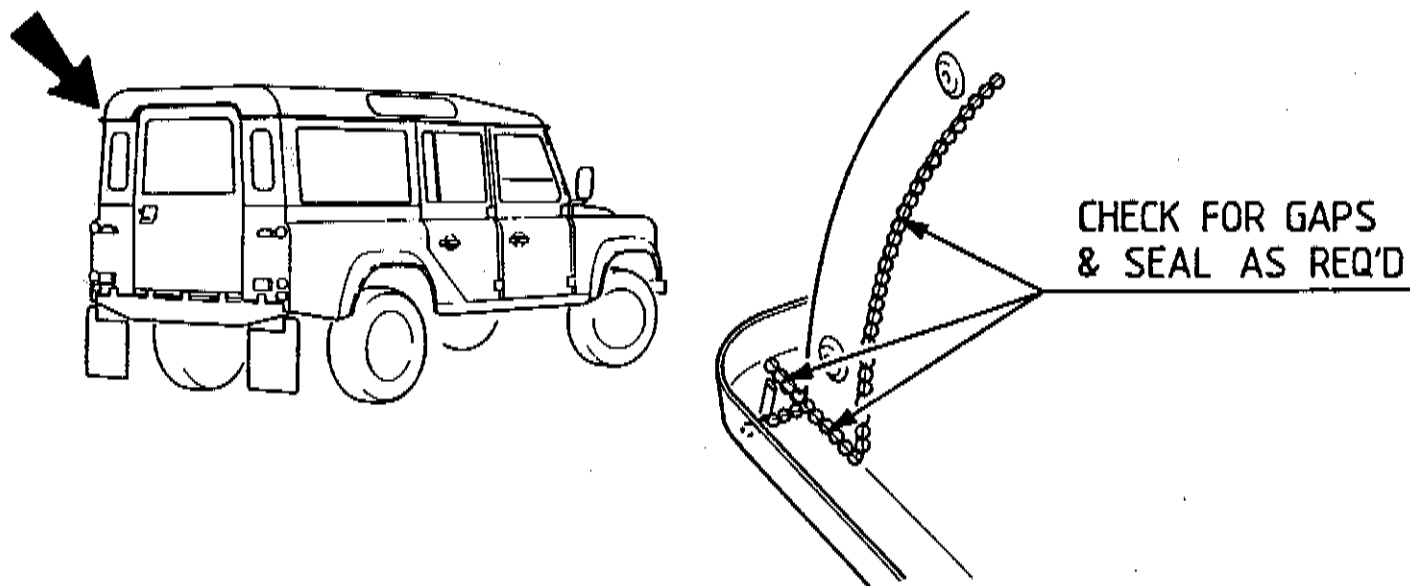
- APPLY SEALANT TO ANY SEAMS SHOWING SIGNS OF GAPS OR DAMAGE
- THOROUGHLY WORK THE SEALANT INTO THE GAPS.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: ROOF REAR

PROCESS NO: 11.2

LEAK PATH: REAR END PANLE

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR.

SEALANT: WHITE SEALANT (WHITE ROOF) BLACK SEALANT (COLOUR MATCHED ROOF).

PROCESS:

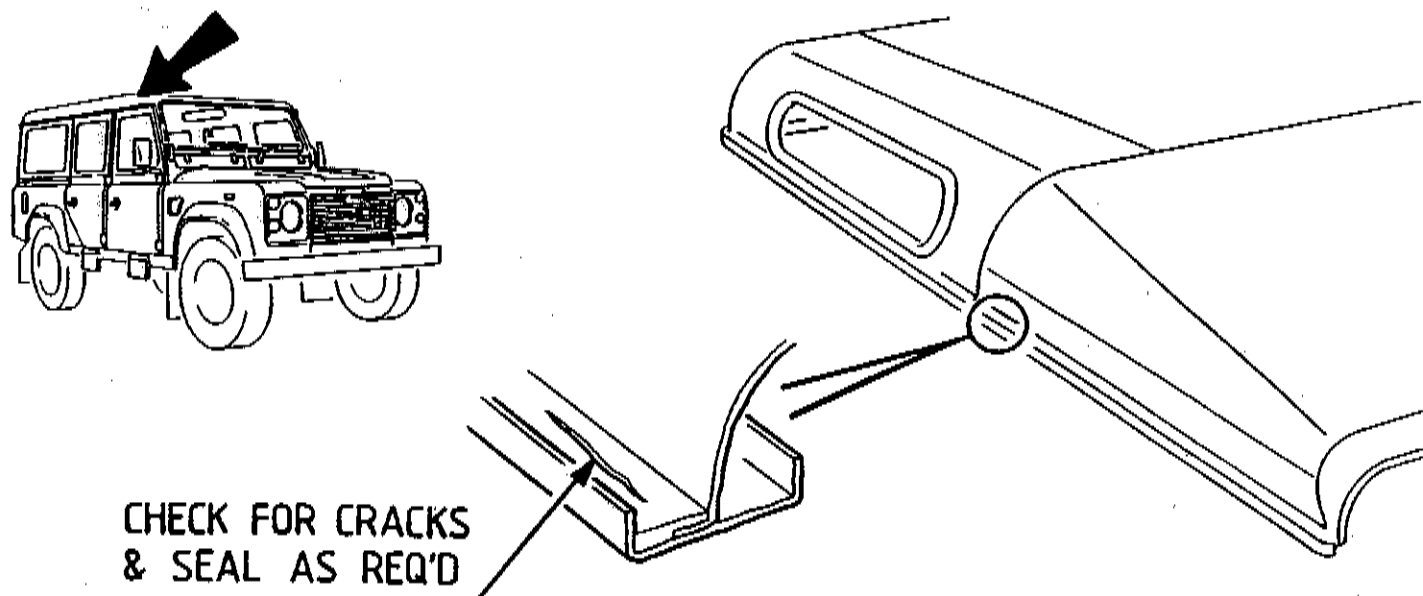
- APPLY SEALANT TO SMALL GAP IN END OF SEAL BTWEEN ROOF AND R/END PANLE.
- WORK SEALANT INTO THE GAP.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: ROOF

PROCESS NO: 11.3

LEAK PATH: DRAIN CHANNLES

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR.

SEALANT: PAINTABLE SEALANT.

PROCESS:

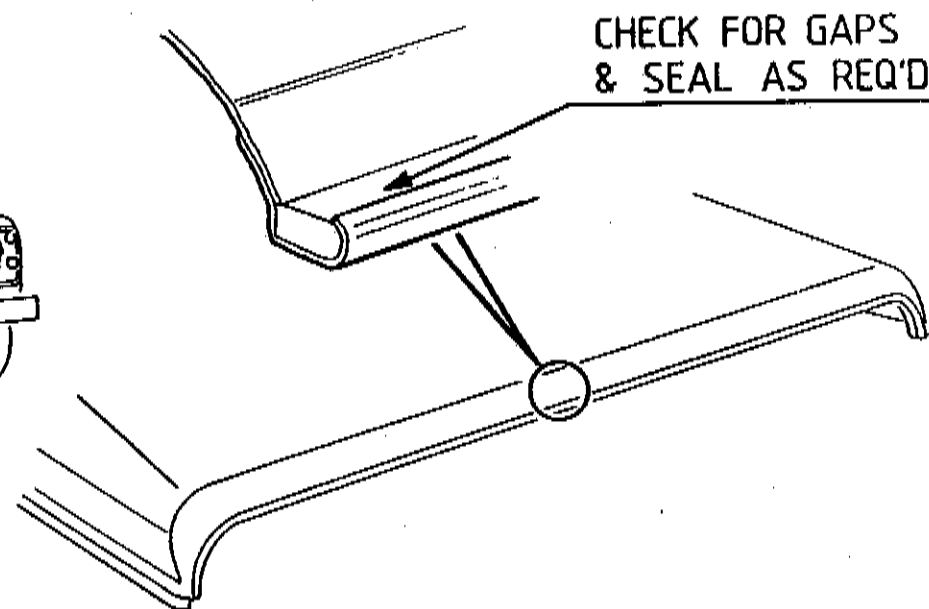
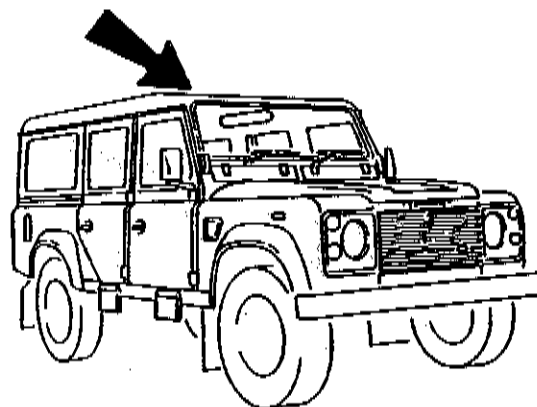
- APPLY SEALANT TO ANY CRACKS FOUND IN DRAIN CHANNLES.
- WORK SEALANT INTO GAPS AND SMOHE OVER WITH FLAT EDGE.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: ROOF FRONT

PROCESS NO: 11.4

LEAK PATH: FRONT SCROLL

ILLUSTRATION:



TOOLS: TUBE APPLICATOR.

SEALANT: WHITE SEALANT (WHITE ROOF) BLACK SEALANT (COLOUR MATCHED ROOF).

PROCESS:

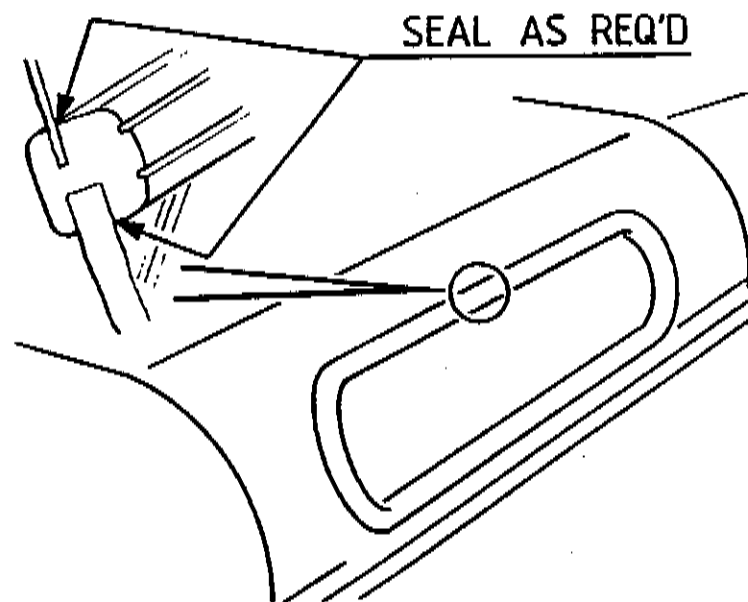
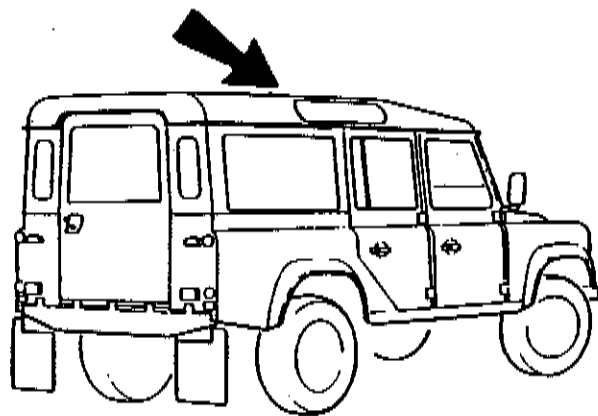
- APPLY SEALANT TO ANY GAPS FOUND IN FRONT SCROLL ABOVE WIND SCREEN.
- WORK SEALANT INTO GAPS.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.

TITLE: ALPINE LIGHT

PROCESS NO: 11.5

LEAK PATH: SEAL TO GLASS/SEAL TO ROOF

ILLUSTRATION:



TOOL/S: TUBE APPLICATOR

SEALANT: BLACK SEALANT

PROCESS:

- APPLY SEALANT TO JOINT FROM GLASS TO RUBBER AND RUBBER TO ROOF.
- WORK SEALANT INTO JOINT.
- WIPE OFF ANY EXCESS USING MUTTON CLOTH DIPPED IN SPIRIT WIPE.