



Installation Instructions

LamboStyleDoors

(The instruction are to be used as a reference. Please repeat for both doors)

Mercedes SLK type 172
Part number 500 25 012

Pre installation check list:

- *Vehicle must be accident free*
- *Vehicle must have inner fender cover*
- *Front fender removed*
- *Battery disconnected*
- *Double check vehicles data with TUV certificate*

Preparations:

(Disassemble parts according to vehicle manufacturer specifications)

1. *Disassemble the door stopper.*
2. *Disconnect the cable connector between chassis and door*
3. *Disassemble the door.*
4. *Modify the fender*
5. *Modify the door edge*
6. *Extending the wire harness*
7. *Assembly the LSD hinges*



Danger warnings

LSD Doors must be installed according to the provided vehicle specific instructions from LSD Doors and installation should be performed by an authorized dealer.

Always follow the latest accident prevention regulations (not applicable for North America) for each step to prevent any serious bodily harm or injury.

Extending the factory wire harness must be completed according to the vehicle manufacturer's guidelines for cable repairs. When working with Share-data bus systems please take special care to correctly reroute the wires and not to damage the wire insulation/shielding, twist of the cables or interrupt any other systems (check with the specifications of the vehicle manufacturer).

When modifying vehicles equipped with door side air bag systems, the functionality of the air bag system must be re-inspected through the vehicles authorized dealer.

During final door adjustments please make sure that the door closes and locks correct as OEM specifications (see original door close angles, lock and gapping positions etc.)

Please pay special attention while working in the operation area of the hinge system (especially when working directly with the pivot mechanism or in the overall door operation zone).

All vehicle doors must be securely closed before setting vehicle into motion. Operating a vehicle with the doors open is strictly prohibited.

Supplied vertical lifting door warning decals must be placed on the vehicles front side windows, clearly visible from both inside and outside. Not placing decals on your vehicle might void your vehicle operating license (not applicable for North America).

Do not install heavier speaker systems without first raising the pressure of the gas spring.

Please adjust the horizontal opening angle of the doors for maximum entrance space.

Please pay attention to your gas springs and make sure they open and maintain your door at the maximum opening angle under all operation vehicle conditions.

Make sure you empty the door pockets/storage compartments, so objects will not fall out once the door is raised and also not to offset the correct balance of the gas spring.

WARNING: Gas spring is under extreme pressure! Please make sure the snap rings are installed correctly and are snapped their respective guides.



General installation instructions:

A second person makes the work much easier. Please instruct the second person before start working.

It is recommended to keep your LSD door hinges maintained on a regular basis for a lifetime of trouble free operation.



! **Attention notice:**

An additional inside support handle must be installed to solve the issue of possible difficulty of gripping the door, when raising and lowering your door from your seated position.

If there are white lights on your door, these must be made ineffective, e. g. taking of the bulb and bulb holder according to fig. 5.22 ECE-law no. 48.

After mounting the LSD hinge system you must reinstall your oem inner fender covers to keep your LSD hinges free from debris and corrosion.

You must have an authorized workshop check that the central locking system (if equipped) is working properly.

You must have an authorized workshop check the functionality of all systems, switches and components (including: loudspeakers, alarm system, CAN data bus systems, window lifts, crash-sensor, memory seat adjustment, mirror adjustment and heating, etc. if equipped).

While adjusting the door please take special care to position it in the matching door frame as not to cause any damages to paint etc.

In case any chassis modifications were performed, please use the supplied chassis glue (if required for specific application) to seal any openings on the A-pillar or doors (make sure panels are free from grease and dust before applying chassis glue for a superior water tight seal).

NOTE: please be aware your car might have different factory installed equipment from our tested R&D vehicle, in this case please contact your LSD dealer to order higher or lower power gas damper units (an additional cost may apply).

Please note that the power of the gas dampers may fluctuate due to ambient temperature variations, the opening and closing forces may also differ according to damper manufacturers specifications (warranty claims will only be honored if there's an internal defect or an error in production).

If any body work is performed use Corrosion prevention methods according to the vehicle manufactures specifications.

After installation of LSD the doors have a limited opening angle. The doors need to be opened carefully outwards and then upwards. Damage at the body parts might occur if too much pressure is used against the limiters / stop points.



Modifying the fender

Steps below are to be used as a reference.
Please repeat for both fenders.

Recommended tool:



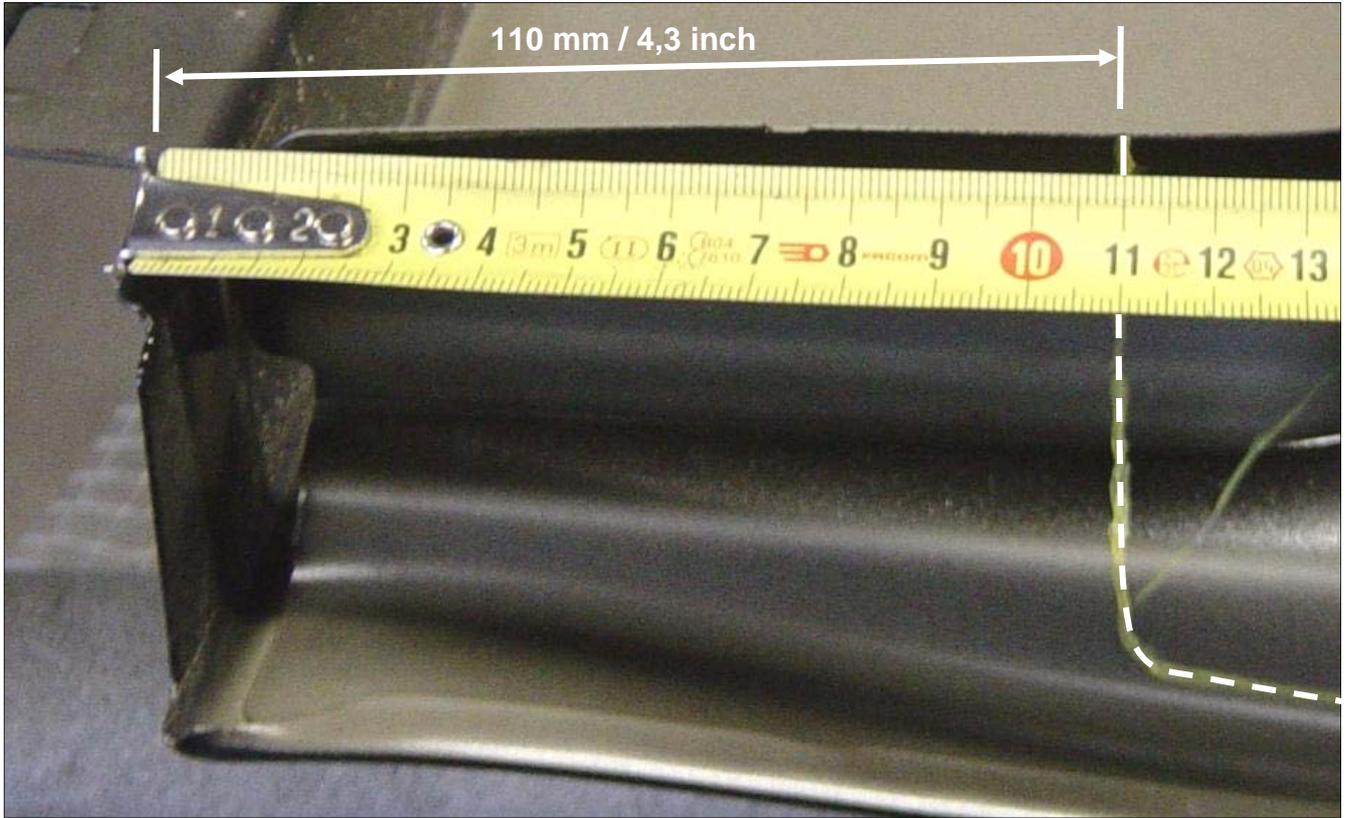
Pneumatic air saw

This part must be cut out

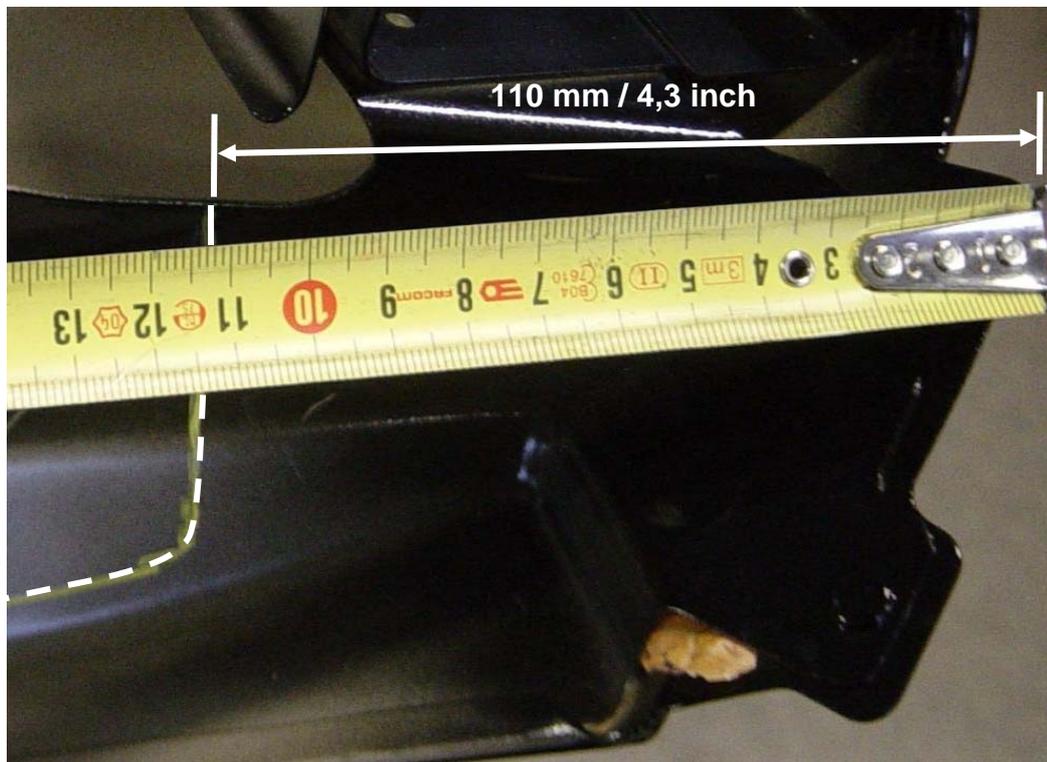




A1.)



A2.)





Modifying the door

*Steps below are to be used as a reference.
Please repeat for both doors.*



1.) *Remove the insulation from the wire harness.*





2.) Mark the cables and cut through the cable wire harness. After this dismantle the door.

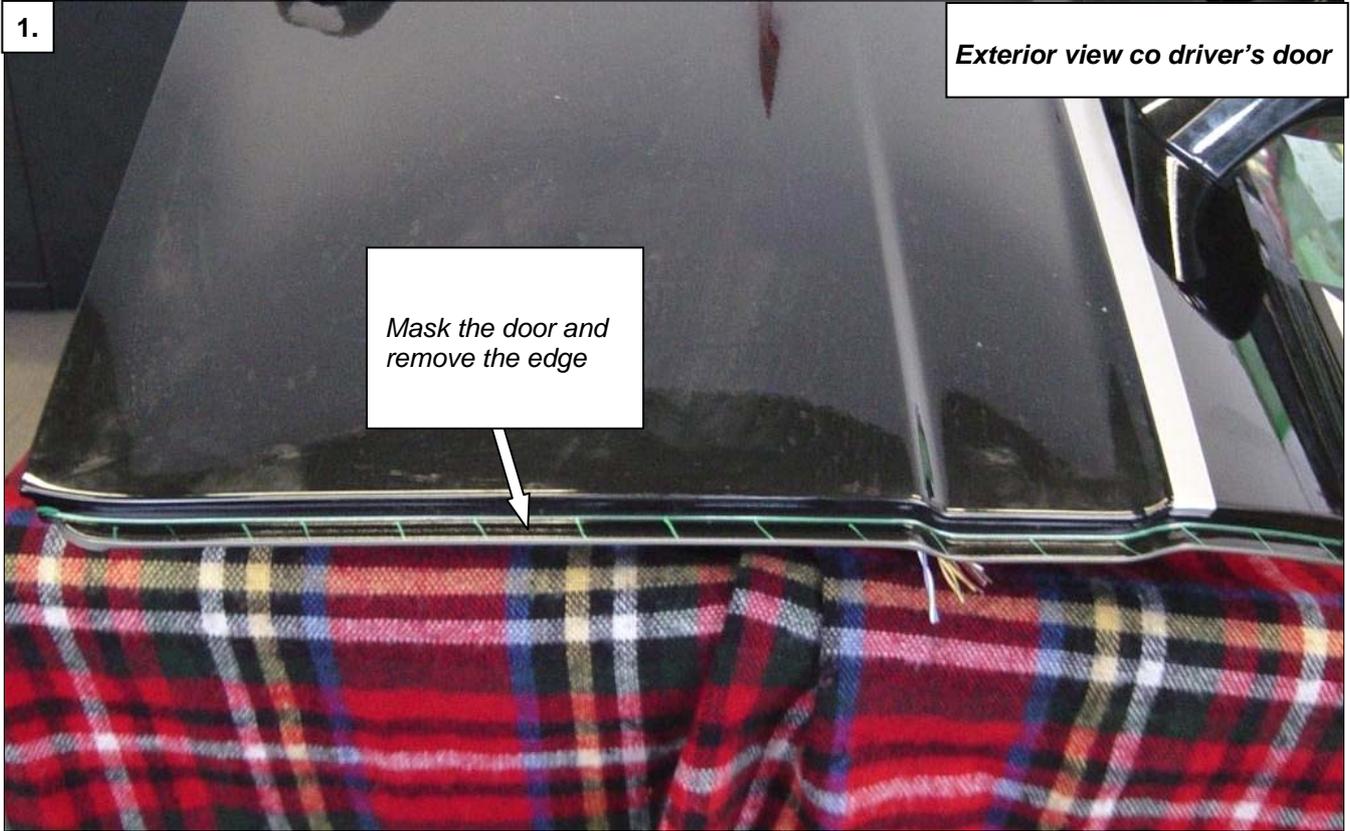




Modifying the doors

Steps below are to be used as a reference.
Please repeat for both doors.

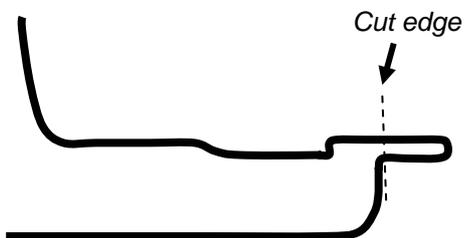
1.



Sectional view

Remove careful the door edge. Use a angle grinder

Inside view door

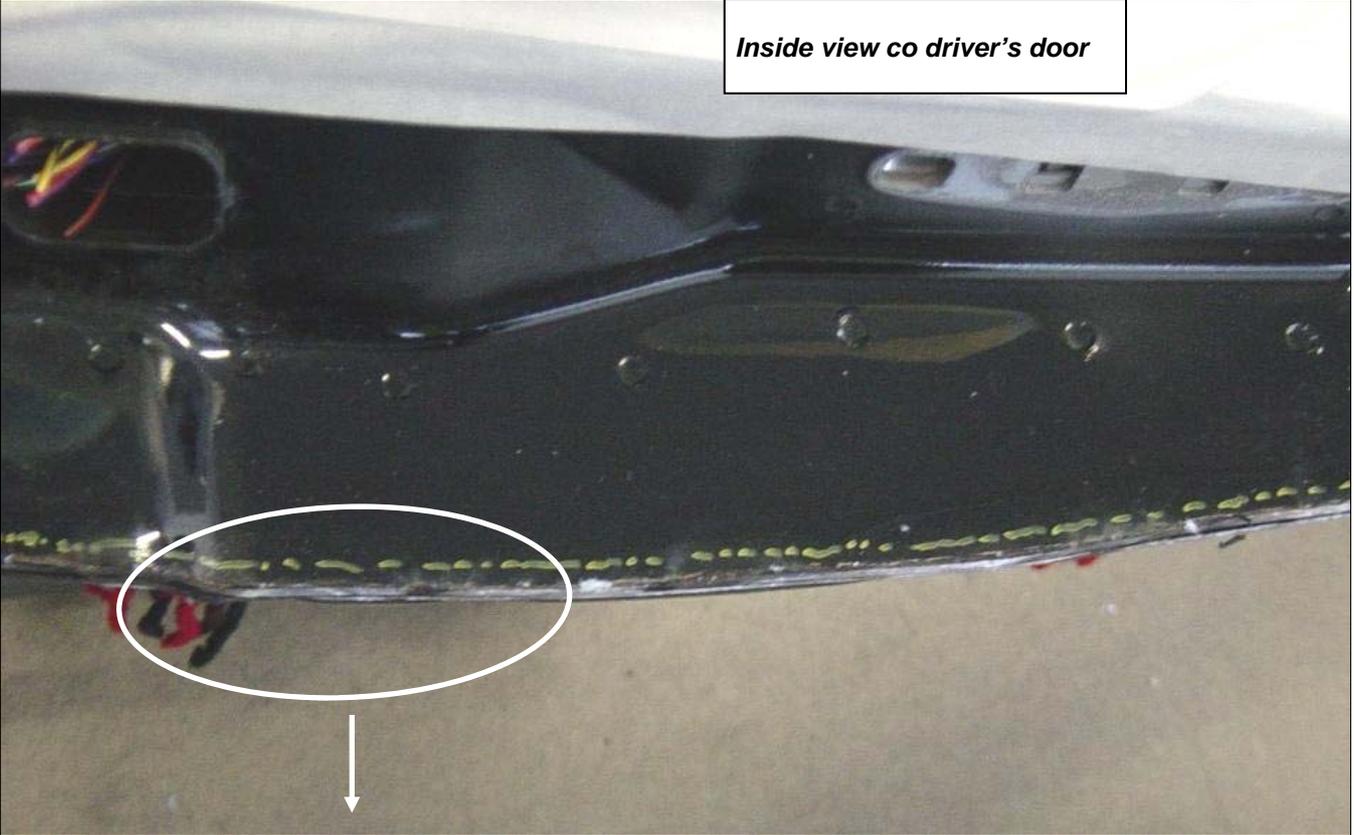


Outside view door





Cut out the upper plate at the dashed line.

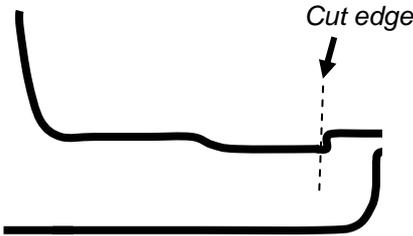


Inside view co driver's door



Sectional view

Inside view door



Outside view door



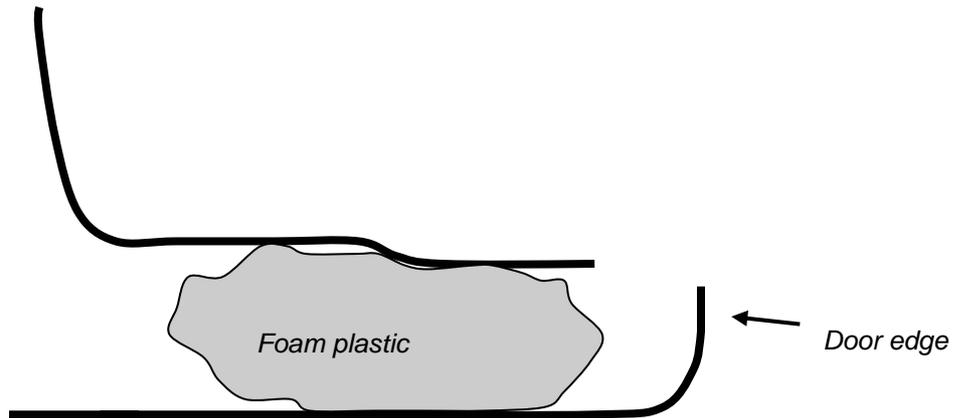
Cut out only the top sheet. Cut carefully.





Sectional view

Inside view door



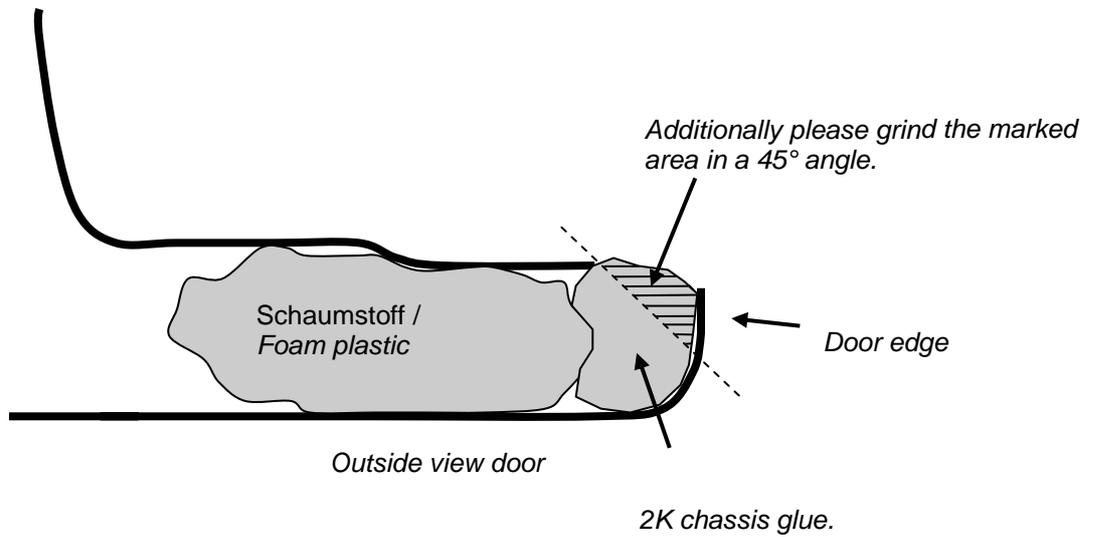
Outside view door



Subsequently, glue the door edge with 2K chassis glue and grind the edge.

Sectional view

Inside view door



Outside view door



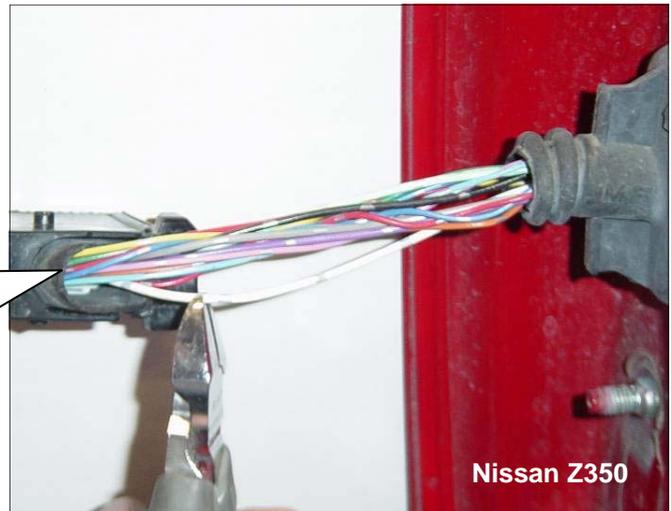
Extending the wire harness

Recommend :

Extend the cable always 43,30 inch / 1,1 m

Nissan Z350 shown, your wire harness may look different.

To avoid confusion please cut and uninsulate each wire off the wire harness separately at various lengths. This will ensure a reduced size when completed.



Nissan Z350



Now extend (braze) every wire with the supplied wire kit & shrinkable solder connectors.



Incorrect. The wire harness is very large after the wrap

Correct. Off set connectors for minimum size and flexibility.



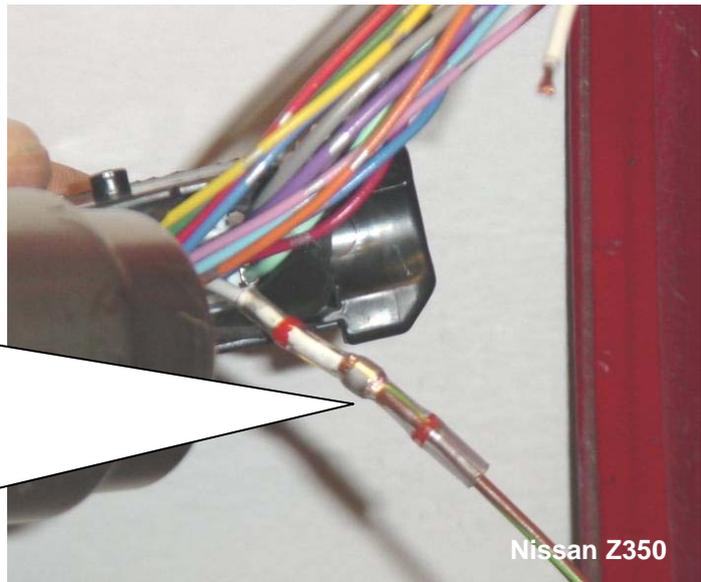


Incorrect. The wire harness is very large after the wrap

Correct. Off set connectors for



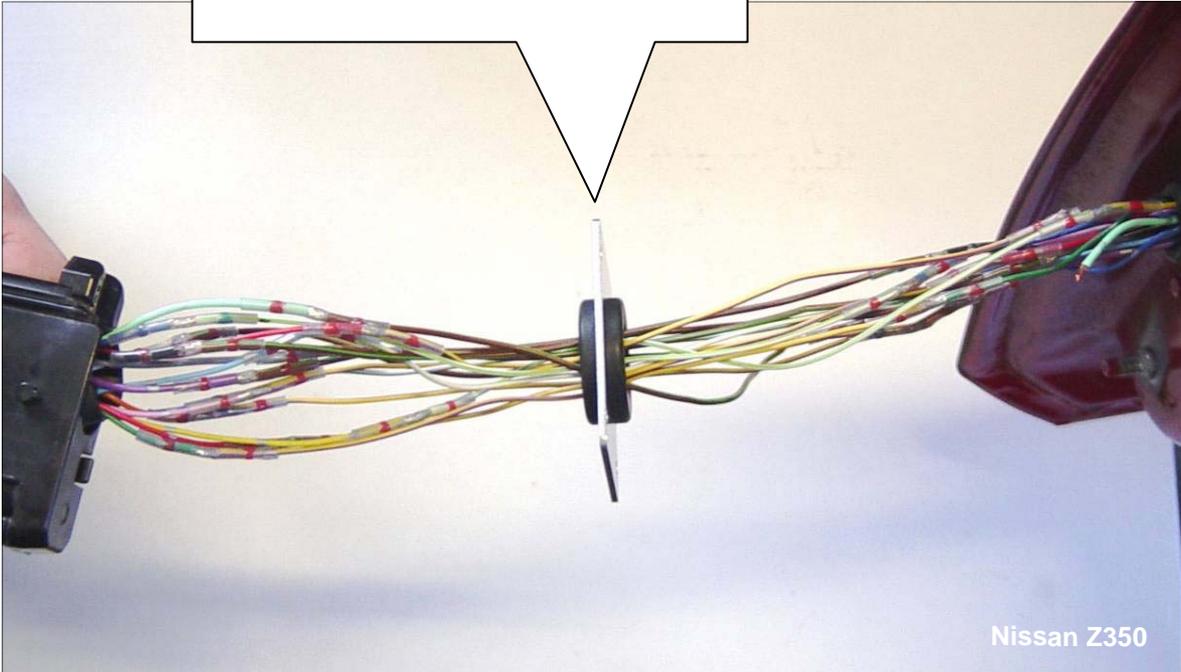
Please use a hot air dryer to heat up the solder shrink connectors from outside to inside. Heat up the solder shrink connectors until the tin-solder (inside the connector) is becoming liquid and surrounding the core ends completely. Please avoid the damage of the cables by too strong heating.



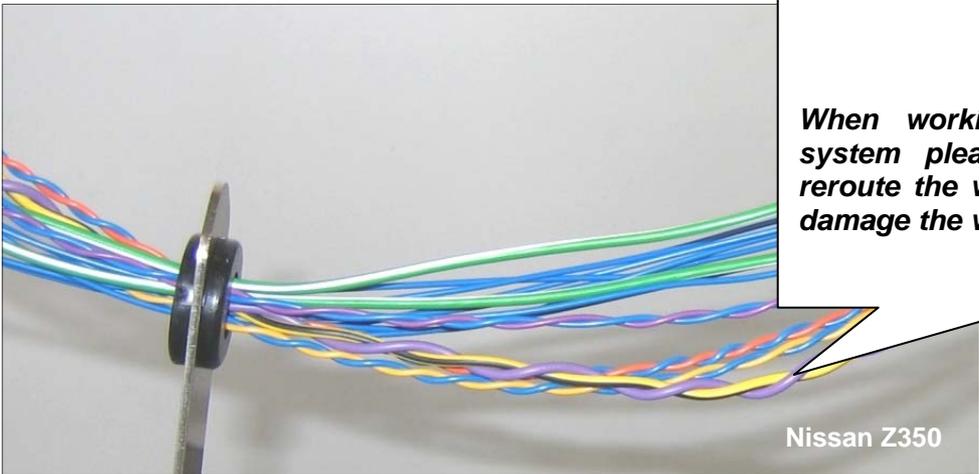
Nissan Z350



Please repeat the earlier steps to all wires.



Nissan Z350

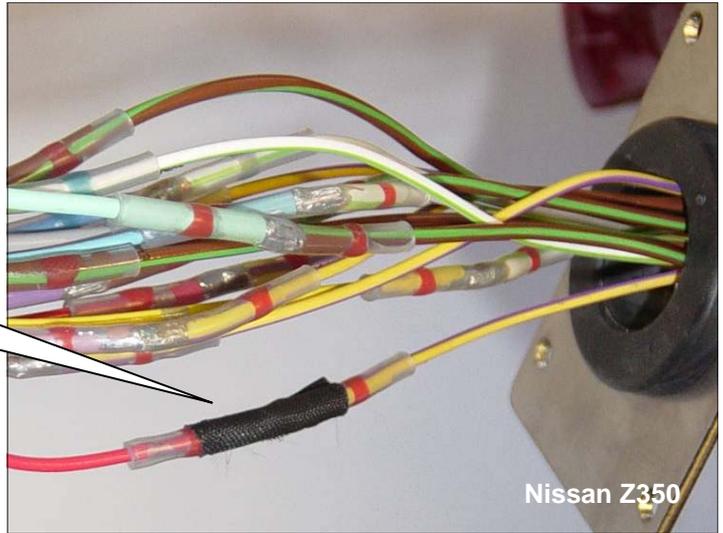


When working with Share-data bus system please take special care to reroute the wires correctly and not to damage the wire insulation.

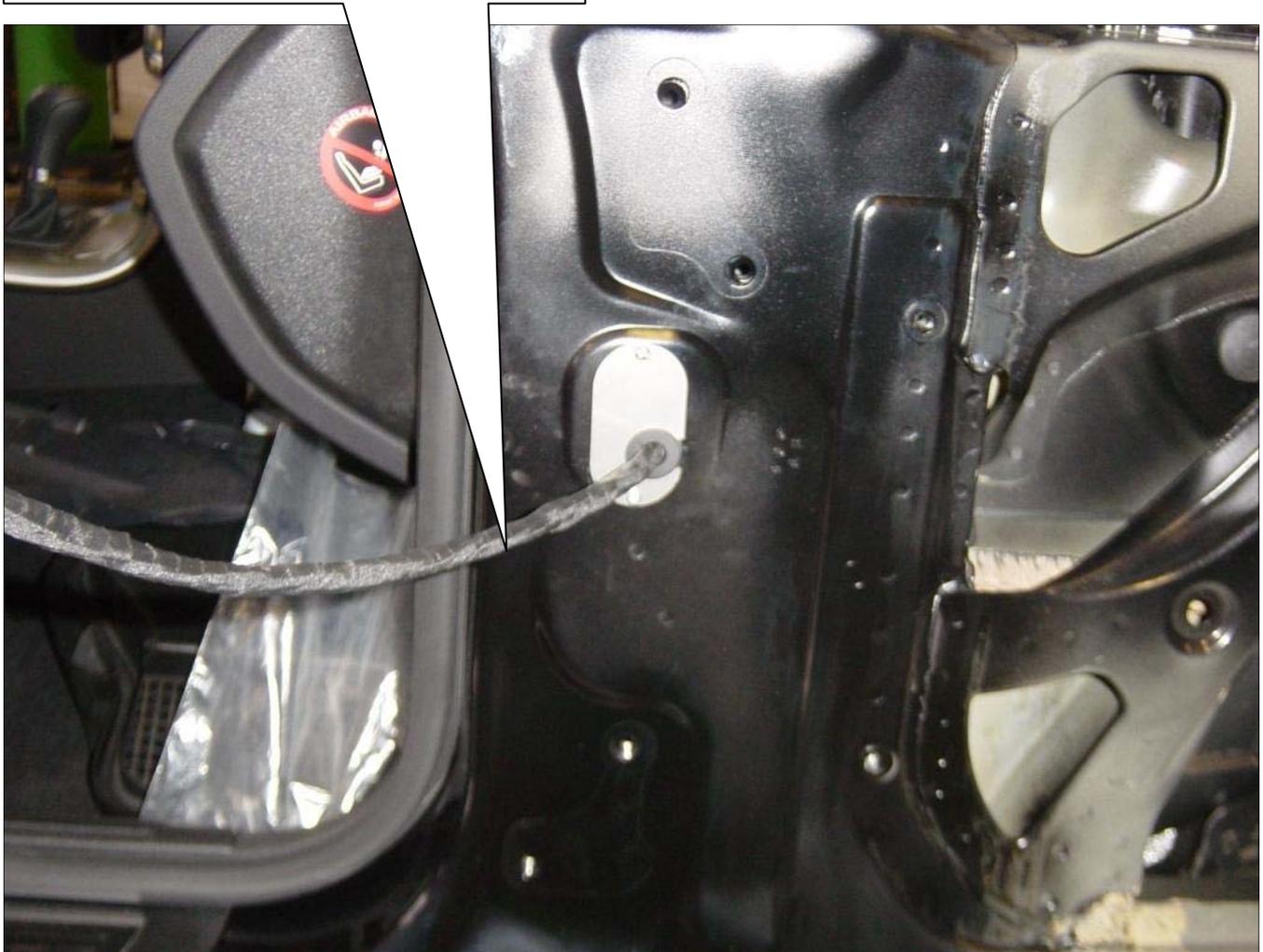
Nissan Z350



The shrinkable connectors can now be wrapped with the supplied waterproof insulation tape.

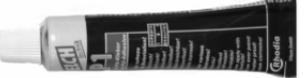


Finally wrap the extended wire harness completely with the supplied waterproof insulation tape.
Attention: Hold wires straight when applying tape.



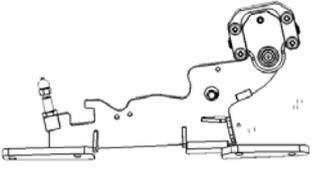
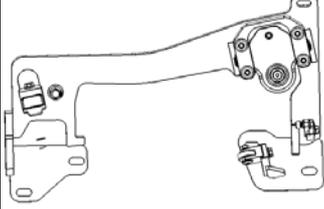
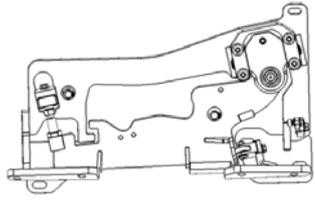


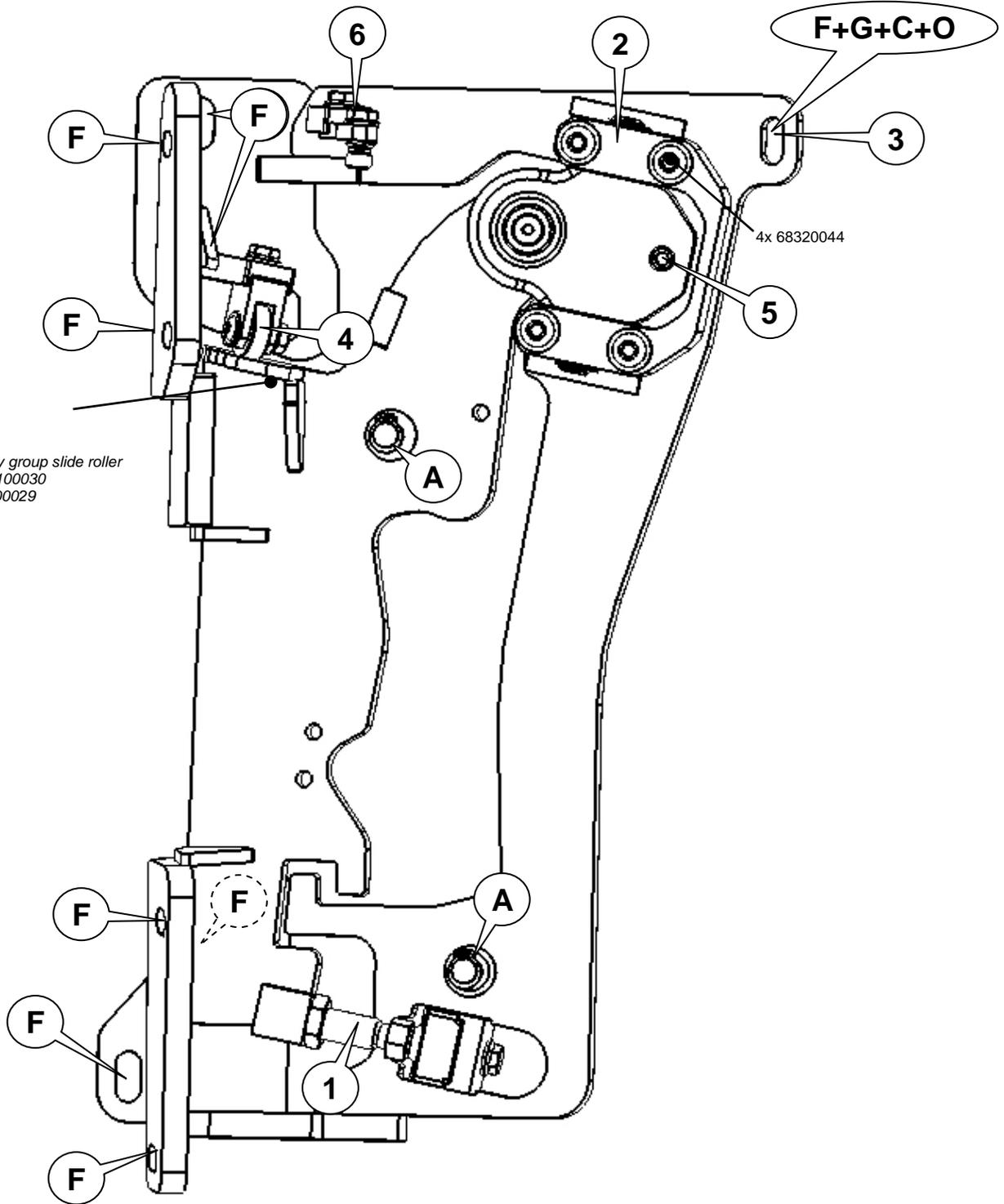
Hardware list (per vehicle side)

^1x A	5X B	1x C	3x D
			
68350023	67020000	65322244	65321350
<i>Snap ring</i>	<i>Cable ties</i>	<i>Fastening angle</i>	<i>Washer</i>
1x E	9x F	2x G	1x H
			
65321952	68320049 M8x30	68320079 M8x20	65321523 1x Dick / flat 65321315
<i>Cover plate A-pillar</i>	<i>Serrated bolt</i>	<i>Serrated bolt</i>	<i>Washer</i>
2x I	1x J	1x K	1x L
			
68580007	64911260 2600 N	68310049 M6	68510041
<i>Sticker</i>	<i>Gas spring</i>	<i>Serrated nut</i>	<i>Chassis glue</i>
3x M	2x N	1 x O	1 x P
			
68310044 M8	68320050	65322187	68320047 M6x16
<i>Serrated nut</i>	<i>Self tapping screw</i>	<i>Fastening angle</i>	<i>Allen screw</i>



Hardware list (per vehicle side)

1x Q	1x R	1x S	1x T
			 67020500
<i>LSD swing arm</i>	<i>LSD ground plate</i>	<i>LSD door system</i>	<i>Cable grommet</i>
1x U	1x V		
 65321683	 68320110		
<i>Fastening angle</i>	<i>Self tapping srew</i>		



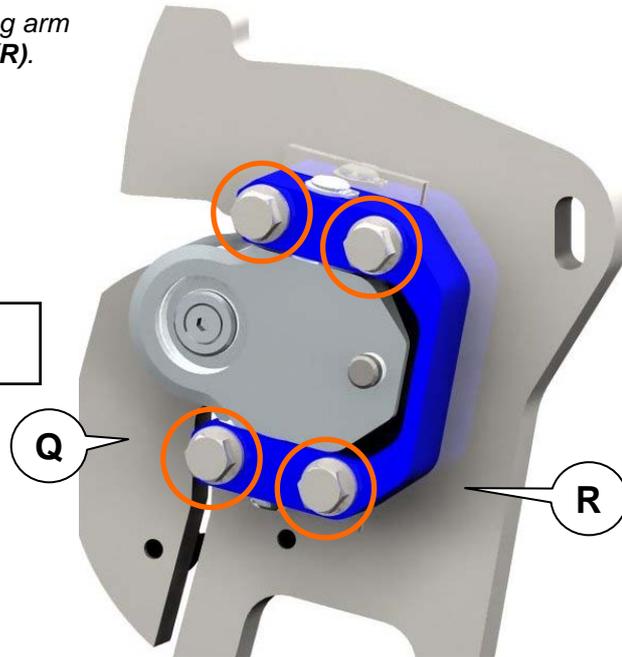
Assembly group slide roller
 Right 50100030
 Left 50100029

1. MAGIC STICK - lower adjustment screw
2. M.A.R.A (Multiple - Axis - Rotational - Assembly)
3. 3rd ground plate mounting point
4. Slide roller
5. Limiting adjustment screw
6. Top fixing point

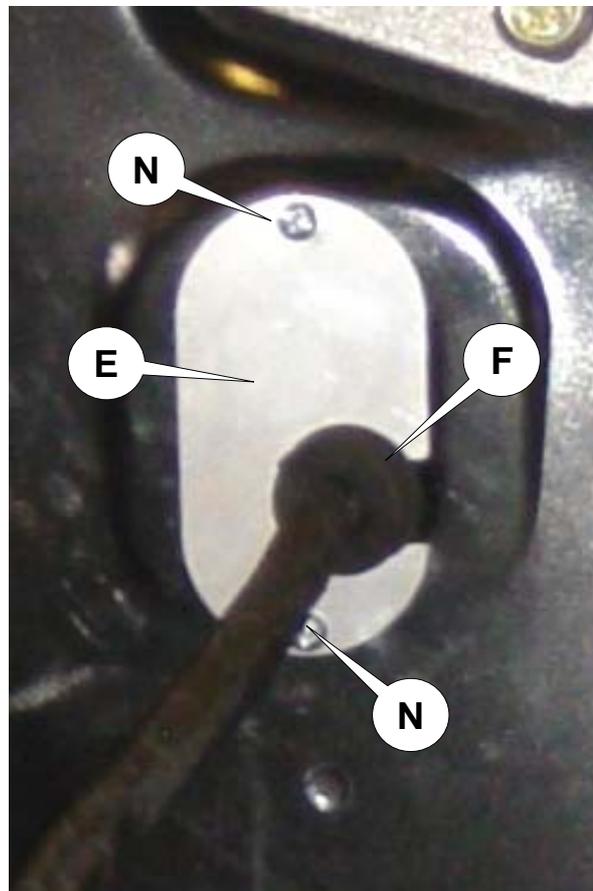


1.) Disassemble the swing arm (Q) off the chassis plate (R).

Picture only for reference

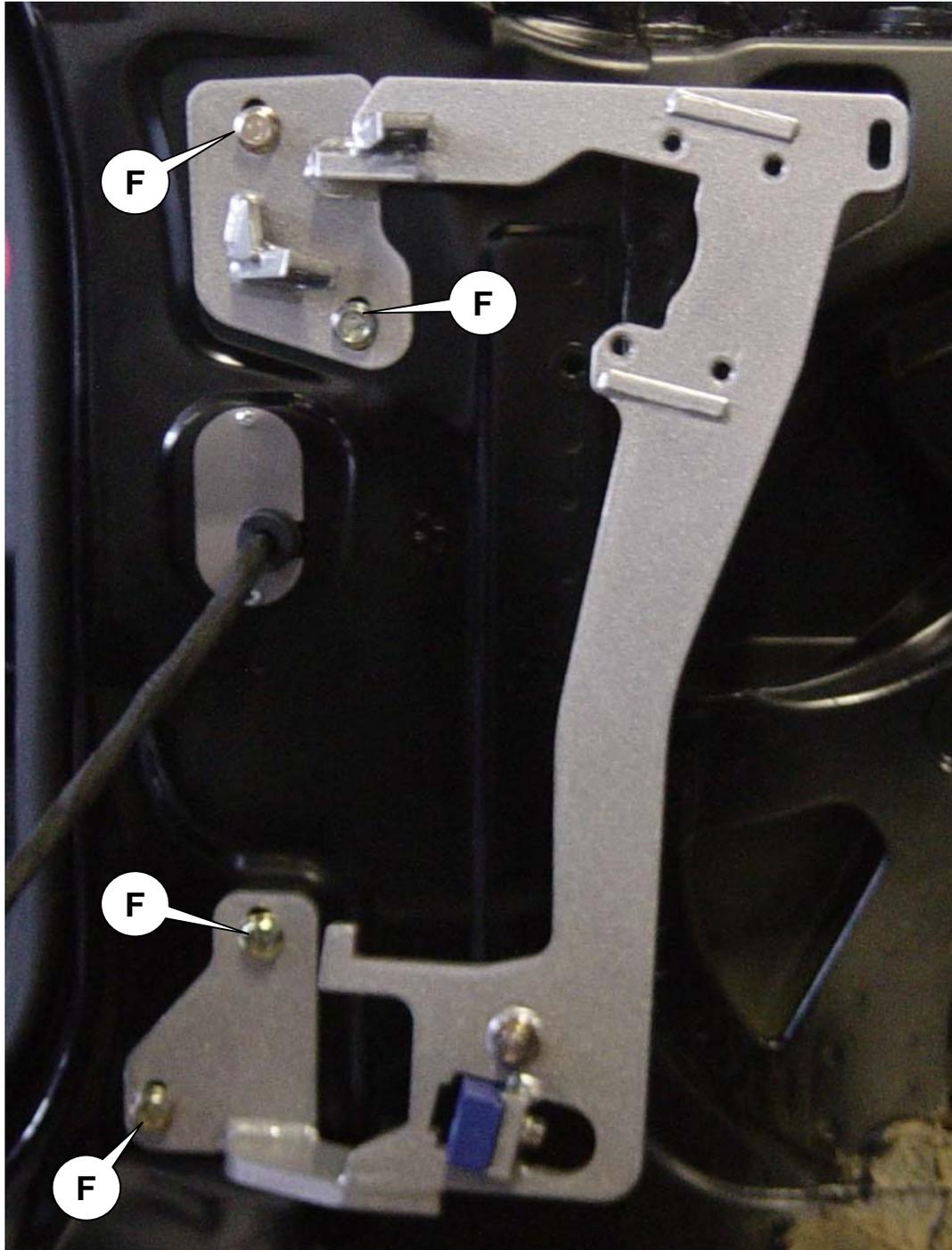


2.) Close the extended cable harness lead-through hole on the door with the supplied cover plate (E), and screws (N) (required drilling: \varnothing 2 mm / 0,08 inches) and seal it with chassis glue (L).





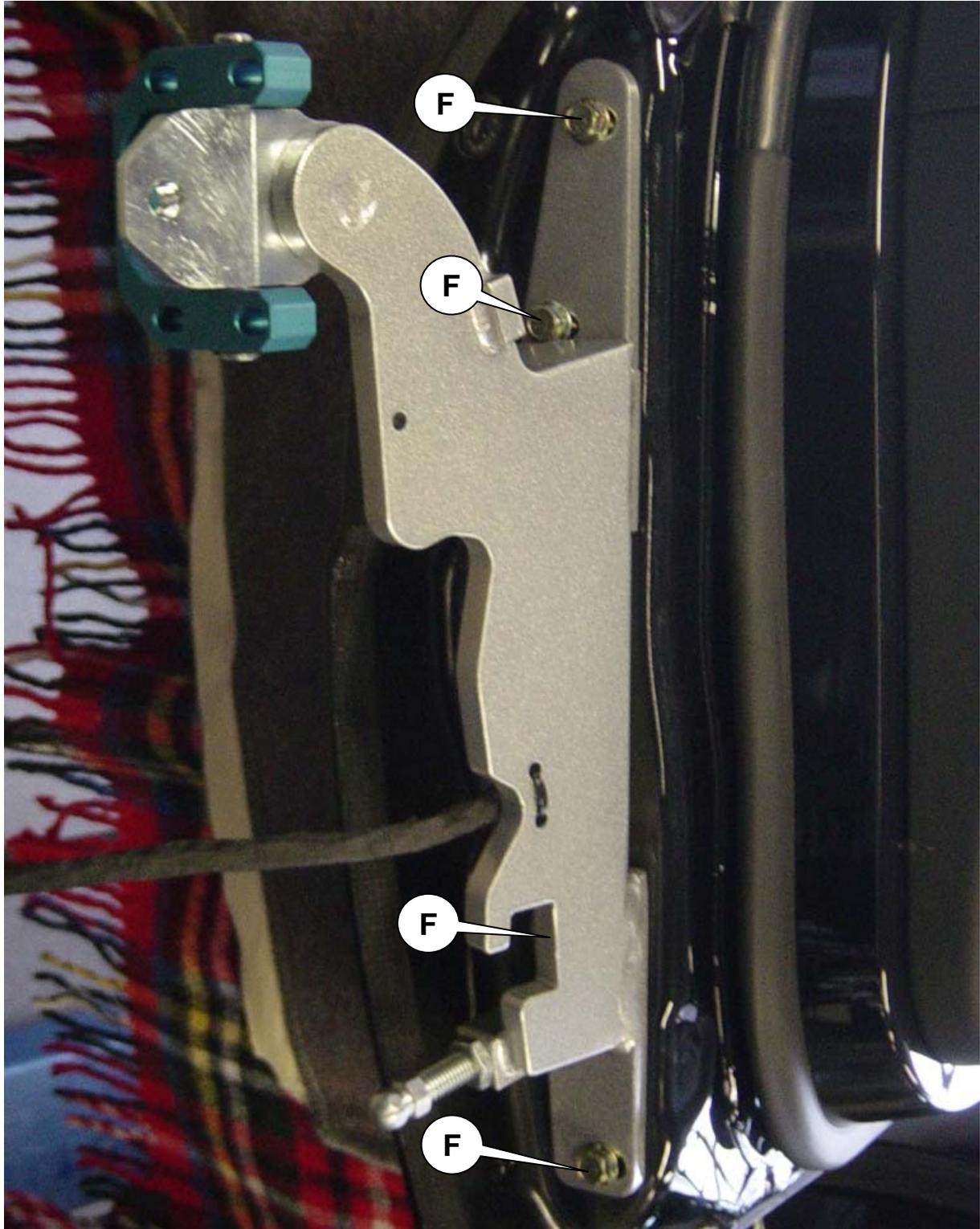
3.) Mount the LSD ground plate (R) to the original hinge mounting holes /points on the chassis. Fixing the groundplate in center position. Use supplied bolts (F).



Please refer to the vehicle manufacturer for torque specifications.



4.) Now the LSD swing arm (Q) has to be installed in the original mounting points on the door with the nuts (F) Fixing the swingarm in center position.

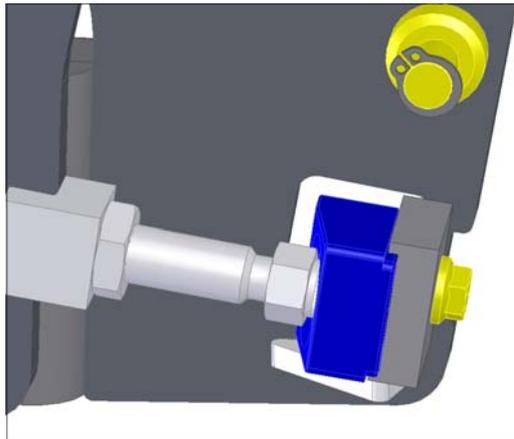


Please refer to the vehicle manufacturer for torque specifications.



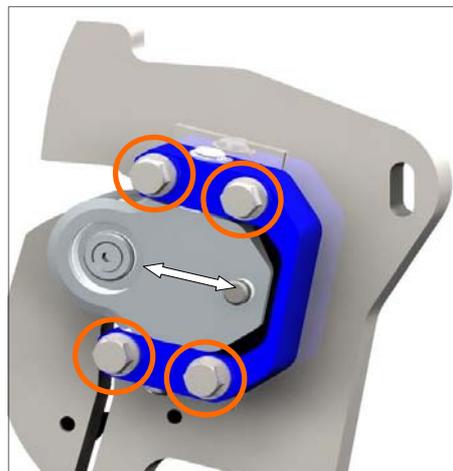
5.) Place the door back on the car, and close the door completely.

TIP/ADVISE: Use the lower adjustment screw, MAGIC STICK (1) as a point to guide the front of door in the correct position.

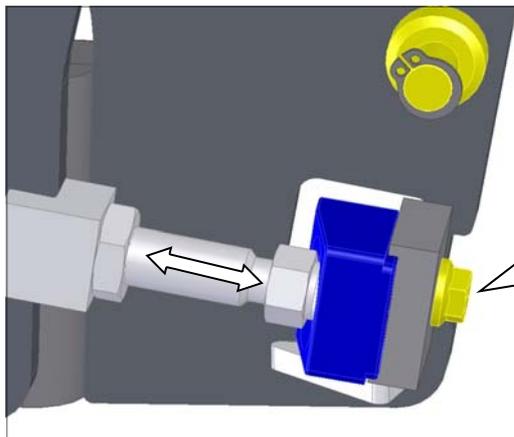


6.) Attach the swing arm to the ground plate with the 4 included bolts and adjust the door via moving the swing arm to chassis plate adjustable (2) connection mount with horizontal door gap adjuster (2) in the right or left direction until gap measurement is like original.

On completion: tightening torque 20 ft - lb (27Nm).



7.) Position the lower adjustment screw, MAGIC STICK (1) in that way, which the door closes in the center position.



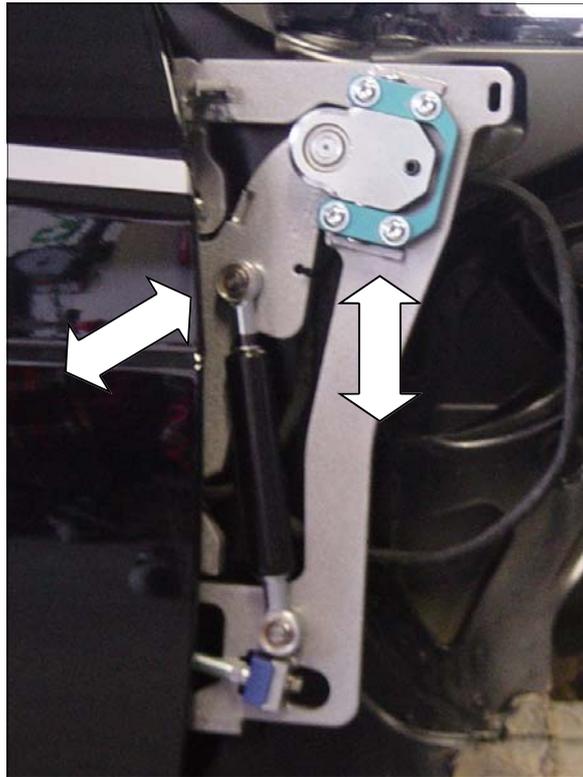
On completion: tightening torque 10 ft - lb (14 Nm).



8.) Adjust the **height** of the door by moving the ground plate (**R**) vertically. You might have to loosen bolts (**F**) on the ground plate to do this.

Adjust the **depth** of the door by moving the swing arm (**Q**) horizontal.

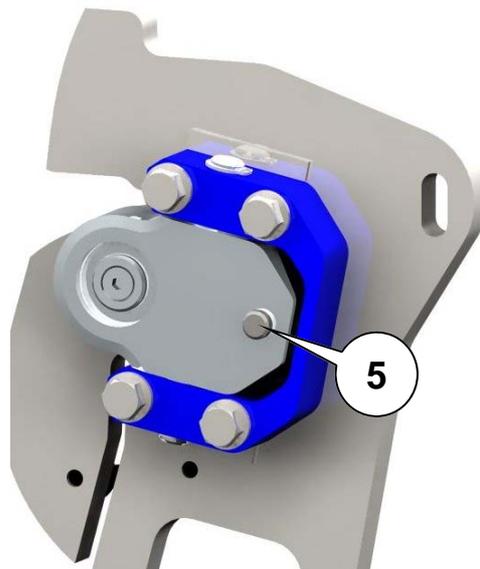
You might have to loosen the supplied bolts (**F**) on the swing arm to do this.



9.) Adjust the opening angle

Carefully reopen the door and adjust the opening angle with the limiting adjustment screw (**5**). Consider the fender distance. Then lock adjustment screw (**5**) again. For the distance, look at the bottom picture).

Important: When you adjust screw (**5**) you also have to readjust slide roller (**4**). They need to be adjusted that the LSD swing arm has slight tension at pivoting.

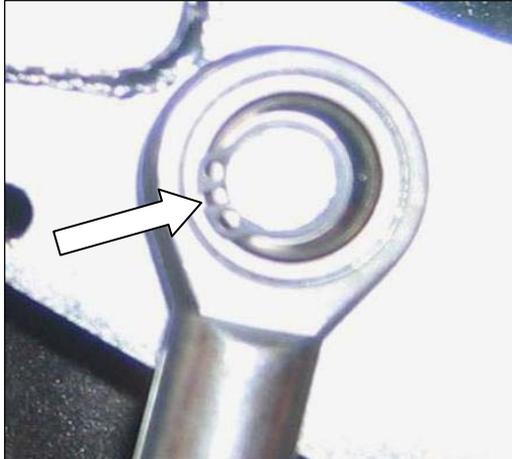




10.) Hang in the gas spring (J) on the fitting point of the swing arm. Secure it with the supplied security ring, by means of needle-nosed pliers.

Use the security ring carefully.

Do not overstretch the security ring



The signification on the gas spring must be visible

11.) Carefully pivot the door up, place in the gas spring (J) on the according mounting point on the chassis plate. Secure it with the supplied security ring.



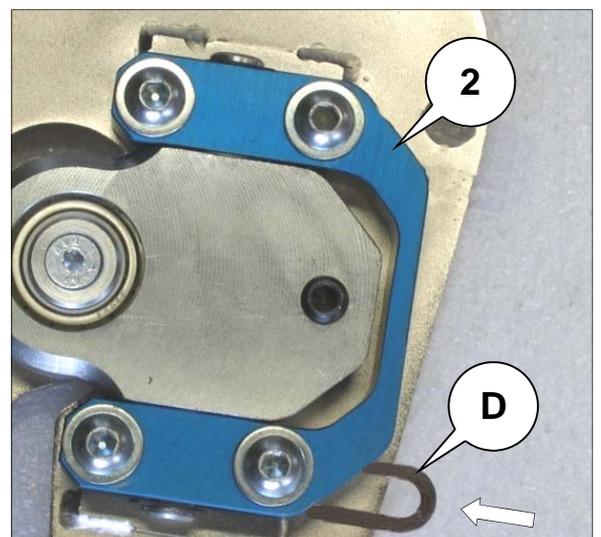
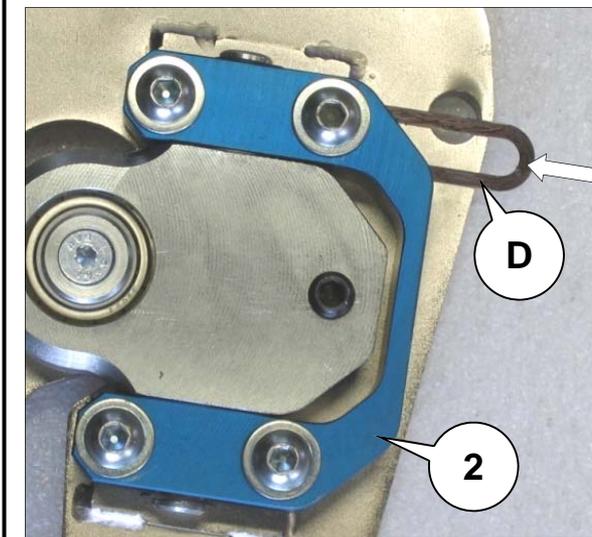
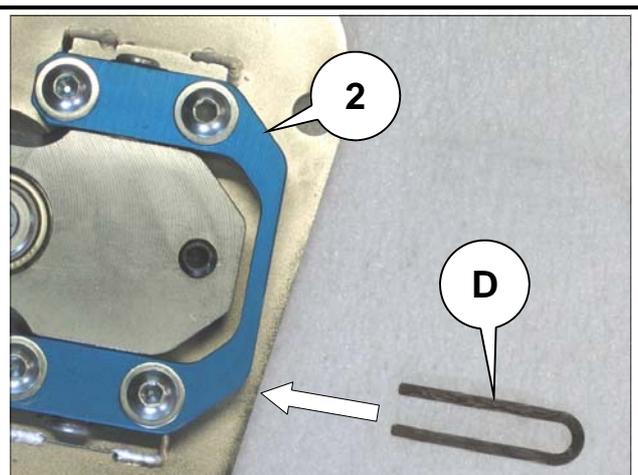
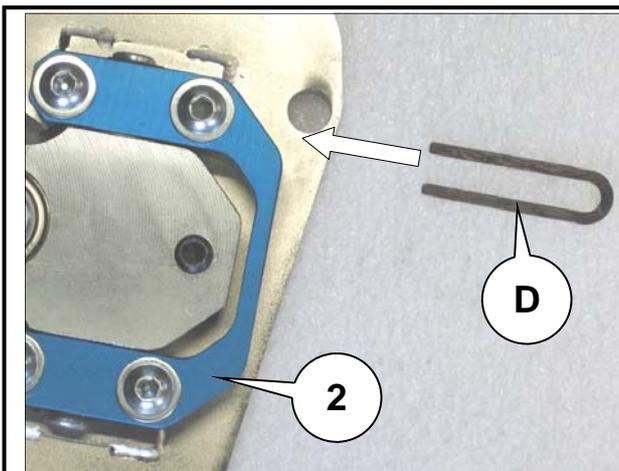
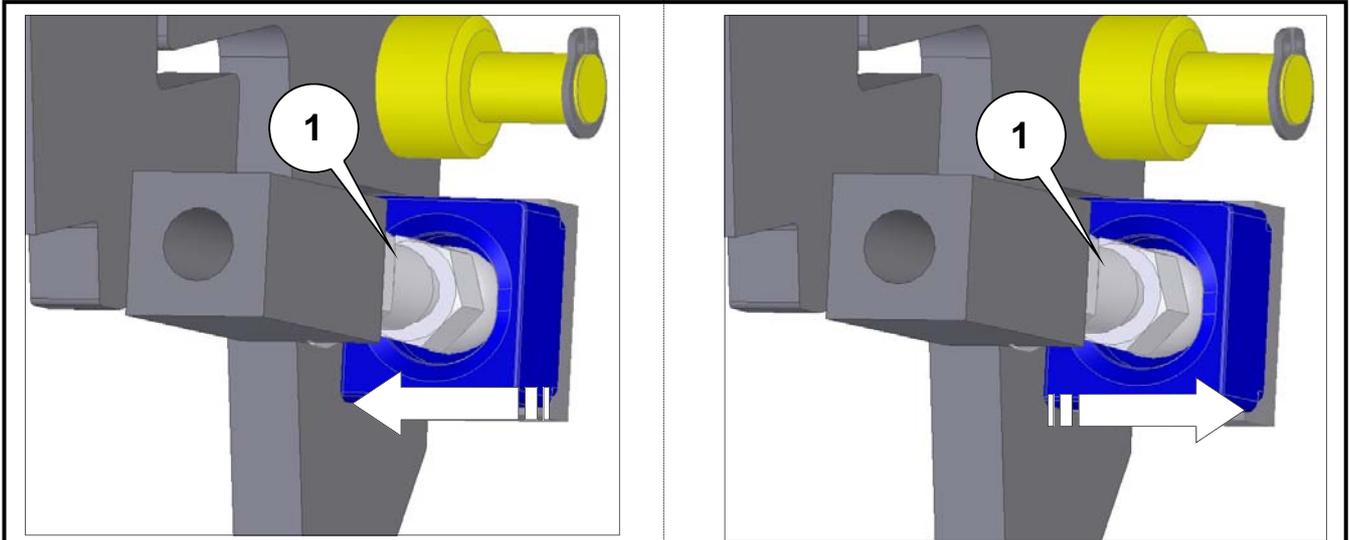
Danger: Gas spring is under extreme pressure! Please make sure the security rings are installed correctly and are snapped their respective guides.





12.) **Only if required**

If the Magic Stick - lower adjustment screw (1) is not in correct position when the door is closed, spacer (D) has to be installed under the M.A.R.A. (2) as shown. **For this opening the door up!**

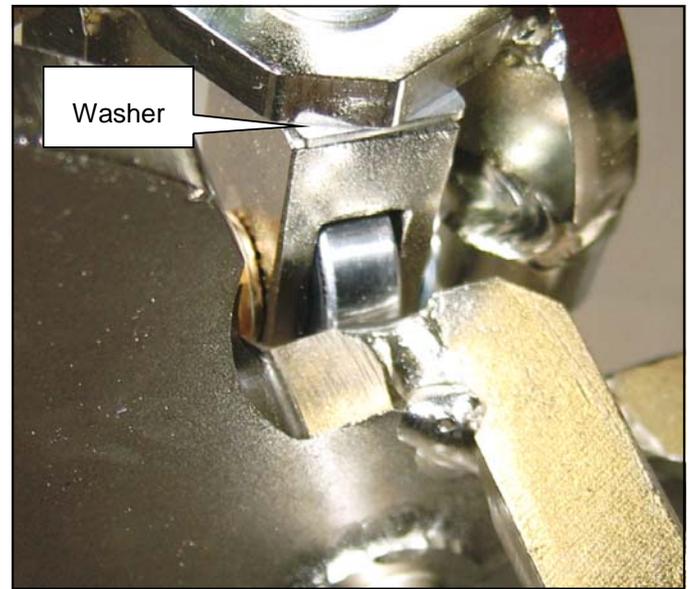
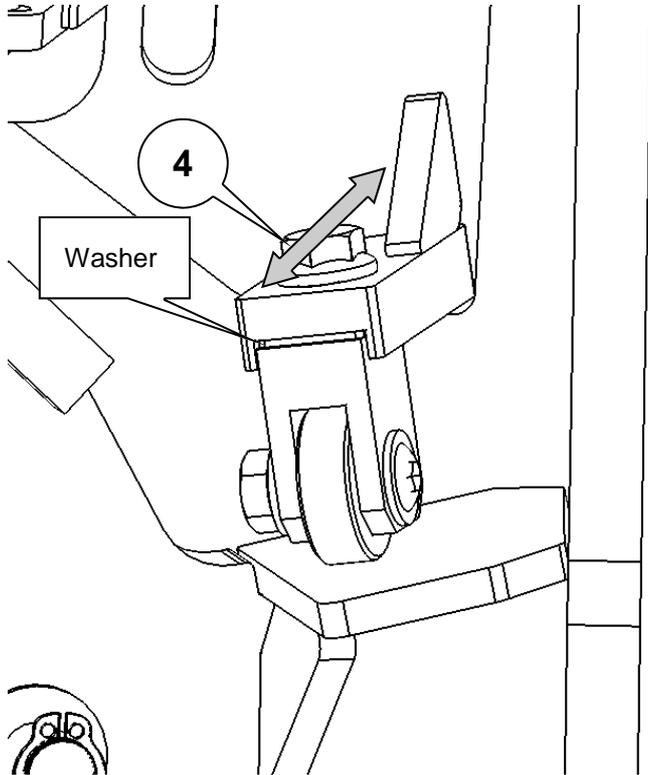




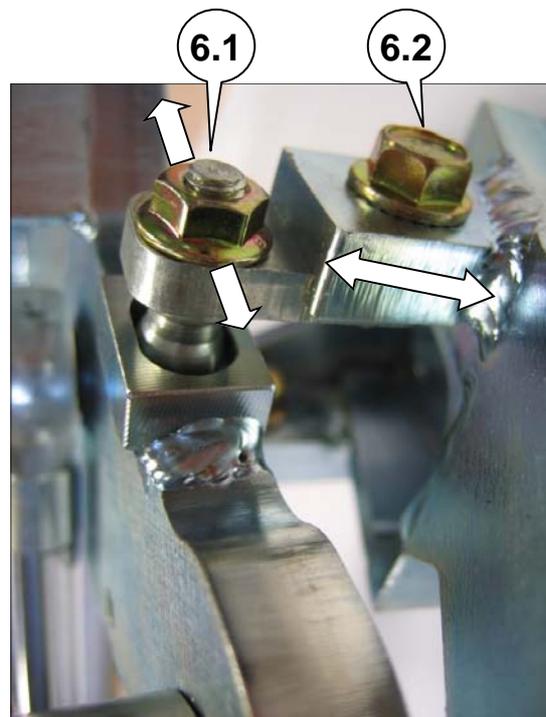
13.) Please adjust the slide roller (4) so the LSD swing arm has initial contact and preload while opening and closing.

Use a spacer (s) if applicable (H).

Please lubricate the slide roller (4) with grease from time to time.



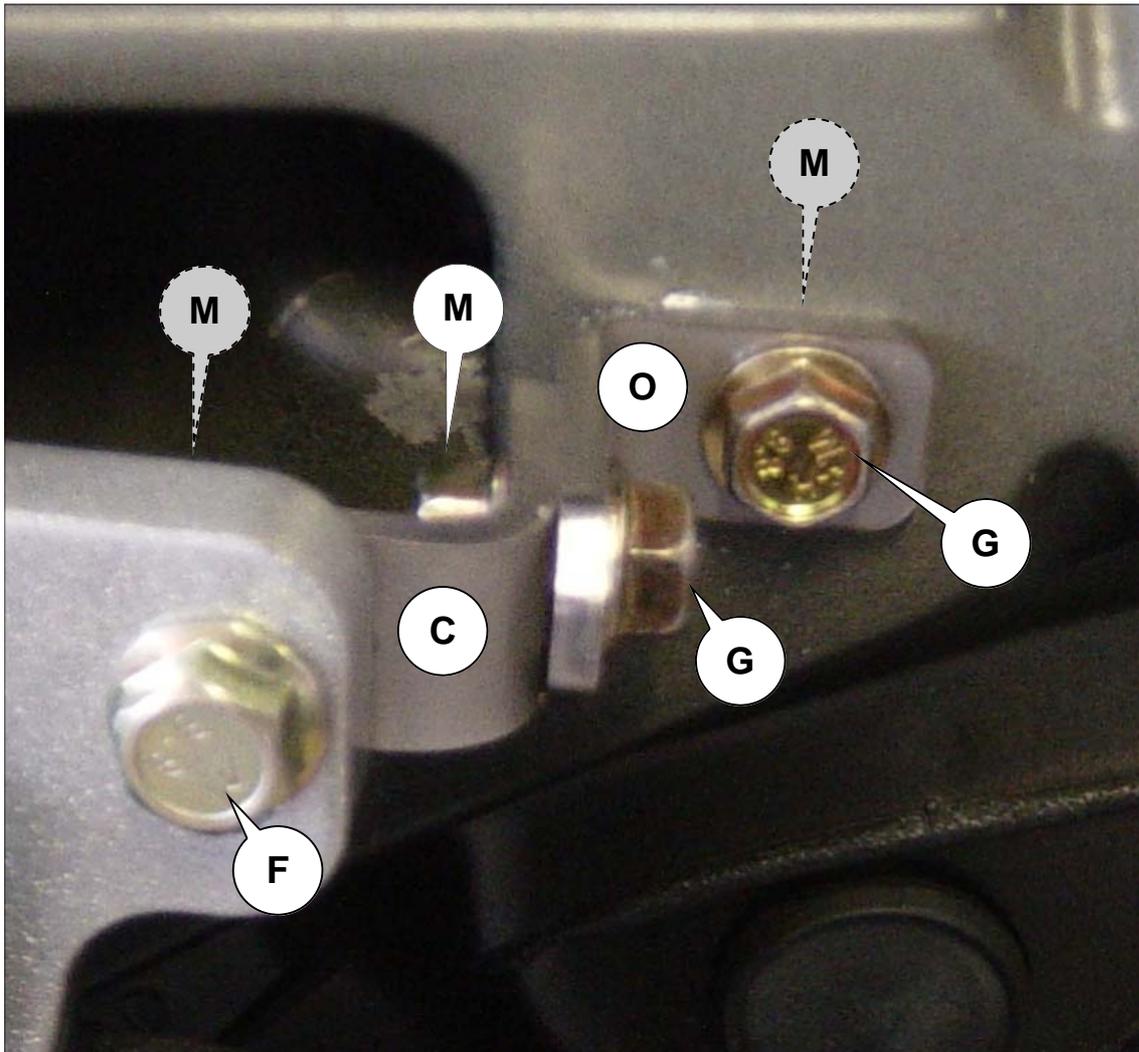
14.) Adjust the top stabilizer (6). Carefully pivot the door up open the screws (6.1, 6.2) for the adjusting the stabilizer. After the adjustment torque securely.





15.) **Close the door again and let the door lock and set in place.**

16.) After adjustments are finalized, drill an 11 mm / 0.35 inch hole in the chassis, use hole (3) in the LSD chassis plate as a guide. Then fix in the included allen hexagon bolt (G) and nut (K) and torque securely. The distance spacer must be cut and angled to suit.



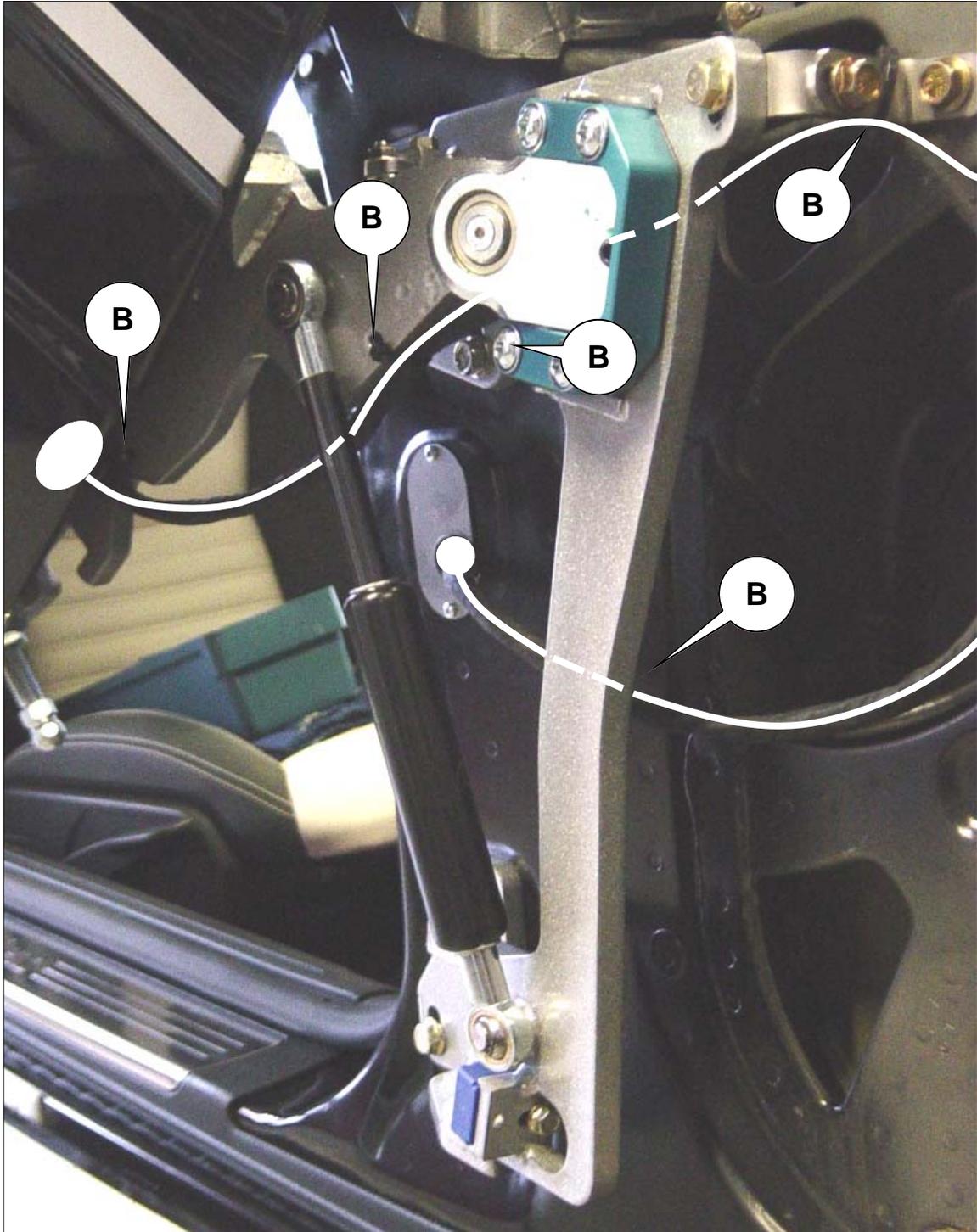
17.) Now reassemble the previously modified fender back on the car to see if there are any obstructions.

18.) Pivot the door carefully up and make sure there is sufficient clearance on the fender, A-pillar and hood. If necessary adjust the LSD chassis plate or the LSD swing arm again.

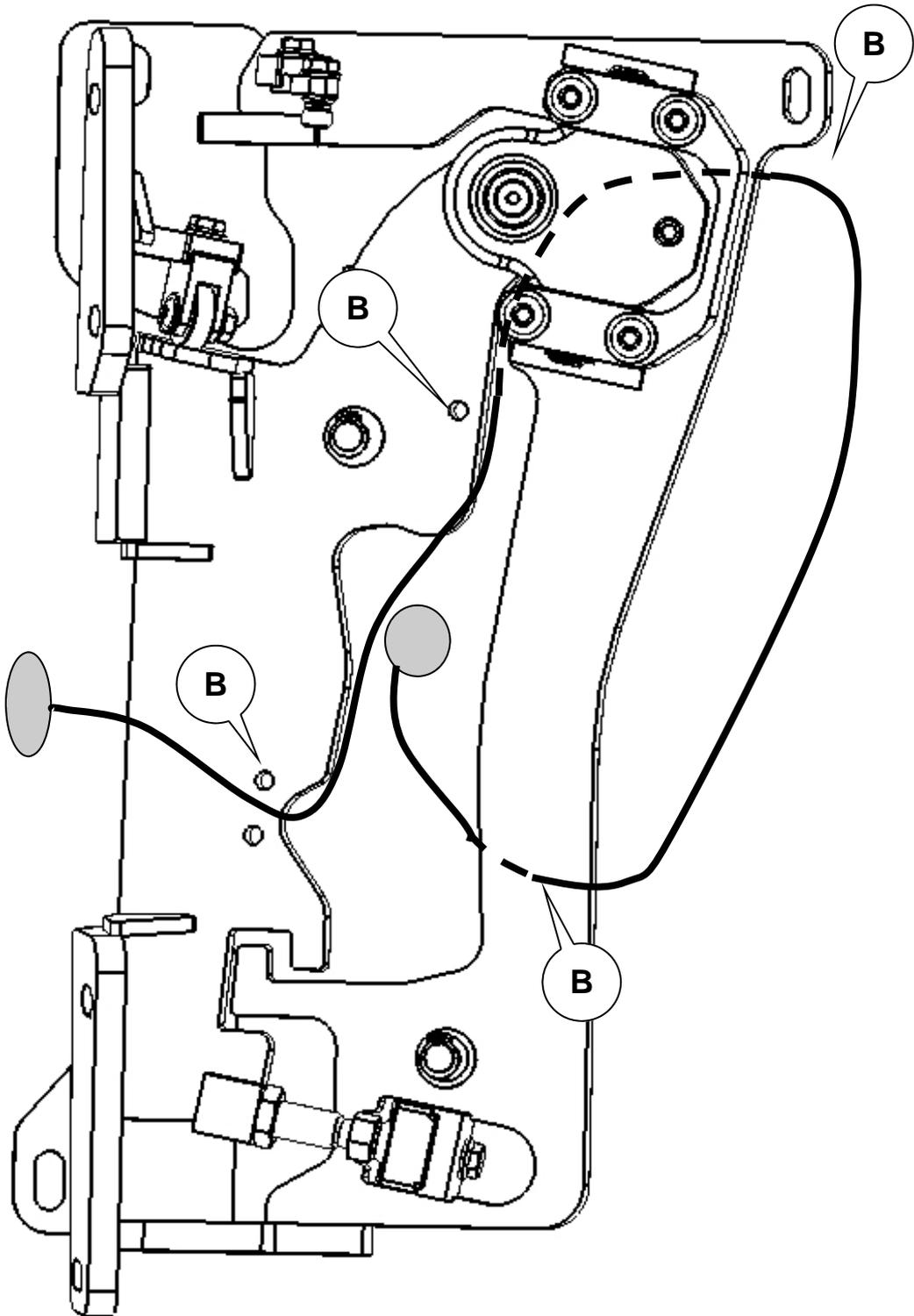
19.) Remove the fender again and **close the door**



20.) Lay the wire harness on and attach it to the marked points, then secure with included cable ties (B).



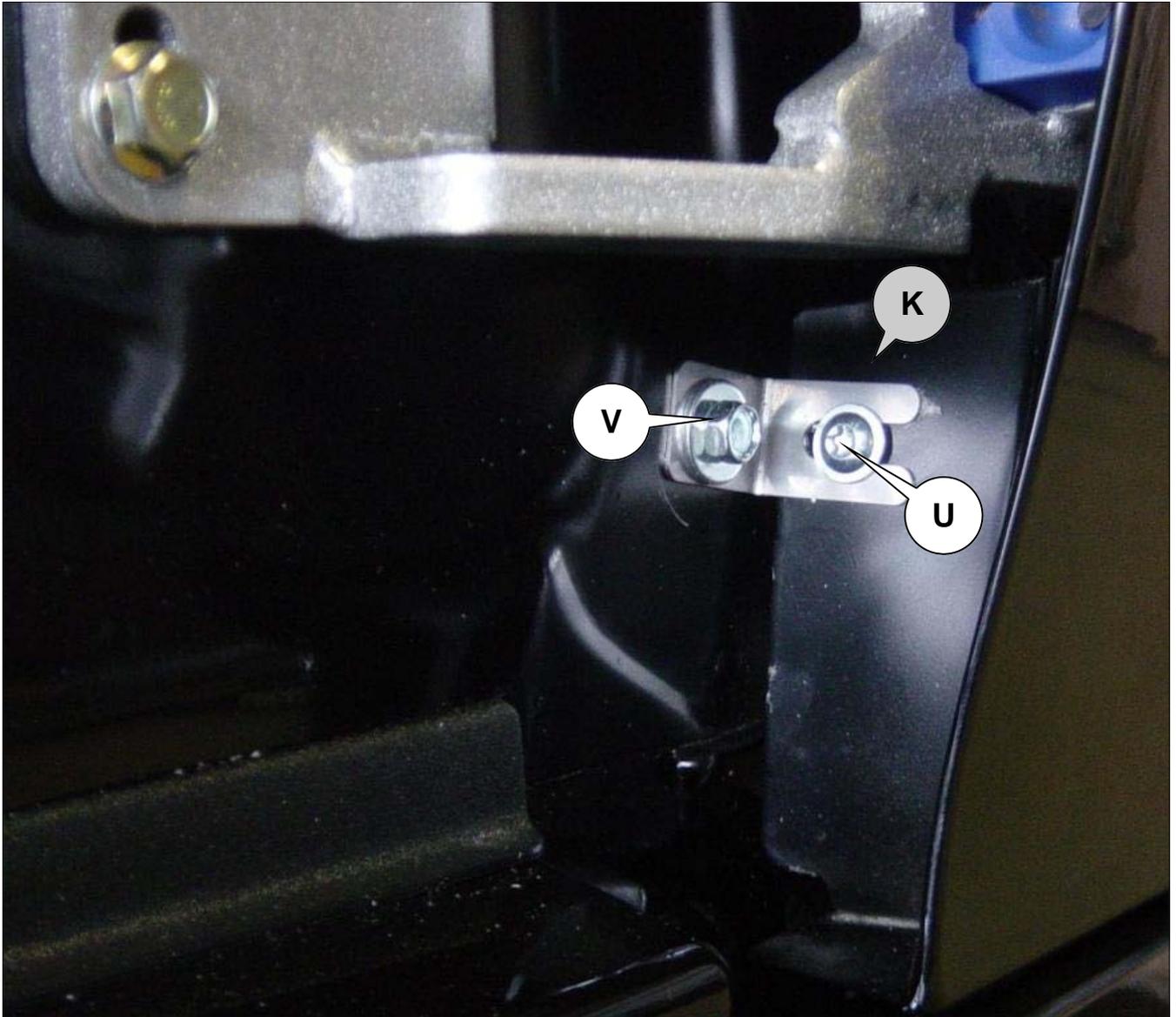
— — — —
Lay the cable under the hinge



Lay the cable under the hinge



21.) After that install the fender holder (**U**). For this drill a hole with 6,5 mm / 0,25 inch in the fender. Hole into the A-pillar 4,0 mm.



22.) Now reassemble the modified fender back on the car.