



# **Installation Instructions**

## **LamboStyleDoors**

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

### **Pre installation check list:**

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

### **Preparations:**

*(Disassemble parts according to vehicle manufacturer specifications)*

- *Disassemble the door stopper.*
- *Disconnect the cable connector between chassis and door*
  
- *Disassemble the door.*
  
- *Extend the factory door wire harness with the enclosed extension kit (please see enclosure "wire harness extension")*
- *Modify the fender (please see enclosure "modifying the fender")*



## Safety Information:

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LSD door kits must be installed according to the vehicle-specific instructions provided by LSD-Doors. The installation should be performed by an authorized dealer.

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When extending factory wire harness, follow the vehicle manufacturer's guidelines for cable repairs. When extending CAN-bus, pay attention to the processes of rerouting, screening, and twisting (check vehicle manufacturer's specifications). Be careful not to damage any systems.

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After installation of the kit, side airbags (if any) should be tested for proper operation by an authorized dealer.

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Performing final adjustments of the doors, make sure they close and lock according to the OEM specifications (check original closing angles, locking positions, gaps, etc.).

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Be careful while working in the operating area of the doors and hinge system (be especially careful when working with a partner or when there are other people in the working area).

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All doors must be securely closed before setting vehicle into motion. Driving with open doors is prohibited.

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Do not mount heavy loudspeakers without increasing pressure of the gas spring.

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Adjust horizontal opening angle of the doors to the possible maximum.

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The gas spring should hold your door at the maximum height under all operating conditions. To guarantee that, choose gas spring with the appropriate pressure level.

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Empty door storage compartments, otherwise all the objects placed in there will fall as the door opens and the weight of the door will change, which may influence the gas spring operation.

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**WARNING:** gas spring is under extreme pressure! Make sure all mounting brackets are securely fastened in the right places.

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## General instructions:

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A properly instructed partner will make the installation process easier.

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Regular servicing of the doors and gas springs at a specialized body shop will expand their service life.

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## Attention!

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An additional inside handle must be installed to simplify opening and closing of the doors from seated position.

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White door lights must be disabled via removal of light bulbs or bulb sockets in accordance with Fig. 5.22 of ECE Reg. No. 48.

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After installation of the LSD hinge system, reinstall original inner fender cover to keep LSD hinges free from debris.

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Functionality of the vehicle comfort systems, e.g., central locking system (if any), must be checked at an authorized body shop.

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Check functionality of all other systems and components (loudspeakers, anti-theft systems, CAN-bus, window rollers, crash-sensors, driver seat memory, mirror heating/adjustment, etc.) at an authorized body shop.

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When adjusting the doors, be careful to place them in the proper door openings not to cause any damage to other components. The processes of adjustment and testing must be performed with great attention.

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If A-pillar or doors have been modified, use supplied chassis glue (if specified in the list and included in the set) for tight joint. Make sure that sealed surfaces are free from dust and grease before applying chassis glue. Proper door sealing will guarantee safety.

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Note: gas springs have been tested on standard doors. If your doors come with additional equipment, it may slightly modify their weight and you may need to order stronger or lighter gas spring (additional costs may arise).

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Please note that the gas spring pressure may vary due to temperature, which will influence opening and closing force. Warranty claims will not be honored unless there is defect in material or workmanship.

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When body work is performed, apply anti-corrosion covering to all the modified surfaces according to the manufacturer's guidelines.

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After the LSD kit installation, the doors opening angle is limited. The doors must be first carefully opened outwards and then upwards. When too much force is applied to the limiters/stop points body parts may damage.

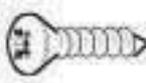
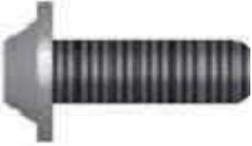
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The warranty does not cover damages caused by improper use, improper installation, or application of excessive force to the limiters/stop points.

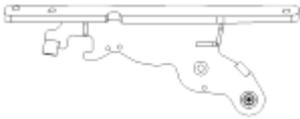
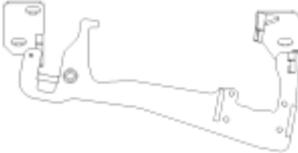
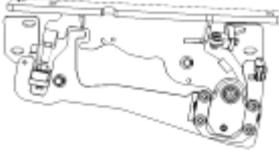
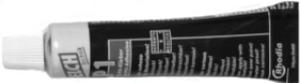
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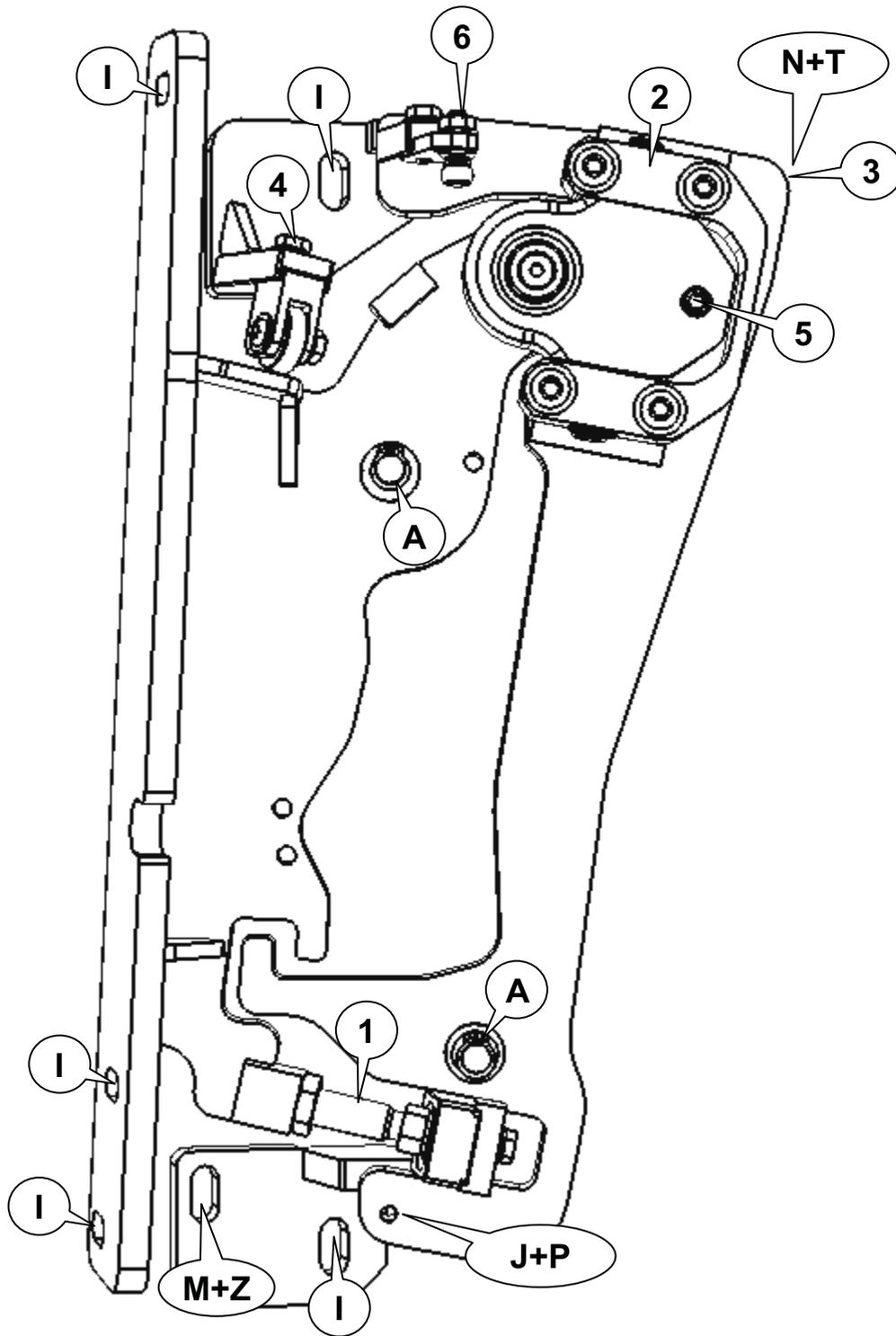


## Hardware list *(per vehicle side)*

1x <b>A</b>	5X <b>B</b>	1x <b>C</b>	3x <b>D</b>
			
<i>Snap ring</i>	<i>Cable ties short</i>	<i>A-Pillar cover plate</i>	<i>Washer</i>
5x <b>E</b>	2x <b>F</b>	1x <b>G</b>	1x <b>H</b>
			 1x Dick / flat
<i>Cable ties large</i>	<i>Self tapping screw</i>	<i>Flat washer</i>	<i>Washer</i>
5x <b>I</b>	1x <b>J</b>	1 (2)x <b>K</b>	1x <b>L</b>
 M8x30	 M6x12	 M6	 M8
<i>Serrated bolt</i>	<i>Serrated bolt</i>	<i>Serrated nut</i>	<i>Serrated nut</i>
1x <b>M</b>	1x <b>N</b>	1 (2)x <b>O</b>	1 (2)x <b>P</b>
 M8x50	 M8x20	 M6x12	
<i>Allen screw</i>	<i>Allen screw</i>	<i>Allen screw</i>	<i>Fastening angle</i>

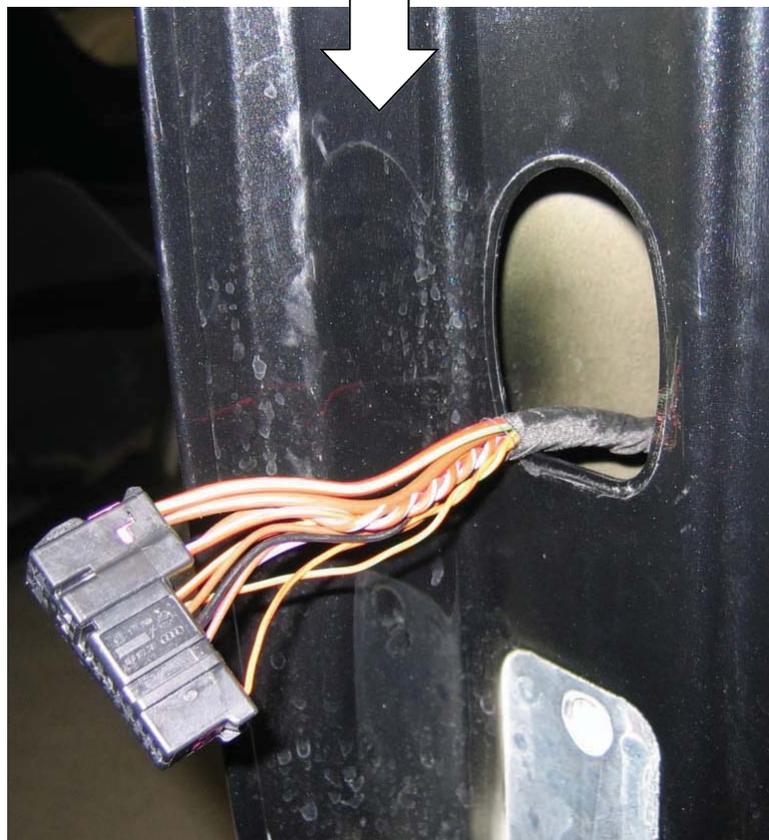
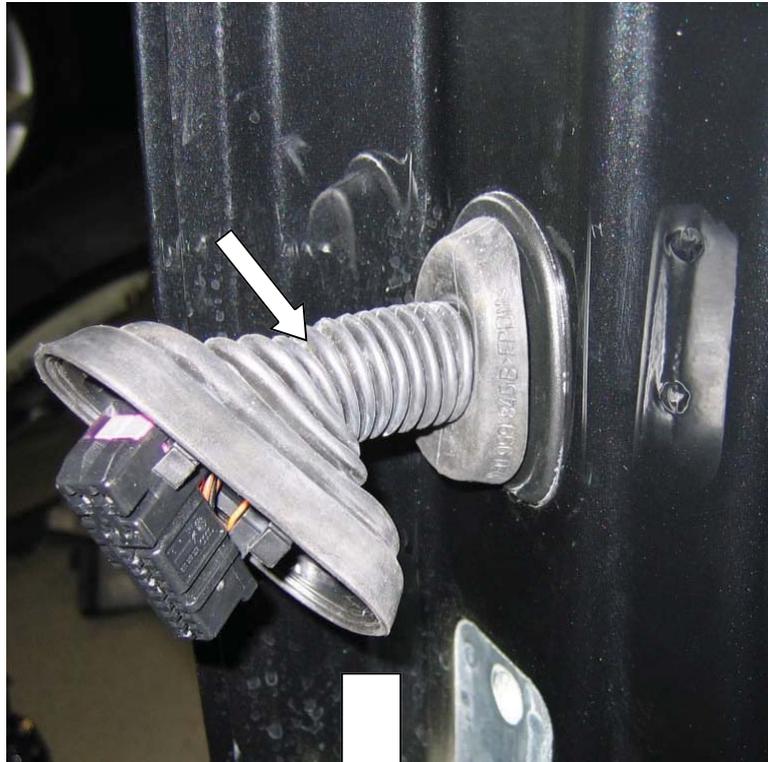
### Hardware list *(per vehicle side)*

1x <b>Q</b>	1x <b>R</b>	1x <b>S</b>	1x <b>T</b>
			
<i>LSD swing arm</i>	<i>LSD ground plate</i>	<i>LSD door system</i>	<i>Fastening angle</i>
1x <b>U</b>	1x <b>V</b>	2x <b>W</b>	
	 <p data-bbox="600 1032 783 1077">Nr. / No. 50010009 2600 N</p>		
<i>Chassis glue</i>	<i>Gas spring</i>	<i>Sticker</i>	

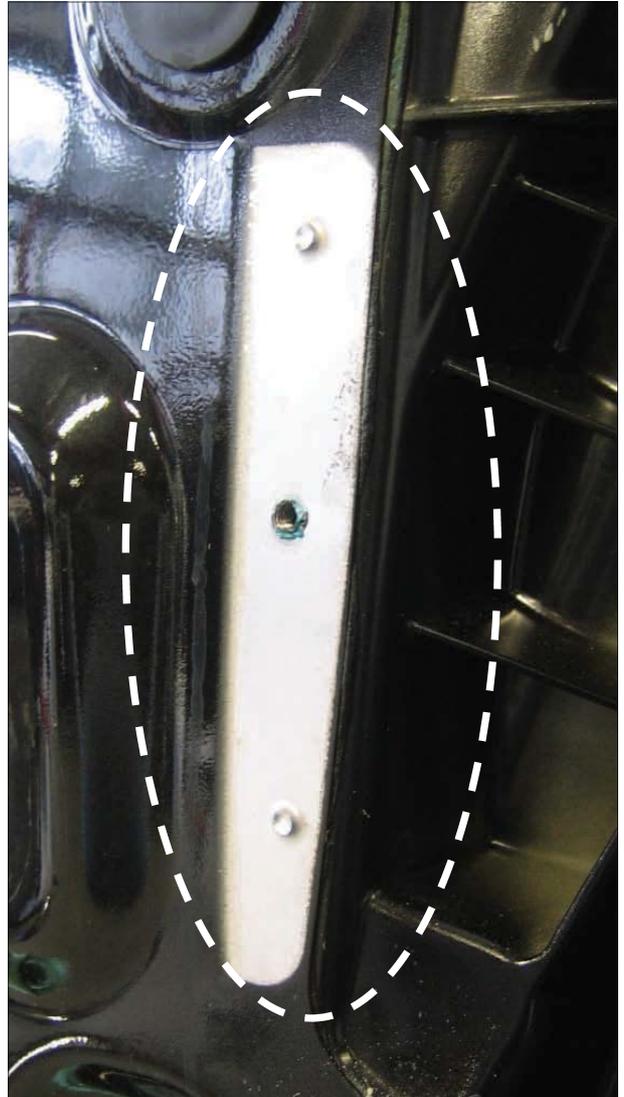
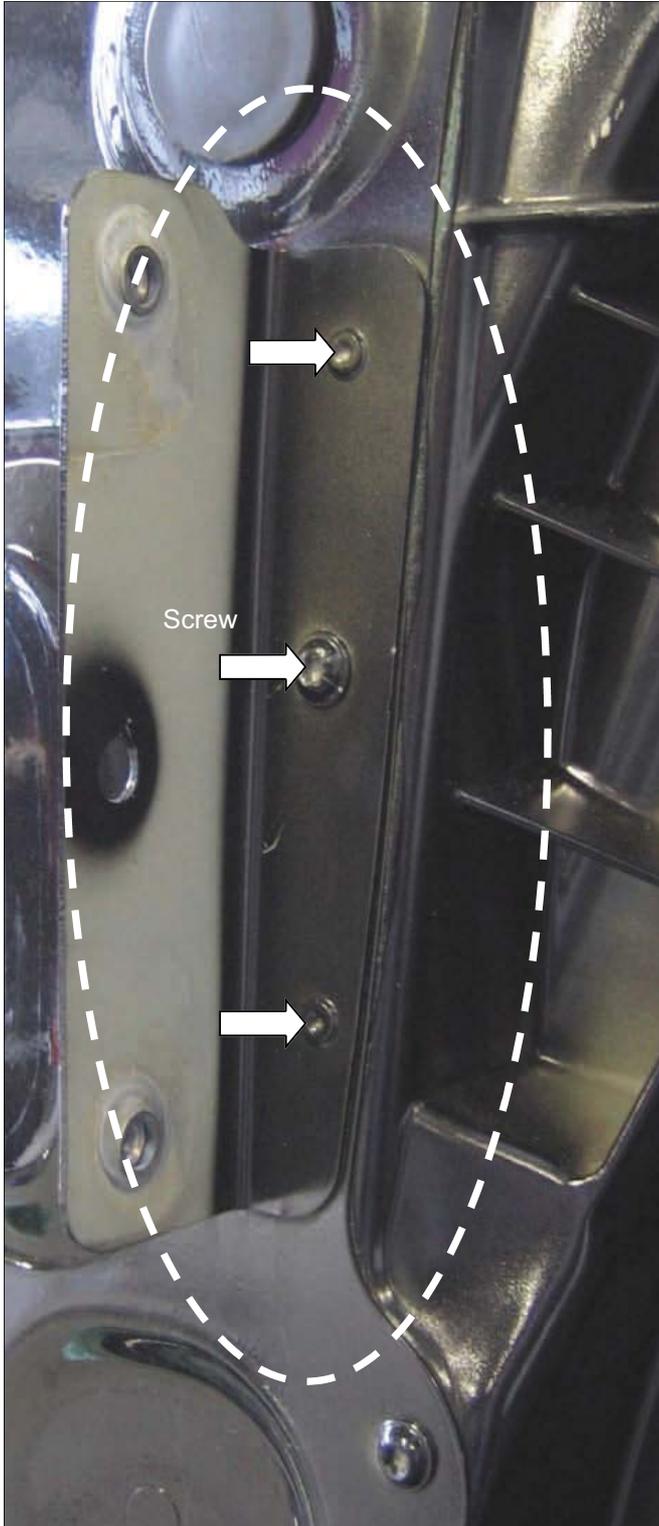


1. MAGIC STICK - lower adjustment screw
2. M.A.R.A (Multiple - Axis - Rotational - Assembly)
3. 3rd ground plate mounting point
4. Slide roller
5. Limiting adjustment screw
6. Top stabilizer

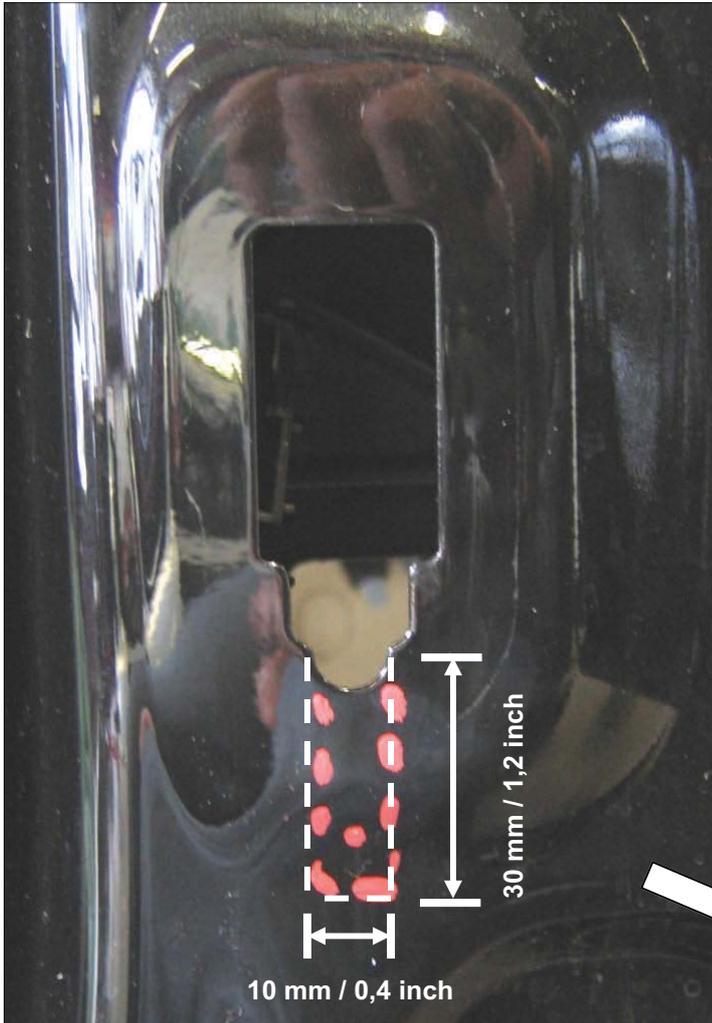
1.) *Remove the insulation of the door wire harness and extend the factory door wire harness.*



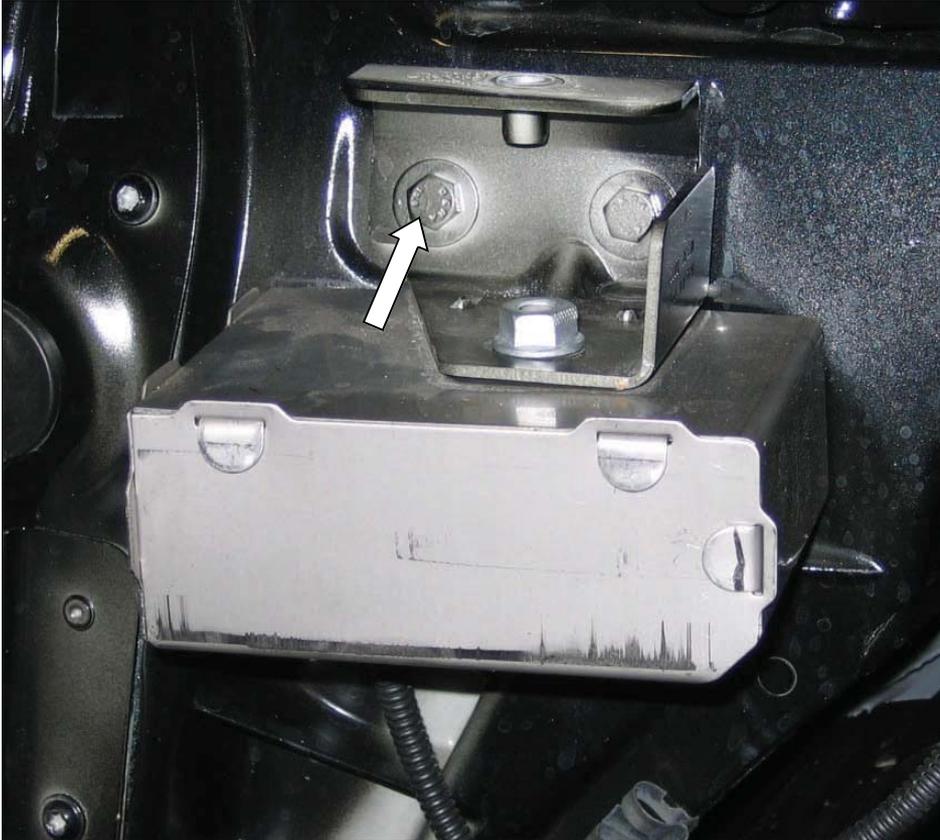
2.) Remove the bracket at the A-pillar. For this drill out the rivets and remove the screw.



3.) Cut in the standard cable hole as show on the picture.



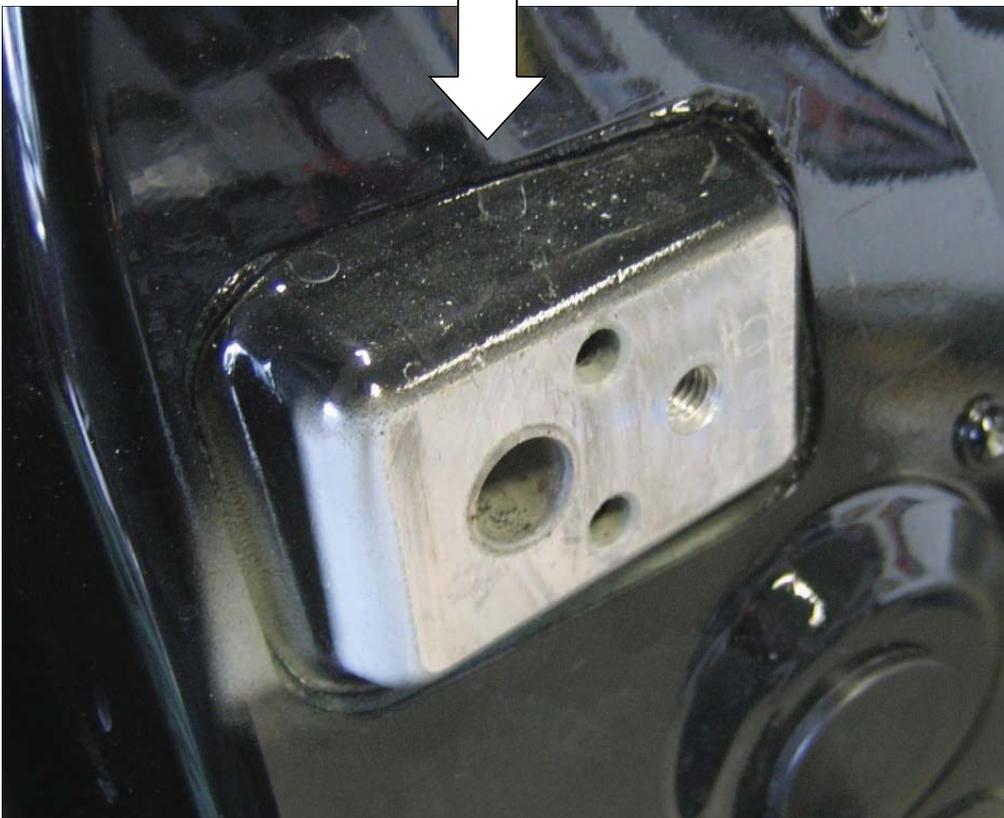
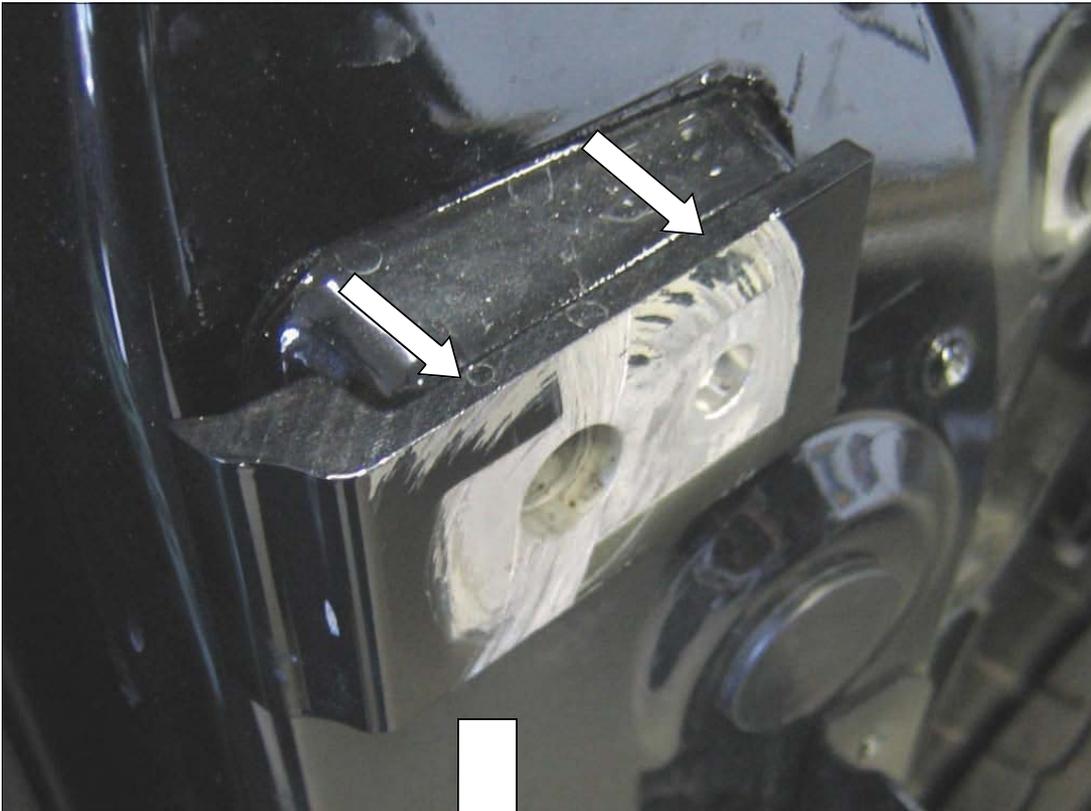
4.) **Only if available.** Open the screw an turn the case to the front (bottom).



5.) *Remove the door hinges:*  
Drill out the screws of the top hinges and remove the screws with a magnet staff out of the A-pillar.



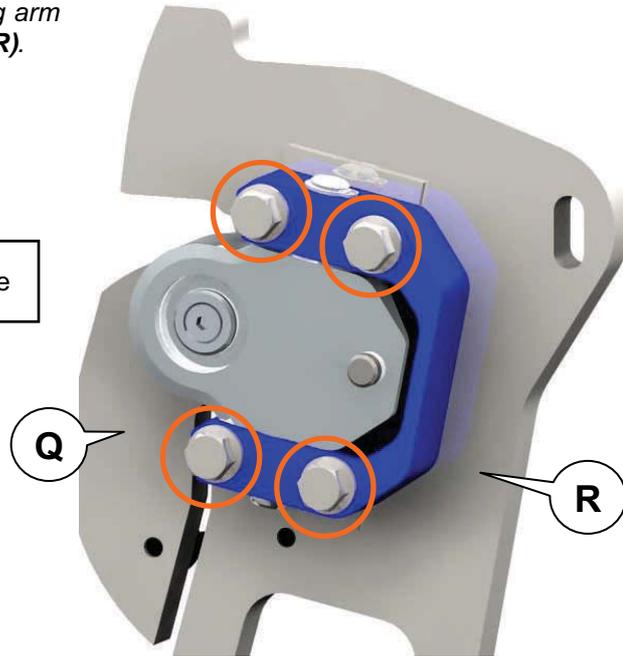
6.) Remove the washer at the standard top hinge.





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

Picture only for reference



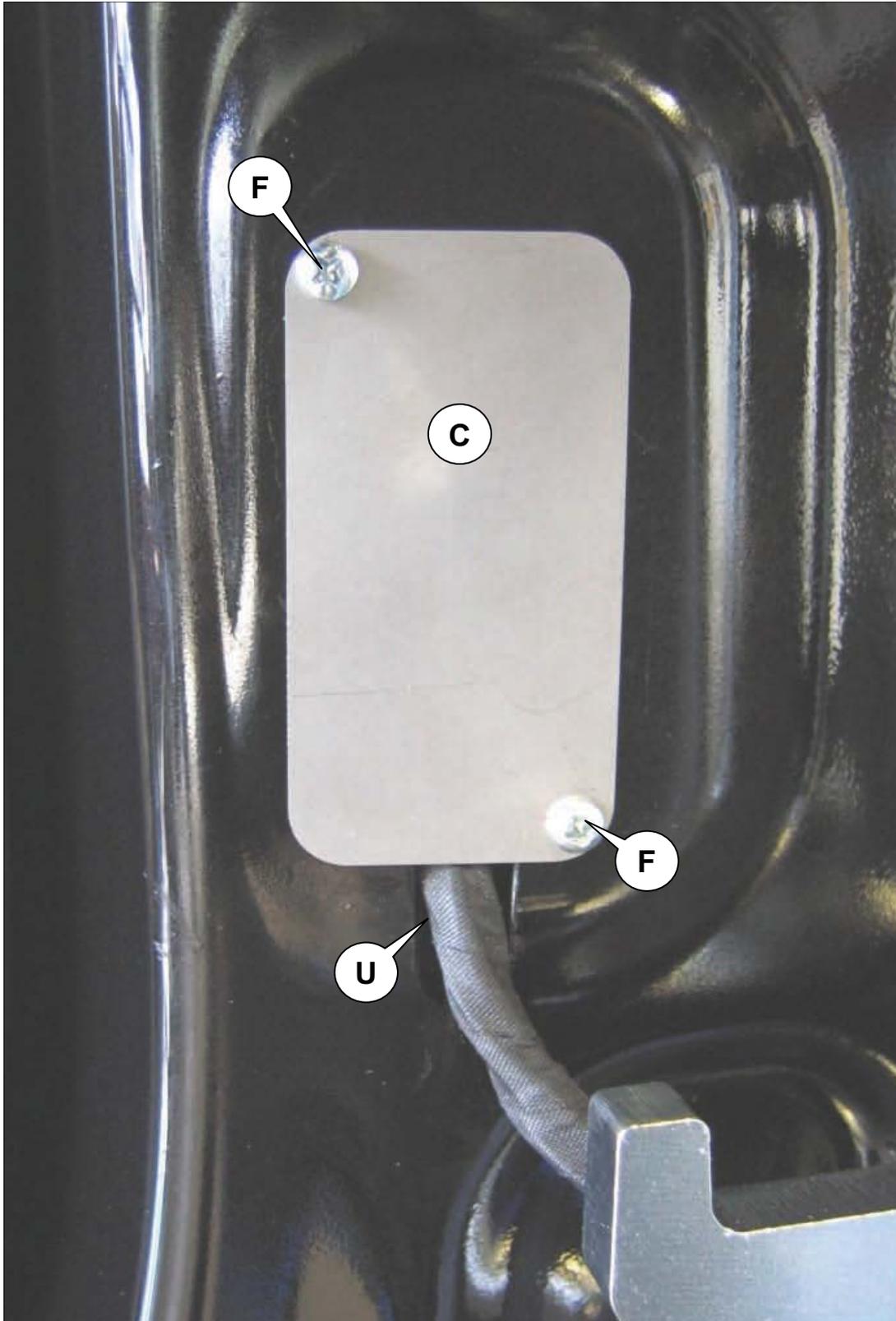


8.) Mount the LSD ground plate (**R**) to the original hinge mounting holes /points on the chassis. Use supplied bolts (**I**, **M**).



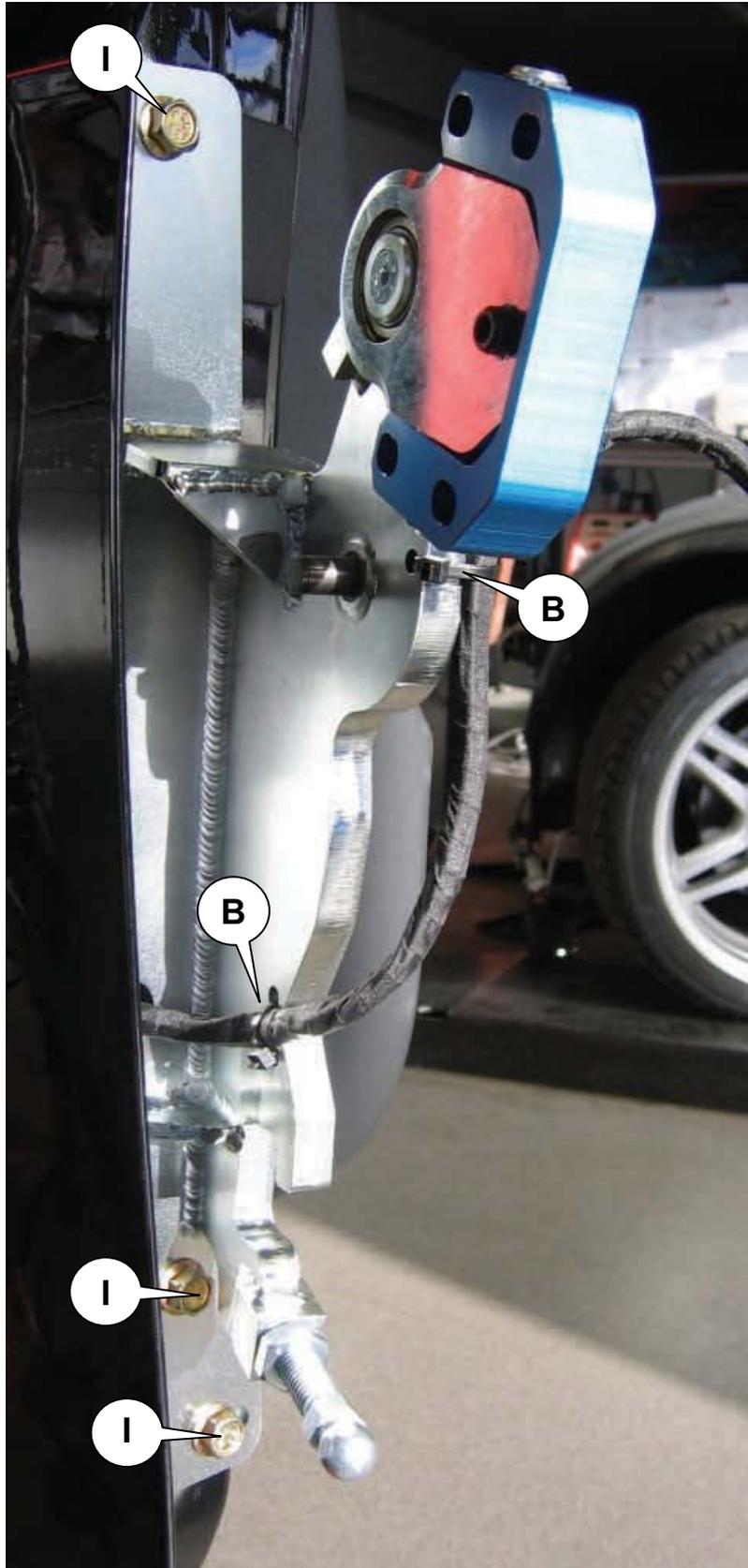
Please refer to the vehicle manufacturer for torque specifications.

9.) Close the extended cable harness lead-through hole with the supplied cover plate (C), and screws (F) (required drilling:  $\varnothing$  2 mm / 0,08 inches) and seal it with chassis glue (U).





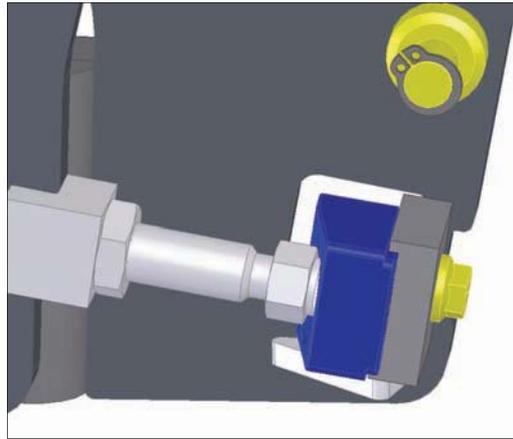
10.) Now the LSD swing arm (Q) has to be installed in the original mounting points on the door with the supplied bolts (I).



Please refer to the vehicle manufacturer for torque specifications.



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



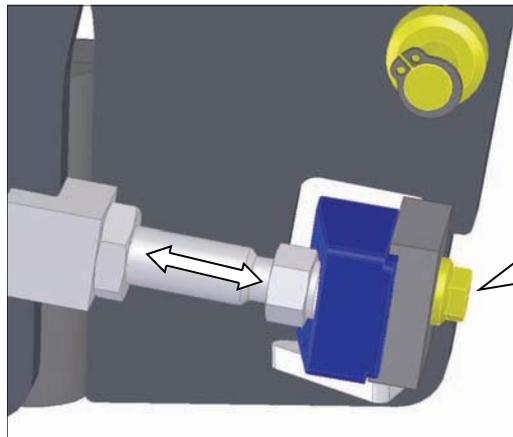
**TIP/ADVISE:** Use the lower adjustment screw, MAGIC STICK (1) as a point to guide the front of door in the correct position.

12.) 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).

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

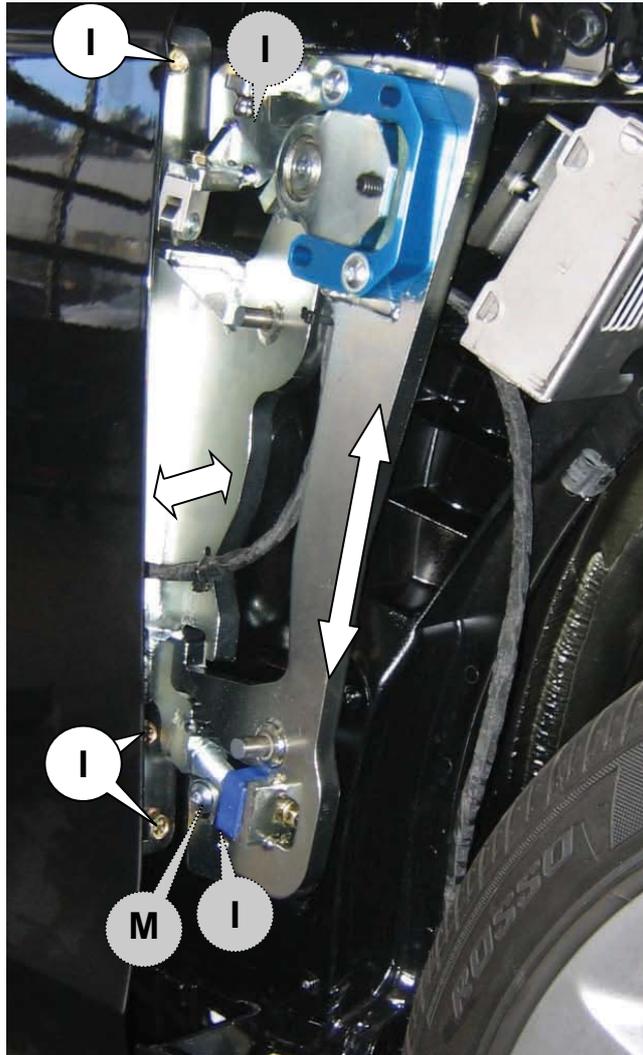


On completion: tightening torque 10 ft - lb (14 Nm).



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

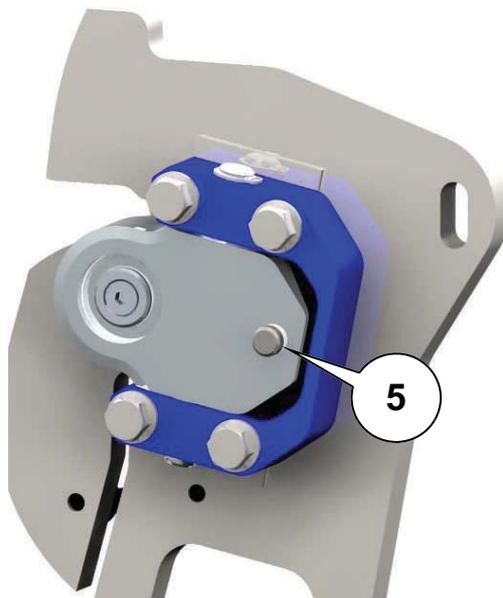
Adjust the **depth** of the door by moving the swing arm (**Q**) horizontal. You might have to loosen the bolts (**I**) on the swing arm to do this.



15.) **Only if required and if available**

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.

**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.



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

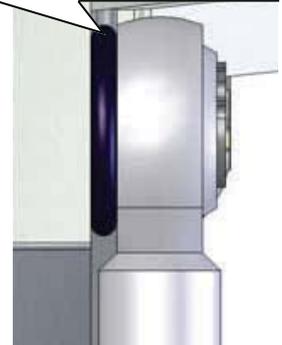
Use the security ring carefully.



The rubber (o-ring) has to be mounted between the LSD swing arm plate and top ball joint of the gas spring.



New position of the o-ring, after assembly



**The signification on the gas spring must be visible**

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



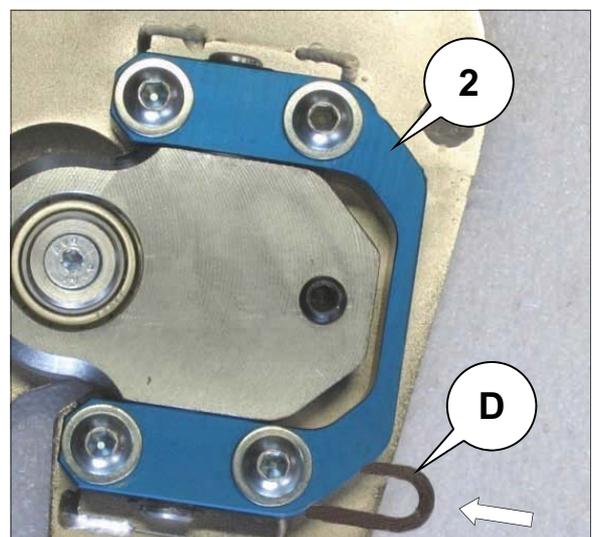
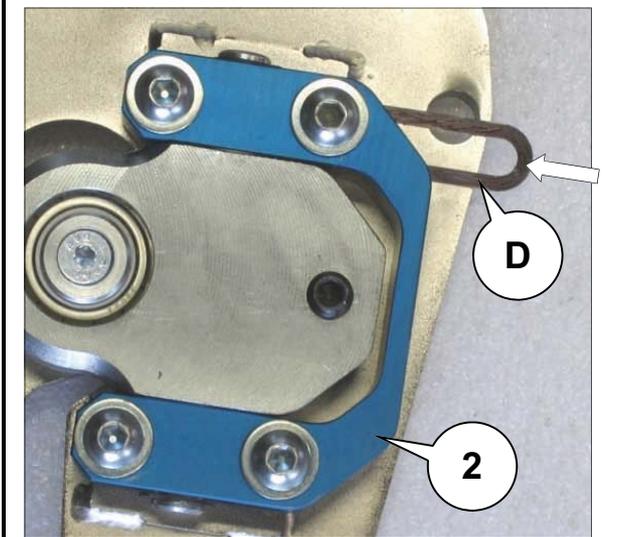
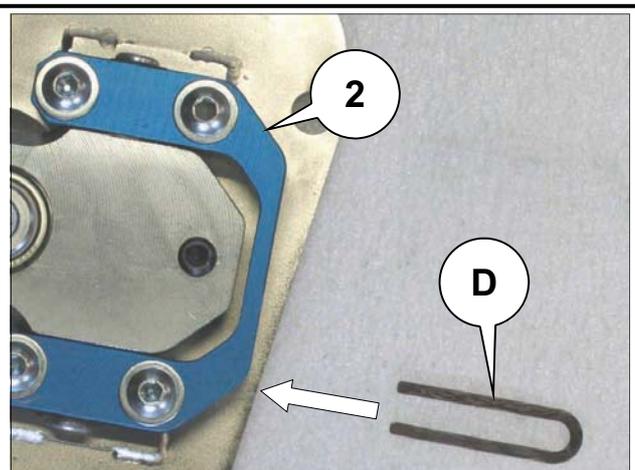
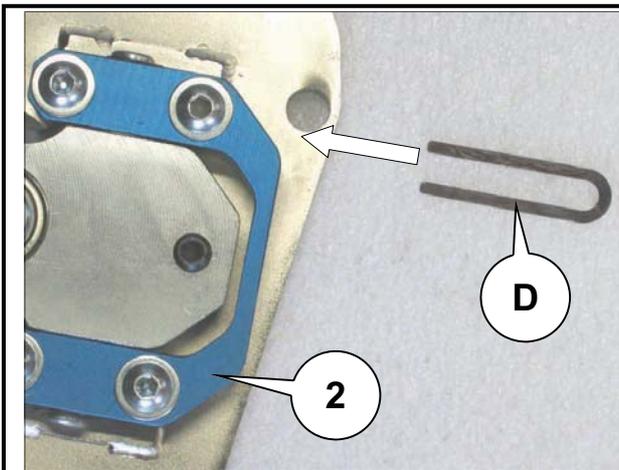
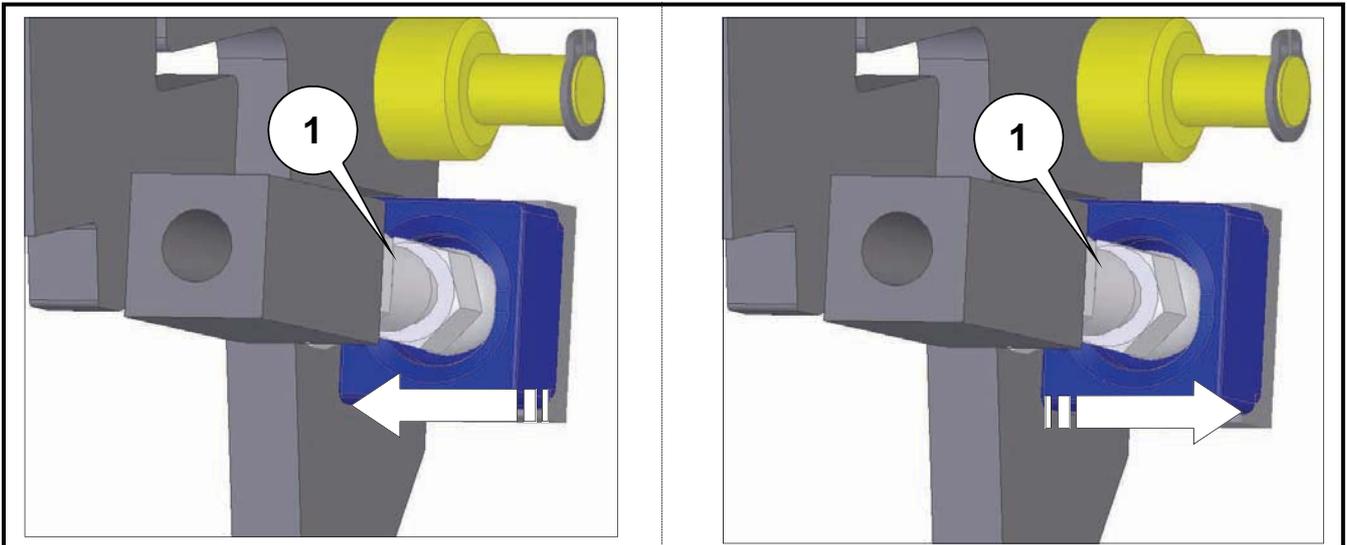
**Danger:** Gas spring is under extreme pressure! Please make sure the security rings are installed correctly and are snapped their respective guides.





18.) **Only if required**

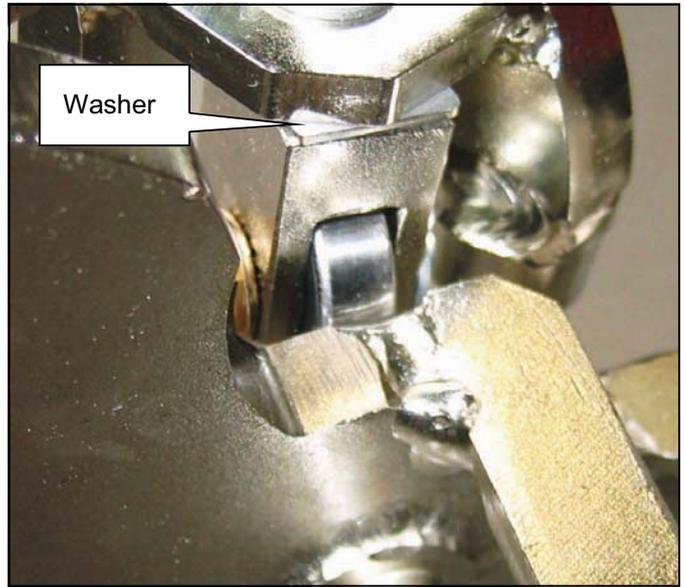
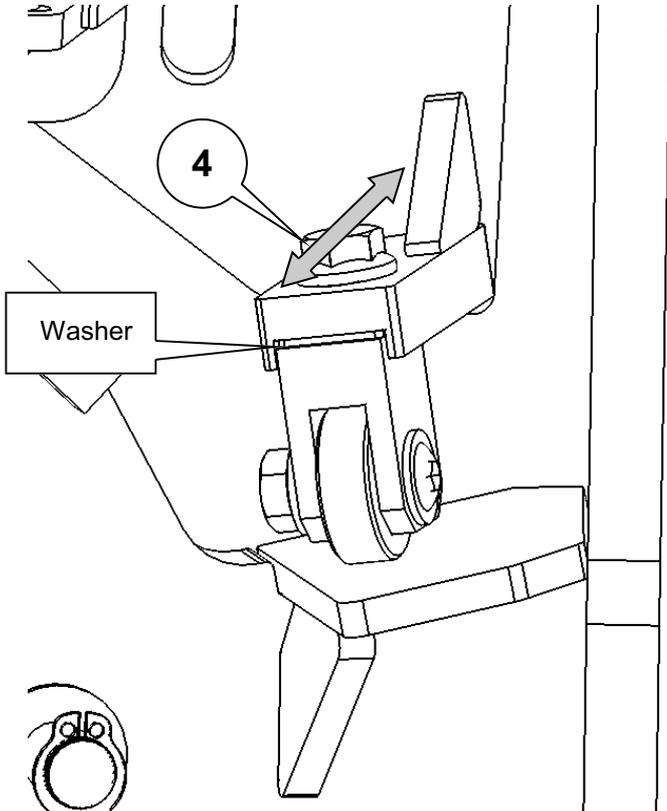
If the Magic Stick - lower adjustment screw (1) is not in correct position when the door is closed, spacer (D) has to be installed under the M.A.R.A. (2) as shown. **For this opening the door up!**



19.) 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).

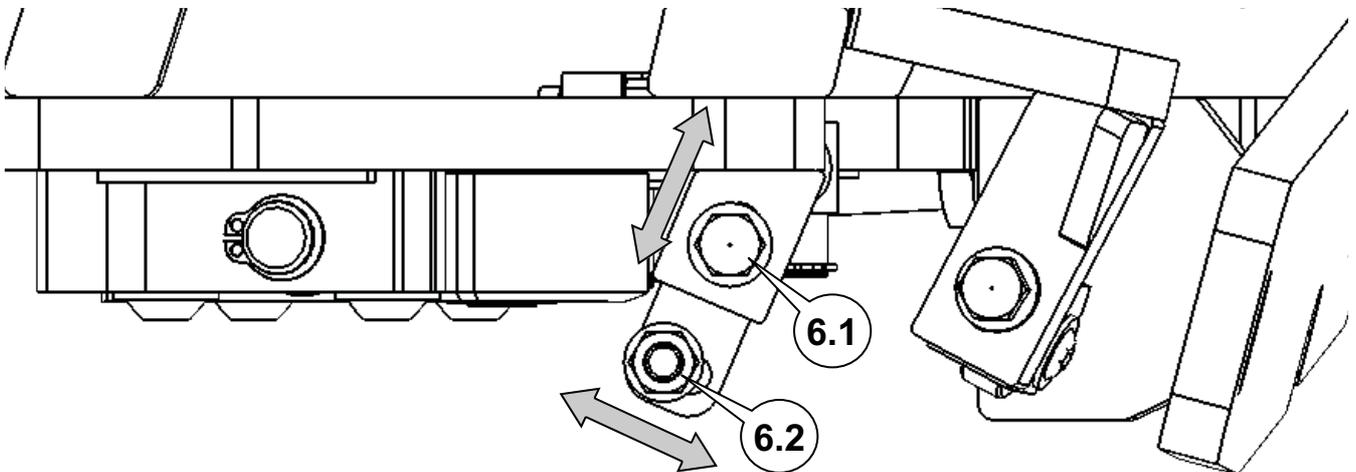
Please lubricate the slide roller (4) with grease from time to time.



20.) 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.

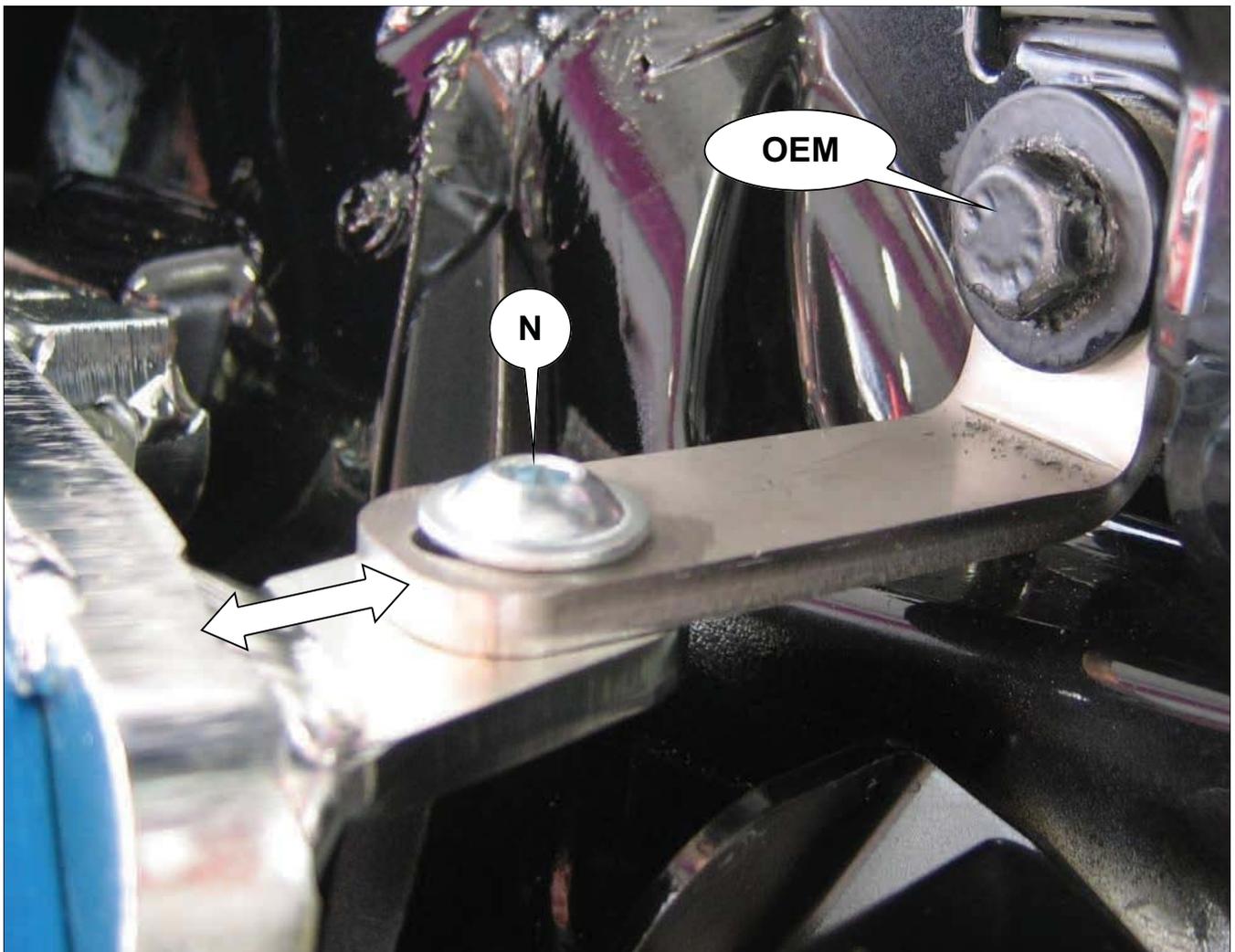


21.) Close the door again and let the door lock and set in place.

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

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

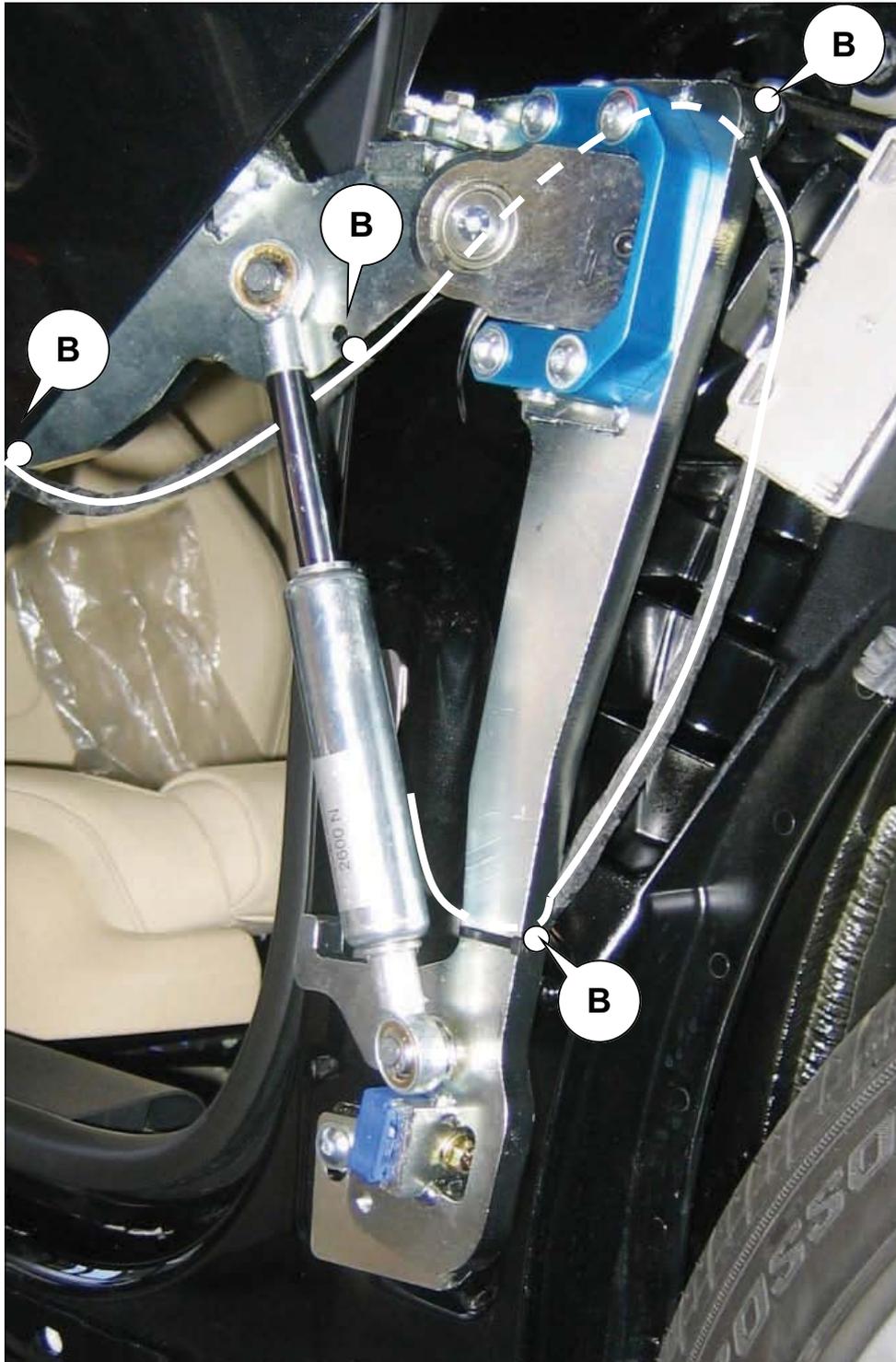
24.) After adjustments are finalized, mount the supplied fastening angle (**N**) with the allen screw and the original screw (**OEM**).

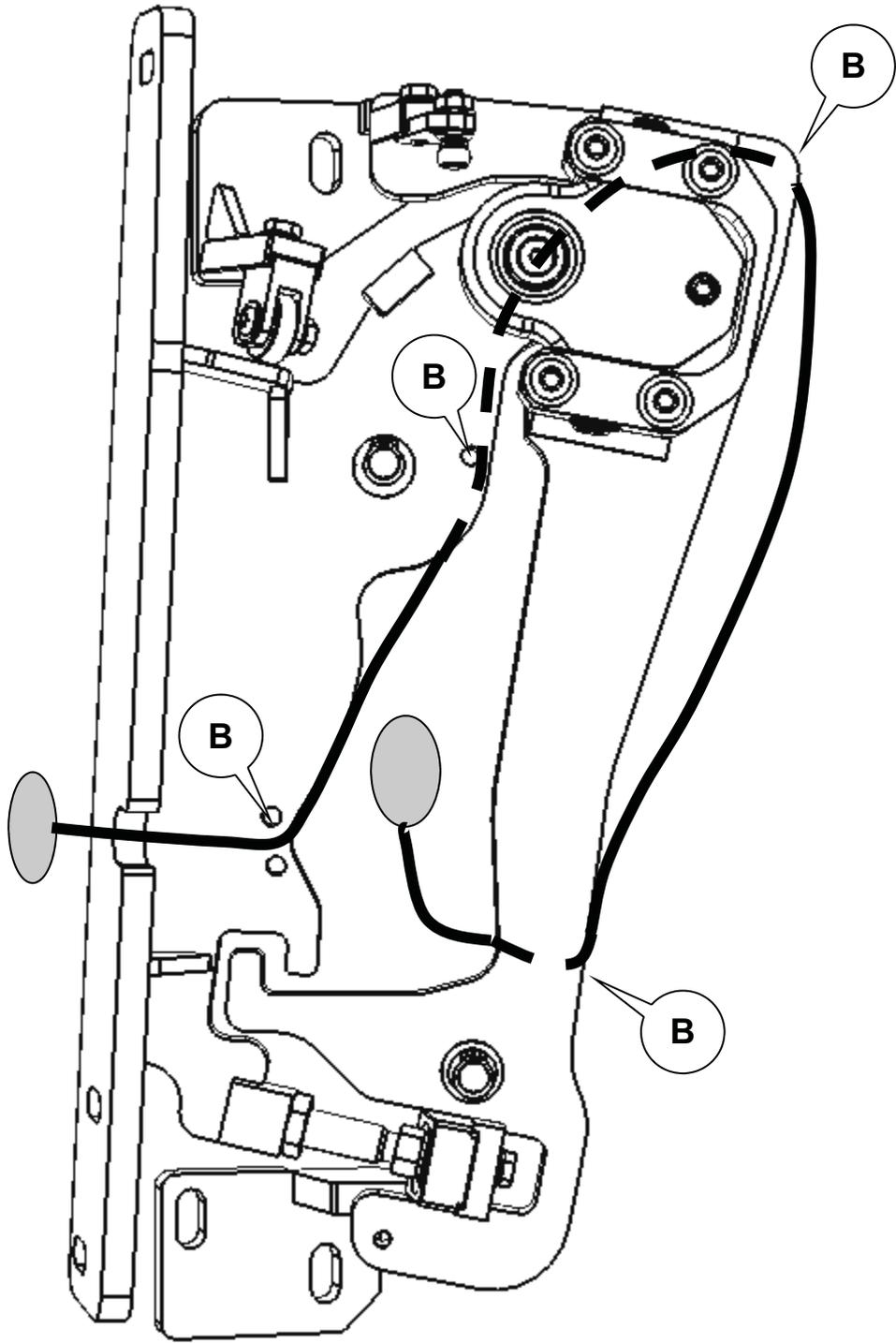




25.) Pivot the door carefully up and make sure there is sufficient clearance on the fender, A-pillar and hood. If necessary adjust the LSD chassis plate or the LSD swing arm again.

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





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



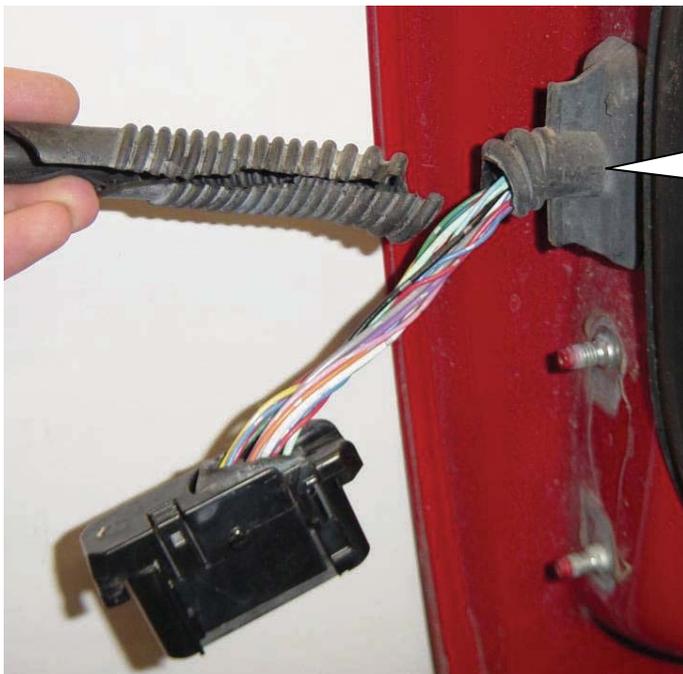
## ***Extending the wire harness***

*Recommend :*

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

*Nissan Z350 shown, your wire harness may look different.*

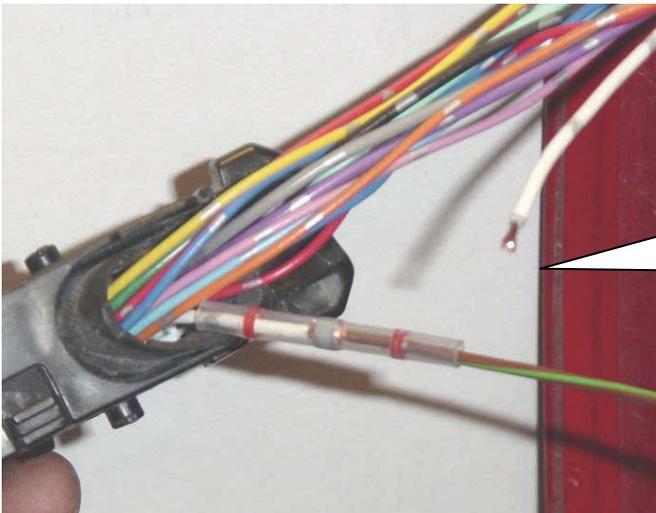
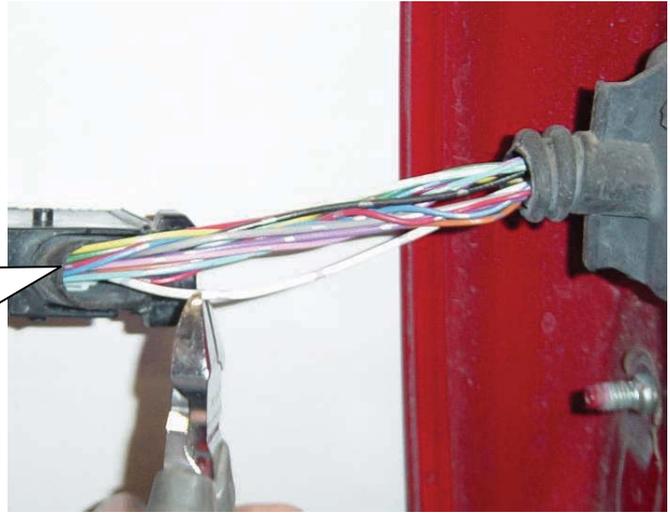
***Original door wire harness.***



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



**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.**



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

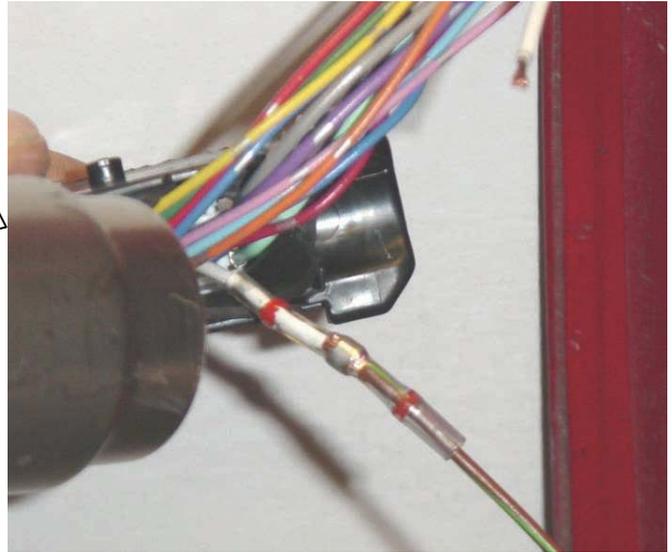


**Incorrect. The wire harness is very large after the wrap**

**Correct. Off set connectors for minimum size and flexibility.**



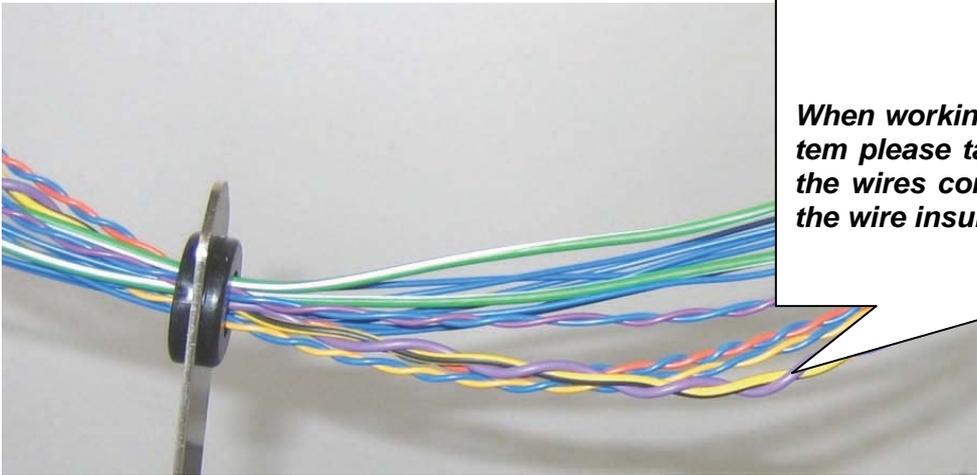
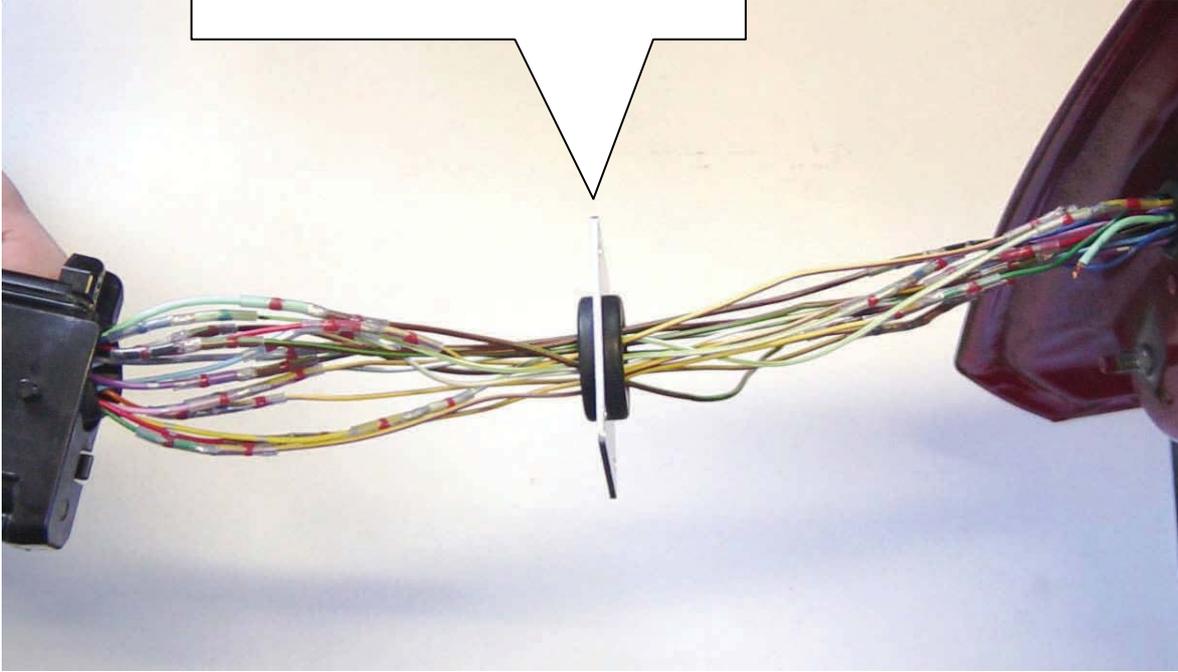
***Please use a hot air dryer to heat up the solder shrink connectors from outside to inside. Heat up the solder shrink connectors until the tin-solder (inside the connector) is becoming liquid and surrounding the core ends completely. Please avoid the damage of the cables by too strong heating.***



***REFERENCE: Cover plates are not needed for every vehicle!***

***Now lead the wires through the cover plate and join the ends with the shrinkable connectors.***

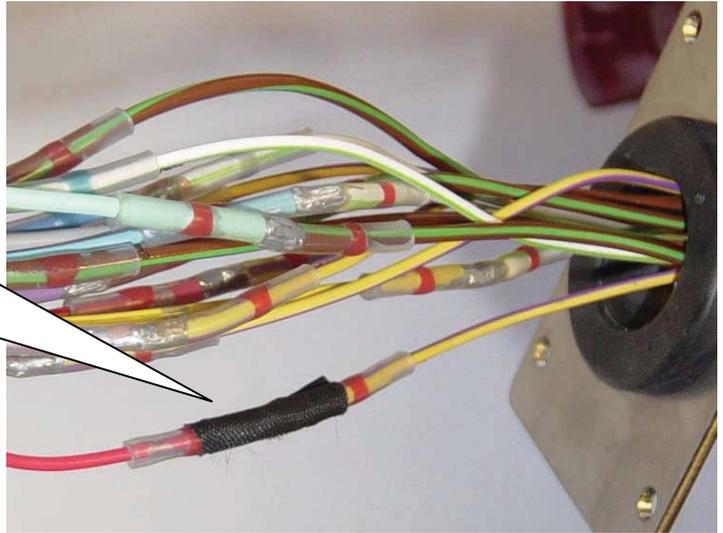
*Please repeat the earlier steps to all wires.*



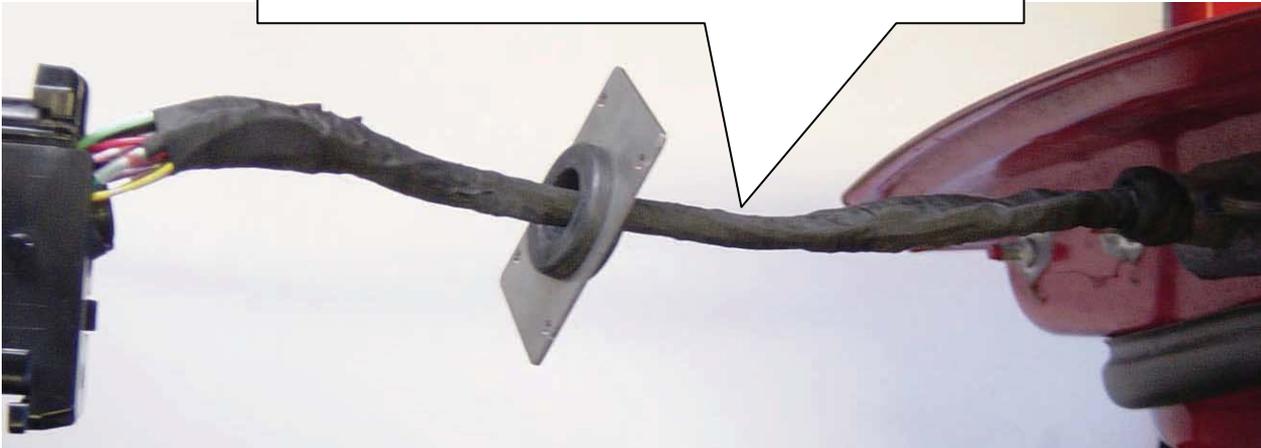
*When working with Share-data bus system please take special care to reroute the wires correctly and not to damage the wire insulation.*



*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.*

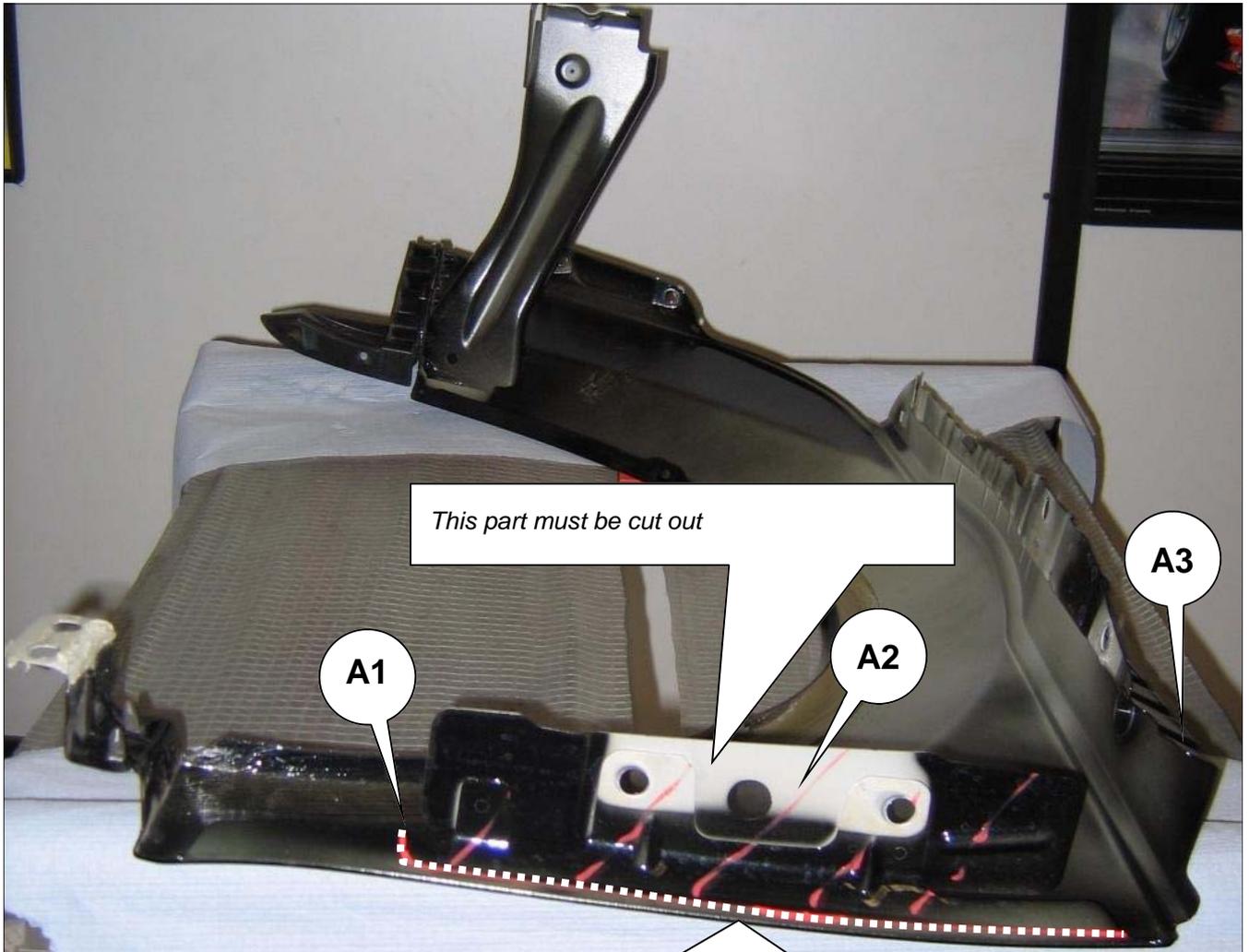


## Modifying the fender

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

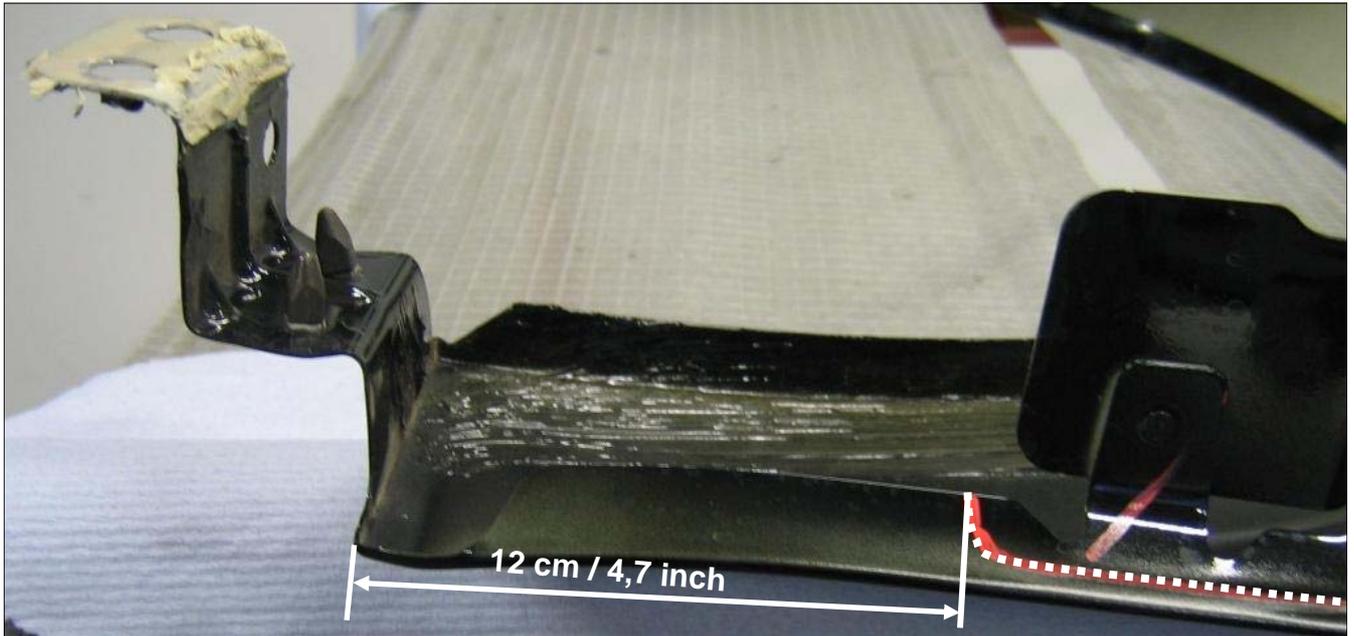
A1

A2

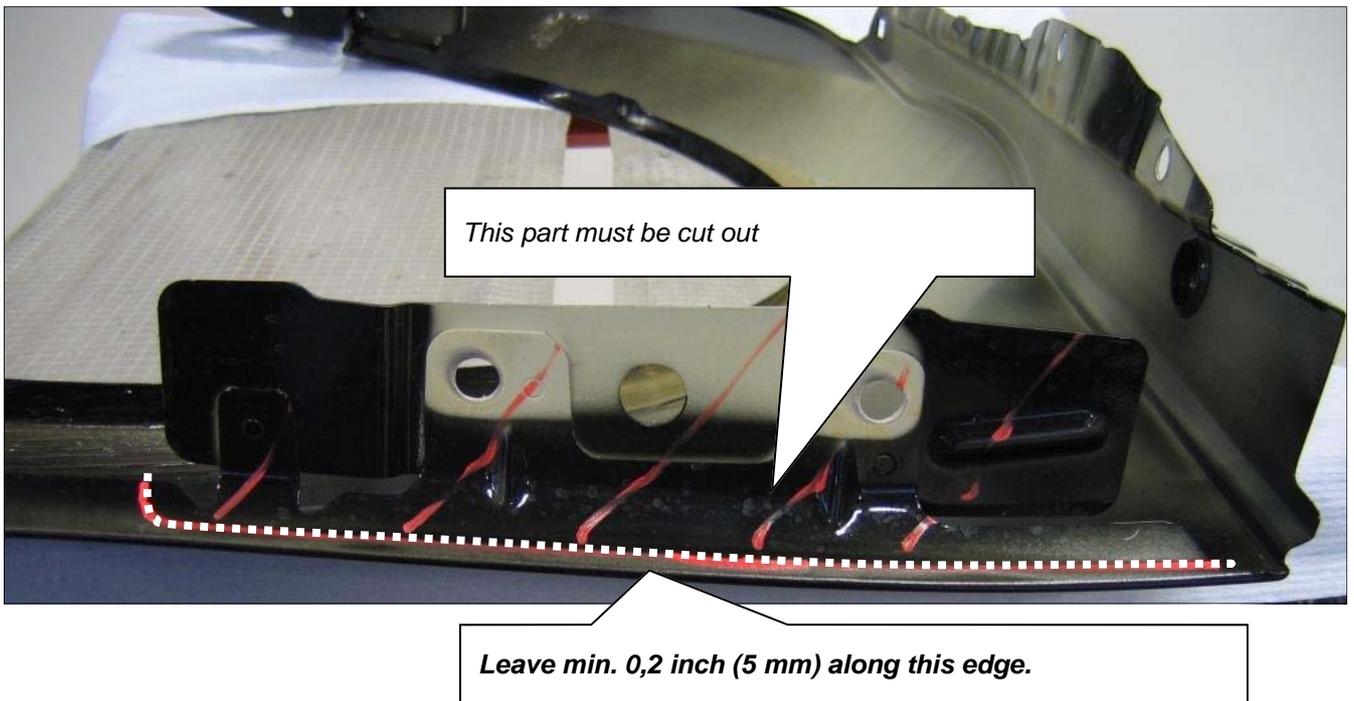
A3

Leave min. 0,2 inch (5 mm) along this edge.

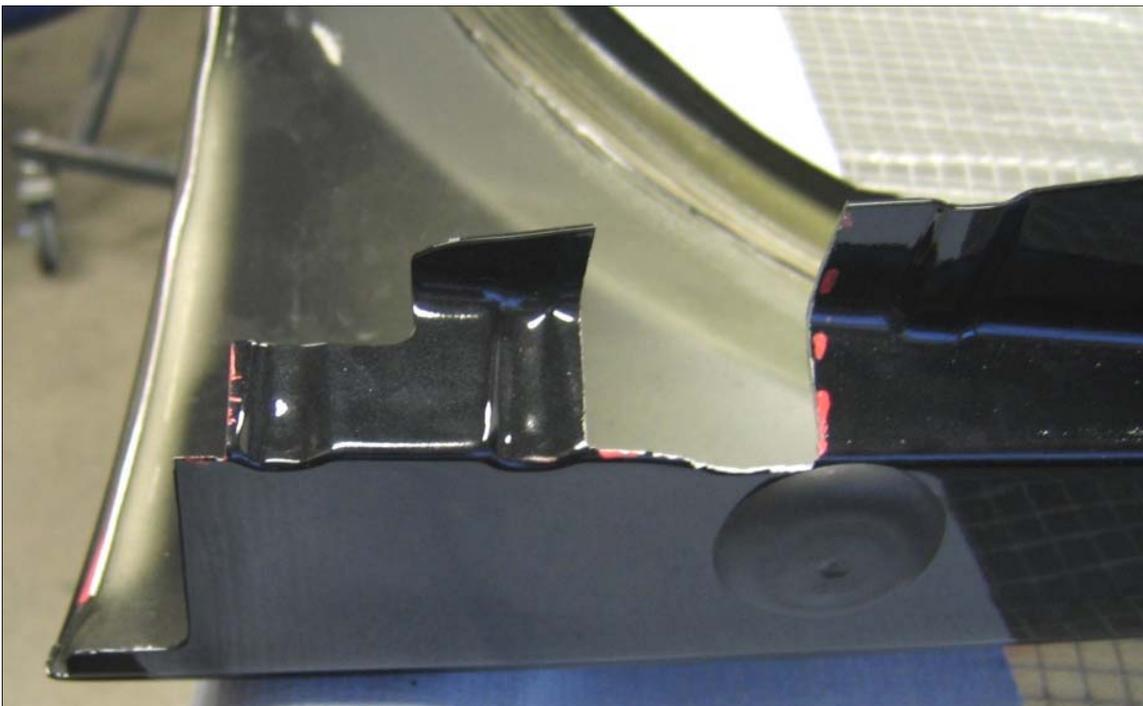
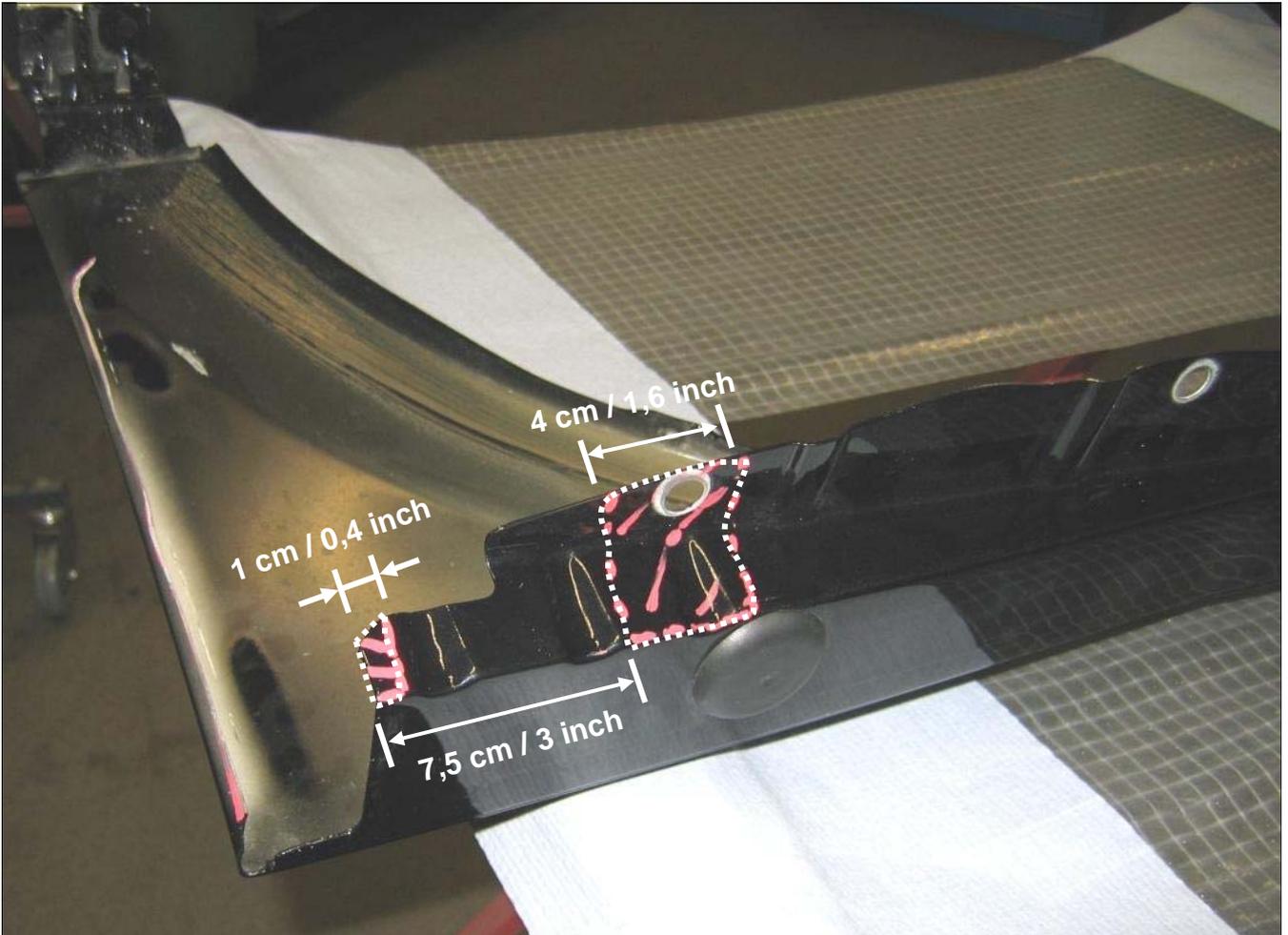
A1.)



A2.)



A3.)

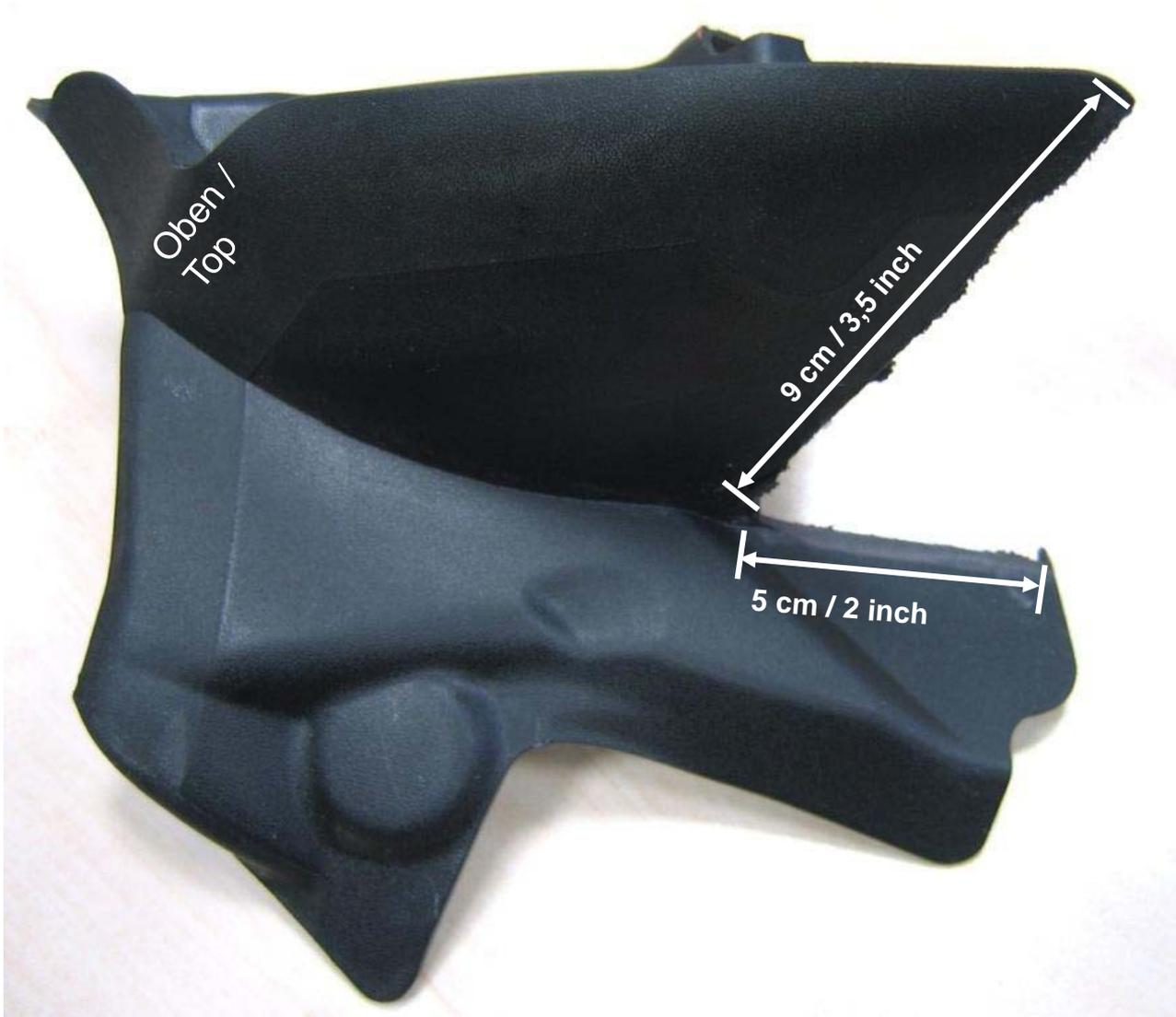


***Modifying the cover***

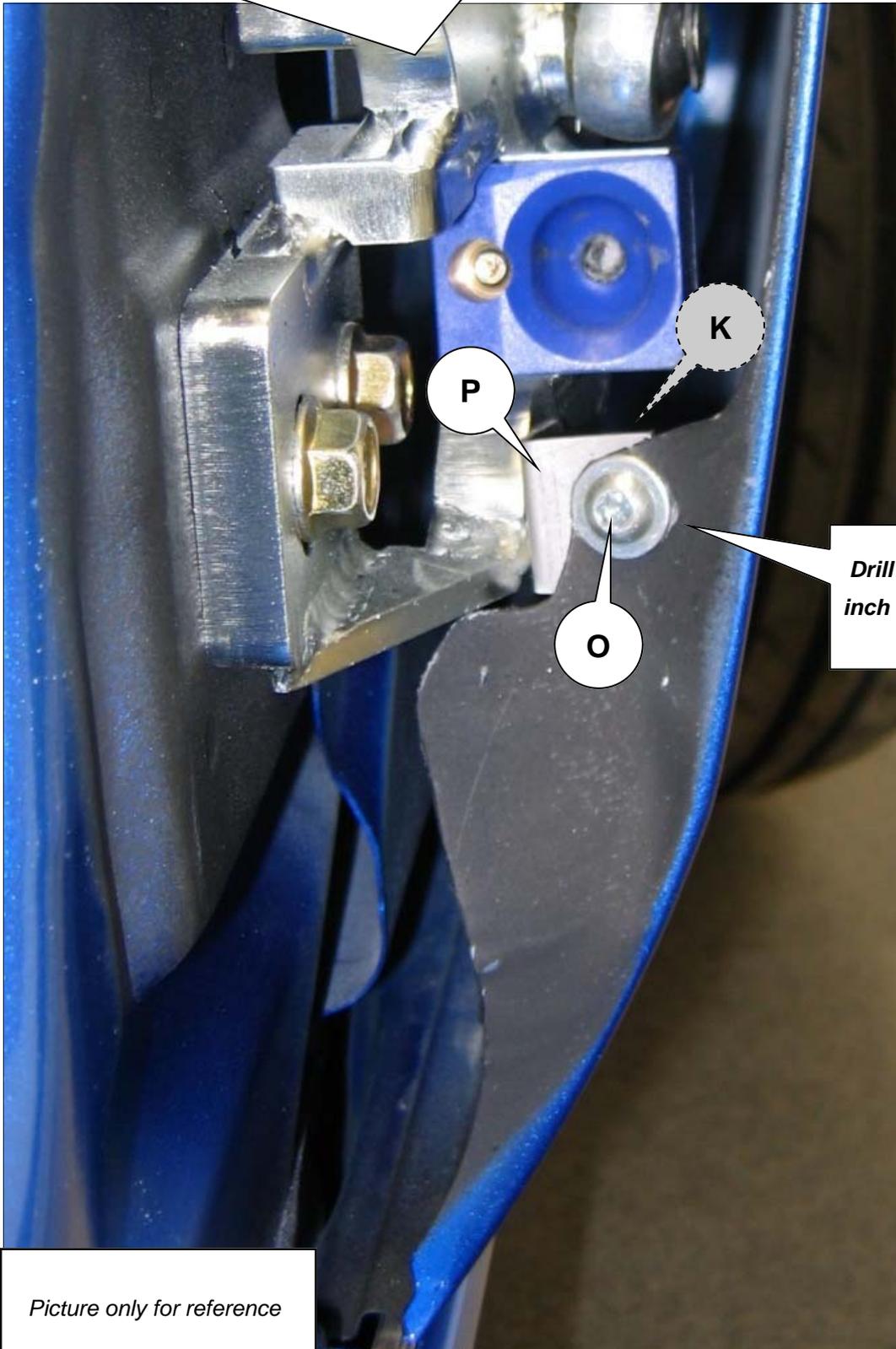




*Cut out the a-pillar cover.*



*Install the fender on the holder (P) with the supplied bolt (O) and nut (K).*



*Picture only for reference*

**Assembly the windshield washer reservoir No.: 685 20 013**

1.) Extended the wire harness of the windshield washer reservoir with the supplied cables.

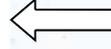
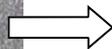
2.) Extended the hose of the windshield washer reservoir with the supplied hose and lay it as shown on the picture page 2.



2.1) Heating the hose and remove the hose coupling.

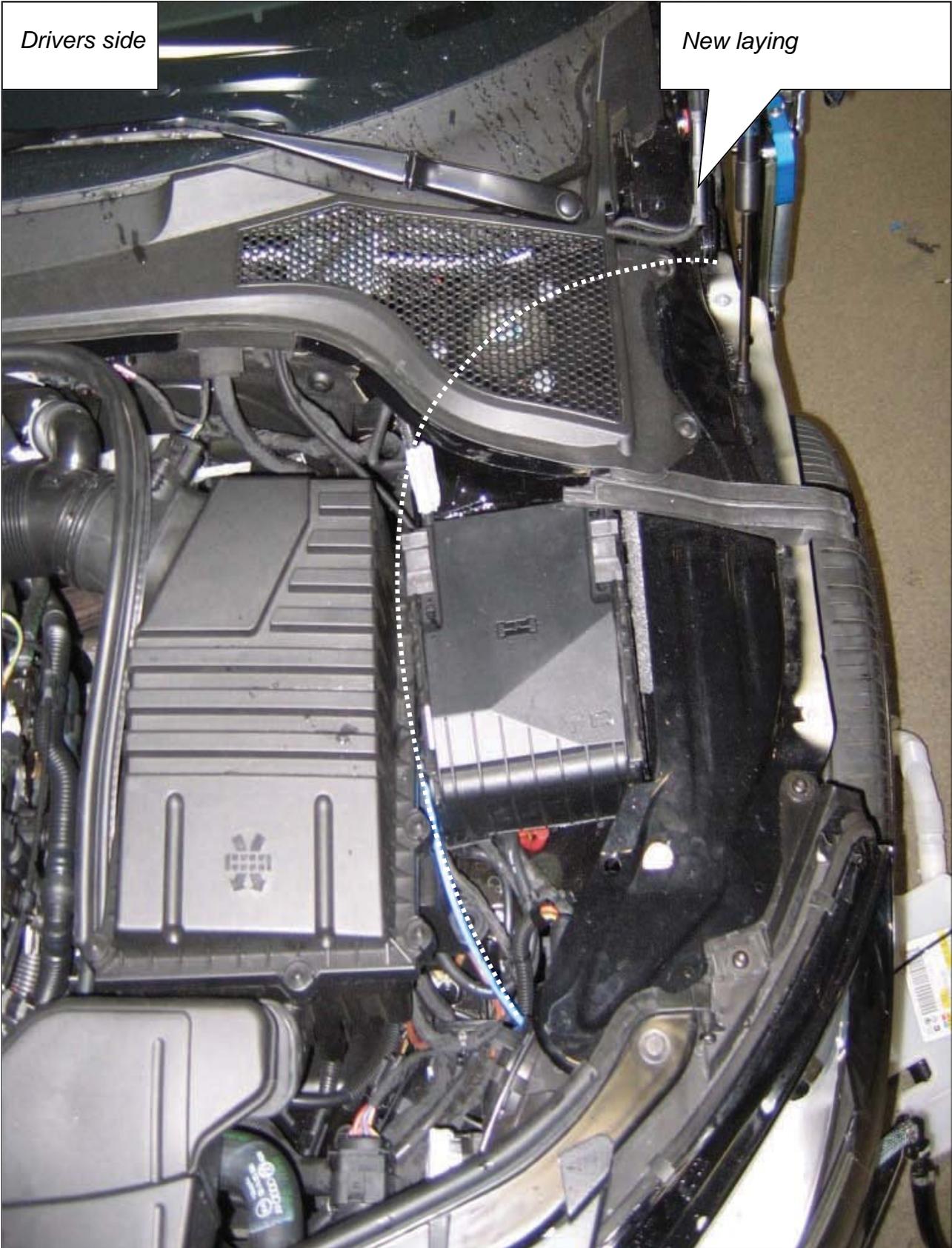


2.2) Heating the supplied hose and connecting the hose coupling.



*Drivers side*

*New laying*



3.) *New installation position.*



4.) *Cut of the holder on the marked line.*



5.) *Assembly the pump.*



5.1.) At vehicles without xenon headlamp seal the hole it with the supplied plug.

6.) Assembly the fender with the fender holder.



7.) Fixing the windshield washer reservoir on the holder with the cable ties (E).

