

Original MINI Accessories. Installation Instructions.



Retrofit - Aluminium Rear Rack

MINI One (R56)

MINI Cooper (R56)

MINI Cooper S (R56)

Retrofit kit No.	82 71 0 415 132	Aluminium rear rack ECE LHD
	82 71 0 432 617	Mounting kit
	82 71 0 415 138	Aluminium rear rack US
	82 71 0 418 004	Electrics kit, rear rack
	82 71 0 415 735	Bracket for socket outlet
	82 71 0 418 155	Repair kit, bearing bush

Installation time

The installation time is about **1.5 hours** for the mounting kit and **2.0 hours** for the electrics kit. The installation times may vary depending on the vehicle condition and equipment.

The vehicle must be updated to the latest I-level status by flashing before installing the retrofit. Different programming times are necessary depending on the production age of the vehicle and the work already performed on the vehicle so that no time requirements can be specified here. The installation time does not include the time required for programming/encoding which depends on the vehicle's age and equipment.

 **The rear rack electrics kit must also be installed in compliance with specific national regulations. ◀**

Important information

These installation instructions are primarily designed for use within the MINI dealership organisation and by authorised MINI service companies.

In any event, the target group for these installation instructions is specialist personnel trained on MINI cars with the appropriate specialist knowledge.

All work must be completed using the latest MINI repair manuals, circuit diagrams, servicing manuals and work instructions, in a rational order, using the prescribed tools (special tools) and observing current health and safety regulations.

In the event of installation or functional problems, limit troubleshooting to 0.5 hours for mechanical jobs and 1.0 hours for electrical jobs.

To avoid unnecessary work and costs, send a corresponding enquiry via the Aftersales Assistance Portal (ASAP) using the technical parts support application.


Please quote the following:

- Vehicle identification number
- Part number of retrofit kit
- Exact description of the problem
- Work already carried out.

Do not archive the hard copy of these installation instructions since daily updates are made by ASAP!

All pictures show LHD cars; proceed accordingly on RHD cars.

Pictograms

 Denotes instructions that draw your attention to special features.

◀ Denotes the end of the instruction or other text.

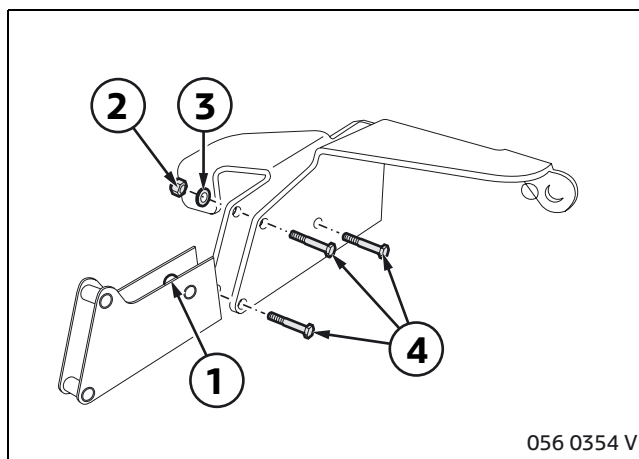
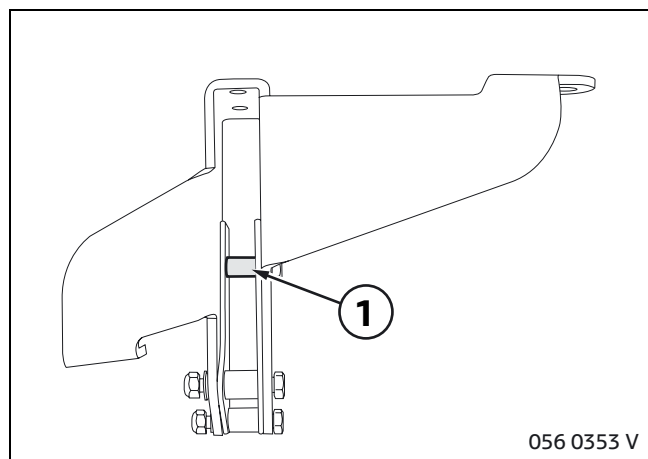
Installation information

The installation instructions describe the procedure on the right-hand side of the vehicle only. The same procedure should be followed analogously on the left-hand side of the vehicle.

Ensure that the cables/lines are not kinked or damaged as you install them in the car. Costs incurred as a result of this will not be reimbursed by BMW AG.

Additional cables/lines that you install must be secured with cable ties.

If the specified PIN chambers are occupied, bridges, double crimps or twin-lead terminals must be used.



Check bush (1) before starting the work on the two rear rack mounts. If **creme-coloured plastic bushes (1)** are fitted, they must be replaced. For this purpose, order the repair kit, **Part No. 82 71 0 418 155**, and proceed as follows:

Undo nuts (2) and remove together with washers (3). Remove screws (4) from the mount assy.

Now replace bush (1) in the left and right mount assy (**bearing bush repair kit No. 82 71 0 418 155**).

Reassemble mount and tighten M6 screw connection to 3 Nm.

 Installation and removal of the rear rack in accordance with the installation instructions are to be demonstrated to the customer. ◀

Ordering information

The following parts are not included in the retrofit kit and must be ordered separately (see EPC for part number and instructions):

Betalink 1C adhesive package, part number 82 699 408 866

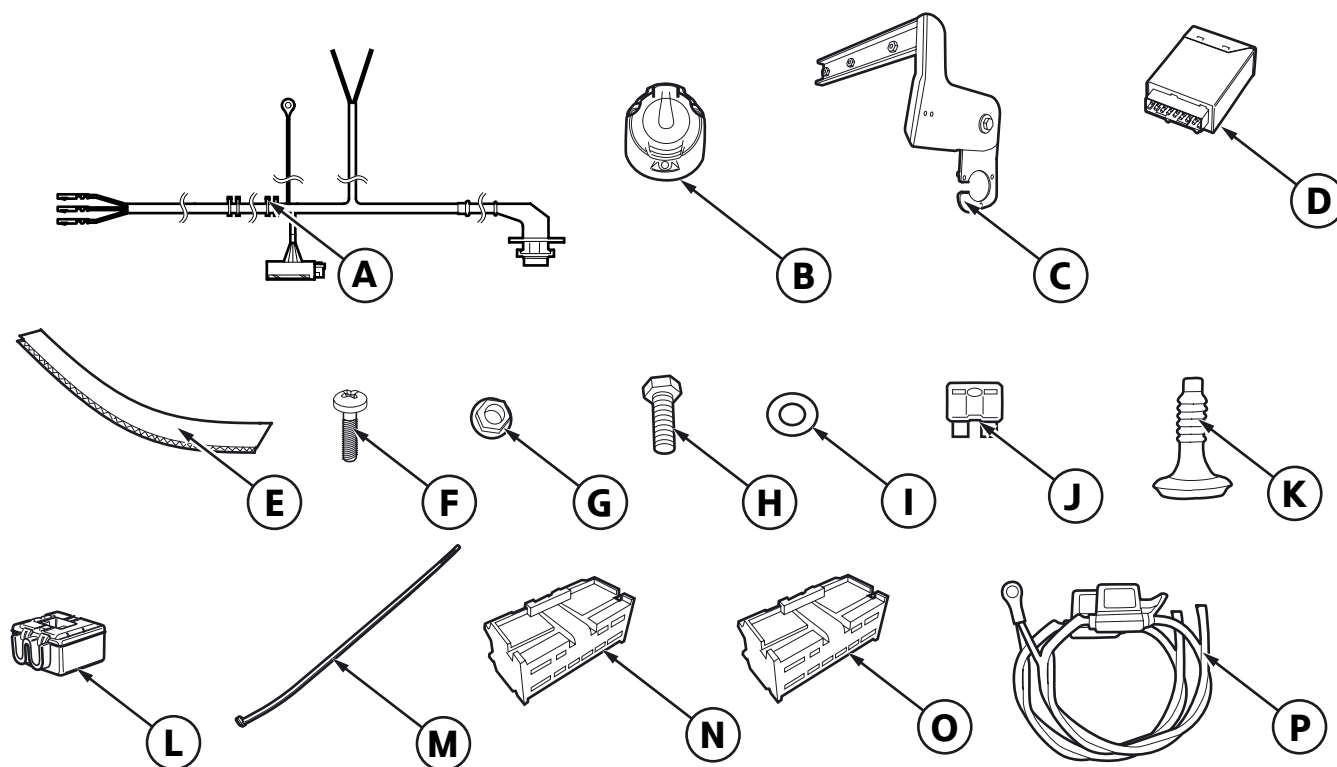
Special tools required

None

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1. Parts overview, electrics kit (optionally required only for installing electrical equipment)

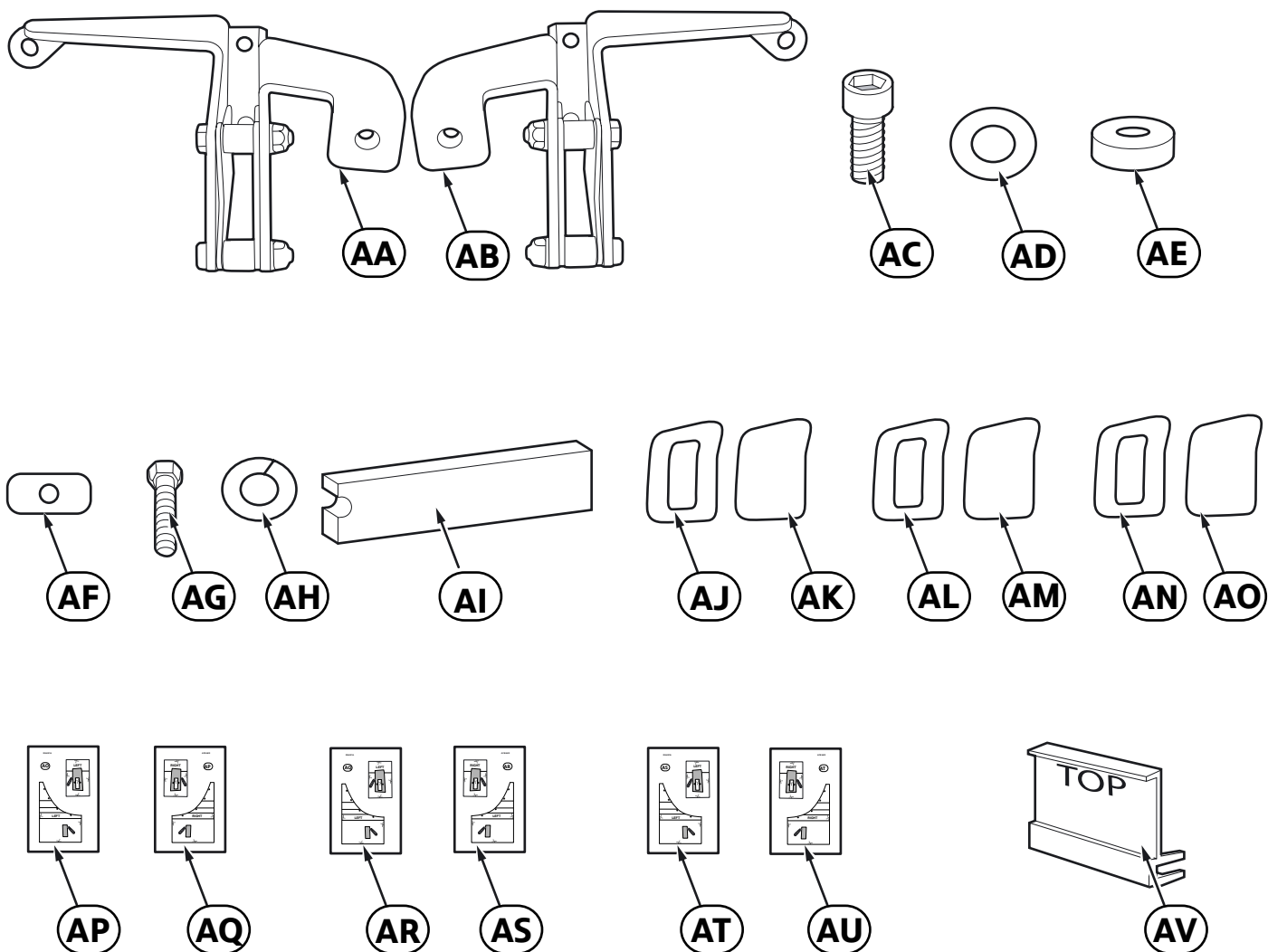


056 0273 V

Legend

- | | |
|---|---|
| A Wiring harness | I Washer Ø 8.2 mm (3x) |
| B Power socket | J Fuse 20 A (2x) |
| C Bracket for socket outlet | K Grommet |
| D Control unit | L Insulation-displacement connector (4x) |
| E Velcro strip, two-piece (300 mm) | M Cable tie (20x) |
| F Screw M5x35 (3x) | N Connector (black) |
| G Self-locking M5 nut (3x) | O Connector (green) |
| H Screw M8x20 (3x) | P Battery connection cable |

2. Parts overview - installation kit



056 0271 V

Legend

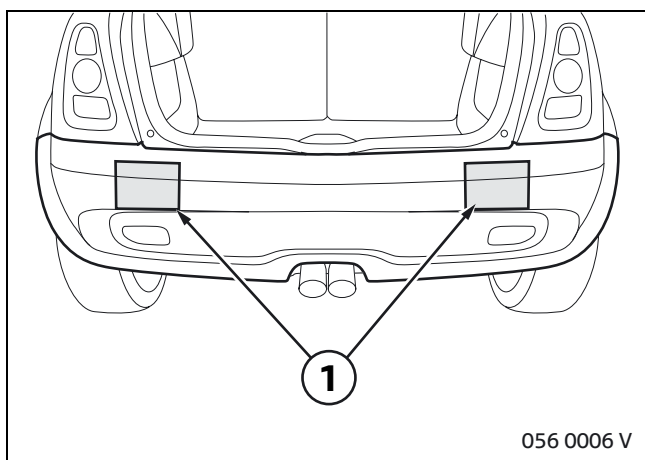
- AA** Mount, left
- AB** Mount, right
- AC** Socket head cap screw, mount M8x30 (4x)
- AD** Washer Ø 8.2 mm (6x)
- AE** Spacer bush (2x, only for ECE vehicles)
- AF** Shim (2x)
- AG** Screw M8x40 (2x)
- AH** Retaining ring Ø 8.2 (4x)
- AI** Installation tool
- AJ** Frame in rear apron, One/Cooper L/R (2x)
- AK** Trim cover in rear apron, One/Cooper L/R (2x)
- AL** Frame in rear apron, Cooper S L/R (2x)
- AM** Trim cover in rear apron, Cooper S L/R (2x)
- AN** Frame in rear apron, Aero L/R (2x)
- AO** Trim cover in rear apron, Aero L/R (2x)
- AP** Left template for rear apron, One/Cooper
- AQ** Right template for rear apron, One/Cooper
- AR** Left template for rear apron, Cooper S
- AS** Right template for rear apron, Cooper S
- AT** Left template for rear apron, aero-package
- AU** Right template for rear apron, aero-package
- AV** Spacing gauge

3. Preparatory work for installing electrics kit (optionally required only for installing electrical equipment)

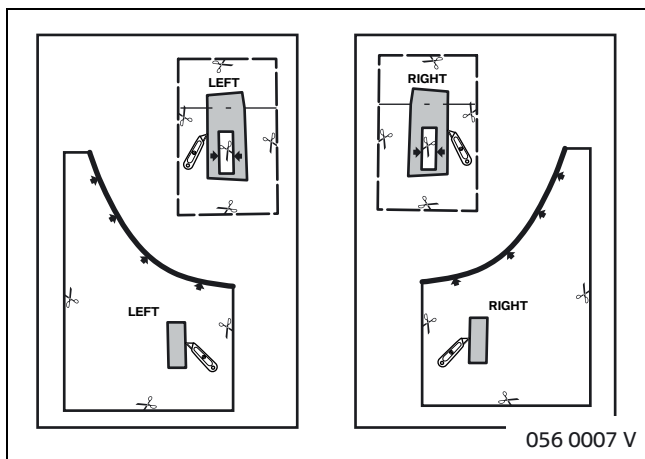
	TIS No.
Perform quick test	—
Disconnect negative terminal of battery	12 00 ...
Remove the following components	
Rear window shelf panelling	51 46 003
Luggage compartment floor trim panel	51 47 101
Luggage compartment light	63 31 080
CD changer if applicable	—
Trim cover on rear apron	51 46 050
Rear headrest	52 26 390
Backrest of rear right seat	52 26 012
Rear seat	52 26 005
Side trim panel on rear right	51 43 002
Entrance cover strip	51 47 000
Right tail light	63 21 180

4. Installing mounting kit

Model	One/Cooper	Cooper S	Aero-package
Template L/R	AP/AQ	AR/AS	AT/AU
Distance between centres of templates	916 mm		
Frame	AJ (One L/R)	AL (Cooper S L/R)	AN (Aero L/R)
Panel	AK (One L/R)	AM (Cooper S L/R)	AO (Aero L/R)

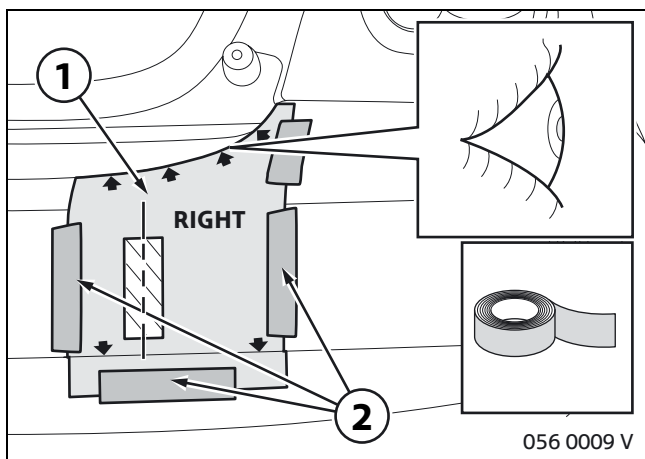


Thoroughly clean the rear bumper panel in the illustrated area (1).



▶ Make sure that you use the correct template (see table above). ◀

Cut out the left and right templates along the cutting edges.



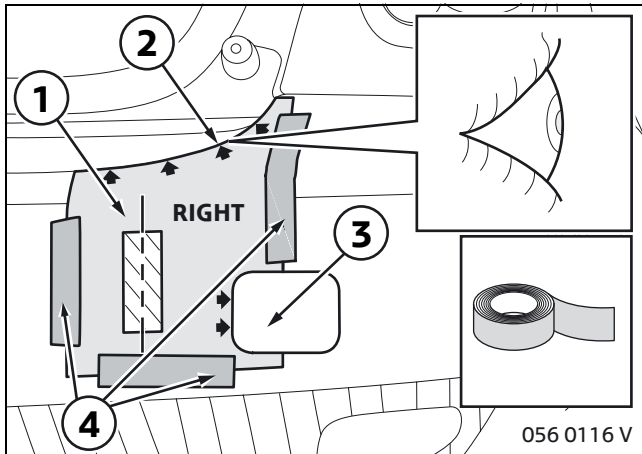
Only for One / Cooper:

Place the right template (1) with the marked edge at the radius and the edge of the bumper panel.

When viewed from the side, the template must rest against the beginning of the radius.

Secure template with adhesive tape (2).

4. Installing mounting kit

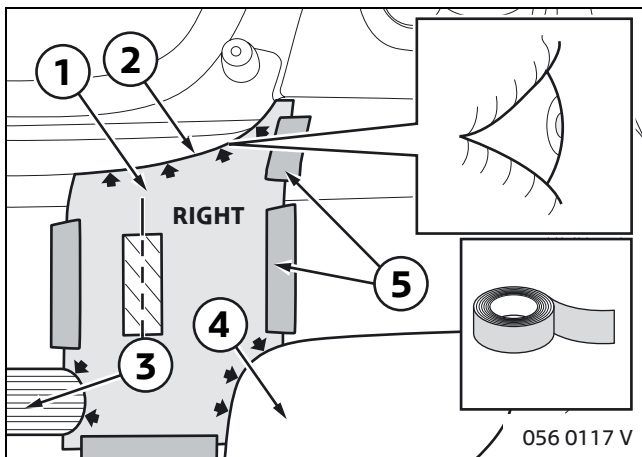


Only for Cooper S:

Place right template (1) with the marked edge at the radius of bumper panel (2) and against the cover of towing eye (3).

When viewed from the side, the template must rest against the beginning of the radius.

Align template and secure with adhesive tape (4).



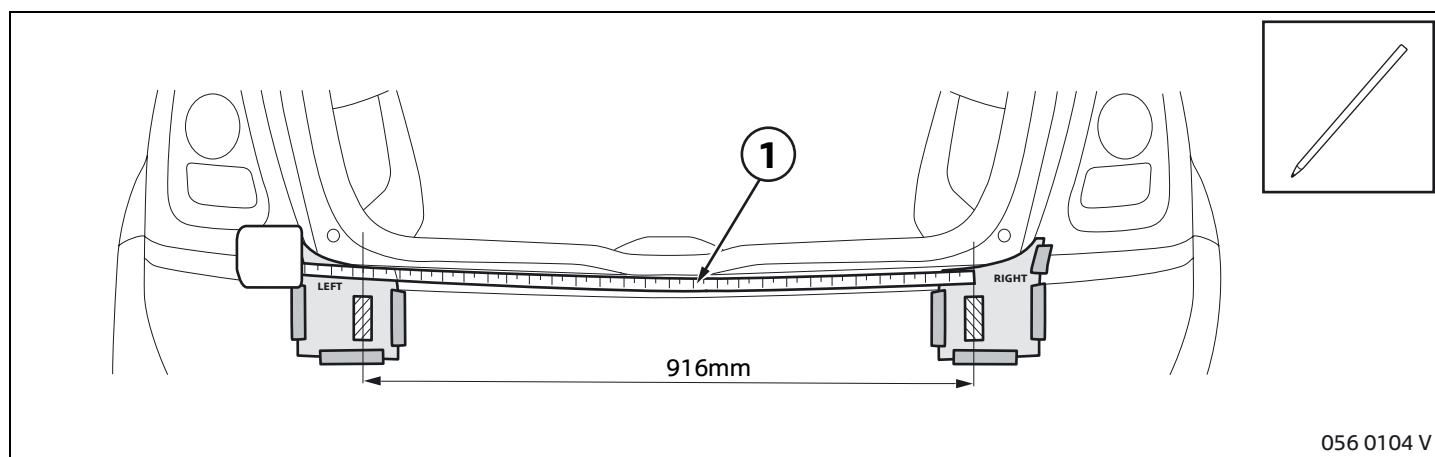
Only for aero-package:

Place right template (1) with marked edge at the radius of bumper panel (2), of rear grille (3) and at opening for rear fog light (4).

When viewed from the side, the template must rest against the beginning of the radius.

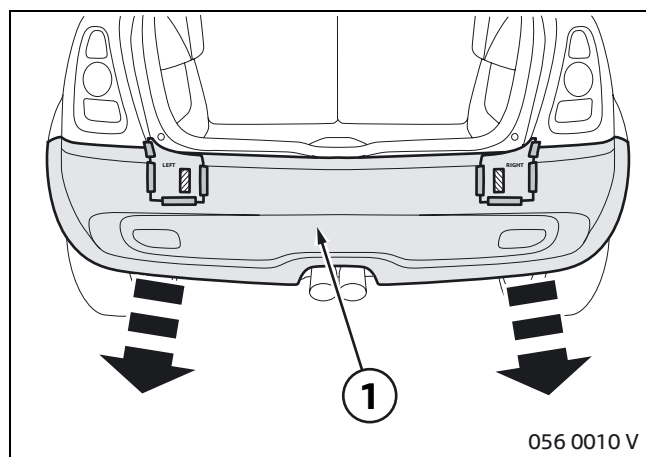
Secure template with adhesive tape (5).

4. Installing mounting kit

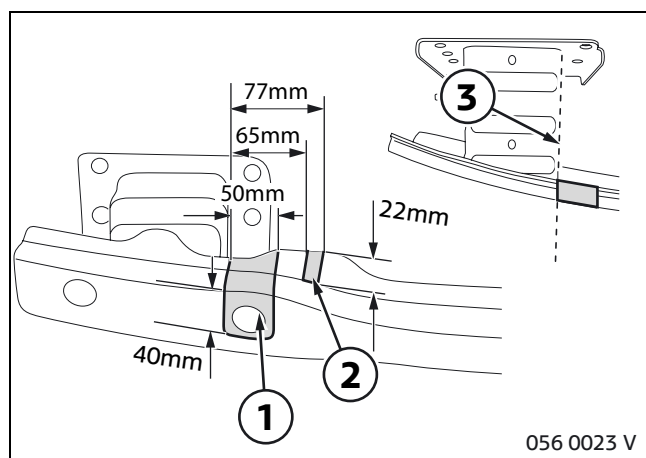


Use a tape measure (1) to transfer the distance between the centres of the templates (= 916 mm, see table on page 7) on to the left-hand side. The distance between centres must be measured along the outer contour of the rear bumper panel.

Place the left template against the marked edge/edges on the bumper panel as well as at the correct distance of 916 mm from the right template and secure with adhesive tape.



Remove rear bumper panel (1) together with the templates as described under TIS No. 51 12 156.



Only on ECE vehicles:

Remove crash beam as described under TIS No. 51 12 050.

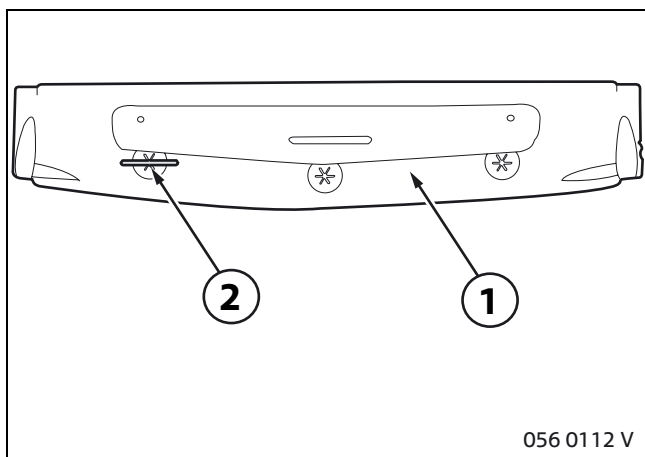
Mark slots (1) and (2) on both sides of the crash beam to the specified dimensions.

Use the inner side (3) of the crash beam bracket as a reference point.

Carefully cut out slots (1) and (2) using a disc grinder.

Deburr the cut edges and prevent corrosion by applying zinc dust paint and primer. Follow the instructions for using the zinc dust paint.

4. Installing mounting kit

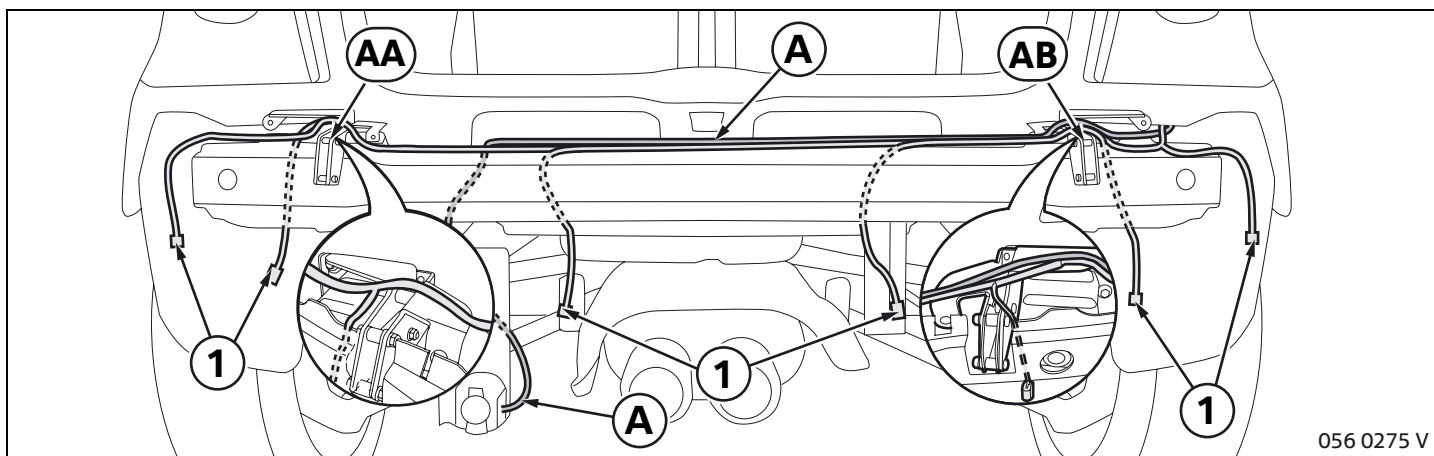


Make cut (2) in foam material moulding (1).

Resecure crash beam together with foam material moulding (1) hand-tight, using only the two lower outer screws.

 **At this point, continue with section 8, Installing electrics kit.** ◀


Only for Cooper S and vehicles with aerodynamics package:



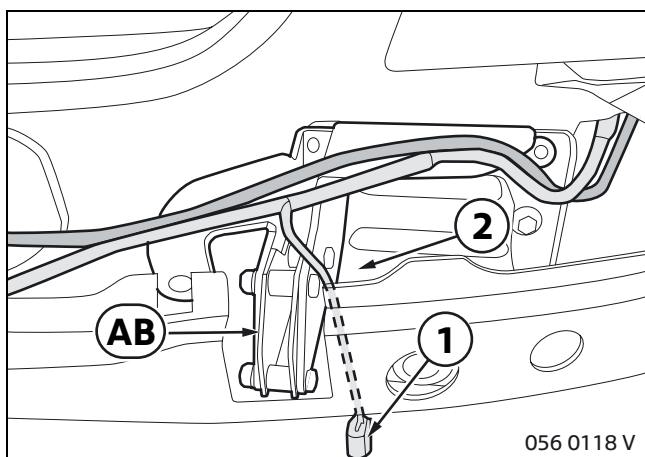
Only for installing electrical equipment:

Install wiring loom **A** and vehicle wiring harness (1) as shown above.


For all vehicles:

 Check rear rack mounts **AA** and **AB** prior to installation (see Installation information, page 2). ◀

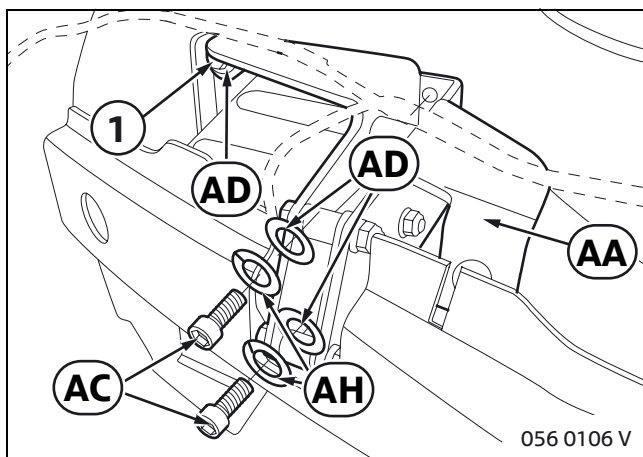
Install rear rack mounts **AA** and **AB**.



Before securing rear rack mount **AB**, pass the connectors of rear fog lights (1) between rear rack mount **AB** and bumper connection (2).

 There must be no cables installed between the foam material moulding and the mounts. ◀

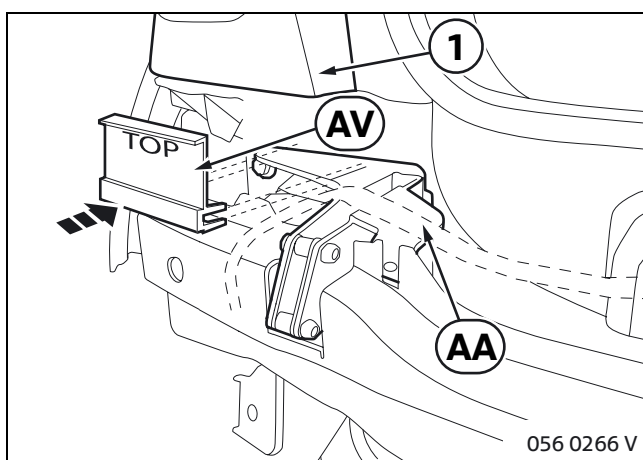
4. Installing mounting kit



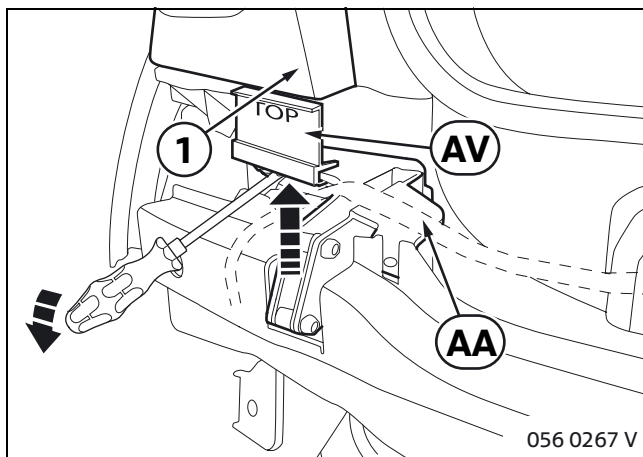
Only on ECE vehicles:

Install foam material moulding and left mount **AA**.

Hand-tighten top left rear rack mount **AA** with original screw (1) as well as screws **AC**, washers **AD** and retaining rings **AH**.



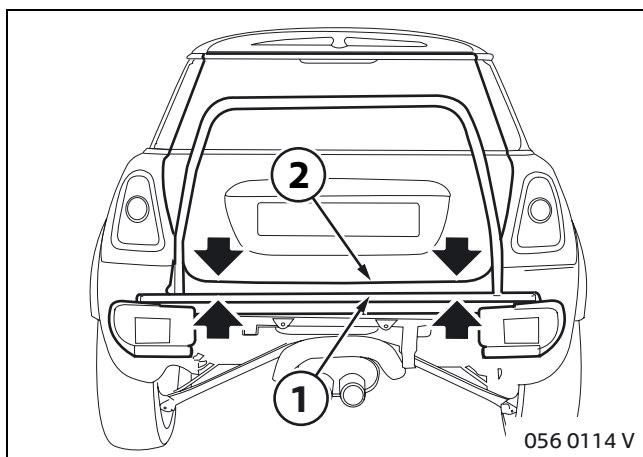
Fit spacing gauge **AV** on left mount **AA**.



Use a screwdriver to lever up left mount **AA** while screwing down so that the spacing gauge **AV** is clamped free of play between mount **AA** and rear light base (1).

Tighten all screws of mount **AA** and of the bumper to 21 Nm.

Remove spacing gauge **AV**.



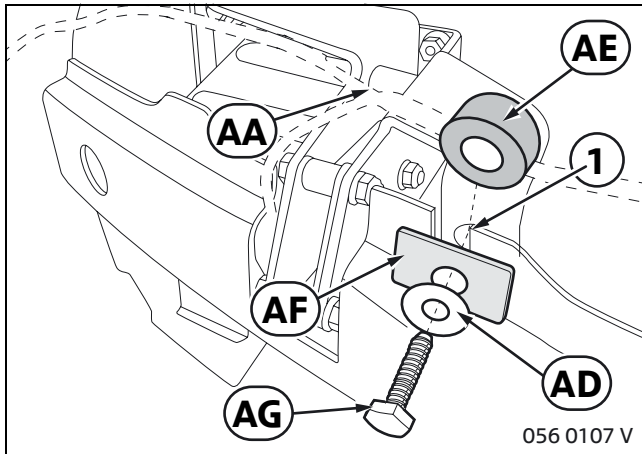
▶ At this point continue with section 11, Checking adjustment of aluminium rear rack. ◀

After installing the rear rack mounts, mount the aluminium rear rack (1) and visually check that the rack (1) is set parallel to the rear hatch (2).

If necessary, detach the aluminium rear rack (1) and reposition one of the mounts downward.

Now reattach the aluminium rear rack (1).

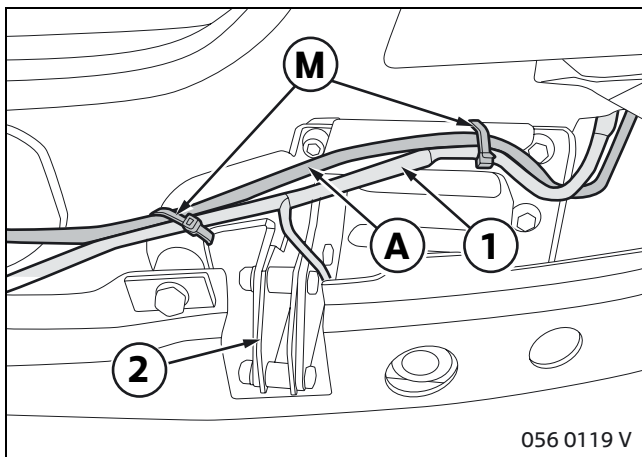
4. Installing mounting kit



Install spacer bush **AE** between mount **AA** and the crash beam.

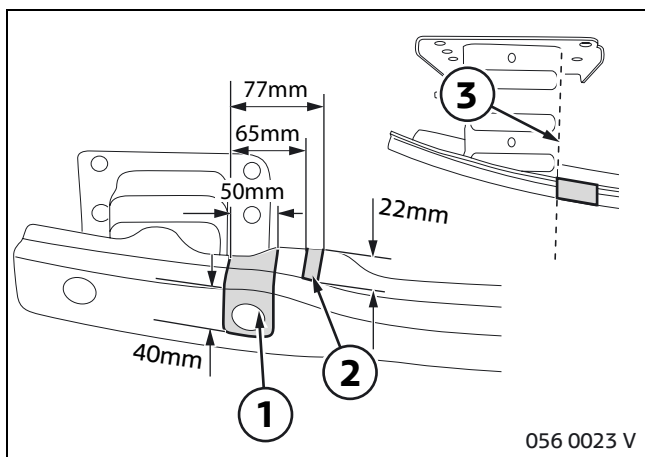
Secure mount **AA** to the crash beam through opening (1) with shim **AF**, washer **AD** and screw **AG**.

Tighten screw **AG** to 15 Nm. Use screw locking compound.



If necessary, secure wiring loom **A** together with the cable for the rear fog lights (1) with cable strap **M** to rear rack mount **AB**.

4. Installing mounting kit



Only on SAE vehicles:

Remove bumper as described under TIS No. 51 12 050.

Mark slots (1) and (2) on both sides of the crash beam to the specified dimensions.

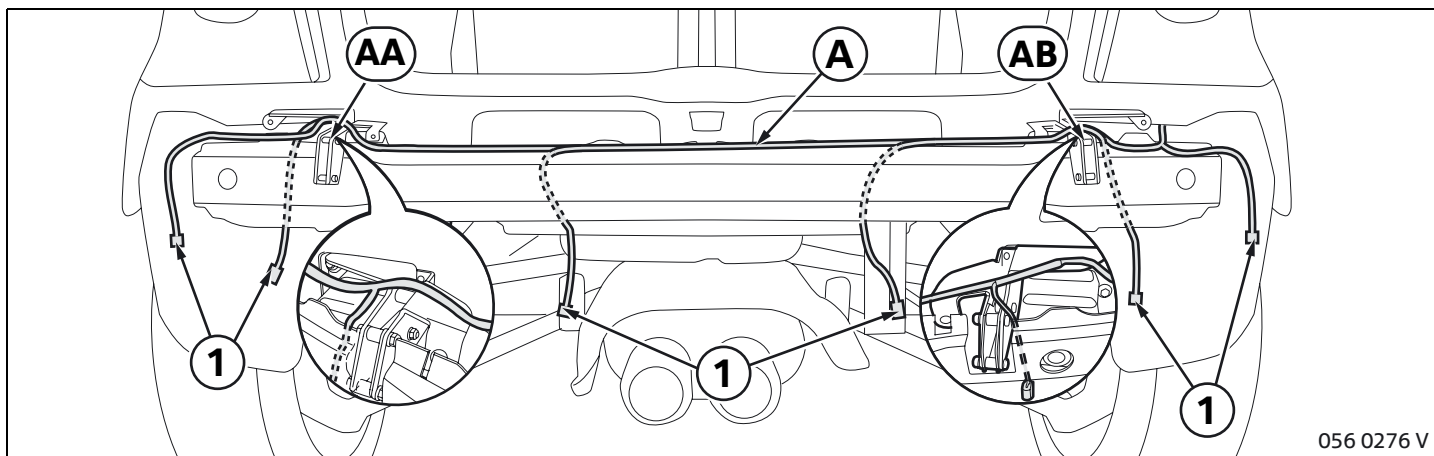
Use the inner side (3) of the crash beam bracket as a reference point.

Carefully cut out slots (1) and (2) using a disc grinder.

Deburr the cut edges and prevent corrosion by applying zinc dust paint and primer. Follow the instructions for using the zinc dust paint.

Secure the bumper hand-tight only with the two bottom outer screws. Use screw locking compound.


Only for Cooper S and vehicles with aerodynamics package:



Only for installing electrical equipment:

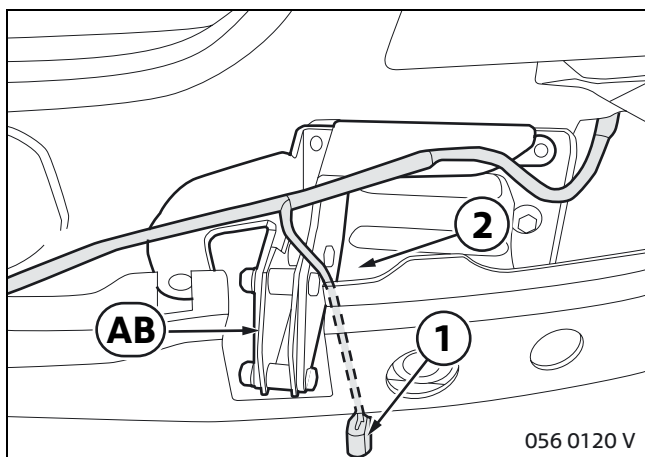
Install wiring loom **A** and vehicle wiring harness (1) as shown above.

For all vehicles:

 Check rear rack mounts **AA** and **AB** prior to installation (see Installation information, page 2). ◀


Install rear rack mounts **AA** and **AB**.

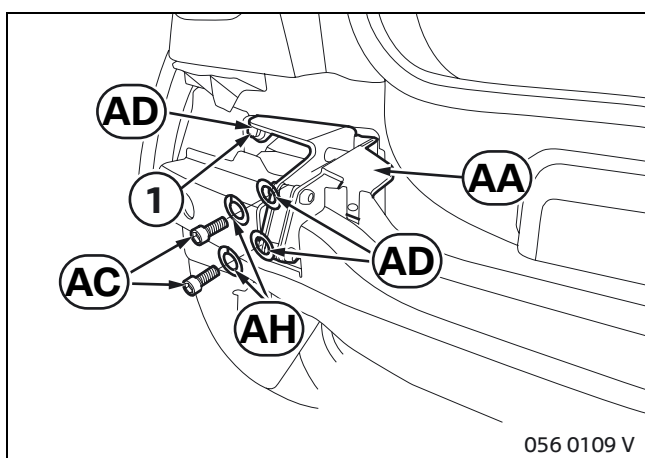
4. Installing mounting kit



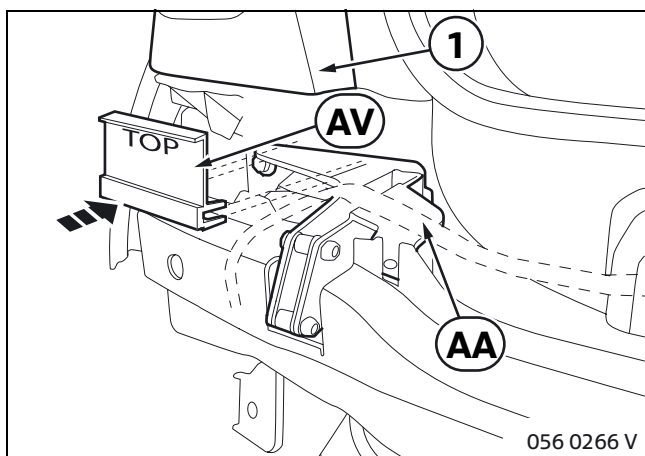
Install rear rack mount **AB**.

Before securing rear rack mount **AB**, pass the connectors of rear fog lights (1) between rear rack mount **AB** and bumper connection (2).

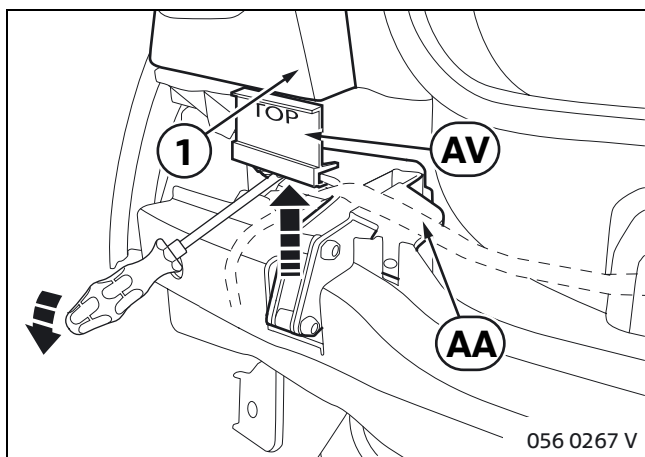
 There must be no cables installed between the foam material moulding and the mounts. ◀



Install left mount **AA** and secure at top left with original screw (1) as well as screws **AC**, washers **AD** and retaining rings **AH**.



Fit spacing gauge **AV** on left mount **AA**.

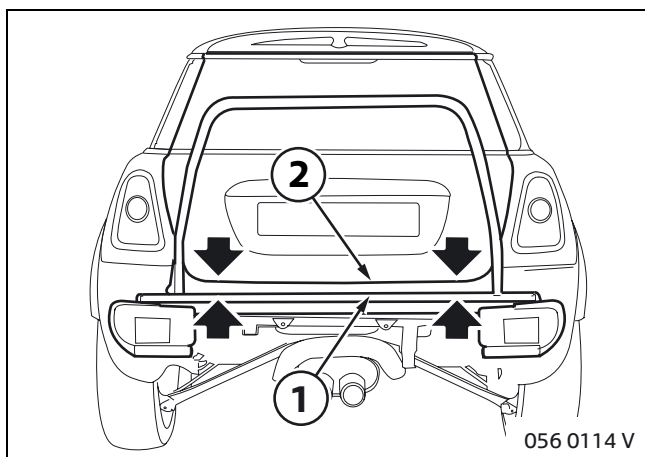


Use a screwdriver to lever up left mount **AA** while screwing down so that the spacing gauge **AV** is clamped free of play between mount **AA** and rear light base (1).

Tighten all screws of mount **AA** and of the bumper to 21 Nm.

Remove spacing gauge **AV**.

4. Installing mounting kit

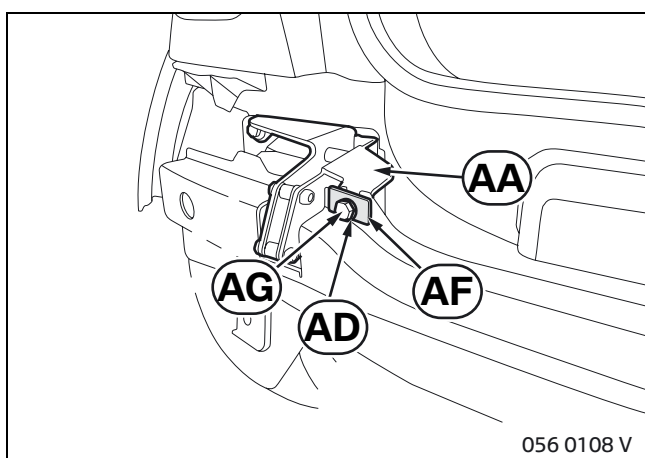


▶ At this point continue with section 11, Checking adjustment of aluminium rear rack. ◀

After installing the rear rack mounts, mount the aluminium rear rack (1) and visually check that the rack (1) is set parallel to the rear hatch (2).

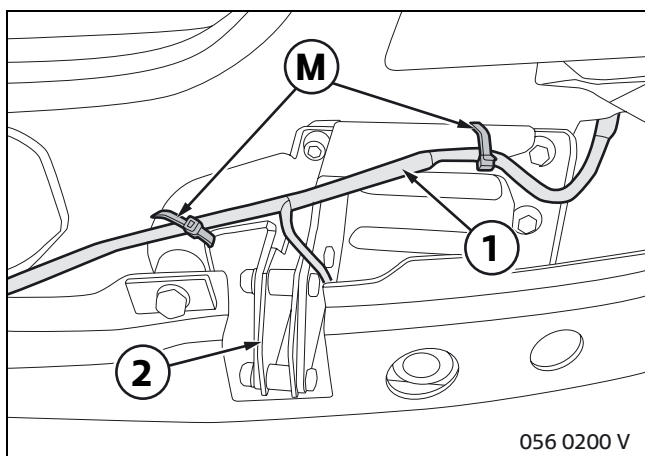
If necessary, detach the aluminium rear rack (1) and reposition one of the mounts downward.

Now reattach the aluminium rear rack (1).

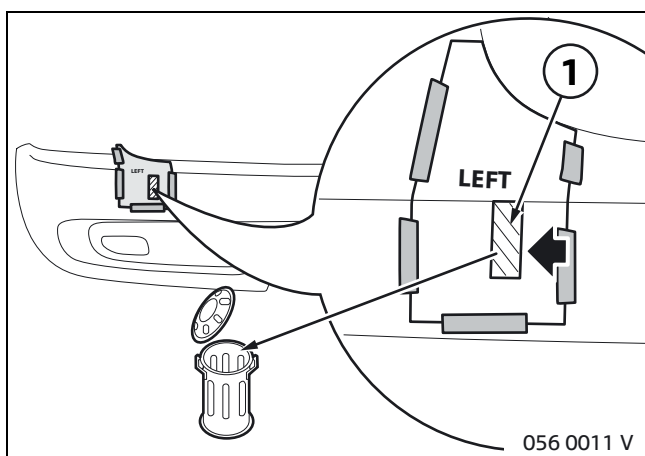


Secure shim **AF** and washer **AD** with screw **AG** through opening (1) to mount **AA**.

Tighten screw **AG** to 15 Nm.



Secure cable for rear fog lights (1) with cable strap **M** to rear rack mount (2).

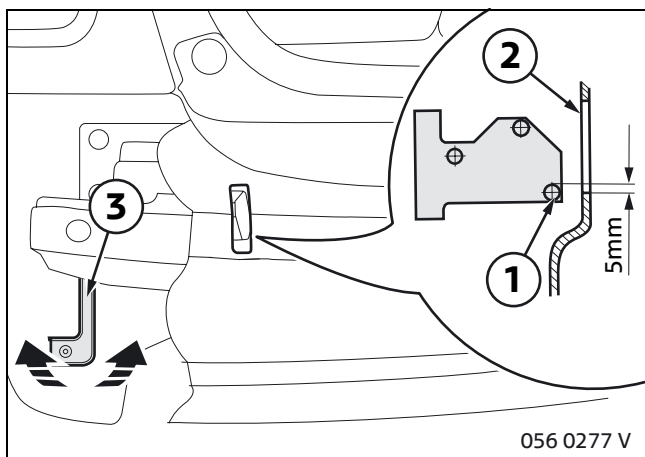


For all vehicles:

Use a suitable tool (compass saw) to cut out the marked area (1).

Now install bumper trim panel as described in TIS No. 51 12 156.

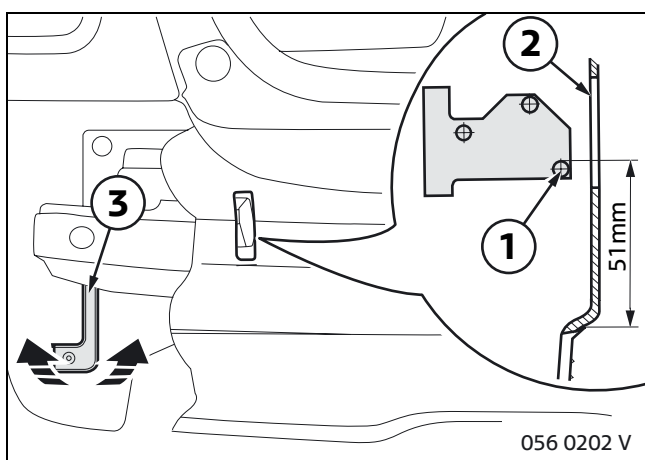
4. Installing mounting kit



Only for One / Cooper:

Check dimension of 5 mm from the upper edge of lower roller (1) of the rear rack mount to the edge of rear apron (2) and, if necessary, adjust by bending the lower rear apron retaining fixture (3).

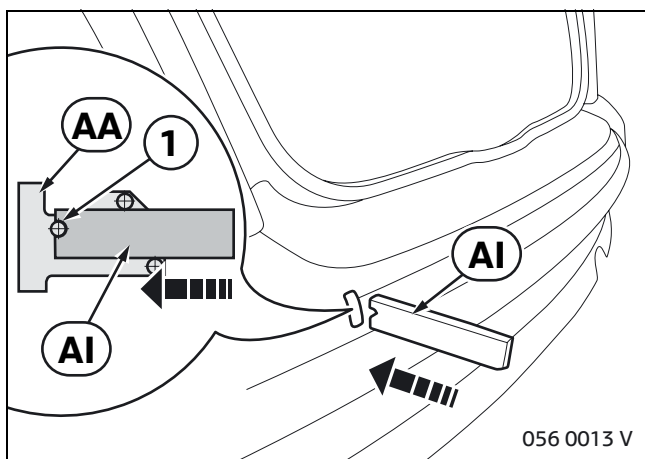
In this way, the rear apron is shifted in or opposite forward direction.



Only for Cooper S:

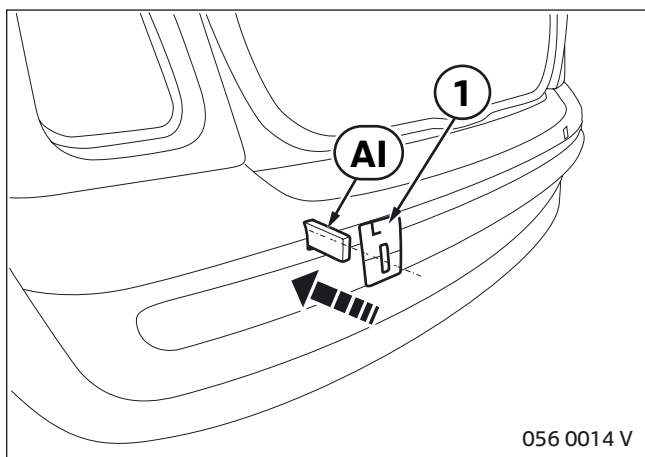
Check dimension of 51 mm from the upper edge of lower roller (1) of the rear rack mount to the edge of rear apron (2) and, if necessary, adjust by bending the lower rear apron retaining fixture (3).

In this way, the rear apron is shifted in or opposite forward direction.



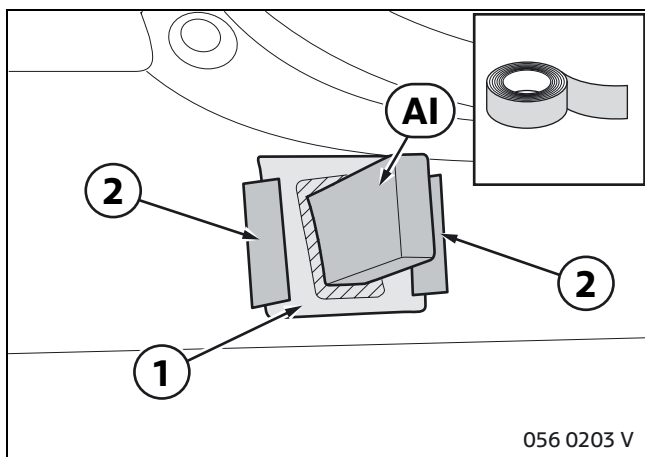
Insert the installation aid **AI** such that the recess (1) is facing upward. The recess (1) must fit on the bearing bush.

☐ If necessary use a knife to rework the cutout in the rear apron such that the installation tool **AI** can be inserted with a little clearance. ◀



Cut out the matching template (1) (see table on page 7) and slide onto installation tool **AI**.

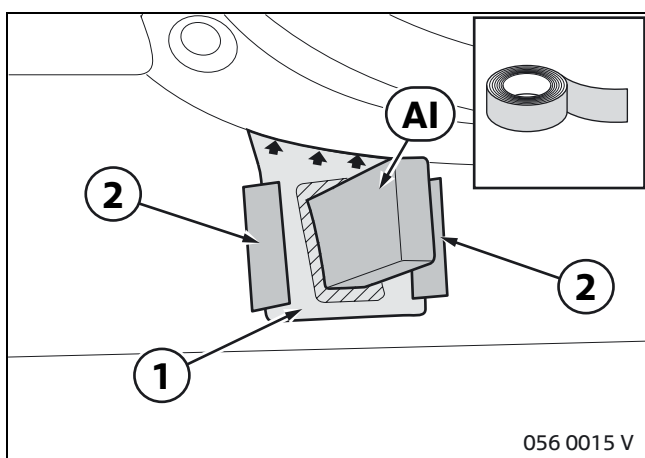
4. Installing mounting kit



For all vehicles without aerodynamics package:

Secure template (1) with adhesive tape (2) to the rear bumper panel.

Now remove installation tool **AL** and detach the rear bumper panel as per TIS No. 51 12 156.

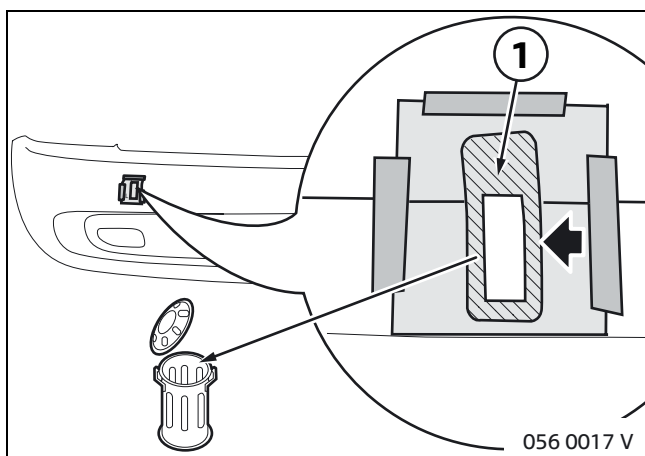


Only for vehicles with aerodynamics package:

Place template (1) with the marked edge against the radius of the rear bumper panel and secure with adhesive tape (2).

When viewed from the side, the template must rest against the beginning of the radius.

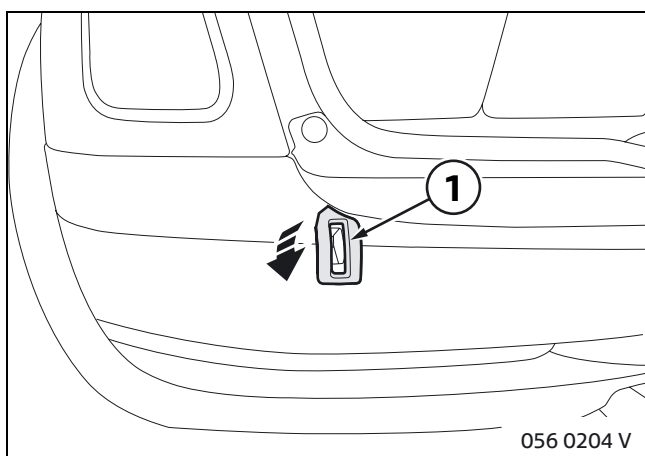
Now remove installation tool **AL** and detach the rear bumper panel as per TIS No. 51 12 156.



For all vehicles:

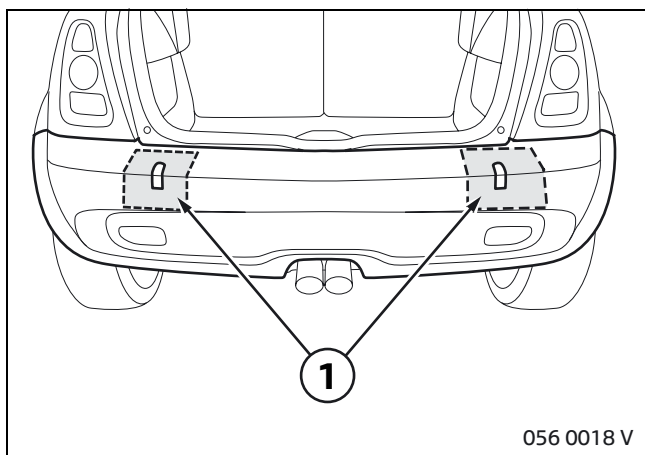
Use a suitable tool (compass saw) to cut out the marked area (1). Carefully deburr the cutout with a file.

Reinstall the rear bumper panel.



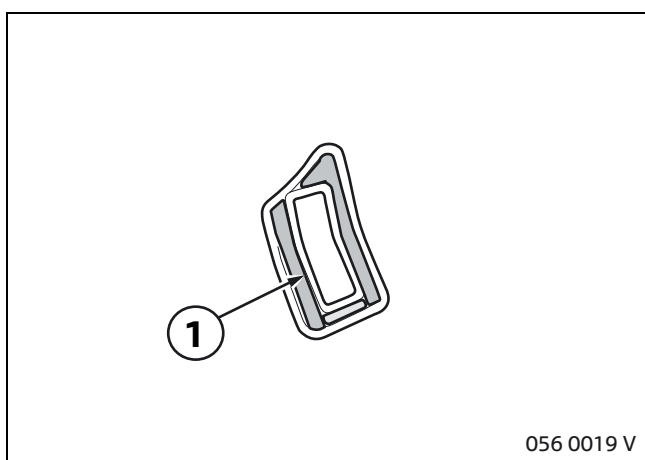
Fit trim cover (1). If necessary rework the cutouts in the rear bumper panel so that the trim cover is flush with the mount.

4. Installing mounting kit



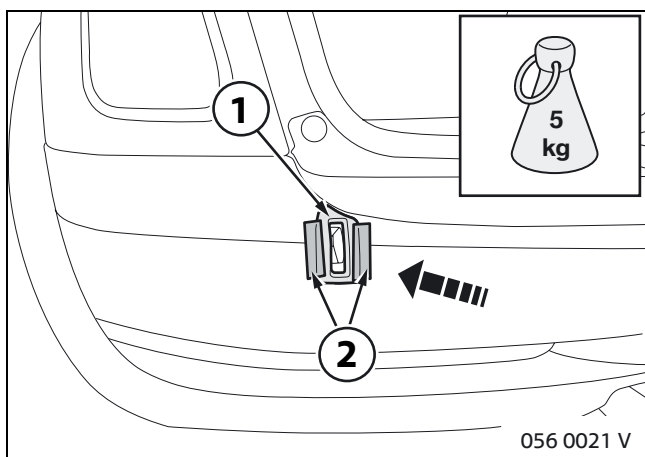
▶ Observe the instructions from the Betalink adhesive pack. ◀

Thoroughly clean the rear bumper panel in the area of the cutouts (1) with BetaClean.



▶ Make sure that you use the correct frame matching the bumper panel (see table on page 7). ◀

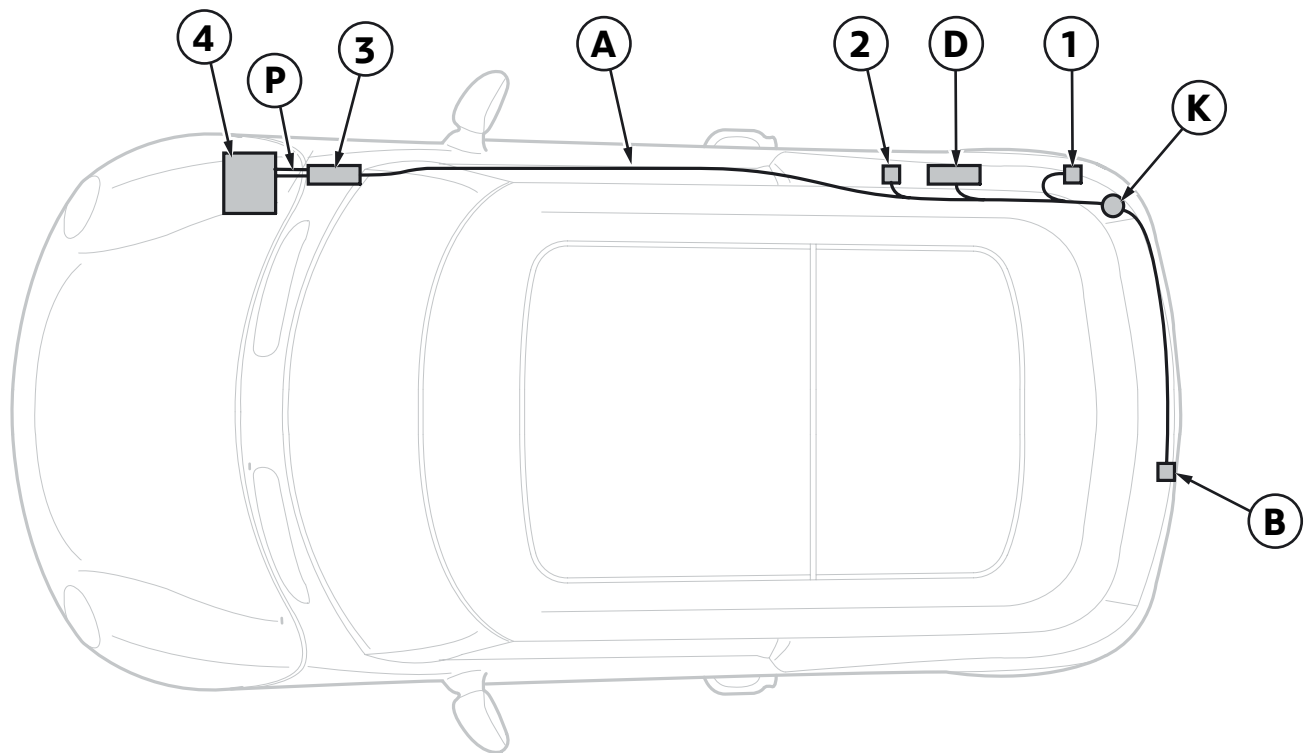
Thoroughly clean area (1) at the back of the frame with BetaClean and apply Betalink adhesive.



Press the frame (1) against the bumper panel and secure with adhesive tape (2).

Immediately remove any excess Betalink adhesive and clean surfaces with BetaClean.

5. Installation and cabling diagram, electrics kit (optionally required only for installing electrical equipment)

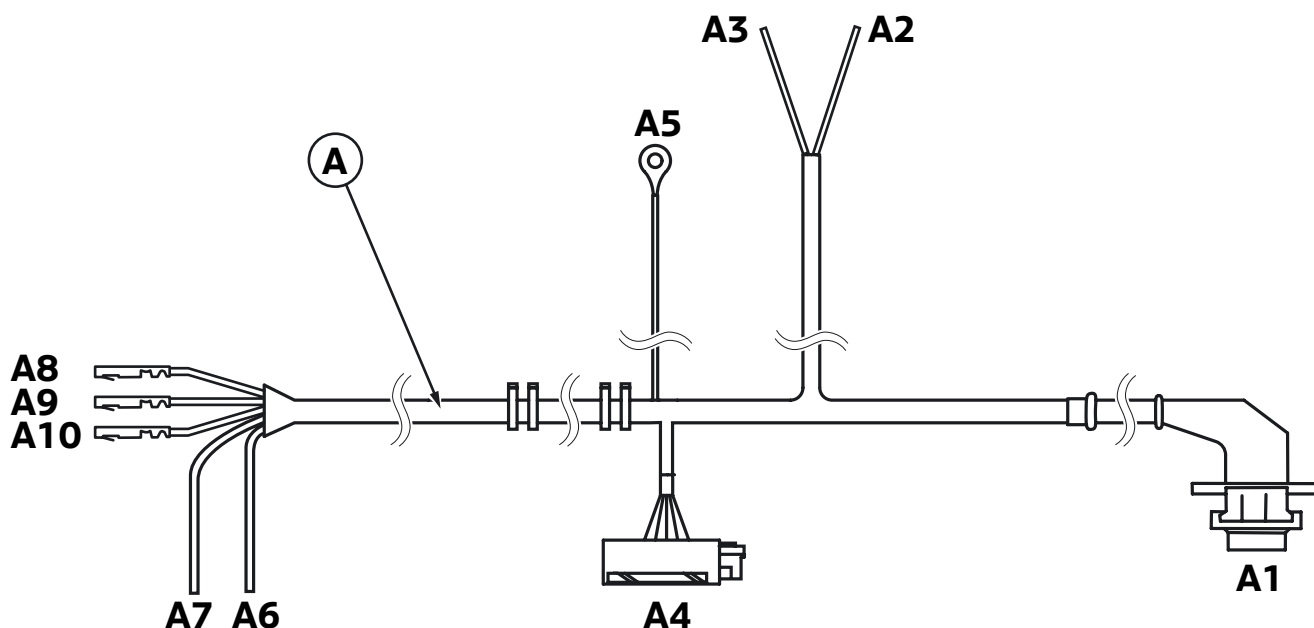


056 0004 V

Legend

- A** Wiring loom
- B** Socket outlet
- D** Control unit
- K** Grommet
- P** Connection cable to battery
- 1** Tail light
- 2** Ground terminal, wheel arch
- 3** SPEG
- 4** Battery

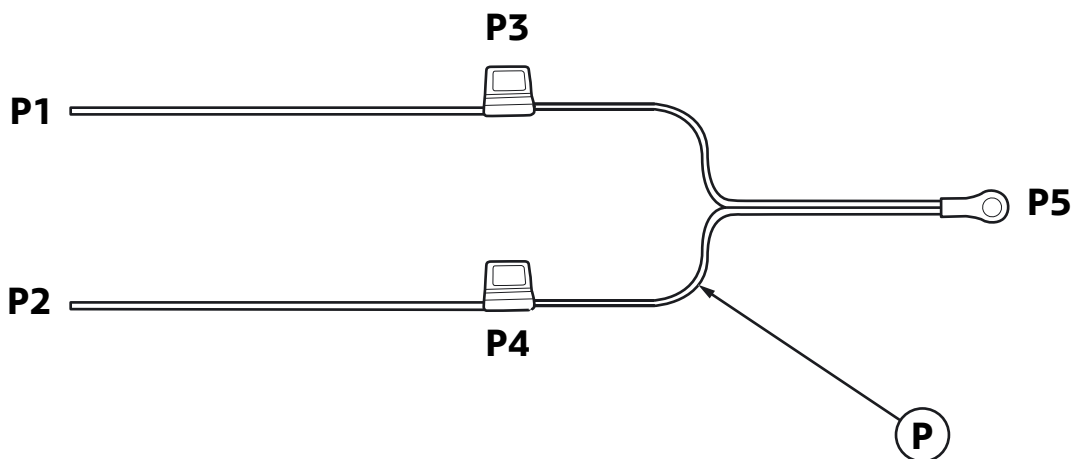
6. Connections diagram - Electrics kit - wiring loom A (optionally required only for installing electrical equipment)



056 0003 V

Item	Description	Signal	Cable colour/ cross section	Plug-in location in vehicle	Designation/ plug-in location
A	Wiring harness	—	—	—	—
A1	Socket housing	—	—	At trailer socket outlet	X630B
A2	Wire open	FRAHL	BL/RT 0.75 mm ²	With insulation-displacement connector at right tail light, E47	X318 PIN 6
A3	Wire open	54 R	GE 0.75 mm ²	With insulation-displacement connector at wire (GE) for 3rd brake light in vehicle wiring harness	GE wire
A4	Socket housing			At trailer module, x-pin connector	X609
A5	Cable shoe	Kl. 31	BR 2.5 mm ² 2.5 mm ² 0.75 mm ²	At ground terminal, wheel arch	X490
A6	Wire open	K-CAN High	ORGN 0.35 mm ²	With insulation-displacement connector at wire of same colour at SPEG	X1 1002 PIN 13
A7	Wire open	K-CAN Low	GN 0.35 mm ²	With insulation-displacement connector at wire of same colour at SPEG	X1 1002 PIN 26
A8	Socket contact	Kl. 30	RTVI 1.5 mm ²	At SPEG	X1 1001 PIN 9
A9	Socket contact	Kl. 30	RT/WS 2.5 mm ²	At SPEG	X1 1003 PIN 10
A10	Socket contact	—	RTBL 2.5 mm ²	Tied back	—

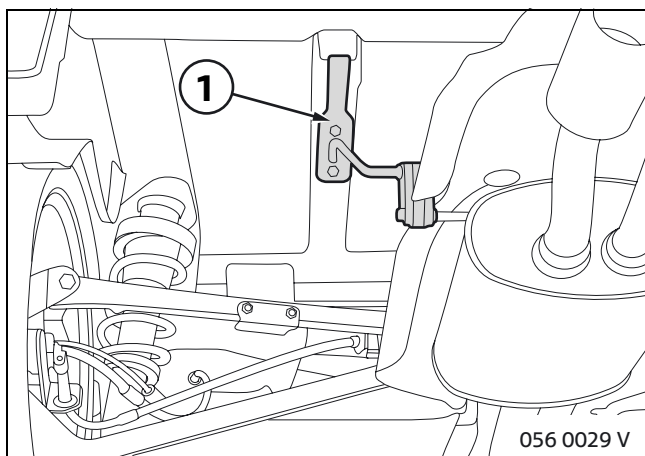
7. Connections diagram - Electrics kit - wiring loom P (optionally required only for installing electrical equipment)



056 0278 V

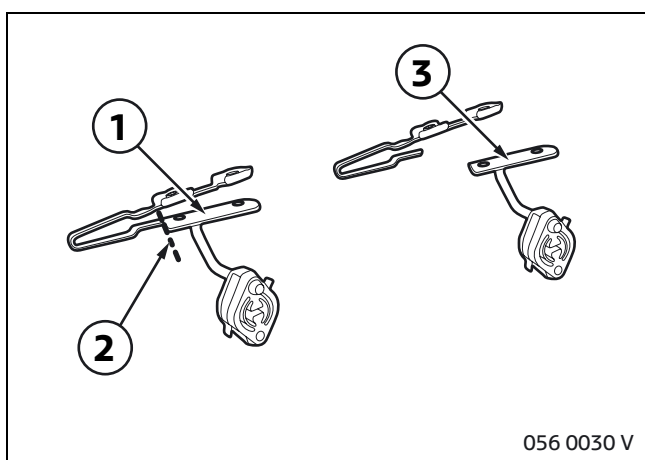
Item	Description	Signal	Cable colour/ cross section	Plug-in location in vehicle	Designation/ plug-in location
P	Battery connection cable	—	—	—	—
P1	Wire open	Kl. 30	RT 2.5 mm ²	Crimped with A8 in vehicle interior	—
P2	Wire open	Kl. 30	RT 2.5 mm ²	Crimped with A9 in vehicle interior	—
P3	Fuse casing	—	—	—	—
P4	Fuse casing	—	—	—	—
P5	Cable shoe	Kl. 30	RT 2.5 mm ²	At positive terminal battery in engine compartment	Battery positive terminal

8. Installing electrics kit (optionally required only for installing electrical equipment)

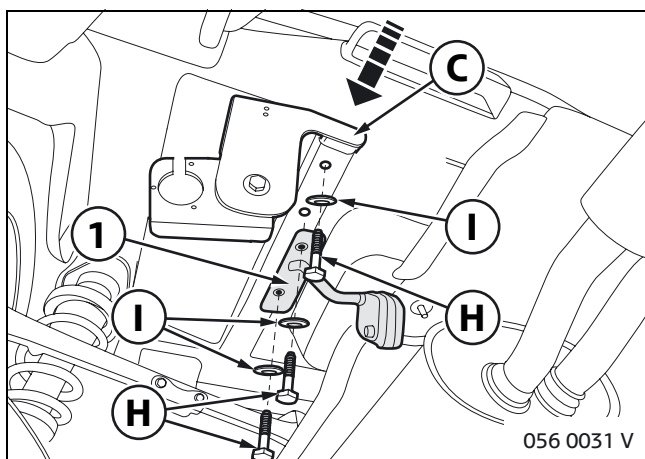


Only for Cooper S:

Unscrew the bracket for the exhaust system (1).



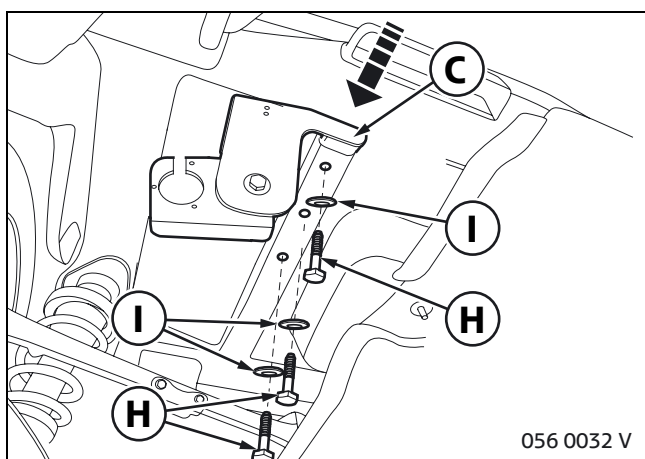
Separate the exhaust bracket (1) at edge (2). Only the separated piece (3) is used for installing the socket bracket C.



▶ If necessary, remove the sealing compound from the beam and treat the beam with standard MINI corrosion protection measures. ◀

Fit socket bracket C in the beam.

Firmly secure the exhaust system bracket (1) with screws H and washers I.

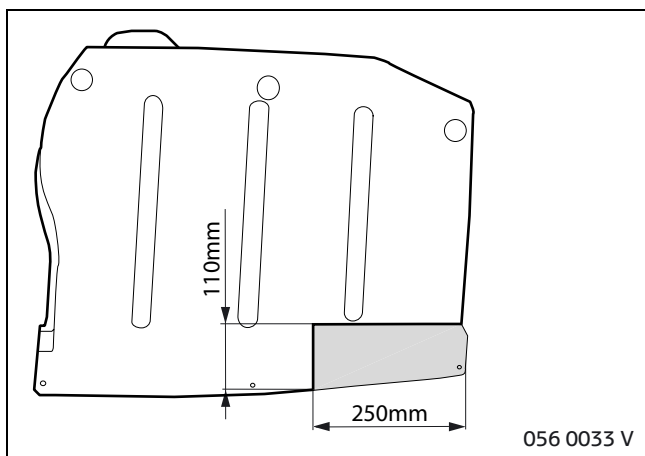


Only for One and Cooper:

▶ If necessary, remove the sealing compound from the beam and treat the beam with standard MINI corrosion protection measures. ◀

Fit socket bracket C in the beam and secure with screws H and washers I.

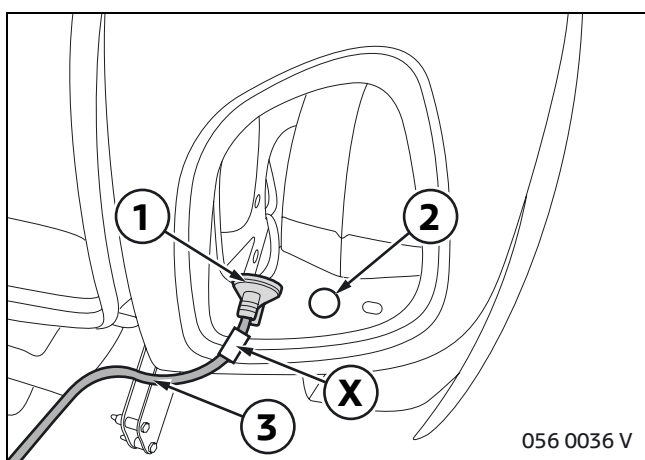
8. Installing electrics kit (optionally required only for installing electrical equipment)



Only for One and Cooper without space-saver spare wheel:

Use suitable tool (compass saw) to cut out opening in the underbody panelling.

Check clearance of socket bracket and recut opening in underbody panelling if necessary.




For all vehicles:

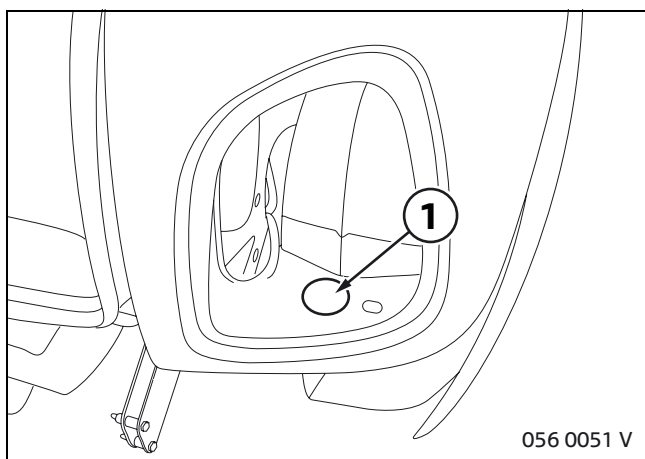
Remove grommet (1) from hole (2) behind the right-hand tail light.

Ease out the bumper wiring harness (3).

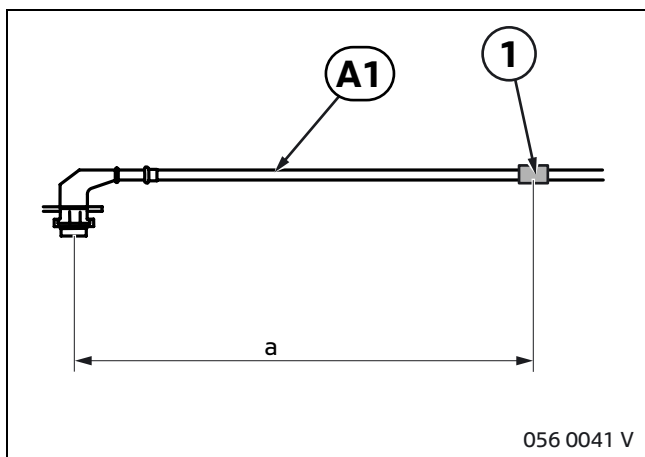
Mark the position (X) of grommet (1) with adhesive tape on the wiring harness.

Now cut open grommet (1) and remove.

 Make sure that the wires are not damaged. ◀



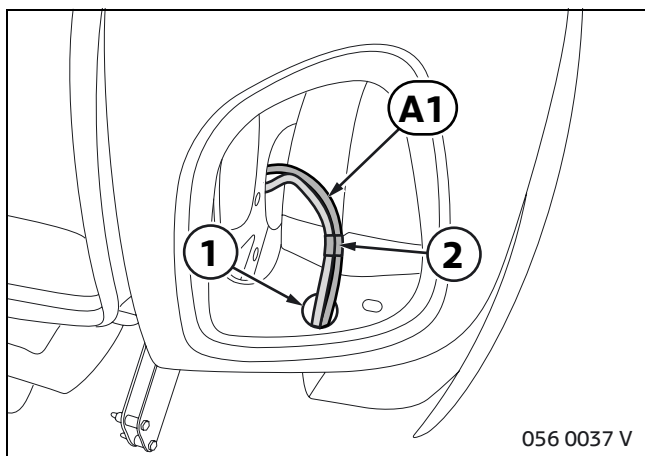
Drill out hole (1) to 40 mm Ø, deburr cut edge and protect from corrosion with zinc dust paint and primer. Follow the instructions for using the zinc dust paint.



Mark the position of the grommet with adhesive tape (1) on branch A1:

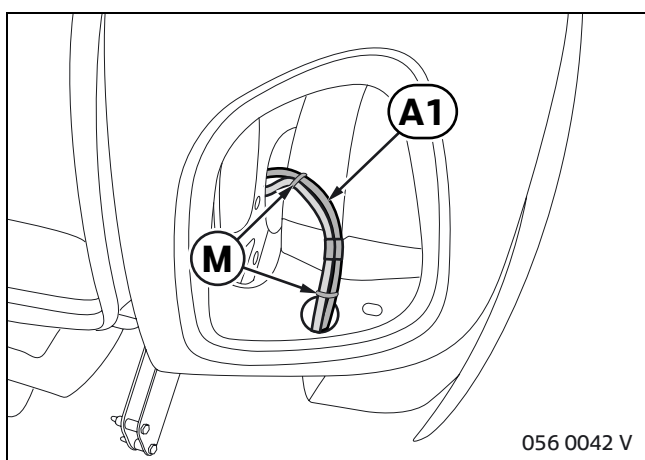
– a = 1800 mm

8. Installing electrics kit (optionally required only for installing electrical equipment)

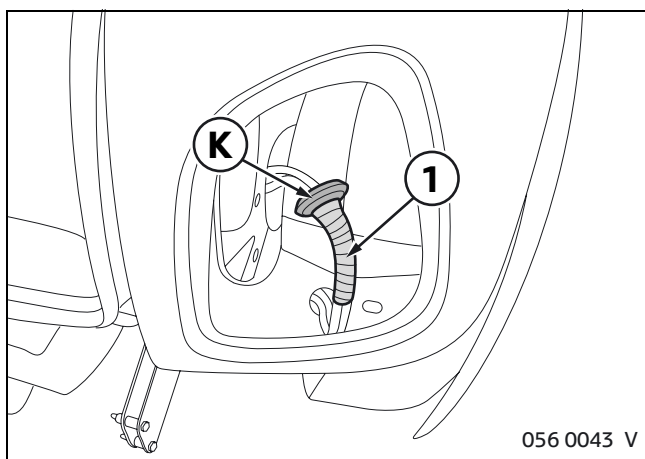


Working from the inside, pass branch **A1** through hole (1) to the outside.

Place the marks (2) of the bumper wiring harness and of branch **A1** on each other.

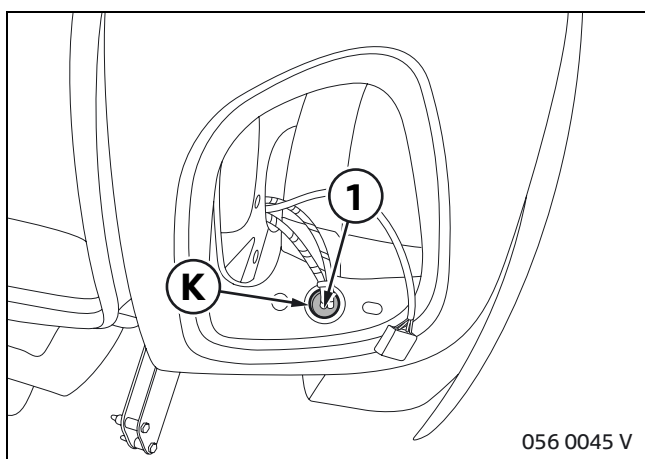


Secure branch **A1** with cable strap **M** to existing wiring harness.



Cut through grommet **K** lengthways and fit around both wiring harnesses at the marking.

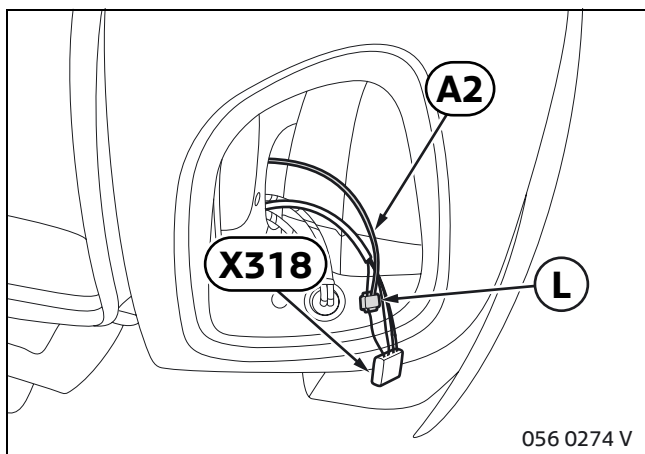
Wrap grommet **K** with adhesive tape (1).



Fit grommet **K** in the hole.

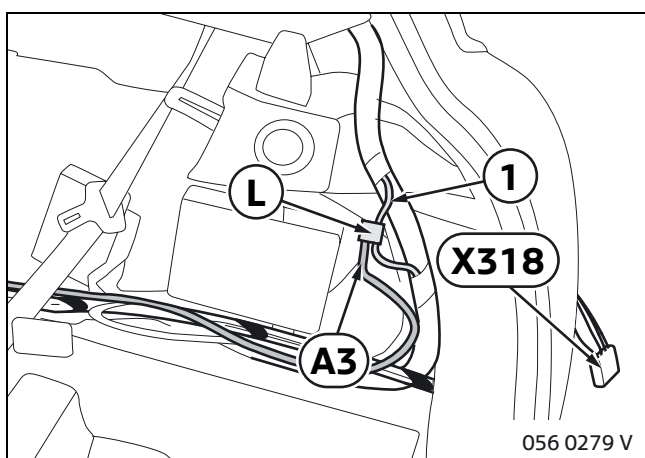
Pack the grommet with Betalink adhesive (1).

8. Installing electrics kit (optionally required only for installing electrical equipment)



Connect branch **A2** with insulation-displacement connector **L** at connector **X318** at right tail light as follows:

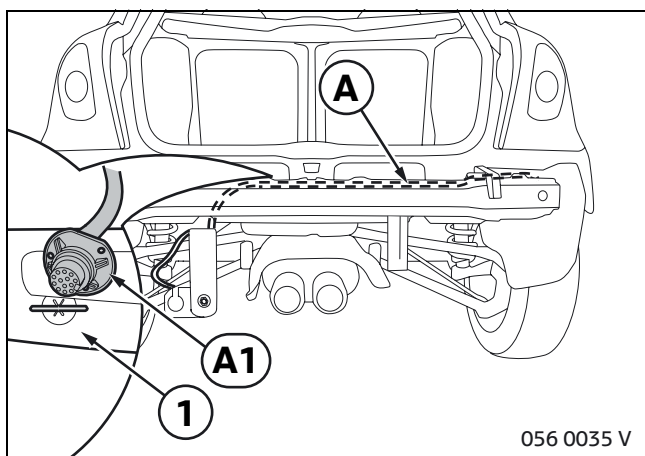
- **A2**, BLRT wire, at PIN 6



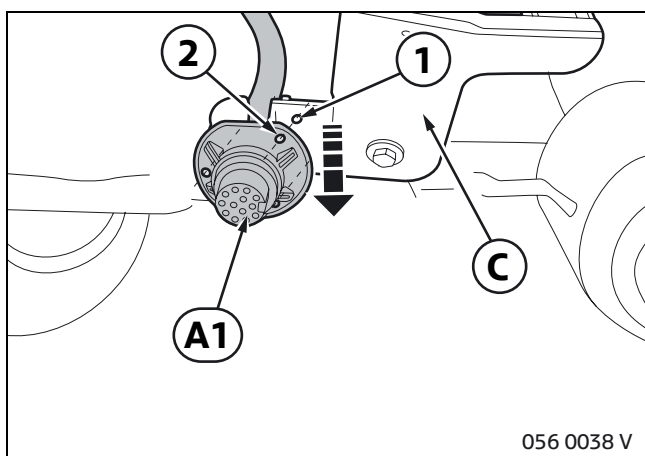
Connect branch **A3** with insulation-displacement connector **L** to wire (GE) of 3rd brake light in vehicle wiring harness (1) as follows:

- **A3**, GE wire

▶ The vehicle wiring harness (1) runs along the C-pillar. ◀



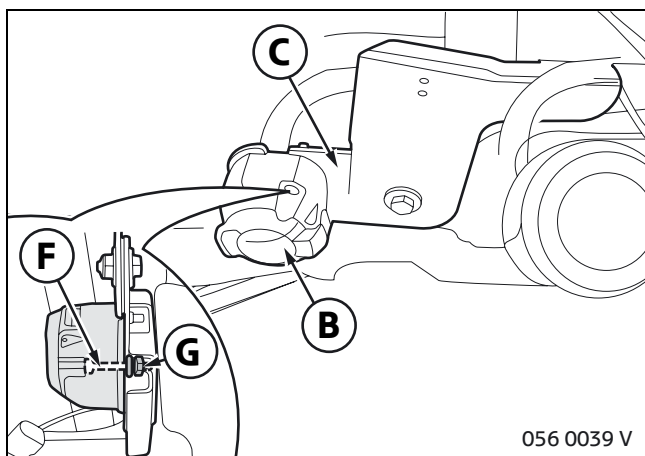
Route wiring loom **A** to the left at the top of the bumper. Pass branch **A1** through the foam material moulding (1).



Fit branch **A1** in socket bracket **C**.

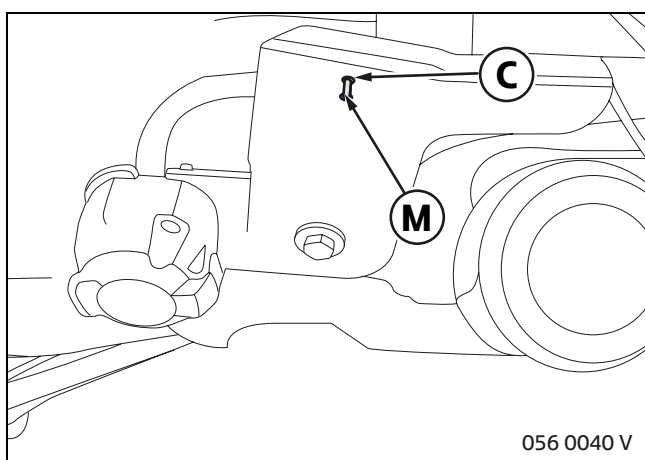
▶ Make sure that the three holes (1) and (2) are aligned flush with each other. ◀

8. Installing electrics kit (optionally required only for installing electrical equipment)



▶ When swivelled upward, it must be possible to open the socket outlet **B** to the right. ◀

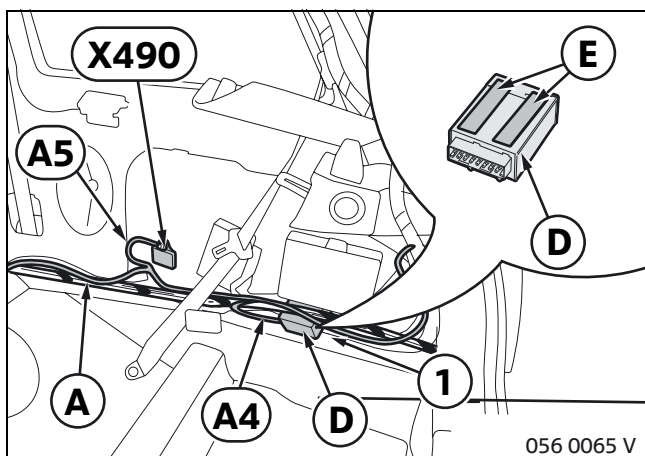
Secure socket **B** to socket bracket **C** with screws **F** and nuts **G**.



Secure cable with cable strap **M** to socket bracket **C** through the existing holes.

▶ Check movement range. The cable must move freely without tension. It must not chafe on edges or come in contact with hot parts.

Tie back surplus length of cable if necessary. ◀



Cut Velcro strip **E** in two equal lengths. Peel protective strips from adhesive surfaces and adhere next to each other on the underside of the control unit **D**.

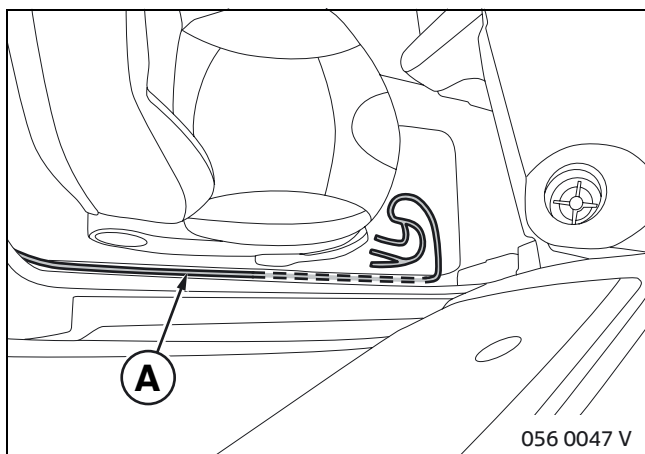
Connect branch **A4** to the control unit.

Peel off protective strips from the second adhesive surfaces of the Velcro strips **E** and adhere control unit **D** to vehicle body (1).

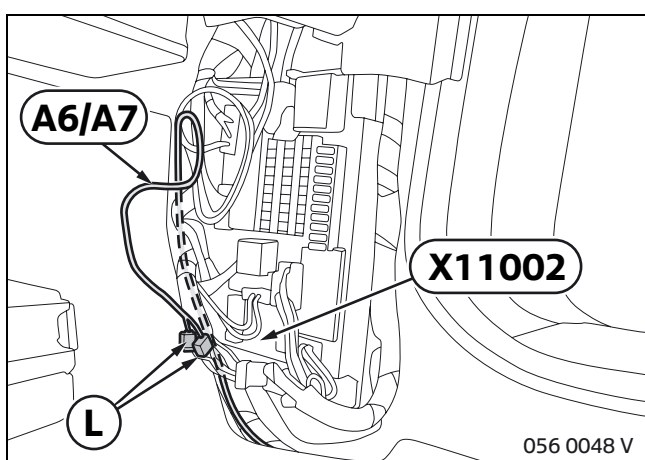
Connect branch **A5** with terminal lug to ground terminal **X490**.

Route wiring loom **A** along the wiring harness to passenger's footwell.

8. Installing electrics kit (optionally required only for installing electrical equipment)

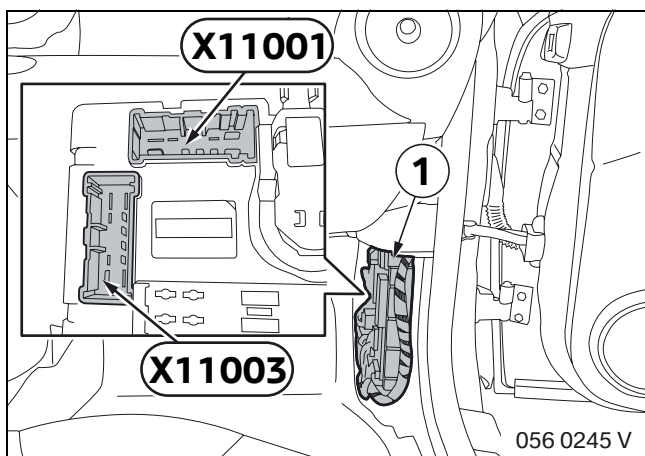


Route wiring loom **A** along the sill to the fuse panel in the passenger's footwell.

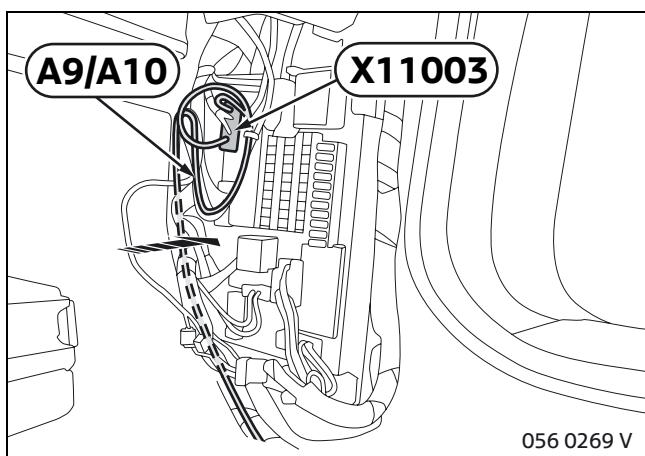


Connect branches **A6** and **A7** with insulation-displacement connector **L** at connector **X11002** of the fuse panel as follows:

- **A6**, ORGN wire, at PIN 13
- **A7**, GN wire, at PIN 26



☐ Check at fuse panel (1) whether the contacts are fitted in plug-in slot **X11001** (PIN 9) and in plug-in slot **X11003** (PIN 10). ◀



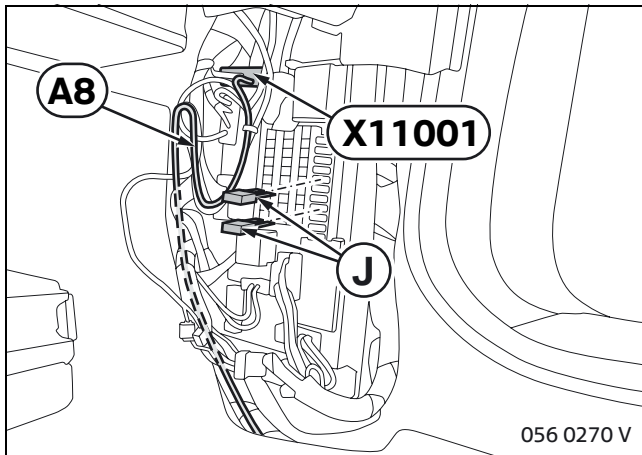
Only if contacts are fitted in plug-in slots X11001 and X11003:

☐ Check whether the corresponding connectors are installed at the plug-in slots **X11001** and **X11003**. If not, install the connectors **N** and **O** from the parts kit. ◀

Connect the branches at connector **X11003** as follows:

- Branch **A9**, RTWS wire, at PIN 10
- Insulate branch **A10**, RTBL wire and tie back. No longer required.

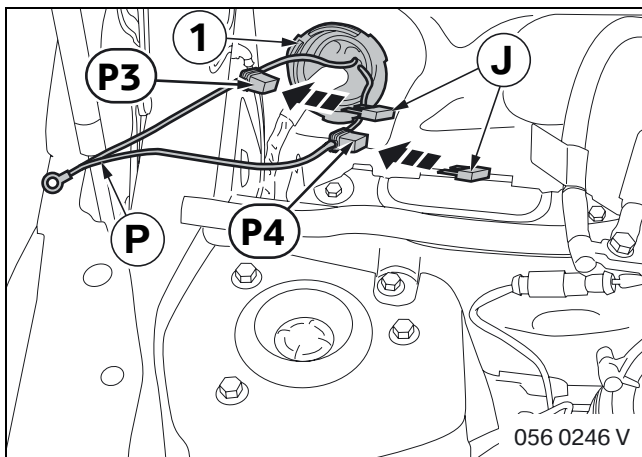
8. Installing electrics kit (optionally required only for installing electrical equipment)



Connect branch **A8**, RTVI wire, at PIN 9 of connector **X11001**.

Install the two fuses (20 A) **J** at the fuse locations 4 and 41.

▶ **Now continue with "Installing mounting kit" (Fig. 056 0112 V, page 10).** ◀



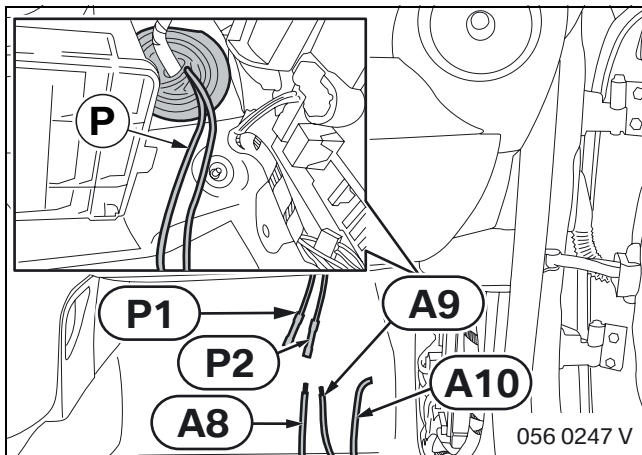
Only if contacts are NOT fitted in plug-in slots X11001 and X11003:

Remove battery as per TIS-RA 61 21 010.

Pass the battery connection cable **P** through rubber grommet (1) in the bulkhead into the vehicle interior.

The fuse casings **P3** and **P4** remain in the engine compartment.

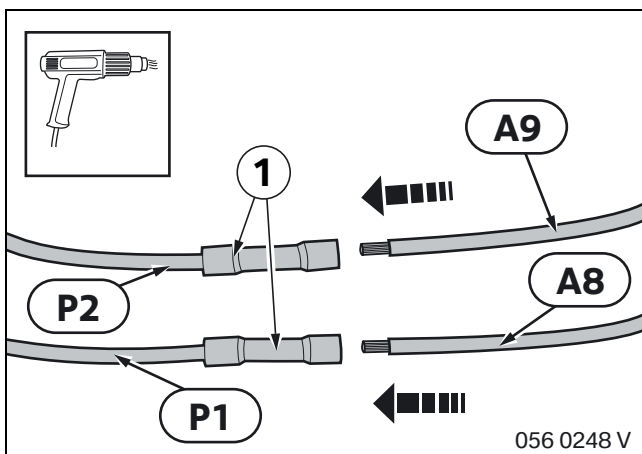
Open fuse casings (3) and fit both fuses **J**, (20 A). Close fuse casings **P3** and **P4**.



In the vehicle interior, pull cable **P** through the rubber grommet. Seal off the rubber grommet.

Cut off bush contacts at branches **A9** (RTWS) and **A8** (RTVI) and insulate the ends.

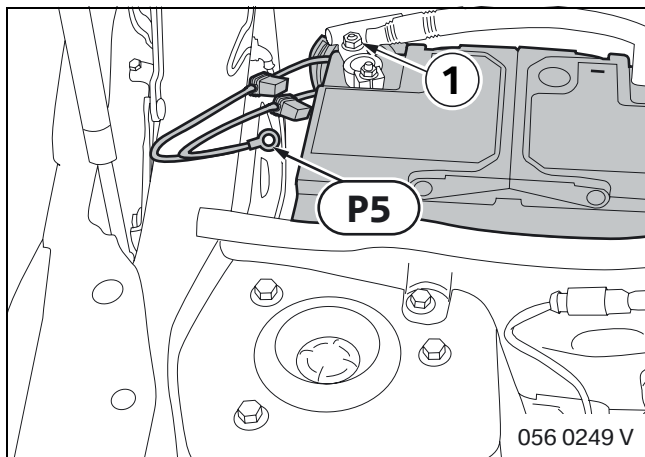
Insulate branch **A10** (RTBL) wire and tie back. No longer required.



Using connector (1), crimp the insulated branches **A8** (RTVI) and **A9** (RTWS) of the rear rack wiring loom **A** with the branches **P1** and **P2** of the retrofit battery wiring loom **P**.

Carefully shrink down shrink-fit tubing with a hot-air blower.

8. Installing electrics kit (optionally required only for installing electrical equipment)



Install battery as per TIS-RA 61 21 010.

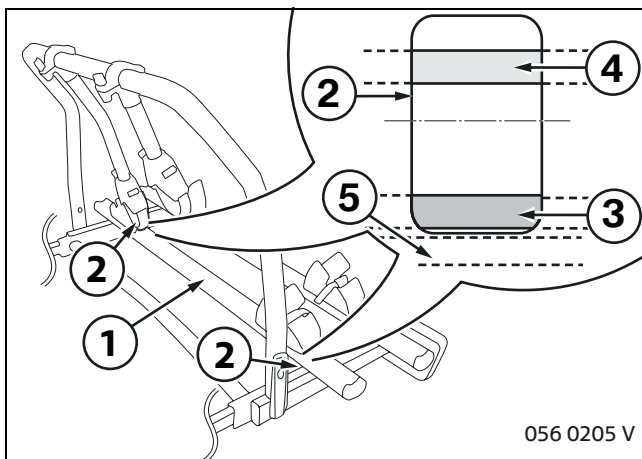
Connect ring terminal lug **P5** in engine compartment to positive terminal of battery (1).

Do not connect the battery.

▶ **Now continue with "Installing mounting kit" (Fig. 056 0275 V, page 10).** ◀

9. Concluding work and coding

- The retrofit system requires encoding
- Reconnect vehicle battery
- Encode retrofit with software service station (SSS) via the path - **Retrofit** -
- Perform quick test
- Perform function test
- Reassemble vehicle in reverse order of removal.
- Connect cable for lighting to the socket outlet and check lighting
- Check basic setting of aluminium rear rack in the mounts and adjust if necessary (see section 11)



There is a viewing window (2) on both sides under the rear wheel rail (1).

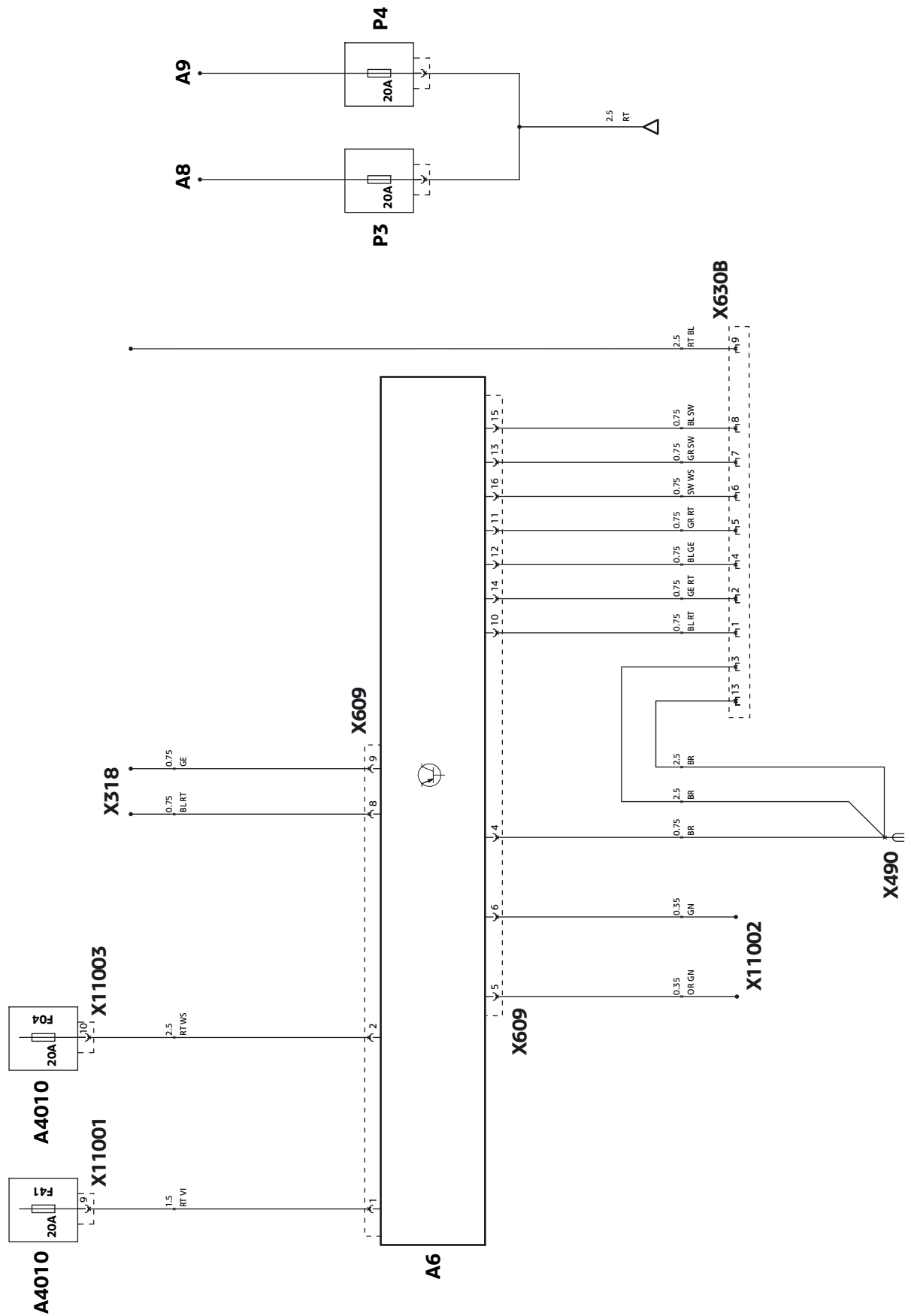
The purpose of the viewing window (2) is to roughly determine the required pretension:

- **Pretension correct (3):** The rod is located in the lower half of the viewing window (2)
- **Pretension too low (4):** The rod is located in the upper half of the viewing window (2)
- **Pretension too high (5):** The rod is located outside the viewing window (2) in the lower half

The rear rack must be mounted in the rear rack mounts in order to determine the required pretension.

▶ Installation and removal of the rear rack in accordance with the installation instructions are to be demonstrated to the customer. ◀

10.Circuit diagram (optionally required only for installing electrical equipment)



10. Circuit diagram, cable A (only necessary for installing electrical equipment)

Legend

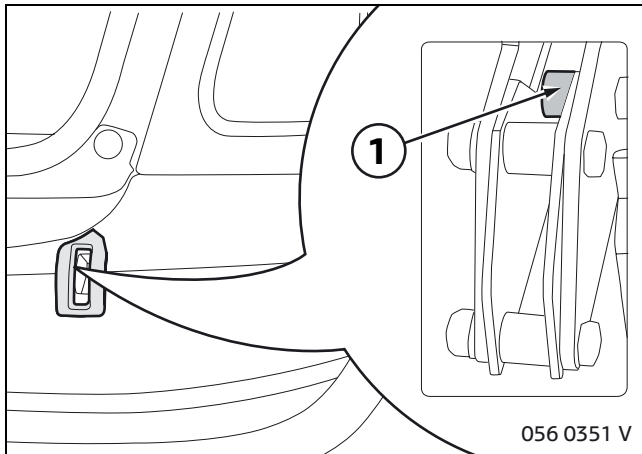
A4010	SPEG high
A6*	Control unit AHM 3+
A8*	Socket contact, wiring loom A
A9*	Socket contact, wiring loom A
P3*	Fuse casing
P4*	Fuse casing
X318	Connector, right tail light
X490	Ground, right wheel arch
X609	Connector
X630B	Power socket
X11001	Connector, fuse distributor
X11002	Connector, fuse distributor
X11003	Connector, fuse distributor

All designations marked * only apply to these installation instructions or this circuit diagram.

Cable colours

GE	Yellow	WS	White
GN	Green	OR	Orange
GR	Grey	BL	Blue
RT	Red	BR	Brown
SW	Black	VI	Violet

11. Checking adjustment of aluminium rear rack

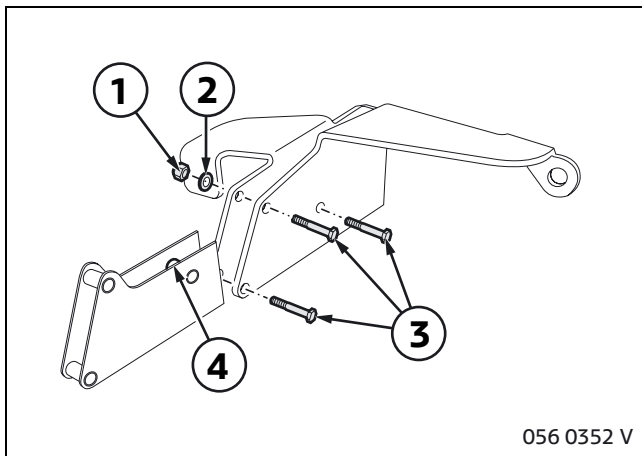


☐ If there is play in the aluminium rear rack, first visually check the bushes in the mount assemblies under the rear apron. **Creme-coloured plastic bushes (1)** may be fitted which are broken or damaged. If damaged, the plastic bushes (1) must be replaced in pairs by bronze-coloured metal bushes.

If the bushes are **not** damaged, the rear rack must be adjusted as described below. ◀

To replace the plastic bushes (1), first remove the rear apron as described under TIS No. 51 12 156.

Now remove the mount assys as described in these Installation Instructions (see section 4, Installing mounting kit).



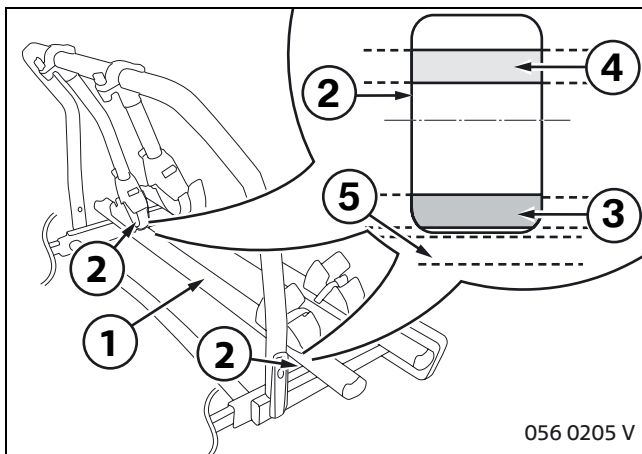
Undo nuts (1) and remove together with washers (2). Remove screws (3) from the mount assy.

Now replace bush (4) in the left and right mount assy (**bearing bush repair kit No. 82 71 0 418 155**).

Reassemble mount and tighten M6 screw connection to 3 Nm.

Then reinstall the mount assys (see section 4, Installing mounting kit) and the rear apron as per TIS No. 51 12 156.

The working time (1.0 hours) for replacing the bushes is to be charged under warranty.



Adjustment of aluminium rear rack

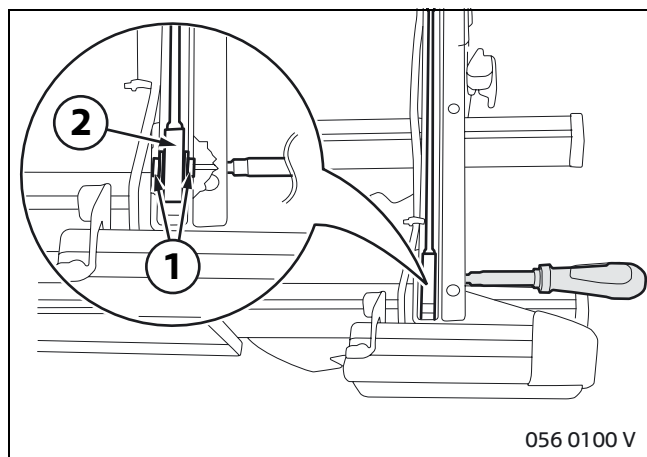
There is a viewing window (2) on both sides under the rear wheel rail (1).

The purpose of the viewing window (2) is to roughly determine the required pretension:

- **Pretension correct (3):** The rod is located in the lower half of the viewing window (2)
- **Pretension too low (4):** The rod is located in the upper half of the viewing window (2)
- **Pretension too high (5):** The rod is located outside the viewing window (2) in the lower half

The rear rack must be mounted in the rear rack mounts in order to determine the required pretension.

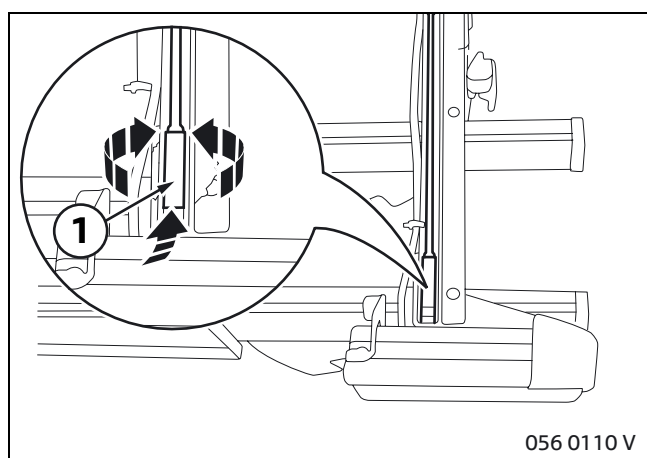
11. Checking adjustment of aluminium rear rack



If necessary, adjust the rear rack as follows:

Use an Allen key to unscrew mounting screws (1) and retaining rings of sliding block (2) on both sides.

The inner mounting screw can be accessed through the opening in the rear rack frame. The platform of the rear rack must be closed for this purpose.



Carefully lift the sliding block (1) out of the guide.

The sliding block (1) must be turned in anticlockwise direction to increase the pretension of the rear rack in the mounts and in clockwise direction to reduce the pretension.

Retighten mounting screws and retaining rings and check the play in the rear rack mounts.

Repeat adjustment procedure if necessary.