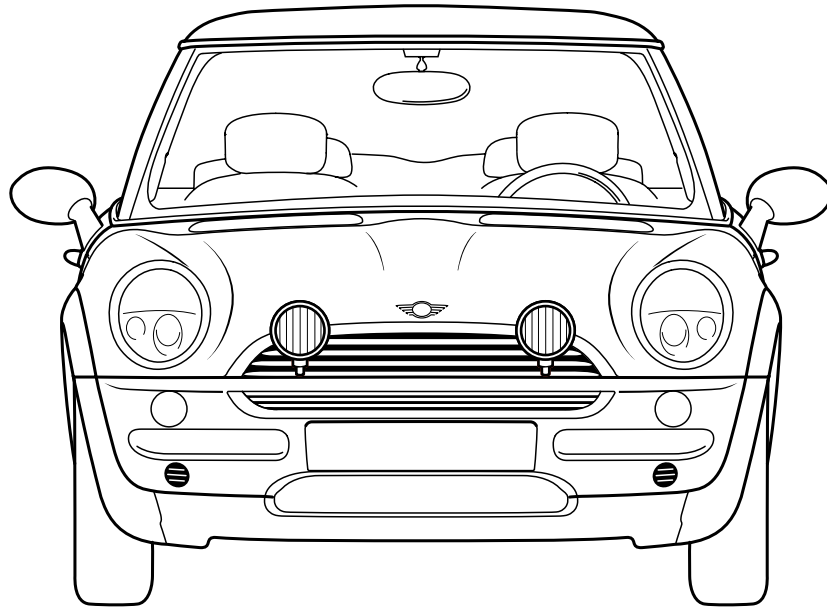




# Parts and Accessories Installation Instructions



050 0001 V

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## **Additional headlight MINI (R50), (R53)**

The installation time is approx. 2.25 hours, but this may vary depending on the condition of the car and the equipment in it.

Technical and electronic knowledge required

Only for use in the MINI dealer organisation.

For cars with a combination of SA 522 xenon light and SA 502 high pressure washing system, the gas pressure dampers on the bonnet must be replaced for safety reasons.

Retrofit / Installation kit No. 63 12 137 301

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## Important information

The additional headlights may only be installed by a specialist workshop that has the required special tools and manuals (servicing, repair, diagnostics, etc.).

The additional wiring harness and the installation instructions are for both LHD and RHD cars. If the specified PIN chambers are occupied, bridges, double crimps or twin-lead terminals must be used.

Ensure that the cables/lines are not kinked or damaged as you install them in the car. Additional cables/lines that you install must be secured with cable ties.

The MINI dealer organisation cannot accept any liability for damage caused by a failure to follow the work sequence and safety instructions. In addition all warranty claims against the MINI dealer organisation will be rendered void if you install and handle the product in a way other than as set out in the installation instructions and supplementary owner's handbook. Some of the work on the car is only shown on one side. The work on the other side of the car is to be carried out in exactly the same way.

## Subject to technical modifications

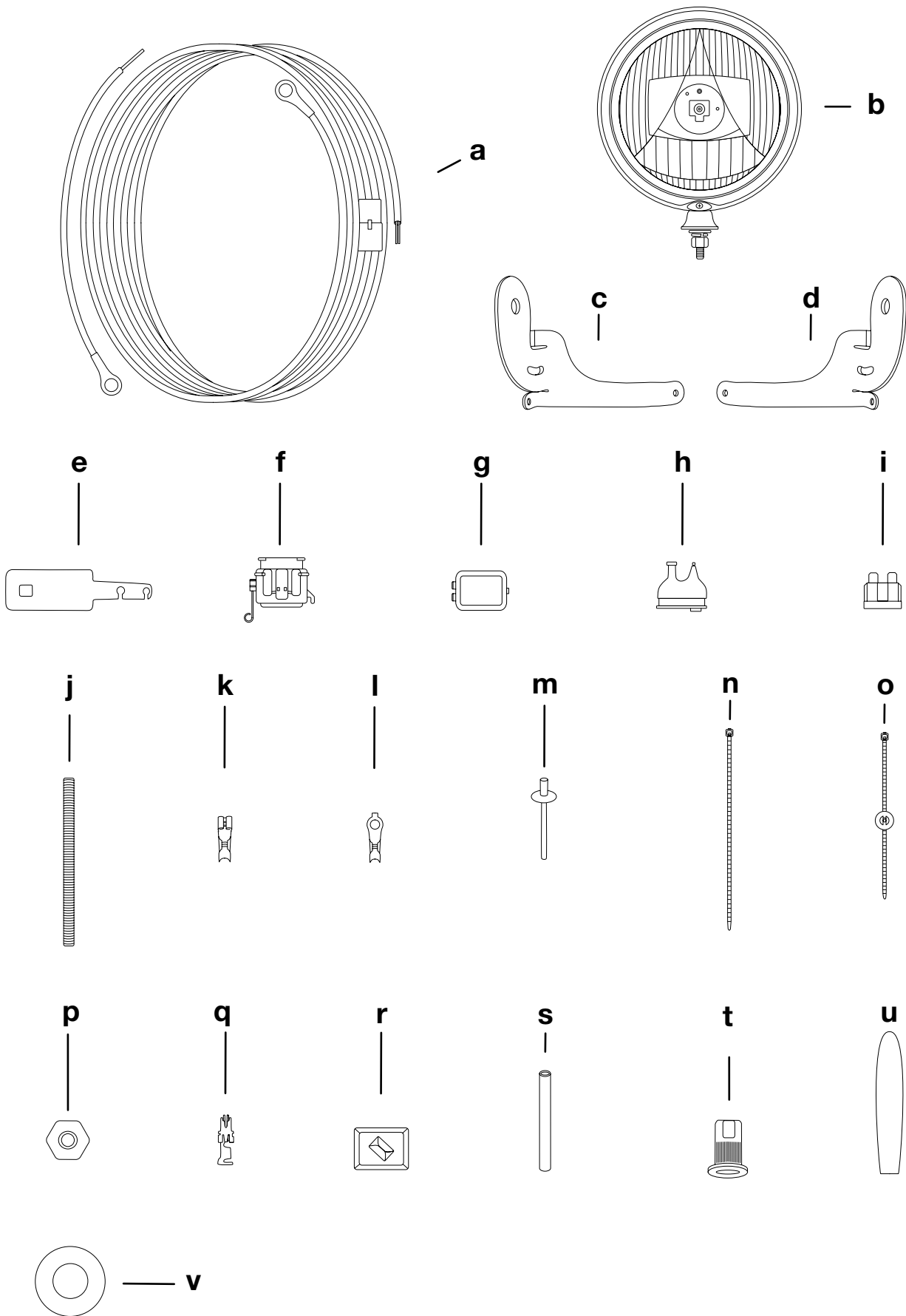
### Required tools and equipment

Philips screwdriver  
1/4 inch reversible ratchet and 1/4 inch extension  
10 mm hexagonal socket  
Drill  
6 mm, 4.2 mm, 6.1 mm and 3 mm drill bits  
Deburring tool  
File  
Crimping pliers for sizes 2.5 mm<sup>2</sup> and 4 mm<sup>2</sup>  
Centre punch  
Zinc powder paint  
Hammer  
Riveting pliers  
Riveter for blind rivets with internal threads  
Hot air gun  
Gauge  
Open-ended spanner, 7 mm

## 1. Preparations

	<b>TIS instruction No.</b>
Disconnect the battery	61 21 010
Remove the A pillar/door strut trim on the right	51 47 000
Remove the top bonnet casing	51 48 001

## 2. Parts kit

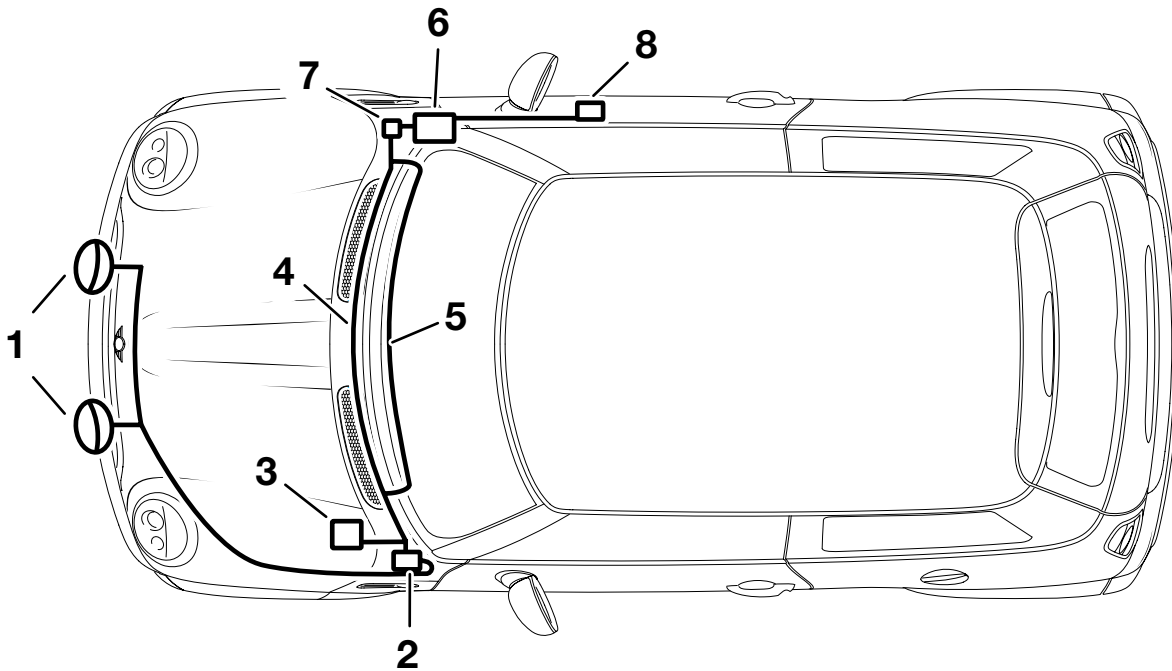


050 0248 V

## 2. Parts kit

a	Additional wiring harness	1x
b	Headlight	2x
c	Right holder	1x
d	Left holder	1x
e	Fuse box holder	1x
f	Fuse box	1x
g	Fuse box cover	1x
h	Fuse box rubber grommet	1x
i	Fuse	1x
j	Grub screw with slot M4	2x
k	Blade receptacle	2x
l	Ring cable lug	2x
m	Rivet	6x
n	Cable tie	10x
o	Bonnet cable tie	5x
p	Hexagonal nut M4	2x
q	Fuse box blade receptacle	2x
r	Fuse box securing clip	1x
s	Shrink hose	2x
t	Blind rivet nut M4	2x
u	Immersion cap	2x
v	Plastic washer	2x

### 3. Additional wiring harness installation and cabling diagram

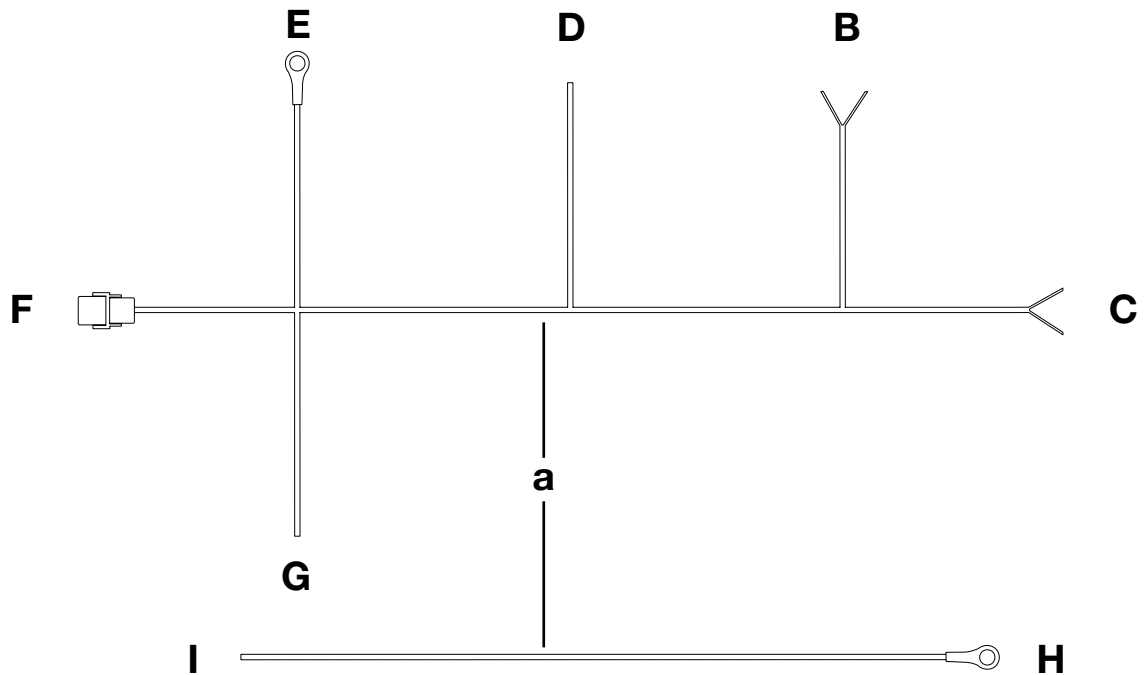


050 0003 V

#### Legend

- 1 Additional headlight
- 2 Fuse box
- 3 Fuse box (vehicle)
- 4 Cable route outside the car on RHD models
- 5 Cable route inside the car on LHD models
- 6 Control module (BC 1)
- 7 Relay
- 8 Earth bolt

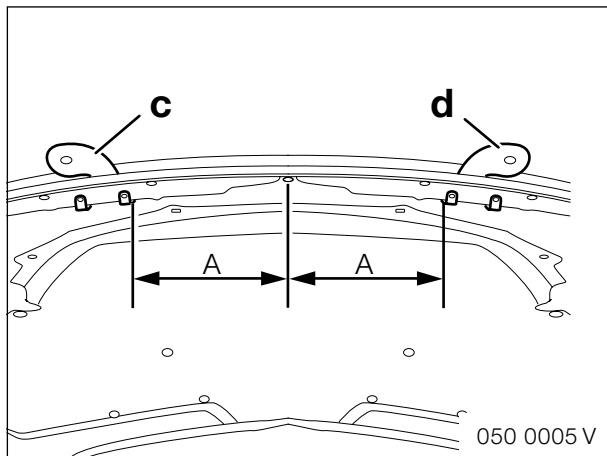
#### 4. Connection overview for additional wiring harness



050 0004 V

Item	Description	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
a	Additional wiring harness	---	---	---
B	Open contacts	RT/BR BR	Right headlight	---
C	Open contacts	RT/BR/GE BR	Left headlight	---
D	Open contact	RT/WS	Fuse box	---
E	Ring cable lug	BR	Earth bolt	X 151
F	Green relay on socket	RT/BR RT/BR/GE BR/WS RT/WS	Passenger's footwell (LHD) Driver's footwell (RHD)	---
G	Integral connector	BR/WS	BC 1, white plug PIN 41	X 254
H	Ring cable lug	RT	Fuse box (vehicle)	---
I	Open contact	RT	Fuse box	---

## 5. To install the holders



Insert holders **c** and **d** through the grille (bottom fin) and align them centrally using spacing dimension A.

A = 192.5 mm

Mark the holes for rivets using the holders **c** and **d**, centrepunch them and drill them (drill bit diameter 4.2 mm).

▶ Ensure that the holders are tight against the interior panel on the bonnet without any gaps. ◀

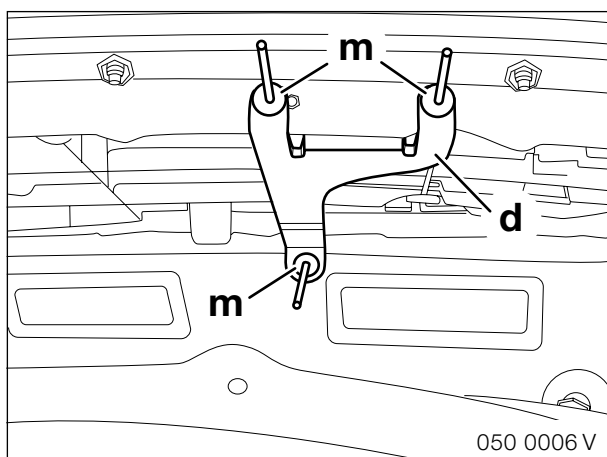
▶ Before you drill the holes cover the engine compartment to protect it from chips. ◀

▶ Drill through the grille as well when you drill the bottom holes. As you drill the top holes ensure that the exterior skin is not damaged. Treat all the holes with the standard MINI anti-corrosion measures. ◀

### Only for cars with sports package

If the car is fitted with a sports package the recesses for threading through the holders **c** and **d** must be made first. The position and size of the recesses are marked on the reverse of the grille. In addition the blind rivet nuts **t** must be installed on the support for the additional headlights (see section 9). Remove the grille to do this.

▶ Carefully make the recesses using a suitable tool (saw). ◀

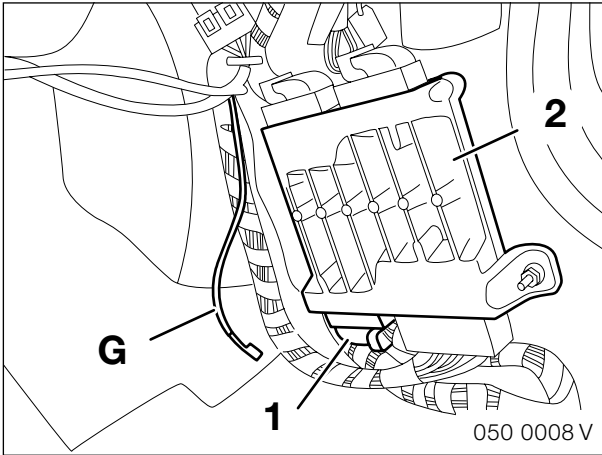


Insert holders **c** and **d** and secure them with rivets **m**. Tighten the rivets **m** with rivet pliers.

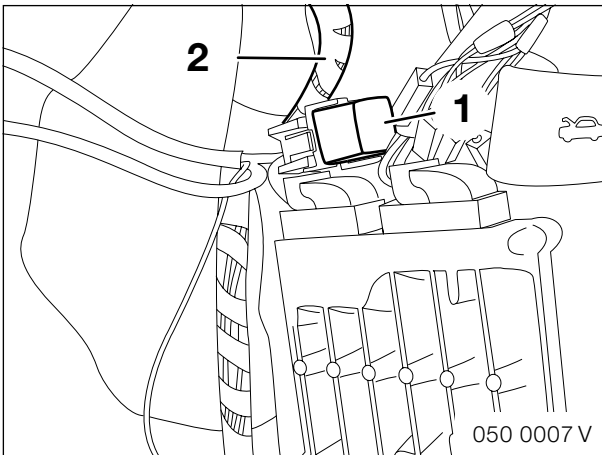
▶ As you insert the rivets raise the grille so that the rivet head is free (do not rivet the grille). ◀



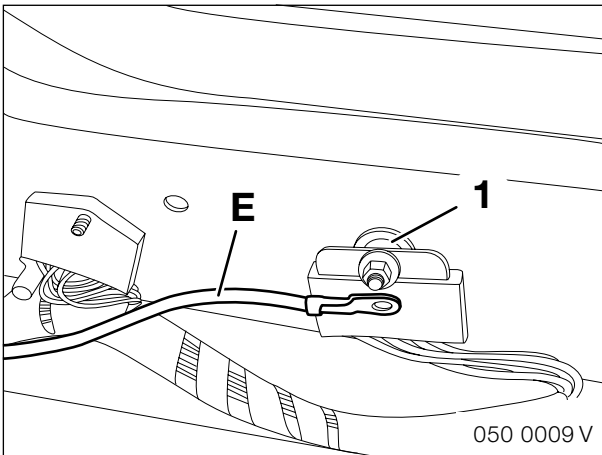
## 6. To install the additional wiring harness



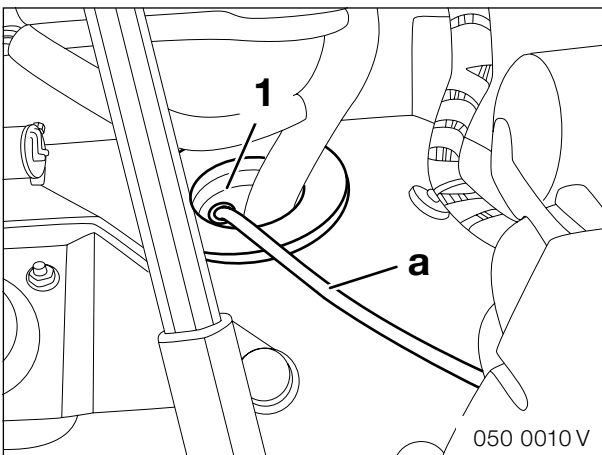
Disconnect the white plug (1) from the control module (2) and dismantle it. Connect cable **G** to slot PIN 41. Assemble the plug again and reconnect it.



Secure the green relay (1) with the socket parallel to the cable loom (2) on the black plug on the BC1 control module with cable ties.



Lay branch **E** to the additional wiring harness to the earth bolt (1) on the right side skirt and secure it.



Lay the additional wiring harness **a** through the hole you drilled in the grommet (1) into the engine compartment.

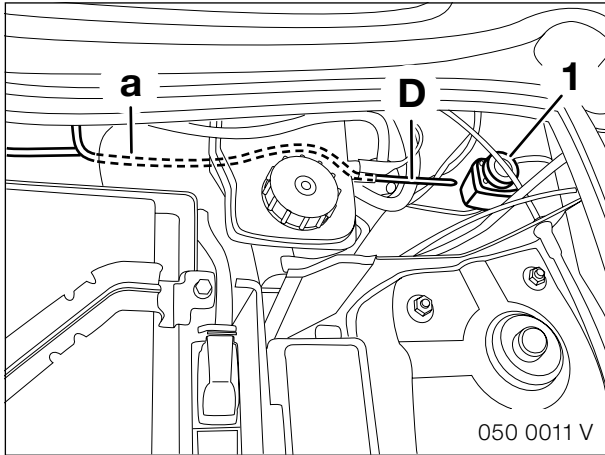
The grommet (1) is next to the passage to the brake booster (see installation diagram figure 050 0003 V). The brake booster is on the driver's side.

On LHD models, lay the additional wiring harness **a** behind the centre console to the left side.



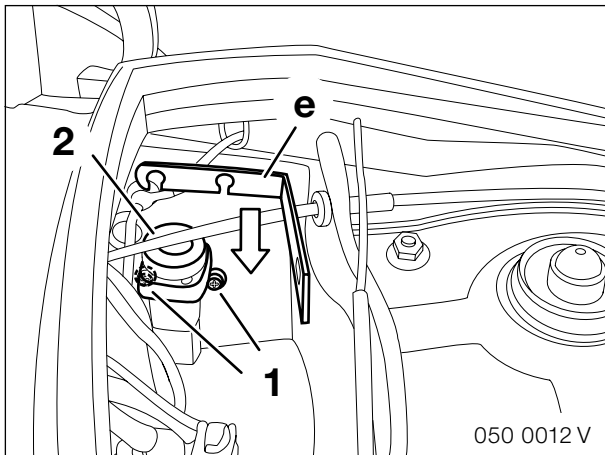
Ensure that the cable is laid cleanly (secure additional wiring harness **a** with cable ties). ◀

6. To install the additional wiring harness

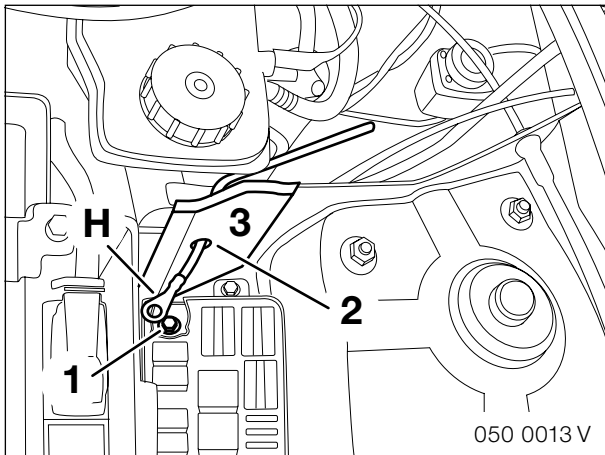


Lay branch **D** on the additional wiring harness **a** (route depends on whether the car is RHD or LHD) to the switch-off valve (1) at the front left.

- ▶ On LHD cars tie back the excess length of the additional wiring harness. ◀

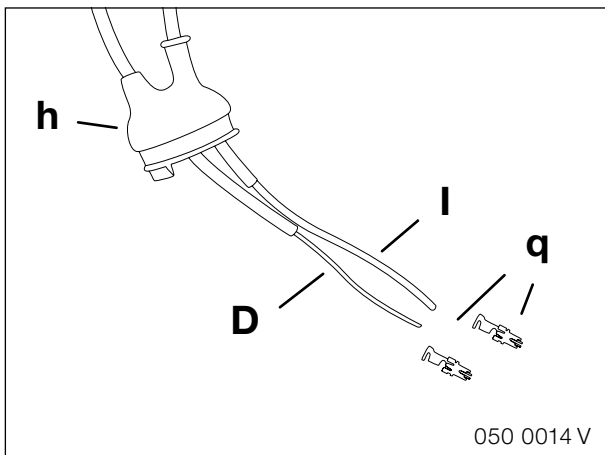


Undo the screws (1) and release the switch-off valve (2) slightly. Insert the holder **e** behind the switch-off valve (2) and tighten the screws (1) again.



Drill a hole (2) (6 mm in diameter) in the plastic trim (3) level with the B+ connector (1) in the main fuse box. Connect the ring cable lug **H** to the B+ connector (1) and thread it through the plastic trim (3).

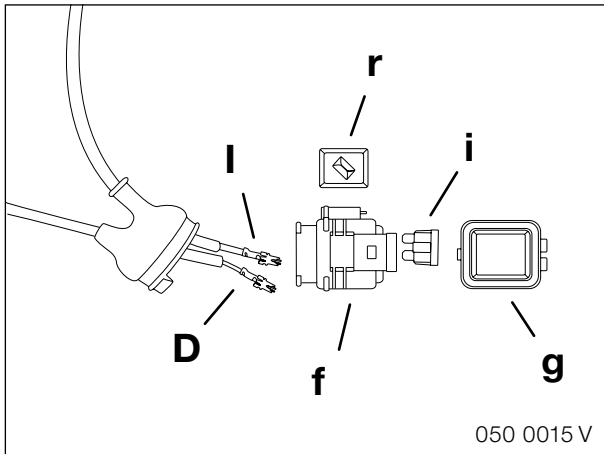
- ▶ The plastic cover on the main fuse box may have to be cut to make it close. ◀



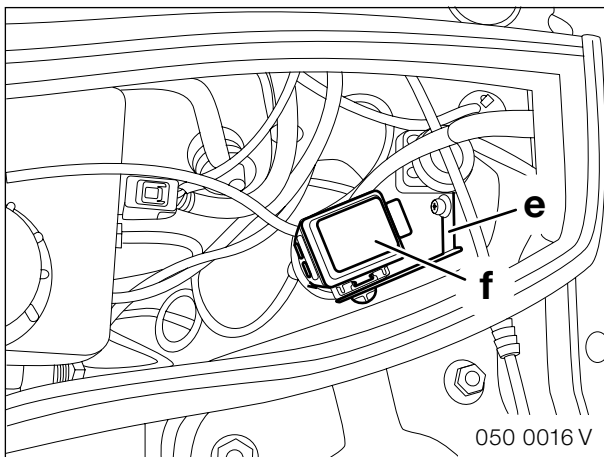
Cut the rubber grommet in the fuse box **h** and pull branches **D** and **I** into the rubber grommet **h** in the fuse box. Cut branches **D** and **I** and crimp on the blade receptacles **q**.

- ▶ The blade receptacles **q** are different sizes and must be assigned to the appropriate cables. ◀

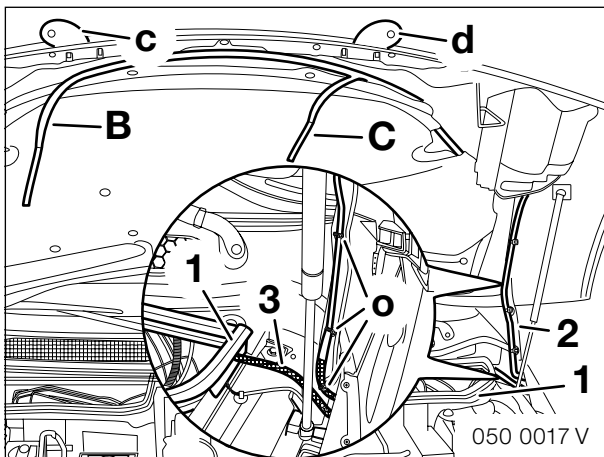
6. To install the additional wiring harness



Insert branches **D** and **I** into the fuse box **f**. Place fuse **i** into the fuse box **f** and fit the cover on the fuse box **g**.  
Secure the mounting clips for the fuse box **r** on the fuse box **f**.



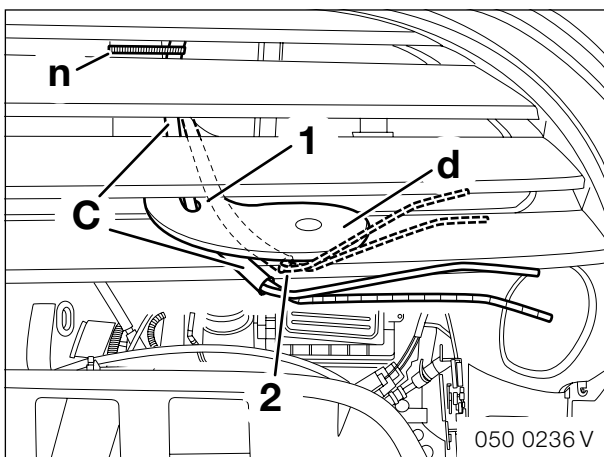
Insert the fuse box **f** by turning it into the fuse box holder **e**.



Extend branches **B** and **C** under the rubber seal (1) and lay it along the bonnet holder (2) using the bonnet cable tie **o** (see magnified view) to the holders **c** and **d**.  
Ensure that the fabric hose (3) is inserted in the wing area in a loop shape.



The bonnet cable ties **o** are already fitted on cars with a high pressure washing system. In this case lay branches **B** and **C** parallel to the high pressure hose with cable ties **n**. ◀

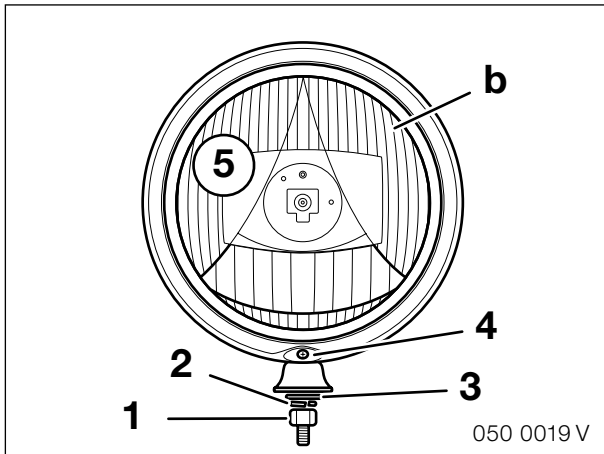


Extend branches **B** and **C** through the longitudinal recesses (1) in the holders **c** and **d** and secure them with cable ties **n**.

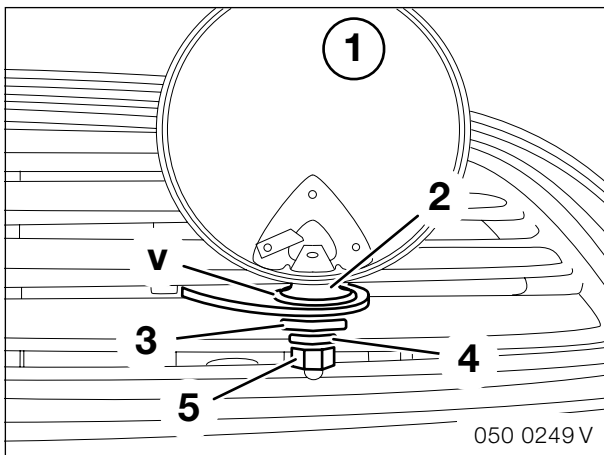
**Only for cars with sports package**

If a sports package is fitted, branches **B** and **C** are not to be threaded through the longitudinal recesses (1) into holders **c** and **d**, but threaded straight through the grille below holders **c** and **d** (2) (see dotted line).

## 7. To fit and adjust the headlights

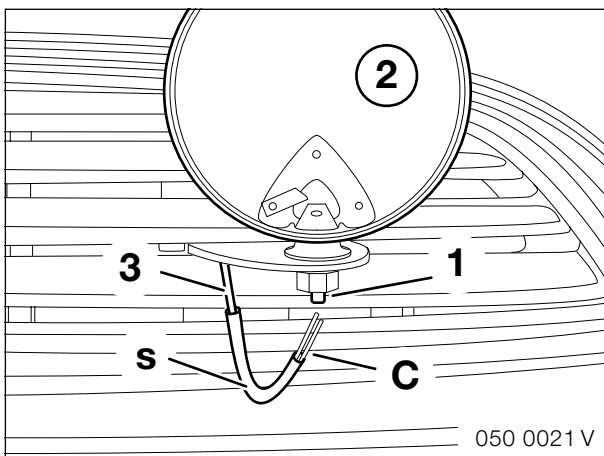


Unscrew the nut (1) and spring ring (2) and the washer (3) off the headlight **b**. Undo the Philips screws (4) and take off the reflector unit (5).

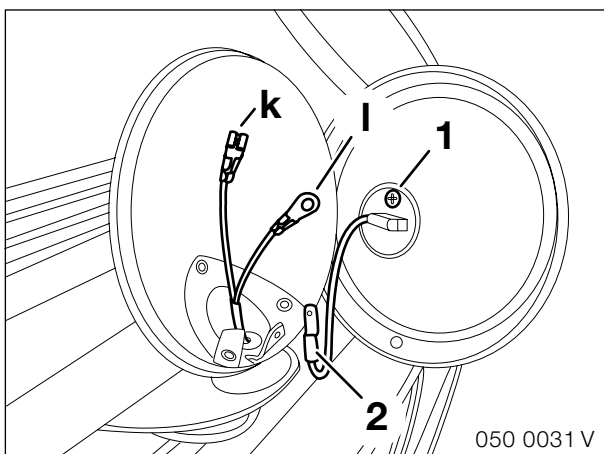


Place the headlight casing (1) with the headlight foot (2) and attached plastic washer **v** on to the holder **c** or **d** and secure it loosely from below with the washer (3), spring ring (4) and nut (5).

▶ Align the plastic washer **v** concentric to the headlight foot. ◀



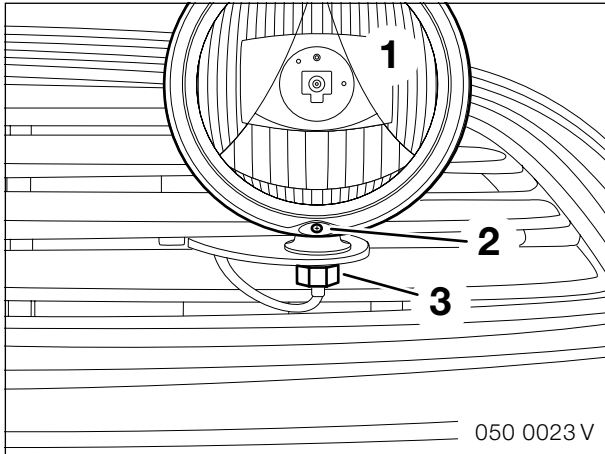
Pull the shrink hose **s** over branches **B** and **C** and overlap it slightly with the existing hose (3). Shrink the shrink hose **s** using the hot air blower and pull it through the hollow screw (1) into the headlight casing (2).



Crimp the blade terminal sleeve **k** to the red cable and the ring cable lug **l** to the brown cable. Secure the ring cable lug **l** to the lamp using a Philips screw (1) and connect the blade receptacle **k** to the lamp cable (2).

▶ Wrap the blade receptacle **k** and the lamp cable (2) after connection using insulation tape to prevent a short circuit. ◀

## 7. To fit and adjust the headlights

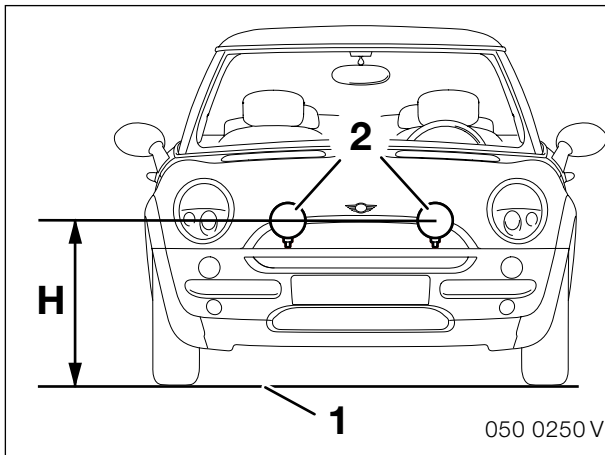


Insert the reflector unit (1) into the casing and secure it with a Philips screw (2).

### Adjustment with headlight adjustment unit

Adjust the lamps with a headlight adjustment unit. Tighten the nuts (3).

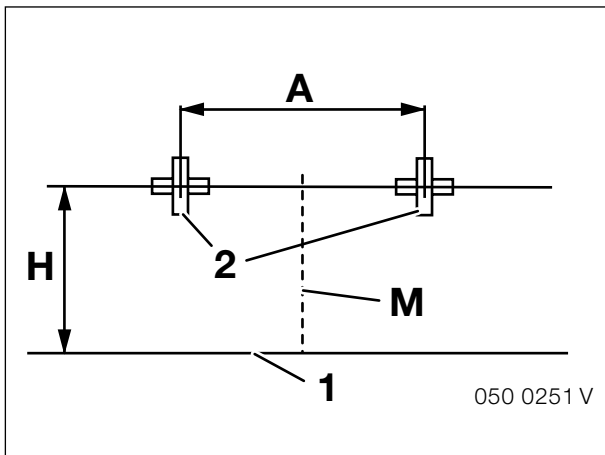
Torque: 9 Nm.



### Adjustment without a headlight adjustment unit

Park the unladen vehicle on flat ground (1).

Measure the height **H** from the ground surface (1) perpendicular to the centre of the headlight (2).



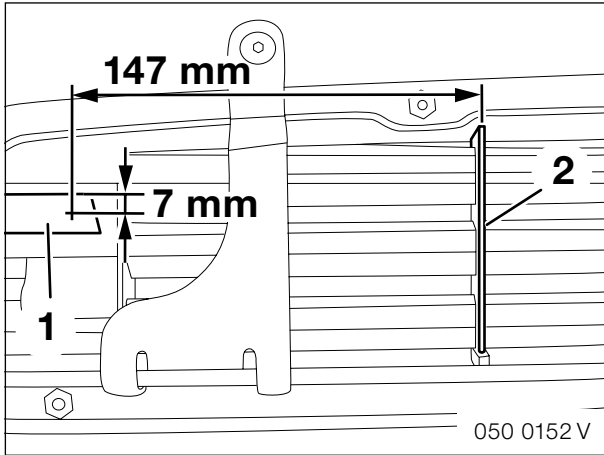
Draw a parallel line to the ground (1) at a height **H** to a wall. Make two markings (crosses) (2) on the line at intervals of **A = 540 mm** and mark the centre **M** between the two crosses (2).

Position the vehicle at a distance of 3 to 5 m from the wall. Then adjust the headlight so that the centre of the light in the individual light beam strikes the centre of the corresponding cross (2). Tighten the nut (3) (see Figure 050 0023 V). Tightening torque: 9 Nm.



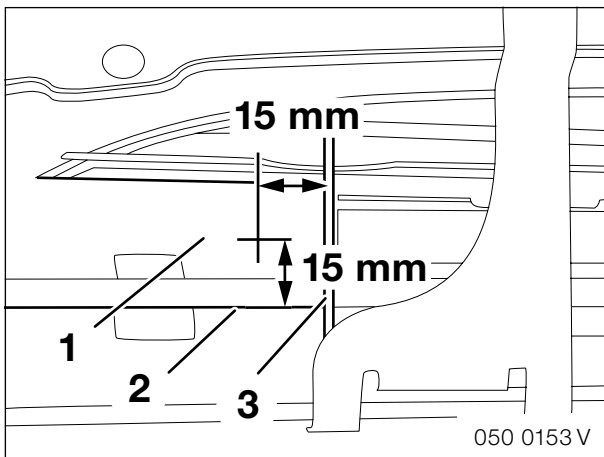
Park the vehicle so that the extension of the longitudinal vehicle axis precisely strikes the centre **M** between the markings (2) perpendicular to the wall. Make the adjustment in darkness if possible. ◀

## 8. To install the additional headlight support – three and four fin grille



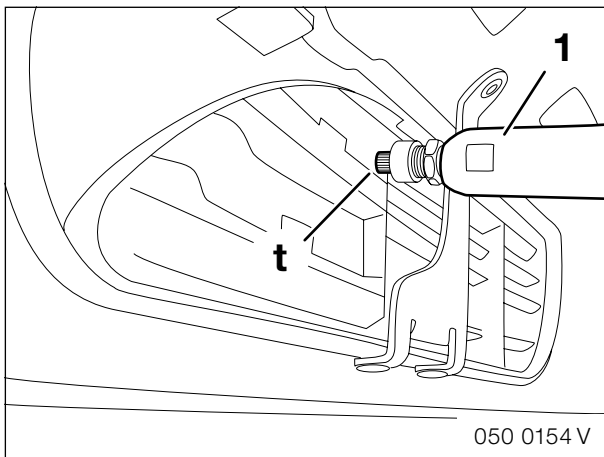
### Cars with a four-fin grille only:

Mark the spacing distance 147 mm from the strut (2) on the surface.  
Mark the spacing distance 7 mm from the top of the area (1).



### Cars with a three-fin grille only:

Mark the spacing distance 15 mm from the strut (2) on the surface.  
Then mark the spacing distance 15 mm from the strut (3).



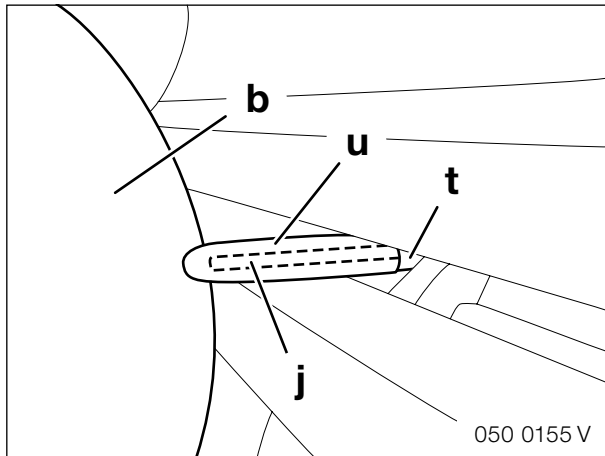
Ensure that the drill does not move from the drill point to avoid damaging the fins. ◀



Before you drill the holes cover the engine compartment to protect it from chips. ◀

Drill the holes for the blind rivet nuts **t** (predrill 3 mm, then enlarge to 6.1 mm). Deburr the holes and insert the blind rivet nuts **t** from the inside of the grille using the blind rivet nut pliers (1).

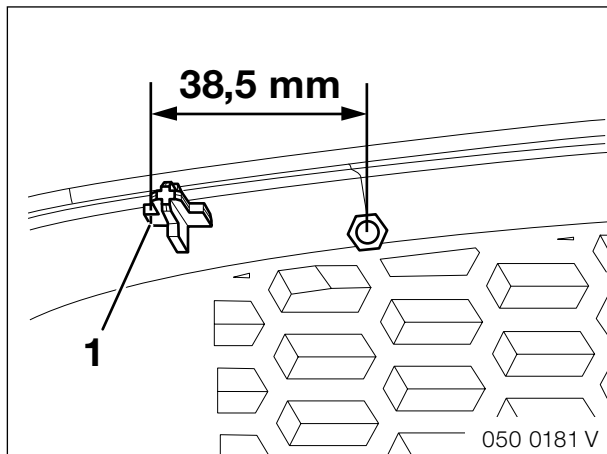
8. To install the additional headlight support – three and four fin grille



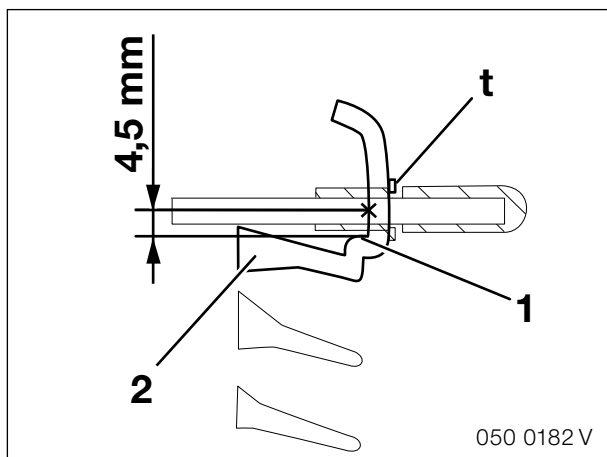
For a combination of the CVT transmission and three-fin grille, reduce the overhang of the grub screw **j** behind the hexagonal nut **p** to 5 mm. ◀

Reduce the immersion cap **u** by adjusting it several times to the distance between the blind rivet nuts **t** and headlights **b**. Screw the grub screw **j** from the inside into the blind rivet nut **t** until the immersion cap **u** can be placed on it. Unscrew the grub screw **j** until it is in contact with the casing of the headlight **b**. Create the required stress on the headlight **b** with two turns and lock it against the collar of the blind rivet nut **t** with the hexagonal nut.

## 9. To install the additional headlight support – aerodynamic package grille

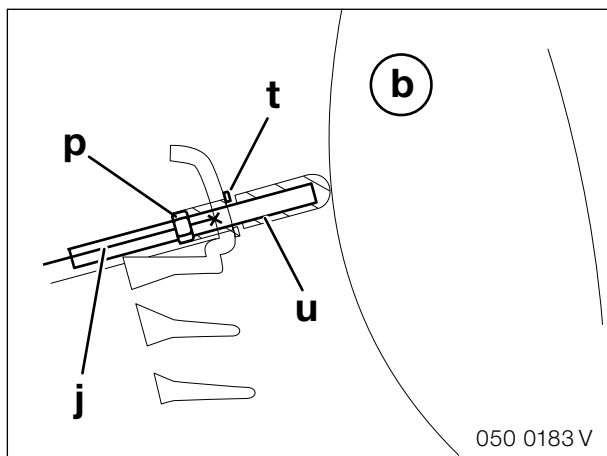


Mark the spacing distance 38.5 mm to the centre of the grille from the outside edge of the pin.



Then mark the dimension 4.5 mm from the contour (1) of the grille (2).

Drill the holes for the blind rivet nuts **t** (pre-drill 3 mm, then enlarge to 6.1 mm). Deburr the holes and insert the blind rivet nuts **t** from the outside using the blind rivet nut pliers.



**⚠** For a combination of the CVT transmission and aerodynamic package grille, reduce the overhang of the grub screw **j** behind the hexagonal nut **p** to 5 mm.. ◀

Reduce the immersion cap **u** by adjusting it several times to the distance between the blind rivet nuts **t** and headlights **b**. Screw the grub screw **j** from the inside into the blind rivet nut **t** until the immersion cap **u** can be placed on it. Unscrew the grub screw **j** until it is in contact with the casing of the headlight **b**. Create the required stress on the headlight **b** with two turns. Lock it against the blind rivet nut **t** with the hexagonal nut **p**.



## 10. Coding

To ensure that the retrofit system adjusts to the specific car perfectly the BC1 control module must be coded. The Mobile Diagnostic Computer MoDiC (III) or the DIS with CD version 16 (or higher) is required to code the BC1 control module. It cannot be coded with an older version. The steps for this procedure are described briefly below:

Connect MoDiC (III) or DIS to the diagnostics plug in the car and switch on the ignition.

Select menu point **"Coding/Program"**.

**"3 Coding ZCS"** <Enter>

**"Coding via central coding key (ZCS) Version 26.0"**  
(or higher) <Enter>

**Select "10 Series R50/R53"** <Enter>

**"2 Retrofit"** <Enter>

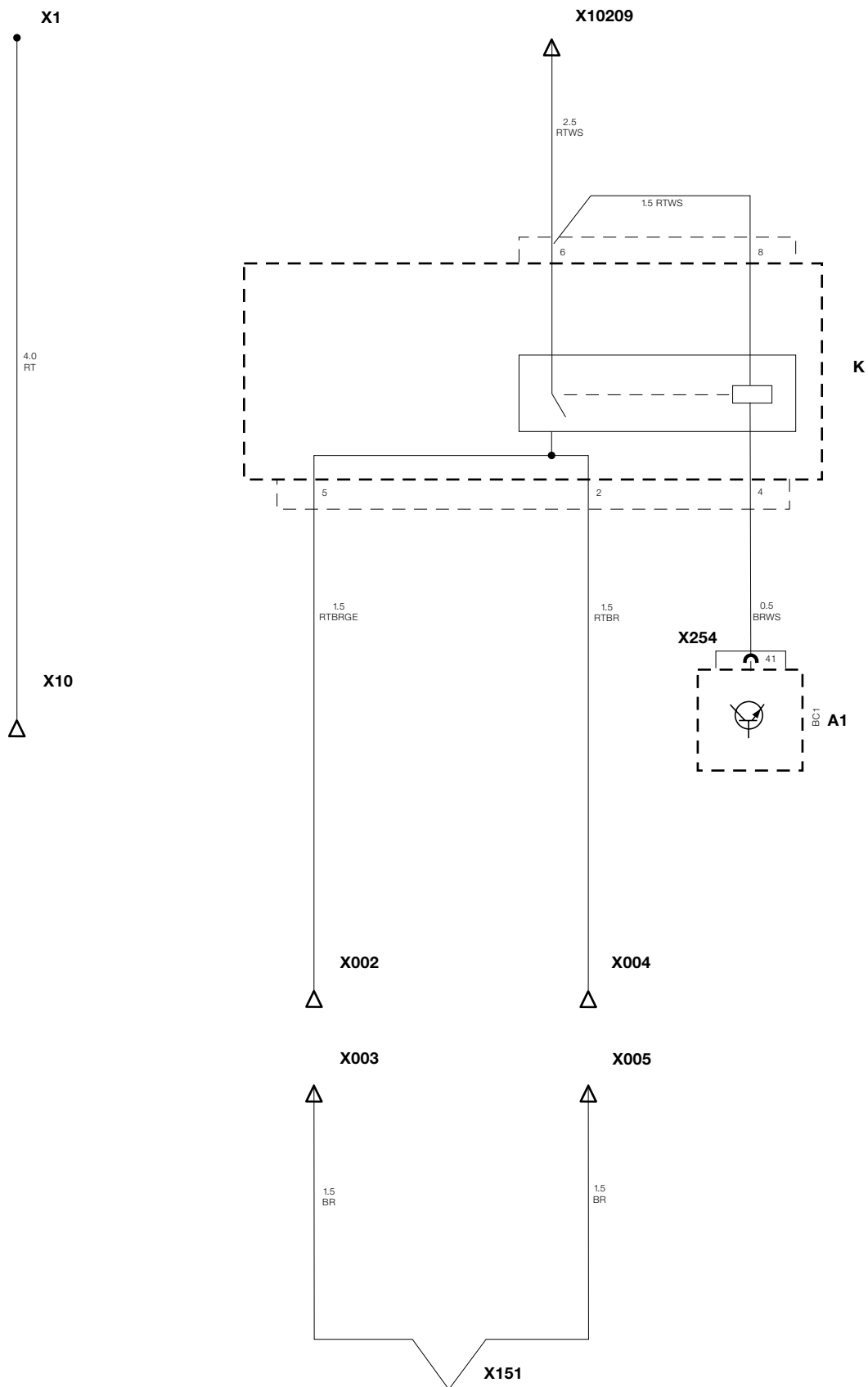
**"21 Additional headlights"** <Enter>

**"Automatic coding"** <Yes>



After completing the coding switch off the ignition for approx. 10 seconds. Then conduct a function test. ◀

# 11. Additional headlight circuit diagram



050 0024 V

## 11. Additional headlight circuit diagram

### Legend

A1	Base module BC1
K	Relay
X1	KS 30 (fuse box)
X10	KS 30 (main fuse box)
X002	Left headlight supply cable
X003	Left headlight earth
X004	Right headlight supply cable
X005	Right headlight earth
X151	Side skirt earth
X254	Base module BC1 white plug
X10209	KS 30 (fuse box)

## 12. Information sheet for additional MINI headlights

(Give this to the customer, enclose the information sheet with the owner's handbook)

### To change a lamp

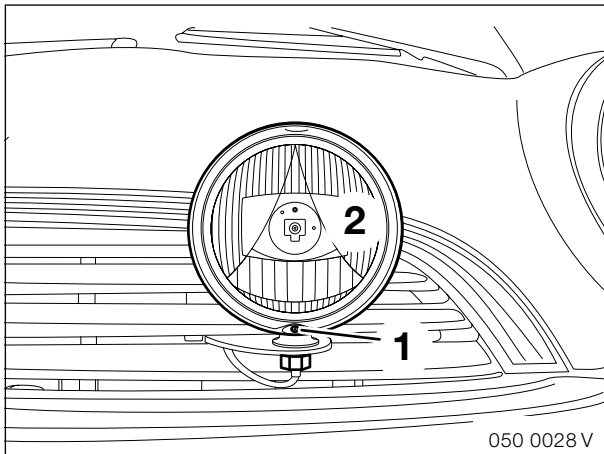
Lamps and lights play a major role in vehicle safety. The appropriate level of care is therefore to be used for handling them. If you are not familiar with this type of work have it completed by your MINI dealer.



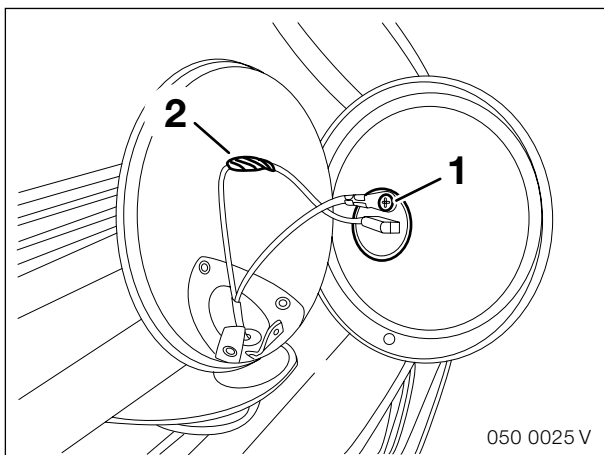
Do not touch the glass bulb of new lamps with your bare hands because even minute impurities can burn into them and thus reduce the service life of the lamp. Use a clean cloth, paper towel or the like or hold the lamp by its socket. ◀



When completing any work on the electrical system, switch off the appropriate consumers or disconnect the negative pole on the battery, otherwise you may cause short circuits. Follow the enclosed instructions from the lamp manufacturer to the letter to prevent injury and damage when changing a lamp. ◀



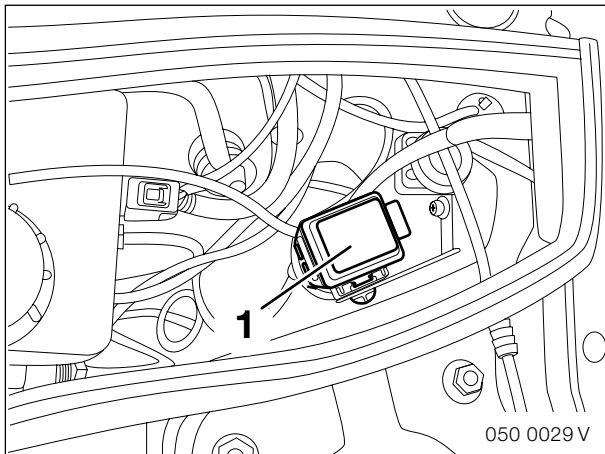
Undo the Philips screw (1)  
Take the headlight insert (2) out of the casing.



Strip and release the plug connector (2)  
Undo the screw connector (1)  
Remove the lamp and change it; use a 55 W H3 lamp  
Install the parts again using the above instructions in reverse.

## 12. Information sheet for additional MINI headlights

### To change a fuse



Do not repair burned-out fuses or replace them with fuses of a different colour or ampere, otherwise the overloaded cables may cause a fire in the car. ◀

The fuse box (1) is in the engine compartment at the front left. The fuse is a 15 A model. Take the cover off the fuse box. Change the fuse. Fit the cover again. If the fuse burns out repeatedly, have the cause of the damage rectified by a MINI dealer.

### Care and cleaning



Observe the following for the care of the additional headlights: Do not rub dry and do not use any scouring or caustic cleaning products. Soften impurities (for example insects) with MINI shampoo and wash them off with lots of water. Thaw ice with de-icer spray – do not use an ice scraper. You can wash your MINI with the installed additional headlights in automatic car wash systems. Preferably you should use car wash systems with roller brushes. ◀