

Original BMW Accessories.

Installation Instructions.



Retrofit LED headlights

BMW X5 M (E 70), X6 and X6 M (E 71)

Retrofit kit number

63 13 2 297 442 Retrofit kit LED technology headlights

Installation time

The installation time is **approx. 3.75 hours**. This may vary depending on the condition of the car and the equipment in it.

In addition, the installation time is increased:

- when exchanging the footwell module (cars built before 10/10 only) by **approx. 0.5 hours**.
- when exchanging the high-pressure jets of the headlight cleaning system (cars built before 4/12 only) by a further **approx. 0.75 hours**.

The installation times specified do not include the time spent on programming/coding.

The calculation of the total costs for the programming time must be factored into the calculation of retrofitting costs (no invoicing via warranty).

Important information

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

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

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

If you experience installation or function problems, restrict troubleshooting to approx. 0.5 hours for mechanical work and 1.0 hour for electrical work.

To avoid unnecessary extra work and/or costs, send an inquiry straight away to the technical parts support team via the Aftersales Assistance Portal (ASAP).

Quote the following information:

- Chassis number,
- Retrofit kit part number,
- A detailed description of the problem,
- Any work already carried out.

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

Pictograms



Denotes instructions that draw your attention to dangers.



Denotes instructions that draw your attention to special features.

◀ Denotes the end of the instruction or warning text.

Installation information

Ensure that the cables and/or lines are not kinked or damaged as you install them in the car. Costs arising from 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.

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

After the installation work, the retrofit must be programmed/coded via the – **Conversions** – path.

Ordering instructions

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

- Headlight washer jets **H/I** for cars built before 4/12
- Footwell module **J** in cars built before 10/10

List of special equipment

The following special equipment must be taken into consideration when installing:

SA 524 Adaptive directional headlights

Special tools required

00 2 230, Rivet pliers

00 9 317, Wedge

00 9 322, Wedge

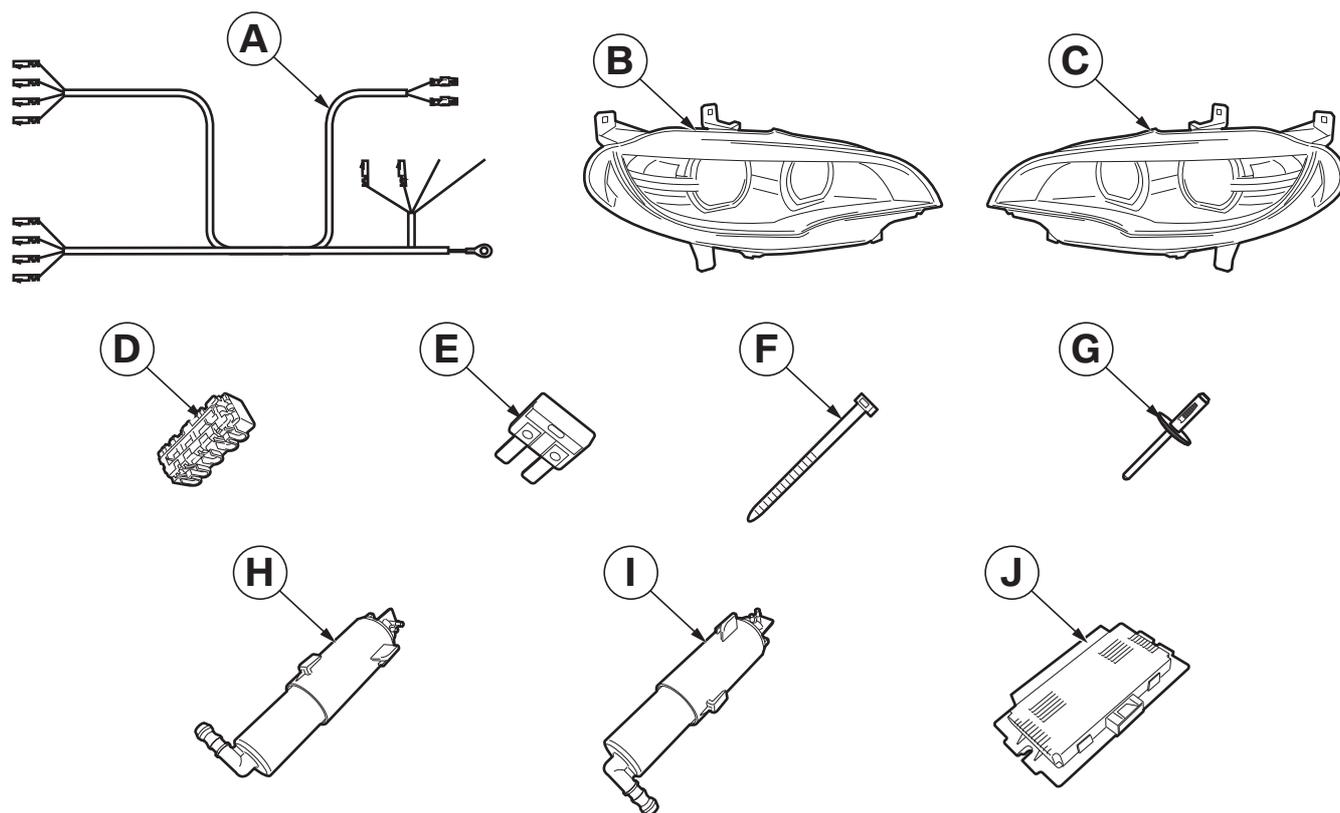
00 9 340, Removal tool

13 3 010, terminal (only required for exchanging the high-pressure jets of the headlight cleaning system)

Table of contents

Section	Page
1 Parts list	4
2 Preparatory work	5
3 Connection diagram	6
4 Installation and cabling diagram	7
5 Installing and connecting the retrofit wiring harness	8
6 Concluding work and coding	12
7 Wiring diagram	13

1. Parts list



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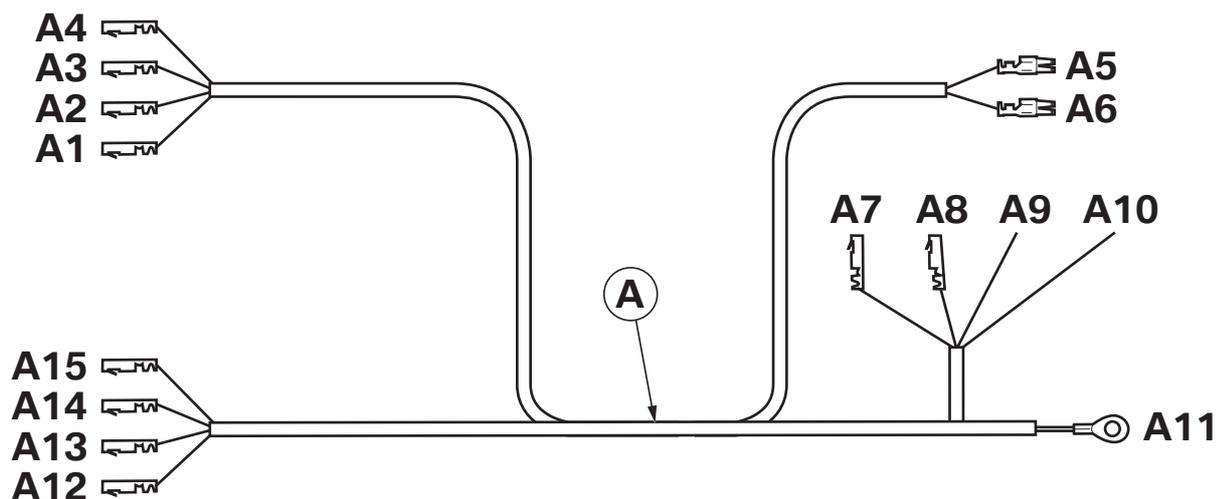
Legend

- A** Retrofit wiring harness
- B** LED headlight, right
- C** LED headlight, left
- D** 5-way miniature connector
- E** Blade terminal fuse 5A (2 x)
- F** Cable tie (20 x)
- G** Rivets (16 x)
- H** Right high-pressure jet of the headlight cleaning system (not supplied in the retrofit kit)
- I** Left high-pressure jet of the headlight cleaning system (not supplied in the retrofit kit)
- J** Footwell module (not supplied in the retrofit kit)

2. Preparatory work

	ISTA No.
Conduct a brief test	---
Disconnect the negative pole of the battery	61 20 900
The following components must be removed first of all	
Headlights, left and right	63 12 015
Left microfilter housing cover	64 31 101
Right microfilter housing cover	64 31 106
Bottom right dashboard trim	51 45 181
Side footwell trim on the left A pillar	51 43 070
Also for cars built before 10/10	
Exchanging the footwell module	61 35 115
Also for cars built before 4/12	
Exchanging high-pressure jets of the headlight cleaning system, left and right	61 67 100

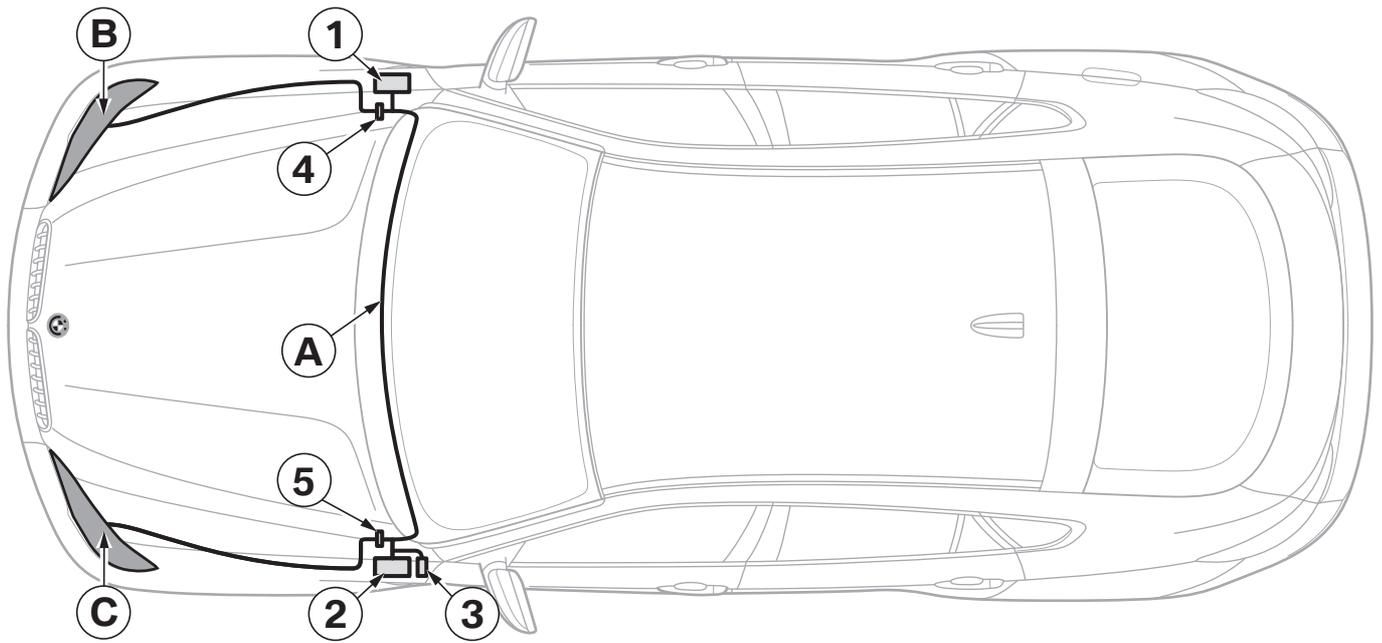
3. Connection diagram



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Item	Designation	Signal	Cable colour/ cross-section	Connection location in the car	Abbreviation/slot
A	Retrofit wiring harness	---	---	---	---
A1	Socket contact	KZL	GR/BR 0.5 mm ²	On LED headlight right B	X13421 PIN 5
A2	Socket contact	FL_R	WS/BL 1.5 mm ²	On LED headlight right B	X13421 PIN 6
A3	Socket contact	30gz_F25	GE/SW 0.5 mm ²	On LED headlight right B	X13421 PIN 8
A4	Socket contact	31E<2	BR/SW 0.75 mm ²	Cars without SA 524 only On LED headlight right B Cars with SA 524 only Insulate and tie back	X13421 PIN 11
A5	Flat spring contact	30gz_F25	GE/SW 0.5 mm ²	On fuse holder front A4010	X11003 PIN 5
A6	Flat spring contact	30gz_F22	GE/RT 0.5 mm ²	On fuse holder front A4010	X11003 PIN 2
A7	Socket contact	FL_R	WS/BL 1.5 mm ²	On footwell module A4011	X14260 PIN 3
A8	Socket contact	FL_L	WS/GN 1.5 mm ²	On footwell module A4011	X14261 PIN 37
A9	Open cable	KZL	GR/BR 0.5 mm ²	With miniature connector D to GR/BR cable on footwell module A4011	X14261 PIN 49
A10	Open cable	KZL	GR/BR 0.5 mm ²	With miniature connector D to GR/BR cable from plug X14261 of footwell module A4011	---
A11	Ring eyelet M6	31E<2	BR/SW 0.75 mm ²	Cars without SA 524 only To the earth post in the footwell on the left Cars with SA 524 only Insulate and tie back	X1108
A12	Socket contact	KZL	GR/BR 0.5 mm ²	On LED headlight left C	X13420 PIN 5
A13	Socket contact	FL_L	WS/GN 1.5 mm ²	On LED headlight left C	X13420 PIN 6
A14	Socket contact	30gz_F22	GE/RT 0.5 mm ²	On LED headlight left C	X13420 PIN 8
A15	Socket contact	31E<2	BR/SW 0.75 mm ²	Cars without SA 524 only On LED headlight left C Cars with SA 524 only Insulate and tie back	X13420 PIN 11

4. Installation and cabling diagram

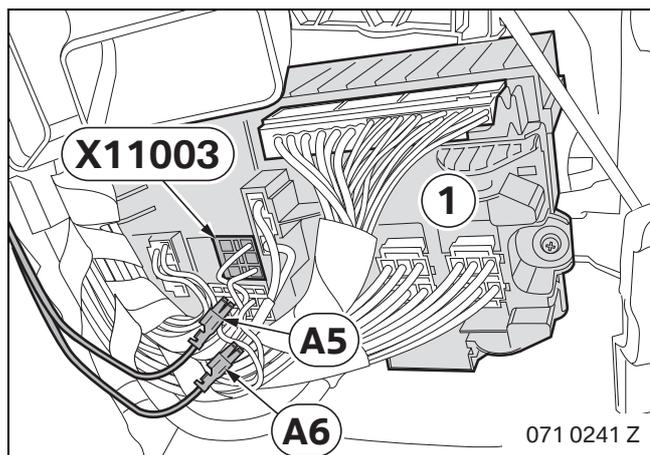


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- A** Retrofit wiring harness
- B** LED headlight, right
- C** LED headlight, left

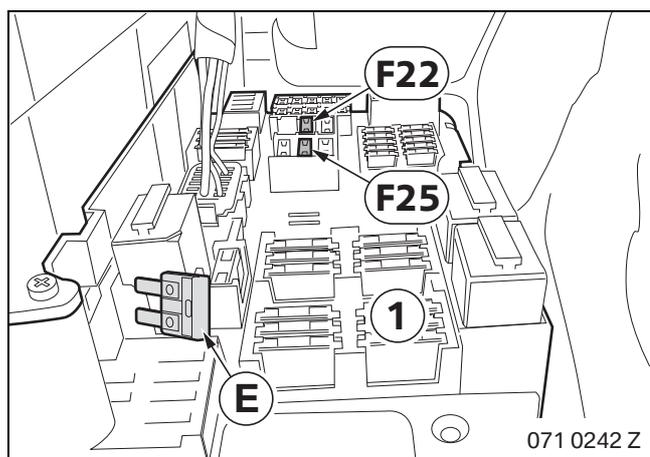
- 1** Front fuse holder **A4010**, plug **X11003**
- 2** Footwell module **A4011**
- 3** Earth post connection **X1108**
- 4** Rubber grommet bulkhead right
- 5** Rubber grommet bulkhead left

5. Installing and connecting the retrofit wiring harness

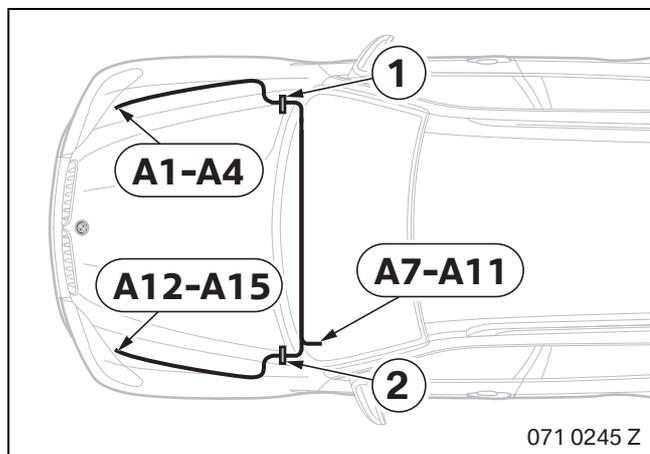


Connect branches **A5–A6** as follows to plug **X11003** (SW 6-pin) on the front fuse holder:

- Branch **A5**, GE/SW cable, to PIN 5
- Branch **A6**, GE/RT cable to PIN 2

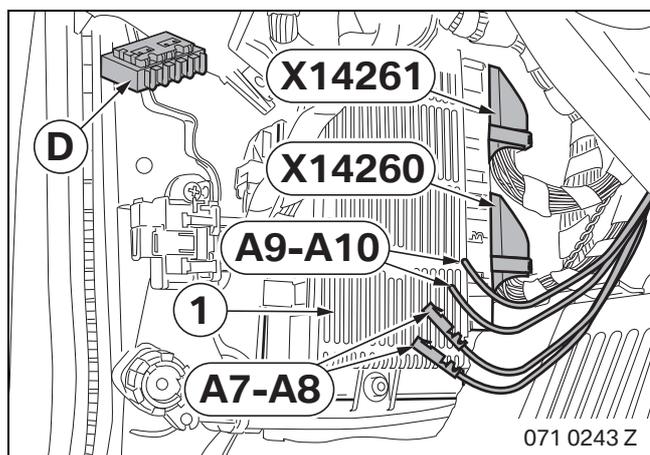


Insert blade terminal fuses **E** into slots F22 and F25 of the front fuse holder (1).



Route branches **A1–A4** and **A7–A15** as follows along the standard wiring harness:

- Branches **A1–A4** through the rubber grommet (1) into the engine compartment and onward into the right wheel arch
- Branches **A7–A15** into the right footwell
- Branches **A12–A15** through the rubber grommet (2) into the engine compartment and onward into the left wheel arch

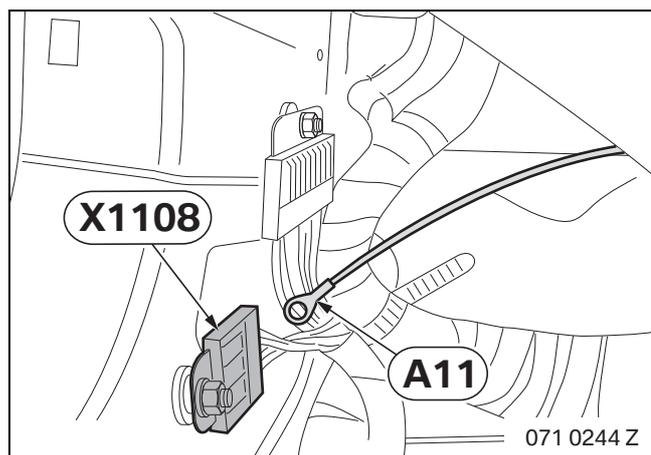


 In cars built up to 10/10, the footwell module (1) must be renewed. ◀

Connect branches **A7–A10** as follows on footwell module (1):

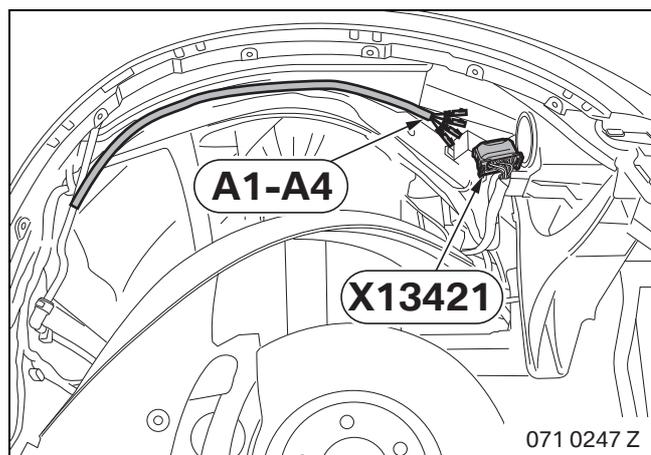
- Connect branch **A7**, WS/BL cable, to PIN 3 of plug **X14260**
- Connect branch **A8**, WS/GN cable, to PIN 37 of plug **X14261**
- Connect branches **A9–A10**, GR/BR cable, with miniature connector **D** to GR/BR cable from PIN 49 of plug **X14261**

5. Installing and connecting the retrofit wiring harness



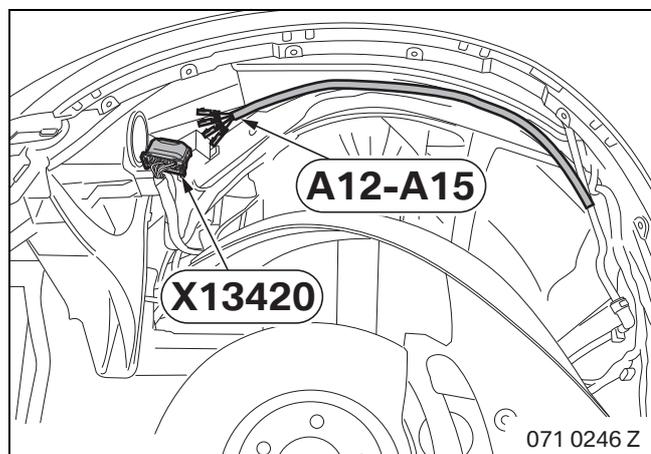
Cars without SA 524 only

Screw branch **A11**, BR/SW cable, onto earth post connection **X1108**.



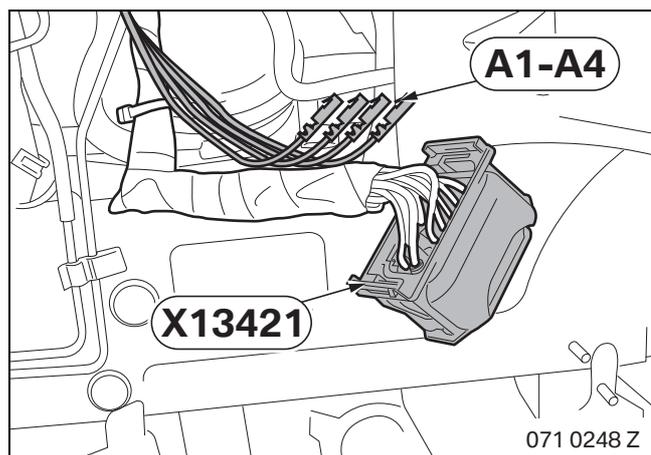
All cars

Route branches **A1-A4** along the standard wiring harness to plug **X13421** of the right headlight.



Route branches **A12-A15** along the standard wiring harness to plug **X13420** of the left headlight.

5. Installing and connecting the retrofit wiring harness



Cars without SA 524 only

Disconnect the following cables from plug **X13421** of the right headlight, remove the insulation and tie back:

- GE/RT cable from PIN 5
- GE/SW cable from PIN 8
- BL/BR cable from PIN 11

Connect branches **A1-A4** as follows to plug **X13421**:

- Branch **A1**, GR/BR cable, to PIN 5
- Branch **A2**, WS/BL cable, to PIN 6
- Branch **A3**, GE/SW cable, to PIN 8
- Branch **A4**, BR/SW cable, to PIN 11

Cars with SA 524 only

Disconnect the following cables from plug **X13421**, remove the insulation and tie back:

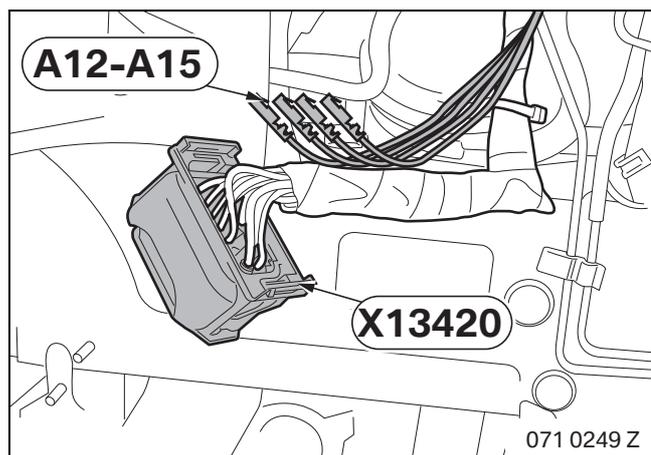
- GE/RT cable from PIN 5

Connect branches **A1-A4** as follows to plug **X13421** of the right headlight:

- Branch **A1**, GR/BR cable, to PIN 5
- Branch **A2**, WS/BL cable, to PIN 6
- Branch **A3**, GE/SW cable, to PIN 8

Insulate branch **A4**, BR/SW cable and tie back

5. Installing and connecting the retrofit wiring harness



Cars without SA 524 only

Disconnect the following cables from plug **X13420** of the left headlight, remove the insulation and tie back:

- GE/RT cable from PIN 5
- GE/RT cable from PIN 8
- BL/BR cable from PIN 11

Connect branches **A12-A15** as follows to plug **X13420** of the left headlight:

- Branch **A12**, GR/BR cable, to PIN 5
- Branch **A13**, WS/GN cable, in PIN 6
- Branch **A14**, GE/RT cable to PIN 8
- Branch **A15**, BR/SW cable, to PIN 11

Cars with SA 524 only

Disconnect the following cables from plug **X13420** of the left headlight, remove the insulation and tie back:

- GE/RT cable from PIN 5

Connect branches **A12-A14** as follows to plug **X13420**:

- Branch **A12**, GR/BR cable, to PIN 5
- Branch **A13**, WS/GN cable, in PIN 6
- Branch **A14**, GE/RT cable to PIN 8

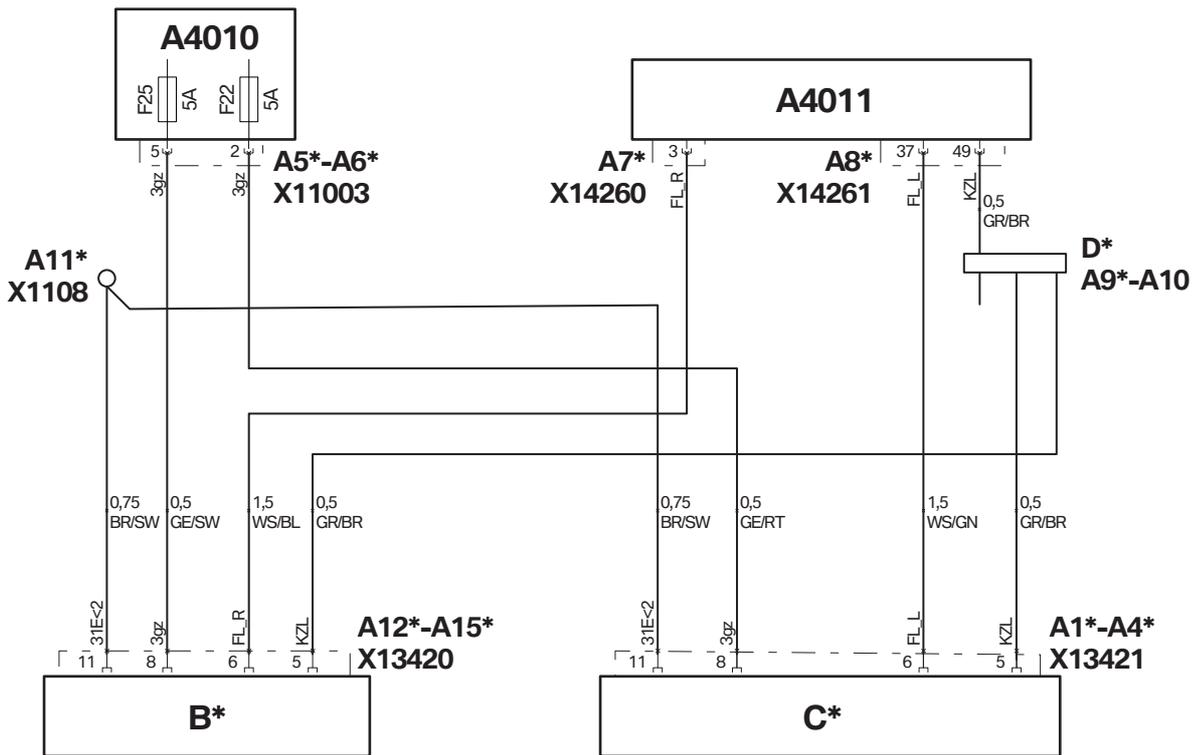
Insulate branch **A15**, BR/SW cable and tie back

6. Concluding work and coding

The retrofit system requires programming/coding.

- Connect LED headlight right **B** and left **C** acc. to ISTA no. 63 12 015
- Connect the battery
- Carry out a vehicle test using the ISTA system and note or work through any entered error memory.
- Change in the ISTA/P car programming
- Select the "LED headlights" retrofit via the – **Conversion** – path and work through the created action plan
- If using ISTA/P, please note the instructions in the ISTA/P application documentation
- Check the function of the LED headlights
- Re-assemble the car appropriately
- Adjust the headlights according to ISTA No. 63 10 004

7. Wiring diagram



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Legend

- A1-A4** Socket contacts, on plug **X13421**, 12-pin SW, of left LED headlight **C***
- A5-A6** Flat spring contacts, on plug **X11003** 6-pin SW, of front fuse holder **A4010**
- A7** Socket contact, on plug **X14260**, 51-pin SW/SW, of footwell module **A4011**
- A8** Socket contact, on plug **X14261**, 51-pin SW/GR, of footwell module **A4011**
- A9-A10** Open cables, with miniature connector **D*** to cable GR/BR from PIN 49 of plug **X14261**, 51-pin SW/GR, on footwell module **A4011**
- A11** Ring eyelet, on earth post **X1108** in the footwell on the left
- A12-A15** Socket contacts, on plug **X13420**, 12-pin SW of right LED headlight **B***

All the designations marked with an asterisk (*) apply only to these installation instructions or this wiring diagram.

Cable colours

BL	Blue	GR	Grey	RT	Red
BO	Bordeaux (Burgundy)	L-GN	Light green	SW	Black
BR	Brown	NT	Natural	TR	Transparent
GE	Yellow	OR	Orange	VI	Violet
GN	Green	RO	Pink	WS	White