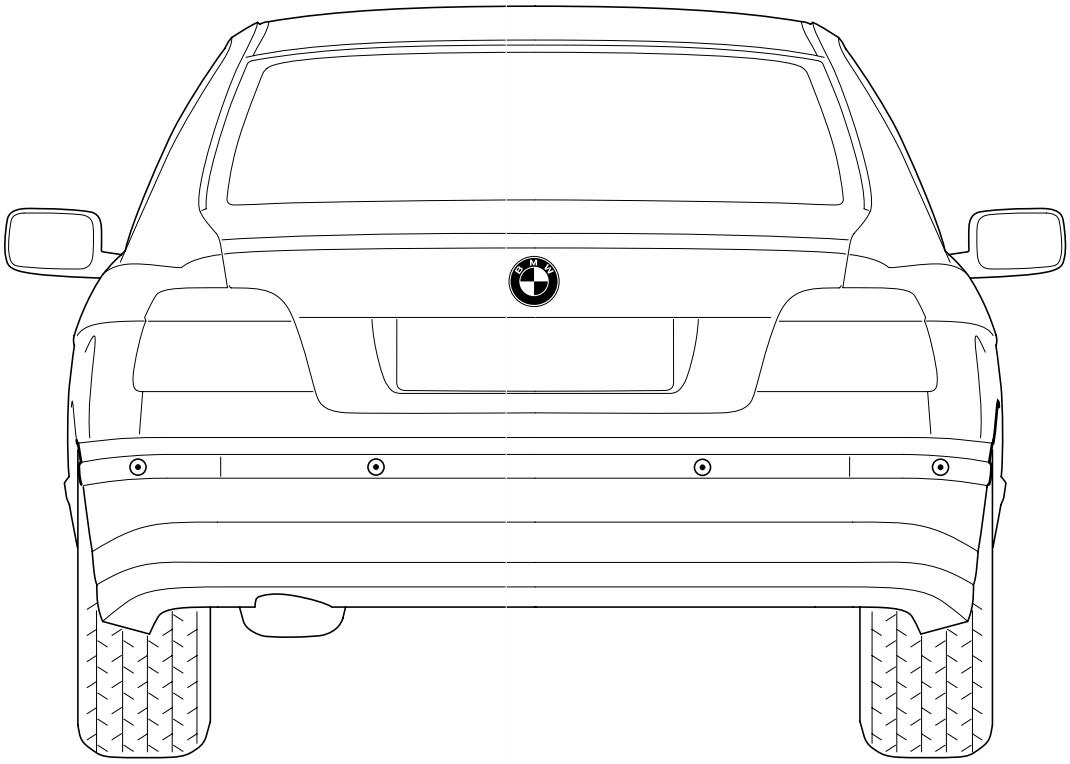
Teile und Zubehör - Einbauanleitung



F 39 66 001 M

BMW Parts and Accessories – Installation Instruction
Park Distance Control (PDC)
BMW 5 Series (E39), only vehicles from 03/1998

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Park Distance Control (PDC) rear
BMW 5 Series (E39), only vehicles from 03/1998

Only for use in the BMW trading organisation.
Installation time approx. 1 - 2 hours, which can vary according to the condition and fittings of the vehicle.
Electrical knowledge is required.

Attention!
Take care to see that the supplementary wiring harness and the vehicle wiring harness do not get damaged and that no chafing marks can occur. Also ensure that the painted components are not damaged or scratched during their installation.

Required tools and auxiliary materials
Phillips screwdrivers
Socket wrench 10 mm
Flat-tip screwdrivers
Drill Ø 3 mm, Ø 10 mm
Zinc dust paint
Open-ended spanner SW 16 mm
Side-cutting tool
Electric torch
Drilling machine
Step drill Ø 40 mm
Round file

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1. Necessary preparatory work on the vehicle

- Print out error memory
- Disconnect battery
- Dismantle boot trim panels
- Remove bumper guards from rear bumper
- Dismantle bumper
- Dismantle rear window shelf

2. Overview of the supplementary wiring harnesses

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Item	Package / Designation	Cable colour	Connection point in vehicle	Code design. / plug-in place
A	Ultrasonic sensors wiring harness	–		
A1	3-pole black connector X18020	–	Ultrasonic sensor rear left	X18020
A2	3-pole black connector X18021	–	Ultrasonic sensor rear centre-left	X18021
A3	3-pole black connector X18022	–	Ultrasonic sensor rear centre-right	X18022
A4	3-pole black connector X18023	–	Ultrasonic sensor rear right	X18023
A5	12-pole white connector X18013	–	PDC control unit A81 in boot, rear right	X18013
B	Power supply wiring harness	–		
B1	2-pole black connector X362	–	PDC speaker under rear window shelf	X362
B2	Plug contact term. R of fuse F61 output	violet/black	Fuse holder A49 in boot right above the battery	X10018/12

Item	Package / Designation	Cable colour	Connection point in vehicle	Code design. / plug-in place
B3	Connector with twin-lead terminal I/K bus	white/grey/ yellow	Plug-in connector X322 in boot rear left	X322/4
B4	Earth joint connector X13075	brown/black	Ground post X13075 under rear light right	X13075
B5	12-pole black connector X300	–	PDC control unit A81 in boot rear right	X300
C	Power supply lead for fuse F61	–	Only vehicles without power supply to Fuse F61	
C1	Connector with twin-lead terminal / term. R	violet/white	Output of load-reduction relay term. R K3	X57/2
C2	Plug contact term. R of fuse F61 input	violet/white	Fuse holder A49 in boot, right, above the battery	X10018/11

3. Overview of installation of the supplementary wiring harnesses

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Ultrasonic sensors wiring harness A:
From the ultrasonic sensors in the rear bumper to the PDC control unit A81 in the boot on the right above the battery.
Power supply wiring harness B:
From the PDC control unit A81 to the fuse holder A49 in the boot on the right above the battery, to the ground post X13075 in the boot on the right, to the plug-in connector X322 in the boot on the left and to the PDC speaker H40 under the rear window shelf.

Note
For vehicles without voltage supply for fuse F61, the power supply lead **C** must also be installed at the fuse holder.

4. Install ultrasonic sensors wiring harness

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Drill out the punch point (1) on the closing panel underneath the right rear light to Ø 40 mm with a step drill, deburr the hole and treat it with the customary BMW ant-corrosion measures.

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Remove spacer (2) from bumper (1).
Install the branch cables **A1** to **A4** of the ultrasonic sensors wiring harness **A** through the recesses (3) in the bumper (1). Install ultrasonic sensors wiring harness **A** as illustrated and press into retaining clip (4). Install branch cable **5** through the lead-through in the closing panel into the boot. Press in rubber grommet (5) and fit bumper (1).
Install branch cable **A5** to installation location of the PDC control unit above the battery.

5. Install ultrasonic sensors

Vehicles from 09/2000 only.
Install the painted ultrasonic sensors (2) and the painted body mouldings (1) with care to prevent scratching or damaging the painted surface. ◂

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Press ultrasonic sensors (2) into the new bumper guards (1). Plug branch cables **A1** to **A4** on to the ultrasonic sensors (2) and install the bumper guards (1).

6. Install PDC speaker

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Remove prepunched aperture (2) from the insulating mat (1), seen from the direction of travel on the right at the side of the third brake light (3).

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Note
Watch out for the correct seating of the guide pin of the PDC speaker.

Insert PDC speaker (1) as illustrated and fasten it with a hex nut from the boot side.

7. Install power supply wiring harness

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Install branch cable **B1** coming from power supply wiring harness **B** through the lead-through grommet (1) into the passenger compartment.

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Install branch cable **B1** under the covering (2) along the vehicle wiring harness to the PDC speaker H40 (1) and connect it.
Install rear window shelf.

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Install branch cable **B5** to installation location of the PDC control unit.
Install branch cable **B2**, cable colour violet/black, to fuse holder A49 (1) above the battery and press in at output of fuse F61, X10018, connection 12.
Install branch cables **B3** and **B4** along the vehicle wiring harness to the right rear light.
Connect branch cable **B4**, cable colour brown/black, to ground post X13075 (2) under the rear light on the right.

only vehicles without power supply for fuse F61.
Cut cable of cable colour violet/white at the output of the load-reduction relay K3 (3) term. R. Remove insulation and crimp on to each lead-end a contact socket, put on socket housing and connect to connections **C1**, cable colour violet/white.
Press branch cable **C2**, cable colour violet/white, in at input of fuse F61, X10018, connection 11.
Protect with 5A fuse.

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Install branch cable **B3** along the vehicle wiring harness to the plug-in connector X322 (1) behind the left boot trim-panel.
Connect branch cable **B3**, cable colour white/grey/yellow, to connection 4 of the plug-in connector X322 (1).

8. Install PDC control unit

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Fasten PDC control unit A81 (1), as illustrated, to the bracket (2) with the plastic nuts (3).

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Put on speed nut (1) and undo plastic nuts (2).

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Insert PDC control unit A81 (1) with bracket as illustrated and fasten it with washer assembly (3) and plastic nuts (2).
Insert the plug-in connectors **A5** and **B5** in the identical colour mating connectors of the PDC control unit A81 (1) and arrest in position with the locking clamps.

Reassemble the vehicle in the reverse order of disassembly.

9. Coding

Vehicles up to 09/2000 only.
Coding of the PDC control unit is necessary in order to provide optimal conformity of the PDC retrofit system to the vehicle-specific conditions.
For coding the PDC control unit, the Mobile Diagnostic Computer MoDiC (III) or the DIS with CD version 16 (or higher) is required. Coding with an older version is not possible.
The following sets out briefly the step-by-step procedure for coding:

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

Select menu item **“Coding/Programme“**

“Coding ZCS“	<Enter>
“Coding via central coding key (ZCS) Version 16.0“ (or higher)	<Enter>
Select **“Series E 39“**	<Enter>
“Retrofit“	<Enter>
“PDC“	<Enter>
“automatic coding“	<Yes>

Note
When coding is terminated, switch off ignition for approx. 10 seconds. Then carry out function test.

Vehicles from 09/2000 only.
The control module is not coding-relevant.

10. Circuit diagram

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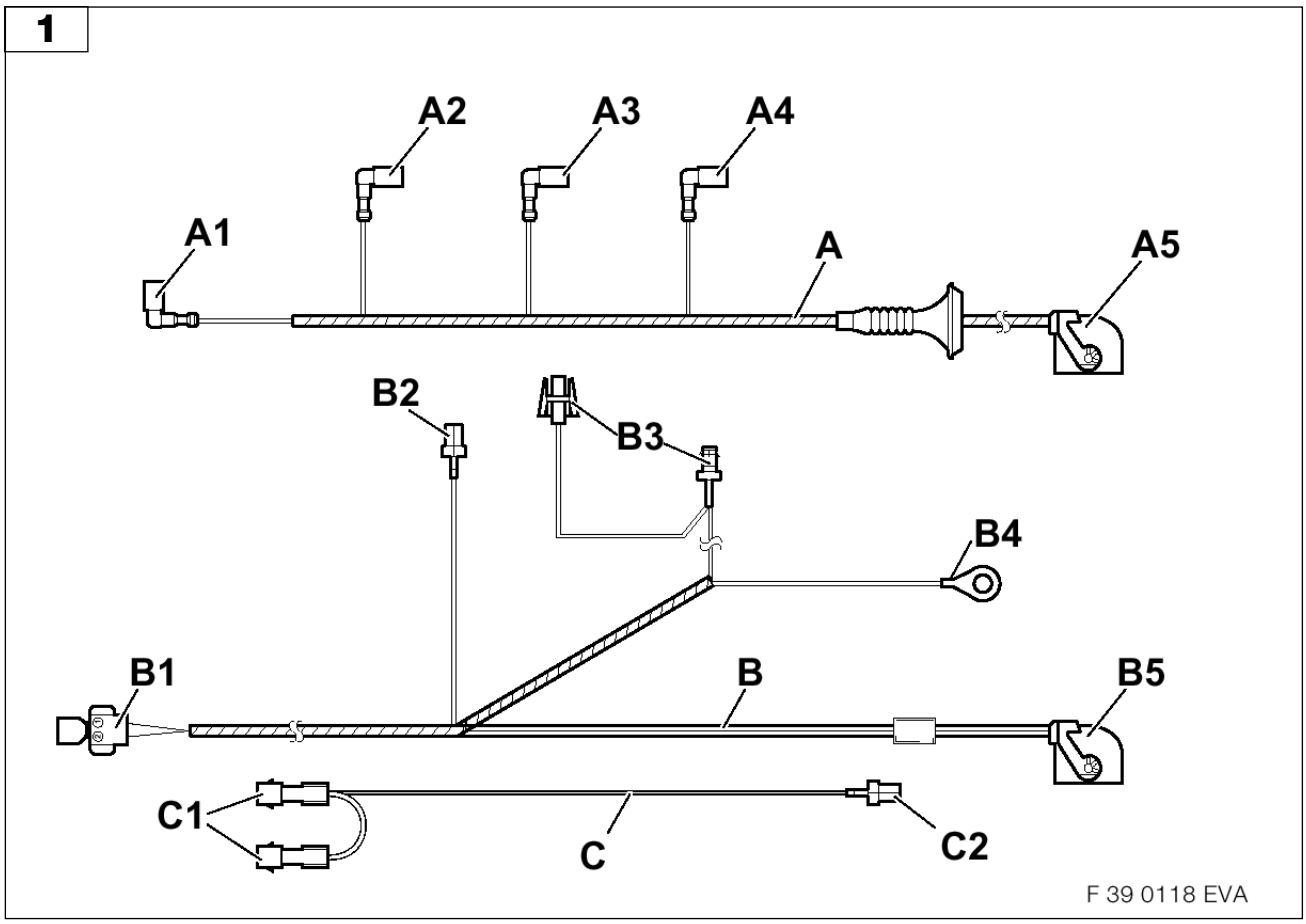
A49	Fuse holder IV
A81	PDC control unit
B34	Ultrasonic sensor rear left
B35	Ultrasonic sensor rear centre left
B36	Ultrasonic sensor rear centre right
B37	Ultrasonic sensor rear right
H40	PDC speaker
X300	12-pole black connector
X322	Kar-Radio/HiFi
X362	2-pole black connector
X6500	Plug-in connector adapter
X6501	Connection adapter lead
X10018	Fuse strip IV A49
X13075	Ground
X18013	12-pole white connector
X18020	3-pole black connector
X18021	3-pole black connector
X18022	3-pole black connector
X18023	3-pole black connector

1


A2
A3
A4
A1
A
A5
B2
B3
B4
B1
B
B5
C1
C
C2
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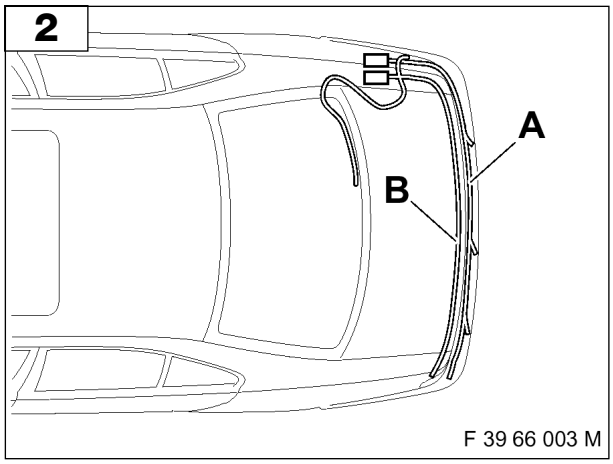
2


A
B
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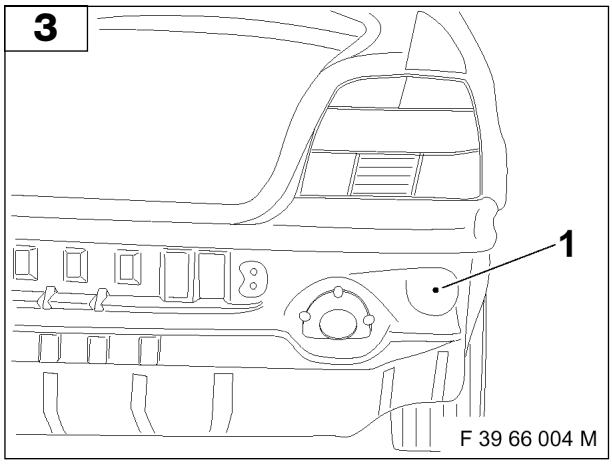
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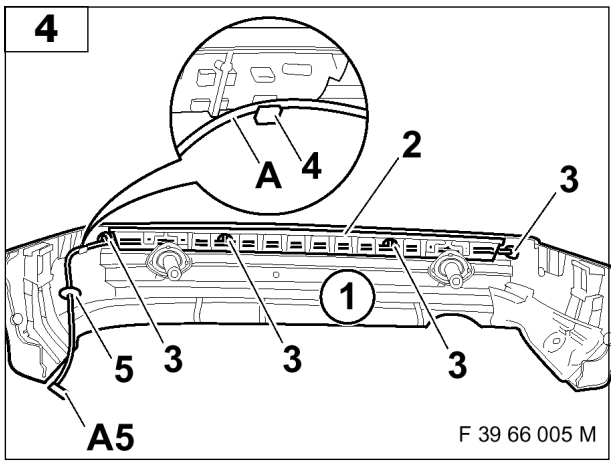
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A
4
2
3
1
5
3
3
3
A5
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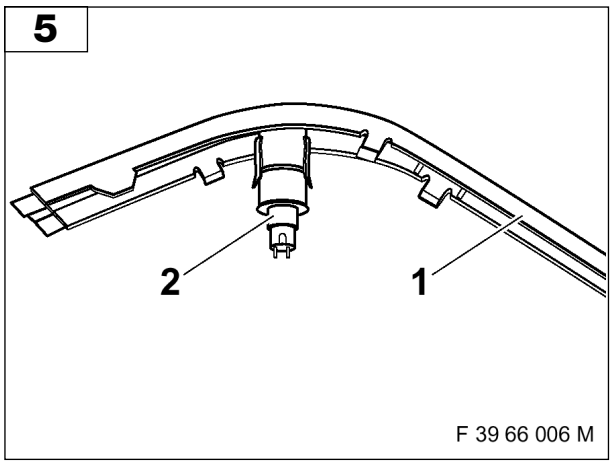
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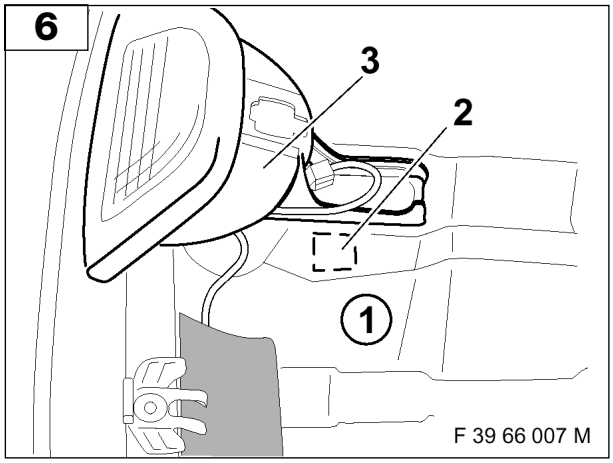
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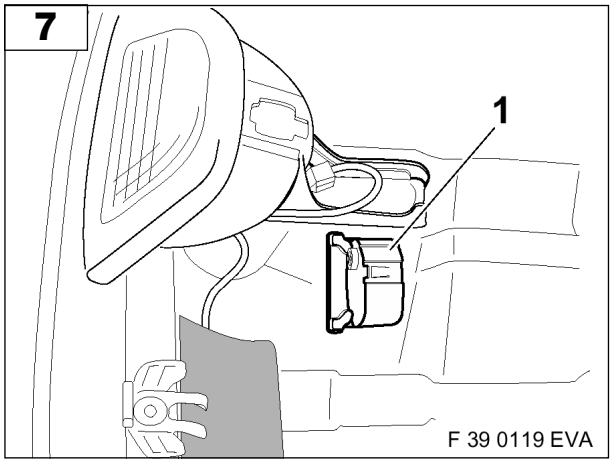
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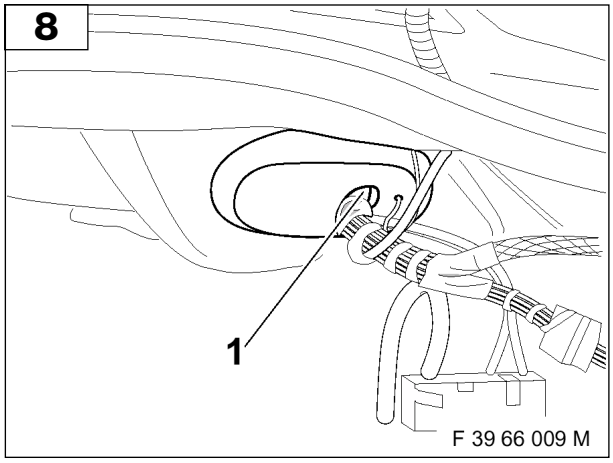
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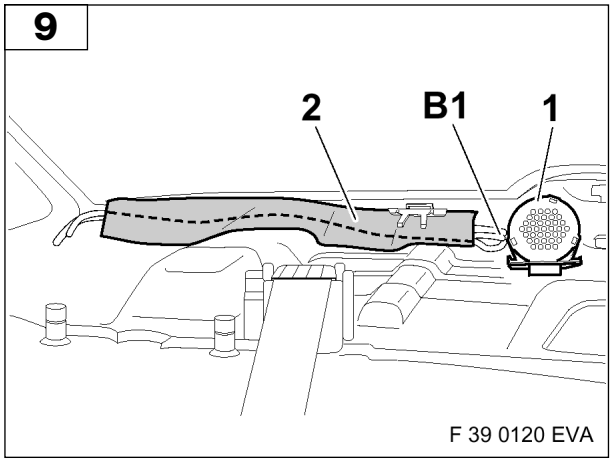
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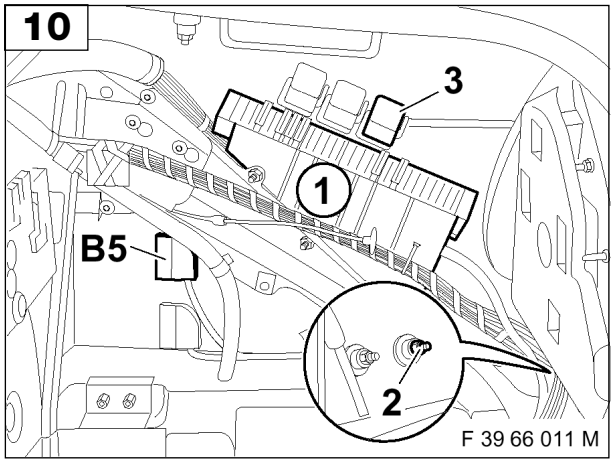
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B5
2
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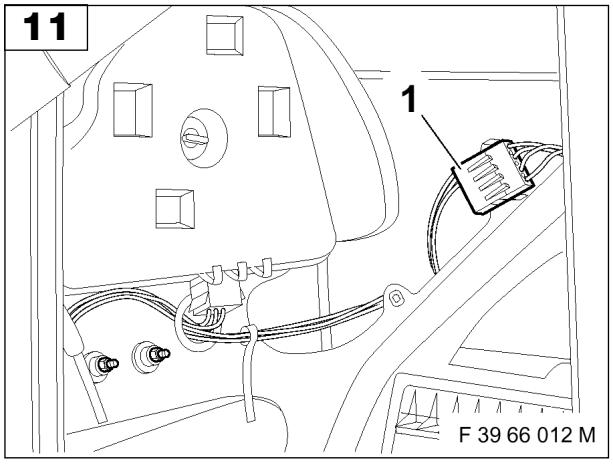
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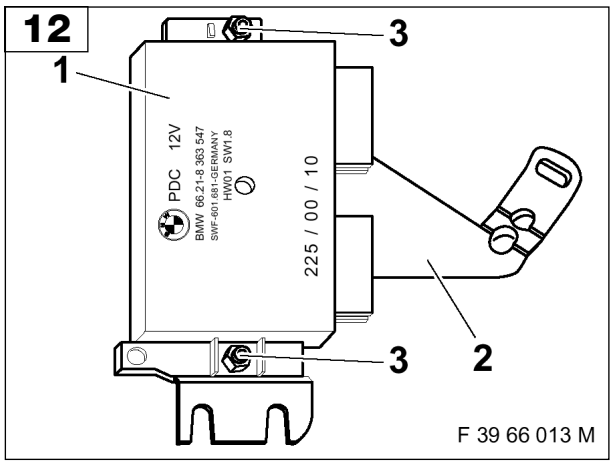
12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3
3
2
PDC 12V
BMW 66.21-8 363 547
SWF-601.661-GERMANY
HW01 SW1.8
225 / 00 / 10
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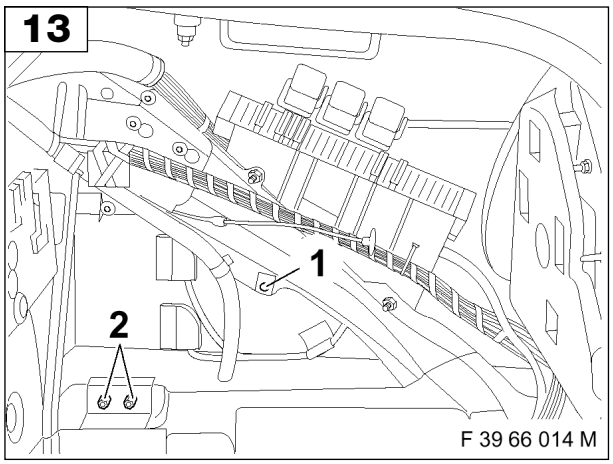
13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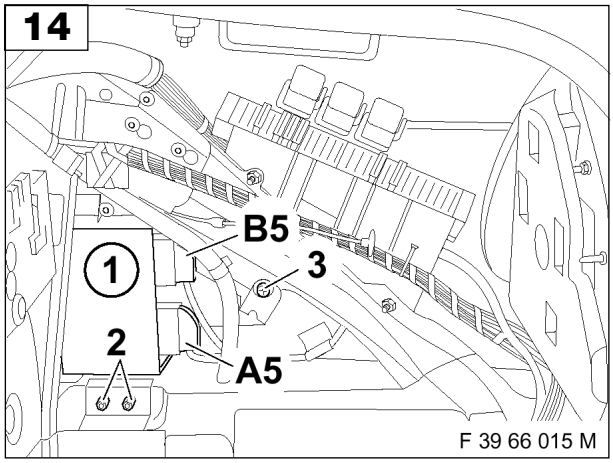
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3
2
A5
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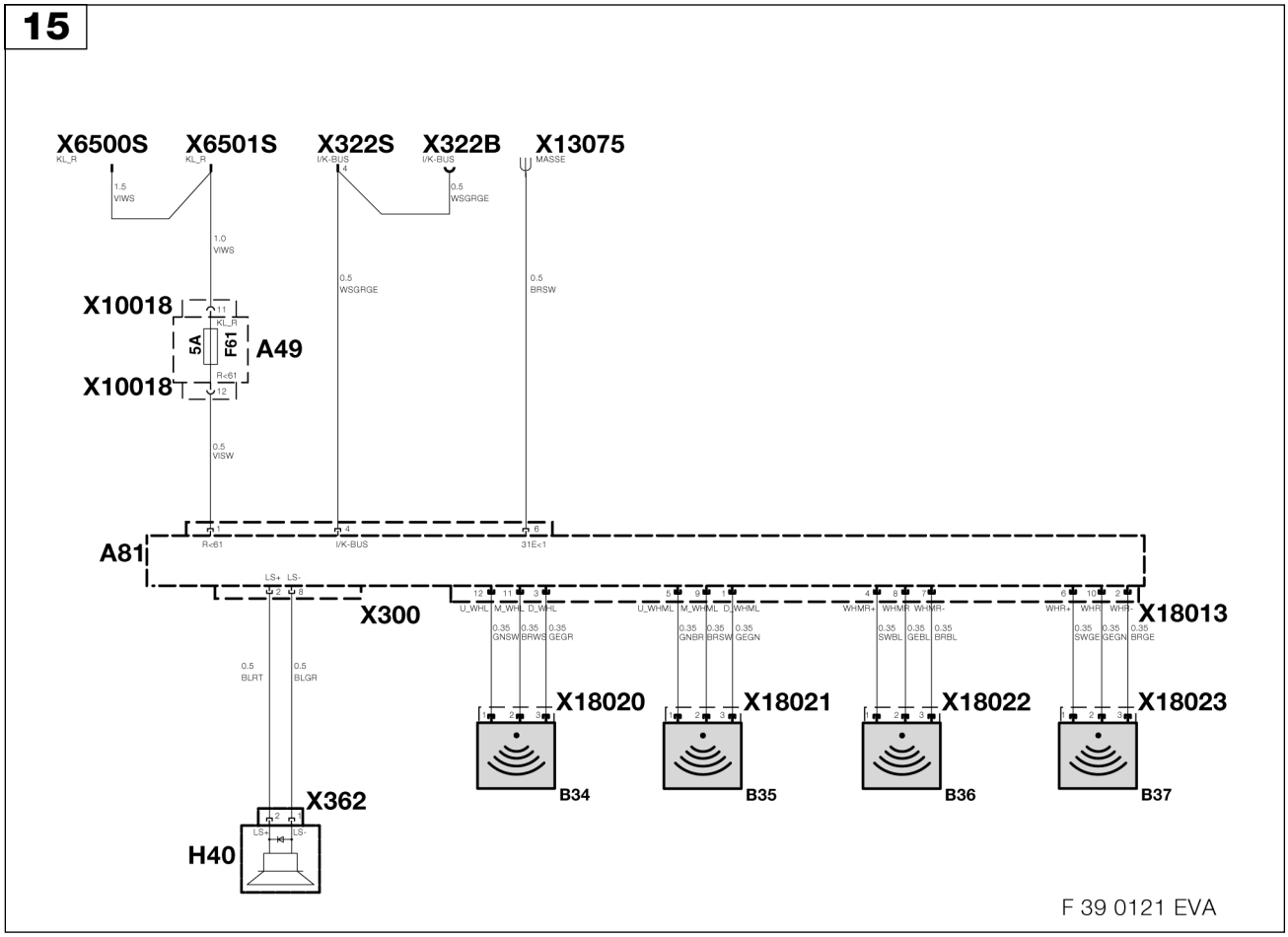
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KL_R
X322S
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X18020
X18021
X18022
X18023
B34
B35
B36
B37
X362
H40
F 39 0121 EVA