Removable Trailer Tow Hitch Retrofit (US).
BMW X3 (G01)

Installation Instructions.

**Retrofit kit number**

- 71 60 2 458 028  Electrical add-on parts retrofit kit
- 71 60 6 887 642  Trailer tow hitch with removable ball

**Installation time**
The installation time is **approx. 2.5 hours**. This may vary depending on the condition of the car and its equipment package. The installation time will increase by **approx. 0.25 hours** for cars with SA 507 or SA 508.

The installation time shown does not include any time spent on programming/coding.

The calculation of the total costs for the programming time must be factored into the calculation of retrofitting costs (must not be invoiced under the warranty).

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

These installation instructions are intended for use by qualified specialist staff trained on BMW cars with the relevant expert knowledge.

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

**If you experience installation or functional 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:

- VIN,
- 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 supplied in ASAP!

**Pictograms**

- ![Denotes instructions that draw your attention to dangers.](icon)
- ![Denotes instructions that draw your attention to special features.](icon)
- ![Denotes the end of the instruction or warning text.](icon)
Legal requirements
These installation instructions also serve as installation confirmation. They must be printed and attached to the vehicle documents and kept in the car at all times until the trailer tow hitch has been entered in the vehicle documents.

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

Additional cables/wires that are installed must be secured with cable ties. If the specified PIN chambers are occupied, bridges, double crimps, or twin-lead terminals must be used.

All illustrations show LHD (left-hand drive) cars; proceed similarly on RHD (right-hand drive) cars.

After the installation work, the retrofit must be programmed/coded via the – Retrofits – 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):

- Control unit C
- Lower rear bumper reinforcement H
- Lower rear bumper trim finisher
- Visibility protection trim finisher

Please notify the customer that the socket for the towing eye is no longer required in the course of the retrofit.

List of special equipment
The following special equipment must be used during the installation work:

SA 507  Rear Park Distance Control
SA 508  Front and rear Park Distance Control

Special tools required
Refer to the relevant ISTA/AIR repair manual for details of the special tool required.
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1. Parts list for retrofit kit

Legend
A  Retrofit wiring harness  
B  Trailer tow hitch  
C  Control unit (not supplied in the retrofit kit)  
D  Trailer tow hitch wiring harness  
E  M12x1.5 hexagon nut (4 x)  
F  Cable tie  
G  Gasket  
H  Rear lower bumper finisher reinforcement (not supplied with the retrofit kit)
2. **Preparatory work**

<table>
<thead>
<tr>
<th>Task</th>
<th>ISTA/AIR No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disconnect the negative battery cable</td>
<td>61 20 900</td>
</tr>
<tr>
<td>Release and disconnect various plug connections</td>
<td>61 13 ...</td>
</tr>
<tr>
<td>Cut, strip and crimp cables</td>
<td>61 11 ...</td>
</tr>
<tr>
<td>Open the plug housing and remove the contacts from various connection systems</td>
<td>61 13 ...</td>
</tr>
<tr>
<td>Instructions for handling wiring harnesses and cables</td>
<td>61 00 ...</td>
</tr>
<tr>
<td>Instructions for handling the documents: Repair manual, technical data, tightening torques</td>
<td>00 11 ...</td>
</tr>
</tbody>
</table>

**The following components must be removed first of all**

<table>
<thead>
<tr>
<th>Component</th>
<th>ISTA/AIR No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear bumper trim</td>
<td>51 12 156</td>
</tr>
<tr>
<td>Support for rear bumper trim (no longer required)</td>
<td>51 12 050</td>
</tr>
<tr>
<td>Bottom middle cover (no longer required)</td>
<td>---</td>
</tr>
<tr>
<td>Luggage compartment floor trim</td>
<td>51 47 102</td>
</tr>
<tr>
<td>Luggage compartment wheel arch trim, right</td>
<td>51 47 161</td>
</tr>
<tr>
<td>Loosen the rear right power distribution box</td>
<td>---</td>
</tr>
<tr>
<td>Replace lower rear bumper trim finisher</td>
<td>---</td>
</tr>
<tr>
<td>Replace visibility protection trim finisher</td>
<td>---</td>
</tr>
</tbody>
</table>
## 3. Retrofit wiring harness connection diagram

<table>
<thead>
<tr>
<th>Position</th>
<th>Designation</th>
<th>Signal</th>
<th>Cable colour/Cross-section</th>
<th>Connection location in the car</th>
<th>Abbreviation/Slot</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Retrofit wiring harness</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>A1</td>
<td>SW 8-pin socket housing</td>
<td>---</td>
<td>---</td>
<td>To branch D1</td>
<td>X268*1B</td>
</tr>
<tr>
<td>A2</td>
<td>SW 1-pin socket housing</td>
<td>---</td>
<td>---</td>
<td>To branch D2</td>
<td>X268*2B</td>
</tr>
<tr>
<td>A3</td>
<td>SW 6-pin socket housing</td>
<td>---</td>
<td>---</td>
<td>To AAG control unit C</td>
<td>A255*2B</td>
</tr>
<tr>
<td>A4</td>
<td>SW 10-pin socket housing</td>
<td>---</td>
<td>---</td>
<td>To AAG control unit C</td>
<td>A255*3B</td>
</tr>
<tr>
<td>A5</td>
<td>SW 24-pin socket housing</td>
<td>---</td>
<td>---</td>
<td>To AAG control unit C</td>
<td>A255*1B</td>
</tr>
<tr>
<td>A6</td>
<td>SW 8-pin plug housing</td>
<td>---</td>
<td>---</td>
<td>On the preparation plug X18 in the rear right side of the luggage compartment</td>
<td>X18*1S</td>
</tr>
<tr>
<td>A7</td>
<td>Eyelet</td>
<td>Terminal 31</td>
<td>BR 2.5 mm²</td>
<td>Rear right luggage compartment ground support point Z10</td>
<td>Z10*46B</td>
</tr>
<tr>
<td>D</td>
<td>Trailer tow hitch wiring harness</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>X23</td>
</tr>
<tr>
<td>D1</td>
<td>SW 8-pin plug housing</td>
<td>---</td>
<td>---</td>
<td>To branch A1</td>
<td>X268*1S</td>
</tr>
<tr>
<td>D2</td>
<td>SW 1-pin plug housing</td>
<td>---</td>
<td>---</td>
<td>To branch A2</td>
<td>X268*2S</td>
</tr>
</tbody>
</table>
4. Installation and cabling diagram

A  Retrofit wiring harness
B  Trailer tow hitch
C  Control unit
D  Trailer tow hitch wiring harness

1  Grommet
2  Ground support post Z10*14B
3  Connector X18*1B
5. Installing the trailer tow hitch and connecting the retrofit wiring harness

- **Note** the tightening torque value: 108 Nm.

  Place the seal **G** between the car and the trailer tow hitch **B** before installation.

  Secure the trailer tow hitch **B** with hexagon nut **E**.

- **Make sure** that no cables behind drilling point are damaged when you drill the holes.

  Remove the rubber grommet (1).

  Drill a hole in the rubber grommet (1) on the embossed mark (2) with a 7 mm drill bit.

  Cut the rubber grommet (1) at the cutting point (3).

  Route branches **A3-A7** through the cut rubber grommet (1) into the interior of the car.

  Seal the rubber grommet (1) and insert it in the opening so that it is watertight.

  Secure retrofit wiring harness **A** to the standard vehicle wiring harness using cable ties **F**.

  Install lower rear bumper reinforcement **H** on trailer tow hitch **B** with the fastening material available.
5. Installing the trailer tow hitch and connecting the retrofit wiring harness

Insert trailer tow hitch wiring harness D in trailer tow hitch B.

Connect branches A1-A2 to branches D1-D2. Insert lugs of plug connections into trailer tow hitch B.

Secure trailer tow hitch wiring harness D using cable ties F.

Connect branches A3-A5 to AAG control unit C. Plug control unit AAG C into the control unit holder (1).

Screw branches A7 onto ground support point Z10*46B.

Connect branch A6 to preparation plug Z18*1B in the rear of the luggage compartment.
6. **Concluding work and coding**

The retrofit system requires programming/coding.

- Connect the battery
- Connect the battery charger to the car
- Connect the car to the ISTA workshop system
- Open the ISTA car programming system
- Please refer to the instructions provided in the ISTA application documentation for working with ISTA
- Select the "Removable trailer tow hitch" retrofit using the – **Retrofits** – path and work through the action plan created
- If necessary, carry out a vehicle test using the ISTA system, and note, or work through, any errors that has been recorded
- Conduct a function test
- Re-assemble the car
- Print out the customer information and give it to the customer
Legend

- **A1***: SW 8-pin socket housing, plug X268*1B, to branch D1*
- **A2***: SW 1-pin socket housing, plug X268*2B, to branch D2*
- **A3***: SW 6-pin socket housing, plug X255*2B to AAG control unit D*
- **A4***: SW 10-pin socket housing, plug X255*3B to AAG control unit D*
- **A5***: SW 24-pin socket housing, plug X255*1B to AAG control unit D*
- **A6***: SW 8-pin pin housing X255*1S, to preparation plug X18*1B in the rear right side of the luggage compartment
- **A7***: M6 ring eyelet, to ground connection Z10*46B
- **D1***: SW 8-pin pin housing, plug X268*1S, to branch A1*
- **D2***: SW 1-pin pin housing, plug X268*2S, to branch A2*
- **C***: AAG control unit
- **D***: Trailer tow hitch wiring harness

**VB31L***: Terminal 31L connector

All of the designations marked with * apply only to these installation instructions or this wiring diagram.

**Cable colours**

<table>
<thead>
<tr>
<th>Code</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>Blue</td>
</tr>
<tr>
<td>BO</td>
<td>Bordeaux</td>
</tr>
<tr>
<td>BR</td>
<td>Brown</td>
</tr>
<tr>
<td>GE</td>
<td>Yellow</td>
</tr>
<tr>
<td>GN</td>
<td>Green</td>
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<tr>
<td>BO</td>
<td>Bordeaux</td>
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<td>BR</td>
<td>Brown</td>
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<td>RT</td>
<td>Red</td>
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<tr>
<td>SW</td>
<td>Black</td>
</tr>
<tr>
<td>TR</td>
<td>Transparent</td>
</tr>
<tr>
<td>VI</td>
<td>Violet</td>
</tr>
<tr>
<td>WS</td>
<td>White</td>
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</tbody>
</table>

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01 29 2 458 001
11/2018
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