

Original BMW Parts and Accessories.

Installation Instructions.



Carbon-Ceramic Brake Retrofit.

BMW M3 Saloon (G80)

BMW M4 Coupe (G82)

Installation instructions are only valid for cars with at least 19" wheels (including winter tyres).

Retrofit kit number

34 10 8 855 466 Carbon-ceramic brake retrofit kit

Installation time

The installation time is **approx. 3.0 hour**. This may vary depending on the condition of the car and its equipment package.

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, please send an inquiry to the technical parts support team.

Quote the following information:

- VIN,
- retrofit kit part number,
- a detailed description of the problem,
- any work already carried out.

Please do not archive the printout of these installation instructions. The current version can be found in the EPC (electronic parts catalogue).

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 other text.

Important instructions on handling carbon-ceramic brakes



The instructions in **ISTA/AIR document 34 00 ...** on handling carbon-ceramic brakes must be followed.

Customer information

Print out the "Customer information" section at the end of the installation instructions and give it to the customer.

Installation information

All illustrations show LHD cars; proceed in the same way on RHD cars.

The installation work is described at the front on the left-hand side and at the rear on the right-hand side. Proceed in the same way on the other side.

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

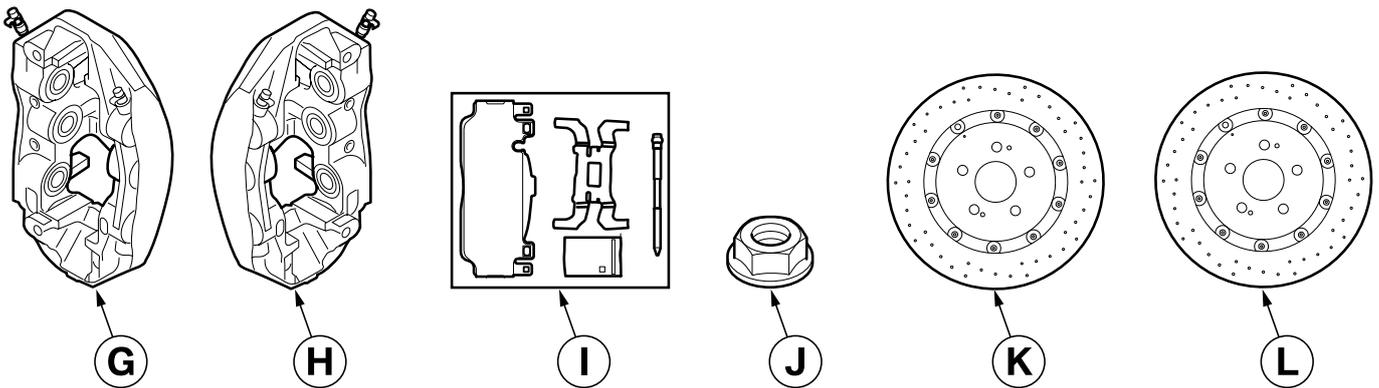
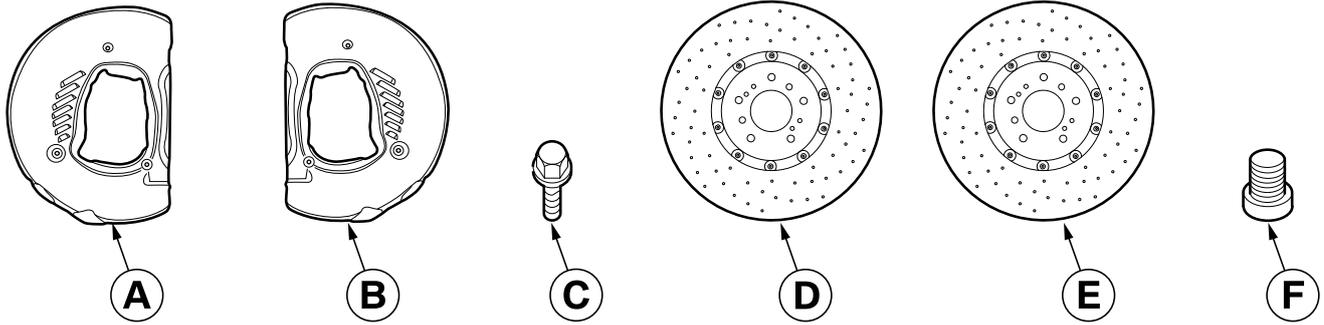
Special tools required

Refer to the relevant ISTA/AIR repair manual for details of the special tool required.

Table of contents

| Section | Page |
|---|------|
| 1. Parts list | 4 |
| 2. Preparatory work | 6 |
| 3. Installation work at the front | 7 |
| 4. Installation work at the rear | 8 |
| 5. Concluding work and coding | 9 |
| 6. Customer information | 10 |

1. Parts list

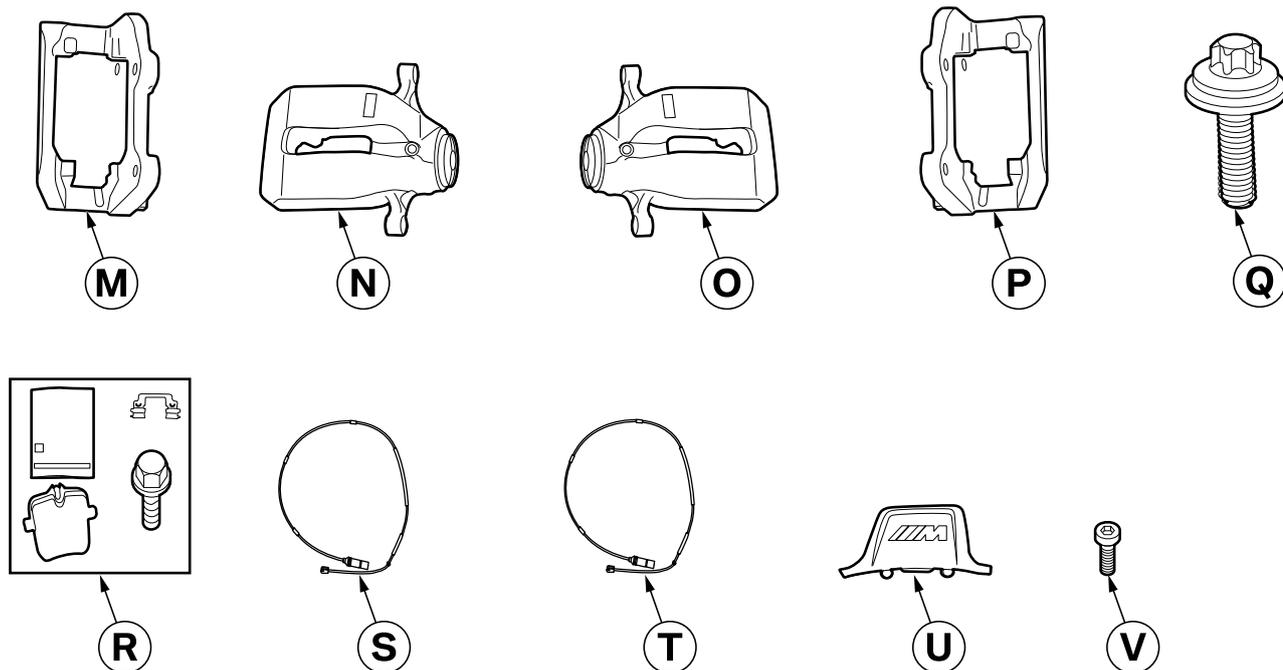


G80 0046 Z

Legend

- A** Protective plate, left
- B** Protective plate, right
- C** M6 hexagon screw x 12 mm (6 x)
- D** Front left brake disc
- E** Front right brake disc
- F** Hexagon socket bolt M8 x 12 mm (8 x)
- G** Front left brake calliper housing
- H** Front right brake calliper housing
- I** Front brake pad repair kit
- J** M12 x 1.5 hexagon nut with flange (4 x)
- K** Rear left brake disc
- L** Rear right brake disc

1. Parts list



G80 0047 Z

Legend

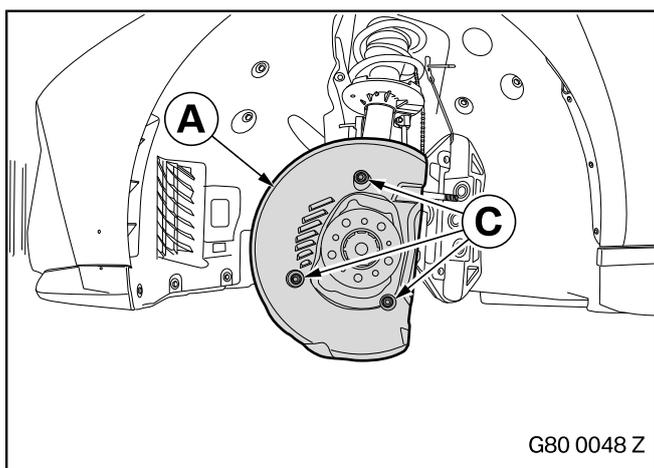
- M** Rear left brake bracket
- N** Rear left brake calliper housing
- O** Rear right brake calliper housing
- P** Rear right brake bracket
- Q** Torx screw with washer M10 x 43 mm (4 x)
- R** Rear brake pad repair kit
- S** Front brake pad wear sensor
- T** Rear brake pad wear sensor
- U** Design clip (2 x)
- V** Hexagon socket bolt M6 x 14 mm (4 x)

2. Preparatory work

| | ISTA/AIR No. |
|--|--------------|
| Release and disconnect various plug connections | 61 13 ... |
| Cut, strip and crimp cables | 61 11 ... |
| Open the plug housing and remove the contacts from various connection systems | 61 31 ... |
| Instructions for handling wiring harnesses and cables | 61 00 ... |
| Instructions for handling the documents: Repair manual, technical data, tightening torques | 00 11 ... |
| The following components must be removed first of all | |
| Both front brake callipers and brake pads (no longer required) | 34 11 ... |
| Remove both front brake discs (no longer required) | 34 11 220 |
| Remove both front protective plates (the protective plates are no longer required) | 34 11 250 |
| Both rear brake callipers and brake pads (no longer required) | 34 21 220 |
| Both rear brake discs (no longer required) | 34 21 320 |

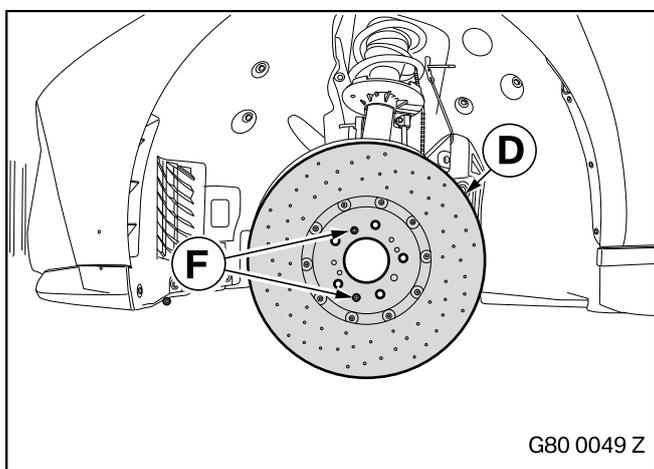
3. Installation work at the front

▶ The installation steps are shown on the left-hand side of the car only, proceed in the same way on the right-hand side of the car. ◀



▶ Tightening torque for hexagon screw **C**: 8 Nm. ◀

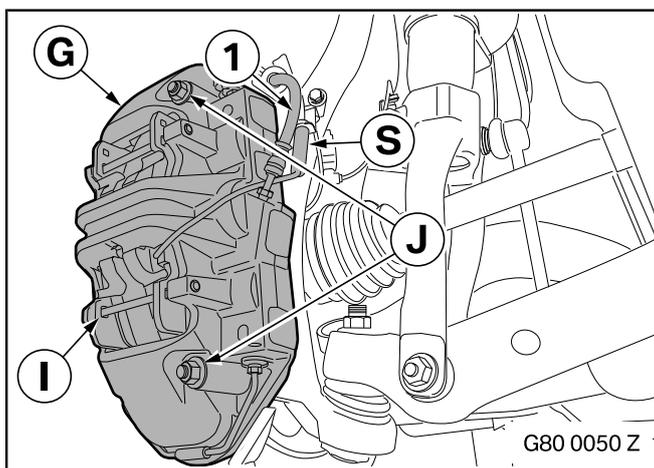
Install the left protective plate **A** using hexagon screw **C** as described in **ISTA/AIR 34 11 250**.



⚠ Comply with the running direction of the brake discs.
The instructions in **ISTA/AIR document 34 00 ...** on handling carbon-ceramic brakes must be followed.

▶ Tightening torque for hexagon socket bolt **F**: 16 Nm. ◀

Install the front left brake disc **E** using hexagon socket bolt **F** as described in **ISTA/AIR 34 11 220**.



▶ Tightening torque for hexagon nuts **J**: 95 Nm. ◀

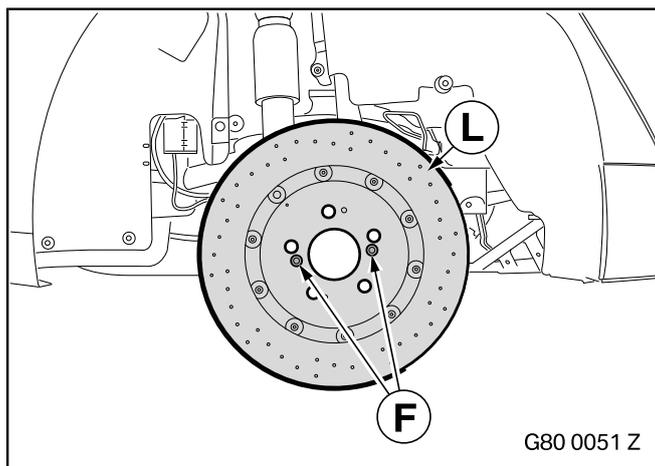
Install the front left brake calliper housing **G** and front brake pad repair kit **I** using hexagon nuts **J** as described in **ISTA/AIR 34 11 ...**

Secure the brake hose (1) as described in **ISTA/AIR No. 34 32 881**.

Connect the brake pad wear sensor **S** as described in **ISTA/AIR 34 11 ...**

4. Installation work at the rear

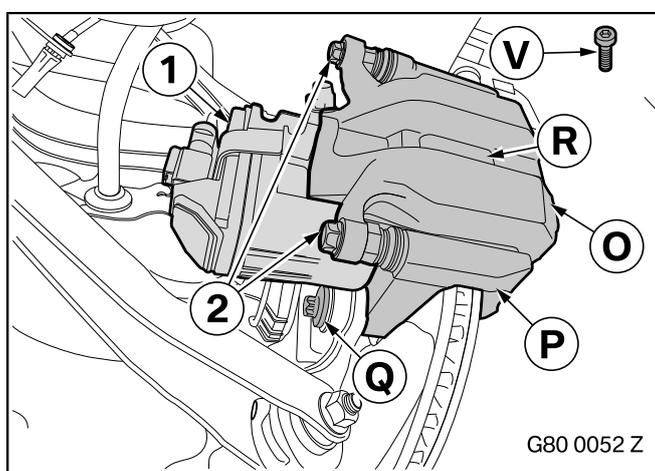
- ☐ The installation process is described only on the right-hand side of the car; proceed in the same way on the left-hand side of the car. ◀



- ⚠ Comply with the running direction of the brake discs. Comply with the instructions in **ISTA/AIR document 34 00 ...** On handling carbon-ceramic brakes.

- ☐ Tightening torque for hexagon socket bolt **F**: 16 Nm. ◀

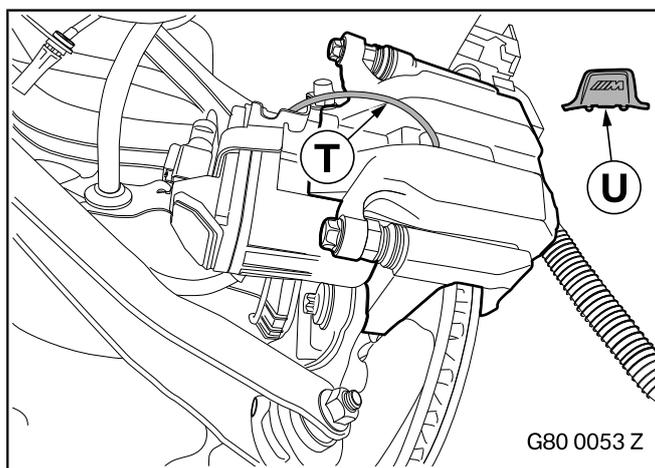
Install rear left brake disc **L** using hexagon socket bolt **F** as described in **ISTA/AIR 34 21 320**.



- ☐ Tightening torque for the Torx screw **Q**: 130 Nm. ◀

- ☐ Tightening torque for the hexagon screw (2) from the repair kit **R**: 35 Nm. ◀

Install the rear right brake calliper housing **O** with EMF actor (1), hexagon socket bolt **V**, brake bracket **P**, repair kit **R** and Torx screw **Q** as described in **ISTA/AIR 34 21 ...**



Connect the brake pad wear sensor **T** and design clip **U** as described in **ISTA/AIR 34 21 ...**

5. Concluding work and coding

Bleed the brake system as described in **ISTA/AIR No. 34 00 046** and reassemble the car.

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 "Carbon-ceramic brake" retrofit via the – **Retrofits** – path and work through the created action plan
- If necessary, carry out a vehicle test using the ISTA system, and note, or work through, any errors that have been recorded
- Carry out a function test as described in **ISTA/AIR 34 00 ...** Follow the **general instructions on running-in new carbon-ceramic brake discs**
- Give the customer the customer information

6. Customer information



Safety information

The car must be run in carefully during the first 200 km after the brake system has been installed!

The brake system will achieve its full potential after this running-in period.

The design characteristics of the carbon-ceramic brake mean that functional noises may occur when braking; however, these have no effect on the stability of the brake discs.

The carbon-ceramic brake may only be used with at least 19" light alloy wheels (including winter tyres). ◀