

Original BMW Accessories.

Installation Instructions.



18" M Performance Brake System retrofit Front and rear axle with alloy sport brake discs, perforated and grooved F20, F21, F22, F23, F30, F31, F32, F33, F34, F36

Retrofit kit only matches authorised wheels (see section 7).

Retrofit kit number

34 11 2 221 445 Front axle and rear axle sport brake retrofit kit - **red paint**
34 11 2 221 446 Front axle and rear axle sport brake retrofit kit - **yellow paint**
34 11 2 221 447 Front axle and rear axle sport brake retrofit kit - **orange paint**

Only in conjunction with

34 21 6 797 598 Rear axle sport brake disk, small wheel bearing (2 x)
(For the vehicle assignment, see the latest information in the EPC).

or

34 21 6 797 600 Rear axle sport brake disk, large wheel bearing (2 x)
(For the vehicle assignment, see the latest information in the EPC).

Installation time

The installation time is **approx. 3.5 hours**. This may vary, depending on the condition of the car and the equipment in it.

The installation time specified does 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

Customer information G (part no. 01 29 2 230 088) must be given to the customer.

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, an inquiry is to be sent straight away to the technical parts support 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.

Note for the customer (important documents and information for the customer)

The workshop certificate (see appendix) must be completed and given to the customer with customer information **G** and the TÜV parts report.

The customer must be told that national acceptance and a modification of the vehicle's paperwork is necessary since the brake system changes in the data relevant for the approval. Correct installation must be confirmed by an officially-approved expert or examiner. No suitable winter tyres are available for the 2 Series Convertible (F23) with 220i, 220d, 225d engines.



Run the M Performance brake system in carefully for the first 200 km. After this, the full sporty characteristics of the brake system can develop. ▶



The design characteristics of the drilled and grooved brake disks mean that functional noises may occur when braking that have no influence on the stability of the brake system. ▶

Ordering instructions

For the vehicle assignment, see the latest information in the EPC.

Special tools required

34 1 050, brake piston tool

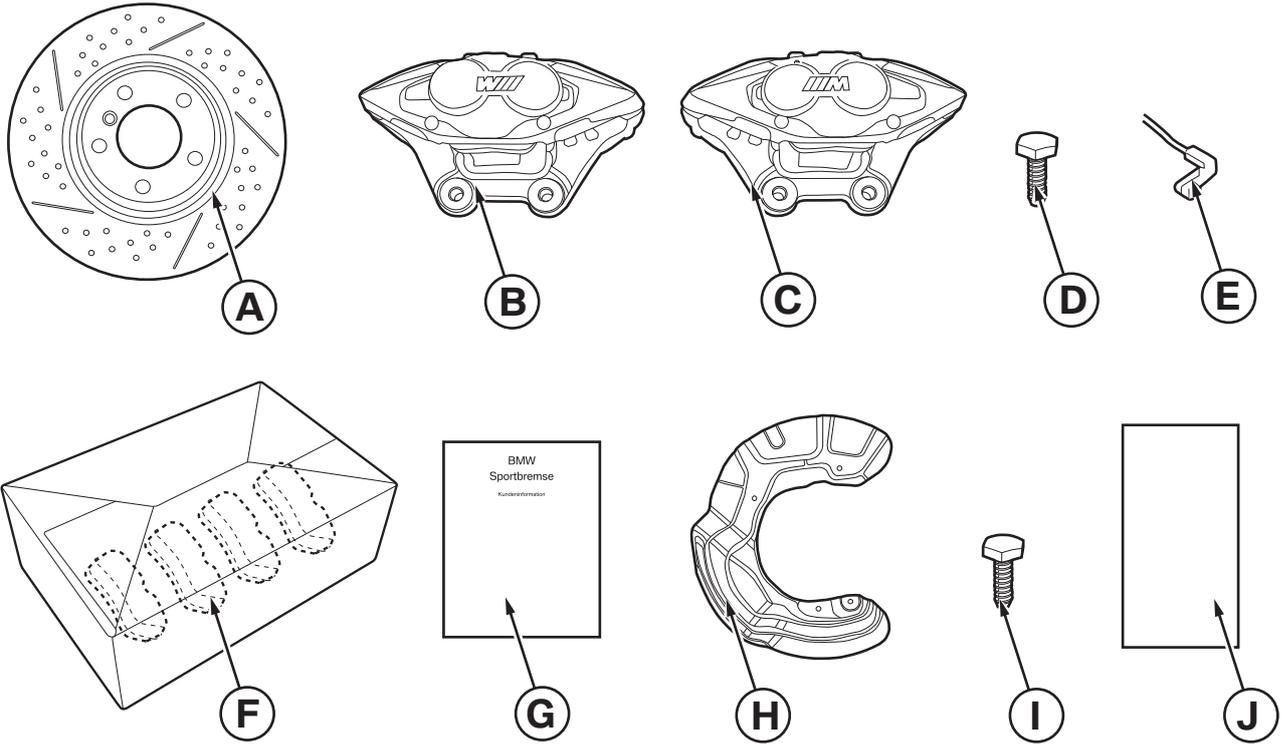
Installation information

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

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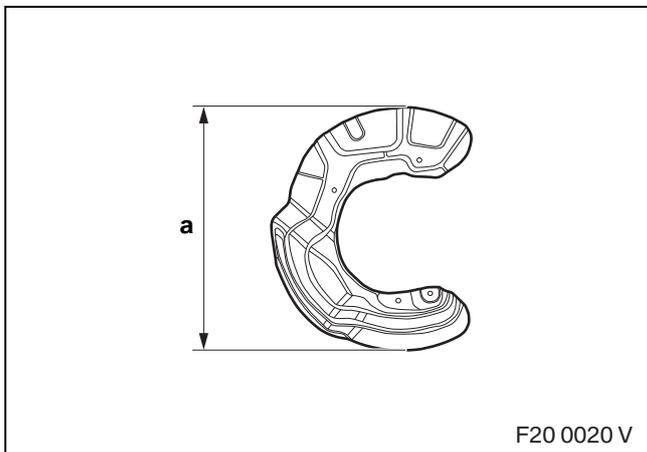
1. Front axle parts list



F20 0014 V

Legend

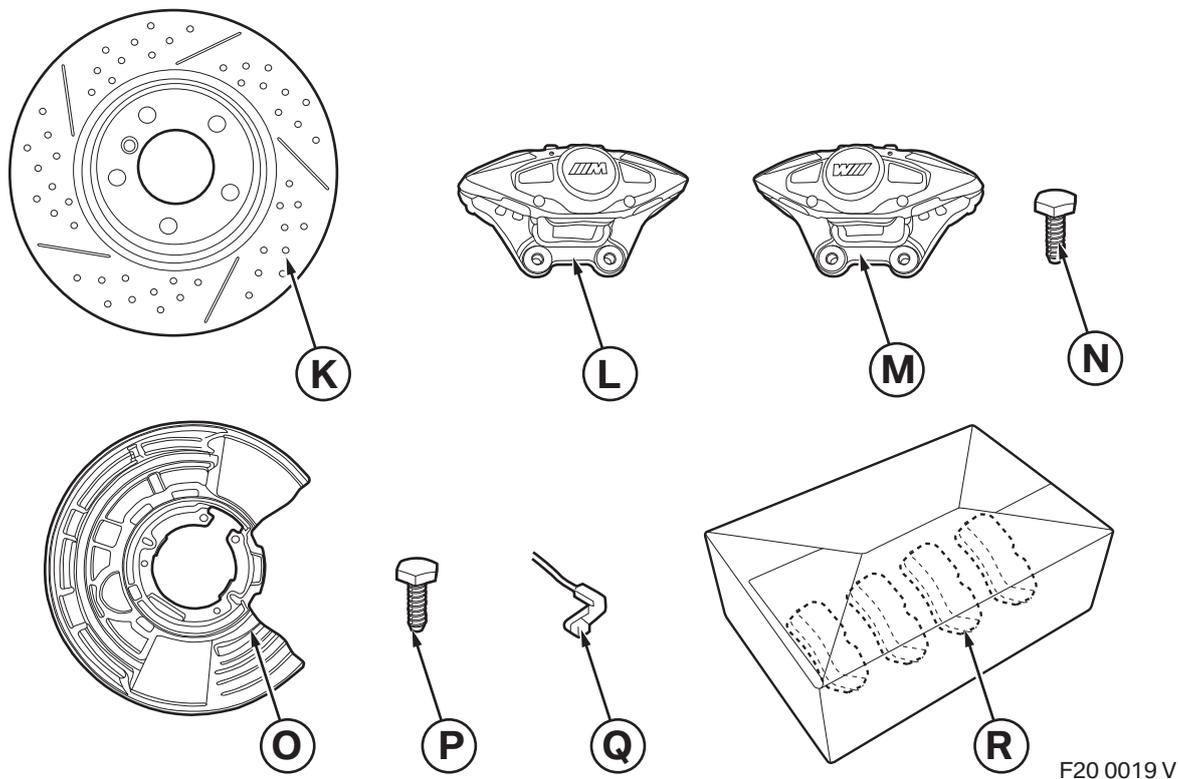
- A** Lightweight-construction front brake disk, drilled and grooved (2 x)
- B** Front left brake calliper
- C** Front right brake calliper
- D** Brake calliper hexagon screw (4 x)
- E** Front brake pad wear sensor
- F** Front brake pad (1 set)
- G** Customer information
- H** Front brake guard plate (2 x) *
- I** Hexagon screw for brake guard plate (8 x)
- J** Brake pad paste (2 x)



F20 0020 V

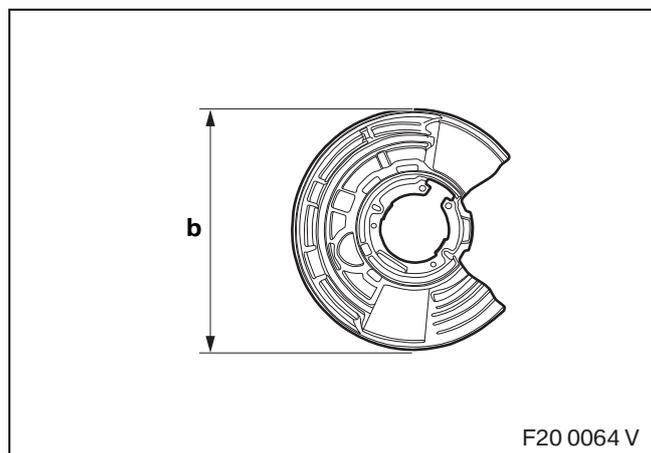
* Front brake guard plate **H** is only required if 16" brake guard plate with a diameter of **a = 320 mm** is installed.

2. Rear axle parts list



Legend

- K** Lightweight-construction rear brake disk drilled and grooved **(not included with the parts kit, must be ordered separately, for instructions see EPC)** (2 x)
- L** Rear left brake calliper
- M** Rear right brake calliper
- N** Brake calliper hexagon screw (4 x)
- O** Rear brake guard plate (2 x) *
- P** Hexagon screw for brake guard plate (8 x)
- Q** Rear brake pad wear sensor
- R** Rear brake pad (1 set)



* Rear brake guard plate **O** is only required if 16" brake guard plate with small wheel bearing and a diameter of **b = 330 mm** is installed.

3. Preparatory work

	ISTA No.
Conduct a brief test	---
Disconnect the negative pole of the battery	12 00 ...
The following components must be removed first of all	
Front and rear wheel	36 10 300
Front brake pad wear sensor	34 35 001
Front brake pads	34 11 000
Front brake calliper (only for Brembo brakes)	34 11 520
Front brake disc	34 11 220
Front brake guard plate (only for 16" brake guard plate of diameter 320 mm)	34 11 250
Rear brake pad wear sensor	34 35 003
Rear brake pads	34 21 200
Rear brake calliper	34 21 745
Rear brake disk	34 21 320
Check the existing brake guard plate!	
Only in the case of a small wheel bearing and 16" guard plate of diameter 330 mm are the following steps carried out:	
Replace the handbrake pad	34 41 220
Remove rear brake guard plate.	---
Loosen the screws, cut the brake guard plate with suitable tools and remove it from the car via the driver flange hub.	
 The retaining ring remains in the car. ◀	

4. Front axle installation work

Only for cars if 16" brake guard plate of diameter 320 mm was installed:

Install front brake guard plate **H** with hexagon screws **I** as per ISTA No. **34 11 250**.

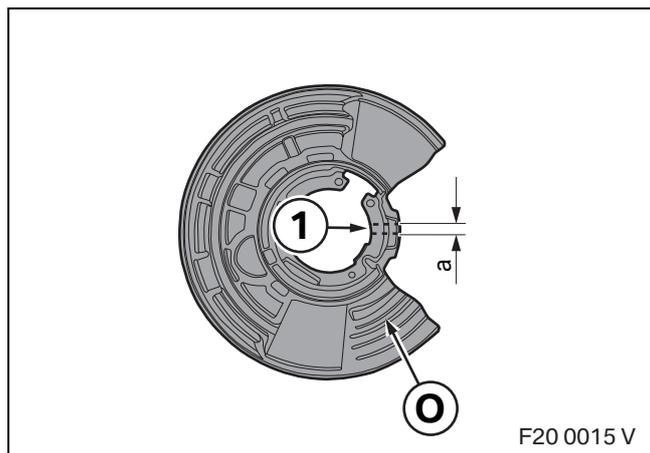
For all cars:

Install the following parts as per the ISTA No.:

- Install front lightweight-construction brake disks **A** as per ISTA No. **34 11 220**.
- Install front brake pads **F** using brake pad paste **J** as per ISTA No. **34 11 000**.
- Install front brake callipers **B** and **C** with hexagon screws **D** as per ISTA No. **34 11 519**.
- Install front brake pad wear sensor **E** as per ISTA No. **34 35 001**.

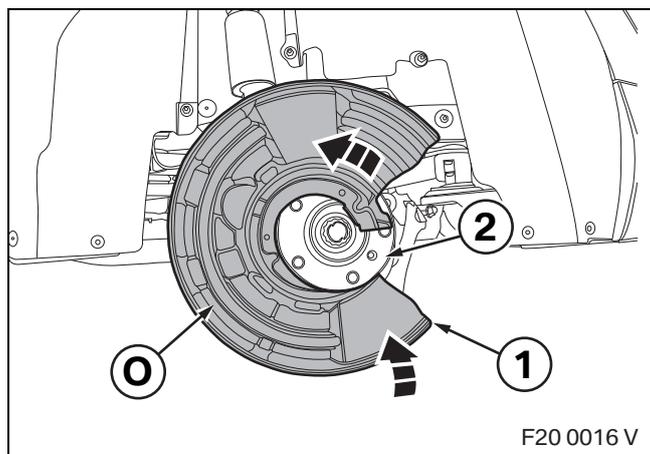
5. Rear axle installation work

Only for cars if 16" brake guard plate was installed:

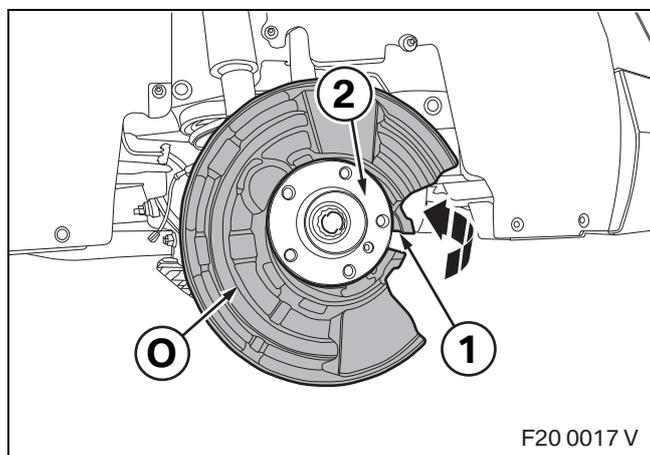


Create two full-thickness cuts in brake guard plate **O** in the centre in the brake calliper cut-out (1) using suitable tools at a distance of **a = approx. 10 mm**.

▶ Treat the cut edges with conventional BMW anti-corrosion protection. ◀

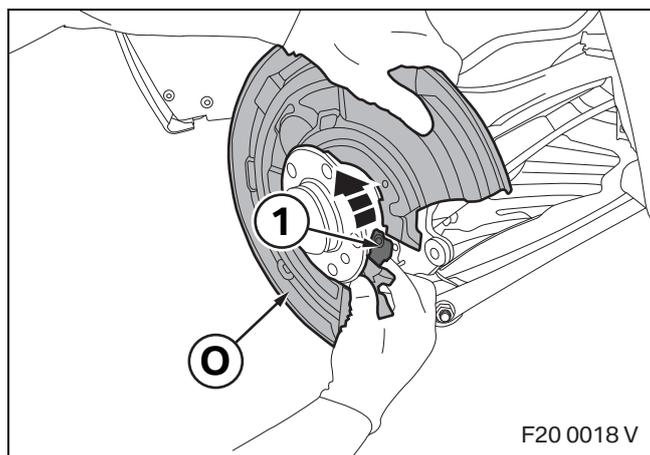


Push the end (1) of brake guard plate **O** from underneath below the driver flange hub (2), then turn brake guard plate **O** to the left.



Press the end (1) of brake guard plate **O** over the driver flange hub (2).

▶ Re-straighten any bent parts if necessary. ◀



Thread the retaining ring (1) through the hole in brake guard plate **O** and continue to turn it until the retaining ring (1) is fully in front of brake guard plate **O**.

Tighten brake guard plate **O** onto the axle with hexagon screws **P**.

▶ The handbrake pad is installed as per ISTA No. **34 41 220**. ◀

5. Rear axle installation work

For all cars:

Install the following parts as per the ISTA No.:

- Install rear lightweight-construction brake disks **K** as per ISTA No. **34 11 220**.
- Install rear brake pads **R** as per ISTA No. **34 11 000**.
- Install rear brake callipers **L** and **M** with hexagon screws **N** as per ISTA No. **34 11 519**.
- Install rear brake pad wear sensors **Q** as per ISTA No. **34 35 001**.

6. Concluding work and coding

The retrofit system requires coding.

- Connect the battery
- De-aerate the brake system as per ISTA No. **34 00 050**
- Fit the front and rear wheels as per ISTA No. **36 10 300**
- Encode the retrofit with the Software Service Station (SSS) via the – **Retrofit/Sport Brake** – path
- Conduct a brief test
- Conduct a function test
(Please see ISTA No. **34 00 ...** General Instructions on Running In New Brake Disks/Brake Pads).

The workshop certificate (see appendix) must be completed and given to the customer with customer information **G** and the TÜV parts report.

The customer must be told that national acceptance and a modification of the vehicle's paperwork since the brake system changes in the data relevant for the approval. Correct installation must be confirmed by an officially-approved expert or examiner.

-  Important information for the customer: Run the M Performance brake system in carefully for the first 200 km. After this, the full sporty characteristics of the brake system can develop. ◀
-  The design characteristics of the drilled and grooved brake disks mean that functional noises may occur when braking that have no influence on the stability of the brake system. ◀

7. Approved wheels

 After the 18" M Performance brake system is installed, only Original BMW alloy wheels larger than or equal to 18" can be used. This also applies for winter wheels.

Important: No suitable winter tyres are available for the 2 Series Convertible (F23) with 220i, 220d, 225d engines. Please refer to the EPC for the current status of which wheels can be fitted. ◀



Workshop certificate

The M Performance brake system has been installed according to Installation Instruction No. 01 29 2 230 090.

TÜV parts report

For F2x cars,

part number **01 29 2 231 936** (available via ASAP) applies

includes TÜV parts report No. **11-00492-CP-GBM-...** (including all subsequent entries).

For F3x cars,

part number **01 29 2 231 938** (available via ASAP) applies

includes TÜV parts report No. **11-00491-CP-GBM-...** (including all subsequent entries).

"Sport brake retrofit" coding has been carried out.

Car model: _____

Vehicle identification no.: _____

Parts kit no.: _____

Name and address of the vehicle owner: _____

Place, date

Signature of person responsible