BMW Motorrad

Rider's manual

S 1000 RR

Vehicle data/dealership details

Vehicle data

Model

Vehicle Identification Number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

Welcome to BMW

We congratulate you on your choice of a vehicle from BMW Motorrad and welcome you to the community of BMW riders. Familiarise yourself with your new vehicle so that you can ride it safely and confidently in all traffic situations.

About this Rider's Manual

Please read this Rider's Manual carefully before starting to use your new BMW. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features. In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.
This record of the maintenance work you have had performed on your vehicle is a precondition for generous treatment of goodwill claims.
If the time comes to sell your BMW, please remember to hand over this Rider's Manual to the new owner. It is an important part of the vehicle.

Suggestions and criticism

If you have questions concerning your vehicle, your authorised BMW Motorrad dealer will gladly provide advice and assistance.

We hope you will enjoy riding your BMW and that all your journeys will be pleasant and safe

BMW Motorrad.

01 40 9 899 561

Table of Contents

General instructions

Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle.
All maintenance and servicing work on the motorcycle is documented in the “Service” section. This record of the maintenance work you have had performed on your vehicle is a precondition for generous treatment of goodwill claims.
When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols

CAUTION Low-risk hazard. Non-avoidance can lead to slight or moderate injury.

WARNING Medium-risk hazard. Non-avoidance can lead to fatal or severe injury.

DANGER High-risk hazard. Non-avoidance leads to fatal or severe injury.

ATTENTION Special notes and precautionary measures. Non-compliance can lead to damage to the vehicle or accessory and, consequently, to voiding of the warranty.

NOTICE Specific instructions on how to operate, control, adjust or look after items of equipment on the vehicle.

◀ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

Reference to a page with more detailed information.

◁ Indicates the end of a passage relating to specific accessories or items of equipment.

Tightening torque.

Technical data.

NV National-market version.

OE Optional extras.
The vehicles are assembled complete with all the BMW Motorrad optional extras originally ordered.

OA Optional accessories. You can obtain BMW Motorrad optional accessories through your authorised BMW Motorrad dealer; optional accessories have to be retrofitted to the vehicle.

EWS Electronic immobiliser.

DWA Anti-theft alarm (Diebstahlwarnanlage).

ABS Anti-lock brake system.

DDC Dynamic Damping Control.

DTC Dynamic Traction Control.

Equipment

When purchasing your BMW motorcycle, you chose a model with individual equipment. This rider's manual describes optional equipment (OE) and selected optional accessories (OA) provided by BMW. Please make allowance for the fact that some equipment specifications may be described that you have not selected. Equally, country-specific deviations to the motorcycle shown are also possible.
If your motorcycle has equipment that is not described, you will find the relevant description in a separate manual.

Technical data

All dimensions, weights and power outputs in the rider's manual refer to the German standard DIN (Deutsches Institut für Normung e. V.) and comply with its specified tolerances. Technical data and specifications in this rider's manual serve as reference points. The vehicle-specific data may deviate from these, for example as a result of selected optional equipment, the national-market version or country-specific measuring procedures. Detailed values can be taken from the vehicle registration documents and signs on the vehicle, or can be obtained from your authorised BMW Motorrad Retailer or another qualified service partner or specialist workshop. The specifications in the vehicle documents always have priority over the information provided in this rider's manual.

Currentness

The high safety and quality level of BMW motorcycles is ensured by constant further development in the areas of design, equipment and accessories. This may result in deviations between these operating instructions and your motorcycle. Also, mistakes cannot be completely excluded by BMW Motorrad. Please therefore understand that we do not accept any liability for claims arising from incorrect information, drawings and descriptions.

Additional sources of information

BMW Motorrad Retailer

Your BMW Motorrad Retailer will be happy to answer any questions you may have.

Internet

The rider's manual for your vehicle, operating and installation instructions for any accessories and general information on BMW Motorrad, for example relating to technology, are available at **www.bmw-motorrad.com/service**.

Certificates and operating licences

The certificates for the vehicle and the official operating licences for any accessories are available at **www.bmw-motorrad.com/certification**.

Data memory

General

Control units are installed in the vehicle. Control units process data that they receive, for example, from vehicle sensors, or that they generate themselves or exchange between each other. Some control units are required for the vehicle to function safely or provide assistance during riding, for example assistance systems. In addition, control units enable comfort or infotainment functions.

Information on data that has been stored or exchanged can be obtained from the manufacturer of the vehicle, for example via a separate booklet.

Personal reference

Each vehicle is identified with a clear vehicle identification number. Depending on the country, the vehicle identification number, the number plate and the corresponding authorities can be referenced to ascertain the vehicle owner. There are also other ways to use data obtained from the vehicle to trace the rider or vehicle owner, for example

using the ConnectedDrive user account.

Data protection rights

In accordance with applicable data protection laws, vehicle users have certain rights in relation to the manufacturer of the vehicle or in relation to companies which collect or process personal data.

Vehicle users have the right to obtain full information at no cost from persons or entities storing personal data of the vehicle user. These entities may include:

– Manufacturer of the vehicle
– Qualified service partners
– Specialist workshops
– Service providers

Vehicle users have the right to request information on what personal data has been stored, for what purpose the data is used, and where the data comes from. To obtain this information, proof of ownership or use is required. The right to information also includes information about data that has been shared with other companies or entities.

The website of the vehicle manufacturer contains the applicable data protection information. This data protection information includes information on the right to have data deleted or corrected. The manufacturer of the vehicle also provides their contact details and those of the data protection officer on their website.

The vehicle owner can also request that a BMW Motorrad Retailer or another qualified service partner or specialist workshop read out the data that is stored in the vehicle for a charge.

The vehicle data is read out using the legally prescribed socket for on-board diagnosis (OBD) in the vehicle.

Legal requirements for the disclosure of data

As part of its legal responsibilities, the manufacturer of the vehicle is obligated to make its stored data available to the relevant authorities. This data is provided in the required scope in individual cases, for example to clarify a criminal offence.

In the context of applicable laws, public agencies are entitled in individual cases to read out data from the vehicle themselves.

Operating data in the vehicle

Control units process data to operate the vehicle.

This includes, for example:

– Status reports of the vehicle and its individual components, for example wheel revolutions, wheel speed, deceleration

– Environmental conditions, for example temperature

The data is only processed in the vehicle itself and is generally non-permanent. The data is not stored beyond the operating period.
Electronic components, for example control units, contain components for storing technical information. Information can be temporarily or permanently stored on the vehicle condition, component loads, incidents or errors. This information is generally used to document the condition of a component, a module, a system or the surrounding area, for example:

– Operating conditions of system components, for example filling levels, tyre pressure
– Malfunctions and faults in important system components, for example light and brakes
– Response of the vehicle in special riding situations, for example engagement of the driving dynamics systems
– Information on incidents resulting in damage to the vehicle

The data is necessary for the provision of control unit functions. Furthermore, the data is used to detect and rectify malfunctions and to enable the vehicle manufacturer to optimise vehicle functions.
The vast majority of this data is non-permanent and is only processed in the vehicle itself. Only a small amount of the data is stored in incident or fault memories as required by events.
If services are accessed, for example repairs, service processes, warranty cases and quality assurance measures, this technical information can be read out of the vehicle together with the vehicle identification number.
The information can be read out by a BMW Motorrad Retailer or another qualified service partner or specialist workshop. The legally stipulated socket for on-board diagnosis (OBD) in the vehicle is used to read out the data.
The data is obtained, processed and used by the relevant parts of the retailer network. The data is used to document the technical conditions of the vehicle, to help with error localization, to comply with warranty obligations and to improve quality.
In addition, the manufacturer has various product monitoring obligations arising from product liability legislation. To meet these obligations, the vehicle manufacturer requires technical data from the vehicle. The data from the vehicle can also be used to

check warranty claims from the customer.
Error and incident memories in the vehicle can be reset during servicing or repair work by a BMW Motorrad Retailer or another qualified service partner or specialist workshop.

Data input and data transfer in the vehicle

General

Depending on the equipment, comfort and customised settings can be stored in the vehicle and can be changed or reset at any time.
This includes, for example:
– Chassis and suspension settings

If required, data can be entered in the entertainment and communication system of the vehicle, for example using a smartphone.

Depending on the individual equipment, this includes:
– Multimedia data, such as music for playback
– Contacts data for use in connection with a communication system or an integrated navigation system
– Entered destinations
– Data on the use of internet services. This data can be stored locally in the vehicle or is located on a device that is connected to the vehicle, for example smartphone, USB stick, MP3 player. If this data is stored in the vehicle, the data can be deleted at any time.

This data is transferred to third parties only if personally requested within the context of using online services. This depends on the selected settings when using the services.

Incorporation of mobile end devices

Depending on the equipment, mobile end devices connected to the vehicle, for example smartphones, can be controlled using the operating elements of the vehicle.
The image and sound of the mobile end device can then be output via the multimedia system. At the same time, specific information is transferred to the mobile end device. Depending on the type of integration, this includes, for example, position data and additional general vehicle information. This enables optimal use of the selected apps, for example navigation or music playback.
The type of additional data processing is determined by the provider of the respective app. The scope of the possible settings depends on the corres-

ponding app and the operating system of the mobile end device.

Services

General

If the vehicle has a wireless connection, this enables the exchange of data between the vehicle and other systems. The wireless connection is enabled by the vehicle's own transmitter and receiver unit or using personally integrated mobile end devices, for example smartphones. Online functions can be used using this wireless connection. These include online services and apps that are provided by the vehicle manufacturer or by other providers.

Services of the vehicle manufacturer

For online services of the vehicle manufacturer, the individual functions are described at suitable points, for example rider's manual, website of the manufacturer. At the same time, information is also provided on the relevant data protection law. Personal data may be used to provide online services. Data is exchanged using a secure connection, for example with the IT systems provided by the vehicle manufacturer.

Obtaining, processing and using personal data outside of the normal provision of services requires legal permission, contractual agreement or consent. It is also possible to have the entire data connection activated or deactivated. Statutory functions are excluded from this.

Services from other providers

When using online services from other providers, these services are subject to the responsibility and the data protection and operating conditions of the individual provider. The vehicle manufacturer has no influence on the content that is exchanged in this instance. Information on the type, scope and purpose of the data capture and use of personal data as part of the services of third parties can be ascertained from the individual provider.

Intelligent emergency call system

– with intelligent emergency call[OE]

Principle

The intelligent emergency call system enables manual or automatic emergency calls, for example in the event of an accident.

The emergency calls are received by an emergency call centre that is commissioned by the vehicle manufacturer.

For information on operating the intelligent emergency call system

and its functions, please refer to "Intelligent emergency call".

Legal basis

Processing of personal data using the intelligent emergency call system is in line with the following regulations:

– Protection of personal data: Directive 95/46/EC of the European Parliament and of the Council.

– Protection of personal data: Directive 2002/58/EC of the European Parliament and of the Council.

The legal basis for the activation and function of the intelligent emergency call system is the concluded ConnectedRide contract for this function, as well as the corresponding laws, ordinances and directives of the European Parliament and of the European Council.

The relevant ordinances and directives regulate the protection of natural persons during the processing of personal data.

The processing of personal data by the intelligent emergency call system satisfies the European directives for the protection of personal data.

The intelligent emergency call system processes personal data only with the agreement of the vehicle owner.

The intelligent emergency call system and other services with additional benefits may only process personal data with the express permission of the person affected by the data processing, for example the vehicle owner.

SIM card

The intelligent emergency call system is operated by mobile radio using the SIM card installed in the vehicle. The SIM card is permanently logged into the mobile phone network to enable rapid connection setup. Data is sent to the vehicle manufacturer in the event of an emergency.

Improving quality

The data that is transferred in an emergency is also used by the manufacturer of the vehicle to improve product and service quality.

Location determination

The position of the vehicle can be determined exclusively by the mobile phone network provider based on the mobile phone site locations. The provider cannot link the vehicle identification number and phone number of the installed SIM card. Only the manufacturer of the vehicle can link the vehicle identification number and phone number of the installed SIM cards.

Log data of emergency calls

The log data of emergency calls is stored in a memory of the vehicle. The oldest log data is regularly deleted. The log data includes, for example, information on when and where an emergency call was made. In exceptional cases, the log data can be read out of the vehicle memory. As a rule, log data is only read out following a court order, and this is only possible if the corresponding devices are connected directly to the vehicle.

Automatic emergency call

The system is designed so that, following a sufficiently serious accident, which is detected by sensors in the vehicle, an emergency call is automatically activated.

Sent information

When making an emergency call using the intelligent emergency call system, the system forwards the same information to the designated emergency call centre as is forwarded to the public emergency operations centre by the statutory emergency call system eCall.

In addition, the intelligent emergency call system sends the following additional information to an emergency call centre commissioned by the vehicle manufacturer and, if required, to the emergency services:

– Accident data, for example the direction of impact detected by the vehicle sensors, to assist the emergency services response.
– Contact details, for example the phone number of the installed SIM card and the phone number of the rider, if available, to enable rapid contact with those involved in the accident if required.

Data storage

The data for an activated emergency call is stored in the vehicle. The data contains information on the emergency call, for example the location and time of the emergency call.

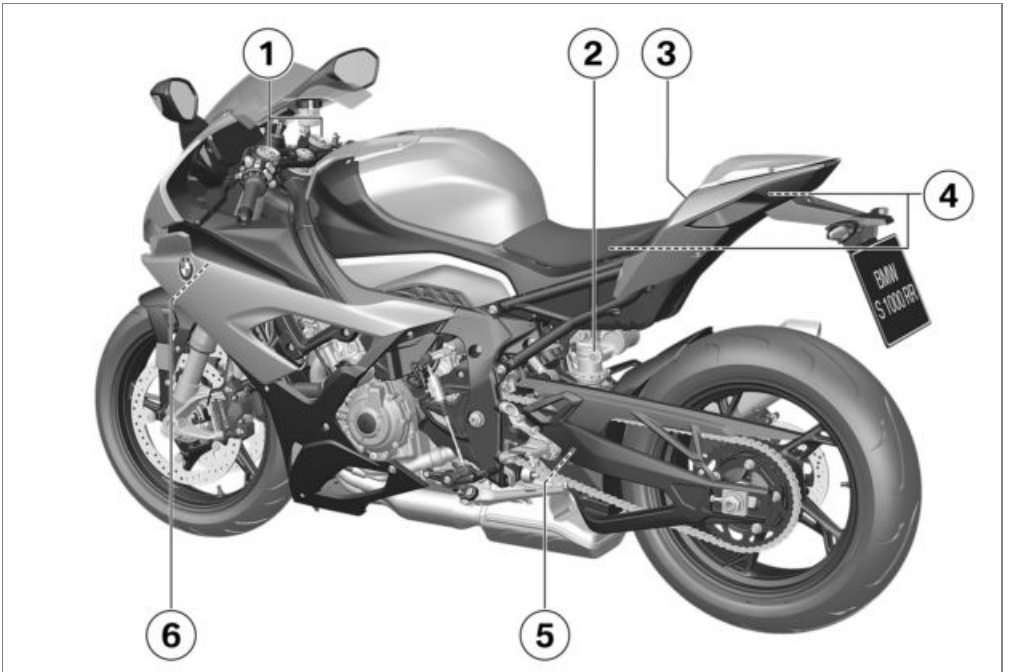
The voice recordings of the emergency call are stored at the emergency call centre.

The voice recordings of the customer are stored for 24 hours in case details of the emergency call need to be analysed. After this, the voice recordings are deleted. The voice recordings of the employee of the emergency call centre are stored for 24 hours for quality assurance purposes.

Information on personal data

The data that is processed as part of the intelligent emergency call is processed exclusively to carry out the emergency call. As part of its statutory obligation, the manufacturer of the vehicle provides information about the data that it has processed and any data that it still has stored.

General views


1
2
3
4
5
6
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General view, left side

1 – without Dampening Control (DDC)[OE]
Adjust the rebound-stage damping for front wheel (➠ 112).
Adjusting spring preload for front wheel (➠ 108).
– without Dampening Control (DDC)[OE]
Adjusting compression-stage damping for front wheel (➠ 111).

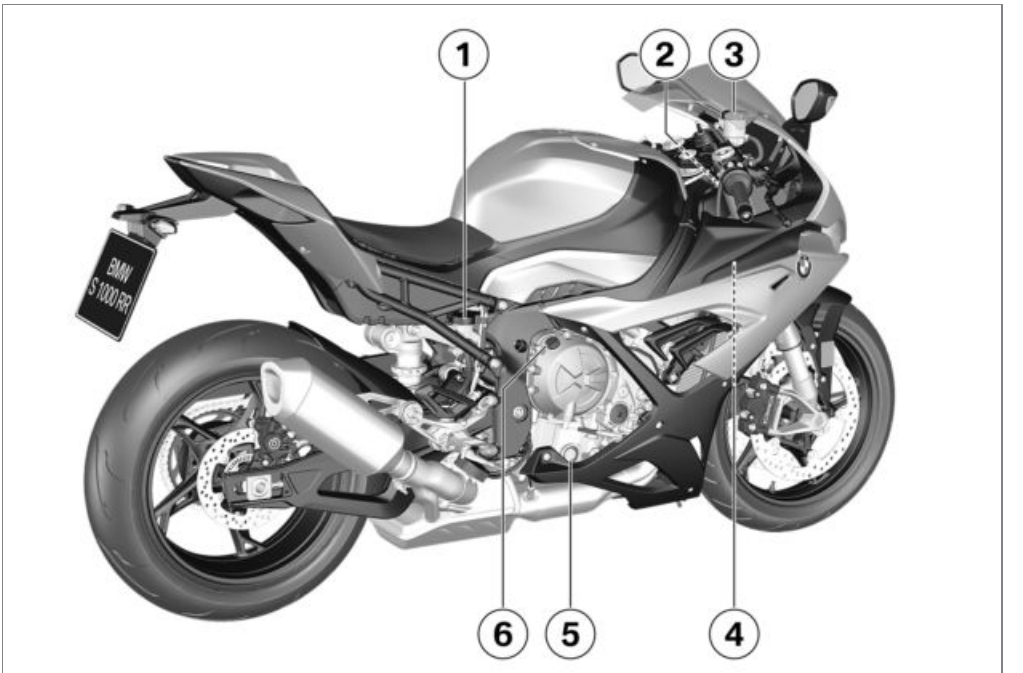
2 – without Dampening Control (DDC)[OE]
Adjusting compression-stage damping for rear wheel (➠ 113).
– without Dampening Control (DDC)[OE]
Adjusting spring preload for rear wheel (➠ 109).
– with Dynamic Damping Control (DDC)[OE]
Adjusting spring preload for rear wheel (➠ 110).

3 Lock for tail-hump cover (➠ 79)
Seat lock (➠ 80)

4 Table of tyre pressures
Payload table
Chain settings

5 – without Dampening Control (DDC)[OE]
Adjusting rebound-stage damping for rear wheel (➠ 113).

6 Adjusting steering damper (➠ 107)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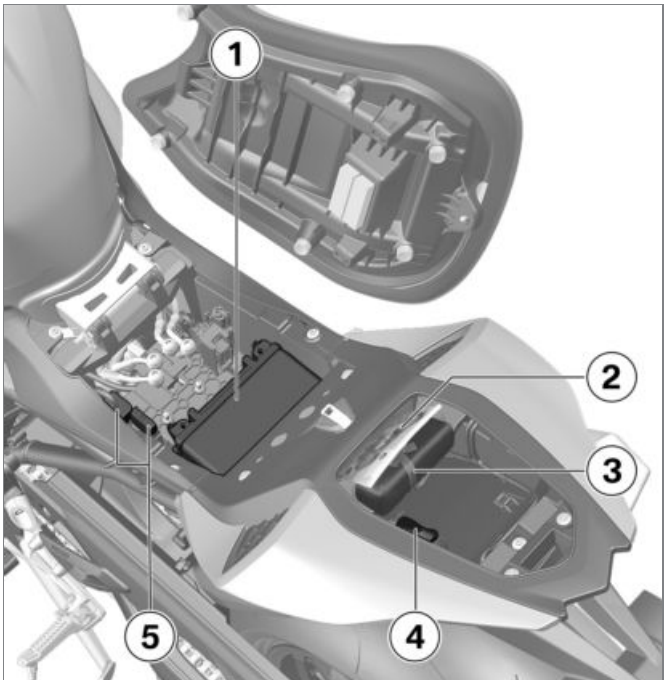
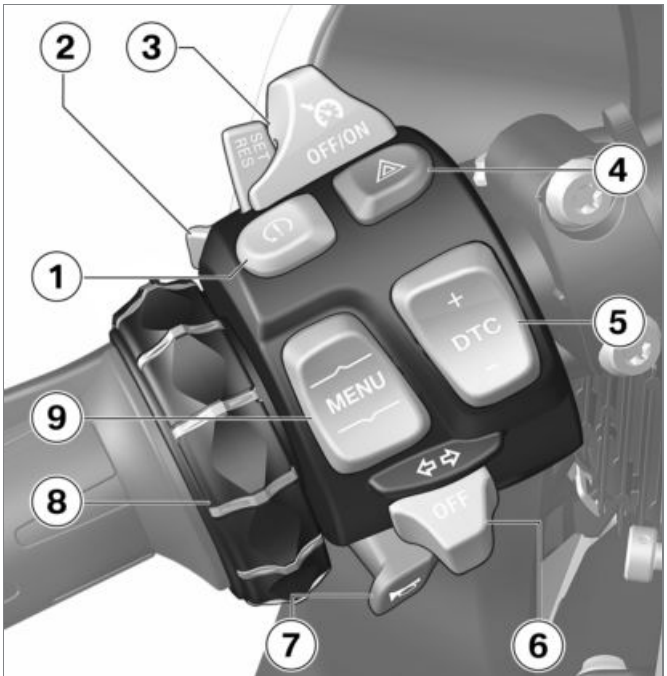
General view, right side

1 Brake-fluid reservoir, rear (➠ 185)
2 Vehicle identification number (on the steering-head bearing)
Type plate (on the steering-head bearing)
3 Brake-fluid reservoir, front (➠ 184)
4 Check coolant level (➠ 187)
5 Engine oil level indicator (➠ 179)
6 Oil filler opening (➠ 181)

Underneath the seat

1 Battery (➠ 202)
2 Rider's manual
3 Toolkit (➠ 176)
4 Diagnostic connector (➠ 206)
5 Fuses (➠ 205)





Multifunction switch, left

1 DTC Switching off (➠ 67)
2 High-beam headlight and headlight flasher (➠ 65)
3 – with cruise control[OE] Switching on cruise control (➠ 70).
4 Hazard warning lights system (➠ 66)
5 – with riding modes Pro[OE] DTC Adapting (➠ 145).
6 Turn indicators (➠ 66)
7 Horn
8 Multi-Controller Controls (➠ 85)
9 MENU rocker switch (➠ 85)

Multifunction switch, right

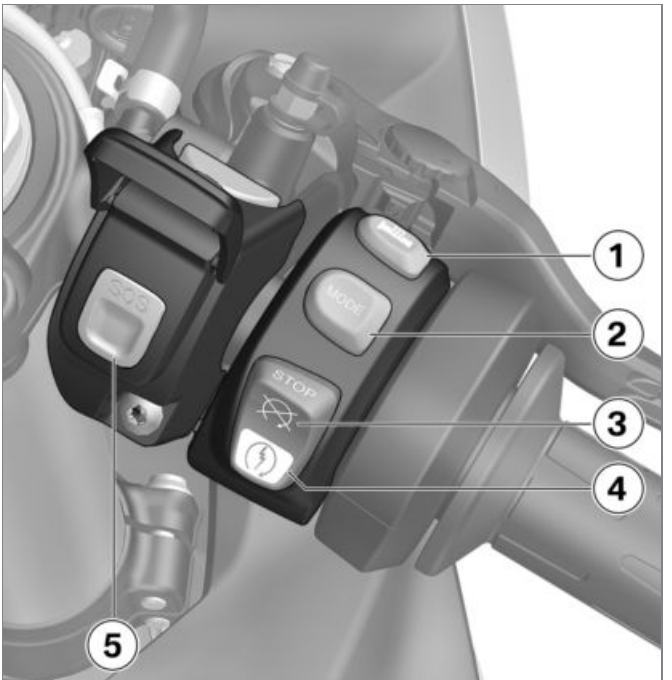
1 – with heated grips[OE]
Heated handlebar grips (➠ 78).

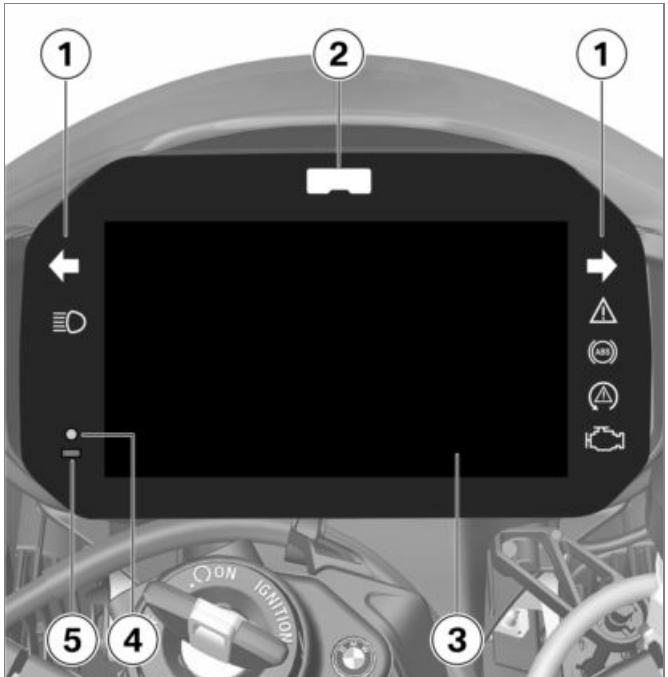
2 Riding mode (➠ 68)

3 Emergency off switch (kill switch) (➠ 61)

4 Starter button
Starting the engine (➠ 122).
Race start with Launch Control (➠ 142)

5 SOS button
Intelligent emergency call (➠ 62)





Instrument panel

1 Indicator and warning lights (➠ 28)

2 Gearshift light (➠ 126)

3 TFT display (➠ 29) (➠ 31)

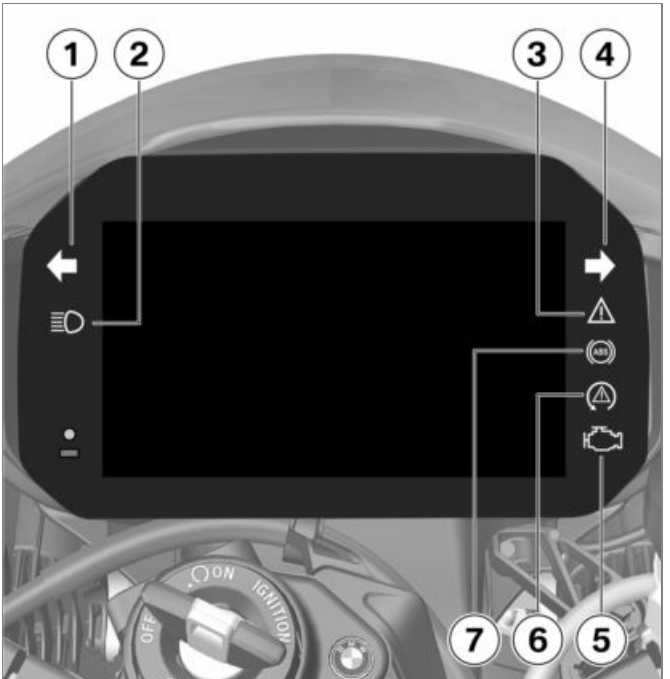
4 Alarm system LED
– with anti-theft alarm (DWA)[OE]
Alarm signal (➠ 76)

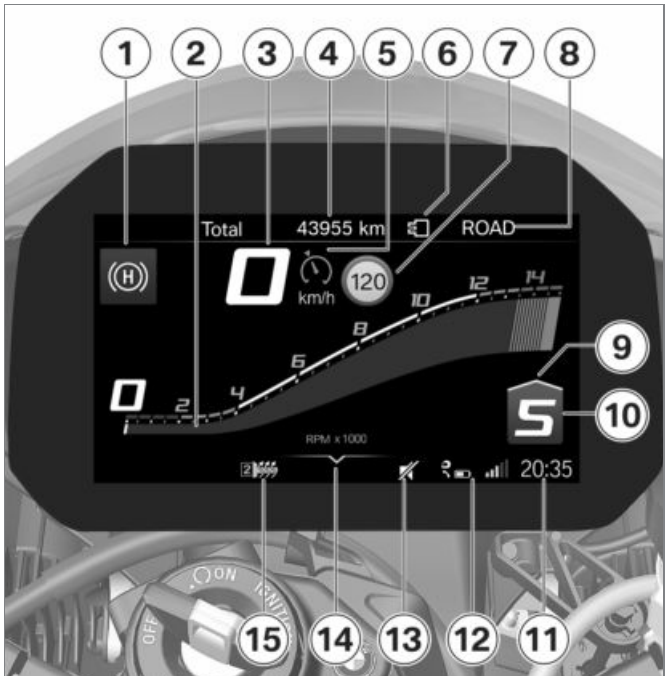
5 Photosensor (for adapting the brightness of the instrument lighting)

Status indicators

Indicator and warning lights

1 Turn indicators, left
Operating the turn indicators (➠ 66).
2 High-beam (➠ 65)
3 General warning light (➠ 32)
4 Turn indicators, right
5 - with export to EU markets[NV]
Malfunction indicator lamp
6 DTC (➠ 52)
7 ABS (➠ 155)





TFT display in Pure Ride view

1 Hill Start Control (➠ 55)

2 Engine speed display (➠ 91)

3 Speedometer

4 Driver info. status line (➠ 89)

5 – with cruise control[OE] Switching on cruise control (➠ 70).

6 RACE PRO riding mode – with riding modes Pro[OE] Configuration for the race track (➠ 141)

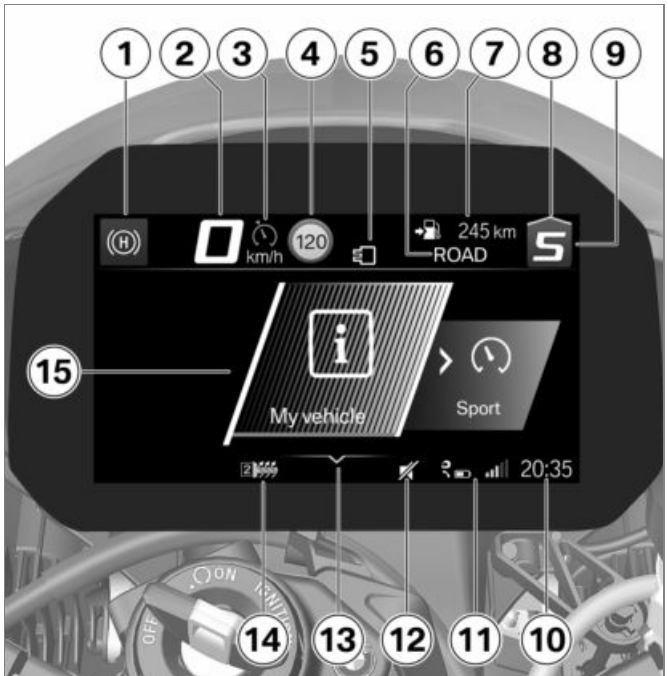
7 Switching Speed Limit Info on or off (➠ 91). – with riding modes Pro[OE] DTC Adapting (➠ 145).

8 Riding mode (➠ 68)

9 Recommendation to upshift (➠ 92)

10 Gear indicator; "N" indicates neutral.

11 Clock (➠ 93)
12 Connection status (➠ 94)
13 Muting (➠ 92)
14 Operator help
15 Heating stages, handlebar grips (➠ 78)



TFT display in view menu

1 Hill Start Control (➠ 55)
2 Speedometer
3 – with cruise control[OE] Switching on cruise control (➠ 70).
4 Switching Speed Limit Info on or off (➠ 91).
– with riding modes Pro[OE] DTC Adapting (➠ 145).
5 RACE PRO riding mode
– with riding modes Pro[OE] Configuration for the race track (➠ 141)
6 Riding mode (➠ 68)
7 Driver info. status line (➠ 89)
8 Recommendation to upshift (➠ 92)
9 Gear indicator; "N" indicates neutral.
10 Clock
11 Connection status

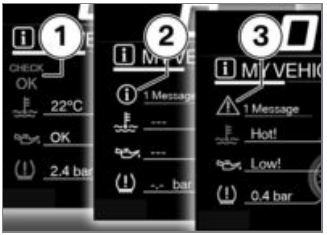
12 Muting (➠ 92)
13 Operator help
14 Heating stages, handlebar grips (➠ 78)
15 Menu section

Warnings

Mode of presentation

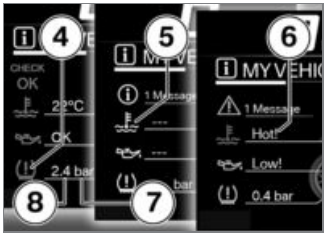
Warnings are indicated by the corresponding warning lights. Warnings are shown by the general warning light in connection with a dialogue in the TFT display. The 'general' warning light is yellow or red, depending on the urgency of the warning.

The general warning light is displayed according to the most urgent warning.
The possible warnings are listed on the following pages.



Check Control display

The messages shown in the display vary. Different colours and symbols are used depending on priority:
- Green CHECK OK **1**: no message, optimum values.
- White circle with small "i" **2**: information.
- Yellow warning triangle **3**: warning message, value not optimum.
- Red warning triangle **3**: warning message, value critical



Values display

The symbols **4** displayed vary. Different colours are used depending on assessment. Instead of numerical values **8** with units **7**, texts **6** are displayed:

Colour of the symbol

- Green: (OK) current value is optimum.
- Blue: (Cold!) current temperature is too low.
- Yellow: (Low! / High!) current value is too low or too high.
- Red: (Hot! / High!) current temperature or value is too high.
- White: (---) valid value not available. Instead of the value, dashes **5** are displayed.

NOTICE

The assessment of some values is only possible from a certain journey duration or speed. If a measured value is still not being displayed because the conditions for measurement have not been met, dashes are displayed instead as a placeholder. If there are no valid measured values, there will be no assessment in the form of a coloured symbol.◀

Check Control dialogue

Messages are output as a Check Control dialogue **1**.

- If several CC messages with the same priority are present, the messages alternate in the order they occurred until these are acknowledged.
- If the symbol **2** is actively being displayed, it can be acknowledged by holding the Multi-Controller to the left.
- Check Control messages are dynamically attached as additional tabs on the pages in the menu `My vehicle` (➠ 87). You can go to the message

again as long as the fault persists.

Warnings, overview

Indicator and warning lights	Display text	Meaning
 General warning light shows yellow.	 is displayed in yellow.	Vehicle voltage too low (➠ 42)
	 `Vehicle voltage low.`	
 General warning light shows red.	 is displayed in red.	Vehicle voltage critical (➠ 42)
	 `Vehicle voltage critical!`	
 General warning light shows yellow.	 The faulty light source is displayed.	Light source faulty (➠ 43)
	 `Alarm system battery weak.`	Anti-theft alarm battery weak (➠ 43)
 General warning light shows yellow.	 `Alarm system battery empty.`	Anti-theft alarm battery flat (➠ 44)
 General warning light shows red.	 `Coolant temperature too high!`	Coolant temperature too high (➠ 44)

Indicator and warning lights	Display text	Meaning
 The malfunction indicator lamp lights up.	 Engine!	Emissions warning (➠ 45)
 General warning light shows yellow.	 No communication with engine control.	Engine control failed (➠ 45)
 General warning light shows yellow.	 Fault in the engine control.	Engine in emergency-operation mode (➠ 45)
 General warning light flashes yellow.	 Serious fault in the engine control!	Serious fault in the engine control (➠ 46)
 General warning light shows yellow.	 is displayed in yellow.	Tyre pressure in limit range of the permitted tolerance (➠ 47)
	 Tyre pressure is not at setpoint.	
 General warning light flashes red.	 is displayed in red.	Tyre pressure outside the permitted tolerance (➠ 48)

Indicator and warning lights	Display text	Meaning
	 `Tyre pressure is not at set-point.`	Tyre pressure outside the permitted tolerance (➠ 48)
	 `Tyre press. control. Loss of pressure.`	
	 `"---"`	Transmission fault (➠ 49)
 General warning light shows yellow.	 `"---"`	Sensor faulty or system fault (➠ 49)
 General warning light shows yellow.	 `RDC sensor battery weak.`	Battery for tyre pressure sensor weak (➠ 50)
 General warning light shows yellow.	 `Drop sensor faulty.`	Drop sensor defective (➠ 50)
	 `Engine start not possible.`	Motorcycle dropped (➠ 50)
	 `Intell. emerg. call failure.`	Emergency call function restricted (➠ 50)

Indicator and warning lights	Display text	Meaning
	Side stand monitoring faulty.	Side stand monitoring is faulty (➠ 51)
ABS indicator and warning light flashes.		ABS self-diagnosis not completed (➠ 51)
ABS indicator and warning light comes on.		ABS deactivated (➠ 51)
ABS indicator and warning light comes on.	Limited ABS availability!	ABS fault (➠ 51)
ABS indicator and warning light comes on.	ABS failure!	ABS failed (➠ 52)
ABS indicator and warning light comes on.	ABS Pro failure!	ABS Pro failed (➠ 52)
DTC indicator and warning light flashes quickly.		DTC intervention (➠ 52)

Indicator and warning lights	Display text	Meaning
 DTC indicator and warning light flashes slowly.		DTC self-diagnosis not completed (➠ 52)
 DTC indicator and warning light comes on.	 `Off!`	DTC switched off (➠ 53)
	 `Traction control deactivated.`	
 DTC indicator and warning light comes on.	 `Traction control failure!`	DTC fault (➠ 53)
 DTC indicator and warning light comes on.	 `Traction control limited!`	DTC restricted (➠ 53)
 General warning light shows yellow.	 `Spring strut adjustment faulty!`	DDC fault (➠ 54)
	 Fuel reserve reached. Go to a filling station soon	Fuel down to reserve (➠ 54)

Indicator and warning lights	Display text	Meaning
	 Green holding symbol is displayed.	Hill Start Control active (➠ 55)
	 Yellow holding symbol flashes.	Hill Start Control automatically deactivated (➠ 55)
	 Crossed-out holding symbol is displayed.	Hill Start Control cannot be activated (➠ 55)
	 The gear indicator flashes.	Gear not trained (➠ 55)
 Turn signal indicator light flashes green.		Hazard warning lights system is switched on (➠ 56)
 Turn signal indicator light flashes green.		
Gearshift light lights up or flashes.	`Launch Control not av. Clutch too hot.` is displayed.	Launch Control not ready (➠ 56)

Indicator and warning lights	Display text	Meaning
	 is displayed in white. `Service due!`	Service due (➠ 57)
 General warning light shows yellow.	 is displayed in yellow. `Service overdue!`	Service-due date has passed (➠ 57)

Vehicle voltage too low


General warning light shows yellow.


is displayed in yellow.


`Vehicle voltage low. Switch off unnecessary consumers.`

WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.◀

The battery will not be charged. By continuing to drive on, the vehicle electronics discharge the battery.

NOTICE

The fuse for the alternator regulator can blow if the 12 V battery is installed incorrectly or if the terminals are swapped (e.g. when using a starting aid).◀

Possible cause:

The alternator or alternator drive is faulty, battery is faulty or the fuse for the alternator regulator has blown.

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Vehicle voltage critical


General warning light shows red.


is displayed in red.


`Vehicle voltage critical! Consumers have been switched off. Check battery condition.`

WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.◀

The battery will not be charged. By continuing to drive on, the vehicle electronics discharge the battery.

NOTICE

The fuse for the alternator regulator can blow if the 12 V battery is installed incorrectly or if the terminals are swapped (e.g. when using a starting aid).◀

Possible cause:

The alternator or alternator drive is faulty, battery is faulty or the fuse for the alternator regulator has blown.

- Have the fault rectified as quickly as possible by a

specialist workshop, preferably an authorised BMW Motorrad Retailer.

Light source faulty

 General warning light shows yellow.

 The faulty light source is displayed:

 `High beam faulty!`

 `Front left turn indicator faulty!` or `Front right turn indicator faulty!`

 `Low-beam headlight faulty!`

 `Front side light faulty!`

 `Tail light faulty!`

 `Brake light faulty!`

 `Rear left turn indicator faulty!` or `Rear right turn indicator faulty!`

 `Number plate light faulty!`

– `Have it checked by a specialist workshop.`

WARNING

Vehicle overlooked in traffic due to failure of the lights on the vehicle

Safety risk

- Always replace a faulty bulb at the earliest possible opportunity. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.◀

Possible cause:

One or more light sources are faulty.

- Identify the faulty light source through a visual inspection.
- Have LED light sources completely replaced; consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Possible cause:

Plug connection disconnected.

- Identify disconnected plug connection.
- Connect disconnected plug connection.

Anti-theft alarm battery weak

– with anti-theft alarm (DWA)[OE]

 `Alarm system battery weak. No restrictions. Make`

an appointment at a specialist workshop.

NOTICE

This error message shows briefly only after the Pre-Ride-Check completes.◀

Possible cause:

The integral battery in the anti-theft alarm has lost a significant proportion of its original capacity. There is no assurance of how long the anti-theft alarm can remain operational if the vehicle's battery is disconnected.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Anti-theft alarm battery flat

– with anti-theft alarm (DWA) OE

General warning light shows yellow.

Alarm system battery empty. No independent alarm. Make an appointment at a specialist workshop.

NOTICE

This error message shows briefly only after the Pre-Ride-Check completes.◀

Possible cause:

The integral battery in the anti-theft alarm has lost its entire original capacity. There is no assurance that the anti-theft alarm will be operational if the vehicle's battery is disconnected.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Coolant temperature too high

General warning light shows red.

Coolant temperature too high! Check coolant level. Continue under part. load to cool down.

ATTENTION

Riding with overheated engine

Engine damage

- Compliance with the information set out below is essential.◀

Possible cause:

The coolant level is too low.

- Check coolant level (➠ 187).

If the coolant level is too low:

- Allow the engine to cool down.
- Top up coolant (➠ 188).

- Have the cooling system checked by a specialist workshop, preferably by a BMW Motorrad partner.

Possible cause:

The coolant temperature is too high.

- If possible, ride in the part-load range to cool down the engine.
- If the coolant temperature is frequently too high, have the fault rectified as soon as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Emissions warning

The malfunction indicator lamp lights up.

Engine! Have it checked by a specialist workshop.

Possible cause:

The engine control unit has diagnosed a fault which affects the pollutant emissions.

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

» You can continue riding; pollutant emissions are higher than the threshold values.

Engine control failed

General warning light shows yellow.

No communication with engine control. Multiple sys. affected. Ride carefully to the next specialist workshop.

Engine in emergency-operation mode

General warning light shows yellow.

Fault in the engine control. Riding at mod. speed pos. Ride carefully to next specialist workshop.

WARNING

Unusual ride characteristics when engine running in emergency-operation mode

Risk of accident

- Avoid accelerating sharply and overtaking.◀

Possible cause:

The engine control unit has diagnosed a fault. In exceptional cases, the engine stops and refuses to start. Otherwise, the engine runs in emergency operating mode.

- You can continue to ride, but bear in mind that the usual engine power or the full range of engine rpm might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Serious fault in the engine control

General warning light flashes yellow.

Serious fault in the engine control!
Riding at mod. speed pos.
Damage possible. Have checked by workshop.

WARNING

Engine damage when running in emergency-operation mode

Risk of accident

- Ride slowly, avoid accelerating sharply and overtaking.
- If possible, have the vehicle picked up and have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.◀

Possible cause:

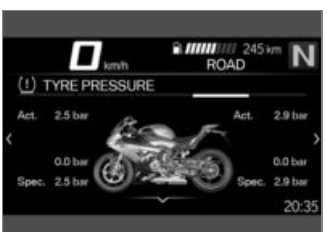
The engine control unit has diagnosed a fault which may cause severe secondary faults. The engine is in emergency-operation mode.

- It is possible to continue to ride but not recommended.
- Avoid high load and rpm ranges if possible.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Tyre pressure

– with tyre pressure control (RDC)[OE]

In addition to the MY VEHICLE menu screen and the Check Control messages, there is also the TYRE PRESSURE screen for the display of the tyre inflation pressures:



The left values refer to the front wheel, the right values to the rear wheel.
The pressure difference is displayed via the actual and target tyre pressure.

Only dashes are displayed immediately after the ignition is switched on. The transmission of the tyre pressure values begins only after the first time the following minimum speed has been exceeded:

 RDC sensor is not active
min 30 km/h (The RDC sensor does not send its signal to the vehicle until the vehicle has exceeded a minimum speed.)
 The tyre pressures are shown in the TFT display as temperature compensated and always refer to the following tyre air temperature:
20 °C

 If the tyre symbol is additionally displayed in yellow or red, this is a warning. The pressure difference is highlighted with an exclamation point in the same colour.

 If the value in question is close to the limit of the permissible tolerance range, the 'General' warning light also lights up in yellow.

 If the tyre pressure registered by the sensor is outside the permissible tolerance range , the 'General' warning light flashes red.

For further information about the BMW Motorrad RDC, see the section entitled "Engineering details" from page (➠ 170) onwards.

Tyre pressure in limit range of the permitted tolerance

– with tyre pressure control (RDC)[OE]

 General warning light shows yellow.

 is displayed in yellow.

 `Tyre pressure is not at setpoint. Check tyre pressure.`

Possible cause:

Measured tyre pressure is close to the limit of permitted tolerance.

- Correct tyre pressure.
- Before adjusting the tyre pressure, observe the information on temperature compensation and pressure adaptation in the section entitled "Engineering details":

» Temperature compensation (➠ 171)
» Pressure adaptation (➠ 171)
» Find the correct tyre pressures in the following places:
– On the back cover of the rider's manual
– Instrument cluster in the TYRE PRESSURE view
– Sign under the seat

Tyre pressure outside the permitted tolerance

– with tyre pressure control (RDC) OE


General warning light flashes red.


is displayed in red.


Tyre pressure is not at setpoint. Stop immediately! Check tyre pressure.


Tyre press. control. Loss of pressure. Stop immediately! Check tyre pressure.

⚠ WARNING

Tyre pressure outside the permitted tolerance.

Risk of accident, degradation of the vehicle's driving characteristics.

• Adapt your style of riding accordingly.◀

Possible cause:

Measured tyre pressure is outside permitted tolerance.

• Check the tyre for damage and to ascertain whether the vehicle can be ridden with the tyre in its present condition.

If the vehicle can be ridden with the tyre in its present condition:

• Correct the tyre pressure at the earliest possible opportunity.
• Before adjusting the tyre pressure, observe the information on temperature compensation and pressure adaptation in the section entitled "Engineering details":

» Temperature compensation (➠ 171)
» Pressure adaptation (➠ 171)
» Find the correct tyre pressures in the following places:
– On the back cover of the rider's manual
– Instrument cluster in the TYRE PRESSURE view
– Sign under the seat

• Have the tyre checked for damage by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

If you are unsure whether the vehicle can be ridden with the tyre in its present condition:

• Do not continue your journey.
• Notify the breakdown service.

Transmission fault

– with tyre pressure control (RDC)[OE]

"---"

Possible cause:

The vehicle has not reached the minimum speed (➠ 170).

 RDC sensor is not active
min 30 km/h (The RDC sensor does not send its signal to the vehicle until the vehicle has exceeded a minimum speed.)

- Observe the RDC display at higher speeds.

A permanent fault is present only when the general warning light also lights up.

Under these circumstances:

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Possible cause:

The radio link to the RDC sensors is faulty. Radio systems are located in the surrounding area which are interfering with the transmission between the RDC control unit and the sensors.

- Observe the RDC displays in other surrounding areas.

A permanent fault is present only when the general warning light also lights up.

Under these circumstances:

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Sensor faulty or system fault

– with tyre pressure control (RDC)[OE]

General warning light shows yellow.

"---"

Possible cause:

Wheels not equipped with RDC sensors have been fitted.

- Fit wheels and tyres equipped with RDC sensors.

Possible cause:

One or two RDC sensors have failed or there is a system fault.

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Battery for tyre pressure sensor weak

– with tyre pressure control (RDC)[OE]


General warning light shows yellow.


RDC sensor battery weak. Function limited. Have it checked by a specialist workshop.

NOTICE

This error message shows briefly only after the Pre-Ride-Check completes.◀

Possible cause:

The tyre pressure sensor battery no longer provides its full capacity. The tyre pressure monitoring function will be available for a limit time only.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Drop sensor defective


General warning light shows yellow.


Drop sensor faulty. Have it checked by a specialist workshop.

Possible cause:

The drop sensor is not available.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Motorcycle dropped


Engine start not possible. Straighten up motorbike. Switch ignition off/on. Start engine.

Possible cause:

The drop sensor has detected a drop and has cut out the engine.

- Bring the motorcycle to the upright position.
- Switch the ignition off and then on again or switch the kill switch on and then off again.

Emergency call function restricted

– with intelligent emergency call[OE]


Intell. emerg. call failure.

Possible cause:

The emergency call cannot be cannot be made automatically or via BMW.

- Observe the information on operating the intelligent emergency call from page (➠ 62) onwards.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Possible cause:

Plug connection disconnected.

- Connect disconnected plug connection. (➠ 157)

Side stand monitoring is faulty

`Side stand monitoring faulty. Onward journey possible. Engine stop. when stationary! Have checked by workshop.`

Possible cause:

The side-stand switch or its wiring are damaged.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ABS self-diagnosis not completed

ABS indicator and warning light flashes.

Possible cause:

 ABS self-diagnosis not completed
The ABS function is not available because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel sensors to be checked: min 5 km/h)

- Pull away slowly. Bear in mind that the ABS function is not available until self-diagnosis has completed.

ABS deactivated

ABS indicator and warning light comes on.

Possible cause:

The rider has switched off the ABS system.

- Activating the ABS function (➠ 156).

ABS fault

ABS indicator and warning light comes on.

`Limited ABS availability! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The ABS control unit has detected a fault. The partially integral function and the Dynamic Brake Control function have failed. The ABS function has limited availability.

- You can continue to ride. Take note of the more detailed information on certain situations

that can lead to an ABS fault message (➠ 163).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ABS failed


ABS indicator and warning light comes on.


`ABS failure! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The ABS control unit has detected a fault. The ABS function is not available.
- You can continue to ride. Take note of the more detailed information on certain situations that can lead to an ABS fault message (➠ 163).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ABS Pro failed


ABS indicator and warning light comes on.


`ABS Pro failure! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The ABS Pro control unit has detected a fault. The ABS Pro function is not available. The ABS function is still available. ABS provides support only for braking in straight-ahead driving.
- You can continue to ride. Take note of the more detailed information on certain situations that can lead to an ABS Pro fault message (➠ 163).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

DTC intervention


DTC indicator and warning light flashes quickly.

The DTC has detected impending instability at the rear wheel and reduces the torque. The indicator and warning light flashes longer than the DTC intervention lasts. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.

DTC self-diagnosis not completed


DTC indicator and warning light flashes slowly.

Possible cause:

DTC self-diagnosis not completed
The DTC function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed with the engine running for the wheel sensors to be checked: min 5 km/h)

- Pull away slowly. Bear in mind that the DTC function is not available until self-diagnosis has completed.

DTC switched off

DTC indicator and warning light comes on.

`Off!`

`Traction control deactivated.`

Possible cause:

The rider has switched off the DTC system.

- Switch on DTC (➠ 68).

DTC fault

DTC indicator and warning light comes on.

`Traction control failure! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The DTC control unit has detected a fault.

ATTENTION

Damaged components

Damage to sensors, for example, which causes malfunctions

- Do not transport any objects underneath the driver or passenger seat.
- Secure the toolkit.◀
- Do not damage the angular rate sensor.
- Bear in mind that the DTC function is not available or the functionality is subject to certain restrictions.
- You can continue to ride. Take note of the more detailed information on situations that can lead to a DTC fault (➠ 166).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

DTC restricted

DTC indicator and warning light comes on.


Traction control limited! Riding at mod. speed pos. Ride carefully to next specialist workshop.

Possible cause:

The DTC control unit has detected a fault.

ATTENTION

Damaged components

Damage to sensors, for example, which causes malfunctions

- Do not transport any objects underneath the driver or passenger seat.
- Secure the toolkit.◀
- Do not damage the angular rate sensor.
- Bear in mind that the DTC function is restricted.
- You can continue to ride. Take note of the more detailed information on situations that can lead to a DTC fault (➠ 166).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

DDC fault

– with Dynamic Damping Control (DDC)[OE]


General warning light shows yellow.


Spring strut adjustment faulty! Riding at mod. speed pos. Ride carefully to next specialist workshop.

Possible cause:

The DDC control unit has detected a fault.

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

» In this condition, the motorcycle may have too much damping and is uncomfortable to drive, especially on roads in poor condition.

Possible cause:

A DDC sensor fault has been detected.

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

» The semi-active functionality is deactivated.

Fuel down to reserve


Fuel reserve reached. Go to a filling station soon.

WARNING

Irregular engine operation or engine shutdown due to lack of fuel

Risk of accident, damage to catalytic converter

- Do not run the fuel tank dry.◀

Possible cause:

The fuel tank contains no more than the reserve quantity of fuel.

Fuel reserve
approx. 4 l

- Refuelling (➠ 130).

Hill Start Control active

Green holding symbol is displayed.

Possible cause:

The rider has activated Hill Start Control (➠ 173).

- Switch off Hill Start Control.
- Operate Hill Start Control (➠ 73).

Hill Start Control automatically deactivated

Yellow holding symbol flashes.

Possible cause:

Hill Start Control has been automatically deactivated.

- Side stand has been folded out.

» Hill Start Control is deactivated when the side stand is folded out.

- Engine has been switched off.

» Hill Start Control is deactivated when the engine is switched off.

- Operate Hill Start Control (➠ 73).

Hill Start Control cannot be activated

Crossed-out holding symbol is displayed.

Possible cause:

Hill Start Control cannot be activated.

- Fold in side stand.

» Hill Start Control functions only when the side stands are folded in.

- Start the engine.

» Hill Start Control functions only when the engine is running.

Gear not trained

N The gear indicator flashes. The Pro shift assistant is not available.

Possible cause:

The gearbox sensor is not fully trained.

- Engage neutral gear N and, with the vehicle at a standstill, let the engine run for at least

10 seconds to train the idle gear.
- Engage all gears with clutch actuation and ride at least 10 seconds with the engaged gear.

» The gear indicator starts to flash when the gearbox sensor has been trained successfully.

– The Gear Shift Assistant Pro operates as described (➠ 172) once the transmission sensor has been completely taught-in.
- If the training process was not successful, have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Hazard warning lights system is switched on

Turn signal indicator light flashes green.

Turn signal indicator light flashes green.

Possible cause:

The driver has switched on the hazard warning lights system.
- Operating hazard warning flashers (➠ 66).

Launch Control not ready

– with riding modes Pro[OE]

Gearshift light lights up or flashes.

`Launch Control not av.` `Clutch too hot.` is displayed.

Possible cause:

The number of racing starts possible with Launch Control has been exceeded.
- Allow the clutch to cool.
- Operating the Launch Control (➠ 143).

Service-due indicator

If service is overdue, the due date or the odometer reading at which service was due is accompanied by the 'General' warning light showing yellow.

If the service is overdue, a yellow CC message is displayed. Exclamation marks also draw attention to the displays for service, service appointment and remaining distance in the `MY VEHICLE` and `SERVICE REQUIREMENTS` menu screens.

NOTICE

If the service-due indicator appears more than a month before the service date, the current date has to be corrected. This situation can occur if the battery was disconnected.◀

Service due

 is displayed in white.

`Service due! Have service performed by a specialist workshop.`
Possible cause:

Service is due because of the driving performance or the date.

- Have your motorcycle serviced regularly by a specialist workshop, preferably by an authorised BMW Motorrad Retailer.

» The operational and road safety of the motorcycle remain intact.

» The motorcycle's value is maintained as best as possible.

Service-due date has passed

 General warning light shows yellow.

 is displayed in yellow.

`Service overdue! Have service performed by a specialist workshop.`
Possible cause:

Service is overdue because of the driving performance or the date.

- Have your motorcycle serviced regularly by a specialist workshop, preferably by an authorised BMW Motorrad Retailer.

» The operational and road safety of the motorcycle remain intact.

» The motorcycle's value is maintained as best as possible.

Operation

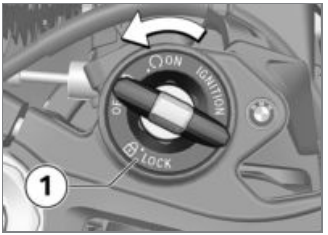
Ignition switch/steering lock

Keys

You receive 2 ignition keys. Please consult the information on the electronic immobiliser (EWS) if a key is lost or mislaid (➠ 61). Ignition switch/steering lock, fuel filler cap lock and seat lock are all operated with the same key.

Lock the handlebars

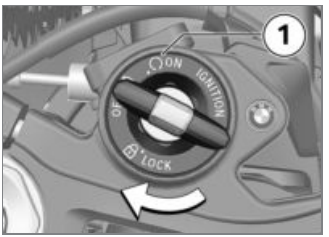
- Turn the handlebars all the way to left.



- Turn the ignition key to position **1**, while moving the handlebars slightly.

» Ignition, lights and all function circuits switched off.
» Steering lock secured.
» Vehicle key can be removed.

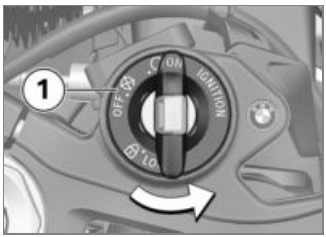
Switching on ignition



- Turn the ignition key to position **1**.

» Parking lights and all function circuits switched on.
» Engine can be started.
» Pre-Ride-Check is performed. (➠ 123)
» ABS self-diagnosis is in progress. (➠ 123)
» DTC self-diagnosis is in progress. (➠ 124)

Switching off ignition



- Turn the ignition key to position **1**.

» Light switched off.
» Handlebars not locked.
» Vehicle key can be removed.

Electronic immobiliser EWS

The electronic design of the motorcycle allows it to access data stored in the ignition key by means of a ring antenna located in the ignition switch/steering lock. The engine control unit will not permit the engine to be started unless the key is identified as “authorised”.

NOTICE

A spare key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued.
Always keep the spare key separately from the ignition key.◀

If you lose your key, you can have it barred by your authorised BMW Motorrad dealer.
If you wish to do this, you will need to bring all other keys for the motorcycle with you. The engine cannot be started by a barred key, but a key that has been barred can subsequently be reactivated.
You can obtain emergency/extra keys only through an authorised BMW Motorrad dealer. The keys are part of an integrated security system, so the dealer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Emergency off switch (kill switch)

1 Emergency off switch (kill switch)

WARNING

Operation of the kill switch while riding

Risk of fall due to rear wheel locking

- Do not operate the kill switch when riding.◀

The emergency off switch is a kill switch for switching off the engine quickly and easily.

A Engine switched off
B Normal operating position (run)

Intelligent emergency call

– with intelligent emergency call[OE]

Emergency call via BMW

Press the SOS button in an emergency only.

Even if an emergency call using BMW is not possible, the system may make an emergency call to a public emergency call number. This depends on the respective mobile phone network and the national regulations.

The emergency call is not able to be ensured because of technical reasons due to unfavourable conditions, e.g. in areas where there is no mobile phone reception.

In order to prevent the motorcycle automatically establishing an emergency call connection in race track sessions with medical supervision, the plug connection to the intelligent emergency call must be disconnected (➠ 157).

Language for emergency call

Each vehicle has a language assigned to it depending on the market for which it is intended. The BMW Call Center answers in this language.

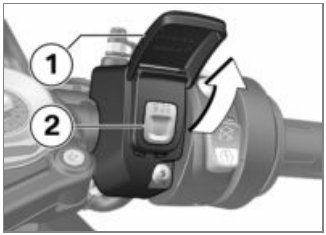
NOTICE

The language for the emergency call can only be changed by the BMW Motorrad partner. The language assigned to the vehicle differs from the display languages that can be selected by the rider in the TFT display.◀

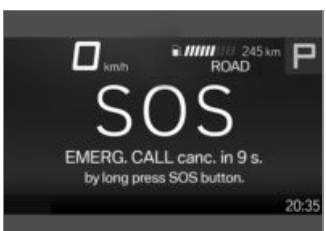
Manual emergency call

Requirement

An emergency call has occurred. The vehicle is at a standstill. The ignition is switched on.



- Open cover **1**.
- Briefly press SOS button **2**.

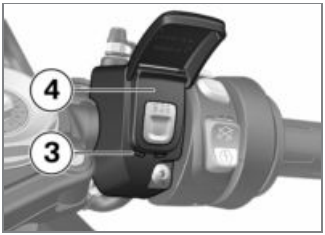


The time until transmission of an emergency call is displayed. During that time, it is possible to cancel the emergency call.

- Operate the emergency-off switch to stop the engine.
- Remove helmet.

» After expiry of the timer, a voice contact to the BMW Call Center is established.

The connection was established.



- Provide information to the emergency services using the microphone **3** and speaker **4**.

Automatic emergency call

The intelligent emergency call is active after the ignition is switched on and reacts if a fall or crash occurs.

Emergency call in the event of a light fall

- A minor fall or a crash is detected.

» An acoustic signal is sounded.

The time until transmission of an emergency call is displayed. During that time, it is possible to cancel the emergency call.

- If possible, remove helmet and stop engine.

» A voice contact connection to the BMW Call Center is established.

The connection was established.

- Open cover **1**.
- Provide information to the emergency services using the microphone **3** and speaker **4**.

Emergency call in the event of a severe fall

- A severe fall or a crash is detected.

» The emergency call is placed automatically without delay.

Lights

Switching on low-beam headlight

- Switch on the ignition.
- Start the engine.

- Alternatively: pull switch **1** when ignition switched on.

Side light

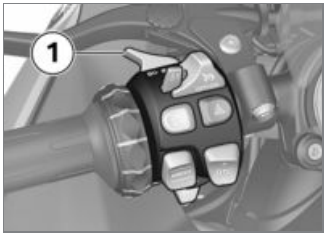
The side lights switch on automatically when the ignition is switched on.

NOTICE

The side lights place a strain on the battery. Do not switch the ignition on for longer than absolutely necessary.◀

High-beam headlight and headlight flasher

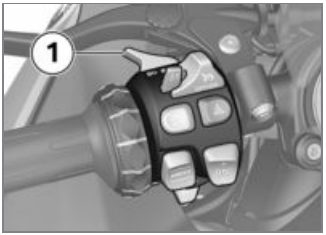
- Switching on ignition (➠ 60).



- Push switch **1** forward to switch on the high-beam headlight.
- Pull switch **1** back to operate the headlight flasher.

Headlight courtesy delay feature

- Switch off the ignition.



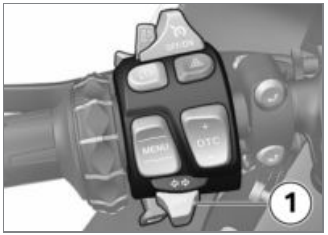
- Immediately after switching off the ignition, pull switch **1** back and hold it in that position until the headlight courtesy delay feature comes on.

» The vehicle lighting lights for one minute and is automatically switched back off.

– This can be used after parking the vehicle, for example, to light the way to the house door.

Parking lights

- Switching off ignition (➠ 61).



- Immediately after switching off the ignition, push button **1** to the left and hold it in that position until the parking lights come on.
- Switch the ignition on and off again to switch off the parking lights.

Hazard warning lights system

Operating hazard warning flashers

- Switching on ignition (➠ 60).

NOTICE

The hazard warning flashers place a strain on the battery. Do not use the hazard warning flashers for longer than absolutely necessary.◀

- Press button **1** to switch on the hazard warning lights system.

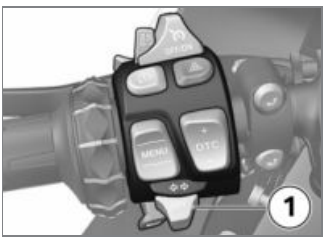
» Ignition can be switched off.

- To switch off the hazard warning lights system, switch on the ignition if necessary and press button **1** again.

Turn indicators

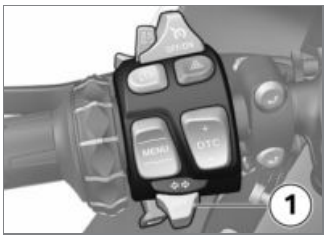
Operating the turn indicators

- Switching on ignition (➠ 60).



- Press button **1** to the left to switch on the left turn indicator.
- Press button **1** to the right to switch on the right turn indicator.
- Operate button **1** in the centre position to switch off the turn indicator.

Comfort turn indicator



If button **1** has been pressed to the right or left, the turn indicators are automatically switched off under the following circumstances:

– Speed below 30 km/h: after 50 m distance covered.
– Speed between 30 km/h and 100 km/h: after a speed-dependent distance covered or in case of acceleration.
– Speed over 100 km/h: after flashing five times.

If button **1** is pressed to the right or left slightly longer, the turn indicators only switch off automatically once the speed-dependent distance covered is reached.

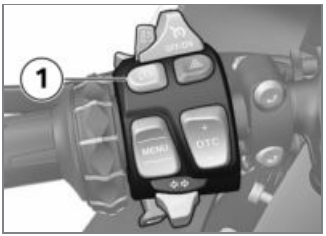
Dynamic Traction Control (DTC)

DTC Switching off

• Switch on the ignition.

NOTICE

Dynamic Traction Control (DTC) can also be switched off when the motorcycle is in motion.◀



• Press and hold button **1** until the DTC indicator light changes its status.

The DTC system status ON is displayed immediately after pressing the button **1**.

DTC indicator and warning light comes on.

Possible DTC system status OFF! is displayed.

• Release button **1** once the status has changed.

The new DTC system status OFF! is displayed briefly.

DTC indicator and warning light remains on.

» The DTC function is switched off.

Switch on DTC

- Press and hold button **1** until the DTC indicator light changes its status.

The DTC system status OFF! is displayed immediately after pressing the button **1**.

DTC indicator and warning light goes out; if self-diagnosis has not completed, it starts to flash.

Possible DTC system status ON is displayed.

- Release button **1** once the status has changed.

DTC indicator and warning light remains off or continues to flash.

The new DTC system status ON is displayed briefly.

» The DTC function is switched on.

- You also have the option of switching the ignition off and then on again.

An DTC fault has occurred if the DTC indicator and warning light shows when the motorcycle accelerates to a speed in excess of the minimum stated below after the ignition was switched off and then on again.

min 5 km/h

- See the section entitled "Engineering details" for more information on Dynamic Traction Control:

» How does Dynamic Traction Control work? (➠ 166)

Riding mode

Using the riding modes

BMW Motorrad has developed operational scenarios for your motorcycle from which you can select the scenario suitable for your situation:

– RAIN: riding on a rain-wet roadway.
– ROAD: riding on a dry roadway.
– DYNAMIC: dynamic riding on a dry roadway.
– RACE: riding on race tracks with sport tyres or slicks.

– with riding modes Pro OE
– RACE PRO 1/2/3: riding on race tracks while considering individual settings made by the rider.

The respective optimum interplay of engine characteristics, ABS control and DTC control is provided for each of these scenarios.

– with Dynamic Damping Control (DDC) OE

The chassis adjustment also adapts to the selected scenario.

Selecting riding mode

• Press button **1**.

The riding mode currently active **2** is sent to the back and the first selectable riding mode **3** is displayed. The guide **4** displays how many riding modes are available.

• Repeatedly press button **1** until the riding mode you want appears on the display. The following steps must be taken to change the riding mode:
– Close the throttle twistgrip.
– Release the brake levers.
– Deactivate the cruise control.

Cruise-control system

– with cruise control[OE]

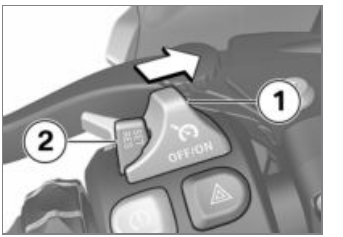
Display when adjusting settings (Speed Limit Info not active)

The symbol **1** for cruise control is displayed in the Pure Ride view and the top status line.

Display when adjusting settings (Speed Limit Info active)

The symbol **1** for cruise control is displayed in the Pure Ride view and the top status line.

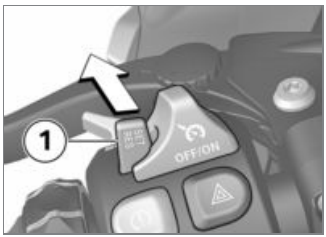
Switching on cruise control



- Slide switch **1** to the right.

» Button **2** is enabled for operation.

Saving road speed



- Briefly push button **1** forward.

Adjustment range for cruise control
20...210 km/h

Indicator light for cruise control lights up.

» The motorcycle maintains your current cruising speed and the setting is saved.

Accelerating

- Briefly push button **1** forward.

» Speed is increased by approx. 1 km/h each time you push the button.

- Push button **1** forward and hold it in this position.

» The motorcycle accelerates with infinite variability (no steps)..

» The current speed is maintained and saved if button **1** is not pushed again.

Decelerating

- Briefly push button **1** back.

» Speed is reduced by approx. 1 km/h each time you push the button.

- Push button **1** back and hold it in this position.

» The motorcycle decelerates with infinite variability (no steps).

» The current speed is maintained and saved if button **1** is not pushed again.

Deactivating cruise control

- Brake, pull the clutch lever or turn the throttle twistgrip (close the throttle by turning the twistgrip back past the idle position) to deactivate cruise control.

NOTICE

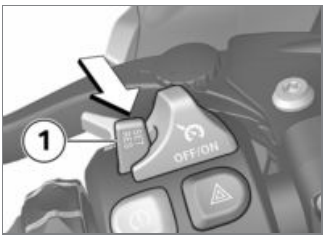
Whenever the Pro shift assistant shifts gears, cruise control is automatically disengaged for safety reasons.◀

NOTICE

For safety reasons, cruise control is automatically deactivated with DTC interventions.◀

» Indicator light for cruise control goes out.

Resuming former cruising speed



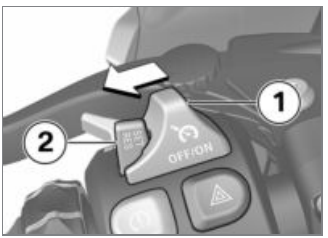
- Briefly push button **1** back to return to the speed saved beforehand.

NOTICE

Opening the throttle does not deactivate the cruise-control system. If you release the twistgrip the motorcycle will decelerate only to the cruising speed saved in memory, even though you might have intended slowing to a lower speed.◀

Indicator light for cruise control lights up.

Switching off cruise control



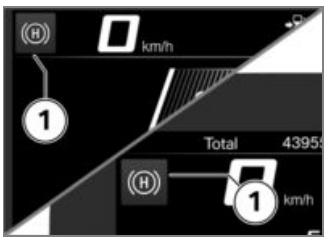
- Slide switch **1** to the left.

» The system is deactivated.

» Button **2** is disabled.

Hill Start Control

Reading



The **1** symbol for the drive-off assistant is displayed in the Pure Ride view and in the top status line.

Operate Hill Start Control

Requirement

The vehicle is at a standstill.

ATTENTION

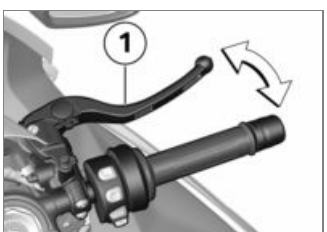
Failure of the drive-off assistant

Risk of accident

- Secure the vehicle by braking manually.◀

NOTICE

Hill Start Control is purely a comfort system to facilitate holding the machine and pulling way on uphill gradients and should not be confused with a parking brake.◀



- Operate the brake lever **1** or footbrake lever strongly and release again quickly.

Green holding symbol is displayed.

» Hill Start Control has been activated.

- To switch off Hill Start Control, operate the brake lever **1** or footbrake lever again.

The holding symbol disappears.

- Alternatively, ride off in 1st or 2nd gear.

NOTICE

When riding off, Hill Start Control is automatically deactivated.◀

Once the brake has been fully released, the holding symbol disappears.

» Hill Start Control is deactivated.

- See the "Engineering details" section for more information on Hill Start Control:

» Hill Start Control function (➠ 173)

Switching Hill Start Control on or off

- Switching on ignition (➠ 60).
- Go to the `Settings`, `Vehicle settings` menu.
- Switch `Hill Start Control` on or off.

Operating Hill Start Control Pro

– with riding modes Pro[OE]

ATTENTION

Failure of the drive-off assistant

Risk of accident

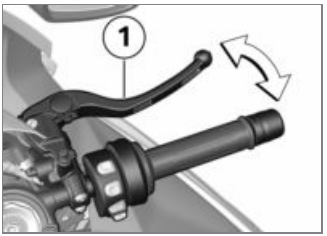
- Secure the vehicle by braking manually.◀

NOTICE

The drive-off assistant Hill Start Control Pro is only a comfort system to enable easier riding off on gradients and should not be confused with an electromechanical holding brake.◀

NOTICE

The Hill Start Control Pro drive-off assistant should not be used on inclines of over 40 %.◀



- Operate the brake lever **1** or footbrake lever strongly and release again quickly.
- Alternatively, apply the brake for about one second beyond the vehicle reaching a standstill on an incline of at least 3 %.

Green holding symbol is displayed.

» Hill Start Control Pro is activated.

- To switch off the Hill Start Control Pro, operate the brake lever **1** or footbrake lever again.

NOTICE

If Hill Start Control Pro has been deactivated using the brake lever, automatic Hill Start Control is deactivated for the next 4 m.◀

The holding symbol disappears.

- Alternatively, ride off in 1st or 2nd gear.

NOTICE

When riding off, Hill Start Control Pro is automatically deactivated.◀

Once the brake has been fully released, the holding symbol disappears.

» Hill Start Control Pro is deactivated.
- See the "Engineering details" section for more information on Hill Start Control Pro:

» Hill Start Control function (➠ 173)

Adjusting Hill Start Control Pro

– with riding modes Pro OE

- Switching on ignition (➠ 60).
- Go to the `Settings`, `Vehicle settings` menu.
- Select `HSC Pro`.
- To switch off Hill Start Control Pro, select `Off`.

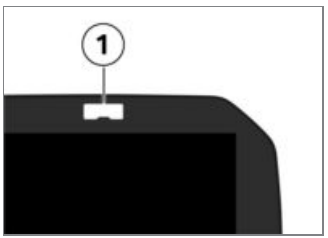
» Hill Start Control Pro is deactivated.
- To switch on manual Hill Start Control Pro, select `Manual`.

» Hill Start Control Pro can be activated by forcefully operating the handbrake or footbrake lever.
- To switch on automatic Hill Start Control Pro, select `Auto`.

» Hill Start Control Pro can be activated by forcefully operating the handbrake or footbrake lever.
» If the brake is actuated for approximately one second after the vehicle has come to a standstill and the motorcycle is on a gradient of at least 3%, Hill Start Control Pro is automatically activated.
» The selected setting remains stored even after the ignition is switched off.

Gearshift light

Switching gearshift light on and off



- Go to the Settings, Vehicle settings menu.
- Switch Shift light on or off.

Setting upshift indicator

- Switch on the Shift light function.
- Go to the Settings, Vehicle settings, Configuration menu (under Shift light).

» The following settings are available:
– Start speed
– End speed
– Brightness
– Frequency. A flashing frequency of 0 Hz corresponds to steady light.
» Changes to brightness and the flashing frequency are demonstrated by the shift light with it briefly lighting up or flashing.

Anti-theft alarm (DWA)

– with anti-theft alarm (DWA)[OE]

Activation

- Switching on ignition (➠ 60).
- Customising anti-theft alarm settings (➠ 77).
- Switch off the ignition.

» If the alarm system is activated, then the alarm system will be automatically activated when the ignition is switched off.
» Activation takes approximately 30 seconds to complete.
» Turn indicators flash twice.
» Confirmation tone sounds twice (if programmed).
» Anti-theft alarm is active.

Alarm signal

A DWA alarm can be triggered by:
– motion sensor
– switch-on attempt with an unauthorised vehicle key
– disconnection of the DWA anti-theft alarm from the motorcycle's battery (DWA internal battery in the anti-theft alarm provides power - alarm tone only, the turn indicators do not flash)

All functions are sustained even if the internal battery of the DWA anti-theft alarm system is flat; the only difference is that an alarm cannot be triggered if the system

is disconnected from the motorcycle's battery.

An alarm lasts for approximately 26 seconds. While an alarm is in progress an alarm tone sounds and the turn indicators flash. The type of alarm tone can be set by an authorised BMW Motorrad dealer.

If an alarm was triggered while the motorcycle was unattended, the rider is notified accordingly by an alarm tone sounding once when the ignition is switched on. The DWA LED then indicates the reason for the alarm for one minute.

Light signals issued by the DWA LED:

– Flashes 1x: motion sensor 1
– Flashes 2x: motion sensor 2
– Flashes 3x: ignition switched on with unauthorised vehicle key
– Flashes 4x: disconnection of the anti-theft alarm from the motorcycle's battery
– Flashes 5x: motion sensor 3

DWA deactivating

- Switch on the ignition.

» Turn indicators flash once.
» Confirmation tone sounds once (if programmed).
» Anti-theft alarm (DWA) is deactivated.

Customising anti-theft alarm settings

- Switching on ignition (➠ 60).
- Go to the `Settings`, `Vehicle settings`, `Alarm system` menu.

» The following adaptation settings are available:
– Adapt `Warning signal`
– Switch `Tilt alarm sensor` on and off
– Switch `Arming tone` on and off
– Switch `Arm automatically` on and off

Possible settings

`Warning signal`: set the increasing and decreasing or intermittent alarm tone.

`Tilt alarm sensor`: activate inclination sensor to monitor the inclination of the vehicle. The DWA responds, for example, to wheel theft or being towed away.

NOTICE

Deactivate the tilt sensor when transporting the vehicle in order to prevent the DWA from tripping.◀

`Arming tone`: confirmation alarm tone after having activated/deactivated the DWA in addition to flashing turn indicators.

`Arm automatically`: automatic activation of the alarm function when switching off the ignition.

Tyre pressure monitoring (RDC)

– with tyre pressure control (RDC) OE

Switching the minimum pressure warning on or off

- The minimum pressure of the tyres can be freely selected. When the minimum pressure is reached, a minimum pressure warning can be displayed.
- Go to the `Settings`, `Vehicle settings`, `RDC` menu.
- Switch `Nom. pressure warning` on or off.

Heated handlebar grips

– with heated grips OE

Operating the heated handlebar grips

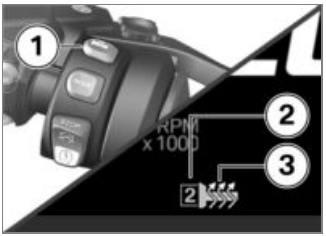
NOTICE

The heating in the heated handlebar grips can be activated only when the engine is running.◀

NOTICE

The increase in power consumption caused by having the heated handlebar grips switched on can drain the battery if you are riding at low engine speeds. If the charge level is low, the heated handlebar grips are switched off to ensure the battery's starting capability.◀

- Starting the engine (➠ 122).



- Repeatedly press button **1** until the desired heating level **2** appears in front of the heated grip symbol **3**.

The handlebar grips have two-stage heating.

50% heating power

100% heating power

» Stage 2 is for heating the grips quickly: it is advisable to switch back to stage 1 as soon as the grips are warm.

» The selected heating stage will be saved if you allow a certain length of time to pass without making further changes.
- To switch off the heated grips, repeatedly press button **1** until the heated grip **3** is hidden.

On-board computer

Calling up the on-board computer

- Go to the `My vehicle` menu.
- Scroll to the right until the `ON-BOARD COMPUTER` menu screen is displayed.

Resetting on-board computer

- Calling up the on-board computer (➠ 79).
- Press down the MENU rocker button.
- Select `Reset all values` or `Reset individual val.` and confirm.

The following values can be reset:
– `Break`
– `Journey`
– `Current` (`TRIP 1`)
– `Av. spee.`
– `Av. consump.`

Calling up the trip computer

- Calling up the on-board computer (➠ 79).
- Scroll to the right until the `TRIP COMPUT.` menu screen is displayed.

Resetting trip computer

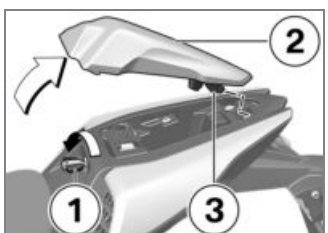
- Calling up the trip computer (➠ 79).
- Press down the MENU rocker button.
- Select `Reset automatically` or `Reset all` and confirm.

» If `Reset automatically` is selected, the on-board computer is automatically reset if a minimum of 6 hours have passed and the date has changed since the ignition was switched off.

Front and rear seats

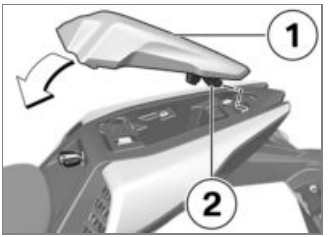
Remove tail-hump cover

- Place the motorcycle on its stand on firm, even ground.



- Unlock lock for tail-hump cover **2** using ignition key **1**.
- Remove tail-hump cover **2**; to do so, unhook fixing **3**.

Installing tail-hump cover

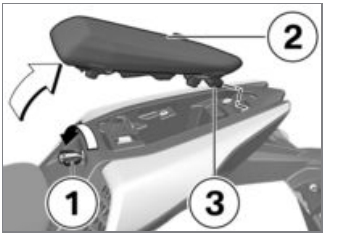


- Position tail-hump cover **1**; hook in fixing **2** while doing so.
- Press tail-hump cover **1** downwards and lock.

Removing rear seat

– with two-up riding package[OE]

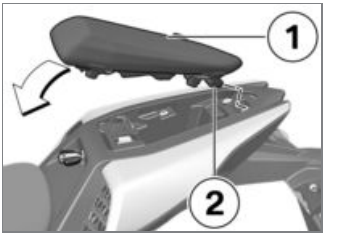
- Place the motorcycle on its stand on firm, even ground.



- Unlock lock for passenger seat **2** using ignition key **1**.
- Remove passenger seat **2**; to do so, unhook fixing **3**.
- Pull out the ignition key and place the passenger seat upholstered side down on a clean surface.

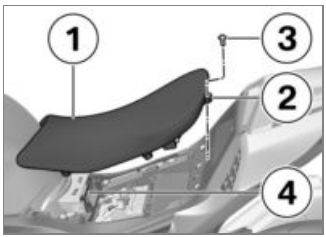
Install the rear seat

– with two-up riding package[OE]



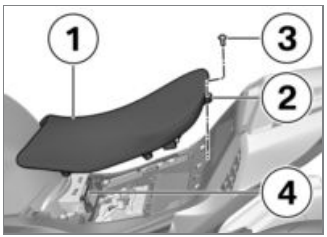
- Position passenger seat **1**; hook in fixing **2** while doing so.
- Press passenger seat **1** downwards and lock.

Removing front seat



- Push the rider's seat cover **1** forward slightly on the seat cushion surface and expose tab **2**.
- Remove bolt **3**.
- Lift up the rider's seat **1** at the rear and unhook fixing **4**.
- Place the seat, upholstered side down, on a clean surface.

Installing front seat



- Insert rider's seat **1** into the fixing **4** at the front and position it.
- Push the rider's seat cover **1** forward slightly on the seat cushion surface and expose tab **2**.
- Position and install bolt **3**.

TFT display

General instructions

Warnings

WARNING

Using a smartphone during the journey or while the engine is running

Risk of accident

- Always observe the relevant road traffic regulations.
- Do not use the smartphone during the journey (apart from applications that do not require operation, e.g. making telephone calls with the hands-free system).◀

WARNING

Distraction from the road and loss of control

Operating the integrated information system and communication devices while driving results in a risk of accident

- Operate those systems or devices only when the traffic situation allows for it.
- If necessary, stop and operate the systems or devices when stationary.◀

Connectivity functions

Connectivity functions include media, telephony and navigation. Connectivity functions can be used if the TFT display is connected to a mobile end device and a helmet (➠ 94). For more information on the Connectivity functions go to **bmw-motorrad.com/connectivity**

NOTICE

If the fuel tank is between the mobile device and the TFT display, the Bluetooth connection may be restricted. BMW Motorrad recommends storing the device above the fuel tank (e.g. in your jacket pocket).◀

NOTICE

Depending on the mobile device, the scope of the Connectivity functions may be restricted.◀

BMW Motorrad Connected App

The BMW Motorrad Connected App contains usage and vehicle information. For some functions, such as navigation, the app must be installed on the mobile end device and connected to the TFT display. The app is used to start route guidance and adjust the navigation.

NOTICE

On some mobile devices, e.g. those with iOS operating systems, the BMW Motorrad Con-

nected App must be opened before use.◀

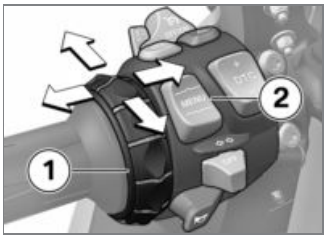
Currentness

The TFT display may be updated after the publication date. Because of this, your motorcycle may differ from the information supplied in the Rider's Manual. Up-to-date information is available at:

bmw-motorrad.com

Principle

Controls



All contents of the display are operated using the multi-controller **1** and the MENU **2** rocker button.

Depending on the context, the following functions are possible.

Multi-controller functions

Turn the multi-controller upwards:

- Move the cursor upwards in lists.
- Adjust settings.
- Increase volume.

Turn the multi-controller downwards:

- Move the cursor downwards in lists.
- Adjust settings.
- Decrease volume.

Tilt the multi-controller to the left:

- Activate the function in accordance with the operation feedback.
- Activate the function to the left or back.
- Go back to the View menu after settings.
- In the View menu, change up a level.
- In the My Vehicle menu: advance one menu screen.

Tilt the multi-controller to the right:

- Activate the function in accordance with the operation feedback.

– Confirm selection.
– Confirm settings.
– Advance a menu step.
– Scroll to the right in lists.
– In the My Vehicle menu: advance one menu screen.

MENU rocker button functions

NOTICE

Instructions given by the navigation system are displayed in a dialogue box if the `Navigation` menu has not been called up. Operation of the MENU rocker button is temporarily restricted.◀

Briefly push MENU up:

– In the View menu, change up a level.
– In the Pure Ride view: change the display for rider info status line.

Press and hold the top part of the MENU rocker button:

– In the View menu: call up Pure Ride view.
– In Pure Ride view: change operating focus to the Navigator.

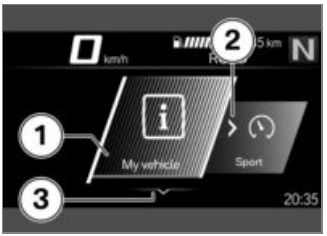
Briefly push MENU down:

– Change down a level.
– No function if the lowest hierarchical level has been reached.

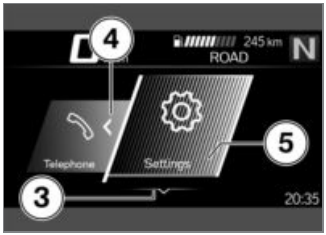
Hold MENU down:

– Change back to the last menu after a previous menu change by holding up the MENU rocker button.

Operating instructions in the main menu



Operating instructions show whether interactions are possible, and which ones.

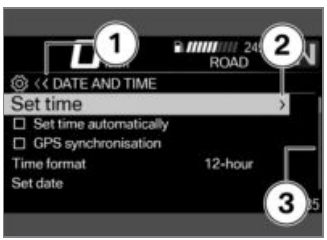


Meaning of the operating instructions:

- Operating instruction **1**: the left end has been reached.
- Operating instruction **2**: it is possible to scroll to the right.
- Operating instruction **3**: it is possible to scroll down.
- Operating instruction **4**: it is possible to scroll to the left.
- Operating instruction **5**: the right end has been reached.

Operating instructions in submenus

In addition to the operating instructions in the main menu, there are additional operating instructions in the submenus.



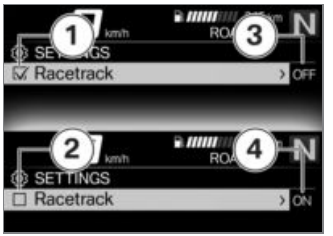
Meaning of the operating instructions:

- Operating instruction **1**: the current display is located in a hierarchical menu. A submenu level is shown with a symbol. Two symbols indicate two or more submenu levels. The colour of the symbol changes depending on whether you can return to a higher level.
- Operating instruction **2**: an additional submenu level can be called up.
- Operating instruction **3**: there are more entries than can be displayed.

Display Pure Ride view

- Press and hold rocker button MENU up.

Switching functions on and off

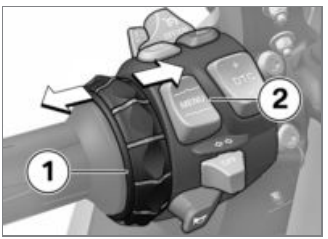


Some menu items have a check box in front of them. The check box shows whether the function is on or off. Action symbols after the menu items show what will be switched by tilting the multi-controller briefly to the right.

Examples for switching on and off:

– Symbol **1** shows that the function is switched on.
– Symbol **2** shows that the function is switched off.
– Symbol **3** shows that the function can be switched off.
– Symbol **4** shows that the function can be switched on.

Call up the menu



- Display Pure Ride view (➠ 87).
- Briefly push button **2** down.

The following menus can be called up:

– `My vehicle`
– `Sport`
– `Navigation`
– `Media`
– `Telephone`
– `Settings`
- Repeatedly press the multi-controller **1** briefly to the right until the desired menu item is highlighted.
- Briefly push button **2** down.

NOTICE

The `Settings` menu can only be called up when the vehicle is stationary.◀

Move the cursor in lists

- Call up the menu (➠ 88).
- To move the cursor down in lists, turn the multi-controller **1**

down until the desired entry is highlighted.
- To move the cursor up in lists, turn the multi-controller **1** up until the desired entry is highlighted.

Confirm selection

- Select the desired entry.
- Briefly press the multi-controller **1** to the right.

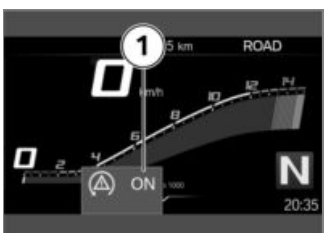
Call up the last menu used

- In Pure Ride view: press and hold the MENU rocker button.

» The last menu used is called up. The last entry highlighted is selected.

System status displays

The system status is displayed in the lower area of the menu if a function is switched on or off.



Example of what the system statuses mean:

– System status **1**: DTC function is switched on.

Switches the display for driver info. status line

Requirement

The vehicle is at a standstill. The Pure Ride view appears on the display.

- Switching on ignition (➠ 60).

» All necessary information from the on-board computer for operation on public roads (e.g. TRIP **1**) and trip computer (e.g. TRIP **2**) are available in the TFT display. The information can be displayed in the top status line.

– with tyre pressure control (RDC) OE

» Information from the tyre pressure control can also be displayed.◁

- Select content of the rider info. status line (➠ 90).

- Press and hold the button **1** to display the Pure Ride view.
- Briefly press button **1** to select the value in the top status line **2**.

The following values can be displayed:

– Odometer `Total`
– Trip distance 1 `TRIP 1`
– Trip distance 2 `TRIP 2`

Average consumption 1

Average consumption 2

Riding time 1

Riding time 2

Break 1

Break 2

Average speed 1

Average speed 2

Tyre pressure

Fuel gauge

Range

Select content of the rider info. status line

- Call up the `Settings`, `Display`, `Status line content` menu.
- Switch on the desired displays.

» It is possible to switch between the selected displays in the rider info. status line. If no displays are selected, only the range will be displayed.

Adjust settings

- Select and confirm the desired settings menu.

- Turn the multi-controller **1** downwards until the desired setting is highlighted.
- If there are operating instructions, tilt the multi-controller **1** to the right.
- If there are no operating instructions, tilt the multi-controller **1** to the left.

» The setting is saved.

Switching Speed Limit Info on or off

Requirement

Vehicle is connected with a compatible mobile end device. The BMW Motorrad Connected app is installed on the mobile end device.

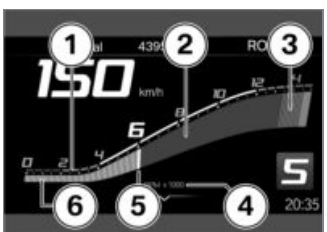
- Go to the `Settings`, `Display` menu.
- Switch `Speed Limit Info` on or off.

NOTICE

The Speed Limit Info is not available if `Settings`, `Racetrack` is activated.◀

Pure Ride view

Engine speed display



1 Scale
2 Lower engine speed range
3 Upper/red engine speed range
4 Engine speed display unit: 1000 revolutions per minute
5 Needle
6 Secondary indicator

NOTICE

The red engine speed range changes depending on the coolant temperature:
The colder the engine, the lower the speed at which the red engine speed range starts.
The warmer the engine, the higher the speed at which the red engine speed range starts.
When the operating temperature is reached, the display of the red engine speed range no longer changes.
The upshift recommendation is dynamically adapted.◀

Range

The range readout **1** indicates how far you can ride with the fuel remaining in the tank. This distance is calculated on the basis of average consumption and the quantity of fuel on board.

– When the motorcycle is propped on its side stand the slight angle of inclination means that the sensor cannot register the fuel level correctly. This is the reason why the range is recalculated only when the side stand is in the retracted position.
– The range is shown together with a warning once the fuel reserve has been reached.
– After a refuelling stop, range is recalculated if the amount of fuel in the tank is greater than the reserve quantity.
– The calculated range is only an approximate figure.

Recommendation to upshift

The recommendation to upshift in the Pure Ride view **1** or in the status line **2** indicates the best time to upshift economically.

General settings

Adjust the volume

- Connect rider's and passenger's helmet (➠ 95).
- Increase volume: turn the multi-controller upwards.
- Decrease volume: turn the multi-controller downwards.
- Mute: turn the multi-controller all the way down.

Setting the date

- Switching on ignition (➠ 60).
- Call up the `Settings`, `System settings`, `Date and time`, `Set date` menu.
- Adjust `Day`, `Month` and `Year`.
- Confirm setting.

Set date format

- Call up the `Settings`, `System settings`, `Date and time`, `Date format` menu.
- Select the desired setting.
- Confirm setting.

Setting the clock

- Switching on ignition (➠ 60).
- Call up the Settings, System settings, Date and time, Set time menu.
- Adjust Hour and Minute.

Setting time format

- Call up the Settings, System settings, Date and time, Time format menu.
- Select the desired setting.
- Confirm setting.

Setting units of measurement

- Call up the Settings, System settings, Units menu.

The following units of measurement can be set:

– Distance covered
– Pressure
– Temperature
– Speed
– Consumption

Setting the language

- Call up the Settings, System settings, Language menu.

The following languages can be adjusted:

– Chinese
– German
– English
– Spanish
– French
– Italian
– Dutch
– Portuguese
– Russian
– Ukrainian
– Polish
– Turkish

Adjusting brightness

- Call up the Settings, Display, Brightness menu.
- Adjusting display brightness.

Resetting all settings

- All the settings in the Settings menu can be reset to the factory settings.
- Call up the Settings menu.
- Select Reset all and confirm.

The settings in the following menus are reset:

– Vehicle settings
– System settings
– Connections
– Display
– Information

» Existing Bluetooth connections are not deleted.

Bluetooth

Short-range wireless technology

The Bluetooth function might not be available in certain countries.

Bluetooth is a short-range wireless technology. Bluetooth devices are short-range devices transmitting on the license-free ISM band (Industrial, Scientific, Medical) between 2.402 GHz and 2.480 GHz. They can be operated anywhere in the world without a licence being required. Although Bluetooth is designed to establish and sustain robust connections over short distances, as with every other wireless technology disruptions are possible. Interference can affect connections or connections can sometimes fail. Particularly when multiple devices operate in a Bluetooth network, with wireless technology of this nature it is not possible to ensure fault-free communications in every situation.

Possible sources of interference:

– interference zones due to transmission masts and similar.
– devices with non-compliant Bluetooth implementations
– proximity of other Bluetooth-compatible devices

Pairing

Two Bluetooth devices must detect each other before they can create a connection with each other. This process of mutual recognition is known as pairing. When two devices have paired they remember each other, so the pairing process is conducted only once, on initial contact.

NOTICE

On some mobile devices, e.g. those with iOS operating systems, the BMW Motorrad Connected App must be opened before use.◀

During the pairing process, the TFT display searches for other Bluetooth-compatible devices within its reception range. The conditions that have to be satisfied before the audio system can recognise another device are as follows:

– The Bluetooth function of the device must be activated
– The device must be "visible" to others
– The device must support the A2DP profile
– Other Bluetooth-compatible devices must be OFF (e.g. mobile phones and navigation systems).

Please consult the operating instructions for your communication system.

Pairing

• Call up the `Settings`, `Connections` menu.

» Bluetooth connections can be established, managed and deleted in the CONNECTIONS menu. The following Bluetooth connections are displayed:
– Mobile device
– Rider's helmet
– Passenger helm.

The connection status for mobile end devices is displayed.

Connect mobile end device

- Pairing (➠ 94).
- Activate the mobile end device's Bluetooth function (see mobile end device's operating instructions).
- Select Mobile device and confirm.
- Select Pair new mobile device and confirm.

Mobile end devices are being searched for.

The Bluetooth symbol flashes in the bottom status line during pairing.

Mobile end devices found are displayed.

- Select and confirm mobile end device.
- Follow the instructions on the mobile end device.
- Confirm that the code matches.

» The connection is established and the connection status updated.
» If the connection is not established, consult the troubleshooting chart in the section entitled "Technical data". (➠ 225)
» Depending on the mobile end device, telephone data is transferred to the vehicle automatically.
» Telephone data (➠ 103)
» If the telephone book is not displayed, consult the troubleshooting chart in the section entitled "Technical data". (➠ 226)
» If the Bluetooth connection is not working as expected, consult the troubleshooting chart in the section entitled "Technical data". (➠ 225)

Connect rider's and passenger's helmet

- Pairing (➠ 94).
- Select Rider's helmet or Passenger helm. and confirm.
- Make the helmet's communication system visible.
- Select PAIRING NEW HELMETS or PAIRING NEW PASS. HELM. and confirm.

Helmets are searched for.

 The Bluetooth symbol flashes in the bottom status line during pairing.

Helmets found are displayed.
- Select and confirm helmet.

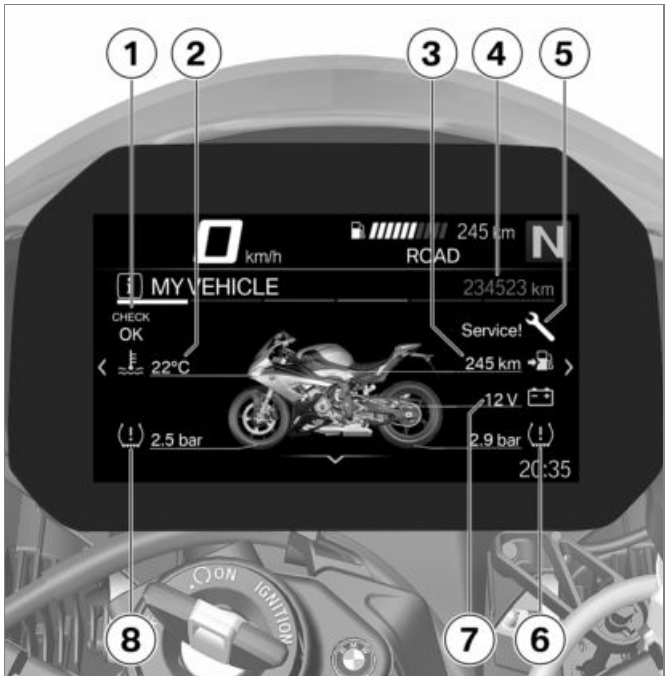
» The connection is established and the connection status updated.

» If the connection is not established, consult the troubleshooting chart in the section entitled "Technical data". (➠ 225)

» If the Bluetooth connection is not working as expected, consult the troubleshooting chart in the section entitled "Technical data". (➠ 225)

Deleting connections

- Call up the `Settings`, `Connections` menu.
- Select `Delete connections`.
- To delete an individual connection, select the connection and confirm.
- To delete all connections, select `Delete all connections` and confirm.

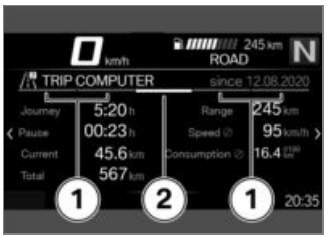


My vehicle

Start screen

1 Check Control display
Mode of presentation (➠ 32)
2 Coolant temperature (➠ 44)
3 Range (➠ 92)
4 Total distance travelled
5 Service-due indicator (➠ 56)
6 Rear tyre pressure (➠ 46)
7 On-board voltage (➠ 205)
8 Front tyre pressure (➠ 46)

Operating instructions



– Operating instruction **1**: tabs which show how far to the left or right can be scrolled.
– Operating instruction **2**: tab which shows the position of the current menu screen.

Scrolling through menu screens

- Go to the My vehicle menu.
- To scroll to the right, briefly press Multi-Controller **1** to the right.
- To scroll to the left, briefly press Multi-Controller **1** to the left.

The My Vehicle menu contains the following screens:

– MY VEHICLE
– Check Control messages (if any)
– ON-BOARD COMPUTER
– TRIP COMPUT.
– with tyre pressure control (RDC)[OE]
– TYRE PRESSURE◁
– SERVICE REQUIREMENTS

- For more information on tyre pressure and Check Control messages, see the "Displays" section.

NOTICE

Check control messages are attached dynamically to the My Vehicle menu screen as additional tabs.◀

On-board computer and trip computer

The ON-BOARD COMPUTER and TRIP COMPUT. menu screens display vehicle and trip data, such as average values.

Service requirements

If the time remaining to the next service is less than a month or if the next service is due within 1000 km, a white CC message is displayed.

Navigation

Warnings

WARNING

Using a smartphone during the journey or while the engine is running

Risk of accident

- Always observe the relevant road traffic regulations.
- Do not use the smartphone during the journey (apart from applications that do not require operation, e.g. making telephone calls with the hands-free system).◀

WARNING

Distraction from the road and loss of control

Operating the integrated information system and communication devices while driving results in a risk of accident

- Operate those systems or devices only when the traffic situation allows for it.
- If necessary, stop and operate the systems or devices when stationary.◀

Precondition

The vehicle is connected to a compatible mobile end device.

Precondition

The BMW Motorrad Connected App is installed on the connected mobile end device.

NOTICE

On some mobile devices, e.g. those with iOS operating systems, the BMW Motorrad Connected App must be opened before use.◀

Entering destination address

- Connect mobile end device (➠ 95).
- Call up the BMW Motorrad Connected App and start the route guidance.
- Call up the `Navigation` menu in the TFT display.

» Active route guidance is displayed.

» If the active route guidance is not displayed, consult the troubleshooting chart in the section entitled "Technical data". (➠ 226)

Selecting destination from recent destinations

- Call up the `Navigation`, `Recent destinations` menu.
- Select and confirm destination.
- Select `Start route guidance`.

Selecting destination from favourites

- The FAVOURITES menu displays all destinations which have been saved as favourites in the BMW Motorrad Connected app. No new favourites can be added using the TFT display.
- Call up the Navigation, Favourites menu.
- Select and confirm destination.
- Select Start guidance.

Entering special destinations

- Special destinations, such as points of interest, can be displayed on the map.
- Call up the Navigation, POIs menu.

The following locations can be selected:

– At current location
– At destination
– Along the route

- Select where the special destinations should be looked for.

e.g. the following special destination can be selected:

– Filling station

- Select and confirm the special destination.
- Select Start route guidance and confirm.

Setting route criteria

- Call up the Navigation, Route criteria menu.

The following criteria can be selected:

– Route type
– Avoid

- Select desired Route type.
- Switch desired Avoid on or off.

The number of avoidances activated is displayed in brackets.

Ending route guidance

- Call up the Navigation, Active route guidance menu.
- Select End route guidance and confirm.

Switching spoken instructions on or off

- Connect rider's and passenger's helmet (➠ 95).
- The navigation can be read out by a computer voice. For this purpose, Spoken instructions must be switched on.
- Call up the Navigation, Active route guidance menu.
- Switch Spoken instructions on or off.

Repeating last spoken instruction

- Call up the Navigation, Active route guidance menu.

• Select Current instruction and confirm.

Media

Precondition

The vehicle is connected to a compatible mobile end device and helmet.

Control music playback

• Go to the Media menu.

NOTICE

BMW Motorrad recommends setting the volume on the mobile end device for media and calls to maximum before setting off.◀

• Adjust the volume (➠ 92).
• Next track: briefly tilt Multi-Controller **1** to the right.
• Last track or start of the current track: briefly tilt Multi-Controller **1** to the left.
• Fast forward: hold Multi-Controller **1** to the right.
• Rewind: hold Multi-Controller **1** to the left.
• Call up the context menu: press the bottom part of the button **2**.

NOTICE

Depending on the mobile device, the scope of the Connectivity functions may be restricted.◀

» The following functions can be used in the context menu:
– Start playback or Pause playback.
– Select the Now playing, All artists, All albums or All tracks category for search and playback.
– Select Playlists.

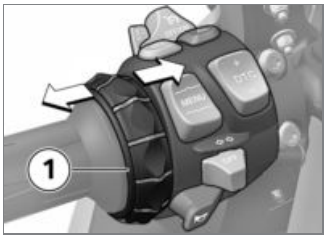
You can adjust the following settings in the Audio options submenu:
– Switch Shuffle on or off.
– Select Repeat: Off, One (current track) or All.

Phone

Precondition

The vehicle is connected to a compatible mobile end device and helmet.

Telephone calls



- Go to the `Telephone` menu.
- Accept call: tilt Multi-Controller **1** to the right.
- Reject call: tilt Multi-Controller **1** to the left.
- End the call: tilt Multi-Controller **1** to the left.

Muting

During active phone calls, the microphone in the helmet can be muted.

Phone calls with multiple participants

A second call can be accepted while you are on a call. The first phone call is put on hold. The number of active telephone calls is shown in the `Telephone` menu. It is possible to switch between two phone calls.

Telephone data

Depending on the mobile end device, telephone data may be transmitted to the vehicle automatically once pairing is complete (➠ 94).

`Phone book`: list of contacts saved on the mobile end device

`Call list`: list of calls with the mobile end device

`Favourites`: list of favourites saved on the mobile end device

Display software version

- Call up the `Settings`, `Information`, `Software version` menu.

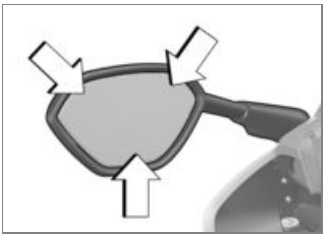
Display licence information

- Call up the `Settings`, `Information`, `Licences` menu.

Adjustment

Mirrors

Adjusting mirrors



- Pivot the mirror to the correct position by pressing gently at the edge of the glass.

Headlight

Headlight adjustment for right- or left-hand traffic

This motorcycle has a symmetric-beam low-beam headlight. If the motorcycle is ridden in a country where the opposite rule of the road applies, its symmetric low-beam headlight means that no measures are necessary to prevent the headlight beam from dazzling oncoming traffic.

Headlight beam throw and spring preload

The headlight beam throw generally remains constant by adjustment of the spring preload to the load status.

NOTICE

If there are doubts about the correct headlight beam throw, have the setting checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

Brakes

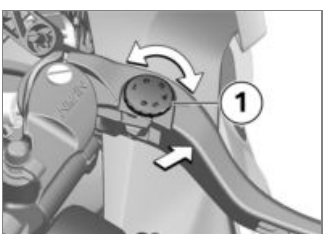
Adjust the handbrake lever

WARNING

Adjusting the brake lever while riding

Risk of accident

- Do not attempt to adjust the brake lever unless the motorcycle is at a standstill.◀



- Turn adjuster knob **1** to the desired position.

NOTICE

The adjuster is easier to turn if you push the brake lever forward.◀

» Adjustment options:
– from position 1: smallest span between handlebar grip and brake lever
– to position 6: largest span between handlebar grip and brake lever

Adjust the clutch lever

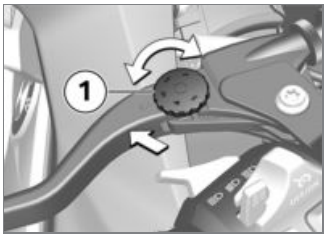
Adjust the clutch lever

WARNING

Adjusting the clutch lever while riding

Risk of accident

- Adjust the clutch lever only when the motorcycle is at a standstill.◀



- Turn adjuster knob **1** to the desired position.

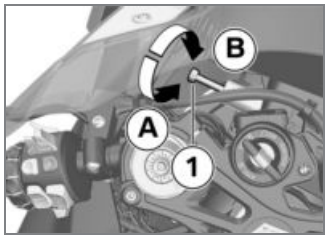
NOTICE

The adjuster is easier to turn if you push the clutch lever forward.◀

» Adjustment options:
– Position 1: smallest distance between handlebar grip and clutch lever
– Position 5: largest distance between handlebar grip and clutch lever

Steering

Adjusting steering damper



WARNING

Adjusting the steering damper while riding.

Risk of accident

- Do not attempt to adjust the steering damper unless the motorcycle is at a standstill.◀
- To increase damping: turn adjusting screw **1** in the direction **A**.

- To reduce damping: turn adjusting screw **1** in the direction **B**.

Steering damper basic setting
Turn adjusting screw until the limit position in the direction **A**, then turn in direction **B** for 8 clicks. (Public roads)
Turn adjusting screw until the limit position in the direction **A**, then turn in direction **B** for 4 clicks. (Racing)

Spring preload

Adjustment

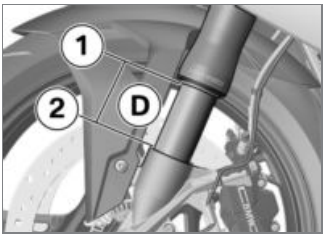
Front spring preload has to be adjusted to suit the rider's weight. Increase spring preload for heavier loads, decrease spring preload for lighter loads.
It is essential to set spring preload of the rear suspension to suit the load carried by the motorcycle. Increase spring preload when the vehicle is heavily loaded and reduce spring preload accordingly when the vehicle is lightly loaded.

Lifting the motorcycle

To adjust the spring preload, an engine lifter is required; however this subject will not be dealt with in detail. If you are not sure whether this work is within your capability, please contact a specialist workshop, preferably an authorised BMW Motorrad Retailer.

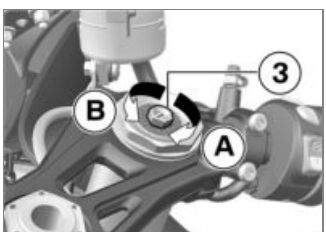
Adjusting spring preload for front wheel

- Place the motorcycle on its stand on firm, even ground.
- Lift motorcycle with engine lifter until there is no load on the front wheel.



- Measure distance **D** between the lower edge **1** of the slider tube and the front axle **2**.
- Remove the engine lifter.
- Place the motorcycle on its stand on firm, even ground.
- Apply the rider's weight to the motorcycle.
- With the assistance of a second person, measure the distance **D** between the points **1** and **2** again and calculate the difference (compression) between the measured values.

Load-dependent adjustment of spring preload
Negative spring displacement of front wheel
$40^{\pm 2}$ mm (including rider 85 kg)



WARNING

Spring preload setting and spring-strut damping setting not matched.

Impaired handling.

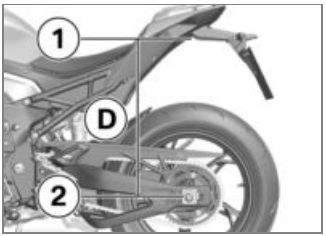
- Adjust spring-strut damping to suit spring preload.◀

- To reduce the compression (increase of spring preload), turn adjusting screw **3** using toolkit in the direction **A**. The toolkit includes an appropriate adapter that protects the screw from scratches.
- To increase the compression (reduction of spring preload), turn adjusting screw **3** using toolkit in the direction **B**. The toolkit includes an appropriate adapter that protects the screw from scratches.

Adjusting spring preload for rear wheel

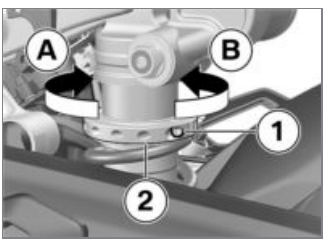
– without Dynamic Damping Control (DDC) OE

- Place the motorcycle on its stand on firm, even ground.
- Lift motorcycle with engine lifter until there is no load on the rear wheel.



- Measure the distance **D** between the motorcycle seat **1** and the axle **2**.
- Remove the engine lifter.
- Place the motorcycle on its stand on firm, even ground.
- Subject the motorcycle to load with a rider, and possibly with luggage.
- With the assistance of a second person, measure the distance **D** between the points **1** and **2** again and calculate the difference (compression) between the measured values.

Load-dependent adjustment of spring preload
Suspension compression at rear wheel
$35^{\pm 2}$ mm (Road use with rider 85 kg)
$30^{\pm 2}$ mm (Racing use with rider 85 kg)



⚠ WARNING

Spring preload setting and spring-strut damping setting not matched.

Impaired handling.

- Adjust spring-strut damping to suit spring preload.◀
- Loosen screw **1** with toolkit.
- To reduce compression (increase of spring preload), turn adjusting ring **2** in the direction **A** with toolkit.
- To increase compression (reduction of spring preload), turn adjusting ring **2** in the direction **B** with toolkit.
- Tighten screw **1** to the specified tightening torque.

Screw in adjusting ring
6 Nm

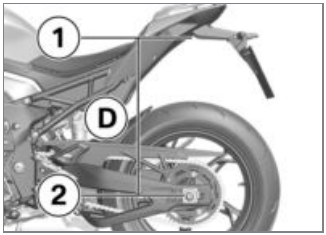
Adjusting spring preload for rear wheel

– with Dynamic Damping Control (DDC)[OE]

- Place the motorcycle on its stand on firm, even ground.
- Lift motorcycle with engine lifter until there is no load on the rear wheel.
- Switch on the ignition.
- Start the engine to avoid discharging the battery.

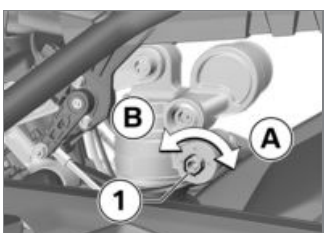
NOTICE

Adjustments to the DDC system are possible only with the ignition switched on, because only then are the electric valves active.◀



- Measure the distance **D** between the motorcycle seat **1** and the axle **2**.
- Remove the engine lifter.
- Place the motorcycle on its stand on firm, even ground.
- Subject the motorcycle to load with a rider, and possibly with luggage.
- With the assistance of a second person, measure the distance **D** between the points **1** and **2** again and calculate the difference (compression) between the measured values.

Load-dependent adjustment of spring preload
Suspension compression at rear wheel
$35^{\pm 2}$ mm (Road use with rider 85 kg)
$30^{\pm 2}$ mm (Racing use with rider 85 kg)



- To reduce compression (increase of spring preload), turn screw **1** using toolkit in the direction **A**.
- To increase compression (reduction of spring preload), turn screw **1** using toolkit in the direction **B**.

Damping

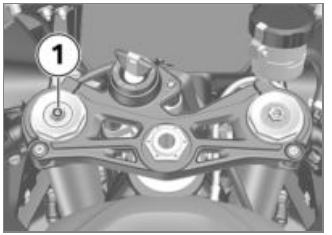
Adjustment

Damping must be adapted to suit the condition of the surface on which the motorcycle is ridden and to suit spring preload.

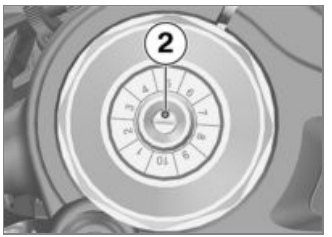
– An uneven surface requires softer damping than a smooth surface.
– An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjusting compression-stage damping for front wheel

– without Dynamic Damping Control (DDC)[OE]



- Adjust compression-stage damping using the adjusting screw **1** and the yellow scale on the left fork leg.

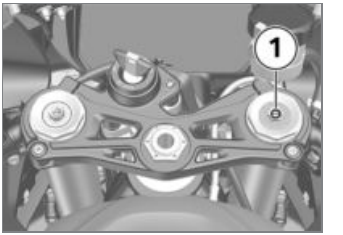


- To increase damping: turn adjusting screw using the toolkit so that the mark **2** points at a larger scale value.
- To reduce damping: turn adjusting screw using the toolkit so that the mark **2** points at a smaller scale value.

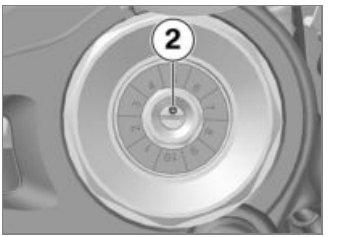
Compression stage, basic setting, front
Position 5 (Road use with rider 85 kg)
Position 7 (Racing use with rider 85 kg)

Adjust the rebound-stage damping for front wheel

– without Dynamic Damping Control (DDC)[OE]



- Adjust rebound-stage damping using the adjusting screw **1** and red scale on the right fork leg.



- To increase damping: turn adjusting screw using the toolkit

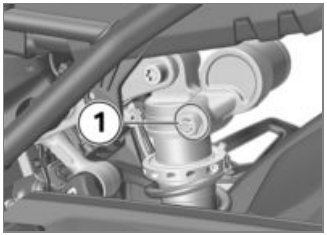
so that the mark **2** points at a larger scale value.
- To reduce damping: turn adjusting screw using the toolkit so that the mark **2** points at a smaller scale value.

Rebound stage, basic setting, front
Position 5 (Road use with rider 85 kg)
Position 5 (Racing use with rider 85 kg)

Adjusting compression-stage damping for rear wheel

– without Dynamic Damping Control (DDC)[OE]

- Place the motorcycle on its stand on firm, even ground.



- Adjust the compression-stage damping by using the adjusting screw **1**.

- To increase damping: turn the adjusting screw in the direction **+** with the toolkit.
- To reduce damping: turn the adjusting screw in the direction **–** with the toolkit.

Compression stage, basic setting, rear
Turn adjusting screw **1** until the limit position in the direction **+**, then turn in direction **–** for 5 clicks. (Road use with rider 85 kg)
Turn adjusting screw **1** until the limit position in the direction **+**, then turn in direction **–** for 3 clicks. (Racing use with rider 85 kg)

Adjusting rebound-stage damping for rear wheel

– without Dynamic Damping Control (DDC)[OE]

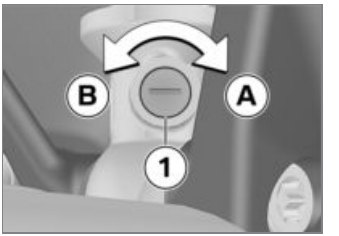
CAUTION

Hot exhaust system

Risk of burn injury

- Do not touch a hot exhaust system.◀
- Place the motorcycle on its stand on firm, even ground.

- Adjust rebound-stage damping using the adjusting screw **1**.



- To increase damping: turn the adjusting screw **1** in the direction **A** with the toolkit.
- To reduce damping: turn the adjusting screw **1** in the direction **B** with the toolkit.

Rebound stage, basic setting, rear
Turn adjuster knob until the limit position in the direction **A**, then turn in direction **B** for 5 clicks. (Road use with rider 85 kg)

Rebound stage, basic setting, rear
Turn adjuster knob until the limit position in the direction **A**, then turn in direction **B** for 3 clicks. (Racing use with rider 85 kg)

Riding height

– with Race package OE
or
– with M Package OE

Adjusting the riding height

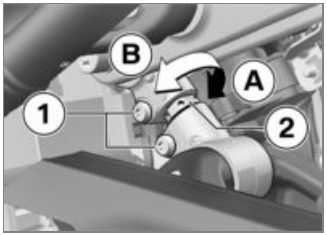
The riding height at the rear-wheel guide can be adjusted via the traction strut length. When adjusting the ride height, bear in mind that with certain setting combinations, the clearances to different components cannot be guaranteed. Therefore, after

making changes, the clearance to the rear wheel swinging arm and rear wheel must always be checked.

Additional tools such as an engine lifter or footrest stand are required for adjusting the riding height; however, they will not be dealt with in detail here. If you are in doubt as to whether you would be able to complete this work, contact a specialist workshop, preferably a BMW Motorrad Retailer.

Adjusting riding height at the traction strut

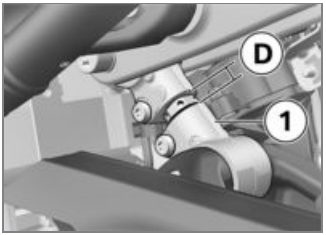
- Place the motorcycle on its stand on firm, even ground.
- Lift motorcycle with engine lifter, so that there is no load on the rear wheel swinging arm.
- Secure the motorcycle against falling over.



- Loosen clamping bolts **1**.
- To increase the riding height, turn the adjusting screw **2** in the direction **A**.
- To reduce the riding height, turn the adjusting screw **2** in the direction **B**.

Traction strut length
87.5 mm (Basic setting)
86...91 mm (Adjustment range)

- Adjust riding height to the swinging arm pivot point setting:



- Measure and adjust gap dimension **D** at traction strut **1**.

Traction strut gap dimension to compensate the swinging arm pivot point setting
9.5 mm (Basic setting)
12.5 mm (Position 2)
13 mm (Position 3)

- Tighten the clamping bolts **1**.

Clamping bolt at adjusting strut
8 Nm

- Remove the engine lifter.
– with Dynamic Damping Control (DDC)[OE]
- Calibrating DDC (➠ 118).◁

Swinging arm

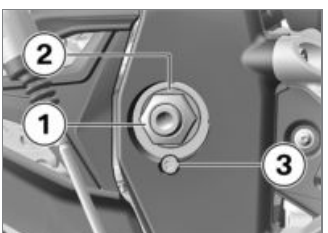
– with Race package[OE]
or
– with M Package[OE]

Adjusting swinging arm

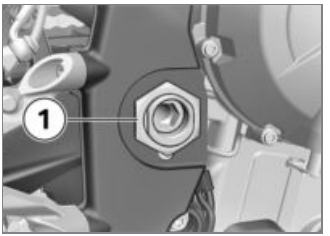
The swinging arm pivot point can be adjusted to three levels. Additional tools such as an engine lifter or footrest stand are required, however, they will not be dealt with in detail here. If you are in doubt as to whether you would be able to complete this work, contact a specialist workshop, preferably a BMW Motorrad Retailer.

Adjusting swinging arm pivot point

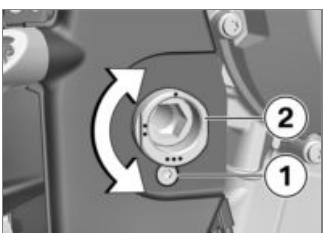
- Place the motorcycle on its stand on firm, even ground.
- Lift motorcycle with an engine lifter or another suitable jack, so that there is no load on the rear wheel swinging arm.



- Remove nut **1** and washer **2**.
- Remove fixing screw **3**.



- Remove nut **1**.



- Remove fixing screw **1**.
- Turn right bush **2**, alternately along with left bush, by a maximum of 90° respectively in

order to set the desired position.

- Install fixing screw **1**.

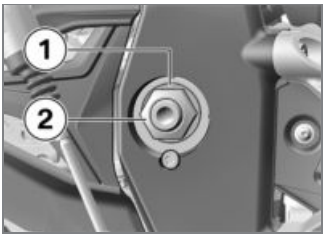
Positioning of the swinging arm pivot point bush in the main frame, right
5 Nm

- Turn left bush **2**, alternately along with right bush, by a maximum of 90° respectively in order to set the desired position.
- Ensure that the left **2** and right bushes are fixed in the same position **(mark)**.
- Install fixing screw **1**.

Positioning of the swinging arm pivot point bush in the main frame, left
8 Nm

- Install nut **1** and tighten with appropriate torque.

Nut for swinging arm pivot point bush on frame
Thread-locking compound: Loctite 270, High strength
50 Nm



- Install nut **2** with washer **1** and tighten with specified torque; counter-hold the swinging arm axle while doing so.

Nut on swinging arm axle
Thread-locking compound: mechanical
100 Nm

- Remove the engine lifter.
- After changing the swinging arm pivot point, the riding height must be corrected at the traction strut.

- Adjusting riding height at the traction strut (➠ 115).

– with Dynamic Damping Control (DDC)[OE]

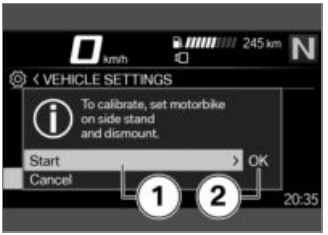
- Calibrating DDC (➠ 118).
- Checking chain sag (➠ 208).

DDC calibration

– with Dynamic Damping Control (DDC)[OE]

Calibrating DDC

- Place the motorcycle on the side stand or on a suitable auxiliary stand. Do not sit on the motorcycle during calibration. Remove items of luggage.



- Go to the `Settings`, `Vehicle settings`, `DDC calibration` menu.
- Select `Start` **1** and confirm with `OK` **2**.

» Calibration is performed.

» If calibration has been performed successfully, `Calibration successful.` is displayed. If `Calibration failure! Remove all loads and set vehicle on side stand.` is displayed, the calibration must be repeated.

- Select `Repeat`.

» If calibration is not successful after several attempts, contact a specialist workshop, preferably a BMW Motorrad Partner.

Riding

Safety information

Rider's equipment

Do not ride without the correct clothing! Always wear:
– Helmet
– Suit
– Gloves
– Boots

This applies even to short journeys, and to every season of the year. Your authorised BMW Motorrad dealer will be glad to advise you on the correct clothing for every purpose.

Loading

WARNING

Handling adversely affected by overloading and imbalanced loads
Risk of falling
- Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.◀
- Adjusting spring preload setting and damping to the total weight.

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:
– Settings of the spring-strut and shock-absorber system
– Imbalanced load
– Loose clothing
– Insufficient tyre pressure
– Poor tyre tread
– Etc.

Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colourless and odourless but highly toxic.

WARNING

Exhaust gases adversely affecting health
Risk of asphyxiation
- Do not inhale exhaust fumes.
- Do not run the engine in an enclosed space.◀

Risk of burn injury

CAUTION

Engine and exhaust system become very hot when the vehicle is in use
Risk of burn injury
- When you park the vehicle make sure that no-one and no objects can come into contact with the hot engine and exhaust system.◀

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.

The following guidelines must be observed:

– Do not run the fuel tank dry.
– Do not attempt to start or run the engine with a spark-plug cap disconnected.
– Stop the engine immediately if it misfires.
– Use only unleaded fuel.
– Comply with all specified maintenance intervals.

ATTENTION

Unburned fuel in catalytic converter

Damage to catalytic converter

- Note the points listed for protection of the catalytic converter.◀

Risk of overheating

ATTENTION

Engine running for prolonged period with vehicle at standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

- Do not allow the engine to idle unnecessarily.
- Ride away immediately after starting the engine.◀

Tampering

ATTENTION

Tampering with the motorcycle (e.g. engine management ECU, throttle valves, clutch)

Damage to the affected parts, failure of safety-relevant functions, voiding of warranty

- Do not tamper with the vehicle in any way that could result in tuned performance.◀

Comply with checklist

- At regular intervals, use the checklist below to check your motorcycle.

Always before riding off:

- Check operation of the brake system.
- Check operation of the lights and signalling equipment.
- Checking clutch function (▶ 186).
- Checking tyre tread depth (▶ 189).
- Check that bags and luggage are securely held in place.

At every third refuelling stop

- Checking engine oil level (➠ 179).
- Checking front brake pad thickness (➠ 182).
- Checking rear brake pad thickness (➠ 183).
- Checking brake-fluid level, front brakes (➠ 184).
- Checking the brake-fluid level, rear brakes (➠ 185).
- Check coolant level (➠ 187).

Starting

Starting the engine

- Switch on the ignition.

» Pre-Ride-Check is performed. (➠ 123)

» ABS self-diagnosis is in progress. (➠ 123)

» DTC self-diagnosis is in progress. (➠ 124)

- Select neutral or, if a gear is engaged, pull the clutch lever.

NOTICE

You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if you start it with the gearbox in neutral and then engage a gear before retracting the side stand.◀

- For a cold engine start and low temperatures: pull clutch.

– with M battery OE

» Low temperatures can impact on the starting response.◁

- Press the starter button **1**.

NOTICE

The start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.
See the subsection on jump starting in "Maintenance" for more details.◀

» The engine starts.

» Consult the troubleshooting chart below if the engine refuses to start. (➠ 224)

Pre-Ride-Check

When the ignition is switched on, the instrument cluster runs a test of the indicator and warning lights. This test is known as the "Pre-Ride-Check". The test is aborted if you start the engine before it completes.

Phase 1

All indicator and warning lights are switched on.
After a longer vehicle standstill period, an animation is displayed when the system starts up.

Phase 2

The 'General' warning light changes from red to yellow.

Phase 3

All the indicator and warning lights switched on in the initial phase are switched off in reverse sequence.

If one of the indicator and warning lights did not switch on:

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ABS self-diagnosis

BMW Motorrad Integral ABS performs self-diagnosis to ensure its operability. Self-diagnosis starts automatically when you switch on the ignition.

Phase 1

» Test of the diagnosis-compatible system components with the vehicle at a standstill.

ABS indicator and warning light flashes.

Phase 2

» Test of the wheel-speed sensors as the vehicle pulls away from rest.

ABS indicator and warning light flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

 ABS self-diagnosis not completed
The ABS function is not available because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel sensors to be checked: min 5 km/h)

If an indicator showing an ABS fault appears when ABS self-diagnosis completes:

- You can continue to ride. Bear in mind that neither the ABS function nor the integral braking function is available.

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

DTC self-diagnosis

BMW Motorrad DTC performs self-diagnosis to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition.

Phase 1

» Test of the diagnosis-compatible system components with the vehicle at a standstill.


DTC indicator and warning light flashes slowly.

Phase 2

» Pullaway test of the system components with diagnostic capability.


DTC indicator and warning light flashes slowly.

DTC self-diagnosis completed

» The DTC symbol no longer shows.

- Check all the indicator and warning lights.

 DTC self-diagnosis not completed
The DTC function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed with the engine running for the wheel sensors to be checked: min 5 km/h)

If an indicator showing an DTC fault appears when DTC self-diagnosis completes:

- You can continue to ride. Bear in mind that the DTC function is not available or the functionality might be subject to certain restrictions.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Running in

Engine

- Until the first running-in check, vary the throttle opening and engine-speed range frequently; avoid riding at constant engine speed for prolonged periods.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads.
- Comply with the running-in speeds.

Running-in speed
<7000 min^{-1} (Odometer reading 0...300 km)
<9000 min^{-1} (Odometer reading 300...1000 km)
No full load (Odometer reading 0...1000 km)

- Note the mileage after which the running-in check should be carried out.

Mileage until the running-in check
500...1200 km

Brake pads

New brake pads have to be run in before they can achieve their optimum friction levels. The reduced braking effect can be compensated for by greater pressure on the brake lever.

WARNING

New brake pads

Longer stopping distance, risk of accident

- Apply the brakes in good time.◀

Tyres

New tyres have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tyres are run in. This running in procedure is essential if the tyres are to achieve maximum grip.

WARNING

New tyres losing grip on wet roads and at extreme bank angles

Risk of accident

- Ride carefully and avoid extremely sharp inclines.◀

Shifting gear

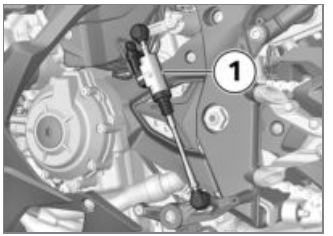
Shift assistant Pro

NOTICE

See the section entitled "Engineering details" for more information on the Pro shift assistant.◀

NOTICE

Whenever the Pro shift assistant shifts gears, cruise control is automatically disengaged for safety reasons.◀



- You select the gear in the usual way by means of the foot-operated shift lever.

» The sensor **1** on the gearshift rod registers the gearshift request and triggers shift assistance.

» When riding at a steady speed in a low gear at high engine rpm, an attempt to shift gear without pulling the clutch can cause a severe load-change reaction. BMW Motorrad recommends disengaging the clutch for shifts in these circumstances. It is advisable to avoid using the shift assistant at engine speeds close to the limits at which the governor cuts in to limit engine rpm.

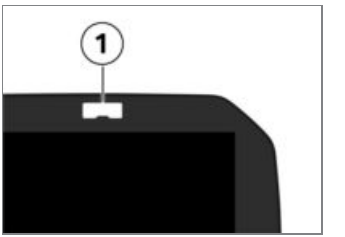
» Shift assistance is not available in the following situations:

– With clutch lever pulled.
– Shift lever not in its initial position
– Upshifts with the throttle valve closed (coasting) and when decelerating
– When shifting down with the throttle valve open or when accelerating.

- After a gearshift, the shift lever has to be fully released before another gearshift with the shift assistant can take place.

Gearshift light

Gearshift light



The gearshift light **1** indicates to the rider that the speed for shifting to the next higher gear is approaching.

– The gearshift light flashes at the preset frequency: approaching upshift rpm
– Gearshift light goes out: the engine has reached the ideal speed for an upshift

The speed thresholds and behaviour of the shift light can be adjusted in the Settings, Vehicle settings menu (also see the "Operation" chapter).

Brakes

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the vehicle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted.
To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time.
BMW Motorrad RACE ABS prevents the front wheel from locking up.
In the "panic braking situations" that are trained so frequently, braking force is applied as rapidly as possible and with the rider's full force applied to the brake levers; under these circumstances, the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road. In the absence of load on the wheel the ABS has to intervene to prevent the front wheel from locking even if the brakes are applied only very lightly. This leads to a reduced braking effect.

Descending mountain passes

WARNING

Braking only with the rear brake on mountain descents
Brake fade, destruction of the brakes due to overheating
- Use both front and rear brakes, and make use of the engine's braking effect as well.◀

Wet and dirty brakes

Wetness and dirt on the brake discs and the brake pads diminish braking efficiency.
Delayed braking action or poor braking efficiency must be reckoned with in the following situations:
– Riding in the rain or through puddles of water.
– After the vehicle has been washed.

– Riding on salted or gritted roads.
– After work has been carried on the brakes, due to traces of oil or grease.
– Riding on dirt-covered surfaces or off-road.

WARNING

Wetness and dirt result in diminished braking efficiency
Risk of accident
- Apply the brakes lightly while riding to remove wetness and dirt, or dismount and clean the brakes.
- Think ahead and brake in good time until full braking efficiency is restored.◀

ABS Pro

Physical limits applicable to motorcycling

WARNING

Braking when cornering
Risk of crash despite ABS Pro
- Invariably, it remains the rider's responsibility to adapt riding style to riding conditions.
- Do not take risks that would negate the additional safety offered by this system.◀

NOTICE

ABS Pro is activated in the RAIN, ROAD and DYNAMIC riding modes. It is deactivated in the Race riding mode. ABS Pro can be individually adjusted in the Race Pro riding modes.◀

Possibility of a fall not precluded

Although ABS Pro and Dynamic Brake Control provide the rider with valuable assistance and constitutes a huge advance in safety for braking with the motorcycle banked for cornering, it cannot under any circumstances be considered as redefining the physical limits that apply to motorcycling. It is still possible for these limits to be overshot due to misjudgement or rider error. In extreme cases this can result in a crash.

Use on public roads

ABS Pro and Dynamic Brake Control help make the motorcycle even safer for riding on public roads. When the brakes are applied because of an unforeseen hazard when the motorcycle is banked for cornering, within the physical

limits that apply to motorcycling the ABS Pro system prevents the wheels from locking and skidding away. During emergency braking, Dynamic Brake Control increases the braking effect and intervenes when the throttle grip is accidentally actuated during the braking process.

NOTICE

ABS Pro was not developed to enhance individual braking performance with the motorcycle banked into corners.◀

Parking your motorcycle

Side stand

- Switch off the engine.
- On a gradient, the motorcycle should always face uphill; select 1st gear.

ATTENTION

Poor ground underneath the stand

Risk of damage to parts if vehicle topples

- Always check that the ground under the stand is level and firm.◀
- Extend the side stand and prop the motorcycle on the stand.

ATTENTION

Additional weight placing strain on the side stand

Risk of damage to parts if vehicle topples

- Do not sit or lean on the vehicle while it is propped on the side stand.◀
- If the camber of the roadway permits, turn the handlebars all the way to the left.

Refuelling

Fuel grade

Requirement

To ensure optimal fuel consumption, fuel should be sulphur-free or as low-sulphur as possible.

ATTENTION

Engine operation with leaded fuel

Damage to catalytic converter

- Do not attempt to run the vehicle on leaded fuel or fuel with metallic additives (e.g. manganese or iron).◀
- Observe the maximum ethanol content of the fuel.

	Recommended fuel grade
E5	Super Plus, unleaded (max. 5 % ethanol, E5) 98 ROZ/RON 93 AKI
	Alternative fuel grade
E5 E10	Super unleaded (limitations in terms of power and consumption). (maximum 10 % ethanol, E10) 95 ROZ/RON 90 AKI

» Pay attention to the following symbols in the fuel filler cap and on the fuel pump:

E5

E10

Refuelling

WARNING

Fuel is highly flammable

Risk of fire and explosion

- Do not smoke. Never bring a naked flame near the fuel tank.◀

WARNING

Escape of fuel due to heat-induced expansion if fuel tank is overfilled

Risk of falling

- Do not overfill the fuel tank.◀

ATTENTION

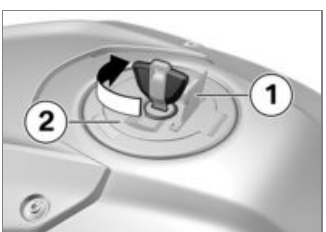
Wetting of plastic surfaces by fuel

Damage to the surfaces (surfaces become unsightly or dull)

- Clean plastic surfaces immediately after contact with fuel.◀
- Make sure the ground is level and firm and place the motorcycle on its side stand.

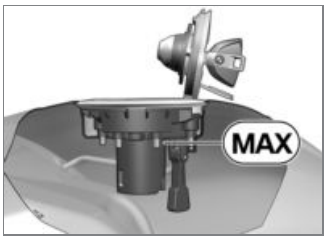
NOTICE

The fuel tank capacity can only be used to the full with the motorcycle standing on the side stand.◀



- Open protective flap **1**.
- Unlock the fuel tank cap **2** of the fuel tank by turning the ig-

nition key clockwise and open up.



- Refuel with fuel of the grade stated above; do not fill the tank past the bottom edge of the filler neck.

NOTICE

When refuelling after running on reserve, make sure that you top up the tank to a level above reserve, so that the new level is detected and the fuel reserve indicator light is switched off.◀

NOTICE

The "usable fuel capacity" specified in the technical data is the quantity that the fuel tank could hold if refilled after it had been run dry and the engine had cut out due to a lack of fuel.◀

Usable fuel capacity
approx. 16.5 l

Fuel reserve
approx. 4 l

- Press the fuel tank cap down firmly to close.
- Remove ignition key and close fuel tank cap.

Securing motorcycle for transportation

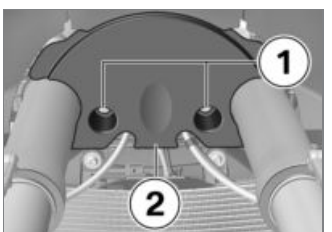
- Make sure that all components that might come into contact with straps used to secure the motorcycle are adequately protected against scratching. Use adhesive tape or soft cloths, for example, for this purpose.

ATTENTION

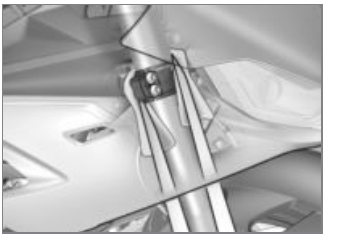
Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.◀
- Push the motorcycle onto the transportation flat and hold it in position: do not place it on the side stand.



- Remove bolts **1** and fork partition **2**.

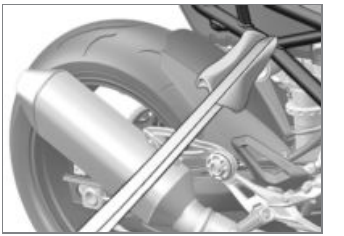


ATTENTION

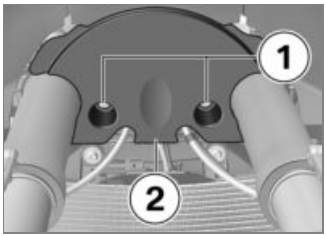
Trapping of components

Component damage

- Do not trap components such as brake lines or cable legs.◀
- At the front, loop a strap over the bottom fork bridge on each side.
- Pull the straps down and tight.



- Secure the tensioning straps behind on both sides on the rear frame and tighten.
- Tighten all the straps uniformly; the vehicle's suspension should be compressed as tightly as possible front and rear.



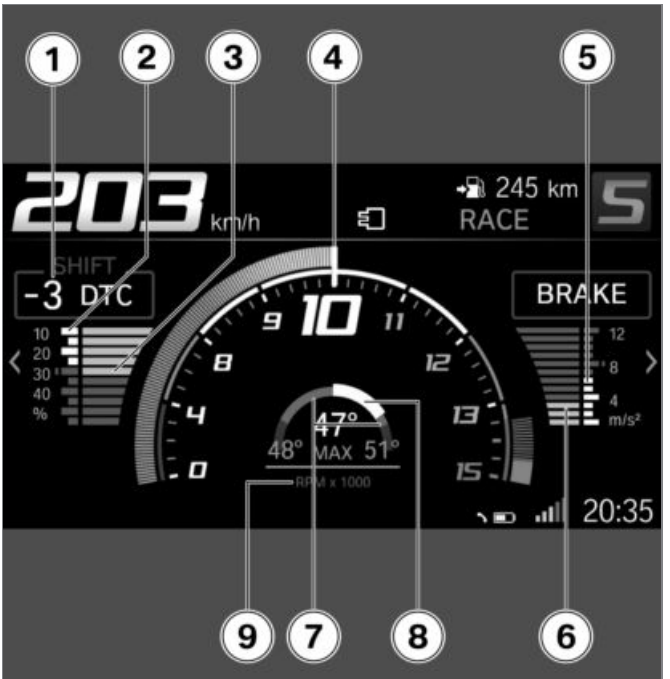
- After transport, position fork partition **2** and install bolts **1**.

On the race track

Displays for racing

Sport 1 display

1 – with riding modes Pro[OE] DTC Adapting (➠ 145).
2 Maximum DTC torque reduction
3 Current DTC torque reduction
4 Engine speed display
5 Maximum braking deceleration
6 Current braking deceleration
7 Maximum lean angle
8 Current lean angle
9 Unit for rpm display: 1000 revolutions per minute

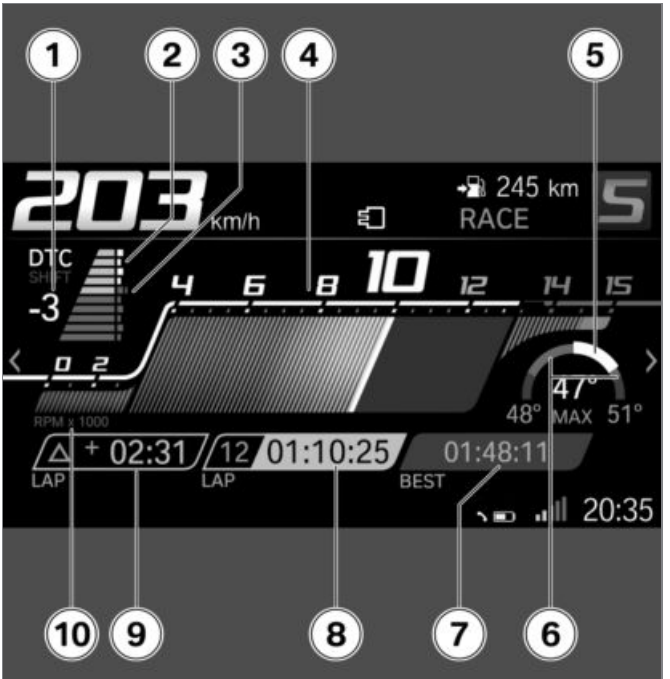


Sport 2 display

1 – with riding modes Pro[OE] DTC Adapting (➠ 145).
2 Maximum DTC torque reduction
3 Current DTC torque reduction
4 Engine speed display
5 Difference between the last lap time and reference time or difference between current lap time and reference time
6 Reference time: fastest of the currently saved laps or all-time fastest saved lap (➠ 139)
7 Current lap time
8 Unit for rpm display: 1000 revolutions per minute

Sport 3 display

1 – with riding modes Pro[OE] DTC Adapting (➠ 145).
2 Maximum DTC torque reduction
3 Current DTC torque reduction
4 Engine speed display
5 Current lean angle
6 Maximum lean angle
7 Reference time: fastest of the currently saved laps or all-time fastest saved lap (➠ 139)
8 Current lap time
9 Difference between the last lap time and reference time or difference between current lap time and reference time
10 Unit for rpm display: 1000 revolutions per minute



LAPTIMER

Starting timing

- Go to `Sport` menu and change to Sport 2 or Sport 3 display.
- Start the engine.

- Press button **1**.

» Time recording is running.

- Every time you cross the start/finish line, press button **1** again to start recording for the next lap.

» The data of the preceding lap are written into memory.

» The time for the current lap starts again from `00:00:00`.

» The stopped time for a lap is displayed for an adjustable `Displayed for` before switching over to the elapsed time for the current lap.

» Recording continues even if you exit the display mode during recording.

Ending time recording and managing times

Requirement

Sport 2 or Sport 3 display is shown.

- Press down the MENU rocker button.

» The `LAPTIMER` menu is displayed.

– An ongoing recording can be ended with `End recording`.

– You can go to the current lap times and riding data by using `Laps`. 99 laps can be saved. If the laps have not been deleted in the meantime, additional laps overwrite the first laps.

– All laps can be deleted with `Delete all laps`.

– The all-time best lap (`Best ever`) can be reset with `Delete best ever`.

Adjusting the lap timer

- Go to the `Settings`, `Vehicle settings`, `Laptimer` menu.

» The following settings are available:

– `Debounce time`: if the headlight flasher has been actuated, the headlight flasher can be actuated again within this time without affecting the lap time measurement.

– `Displayed for`: within this time, the stopped lap time is displayed before the current lap time is shown.

– Reference: selection of which best time is displayed as a reference. Best: best time of the current recording or Best ever: best-ever measured time.
– Best lap in progress: if this function is activated, the difference between the last lap time and the reference time is not displayed, but rather the difference between the current lap time and the reference time.

Best-ever lap

The best-ever lap (Best ever) is the fastest of all recorded laps and is updated once a faster lap has been recorded.
The best-ever lap remains stored in memory even if the recorded laps are deleted. This means that other races can subsequently be timed and the lap times of those races compared with the best-ever lap from earlier races.
The best-ever lap can be deleted in the LAPTIMER menu.
If the best-ever lap is from a saved recording, it is accompanied on the display by the relevant lap number. If the best-ever lap shows without a lap number, this means that it comes from a recording that has been deleted.

Vehicle settings for racing

Activating configuration for the race track

- Go to Settings menu and activate Racetrack.
- Select Configuration.

NOTICE

The Connectivity functions Media, Telephone and Navigation are deactivated by switching on the race track functions.◀

Configuration menu

The warning about faulty lights can be suppressed when riding on a race track.

– with riding modes Pro OE
The rpm of the Pit Lane Limiter can be adjusted (➠ 144).

With RACE PRO CONFIGURATION, vehicle parameters can be adjusted in detail (➠ 141).

Light warnings: if the turn indicators or number plate carrier are removed in preparation for a race-track session, the vehicle

electronics detect a bulb failure and the appropriate warning message appears on the display. If Light warnings is deactivated, the warning message is suppressed.

RACE PRO riding modes

– with riding modes Pro[OE]

Configuration for the race track

The RACE PRO riding modes allow the chassis and suspension, braking and engine control to be adjusted professionally in detail. This means that individual rider requests, track characteristics and weather conditions can be taken into account.

The following parameters can be adjusted:

– Engine
– Engine Brake
– Traction (DTC)
– Wheelie (DTC)
– ABS

– with Dynamic Damping Control (DDC)[OE]
– DDC

For further information about the parameters, see (➠ 167).

Three RACE PRO riding modes can be configured.

A RACE PRO riding mode is also selected using the MODE button (➠ 68).

If RACE PRO riding mode is activated, RAIN, ROAD and DYNAMIC riding modes are deactivated. Instead, it is possible to switch between the RACE, RACE PRO 1, RACE PRO 2 and RACE PRO 3 riding modes.

If RACE PRO riding mode is deactivated, all pre-defined riding modes are available again and the ROAD riding mode is selected.

Configuring RACE PRO riding modes

- Go to Settings menu and activate Racetrack.
- Select Configuration and activate RACE PRO riding mode.
- Select Configuration.

» The current configurations are shown as an overview.

- Select a configuration.

- Select a parameter.

» The current setting is displayed graphically and numerically. In addition, explanatory texts are displayed for the relevant setting.

– If a setting is also saved in a standard riding mode, this riding mode is specified.

- Change a setting as desired.

Restoring factory defaults

- Select a configuration.
- Scroll down in the list of parameters and select the last entry `Reset`.

Launch Control

Racing start with Launch Control

– with riding modes Pro[OE]

Launch Control supports riders by maintaining ideal engine revving for a racing start.

Engine speed after activating Launch Control at full throttle
9000 min^{-1}

When Launch Control is active, engine torque is reduced so that drive is maximised on the flat with the front wheel just starting to lift off the ground. Torque is temporarily reduced slightly when the electronics detect front-wheel lift. Engine rpm limitation is deactivated when the motorcycle reaches a specified speed.

Speed when deactivating engine speed limitation for Launch Control
approx. 70 km/h

Launch Control is turned off in the following circumstances:

– The third gear is engaged.
– The angle of inclination is greater than 30°.
– The engine or the ignition is switched off.

The number of consecutive starts using Launch Control is limited in order to protect the clutch. The number of possible starts still remaining is shown in the display, e.g. `Launch Control: 3 starts still avail.`.

Operating the Launch Control

CAUTION

Launch Control permits maximum acceleration, so unfamiliar riding situations can occur.
Risk of accident through increased acceleration.

- Use Launch Control only on race tracks.◀
- Bring vehicle to starting position.

» Vehicle is stationary, engine is running.

- Press and hold down starter button **1** until the display shows the number of starts with Launch Control still permitted.

» If no more starts are possible, `Launch Control not av. Clutch too hot.` is displayed.

- Allow the clutch to cool.

Clutch cooling time
approx. 3 min (With engine running)
approx. 20 min (With engine stopped)

- Proceed in the normal way when starting; open the throttle only as far as necessary to reach the rpm limit.
- After engaging the clutch, open the throttle completely.

» Gearshift light lights up or flashes.

» Launch Control controls the optimum torque on the rear wheel and keeps the engine speed constant up to the speed specified below.

- Leave the throttle grip completely open.

Speed when deactivating engine speed limitation for Launch Control
approx. 70 km/h

» As soon as rpm limitation ceases, engine rpm increases because the throttle grip is in the full-throttle position.
» The throttle grip again reacts as normal.
• Depending on the racetrack, upshift and lean into bends.
» If in third gear or leaning further than 30°, the shift light disappears.
» The race start with Launch Control is completed.

Pit Lane Limiter

– with riding modes Pro[OE]

Limiting the speed with the Pit Lane Limiter

The Pit Lane Limiter helps you to comply with a speed limit, e.g. in the pit lane. To do so, a maximum rpm is specified for the engine when riding in 1st gear.

NOTICE

The speed resulting from the maximum rotational speed is dependent on the ratio and tyre size.◀

Range of values

– 3500 to 8000 rpm in increments of 100

Adjusting the Pit Lane Limiter

• Go to `Settings` menu and activate `Racetrack`.
• Select `Configuration`.
• Activate `Pit Lane Limiter`.
• Select `Configuration`.
• Adjust `Speed`.

Operating the Pit Lane Limiter

• Ride in 1st gear.
• Press and hold down starter button **1**.
• Open throttle grip until the set maximum rpm has been reached.
» The ignition is interrupted to limit engine speed.

WARNING

As soon as the starter button is released the vehicle accelerates in accordance with the position of the throttle twistgrip.

Risk of crashing due to severe jerk forward if throttle twistgrip in full load position.

- Do not fully open the throttle twistgrip; instead, turn it only to the position at which the engine reaches its speed-limit rpm.◀
- Release starter button **1**.

» The vehicle accelerates at the maximum rate.

DTC

DTC setting

The DTC controls permissible rear-wheel slip in accordance with your selected riding mode.

– with riding modes Pro OE

The control can be adjusted in detail in the configuration of the RACE PRO riding modes. Configuring RACE PRO riding modes (➠ 141)

The DTC setting can be adjusted during riding via the DTC rocker button **1** on the left handlebar operating facility.

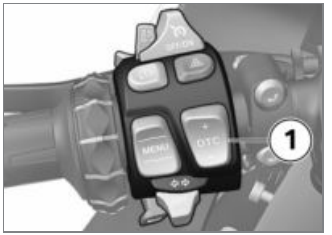
DTC Adapting

– with riding modes Pro OE

- Configuring RACE PRO riding modes (➠ 141).
- Select the desired RACE PRO riding mode.

NOTICE

DTC can also be adjusted during riding.◀



- Press rocker button **1** upwards briefly in order to increase DTC control.

⚠ WARNING

Loss of stability because of rear wheel spinning when DTC control is reduced.
Risk of falling
- Reduce DTC for riding on racing circuits only.
- Only change DTC control by one level at a time and carefully test the effects on drivability.◀

- Press DTC rocker button **1** downwards briefly in order to reduce DTC control.
» The set value is shown in the display and is between `-7` and `7`:
» `1` … `7`: Reducing the slip on the rear wheel by a maximum of seven stages. The value `7` corresponds to the earliest DTC intervention.
» `-1` … `-7`: Increasing the slip on the rear wheel by a maximum of seven stages. The value `-7` corresponds to the latest DTC intervention.
» `0`: Factory setting
» `DTC` display hidden: DTC switched off.

DTC deactivation

On very loose surfaces (for example in a gravel trap of a race track), the DTC's attempts to control propulsive power might reduce drive to the extent that the rear wheel no longer turns. Under these circumstances, BMW Motorrad recommends temporarily switching off DTC. Bear in mind that the rear wheel will spin on the loose surface and close the throttle in good time before you reach a firm surface. Traction control and wheelie suppression are also switched off by switching off DTC.
Then reactivate DTC.
Switching off DTC (➠ 67)

Chassis and suspension settings for racing

Observe the recommendations for racing:

Adjusting the steering damper (➠ 107).

– without Dynamic Damping Control (DDC)[OE]

Adjusting the spring preload at the rear wheel (➠ 109).

– with Dynamic Damping Control (DDC)[OE]

Adjusting the spring preload at the rear wheel (➠ 110).

– without Dynamic Damping Control (DDC)[OE]

Adjusting the compression-stage damping at the front wheel (➠ 111).

Adjusting the rebound-stage damping at the front wheel (➠ 112).

Adjusting the rebound-stage damping at the rear wheel (➠ 113).

Adjusting the compression-stage damping at the rear wheel (➠ 113).

– with Dynamic Damping Control (DDC)[OE]

Dynamic Damping Control (DDC) automatically selects the appropriate damping (➠ 165).

– with Dynamic Damping Control (DDC)[OE]

– with riding modes Pro[OE]

Dynamic Damping Control (DDC) can be individually adjusted for the front and rear wheel (➠ 141).

– with Race package[OE]

or

– with M Package[OE]

Adjusting the riding height (➠ 115).

Adjusting the swinging arm (➠ 116).

Removing and installing mirrors

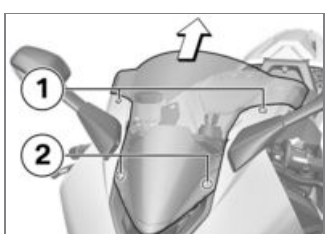
Remove mirror

ATTENTION

Removal of the mirrors

Voiding of homologation for riding on public roads

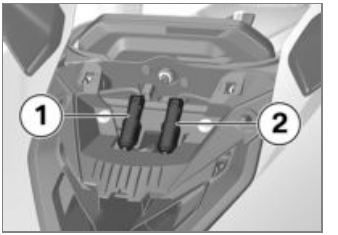
- Do not ride on public roads without mirrors.◀
- Place the motorcycle on its stand on firm, even ground.



- Remove screws **1** and **2**.

- Remove windscreen in the **direction of arrow**.

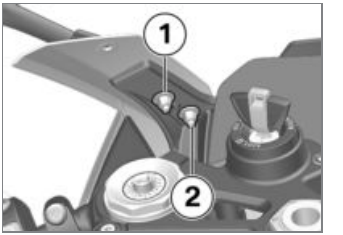
- Unclip air inlet flap at the top in the **direction of arrow** and remove downwards.



- Disconnect connector for right turn indicator **1** and left turn indicator **2**.

NOTICE

If the mirrors with integrated turn indicators are removed in preparation for a race-track session, the vehicle electronics detect a defective light and the appropriate warning message appears on the display. Deactivating the `Light warnings` function in the `RACETRACK CONFIGURATION` menu suppresses this warning message.◀



- Remove nuts **1** and **2** on the left and right and remove mirrors.
- Carefully thread out cable.

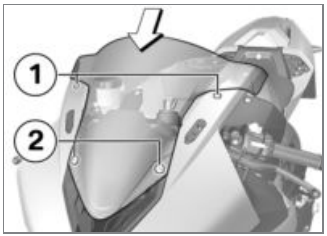
- Secure fairing **1** at the left and right fairing bracket **2**. If cable straps are used, protect any

chafe points using adhesive tape.

NOTICE

Use the M Cover Kit from BMW Motorrad to cover the resulting bolt holes and re-establish fastening.◀

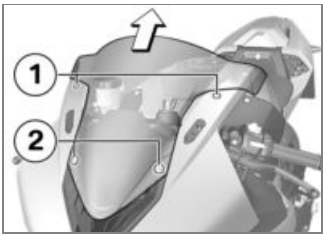
- Position air inlet flap **1** and clip in at the top **2**.



- Position windscreen in the **direction of arrow**.
- Install bolts **1** and **2**.

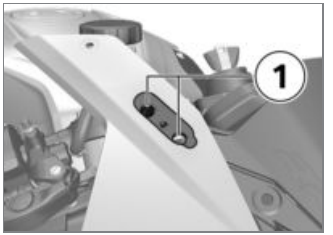
Install mirror

- Place the motorcycle on its stand on firm, even ground.
- Remove trim panel mounting.

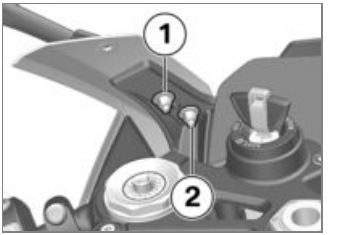


- Remove screws **1** and **2**.
- Remove windscreen in the **direction of arrow**.

- Unclip air inlet flap at the top in the **direction of arrow** and remove downwards.

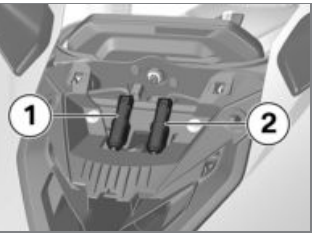


- Carefully thread in cable for turn indicators.
- Place left and right mirrors in the mountings **1**.

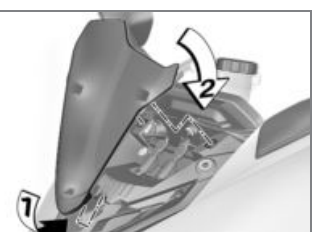


- Install nuts **1** and **2** on the rear of the fairing using the appropriate torque.

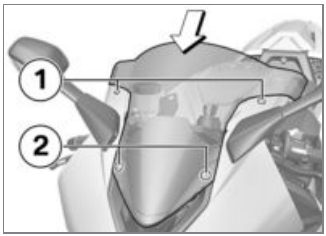
	Mirror to front panel carrier
Thread-locking compound: mechanical	
8 Nm	



- Connect connector for right turn indicator **1** and left turn indicator **2**.



- Insert air inlet flap at the bottom **1** and clip in at the top **2**.



- Position windscreen in the **direction of arrow**.
- Install bolts **1** and **2**.

Removing and installing number-plate carrier

Removing number-plate carrier

ATTENTION

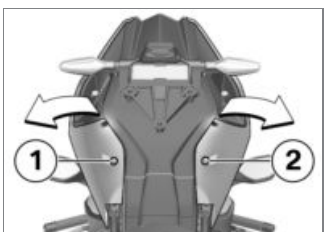
Removal of the number plate carrier

Voiding of homologation for riding on public roads

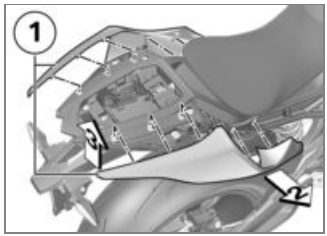
- With the number-plate carrier removed, do not ride the motorcycle on public roads.◀
- Place the motorcycle on its stand on firm, even ground.

– with two-up riding package OE

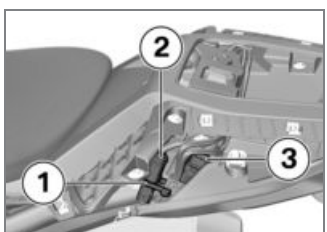
- Removing rear seat (➠ 80).
- Remove tail-hump cover (➠ 79).



- Remove screws **1** and **2**.
- Unclip left and right rear trim panels carefully in the **direction of arrow**.



- Carefully unclip left and right rear trim panel **1**, first horizontally **2**, then vertically **3**.

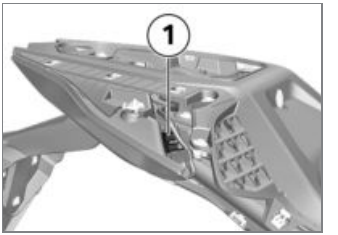


- Remove cable strap **1**.

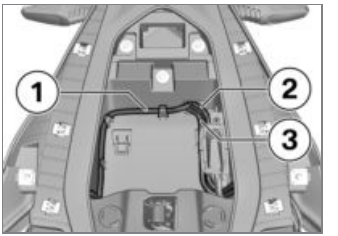
- Disconnect connector for number plate light **2** and left turn indicator **3**.

NOTICE

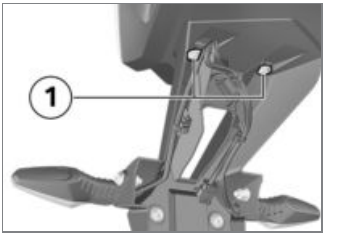
If the number-plate carrier is removed in preparation for a racetrack session, the electronics detect a bulb failure and the appropriate warning appears on the display. Deactivating the `Light warnings` function in the `RACETRACK CONFIGURATION` menu suppresses this warning message.◀



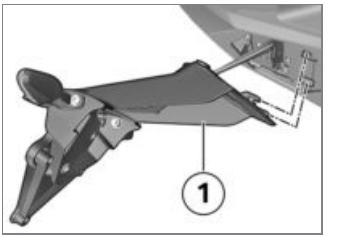
- Disconnect connector for right turn indicator **1**.



- Feed out cable for right turn indicator **1**, left turn indicator **2** and number plate light **3**.



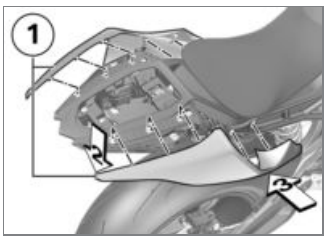
- Remove screws **1**.



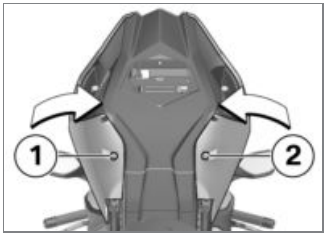
- Unhook number plate carrier **1** and remove downwards.
- Carefully thread out cable.

NOTICE

Use the M Cover Kit from BMW Motorrad to cover the resulting opening.◀



- Carefully clip in left and right rear trim panel **1**, first vertically **2**, then horizontally **3**.



- Carefully clip in rear trim panel in the **direction of arrow**.
- Install bolts **1** and **2**.

– with two-up riding package OE

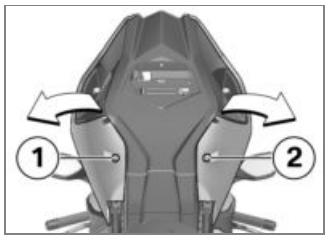
- Install the rear seat (➠ 80).
- Installing tail-hump cover (➠ 80).

Installing number-plate carrier

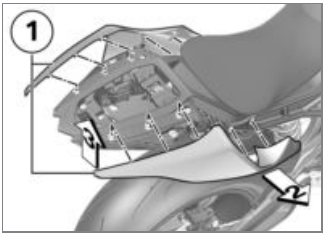
- Place the motorcycle on its stand on firm, even ground.

– with two-up riding package OE

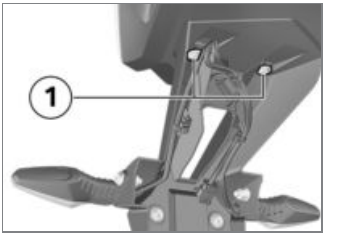
- Removing rear seat (➠ 80).
- Remove tail-hump cover (➠ 79).



- Remove screws **1** and **2**.
- Unclip left and right rear trim panels carefully in the **direction of arrow**.

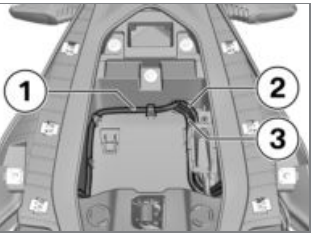


- Carefully unclip left and right rear trim panels **1**, first horizontally **2**, then vertically **3**.

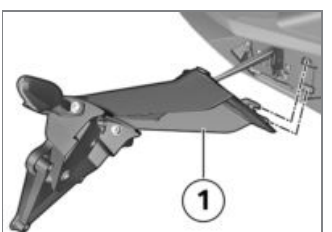


- Install screws **1**.

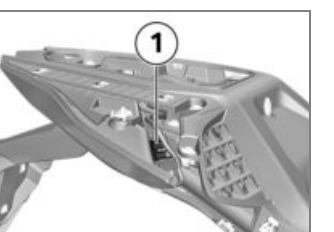
	Number plate carrier on rear frame
2 Nm	



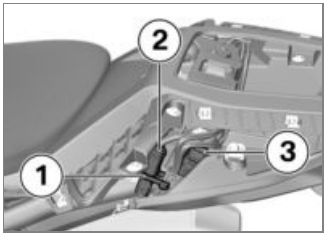
- Thread in cable for right turn indicator **1**, left turn indicator **2** and number plate light **3**.



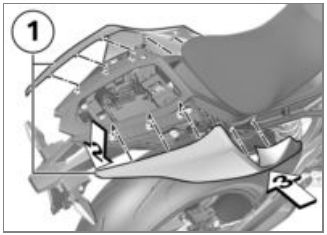
- Position number plate carrier **1** and carefully thread in cable.
- Hook in number plate carrier **1**.



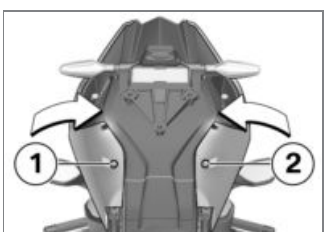
- Connect connector for right turn indicator **1**.



- Connect connector for number plate light **2** and left turn indicator **3**.
- Install cable strap **1**.



- Carefully clip in left and right rear trim panels **1**, first vertically **2**, then horizontally **3**.



- Carefully clip in rear trim panel in the **direction of arrow**.
- Install bolts **1** and **2**.

– with two-up riding package OE
- Install the rear seat (➠ 80).
- Installing tail-hump cover (➠ 80).

Switching off ABS when riding on the race track

Deactivating the ABS function

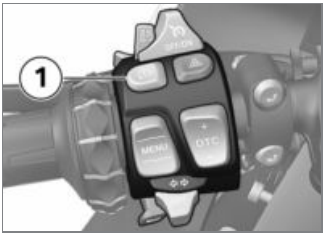
Requirement

Number plate carrier is removed.

- Switching on ignition (➠ 60).

NOTICE

You have the option of deactivating the ABS function while the motorcycle is on the move.◀



- Press button **1** for at least three seconds.

ABS indicator and warning light comes on.

» The ABS function is switched off.
» The integral function is switched off.
» Hill Start Control is still activated.

– with riding modes Pro OE

» The function of the Dynamic Brake Control is also switched off when the ABS function is switched off.◁

» In the RACE PRO riding modes, the ABS function remains switched off even after switching the ignition off and on again.

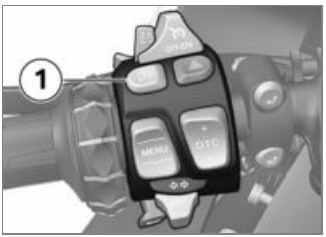
- See the section entitled "Engineering details" for more information on brake systems with BMW Motorrad Integral ABS:

» Partially integral brakes (➠ 162)
» Hill Start Control function (➠ 173)

– with riding modes Pro OE

» Dynamic Brake Control function (➠ 169)◁

Activating the ABS function



- Press button **1** for at least 3 seconds.

ABS indicator and warning light goes out; if self-diagnosis has not been completed, it starts to flash.

» The ABS function is switched on.

- If the option `Racetrack` is deactivated in the menu `Settings`, ABS is also activated by switching the ignition off and on again.

An ABS fault has occurred if the ABS indicator and warning light shows when the motorcycle accelerates to a speed in excess of the minimum stated below after the ignition was switched off and then on again.
min 10 km/h

Deactivating intelligent emergency call when riding on the race track

– with intelligent emergency call OE

Preventing emergency calls

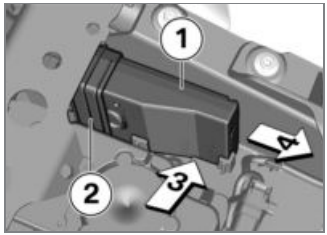
In order to prevent an emergency call connection from being established in the event of falls on race tracks with medical care, the intelligent emergency call control unit must be removed.

NOTICE

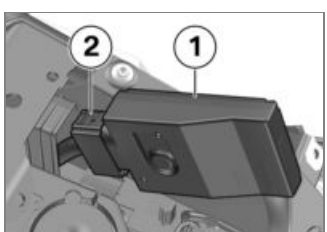
The intelligent emergency call control unit may only be removed for when riding on the race track. The intelligent emergency call control unit must be reinstalled before returning to public road traffic at the latest.◀

Removing intelligent emergency call control unit

- Disconnecting battery from motorcycle (➠ 203).
- Removing tail-hump trim panel (➠ 198).



- Press intelligent emergency call control unit **1** out of the lock **3** and carefully remove **4** from the holder **2**.

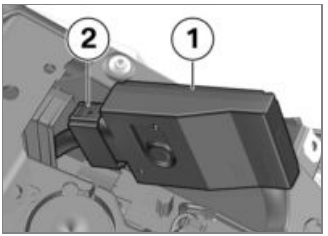


- Disconnect plug connection **2** and store intelligent emergency

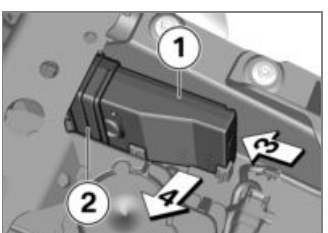
call control unit **1** in a place that is dry and free of dust.
- Connecting battery to motorcycle (➠ 204).
- Installing tail-hump trim panel (➠ 200).

Installing intelligent emergency call control unit

- Disconnecting battery from motorcycle (➠ 203).
- Removing tail-hump trim panel (➠ 198).



- Connect intelligent emergency call control unit **1** with connector **2**.



- Insert **3** intelligent emergency control unit **1** into the holder **2** and allow it to engage in lock **4**.
- Connecting battery to motorcycle (➠ 204).
- Installing tail-hump trim panel (➠ 200).

Gearshift-pattern reverser

Shift pattern for racing

The shift pattern can be reversed for racing by changing the position of the selector rod. Reversing the shift pattern means that the gearshift lever is lifted up for 1st gear and pressed down for all the other gears. This is the reverse of the arrangement for riding on public roads.

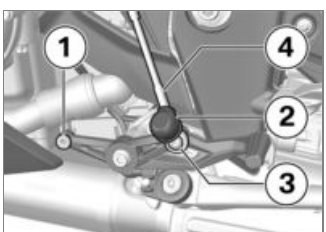
Reversing the shift pattern

ATTENTION

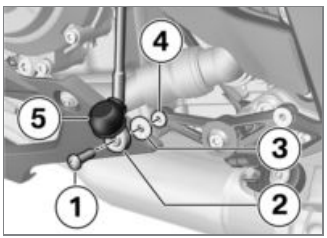
Riding with shift pattern reversal on public roads

Voiding of homologation for riding on public roads

- Do not install the gearshift-pattern reverser for riding on public roads.◀



- Clean the thread **1**.
- Pull off protective cap **2** and slide on the gearshift rod **4**.
- Remove bolt **3** with washer.
- Transfer the gearshift rod **4** to the thread for the inverted gearshift pattern **1**.



- Insert bolt **1** through ball joint **2** and washer **3**.
- Install bolt **1** in thread for inverted gearshift pattern **4**.

Selector rod to gearshift lever
Thread-locking compound: Micro-encapsulated
8 Nm

- Push on protective cap **5**.

» The gearshift-pattern reverser for racing is set up.

Engineering details

General instructions

To find out more about engineering, go to:
bmw-motorrad.com/technology

Antilock Brake System (ABS)

Partially integral brakes

Your motorcycle is equipped with partially integral brakes. Both front and rear brakes are applied when you pull the handbrake lever. The footbrake lever acts only on the rear brake.

ATTENTION

Attempted burn-out despite Integral braking function

Damage to rear brake and clutch

- Burn-out must only occur from a vehicle standstill. Burn-out is not proper vehicle use and may therefore lead to fault messages.◀

How does ABS work?

The amount of braking force that can be transferred to the road depends on factors that include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean, dry asphalt surface. The lower the coefficient of friction, the longer the braking distance.

If the rider increases braking pressure to the extent that braking force exceeds the maximum transferable limit, the wheels start to lock and the motorcycle loses its directional stability; a fall is imminent. Before this situation can occur, ABS intervenes and adapts braking pressure to the maximum transferable braking force, so the wheels continue to turn and directional stability is maintained irrespective of the condition of the road surface.

What are the effects of surface irregularities?

Humps and surface irregularities can cause the wheels to lose contact temporarily with the road surface; if this happens the braking force that can be transmitted to the road can drop to zero. If the rider brakes in this situation, the ABS has to reduce the brake pressure in order to ensure driving stability when resuming contact with the road. Up to this point, BMW Motorrad Integral ABS assumes an extremely low coefficient of friction (gravel, ice, snow) so that the road wheels turn in every conceivable situation and so ensure driving stability. As soon as is registers the actual circumstances, the system reacts instantly and adjusts brak-

ing force accordingly to achieve optimum braking.

What feedback does the rider receive from the BMW Motorrad Race ABS?

If the ABS has to reduce braking force on account of the circumstances described above, vibration is perceptible through the brake lever.
When the brake lever is pulled, brake pressure is also built up at the rear wheel by the integral function. If the brake pedal is depressed after the brake lever is pulled, the brake pressure built up beforehand is perceptible as counter-pressure sooner than is the case when the brake pedal is depressed either before or at the same time as the brake lever is pulled.

Rear wheel lift

Where there is a high level of adhesion between the tyres and road, the front wheel is only blocked very late or not at all even when the brakes are applied forcefully. Consequently, ABS does not intervene until very late, if at all. Under these circumstances the rear wheel can lift off the ground, and the outcome can be a highsiding situation in which the motorcycle can flip over.

⚠ WARNING

Rear wheel lift due to severe braking
Risk of falling
- When you brake sharply, bear in mind that ABS control cannot always be relied on to prevent the rear wheel from lifting clear of the ground.◀

What is the design baseline for ABS?

Within the limits imposed by physics, the ABS ensures directional stability on any surface. The system is not optimised for special requirements that apply under extreme competitive situations on the track. The driving behaviour should be adapted to actual driving skills and the road conditions.

Special situations

The speeds of the front and rear wheels are compared as one means of detecting a wheel's incipient tendency to lock. If the system registers implausible values for a lengthy period the ABS function is deactivated for safety reasons and an ABS fault message is issued. Self-diagnosis has to complete before fault messages can be issued.

In addition to problems with the BMW Motorrad Race ABS, exceptional riding conditions can lead to a fault message being issued.

Exceptional riding conditions:

– Heating up with the motorcycle on an auxiliary stand, in neutral or with a gear engaged.
– Rear wheel locked by the engine brake for a lengthy period, for example while descending steep gradients.

If a fault message is issued on account of exceptional riding conditions, you can reactivate the ABS function by switching the ignition off and on again.

What is the role of regular servicing?

⚠ WARNING

Brake system not regularly serviced.

Risk of accident

- In order to ensure that the BMW Motorrad Race ABS is always maintained in optimum condition, it is essential for you to comply strictly with the specified inspection intervals.◀

Safety reserves

The potentially shorter braking distances which ABS permits must not be used as an excuse for careless riding. It is primarily there to provide a safety reserve for emergency situations.

⚠ WARNING

Braking when cornering

Risk of accident despite ABS

- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional margin of safety offered by this system.◀

ABS Pro

ABS Pro increases safety, particularly when braking in bends. ABS Pro prevents the wheels from locking up, even when the brakes are sharply actuated. ABS Pro reduces abrupt changes in steering force, particularly in shock braking, and thus prevents an undesirable lifting up of the vehicle.

ABS intervention

Technically speaking, depending on the riding situation ABS Pro adapts ABS intervention to the motorcycle's bank angle. Signals

for rate of roll and rate of yaw and lateral acceleration are used to calculate bank angle. These signals come from the angular rate sensor, an integral component of Dynamic Traction Control DTC and Dynamic Damping Control DDC.
As the motorcycle is heeled over more and more as it banks into a corner, an increasingly strict limit is imposed on the brake-pressure gradient for the start of brake application. This slows the build-up of brake pressure to a corresponding degree. Additionally, pressure modulation is more uniform across the range of ABS intervention.

Advantages for the rider

The advantages of ABS Pro for the rider are sensitive response and high braking and directional stability combined with best-case deceleration of the motorcycle, even when cornering.

NOTICE

ABS Pro is activated in the RAIN, ROAD and DYNAMIC riding modes. It is deactivated in the Race riding mode. ABS Pro can be individually adjusted in the Race Pro riding modes.◀

Dynamic Damping Control (DDC)

– with Dynamic Damping Control (DDC) OE

DDC

Via ride height sensors, DDC detects movements in the chassis and suspension and responds by adjusting the EDC valves. The chassis and suspension will thus be adapted to the characteristics of the terrain.

– with riding modes Pro OE

The damping values for the front wheel and for the rear wheel can be adjusted between 14 levels in the RACE PRO CONFIGURATION menu (level 1: "softest" setting; level 14: "hardest" setting). Rebound and compression damping can be altered on the back wheel separately.
A spring travel sensor (racing accessory) has to be installed on the front forks for separate compression-stage and rebound-stage adjustment of the damping values for the front suspension.

Calibration is necessary if a spring travel sensor has been installed on the front forks, an existing ride-height sensor on the rear spring strut replaced, or the height of the suspension altered. Calibration is started in the Settings, Vehicle settings, DDC calibration menu.

Dynamic Traction Control (DTC)

How does Dynamic Traction Control work?

DTC takes the vehicle tilt into accounts, conveniently controls it and is useful for improving lap times on the racetrack.
The Dynamic Traction Control system compares the speed of rotation at the circumferences of the front wheel and the rear wheel. The differential is used to compute slip as a measure of the reserves of stability available at the rear wheel. If slip exceeds a certain limit, the engine management system intervenes and adapts engine torque accordingly.
DTC can only provide support within the physical limits. The physical limits are strongly dependent on the road surface, road temperatures, tyre choice and tyre temperature. There is the danger of overheating when using unsuitable tyres on the race track.

⚠ WARNING

Risky riding
Risk of accident despite DTC
- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional safety offered by this system.◀

Special situations

In accordance with the laws of physics, the ability to accelerate is restricted more and more as the angle of heel increases. Consequently, there can be a perceptible reduction in acceleration out of very tight bends.

With DTC, the speeds of the front and rear wheels are compared and the angle of heel taken into account as one means of detecting the rear wheel's incipient tendency to spin or slip sideways.

If the lean angle values are identified as implausible over an extended period of time, a substitute value is used for the lean angle or the DTC is switched off. Under these circumstances the indicator for a DTC fault shows. Self-diagnosis has to complete before fault messages can be issued.
The BMW Motorrad traction control may switch off automatically under the exceptional riding conditions outlined below.

Exceptional riding conditions:

– Riding for a lengthy period with the front wheel lifted off the ground (wheelie).
– Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout).
– Heating up with the motorcycle on an auxiliary stand, in neutral or with a gear engaged.

When riding on a slippery surface, never snap the throttle grip fully closed without pulling the clutch at the same time. Engine braking torque can cause the rear wheel to skid, with a corresponding loss of stability. The BMW Motorrad DTC is unable to control a situation of this nature.

Riding mode

Selection

To adjust the motorcycle to the road condition and the desired driving experience, the following riding modes can be selected:
– RAIN
– ROAD
– DYNAMIC
– RACE

– with riding modes Pro OE
– RACE PRO 1
– RACE PRO 2
– RACE PRO 3

When activated, the RACE PRO riding modes replace the RAIN, ROAD and DYNAMIC riding modes.

A coordinated setting for the systems Engine, Engine Brake, DTC, Wheelie (DTC), ABS and DDC is available for each riding mode.

– with riding modes Pro OE
In the RACE PRO riding modes, the settings for the systems Engine, Engine Brake, Traction (DTC), Wheelie (DTC), ABS and DDC can be individually adjusted.

Torque, throttle response and overrun acoustics

– In the RAIN riding mode: soft throttle response, reduced torque in low gears, overrun acoustics not active.
– In the ROAD and DYNAMIC riding modes: optimum throttle response, reduced torque in low gears, overrun acoustics active.
– In the RACE riding mode: optimum throttle response, maximum torque, overrun acoustics active.

– with riding modes Pro OE
Additionally in the RACE PRO riding modes: soft throttle response, maximum torque, overrun acoustics active.

Braking effect of the engine

– In the RAIN and ROAD riding modes: maximum braking effect of the engine.
– In the DYNAMIC and RACE riding modes: moderate braking effect of the engine.

– with riding modes Pro OE
Additionally in the RACE PRO riding modes: minimal braking effect of the engine.

Traction control (DTC)

– In the RAIN riding mode: maximum stability on wet roads. There may be reduced acceleration on dry roads.
– In the ROAD riding mode: high stability on dry roads. There may be slightly reduced acceleration on dry roads.
– In the DYNAMIC riding mode: high performance on dry roads. In the event of poor road conditions, optimum stability cannot be guaranteed.
– In the RACE riding mode: maximum performance. In the event of a poor road or when using unsuitable tyres, for example touring tyres, stability may be impaired. In the RACE PRO riding modes, traction control can be finely adjusted using the DTC rocker button while riding to ensure optimum performance.

Wheelie (DTC) – lifting of the front wheel

– In the RAIN riding mode: maximum stability. Efforts are made to suppress a Wheelie.
– In the ROAD, DYNAMIC and RACE riding modes: shallow Wheelie possible; optimum drive.

– with riding modes Pro OE
– In the RACE PRO riding modes with setting 1: high Wheelie possible. The rider must decelerate the rear wheel themselves in order to prevent the Wheelie. The system only intervenes late.
– In the RACE PRO riding modes with setting 0: the system is deactivated.

ABS

– The rear wheel lift-off assistant is active in the RAIN, ROAD and DYNAMIC riding modes.
– In RAIN, ROAD, and DYNAMIC riding modes, the ABS is set to on-road mode.
– In the RACE riding mode, ABS is tailored to race track operation.

– with riding modes Pro OE
– In the RACE PRO riding modes: the use of ABS can be adjusted individually.

– with Dynamic Damping Control (DDC) OE

DDC

– In the RAIN and ROAD riding modes: setting of the damper characteristics for comfortable riding.
– In the DYNAMIC riding mode: setting of the damper characteristics for sporty riding.
– In the RACE riding mode: setting of the damper characteristics for riding on the race track.

– with riding modes Pro OE
– In the RACE PRO riding modes: the damper characteristics can be adjusted individually.

Mode changes

The riding mode can be changed while the vehicle is stationary with the ignition on. It is possible to change it while driving under the following conditions:
– No drive torque on the rear wheel.
– No brake pressure in the brake system.

The following steps must be taken to change the riding mode:
– Close the throttle twistgrip.
– Release the brake levers.
– Deactivate the cruise control.

The desired riding mode is initially preselected. The mode change does not take place until the systems in question are all in the appropriate state.
The selection menu does not disappear from the display until the mode change has taken place.

Dynamic Brake Control

– with riding modes Pro OE

Dynamic Brake Control function

NOTICE

The Dynamic Brake Control function is active in all riding modes. It can only be deactivated in the RACE PRO riding modes by individually adjusting the ABS.◀

The Dynamic Brake Control function assists the rider during emergency braking.

Detection of emergency braking

– Emergency braking is detected when the front brake is actuated quickly and forcefully.

Behaviour during emergency braking

– If emergency braking is initiated at a speed above 10 km/h, the Dynamic Brake Control takes effect in addition to the ABS function.
– If partial braking at high brake pressure gradients is initiated, the Dynamic Brake Control increases the integral brake pressure on the rear wheel. The stopping distance shortens and controlled braking is possible.

Behaviour during accidental actuation of the throttle grip

– If, during emergency braking, the throttle grip is accidentally actuated (grip position > 5 %), the actual braking effect caused by the Dynamic Brake Control is guaranteed by closing the gas. The effect of emergency braking is guaranteed.
– If, during the intervention of the Dynamic Brake Control, the gas is closed (throttle grip position < 5 %), the engine torque requested by the ABS brake system is restored.
– If emergency braking finishes and the throttle grip is still actuated, the Dynamic Brake Control will reduce the engine torque to the driver's choice in a controlled manner.

NOTICE

The function of the Dynamic Brake Control is switched off at the same time as the ABS is switched off.◀

Tyre pressure control (RDC)

– with tyre pressure control (RDC)[OE]

Function

A sensor integrated into each tyre measures the air temperature and the air pressure inside the tyre and transmits this information to the control unit. The sensors are fitted with a centrifugal-force trip switch which allows the measured values to be transmitted after the minimum speed is exceeded the first time.

Minimum speed for transmission of the RDC measured values:
min 30 km/h

The display shows -- for each tyre until the tyre-pressure signal is received for the first time. The sensors continue to transmit the

measured-value signals for some time after the vehicle comes to a stop.

Transmission duration of the measured values after vehicle standstill:
min 15 min

An error message is issued if wheels without sensors are fitted to a vehicle equipped with an RDC control unit.

Tyre pressure ranges

The RDC control unit distinguishes between three tyre pressure ranges matched to the vehicle:

- Filling pressure within the permissible tolerance
- Filling pressure in the limit range of the permissible tolerance
- Filling pressure outside permitted tolerance

Temperature compensation

Tyre pressure is a temperature-sensitive variable: pressure increases as tyre-air temperature rises and decreases as tyre-air temperature drops. Tyre-air temperature depends on ambient temperature as well as on the style of riding and the duration of the ride.

The tyre pressures are shown in the TFT display as temperature compensated and always refer to the following tyre air temperature:
20 °C

The air lines available to the public in petrol stations and motorway service areas have gauges that do not compensate for temperature; the reading shown by a gauge of this nature is the temperature-dependent tyre-air pressure. As a result, the values displayed there usually do not correspond to the values displayed in the TFT display.

Pressure adaptation

Compare the RDC value on the TFT display with the value in the table on the back cover of the Rider's Manual. Then use the air-line gauge at a service station to compensate for the difference between the RDC reading and the value in the table.

Example
According to the Rider's Manual, the tyre pressure should be the following value:
2.5 bar
The following display is shown in the TFT display:
2.3 bar

Example
Missing:
0.2 bar
The tester on the filling station shows:
2.4 bar
The tyre pressure must be increased to the following value to reach the correct tyre pressure:
2.6 bar

Shift assistant

Shift assistant Pro

Your vehicle is equipped with a shift assistant, a system originally developed for racing and now adapted for riding on public roads. It permits upshifts and downshifts without declutching or closing the throttle in virtually all load and rpm ranges.

Advantages

- 70-80 % of all gearshifts on a trip can be done without using the clutch.
- Less relative movement between rider and passenger because the shift pauses are shorter.
- It is not necessary to close the throttle valve when shifting under acceleration.
- When braking and downshifting (throttle valve closed), engine speed is adjusted by blipping the throttle.
- Shift time is shorter than a gearshift with clutch actuation.

In order for the system to identify a request for a gearshift, the rider has to move the shift lever from its idle position in the desired direction against the force of the spring through a certain "overtravel" at ordinary speed or rapidly and keep the shift lever in this position until the gearshift is completed. It is not necessary to increase the force applied to the shift lever while shifting is in progress. Once the gearshift has completed the shift lever has to be fully released before another gearshift with the Pro shift assistant can take place. Constantly maintain the corresponding load condition (throttle grip position) before and during gear shifts using the Gear Shift Assistant Pro. A change in the position of the throttle twistgrip during a gearshift can cause the function to abort and/or lead to a missed shift. The shift assistant Pro provides no assistance for the gear change if the rider declutches.

Downshifting

- Downshifting is assisted until maximum rpm for the target gear to be selected is reached. This prevents overrevving.

 Maximum engine speed
max 14600 min^{-1}
– with power reduction OE
max 14600 min^{-1}◁

Upshifting

– The shift assistant provides no assistance if engine speed drops below idle during an upshift.

 Idle speed
1270 min^{-1} (Engine at regular operating temperature)

Hill Start Control

Hill Start Control function

Hill Start Control assistant prevents the motorcycle from rolling backwards uncontrolled on gradients by intervening specifically with the ABS brake system without the driver having to constantly operate the brake lever. Pressure in the rear brake system is built up when Hill Start Control is activated in order to keep the motorcycle stationary on an incline.

The brake pressure in the brake system is dependent on the gradient.

Effect of an incline on brake pressure and drive-off behaviour

– If the motorcycle is stopped on a gentle incline, only low brake pressure is built up. In this case, the brakes are quickly released when driving off. The motorcycle can be moved off more gently. It is not necessary to turn the throttle grip again.
– If the motorcycle is stopped on a steep incline, high brake pressure is built up. In this case, the brakes take longer to release when driving off. More torque is required for driving off which also requires the rider to turn the throttle grip again.

Behaviour when the motorcycle rolls or slips

– If the motorcycle rolls when Hill Start Control is activated, the brake pressure is increased.
– If the rear wheel slips, the brake is released again after approx. 1 m. This prevents, for example, slipping due to a blocked rear wheel.

Releasing brake when stopping the engine or timeout

Hill Start Control is deactivated when the engine is stopped using the emergency-off switch, when the side stand is folded out or after timeout (10 minutes).

In addition to the indicator and warning lights, the rider should

be made aware that Hill Start Control has been deactivated by the following behaviour:

Brake warning jolt

- The brake is released briefly and reactivated immediately.
- This creates a jolt which the rider feels.
- The ABS brake system with partially integral function sets a speed of approx. 1-2 km/h.
- The rider must brake the motorcycle manually.
- After two minutes, or when the brake is actuated, Hill Start Control is completely deactivated.

NOTICE

The holding pressure is released immediately without a brake warning jolt as soon as the ignition is switched off.◀

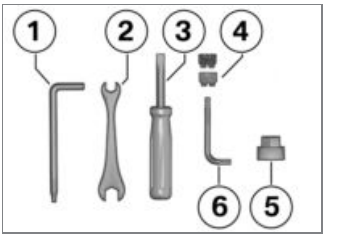
Maintenance

General instructions

The "Maintenance" chapter describes straightforward procedures for checking and replacing certain wear parts.
Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".
You will find information on more extensive maintenance and repair work in the Repair Manual on DVD for your vehicle, which is available from your authorised BMW Motorrad Retailer.

Some of the work calls for special tools and a thorough knowledge of the technology involved. If you are in doubt, consult a specialist workshop, preferably your authorised BMW Motorrad Retailer.

Toolkit



1 Lever
- without Dynamic Damping Control (DDC) OE
- Adjusting spring preload for rear wheel (➠ 109).
- with Race package OE

or
- with M Package OE
- Adjusting riding height at the traction strut (➠ 115).

2 Open-ended spanner
Width across flats 10/13
- Removing battery (➠ 205).

2
- Adjusting spring preload for front wheel (➠ 108).
- with Dynamic Damping Control (DDC) OE
- Adjusting spring preload for rear wheel (➠ 110).

3 Reversible screwdriver blade
Slotted bit and Torx T25
- Removing and installing trim panel components.
- Removing front seat (➠ 81).
- without Dynamic Damping Control (DDC) OE
- Adjusting compression-stage damping for front wheel (➠ 111).
- without Dynamic Damping Control (DDC) OE
- Adjust the rebound-stage damping for front wheel (➠ 112).

3
- without Dynamic Damping Control (DDC)[OE]
- Adjusting rebound-stage damping for rear wheel (➠ 113).
- without Dynamic Damping Control (DDC)[OE]
- Adjusting compression-stage damping for rear wheel (➠ 113).

4 Replacement fuses
- 7.5 A
- 15 A

5 Plastic cap
- Adjusting spring preload for front wheel (➠ 108).

6 Torx wrench, T30
- Removing and installing trim panel components.

Front-wheel stand

Installing auxiliary stand at front wheel

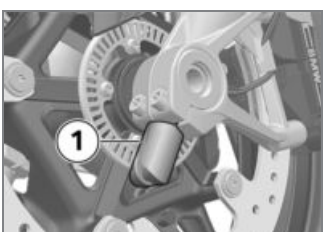
ATTENTION

Use of the BMW Motorrad front wheel stand without accompanying use of centre stand or auxiliary stand

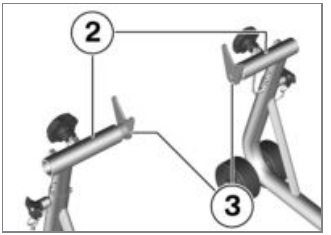
Risk of damage to parts if vehicle topples

- Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Place the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad auxiliary stand.
- Installing the rear-wheel stand (➠ 178).

- Use basic stand (83 30 0 402 241) with the adapters (83 30 2 152 839).



- Insert service adapter (83 30 2 152 840) **1** into the front suspension on left and right.



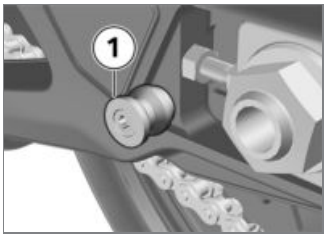
- Turn brackets **2** with long sides facing inwards.
- Adjust adapters **3** to the width of the service adapters used in the front suspension.
- Set the height of the auxiliary stand to raise the front wheel slightly clear of the ground.

- Engage the auxiliary stand in the front suspension and apply even pressure to push it down to the ground.

Rear-wheel stand

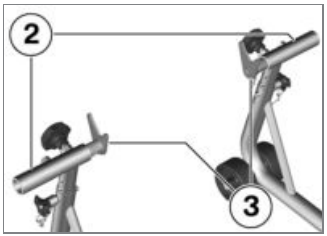
Installing the rear-wheel stand

- Use basic stand with tool number (83 30 0 402 241) and adapters (83 30 2 152 839).

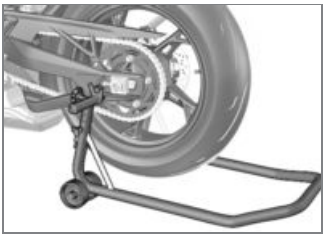


- Install service adapters (83 30 2 152 841) **1** in the rear wheel swinging arm on left and right and tighten to the specified torque.

Swinging-arm adapter to rear wheel swinging arm
20 Nm



- Turn brackets **2** with the long sides facing outwards.
- Adjust adapters **3** to the width of the service adapters used in the rear wheel swinging arm.
- Set the height of the rear-wheel stand to raise the rear wheel slightly clear of the ground.



- Engage the rear-wheel stand in the rear wheel swinging arm and apply even pressure to push it down to the ground.

Engine oil

Checking engine oil level

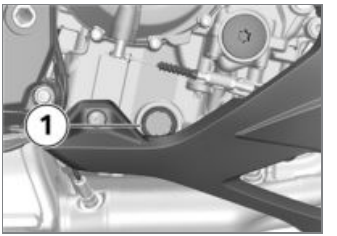
ATTENTION

Misinterpretation of oil level reading, because oil level is temperature-dependent (the higher the temperature, the higher the oil level)
Engine damage

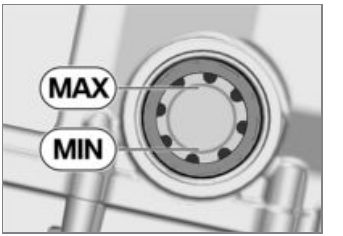
- Check the oil level only after a lengthy ride or when the engine is at operating temperature.◀
- Make sure the engine is at operating temperature and hold the motorcycle upright.
- Allow the engine to idle for one minute.
- Switch off the ignition.
- Wait five minutes for the oil to drain into the oil pan.

NOTICE

To protect the environment, BMW Motorrad recommends occasionally checking the engine oil after a journey of at least 50 km.◀



- Check the oil level in the display **1**.



Engine oil, specified level	
Between **MIN** and **MAX** marks	

Engine oil, capacity
SAE 5W-40, API SJ / JASO MA2, Additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
approx. 4.5 l (with filter change)

If the oil level is below the minimum mark:

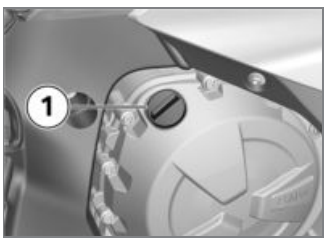
- Topping up the engine oil (➠ 181).

If the oil level is above the maximum mark:

- Have the oil level corrected by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Topping up the engine oil

- Place the motorcycle on its stand on firm, even ground.
- Wipe the area around the oil filler opening clean.



- Remove cap **1** of the oil filler opening.

ATTENTION

Use of insufficient engine oil or too much engine oil

Engine damage

- Always make sure that the oil level is correct.◀
- Top up the engine oil to the specified level.
- Checking engine oil level (➠ 179).
- Fit cap of the oil filler opening **1**.

Brake system

Checking function of brakes

- Operate brake lever.

» The pressure point must be clearly perceptible.

- Press the footbrake lever.

» The pressure point must be clearly perceptible.

If pressure points are not clearly perceptible:

ATTENTION

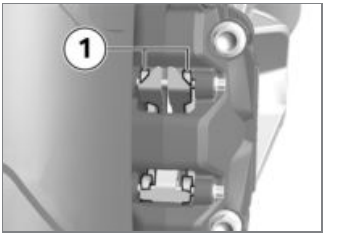
Work on brake system not in compliance with correct procedure

Risk to operational reliability of the brake system

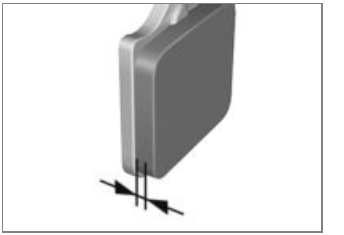
- Have all work on the brake system undertaken by trained and qualified specialists.◀
- Have the brakes checked by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking front brake pad thickness

- Place the motorcycle on its stand on firm, even ground.
- Turn the handlebars to the full-lock position.



- Visually inspect the left and right brake pads to ascertain their thickness. Viewing direction: from the rear toward brake pads **1**.



	Brake-pad wear limit, front
min 1 mm (Friction pad only, without backing plate)	

If the brake pads are worn:

WARNING

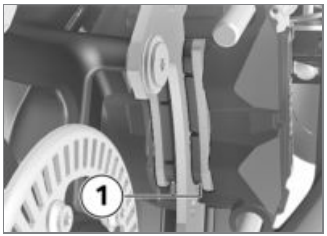
Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

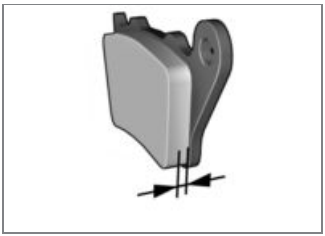
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking rear brake pad thickness

- Place the motorcycle on its stand on firm, even ground.



- Visually inspect the brake pads to ascertain their thickness. Viewing direction: from the rear toward brake pads **1**.



	Brake-pad wear limit, rear
min 0.9 mm (friction pad only, without backing plate.)	

If the brake pads are worn:

WARNING

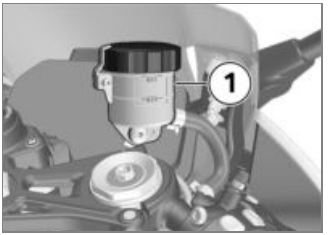
Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking brake-fluid level, front brakes

- Make sure the ground is level and firm and hold the motorcycle upright.
- Move the handlebars to the straight-ahead position.



- Check brake fluid level on the brake fluid expansion tank **1**.

NOTICE

Wear of the brake pads causes the brake fluid level in the reservoir to sink.◀

	Brake fluid level, front
Brake fluid, DOT4	
The brake fluid level must not fall below the **MIN** mark. (Brake-fluid reservoir, horizontal)	

If the brake fluid level drops below the permitted level:

WARNING

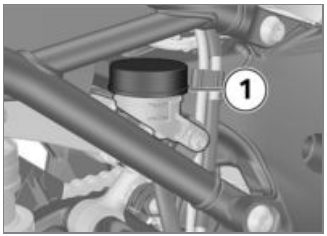
Not enough brake fluid in brake fluid tank

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals.◀
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking the brake-fluid level, rear brakes

- Make sure the ground is level and firm and hold the motorcycle upright.



- Check the brake fluid level in the brake fluid tank rear **1**.

NOTICE

Wear of the brake pads causes the brake fluid level in the reservoir to sink.◀

Brake fluid level, rear
Brake fluid, DOT4
The brake fluid level must not fall below the **MIN** mark. (Brake-fluid reservoir, horizontal)

If the brake fluid level drops below the permitted level:

⚠ WARNING

Not enough brake fluid in brake fluid tank

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals.◀
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Clutch

Checking clutch function

- Pull the clutch lever.

» An increase in force with increasing actuation must be perceptible.

If no increase in force with increasing actuation is perceptible:

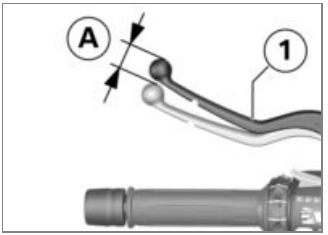
- Have the clutch checked by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking clutch-lever play

Requirement

Engine is cold.

- Place the motorcycle on its stand on firm, even ground.
- Move the handlebars to the straight-ahead position.



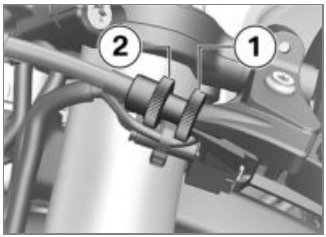
- Repeatedly pull clutch lever **1** tight against the grip.
- Pull clutch lever **1** gently until resistance is perceptible, observing the clutch play **A**.

Clutch-lever play
3...5 mm (on the manual controls, handlebars in straight-ahead position, with cold engine)

Clutch play is out of tolerance:

- Adjusting clutch play (➠ 187).

Adjusting clutch play



- Loosen lock nut **1**.
- To increase clutch play: screw adjusting screw **2** into the handlebar fitting.
- To reduce clutch play: unscrew adjusting screw **2** from the handlebar fitting.

NOTICE

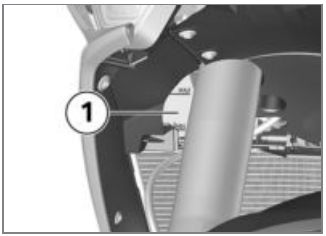
The distance between lock nut and nut (measured internally) must not exceed 14 mm. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer, should it only be possible to set the correct clutch play by unscrewing further.◀

- Checking clutch-lever play (➠ 186).
- Tighten lock nut **1** while holding adjusting screw **2**.

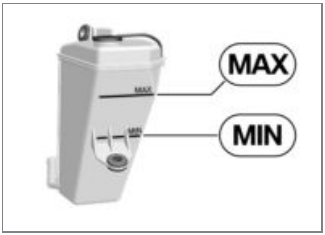
Coolant

Check coolant level

- Place the motorcycle on its stand on firm, even ground.
- Turn the handlebars all the way to left.



- Check the coolant level in expansion tank **1**. Viewing direction: From in front toward the inside of the right side panel.

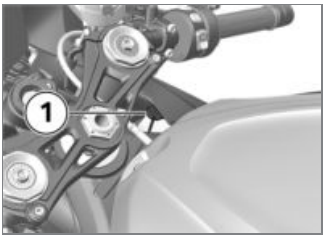


Specified level for coolant
Between **MIN** and **MAX** marks on the expansion tank (cold engine)

If the coolant drops below the permitted level:

- Top up the coolant.

Top up coolant



- Open cap **1** of the expansion tank.
- Top up coolant to the specified level using a suitable funnel.
- Check coolant level (➠ 187).
- Close the cap **1** of the expansion tank.

Tyres

Checking tyre pressure

⚠ WARNING

Incorrect tyre pressure

Impaired handling characteristics of the motorcycle, shorter useful tyre life

- Always check that the tyre pressures are correct.◀

⚠ WARNING

Tendency of valve inserts to open by themselves at high riding speeds

Sudden loss of tyre pressure

- Install valve caps fitted with rubber sealing rings and tighten firmly.◀

- Place the motorcycle on its stand on firm, even ground.
- Check tyre pressures against the data below.

Tyre pressure, front
2.5 bar (One-up, with cold tyre)

 Tyre pressure, front
2.5 bar (Two-up mode with load, with cold tyres)
 Tyre pressure, rear
2.9 bar (One-up, with cold tyre)
2.9 bar (Two-up mode with load, with cold tyres)

If tyre pressure is too low:
- Correct tyre pressure.

Rims and tyres

Check wheel rims

- Place the motorcycle on its stand on firm, even ground.
- Visually inspect the rims for defects.
- Have damaged rims inspected by a specialist workshop and replaced if necessary, preferably by an authorised BMW Motorrad Retailer.

Checking tyre tread depth

WARNING

Riding with badly worn tyres
Risk of accident due to impaired handling
- If applicable, have the tyres changed in good time before they wear to the minimum tread depth permitted by law.◀
- Place the motorcycle on its stand on firm, even ground.
- Measure the tyre tread depth in the main tread grooves with wear marks.

NOTICE

Wear indicators are built into the main profile grooves on each tyre. The tyre is worn out when the tyre tread has worn down to the level of the marks. The locations of the marks are indicated on the edge of the tyre, e.g. by the letters TI, TWI or by an arrow.◀

If the tyre tread is worn to minimum:
- Replace tyre or tyres, as applicable.

Wheels

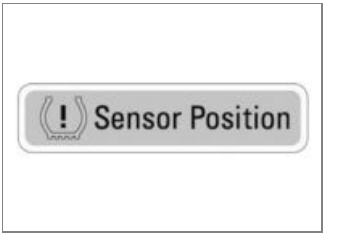
Effect of wheel size on chassis and suspension control systems

The wheel sizes play an essential role with DTC. In particular, the diameter and the width of the vehicle's wheels are programmed into the control unit and are fundamental to all calculations. Any change in these influencing variables, caused for example by a switch to wheels other than those installed ex-works, can have serious effects

on the performance of the control systems.
The sensor rings are essential for correct road-speed calculation, and they too must match the motorcycle's control systems and consequently cannot be changed.
If you decide that you would like to fit non-standard wheels to your motorcycle, it is very important to consult a specialist workshop beforehand, preferably an authorised BMW Motorrad Retailer. In these cases, the data programmed into the control units has to be changed to suit the new wheel sizes.

RDC sticker

– with tyre pressure control (RDC)[OE]



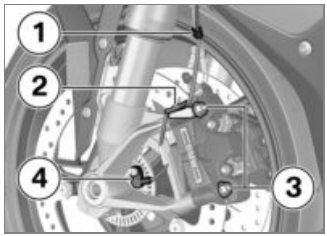
ATTENTION

Tyre removal not in compliance with correct procedure
Damage to RDC sensors
- Be sure to explain to the specialist workshop or authorised BMW Motorrad dealer that the wheel is fitted with an RDC sensor.◀

An appropriate sticker will be found on the rim at the position of the RDC sensor on motorcycles fitted with RDC. Take care that the RDC sensor is not damaged when the tyre is changed. Draw the attention of your BMW Motorrad retailer or the specialist workshop to the RDC sensor.

Removing front wheel

- Place the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing the rear-wheel stand (➠ 178).
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.



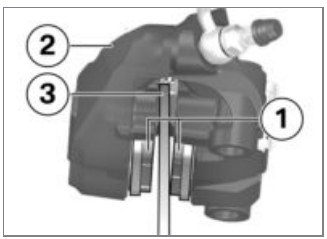
- Disengage the cable for the wheel speed sensor from holding clips **1** and **2**.
- Remove bolt **4** and remove the wheel speed sensor from its bore hole.

ATTENTION

Unwanted inward movement of the brake pads

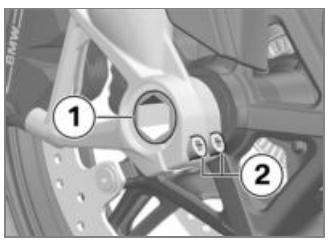
Component damage on attempt to install the brake caliper or because brake pads have to be forced apart

- Do not operate the brakes with a brake caliper not correctly secured.◀
- Remove mounting bolts **3** of the left and right brake calipers.



- Force the brake pads **1** slightly apart by rotational movement of the brake caliper **2** against brake disc **3**.
- Carefully pull the brake calipers back and out until clear of the brake discs.

- Lift the front of the motorcycle until the front wheel is clear of the ground, preferably using a BMW Motorrad front-wheel stand.
- Installing auxiliary stand at front wheel (➠ 177).



ATTENTION

Incorrect gap between sensor ring and wheel speed sensor due to misaligned threaded bush in front suspension

Damage to wheel speed sensor. ABS malfunction

- Left clamp locates the threaded bush; do not loosen or remove this clamp.◀
- Loosen clamping bolts **2**.
- Remove quick-release axle **1**, while supporting the wheel.
- Roll the front wheel forward to remove.

Install the front wheel

WARNING

Use of a non-standard wheel

Malfunctions in operation of ABS and DTC

- See the information on the effect of wheel size on the ABS and DTC systems at the start of this chapter.◀

ATTENTION

Tightening threaded fasteners to incorrect tightening torque

Damage, or threaded fasteners work loose

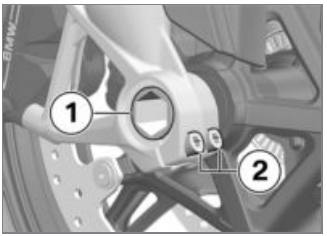
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

ATTENTION

Front wheel installed wrong way round

Risk of accident

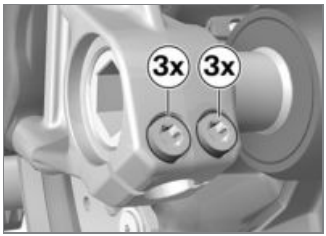
- Note direction-of-rotation arrows on tyre or rim.◀
- Roll the front wheel into position between the front suspension.



- Raise the front wheel, install the quick-release axle **1** and tighten to specified torque.

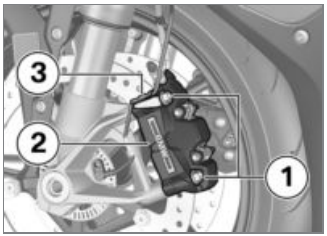
	Quick-release axle in threaded bush
50 Nm	

- Tighten clamping bolts **2** to the specified tightening torque.



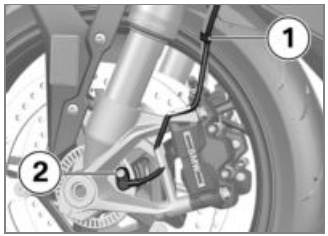
Clamping bolts in wheel axle clamp
Tightening sequence: Tighten screws six times in alternate sequence
19 Nm

- Place brake calliper on the brake discs.

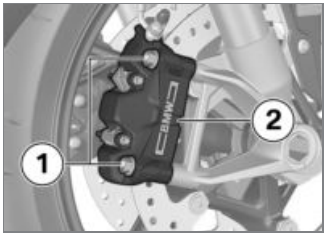


- Place brake caliper **2** on left and position cable routing **3**.
- Install bolts **1** and tighten to the specified torque.

Radial brake caliper on wheel axle clamp
38 Nm



- Secure cable for wheel speed sensor in holder **1**.
- Insert wheel speed sensor in the bore hole and secure with bolt **2**.



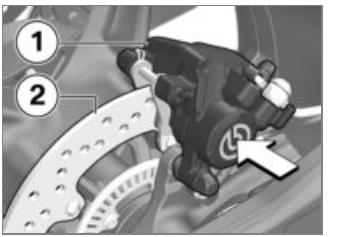
- Place brake caliper **2** on the right and install bolts **1** to specified torque.

Radial brake caliper on wheel axle clamp	
38 Nm	

- Remove the adhesive tape from the wheel rim.
- Powerfully pull brake lever several times until the pressure point can be felt.
- Remove front-wheel stands and auxiliary stands.

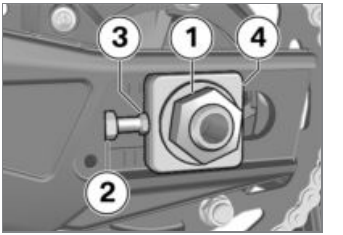
Removing rear wheel

- Lift the motorcycle, preferably with a BMW Motorrad rear-wheel stand.
- Installing the rear-wheel stand (➠ 178).
- Slip wooden chocks or similar under the rear wheel to prevent it from dropping out after the quick-release axle has been removed.

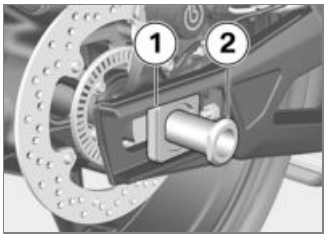


- Press the brake caliper **1** against the brake disc **2**.

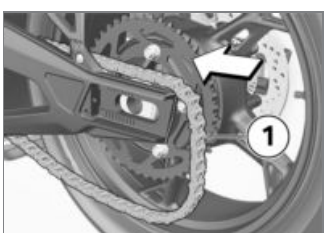
» Brake pistons are pushed back.



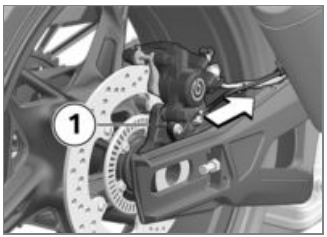
- Remove axle nut **1** with washer.
- Loosen lock nuts **2** on left and right.
- Loosen adjusting screws **3** on left and right.
- Remove adjustment plate **4** and push the axle in as far as it will go.



- Remove quick-release axle **2** and remove adjustment plate **1**.



- Roll the rear wheel as far forward as possible and disengage chain **1** from the chain sprocket.



- Pull out brake-caliper support **1** to the front and hang to the side.
- Roll the rear wheel back until it is clear of the swinging arm.

NOTICE

The sprocket and the spacer bushes on left and right are loose fits in the wheel. Make sure that these parts are not damaged or get lost on removal.◀

Installing the rear wheel

ATTENTION

Change in tyre size

Effect on control systems

- If the rear wheel tyre size is changed from 190 / 55 ZR 17 to 200 / 55 ZR 17 or vice versa, the parameters of the control systems have to be re-coded by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

ATTENTION

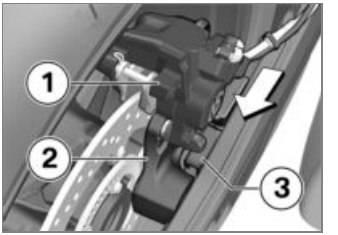
Tightening threaded fasteners to incorrect tightening torque

Damage, or threaded fasteners work loose

- Always have the security of the fasteners checked by a specialist workshop, preferably

an authorised BMW Motorrad dealer.◀

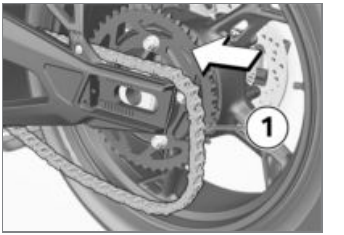
- Roll rear wheel on the support into the swinging arm.



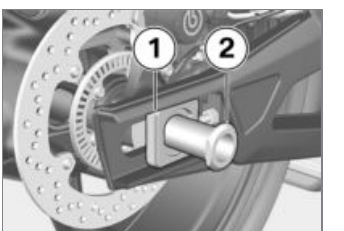
- Insert brake caliper **1** with brake-caliper support **2** into the guide **3** of the swinging arm.

NOTICE

Ensure correct position of brake line and ABS sensor cable. The brake line and the ABS sensor cable must sit in their guides in order to prevent contact with the rear wheel or exhaust system.◀

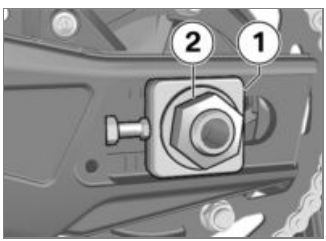


- Roll the rear wheel as far forward as possible and loop chain **1** over the chain sprocket.



- Install adjustment plate on the right **1** in the swinging arm.

- Lift the rear wheel and work quick-release axle **2** through the adjustment plate and into the brake-caliper support and the rear wheel.
- Make sure that the quick-release axle fits into the recess for the flats.



- Insert left adjustment plate **1**.
- Install axle nut **2** with washer, but do not tighten it at this point.

- Adjust chain sag (➠ 208).

Lighting

Replacing LED light sources

WARNING

Vehicle overlooked in traffic due to failure of the lights on the vehicle

Safety risk

- Always replace a faulty bulb at the earliest possible opportunity. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.◀

All light sources of the vehicle are LED light sources. The service life of the LED light sources is longer than the presumed vehicle service life. If an LED light source is faulty, please contact a specialist workshop, preferably an authorised BMW Motorrad Retailer.

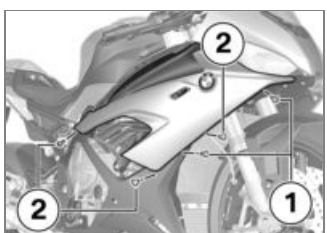
Body panels

Remove the side panel

NOTICE

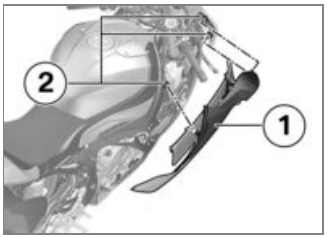
The procedure described here for the right side apply applies by analogy to the left side panel.◀

- Place the motorcycle on its stand on firm, even ground.



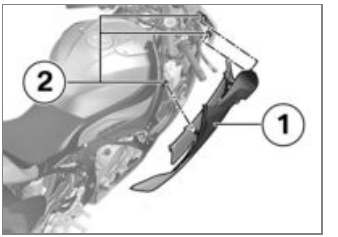
- Remove screws **1**.
- Remove screws **2**.

- Bend engine spoiler **2** downwards slightly and remove bolt **1**.

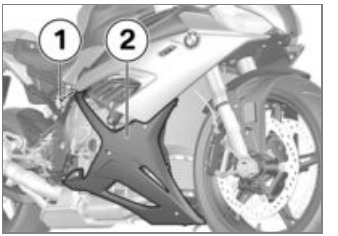


- Loosen fairing side panel **1** from grommets **2** and remove.

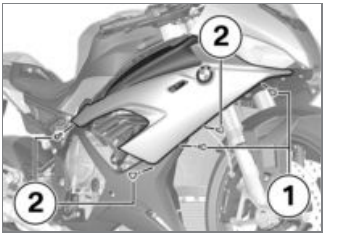
Installing side panel



- Insert fairing side panel **1** into grommets **2**.



- Bend engine spoiler **2** downwards slightly and install bolt **1**.

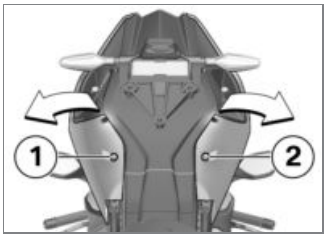


- Install screws **1**.
- Install screws **2**.

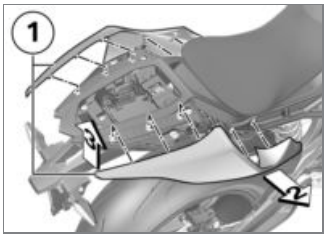
Removing tail-hump trim panel

– with two-up riding package[OE]

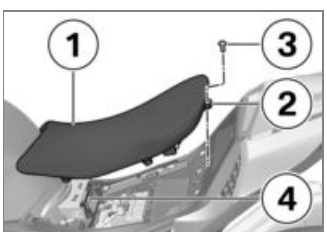
- Removing rear seat (➠ 80).
- Remove tail-hump cover (➠ 79).



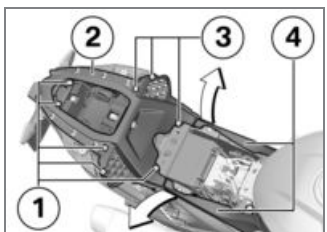
- Remove screws **1** and **2**.
- Unclip left and right rear trim panels carefully in the **direction of arrow**.



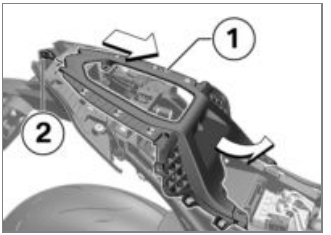
- Carefully unclip left and right rear trim panel **1**, first horizontally **2**, then vertically **3**.



- Push the rider's seat cover **1** forward slightly on the seat cushion surface and expose tab **2**.
- Remove bolt **3**.
- Lift up the rider's seat **1** at the rear and unhook fixing **4**.
- Place the seat, upholstered side down, on a clean surface.

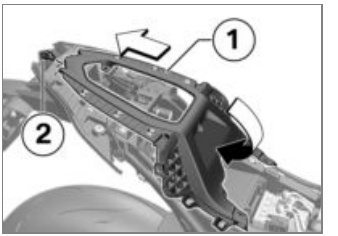


- Remove bolts **1** and **3** from tail-hump trim panel **2**.
- Carefully unclip panels **4** in the **direction of arrow**.

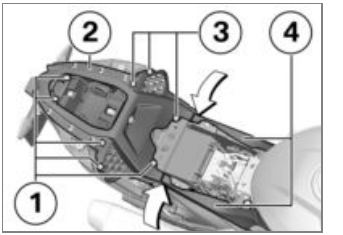


- Lift tail-hump trim panel **1** in the **direction of arrow** and remove from retaining tab **2**.

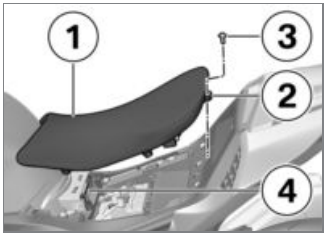
Installing tail-hump trim panel



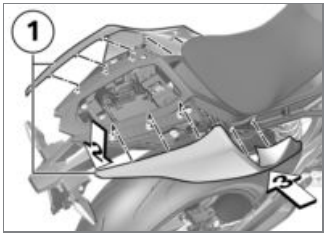
- Position tail-hump trim panel **1** at retaining tab **2**.



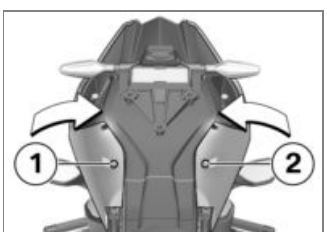
- Carefully clip in panels **4** in the **direction of arrow** to the tail-hump trim panel **2**.
- Install bolts **1** and **3**.



- Insert rider's seat **1** into the fixing **4** at the front and position it.
- Push the rider's seat cover **1** forward slightly on the seat cushion surface and expose tab **2**.
- Position and install bolt **3**.



- Carefully clip in left and right rear trim panel **1**, first vertically **2**, then horizontally **3**.



- Carefully clip in rear trim panel in the **direction of arrow**.
- Install bolts **1** and **2**.

– with two-up riding package OE
- Install the rear seat (➠ 80).◁

- Installing tail-hump cover (➠ 80).

Jump-starting

⚠ CAUTION

Touching live parts of the ignition system when the engine is running

Electric shock

- Do not touch parts of the ignition system when the engine is running.◀

ATTENTION

Excessive current flowing when the motorcycle is jump-started

Wiring smoulders/ignites or damage to the on-board electronics

- If the motorcycle has to be jump-started connect the leads

to the battery terminals; never attempt to jump-start the engine by connecting leads to the on-board socket.◀

ATTENTION

Contact between crocodile clips of jump leads and vehicle

Risk of short-circuit

- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

ATTENTION

Jump-starting with a voltage greater than 12 V

Damage to the on-board electronics

- Make sure that the battery of the donor vehicle does not exceed a voltage of 12 V.◀
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.
- Removing front seat (➠ 81).
- Run the engine of the donor vehicle during jump-starting.
- Begin by connecting one end of the red jump lead to the positive terminal of the discharged battery and the other end to the positive terminal of the donor battery.
- Then connect one end of the black jump lead to the negative terminal of the donor battery, and the other end to the negative terminal of the discharged battery.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to protect the starter motor and the donor battery.
- Allow both engines to idle for a few minutes before disconnecting the jump leads.
- Disconnect the jump lead from the negative terminals first, then disconnect the second lead from the positive terminals.
- Installing front seat (➠ 81).

Battery

Maintenance instructions

Correct upkeep, recharging and storage will prolong the life of the battery and are essential if warranty claims are to be considered.

Compliance with the points below is important in order to maximise battery life:

– Keep the surface of the battery clean and dry.
– Do not open the battery.
– Do not top up with water.

– Be sure to read and comply with the instructions for charging the battery on the following pages.
– Do not turn the battery upside down.

ATTENTION

On-board electronics (e.g. clock) draining connected battery

Battery is deep-discharged; this voids the guarantee

- Connect a float charger to the battery if the motorcycle is to remain out of use for more than four weeks.◀

NOTICE

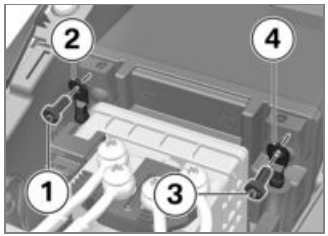
BMW Motorrad has developed a float charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods of disuse, without having to disconnect the battery from the motorcycle's on-board systems. You can obtain additional information from your authorised BMW Motorrad dealer.◀

Disconnecting battery from motorcycle

- Place the motorcycle on its stand on firm, even ground.
- Removing front seat (➠ 81).

– with anti-theft alarm (DWA) OE

- If applicable, switch off DWA.◁



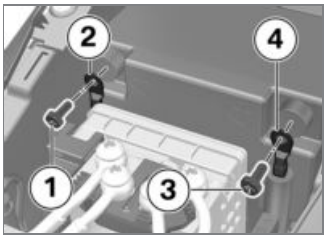
ATTENTION

Battery not disconnected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with the specified disconnection sequence.◀
- Remove bolt **1** and wiring harness negative terminal **2**, then push forward.
- Remove bolt **3** and wiring harness positive terminal **4**.

– with M battery[OE]



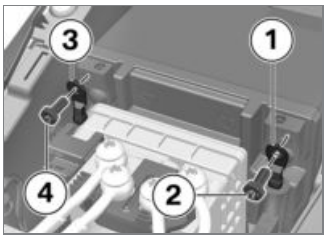
ATTENTION

Battery not disconnected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with the specified disconnection sequence.◀
- Remove bolt **1** and wiring harness negative terminal **2**, then push forward.
- Remove bolt **3** and wiring harness positive terminal **4**.◁

Connecting battery to motorcycle



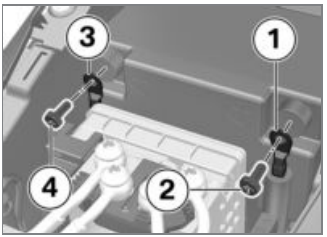
ATTENTION

Battery not connected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with specified installation sequence.◀
- Position wiring harness positive terminal **1** and install bolt **2**.
- Position wiring harness negative terminal **3** and install bolt **4**.

– with M battery[OE]



ATTENTION

Battery not connected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with specified installation sequence.◀
- Position wiring harness positive terminal **1** and install bolt **2**.
- Position wiring harness negative terminal **3** and install bolt **4**.◁

- Installing front seat (➠ 81).
– with anti-theft alarm (DWA)OE
- Switch on DWA if necessary.◁

Recharging battery

- Disconnecting battery from motorcycle (➠ 203).
- Charge the battery using a suitable charger.
- Comply with the operating instructions of the charger.
- Once the battery is fully charged, disconnect the charger's terminal clips from the battery terminals.

NOTICE

The battery has to be recharged at regular intervals in the course of a lengthy period of disuse. See the instructions for caring for your battery. Always fully recharge the battery before restoring it to use.◀

- Connecting battery to motorcycle (➠ 204).

Removing battery

- Removing front seat (➠ 81).
- Disconnecting battery from motorcycle (➠ 203).
- Lift the battery up and out: work it slightly back and forth if it is difficult to remove.

Installing battery

NOTICE

If the vehicle has been disconnected from the battery for a significant time, the current date will have to be entered in the instrument cluster to guarantee correct operation of the service display.◀

- Place the battery in the battery compartment; positive terminal on the left in the direction of travel.
- Connecting battery to motorcycle (➠ 204).
- Installing front seat (➠ 81).
- Setting the clock (➠ 93).

Fuses

Replace fuses

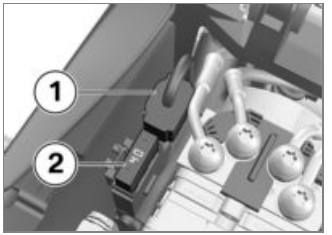
- Switch off the ignition.
- Removing front seat (➠ 81).

ATTENTION

Jumpering of blown fuses

Risk of short-circuit and fire

- Never attempt to jumper a blown fuse.
- Always replace a defective fuse with a new fuse of the same amperage.◀
- Replace faulty fuse in accordance with the fuse allocation diagram.



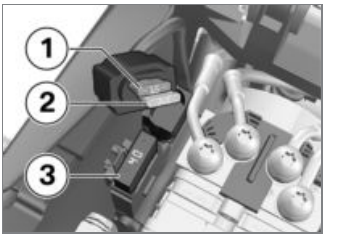
- Remove the faulty fuse **2** upwards out of the slot.
- In order to replace the two fuses in the fuse carrier **1**, pull the fuse carrier upwards out of its holder. To do so, press the retaining lugs on the left and right of the fuse carrier inwards.

NOTICE

If fuse defects recur frequently have the electric circuits checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

- Install fuse carrier **1** in the holder.
- Installing front seat (➠ 81).

Fuse assignment



1 15 A
Instrument panel
Anti-theft alarm (DWA)
Ignition switch
Diagnostic socket

2 7.5 A
Multifunction switch, left
Tyre pressure monitoring (RDC)

3 40 A
Alternator regulator

Diagnostic connector

Releasing the diagnostic connector

CAUTION

Incorrect procedure followed when loosening the diagnostic connector for the on-board diagnosis

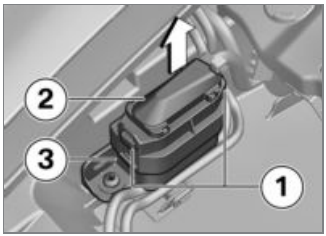
Motorcycle experiences malfunctions

- Only have the diagnostic connector loosened by a specialist workshop or other authorised persons during your next BMW Service appointment.
- Have the work performed by appropriately trained staff.
- Refer to the vehicle manufacturer specifications.◀

– with two-up riding package OE

- Removing rear seat (➠ 80).

- Remove tail-hump cover (➠ 79).

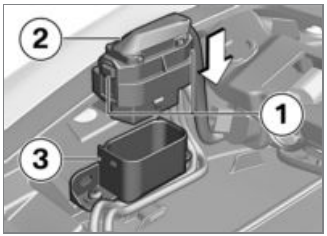


- Press locks **1**.
- Release diagnostic connector **2** from bracket **3**.

» The interface to the diagnosis and information system can be connected to the diagnostic connector **2**.

Securing the diagnostic connector

- Disconnect interface for diagnosis and information system.



- Insert the diagnostic connector **2** into the bracket **3**.

» The locks **1** engage.

– with two-up riding package OE

- Install the rear seat (➠ 80).
- Installing tail-hump cover (➠ 80).

Chain

Lubricating chain

ATTENTION

Inadequate cleaning and lubrication of the drive chain
Accelerated wear

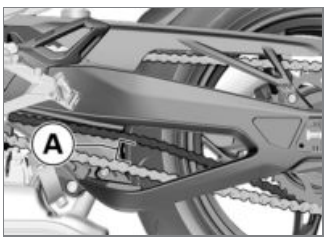
- Clean and lubricate the drive chain at regular intervals.◀
- Lubricate the drive chain every 800 km at the latest. Lubricate the chain more frequently if the motorcycle is ridden in wet, dusty or dirty conditions.
- Switch the ignition off and select neutral.
- Clean the drive chain with a suitable cleaning product, dry it and apply chain lubricant.
- To prolong chain life, BMW Motorrad recommends the use of BMW Motorrad chain lubricant, or:

Lubricant
Chain spray

- Wipe off excess lubricant.

Checking chain sag

- Place the motorcycle on its stand on firm, even ground.
- Turn the rear wheel until it reaches the position with the lowest amount of chain sag.



- Use a screwdriver to push the chain up at a point midway between the pinion and sprocket and measure difference **A**.

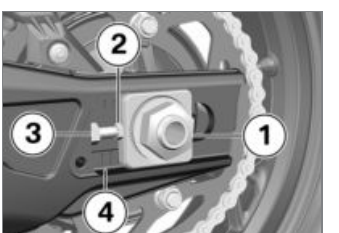
Chain deflection
45...50 mm (Motorcycle with no weight applied, supported on its side stand)

If measured value is outside permitted tolerance:

- Adjust chain sag (➠ 208).

Adjust chain sag

- Place the motorcycle on its stand on firm, even ground.



- Loosen quick-release axle nut **1**.
- Loosen lock nuts **3** on left and right.
- Use the adjusting screws **2** on left and right to adjust chain sag.
- Checking chain sag (➠ 208).
- Make sure that the scale values **4** are the same on the left and right.
- Tighten lock nuts **3** on left and right to the specified tightening torque.

Locknut of the final-drive chain tensioning screw
19 Nm

- Tighten quick-release axle nut **1** to the specified tightening torque.

Rear quick-release axle in swinging arm
Thread-locking compound: mechanical
100 Nm

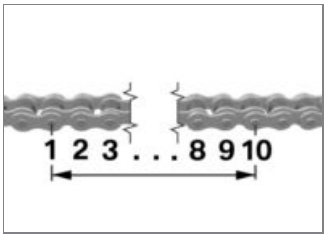
- Checking chain sag (➠ 208).

Checking the chain wear

Requirement

Chain tension is set correctly.

- Place the motorcycle on its stand on firm, even ground.
- Engage 1st gear.
- Turn the rear wheel in the normal direction of travel until the chain is tensioned.
- Determine the length of the chain underneath the rear wheel swinging arm above the middle of 10 rivets in 3 different places.



Permissible chain length
max 144 mm (measured from the **centre** of 10 rivets, chain pulled taut)

If the chain has stretched to the maximum permissible length:

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Accessories

General instructions

⚠ CAUTION

Use of other-make products
Safety risk
- BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW vehicles without constituting a safety hazard. Country-specific official authorisation does not suffice as assurance. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW vehicles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your vehicle.◀

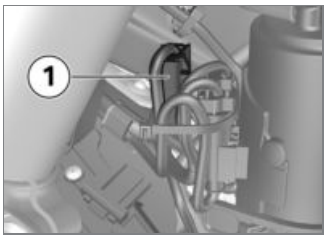
The components and accessory products have been thoroughly checked by BMW for safety, function and suitability. BMW therefore takes responsibility for the products. BMW does not accept liability for unauthorised parts and accessory products of any kind.
Legal provisions must be taken into account when any changes are made. Please refer to the road traffic licensing regulations (in Germany StVZO) for your country.
Your BMW Motorrad Retailer offers you qualified advice when choosing original BMW components, accessories and other products.
To find out more about accessories, go to:
bmw-motorrad.com/equipment

Connector for optional accessories

Equipment

The vehicle is fitted with the following plugs for optional accessories and racing accessories:
– Spring-travel sensor
– M data logger
– Optional accessory

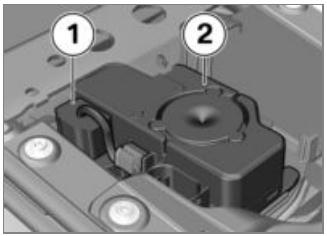
Underneath the left side panel



1 Plug for optional accessories and racing accessories: Voltage supply and LIN Spring travel sensor for front forks (racing accessory)

Under the tail-hump trim panel

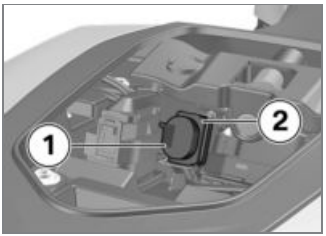
– with anti-theft alarm (DWA)[OE]



1 Connector for DWA and M data logger
2 DWA

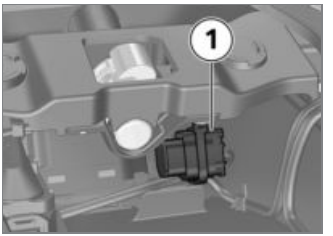
Beneath the tail-hump cover

– without anti-theft alarm (DWA)[OE]



1 Terminating resistor
2 Connector for DWA and M data logger

Beneath the tail-hump cover



1 Connector for optional accessories, rear

Connecting optional accessories and racing accessories

Requirement

Remove the side panel, rear seat or tail-hump cover, as applicable, to gain access to the plugs.

- Removing fairing side panel with engine spoiler (➠ 197).
- with two-up riding package OE
- Removing rear seat (➠ 80).
- Remove tail-hump cover (➠ 79).
- Removing tail-hump trim panel (➠ 198).
- Unlock the protective cap or terminating resistor, as applicable, and disconnect it from the plug.
- Connect the optional accessory or racing accessory, as applicable.

NOTICE

Comply with the installation instructions supplied with the optional accessory or racing accessory.◀

NOTICE

Tightening the cable ties has to be the last step in the process; this is in order to ensure that the wiring harness can be positioned correctly and that there is no strain on the cable legs with plugs.◀

ATTENTION

Dirt and damp penetrating inside open connectors

Malfunctions

- Reinstall the cap or terminating resistor, as applicable, after removing the plug.◀
- After removing the accessory: Reinstall the cap or terminating resistor, as applicable.
- Installing side panel (➠ 198).
- with two-up riding package OE
- Install the rear seat (➠ 80).
- Installing tail-hump cover (➠ 80).
- Installing tail-hump trim panel (➠ 200).

M Cover Kit

Covering body openings

Requirement

The M Cover Kit is used to professionally mount the front trim panel and to cover the body openings if the mirrors and number plate carrier have been removed.

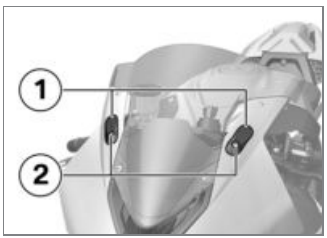
- Remove mirror (➠ 147).
- Removing number-plate carrier (➠ 151).
- M Cover Kit einbauen.

NOTICE

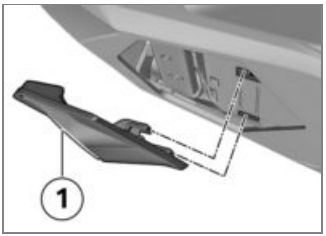
Comply with the installation instructions supplied with the optional accessory or racing accessory.◀

- After removing the M Cover Kit, the mirrors and number plate carrier must be mounted again.
- Installing number-plate carrier (➠ 153).
- Install mirror (➠ 149).

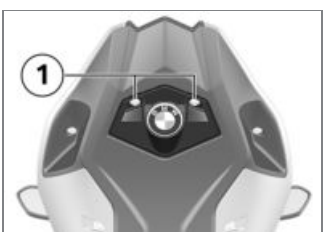
Installing the M Cover Kit



- Insert mirror mount cover **1**.
- Install screws **2**.

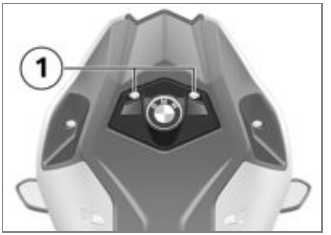


- Hook in and position number plate carrier cover **1**.

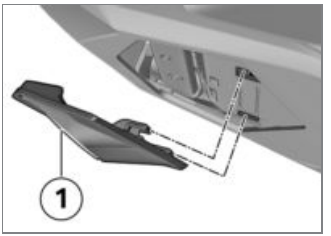


- Install screws **1**.

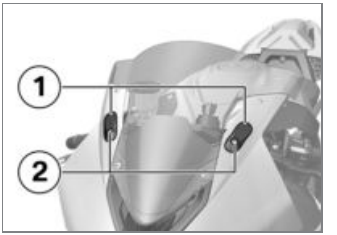
Removing the M Cover Kit



- Remove screws **1**.



- Unhook number plate carrier cover **1** and remove downwards.



- Remove screws **2**.
- Remove mirror mount cover **1**.

Care

Care products

BMW Motorrad recommends that you use the cleaning and care products you can obtain from your authorised BMW Motorrad Retailer. The substances in BMW Care Products have been tested in laboratories and in practice; they provide optimised care and protection for the materials used in your vehicle.

ATTENTION

Use of unsuitable cleaning and care products

Damage to vehicle parts

- Do not use solvents such as cellulose thinners, cold cleaners, fuel or the like, and do not use cleaning products that contain alcohol.◀

Washing the vehicle

BMW Motorrad recommends that you use BMW insect remover to soften and wash off insects and stubborn dirt on painted parts prior to washing the vehicle.

To prevent stains, do not wash the vehicle immediately after it has been exposed to strong sunlight and do not wash it in the sun.

Make sure that the vehicle is washed frequently, especially during the winter months.

To remove road salt, clean the motorcycle with cold water immediately after every trip.

WARNING

Wet brake discs and brake pads after vehicle wash, after riding through water and in rainy conditions

Diminished braking effect, risk of accident

- Apply the brakes in good time to allow the friction and heat to dry the brake discs and brake pads.◀

ATTENTION

Effect of road salt intensified by warm water

Corrosion

- Use only cold water to wash off road salt.◀

ATTENTION

Damage due to high water pressure from high pressure cleaners or steam cleaners

Corrosion or short circuit, damage to labels, seals, hydraulic brake system, electrical system and the motorcycle seat

- Exercise restraint when using a steam jet or high pressure cleaning equipment.◀

Cleaning easily damaged components

Plastics

ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

- Do not use cleaning agents that contain alcohol, solvents or abrasives.
- Do not use insect-remover pads or cleaning pads with hard, scouring surfaces.◀

Body panels

Clean trim panel components with water and BMW Motorrad solvent cleaner.

Plastic windscreens and headlight lenses

Remove dirt and insects with a soft sponge and generous amounts of water.

NOTICE

Soften stubborn dirt and insects by covering the affected areas with a wet cloth.◀

Clean with water and sponge only.

Do not use any chemical cleaning agents.

Chrome

Carefully clean chrome sections with a generous amount of water and motorcycle cleaner from the care series BMW Motorrad Care Products. This applies especially where road salt has been in use. For an additional treatment, use BMW Motorrad metal polish.

Radiator

Clean the radiator regularly to prevent overheating of the engine due to inadequate cooling. For example, use a garden hose with low water pressure.

ATTENTION

Bending of radiator fins

Damage to radiator fins

- Take care not to bend the radiator fins when cleaning.◀

Rubber

Treat rubber components with water or BMW rubber-care products.

ATTENTION

Application of silicone sprays to rubber seals

Damage to the rubber seals

- Do not use silicone sprays or care products that contain silicon.◀

Care of paintwork

The long-term effects of materials that are damaging to paint can be prevented by regular vehicle washes, particularly if your vehicle is ridden in areas susceptible to high levels of air pollution or natural contamination, for example tree resin or pollen. Particularly aggressive materials, however, should be removed immediately, otherwise changes to or discolouration of the paint can result. These include, for example, spilled fuel, oil, grease, brake fluid or bird excrement. For this, we recommend BMW Motorrad solvent cleaner followed by BMW Motorrad gloss polish for preservation. Contamination of the paint surface can be seen particularly clearly after a vehicle wash. These areas should be cleaned immediately using benzine or spirit, applied with a clean cloth or cotton pad. BMW Motorrad recommends that tar spots be removed using BMW tar remover. The paint should then be preserved in these areas.

Vehicle preservation

If water no longer rolls off the paint, the paint must be preserved.
For paint preservation, BMW Motorrad recommends the use of BMW Motorrad gloss polish or agents containing carnauba wax or synthetic wax.

Laying up the motorcycle

- Cleaning the motorcycle.
- Fill the motorcycle's fuel tank.
- Removing battery (➠ 205).
- Spray the brake and clutch lever pivots and the main and side stand pivots with a suitable lubricant.
- Preserve bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).
- Stand the motorcycle in a dry room in such a way that there is no load on either wheel (preferably using the front-wheel and rear-wheel stand from BMW Motorrad).

Restoring motorcycle to use

- Remove the protective wax coating.
- Cleaning the motorcycle.

- Installing battery (➠ 205).
- Comply with checklist (➠ 121).

Technical data

Troubleshooting chart

Engine does not start or is difficult to start.

Possible cause	Rectification
Side stand extended and gear engaged	Fold in side stand.
Gear engaged and clutch not pressed	Select neutral or pull the clutch lever.
No fuel in tank	Refuelling (➠ 130).
Battery flat	Recharging battery (➠ 205).
Overheating protection for starter motor has been activated. Starter motor can only be operated for a limited period of time.	Allow the starter motor to cool down for approx. 1 minute before using it again.

The Bluetooth connection is not established.

Possible cause	Rectification
The steps required for pairing were not carried out.	Check the necessary steps for pairing in the operating instructions for the communication system.
Connectivity functions are deactivated because the race track functions are activated.	Go to `Settings` menu and deactivate `Racetrack`.
The communication system was not connected automatically despite successful pairing.	Switch off the helmet's communication system and reconnect it after a minute or two.
Too many Bluetooth devices are saved on the helmet.	All pairing entries on the helmet are deleted (see the communication system operating instructions).
There are other vehicles with Bluetooth-capable devices in the vicinity.	Avoid simultaneously pairing with more vehicles.

Bluetooth connection is interrupted.

Possible cause	Rectification
The Bluetooth connection to the mobile end device is interrupted.	Switch off energy saving mode.
The Bluetooth connection to the helmet is interrupted.	Switch off the helmet's communication system and reconnect it after a minute or two.
The volume in the helmet cannot be adjusted.	Switch off the helmet's communication system and reconnect it after a minute or two.

The telephone book is not displayed in the TFT display.

Possible cause	Rectification
The phone book was not transmitted to the vehicle.	Confirm transmission of the phone data (➠ 103) when pairing on the mobile end device.

Active route guidance is not displayed in the TFT display.

Possible cause	Rectification
Navigation from the BMW Motorrad Connected App was not transmitted.	The BMW Motorrad Connected App is opened on the connected mobile end device prior to departure.
The route guidance cannot be started.	Secure the mobile device's data connection and check the map data on the mobile end device.

Screw connections

Front wheel	Value	Valid
Quick-release axle in threaded bush		
M24 x 1.5	50 Nm	
Clamping bolts in wheel axle clamp		
M8 x 35	**Tightening sequence: Tighten screws six times in alternate sequence**	
	19 Nm	
Radial brake caliper on wheel axle clamp		
M10 x 65	38 Nm	

Rear wheel	Value	Valid
Locknut of the final-drive chain tensioning screw		
M8	19 Nm	

Rear wheel	Value	Valid
Nut for swinging arm pivot point bush on frame		
M36 x 0.75, Replace nut Loctite 270, High strength	50 Nm	
Nut on swinging arm axle		
M18 x 1.5, Replace nut mechanical	100 Nm	
Rear quick-release axle in swinging arm		
M24 x 1.5 mechanical	100 Nm	
Swinging-arm adapter to rear wheel swinging arm		
M8 x 30	20 Nm	
Screw in adjusting ring		
M5 x 16	6 Nm	– without Dynamic Damping Control (DDC) OE

Rear wheel	Value	Valid
Spring strut at deflection lever		
M12 x 75 - 10.9 Micro-encapsulated	100 Nm	

Mirrors	Value	Valid
Mirror to front panel carrier		
M6, Replace nut mechanical	8 Nm	

Number plate carrier on rear frame	Value	Valid
Number plate carrier on rear frame		
M5 x 20, 9 mm collar	2 Nm	

Selector rod to gearshift lever	Value	Valid
Selector rod to gearshift lever		
M6 x 20, Replace screw Micro-encapsulated	8 Nm	

Fuel

Recommended fuel grade	E5 Super Plus, unleaded (max. 5 % ethanol, E5) 98 ROZ/RON 93 AKI
Alternative fuel grade	E5 Super unleaded (limitations in terms of power and consumption). (maximum 10 % ethanol, E10) E10 95 ROZ/RON 90 AKI
Usable fuel capacity	approx. 16.5 l
Fuel reserve	approx. 4 l
Fuel consumption	6.4 l/100 km, following world-wide harmonised motorcycle test cycle (WMTC)
– with power reduction OE	6.3 l/100 km, following world-wide harmonised motorcycle test cycle (WMTC)

Engine oil

Engine oil, capacity	approx. 4.5 l, with filter change
Specification	SAE 5W-40, API SJ / JASO MA2, Additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Engine oil, quantity for topping up	max 1.3 l, Difference between **MIN** and **MAX**

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine

Location of engine number	Crankcase, bottom right
Engine type	A10A10A
Engine design	4-cylinder, 4-stroke, in-line
Displacement	999 cm^3
Cylinder bore	80 mm
Piston stroke	49.7 mm
Compression ratio	13.3:1

Nominal output	152 kW, at engine speed: 13500 min^{-1}
– with power reduction OE	79 kW, at engine speed: 7250 min^{-1}
Torque	113 Nm, at engine speed: 11000 min^{-1}
– with power reduction OE	107 Nm, at engine speed: 7000 min^{-1}
Maximum engine speed	max 14600 min^{-1}
– with power reduction OE	max 14600 min^{-1}
Idle speed	1270 min^{-1}, Engine at regular operating temperature
Exhaust emissions standard	EU 4
CO2 emission	149 g/km, following world-wide harmonised motorcycle test cycle (WMTC)
– with power reduction OE	147 g/km, following world-wide harmonised motorcycle test cycle (WMTC)

Clutch

Clutch type	Multi-plate oil-bath (anti-hopping) with self-reinforcement

Transmission

Gearbox type	Claw-shift 6-speed gearbox, integrated into engine block
Gearbox transmission ratios	1.652 (76:46 teeth), Primary transmission ratio 2.647 (45:17 teeth), 1st gear 2.091 (46:22 teeth), 2nd gear 1.727 (38:22 teeth), 3rd gear 1.500 (33:22 teeth), 4th gear 1.360 (34:25 teeth), 5th gear 1.261 (29:23 teeth), 6th gear

Rear-wheel drive

Type of final drive	Chain drive
Number of teeth, rear-wheel drive (Pinion / sprocket)	17:45
Secondary transmission ratio	2.647

Frame

Frame type	Aluminium composite bridge frame, engine also load bearing
Type plate location	Frame, front right on steering head
Position of the Vehicle Identification Number	Frame, front right on steering head

Chassis and suspension

Front wheel	
Type of front suspension	Upside-down telescopic fork
Spring travel, front	120 mm, at front wheel
– with Dynamic Damping Control (DDC)[OE]	120 mm, at front wheel
Rear wheel	
Type of rear suspension	Aluminium bearer swinging arm
Type of final drive	Chain drive
Spring travel, rear	117 mm, at rear wheel
– with Dynamic Damping Control (DDC)[OE]	117 mm, at rear wheel

Brakes

Front wheel	
Type of front brake	Twin disc brake, diameter 320 mm, 4-piston fixed caliper
– with M carbon wheels OE	Twin disc brake, diameter 320 mm, 4-piston fixed caliper
– with M forged wheels OE	Twin disc brake, diameter 320 mm, 4-piston fixed caliper
Brake-pad material, front	Sintered metal
Brake disc thickness, front	4.5 mm, When new min 4.0 mm, Wear limit
– with M carbon wheels OE	min 5.0 mm, When new min 4.5 mm, Wear limit
– with M forged wheels OE	min 5 mm, When new min 4.5 mm, Wear limit
Play of brake controls (Front brake)	0.6...1.4 mm, on the piston

Rear wheel	
Type of rear brake	Hydraulically actuated disc brake with 1-piston floating caliper and fixed disc
Brake-pad material, rear	Organic material
Brake disc thickness, rear	5.0 mm, When new min 4.5 mm, Wear limit
Blow-by clearance of the footbrake lever	2...3 mm, between the footbrake lever and footrest plate

Wheels and tyres

Recommended tyre sets	An overview of currently approved tyres is available from your authorised BMW Motorrad Retailer or on the Internet at bmw-motorrad.com.
Speed category, front/rear tyres	W, required at least: 270 km/h
Front wheel	
Front wheel type	Aluminium cast wheel
– with M carbon wheels OE	Carbon wheel
– with M forged wheels OE	Forged aluminium wheels
Front wheel rim size	3.50" x 17"

Tyre designation, front	120/70 ZR 17
Load index, front tyre	min 58 g/cm^3
Permissible front-wheel imbalance	max 5 g
Balance weight for front wheel (One half of the weights must be attached to the left and the other half to the right of the wheel rim)	max 80 g
Rear wheel	
Rear-wheel type	Aluminium cast wheel
– with M carbon wheels OE	Carbon wheel
– with M forged wheels OE	Forged aluminium wheels
Rear wheel rim size	6.0" x 17"
Tyre designation, rear	190/55 ZR 17
– with M carbon wheels OE	200/55 ZR 17
– with M forged wheels OE	200/55 ZR 17
Load index, rear tyre	min 75 g/cm^3
Permissible rear-wheel imbalance	max 45 g
Balance weight for the rear wheel (One half of the weights must be attached to the left and the other half to the right of the wheel rim)	max 80 g

Tyre pressure	
Tyre pressure, front	2.5 bar, One-up, with cold tyre 2.5 bar, Two-up mode with load, with cold tyres
Tyre pressure, rear	2.9 bar, One-up, with cold tyre 2.9 bar, Two-up mode with load, with cold tyres

Electrical system

Fuses	
Main fuse	40 A
Fuse 1	15 A, DWA/OBD/ignition switch/instrument cluster
Fuse 2	7.5 A, Left multifunction switch, RDC control unit, sensor box
Battery	
Battery type	AGM battery (Absorbent Glass Mat)
– with M battery[OE]	Lithium ion battery
Battery rated voltage	12 V
– with M battery[OE]	12 V
Battery rated capacity	8 Ah
– with M battery[OE]	5 Ah

Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR9FI-10G
Lighting	
Bulb for high-beam headlight	LED
Bulbs for the low-beam headlight	LED
Bulb for parking light	LED
Bulb for tail light/brake light	LED
Bulbs for flashing turn indicators, front	LED
Bulbs for flashing turn indicators, rear	LED
Light source for the number plate light	LED

Dimensions

Length of motorcycle	2073 mm, via rear wheel
Height of motorcycle	1151 mm, across mirrors at DIN unladen weight 1155 mm, without mirrors, at DIN unladen weight
Width of motorcycle	848 mm, with mirrors 740 mm, without mounted parts
Front-seat height	824 mm, Without rider, at DIN unladen weight
Rider's inside-leg arc, heel to heel	1827 mm, Without rider, at DIN unladen weight

Weights

Vehicle kerb weight	197 kg, DIN unladen weight, ready for road, 90 % load of fuel, without OE
– with M Package OE	193.7 kg
– with Race package OE	195.3 kg
– with two-up riding package OE	197.8 kg
– with M carbon wheels OE	195.3 kg
– with M battery OE	195.1 kg
– with M forged wheels OE	197 kg
– with Dynamic Damping Control (DDC) OE	198.2 kg
Permissible gross weight	407 kg

Maximum payload	210 kg
– with M Package OE	213.3 kg
– with Race package OE	211.7 kg
– with two-up riding package OE	209.2 kg
– with M battery OE	211.9 kg
– with M forged wheels OE	210 kg
– with Dynamic Damping Control (DDC) OE	208.8 kg

Riding specifications

Top speed	>200 km/h
– with power reduction OE	255 km/h

Service

BMW Motorrad Service

BMW Motorrad has an extensive network of dealerships in place to look after you and your motorcycle in more than 100 countries. Authorised BMW Motorrad dealerships have the technical information and the technical know-how to carry out reliably all maintenance and repair work on your BMW.

You can locate your nearest authorised BMW Motorrad Retailer by visiting our website:
bmw-motorrad.com

WARNING

Maintenance and repair work not in compliance with correct procedure

Risk of accident due to consequential damage

- BMW Motorrad recommends having work of this nature carried out on the vehicle by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

In order to help ensure that your BMW is always in optimum condition, BMW Motorrad recommends compliance with the maintenance intervals specified for your motorcycle. Have all maintenance and repair work that is carried out confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired, evidence of regular maintenance is essential.

Your authorised BMW Motorrad Retailer can provide information on BMW services and the work undertaken as part of each service.

BMW Motorrad Service history

Entries

Maintenance work that has been carried out is entered in the proof of maintenance. The entries are like a Service Booklet and provide proof of regular maintenance.

If an entry is made in the electronic service booklet of the vehicle, service-relevant data is saved in the central IT systems of BMW AG, Munich.

If there is a change in vehicle owner, the data saved in the electronic service booklet can also be viewed by the new vehicle owner. A BMW Motorrad Retailer or a specialist workshop can also view data that is stored in the electronic service booklet.

Objection

The vehicle owner can object to entries being made by the BMW Motorrad Retailer or a specialist workshop in the electronic service booklet along with the corresponding storage of data in the vehicle and transfer of data to the vehicle manufacturer for the period of time that they are the vehicle owner. In this instance, no entry is made in the electronic service booklet of the vehicle.

BMW Motorrad mobility services

If you have a new BMW motorcycle, you are protected by various of the BMW Motorrad mobility services in the event of a breakdown (e.g. BMW breakdown assistance, breakdown recovery, vehicle transport).

Find out from your authorised BMW Motorrad Retailer which mobility services are offered.

Maintenance work

BMW pre-delivery check

Your authorised BMW Motorrad Retailer conducts the BMW pre-delivery check before handing over the vehicle to you.

BMW Running-in Check

The BMW running-in check must be carried out between 500 km and 1200 km.

BMW Service

The BMW Service is carried out once a year. The scope of the service depends on the age of the vehicle and the mileage ridden. Your BMW Motorrad Retailer will confirm the service that has been carried out for you and will enter the deadline for the next service.

For riders with a high mileage it may be necessary to have a service before the specified deadline. In this case, a corresponding maximum mileage is entered in the service confirmation. If this mileage is reached before the next service deadline, the service must be brought forward.

The Service Interval Indicator in the TFT display reminds you about one month or 1000 km in advance when the time for a service is approaching, on the basis of the programmed values.

To find out more about service, go to:
bmw-motorrad.com/service

The scope of maintenance work required for your vehicle can be found in the following maintenance schedule:

	500 -1200 km 300 - 750 mls	**10 000 km** 6 000 mls	**20 000 km** 12 000 mls	**30 000 km** 18 000 mls	**40 000 km** 24 000 mls	**50 000 km** 30 000 mls	**60 000 km** 36 000 mls	**70 000 km** 42 000 mls	**80 000 km** 48 000 mls	**90 000 km** 54 000 mls	**100 000 km** 60 000 mls	**12 months**	**24 months**
①	X												
②												X	
③		X	X	X	X	X	X	X	X	X	X	X[a]	
④				X			X			X			
⑤				X			X			X			
⑥				X			X			X			
⑦		X	X	X	X	X	X	X	X	X	X		
⑧				X			X			X			
⑨												X[b]	X[b]

Maintenance schedule

1 BMW running-in check (including oil change)
2 BMW Standard scope of service
3 Engine-oil change, with filter
4 Check valve clearance
5 Checking timing
6 Replace all spark plugs
7 Replace air filter insert
8 Oil change in the telescopic forks
9 Change brake fluid in the entire system

a annually or every 10000 km (whichever comes first)

b for the first time after one year, then every two years

Maintenance confirmations

BMW Service standard scope

The repair tasks in the BMW Service standard scope are listed below. The actual scope of maintenance work applicable for your vehicle may vary.

- Performing vehicle test with BMW Motorrad diagnostic system
- Visual inspection of the brake lines, brake hoses and connections
- Check front brake pads and brake discs for wear
- Checking the brake fluid level of the front wheel brake
- Check rear brake pads and brake disc for wear
- Checking brake-fluid level, rear brakes
- Check steering-head bearing
- Check coolant level
- Checking the fastener of the clutch lever fitting
- Checking the clutch cable and clutch-lever play
- Lubricating the clutch mechanism
- Checking and lubricating the chain drive
- Check tyre pressure and tread depth
- Check the side stand's ease of movement
- Check lights and signalling system
- Function test, engine start suppression
- Final inspection and check for road safety
- Set service date and remaining distance with BMW Motorrad diagnosis system
- Check state of charge of the battery
- Confirm BMW service in on-board literature

BMW pre-delivery check

carried out

at_____

Stamp, signature

BMW Running-in Check

carried out

at_____

at km_____

Next service

at the latest

at_____

or, when reached earlier

at km_____

Stamp, signature

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

Service confirmations

The table is used to verify maintenance and repair work as well as installed optional accessories and purchased special promotions.

Work performed	at km	Date

Work performed	at km	Date

Appendix

FCC Approval

Ring aerial in the ignition switch

To verify the authorization of the ignition key, the electronic immobilizer exchanges information with the ignition key via the ring aerial.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. ◀

Approbation de la FCC

Antenne annulaire présente dans le commutateur d'allumage

Pour vérifier l'autorisation de la clé de contact, le système d'immobilisation électronique échange des informations avec la clé de contact via l'antenne annulaire.
Le présent dispositif est conforme à la partie 15 des règles de la FCC. Son utilisation est soumise aux deux conditions suivantes :

(1) Le dispositif ne doit pas produire d'interférences nuisibles, et
(2) le dispositif doit pouvoir accepter toutes les interférences extérieures, y compris celles qui pourraient provoquer une activation inopportune.

Toute modification qui n'aurait pas été approuvée expressément par l'organisme responsable de l'homologation peut annuler l'autorisation accordée à l'utilisateur pour utiliser le dispositif. ◀

Certification Tire Pressure Control (TPC)

FCC ID: MRXBC54MA4 IC: 2546A-BC54MA4	FCC ID: MRXBC5A4 IC: 2546A-BC5A4

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).
Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

Declaration of Conformity

Radio equipment TFT instrument cluster

For all Countries without EU

Technical information
BT operating frq. Range: 2402 – 2480 MHz
BT version: 4.2 (no BTLE)
BT output power: < 4 dBm
WLAN operating frq. Range: 2412 – 2462 MHz
WLAN standards: IEEE 802.11 b/g/n
WLAN output power: < 20 dBm

Manufacturer and Address
Manufacturer:
Robert Bosch Car Multimedia GmbH
Adress: Robert Bosch Str. 200,
31139 Hildesheim, GERMANY

Turkey
Robert Bosch Car Multimedia GmbH, ICC6.5in tipi telsiz sisteminin 2014/53/EU nolu yönetmeliğe uygun olduğunu beyan eder. AB Uygunluk Beyanı'nın tam metni, aşağıdaki internet adresinden görülebilir: http://cert.bosch-carmultimedia.net

Brazil
Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

Canada
This device complies with Industry Canada's licence-exempt RSSs and part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Mexico
La operación de este equipo está sujeta a las siguientes dos condiciones:
(1) es posible que este equipo o dispositivo no cause interferencia perjudicial y
(2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Taiwan, Republic of
根據 NCC 低功率電波輻射性電機管理辦法 規定:
第十二條
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，
指依電信法規定作業之無線電通信。
低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Thailand
เครื่องโทรคมนาคมและอุปกรณ์นี้

มีความสอดคล้องตามข้อกำหนดของ กทช.
(This telecommunication equipments is in compliance with NTC requirements)

United States (USA)
This device complies with Industry Canada's licence-exempt RSSs and part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Korea
적합성평가에 관한 고시
R-CMM-RBR-ICC65IN
상호 : Robert Bosch Car Multimedia GmbH모델명 : ICC6.5in
기자재명칭 : 특정소출력 무선기기 (무선데이터통신시스템용 무선기기)
제조자 및 제조국가 : Robert Bosch Car Multimedia GmbH / 포르투갈
제조년월 : 제조년월로 표기
이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

Details described or illustrated in this booklet may differ from the vehicle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.

Original rider's manual, printed in Germany.

Important data for refuelling:

Fuel	
Recommended fuel grade	E5 Super Plus, unleaded (max. 5 % ethanol, E5) 98 ROZ/RON 93 AKI
Alternative fuel grade	E5 Super unleaded (limitations in terms of power and consumption). (maximum 10 % ethanol, E10) 95 ROZ/RON E10 90 AKI
Usable fuel capacity	approx. 16.5 l
Fuel reserve	approx. 4 l
Tyre pressure	
Tyre pressure, front	2.5 bar, One-up, with cold tyre 2.5 bar, Two-up mode with load, with cold tyres
Tyre pressure, rear	2.9 bar, One-up, with cold tyre 2.9 bar, Two-up mode with load, with cold tyres

You can find further information on all aspects of your vehicle at:
bmw-motorrad.com

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Order No.: 01 40 9 899 561
09.2018, 1st edition, 01