BMW Motorrad

Rider's Manual (US Model)

R 1200 RS

Motorcycle/Retailer Data

Motorcycle Data

Model

Vehicle identification number

Color number

Initial registration

License plate

Retailer Data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/phone number (company stamp)

Welcome to BMW

Congratulations on choosing a motorcycle from BMW Motorrad and welcome to the community of BMW motorcycle owners and riders. Familiarize yourself with your new motorcycle so that you can ride it safely and confidently in all highway 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 get the most benefit from your BMW's advanced technical features.
In addition, it contains information on maintenance and care to help you maintain your motorcycle's reliability and safety, as well as its value.

Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.
Should you want to sell your BMW one day, please also remember to turn over the Ride's Manual to the new owner. it is an important part of your motorcycle.

Suggestions and complaints

If you have any questions concerning your motorcycle, your authorized BMW Motorrad retailer is always happy to provide advice and assistance.

We wish you many miles of safe and enjoyable riding on your BMW

BMW Motorrad.

01 40 8 404 957

Table of Contents

General instructions

Overview

This Rider's Manual has been designed to provide quick and efficient orientation. The quickest way for you to find information on specific topics is to consult the comprehensive index at the back of the manual. You can find a first overview of your motorcycle in Chapter 2. All maintenance and repair work carried out on your motorcycle will be documented in Chapter 12. Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.

When the time comes to sell your BMW, remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols

CAUTION Hazard with low risk. Failure to avoid this hazard can result in minor or moderate injury.

WARNING Hazard with moderate risk. Failure to avoid this hazard can result in death or serious injury.

DANGER Hazard with high risk. Failure to avoid this hazard results in death or serious injury.

ATTENTION Special instructions and precautionary measures. Non-compliance can cause damage to the vehicle or accessories and warranty claims may be denied as a result.

NOTICE Special information on operating and inspecting your motorcycle as well as maintenance and adjustment procedures.

◀ 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 accessory or equipment-dependent information.


Tightening torque.


Technical data.

OE Optional extra.
BMW Motorrad optional extras are already completely installed during motorcycle production.

OA Optional accessory.
BMW Motorrad optional accessories can be purchased and installed at your authorized BMW Motorrad retailer.

EWS Electronic immobilizer.

DWA Anti-theft alarm.

ABS Anti-Lock Brake System.

ASC Automatic Stability Control.

DTC Dynamic Traction Control (optional equipment only in combination with Pro riding modes).

ESA Electronic Suspension Adjustment.

TPC Tire Pressure Control (TPC).

Equipment

When you ordered your BMW motorcycle, you chose various items of custom equipment. This Rider's Manual describes optional equipment (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences.

If your motorcycle comes with equipment not described here, you can find the descriptions in a separate manual.

Technical data

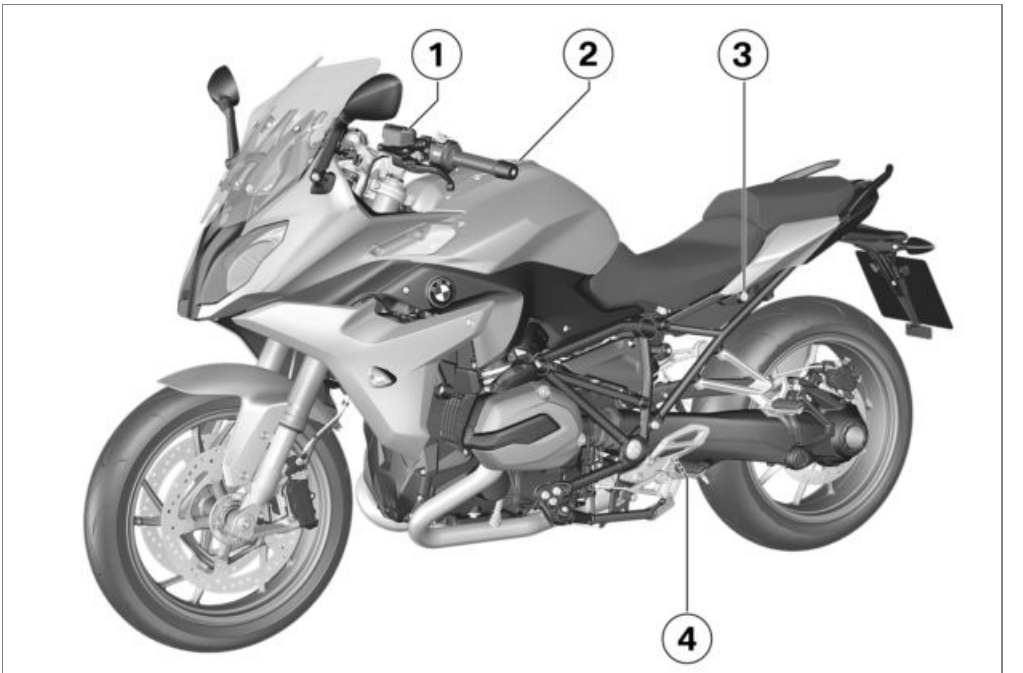
All dimensions, weights and performance data contained this Rider's Manual refer to the German DIN standards and comply with their tolerance specifications. Versions for individual countries may differ.

Notice concerning current status

The high safety and quality standards of BMW motorcycles are maintained by constant development work on design, equipment and accessories. For this reason, some aspects of your motorcycle may vary from the descriptions in this Rider's Manual. In addition, BMW Motorrad cannot guarantee

the total absence of errors. We hope you will appreciate that no claims can be recognized based on the data, illustrations or descriptions in this manual.

Overviews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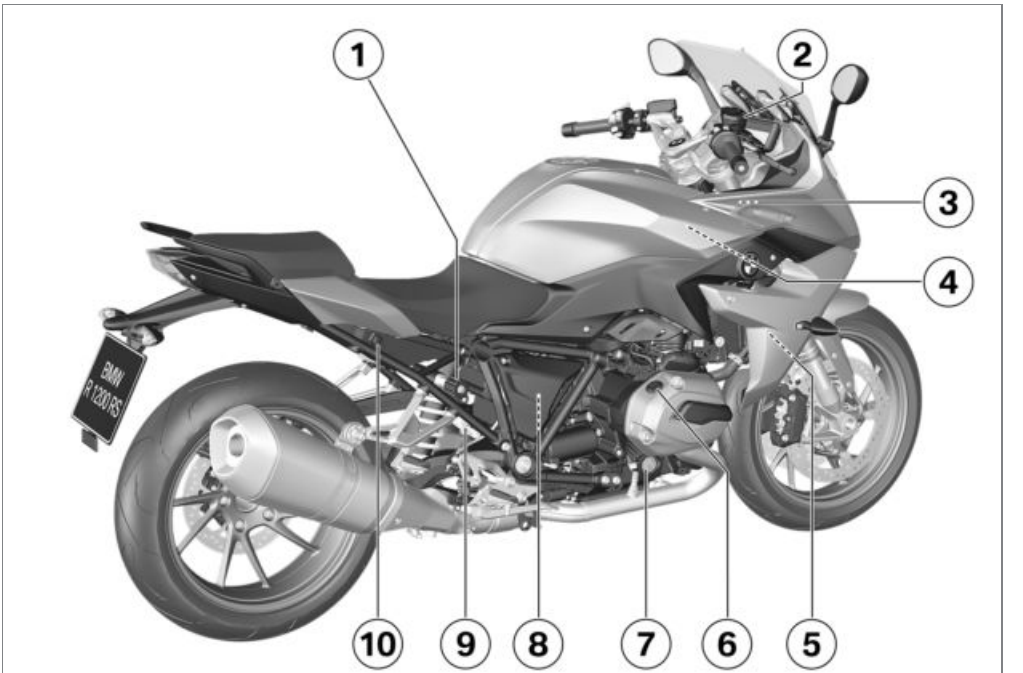
General view, left side

1 Clutch fluid reservoir (➠ 122)
2 Fuel filler opening (➠ 94)
3 Seat lock (➠ 74)
4 Adjuster for rear damping (at the bottom on the spring strut) (➠ 82)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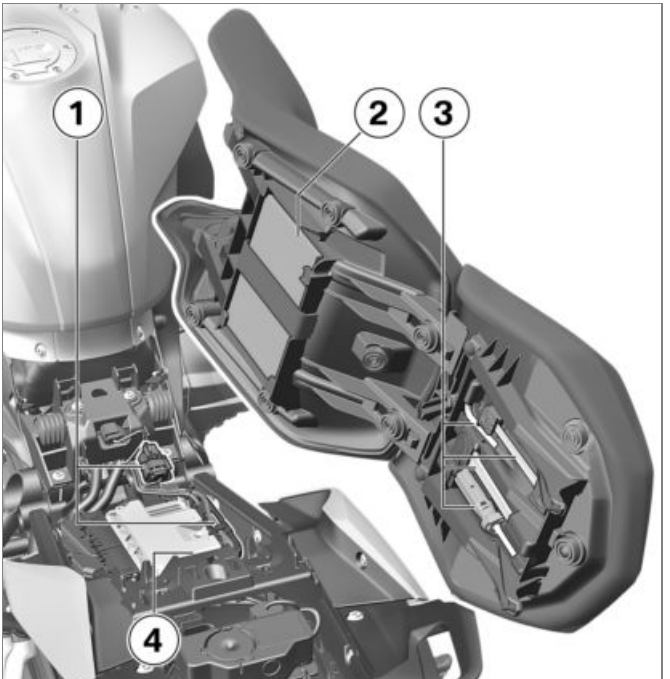
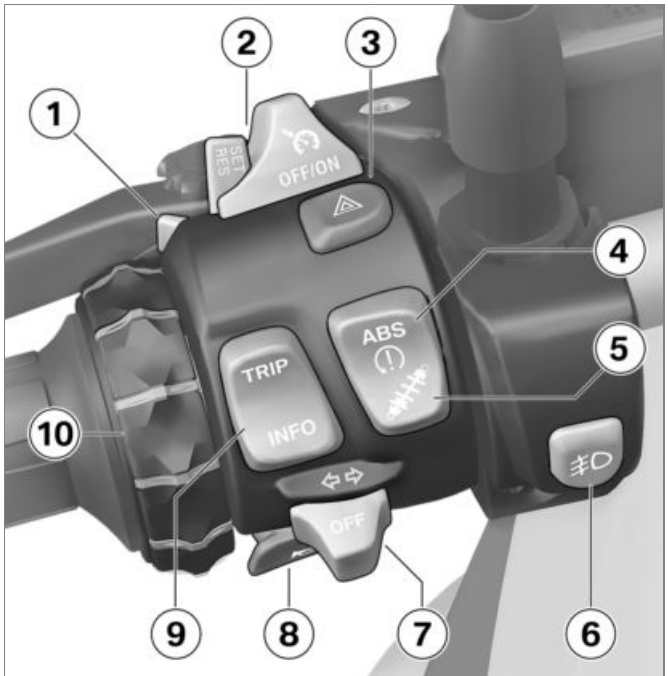
General view, right side

1 Adjuster for spring preload, rear (➠ 81)
2 Brake-fluid reservoir, front (➠ 120)
3 Vehicle identification number (on steering head at right)
Type plate (on steering head at left)
4 Coolant level indicator (➠ 122)
Coolant expansion tank (➠ 123)
5 Tyre inflation pressure table
6 Oil fill location (➠ 117)
7 Engine oil level indicator (➠ 116)
8 Behind the side trim panel:
Battery (➠ 141)
Positive battery connection point (➠ 139)
Diagnostic connector (➠ 146)
9 Brake-fluid reservoir, rear (➠ 121)
10 Power socket (➠ 150)

Underneath seat

1 Fuses (➠ 145)
2 Rider's Manual (US Model)
3 Standard tool kit (➠ 114)
4 Load capacity table





Multifunction switch, left

1 High-beam headlight and headlight flasher (➠ 53)

2 – with cruise control[OE]
Cruise-control system (➠ 71).

3 Hazard warning lights system (➠ 54)

4 ABS (➠ 65)
ASC (➠ 66)
– with Dynamic Traction Control (DTC)[OE]
DTC (➠ 66)

5 – with Dynamic ESA[OE]
Dynamic ESA adjustment options (➠ 67)

6 – with LED auxiliary headlight[OA]
LED auxiliary driving lamp (➠ 54).

7 Turn indicators (➠ 55)

8 Horn

9 Multifunction display (➠ 56)

10 – with preparation for navigation system[OE]
Operating the navigation system. (➠ 158)
Multi-Controller

Multifunction switch, right

1 – with heated grips[OE]
Operating heated grips (➠ 74).
2 Riding mode (➠ 69)
3 Emergency on/off switch (kill switch) (➠ 52)
4 Starter button
Start engine (➠ 86).

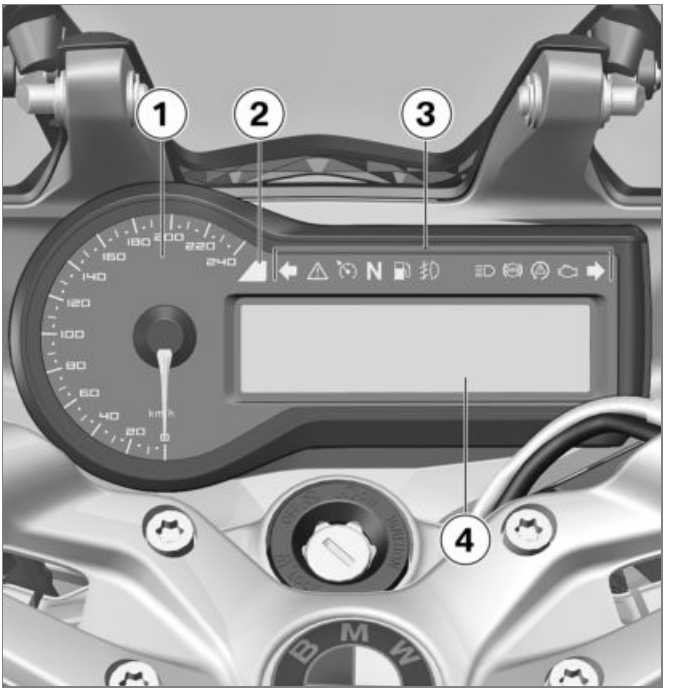
Instrument cluster

1 Speedometer

2 Photosensor (for adjusting brightness of instrument lighting)
– with anti-theft alarm system (DWA)[OE]
Alarm system LED
– with Keyless Ride[OE]
Indicator light for radio-operated key

3 Indicator and warning lights (➠ 20)

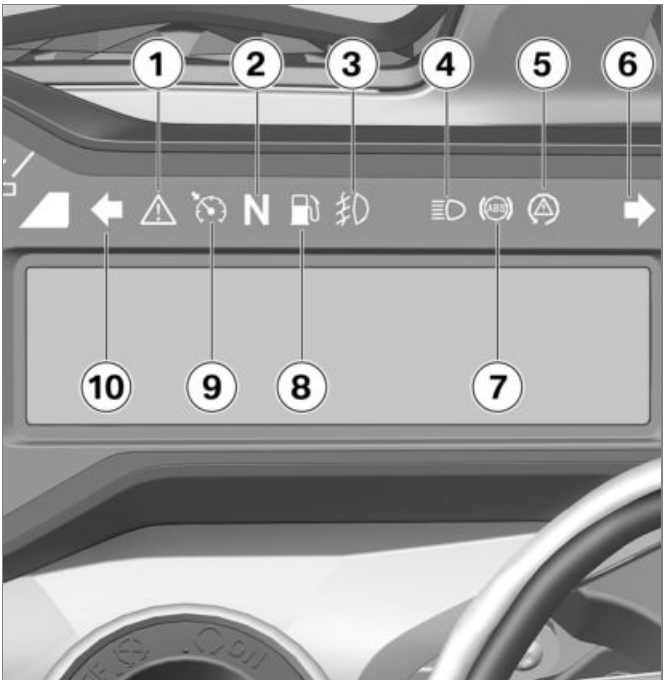
4 Multifunction display
It is possible to switch between 3 different display views:
Full view (➠ 21)
Sport view (➠ 22)
Touring view (➠ 23)

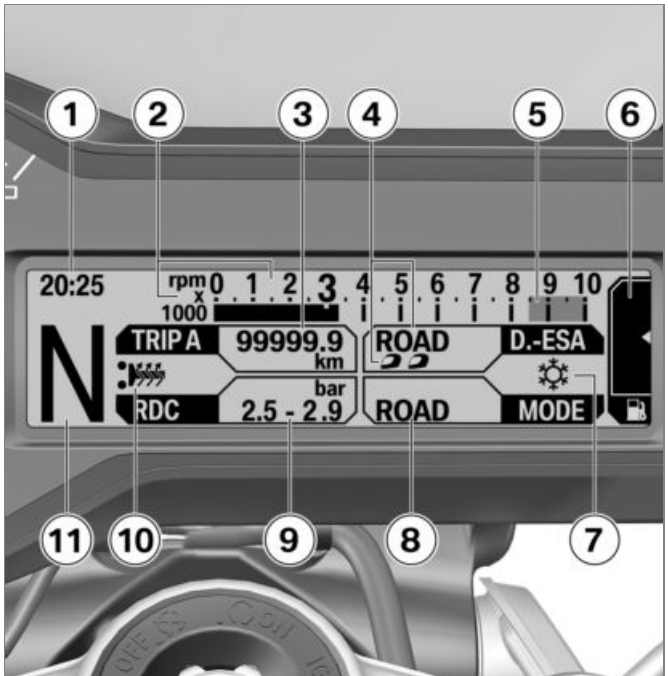


Displays

Indicator and warning lights

1 General warning light (in conjunction with warning symbols on display) (➠ 24)
2 Neutral position (idling)
3 – with LED auxiliary headlight[OA]
LED auxiliary driving lamp (➠ 54).
4 High-beam headlamp (➠ 53)
5 ASC (➠ 66)
– with Dynamic Traction Control (DTC)[OE]
DTC (➠ 66)
6 Turn indicator, right
7 ABS (➠ 65)
8 Fuel reserve (➠ 40)
9 – with cruise control[OE]
Cruise-control system (➠ 71).
10 Turn indicator, left



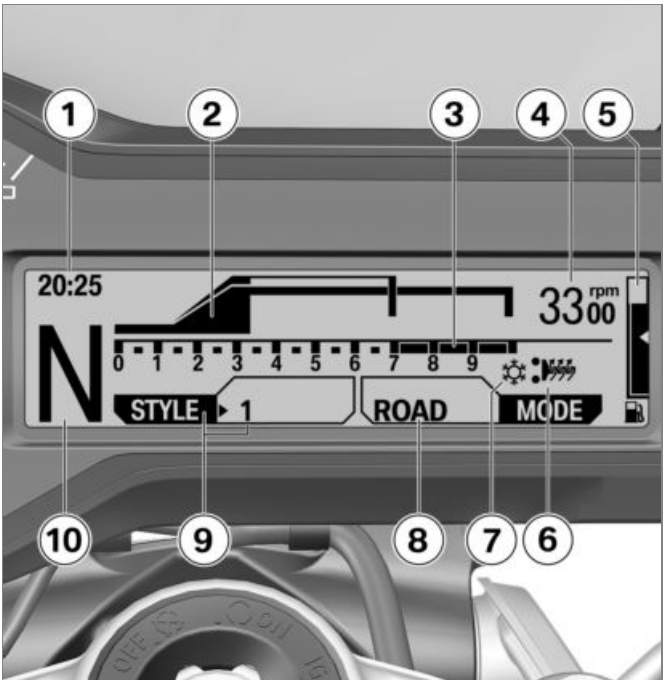


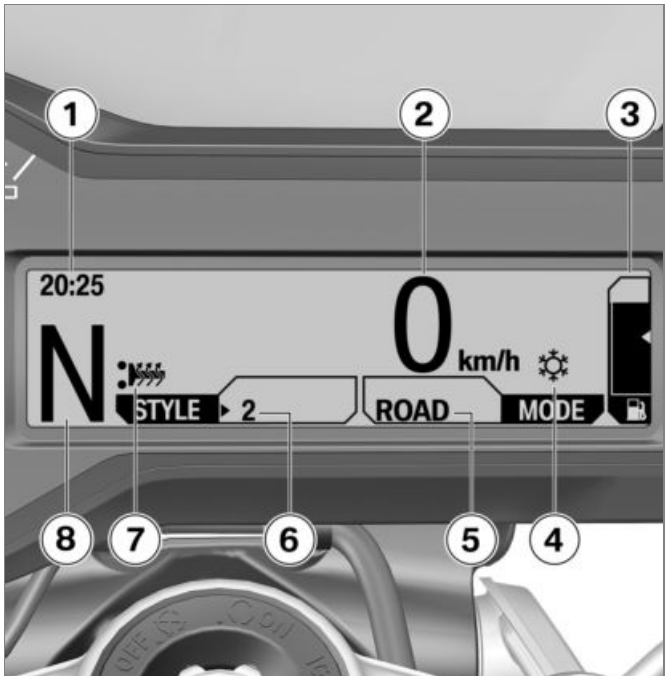
Multifunction display (Full view)

1 Clock (➠ 59)
2 Tachometer
3 Trip distance
Onboard computer displays (➠ 56)
4 ESA setting (➠ 67)
5 Red speed range (➠ 43)
6 Fuel level
7 Outside temperature warning (➠ 41)
8 Riding mode (➠ 69)
9 Tire Pressure Control
Onboard computer displays (➠ 56)
10 Heated grip settings (➠ 74)
11 Gear indicator, shows "N" in neutral (idling).

Multifunction display (Sport view)

1 Clock (➠ 59)
2 Engine speed bar
3 Red speed range (➠ 43)
4 Engine speed
5 Fuel level
6 Heated grip settings (➠ 74)
7 Outside temperature warning (➠ 41)
8 Riding mode (➠ 69)
9 Onboard computer displays (➠ 56)
10 Gear indicator, shows "N" in neutral (idling).





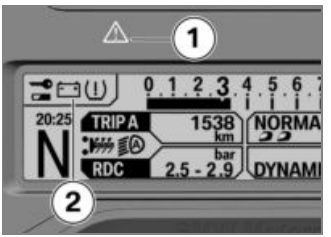
Multifunction display (Touring view)

1 Clock (➠ 59)
2 Speedometer
3 Fuel level
4 Outside temperature warning (➠ 41)
5 Riding mode (➠ 69)
6 Onboard computer displays (➠ 56)
7 Heated grip settings (➠ 74)
8 Gear indicator, shows "N" in neutral (idling).

Warning lights

Display

Warnings are displayed with appropriate warning lights.



Warnings for which no separate warning light is available are shown with the general warning light **1** with up to three warning symbols at position **2**, which appear from right to left. These are displayed sorted by priority. The highest priority is on the right. The universal warning light lights up in either yellow or red depending on the urgency of the warning.

If several warnings are active, the three warnings with the highest priority are displayed. You will find an overview of the potential warnings on the following pages.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
	 appears on the display	Outside temperature warning (➠ 29)
 lights up yellow	 appears on the display	EWS active (➠ 29)
 lights up yellow	 appears on the display	Radio-operated key outside reception range (➠ 29)
 lights up yellow	 appears on the display	Replace battery of radio-operated key (➠ 29)
 flashes red	 appears on the display	Coolant temperature too high (➠ 30)
	 appears on the display	Engine has not yet reached operating temperature (➠ 30)
 lights up yellow	 appears on the display	Engine in emergency-operation mode (➠ 31)
 flashes yellow	 appears on the display	Severe fault in the engine management system (➠ 31)

Indicator and warning lights	Display text	Meaning
	 appears on the display	Low engine oil level (➠ 31)
 flashes red	 appears on the display	Tire pressure is outside the approved tolerance range (➠ 32)
 lights up yellow	 appears on the display	Sensor faulty or system fault (➠ 32)
	"––" or "–– ––" is indicated.	
	"––" or "–– ––" is indicated.	Transmission fault (➠ 33)
 lights up yellow	 appears on the display	Battery of the tire pressure sensor weak (➠ 33)
 lights up yellow	 appears on the display	Light failure (➠ 34)
 lights up yellow	 appears on the display	Front light failure (➠ 34)
 lights up yellow	 appears on the display	Rear light failure (➠ 35)

Indicator and warning lights	Display text	Meaning
	 appears on the display	Onboard system voltage low (➠ 35)
 lights up yellow	 appears on the display	Onboard system voltage critical (➠ 35)
 lights up red	 appears on the display	Battery charging voltage insufficient (➠ 36)
	 appears on the display	DWA battery charge level low (➠ 36)
 lights up yellow	 appears on the display	DWA battery drained (➠ 36)
 lights up briefly in yellow	 appears on the display	Service overdue (➠ 37)
 flashes		ABS self-diagnosis not completed (➠ 37)
 lights up		ABS error (➠ 37)

Indicator and warning lights	Display text	Meaning
 lights up		ABS switched off (➠ 37)
 flashes rapidly		ASC/DTC intervention (➠ 38)
 flashes slowly		ASC/DTC self-diagnosis not completed (➠ 38)
 lights up		ASC/DTC switched off (➠ 38)
 lights up		ASC/DTC error (➠ 38)
 lights up yellow	 appears on the display	ESA error (➠ 39)
	 The gear indicator flashes.	The gear has not been programmed (➠ 39)
 lights up		Fuel down to reserve (➠ 39)

Outside temperature warning

 appears on the display.

Possible cause:

The outside temperature measured at the motorcycle is lower than 37 °F (3 °C).

⚠ WARNING

Risk of black ice, even above 37 °F (3 °C)

Accident hazard

- At a low outside temperature, icy conditions must expected on bridges and in shady road areas.◀
- Think well ahead when driving.

EWS active

 shows yellow.

 appears on the display.

Possible cause:

The key being used is not authorized for starting, or communication between the key and engine electronics is disrupted.

- Remove other motorcycle keys from the ignition key ring.
- Using emergency key.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

Radio-operated key outside reception range

– with Keyless Ride[OE]

 shows yellow.

 appears on the display.

Possible cause:

Communication between the radio-operated key and the engine electronics is disrupted.

- Check battery in radio-operated key.
- Replace battery of radio-operated key (➠ 51).
- Use reserve key for further driving.
- If radio key is lost (➠ 50).
- Should the warning symbol appear while driving, keep calm. Driving can be continued; the engine will not switch off.
- Have the defective radio-operated key replaced by an authorized BMW Motorrad retailer.

Replace battery of radio-operated key

– with Keyless Ride[OE]

 shows yellow.

 appears on the display.

Possible cause:

- The battery for the radio-operated key is no longer charged to full capacity. Operation of the radio-operated key is only ensured for a limited time.
- Replace battery of radio-operated key (➠ 51).

Coolant temperature too high

 flashes red.

 appears on the display.

ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.◀

Possible cause:

Coolant level is too low.

- Checking coolant level (➠ 122).

If coolant level is too low:

- Have the coolant level refilled and the coolant system checked at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Possible cause:

The coolant temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.
- Should the coolant temperature frequently be too high, have the fault rectified as quickly as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Engine has not yet reached operating temperature

 is only shown in the Touring view.

Possible cause:

The engine has not yet reached its operating temperature.

With low engine temperature:

- Do not allow engine to warm up while parked, but instead drive off at moderate engine and riding speed.
- Cold engine reaches its operating temperature most quickly at moderate engine and riding speed.

 After the operating temperature is reached, the engine symbol is shown with OK for approx. 10 seconds.

» Engine symbol disappears again.

Engine in emergency-operation mode

 shows yellow.

 appears on the display.

WARNING

Unusual handling when engine is in emergency operating mode

Accident hazard

- Adapt riding style: Avoid rapid acceleration and passing maneuvers.◀

Possible cause:

The engine control unit has diagnosed a fault. In exceptional cases, the engine stops and can no longer be started. Otherwise, the engine runs in the emergency operating mode.

- Continued driving is possible, however the accustomed engine performance may not be available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Severe fault in the engine management system

 flashes yellow.

 appears on the display.

WARNING

Damage to the engine when it is in the emergency operating mode

Accident hazard

- Adapt riding style: Ride slowly, avoid rapid acceleration and passing maneuvers.
- If possible, have the motorcycle picked up and the malfunction source eliminated by a specialized service facility, preferably an authorized BMW Motorrad Retailer.◀

Possible cause:

The engine control unit has diagnosed a fault, which can lead to a severe secondary fault. The engine is in the emergency-operation mode.

- Continued driving is possible, however it is not recommended.
- Avoid high load and engine speed ranges if possible.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Low engine oil level

 appears on the display.

Possible cause:

The electronic oil level sensor has detected that the engine's oil level is too low. At next refueling stop:

- Check engine oil level (➠ 116).

If oil level is too low:

- Topping up engine oil (➠ 117).

If the oil level is correct:

- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Tire pressure is outside the approved tolerance range

– with Tire Pressure Monitor (TPM)[OE]


flashes red.


appears on the display.

WARNING

Tire inflation pressure is outside approved range.

Poorer handling characteristic of the motorcycle.

- Adapt your style of riding accordingly.◀

Possible cause:

The measured tire inflation pressure is outside the approved tolerance range.

- Check tire for damage and suitability for continued use.

If it is still possible to drive with tire:

- Correct tire inflation pressure at the next opportunity.

NOTICE

Before adjusting the tire inflation pressure, observe the information on temperature compensation and on inflation pressure adjustment in the chapter "Technology in detail".◀

- Have the tire checked for damage at an authorized service facility, preferably an authorized BMW Motorrad retailer.

If you are unsure about the tire's suitability for continued riding:

- Do not continue riding.
- Contact roadside service.

Sensor faulty or system fault

– with Tire Pressure Monitor (TPM)[OE]


shows yellow.


appears on the display.

"−−" or "−− −−" is indicated.

Possible cause:

Wheels without TPC/RDC sensors are mounted.

- Retrofit wheel set with TPC/RDC sensors.

Possible cause:

1 or 2 TPC/RDC sensors have failed or a system fault has occurred.

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Transmission fault

– with Tire Pressure Monitor (TPM) OE

"– –" or "– – – –" is indicated.

Possible cause:

The motorcycle has not reached the minimum speed (➠ 108).

 TPC/RDC sensor is not active
min 19 mph (min 30 km/h) (The TPC/RDC sensor does not transmit a signal to the motorcycle until this minimum speed has been exceeded.)

- Watch the TPC/RDC display at higher speed. A continuous error is only present if the general warning light also lights up. In this case:
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Possible cause:

There is a fault in the radio connection to the TPC/RDC sensors. Possible causes are radio systems in the surrounding area, which interfere with the connection between the TPC/RDC control unit and the sensors.

- Observe the TPC/RDC display in a different environment. A continuous error is only present if the general warning light also lights up. In this case:
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Battery of the tire pressure sensor weak

– with Tire Pressure Monitor (TPM) OE

 shows yellow.

 appears on the display.

NOTICE

This fault message is only shown for a short time immediately following the Pre-Ride-Check.◀

Possible cause:

The battery for the tire inflation pressure sensor is no longer charged to full capacity. Operation of the tire inflation pressure control is only ensured for a limited time.

- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Light failure

 shows yellow.

 appears on the display.

WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

Safety risk

- Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle.◀

Possible cause:

A combination of light failures has occurred.

- Replacing low and high-beam light sources in headlight (➠ 133).
- Replacing light source for parking light (➠ 135).
- Replacing front and rear turn indicator light sources (➠ 136).
- Replacing LED tail light (➠ 139).

Front light failure

 shows yellow.

 appears on the display.

WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

Safety risk

- Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle.◀

Possible cause:

Low-beam headlight, high-beam headlight, parking lights, additional headlight or front turn indicator defective.

Defective bulbs must be replaced.

- Replacing low and high-beam light sources in headlight (➠ 133).
- Replacing light source for parking light (➠ 135).
- Replacing front and rear turn indicator light sources (➠ 136).

- Replace additional LED headlight (➠ 139).

Rear light failure

 shows yellow.

 appears on the display.

⚠ WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

Safety risk

- Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle.◀

Possible cause:

The tail light or rear turn signal is faulty.

Taillight or rear turn indicator must be replaced.

- Replacing LED tail light (➠ 139).
- Replacing front and rear turn indicator light sources (➠ 136).

Onboard system voltage low

 appears on the display. Generator power is only just sufficient to supply all consumers and charge the battery.

Possible cause:

Too many consumers switched on. Onboard system voltage tends to drop particularly at low engine rpm and when the engine is idling.

- When riding at low engine revs, switch off all electrical equipment that is not necessary for road safety (e.g. heated handlebar grips or additional headlight).

Onboard system voltage critical

 shows yellow.

 appears on the display.

Generator power is no longer sufficient to supply all consumers and charge the battery. In order to ensure that the engine can be started and the motorcycle ridden, the onboard electronics switch off the electricity supply to the onboard sockets and the additional headlights. In extreme cases the seat heating and the grip heating might also be shut down.

Possible cause:

Too many consumers switched on. Onboard system voltage tends to drop particularly at low engine rpm and when the engine is idling.

- When riding at low engine revs, switch off all electrical equipment that is not necessary for road safety (e.g. heated handlebar grips or additional headlight).

Battery charging voltage insufficient

 shows red.

 appears on the display.

⚠ WARNING

Discharged battery causes various motorcycle systems to fail, such as the lighting, engine or ABS

Accident hazard

- Do not continue riding.◀

The battery is not being charged. If you continue driving, the motorcycle electronics will discharge the battery.

Possible cause:

Alternator or alternator drive is defective or fuse for alternator regulator has blown.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad retailer.

DWA battery charge level low

– with anti-theft alarm system (DWA)[OE]

 appears on the display.

NOTICE

This fault message is only shown for a short time immediately following the Pre-Ride-Check.◀

Possible cause:

The DWA battery no longer has its full charging capacity. The operation of the DWA with the vehicle battery disconnected is only guaranteed for a limited time.

- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

DWA battery drained

– with anti-theft alarm system (DWA)[OE]

 shows yellow.

 appears on the display.

NOTICE

This fault message is only shown for a short time immediately following the Pre-Ride-Check.◀

Possible cause:

The DWA battery no longer has any charging capacity. Operation of the DWA is no longer guaranteed when the vehicle battery is disconnected.

- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Service overdue

appears on the display.


lights up briefly in yellow after the pre-ride check.

Possible cause:

A necessary service has not been carried out.

- Have servicing carried out as quickly as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS self-diagnosis not completed

flashes.

Possible cause:

 ABS self-diagnosis routine not completed
ABS is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

- Ride off slowly. It must be noted that the ABS function is not available until the self-diagnosis has been completed.

ABS error

lights up.

Possible cause:

The ABS control unit has detected an error. The ABS function is not available.

- It remains possible to continue riding. Observe additional information on special situations which can lead to an ABS fault message (➠ 101).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ABS switched off

lights up.

Possible cause:

The ABS system has been deactivated by the rider.

- Switch on ABS function.

ASC/DTC intervention

 flashes rapidly

ASC/DTC has detected instability at the rear wheel and responded by reducing the torque. The indicator and warning light flashes longer than the ASC/DTC intervention lasts. This feature continues to furnish the rider with visual feedback confirming that the system has initiated active closed-loop intervention even after the critical situation has passed.

ASC/DTC self-diagnosis not completed

 flashes slowly

Possible cause:

 ASC/DTC self-diagnosis routine not completed

ASC/DTC is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

- Ride off slowly. The ASC/DTC indicator and warning light must go out after a few yards.

If the ASC/DTC indicator and warning light continues to flash:

- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

ASC/DTC switched off

 lights up.

Possible cause:

The ASC/DTC function has been deactivated by the rider.

- Activating ASC/DTC (➠ 66).

ASC/DTC error

 lights up.

Possible cause:

The ASC/DTC control unit has detected an error. The ASC/DTC function is not available.

- It remains possible to continue riding. It must be noted that the ASC/DTC function is not available. Observe the additional information on situations that can lead to a fault (➠ 103).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ESA error

– with Dynamic ESA[OE]

 shows yellow.

 appears on the display.

Possible cause:

The ESA control unit has detected an error. Motorcycle damping is in this condition very firm and riding is rather uncomfortable - in particular on rough roads.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

The gear has not been programmed

– with gearshift assistant Pro[OE]

 The gear indicator flashes. The gearshift assistant Pro has no function.

Possible cause:

– with gearshift assistant Pro[OE]

The gear sensor has not been fully programmed.

- Engage idle N and let the engine run for at least 10 seconds while standing to program the idle gear.
- Shift through all gears by operating the clutch and ride in each engaged gear for at least 10 seconds.

» The gear indicator stops flashing after the gear sensor has been successfully programmed.

– After the gear sensor is fully programmed, the gearshift assistant Pro functions as described (➠ 110).

- If the programming process is not successful, have the fault eliminated at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Fuel down to reserve

 lights up.

⚠ WARNING

Rough engine running or switching off of the engine due to a fuel shortage

Accident hazard, damage to catalytic converter

- Do not drive to the extent that the fuel tank is completely empty.◀

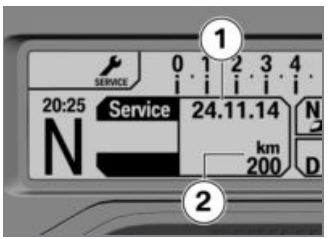
Possible cause:

At the most, the fuel tank still contains the reserve fuel quantity.

Fuel reserve
Approx. 1.1 gal (Approx. 4 l)

• Refueling procedure (➠ 94).

Service display



If service is due within a month, the service date **1** is displayed.

If service is due within 700 miles, the remaining distance **2** is displayed and is counted down in steps of 100 miles. It is briefly displayed following the Pre-Ride-Check.

When a service date elapses without service, the general warning light lights up in yellow, appearing together with the date and mileage (kilometrage) display. The "Service" message is displayed continuously.

NOTICE

If the service display appears more than a month before the service date, the stored date must be adjusted in the instrument cluster. This situation can occur if the battery has been disconnected for a longer time. Consult a certified workshop, preferably an authorized BMW Motorrad retailer, for setting of the date.◀

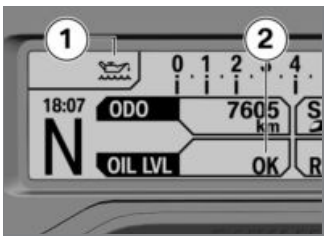
Fuel reserve

The fuel level in the fuel tank, when the fuel warning light switches on, depends on the driving dynamics. The more the fuel is moved within the tank (due to frequently changing inclined positions, frequent braking and accelerating), the more difficult it is to determine the reserve quantity. For this reason, the reserve quantity cannot be accurately indicated.

After the fuel warning light is switched on, the range is automatically displayed.
The distance, which can still be driven with the reserve quantity, depends on the driving style (on the consumption) and on the fuel level when the warning light was initially activated (see the explanation above).
The odometer for the fuel reserve is reset if the fuel level af-

ter refueling is greater than the reserve quantity.

Oil level indicator



The oil level display **2** provides information on the oil level in the engine. This display can only be activated when the vehicle is stopped.

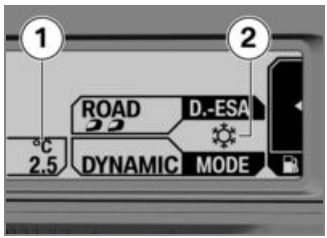
The conditions required for using the oil level display are as follows:
– Engine at normal operating temperature.
– Engine idling for at least ten seconds.
– Side stand retracted.
– Motorcycle standing vertically on level surface.

The readings mean:
OK: oil level correct.
CHECK: Check oil level during next refueling stop.
– – –: no measurement possible (above-mentioned conditions not met).

If the oil level must be checked, symbol **1** is displayed, until the oil level is detected again as correct.

Outside temperature

Engine heat can lead to spurious readings of outside temperature when the motorcycle is stationary. When the effects of engine heat on the monitored temperature become excessive the display responds by temporarily reverting to "– –" as the display reading.



If the outside temperature drops below the borderline range, this warning of possible black-ice formation appears. The display automatically switches from any other mode to the temperature reading **1**, when the temperature drops below this threshold for the first time. The displayed value flashes.

Limit range for outside temperature

Approx. 37 °F (Approx. 3 °C)

In addition, the ice crystal symbol **2** is displayed.

WARNING

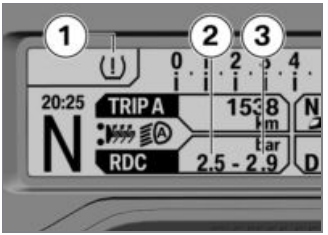
Risk of black ice, even above 37 °F (3 °C)

Accident hazard

- At a low outside temperature, icy conditions must expected on bridges and in shady road areas.◀

Tire pressure

– with Tire Pressure Monitor (TPM)OE



The tire pressures are shown adjusted for temperature on the multifunction display and are always relative to the following tire air temperature:

68 °F (20 °C)

The left value **2** indicates the tire pressure of the front wheel; the right value **3** indicates the tire pressure of the rear wheel. Immediately after switching on the ignition, "–– ––" is indicated.

TPC/RDC sensor is not active

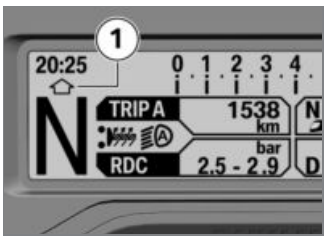
min 19 mph (min 30 km/h) (The TPC/RDC sensor does not transmit a signal to the motorcycle until this minimum speed has been exceeded.)

If the **1** symbol appears at the same time, the display is a warning. The critical tire-inflation pressure flashes.

If the level concerned is borderline in terms of the permissible tolerance, the general warning light also shows yellow. If the monitored tire pressure is outside the permitted tolerance range, the general warning light will flash in red.

More detailed information on the BMW Motorrad TPC/RDC is provided on Page (➠ 108).

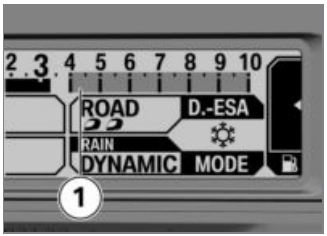
Upshift recommendation



Upshift recommendation **1** signals the economically best point in time for upshifting.

Red speed range

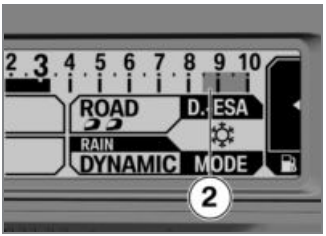
The red speed range on the tachometer changes depending on engine temperature.



Engine cold

Red speed range **1**

The engine has not yet reached its operating temperature.
>4000 min^{-1}



Engine warm

Red speed range **2**

The engine has reached its operating temperature.
>8500 min^{-1}

Operation

Ignition

Keys

You are provided with 2 ignition keys.

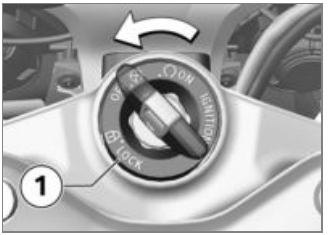
Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (➠ 47).

A single key fits the steering and ignition lock, the fuel filler cap and the seat lock.

The cases and the topcase can also be ordered with locks for the same key on request. Please contact an authorized workshop for this purpose, preferably an authorized BMW Motorrad retailer.

Locking handlebars

- Turn handlebars to left.



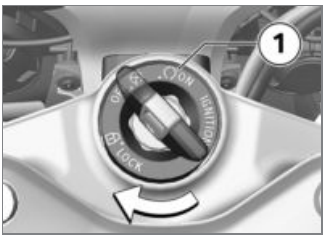
- Turn key to position **1** while moving handlebars slightly.

» Ignition, lights and all electrical circuits switched off.

» Handlebars are locked.

» Key can now be removed.

Switch on ignition



- Insert key into the steering and ignition lock. Turn key to position **1**.

» Parking lights and all function circuits are switched on.

– with LED auxiliary headlight OA

» LED additional headlights are switched on.◁

» Pre-Ride-Check is carried out. (➠ 87)

» ABS self-diagnosis is performed. (➠ 88)

» ASC/DTC self-diagnosis is performed. (➠ 89)

Switch off ignition

- Turn key to position **1**.

» After the ignition is switched off, the instrument cluster remains switched on for a short period of time and indicates possibly present fault codes.

» Handlebars not locked.

» Electrically powered accessories remain operational for a limited period of time.

» Battery can be recharged via onboard socket.

» Key can now be removed.

– with LED auxiliary headlight OA

- The supplementary LED headlights switch off shortly after the ignition is switched off.◁

EWS Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the ignition key through a ring antenna incorporated in the steering and ignition lock. The engine management system does not enable engine starting until this key has been recognized as "authorized" for your motorcycle.

NOTICE

If a further key for the vehicle is attached to the same ring as the ignition key and used to start the engine, this could impair the electronics and prevent the engine start signal from being issued. The warning with the key symbol appears in the multifunction display.

Always store further vehicle keys separately from the ignition key.◀

If you lose one of your motorcycle keys, you can have it disabled by your authorized BMW motorcycle retailer.

When having a key disabled you should also bring all of the motorcycle's remaining keys with you. The engine can no longer be started using a disabled key; however, a disabled key can be enabled again.

Emergency and spare keys are only available through an authorized BMW Motorrad retailer. The keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Ignition with Keyless Ride

– with Keyless Ride OE

Vehicle keys

NOTICE

The indicator light for the radio-operated key flashes as long as the radio-operated key is being searched for.
If the radio-operated key or the emergency key is detected, it goes out.
If the radio-operated key or the emergency key is not detected, it lights up briefly.◀

You are provided with one radio-operated key and one emergency key. Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (➠ 50).

The ignition, tank filler cap and anti-theft alarm system are controlled with the radio-operated key. The seat lock, Topcase and case can be operated manually.

NOTICE

When the range of the radio key is exceeded (e.g. in case or Topcase), the motorcycle cannot be started.
If the radio-operated key continues to be missing, the ignition is switched off after approx. 1.5 minutes to protect the battery charge.
It is advisable to carry the radio-operated key directly on your person (e.g. in a jacket pocket) and to also carry the emergency key as an alternative.◀

Range of Keyless Ride radio-operated key

– with Keyless Ride OE

Range of Keyless Ride radio-operated key

Approx. 3.3 ft (Approx. 1 m)◁

Locking handlebars

Requirement

The handlebars are turned to the left. Radio-operated key is within reception range.

- Press and hold button **1**.

» Steering lock audibly locks.
» Ignition, lights and all electrical circuits switched off.

- To unlock the steering lock, briefly press the button **1**.

Switching on ignition

Requirement

Radio-operated key is within reception range.

- The ignition can be activated in **two** ways.

Version 1:

- Briefly press button **1**.

» Parking lights and all function circuits are switched on.

– with LED auxiliary headlight OA

» LED additional headlights are switched on.◁

» Pre-Ride-Check is carried out. (➠ 87)

» ABS self-diagnosis is performed. (➠ 88)

» ASC/DTC self-diagnosis is performed. (➠ 89)

Version 2:

- Steering lock is locked, press and hold button **1**.

» Steering lock is unlocked.

» Parking lights and all function circuits switched on.

» Pre-Ride-Check is carried out. (➠ 87)

» ABS self-diagnosis is performed. (➠ 88)

» ASC/DTC self-diagnosis is performed. (➠ 89)

Switch off ignition

Requirement

Radio-operated key is within reception range.

- The ignition can be deactivated in **two** ways.

Version 1:

- Briefly press button **1**.

» Light is switched off.

» Handlebars are not locked.

Version 2:

- Turn handlebars to left.
- Press and hold button **1**.

» Light is switched off.

» Steering lock is locked.

EWS Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the radio-operated key through a ring antenna. The engine management system does not enable engine starting until the radio-operated key has been recognized as "authorized" for your motorcycle.

NOTICE

If a further key for the vehicle is attached to the same ring as the radio-operated key and used to start the engine, this could impair the electronics and prevent the engine start signal from being issued. The warning with the key symbol appears in the multifunction display.

Always keep the other vehicle key separate from the radio-operated key.◀

If you lose a radio-operated key, you can have it disabled by your authorized BMW Motorrad retailer. When having a key disabled you should also bring all of the motorcycle's remaining keys with you.

The engine can no longer be started using a disabled radio-operated key; however, a disabled radio-operated key can be enabled again.

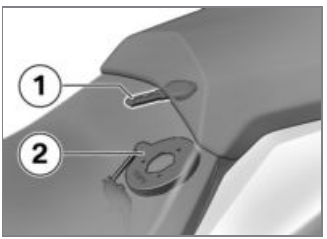
Emergency and spare keys are only available through an authorized BMW Motorrad retailer. As the radio-operated keys are part of an integrated security system, the retailer is under an obligation to check your legitimacy.

If radio key is lost

NOTICE

Should you lose your keys, note the information regarding the electronic immobilizer (EWS).

Should the key fob transmitter get lost during a trip, the vehicle can be started using the wallet key.◀



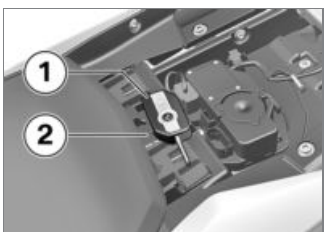
- Insert emergency key **1** in slot between driver's seat and passenger seat so that emergency key is positioned over antenna **2**.

Period in which the engine must be started. Then unlocking must be repeated.
30 s

» Pre-Ride-Check is carried out.

– Emergency key was detected.
– Engine can be started.
– Emergency key can be removed.
• Start engine (➠ 86).

Battery of radio-operated key is drained



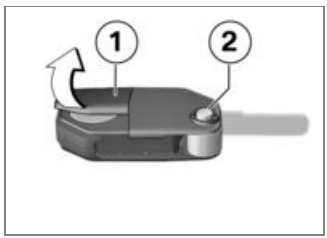
• Remove passenger seat (➠ 74).
• Lay radio-operated key **1** on position **2**.

Period in which the engine must be started. Then unlocking must be repeated.	
30 s	

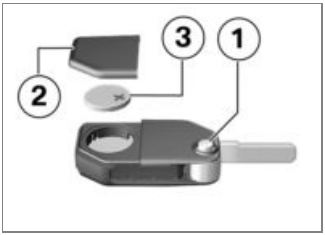
• Switching on ignition.
» Pre-Ride-Check is carried out.
– Key fob transmitter was detected.
– Engine can be started.
– Key fob transmitter can be removed.
• Start engine (➠ 86).
• Install the passenger seat (➠ 75).

Replace battery of radio-operated key

If the key fob transmitter fails to react when the button is pressed briefly or is pressed and held:
• The battery of the key fob transmitter no longer has its full charging capacity.
» Replace battery.
appears on the display.



• Press button **2**.
» Key bit folds open.
• Press battery cover **1** upward.



- Remove battery **3**.

Battery type
for Keyless Ride radio-operated key
CR 2032

- Dispose of the old battery in accordance with legal regulations. Do not dispose of the battery in the household waste.

ATTENTION

Unsuitable or improperly inserted batteries

Component damage

- Use a battery compliant with the manufacturer's specifications.
- When inserting the battery, make sure that the polarity is correct.◀
- Insert the new battery **3** with the positive side up.
- Install battery cover **2**.
- Press button **1** and fold closed key bit.

» The remote-control is again ready to be used.

Emergency on/off switch (kill switch)

1 Emergency on/off switch (kill switch)

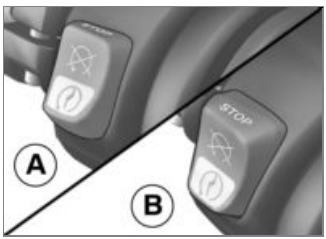
WARNING

Operation of the emergency ON/OFF switch when riding

Danger of falling due to blocking of rear wheel

- Do not operate the emergency ON/OFF switch when riding.◀

The engine can be switched off easily and quickly using the emergency on/off switch.



A Engine is switched off
B Operating position

Lights

Low-beam headlight and parking lights

The parking lights come on automatically when the ignition is switched on.

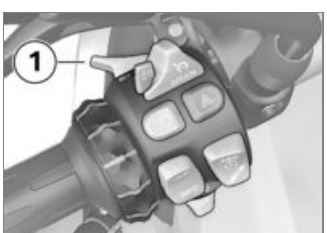
NOTICE

The parking lights are a strain on the battery. Do not leave the ignition switched on longer than absolutely necessary.◀

The low-beam headlight switches on automatically when the engine is started.

High-beam headlight and headlight flasher

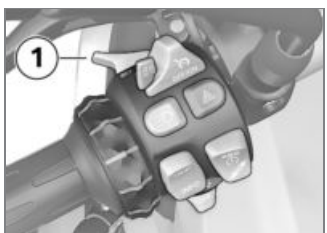
- Switch on ignition (➠ 46).



- Press switch **1** toward front to switch on high-beam headlight.
- Pull switch **1** toward rear to actuate headlight flasher.

Headlight courtesy delay feature

- Switch off ignition.



- Immediately after turning off the ignition, pull switch **1** back and hold until the headlight courtesy delay feature turns on.

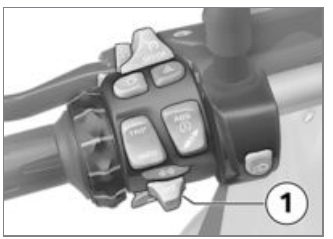
» The vehicle lights light up for one minute and then turn off automatically.

– This can be used to light your way to the front door after

parking the vehicle, for example.

Parking lights

- Switch off ignition (➠ 47).



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

LED auxiliary driving lamp

– with LED auxiliary headlight OA

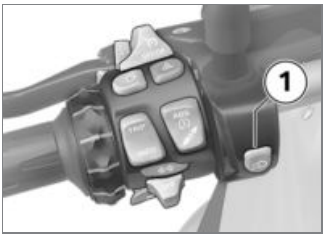
Requirement

The low beam is active.

NOTICE

The auxiliary headlights are approved for use as fog lights and may only be used in poor weather conditions. Comply with the country-specific road traffic regulations.◀

- Start engine (➠ 86).



- Press button **1** to switch on the LED additional headlights.

The indicator light for the additional headlight lights up.

- Press button **1** again to switch off the LED additional headlights.

Hazard warning lights system

Operating hazard warning flashers

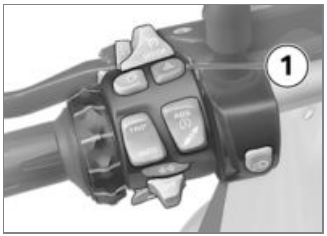
- Switch on ignition (➠ 46).

NOTICE

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

NOTICE

If a turn indicator button is pressed with the emergency flashing function switched on, the flashing function replaces the emergency flashing function as long as the button is pressed. If the turn indicator button is released, the emergency flasher function becomes active again.◀



- Press button **1** to switch on hazard warning flashers.

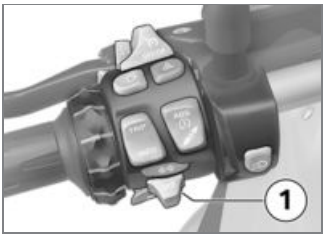
» Ignition can be switched off.

- To switch off hazard warning flashers, switch on the ignition and press button **1** again.

Turn indicators

Operate turn indicators

- Switch on ignition (➠ 46).



- Press button **1** to left to switch on left-side turn indicators.
- Press button **1** to right to switch on right-side turn indicators.
- Press button **1** into center position to switch off turn indicator.

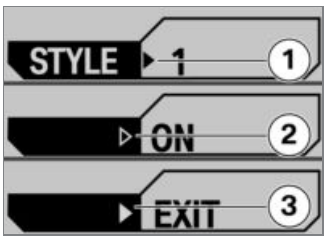
NOTICE

The turn indicators automatically switch off when the defined riding time and distance have been reached. The defined riding time and distance can be set

by an authorized BMW Motorrad retailer.◀

Multifunction display

Support for menu guidance



Arrows in the display have the following meaning:

– Arrows **1** and **3**: Press and hold the respective button.
– Arrow **2**: Briefly press the respective button.

Setting individual display view

• Switch on ignition (➠ 46).

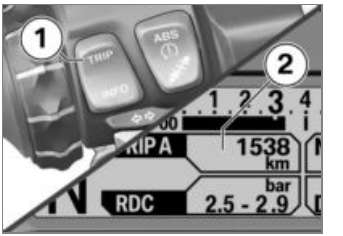
• Repeatedly press button **1** briefly, until STYLE is shown in bottom line of display **2**.
• Press and hold button **1** to change Display view. The numbers have the following meaning information:

– **0:** Full view
– **1:** Sport view
– **2:** Touring view

» The selected Display view is shown in the area **2**.

Selecting view on onboard computer

• Switch on ignition (➠ 46).



• Press button **1** briefly to select display in top line of display **2**.

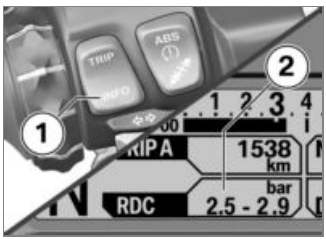
In the case of standard equipment, the following values can be displayed and selected per push of a button:

– Trip odometer 1 (TRIP 1)
– Trip odometer 2 (TRIP 2)
– Range (RANGE)
– Total mileage (ODO)
– SETUP menu (SETUP), while stationary only

– with on-board computer Pro OE

The following information is additionally displayed using the on-board computer Pro:

– Automatic trip distance (TRIP A)
– Current fuel consumption (CONS.)◁



- Press button **1** briefly to select display in bottom line of display **2**.

In the case of standard equipment, the following values can be displayed and selected per push of a button:

– Outside temperature (TEMP.)
– Engine temperature (ENG. T.)
– Range (RANGE)
– Average consumption 1 (CONS 1)
– Average consumption 2 (CONS 2)
– Average speed (SPEED)

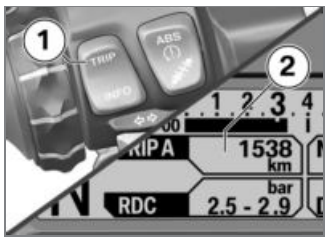
– with Tire Pressure Monitor (TPM) OE
– Tire inflation pressures (option) (TPC/RDC)◁

– Date (DATE)
– Oil level indicator (OIL LVL)

– with on-board computer Pro OE
– Onboard electrical system voltage (VOLTG.)◁
– with on-board computer Pro OE
– Stopwatch overall time (T. TOT.)◁
– with on-board computer Pro OE
– Stopwatch driving time (T. RIDE)◁

Resetting the trip odometer

- Switch on ignition (➠ 46).



- Briefly press button **1** repeatedly until the trip recorder to be reset is shown in the top line of the display **2**.
- Press and hold button **1**, maintaining pressure until the displayed figure resets.

– with on-board computer Pro OE

- The automatic trip recorder (TRIP A) resets automatically six hours after the ignition is switched off.◁

Reset average data

- Switch on ignition (➠ 46).

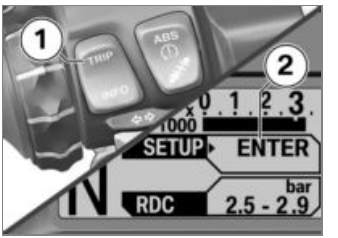
- Repeat pressing button **1** briefly, until average value to be reset is shown in bottom line of display **2**.
- Press and hand button **1**, maintaining pressure until the displayed figure resets.

Configure onboard computer

Requirement

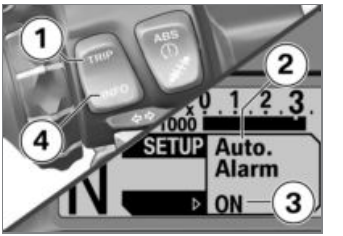
The motorcycle is stopped.

- Switch on ignition (➠ 46).



- Repeatedly press button **1** briefly, until SETUP ENTER is shown in top line of display **2**.
- Press and hold button **1** to start SETUP menu.

» The following is indicated in the display depending on the equipment selected.



- Press button **1** briefly to respectively switch to next menu item.

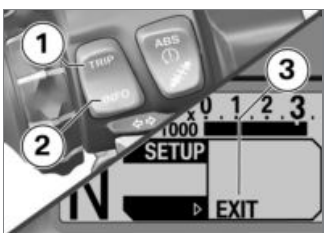
» The menu item appears in the top line of the display **2**.

» The adjusted value appears in the bottom line of the display **3**.

- Press button **4** briefly to change adjusted value.

The following menu items can be selected:

– with anti-theft alarm system (DWA)[OE]
– Auto. Alarm: Switches anti-theft alarm on (ON) or off (OFF)◁
– with preparation for navigation system[OE]
– GPS Time: If a navigation system is installed: apply GPS time and GPS date (ON) respectively do not apply them (OFF)◁
– with riding modes Pro[OE]
– User Mode: User-specific setting of riding mode.◁
– Clock: Setting the clock
– Date: Setting the date
– Shift Indicator: Show upshift recommendation in the display (ON) respectively do not show it (OFF)
– Brightn.: Adjust display brightness from normal (0) to bright (5)
– Clock Format: Setting the format for the clock display
– Date Format: Setting the format for the date display
– with on-board computer Pro[OE]
– BC: Switch between BC Pro and BC Basic◁
– RESET!: Reset all settings.
– EXIT: Exit SETUP menu



- To exit SETUP menu, briefly press button **2** in menu item EXIT **3**.
- In order to exit the SETUP menu at any time, press and hold button **1**.

Setting clock

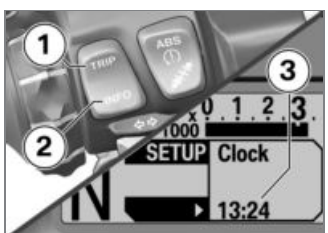
- Switch on ignition (➠ 46).

⚠ WARNING

Adjusting the clock while riding

Accident hazard

- Adjust the clock only when the motorcycle is stationary.◀
- In the SETUP menu, select the CLOCK menu item.



- Press and hold button **2**, until hours flash in bottom line of display **3**.

NOTICE

If "−− **:** −−" is indicated instead of the time, the power supply to the instrument cluster was interrupted (e.g., the battery was disconnected).◀

- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2** until minutes flash in bottom line of display **3**.
- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2** until minutes stop flashing.

» The adjustment is completed.

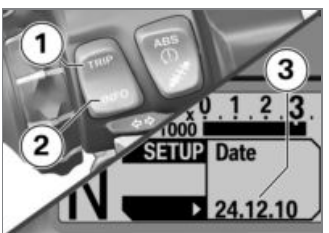
- In order to cancel the adjustment at any time, press and hold button **1**, until the original value is displayed again.

NOTICE

The adjustment is canceled, if you ride off before the adjustment is completed.◀

Set date

- Switch on ignition (➠ 46).
- In the SETUP menu, select the DATE menu item.



- Press and hold button **2** until day flashes in bottom line of display **3**.

NOTICE

If "−− **.** −− **.** −−" is indicated instead of the date, the power supply to the instrument cluster was interrupted (e.g., the battery was disconnected).◀

- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2** until month flashes in bottom line of display **3**.
- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2** until year flashes in bottom line of display **3**.
- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2** until year stops flashing.

» The adjustment is completed.

- In order to cancel the adjustment at any time, press and hold button **1**, until the original value is displayed again.

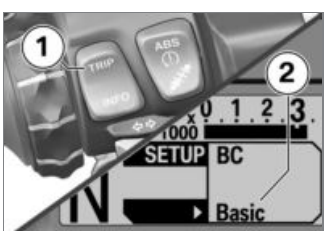
NOTICE

The adjustment is canceled, if you ride off before the adjustment is completed.◀

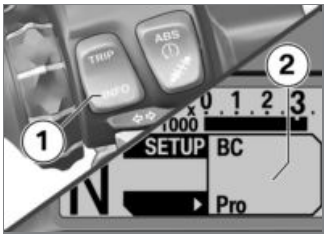
Customize display

– with on-board computer Pro OE

- Switch on ignition (➠ 46).

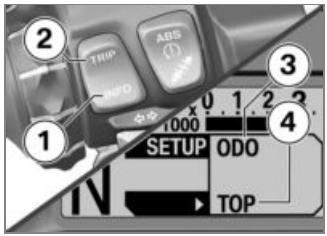


- Select BC menu item **2** in SETUP menu with button **1**.



- Press button **1** briefly to change to BC Pro **2** (Individualization menu).

» In the individualization menu it is possible to adjust, which information should be shown in which display line.



- Press and hold button **1** to display first menu item.

» ODO is displayed.

- Press button **2** briefly to respectively switch to next menu item.

» The menu item appears in the top line of the display **3**.

» The adjusted value appears in the bottom line of the display **4**. The following values can be adjusted.

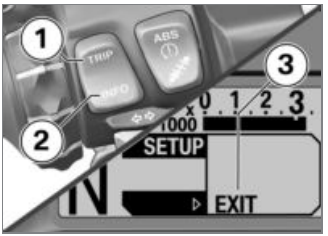
– TOP: The value is indicated in the top line of the display.

– BOTTOM: The value is indicated in the bottom line of the display.
– BOTH: The value is indicated in both lines of the display.
– OFF: The value is not indicated.

• Press button **1** briefly to change the adjusted value.

The following menu items can be selected. The factory setting is indicated in parentheses. Some menu items are displayed only, if the respective optional equipment is installed.

– ODO: Odometer (TOP, setting OFF is not possible)
– TRIP 1: Tripmeter 1 (TOP)
– TRIP 2: Tripmeter 2 (TOP)
– TRIP A: Automatic trip recorder (TOP)
– TEMP.: Outside temperature (BOTTOM)
– ENG.T.: Engine temperature (BOTTOM)
– RANGE: Range (TOP)
– CONS. 1: Average consumption 1 (BOTTOM)
– CONS. 2: Average consumption 2 (BOTTOM)
– CONS.: Current fuel consumption (TOP)
– SPEED: Average speed (BOTTOM)
– RDC: Tire inflation pressures (BOTTOM)
– VOLTG.: Onboard electrical system voltage (BOTTOM)
– T. TOT.: Stopwatch overall time (BOTTOM)
– T. RIDE: Stopwatch driving time (BOTTOM)
– DATE: Date (BOTTOM)
– SRV. 1: Date of next service (OFF)
– SRV. 2: Remaining mileage until next service (OFF)
– OIL LVL: Oil level indicator (BOTTOM)
– EXIT: Exit Individualization menu.



• To exit Individualization menu, briefly press button **2** in menu item EXIT **3**.
• To exit individualization menu at any point in time, press and hold button **1**.

» All adjustments applied until then will be stored.

Anti-theft alarm (DWA)

– with anti-theft alarm system (DWA)[OE]

Alarm signal

The DWA alarm can be set off by:
– Motion sensor
– Switching on ignition with an unauthorized motorcycle key.
– Disconnecting the DWA from the motorcycle battery (DWA battery takes over the power supply – alarm sound only, hazard warning lights do not flash).

If the DWA battery is discharged all functions remain operational; the only difference is that the alarm cannot be set off if the system is disconnected from the motorcycle battery.

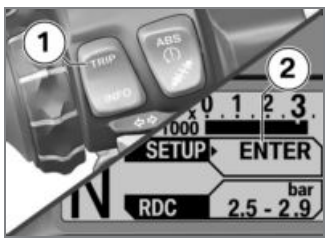
Duration of alarm
26 s (During the alarm, an alarm tone sounds and the turn indicators flash. The type of alarm sound can be set by an authorized BMW Motorrad retailer.)

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 (alarm system) LED then indicates the reason for the alarm signal for one minute.

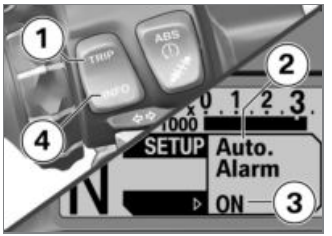
Light signals on DWA LED:
– 1 flash: motion sensor 1
– 2 flashes: motion sensor 2
– 3 flashes: Ignition switched on with unauthorized motorcycle key
– 4 flashes: DWA disconnected from motorcycle battery
– 5 flashes: motion sensor 3

DWA Adjusting

• Switch on ignition (➠ 46).



• Repeatedly press button **1** briefly, until ENTER is shown in top line of display **2**.
• Press and hold button **1** to start SETUP menu.



- Press button **1** briefly to respectively select `Auto. Alarm` menu item.
» The top line of the display **2** shows `Auto. Alarm`.
» The adjusted value ON/OFF appears in the bottom line of the display **3**.
- Press button **4** briefly to change adjusted value.

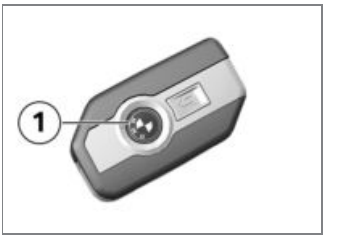
The following settings are available:

– `ON`: DWA is activated respectively is activated automatically when the ignition is switched off.
– `OFF`: DWA is deactivated.

Activate DWA

- Switch on ignition (➠ 46).
- DWA Adjusting (➠ 63).
- Switch off ignition.
» If the DWA is activated, the DWA is automatically activated after the ignition is switched off.
» Activation takes approximately 30 seconds to complete.

– with Keyless Ride OE

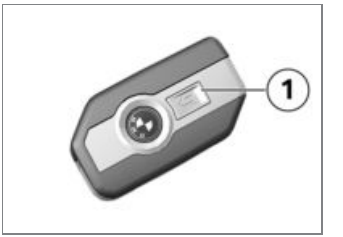


- Briefly press button **1**.
» Turn indicators are illuminated twice.
» Confirmation tone sounds twice (if programmed).
» DWA is armed.

DWA Deactivating

- Switch on ignition.

– with Keyless Ride OE



- Briefly press button **1**.
» Turn indicators light up once.
» Confirmation tone sounds once (if programmed).
» DWA is now switched off.

Antilock Brake System (ABS)

Deactivate ABS

NOTICE

More detailed information on BMW Motorrad Integral ABS braking systems can be found in the section "Technology in detail".◀

- Switch on ignition (➠ 46).

- Press and hold button **1** until the ABS indicator and warning light changes its display behavior.

NOTICE

The ABS function can also be deactivated while driving.◀

» The ASC/DTC symbol's status changes first. Press and hold button **1** until the ABS indicator and warning light reacts. In this case, ASC/DTC setting does not change.

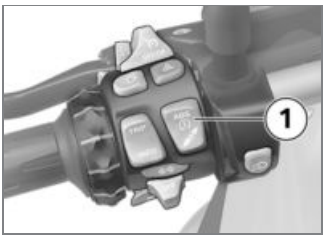
(ABS) lights up.

- Release button **1** within two seconds.

(ABS) continues to light up.

» ABS is switched; integral function continues to be active.

Activating ABS



- Press and hold button **1** until the ABS indicator and warning light changes its display behavior.

NOTICE

The ABS function can also be switched on while riding.◀

(ABS) goes out. If self-diagnosis has not been completed, the indicator and warning light begins to flash.

- Release button **1** within two seconds.

remains off or continues to flash.

» ABS is switched on.

- As an alternative, the ignition can also be switched off and then on again.

ABS error
If the ABS indicator light lights up after switching the ignition off and on and then continuing to ride above the minimum speed, an ABS fault has occurred. (Minimum speed 3 mph (5 km/h))

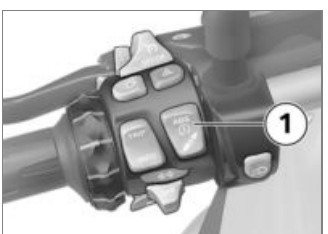
Automatic Stability Control (ASC)

Deactivating ASC/DTC

NOTICE

You can find more detailed information regarding ASC and DTC in the "Technology in detail" chapter.◀

- Switch on ignition (➠ 46).



- Press and hold button **1** until the ASC/DTC indicator and warning light changes its display behavior.

NOTICE

The ASC/DTC function can also be deactivated while riding.◀

lights up.

- Release button **1** within two seconds.

continues to light up.

» ASC/DTC is now deactivated.

Activating ASC/DTC

- Press and hold button **1** until the ASC/DTC indicator and

warning light changes its display behavior.

NOTICE

The ASC/DTC function can also be switched on while riding.◀

 goes out. If self-diagnosis has not been completed, the indicator and warning light begins to flash.

- Release button **1** within two seconds.

 remains off or continues to flash.

» ASC/DTC is now activated.

- As an alternative, the ignition can also be switched off and then on again.

 ASC/DTC error

If the ASC/DTC indicator and warning light lights up after the ignition is turned off and on and riding continues above the minimum speed, an ASC/DTC fault has occurred. (Minimum speed 3 mph (5 km/h))

Electronic suspension adjustment (ESA)

– with Dynamic ESA OE

Dynamic ESA adjustment options

Using the Dynamic ESA electronic suspension adjustment system you can easily adjust your motorcycle to the load being carried.

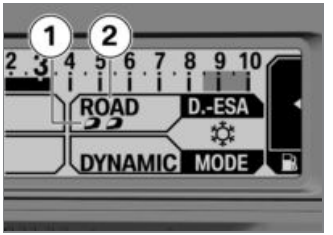
Using a ride height sensor, Dynamic ESA detects movements of the chassis and suspension and responds to them by adjusting the damper valves. As a result, the chassis and suspension is adjusted to the conditions of the surface.

Starting from the basic setting (ROAD), the damping can also be set harder (DYNAMIC).

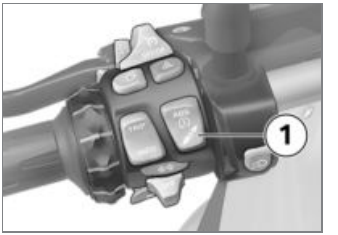
Dynamic ESA calibrates itself at regular intervals when the vehicle is at a standstill and the engine is running to ensure that the system is functioning properly.

Setting suspension compliance

- Switch on ignition (➠ 46).



The spring preload is displayed in the multifunction display in area **1**, and the damping is indicated in area **2**.



To set the damping rate:

- Briefly press button **1** repeatedly until the desired setting is displayed.

NOTICE

The damping cannot be adjusted while the motorcycle is being ridden.◀

The following settings are available:

– ROAD: comfortable damping
– DYNAMIC: Sporty, performance-oriented damping

To set the spring preload:

- Start engine (➠ 86).
- Press and hold button **1** in each case until the desired setting is displayed.

NOTICE

The spring preload cannot be adjusted while the motorcycle is being ridden.◀

The following settings are available:

One-up

One-up with luggage

Two-up (with luggage)

- Wait for the adjustment routine to finish before starting off again.

» If button **1** is not pressed for an extended period, the

damping rate and the spring preload will be adjusted to the displayed settings. The ESA display flashes during the adjustment.
- At low temperatures, unload the motorcycles before increasing the spring preload, and have the passenger dismount if necessary.

Riding mode

Use of the riding modes

NOTICE

Details on the selectable driving modes are provided in the chapter "Technology in Detail".◀

BMW Motorrad has developed 3 riding scenarios for your motorcycle from which you can select the one matching your situation:

– Riding on wet roads.
– Riding on dry roads.

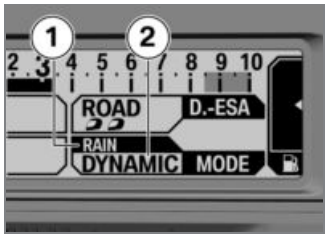
– with riding modes Pro OE
– Sporty riding on dry roads.

For each of those 3 scenarios, the optimum balance between engine torque, throttle response, control and ASC/DTC control for the situation concerned is provided.

Setting riding mode

- Switch on ignition (➠ 46).

- Press button **1**.



The current setting is shown at position **2**. Each time the button is pressed, one of the possible riding modes appears at position **1**.

- Press button **1** repeatedly until the desired riding mode is shown.

The following riding modes can be selected:

– RAIN: When riding on wet roads.
– ROAD: When riding on dry roads.

– with riding modes Pro OE

» The following riding modes can also be selected:

– DYNAMIC: For brisk riding on dry roads.
– USER: User-specific setting of riding mode.◁

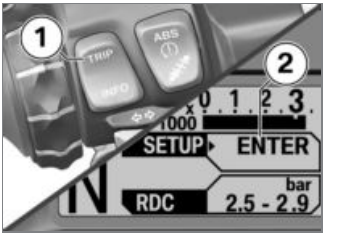
- Select riding mode.

» When the motorcycle is stationary, the selected riding mode is activated after approx. 2 seconds.
» While the motorcycle is moving, the new riding mode will only be activated if the accelerator twist-grip is in the idling position and the brakes are not being applied.
» The riding mode selected and its associated engine-characteristic and ASC/DTC settings are retained even after the ignition has been turned off.

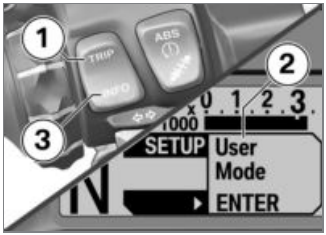
Individualize riding mode

– with riding modes Pro OE

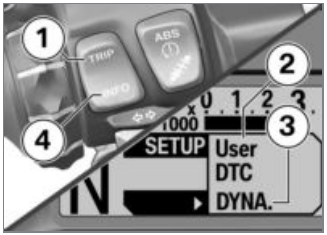
- Select USER riding mode.



- Repeatedly press button **1** briefly until the top line **2** of the display shows SETUP ENTER.
- Press and hold button **1** to start SETUP menu.



- Repeatedly press button **1** briefly until `User Mode ENTER` is displayed in area **2**.
- Press and hold button **3** to configure `User` mode.



- Press button **1** briefly to respectively switch to the next menu item.

» It is possible to choose between the following menu items in the top line of the display **2**:

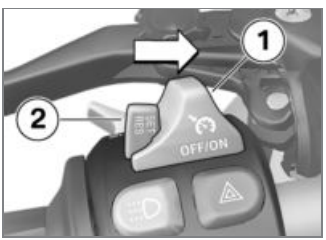
– `ENGINE`
– `DTC`

- Repeatedly press button **4** briefly until the desired value is shown in the bottom line **3** of the display.
- Repeatedly press button **1** briefly until `User EXIT` is displayed.
- Press and hold button **4** to exit `User` menu.

Cruise-control system

– with cruise control[OE]

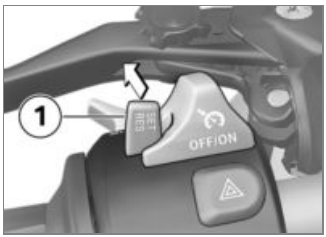
Switch on cruise-control system



- Push switch **1** to right.

» Button **2** is unlocked.

Store speed



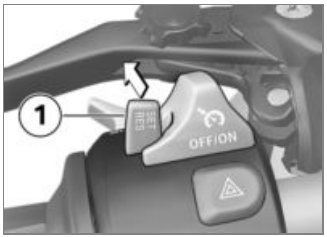
- Briefly press button **1** forward.

Adjustment range of cruise-control system
12...130 mph (20...210 km/h)

Cruise-control system indicator light lights up.

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

Accelerating



- Briefly press button **1** forward.

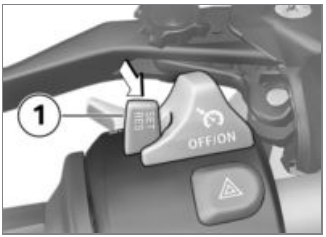
» Speed is increased by 1.2 mph (2 km/h) each time the button is pressed.

- Press button **1** forward and hold.

» The motorcycle accelerates steplessly.

» If the button **1** is no longer pressed, the speed achieved is maintained and saved.

Decreasing speed



- Briefly press button **1** backward.

» Speed is reduced by 1.2 mph (2 km/h) each time the button is pressed.

- Press button **1** back and hold.

» The motorcycle decelerates steplessly.

» If the button **1** is no longer pressed, the speed achieved is maintained and saved.

Deactivating cruise-control system

- Actuate brakes, clutch or throttle grip (take back throttle beyond back position) to deactivate cruise-control system.

NOTICE

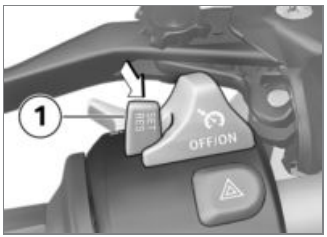
When changing gear using the Pro Gear-shift Assistance function, the cruise-control system is automatically deactivated for safety reasons.◀

NOTICE

With ASC and DTC interventions, the cruise-control system is automatically deactivated for safety reasons.◀

» Cruise-control system indicator light goes out.

Resume former cruising speed



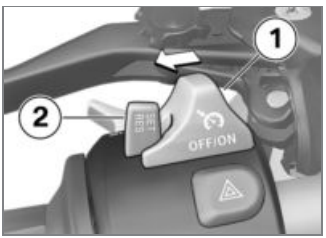
- Briefly push button **1** back to return to the speed saved beforehand.

NOTICE

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

Cruise-control system indicator light lights up.

Switch off cruise-control system



- Push switch **1** to left.

» The system is deactivated.

» Button **2** is locked.

Heated handlebar grips

– with heated grips OE

Operating heated grips

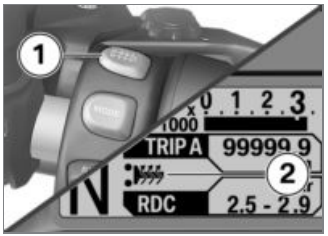
NOTICE

The heated grips option can only be activated when the engine is running.◀

NOTICE

The increase in power consumption caused by the heated grips can drain the battery if you are riding at low engine speeds. If the battery is inadequately charged, the heated grips are switched off to ensure starting capability.◀

- Start engine (➠ 86).



- Press button **1** repeatedly until desired heating level **2** is shown.

The handlebar grips can be heated at two different levels.

First heating stage
50 % heating capacity

Second heating stage
100 % heating capacity

» The second heating level is used for fast heat-up of the grips; then the switch should be switched back to the first level.

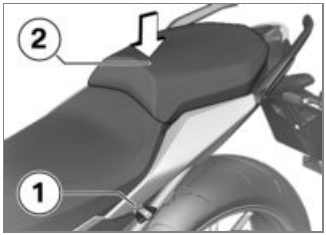
» If no further changes are made the selected heating level is adopted as the setting.

- To switch off heated grips, press button **1** until heated grip symbol **2** is no longer shown in display.

Rider and passenger seats

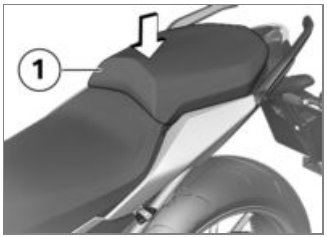
Remove passenger seat

- Park motorcycle, ensuring that support surface is firm and level.



- Press down passenger seat **1** in front area to support unlocking while turning seat lock **2** to left with ignition key and holding.
- Lift passenger seat at front and release key.
- Take off passenger seat **2** and place on a clean surface with upholstered side facing downward.

Install the passenger seat



- First slide passenger seat **1** into mounts in rear area.
- Firmly press down passenger seat **1** at front.

» Passenger seat clicks audibly into place.

Remove rider's seat

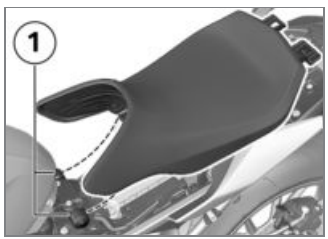
- Remove passenger seat (➠ 74).

Driver's seat is unlocked.

- Take off rider's seat at rear and place on a clean surface with upholstered side facing downward.

Installing driver's seat

- Remove passenger seat (➠ 74).



- Press driver's seat into front mounts **1** up to stop and then lay on at rear.

Setting

Mirrors

Adjusting mirrors

- Move mirror body to the desired position by turning it.

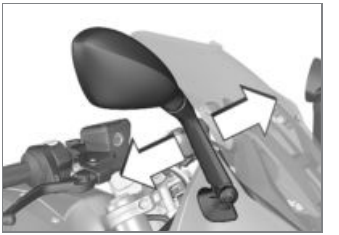
Adjusting mirror arm

ATTENTION

Collision between mirror arm and other components.

Component damage

- Correctly adjust the mirror arm. Pay attention to the mark on the mirror arm.◀



- Turn the mirror arm.

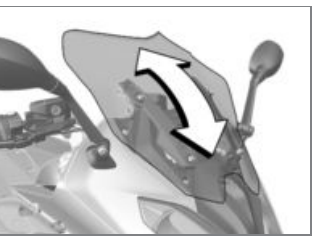
- Line up mark **1**.

Windshield

Adjusting windshield

Requirement

The motorcycle is stopped.



WARNING

Adjusting the windshield while driving

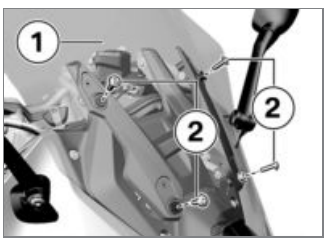
Accident hazard

- Only adjust the windshield when the motorcycle is stationary.◀
- Fold windshield up or down.

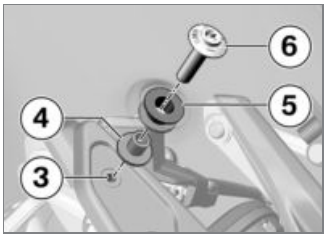
» The windshield is held in the upper or lower end positions by spring force.

Reposition windshield

- The windshield can be fastened on the motorcycle in two different positions.



- To reposition windshield **1**, remove all screws **2** and take off windshield.



- Position windshield on corresponding hole **3** while watching bushing **4** (inserted **from below**) and rubber grommet **5**.
- Install all four screws **6**.

	Windshield in bracket
2 lb/ft (2.5 Nm)	

Headlight

Headlight range and spring preload

The headlight range generally remains constant due to the adjustment of the spring preload to the loading state.
Spring preload adjustment may only be insufficient when the motorcycle is very heavily loaded.
In this case, the headlight range must be adjusted to the weight.

NOTICE

If there are doubts as to the correct headlight range, have the adjustment checked by a specialized workshop, preferably by an authorized BMW Motorrad retailer.◀

Clutch

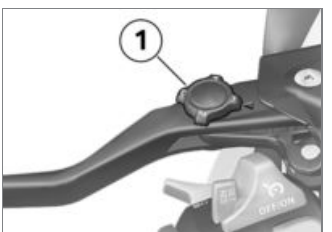
Adjusting clutch lever

WARNING

Adjusting the clutch lever while driving

Accident hazard

- Only adjust the clutch lever when the motorcycle is stationary.◀



- Turn adjusting wheel **1** into desired position.

NOTICE

The adjustment wheel can be turned more easily if you press the clutch lever forward when doing so.◀

» Four settings are available:

– **Position 1:** smallest distance between handlebar grip and clutch lever

– **Position 4:** largest distance between handlebar grip and clutch lever

Brakes

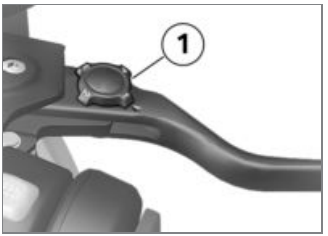
Adjusting handbrake lever

WARNING

Adjusting the brake lever while driving

Accident hazard

- Only adjust the brake lever when the motorcycle is stationary.◀



- Turn adjusting wheel **1** into desired position.

NOTICE

The adjustment wheel can be turned more easily if you press the handbrake lever forward when doing so.◀

» Four settings are available:

– **Position 1:** smallest distance between handlebar grip and brake lever

– **Position 4:** largest distance between handlebar grip and brake lever

Spring preload

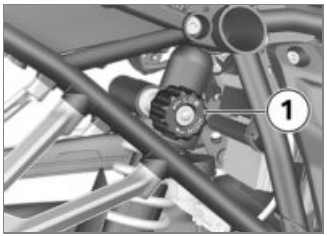
– without Dynamic ESA OE

Setting

It is essential to set the spring preload 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.

Adjusting spring preload at rear wheel

- Park motorcycle, ensuring that support surface is firm and level.



WARNING

Uncoordinated settings of spring preload and spring strut damping.
Poorer handling.

- Adjust damping characteristic to changed spring preload.◀

WARNING

Adjusting the spring preload while riding.
Accident hazard

- Adjust the spring preload only when the motorcycle is stationary.◀
- To decrease spring load, turn adjustment wheel **1** in direction of arrow LOW.
- To increase spring load, turn adjustment wheel **1** in direction of arrow HIGH.

Basic setting of spring preload, rear
Turn adjustment wheel as far as possible into LOW direction. (One-up without load)
Turn adjuster wheel as far as possible in LOW direction, then rotate 15 turns in HIGH direction. (One-up with load)
Turn adjuster wheel as far as possible in HIGH direction. (Two-up and load)

Damping

– without Dynamic ESA OE

Setting

The damping must be adjusted to the road conditions and the spring preload.

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

Adjusting damping on rear wheel

- Park motorcycle, ensuring that support surface is firm and level.
- Adjust damping from the left side of the vehicle.

- Turn adjuster wheel **1** clockwise to increase damping.
- Turn adjuster wheel **1** counterclockwise to decrease damping.

Basic setting of rear wheel rear-wheel damping
Turn adjuster wheel clockwise up to stop, then 6 clicks counterclockwise. (One-up without load)

Basic setting of rear wheel rear-wheel damping
Turn adjuster wheel clockwise up to stop, then 4 clicks counterclockwise. (One-up with load)
Turn adjuster wheel clockwise up to stop. (Two-up with load)

Riding

Safety information

Rider's Equipment

Do not ride without the correct clothing. Always wear:
– Helmet
– Rider's suit
– Gloves
– Boots

This applies even to short journeys, and to every season of the year. Your authorized BMW Motorrad retailer will be happy to advise you and has the correct clothing for every purpose.

Load

WARNING

Reduced riding stability caused by overloading and uneven loading
Accident hazard

- Do not exceed the gross weight limit and observe the loading information.◀
- Adjust spring preload and damping rate for the current gross vehicle weight.
- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy pieces of luggage and cargo as low and as close to the center of the motorcycle as possible.
- Observe the maximum payload and maximum speed as indicated on the label in the case (see also the chapter "Accessories").

– with topcase OA

- Observe the maximum payload and maximum speed as indicated on the label in the topcase (see also the chapter "Accessories").◁

– with tank bag OA

- Observe the maximum load capacity maximum speed of the tank rucksack.

 Storage capacity of tank bag
max 11 lbs (max 5 kg)

 Speed limit for riding with tank bag
max 112 mph (max 180 km/h)◁

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:

– Incorrect settings of spring-strut and shock absorber system
– Unevenly distributed load
– Loose clothing
– Insufficient tire inflation pressure
– Tire tread in poor condition
– etc.

Top speed

DANGER

Maximum speed of the motorcycle is higher than the permissible maximum rated speed of the tires.

Risk of accident due to tire damage at high speed.

- Observe the maximum permissible speed for the tyres.◀

Attach maximum permissible speed decal in field of view.

Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colorless and odorless but highly toxic.

WARNING

Harmful exhaust gas

Danger of suffocation

- Do not inhale exhaust fumes.
- Do not run the engine in closed rooms.◀

Burn hazard

CAUTION

Intense heating up of engine and exhaust system while riding

Burn hazard

- After parking the motorcycle, make sure that no persons or objects come into contact with the engine and exhaust system.◀

Catalytic converter

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

The following must be observed:

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

ATTENTION

Unburned fuel in the catalytic converter

Damage to catalytic converter

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

Danger of overheating

ATTENTION

Engine idling for a lengthy period while at a standstill
Overheating due to insufficient cooling; in extreme cases vehicle fire
- Do not allow the engine to idle unnecessarily.
- After starting, ride off immediately.◀

Modifications

ATTENTION

Modifications to the motorcycle (e.g. engine control unit, throttle valves, clutch)
Damage to the affected parts, failure of safety-relevant functions, expiration of warranty
- Do not make any modifications.◀

Checklist

Observe checklist

- Use the following checklist to check your motorcycle at regular intervals.

Before every journey:

- Check operation of the brake system.
- Check operation of the lighting and signal system.
- Check clutch function (➠ 122).
- Checking tire tread depth (➠ 124).
- Checking tire pressure (➠ 123).
- Check secure hold of cases and luggage.

At every third refueling stop

– without Dynamic ESA OE
- Adjusting spring preload at rear wheel (➠ 81).
- Adjusting damping on rear wheel (➠ 82).◁

– with Dynamic ESA OE
- Setting suspension compliance (➠ 67).◁
- Check engine oil level (➠ 116).
- Check front brake pad thickness (➠ 118).
- Checking rear brake pad thickness (➠ 119).
- Checking front brake fluid level (➠ 120).
- Checking rear brake fluid level (➠ 121).
- Checking coolant level (➠ 122).

Starting

Start engine

- Switch on ignition.

» Pre-Ride-Check is carried out. (➠ 87)

» ABS self-diagnosis is performed. (➠ 88)
» ASC/DTC self-diagnosis is performed. (➠ 89)
• Engage neutral, or pull back clutch lever if a gear is engaged.

NOTICE

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

• In the case of cold start or under cold temperatures: Pull back clutch lever.

• Press starter button **1**.

NOTICE

The starting attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you attempt to start the engine again, or use jumper cables and a donor battery to start. More detailed information can be found in the "Maintenance" chapter under "Jump-starting".◀

» Engine starts.
» If the engine fails to start, the troubleshooting table in the chapter "Technical Data" may provide assistance. (➠ 168)

Pre-Ride-Check

After the ignition is turned on, the instrument cluster performs a test of the instrument dials and the indicator and warning lights – this is the "Pre-Ride-Check". Starting the engine before the test routine is completed will cancel the remainder of the routine.

Phase 1

The pointer of the speedometer moves up to the end stop. At the same time, all indicator and warning lights are activated consecutively. The general warning light lights up red.

Phase 2

The pointer of the speedometer moves into the starting position. At the same time, the previously activated indicator and warning

lights are now turned off in reverse sequence. The universal warning light changes from red to yellow.

If the pointer of the speedometer did not move, or if one of the indicator and warning lights was not turned on:

⚠ WARNING

Defective warning lights

Lack of display of malfunctions

- Check the display of all indicator and warning lights.◀
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ABS self-diagnosis

The self-diagnosis routine checks whether the BMW Motorrad Integral ABS is ready for operation. The self-diagnosis routine runs automatically when you switch on the ignition.

Phase 1

» Check on system components monitored by the diagnostic system while motorcycle is parked.

flashes.

Phase 2

» Check wheel sensors while starting off.

flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

- Check the display of all indicator and warning lights.

 ABS self-diagnosis routine not completed
ABS is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

If an ABS error is displayed after the ABS self-diagnosis is completed:

- It remains possible to continue riding. Please be aware that neither the ABS nor the integral function are available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ASC/DTC self-diagnosis

The self-diagnosis routine is determining whether BMW Motorrad ASC/DTC is ready for operation. The self-diagnosis routine runs automatically when you switch on the ignition.

Phase 1

» Check on system components monitored by the diagnostic system while motorcycle is parked.

 flashes slowly.

Phase 2

» Checking the diagnosable system components while the motorcycle is moving.

 flashes slowly.

ASC/DTC self-diagnosis completed

» The ASC/DTC indicator and warning light goes out.

- Check the display of all indicator and warning lights.

 ASC/DTC self-diagnosis routine not completed
ASC/DTC is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

If an ASC/DTC error is displayed after the ASC/DTC self-diagnosis is completed:

- It remains possible to continue riding. It must be noted that the ASC/DTC function is not available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Running in

Engine

- In the period preceding the initial inspection attempt to change rpm and engine load as frequently as possible, avoiding extended periods at constant rpm.
- Choose curvy, slightly hilly sections of road if possible.
- Observe the engine run-in speeds.

 Engine break-in speeds
<5000 min^{-1} (Odometer reading 0...621 miles (0...1000 km))

 Engine break-in speeds
no full throttle (Odometer reading 0...621 miles (0...1000 km))

- Observe mileage, after which the running-in check should be performed.

 Mileage until running-in check
311...746 miles (500...1200 km)

Brake pads

New brake pads must be run in before they achieve their optimum friction force. This initial reduction in braking efficiency can be compensated for by exerting greater pressure on the brake levers.

⚠ WARNING

New brake pads

Extension of the braking distance, accident hazard

- Brake early.◀

Tires

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

⚠ WARNING

Loss of adhesion of new tires on wet roads and at extreme angles

Accident hazard

- Always think well ahead and avoid extreme angles.◀

Shifting gears

– with gearshift assistant Pro[OE]

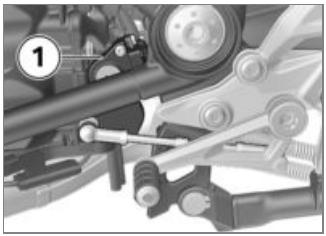
Pro Gear Shift Assistant

NOTICE

More detailed information on Pro Gear-shift Assistance can be found in the section "Technology in detail".◀

NOTICE

When changing gear using the Pro Gear-shift Assistance function, the cruise-control system is automatically deactivated for safety reasons.◀



- The gears are shifted into as usual with foot force on the shift lever.

» The sensor **1** on the gear-lever shaft detects the intention to change gear and initiates gearshift assistance.

» When driving at constant speed in low gears at high revs, changing gear without using the clutch can result in major load change reactions. BMW Motorrad recommends only changing gear using the clutch in such situations. The gearshift assistant Pro should not be used in the range of the rev-limiter.

» No shifting support is provided in the following situations:

– With the clutch operated.
– If the gear lever is not in the zero position
– When shifting up with the throttle valve closed (coasting overrun mode) or when decelerating.

- To be able to make another gear change using the gearshift assistant Pro, the gearshift lever must be fully released after the first gear change.

Brakes

How do you achieve the shortest stopping distances?

The dynamic load distribution between the front and rear wheel changes during braking. The heavier you brake, the greater the weight transfer to the front wheel. Increases in the load on an individual wheel are accompanied by a rise in the effective braking force that the wheel can provide.

To achieve the shortest possible braking distance, the front brake must be applied quickly and with progressively greater levels of force. This procedure provides ideal exploitation of the extra weight transfer to the front wheel. The clutch should also be disengaged at the same time. The frequently-practiced procedure for "panic braking", in which maximum braking force is applied as rapidly as possible, produces deceleration rates that rise more quickly than the dynamic weight transfer occurs. As a result, a complete transfer of braking force to road surface is not possible.

Locking up of the front wheel is prevented by BMW Motorrad Integral ABS.

Descending mountain passes

WARNING

Braking only with the rear-wheel brake when descending mountain passes

Reduced of braking action, destruction of the brakes caused by overheating

- Use both front and rear brakes, and make use of the engine's braking effect as well.◀

Wet, soiled brakes

Moisture and dirt on the brake rotors and the brake pads result in a decrease in the braking action.

Delayed or poorer braking action must be expected in the following situations:

– When driving in the rain and through puddles.
– After washing the vehicle.
– When driving on roads spread with salt.
– After working on the brakes due to oil or grease residues.
– When riding on dirty roads.

WARNING

Poorer braking action due to moisture and dirt

Accident hazard

- Brake until brakes are dry or clean; clean if necessary.
- Brake early until the full braking action is available again.◀

ABS Pro

– with ABS Pro OE

Physical riding limits

WARNING

Braking in curves

Danger of falling despite ABS Pro

- The rider is always responsible for adapting his/her driving style.
- Do not reduce the system's extra safety margin with careless riding or unnecessary risks.◀

ABS Pro is available in all riding modes.

Falling cannot be excluded

Although ABS Pro represents valuable support and an enormous safety advantage for the rider when braking in the inclined position, it by no means redefines the physical riding limits. It is still possible to exceed those

limits through misjudgments or riding errors. In extreme cases this my result in a fall.

Use on public roads

ABS Pro helps make riding your motorcycle on public roads even safer. When braking due to unexpected hazards in curves, locking-up and slipping of the wheels is prevented within the scope of the physical riding limits.

NOTICE

ABS Pro was not developed to increase the individual braking performance in the inclined position in the limit range.◀

Parking your motorcycle

Side stand

- Switch off engine.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

- Always check that the ground under the stand is level and firm.◀

ATTENTION

Loading of the side stand with additional weight

Component damage cause by tipping over

- Do not sit on the motorcycle when it is parked on the side stands.◀
- Fold out side stand and park motorcycle.
- Turn the handlebars to left.
- On slopes point the motorcycle uphill and engage 1st gear.

Center stand

– with center stand OE

- Switch off engine.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

- Always check that the ground under the stand is level and firm.◀

ATTENTION

Center stand folds if subject to sharp movements.

Component damage cause by tipping over

- Do not sit on the motorcycle while it is resting on the center stand.◀
- Fold out center stand and jack up motorcycle.
- On slopes point the motorcycle uphill and engage 1st gear.

Refueling

Fuel specifications

Requirement

For optimal fuel economy, the gasoline should be sulfur-free or very low in sulfur content.

ATTENTION

Refueling with leaded fuel

Damage to catalytic converter

- Do not refuel with leaded gasoline or gasoline with metallic additives, e.g. manganese or iron.◀

ATTENTION

Use of Ethanol E85 as fuel

Damage to the engine and fuel supply

- Do not refuel with E85, i.e. fuel with an ethanol content of 85 %, or with Flex Fuel.◀
- Fuels with a maximum ethanol content of 10 %, meaning "E10," may be used for refueling. Ethanol should satisfy the quality standards for the US (ASTM 4806–xx) and Canada (CGSB-3.511–xx). “xx” - comply with the current standard in each case.

 Recommended fuel quality
Super unleaded (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI

Refueling procedure

WARNING

Fuel is highly flammable

Fire and explosion hazard

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

WARNING

Escaping of fuel due to expansion under exposure to heat with overfilled fuel tank

Accident hazard

- Do not overfill the fuel tank.◀

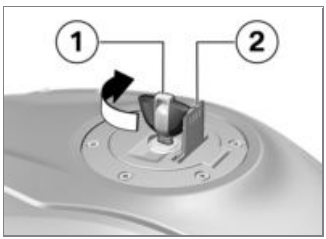
ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.◀

- Make sure ground is level and firm and place motorcycle on side stand.



- Open protective cap **2**.
- Unlock fuel-tank cap **1** with ignition key by turning clockwise, then swivel it up.

- Refuel with a fuel meeting the specifications above, continuing until fuel is no higher than lower edge of filler neck.

NOTICE

When refueling after running on fuel reserve, the resulting total fuel quantity must be greater than the fuel reserve, so that the new filling level is detected and the fuel warning light is switched off.◀

NOTICE

The "usable fuel quantity" specified in the technical data is the fuel quantity, which can be refueled if the fuel tank was completely emptied, i.e., if the engine dies off due to lack of fuel.◀

Fuel level
Approx. 4.8 gal (Approx. 18 l)

Fuel reserve
Approx. 1.1 gal (Approx. 4 l)

- Press fuel tank cap down firmly to close.
- Remove vehicle key and close protective cap.

Refueling procedure

– with Keyless Ride[OE]

Requirement

Steering lock is unlocked.

WARNING

Fuel is highly flammable

Fire and explosion hazard

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

WARNING

Escaping of fuel due to expansion under exposure to heat with overfilled fuel tank

Accident hazard

- Do not overfill the fuel tank.◀

ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.◀
- Make sure ground is level and firm and place motorcycle on side stand.
- Switch off ignition (➠ 47).

NOTICE

After the ignition is switched off, the fuel filler cap can be opened within the specified run-on time even without the radio-operated key being within the reception area.◀

After-running period for opening the fuel filler cap
2 min

» There are **2 ways** to open the fuel filler cap:

– Within the after-running period.

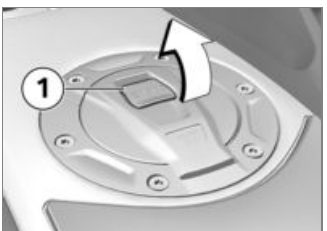
– After the after-running period expires.

Version 1

– with Keyless Ride[OE]

Requirement

Within the run-on time:



- Slowly pull lug **1** of fuel filler cap upward.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.

Version 2

– with Keyless Ride[OE]

Requirement

After run-on time expires:

- Bring radio-operated key into reception range.
- Slowly pull up lug **1**.

» The indicator light for the radio-operated key flashes as long as the radio-operated key is being searched for.

- Slowly pull lug **1** of fuel filler cap upward again.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.

- Refuel with a fuel meeting the specifications above, continuing until fuel is no higher than lower edge of filler neck.

NOTICE

When refueling after running on fuel reserve, the resulting total fuel quantity must be greater than the fuel reserve, so that the new filling level is detected and the fuel warning light is switched off.◀

NOTICE

The "usable fuel quantity" specified in the technical data is the fuel quantity, which can be refueled if the fuel tank was completely emptied, i.e., if the engine dies off due to lack of fuel.◀

Fuel level
Approx. 4.8 gal (Approx. 18 l)

Fuel reserve
Approx. 1.1 gal (Approx. 4 l)

- Press fuel filler cap of fuel tank down firmly.

» Fuel filler cap audibly engages.

» Fuel filler cap automatically locks after run-on time expires.

» The engaged fuel filler cap locks immediately when the

steering lock is locked or during starting.

Securing motorcycle for transport

- Protect against scratching all components along which luggage straps are routed. For example, use adhesive tape or soft cloths.

ATTENTION

Motorcycle tips to the side when raising

Component damage cause by tipping over

- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.◀
- Push motorcycle onto transport surface, and do not place on side stand or center stand.

ATTENTION

Pinching of components

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.◀
- Lay straps at front over lower fork bridge on both sides.
- Tension straps downward.

- Secure and tighten the luggage straps at the rear on the brackets for the passenger footrests on both sides.
- Tension all straps evenly; the motorcycle should be pulled down against its springs with the suspension compressed as much as possible.

Technology in detail

General instructions

More information on the topic of technology is available at:
bmw-motorrad.com/technology

Antilock Brake System (ABS)

Partially integral brake

Your motorcycle is equipped with a partially integral brake configuration. Both front and rear brakes are applied simultaneously when you pull the handbrake lever. The footbrake lever acts only on the rear brake.
BMW Motorrad Integral ABS adapts the brake force distribution between the front and rear brakes during braking by means of ABS modulation to suit the load carried by the motorcycle in order to achieve the shortest possible braking distance.

ATTENTION

Attempt at a burn-out despite integral function
Damage to rear-wheel brake and clutch
• Do not perform burn-out.◀

How does the ABS work?

The maximum braking force that can be transferred to the road surface is partially dependent on the friction coefficient of the road surface. Gravel, ice, snow and wet roads offer a considerably lower friction coefficient than a dry, clean asphalt surface. The poorer the friction coefficient of the road surface is, the longer the braking distance will be.
If the maximum transferable braking force is exceeded when the rider increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this situation occurs, ABS is activated and the brake pressure is adjusted to the maximum transferable braking force. This enables the wheels to continue to turn and maintains driving stability regardless of the road surface condition.

What happens when rough roads are encountered?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the running wheels turn in every imaginable case and

the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

In what ways is the ABS noticeable to the rider?

If the ABS system has to reduce the braking force due to the conditions described above, then vibrations can be felt through the handlebar brake lever.

If the handbrake lever is pulled, then braking pressure is built up at the rear wheel with the integral function. If the footbrake lever is first actuated after this, the brake pressure already built up can be felt earlier than the counter-pressure, than when the footbrake lever is actuated before or together with the handbrake lever.

Lifting off rear wheel

However, during extremely heavy and rapid decelerations it is possible that the ABS cannot prevent the rear wheel from lifting off the ground. In these cases, the motorcycle can also flip end over end.

⚠ WARNING

Lifting off of the rear wheel due to heavy braking

Accident hazard

- When braking heavily, bear in mind that the ABS control cannot always be relied on to prevent the rear wheel from lifting off the ground.◀

What are the design characteristics of the ABS?

The ABS ensures driving stability on any surface within the limits of driving physics. The system is not optimized for special requirements resulting under extreme weather conditions on the racetrack. Handling should be adopted to driving skills and road conditions.

Special situations

To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If the system registers implausible data for an extended period of time it will deactivate the ABS as safety precaution and a display will alert you to an ABS error. A self-diagnosis routine must be completed before the error will be displayed.

Apart from problems with the BMW Motorrad ABS, unusual riding conditions can also cause a fault message to be generated:
– Warm-up on the center or auxiliary stand at idle or with gear engaged.
– Rear wheel locked-up for a longer period of time by engine brake, e.g. when riding downhill on slippery surfaces.

Should a fault code occur due to an unusual driving condition, the ABS function can be reactivated by switching the ignition off and then on again.

How important is regular maintenance?

WARNING

Failure to have maintenance performed on the brake system regularly.
Accident hazard

- To ensure that the ABS is in a properly maintained condition, it is vital that the specified service intervals be observed.◀

Reserves for safety

But remember: the potentially shorter braking distances which ABS permits must not be used as an excuse for careless riding. ABS is primarily a means of ensuring a safety margin in genuine emergencies.

WARNING

Braking in curves
Risk of accident despite ABS
- The rider is always responsible for adapting his/her driving style.
- Do not reduce the additional safety function with careless riding or unnecessary risks.◀

Further development of ABS to ABS Pro

– with ABS Pro OE

In the past, the BMW Motorrad ABS system provided for a very high level of safety while braking during straight-ahead riding. Now ABS Pro also offers increased safety even when braking in curves. ABS Pro prevents locking-up of the wheels even in case of rapid brake actuation. ABS Pro reduces abrupt changes in steering forces, especially during panic braking, and therefore decreases the risk of unwanted wheelies occurring.

ABS control

From a technical standpoint, ABS Pro adjusts the ABS control to the angle of inclination of the motorcycle in dependence on the respective riding situation. Signals for the roll and yaw rate

and the lateral acceleration are used to determine the inclination of the motorcycle.
With an increasing inclination, the braking pressure gradient is increasingly limited at the start of braking. This results in a slower pressure buildup. In addition, the pressure modulation in the range of the ABS control is more uniform.

Advantages for the rider

The advantages of ABS Pro for the rider are sensitive response and high braking and riding stability with the best possible deceleration, even in curves.

Automatic Stability Control (ASC)

How does ASC work?

ASC compares the wheel speeds of the front and rear wheels. Differences in the relative rotation speeds allow the system to determine the slip rate, and thus the stability reserves at the rear wheel. The engine-management system adapts the engine torque when the slip limit is exceeded.

What are the design features of ASC?

ASC is an assistance system for the rider and is designed for riding on public roads. The extent to which the rider affects ASC control can be considerable (weight shifts when cornering, loose luggage on the motorcycle), especially when approaching the limits imposed by the laws of physics.

The system is not optimized for special requirements resulting under extreme weather conditions on the racetrack. ASC can be switched off under these conditions.

⚠ WARNING

Risky riding style

Accident hazard despite ASC

- The rider is always responsible for adapting his/her driving style.
- Do not reduce the system's extra safety margin with careless riding or unnecessary risks.◀

Special situations

As lean angles increase, acceleration potential is also progressively restricted by the laws of physics. This can result in delayed acceleration when exiting very tight curves.

The system compares the rotation speeds of the front and rear wheels to detect any tendency for the rear wheel to spin or lose traction. If the system registers implausible data for an extended period of time it will deactivate the ASC functionality as safety precaution and a display will alert you to an ASC error. A self-diagnosis routine must be completed before the error will be displayed. The following non-standard operating conditions may lead to automatic deactivation of ASC:

– Driving on the rear wheel (wheelie) for a longer period.
– Rear wheel spinning in place with front brake engaged (burn out).
– Warm-up on the center or auxiliary stand at idle or with gear engaged.

Switching the ignition off and on again and then riding the motorcycle at more than a specific minimum speed reactivates the ASC.

 Minimum speed for activation of ASC
min 3 mph (min 5 km/h)

If the front wheel loses contact with the ground under extreme acceleration, the ASC reduces the engine torque, maintaining the reduction until the front wheel makes contact with the ground again.
BMW Motorrad recommends that you respond to this condition by twisting back the throttle grip somewhat to return to stable dynamic operating conditions as quickly as possible.

On a slippery surface, the throttle grip should never be suddenly twisted back completely unless the clutch is disengaged at the same time. The engine's braking torque could cause the rear wheel to lock, resulting in unstable motorcycle conditions. ASC is unable to intervene effectively under these conditions.

Dynamic Traction Control (DTC)

– with Dynamic Traction Control (DTC)[OE]

How does DTC work?

DTC compares the wheel speeds of the front and rear wheels. Differences in the relative rotation speeds allow the system to determine the slip rate, and thus the stability reserves at the rear wheel. The engine-management

system adapts the engine torque when the slip limit is exceeded. DTC is equipped with an angle sensor, enabling it to control the wheel slip more sensitively in curves. As a result, more dynamic driving condition are possible with the same stability. In the DYNAMIC mode minor wheelies can be ridden with the support of DTC.

What are the design features of DTC?

DTC is an assistance system for the rider and is designed for riding on public roads. The extent to which the rider affects DTC control can be considerable (weight shifts when cornering, loose luggage on the motorcycle), especially when approaching the limits imposed by the laws of physics.
The system is not optimized for special requirements resulting under extreme weather conditions on the racetrack. DTC can be deactivated for riding in these conditions.

⚠ WARNING

Risky riding style
Risk of accident despite DTC
- The rider is always responsible for adapting his/her driving style.
- Do not reduce the system's extra safety margin with careless riding or unnecessary risks.◀

Special situations

As lean angles increase, acceleration potential is also progressively restricted by the laws of physics. This can result in reduced acceleration when coming out of very tight curves.

To detect spinning or slipping away of the rear wheel, the speeds of the front and rear wheel are compared and the angle is considered, for example. If these values are detected to be implausible for a long period, a replacement value is used for the angle and the DTC function is deactivated. In these cases, a DTC error is displayed. A self-diagnosis routine must be completed before the error will be displayed.
While in the RAIN and ROAD riding modes with the front wheel lifted off, the DTC reduces the engine torque and quickly sets down the front wheel on the ground again, in the DYNAMIC mode minor wheelies supported by DTC are permitted.
DTC can issue an error message under the exceptional riding conditions outlined below.

Unusual riding conditions:

– Driving on the rear wheel (wheelie) for a longer period.
– Rear wheel spinning in place with front brake engaged (burn out).
– Heating up on an auxiliary stand at idle speed or with gear engaged.

Switching the ignition off and on again and then riding the motorcycle at more than a specific minimum speed reactivates the DTC.

 Minimum speed for DTC activation
min 3 mph (min 5 km/h)

If the front wheel loses contact with the ground under extreme acceleration, the DTC reduces the engine torque until the front wheel makes contact with the ground again.

BMW Motorrad recommends that you respond to this condition by twisting back the throttle grip somewhat to return to stable dynamic operating conditions as quickly as possible.

On a slippery surface, the throttle grip should never be suddenly twisted back completely unless the clutch is disengaged at the same time. The engine braking torque can cause the rear wheel to slip, resulting in an unstable driving state. DTC is unable to intervene effectively under these conditions.

Electronic suspension adjustment (ESA)

– with Dynamic ESA[OE]

Dynamic ESA adjustment options

Using the Dynamic ESA electronic suspension adjustment system you can easily adjust your motorcycle to the load being carried.

Using a ride height sensor, Dynamic ESA detects movements of the chassis and suspension and responds to them by adjusting the damper valves. As a result, the chassis and suspension is adjusted to the conditions of the surface.

Starting from the basic setting (ROAD), the damping can also be set harder (DYNAMIC).

Dynamic ESA calibrates itself at regular intervals when the vehicle is at a standstill and the engine is running to ensure that the system is functioning properly.

Riding mode

Selection

In order to adjust the motorcycle to the road condition, one of 4 riding modes can be selected:
RAIN
ROAD (standard mode)

– with riding modes Pro OE
DYNAMIC
USER

Each riding mode affects the behavior of the motorcycle in a different way. For the RAIN, ROAD and DYNAMIC riding modes, a matched setting is available for the ASC/DTC and ENGINE (throttle response) systems. The last selected riding mode is reactivated automatically after the ignition is switched off and on again.
The following rule always applies: selection of progressively more dynamic riding modes is accompanied by a corresponding reduction in the support furnished by ASC/DTC. Therefore, consider the following when selecting the riding mode: the more dynamic the setting, the greater the demands on the skill of the rider!

Throttle response
– in the RAIN mode: restrained
– in the ROAD mode: direct
– In DYNAMIC mode: dynamic

RAIN mode
The ASC/DTC system intervenes early enough to prevent the rear wheel from spinning. On roads with high to medium friction coefficients (dry and wet asphalt to dry cobblestones) the vehicle remains very stable; movements of the tail are clearly perceptible only on slippery roads (wet bitumen or wet cobblestones).

ROAD mode
The point at which the ASC/DTC system intervenes is later than in the RAIN mode. The vehicle remains stable on road surfaces with high to moderate coefficients of friction (traction) (dry and wet asphalt as well as dry cobblestones). Slight rear-wheel drift is perceptible. Movements of the tail are clearly perceptible on slippery road surfaces (wet bitumen or wet cobblestones).

– with riding modes Pro OE
DYNAMIC mode
DYNAMIC mode is the most performance-oriented mode.
The point at which the ASC/DTC system intervenes is even later, which means that even on dry asphalt drifting is possible under sharp acceleration when cornering.

USER mode

In the USER mode, DTC and ENGINE can be set individually.
- ENGINE: It is possible to choose between RAIN, ROAD and DYNAMIC
- DTC: It is possible to choose between RAIN, ROAD and DYNAMIC

The changed USER settings are saved until the next change.

Changing setting

The riding modes can only be changed while driving under the following condition:
– No drive torque at the rear wheel.
– No brake pressure in the braking system.

This operating mode is active when the motorcycle is stopped with the ignition switched ON. As an alternative, the following steps must be carried out:
– Turn back throttle grip.
– Do not actuate brake lever.

First the desired riding mode is preselected. The new selection is not activated until the specified conditions are present in all affected systems.

Tire pressure control (RDC)

– with Tire Pressure Monitor (TPM) OE

Operation

A sensor located in each tire monitors the air temperature and the inflation pressure inside the tire and transmits this information to the control unit.
The sensors are equipped with a centrifugal governor, which does not enable the transmission of the measured readings until the defined minimum speed is exceeded for the first time.


Minimum speed for transmission of TPC/RDC measured data:

min 19 mph (min 30 km/h)

Before the tire pressure is received for the first time, "––" is shown on the display for each tire. The sensors continue to transmit the measured readings for some time after the vehicle comes to a stop.


Duration of measured data transmission after motorcycle is stationary:

min 15 min

If an TPC/RDC control unit is fitted but the wheels have no sensors, a fault message is generated.

Tire inflation pressure ranges

The TPC/RDC control unit distinguishes between three inflation pressure ranges matched to the motorcycle:

– Inflation pressure within the permissible tolerance.
– Inflation pressure at the limits of the permissible tolerance.
– Inflation pressure outside the permissible tolerance.

Temperature compensation

The inflation pressure within a tire is sensitive to temperature: it responds to higher tire temperatures by increasing, and to lower temperatures by dropping. The tire temperature is dependent on the outside temperature and on the driving style and duration.

 The tire pressures are shown adjusted for temperature on the multifunction display and are always relative to the following tire air temperature:
68 °F (20 °C)

No temperature compensation takes place in the inflation pressure testers at filling stations, meaning that the measured tire inflation pressure varies according to tire temperature. As a result, in most cases the values displayed there do not match the values shown in the multifunction display.

Tire pressure adjustment

Compare the TPC/RDC value in the multifunction display with the value on the back cover of the Rider's Manual. The difference between the two values must be compensated with the tire inflation pressure tester at the filling station.

 Example
According to the Rider's Manual, the tire pressure should be as follows:
36.3 psi (2.5 bar)
The multifunction display shows the following figure:
33.4 psi (2.3 bar)
The shortfall is thus:
2.9 psi (0.2 bar)
The tester at the filling station shows:
34.8 psi (2.4 bar)
To obtain the correct tire pressure, that has to be increased to the following figure:
37.7 psi (2.6 bar)

Pro shift assistant

– with gearshift assistant Pro[OE]

Pro Your vehicle is equipped with a gearshift assistant originally developed for racing but now specially adapted for touring use. It allows you upshift and downshift under almost any load conditions and in virtually all engine-speed ranges without operating the clutch or accelerator.

Benefits

– 70-80 % of all gear changes can be performed without using the clutch.
– Less movement between pilot and pillion due to shorter gear-change intervals.
– Throttle does not have to be closed when changing gear under acceleration.
– During deceleration and downshifts (throttle plate closed) the system blips the throttle to obtain the correct engine speed.
– Shifting times are faster than when the clutch is used to change gears.

For the system to detect the rider's intention to change gear, the previously stationary gear lever must be moved in the desired direction against the force of the spring and with a certain amount of "overtravel" at a standard to rapid travel speed, and then maintained in this position until execution of the shift is completed. No additional increase in shifting force is necessary during the gear shifting process. After the gear change is completed, the gear lever must be fully released before the Pro Gear Shift Assistant can execute a new gear change. Pro When the gear is changed using the gearshift assistant, the throttle setting (twist-grip position) must be kept constant before and during the gear shift. Changing the position of the throttle grip while the shift is in progress can lead to cancellation of the function and/or shifting errors. The gearshift assistant Pro does not provide support during gear changes made using the clutch.

Downshifts

– Downshifts are assisted up to the speed at which the engine reaches maximum rpm in the gear to be engaged. Over-revving is thus prevented.

 Maximum engine speed
max 9000 min^{-1}

Upshifts

- Upshifting is supported until the idling speed is reached in the target gear.
- This prevents the idling speed from being dropped below.

 Idle speed
1150 min^{-1} (Engine at operating temperature)

Maintenance

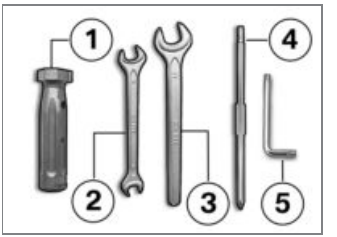
General instructions

The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.
If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".
Further information about maintenance and repair work can be obtained on DVD through your authorized BMW Motorrad retailer.

Special tools and thorough specialized knowledge are required to carry out some of the work. If you are in doubt, consult an authorized workshop, preferably your authorized BMW Motorrad retailer.

Tool kit

Standard tool kit



1 Screwdriver handle
- Use with screwdriver insert
- Topping up engine oil (➠ 117).

2 Open-ended wrench
Wrench size: 8/10 mm
- Removing battery (➠ 142).

3 Open-ended wrench
Wrench size: 14

4 Reversible screwdriver insert
Phillips PH1 and Torx T25
- Remove light sources in front and rear turn indicators (➠ 136).
- Remove battery cover (➠ 142).
- Reposition windshield (➠ 79).

5 Torx wrench T40

Front wheel stand

Mount front wheel stand

ATTENTION

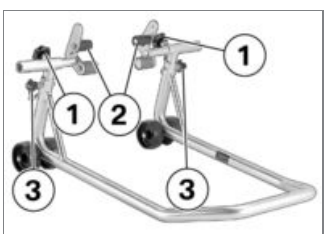
Use of the BMW Motorrad front wheel stand without an additional center or auxiliary stand

Component damage cause by tipping over

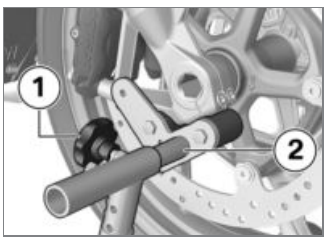
- Place the motorcycle on the center stand or an auxiliary stand before lifting it with the

BMW Motorrad front wheel stand.◀

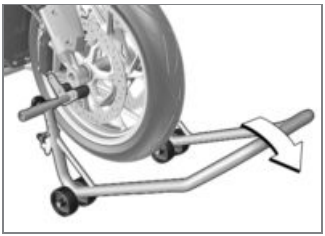
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.
- Use basic stand with front wheel mount. The base stand and its accessories are available through your authorized BMW Motorrad retailer.



- Loosen mounting bolts **1**.
- Push two mounts **2** outward, continuing until front suspension fits between them.
- Use locating pins **3** to set front wheel stand to desired height.
- Center front wheel stand relative to front wheel and push it against front axle.



- Align two mounts **2** so that front suspension rests securely on them.
- Tighten securing screws **1**.



ATTENTION

Center stand retracts if motorcycle is lifted too high.
Component damage cause by tipping over

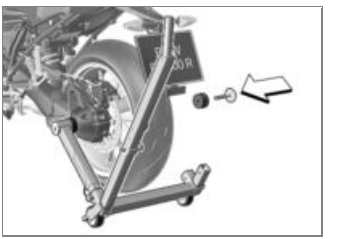
- When raising the motorcycle, make sure that the center stand remains on the ground.◀
- Apply uniform pressure to push front wheel stand down and raise motorcycle.

Rear-wheel stand

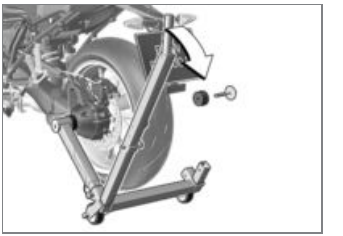
Mounting rear-wheel stands

- Park motorcycle, ensuring that support surface is firm and level.
- Use basic stand with rear wheel adapter. The basic stand and its accessories are available through your authorized BMW Motorrad retailer.

- Set desired height of rear-wheel stand using bolts **1**.
- Remove the lock washer **2**; to do so, press the unlock button **3**.



- Push the rear-wheel stand from the right onto the rear axle.
- Apply the retaining disk from the left; to do so, press the unlock button.



- Position motorcycle upright while simultaneously pressing grip of stand back so that both stand rollers rest on ground.
- Then press the grip down to the ground.

Engine oil

Check engine oil level

ATTENTION

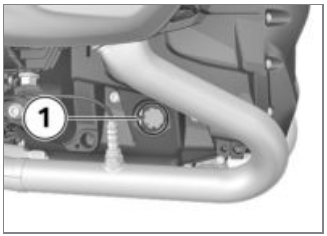
Misinterpretation of the oil filling quantity, as the oil level is temperature-dependent (the higher the temperature, the higher the oil level)

Engine damage

- Only check the oil level after a longer journey or when the engine is warm.◀
- Switch off engine at operating temperature.
- Fold out side stand and position yourself on right-hand side of motorcycle.
- Hold motorcycle straight.

– with center stand OE

- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.◁
- Wait five minutes to allow oil to drain to the oil pan.



- Read oil level in display **1**.

Specified level of engine oil	
between MIN- and MAX mark	

If the oil level is below MIN mark:

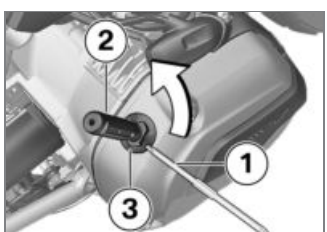
- Topping up engine oil (➠ 117).

If the oil level is above MAX mark:

- Have oil level corrected at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Topping up engine oil

- Park motorcycle, ensuring that support surface is firm and level.



- Wipe area around oil fill location to clean it.

- To be able to apply force more easily, insert the interchangeable screwdriver bit **1**, Torx end first, into the screwdriver handle **2** (from motorcycle toolkit).
- Insert screwdriver handle in lock **3**.
- Remove lock **3** by turning counterclockwise.
- Check engine oil level (➠ 116).

ATTENTION

Use of too little or too much engine oil

Engine damage

- Always make sure that the oil level is correct.◀
- Add engine oil up to specified level.

Engine oil, quantity for topping up	
max 1 quarts (max 0.95 l) (Difference between MIN and MAX)	

- Check engine oil level (➠ 116).
- Install the oil filler cover **3**.

Brake system

Check brake operation

- Actuate the handbrake lever.
» Pressure point must be clearly perceptible.
- Actuate the footbrake lever.
» Pressure point must be clearly perceptible.

If no clear pressure point can be felt:

ATTENTION

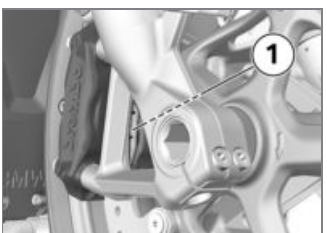
Improper working on the brake system

Endangering of the operating safety of the brake system

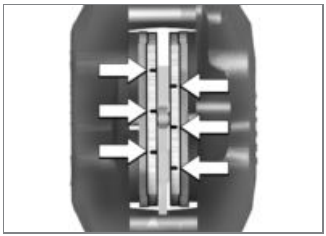
- Have all work on the brake system carried out by experts.◀
- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Check front brake pad thickness

- Park motorcycle, ensuring that support surface is firm and level.



- Visually inspect left and right brake pads to determine their thickness. Viewing direction: between wheel and front suspension toward brake pads **1**.



Front brake-pad wear limit
0.04 in (1.0 mm) (Only friction material without carrier plate. Wear markings (grooves) must be clearly visible.)

If the wear indicators are no longer clearly visible:

WARNING

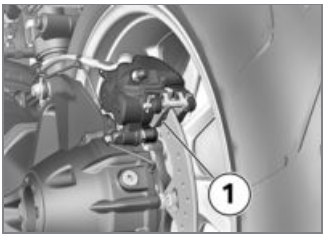
Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

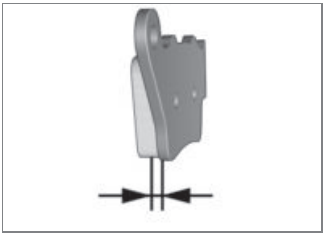
- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀
- Have brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Checking rear brake pad thickness

- Park motorcycle, ensuring that support surface is firm and level.



- Conduct a visual inspection of the brake pad thickness. Direction of view: From rear looking at brake pads **1**.



	Rear brake-pad wear limit
0.04 in (1.0 mm) (Only friction material without carrier plate)	

If wear limit is reached:

WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀
- Have brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Checking front brake fluid level

WARNING

Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking performance caused by air in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.◀

– with center stand OE

- Make sure ground is level and firm and place motorcycle on its center stand.◁

– without center stand OE

- Make sure ground is level and firm and hold motorcycle vertically.◁
- Align handlebars so that brake-fluid reservoir is positioned horizontally.

- Check brake fluid level in front brake-fluid reservoir **1**.

NOTICE

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.◀

Front brake fluid level
Brake fluid, DOT4
The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle standing upright)

If brake fluid level falls below the approved level:

- Have defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Checking rear brake fluid level

WARNING

Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking performance caused by air in the brake system

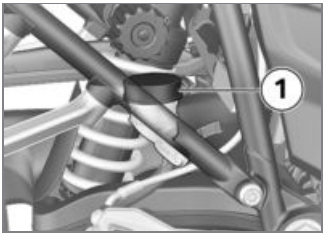
- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.◀

– with center stand OE

- Make sure ground is level and firm and place motorcycle on its center stand.◁

– without center stand OE

- Make sure ground is level and firm and hold motorcycle vertically.◁



- Read brake fluid level at rear brake-fluid reservoir **1**.

NOTICE

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.◀

Rear brake fluid level
Brake fluid, DOT4
The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle standing upright)

If brake fluid level falls below the approved level:

- Have defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Clutch

Check clutch function

- Pull back the clutch lever.

» Pressure point must be clearly perceptible.

If no clear pressure point can be felt:

- Have the clutch checked by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Coolant

Checking coolant level

- Fold out side stand and position yourself on right-hand side of motorcycle.
- Hold motorcycle straight.

– with center stand OE

- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.◁

CAUTION

Hot engine

Burn hazard

- Maintain a safe distance from the hot engine.
- Do not touch the hot engine.◀
- Read off coolant level on expansion tank **1**.

» Coolant level must be between MIN and MAX marks.

If coolant level drops below MIN mark:

- Add coolant.

Topping up coolant

- Open cap **1** of coolant expansion tank and add coolant up to specified level.

» Coolant level lies between MIN and MAX markings.

- Close cap **1**.

Tyres

Checking tire pressure

WARNING

Incorrect tire inflation pressure

Poorer handling characteristic of motorcycle, reduction of tire service life

- Ensure proper tire inflation pressure.◀

WARNING

Automatic opening of vertically installed valve inserts at high speeds

Sudden loss of tire inflation pressure

- Use valve caps with rubber sealing ring and screw on firmly.◀

- Park motorcycle, ensuring that support surface is firm and level.
- Check tire pressures against data below.

Tire pressure, front
36.3 psi (2.5 bar) (with tire cold)

Tire pressure, rear
42.1 psi (2.9 bar) (with tire cold)

If tire pressure is too low:

- Correct tire pressure.

Wheel rims and tyres

Check wheel rims

- Park motorcycle, ensuring that support surface is firm and level.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist service facil-

ity, preferably an authorized BMW Motorrad retailer.

Checking tire tread depth

WARNING

Riding with heavily worn tyres
Risk of accident due to poorer rideability
- If necessary, replace the tyres before the legally specified minimum tread depth is reached.◀
- Park motorcycle, ensuring that support surface is firm and level.
- Check tire tread depth in main tread grooves with wear indicators.

NOTICE

Tread wear marks are integrated into the main grooves on every tire. If the tire tread has worn down to the level of the marks, the tire is completely worn. The locations of the marks are indicated on the edge of the tire, e.g. by the letters TI, TWI or by an arrow.◀

When the minimum tread depth is reached:
- Replace the worn tires.

Wheels

Tire recommendation

For every size of tire, BMW Motorrad has tested and approved certain makes as roadworthy. BMW Motorrad cannot evaluate the suitability of other tires, and can therefore take no responsibility for their driving safety.
BMW Motorrad recommends only using the tires tested and approved by BMW Motorrad. Detailed information can be obtained from your authorized BMW Motorrad retailer or online at
bmw-motorrad.com

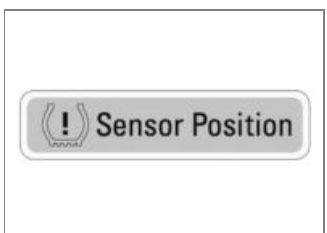
Affect of wheel sizes on suspension control systems

The wheel sizes play a major role in the ABS and ASC/DTC suspension-control systems. The diameter and width of the wheels stored in the control unit have particular significance as the basis for all necessary calculations. A change in these sizes resulting from conversion to wheels not installed as standard equipment can seriously affect the control efficiency of these systems.
The sensor rings required for wheel speed detection must also match the installed control systems and may not be replaced.
If you want to equip your motorcycle with different wheels, please contact a specialist

service facility, preferably a BMW Motorrad retailer. In some cases the data stored in the control units can be adapted for the new wheel sizes.

TPC/RDC label

– with Tire Pressure Monitor (TPM) OE



ATTENTION

Improper tire removal

Damage to the TPC/RDC sensors

- Inform a specialist service facility or an authorized BMW Motorrad retailer on the fact that the wheel is equipped with a TPC/RDC sensor.◀

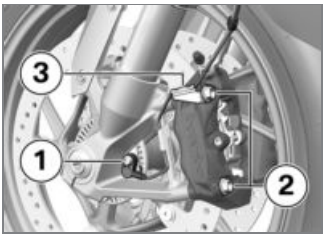
On motorcycles equipped with RDC, a corresponding label can be found on the rim at the position of the TPC/RDC sensor. When changing tires, ensure that the TPC/RDC sensor is not damaged. Inform the authorized BMW Motorrad retailer or the specialist workshop about the TPC/RDC sensor.

Removing front wheel

- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear-wheel stand.
- Mounting rear-wheel stands (➠ 116).

– with center stand OE

- Make sure ground is level and firm and place motorcycle on its center stand.◁



- Remove screw **1** and take wheel speed sensor out of bore.
- Mask off areas of wheel rim that could be scratched in the process of removing the brake calipers.

ATTENTION

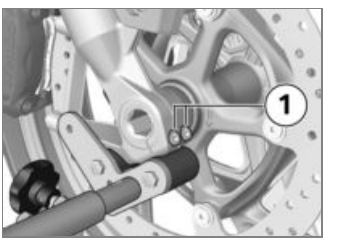
Unintentional pressing together of brake pads

Component damage when mounting the brake caliper or when pressing the brake pads apart

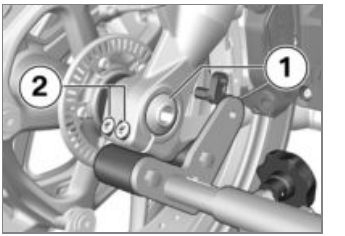
- Do not actuate the brakes with the brake caliper removed.◀
- Remove securing screws **2** of left and right brake calipers and take off retaining clip **3**.

- Push brake pads **1** slightly apart by turning the brake caliper **2** back and forth against the brake rotor **3**.
- Carefully pull brake calipers back and outward to remove them from brake rotors.

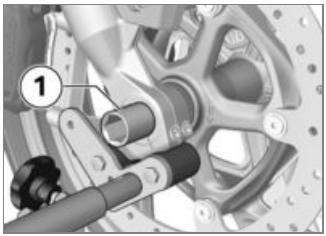
- Raise front of motorcycle, preferably using a BMW Motorrad front wheel stand, continuing until the wheel rotates freely.
- Mount front wheel stand (➠ 114).



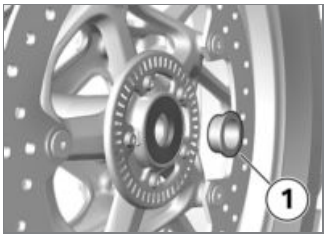
- Loosen axle clamping screws **1**.



- Remove the screw **1**.
- Loosen axle clamping screws **2**.
- Slightly press the quick-release axle inward for a better grip on the right side.



- Pull quick-release axle **1** out while supporting the front wheel.
- Place front wheel down and roll it forward out of the front suspension.



- Remove spacer bushing **1** from the wheel hub.

Installing front wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions during control interventions by ABS and ASC/DTC

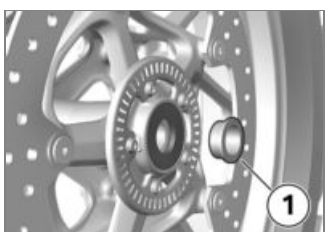
- Please see the information on the effect of wheel sizes on the ABS and ASC/DTC chassis control systems at the beginning of this chapter.◀

ATTENTION

Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀



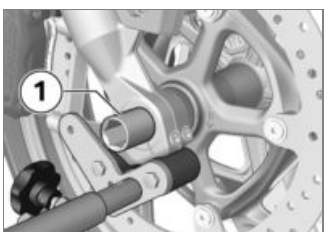
- Mount spacing bushing **1** on left side in wheel hub.

ATTENTION

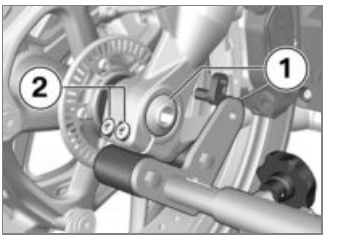
Front wheel installation opposite the running direction

Accident hazard

- Observe running direction arrows on tire or rim.◀
- Roll front wheel into front suspension.



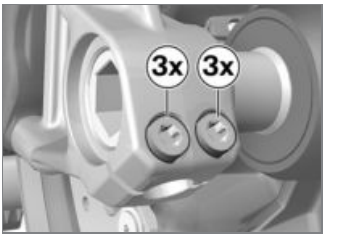
- Lift front wheel and install quick-release axle **1**.
- Remove front wheel stand and firmly compress front forks. Do not actuate handbrake lever at the same time.
- Mount front wheel stand (➠ 114).



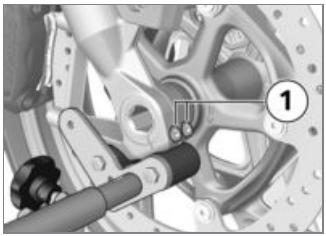
- Install screw **1** with specified torque. Brace quick-release axle on the right side at the same time.

Quick-release axle in telescopic fork
37 lb/ft (50 Nm)

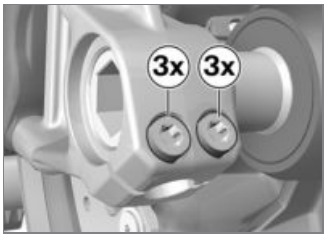
- Tighten axle clamping screws **2** to appropriate torque.



Clamping screw for quick-release axle in telescopic fork
Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time
14 lb/ft (19 Nm)

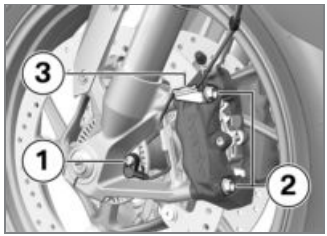


- Tighten axle clamping screws **1** to appropriate torque.



Clamping screw for quick-release axle in telescopic fork
Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time
14 lb/ft (19 Nm)

- Remove front wheel stand.
- Slide the brake calipers on the left-hand and right-had side onto the brake rotors.



- Install retaining clip **3** on left and securing screws **2** on left and right and tighten to appropriate torque.

Brake caliper on telescopic forks
28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim.

WARNING

Brake pads do not contact the brake disc

Risk of accident due to delayed braking effect.

- Before driving off, check that the braking effect kicks in without any delay.◀
- Engage the brakes repeatedly, continuing until the brake pads seat against the rotors.
- Insert cable for wheel speed sensor on retaining clip **3**.
- Insert wheel speed sensor in bore and install screw **1**.

Wheel speed sensor on fork
Joint compound: Micro-encapsulated or medium-strength screw lock
6 lb/ft (8 Nm)

Removing rear wheel

- Swivel muffler (➠ 131).

- Shift into first gear.
- Remove bolts **1** of rear wheel, holding wheel as you do so.
- Roll rear wheel out toward rear.

Installing rear wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions during control interventions by ABS and ASC/DTC

- Please see the information on the effect of wheel sizes on the ABS and ASC/DTC chassis control systems at the beginning of this chapter.◀

ATTENTION

Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀
- Place rear wheel on rear wheel support.

- Install wheel studs **1** with specified torque.

Tighten rear wheel on wheel flange
Tightening sequence: Tighten crosswise
44 lb/ft (60 Nm)

- Mounting muffler (➠ 132).

Muffler

Swivel muffler

⚠ CAUTION

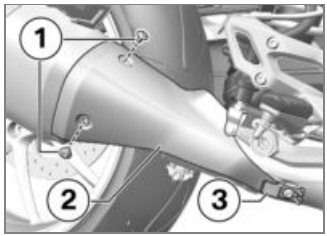
Hot exhaust system

Burn hazard

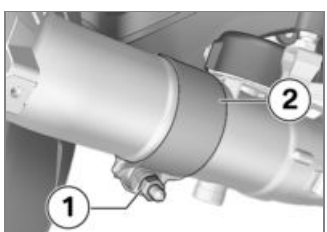
- Do not touch hot exhaust system.◀
- Let rear muffler cool down.
- Make sure ground is level and firm and place motorcycle on a suitable auxiliary stand. BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Mounting rear-wheel stands (➠ 116).

– with center stand OE

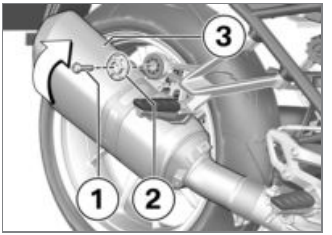
- Make sure ground is level and firm and place motorcycle on its center stand.◁



- Remove screws **1**.
- Pull cover **2** out of holder **3** and remove.



- Unscrew nut **1** to loosen clamp **2** somewhat.



- Remove screw **1** and washer **2**.
- Turn muffler **3** counterclockwise.

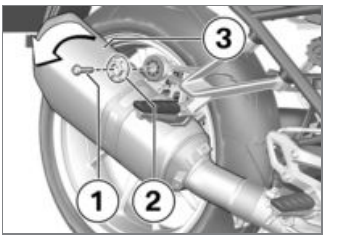
Mounting muffler

ATTENTION

Tightening of screwed connections with incorrect tightening torque

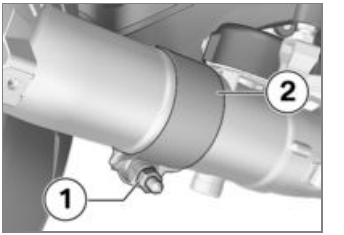
Damage or loosening of screwed connections

- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀



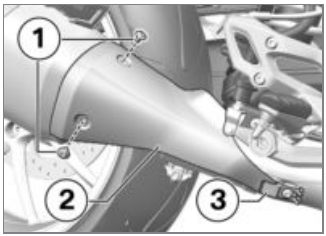
- Turn muffler **3** clockwise until it rests on passenger footpeg bracket.
- Install screw **1** and washer **2**.

Muffler on rear frame
14 lb/ft (19 Nm)



- Tighten nut **1** of clamp **2**.

Clamp on muffler and exhaust manifold
16 lb/ft (22 Nm)



- Fasten cover **2** in holder **3** and position.
- Install screws **1**.

Light sources

Replacing low and high-beam light sources in headlight

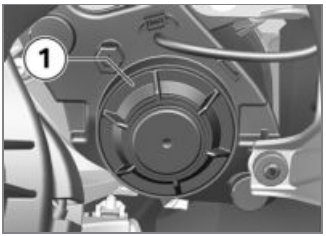
NOTICE

Light sources featuring specification ratings for higher levels of illumination are commercially available as special accessories. These light sources have a shorter service life than conventional light sources and also generate more heat. Under some circumstances the high levels of heat radiation can damage the headlight assembly.◀

NOTICE

The operations for replacing the low-beam headlight described here apply similarly to the high-beam headlight.◀

- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.

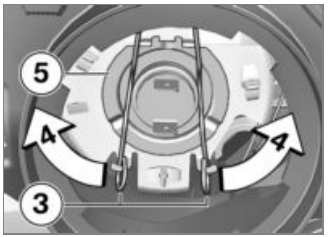


- To replace light source, turn corresponding cover **1** counterclockwise and remove.

NOTICE

The operations for replacing the high-beam light source described here apply similarly to the low-beam headlight.
The high headlight beam is located in the left-hand and the low headlight beam in the right-hand headlight.◀

- Disconnect plug **2**.



- Release wire spring **3** on left and right from catch **4** and fold up.
- Remove light source **5**.

- Replace defective light source.

Bulbs for low-beam headlight
H7 / 12 V / 55 W

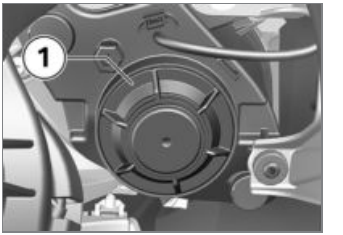
Bulb for high-beam headlight
H7 / 12 V / 55 W

- To protect the glass against soiling, only grasp the light source by the base.

- Install light source **1**. Start by inserting the lug **2** then press the light source into the socket.

- Engage both sides of wire spring **3** in the retaining lugs.

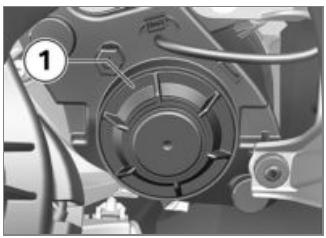
- Connect plug **4**.



- Install cover **1** in position and fasten by turning it clockwise.

Replacing light source for parking light

- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.



- To replace light source, turn corresponding cover **1** counter-clockwise and remove.

NOTICE

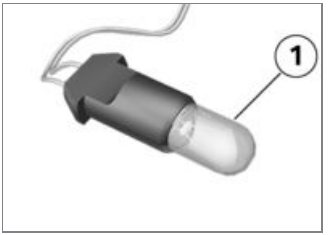
The operations for replacing the left-hand parking-light light source described here apply similarly to the right-hand light source.◀

- Push locking mechanism **2** downward (using a screwdriver if necessary) and pull socket **2** from the headlight housing.

- Remove light source **3** from socket.
- Replace defective light source.

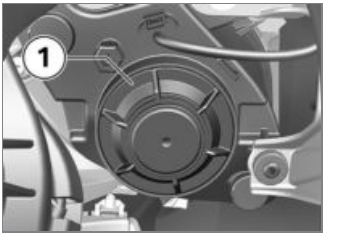
Bulb for parking light
W5W / 12 V / 5 W

- To prevent dirt from being deposited on the glass surface, always use a clean, dry cloth to hold the light source.



• Insert bulb **1** in bulb socket.

• Insert socket **3** in headlight housing so that retainer **2** engages.



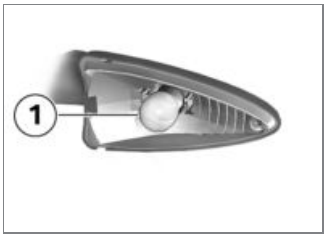
• Install cover **1** in position and fasten by turning it clockwise.

Replacing front and rear turn indicator light sources

• Park motorcycle, ensuring that support surface is firm and level.
• Switch off ignition.

• Remove the screw **1**.

• Remove the lens from the housing by pulling it outward on the side with the screw.

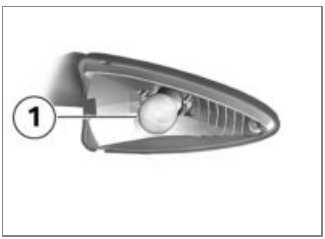


- To prevent contaminants from being deposited on the glass surface, always use a clean, dry cloth to hold the light source.
- Remove bulb **1** from light housing by turning it counterclockwise.

- Replace defective light source.

Bulbs for flashing turn indicators, front
RY10W / 12 V / 10 W

Bulbs for flashing turn indicators, rear
RY10W / 12 V / 10 W



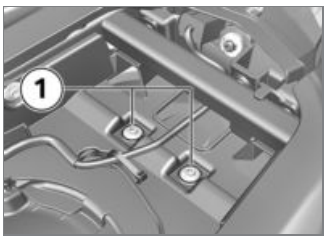
- Install light source **1** by turning clockwise in light housing.

- Insert inside end of lens into light housing and close it.

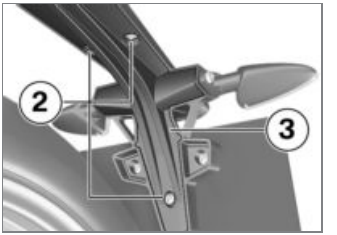
- Install screw **1**.

Replacing bulb for license-plate light

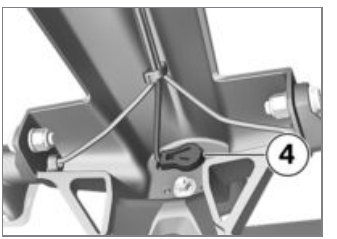
- Remove rider's seat (➠ 75).
- Make sure ground is level and firm and place motorcycle on its center stand.



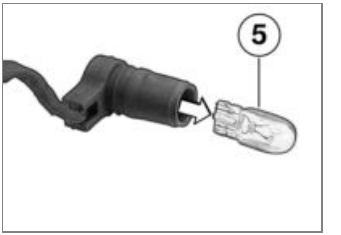
- Remove screws **1**.



- Remove screws **2** and take off cover for license-plate carrier **3**.



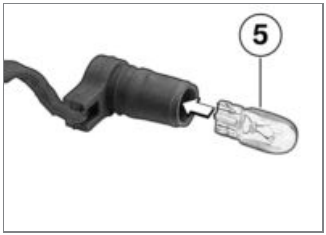
- Pull license-plate light **4** out of light housing.



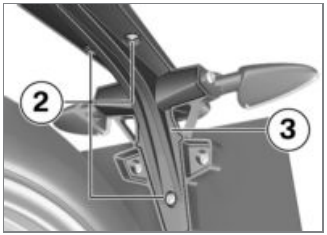
- Remove light source **5** from the socket.
- Replace defective light source.

Light source for license plate light
W5W / 12 V / 5 W

- To prevent contaminants from being deposited on the glass surface, always use a clean, dry cloth to hold the light source.



- Press the light source **5** into its socket.



- Position cover for license-plate carrier **3** and install screws **2**.

- Press license-plate light **4** into light housing.

- Install screws **1**.
- Installing driver's seat (➠ 75).

Replacing LED tail light

The LED tail light can only be completely replaced.

- For details please contact a specialist service facility, preferably an authorized BMW Motorrad Dealer.

Replace additional LED headlight

– with LED auxiliary headlight OA

Additional LED headlights can only be replaced as a complete unit.

- For details please contact a specialist service facility, preferably an authorized BMW Motorrad Retailer.

Jump-starting

ATTENTION

Current too high when jump-starting the motorcycle

Cable fire or damage to the motorcycle electronics

- Do not jump-start the motorcycle using the power socket, only via the battery terminal.◀

ATTENTION

Contact between crocodile clips of jump leads and motorcycle

Danger of short circuit

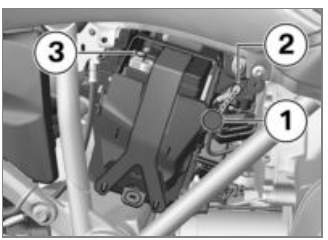
- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

ATTENTION

Jump-starting with a voltage higher than 12 V

Damage to the motorcycle's electronics

- The battery of the donor motorcycle must have a voltage of 12 V.◀
- Park motorcycle, ensuring that support surface is firm and level.
- Remove battery cover (➠ 142).
- Do not disconnect the battery from the onboard electrical system when jump-starting the engine.



- Remove the protective cap **1**.
- Begin by connecting one end of the red jumper cable to the auxiliary terminal for jump starting **2** on the discharged battery and the other end to the positive terminal of the donor battery.
- Connect black jumper cable to negative terminal on donor battery and then to negative terminal **3** of discharged battery.
- Run engine of donor motorcycle during jump-starting procedure.
- Start engine of motorcycle with discharged battery in usual way; if engine does not start, wait a few minutes before repeating attempt in order to protect starter motor and donor battery.
- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- Disconnect jumper cable from negative terminals first, then disconnect second cable from positive terminals.

NOTICE

To start the engine, do not use start sprays or similar items.◀

- Install the protective cap.
- Installing battery cover (➠ 144).

Battery

Maintenance instructions

Correct battery maintenance combined with proper charging and storage procedures extends the battery's service life, and is also required for warranty claims. Compliance with the points below is important in order to maximize 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

Discharging of the connected battery by the vehicle electronics (e.g. clock)

Total discharge of battery leading to a rejection of warranty claims

- During riding breaks of more than 4 weeks, connect a trickle-charger to the battery.◀

NOTICE

BMW Motorrad has developed a trickle-charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods when the motorcycle is not being used without having to disconnect the battery from the motorcycle's onboard systems. Additional information is available at your authorized BMW Motorrad retailer.◀

Charge connected battery

ATTENTION

Charging the battery connected to the vehicle using the battery terminals

Damage to the motorcycle's electronics

- Disconnect the battery before charging on the battery terminals.◀

ATTENTION

Charging a fully discharged battery via the power socket or additional onboard socket

Damage to the motorcycle's electronics

- Always charge a fully discharged battery (battery voltage below 9 V; with the ignition switched on, the indicator lights and the multifunction display remain

off) directly at the poles of the **disconnected** battery.◀

ATTENTION

Unsuitable chargers connected to the power socket
Damage to charger and vehicle electronics
- Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer.◀
- Charge disconnected battery via onboard socket.

NOTICE

The motorcycle's onboard electronics know when the battery is fully charged. The onboard socket is switched off when this happens.◀

- Comply with operating instructions of charger.

NOTICE

If you are unable to charge the battery via the onboard socket, you may be using a charger that is not compatible with your motorcycle's electronics. In this case, charge the battery directly from the terminals of the battery disconnected from the vehicle.◀

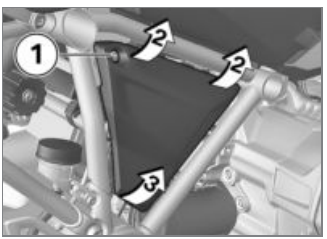
Charging disconnected battery

- Charge battery using a suitable charger.
- Comply with operating instructions of charger.
- Once battery is fully charged, disconnect charger's terminal clips from battery terminals.

NOTICE

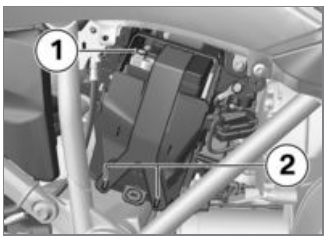
In the case of longer periods when the motorcycle is not being used, the battery must be recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.◀

Removing battery

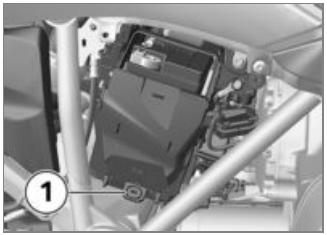


- Switch off ignition.
- Remove screw **1**.
- Pull battery cover at top slightly forward at the positions **2**.
- In order not to damage the battery cover and the mount, remove the battery cover upward at position **3**.

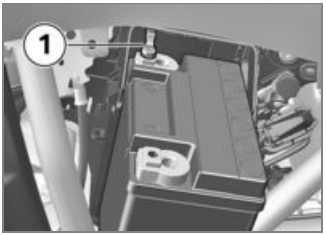
– with anti-theft alarm system (DWA)[OE]
- Switch off anti-theft alarm system if necessary.◁



- Remove negative battery cable **1** and rubber strap **2**.



- Pull mounting plate on position **1** outward and remove it upward.
- Lift battery slightly out of holder sufficiently for positive terminal to be accessible.

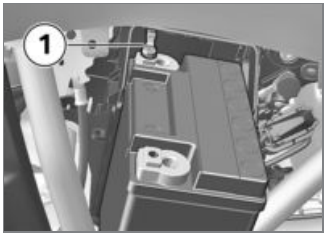


- Remove positive battery cable **1** and pull out battery.

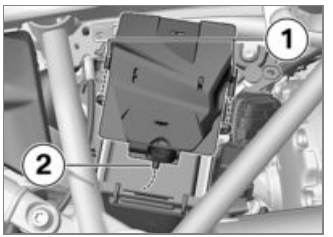
Install battery

NOTICE

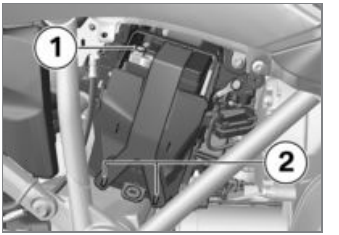
If the 12 V battery is installed incorrectly, or if the terminals are swapped (e.g. when jump-starting), the fuse for the alternator regulator may be destroyed.◀



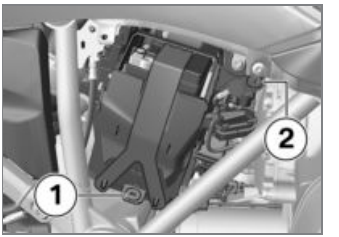
- Fasten positive battery cable **1**.
- Slide battery into holder.



- First, insert mounting plate into supports **1**. Next, press it under the battery at position **2**.



- Fasten negative battery cable **1**.
- Fasten battery with rubber strap **2**.



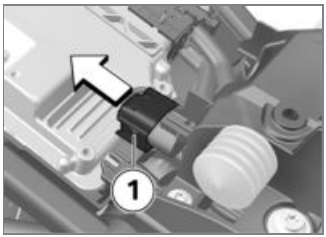
- Insert the battery cover into mount **1** and press it into mount **2**.

- Fit the screw **1**.

- Setting clock (➠ 59).
- Set date (➠ 60).

Fuses

Replace fuses



- Switch off ignition.
- Remove rider's seat (➠ 75).
- Disconnect plug **1**.

ATTENTION

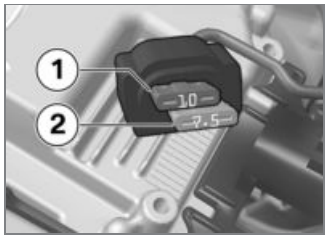
Bypassing defective fuses
Risk of short circuit and fire
- Do not bypass defective fuses.
- Replace defective fuses with new fuses.◀
- Consult the fuse assignment diagram and replace the defective fuse.

NOTICE

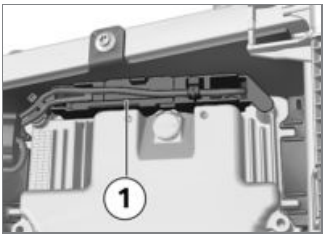
If the fuses blow frequently, have the electrical system checked by an authorized specialized workshop, preferably an authorized BMW Motorrad retailer.◀

- Install connector **1**.
- Installing driver's seat (➠ 75).

Fuse assignments



Fuse carrier 1
10 A (Slot 1: instrument cluster, anti-theft alarm system (DWA), ignition lock, main relay and diagnostic socket)
7.5 A (Slot 2: left multifunction switch, Tire Pressure Control (TCP/RDC), yaw rate sensor)



	Fuse carrier
50 A (Fuse 1: Voltage regulator)	

Diagnostic connector

Removing the diagnostic connector

CAUTION

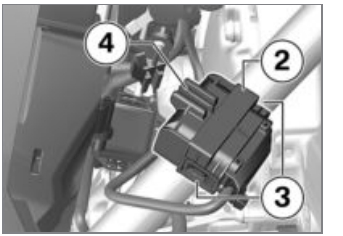
Incorrect procedure followed when disconnecting the data link connector for the On-Board Diagnostics.

Motorcycle experiences malfunctions

- Only have the data link connector disconnected by a specialist workshop or other authorized persons during your next BMW Service appointment.
- Have the work performed by appropriately trained staff.
- Refer to the vehicle manufacturer specifications.◀

- Remove battery cover (➠ 142).

- Push on hook **1** and pull data link connector **2** up and out.

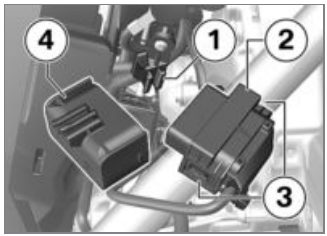


- Press locks **3** on both sides.
- Remove data link connector **2** from bracket **4**.

» The diagnosis and information system interface can be connected at the diagnostic connector **2**.

Secure the data link connector

- Disconnect the diagnosis and information system interface.



- Insert data link connector **2** into bracket **4**.

» Locks **3** engage on both sides.

- Mount bracket **4** onto fixture **1**.

- Make sure that hook **5** engages.

- Installing battery cover (➠ 144).

Accessories

General instructions

⚠ CAUTION

Use of products from other manufacturers

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 motorcycles without constituting a safety hazard. Nor is this guarantee provided when the official approval of a specific country has been granted. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your motorcycle.◀

The safety, operation and suitability of the parts and accessory products have been checked extensively by BMW. Therefore, BMW assumes responsibility for these products. BMW shall not be liable for unapproved parts and accessory products of any kind.

Whenever you are planning modifications, comply with all the legal requirements. The vehicle must not violate the regulations governing vehicle approval for highway use applicable in your own country.

Your authorized BMW Motorrad retailer offers you qualified advice in choosing genuine BMW parts, accessories and other products. More information on the topic of accessories is available at:

bmw-motorrad.com/accessories

Onboard power sockets

Connection of electrical devices

– The ignition must be switched on before electrical devices connected to the power sockets can be operated.

Cable routing

– The cables from the onboard sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
– Cable routing must not restrict the steering angle and the handling characteristics.
– Cables must not be trapped.

Automatic deactivation

– The onboard sockets are automatically switched off during starting.
– These sockets are switched off approx. 15 minutes after

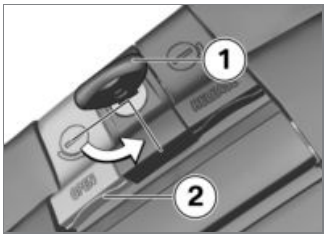
switching off the ignition to reduce the strain on the onboard electrical system. Additional devices with low power consumption are possibly not detected by the vehicle electronics. In these cases, onboard sockets are already switched off shortly after the ignition is switched off.

– In case of insufficient battery voltage, the onboard sockets are switched off to maintain the ability to start the motorcycle.
– If the maximum loadability specified in the technical data is exceeded, the onboard sockets are switched off.

Case

Open case

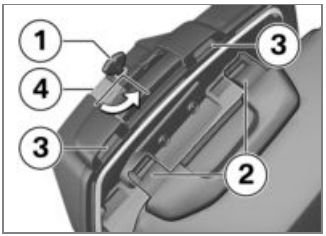
– with touring case OA



- Turn key **1** to position OPEN.
- Pull gray release lever **2** (OPEN) upward and simultaneously open case lid.

Close case

– with touring case OA



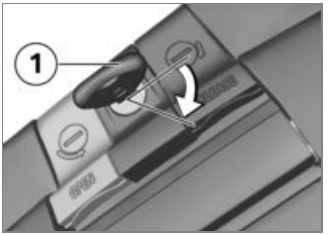
- Turn key **1** to position OPEN.
- Press catches **2** of case lid into retainers **3**. Ensure that no objects are trapped between cover and case.
- Pull gray release lever **4** (OPEN) upward and simultaneously close case lid.

» The lid clicks audibly into place.

- Turn key **1** in case lock in the direction of travel and remove.

Remove case

– with touring case OA

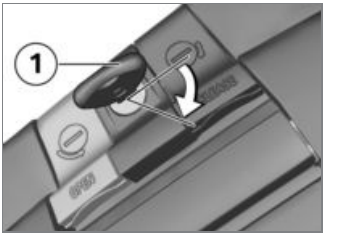


- Turn key **1** to position RE-LEASE.

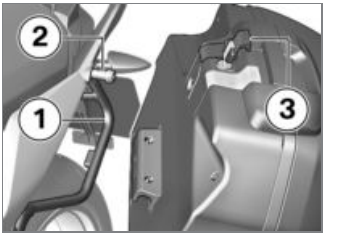
- Pull black release lever **1** (RE-LEASE) upward while simultaneously pulling the case outward.
- Then lift case out of lower mounting.

Mounting case

– with touring case[OA]



- Turn key **1** to position RE-LEASE.



- Insert case in case carrier **1**, then swing as far as possible onto mount **2**.
- Pull black release lever **3** (RE-LEASE) upward while simultaneously pushing the case into upper mount **2**.
- Press black release lever **3** (RELEASE) down until it engages.
- Turn key in case lock in the direction of travel and remove.

Maximum payload and maximum speed

Observe maximum payload and maximum speed as indicated on label in case.

If you cannot find your combination of motorcycle and case on the label, contact your BMW Motorrad Retailer.

The following values apply to the combination described here:

Maximum speed for riding with case
max 112 mph (max 180 km/h)

Payload per case
max 22 lbs (max 10 kg)

Secure hold

– with touring case OA

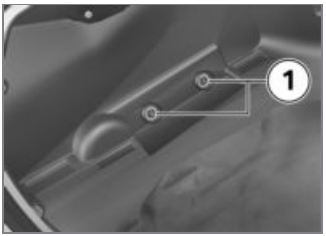
If a case wobbles or is difficult to fit, it must be adapted to the gap between the upper and lower mount.

WARNING

Improperly installed case.

Impairment of riding safety.

- Cases may not shake and must be fastened play-free. If some play is determined after longer use, readjust the retaining claw.◀



Use the screws **1** inside the case for this purpose.

Topcase

Open topcase

– with topcase OA

- Turn the key in the topcase lock to position **1**.

- Press the lock barrel **1** forward.

» The release lever **2** pops up.

- Pull release lever all the way up.

» The topcase lid can be opened.

Close topcase

– with topcase[OA]

- Pull release lever **1** all the way up.
- Close topcase lid and hold it down. Ensure that no items are trapped between cover and case.

NOTICE

The topcase can also be locked if the lock is in the LOCK position. Under such circumstances, ensure that the ignition key is not in the topcase.◀

- Press release lever **1** down until it engages.
- Turn key in topcase lock into LOCK position and remove.

Remove topcase

– with topcase[OA]

- Turn key in Topcase lock into Position **1**.

» Handle pops out.

- Fold handle **1** all the way up.
- Raise the rear of the topcase and pull it off luggage rack.

Mounting topcase

– with topcase OA

WARNING

Topcase not properly secured

Driving safety is impaired

- Topcase must not shake and must be fastened clearance-free.◀
- Fold up handle as far as possible.

- Hook topcase into luggage rack. Make sure that hooks **1** engage securely in their mounts **2**.

- Press handle **1** down until it engages.

- Turn key in Topcase lock into Position **1** and remove.

Maximum payload and maximum speed

Observe maximum payload and top speed as indicated on label in Topcase.

If you cannot find your combination of motorcycle and topcase on the label, contact your BMW Motorrad Retailer.

The following values apply to the combination described here:

Maximum speed when riding with loaded Vario topcase
max 112 mph (max 180 km/h)

Payload of Vario topcase
max 11 lbs (max 5 kg)

Navigation system

Fasten navigation system securely

– with preparation for navigation system[OE]

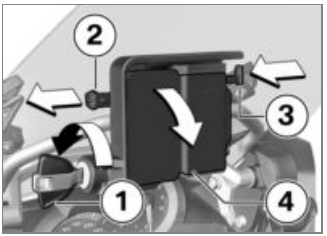
– with navigation system[OA]

NOTICE

The navigation preparation is suitable for the BMW Motorrad Navigator IV and the BMW Motorrad Navigator V.◀

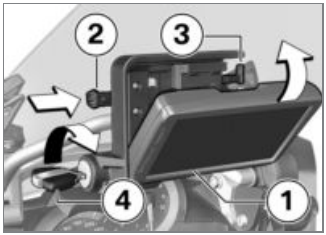
NOTICE

The locking system of the Mount Cradle offers no protection against theft. Remove the navigation system and store in a safe place after every drive.◀



- Turn the ignition key **1** counterclockwise.
- Pull the shut-off lock **2** to the **left**.
- Press in the locking mechanism **3**.

» The Mount Cradle is unlocked and the cover **4** can be removed with a rotational movement toward the front.



- Mount the navigation system **1** in the lower area and swing backward with a rotational movement.

» Navigation system audibly engages.

- Slide the shut-off lock **2** completely to the **right**.

» The locking mechanism **3** is locked.

- Turn the ignition key **4** clockwise.

» Navigation system is locked and ignition key can be removed.

Remove navigation system and install cover

– with preparation for navigation system OE

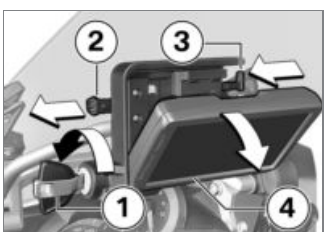
– with navigation system OA

ATTENTION

Dust and dirt on the contacts of the Mount Cradle

Damage to the contacts

- Reinstall the cover after end of each drive.◀



- Turn the ignition key **1** counterclockwise.

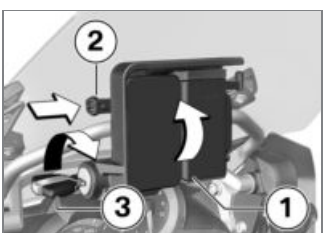
- Pull the shut-off lock **2** completely to the **left**.

» The locking mechanism **3** is unlocked.

- Slide the locking mechanism **3** completely to the **left**.

» The navigation system **4** will be unlocked.

- Remove the navigation system **4** downward with a tilting movement.



- Mount the cover **1** in the lower area and swing upward with a rotational movement.

» Cover audibly engages.

- Slide the shut-off lock **2** to the **right**.
- Turn the ignition key **3** clockwise.

» The cover **1** is secured.

Operating the navigation system.

– with preparation for navigation system OE

– with navigation system OA

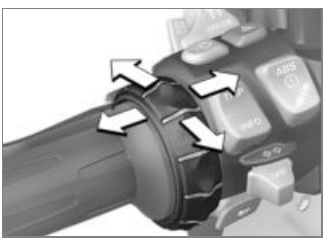
NOTICE

The following description refers to the Navigator V. The Navigator IV does not offer all options described.◀

NOTICE

Only the latest version of the BMW Motorrad communication system is supported. A software update may be required for the BMW Motorrad communication system. In this case, please contact your authorized BMW Motorrad retailer.◀

If BMW Motorrad Navigator is installed, some of its functions can be directly operated from the handlebars using the Multi-Controller.



The Multi-Controller is operated using six motions:
– Turning up and down.
– Short actuation to the left and right.
– Long actuation to the left and right.

Turning the Multi-Controller increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth on the Compass and Mediaplayer page.
Menu items on the BMW special menu are selected by turning the Multi-Controller.

Short actuation of the Multi-Controller to the left respectively to the right switches between the main pages of the Navigator:
– Map view
– Compass
– Mediaplayer
– BMW special menu
– My motorcycle page

Long actuation of the Multi-Controller corresponds to the activation of certain functions on the Navigator display. These functions are marked with a right ar-

row or a left arrow above the corresponding touch field.


The function is triggered by long actuation to the right.


The function is triggered by long actuation to the left.

In detail, the following functions can be operated:

Map view

– Turning upward: Increase size of map section (Zoom in).
– Turn downward: Zoom out map section (Zoom out).

Compass page

– Turning increases or reduces volume of a BMW Motorrad communication system connected via Bluetooth.

BMW special menu

– Speak: Repeat last navigation announcement.
– Way point: Save current way point as favorite.
– Navigate home: Starts navigation to the home address (is grayed-out if no home address is set).
– Mute: Switch automatic navigation announcements (off: the top line in the display shows a crossed-out lip icon). Navigation announcements can still be output via "Speak". All other sound outputs remain switched on.
– Switching off display: Switch off display.
– Call home: Calls the phone number stored in the navigator (only displayed when a phone is connected).
– Detour: Activates the detour function (only displayed if a route is active).
– Skip: Skips the next way point (only displayed if route is provided with way points).

My Motorcycle

– Turn: Changes the number of data displayed.
– Touching a data field on the display opens a menu for selecting the data.
– The values available for selection are dependent on the optional extras installed.

NOTICE

The Mediaplayer function is only available when using a Bluetooth device in accordance with the A2DP standard, e.g. a BMW Motorrad communication system.◀

Mediaplayer

– Long actuation to left: Play previous title.

– Long actuation to right: Play next title.
– Turning increases or reduces volume of a BMW Motorrad communication system connected via Bluetooth.

Warning and status messages

– with navigation system OA

Warning and status displays of the motorcycle are indicated with a corresponding icon **1** at the upper left on the map view.

NOTICE

If a BMW Motorrad communication system is connected, an acoustic signal is also sounds in case of a warning.◀

If several warning messages are active, the number of messages is indicated below the warning triangle.
A list of all warning messages is opened by pressing on the warning triangle with more than one message.
Additional information is display when a message is selected.

NOTICE

Detailed information cannot be displayed for all warnings.◀

Special functions

– with navigation system OA

Due to integration of the BMW Motorrad Navigator, there are a number of differences from the descriptions in the instruction manual for the Navigator.

Reserve fuel level warning

The settings for the fuel gauge are not available, as the reserve fuel level warning is being transferred from the vehicle to the Navigator. If the message is active, the nearest filling stations are displayed when the message is pressed.

Time and Date

The Navigator sends the time and date to the motorcycle. Transfer of this data into the instrument cluster must be activated in the SETUP menu of the instrument cluster.

Security settings

The BMW Motorrad Navigator V can be secured against unauthorized use with a four-digit PIN (Garmin Lock). When this function is activated, once the Navigator GPS receiver is cradled on the motorcycle and the ignition is switched on you will receive a prompt asking whether the motorcycle should be added to the list of secure vehicles. If this question is confirmed with "Yes", the Navigator saves the vehicle identification number.
A maximum of five VINs can be saved in this way.
When the Navigator is subsequently switched on by switching on the ignition on one of those motorcycles, entry of the PIN is no longer necessary.
If the Navigator is removed from the motorcycle while switched on, a security prompt asking for the PIN to be entered is issued.

Screen brightness

Screen brightness is adjusted by the motorcycle while the unit is cradled. No manual input is necessary.
The automatic setting can be switched off in the display settings in the Navigator if desired.

Care

Care products

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW CareProducts have been materials tested, laboratory tested, and field tested and provide optimum care and protection for the materials used in your vehicle.

ATTENTION

Use of unsuitable cleaning and care agents

Damage to motorcycle parts

- Do not use any solvents such as nitro thinners, cold cleaners, fuel or similar, and do not use cleaning agents that contain alcohol.◀

Washing your motorcycle

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the motorcycle.

To prevent stains, do not wash the motorcycle immediately after it has been exposed to bright sunlight and do not wash it in the sun.

Make sure that the motorcycle is washed frequently, especially during the winter months.

To remove road salt, clean the motorcycle with cold water immediately after completion of every trip.

WARNING

Damp brake disks and brake pads after washing the motorcycle, after riding through water or in the rain

Poorer braking action, accident hazard

- Brake early until the brake rotors and brake pads are dry.◀

ATTENTION

Increased effect of salt caused by warm water

Corrosion

- Only use cold water to remove road salt.◀

ATTENTION

Damage caused by high water pressure from high-pressure cleaners or steam-jet devices

Corrosion or short circuit, damage to labels, to seals, to hydraulic brake system, to the electrical system and the seat

- Exercise caution when using high-pressure or steam-jet devices.◀

Cleaning sensitive motorcycle parts

Plastics

ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

- Do not use abrasive cleaners or cleaners containing alcohol or solvents.
- Do not use insect sponges or sponges with a hard surface.◀

Fairings and panels

Clean fairings and panels with water and BMW plastic cleaner.

Windshields and lenses made of plastic and metal cover on center fairing panel

Clean off dirt and insects with a soft sponge and plenty of water.

NOTICE

Soften stubborn dirt and dead insects by covering the affected areas with a wet cloth.◀

Clean with water and sponge only.

Do not use chemical cleansers.

Chrome

Especially in the case of road salt, carefully clean chrome parts with plenty of water and BMW auto shampoo. Use chrome polish for additional treatment.

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

- When cleaning, ensure that the cooler fins are not bent.◀

Rubber parts

Treat rubber components with water or BMW rubber protection coating agent.

ATTENTION

Use of silicone sprays for care of rubber seals

Damage to rubber seals

- Do not use silicone sprays or care products that contain silicone.◀

Paint care

Washing the vehicle on a regular basis will help prevent long-term damage from harmful substances, and is especially important when your vehicle is used in areas with high levels of air pollution or where natural contaminants such as tree resin and pollen are present.
At the same time, you should remove particularly aggressive materials immediately; otherwise changes in the paint and discoloration can occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings.
It is advisable to use BMW Car Polish or BMW Paint Cleaner in this case.
Contamination on the paint finish is particularly easy to see after the motorcycle has been washed. Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends using BMW tar remover for removing tar spots. Then add a protective wax coating to the paint at these locations.

Protective wax coating

Paint must be protected, if water no longer pearls up on it.
To preserve the finish of your vehicle, BMW Motorrad recommends BMW Car Wax or agents that contain carnauba wax or synthetic waxes.

Store motorcycle

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.
- Removing battery (➠ 142).
- Spray the brake and clutch lever, and the center and side stand pivots with a suitable lubricant.
- Protect metal and chrome-plated parts with an acid-free grease (Vaseline).
- Store the motorcycle in a dry room, raising it to remove the weight from both front wheels (preferably using the front and rear-wheel stands offered by BMW Motorrad).

Return motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Install battery (➠ 143).
- Observe checklist (➠ 86).

Technical data

Troubleshooting chart

Engine does not start.

Possible cause	Remedy
Side stand extended and gear engaged	Retract side stand.
Gear engaged and clutch not disengaged	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (➠ 94).
Battery drained	Charge connected battery (➠ 141).
Overheating protection for starter motor has activated. Starter motor can only be actuated for a limited period.	Leave the starter motor to cool down for around 1 minute until it becomes available again.

Screw connections

Front wheel	Value	Valid
Brake caliper on telescopic forks		
M10 x 65	28 lb/ft (38 Nm)	
Quick-release axle in telescopic fork		
M20 x 1.5	37 lb/ft (50 Nm)	
Clamping screw for quick-release axle in telescopic fork		
M8 x 50	**Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time**	
	14 lb/ft (19 Nm)	

Rear wheel	Value	Valid
Tighten rear wheel on wheel flange		
M10 x 1.25 x 40	**Tightening sequence: Tighten crosswise**	
	44 lb/ft (60 Nm)	

Handlebars	Value	Valid
Handlebar bridge on fork bridge		
M8 x 35	14 lb/ft (19 Nm)	
M8 x 30	14 lb/ft (19 Nm)	– with preparation for navigation system OE or – with preparation for navigation system OA

Fuel

Recommended fuel quality	Super unleaded (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption. If the engine should for example be operated with 91 RON in countries with lower fuel quality, the motorcycle must be respectively programmed first by your authorized BMW Motorrad retailer.) 87 AKI (91 ROZ/RON) 87 AKI
Fuel level	Approx. 4.8 gal (Approx. 18 l)
Fuel reserve	Approx. 1.1 gal (Approx. 4 l)

Engine oil

Engine oil, capacity	max 1.1 gal (max 4 l), with filter replacement
Specification	SAE 5W-40, API SL/JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Engine oil, quantity for topping up	max 1 quarts (max 0.95 l), Difference between MIN and MAX

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine

Engine number location	Lower right of engine block beneath the starter
Engine type	122EN
Engine design	Air/liquid-cooled two-cylinder, four-stroke opposed-twin engine with two spur gear-driven overhead camshafts and one counterbalance shaft
Displacement	1170 cc (1170 cm^3)
Cylinder bore	4 in (101 mm)
Piston stroke	2.9 in (73 mm)

Compression ratio	12.5:1
Rated output	125 hp (92 kW), at engine speed: 7750 min^{-1}
– with reduction of power[OE]	107 hp (79 kW), at engine speed: 7750 min^{-1}
Torque	92 lb/ft (125 Nm), at engine speed: 6500 min^{-1}
– with reduction of power[OE]	90 lb/ft (122 Nm), at engine speed: 5250 min^{-1}
Maximum engine speed	max 9000 min^{-1}
Idle speed	1150 min^{-1}, Engine at operating temperature
Emission standard	Euro 4

Clutch

Clutch design	Multi-disk oil-bath clutch, slipper clutch

Transmission

Transmission design	6-speed transmission with helical cut dog ring gears
Transmission gear ratios	1.000 (60:60 teeth), Primary gear ratio 1.650 (33:20 teeth), Transmission input ratio 2.438 (39:16 teeth), 1st gear 1.714 (36:21 teeth), 2nd gear 1.296 (35:27 teeth), 3rd gear 1.059 (36:34 teeth), 4th gear 0.943 (33:35 teeth), 5th gear 0.848 (28:33 teeth), 6th gear 1.061 (35:33 teeth), Transmission output ratio

Rear-wheel drive

Type of final drive	Shaft drive with bevel gears
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad paralever
Gear ratio of final drive	2.818 (31/11 teeth)

Frame

Frame design	Steel-tube frame with partially self-supporting drive unit, steel-tube rear frame
Location of type plate	Frame at front left on steering head
Location of the vehicle identification number	Frame at front right on steering head

Chassis and suspension

Front wheel	
Type of front suspension	Upside-down telescopic forks
Spring travel, front	5.5 in (140 mm), on front wheel
Rear wheel	
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad paralever
Type of rear suspension	Central spring strut with coil spring, adjustable rebound-stage damping and spring preload
– with Dynamic ESA OE	Central spring strut with coil spring, electrically adjustable damping and spring preload
Spring travel at rear wheel	5.5 in (140 mm)

Brakes

Front wheel	
Type of front brake	Hydraulically operated twin disk brake with 4-piston radial calipers and floating brake disks
Front brake pad material	Sintered metal
Rear wheel	
Type of rear brake	Hydraulically operated disk brake with 2-piston floating caliper and fixed brake disk
Rear brake pad material	Sintered metal

Wheels and tires

Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at bmw-motorrad.com.
Speed category of front/rear tires	W, minimum requirement: 168 mph (270 km/h)

Front wheel	
Front wheel design	Aluminum cast wheel
Front-wheel rim size	3.5" x 17"
Front tire designation	120/70 - ZR 17
Load index for front tire	At least 58
Permissible front wheel load	max 397 lbs (max 180 kg)
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)
Rear wheel	
Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	5.5" x 17"
Rear tire designation	180/55 - ZR 17
Load index for rear tire	At least 73
Permissible rear wheel load	max 661 lbs (max 300 kg)
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)
Tire inflation pressures	
Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	42.1 psi (2.9 bar), with tire cold

Electrical system

Electrical rating of onboard sockets	max 5 A, all onboard sockets together
Fuse carrier 1	10 A, Slot 1: instrument cluster, anti-theft alarm system (DWA), ignition lock, main relay and diagnostic socket 7.5 A, Slot 2: left multifunction switch, Tire Pressure Control (TCP/RDC), yaw rate sensor
Fuse carrier	50 A, Fuse 1: Voltage regulator
Battery	
Battery design	AGM (Absorptive Glass Mat) battery
Battery voltage	12 V
Battery capacity	12 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR8D-J
Electrode gap of spark plug	$0.03^{\pm 0.01}$ in ($0.8^{\pm 0.1}$ mm), New 0.04 in (1.0 mm), Wear limit

Light sources	
Bulb for high-beam headlight	H7 / 12 V / 55 W
Bulbs for low-beam headlight	H7 / 12 V / 55 W
Bulb for parking light	W5W / 12 V / 5 W
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W

Alarm system

Activation time	Approx. 30 s
Alarm duration	Approx. 26 s
Battery type	CR 123 A

Dimensions

Motorcycle length	86.7 in (2202 mm), over license-plate carrier
Motorcycle height	49.6 in (1260 mm), measured over windshield, at DIN unladen weight, with windshield completely at bottom
Motorcycle width	36.4 in (925 mm), with mirrors 39.3 in (998 mm), with case
Rider's seat height	32.3 in (820 mm), without driver at DIN unladen weight
– with low rider's seat OE	29.9 in (760 mm), without driver at DIN unladen weight
– with Sport OE seat	33.1 in (840 mm), without driver at DIN unladen weight
Rider's inside-leg arc, heel to heel	72.2 in (1835 mm), without rider at unladen weight
– with low rider's seat OE	67.7 in (1720 mm), without rider at unladen weight
– with Sport OE seat	73.8 in (1875 mm), without rider at unladen weight

Weights

Vehicle curb weight	520 lbs (236 kg), DIN unladen weight, ready for road, fuel tank 90 % full, without OE
Permissible gross weight	992 lbs (450 kg)
Maximum payload	472 lbs (214 kg)

Performance data

Top speed	>124 mph (>200 km/h)

Service

Reporting safety defects

If you think that your motorcycle has a fault which may cause an accident, injury or death, you must inform the NHTSA (National Highway Traffic Safety Administration) immediately and BMW of North America, LLC.

If the NHTSA receives other similar complaints, it may open an investigation. If it finds that a safety defect exists in a group of vehicles, the NHTSA may order the manufacturer to perform a recall and remedy campaign. However, the NHTSA cannot become involved in individual problems between you, your authorized BMW Motorrad retailer, or BMW of North America, LLC.

You can contact the NHTSA by calling the Vehicle Safety Hotline on 1–888–327–4236 (Teletypewriter TTY for the hearing impaired: 1–800–424–9153) for free, by visiting the website at http:// www.safercar.gov or by writing to Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. Further information on vehicle safety is available at http:// www.safercar.gov.

BMW Motorrad Service

With its worldwide retailer network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. Authorized BMW Motorrad retailers have the technical information and expertise needed to conduct reliable service and repairs covering every aspect of your BMW.
You will find the nearest authorized BMW Motorrad retailer to you at our website:
bmw-motorrad.com

WARNING

Improperly performed maintenance and repair work
Accident hazard caused by subsequent damage
- BMW Motorrad recommends having corresponding work on the motorcycle carried out by a specialized workshop, preferably by an authorized BMW Motorrad retailer.◀

To ensure that your BMW consistently remains in optimal condition BMW Motorrad urges you to observe the recommended service intervals.
Have all maintenance and repair work confirmed in the "Service" chapter in this manual. Documentation confirming regular maintenance is essential for generous treatment of claims submitted after the warranty period has expired (goodwill).

You can obtain information on the contents of the BMW Services from your BMW Motorrad retailer.

BMW Motorrad Mobility Services

The BMW Motorrad Mobility Services furnish you and your new BMW motorcycle with extra security by offering a wide array of assistance services in the event of a breakdown (BMW Roadside Assistance, breakdown assistance, vehicle recovery and retrieval, etc.).
Contact your authorized BMW Motorrad retailer for additional information on available mobility-maintenance services.

Maintenance procedures

BMW pre-delivery check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns the motorcycle over to you.

BMW Running-in check

 Carrying out the running-in check
311...746 miles (500...1200 km)

BMW Service

BMW service is carried out once a year. The scope of the services performed may be dependent on the motorcycle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.
For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached before the next service date, service must be performed sooner.
The service display in the multifunction display reminds you of the next service date approx. one month or 620 miles (1000 km) before the entered values.

More information on the topic of service is available at:
bmw-motorrad.com/service

The required scope of maintenance work for your motorcycle can be found in the following maintenance plan:

	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		X		X		X[b]
⑤			X		X		X		X		X		
⑥			X		X		X		X		X		
⑦			X		X		X		X		X		
⑧				X			X			X			
⑨												X[c]	X[c]

Maintenance schedule

1 BMW Running-in check (including oil change)
2 BMW Service Standard Scope
3 Engine oil change with filter
4 Oil change in the rear bevel gears
5 Check valve clearance
6 Replace all spark plugs
7 Replace air cleaner insert
8 Telescopic fork oil change
9 Change brake fluid in entire system

a annually or every 6000 miles (10000 km) (whichever comes first)
b annually or every 12000 miles (20000 km) (whichever comes first)
c for the first time after one year, then every two years

Maintenance confirmations

BMW Service standard scope

The repair procedures belonging to the BMW Service standard package are listed below. The actual maintenance work applicable for your vehicle may differ.

- Performing the brief test using the BMW Motorrad diagnosis system
- Visual inspection of hydraulic clutch system
- Visual check of brake lines, brake hoses and connections
- Checking front brake pads and brake disks for wear
- Checking brake fluid level of front brake
- Checking rear brake pads and brake disk for wear
- Checking brake fluid level for rear brake
- Checking steering-head bearing
- Checking coolant level
- Checking side stand for ease of movement
- Check the tire tread depth and tire pressure
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and check for road safety
- Set the service due date and remaining distance before next service
- Checking charging state of battery
- Confirm the BMW service in the vehicle literature

BMW pre-delivery check

performed

on_____

Stamp, signature

BMW Running-in Check

performed

on_____

at km_____

Next service

latest

on_____

or, if reached earlier

at km_____

Stamp, signature

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Information

Service confirmations

The table serves to provide evidence of maintenance and repair work, as well as installed optional accessories and special campaigns performed.

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. ◀

Certifications

BMW Keyless Ride ID Device

USA, Canada

Product name: BMW Keyless Ride ID Device
FCC ID: YGOHUF5750
IC: 4008C-HUF5750

Canada:
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.

USA:
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.

Declaration Of Conformity

We declare under our responsibility that the product

BMW Keyless Ride ID Device (Model: HUF5750)

camplies with the appropriate essential requirements of the article 3 of the R&TIE and the other relevant provisions, when used for its intended purpose. Applied Standards:

1. Health and safety requirements contained in article 3 (1) a)
   - EN 60950-1:2006+A11:2009+A1:2010+A12:2011; Information technology equipment- Safety
2. Protection requirements with respect to electromagnetic compatibility article 3 (1) b)
   - EN 301 489-1 (V1 .9.2, 09/2011), Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
   - EN 301 489-3 (V1.4.1, 08/2002) Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for short range devices (SRD) operating on frequencies between 9 kHz and 40 GHz
3. Means of the efficient use of the radio frequency spectrum article 3 (2)
   - EN 300 220-1 & -2 (V2.4.1, 05/2012), electromagnetic compatibility and radio spectrum matters (ERM); Short range devices (SRD); Radio equipment tobe used in the 25 MHz to 1000 MHz frequency range with power leveis ranging up to 500 mW; Part 1: Technical characteristics and test methods. Part 2: Harmonized EN covering essential requirements under article 3.2 ofthe R&TIE directive

The product is labeted wilh the CE marking: CE

Velbert, October 15th, 2013

Benjamin A. Müller
Product Development Systems
Car Access and Immobilization – Electronics
Huf Hülsbeck & Fürst GmbH & Co. KG
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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.

The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national version. No claims stemming from these differences can be recognized.
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 refueling:

Fuel	
Recommended fuel quality	Super unleaded (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption. If the engine should for example be operated with 91 RON in countries with lower fuel quality, the motorcycle must be respectively programmed first by your authorized BMW Motorrad retailer.) 87 AKI (91 ROZ/RON) 87 AKI
Fuel level	Approx. 4.8 gal (Approx. 18 l)
Fuel reserve	Approx. 1.1 gal (Approx. 4 l)
Tire inflation pressures	
Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	42.1 psi (2.9 bar), with tire cold

You can find further information on all aspects of your vehicle at:
bmw-motorrad.com

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

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