

BMW Motorrad



The Ultimate
Riding Machine

Rider's Manual (US Model)

K 1300 S

Motorcycle/Dealer Data

Motorcycle data

Model

Vehicle identification number

Color number

Initial registration

License plate

Dealer Data

Contact in Service

Ms./Mr.

Phone number

Dealer'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 vehicle's reliability and safety, as well as its value.

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 41 8 558 927



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General instructions


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Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle. All maintenance and repair work carried out on your motorcycle will be documented in Chapter 12. Proof of the maintenance work performed is a prerequisite for generous treatment of claims. When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols


 Indicates warnings that are imperative to observe for your own safety and the safety of others, and to protect your product against damage.

 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.

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 BMW is equipped with options or accessories not described in this Rider's Manual, then this equipment is described in separate operating instructions.

Technical data

All dimensions, weights and outputs in the Rider's Manual relate to the German DIN standards and comply with their tolerance specifications. Versions for individual countries may differ.

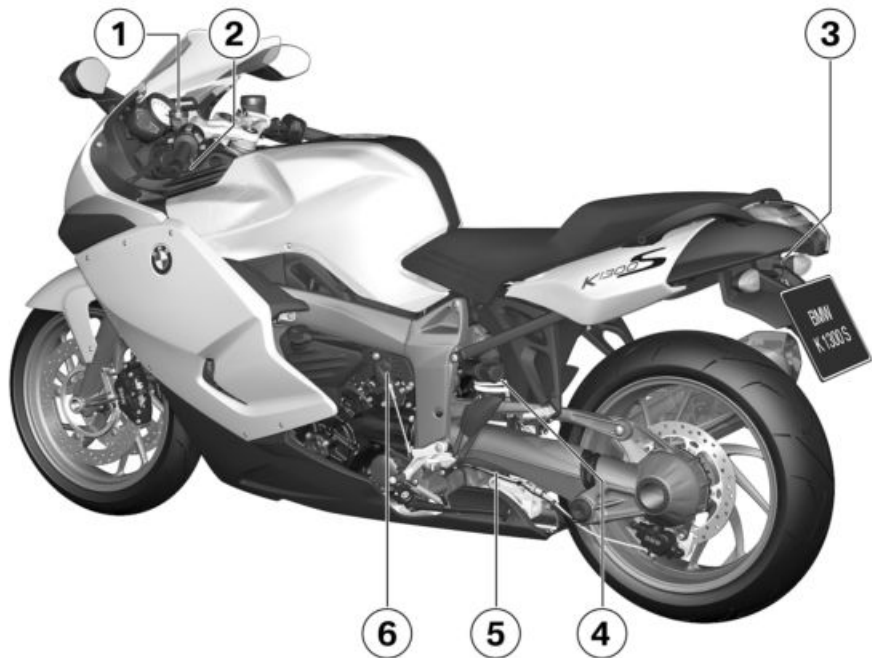
Notice concerning current status

The high safety and quality standards of BMW motorcycles are maintained by consistent, ongoing development efforts embracing their design, equipment and accessories. For this reason, aspects of your motorcycle may vary from the descriptions in this Operating instructions. 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, il-







lustrations or descriptions in this manual.

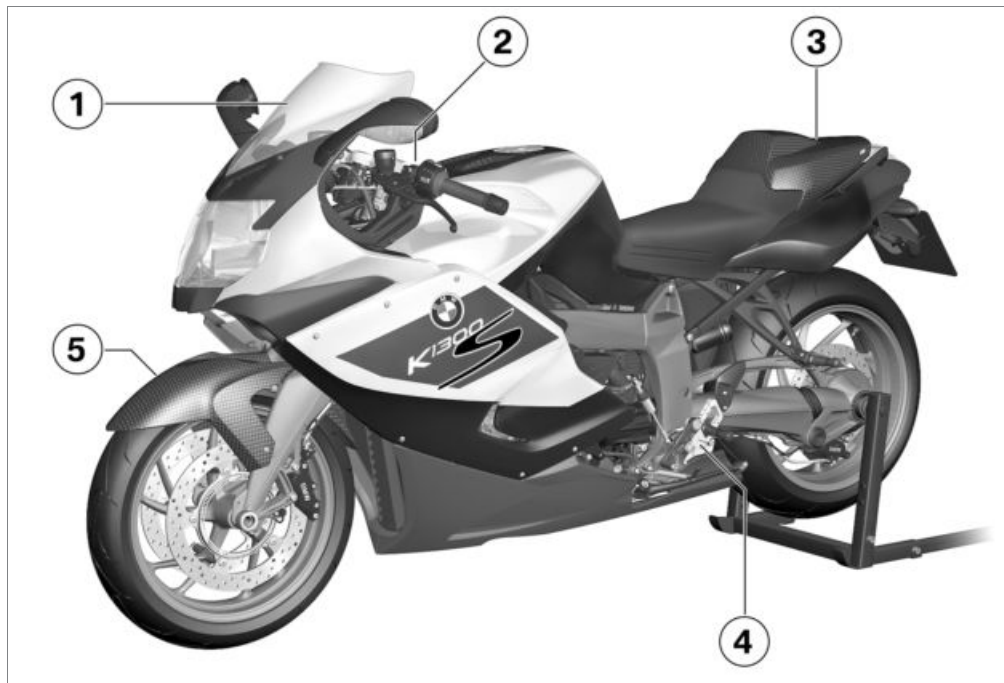
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General view, left side

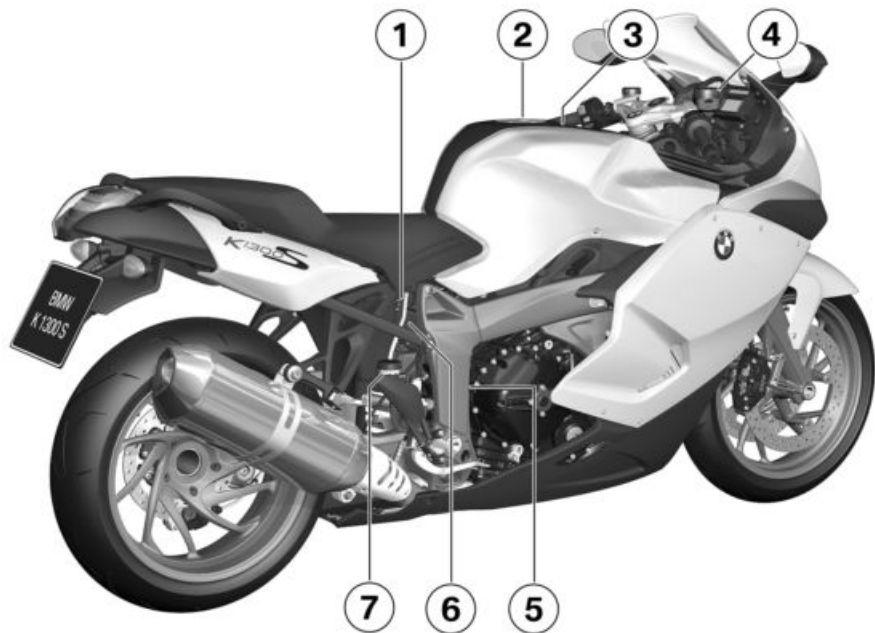
- 1 Clutch fluid reservoir
( 109)
- 2 Headlight range adjustment (below instrument cluster) ( 61)
- 3 Seat lock (below tail light)
( 61)
- 4 Adjuster for spring preload, rear ( 57)
- 5 Adjustment of rear damping rate ( 57)
- 6 Onboard socket ( 96)








General view of left side of special model with HP package

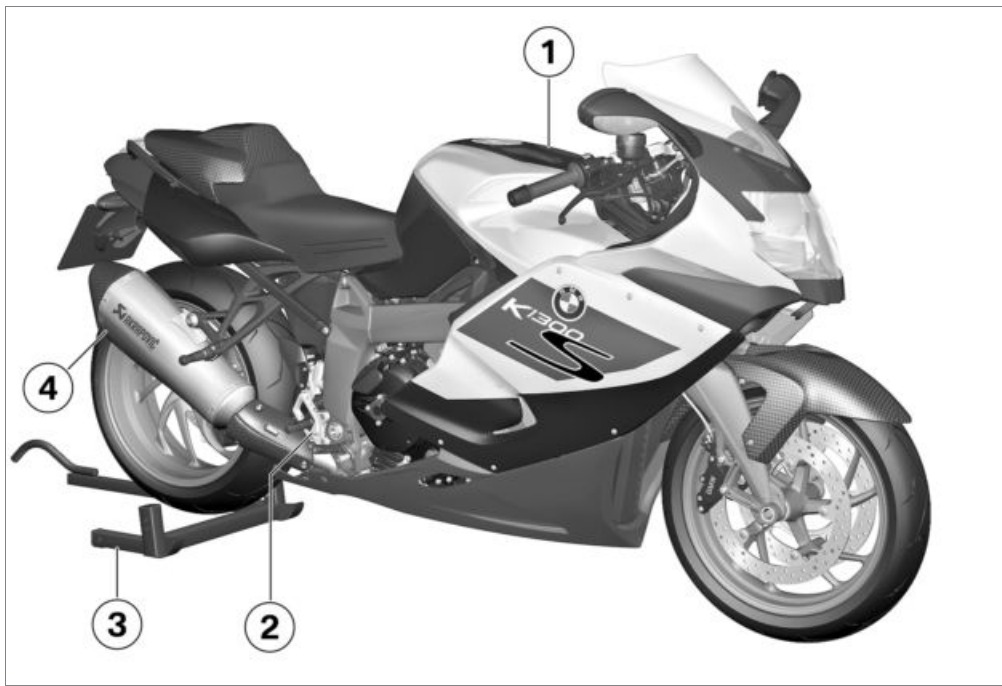
– with special model K 1300 S with HP package^{OE}

- 1 Tinted windshield
- 2 Aluminum plate with model name and serial number
- 3 Carbon passenger seat cover (►► 62)
- 4 Adjustable HP footrest with adjustable shift lever (►► 55)
- 5 Carbon front wheel cover



General view, right side

- 1 Engine oil level indicator
( 103)
- 2 Fuel filler opening ( 84)
- 3 Battery compartment
( 130)
- 4 Brake-fluid reservoir, front
( 105)
- 5 Vehicle identification number (on front right side panel)
- 6 Type plate (on rear cross tube)
- 7 Brake-fluid reservoir, rear
( 108)



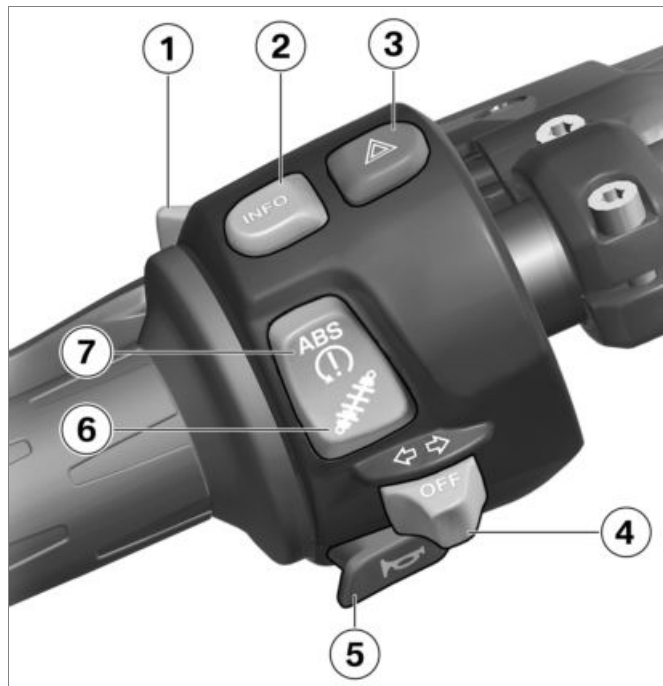
General view of right side of special model with HP package

– with special model K 1300 S with HP package^{OE}

- 1** Carbon center fairing panel
- 2** Adjustable HP footrest with adjustable brake lever (▮▮▮▮▶ 55)
- 3** Paddock stand
Use like BMW rear wheel stand (▮▮▮▮▶ 120)
- 4** Akrapovič end muffler

Multifunction switch, left

- 1 High-beam headlight and headlight flasher (►► 49)
- 2 Selecting display readings (►► 47).
– with onboard computer^{OE}
Resetting average data (►► 48).
- 3 Hazard warning flashers (►► 50)
- 4 Turn indicators (►► 49)
- 5 Horn
- 6 – with Electronic Suspension Adjustment (ESA II)^{OE}
ESA control (►► 58)
- 7 ABS operation (►► 52)
– with automatic Stability Control^{OE}
ASC control (►► 53)



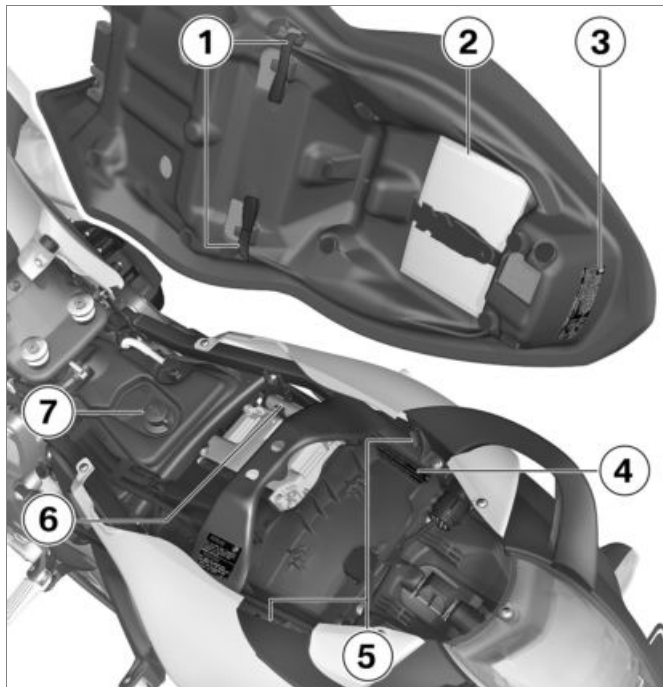


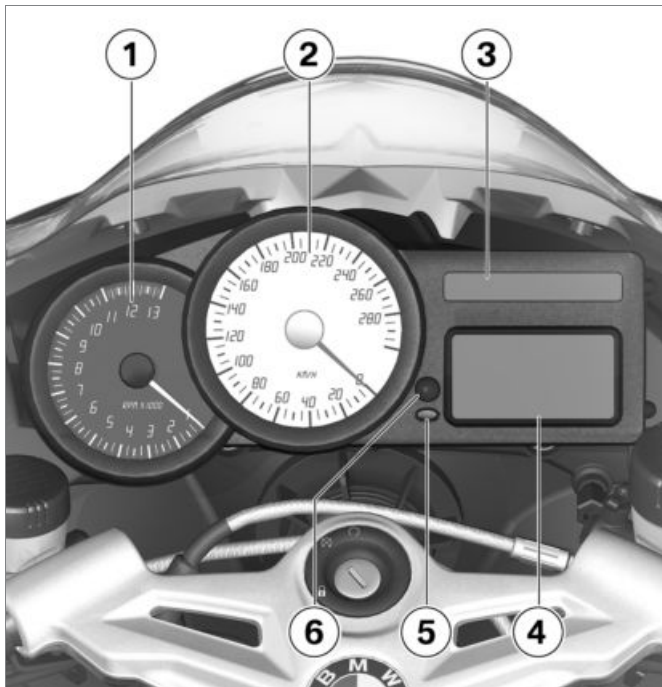
Multifunction switch, right

- 1 – with heated handlebar grips^{OE}
Heated hand grip (➡ 51)
- 2 Starter button (➡ 78)
- 3 Emergency ON/OFF switch (➡ 50)

Underneath seat

- 1 Luggage loops
- 2 Rider's Manual (US Model)
- 3 Tire inflation pressure table
- 4 Payload table
- 5 Helmet holder (►► 62)
- 6 Standard tool kit (►► 102)
- 7 Engine oil fill location (►► 104)





Instrument cluster

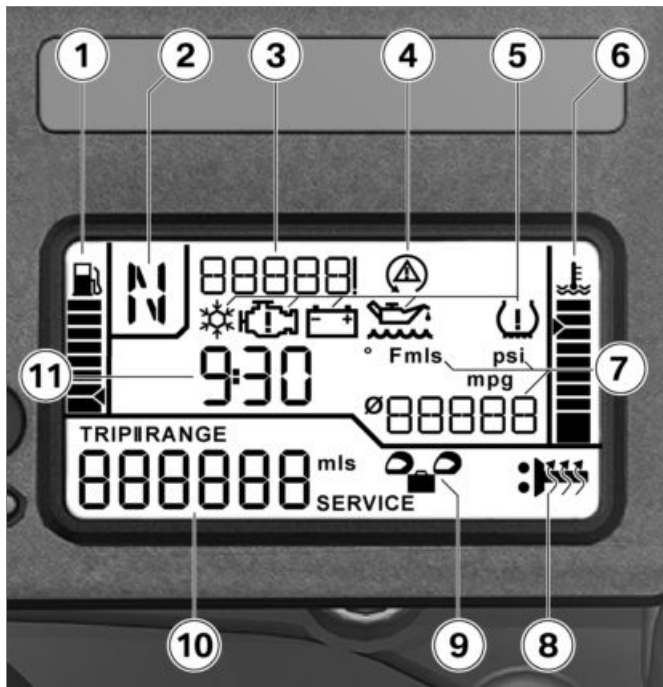
- 1 Tachometer
- 2 Speedometer
- 3 Warning and indicator lamps (▣▣▣ 25)
- 4 Multifunction display (▣▣▣ 24)
- 5 Ambient light sensor (for brightness adjustment of instrument lighting)
– with anti-theft alarm^{OE}
Anti-theft alarm indicator light (see anti-theft alarm operating instructions)
- 6 Operating odometer (▣▣▣ 47)
Operating clock (▣▣▣ 45)

Displays

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Multifunction display

- 1 The horizontal bars indicate the remaining fuel level.
- 2 Gear indicator display, "N" indicates "neutral."
- 3 Sector for warning displays (►► 29)
- 4 – with automatic Stability Control^{OE}
ASC warning and indicator display (►► 38)
- 5 Warning indicators (►► 29)
- 6 The horizontal bars indicate the level of the engine temperature.
- 7 – with onboard computer^{OE}
Onboard computer displays (►► 25)
- 8 – with heated handlebar grips^{OE}
Grip heating level (►► 51)



- 9** – with Electronic Suspension Adjustment (ESA II)^{OE}
ESA setting (➡ 58)
- 10** Odometer (➡ 47)
- 11** Clock (➡ 45)
– with onboard computer^{OE}
Onboard computer data sector (➡ 47)

Meanings of displays

– with onboard computer^{OE}

CLOCK: Time display

TEMP: Ambient temperature
(➡ 27)

Ø SPEED: Average speed since last reset

Ø FUEL: Average fuel mileage since last reset

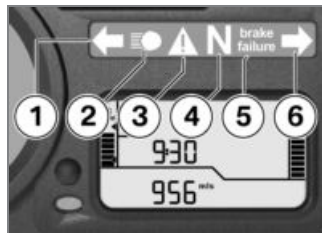
RANGE: Travel range with remaining fuel (➡ 27)

OIL: Oil level indicator (➡ 28)

– with Tire Pressure Control (TPC/RDC)^{OE}

RDC P: Tire inflation pressures
(➡ 28)

Warning and indicator lamps



- 1** Indicator lamp for left turn signal
- 2** Headlight high beam indicator lamp
- 3** General warning lamp, appears together with warnings in display panel (➡ 29)
- 4** Neutral indicator lamp
- 5** ABS warning lamp (➡ 37)
- 6** Indicator lamp for right turn signal

▶ The ABS symbol can be shown differently depending on the country.◀

Service display



If the time remaining until the next service will elapse within one month, the service date **1** appears briefly following the pre-ride check. In this example the display means "March, 2012."



If the motorcycle covers high annual mileages then shorter service intervals may be required. When the odometer reading for the recalculated early service falls to within 621 miles (1000 km), the remaining miles (kilometers) **2** are counted down in 62-mile (100 km) increments and briefly displayed following the pre-ride check.



When a service date elapses without service, the universal warning lamp lights up in yellow, appearing together with the date and milage (kilometer)

display. The "Service" message is displayed continuously.

▶ 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.◀

Range




The range **1** indicates what distance can still be driven with the remaining fuel. This distance is calculated based on fuel level and average consumption.

When refueling after running on reserve, make sure that you top up the tank to a level above reserve, as otherwise the sensor will not be able to register the new level. If the sensor cannot register the new level the range display cannot be updated.

If the motorcycle is standing on its side stand, the motorcycle's

inclined position will prevent the fuel level from being registered accurately. For this reason travel range is only calculated with the side stand retracted.

 The determined range is an approximate reading. BMW Motorrad therefore recommends that you do not try to use the full range before refueling.◀

– without onboard computer^{OE}

The travel-range display does not appear until the remaining fuel falls to the reserve level.

– with onboard computer^{OE}

The average consumption employed to calculate the remaining travel range does not appear in the display and may vary from the indicated average consumption.

Ambient temperature

– with onboard computer^{OE}

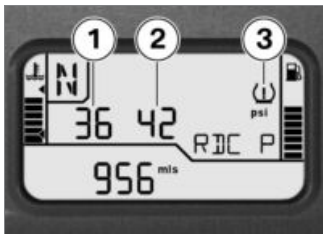
Engine heat can lead to spurious readings of ambient temperature when the motorcycle is stationary. When the effects of engine heat on the monitored temperature become excessive the display responds by temporarily reverting to -- as the display reading.



When ambient temperatures drop below 37 °F (3 °C) the temperature display responds by flashing a warning indicating possible ice formation on the road surface. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

Tire inflation pressures

- with Tire Pressure Control (TPC/RDC)^{OE}



The displayed tire inflation pressures refer to a tire temperature of 68 °F (20 °C). The figure on the left side **1** indicates the front tire's inflation pressure, while the figure on the right **2** shows the inflation pressure in the rear tire. When you switch on the ignition, -- -- appears in the display. This is because active transmission of tire-inflation data does not start until the motorcy-

cle exceeds a speed of 19 mph (30 km/h) at least once.



If the **3** symbol appears at the same time the display is a warning. The critical tire-inflation pressure flashes. If the critical value is at the limit of the permissible tolerance, the general warning lamp also lights up in yellow. If the monitored tire inflation pressure is outside the specified range the general warning lamp will flash in red.

Additional information on the BMW Motorrad Tire Pressure Monitor is provided starting on page (➡ 91).

Oil level indicator

- with onboard computer^{OE}



The oil level indicator **1** provides information on the oil level in the engine. It can only be displayed when the motorcycle is stopped.

The conditions for the oil level indicator are as follows:

- Engine at operating temperature.
- Engine idling for at least ten seconds.
- Side-stand retracted.
- Motorcycle is vertical.

The readings mean:

OK: Oil level correct.

CHECK: Check oil level during next refueling stop.

---: No measurement possible (above-mentioned conditions not met).



If other information of the onboard computer is displayed, this symbol continues to be shown until the oil level is detected as correct again.

The most recently measured status appears in the display for five seconds the next time you switch on the ignition.

Warning lamps

Display

Warnings are displayed with the corresponding warning lamps.













Warnings for which no separate warning lamp is available are shown by the general warning lamp **1** in conjunction with a warning text, e.g. **2** or a warning symbol, e.g. **3**, in the multifunction display. The universal warning lamp shows red or yellow, depending on the urgency of the warning.

If several warnings are active, all corresponding warning lamps and warning symbol are displayed; warnings appear alternately.

The following page contains a list of potential warnings.









Overview of warning indicators

Warning and indicator lamps	Warning symbols in the display panel	Meaning
 Lights up yellow.	EWS ! is indicated.	Electronic immobilizer is active (►►► 34)
 Lights up yellow.	FUEL ! is indicated.	Fuel down to reserve (►►► 34)
 Lights up red.	Temperature display flashes	Coolant temperature too high (►►► 34)
 Lights up yellow.	 Appears on the display	Engine in emergency-operation mode (►►► 34)
 Flashes red.	 Is indicated.	Engine oil pressure low (►►► 35)
 Lights up red.	 Is indicated	Battery charge current insufficient (►►► 35)
 Lights up yellow.	LAMPFR ! is indicated.	Tail light defective (►►► 36)
	LAMPF ! is indicated.	Headlight bulb or turn signal defective (►►► 36)

Warning and indicator lamps

Warning symbols in the display panel





Meaning

			Flashes slowly	ASC self-diagnosis not completed (➡ 38)
			Appears on the display	ASC deactivated (➡ 38)
	Lights up yellow.		Appears on the display	ASC error (➡ 39)
	Lights up yellow.		Appears on the display	Tire inflation pressure is at limit of approved range (➡ 39)
			The critical tire inflation pressure flashes	
	Flashes red.		Appears on the display	Tire inflation pressure outside permissible tolerance (➡ 39)
			The critical tire inflation pressure flashes	
			"--" or "-- --" is indicated	Transmission error (➡ 40)

Warning and indicator lamps

Warning symbols in the display panel

Meaning

	Lights up yellow.		Appears on the display	Sensor defective or system fault (➡ 40)
			"_ _" or "_ _ _ _" is indicated	
	Lights up yellow.		RDC ! is indicated	Battery of tire-inflation pressure sensor weak (➡ 41)
	Lights up yellow.		DWA ! is indicated.	Anti-theft alarm battery discharged (➡ 41)
			DWALO ! is indicated.	Anti-theft alarm battery weak (➡ 42)

Electronic immobilizer is active



General warning light shows yellow.

EWS ! is indicated.

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.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

Fuel down to reserve



General warning light shows yellow.

FUEL ! is indicated.



A fuel shortage can cause irregular engine operation or engine shut-off (accident haz-

ard) and the catalytic converter can be damaged.

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.



Reserve fuel quantity

Approx. 1.1 gal (Approx. 4 l)

- Refueling procedure (▶▶ 84).

Coolant temperature too high



General warning light shows red.

Temperature display flashes.



Driving with an overheated engine can result in engine damage.

Be sure to observe the measures listed below. ◀

Possible cause:

The coolant temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.
- In traffic jams, switch off the engine, but keep the ignition switched on so that the radiator fan continues to operate.
- 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 in emergency-operation mode



General warning light shows yellow.



Engine symbol appears on the display.

 The engine is in the emergency operating mode. Unusual engine response is a possibility.


Adapt your style of riding accordingly. Avoid accelerating sharply and overtaking. ◀


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 workshop, preferably an authorized BMW Motorrad retailer.

Engine oil pressure low

 General warning light flashes red.

 Oil-can symbol appears on the display.

The oil pressure in the lubricating oil circuit is too low. If the warning light lights up, stop immediately and switch off the engine.

 The warning on insufficient engine oil pressure is no substitute for the function of an oil-level indicator. The correct engine oil level can only be checked on the oil level indicator. ◀

Possible cause:

The engine oil level is too low.


- Checking engine oil level (▶▶▶▶ 103).

If oil level is too low:

- Topping up engine oil (▶▶▶▶ 104).

Possible cause:


The engine oil pressure is insufficient.


 Driving with insufficient engine oil pressure can result in engine damage.


Do not continue driving. ◀

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

Battery charge current insufficient

 General warning light shows red.

 Battery symbol appears on the display.

 A discharged battery will lead to the failure of various motorcycle systems such as lighting, engine or ABS. This can

result in dangerous driving situations.

Do not continue riding.◀

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

Possible cause:

Alternator or alternator drive defective.

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

Tail light defective



General warning light shows yellow.

LAMP R ! is indicated.



Failure of a bulb on the motorcycle is a safety risk because it potentially makes the motorcycle less noticeable to other road users.

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

Possible cause:

Taillight or brake light defective.

- The diode taillight must be replaced. Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.

Headlight bulb or turn signal defective

LAMP F ! is indicated.



Failure of a bulb on the motorcycle is a safety risk because it potentially makes the motorcycle less noticeable to other road users.

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 headlight bulb or turn indicator bulb is defective.

- Replacing low-beam and high-beam bulbs (➡ 121).
- Replacing parking light bulb (➡ 123).
- Replacing front turn indicator bulbs (➡ 125).
- Replacing rear turn indicator bulbs (➡ 126).

Bulbs defective



General warning light shows yellow.

LAMP S ! is indicated.



Failure of a bulb on the motorcycle is a safety risk because it potentially makes the motorcycle less noticeable to other road users.

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 several bulb defects is present.

- See the fault descriptions above.

Engine oil level too low

– with onboard computer^{OE}



Oil level symbol appears on the display.

Check Oil is indicated.

Possible cause:

The electronic oil level sensor has detected a low engine oil level. Check the engine oil level on the oil level indicator the next time you stop for refueling:

- Checking engine oil level (▮▮▮▮▶ 103).

If oil level is too low:

- Topping up engine oil (▮▮▮▮▶ 104).

Outside temperature warning

– with onboard computer^{OE}



Ice crystal symbol appears on the display.

Possible cause:

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



The outside temperature warning does not mean that there is no risk of black ice forming at measured temperatures above 37 °F (3 °C).

At low outside temperatures, icy conditions must especially be expected on bridges and in shady road areas. ◀

- Think well ahead when driving.

ABS self-diagnosis not completed



ABS warning lamp flashes.

Possible cause:

The self-diagnosis routine was not completed; the ABS function is not available. The motor-cycle must reach a speed of at least 3.1 mph (5 km/h) before the ABS self-diagnosis routine can be completed.

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

ABS deactivated



ABS warning lamp lights up.

Possible cause:

The ABS system has been deactivated by the driver.

- Switch on ABS function.

ABS error



ABS warning lamp lights up.

Possible cause:

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

- Continued driving is possible while taking the failed ABS function into account. Observe additional information on situations which can lead to an ABS error (→ 89).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

ASC intervention

– with automatic Stability Control^{OE}



General warning light flashes rapidly in yellow.



ASC symbol is displayed.

The ASC has detected instability at the rear wheel and has reduced the torque. The warning lamp flashes longer than the duration of the ASC intervention. 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 self-diagnosis not completed

– with automatic Stability Control^{OE}



ASC symbol flashes.

Possible cause:

The self-diagnosis was not completed; the DTC function is not available. The engine must be running and the motorcycle must be moved at a speed of at least 3.1 mph (5 km/h) in order for DTC self-diagnosis to complete.

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

ASC deactivated

– with automatic Stability Control^{OE}



ASC symbol is displayed.

Possible cause:

The ASC system has been deactivated by the driver.

- Activating the ASC function

ASC error

- with automatic Stability Control^{OE}



General warning light shows yellow.



ASC symbol is displayed.

Possible cause:

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

- It remains possible to continue riding. Please be aware that ASC functionality is no longer available. Observe additional information on situations which can lead to an ASC error (►► 91).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Tire inflation pressure is at limit of approved range

- with Tire Pressure Control (TPC/RDC)^{OE}



General warning light shows yellow.



Tire symbol appears on the display.

The critical tire-inflation pressure flashes.

Possible cause:

The measured tire inflation pressure is in the limit area of the permissible tolerance.

- Correct tire inflation pressure in accordance with instructions on back of cover of Rider's Manual.



Before adjusting the tire inflation pressure, observe the information on temperature compensation and on inflation

pressure adjustment in the chapter "Technology in detail". ◀

Tire inflation pressure outside permissible tolerance

- with Tire Pressure Control (TPC/RDC)^{OE}



General warning light flashes red.



Tire symbol appears on the display.

The critical tire-inflation pressure flashes.

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:



A tire inflation pressure outside the permissible tolerance result in poorer handling of the motorcycle.

Adapt your style of riding accordingly. ◀

- Correct tire inflation pressure at the next opportunity.



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 dealer.

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

- Do not continue riding.
- Contact roadside service.

Transmission error

– with Tire Pressure Control (TPC/RDC)^{OE}

"--" or "-- --" is indicated.

Possible cause:

The vehicle's speed has not exceeded the threshold of approx. 19 mph (30 km/h). The TCP/RDC sensors do not send their signal until after this speed has been exceeded for the first time (▶▶ 91).

- Watch the TCP/RDC display at a higher rate of speed. A continuous error is only present if the general warning lamp 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.

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

Sensor defective or system fault

– with Tire Pressure Control (TPC/RDC)^{OE}



General warning light shows yellow.



Tire symbol appears on the display.

"--" or "-- --" is indicated.

Possible cause:

Wheels without installed RDC sensors are mounted.

- Retrofit wheel set with RDC sensors.

Possible cause:

One or two TPC/RDC sensors have failed.

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

Possible cause:

A system fault has occurred.

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

Battery of tire-inflation pressure sensor weak

– with Tire Pressure Control (TPC/RDC)^{OE}



General warning light shows yellow.

RDC ! is indicated.



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 dealer.

Anti-theft alarm battery discharged

– with anti-theft alarm^{OE}



General warning light shows yellow.

DWA ! is indicated.



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

Possible cause:

The anti-theft alarm system battery is completely discharged. Operation of the anti-theft alarm system is no longer ensured when the vehicle's battery is disconnected.

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

Anti-theft alarm battery weak

– with anti-theft alarm^{OE}

DWALO ! is indicated.



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

Possible cause:

The anti-theft alarm battery no longer has its full capacity. The operation of the anti-theft alarm system is only ensured for a limited time with the vehicle battery disconnected.

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

Operation

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EWS Electronic immobilizer	45	Damping	57
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Steering and ignition lock

Keys

You are provided with 2 ignition keys.

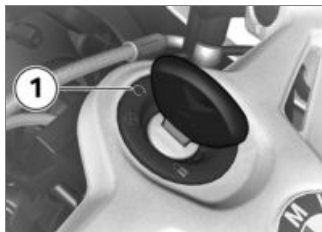
Should you lose your keys please refer to the information regarding the electronic immobilizer (EWS) (► 45).

The steering and ignition lock, tank lock and seat lock are operated with the same key.

– with case^{OA}

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

Switching on ignition



- Turn key to position **1**.
 - » Parking lights and all function circuits switched on.
 - » Engine can be started.
 - » Pre-Ride Check in progress. (► 79)
 - » ABS self-diagnosis in progress. (► 79)
- with automatic Stability Control^{OE}
 - » ASC self-diagnosis in progress. (► 80)◁

Switching off ignition



- Turn key to position **2**.
 - » Light switched off.
 - » Handlebars not locked.
 - » Key can be removed.
 - » Electrically powered accessories remain operational for a limited period of time.
 - » Battery can be recharged via onboard socket.

Locking handlebars



If the motorcycle is on the side stand, the surface of the ground will determine whether it is better to turn the

handlebars to the left or right. However, the motorcycle is more stable on a level surface with the handlebars turned to the left than with the handlebars turned to the right.

On level ground, always turn the handlebars to the left to set the steering lock.◀

- Turn handlebars to full left or right lock position.



- Turn key to position **3** while moving handlebars slightly.
 - » Ignition, lights and all function circuits switched off.

- » Handlebars locked.
- » Key can be removed.

EWS Electronic immobilizer

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

▶ A further key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The EWS warning is shown in the multifunction display.

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

If you lose an ignition key, you can have it disabled by your BMW Motorrad partner. 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 vehicle key; however, a disabled vehicle 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 vehicle keys.

Clock

Setting the clock

 Attempting to set the clock while riding the motorcycle can lead to accidents.

Adjust the clock only when the motorcycle is stationary.◀

- Switch on ignition.
 - without onboard computer^{OE}
 - without Tire Pressure Control (TPC/RDC)^{OE}

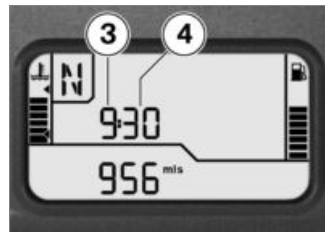


- Press button **1** or button **2** repeatedly until total mileage is shown.◀

- with onboard computer^{OE} or
- with Tire Pressure Control (TPC/RDC)^{OE}



- Press button **1** repeatedly until clock is shown.◀

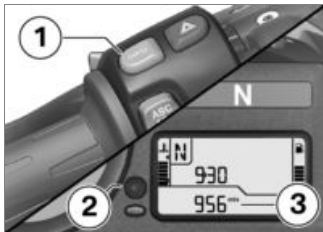


- Press and hold button until hours **3** flash.
- Press button repeatedly until desired hours are shown.
- Press and hold button until minutes **4** flash.
- Press button repeatedly until desired minutes are shown.
- Press and hold button until minutes no longer flash.
- » The clock is now set.

Display

Selecting display readings

- Switch on ignition.
- without onboard computer^{OE}
- without Tire Pressure Control (TPC/RDC)^{OE}



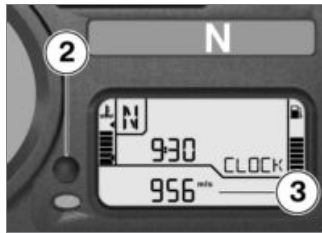
- Press the button **1** or the button **2** to select an odometer in the sector **3**.

The following data can be displayed:

- Total distance covered
- Trip odometer 1 (Trip I)
- Trip odometer 2 (Trip II)

– Operating range (after reaching reserve level)◀

- with onboard computer^{OE}
- or
- with Tire Pressure Control (TPC/RDC)^{OE}



- Press the button **2** to select an odometer in the sector **3**.

The following data can be displayed:

- Total distance covered
- Trip odometer 1 (Trip I)
- Trip odometer 2 (Trip II)



- Press the button **1** to select a display in the sector **4**.

– with onboard computer^{OE}

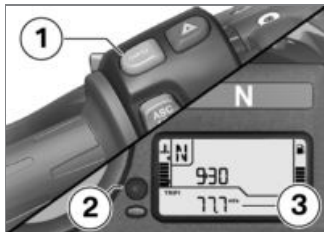
The following data can be displayed:

- Clock (CLOCK)
- Ambient temperature (TEMP)
- Average speed (ØSPEED)
- Average consumption (ØFUEL)
- Range (RANGE)
- Oil level indicator (OIL)

- with Tire Pressure Control (TPC/RDC)^{OE}
- The following data can be displayed:
- Tire inflation pressure (RDC P)

Resetting trip odometer

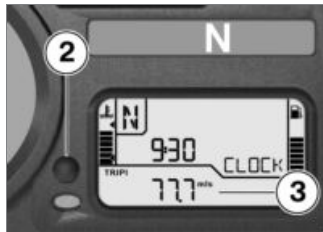
- Switch on ignition.
- Select desired trip odometer.
 - without onboard computer^{OE}
 - without Tire Pressure Control (TPC/RDC)^{OE}



- Press button **1** or button **2** and continue to hold it down until

the trip odometer in the sector **3** resets.◀

- with onboard computer^{OE} or
- with Tire Pressure Control (TPC/RDC)^{OE}



- Press the button **2** and continue to hold it until the trip odometer in the sector **3** resets.◀

Resetting average data

- with onboard computer^{OE}
- Switch on ignition.

- Select average fuel consumption or average speed.




- Press the button **1** and continue to hold it until the displayed figure in the sector **4** resets.

Lights

Parking lights

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

 The parking lights are a strain on the battery. Do not leave the ignition switched

on longer than absolutely necessary.◀

Headlight low beam

The headlights automatically come on in their low-beam mode as soon as you start the engine.

▶ With the engine switched off, you can switch on the lights by switching on the high-beam headlight with the ignition switched on or by operating the headlight flasher.◀

Headlight high beam and flasher



- Press switch **1** toward front to switch on high beams.
- Pull switch **1** rearward to operate headlight flasher.

Parking light

- Switch off ignition.



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

Turn indicators

Operating turn indicator

- Switch on ignition.

▶ After driving for approx. ten seconds or after covering a distance of approx. 980 ft (300 m), the turn indicators are automatically switched off.◀



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

Hazard warning flashers

Operating hazard warning flashers

- Switch on ignition.

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

▶ If a turn indicator button is pressed with the ignition 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.
- Press button **1** again to switch off hazard warning flashers.

Emergency ON/OFF switch



- 1** Emergency ON/OFF switch

⚠ Operating the emergency ON/OFF switch when riding can cause the rear wheel to lock and thus cause a fall. 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 switched off
- b** Operating position

Heated handlebar grips

– with heated handlebar grips^{OE}

Operating heated handlebar grips

- Start engine.

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

▶ 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.◀



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



The handlebar grips can be heated at two different levels. The second level **2** is used for fast heat-up of the grips; then the switch should be switched back to the first level.



50 % heating output



100 % heating output

» If no further changes are made, the selected heating level is set.

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

▶ If the ABS warning light lights up after switching the ignition off and on and then continued driving over 4 mph (5 km/h), an ABS error has occurred.◀

ASC Automatic Stability Control

– with automatic Stability Control^{OE}


Deactivate ASC function

- Switch on ignition.

▶ The ASC function can also be deactivated while driving.◀



- Press and hold button **1** until ASC symbol changes its display behavior.

 ASC symbol is displayed.

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


 ASC symbol continues to be displayed.

» ASC function is deactivated.


Activate ASC function



- Press and hold button **1** until ASC symbol changes its display behavior.

 ASC symbol is no longer displayed; if self-diagnosis is not completed, it begins to flash.

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

 ASC symbol is still not displayed or continues to flash.

» ASC function is activated.

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

▷ If the ASC warning lamp lights up after switching the ignition off and on followed by continued driving over 3 mph (5 km/h), an ASC error has occurred.◀

Clutch

Adjusting clutch lever

! Changing the position of the clutch-fluid reservoir can allow air to penetrate the clutch system.

Do not turn the handlebar fitting on the handlebar.◀

! Adjusting the clutch lever while driving can lead to accidents.

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



- Turn adjusting screw **1** clockwise to increase distance between clutch lever and handlebar grip.
- Turn adjusting screw **1** counterclockwise to decrease distance between clutch lever and handlebar grip.

▷ The adjusting screw can be turned more easily if you press the clutch lever forward when doing so.◀

Brakes

Adjusting handbrake lever

! Changing the position of the brake-fluid reservoir can allow air to penetrate the brake system.

Do not turn the handlebar fitting on the handlebar.◀

! Adjusting the handbrake lever while driving can lead to accidents.

Only adjust the handbrake lever when the motorcycle is stationary.◀

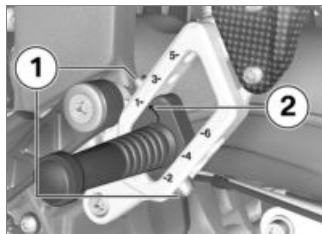


Footrest system

– with special model K 1300 S with HP package^{OE}

Adjusting footrests

- Make sure ground is level and firm and park motorcycle.



- Remove screws **1**.
- Remove footrest and position as desired. Turn footrest by 180° if necessary for this purpose.
- » Highest position: arrow **2** points to the number 6.

- Turn adjusting screw **1** clockwise to increase distance between brake lever and handlebar grip.
- Turn adjusting screw **1** counterclockwise to decrease distance between brake lever and handlebar grip.

▶ The adjusting screw can be turned more easily if you press the handbrake lever forward when doing so. ◀

» Lowest position: arrow **2** points to the number 1.

- Install screws **1** with specified torque.



Footrest on bracket

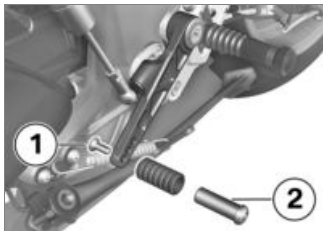
– with HP footrest system^{OA}

14 lb/ft (19 Nm) ◀

- Install footrests on left and right in same position.

Adjusting shift lever

- Make sure ground is level and firm and park motorcycle.



- Remove bolt **1** while bracing nut **2**.
- Position foot piece in desired position and install screw **1** with specified torque. Brace nut **2** while doing so



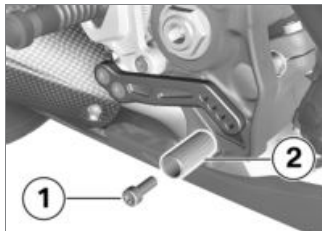
Foot piece on foot lever

– with HP footrest system^{OA}

7 lb/ft (10 Nm)◀

Adjusting footbrake lever

- Make sure ground is level and firm and park motorcycle.



- Remove screw **1**.
- Position foot piece **2** in desired position and install screw **1** with specified torque.



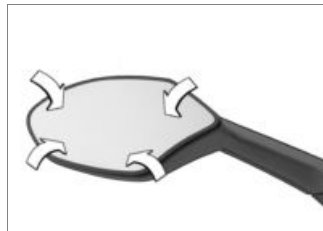
Foot piece on foot lever

– with HP footrest system^{OA}

7 lb/ft (10 Nm)◀

Mirrors

Adjusting mirrors



- Move mirror into desired position by applying light pressure at edge.

Spring preload


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

- Make sure ground is level and firm and park motorcycle.



 Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings. Adjust damping characteristic to changed spring preload.◀

 Adjusting the spring preload while the motorcycle is being ridden can lead to accidents. Adjust the spring preload

only when the motorcycle is stationary.◀

- To increase the spring preload, turn the adjustment wheel **1** in the direction of the arrow HIGH.
- To decrease the spring load, turn the adjustment wheel **1** in the direction of the arrow LOW.



Basic setting of spring preload, rear

– without Electronic Suspension Adjustment (ESA II)^{OE}

Turn upper adjustment wheel as far as possible in direction of arrow LOW, then turn 13 clicks in direction of arrow HIGH (Full tank of gas, with rider 187 lbs (85 kg))◀

Damping Setting

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

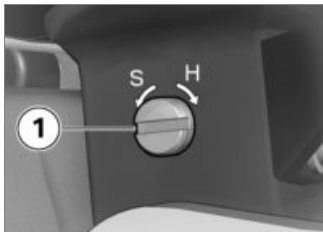
- A rough road surface requires softer damping than a smooth road surface.
- An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjusting damping on rear wheel

- Make sure ground is level and firm and park motorcycle.




- Adjust damping with the toolkit using the adjusting screw **1**.



- To increase damping, turn adjusting screw **1** in arrow direction H.

- To decrease damping, turn adjusting screw **1** in arrow direction S.

 Basic setting of rear wheel rear-wheel damping

– without Electronic Suspension Adjustment (ESA II)^{OE}

Turn adjusting screw as far as possible in direction of arrow H, then turn one and one-half turn in direction of arrow S (Full tank of gas, with rider 187 lbs (85 kg))<

ESA Electronic Suspension Adjustment

- with Electronic Suspension Adjustment (ESA II)^{OE}

Settings

You can use the ESA Electronic Suspension Adjustment feature to adapt your motorcycle to its current load as well as the road surface.

You can select from among three load types, for each of which three suspension damping rates are available.

Additional information on the electronic suspension adjustment ESA II is provided on page (▶▶▶ 93).

Displaying suspension setting

- Switch on ignition.



- Press button **1** to display current adjustment.



The selected suspension damping rate appears in the multifunction display area **1**, while the load type is shown in the **2** sector.

The displays provide the following information:

- COMF: Comfortable damping
- NORM: Normal damping
- SPORT: Sport, performance-oriented damping



One-up



One-up with luggage



Two-up (with luggage)

» The display is automatically hidden after a short time.

Adjust the chassis

- Start engine.




- Press the button **1** to view the current adjustment setting in the display.
- To reset the suspension's compliance rate, press the **1** button briefly, then continue to press it repeatedly until the desired suspension setting appears in the display.

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

- To set the weight, apply extended pressure on the **1** button, pressing it repeatedly until


the desired setting appears in the display.

 The load setting cannot be adjusted while the motorcycle is underway. ◀


» If the **1** button is not pressed for a longer time, damping and loading will be adjusted as shown. Then the ESA display is automatically hidden.

Tires

Checking tire pressure

 Incorrect tire inflation pressure results in poorer handling characteristics of the motorcycle and reduces the life of the tires.

Ensure proper tire inflation pressure. ◀

 At high road speeds, tire valves installed perpendicular to the wheel rim have a

tendency to open as a result of centrifugal force.

Use valve caps with rubber seals and screw them on firmly to prevent sudden tire deflation. ◀

- Make sure ground is level and firm and park motorcycle.
- 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.

Headlight

Adjusting headlight for RHD/LHD traffic

If the motorcycle is ridden in a country where vehicles are driven in the opposite lane relative to your own country, its asymmetric low-beam headlight will tend to blind oncoming traffic.

Have the headlight adjusted for these conditions by an authorized service facility, preferably an authorized BMW Motorrad retailer.

 Ordinary adhesive tape damages the plastic lens. To prevent damage to the plastic lens, consult a specialized workshop, preferably an authorized BMW Motorrad retailer. ◀

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.

▶ If there are questions whether the headlight range is correct, consult a specialized workshop, preferably an authorized BMW Motorrad retailer. ◀

Headlight range adjustment



- 1** Headlight range adjustment

In the case of very high payloads, the available spring preload adjustment might not be adequate. To avoid dazzling oncoming traffic, the headlight range can be corrected by adjusting the swivel lever.

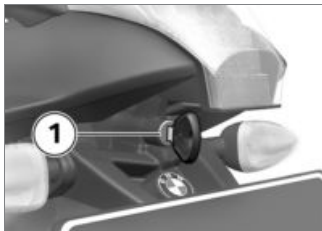


- a** Neutral position
b Position with heavy payload

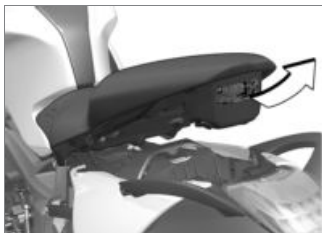
Seat

Removing seat

- Make sure ground is level and firm and park motorcycle.



- Turn seat lock **1** to left with ignition key and hold while pressing seat downward at rear to support movement.



- Raise seat at rear and release key.

- Take off seat and place on a clean surface with upholstered side facing downward.

Installing seat

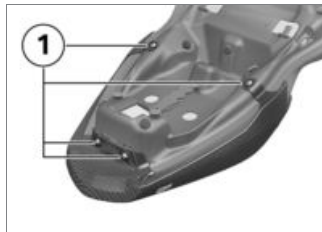


- Insert seat in brackets **1**.
 - Firmly press down on the seat at the rear.
- » The seat can be heard to lock into place.

Removing passenger seat cover

- with special model K 1300 S with HP package^{OE}
- Removing seat (▣▣▣ 61).

- Turn over seat.



- Remove screws **1** and pull off passenger seat cover toward rear.
- Installing seat (▣▣▣ 62).

Helmet holder

Locking helmet on motorcycle

- Removing seat (▣▣▣ 61).



! The helmet catch can scratch the paneling. When hooking on the helmet, watch the position of the helmet lock. ◀

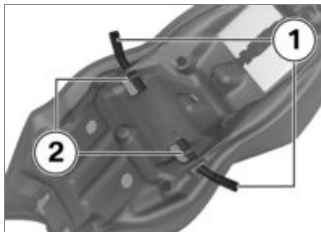
- Hook helmet into helmet holder **1** on left or right with chin strap.
- Installing seat (➡ 62).

Luggage straps

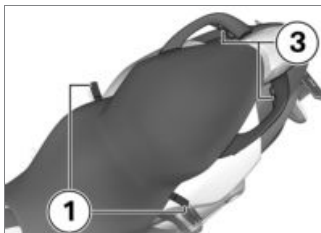
Locking luggage on motorcycle

- Removing seat (➡ 61).

- Turn over seat.



- Take loops **1** out of holders **2** and lay outwards.
- Installing seat (➡ 62).



- Use loops **1** and eyes **3** on grab handles in conjunction

with luggage belts to lash luggage down to the passenger seat.

Anti-theft alarm system DWA

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Overview

– with anti-theft alarm^{OE}

General information on DWA

Any attempt to move the motorcycle, change its position, start it without authorization or disconnect the motorcycle battery, results in the alarm being triggered. The sensitivity of the system is designed so that minor vibrations of the motorcycle do not trigger an alarm. Each theft attempt is signaled following activation of the system acoustically with the siren and optically with synchronized flashing of all 4 turn indicators.

You can adjust the behavior of your DWA in partial areas to meet your needs.

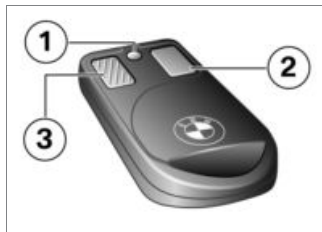
Protection of motorcycle battery

To protect the motorcycle battery and to maintain the starting capability, the activated DWA switches off automatically after several days. However, it remains active for at least 10 days.

Radio interference

Radio systems or devices which transmit on the same frequency as the remote control of the DWA can interfere with its function. With corresponding problems point the remote control at the motorcycle from a different direction.

Controls



- 1** LED
- 2** Right-hand button (⇨ 68)
- 3** Left-hand button (ribbed) (⇨ 67)

▶ For the position of the indicator LED on the motorcycle, please see the Rider's Manual of your motorcycle.◀

Activation

– with anti-theft alarm^{OE}

Activation with motion sensor



The alarm function will be activated

- by pressing the button **1** of the remote control once or
- by switching off the ignition (if programmed); after the ignition is switched off, 30 seconds pass until the activation phase

Activation is confirmed

- by the turn indicators lighting up twice and
- with a double alarm tone.

If the alarm function is to be activated after the ignition has been switched off for more than one minute, then the button **1** must be pressed for longer than one second. After approx. one hour in the disarmed state, the DWA switches off to protect the battery. To activate the alarm function after this period, the ignition must be switched on and then off again.

Activation phase

The anti-theft alarm system requires 15 seconds until it is completely activated. No alarm triggering takes place during this time.

Protection of the battery



If the alarm function is to be activated after the ignition has been switched off for more than one minute, then the button **1** must be pressed for longer than one second. After approx. one hour in the deactivated state, the DWA switches off to protect the battery. To activate the alarm function after this period, the ignition must be switched on and then off again.

Motion sensor when transporting the motorcycle

If, for example, the motorcycle is to be transported by train, it is advisable to switch off the motion sensor. The strong movements could result in an accidental triggering of the alarm.

Deactivating motion sensor



- Press button **1** of the remote control again during the activation phase.

- » Turn indicators are illuminated three times.
- » Alarm tone sounds three times.
- » Motion sensor is deactivated.

Alarm function

- with anti-theft alarm^{OE}

Alarm triggering

The alarm can be set off by:

- The motion sensor
- Switching on the ignition with an unauthorized key
- Disconnection of the DWA from the motorcycle battery (DWA battery assumes the power supply).

Alarm



The duration of the alarm is 26 seconds. The system is reactivated after another 12 seconds. A triggered alarm can be interrupted at any time by pressing the button **2** of the remote control. This function does not change the state of the anti-theft alarm system. During the alarm, an alarm tone sounds and the turn indicators flash. The type of alarm sound can be programmed.

Reason for triggering of the alarm

After the alarm function has been deactivated, the DWA indicator light signals the reason for any alarm triggering which may have occurred for one minute:

- 1x flash: motion sensor; motorcycle was tilted forward/back
- 2 flashes: motion sensor; motorcycle was tilted to the side
- 3 flashes: ignition switched on with unauthorized key
- 4 flashes: DWA disconnected from motorcycle battery

Note on alarm triggering

If an alarm was triggered after the last activation of the alarm function, then this is pointed out with a single signal tone after the ignition is switched on.

Deactivation

- with anti-theft alarm^{OE}

Deactivate alarm function



- Press button **2** of remote control once **or** switch on ignition with an authorized key.

▶ The alarm function can only be deactivated with the ignition key if the emergency ON/OFF switch is in the operating position.◀

▶ If the alarm function is deactivated by means of the remote control and the ignition then not switched on, the alarm

function is automatically reactivated after 30 seconds if "Activation after ignition off" has been programmed.◀

- » Turn indicators light up once.
- » Alarm tone sounds once (if programmed).
- » Alarm function is deactivated.

Protection of the battery

After approx. one hour in the activated state, the receiver for the remote control in the DWA switches off to protect the battery. The ignition must be switched on to deactivate the alarm function after this period.

Programming

- with anti-theft alarm^{OE}

Programming options

The anti-theft alarm system can be adapted to individual needs in the following points:

- Confirmation alarm tone after activation/deactivation of the DWA in addition to the turn indicators lighting up
- Rising and falling or intermittent alarm tone
- Automatic activation of the alarm function when the ignition is switched off

Factory settings

The anti-theft alarm system is delivered with the following factory settings:

- Confirmation alarm tone after activation/deactivation of the DWA: no
- Alarm tone: intermittent
- Automatic activation of the alarm function when the ignition is switched off: no

Programming DWA



- Deactivate alarm function.
- Switch on ignition.
- Press button **1** three times.
 - » Acknowledgment tone sounds once.
- Switch off the ignition within ten seconds.
- Press button **2** three times.
 - » Acknowledgment tone sounds once.
- Switch on the ignition within ten seconds.
 - » Acknowledgment tone sounds three times.

» The programming function is active.

The actual programming is carried out in four steps, and Step 2 is not assigned any function. The number of flashing signals on the DWA indicator light of the motorcycle shows the active programming step. Pressing the button **1** is confirmed by an alarm tone, and pressing the button **2** by an acknowledgment tone.

- **Step 1:** is a confirmation tone to sound after the DWA is activated/deactivated?

yes:

- Press button **1**.

no:

- Press button **2**.

- **Step 2:**

This step is not assigned any function.

- Press button **1** or button **2**.

- **Step 3:** Which alarm tone is to be selected?

Rising and falling:

- Press button **1**.

intermittent:

- Press button **2**.

- **Step 4:** Is the alarm function to be automatically activated after the ignition is switched off?

yes:

- Press button **1**.

no:

- Press button **2**.

When is the programming canceled?

Programming is canceled

- by switching off the ignition before the last programming step.

- **or** automatically if more than 30 seconds pass between two programming steps.

The data are not saved when programming is canceled.

Save programming

Programming is saved

- by switching off the ignition after the last programming step
- **or** automatically 30 seconds after the last programming step

The DWA indicator light stops flashing and acknowledgment tones sound.

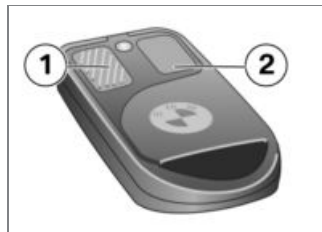
Logging on remote control

- with anti-theft alarm^{OE}

When is it necessary to log on a remote control?

Should you log on an additional remote control or want to replace a lost remote control, then you must always log on all remote controls with the DWA. You can log on a maximum of four remote controls.

Logging on remote control



- Deactivate alarm function.
- Switch on ignition.
- Press button **2** three times.

- » Acknowledgment tone sounds once.
- Switch off the ignition within ten seconds.
- Press button **2** three times.
- » Acknowledgment tone sounds once.
- Switch on the ignition within ten seconds.
- » Acknowledgment tone sounds twice.

You can log on a maximum of remote controls for the DWA. The logon for each remote control is carried out in three steps.

- Press and hold button **1** and button **2**.
- » LED flashes for ten seconds.
- As soon as the LED goes out, release button **1** and button **2**.
- » LED lights up.
- Press button **1** or button **2**.
- » Alarm tone sounds once.
- » LED goes out.
- » Remote control is logged on.

- Repeat the three previous work steps for each additional remote control.

Logon ended

The logon is ended in the following situations:

- 4 remote controls have been logged on.
- Ignition is switched off.
- No button was pressed for 30 seconds after the ignition was switched off.
- No button was pressed for 30 seconds after a remote control was logged on.

After the logon is completed, the LED flashes and the acknowledgment tone sounds three times.

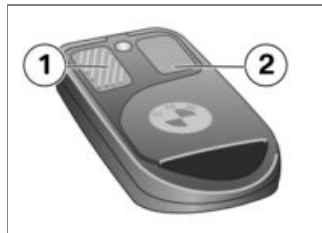
Synchronizing

- with anti-theft alarm^{OE}

When is it necessary to synchronize the remote control?

The remote control must be synchronized when the buttons of the remote control has been operated more than 256 times outside the range of the receiver. In this case, the receiver on the motorcycle no longer reacts to the signals of the remote control.

Synchronize remote control



- Press and hold button **1** and button **2**.

- » LED flashes for ten seconds.
- As soon as the LED goes out, release button **1** and button **2**.
- » LED lights up.
- Press button **1** or button **2**.
- » LED goes out.
- Remote control is synchronized.

Battery

– with anti-theft alarm^{OE}

When is a battery change required?

The batteries of the remote control must be replaced after approx. 2 - 3 years. A weak battery can be recognized from the fact that the LED does not light up at all or only briefly when a button is pressed.

Replace battery

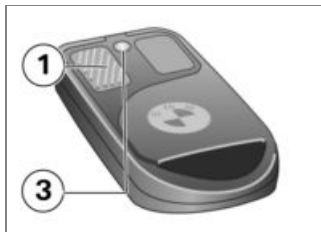


- Remove the screw **4** and take off the lower housing section **5**.
- Slide the old battery **8** forward under the bow **6**.

! Batteries of the wrong type or incorrect poling of the batteries can destroy the device. Use specified battery (see the chapter "Technical Data"). Ensure proper poling when inserting the battery. ◀

- Install a new battery while making sure that the positive terminal of the battery is at the top.

- Position the lower housing section on the nose **9** of the front edge and close while watching the two guide pins **7**.
- Install screw **4**.
- » The LED of the remote control lights up; i.e. the remote control must be synchronized.



- To synchronize the remote control within the range of the receiver, press the button **1** twice.
- » LED **3** begins to flash and goes out after a few seconds.
- » The remote-control is again ready to be used.

Riding

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Safety instructions

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 Dealer will be happy to advise you and has the correct clothing for every purpose.

Loading



Overloading and imbalanced loads can adversely affect the motorcycle's handling. Do not exceed the gross weight limit and observe the loading information. ◀

- Adjust spring preload, suspension damping rate settings and tire inflation pressures for the current gross vehicle weight.
 - with case^{OA}
- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy luggage and cargo as low and as close to the center of the motorcycle as possible.
- Observe maximum payload and top speed as indicated on label in case. ◀
 - with luggage rack^{OE}
- Comply with maximum payload of luggage rack.



Payload of luggage carrier

- with luggage rack^{OA}
- or
- with luggage rack^{OE}

max 11 lbs (max 5 kg) ◀◀

- with tank rucksack^{OA}
- Observe maximum payload of tank rucksack and corresponding top speed.



Payload of tank rucksack



max 11 lbs (max 5 kg)



Speed limit for driving with tank rucksack

max 81 mph (max 130 km/h) ◀

- with tank bag^{OA}
- Observe maximum payload of tank bag and corresponding top speed.

 Payload of tank bag
≤11 lbs (≤5 kg)
 Speed limit for driving with tank bag
≤81 mph (≤130 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:

- Settings of spring-strut and shock absorber system
- Imbalanced load
- Loose clothing
- Insufficient tire inflation pressure
- Poor tire tread
- Etc.

Risk of poisoning

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



Inhaling exhaust fumes therefore represents a health hazard and can even cause loss of consciousness with fatal consequences.

Do not inhale exhaust fumes.

Do not run the engine in closed rooms.◀

Burn hazard



Engine and exhaust system become very hot when the vehicle is in use. There is a risk of burn injuries by contact with hot surfaces.

After parking the motorcycle, make sure that nobody comes into contact with the engine and exhaust system.◀

Catalytic converter

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

For this reason, observe the following points:

- 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.



Unburned fuel will destroy the catalytic converter. Note the points listed for protection of the catalytic converter.◀

Danger of overheating



Cooling would be inadequate if the engine were allowed to idle for a lengthy period with the motorcycle at a stand-

still: overheating would result. In extreme cases, the motorcycle could catch fire.

Do not allow the engine to idle unnecessarily. After starting, ride off immediately.◀

Modifications



Modifications of the motorcycle (e.g. engine management system, throttle valves, clutch) can cause damage to the affected components and failure of safety-related functions. Damage caused in this way is not covered by the warranty. Do not make any modifications.◀

Checklist

Use the following checklist to check important functions, settings and wear limits before you ride off:

- Brakes
- Front and rear brake fluid levels
- Clutch function
- Clutch fluid level
- Shock absorber setting and spring preload
- Tread depth and tire inflation pressure
- Secure attachment of the case and the luggage.

At regular intervals:

- Engine oil level (every time you refuel)
- Brake pad wear (during every third stop for refueling).

Starting

Starting the engine

- Switch on ignition.
- » Pre-Ride Check in progress. (▶▶▶ 79)
- » ABS self-diagnosis in progress. (▶▶▶ 79)

- with automatic Stability Control^{OE}
- » ASC self-diagnosis in progress. (▶▶▶ 80)◀
- Engage neutral, or pull back clutch lever if a gear is engaged.



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.◀

- For cold starts and at low ambient temperatures: pull the lever to disengage the clutch and twist the throttle grip slightly.



- Press starter button **1**.

▶ 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.
- » Consult the troubleshooting chart if the engine refuses to start. (▮▶ 138)

Pre-Ride Check

The instrument cluster runs a test of the 'General' warning lamp when the ignition is switched on: this is the "Pre-Ride-Check". This test routine stops if the engine is started before it is completed.


To initialize, the exhaust flap is completely opened once then closed again.

Phase 1

 General warning light shows red.


- CHECK ! is indicated.

Phase 2

 General warning light shows yellow.

- CHECK ! is indicated.

If the 'General' warning lamp does not show:

 Some malfunctions cannot be indicated if the 'General' warning light cannot be displayed.

Check that the 'General' warning light comes on, and that it shows red and yellow. ◀

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

ABS self-diagnosis

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

Phase 1

- » Check on system components monitored by diagnostic system while vehicle is parked.



ABS warning lamp flashes.

Phase 2

- » Checking wheel sensors while starting off. The motorcycle must reach a speed of at least 3,1 mph (5 km/h) before the ABS self-diagnosis routine can be completed.



ABS warning lamp flashes.

ABS self-diagnosis completed

- » The ABS warning lamp goes out.

If an ABS error is indicated following completion of the ABS self-diagnosis routine:

- It remains possible to continue riding. It should be noted that neither the ABS function nor the integral function is available.
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

ASC self-diagnosis

– with automatic Stability Control^{OE}

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

Phase 1

- » Check on system components monitored by diagnostic system while vehicle is parked.



ASC symbol flashes.

Phase 2

- » Checking system components capable of diagnosis while starting off. So that the ASC self-diagnosis can be completed, the engine must be running and the motorcycle must drive at a speed of at least 3 mph (5 km/h).



ASC symbol flashes.

ASC self-diagnosis completed

- » The ASC symbol is no longer displayed.

If an ASC error is indicated following completion of the ASC self-diagnosis routine:

- It remains possible to continue riding. Please be aware that

ASC functionality is no longer available.

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

Breaking in Engine

- While running in the motorcycle, vary the throttle opening and engine-speed range frequently; avoid driving for long periods at a constant speed.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads, avoiding highways if possible.
- Observe the engine run-in speeds.




Engine run-in speed

<7000 min⁻¹

- Have first run-in check conducted after 300 - 750 mls (500 - 1,200 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.

 New brake pads can extend stopping distance by a significant margin.

Brake early. ◀

Tires

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



New tires do not provide full tire traction. Accident hazards exist in particular on wet roads and at extreme angles. Always think well ahead and avoid extreme angles. ◀

Shifting gears

– with gearshift assistant^{OE}

Gearshift assistant

Your motorcycle is equipped with a shifting assistant developed based on racing requirements. It enables upshifting without actuating the clutch or throttle valve in virtually all load and engine speed ranges. During acceleration the throttle valve can remain open, and the shifting time is reduced to a minimum. The gears are shifted into as usual with foot force on the shift lever.



The sensor **1** in the shift linkage detects the shift request and initiates shifting support.

When driving at constant speed in low gears at high engine speeds, upshifting without clutch operation can result in major load change reactions. , BMW Motorrad recommends only upshifting with clutch operation in these driving situations. The shifting assistant should not be used in the area of the rev-limiter.

No shifting support is provided in the following situations:

- during shifting with engaged clutch
- during shifting with the throttle valve closed (overrun)
- during downshifts.

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 at 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

increasing 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. With the "forced braking" often practiced in which the brake pressure is generated as quickly as possible and with great force, the dynamic load distribution cannot follow the increased deceleration and the braking force cannot be completely transferred to the road surface.

BMW Motorrad Integral ABS prevents the front wheel from locking.

Descending mountain passes



There is a danger of the brakes fading if you use only the rear brakes when descending mountain passes. Under extreme conditions, the

brakes could overheat and suffer severe damage.

The BMW integrated braking function ensures that the rear wheel brake is also applied when the handbrake lever is actuated, thus providing protection against overheating. Simply apply the front wheel brake and use the engine brake.◀

Wet, soiled brakes

Moisture and dirt on the brake disks 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 motorcycle.
- When driving on roads spread with salt.
- After working on the brakes due to oil or grease residues.

- When driving on soiled roads or offroad.



Poor braking action due to moisture and dirt.

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

Parking your motorcycle

Side stand

- Switch off engine.



If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.

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

- Fold out side stand and park motorcycle.



The side stand is designed to support only the weight of the motorcycle.

Do not lean or sit on the motorcycle with the side stand extended.◀

- If the slope of the road permits, turn the handlebars to the left.
- On a grade, the motorcycle should always face uphill; select 1st gear.

Center stand


– with center stand Generation II OA

- Switch off engine.



If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.

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


 The center stands could respond to excessively forceful motion by folding back and allowing the vehicle to fall over. Do not sit on the motorcycle while it is resting on the center stand.◀

- Fold out center stand and jack up motorcycle.


Refueling

Fuel specifications

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

 Leaded fuel will destroy the catalytic converter.

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

 Ethanol E85 might damage the engine and fuel supply system.

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 %, i. e., E10, may be used for refueling.




Recommended fuel quality


Super Plus unleaded (max. 10 % ethanol, E10)
91 AKI (98 ROZ/RON)
91 AKI

Refueling procedure

 Fuel is highly flammable. Fire at the fuel tank can result in fire and explosion. Do not smoke. Never bring a naked flame near the fuel tank.◀


 Fuel expands when exposed to heat. When the tank is overfilled, fuel can escape and get onto the road. This results in a danger of falling.

Do not overfill the fuel tank.◀

 Fuel attacks plastic surfaces, making them cloudy or unattractive.

Immediately wipe off plastic parts after contact with fuel.◀

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

 The available fuel tank volume can only be optimally used with the vehicle standing on the side stand.◀



- Open protective cap.

- Unlock cap of fuel tank with ignition key and fold up.





- Do not fill the tank past the bottom edge of the filler neck.

▶ When refueling after running on reserve, make sure that you top up the tank to a level above reserve, as otherwise the sensor will not be able to register the new level and the fuel warning lamp will not be switched off.◀

▶ The "usable fuel quantity" indicated 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.◀


	Usable fuel quantity
Approx. 5 gal (Approx. 19 l)	
	Reserve fuel quantity
Approx. 1.1 gal (Approx. 4 l)	

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

Fastening motorcycle for transport

- Protect all component surfaces against which straps are routed against scratching. For example, use adhesive tape or soft cloths.



 The motorcycle can tip away to the side and fall over.

Secure motorcycle against tipping away to the side, preferably with the help of a second person.◀

- Push motorcycle onto transport surface, and do not place on side stand or center stand.



Components can be damaged.

Do not squeeze components such as brake lines or wiring harnesses. ◀

- Place front strap over the frame and route downward.
- Guide the strap through the wheel carrier toward the front and tension downward.



- Fasten rear straps on both sides to the passenger foot-pegs and then tighten them.
- Tension all straps evenly; the vehicle should be pulled down against its springs with the suspension compressed as much as possible.

Technology in detail

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Brake system with BMW Motorrad Integral 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.

The BMW Motorrad Integral ABS adapts the braking force distribution between the front and rear wheel brake to the loading of the motorcycle during braking.

 Spinning of the rear wheel with the front brake applied (Burn Out) is prevented by the integral function. The result may be damage to the rear wheel brake and the clutch.

Do not attempt Burn Outs.◀

How does 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 poorer 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 transferrable braking force is exceeded when the driver increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this situation occurs, ABS intervenes and adjusts the brake pressure to the maximum transferrable 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 transferrable 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 BMW Motorrad Integral 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.

How is the BMW Motorrad Integral ABS noticeable to the rider?

If the ABS system must reduce the braking forces due to the conditions described above, then vibrations can be felt at the handbrake 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

Even during severe braking, a high level of tire grip can mean that the front wheel does not lock up until very late, if at all. Consequently, ABS does not intervene until very late, if at all.

Under these circumstances the rear wheel can lift off the ground, and the outcome can be a high-siding situation in which the motorcycle can flip over.



Heavy braking can lead to the rear wheel lifting off the ground.

When braking, 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 BMW Motorrad Integral ABS?

The BMW Motorrad Integral 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 offroad or on the race-track.

Special situations

To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If implausible values are detected over a longer period of time, the ABS function is deactivated for safety reasons and an ABS fault is indicated. The condition for a fault code is the completed self-diagnosis.

In addition to problems on the BMW Motorrad Integral ABS, unusual driving conditions can also lead to a fault code.

Unusual driving conditions:

- Heating up on the main or auxiliary stand at idle or with gear engaged.
- Rear wheel locked by the engine brake for a lengthy period, for example while descending on a loose surface.

Should a fault code result due to one of the driving conditions described above, the ABS function can be reactivated by switching the ignition off and then on again.

How important is regular maintenance?



Any technical system is always only as good as its maintenance.

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 BMW Motorrad Integral 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.

Be careful in curves! When you apply the brakes on a corner, the motorcycle's weight and momentum take over and even BMW Motorrad Integral ABS is unable to counteract their effects.

Engine management with BMW Motorrad ASC

– with automatic Stability Control^{OE}

How does ASC work?

The BMW Motorrad ASC compares the wheel speeds of the front and rear wheel. From the speed difference the slip, and with it the stability reserves on the rear wheel are determined. When a slip limit is exceeded, the engine torque is adapted by the engine management system.

What are the design characteristics of the BMW Motorrad ASC?

The BMW Motorrad ASC is an assistance system for the rider and is designed for driving on public roads. Especially in at the limits of driving physics, the rider has a considerable influence on the control options of the ASC (shifting weight in curves, loose loads).

The system is not optimized for special requirements resulting under extreme weather conditions off-road or on the racetrack. The BMW Motorrad ASC can be deactivated for these cases.



Even with ASC, the laws of physics cannot be overridden. The rider is always responsible for adapting his/her driving style.

Do not reduce the additional

safety provided with risky driving. ◀

Special situations

As lean angles increase, acceleration potential is also progressively restricted by the laws of physics. This can result in delayed 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. If implausible values are detected over a longer period of time, the ASC function is deactivated for safety reasons and an ASC fault is indicated. The condition for a fault code is the completed self-diagnosis.

In the following unusual driving conditions, the BMW Motorrad ASC can be automatically deactivated.

Unusual driving conditions:

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

The ASC is reactivated by switching the ignition on and off and then driving at a speed above 3 mph (5 km/h).

If the front wheel loses contact to the ground during extreme acceleration, the ASC reduces the engine torque until the front wheel touches the ground again. In this case, BMW Motorrad recommends turning back the throttle grip somewhat to achieve a stable driving state again as quickly as possible.

On a slippery surface, the throttle grip should never be suddenly turned back completely without pulling the clutch at the same time. The engine braking torque can cause the rear wheel to block, resulting in an unstable driving state. This case cannot be controlled by the BMW Motorrad ASC.

Tire Pressure Control TCP/RDC

- with Tire Pressure Control (TPC/RDC)^{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 controller that suppresses transmission of the monitored data until a speed of

approx. 18 mph (30 km/h) is reached. Before initial reception of the tire inflation pressure, –

– is shown in the display for each tire. The sensors continue to transmit the monitored data for approx. 15 minutes after the motorcycle comes to a stop.

The control unit can manage four sensors, and as a result two sets of wheels with TCP/RDC sensors can be driven. An error message will appear if an RDC control unit is installed, but no sensors are installed at the wheels.

Tire inflation pressure ranges

The TPC/RDC control unit distinguishes between three tire 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 tire inflation pressure is temperature dependent, i.e., it increases or decreases together with the tire temperature. The tire temperature is dependent on the ambient temperature and on the driving style and duration.

The tire inflation pressures are shown temperature-compensated in the multifunction display; they refer to a tire temperature of 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, the pressure figures indicated by the gauges at filling stations will usually vary

from those appearing in the multifunction display.

Adjusting inflation pressure

Compare the TCP/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 air pressure tester at the filling station.

Example: According to the Rider's Manual, the tire inflation pressure is to be 36 psi (2.5 bar), however 33 psi (2.3 bar) is shown in the multifunction display. The tester at the filling station indicates 34.8 psi (2.4 bar). This value must be increased by 3 psi (0.2 bar) to 37.8 psi (2.6 bar) in order to produce the correct tire inflation pressure.

ESA II Electronic Suspension Adjustment

– with Electronic Suspension Adjustment (ESA II)^{OE}

Chassis adjustments

The proper type of loading must first be selected when the motorcycle is stationary according to the motorcycle's load. Depending on the damping selected for this purpose, the damping levels are set on both spring struts and the spring base and spring rate are set on the rear spring strut. If the selected damping is changed, the spring rate on the rear spring strut is also adjusted in addition to the damping of both spring struts. This enables very precise adjustment of the chassis to all riding conditions, including while riding.

- The combination of spring base, damping and spring rate ensures the chassis geometry is always appropriate.
- The static normal position is virtually maintained while riding.
- The different riding and loading conditions are offset so that the handling of the motorcycle remains constant.

It is possible to electrically change the spring rate through the combination of a conventional coil spring with a plastic element (Elastogran), the lateral expansion of which can be electrohydraulically limited using a displaceable sleeve. The more the sleeve surrounds the plastic element, the more its expansion is limited and the spring rate increases. The highest spring rate is achieved when the sleeve completely encloses the plastic element and sits on the steel

spring. Accordingly, the spring rate is lower, the less the sleeve limits the expansion of the plastic element.

Accessories

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General instructions



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, function 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 infringe on national road-vehicle construction and use regulations of your country. Observe the information on the importance of tire sizes for chassis control systems (► 111). Your authorized BMW Motorrad retailer offers you qualified advice when choosing genuine BMW parts, accessories and other products.

You will find all BMW Motorrad optional accessories on our website: "www.bmw-motorrad.com".

Onboard power sockets

Information on using onboard power sockets:

Automatic deactivation

Onboard sockets are switched off automatically under the following conditions:

- if the battery's voltage falls below the level required to start the vehicle
- if the maximum electrical load specified in the "Technical data" is exceeded
- during starting.

Operating electrical accessories

You can start using electrical accessories only when the ignition is switched on. The accessory remains operational if the ignition is subsequently switched off. Onboard sockets are switched off approx. 15 minutes after switching off the ignition to reduce the

strain on the onboard electrical system.

Cable routing

The cords from the power sockets to the devices must be routed in such a way that they:

- do not interfere with the rider's freedom of movement
- do not limit steering angles and handling characteristics
- cannot be caught or trapped.

Case

– with case^{OA}

Opening case



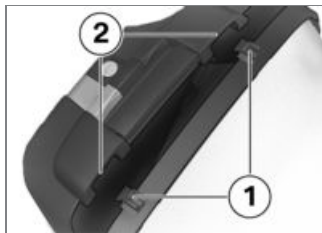
- Turn lock barrel into OPEN position.



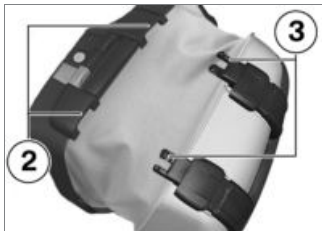
- Pull gray release lever **1** (OPEN) upward.
» Lock straps **2** open.

- Pull gray release lever (OPEN) upwards again while simultaneously pulling case lid **3** out of retainer.

Close case



- Press locks **1** of case lid into locking devices **2** until they engage.



- Also press locks **3** of lock straps into locking devices **2** until they engage.

Adjusting case volume

- Only close case lid.



- Press lock straps **1** outward and pull upward.
» The maximum volume has been set.



- Close lock straps.

- Press case lid against case body.
» The case volume is adapted to the contents.

Removing case



- Turn lock barrel into RELEASE position.



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

Mounting case

- Hook case into lower mounting.

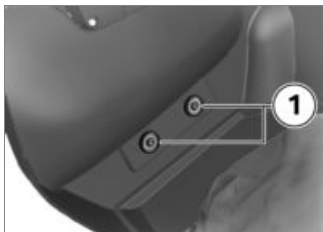


- Pull black release lever **1** (RELEASE) upwards while simultaneously pushing the case into upper mounting.
- Press black release lever (RELEASE) downward until it engages.
- Turn key in case lock in the direction of travel and remove.

Secure hold



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



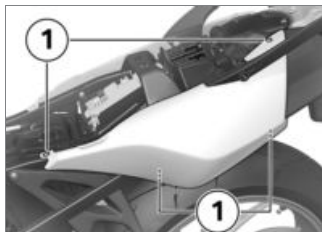
Use the screws **1** inside the case for this purpose.

Tire repair kit

– with tire repair kit^{OA}

Stowing tire repair kit

- Removing seat (→ 61).

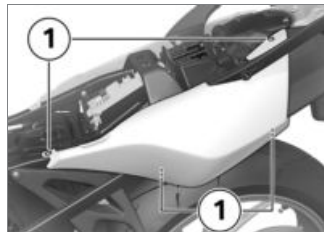


- Remove screws **1** and side trim.

▶ To protect the side panel from scratches, lay it on the seat.◀



- Position flat tire kit using a rubber strap as shown.



- Attach side trim and fit screws **1**.
- Installing seat (→ 62).

Maintenance

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Clutch	109
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Wheels	110
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General instructions

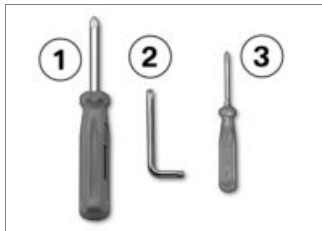
The 'Maintenance' chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

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".

Information on additional maintenance and repair work is provided in the Repair Manual for your vehicle on DVD, which you can obtain from your authorized BMW Motorrad retailer.

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

Onboard tool kit Standard tool kit

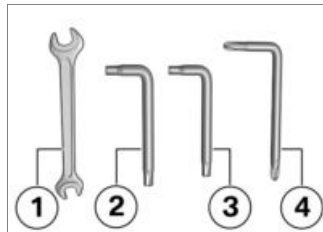


- 1** Reversible screwdriver with Phillips and straight blade
 - Removing battery (➡ 130).
- 2** TORX wrench, T25
 - with tire repair kit^{OA}
 - Stowing tire repair kit (➡ 100).
 - Removing battery compartment cover (➡ 131).

- 3** Small screwdriver with Phillips blade
 - Replacing front turn indicator bulbs (➡ 125).
 - Replacing rear turn indicator bulbs (➡ 126).

Auxiliary tool kit

- with special model K 1300 S with HP package^{OE}




- 1** Open-ended wrench
Wrench size: 8/10 mm
- 2** Torx wrench, T45
 - Adjust footrests.
 - Adjust shift lever.

- 3 Torx wrench T30
 - Adjust footbrake lever.
- 4 Angled screwdriver with Phillips blade
 - Adjust shift lever.

Engine oil

Checking engine oil level

 After longer motorcycle immobilization periods, engine oil can collect in the oil pan; this must be pumped into the oil tank before the reading is taken. Here, the engine oil must be at operating temperature. Checking the oil level with the engine cold or after a short trip leads to misinterpretations and therefore to incorrect oil fill quantities.

To ensure that the display of the engine oil level is correct, only check the oil level after a longer trip.◀

- Make sure ground is level and firm and hold motorcycle at operating temperature vertically.
 - with center stand Generation II OA
- Make sure ground is level and firm and place motorcycle at operating temperature on its center stand.◀
- Let the engine run in neutral for one minute.
- Switch off ignition.



- Read off the oil level from the display **1**.



Specified level of engine oil

between MIN and MAX marking

If the oil level is below MIN mark:

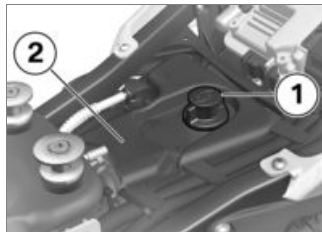
- Topping up engine oil (➔ 104).

If oil level is above MAX mark:

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

Topping up engine oil

- Make sure ground is level and firm and park motorcycle.
- Removing seat (➔ 61).
- Clean the area adjacent to the oil filler opening.



- Remove cap **1** of engine oil fill location.



Both too little and too much engine oil can lead to 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 0.5 quarts (max 0.5 l) (Difference between MIN and MAX)

- During an oil change: Observe the dependence of the oil filling quantity on the marking at position **2**.



Engine oil, capacity

Viscosity rating



Engine oil, capacity

3.7 quarts (3.5 l) (with filter change (**unmarked** container))

1.1 gal (4 l) (with filter change (larger **marked** container))

0.5 quarts (0.5 l) (Difference between Min and Max)

- Checking engine oil level (➡ 103).
- Reinstall engine oil fill location cap.
- Installing seat (➡ 62).

Brake system

Checking 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 points are perceptible:



Incorrect working practices endanger the reliability of the brakes.

Have all work on the brake system carried out by specialists.◀

- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Check front brake pad thickness

- Make sure ground is level and firm and park motorcycle.



- Visually inspect left and right brake pads to determine their thickness. Direction of view: between wheel and front wheel control to brake calipers **1**.



Front brake-pad wear limit

min 0.04 in (min 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:



Dropping below the minimum pad thickness leads to reduced braking performance and may result in damage to the brakes.

In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness. ◀

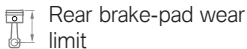
- Have the brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Check rear brake pad thickness

- Make sure ground is level and firm and park motorcycle.




- Conduct a visual inspection of the brake pad thickness. Direction of view: from right to brake caliper **1**.



min 0.04 in (min 1.0 mm)
(Only friction material without carrier plate. Brake disk must not be visible through bore hole of inner brake pad.)

If the brake rotor is visible:


 Dropping below the minimum pad thickness leads to reduced braking performance and may result in damage to the brakes.

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 the brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Checking front brake fluid level

 A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency. Check brake fluid level regularly.◀


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

– with center stand Generation II^{OA}

- Make sure ground is level and firm and place motorcycle on its center stand.◀
- Move handlebars into straight-ahead position.



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

 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 and handlebars straight ahead)

If brake fluid level falls below the approved level:

- Have the defect corrected as soon as possible by an authorized workshop, preferably an

authorized BMW Motorrad retailer.

Checking rear brake fluid level

- Make sure ground is level and firm and hold motorcycle vertically.
- with center stand Generation II OA
- Make sure ground is level and firm and place motorcycle on its center stand. ◀



A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.

Check brake fluid level regularly. ◀

- Check level of brake fluid in rear brake-fluid reservoir **1**.



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 the 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.

Checking clutch fluid level


- Make sure ground is level and firm and hold motorcycle vertically.
 - with center stand Generation II OA
- Make sure ground is level and firm and place motorcycle on its center stand.<

- Move handlebars into straight-ahead position.




- Read off clutch fluid level at reservoir **1**.

 The fluid level in the clutch fluid reservoir rises due to clutch wear.<

 Clutch fluid level (visual check)

Clutch fluid level must not drop.

If clutch fluid level drops:

 Unsuitable hydraulic fluids could cause damage to the clutch system.

No fluids may be poured in.◀


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

Wheel rims and tires

Check wheel rims


- Make sure ground is level and firm and park motorcycle.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Checking tire tread depth

 The handling of your motorcycle can already change for the worse before the legally prescribed minimum tread depth is reached.

Have tires replaced even before the minimum tread depth is reached.◀

- Make sure ground is level and firm and park motorcycle.
- Measure tire tread depth in main tread grooves with wear indicators.

 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. Extensive information is available at your authorized BMW Motorrad retailer or on the Internet at "**www.bmw-motorrad.com**".

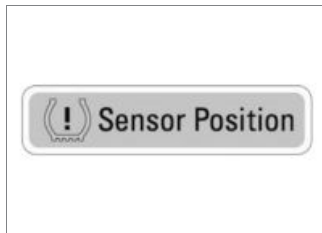
Affect of wheel sizes on chassis control systems


The wheel sizes play a major role in the chassis control systems ABS and ASC. Especially the diameter and width of the wheels are stored in the control unit as the basis for all necessary calculations. A change in these sizes due to conversion to others than the wheels installed as standard equipment can seriously affect the control comfort of these systems.

The sensor wheels required for wheel speed detection must also match the control systems installed and may not be replaced. If you want to equip your motorcycle with different wheels, please speak to a specialist service facility, and preferably a BMW Motorrad retailer. In some cases the data stored in the control units can be adapted to the new wheel sizes.

TCP/RDC sticker

– with Tire Pressure Control (TPC/RDC)^{OE}



 If tires are inexpertly removed, the RDC sensors may be damaged. Inform the authorized BMW Motorrad retailer or the specialist service facility on the fact that the wheel is equipped with a RDC sensor. ◀

On motorcycles equipped with TCP/RDC, a corresponding sticker is located on the wheel rim at the position of the TCP/

RDC sensor. During a tire change it must be ensured that the TCP/RDC sensor is not damaged. Inform the BMW Motorrad retailer or the authorized workshop of the TCP/RDC sensor.

Removing front wheel

- Make sure the ground is level and firm and park the motorcycle.




- Remove screws **1** on left and right.
- Pull out front wheel cover toward front.



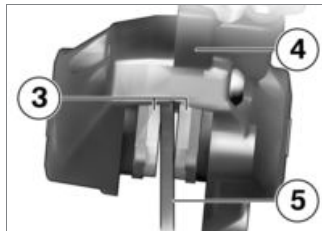
- Unclip two retaining clips **1** of sensor cable on brake line.
- Mask off areas of wheel rim that could be scratched in the process of removing the brake calipers.



 Once the calipers have been removed, there is a risk of the brake pads being pressed together to the extent that they cannot be slipped back over the brake rotor on reassembly.

Do not operate the handbrake lever when the brake calipers have been removed.◀

- Remove securing screws **2** of left and right brake calipers.

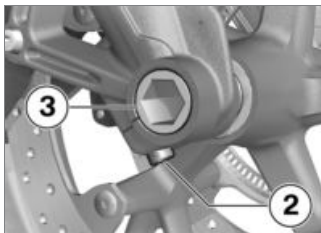



- Push brake pads **3** slightly apart by turning brake caliper **4** back and forth against brake rotor **5**.
- Carefully pull brake calipers back and outward to remove them from the brake rotors.



- Remove screw **1** and extract the ABS sensor from its socket.
- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear wheel stand.
- Installing rear-wheel stand (➡ 120).
 - with center stand Generation II^{OA}
- Make sure ground is level and firm and place motorcycle on its center stand.◀

- Raise front of motorcycle until the front wheel can turn freely. BMW Motorrad recommends the BMW Motorrad front wheel stand for lifting the motorcycle.
- Mounting front wheel stand (➡ 119).




 The left clamping device fixes the threaded bush in place in the front suspension. A poorly aligned threaded bush results in incorrect spacing between the sensor ring and the wheel speed sensor, and therefore to ABS malfunctions or de-

struction of the wheel speed sensor.


To ensure the proper alignment of the threaded bush, do not loosen or remove the left clamping device.◀


- Remove right-hand axle clamping screw **2**.
- Remove quick-release axle **3** while supporting wheel.
- Roll front wheel forward to remove.

Installing front wheel

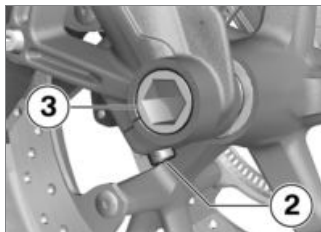
 Malfunctions may occur during control interventions by ABS or ASC if a wheel other than the standard wheel is installed.

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

 Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage. Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer. ◀

 The front wheel must be installed right way round to rotate in the correct direction. Observe the direction of rotation arrows on the tires or on the rim. ◀

- Roll front wheel into front wheel guide.



- Lift front wheel and install quick-release axle **3** with torque.



Quick-release axle in threaded bush

37 lb/ft (50 Nm)

- Tighten the right-hand axle clamping screw **2** with the specified torque.



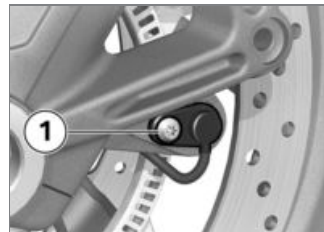
Clamping bolt in wheel carrier

14 lb/ft (19 Nm)

- Remove front wheel stand.

– without center stand Generation II^{OA}

- Remove rear wheel stand. ◀



- Insert ABS sensor into hole and install screw **1**.

- Slide the brake calipers onto the rotors.




- Install securing screws **2** on left and right with specified torque.



Front brake caliper on wheel carrier

22 lb/ft (30 Nm)



 The cable of the wheel speed sensor could chafe through if it comes into contact with the brake disk. Make sure that sensor cable is routed correctly. ◀

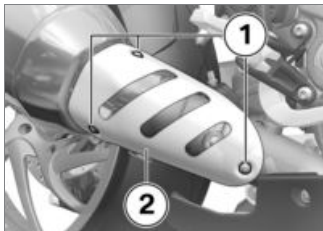
- Snap the two retaining clips **1** for the sensor wire onto the brake line.
- Remove adhesive tape from wheel rim.
- Press handbrake lever firmly a number of times until resistance point is noticeable.




- Install front wheel cover and fit screws **1** on right and left.

Removing rear wheel

- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear wheel stand.
- Installing rear-wheel stand (▶▶ 120).
 - with center stand Generation II OA
- Make sure ground is level and firm and place motorcycle on its center stand. ◀



 Danger of burns from the hot exhaust system.

Do not touch the exhaust system. If necessary, do not continue work until the exhaust system has cooled down. ◀

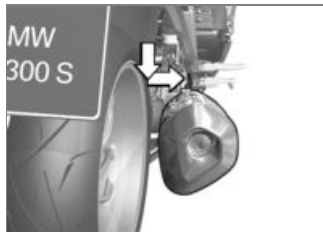
- Remove three screws **1** on the muffer cover **2**.
- Take off cover.



- Loosen screw **3** on clamp far enough that the clip can be twisted.
- Do not remove sealing grease from clamp.



- Remove screw **4** on the rear footrest while supporting the end muffler.



- First turn the end muffler downward slightly and then outward.

- Shift into first gear.



- Remove five screws **1** on rear wheel, holding wheel as you do so.
- When using the BMW Motorrad rear wheel stand: remove the lock washer.
- Lower rear wheel to the ground and roll out toward rear.
- When using the BMW Motorrad rear wheel stand: remount the lock washer.

Installing rear wheel

! Malfunctions may occur during control interventions by ABS or ASC if a wheel other than the standard wheel is installed.

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


! Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage. Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer. ◀

- When using the BMW Motorrad rear wheel stand: remove the lock washer.
- Roll and mount rear wheel onto rear wheel support.

- When using the BMW Motorrad rear wheel stand: remount the lock washer.



- Fit five screws **1** and tighten diagonally with specified torque.

 Tighten rear wheel on wheel flange

Tightening sequence: diagonally

44 lb/ft (60 Nm)

- Turn the end muffler to its initial position.



- Tighten screw **4** on the rear footrest with the appropriate torque.



Muffler on passenger footrest

16 lb/ft (22 Nm)

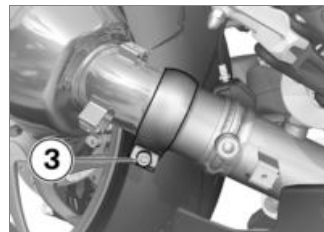


- Align end muffler so that specified distance is complied with.



Distance from muffler to tire

min 0.8 in (min 20 mm)

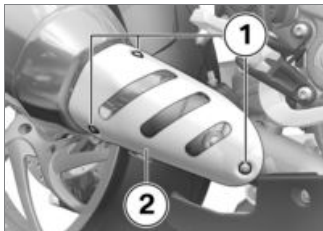


- Align clip as shown.
- Tighten screw **3** on the ball pipe clip with the appropriate torque.



Muffler with ball-joint clamp on manifold


26 lb/ft (35 Nm)



- Position muffer cover **2** and fit three screws **1**.
- without center stand Generation II^{OA}
- Remove rear wheel stand.<

Front wheel stand

Mounting front wheel stand

 The BMW Motorrad front wheel stand is not designed for holding motorcycles without a center or other auxiliary stands. A motorcycle standing on the front

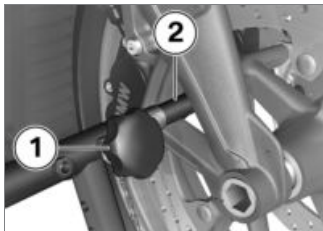
wheel stand and the rear wheel alone can fall over.

Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.<

- Use basic stand with part number (83 30 0 402 241) in combination with front-wheel adapter (83 30 0 402 243).
- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear wheel stand.
- Installing rear-wheel stand (➡ 120).
- with center stand Generation II^{OA}
- Make sure ground is level and firm and place motorcycle on its center stand.<



- Loosen securing screws **1**.
- Push two mounting pins **2** far enough apart that 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.



! The sensor ring of the BMW Motorrad Integral ABS can be damaged. Only push the left mounting pin so far inward that it does not touch the sensor ring.◀

- Push two mounting pins **2** through triangles of brake caliper support toward inside so that front wheel can still be rolled through.
- Tighten adjustment screws **1**.



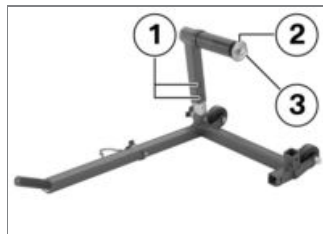
! If the motorcycle is resting on the center stand: The motorcycle is raised too far at the front, the center stand lifts off the ground and the motorcycle can tip over to the side. When raising the vehicle, make sure that the center stand remains on the ground.◀

- Apply uniform pressure to push front wheel stand down and raise motorcycle.

Rear-wheel stand

Installing rear-wheel stand

- Use basic stand with part number (83 30 0 402 245) with rear axle adapter (83 30 0 402 250).
- with special model K 1300 S with HP package^{OE}
- The included auxiliary stand is used in accordance with the following description.◀



- Set desired height of rear wheel stand using bolts **1**.

- Remove the lock washer **2**; to do so, press the unlock button **3**.
- Make sure ground is level and firm and place the motorcycle on its side stand.



- Push rear wheel stand from left into rear axle.
- Mount lock washer **2** from right by pressing release 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.



- To ensure a secure position, install lever **4** on the short side of the stand.

Lamps

Replacing low-beam and high-beam bulbs

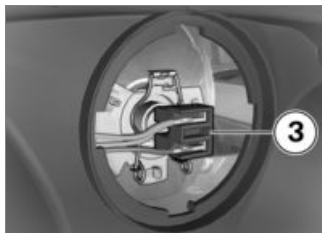
▶ The alignment of the connector may differ from the illustration depending on the bulb to be replaced. ◀

- Make sure the ground is level and firm and park the motorcycle.

- Switch off the ignition.



- Remove the covers **1** on the high-beam bulbs and/or the cover **2** on the low-beam bulbs by turning counterclockwise.



- Disconnect plug **3**.



- Remove spring strap **4** from detents and fold up.
- Remove bulb **5**.

- Replace defective bulb.



Bulbs for low-beam
headlight

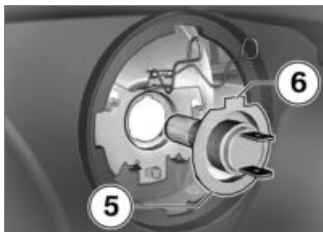
H7 / 12 V / 55 W



Bulb for high-beam
headlight

H7 / 12 V / 55 W

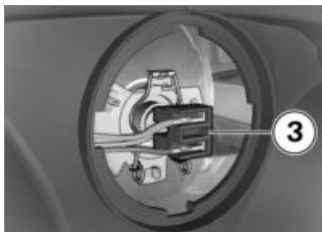
- To avoid contamination on the bulb's glass surface, never touch or hold the bulb anywhere other than on its metal socket base.



- Insert bulb **5** while ensuring that the lug **6** is in the correct position.



- Install spring straps **4** in locks.



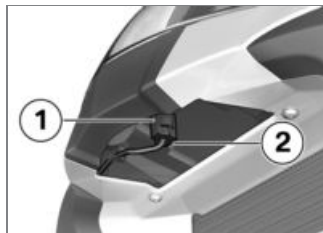
- Attach the plug **3**.



- Install covers **1** for high-beam bulbs and/or cover **2** for low-beam bulbs by turning clockwise.

Replacing parking light bulb

- Make sure the ground is level and firm and park the motorcycle.
- Switch off the ignition.



- Unlock and disconnect plug connection **1** beneath headlight at position **2**.



- Remove bulb socket **3** from the headlight housing from below by turning it counterclockwise.



- Remove bulb **4** from bulb holder.

- Replace defective bulb.



Bulb for parking light

W5W / 12 V / 5 W

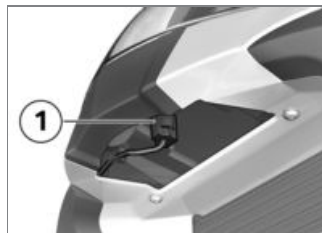
- To prevent contaminants from being deposited on the new bulb's glass surface, always use a clean, dry cloth to hold it.



- Insert bulb **4** into bulb socket.



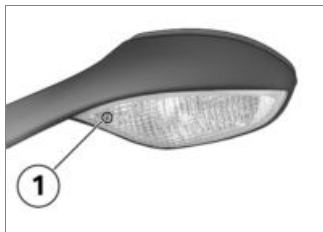
- Install bulb socket **3** in headlight housing from below by turning clockwise.



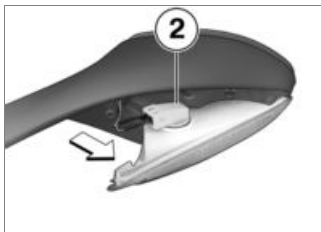
- Close connector **1** below headlight.

Replacing front turn indicator bulbs

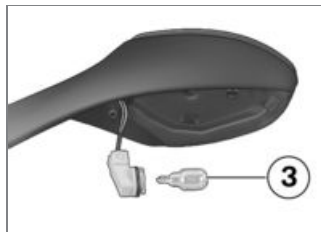
- Make sure the ground is level and firm and park the motorcycle.
- Switch off the ignition.




- Remove screw **1**.



- Pull lamp housing on screw connection side out of mirror housing.
- Remove bulb holder **2** from lamp housing by turning it counterclockwise.

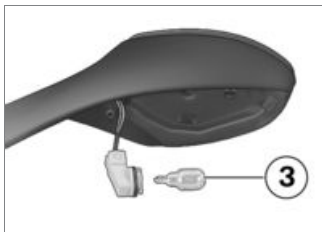


- Remove bulb **3** from bulb holder.
- Replacing defective bulb

 Bulbs for flashing turn indicators, front

W16W / 12 V / 16 W

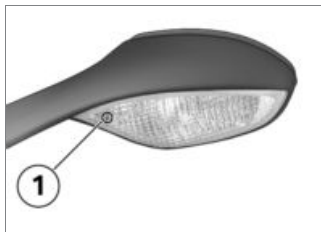
- To prevent contaminants from being deposited on the new bulb's glass surface, always use a clean, dry cloth to hold it.



- Install bulb **3** in bulb socket.



- Install bulb socket **2** in lamp housing by turning clockwise.
- Insert lamp housing in mirror housing.



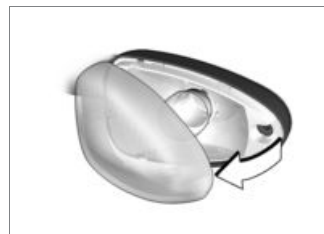
- Install screw **1**.

Replacing rear turn indicator bulbs

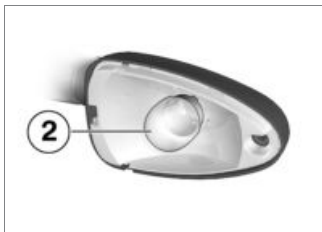
- Make sure the ground is level and firm and park the motorcycle.
- Switch off the ignition.




- Remove screw **1**.



- Pull lamp housing on screw connection side out of turn indicator housing.

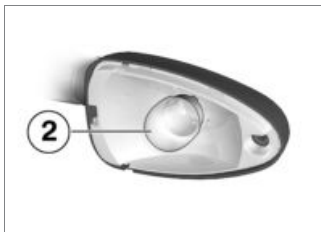


- Press bulb **2** into socket and turn counterclockwise to remove.
- Replace defective bulb.

 Bulbs for flashing turn indicators, rear

R10W / 12 V / 10 W

- To prevent contaminants from being deposited on the new bulb's glass surface, always use a clean, dry cloth to hold it.



- Press bulb **2** into socket and install by turning clockwise.



- Insert lamp glass in turn indicator housing.




- Install screw **1**.

Diode tail light

If more LEDs have burned out in the tail light than are indicated in the Technical Data below, the tail light bulb must be replaced. In this case:

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

 Maximum number of defective LEDs in the tail-lamp

1 (Brake light/taillight (red))



Maximum number of defective LEDs in the tail-lamp

1 (License plate light (white))

Jump-starting



The wires leading to the power socket do not have a load-capacity rating adequate for jump-starting the engine. Excessively high current can lead to a cable fire or damage to the vehicle electronics.

Do not use the socket to jump-start the engine of the motorcycle. ◀



A short-circuit can result if the crocodile clips of the jump leads are accidentally brought into contact with the motorcycle.

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



Jump-starting with a donor-battery voltage higher than 12 V can damage the motorcycle electronics.

The battery of the donor vehicle must have a voltage of 12 V. ◀

- Make sure ground is level and firm and park motorcycle.
- Removing battery compartment cover (▶▶ 131).
- When jump-starting the engine, do not disconnect the battery from the onboard electrical system.
- Allow the engine on the support vehicle to run while jump-starting.
- Begin by clamping one end of the red jumper cable to the positive terminal of the discharged battery and clamping the other end to the positive terminal of the donor battery.
- Then clamp one end of the black jumper cable to the donor battery's negative

terminal while connecting the other end to discharged battery's negative terminal.


- Start engine of the vehicle 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 jump lead from negative terminals first, then disconnect second lead from positive terminals.
- Installing battery compartment cover (▶▶ 132).

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.


 If the battery is not disconnected, the onboard electronics (clock etc.) will drain the battery. This can cause the battery to run flat. If this happens,

warranty claims will not be accepted.

During driving breaks of more than 4 weeks, a trickle-charger should be connected to the battery. ◀


 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. ◀


Charging connected battery

 Charging the connected battery directly at the bat-

tery terminals can damage the motorcycle electronics.

To charge the battery via the battery terminals, disconnect the battery first. ◀

 If the multifunction display and indicator lamps fail to light up when you switch on the ignition, the battery is completely discharged (battery voltage below 9 V). Attempts to recharge a completely discharged battery through the onboard power socket can damage the motorcycle's electronic systems. Always charge a completely drained battery directly at the terminals of the disconnected battery. ◀

 Charging the battery via the onboard socket is only possible with suitable chargers. Unsuitable chargers can result in damage to the motorcycle electronics.

Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer. ◀

- Charge disconnected battery via onboard socket.

▶ 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.

▶ 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 at the terminals of the disconnected battery. ◀

Charging disconnected battery

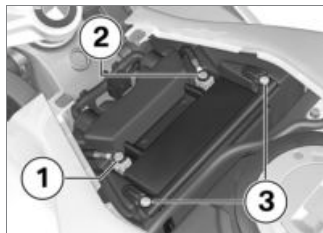
- Charge battery using a suitable charger.
- Comply with operating instructions of charger.
- Once the battery is fully charged, disconnect the charger's terminal clips from the battery terminals.

▶ 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

- Removing battery compartment cover (▶▶▶ 131).
 - with anti-theft alarm^{OE}
- Switch off anti-theft alarm if necessary. ◀

- Switch off ignition.

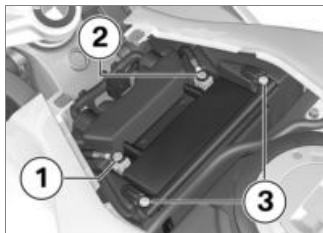


⚠ An incorrect disconnection sequence increase the risk of short-circuiting. Always observe the proper sequence. ◀


- Remove negative cable **1** first.
- Then remove positive cable **2**.
- Unscrew screws **3** and pull retaining bracket toward rear.
- Lift battery upwards; if it is difficult to move, moving it back and forth will help.

Installing battery


- Place battery in battery compartment, positive terminal on right in direction of travel.



- Push retaining strap over battery and install screws **3**.

 An incorrect installation sequence increases the risk of short-circuiting. Always observe the proper sequence.◀

- First install positive battery cable **2**.
- Then install negative battery cable **1**.

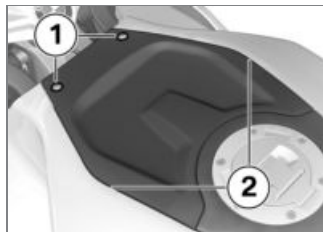
 If the motorcycle was disconnected from the battery for a longer time, the current date must be entered in the instrument cluster to ensure the proper operation of the service display.

Consult a certified service facility, preferably an authorized BMW Motorrad retailer, for setting of the date.◀

- Installing battery compartment cover (▣ 132).
- Setting the clock (▣ 45).

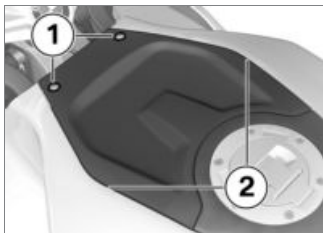
Removing battery compartment cover

- Make sure the ground is level and firm and park the motorcycle.



- Remove screws **1**.
- Remove battery compartment cover forward and upward while ensuring the anchorages are in position **2**.

Installing battery compartment cover




- Position battery compartment cover at the rear and close while ensuring the anchorages are in position **2**.
- Install screws **1**.

Care

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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.

 The use of unsuitable products for cleaning and care can damage motorcycle components.

For cleaning, do not use any solvents such as nitro-thinners, cold cleaning agents, fuel or similar, and do not use cleaning agents that contain alcohol.◀


Washing your vehicle

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the vehicle.


To prevent stains, do not wash the vehicle immediately after it has been exposed to bright sunlight and do not wash it in the sun.

Make sure that the vehicle is washed frequently, especially during the winter months.


To remove road salt, clean the motorcycle with cold water immediately after completion of every trip.

 After washing the motorcycle, after driving through water or in the rain, braking can be delayed owing to damp brake rotors and brake pads.

Brake early until the brake rotors and brake pads are dry.◀

 Warm water intensifies the effect of salt.


Only use cold water to remove road salt.◀

 The high water pressure from high-pressure cleaners (steam blasters) can result in damage to seals, the hydraulic brake system, the electrics and the seat.

Do not use a steam jet or high-pressure cleaning equipment.◀

Cleaning sensitive motorcycle parts

Plastics

 If plastic parts are cleaned using unsuitable cleaning agents, the surfaces can be damaged.

Do not use cleaning agents that


contain alcohol, solvents or abrasives to clean plastic parts. 'Insect sponges' or sponges with hard surfaces can also lead to scratches. ◀

Fairings and Panels

Clean body panels with water and BMW plastic cleaner.

Windshields and lenses are manufactured of plastic

Clean off dirt and insects with a soft sponge and plenty of water.

 Soften stubborn dirt and dead insects by covering the affected areas with a wet cloth. ◀

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.



Cooling fins can be bent easily.

When cleaning the radiator, ensure that the fins are not bent. ◀

Rubber

Treat rubber components with water or BMW rubber protection coating agent.



Using silicone sprays for the care of rubber seals can cause damage.

Do not use silicone sprays or care products that contain silicone. ◀

Paint care

Washing the vehicle regularly will help counteract the long-term effects of substances that damage the paint, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, e.g. tree resin or pollen.

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. BMW Car Polish and BMW Paint Cleaner are recommended for this procedure.

Contamination on the paint finish is particularly easy to see after the vehicle has been washed.

Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends removing tar spots with BMW Tar Re-

mover. Then add a protective wax coating to the paint at these locations.

Protective wax coating

BMW Motorrad recommends that you apply BMW Car Wax or another wax containing carnauba or synthetic wax additives to protect the paintwork.

When water fails to form beads on the paint surface this indicates it is time to apply wax.

Storing motorcycle

- Clean the motorcycle.
- Removing battery (▶▶▶ 130).
- Spray the brake and clutch lever, and the main and side stand pivots with a suitable lubricant.
- Coat bare metal and chrome-plated parts with an acid-free grease (e.g., Vaseline).

- Park motorcycle in a dry room, raising it to remove weight from both wheels.

Returning motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Install a charged battery.
- Observe checklist before starting.

Technical data

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Threaded fasteners

Front wheel	Value	Valid
Front brake caliper on wheel carrier		
M8 x 30 - 10.9	22 lb/ft (30 Nm)	
Clamping bolt in wheel carrier		
M8 x 30	14 lb/ft (19 Nm)	
Quick-release axle in threaded bush		
M24 x 1.5	37 lb/ft (50 Nm)	
Rear wheel	Value	Valid
Muffler on passenger footrest		
M8 x 30	16 lb/ft (22 Nm)	
Muffler with ball-joint clamp on manifold		
M8 x 60	26 lb/ft (35 Nm)	
Cover on muffler		
M5 x 12	2 lb/ft (3 Nm)	

Rear wheel	Value	Valid
Tighten rear wheel on wheel flange		
M10 x 1.25 x 40	diagonally	
	44 lb/ft (60 Nm)	
Footrests	Value	Valid
Footrest on bracket		
M8 x 20	14 lb/ft (19 Nm)	– with HP footrest system ^{OA}
Foot piece on foot lever		
M6	7 lb/ft (10 Nm)	– with HP footrest system ^{OA}
Foot piece on foot lever		
M6	7 lb/ft (10 Nm)	– with HP footrest system ^{OA}

Engine

Engine design	Transverse-mounted four-cylinder, four-stroke in-line engine, angled 55° toward front. With four valves per cylinder, actuated by two overhead camshafts and trailing valve levers; liquid cooled, electronic fuel injection, integrated six-speed cassette transmission, dry-sump lubrication
Displacement	1293 cc (1293 cm ³)
Cylinder bore	3.1 in (80 mm)
Piston stroke	2.5 in (64.3 mm)
Compression ratio	13:1
Rated output	175 hp (129 kW), at engine speed: 9250 min ⁻¹
– with power reduction 79 kW ^{OE}	107 hp (79 kW), at engine speed: 9000 min ⁻¹
Torque	103 lb/ft (140 Nm), at engine speed: 8250 min ⁻¹
– with power reduction 79 kW ^{OE}	87 lb/ft (118 Nm), at engine speed: 3750 min ⁻¹
Maximum engine speed	max 11000 min ⁻¹
Idle speed	1050±50 min ⁻¹

Fuel

Recommended fuel quality	Super Plus unleaded (max. 10 % ethanol, E10) 91 AKI (98 ROZ/RON) 91 AKI
Usable fuel quantity	Approx. 5 gal (Approx. 19 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)

Engine oil

Engine oil, capacity	3.7 quarts (3.5 l), with filter change (unmarked container) 1.1 gal (4 l), with filter change (larger marked container) 0.5 quarts (0.5 l), difference between Min and Max
Viscosity rating	
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 that you use the BMW Motorrad oils available from your BMW Motorrad Dealer.

Clutch

Clutch design	Multi-disk oil-bath clutch
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Transmission

Transmission design	Claw-shifted 6-speed transmission integrated in engine housing
Transmission gear ratios	1.559 (92:59 teeth), Primary gear ratio 2.294 (39:17 teeth), 1st gear 1.789 (34:19 teeth), 2nd gear 1.458 (35:24 teeth), 3rd gear 1.240 (31:25 teeth), 4th gear 1.094 (35:32 teeth), 5th gear 0.971 (33:34 teeth), 6th gear 1.045 (23:22 teeth), Angle drive

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
Number of teeth in bevel gears (gear ratio)	2.82 (31:11)

Suspension

Front wheel

Type of front suspension	Double leading link
Design of the front-wheel suspension	Central spring strut with coil pressure spring and single-tube gas-pressure shock absorber.
– with Electronic Suspension Adjustment (ESA II) ^{OE}	Central spring strut with single-tube gas-pressure shock absorber and electric adjustable rebound-stage damping.
Spring travel, front	4.9 in (125 mm), on wheel

Rear wheel	
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad paralever
Type of rear suspension	Central strut with coil spring and single-tube gas-filled shock absorber controlled by linkage system. Infinitely-variable adjustment of spring preload and rebound rate
– with Electronic Suspension Adjustment (ESA II) ^{OE}	Central strut with coil and elastomer spring assembly with single-tube, gas-filled shock absorber. Electrically adjustable control of suspension damping and spring preload/spring rate
Spring travel, rear	5.3 in (135 mm), on wheel

Brakes

Type of front brake	Hydraulically operated twin disk brake with 4-piston fixed calipers and floating brake disks
Brake-pad material, front	Sintered metal
Type of rear brake	Hydraulic disk brake with 2-piston floating caliper and fixed brake disk
Brake-pad material, rear	Organic

Wheels and tires

Recommended tire combinations	You can obtain an overview of the current tire approvals from your authorized BMW Motorrad retailer or on the Internet at www.bmw-motorrad.com
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Front wheel

Front wheel design	Cast aluminum, MT H2
Front-wheel rim size	3.50" x 17"
Front tire designation	120 / 70 ZR 17
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)

Rear wheel

Rear wheel design	Cast aluminum, MT H2
Rear-wheel rim size	6.0" x 17"
Rear tire designation	190 / 55 ZR 17
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)

Tire inflation pressure

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
Fuses	All circuits are electronically protected, so plug-in fuses are no longer necessary. If an electronic fuse trips and de-energizes a circuit, the circuit is active as soon as the ignition is switched on after the fault has been rectified.

Battery

Battery design	AGM (Absorptive Glass Mat) battery.
Battery voltage	12 V
Battery capacity	12 Ah

Spark plugs

Spark plugs, manufacturer and designation	NGK KR9CI
Electrode gap of spark plug	0.03 in (0.8 mm), new

Bulbs

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 / 12 V
Maximum number of defective LEDs in the tail-lamp	1, brake light/taillight (red) 1, license plate light (white)
Bulbs for flashing turn indicators, front	W16W / 12 V / 16 W
Bulbs for flashing turn indicators, rear	R10W / 12 V / 10 W

Frame

Frame design	Cast light allow - welded design with screwed-on tubular steel rear frame
Location of type plate	Cross tube frame back right
Location of the vehicle identification number	Front right side frame section

Dimensions

Motorcycle length	86.5 in (2196 mm)
Motorcycle height	48.1 in (1221 mm), across windshield at DIN unladen weight
Motorcycle width	35.6 in (905 mm), across mirrors
Rider's seat height	32.3 in (820 mm), without driver
– with low double seat ^{OE}	31.1 in (790 mm), without driver
Rider's inside-leg arc, heel to heel	71.3 in (1810 mm), without driver
– with low double seat ^{OE}	68.9 in (1750 mm), without driver

Weights

Unladen weight	560 lbs (254 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE
Permissible gross weight	1014 lbs (460 kg)
Maximum payload	454 lbs (206 kg)

Performance data

Top speed	>124 mph (>200 km/h)
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Confirmation of service	160

Reporting safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying BMW of North America, LLC.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your retailer, or BMW of North America, LLC.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

BMW Motorrad Service

With its worldwide service network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. BMW Motorrad retailers have the technical information and expertise needed to conduct reliable service and repairs covering every aspect of your BMW. You can find the nearest authorized BMW Motorrad retailer by visiting our Internet site at "www.bmw-motorrad.com".



If this maintenance and repair work is performed inexpertly, there is a danger of damage and associated safety risks. BMW Motorrad recommends having corresponding work on your 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. For generous treatment of claims submitted after the warranty period has expired (goodwill), evidence of regular maintenance is essential.

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 over the vehicle to you.

BMW Running-in Check

The BMW running-in check must be carried out between 300 mls (500 km) and 750 mls (1200 km).

BMW Service

BMW Service is carried out once a year. The scope of the services performed may be dependent on the vehicle 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 multi-function display reminds you of the next service date approx. one month or 621 miles (1,000 km) before the entered values.

Confirmation of maintenance work

BMW Pre-Delivery Check

Conducted

on _____

Stamp, Signature

BMW Running-in Check

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

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Stamp, Signature

BMW Service

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on _____

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Next service
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on _____

or, if reached sooner,

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Stamp, Signature**BMW Service**

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on _____

or, if reached sooner,

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Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature

Confirmation of service

The table is intended as proof of maintenance and repair work, the installed optional accessories and any special campaign (recall) work carried out.

Work carried out	Odometer reading	Date

Work carried out	Odometer reading	Date

Appendix

Certificate..... 164

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 expressly 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.

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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.

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80788 Munich, Germany
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Original Rider's Manual, printed in Germany.

