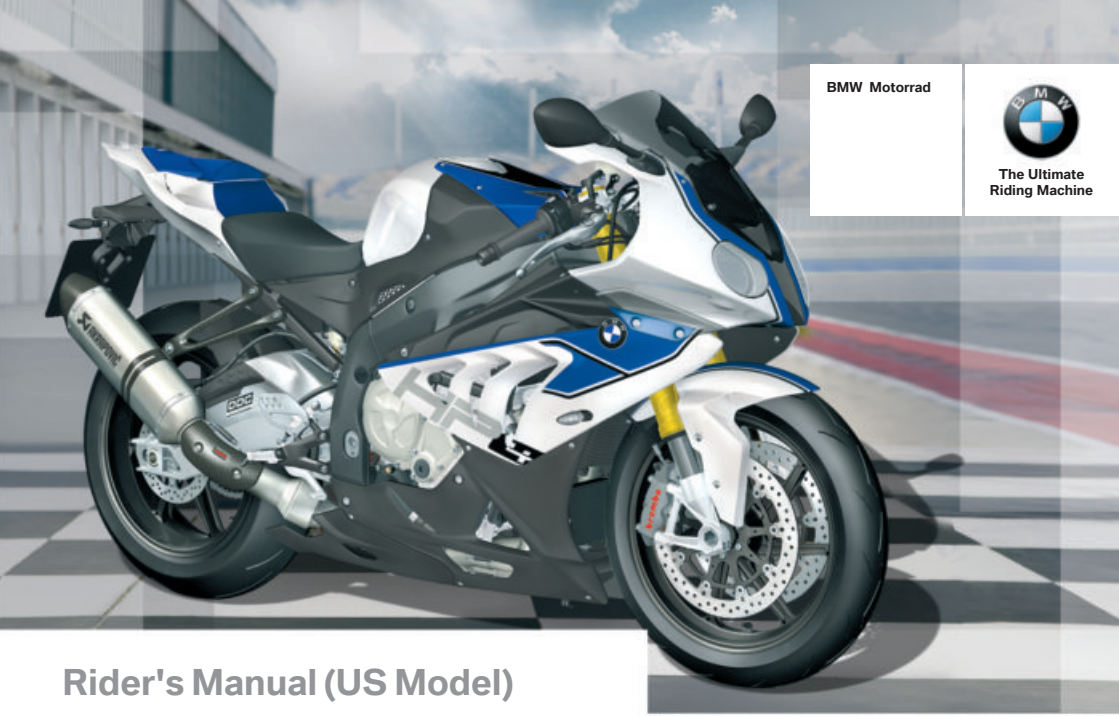


BMW Motorrad

The Ultimate Riding Machine

Rider's Manual (US Model)

HP4

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

We congratulate you on your choice of a motorcycle from BMW and welcome you to the community of BMW riders.
Familiarize yourself with your new motorcycle so that you can ride it safely and confidently in all highway traffic situations.
Please read this Rider's Manual carefully before starting to use your new BMW motorcycle. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features.
In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.
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

BMW Motorrad.

01 41 8 550 547

Table of Contents

You can also consult the index at the end of this Rider's Manual if you want to find a particular topic or item of information.

General instructions

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 you must comply with for reasons of your 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 equipment
BMW Motorrad optional extras are already completely installed during motorcycle production.

OA Optional accessory
BMW 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.

DTC Dynamic Traction Control.

DDC Dynamic Damping Control.

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.

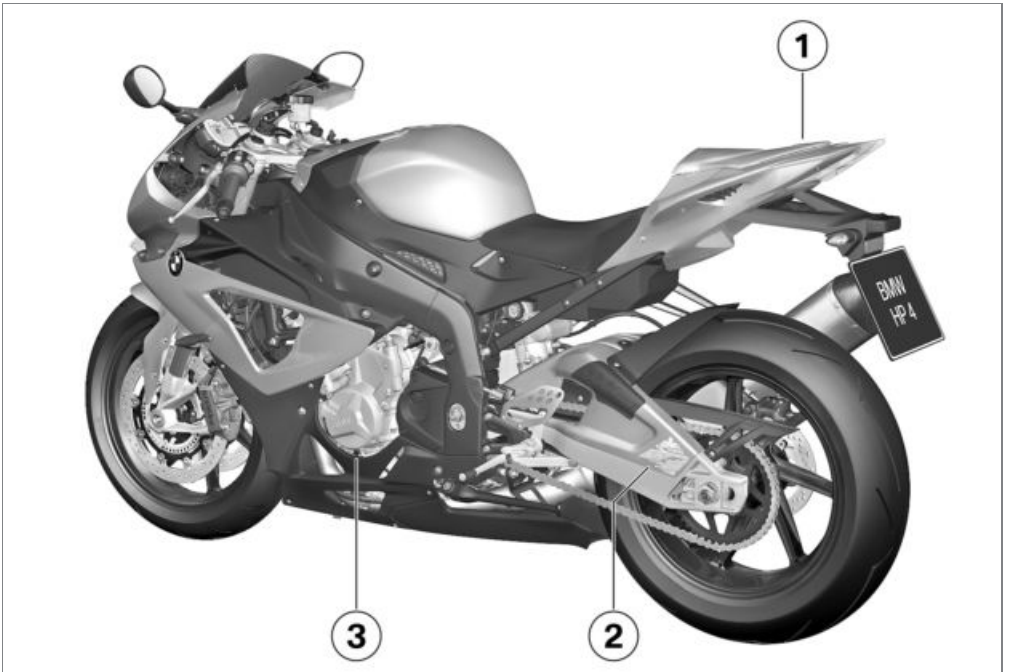
Technical data

All dimensions, weights and outputs in the Rider's Manual refer to the Deutsches Institut für Normung e. V. (DIN) and comply with its tolerance regulations. 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, illustrations or descriptions in this manual.

Overviews

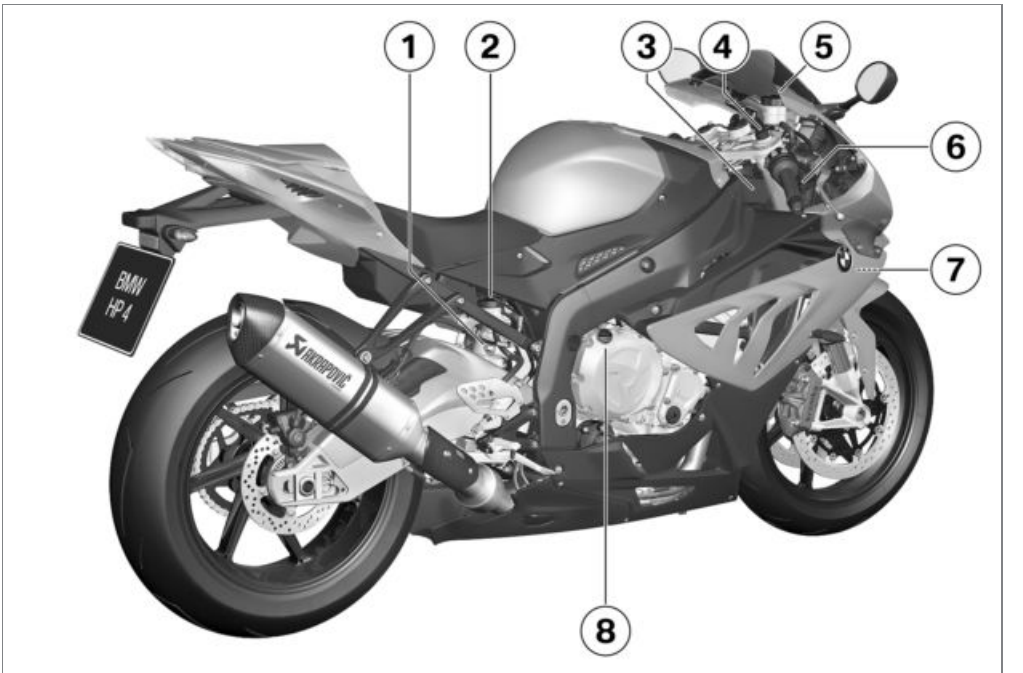

1
BMW
HP 4
3
2

General view, left side

1 Seat humb cover lock (➠ 51)
– with passenger package[OE]
Seat lock (➠ 52)

2 Tire inflation pressure table
Payload table
Chain adjustment values

3 Engine oil level indicator (➠ 123)


1
2
3
4
5
6
7
8
BMW
HP4
AKRAPOVIC

General view, right side

1 Adjuster for spring preload, rear (➠ 50)
2 Brake-fluid reservoir, rear (➠ 127)
3 Vehicle Identification Number and type plate (on steering-head bearing at right)
4 Adjuster for spring preload, front (➠ 49)
5 Brake-fluid reservoir, front (➠ 126)
6 Steering damper (behind side panel) (➠ 64)
7 Coolant level indicator (behind side panel) (➠ 128)
8 Engine oil fill location (➠ 124)

Multifunction switch, left

1 High-beam headlight and headlight flasher (➠ 37)
Using lap timer (➠ 74)

2 Operating BMW Motorrad Race ABS (➠ 40)
Using DTC (➠ 41)

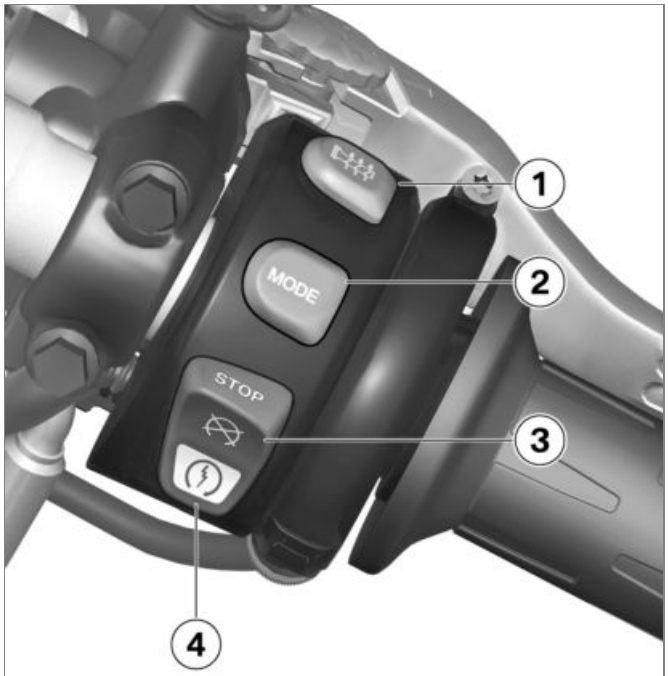
3 Hazard warning flashers operation (➠ 38)

4 Setting the DTC (➠ 92)

5 Turn indicators (➠ 38)

6 Horn

7 Setting clock (➠ 35)
Operating odometer (➠ 36)
Using racing functions (➠ 70)
Damping adjustment (➠ 93)



Multifunction switch, right

1 – with heated handlebar grips[OE]
Heated hand grip (➠ 39)

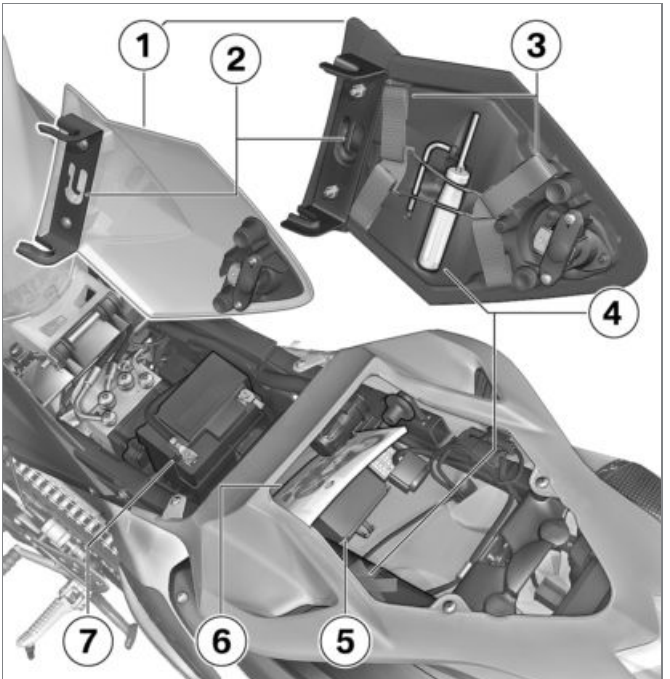
2 Selecting riding mode (➠ 42)

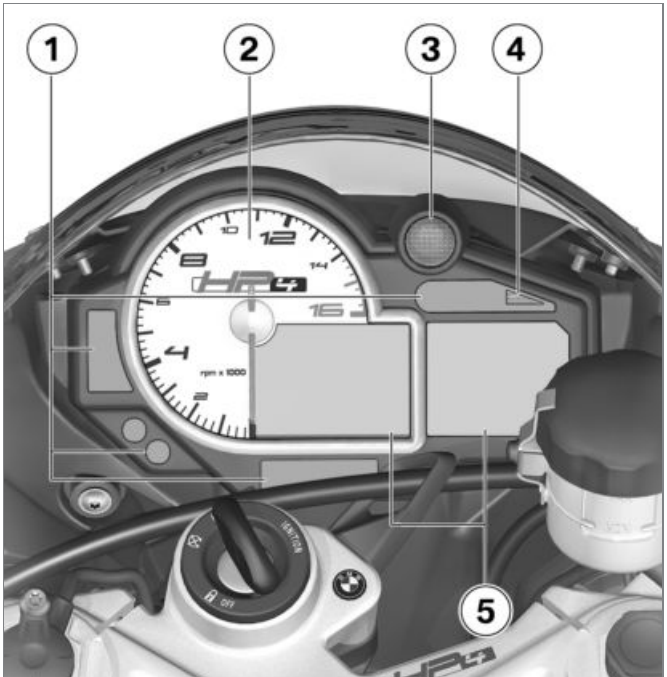
3 Emergency-off switch (kill switch) (➠ 39)

4 Starting the engine (➠ 59)
Launchcontrol (➠ 98)

Underneath seat

1 Seat hump cover (➠ 51)
– with passenger package[OE]
Passenger seat (➠ 52)
2 Helmet holder (➠ 54)
3 – with passenger package[OE]
Luggage loops (➠ 55)
4 Onboard tool kit (behind side panel) (➠ 122)
– with passenger package[OE]
Parts of the onboard tool kit underneath the passenger seat
5 Fuse box (➠ 150)
6 Rider's Manual (US Model)
7 Battery (➠ 152)
– with anti-theft alarm[OE]
Deviating battery position, rotated by 180°





Instrument cluster

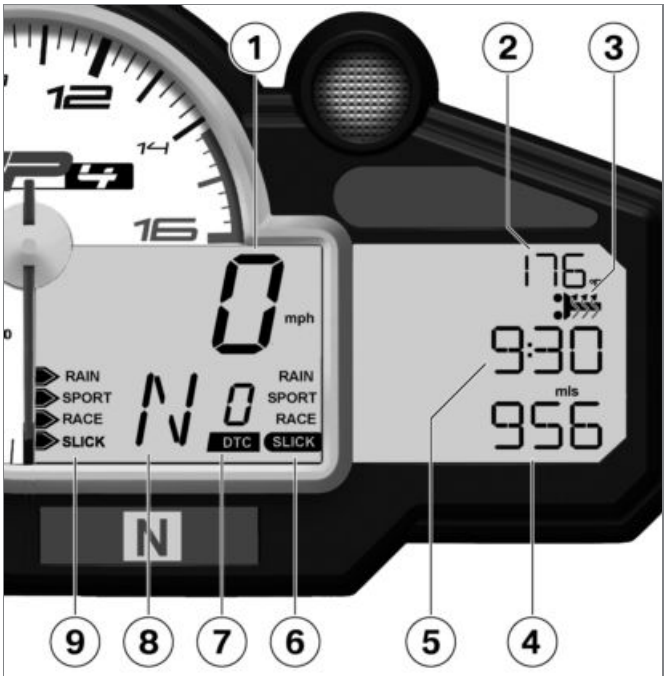
1 Indicator and warning lamps (➠ 21)
2 Tachometer
3 Shiftpoint lamp (➠ 63)
4 Ambient light sensor (for brightness adjustment of instrument lighting)
– with anti-theft alarm OE
Anti-theft alarm indicator light (see anti-theft alarm operating instructions)
5 Multifunction display (➠ 20)

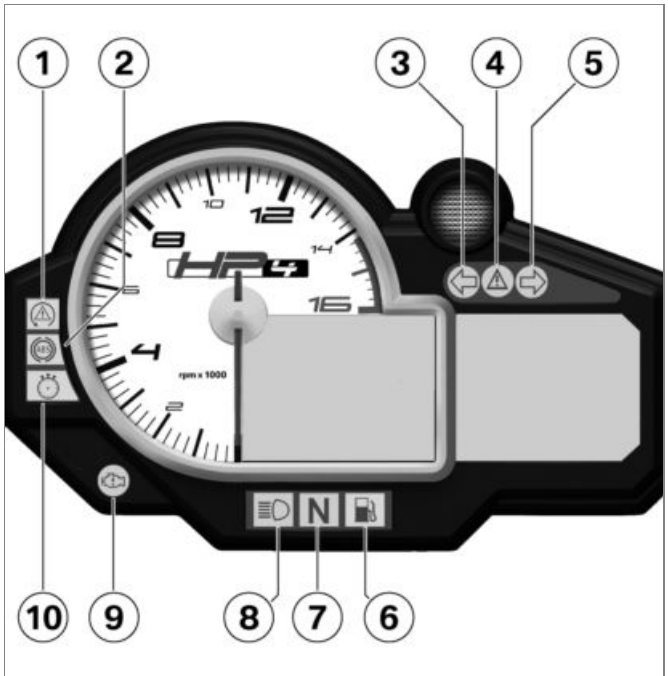
Displays

Multifunction display

1 Speedometer
2 Coolant temperature
3 – with heated handlebar grips[OE]
Heated grip display (➠ 39)
4 Odometer (➠ 36)
5 Clock (➠ 35)
6 Set riding mode (➠ 42)
7 Set DTC step (in SLICK mode only)
8 Gear indicator display, "N" indicates "neutral"
9 Selection of the riding mode (➠ 42)

Refer to Chapter 5 for information regarding the display modes available for track use.◀

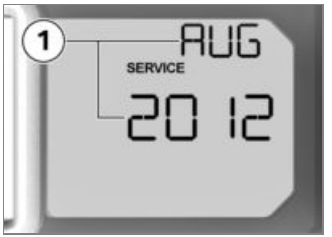




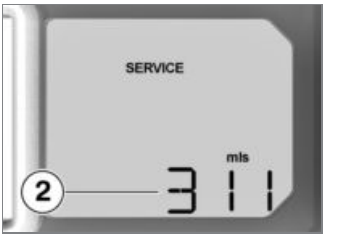
Warning and indicator lamps

1 DTC warning lamp (➠ 30)
2 ABS warning lamp (➠ 29)
3 Indicator lamp for left turn indicator
4 Universal warning lamp, appears together with warnings in display panel (➠ 23)
5 Indicator lamp for right turn indicator
6 Fuel-reserve warning lamp (➠ 27)
7 Neutral indicator lamp
8 Headlight high beam indicator lamp
9 Engine electronics warning lamp (➠ 27)
10 "Fastest lap" lamp (➠ 75)

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 "August, 2012."



If the vehicle covers high annual mileages then shorter service intervals may be required. When the odometer reading for the re-calculated 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 mileage (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.◀

Cruising range

The cruising range **1** indicates the distance that can still be driven with the remaining fuel. It is only displayed after the fuel reserve is reached. 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.

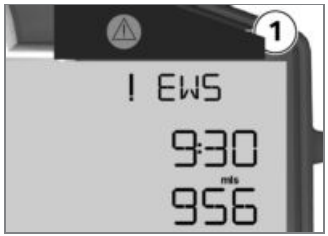
If the motorcycle is standing on its side stand, the motorcycle's inclined position will prevent the fuel level from being registered accurately. For this reason travel range is only calculated with the side stand retracted.

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

Warning lamps

Display

Warnings are displayed with the corresponding warning lamps.



Warnings for which no individual warning lamp is present are signaled by the universal warning lamp **1** which lights up in combination with the appearance of a warning notice such as **2** 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	Meaning
 Lights up yellow	! EWS is indicated	Electronic immobilizer is active (➠ 27)
 Lights up		Fuel down to reserve (➠ 27)
 Lights up red	Temperature display flashes	Coolant temperature too high (➠ 27)
 Lights up		Engine in emergency-operation mode (➠ 27)
 Lights up yellow	! LAMPR is indicated	Rear bulb defective (➠ 28)
	! LAMPF is indicated	Parking light bulb defective (➠ 28)
	! LAMP is indicated	Turn signal bulb defective (➠ 28)
	! VDS is shown in the empty display	Motorcycle has fallen over (➠ 29)

Warning and indicator lamps	Warning symbols in the display	Meaning
	! VDS is indicated	Fall sensor defective (➠ 29)
 Flashes		ABS self-diagnosis not completed (➠ 29)
 Lights up		ABS deactivated (➠ 29)
 Lights up		ABS error (➠ 29)
 Flashes rapidly		DTC intervention (➠ 30)
 Flashes slowly		DTC self-diagnosis not completed (➠ 30)
 Lights up		DTC deactivated (➠ 30)
 Lights up		DTC error (➠ 30)

Warning and indicator lamps	Warning symbols in the display	Meaning
 Lights up yellow	! DDC is indicated	DDC error (➠ 30)
	! DWALO is indicated	Anti-theft alarm battery low charge (➠ 31)
 Lights up yellow	! DWA is indicated	Anti-theft alarm battery discharged (➠ 31)
 Shiftpoint lamp flashes or remains on continuously	! SPEED is indicated	Speed warning (➠ 31)

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


Fuel-reserve warning lamp lights up.

Fuel shortage can lead to engine misfires. This can result in unexpected engine deactivation (accident hazard) and damage to the catalytic converter.

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

Possible cause:

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

	Reserve fuel quantity
– Approx. 1.1 gal (Approx. 4 l)	

- Refueling procedure (➠ 66).

Coolant temperature too high


General warning light shows red.

The coolant 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.
- 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


Engine error warning light lights up.

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

Adapt your style of riding accord-

ingly. 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 output and speed range may not be available.
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Rear bulb defective


General warning light shows yellow.

! LAMPR is indicated.


A defective bulb places your safety at risk because it is easier for other users to oversee the motorcycle.
Replace defective bulbs as quickly as possible.◀

Possible cause:

Taillight or brake light bulb defective.

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

Parking light bulb defective

! LAMPF is indicated.


A defective bulb places your safety at risk because it is easy for other users to not see the motorcycle.
Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Possible cause:

Parking light bulb defective.

- Replacing left parking light bulb (➠ 146).
- Replacing right parking light bulb (➠ 147).

Turn signal bulb defective

! LAMP is indicated.


A defective bulb places your safety at risk because it is easy for other users to not see the motorcycle.
Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Possible cause:

Turn signal bulb defective.

- Replacing front and rear turn indicator bulbs (➠ 148).

Possible cause:

The license-plate carrier is removed and the vehicle's electronic monitoring system detects the missing turn signals.

- Installing license-plate carrier (➠ 102).
- Activating suppression of the fault message in the SETUP mode.

Motorcycle has fallen over

! VDS (Vertical Down Sensor) is shown in the empty display.

Possible cause:

The fall sensor has detected a fall and switched off the engine.

- Position motorcycle upright
- Switch ignition off and then on again or switch emergency ON/OFF switch on and then off again.

Fall sensor defective

! VDS (Vertical Down Sensor) is shown.

Possible cause:

A defect was determined in the fall sensor.

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

ABS self-diagnosis not completed

ABS warning lamp flashes.

Possible cause:

The ABS function is not available, because the self-diagnosis has not been completed. To check the wheel sensors, the motorcycle must be driven a few yards.

- 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 (➠ 41).

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 (➠ 111).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably

an authorized BMW Motorrad retailer.

DTC intervention

 DTC warning lamp flashes rapidly.

The DTC has detected instability at the rear wheel and has reduced the torque. The warning lamp flashes longer than the DTC intervention lasts. This feature continues to furnish the rider with optical feedback confirming that the system has initiated active closed-loop intervention even after the critical situation has passed.

DTC self-diagnosis not completed

 DTC warning lamp flashes slowly.

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 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.

DTC deactivated

 DTC warning lamp lights up.

Possible cause:

The DTC system has been deactivated by the driver.

- Switching on DTC function (➠ 42).

DTC error

 DTC warning lamp lights up.

Possible cause:

The DTC control unit has detected an error.

- It remains possible to continue riding. It must be noted that the DTC function is not available or that its availability is restricted. Observe additional information on situations which can lead to a DTC error (➠ 113).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

DDC error

 General warning light shows yellow.

! DDC is indicated.

Possible cause:

The DDC control unit has detected an error.

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

» Motorcycle damping is in this condition very firm and riding is rather uncomfortable - in particular on rough roads.

Anti-theft alarm battery low charge

– with anti-theft alarm OE

! DWALO is indicated.

This error message is only displayed for a short time 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 retailer.

Anti-theft alarm battery discharged

– with anti-theft alarm OE

General warning light shows yellow.

! DWA is indicated.

This error message is only displayed for a short time 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 retailer.

Speed warning

Shiftpoint lamp flashes or remains on continuously according to the selected setting.

! SPEED is indicated.

Possible cause:

The preset maximum speed has been exceeded.

- Reduce speed.
- Enter a new maximum speed.

Operation

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) (➠ 34).

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. (➠ 60)
» ABS self-diagnosis in progress. (➠ 61)
» DTC self-diagnosis is performed. (➠ 61)

Switching off ignition

- Turn key to position **2**.

» Light switched off.
» Handlebars not locked.
» Key can now be removed.

Locking handlebars

- Turn handlebars to left.

- Turn key to position **3** while moving handlebars slightly.

» Ignition, lights and all electrical circuits switched off.
» Handlebars locked.
» Key can now 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 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 key; however, a disabled key can be enabled again.
Replacement and spare keys are only available through an authorized BMW Motorrad retailer.

The keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

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.

- Press and hold button **2** until hours **3** flash.
- Press button **1** to increase hours.
- Press button **2** to decrease hours.
- When hours have been set as desired, press and hold button **2** until minutes **4** flash.
- Press button **1** to increase minutes.
- Press button **2** to decrease minutes.
- When minutes have been set as desired, press button **2** until minutes no longer flash.

» The clock is now set.

Odometer

Selecting display readings

• Switch on ignition.

• Press button **1** repeatedly until desired value is displayed in area **3**.

The following data can be displayed:

– Total distance covered
– Tripmeter 1 (Trip 1)
– Tripmeter 2 (Trip 2)
– Remaining cruising range (when fuel level reaches reserve)

Resetting trip meter

• Switch on ignition.
• Select desired trip odometer.

• Press and hold button **1** until trip odometer has been reset.

Speed warning

Setting the speed warning

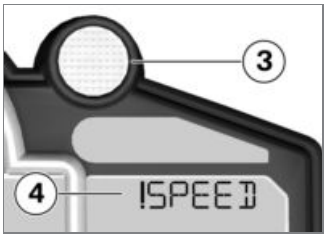
• Activate the speed warning in the SETUP menu (refer to the chapter "On the racetrack").

• Continue to press the button **2** until LIMIT appears in the display.

Either the current preset speed or OFF appears in the display.

- To adopt the current speed as the new limit: Press and hold the button **2** until the current speed appears in the display.
- Press button **1** to increase the set speed.

» Each time you press the button the speed increases by 3 mph (5 km/h).



When you exceed the preset speed the shiftpoint lamp **3** responds by lighting up or flashing at the preset frequency and the warning **4** appears in the display.

- To deactivate the speed warning: Press and hold the button **1** until OFF appears in the display.

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.

High-beam headlight and headlight flasher

- Start engine.

- Press button **1** toward front to switch on high beams.
- Pull button **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. 10 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

Switching on 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.

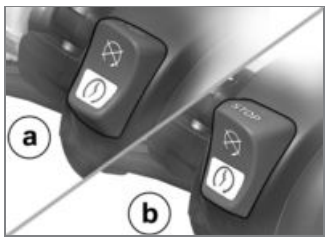
- Press button **1** again to switch off hazard warning flashers.

Emergency-off switch (kill switch)

1 Emergency-off switch (kill 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 kill switch.



a Engine switched off
b Operating position

Heated handlebar grips

– with heated handlebar grips OE

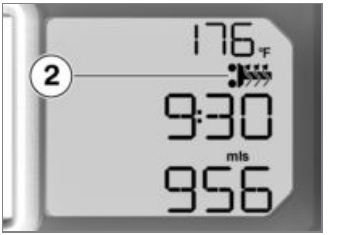
Operating heated handlebar grips

- 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 stage **2** is intended for rapid heating of the grips. Once they are warm you should switch back to the first stage.

100 % heating output

50 % heating output

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

BMW Motorrad Race ABS

Switch off ABS function

- Switch on ignition.

The ABS function can also be deactivated while driving.◀

- Press and hold the button **1** until the warning lamps' display patterns change: first the DTC warning lamp **2**, then the ABS warning lamp **3**.

» The DTC setting remains unchanged.

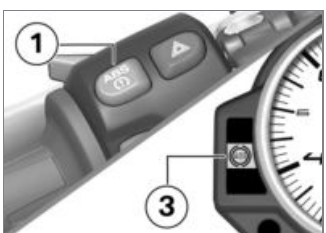
ABS warning lamp lights up.

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

ABS warning lamp remains on.

» ABS function is switched off.

Switch on ABS function



- Press and hold button **1** until the ABS warning lamp **3** display pattern changes.

ABS warning lamp goes out; if self-diagnosis has not been completed, it begins to flash.

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

ABS warning lamp remains off or continues to flash.

» ABS function is switched on.

- If the coding plug is not used for the SLICK function, as an alternative, the ignition can be switched off, then on again.

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

Dynamic Traction Control (DTC)

Switching off DTC function

- Switch on ignition.

The DTC function can also be deactivated while driving.◀

- Press and hold button **1** until the DTC warning lamp **2** display changes.

DTC warning lamp begins to light up.

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

DTC warning lamp continues to light up.

» DTC function is switched off.

Switching on DTC function

- Press and hold button **1** until the DTC warning lamp **2** display changes.

DTC warning lamp goes out; if self-diagnosis has not been completed, it begins to flash.

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

DTC warning lamp remains off or continues to flash.

» DTC function is switched on.

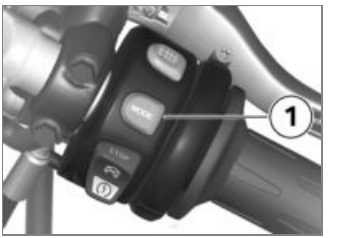
- If the coding plug is not used for the SLICK function, as an alternative, the ignition can be switched off, then on again.

If the DTC warning light lights up after switching the ignition off and on and then continued driving over 3 mph (5 km/h), a DTC error has occurred.◀

Riding mode

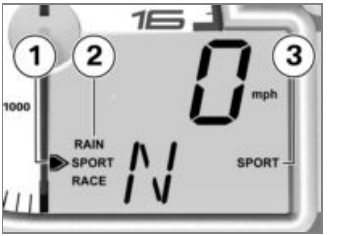
Setting riding mode

- Switch on ignition.



- Press button **1**.

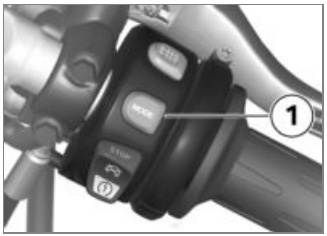
Details on the selectable driving modes are provided in the chapter "Technology in Detail".◀



The selection arrow **1** and the selection menu **2** are displayed. The current setting is shown at position **3**.

With the coding plug installed, the driving mode SLICK **4** is also offered in the selection menu.

- Installing coding plug (➠ 44).



⚠ SLICK mode is designed for racing tires (slick tires) and assumes very good adhesion values, as are usually found on racetracks only.
Enable SLICK mode on racetracks only, and only with racing tires.◀

⚠ In RACE and SLICK mode, increased flip over risk is present, as lift-off detection for the rear wheel is deactivated. In SLICK mode, there is additional risk of injury, as ABS control on the rear wheel is deactivated for the case that the footbrake lever is actuated only.
Be prepared for lift-off of the rear wheel in the case of hard braking.◀

- Press button **1** repeatedly until selection arrow appears before desired setting.

» If the motorcycle is stopped, the selected riding mode is immediately activated.
» The new riding mode is activated during operation under the following conditions:

– Brakes not engaged
– Throttle turned all the way back
– Clutch disengaged

» After the new riding mode is activated, the selection menu disappears.
» The configured riding mode with the corresponding adaptations of the engine characteristics, ABS, DTC, and DDC is

maintained, even after the ignition is switched off.

In SLICK mode the current DTC fine tuning setting **5** is shown as well.

- Adopting the DTC function (➠ 92).

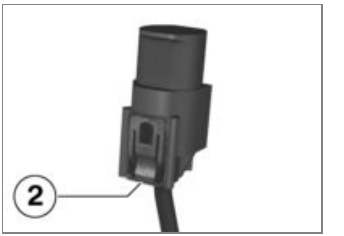
Installing coding plug

When the coding plug is used, the operating permit for public roads is voided.
Do not use the encoding plug on public roads.◀

- Switch off ignition.
- Removing driver's seat (➠ 53).

Dirt and moisture can get into the open plug and cause malfunctions.
After removing the encoding plug, refit the cover cap.◀

- Open cable ties and remove cover cap of the plug connection **1**.



- To do so, press the locking device **2** down and pull off the cap by pulling it upwards.
- Insert the coding plug.
- Switch on ignition and secure plug connection using a new cable tie.

For safety reasons, after the coding plug is connected, the RAIN mode **1** is automatically activated.

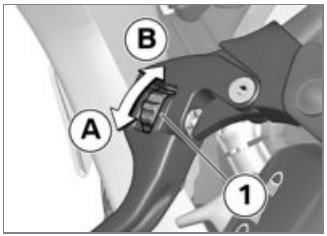
- Setting riding mode (➠ 42).
- Installing driver's seat (➠ 53).

Clutch

– with competition kit OE

Adjusting clutch lever

⚠ Adjusting the clutch lever while driving can lead to accidents.
Only adjust the clutch lever when the motorcycle is stationary.◀



- Rotate adjusting screw **1** in the direction of **A** in order to increase the distance between handlebar grip and clutch lever.
- Rotate adjusting screw **1** in the direction of **B** in order to decrease the distance between handlebar grip and clutch lever.

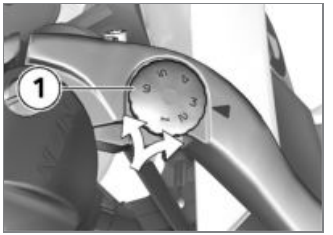
▷ The adjusting screw can be turned more easily if you press the clutch lever forward when doing so.◀

Brakes

Adjusting handbrake lever

⚠ Changing the position of the brake-fluid reservoir can allow air to penetrate the brake system.
Do not reposition the handlebar controls on the handlebars or the handlebars in their mounts.◀

⚠ Adjusting the handbrake lever while driving can lead to accidents.
Only adjust the handbrake lever when the motorcycle is stationary.◀



- Rotate the adjusting screw **1** into the desired position by applying gentle pressure from the rear.

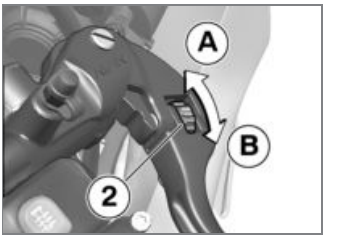
The adjusting screw can be turned more easily if you press the handbrake lever forward when doing so.◀

» Adjustment options:

– from Position 1: largest distance between handlebar grip and brake lever

– up to Position 6: smallest distance between handlebar grip and brake lever

– with competition kit OE



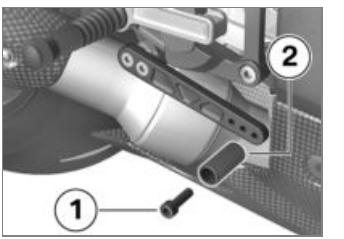
- Rotate adjusting screw **2** in the direction of **A** in order to increase the distance between handlebar grip and handbrake lever.
- Rotate adjusting screw **2** in the direction of **B** in order to decrease the distance between handlebar grip and handbrake lever.

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

Adjusting footbrake lever

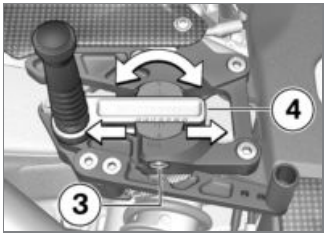
– with competition kit OE

- 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 pedal
– 7 lb/ft (10 Nm)	

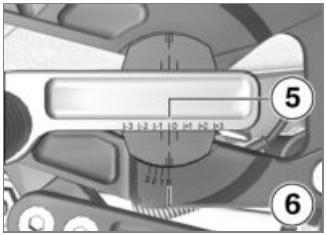


- Unscrew screw **3**.

» The footrest can be moved forward and backward using the slide **4** or rotated upward respectively downward.

- Move footrest **4** into the desired position and tighten the screw **3** to the specified torque.

Footrest adjustment clamping
– 21 lb/ft (28 Nm)



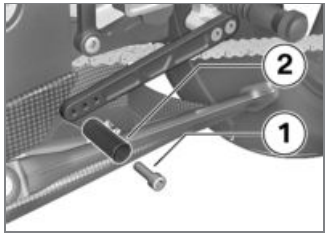
- In order to establish delivery status, adjust scales **5** and **6** to the zero values.

Shifting

– with competition kit OE

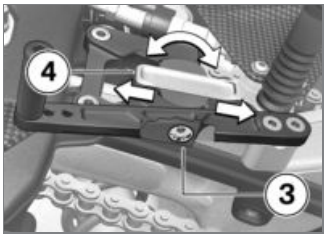
Adjusting shift lever

- 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 pedal
– 7 lb/ft (10 Nm)

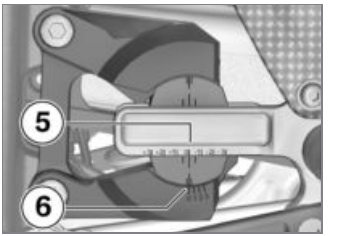


- Unscrew screw **3**.

» The footrest can be moved forward and backward using the slide **4** or rotated upward respectively downward.

- Move footrest **4** into the desired position and tighten the screw **3** to the specified torque.

	Footrest adjustment clamping
– 21 lb/ft (28 Nm)	



- In order to establish delivery status, adjust scales **5** and **6** to the zero values.

▷ On setting the footrest, the position of the shift lever changes. An incorrectly set shift lever has a negative effect on the ability to shift the transmission. Consult a certified workshop, preferably an authorized BMW Motorrad retailer, for setting the height of the shift lever.◀

Mirrors

Adjusting mirrors

- Move mirror into desired position by twisting.

Spring preload

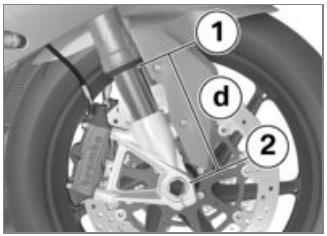
Setting

The spring preload on the front wheel must be adapted to the weight of the rider. Higher weight requires higher spring preload, lower weight requires lower spring preload.
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 on front wheel

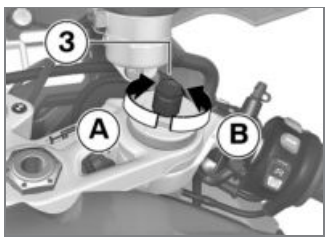
- Make sure ground is level and firm and park motorcycle.
- Make sure there is no load on the motorcycle, removing any cargo or luggage.
- Start engine and allow to warm up in idle.



- Hold motorcycle in a vertical position and measure distance **d** between lower edge **1** of slider tube and front axle **2**.
- Load motorcycle with driver.
- With the assistance of a helper, measure distance **d** between points **1** and **2** again and calculate difference (spring deflection) between the measured values.

Adjustment of spring preload dependent on loading
– Compressing front wheel

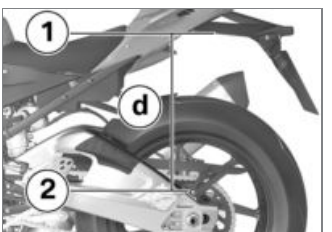
Adjustment of spring preload dependent on loading
– 1.3...1.8 in (34...45 mm) (With rider 187 lbs (85 kg))



- To decrease spring deflection (increase spring preload), turn adjusting screw **3** with tool of onboard tool kit in direction **A**.
- To increase spring deflection (decrease spring preload), turn adjusting screw **3** with tool of onboard tool kit in direction **B**.

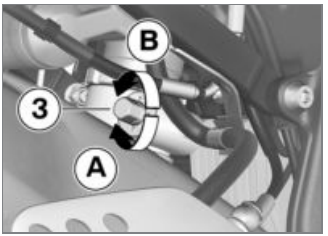
Adjusting spring preload on rear wheel

- Make sure ground is level and firm and park motorcycle.
- Make sure there is no load on the motorcycle, removing any cargo or luggage.
- Start engine and allow to warm up in idle.



- Hold motorcycle in vertical position and measure distance **d** between lower edge **1** of license-plate carrier and screw **2** of chain guard.
- Load motorcycle with driver.
- With the assistance of a helper, measure distance **d** between points **1** and **2** again and calculate difference (spring deflection) between the measured values.

Adjustment of spring preload dependent on loading
– Compression of rear-wheel springs
– 1...1.4 in (25...35 mm) (With rider 187 lbs (85 kg))



- To decrease the spring deflection (increase spring preload), use the tool from the onboard tool kit to turn the adjustment ring **3** in direction **A**.
- To increase the spring deflection (reduce spring preload), use the tool from the onboard tool kit to turn the adjustment ring **3** in direction **B**.

Tires

Checking tire pressure

Incorrect tire inflation pressure results in poorer handling characteristics of the motor-

cycle and reduces the life of the tires.
Ensure proper tire inflation pressure.◀

At high road speeds, tire valves 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

This motorcycle's headlight features a symmetrical low beam. No special adjustments or procedures are required prior to operating the motorcycle in a country where traffic travels on the side of the road opposite to that of your home country (left-hand drive to right-hand drive or vice versa).

Headlight range and spring preload

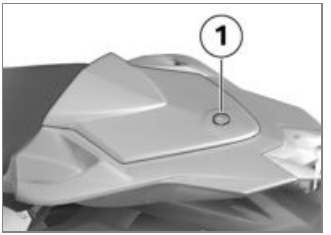
The headlight range generally remains constant due to the adjustment of the spring preload to the loading state.

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

Rider and passenger seats

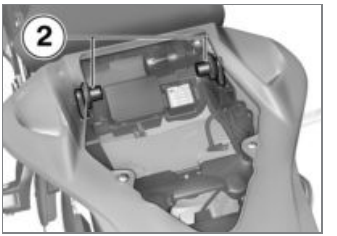
Removing the seat humb cover

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



- Unlock lock **1** in the seat humb cover using the vehicle ignition key.
- Lift cover at rear, then remove by pulling back and upward.

Installing the seat humb cover



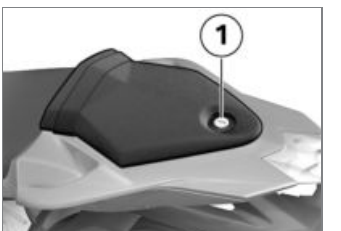
- Mount seat humb cover in mounts **2** on left and right.

- Press the cover forward slightly then fold it down.
- Lock lock with ignition key.

Removing passenger seat

– with passenger package OE

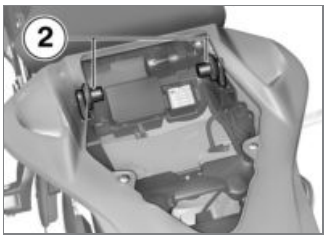
- Make sure ground is level and firm and park motorcycle.



- Unlock seat lock **1** with the vehicle ignition key.
- Lift passenger seat at rear, then remove by pulling back and upward.
- Remove ignition key and lay passenger seat on a clean surface with the upholstered side on the bottom.

Installing passenger seat

– with passenger package OE



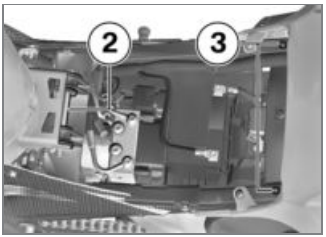
- Mount passenger seat in mounts **2** on left and right.

- Press the rear seat forward slightly then fold it down.
- Lock seat lock with ignition key.

Removing driver's seat

- Press cover of driver's seat above screws **1** forward somewhat and hold in place.
- Remove screws.
- Push the driver's seat forward, lift it at the rear and remove it. When doing so, make sure that the paneling is not damaged by the screws.
- Lay the driver's seat on a clean surface with the upholstered side down.

Installing driver's seat



- Mount driver's seat in mount **2**, then position over screw sockets **3**. When doing so, make sure that the paneling is not damaged by the screws.

- Press cover of driver's seat over screw sockets toward front somewhat and hold in place.
- Install screws **1**.

Helmet holder

Securing helmet on motorcycle

- Removing the seat humb cover (➠ 51).
- Turn over cover.

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

- Secure helmet on helmet holder **1** using a steel cable.
- Installing the seat humb cover (➠ 52).
- Set down helmet on driver's seat.

– With passenger package OE

- Removing passenger seat (➠ 52).
- Turn over passenger seat.

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

- Secure helmet on helmet holder **1** using a steel cable.
- Installing passenger seat (➠ 53).
- Set down helmet on driver's seat.◁

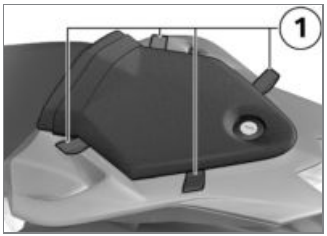
Luggage loops

– With passenger package OE

Securing luggage on motorcycle

- Removing passenger seat (➠ 52).
- Turn over passenger seat.

- Take loops **1** out of holders and lay toward outside.
- Installing passenger seat (➠ 53).



- Use loops **1** e.g. in conjunction with passenger footrests, to lash luggage onto passenger seat. When doing so, make sure that the rear trim is not damaged.

Riding

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 retailer 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.

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 standstill: 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
– Shock absorber setting and spring preload
– Tread depth and tire inflation pressure
– Secure luggage attachment
– Tension and lubrication of drive chain.

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. (➠ 60)
» ABS self-diagnosis in progress. (➠ 61)
» DTC self-diagnosis is performed. (➠ 61)
• 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 start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.◀

» Engine starts.
» Consult the troubleshooting chart if the engine refuses to start. (➠ 162)

Pre-Ride Check

In the "Pre-Ride-Check", the instrument-cluster module executes a test routine to check the status of the warning lamps and the tachometer. This test routine stops if the engine is started before it is completed.

Phase 1

The indicator and warning lamps light up and the universal warning lamp lights up in yellow.
The tachometer needle sweeps to the maximum engine speed.
All segments are shown in the display.

Phase 2

The universal warning lamp changes from yellow to red.

Phase 3

The tachometer needle drops back to zero.
The indicator and warning lamps go out.
The display reverts to the standard format.

Should one of the warning lamps fail to appear:

If it was not possible to switch on the warning lights, possible malfunctions cannot be indicated.
Watch all warning and indicator lights on the display.◀

- Have the malfunction corrected as soon as possible at an authorized workshop, preferably

an authorized BMW Motorrad retailer.

ABS self-diagnosis

The readiness for operation of the BMW Motorrad Race ABS is checked by the self-diagnosis. The self-diagnosis routine runs automatically when you switch on the ignition. To check the wheel sensors, the motorcycle must be driven a few yards.

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.


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. Please be aware that neither the ABS nor the integral function is available.
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

DTC self-diagnosis

The readiness for operation of the BMW Motorrad DTC is checked by the self-diagnosis. The self-diagnosis routine runs automatically when you switch on the ignition.

Phase 1

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


DTC warning lamp flashes slowly.

Phase 2

» Checking the diagnosable system components while driving. So that the DTC self-diagnosis can be completed, the motorcycle must be driven at a speed of at least 3 mph (5 km/h).


DTC warning lamp flashes slowly.

DTC self-diagnosis completed

» The DTC symbol is no longer displayed.

If a DTC error is indicated after the DTC self-diagnosis is completed:

- It remains possible to continue riding. It must be noted that the DTC function is not available or that its availability is restricted.
- 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.
- Choose curvy, slightly hilly sections of road if possible.
- Observe the engine run-in speeds.

 Engine run-in speed
– <7000 min^{-1} (Odometer reading 0...186 miles (0...300 km))
– <9000 min^{-1} (Odometer reading 186...621 miles (300...1000 km))
– no full throttle (Odometer reading 0...621 miles (0...1000 km))

- Have the first inspection carried out 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.◀

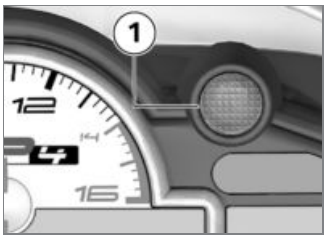
Tires

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

Shiftpoint lamp



The shiftpoint lamp **1** indicates two engine speed thresholds to the driver:

Standing-start engine rpm
At a stop, the shiftpoint lamp indicates the ideal engine rpm for a racing start.
– Shiftpoint lamp off: engine rpm too low
– Shiftpoint lamp lit up: ideal rpm for start
– Shiftpoint lamp flashing: engine rpm too high

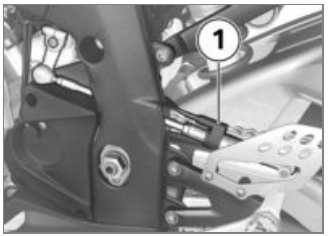
Upshift rpm
During driving the shiftpoint lamp indicates the speed at which the rider should shift into the next-highest gear.
– Shiftpoint lamp flashes at the preset frequency: engine speed will soon reach upshift rpm
– Shiftpoint lamp goes out: shifting speed reached.

The engine rpm limits and the upshift lamp's display characteristics can both be adjusted in the SETUP menu.

Speed limit
If the shiftpoint lamp flashes or lights up during operation while ! SPEED simultaneously appears in the display this means that the preset speed has been exceeded.

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.



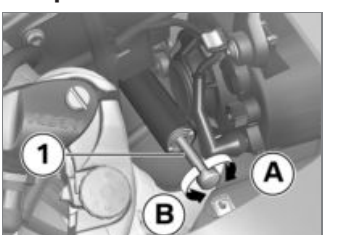
The sensor **1** in the shift linkage detects the shift request and initiates shifting support.

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.

Steering

Adjusting the steering damper



Attempts to adjust the steering damper while the vehicle is moving can lead to accidents.
Never adjust the steering damper except while the motorcycle is stationary.◀

- Turn the adjustment screw **1** in the direction **A** to increase the damping force.
- Turn the adjustment screw **1** in the direction **B** to reduce the damping force.

Basic steering damper adjustment setting
– Opens at 5 clicks (starting at fully closed) (Highway operation)
– Opens at 2 clicks (starting at fully closed) (Racetrack)

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. The front wheel can lock up.

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

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.

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

Wet, soiled brakes

Moisture and dirt on the brake 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.

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 unleaded, (max. 10 % ethanol, E10)
- 89 AKI (95 ROZ/RON)
- 89 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.

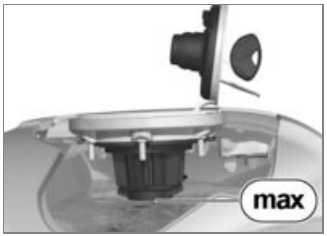
Immediately wipe off plastic parts after contact with fuel.◀

- 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 fuel tank cap **1** with ignition key and fold up.



- Refuel with quality listed below at most until lower edge of filler neck is reached.

▷ 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. 4.6 gal (Approx. 17.5 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.

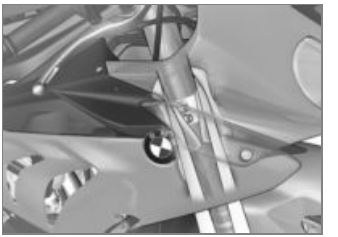
Fastening motorcycle for transport

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

- Undo the screws **1** and remove the trim panel at the lower fork bridge.

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.



Components can be damaged.
Do not pinch components, e.g. brake lines or wiring harnesses.◀

- Lay straps at front over lower fork bridge on both sides.
- Tension straps downward.

- Place straps at rear on both sides on rear frame and tension.
- Tension all straps evenly; the vehicle should be pulled down against its springs with the suspension compressed as much as possible.

On the racetrack

Multifunction display

Selecting display mode

- Press button **2** repeatedly until desired mode appears.

ROAD mode: The ROAD mode provides all information required for operation on public roads. All descriptions outside of this chapter refer to this mode.

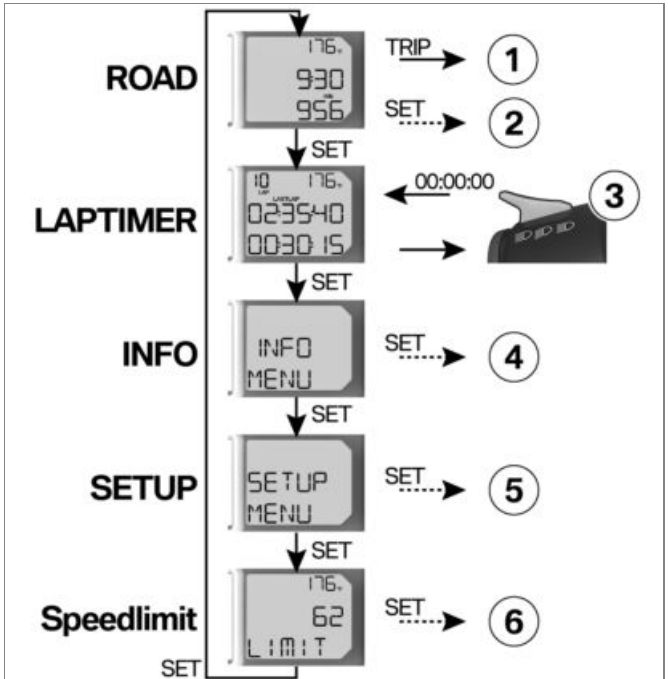
LAPTIMER mode: In the LAP-TIMER mode, lap times and other data can be saved and displayed again in the INFO mode.

INFO mode: In the INFO mode the stored information from the LAPTIMER mode can be displayed. This mode can only be activated with the motorcycle stopped.

SETUP mode: In the SETUP mode damping and the instrument cluster's display features can be adjusted to driver's preferences. This mode can only be activated with the motorcycle stopped.

Speed warning: A warning appears when the speed that you can set here is exceeded. This function must be activated in the SETUP mode.

- If INFO–MENU or SETUP–MENU is shown, press and hold button **2** to activate mode.



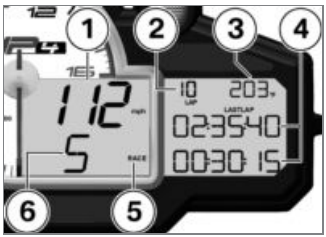
Overview of mode selection

Solid line: button pressed briefly
Dotted line: press and hold button

1 Operating odometer (➠ 36)
2 Setting the clock (➠ 35)
3 Starting time recording (➠ 74)
4 Start INFO menu (➠ 77)
5 Start SETUP menu (➠ 82)
6 Speed warning (➠ 36)

LAPTIMER mode

Display



1 Speedometer
2 Current race lap
3 Engine temperature
4 The display in these lines can be adjusted (➠ 72)
In illustration: time of preceding lap (LASTLAP) and current lap time
5 Set riding mode
6 Gear indicator

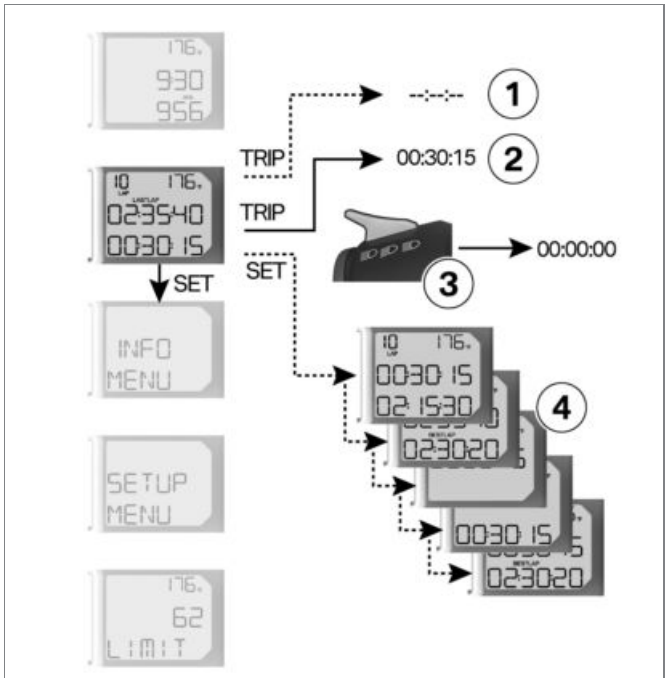
Marking displayed value

The following times can be shown in the second line:
– The time of the previous lap is marked with "LASTLAP".
– The running time of the current lap.

The following times can be shown in the third line:
– The fastest of the stored laps, marked with "BESTLAP"
– The all-time best lap time, without a marking
– The running time of the current lap.

The possible combinations are described on Page (➠ 87).

The stopped time of the preceding racing lap is shown briefly at the start of each new racing lap before the display switches over to the running time of the current racing lap. The duration of this delay can be set as described on Page (➠ 90).



Overview of lap timer mode

Solid line: button pressed briefly
Dotted line: press and hold button

1 Ending time entry (➠ 75)
2 Interrupting time entry (➠ 75)
3 Starting time recording (➠ 74)
4 Adjusting display setting (➠ 74)

Adjusting display setting

- To change display setting in LAPTIMER mode, press button **2** repeatedly until display has desired appearance.

Starting time recording

- Press button **1** to start recording.

For the headlight flasher signal to be detected, the engine must be running.◀

- When driving over Start/Finish line, press button **1** again to start recording for next race lap.

» The data of the preceding race lap will be saved.

» If the display mode is exited during a recording, then the recording continues to run. However, the recording of a new lap can only be started in the other modes with an external signal.

Infrared receiver

– with infrared receiver OA

Operation of the instrument cluster in the LAPTIMER mode can be carried out conveniently with an infrared signal. For this purpose, the infrared receiver available as an optional accessory must be connected to the instrument cluster. Operation with the headlight flasher button is also possible with the integrated sensor.

To avoid the premature detection of a completed lap due to interference signals, a minimum lap time can be specified (➠ 90). Signals received before this time expires are then ignored.

Interrupting time entry

- To interrupt time entry, press button **1**.
- To continue time entry, press button **1** again.

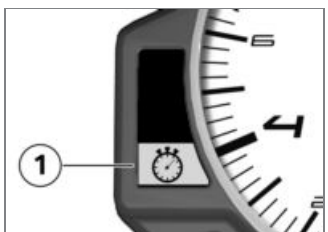
Ending time entry

- First, press the button **1** to interrupt the time entry.
- To save the displayed time as the last racing lap, press and hold down the button **1** until −− : −− : −− is displayed. Then, change the display mode using the button **2**.
- If you do not want to save the displayed time any longer, press the button **2** to change the display mode.

If additional laps are recorded at a later time, the numbering of the laps is continued. Only after the current recording has been deleted in INFO mode does counting begin at lap 1 again.◀

Fastest lap expected

This function must be activated in the SETUP menu (➠ 91).



When a new lap is started the intermediate elapsed times are monitored at 109 yards (100 m) intervals and then compared with the corresponding elapsed times for the fastest recorded lap. If the current intermediate elapsed time is better than that of the

previous fastest lap then a new fastest lap can be anticipated. The "fastest lap" lamp **1** lights up.

INFO mode

Selecting stored lap

- Press button **1** or button **2** to display stored laps consecutively.

If the rider drives off in this mode, the display automatically switches over to the ROAD mode.◀

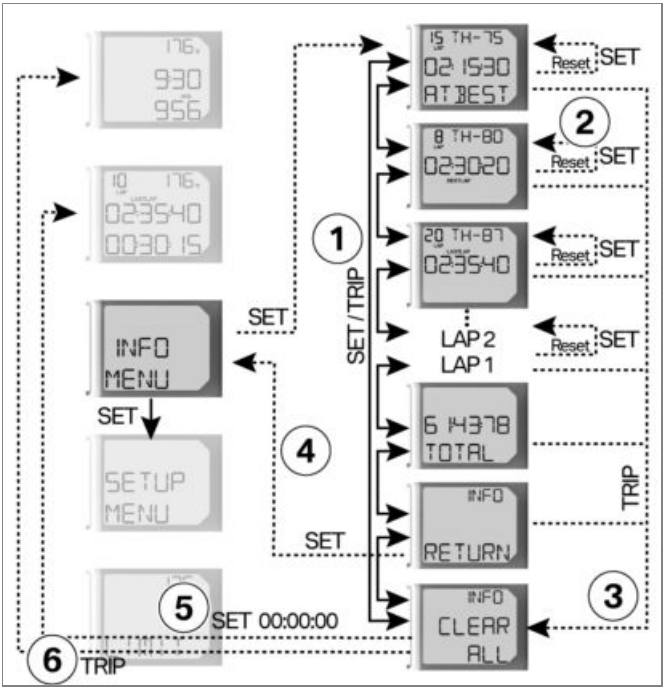
When the button **1** is pressed, the stored laps are displayed in the following order. Each time the button **2** is pressed, they are displayed in the opposite order:

- All-time best lap time (ATBEST)
- Best stored lap time (BEST)
- Last stored lap time (LAST)
- All other stored laps
- The total sum of all recorded lap times (TOTAL)
- Exit INFO mode (INFO RETURN)
- Allows deletion of stored data (INFO CLEAR ALL) (except all-time best lap time).

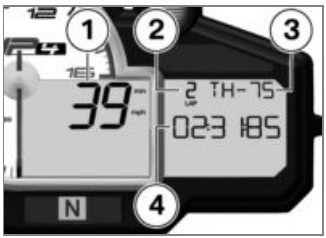
Overview of Info mode

Solid line: button pressed briefly
Dotted line: press and hold button

1 Selecting stored lap (➠ 77).
2 Deleting lap times (➠ 81)
3 Jump directly to CLEAR ALL menu
4 Exiting INFO mode (➠ 79)
5 Clearing recording (➠ 80)
6 Activating ROAD mode (➠ 80)



Information on each race lap



1 Alternately: top speed (max) and minimum speed (min) of the indicated race lap

2 Race lap to which displayed data refer

3 Alternately: average throttle position (TH) in percent, driving percentage with brake actuation (BR) in percent and number of shifts (G) of indicated race lap

4 Lap time of displayed race lap.

Exiting INFO mode

- Press button **1** or button **2** repeatedly until INFO RETURN is displayed.

- Press and hold button **2** to exit INFO mode.

» The recorded values are stored.

Clearing recording

- Press and hold down the button **1** until INFO CLEAR ALL is displayed.
- Press and hold down the button **2** to delete the recorded data and return to LAPTIMER mode.

Activating ROAD mode

- Press and hold down the button **1** until INFO CLEAR ALL is displayed.
- Press and hold button **1** to return to ROAD mode.

» The recorded values are stored.

All-time best lap

The all-time best lap (ATBEST) is the fastest of all recorded racing laps and is updated as soon as a faster lap has been recorded.

The all-time best lap remains stored even if the recorded laps are deleted. As a result, a new race can be recorded at other times and compared with the best lap from previous races.
The all-time best lap can also be deleted.
If the all-time best lap is from a stored recording, the corresponding lap number is also displayed. If the all-time best lap does not have a lap number, it is from a recording that has already been deleted.

Deleting lap times

- Press button **1** or button **2** repeatedly until the lap to be deleted is displayed.
- Press and hold button **2** to delete the lap.

» If the selected lap is

– the all-time best lap ATBEST, the best of the stored laps is taken over as the new all-time best lap.
– the best stored lap BEST, the corresponding lap is deleted. The lap that previously had been the second best lap is taken over as the new best lap.
– the last stored lap LAST, the corresponding lap is deleted. The lap that previously had been the second to last lap is taken over as the new last lap.
– a random stored lap, it is deleted. The numbering of the remaining laps is maintained.

» The deleted lap time is subtracted from the overall time.

SETUP mode

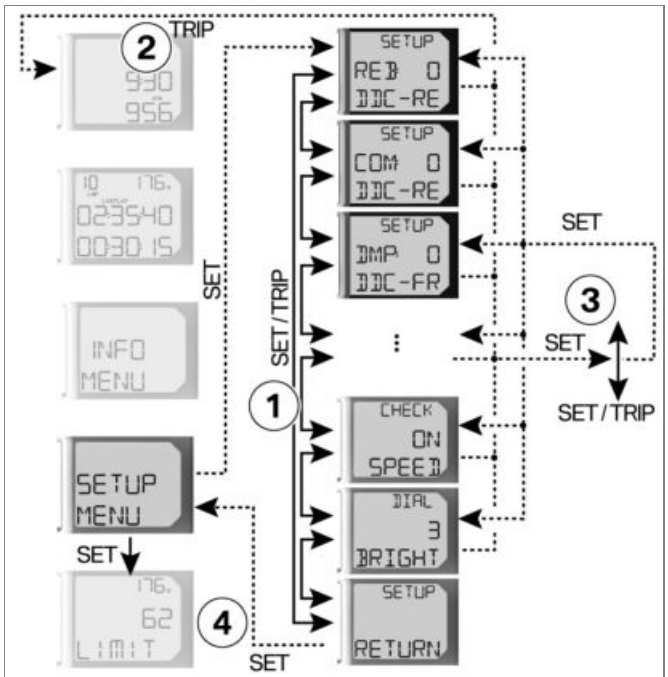
Selecting parameter

- Press button **1** or button **2** repeatedly until desired parameter is displayed.

If the rider drives off in this mode, the display automatically switches over to the ROAD mode.◀

When the button **1** is pressed the available parameters are displayed in the following order. Each time the button **2** is pressed, they are displayed in the opposite order:

– Rebound stage damping, rear (REB DDC–RE)
– Compression stage damping, rear (COM DDC–RE)
– Damping front (DMP DDC–FR)
– Rebound stage damping, front (REB DDC–FR), with leveling sensor only (racing accessory)
– Compression stage damping, front (COM DDC–FR), with leveling sensor only (racing accessory)
– Leveling sensor calibration (DDC–CAL)
– Shiftpoint lamp activation rpm (SFT–ON)
– Shiftpoint lamp switch-off rpm (SFTOFF)
– Shiftpoint lamp brightness setting (SFT–BR)
– Shiftpoint lamp flashing frequency (SFT–FL)
– Display structure in Laptimer mode (SETUP LAPTIMER)
– Display duration for last recorded time (HOLD)
– Minimum lap time (LAP–TM)
– Activating and canceling the lamp malfunction display (LAMP)
– Comparison between current lap and fastest lap (FSTLAP)
– Activating and canceling the speed warning (SPEED) in the ROAD mode
– Display dimmer (BRIGHT)
– End of SETUP (SETUP RETURN)



Overview of Setup mode

Solid line: button pressed briefly

Dotted line: press and hold button

1 Selecting parameter (➠ 82)

2 Jump directly to ROAD mode

3 Setting parameter (➠ 84)

4 Exiting settings (➠ 84)

Setting parameter

- Press and hold button **2** until displayed parameter begins to flash.
- Press button **1** or button **2** repeatedly until desired value is displayed.

If desired value is displayed:

- Press and hold button **2** until displayed value no longer flashes.

» The value has been saved.

Exiting settings

- Press and hold button **1** until multifunction display switches over to ROAD mode.

» A value which is still flashing will not be saved.

- As an alternative, press button **1** or button **2** repeatedly until SETUP RETURN is displayed.

If "SETUP RETURN" is displayed:

- Press and hold button **2** to exit SETUP mode.

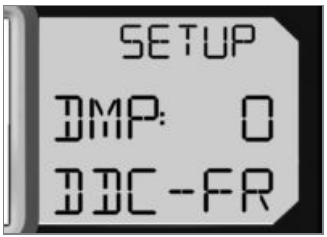
» SETUP MENU is indicated.

Adjusting rear damping

Rebound stage damping adjustment on the rear spring strut.

Compression stage damping adjustment on the rear spring strut.

Adjusting front damping



Without leveling sensor on the front wheel:
Damping adjustment on the front spring strut without separation between compression and rebound stage.

With leveling sensor on the front wheel:
Rebound stage damping adjustment on the front spring strut.

With leveling sensor on the front wheel:
Compression stage damping adjustment on the front spring strut.

The leveling sensor required for the separate adjustment of rebound and compression stage is not offered by BMW Motorrad. It is available as racing accessory. Further information can be requested under "hp-race-support@bmw-motorrad.com".

Leveling sensor calibration

Calibration of the leveling sensor on the rear spring strut, e.g., after changes to the running gear height (➠ 95).

Switch-on speed of shifting flasher

Display of switch-on speed in rpm.

Switch-off speed of shifting flasher

Display of switch-off speed in rpm.
Only speeds which lie above the switch-on speed can be selected.

Brightness of shifting flasher

Display of shifting flasher brightness in percent of the maximum brightness.
The shifting flasher remains switched on during setting and is immediately adjusted to the selected brightness.

Flashing frequency of shiftpoint lamp

Flashing frequency of the shiftpoint lamp and the speed warning in Hz (cycles per second).
When ON is selected the shiftpoint lamp and the speed warning remain on constantly.

Display structure in Laptimer mode

The display structure in the Laptimer mode can be selected from six versions.

Version 1
The running time of the current lap is shown in the second line and the best lap time of the stored values is shown in the third line.

Version 2
The time required for the preceding lap is shown in the second line and the running time of the current lap is shown in the third line.

Version 3
The running time of the current lap is shown in the second line and the all-time best lap time is shown in the third line (➠ 80).

Version 4
The time required for the preceding lap is shown in the second line and the best lap time of the stored values is shown in the third line.

Version 5
The running time of the current lap is shown in the second line and the third line remains empty.

Version 6
The second line remains empty and the running time of the current lap is shown in the third line.

Display duration for last stopped time

Display of the display duration in seconds.
After the start of a new lap, the stopped time of the preceding lap is shown for the selected time. Then the running time of the current lap is shown again.

Minimum lap time

When using an infrared receiver to determine the lap times, the time can be set which must elapse after the first received signal before a new signal is accepted. This prevents the signals of several transmitters positioned next to each other from being evaluated.
It is also not possible to start a new lap with the headlight flasher button within this time.

Lamp malfunction displays

If lamps or bulbs are removed or the license plate carrier is detached for track use the vehicle's electronic monitoring system will interpret this as a defective lamp or bulb and the corresponding warning message will appear in the display.
This function cancels the display.

Fastest lap display

The "fastest lap expected" function (➠ 75) is activated.

Speed warning

When you select this function a supplementary main menu allowing selection of a maximum speed is activated. A warning appears when the vehicle speed rises beyond this limit.

Display brightness

Five different intensities are available for adjusting the display brightness.

DTC

DTC setting

The permissible slip on the rear wheel is controlled by the DTC system according to the selected riding mode.
In SLICK mode, the DTC setting by the system can be additionally adjusted.

Adopting the DTC function

- Activate the SLICK mode and insert the coding plug as needed.

The DTC can be adjusted in SLICK mode only.◀

The DTC can also be adjusted while riding.◀

- Press upper button **1** (+) in order to set earlier DTC control (with less slip on the rear wheel).

» A value between 1 and 7 can be adjusted, where 7 corresponds to the earliest intervention.

The set value **1** is shown in the display.

⚠ Danger of falling due to slipping rear wheel. The reduction in DTC control can cause spinning of the rear wheel and thus stability loss.
Reduce DTC control on race tracks only.◀

- Press lower button **1** (-) in order to set later DTC control (with more slip on the rear wheel).

» A value between -1 and -7 can be adjusted, where -7 corre-

sponds to the latest intervention.

The set value **1** is shown in the display.

In a gravel bed

On very loose substrates (e.g. a gravel bed on a racetrack), the control interventions of the DTC can attenuate the drive force on the rear wheel until the rear wheel no longer turns sufficiently. In this case, BMW Motorrad recommends switching off the DTC temporarily.

Note that the rear wheel will spin in the loose substrate, and close the throttle in a timely manner before reaching a solid substrate. Then, switch the DTC back on.

DDC

DDC setting

Damping is automatically adjusted by the DDC system according to the selected riding mode.

Additional adjustment of the damping setting by the system is possible for front and rear wheel. Compression and rebound stage can be separately adjusted on the rear wheel.

In order to separately adjust damping on the front wheel as well, the leveling sensor available as racing accessory must be installed. For further information contact HP Race Support via e-mail under hp-race-support@bmw-motorrad.com.

The damping settings are separately adjusted for every riding mode.

Adjust damping on rear wheel

- Make sure ground is level and firm and park motorcycle.
- Switch into SETUP mode.

- In order to adjust the compression stage, press buttons **1** respectively **2**, until position **3** shows "DDC-RE" (DDC-REAR) and position **4** "COM:" (Compression).

- In order to adjust the rebound stage, press buttons **1** respectively **2**, until position **3** shows "DDC-RE" (DDC-REAR) and position **4** "REB:" (Rebound).
- Press and hold button **2**, until the value next to "REB:" respectively "COM:" is flashing.
- Adjust damping as desired using buttons **1** and **2**.

» +1 .. +7: Damping increase in maximum seven steps.

» -1 .. -7: Damping decrease in maximum seven steps.

» 0: Basic setting.

Adjusting damping on front wheel

- Make sure ground is level and firm and park motorcycle.
- Switch into SETUP mode.

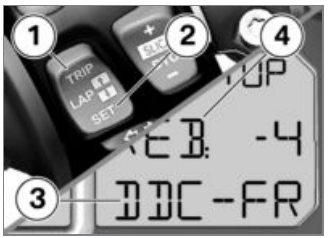
Without leveling sensor on the front wheel:

- In order to adjust damping, press buttons **1** respectively **2**, until position **3** shows "DDC-FR" (DDC-FRONT) and position **4** "DMP:" (Damping).
- Press button **2**, until the value next to "DMP:" is flashing.
- Adjust damping as desired using buttons **1** and **2**.

» +1 .. +7: Damping increase in maximum seven steps.

» -1 .. -7: Damping decrease in maximum seven steps.

» 0: Basic setting.



With leveling sensor on the front wheel:

- In order to adjust the compression stage, press buttons **1** respectively **2**, until position **3** shows "DDC-FR" (DDC-FRONT) and position **4** "COM:" (Compression).
- In order to adjust the rebound stage, press buttons **1** respectively **2**, until position **3** shows "DDC-FR" (DDC-FRONT) and position **4** "REB:" (Rebound).

- Press and hold button **2**, until the value next to "REB:" respectively "COM:" is flashing.
- Adjust damping as desired using buttons **1** and **2**.

» +1 .. +7: Damping increase in maximum seven steps.
» -1 .. -7: Damping decrease in maximum seven steps.
» 0: Basic setting.

Performing zero position alignment

- Place the motorcycle on the side stand or a suitable auxiliary stand.
- During the alignment, do not sit on the motorcycle and remove any cargo or luggage.

- In order to adjust the zero position, press buttons **1** respectively **2**, until position **3** shows "DDC" and position **4** shows "CAL" (calibration).
- Next, press and hold button **2**, until lettering "CAL" starts flashing.

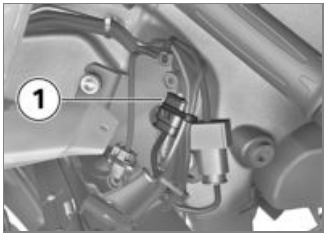
If zero position adjustment was successful, a check mark is shown.

If the check mark is not shown:

- Repeat alignment.
- If the check mark is not shown after repeated alignment attempts, consult a specialized workshop, preferably an authorized BMW Motorrad retailer.

Installing plug connector for a leveling sensor

- Removing fairing side panel (129).



- Remove protective cap from connector **1** and connect leveling sensor connector.

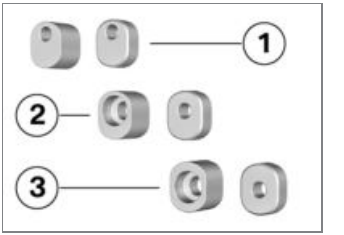
» In the SETUP menu damping on the front wheel can be separately adjusted with respect to rebound and compression stage.

- Installing fairing side panel (➠ 130).

Suspension

Height adjustment

In order to adjust the running gear height, the link blocks **1** on the left and the right of the spring strut bolting connection can be replaced.



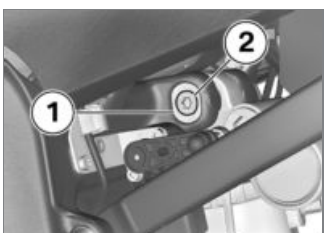
Two pairs of link blocks with different bore holes are enclosed with the vehicle. As the blocks can each be installed rotated by 180°, this results in five possible height adjustments using the factory-installed blocks (-0.12 in (-3 mm), -0.06 in (-1.5 mm), 0 in (0 mm), 0.06 in (+1.5 mm), 0.12 in (+3 mm)).

– **1** Link blocks with 0.12 in (3 mm) bore hole outside the center.
– **2** Link blocks with 0.06 in (1.5 mm) bore hole outside the center, this is the factory-installed setting.

– **3** Link blocks with central bore hole.

Adjusting running gear height

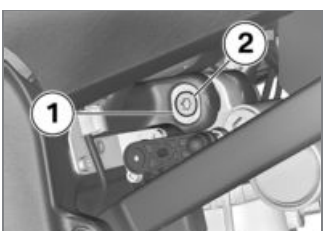
- Lift the motorcycle using a suitable auxiliary stand such that the spring strut is relieved.



- Remove screw **2** and take out link block **1**.

- Remove link block **3** from the right side.
- Select a pair of link blocks according to the requested height.

- Insert small link block with thread **3** on the right side.



- Insert wide link block with recess **2** on the left side.
- Install screw **1** with specified torque.

Spring strut on the relay lever
– 41 lb/ft (56 Nm)

- Performing zero position alignment (➠ 95).

Launch control

Launchcontrol

Launchcontrol supports the rider in maintaining the ideal speed for a race start. Launchcontrol can be activated in SLICK mode only. After Launchcontrol is activated, the system maintains the engine speed at approx. 8000 rpm at full throttle. After clutch engagement, the speed is controlled such that maximum traction is generated on the rear wheel. Hereby, the throttle grip remains in full-throttle position. If a speed of 37 mph (60 km/h) is exceeded, speed limiting is deactivated.
While Launchcontrol is active, the DTC system is deactivated.

Launchcontrol is also switched off under the following conditions:
– Third gear is engaged.
– Angle becomes greater than 30°.
– Engine or ignition is switched off.
– Mode is changed.

The number of subsequent starts with Launchcontrol is limited for clutch protection. The number of starts still possible is shown in the display.

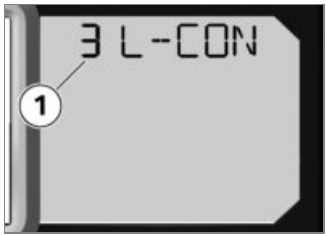
Race start with Launchcontrol

Risk of injury due to increased acceleration.
Launchcontrol allows maximum acceleration, which could cause unfamiliar riding situations.
Only use Launchcontrol on race tracks.◀

- Activate SLICK mode.
- Bring vehicle in start position.

» Vehicle is standing, engine is running.

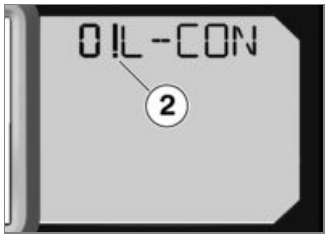
- Press and hold the starter button **1** until the display changes.
- Check display.



L–CON and the still permitted number of starts **1** with Launchcontrol is shown in the display.

Start with Launchcontrol is possible.

- Perform start as described below.



If no start with Launchcontrol is currently possible, the number 0 is displayed with an exclamation mark **2** added.

- Let the clutch cool down.

Clutch cool-down time
– Approx. 3 min (With the engine running)
– Approx. 20 min (With the engine switched off)

- Perform the start as usual, open the throttle grip at least to such an extent that speed limiting is reached.
- Open the throttle grip completely after clutch engagement.

The DTC warning lamp lights up. The DTC system has been switched off.

Shiftpoint lamp lights up.

» Launchcontrol controls the ideal torque on the rear wheel and maintains a constant engine speed up to approx. 37 mph (60 km/h).

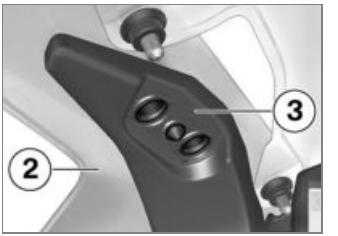
» Due to the full-throttle position of the throttle grip, the engine speed increases, as soon as speed limiting is deactivated.

Mirror removal and installation

Removing mirror

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

- Remove nuts **1** on left and right and take off mirror.

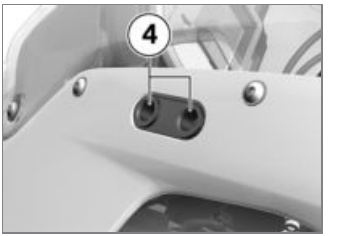


- Secure the paneling **2** on the left and right to the fairing bracket **3**. If cable ties are used, protect possible locations of abrasion marks using an adhesive strip.

Use the HP Race Cover Kit from BMW Motorrad to cover the exposed screw sockets and secure the mounting attachment.◀

Installing mirrors

- Make sure ground is level and firm and park motorcycle.
- Remove fairing fastener.



- Mount mirrors on left and right in mounts **4**.
- Install nuts on back of fairing with torque.

	Mirror on front panel carrier
– Securing device: mechanical	
– 6 lb/ft (8 Nm)	

License-plate carrier

Removing license-plate carrier

- Switch off ignition.

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

– with anti-theft alarm OE

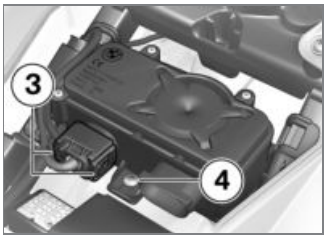
- Deactivate anti-theft alarm system if necessary.◁

– with passenger package OE

- Removing passenger seat (➠ 52).

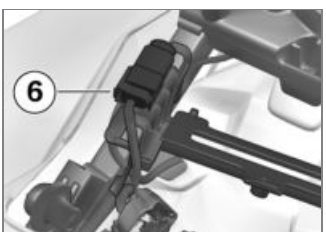
- Release the cable tie **1** (is suitable for reuse).
- Actuate locking mechanism **2** and disconnect the plug.

– with anti-theft alarm OE

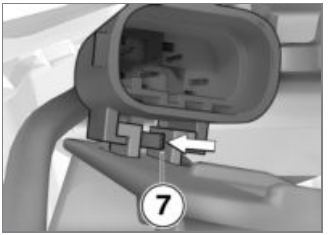


- Activate locking mechanisms **3** and disconnect plug.
- Remove screw **4**.
- Remove anti-theft alarm system from bracket by extracting toward front.

- Carefully disconnect anti-theft alarm system bracket **5** from rear frame and rotate it upward.

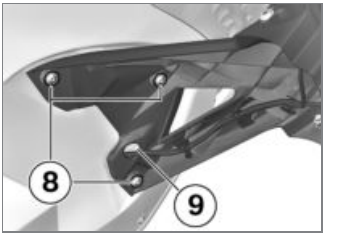


- Activate locking mechanism **6** and disconnect plug.



- Press locking mechanism **7** to left with small screwdriver while simultaneously sliding connector toward rear off anti-theft alarm system bracket.
- Remove anti-theft alarm system bracket.◁

- Protect connector plugs on motorcycle against contamination.



- Detach screws **8** with washers and remove license-plate carrier. Guide cable through opening **9** when doing so.

– with passenger package OE

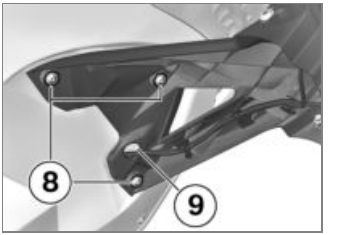
- Installing passenger seat (➠ 53).

Installing license-plate carrier

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

– with passenger package OE

- Removing passenger seat (➠ 52).

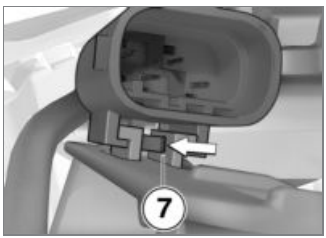


- Position license-plate carrier and guide cable through opening **9**.
- Install screws **8** with washers.

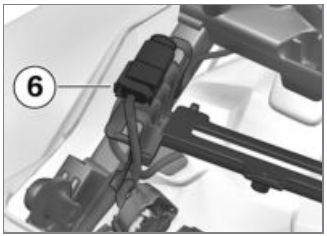
- Close connector so that locking mechanism **2** engages and

secure on rear frame with cable tie **1**.

– with anti-theft alarm OE

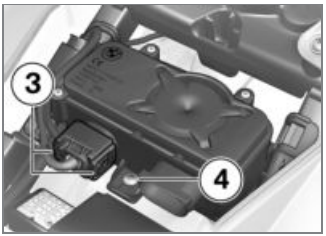


- Slide connector of license-plate carrier onto anti-theft alarm system bracket so that locking mechanism **7** engages.



- Close connector so that locking mechanism **6** engages.

- Mount anti-theft alarm system bracket **5** in rear frame.



- Mount anti-theft alarm system in bracket from front.
- Install screw **4**.
- Close connector so that locking devices **3** engage.◁

– with passenger package OE

- Installing passenger seat (➠ 53).

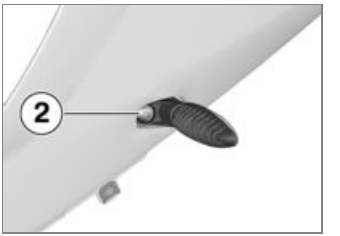
Removing and installing front turn indicator

Removing front turn signal

▷ The working steps described here for the right fairing side panel also apply logically for the left side.◀

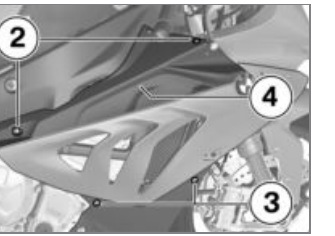
- Removing fairing side panel (➠ 129).

- Unclip the turn signal cable at position **1**.



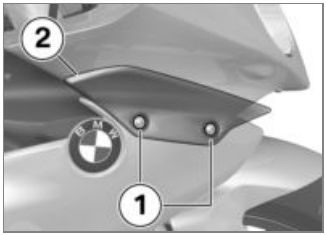
- Undo the screw **2** and remove the turn signal. Guide cable through fairing side panel.
- Protect connector on motorcycle against contamination.

- Mount fairing side panel in mount **6** on engine spoiler.



- Mount side panel in rubber buffer at position **4**.
- Install screws **3** with washers.
- Install screws **2**.

- Install screw **1**.



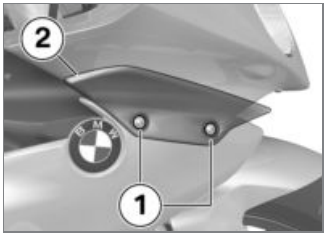
- Position the wind deflection wing **2** ensuring that is on the correct side.

» The letters "R" for the right side and "L" for the left side are stamped on the surfaces of the deflector panels.

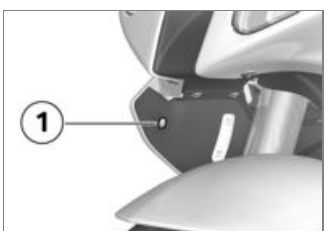
- Install screws **1**.

Installing front turn signal

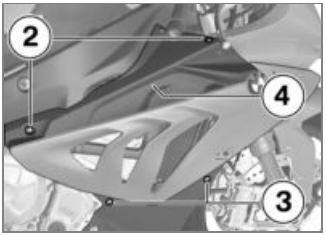
- Make sure ground is level and firm and park motorcycle.



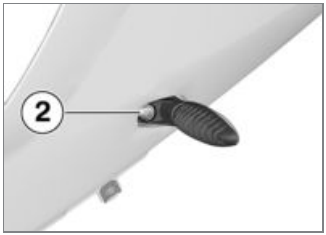
- Unfasten the screws **1** then remove the wind deflection wing **2**.



- Remove the screw **1** on the inside of the right side panel.



- Remove screws **2**.
- Remove screws **3** with washers.
- Pull fairing side panel out of rubber buffer at position **4** and remove.
- Guide cable through fairing side panel.



- Position turn signal and install screw **2**.

- Clip the turn signal cable in at position **1**.
- Installing fairing side panel (➠ 130).

Technology in detail

Riding mode

Selection

There are four riding modes to choose from for adjusting the motorcycle to the weather, road conditions and driving style:
– RAIN
– SPORT (default mode)
– RACE
– SLICK (with coding plug installed only)

When the coding plug is used, the operating permit for public roads is voided.
Do not use the encoding plug on public roads.◄

Each riding mode affects the behavior of the motorcycle in a different way. ABS and/or DTC can be switched off in each mode; the following explanations always refer to the activated systems. The last selected riding mode is reactivated automatically after the ignition is switched off and on again. However, the shut-off of ABS and/or DTC is maintained only if the coding plug is installed.
The RAIN, SPORT and RACE modes are designed for riding with series tires recommended by BMW Motorrad. SLICK mode assumes racing tires and roads with very good adhesion. Therefore, consider the following when selecting the riding mode: The sportier the setting, the more demanding the requirements for the driving skill of the rider are!

RAIN
The torque increase is linear.
The ABS system always intervenes early enough to prevent the wheels from locking up and the rear wheel from lifting off the ground if possible.
The DTC system intervenes early enough to always prevent the rear wheel from spinning if possible.
The DDC setting assumes a conservative riding style.

SPORT
The ABS response characteristics remain identical to those provided in the RAIN mode.
The DTC system intervenes later than in the RAIN mode so that minor drifts are possible at the ends of curves.
The DDC response characteristics remain identical to those provided in the RAIN mode.

RACE
The RACE mode is the sportiest mode as long as the coding plug is not installed.
The ABS system intervenes later in this mode. The wheels are still prevented from locking up, how-

ever the lift-off detection for the rear wheel is deactivated. The rear wheel can lift off the ground!


Flip over risk, as the lift-off detection for the rear wheel is deactivated.
Be prepared for lift-off of the rear wheel in the case of hard braking.◀

The DTC system intervenes even later so that longer drifts and brief wheelies are also possible at the end of curves (at angles below 25°).
The DDC setting assumes a sporty riding style.

SLICK

To activate the SLICK mode, the coding plug must be used.
SLICK mode was developed for roads with good visibility and very high friction coefficients, as they are usually found on racetracks only. This mode also assumes that the motorcycle is riding with racing tires that have very good adhesion.
The engine output, increase in power and response are designed for maximum sportiness. The response characteristics of the ABS system in SLICK mode are derived from the IDM. Furthermore, differently from the RACE mode, no ABS control is carried out on actuation of the footbrake lever on the rear wheel. The rear wheel can lock up. The lift-off detection for the rear wheel is also deactivated.


Flip over risk, as the lift-off detection for the rear wheel is deactivated.
Be prepared for lift-off of the rear wheel in the case of hard braking.◀


Risk of injury, as the ABS control on the rear wheel is deactivated.
Be prepared for the rear wheel locking up in the case of braking.◀

In this mode the control of the DTC system assumes that racing tires with maximum adhesion (slick tires) are mounted. Longer wheelies and wheelies at small angles are also permitted, which means it is possible to flip over backward in extreme cases!
The DDC response characteristics remain identical to those provided in the RACE mode.

Switchover

The switchover process for the functions in the engine management system, the ABS and the DTC is only possible in certain operating modes:
– No drive torque at rear wheel
– No brake pressure in the brake system.

To obtain this state,

– Motorcycle must be stopped with the ignition switched on

or

– Throttle grip must be turned back,
– Brake levers may not be actuated,
– The clutch must be actuated.

First the desired riding mode is preselected. The switchover does not take place until the affected systems are in the required state.
The selection menu does not disappear in the display until the driving mode has been switched over.

Brake system with BMW Motorrad Race 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.

Spinning of the rear wheel with the front brake pulled (burn out) is made considerably more difficult by the integral function. The result may be damage to the rear wheel brake and the clutch.
Burn-outs may be carried out with the ABS function switched off only.◀

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 transferable 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 transferable braking force. This enables the wheels to continue to turn and maintains driving stability regardless of the road surface condition.

What happens when rough roads are encountered?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the 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 Race 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.◀

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 Race ABS, unusual driving conditions can also lead to a fault message.

Unusual driving conditions:

– Heating up on an auxiliary stand at idle speed or with gear engaged.
– Rear wheel locked-up for a longer period of time by engine brake, e.g. when riding down steep hills.

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 condition.
To ensure that the BMW Motorrad Race ABS is in an optimally maintained condition, it is vital that the specified inspection intervals be complied with.◀

Reserves for safety

But remember: the potentially shorter braking distances which BMW Motorrad Race 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 in a curve, the motorcycle's weight and momentum take over and even BMW Motorrad Race ABS is unable to counteract their effects.

Engine management with BMW Motorrad DTC

How does DTC work?

The BMW Motorrad DTC 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.

Even with DTC, the laws of physics cannot be overridden. The driver is always responsible for adapting his/her driving style.
Do not reduce the additional safety provided with risky driving.◀

DTC adjustment

The DTC response characteristics can be adjusted in SLICK mode. As a result, DTC interventions on the race track can be adjusted to the physical limits of worn tires respectively of tires not tested by BMW Motorrad. Based on the standard setting, the point in time of DTC intervention can be moved in seven steps each to an earlier or later time. The earlier the intervention occurs, the better is the lateral stability. If intervention occurs later, traction is improved at the expense of lateral stability until tire grip is exceeded.

Special situations

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

To detect spinning or slipping away of the rear wheel, the speeds of the front and rear wheel are compared and the angle is considered, for example. If these values are detected to be implausible for a long period, a replacement value is used for the angle and the DTC function is deactivated. In these cases, a DTC error is displayed. The condition for a fault code is the completed self-diagnosis.
In the following unusual driving states, the BMW Motorrad DTC can be automatically deactivated.

Unusual driving conditions:

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

Provided that the coding plug for the SLICK mode is not installed, the DTC will be reactivated by switching the ignition off and on again and then accelerating the vehicle to a speed of more than 3 mph (5 km/h).

If the front wheel loses contact to the ground during extreme acceleration, the DTC reduces the engine torque until the front wheel touches the ground again. In RACE and SLICK mode wheelies are possible at small angles.
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 slip,

resulting in an unstable driving state. This case cannot be controlled by the BMW Motorrad DTC.

Dynamic Damping Control BMW Motorrad DDC

Dynamic Damping Control DDC

Using the leveling sensor, the motions of the rear spring strut are recorded. Depending on the determined motion direction and speed, as well as depending on the riding mode selected, the electrical damping valve is opened respectively closed. Damping on the front wheel depends on the riding mode as well, however the spring travel is not measured.

The damping values for the front wheel and for the rear wheel can be adjusted in the SETUP menu via seven steps in the "softer" direction and seven steps in the "harder" direction. On the rear wheel, compression stage and rebound stage can be separately adjusted.

In order to separately adjust the damping values on the front wheel according to rebound and compression stage, a leveling sensor must be installed on the spring fork. A plug connector for sensor connection is already available on the motorcycle. It is located behind the left side panel.

If an additional leveling sensor is installed, an existing sensor is replaced, or the running gear height is changed, a calibration must be performed. The calibration is started in the SETUP menu.

Accessories

General instructions

BMW Motorrad recommends the use of parts and accessories for your motorcycle that are approved by BMW for this purpose. Your authorized BMW Motorrad retailer is the right place to go for genuine BMW parts and accessories, other BMW approved products, and expert advice on their installation and use.

These parts and products have been tested by BMW for safety, function and suitability. BMW accepts product liability for these products.

Conversely, BMW is unable to accept any liability whatsoever for parts and accessories which it has not approved.

Observe the information on the importance of tire sizes for chassis control systems (➠ 135).

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.◀

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.

Passenger footrests

– with passenger package OE

Removing passenger footrests

- Remove screws **1** and nuts **2**.
- Remove washers and passenger footrest sidewards.

- Remove screw **1**, slightly pull the muffler retaining strap apart and pull it backwards off the muffler.

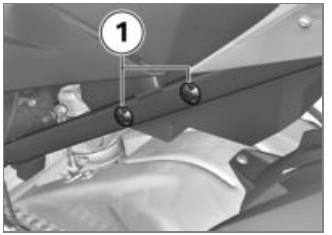
- Attach muffler holder and install screws **1** (M8x30) with the specified torque.

Carbon holder (muffler) on rear frame
– 21 lb/ft (28 Nm)

- Slightly pull retaining strap **1** apart and pull it from the back over the muffler.
- Align retaining strap and muffler. Make sure that the retaining strap has contact with the muffler holder on the outside.
- Insert screw **2** in washer, retaining strap, muffler holder, second washer and nut and tighten to the specified torque.

Muffler clamp on holder
– 15 lb/ft (20 Nm)

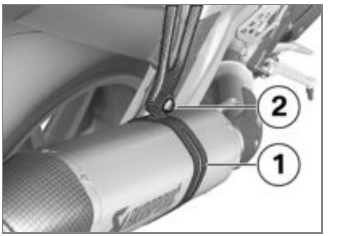
- Remove screws **1**.
- Remove passenger footrest.



- Install screw hole covers **1**.

Cover for passenger footrest holder on the rear frame
– without passenger package[OE]
– 2 lb/ft (3 Nm)◁

Installing passenger footrests



- Remove screw **2** with nut and washers.
- Slightly pull retaining strap **1** apart and pull it backwards off the muffler.

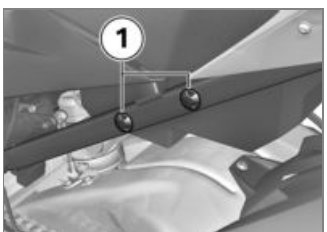
- Remove screws **1** and take off muffler holder.

- Attach passenger footrest and install screws **1** (M8x25) with the specified torque.

Passenger footrest holder on the rear frame
– 21 lb/ft (28 Nm)

- Slightly pull retaining strap **1** apart and pull it from the back over the muffler.
- Align retaining strap and muffler. Slide washer, retaining strap and second washer onto the footrest screw.
- Install nut **2**, however do not tighten it yet.
- Install screw **3**.
- Tighten nut **2** to the specified torque.

Muffler clamp on holder
– 15 lb/ft (20 Nm)



- Remove screw hole covers **1**.

- Attach the passenger footrest.
- Install screws **1** with specified torque.

Passenger footrest holder on the rear frame
– 21 lb/ft (28 Nm)

Maintenance

General instructions

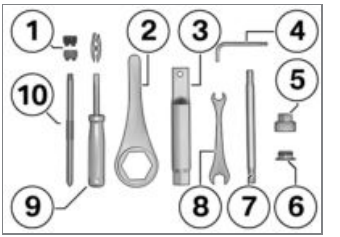
The 'Maintenance' chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".

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



1 Spare fuses with gripper
Miniature fuses, 4 A and 7.5 A

2 Box wrench
Wrench size: 34 mm
– Adjusting chain tension (➠ 134).

3 Socket wrench
Wrench size: 17 mm
– Adjusting spring preload on front wheel (➠ 49).
– Adjusting spring preload on rear wheel (➠ 50).
– Use a plastic attachment each to adjust the front and rear spring preload.
– Extension for hook wrench.

4 TORX wrench, T25
– Removing and installing body panels.

5 Plastic attachment for socket wrench
– Adjusting spring preload on front wheel (➠ 49).

6 Plastic attachment for socket wrench
– Adjusting spring preload on rear wheel (➠ 50).

7 Extension for screwdriver insert

8 Open-ended wrench
Wrench size: 10/13
– Adjusting chain tension (➠ 134).

9 Reversible screwdriver with Phillips and straight blade
– Removing battery (➠ 154).

10 Reversible screwdriver insert
with Phillips PH1 and Torx T25
– Removing driver's seat (➠ 53).
– Removing and installing body panels
– Replacing front and rear turn indicator bulbs (➠ 148).

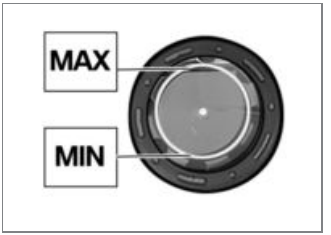
Engine oil

Checking engine oil level

⚠ The oil level varies with the temperature of the oil. The higher the temperature, the higher the level of oil in the sump. Checking the oil level with the engine cold or after a short trip leads to misinterpretations of the oil fill quantity.
To ensure that the display of the engine oil level is correct, only check the oil level with the engine at operating temperature.◀

- Make sure ground is level and firm and hold motorcycle at operating temperature vertically.
- Let the engine run in neutral for one minute.
- Switch off ignition.

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



	Specified level of engine oil
–	between MIN and MAX marking
	Engine oil, capacity
–	Products recommended by BMW Motorrad
–	3.7 quarts (3.5 l) (with filter change)

If the oil level is below MIN mark:
- Topping up engine oil (➠ 124).

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.
- Wipe area around fill location clean.

- 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.
- Checking engine oil level (➠ 123).
- Install cap of engine oil fill location **1**.

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.

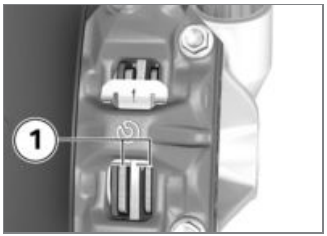
If no clear pressure points are perceptible:

Incorrect working practices endanger the reliability of the brakes.
Have all work on the brake system carried out by specialists.◀

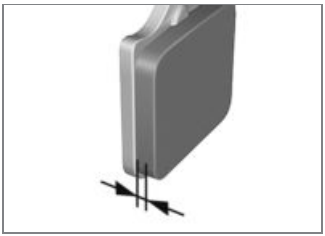
- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Check front brake pad thickness

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



- Visually inspect left and right brake pads to determine their thickness. Direction of view: From rear looking at brake pads **1**.



Front brake-pad wear limit
– min 0.03 in (min 0.8 mm) (Only friction material without carrier plate)

If brake pads are worn:

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

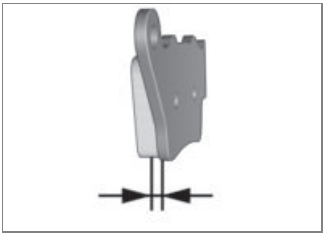
are not worn beyond their minimum thickness.◀

- 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 rear looking at brake pads **1**.



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

If the wear indicating mark is no longer 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

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

If brake fluid level falls below the approved level:

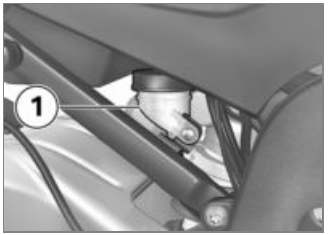
A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.

Check brake fluid level regularly.◀

- 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.



- 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)

If brake fluid level falls below the approved level:

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

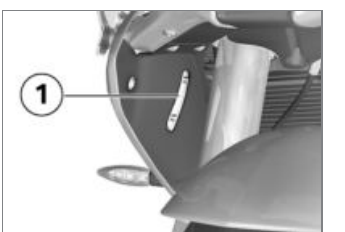
Check brake fluid level regularly.◀

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

Coolant

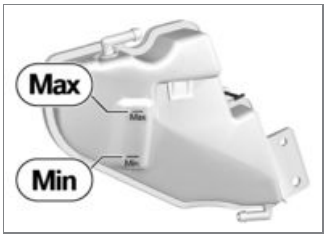
Checking coolant level

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



- Read off coolant level on expansion tank **1**. Direction of

view: from front looking at inside of right-hand side panel.



	Coolant, specified level
–	between MIN and MAX marks on the expansion tank (With cold engine)

If coolant level drops below approved level:

- Add coolant.

Topping up coolant

- Removing fairing side panel (➠ 130).

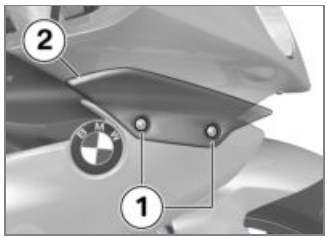
- Open cap **1** of expansion tank.
- Add coolant up to specified level.
- Checking coolant level (➠ 128).
- Close cap of expansion tank.
- Installing fairing side panel (➠ 130).

Fairings and Panels

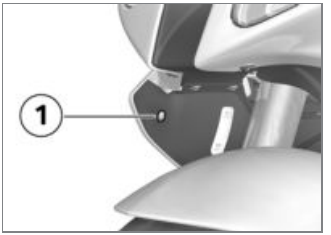
Removing fairing side panel

The working steps described here for the right fairing side panel also apply logically for the left side.◀

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



- Unfasten the screws **1** then remove the wind deflection wing **2**.



- Remove the screw **1** on the inside of the side panel.

- Remove screws **2**.
- Remove screws **3** with washers.

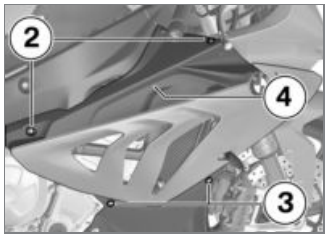
- Pull fairing side panel out of rubber buffer at position **4** and remove.

- Disconnect plug **5**.
- Take off fairing side panel.

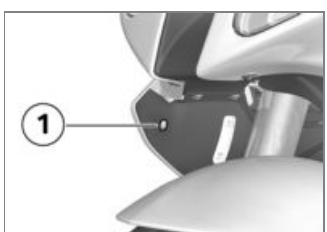
Installing fairing side panel

- Mount fairing side panel in mount **6** on engine spoiler.

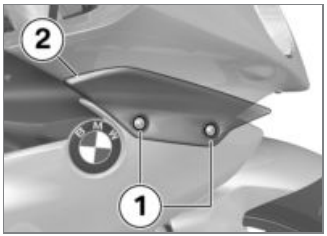
- Connect the plug **5**.



- Mount side panel in rubber buffer at position **4**.
- Install screws **3** with washers.
- Install screws **2**.



- Install screw **1**.



- Position the wind deflection wing **2** ensuring that is on the correct side.

» The letters "R" for the right side and "L" for the left side are stamped on the surfaces of the deflector panels.

- Install screws **1**.

Clutch

Check clutch function

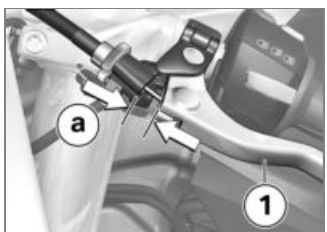
- Pull back the clutch lever.

» Pressure point must be clearly perceptible.

If no clear pressure point can be felt:

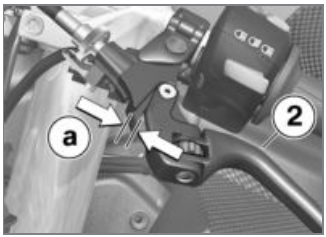
- Have the clutch checked by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Checking clutch lever play



- Operate clutch lever **1** until resistance is felt.

– with competition kit OE



- Operate clutch lever **2** until resistance is felt.◁
- Measure clutch play **a** between handlebar fitting and clutch lever in this position.

Clutch lever play	
– 0.02...0.04 in (0.5...1.0 mm) (on the handlebar fitting, when the engine is cold)	

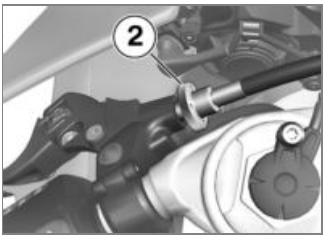
If clutch play is outside tolerance:

- Adjusting clutch lever play (➠ 132).

Adjusting clutch lever play

- To increase clutch play: turn the screw **1** into handlebar fitting.
- To decrease clutch play: turn the screw **1** out of handlebar fitting.

– with competition kit OE



- To increase clutch play: turn the screw **2** into handlebar fitting.
- To decrease clutch play: turn the screw **2** out of handlebar fitting.◁
- Checking clutch lever play (➠ 131).
- Repeat these operations until the clutch play is correctly adjusted.

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 indicating marks.

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 tires concerned.

Chain

Lubricate chain

Dirt, dust and insufficient lubrication will considerably shorten the service life of the drive chain.
Clean and lubricate the drive chain regularly.◀

- Lubricate drive chain at lease every 500 mls (800 km). After driving though water or dust and dirt perform the lubrication at shorter intervals.
- Switch off ignition and engage Neutral.
- Clean drive chain with suitable cleaning agent, dry and apply chain lubricant.
- To extend and maximize the chain's service life BMW Motorrad recommends using BMW Motorrad chain lubricant or:

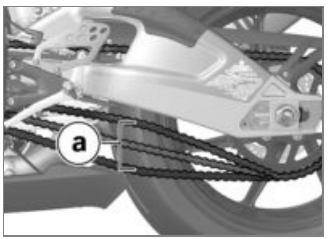
Lubricant
Chain spray

- Wipe off excess lubricant.

Checking chain tension

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

- Turn the rear wheel until the position with the lowest chain sag is reached.



- Using a screwdriver, push the chain in the middle between the pinion and sprocket and measure the difference **a**.

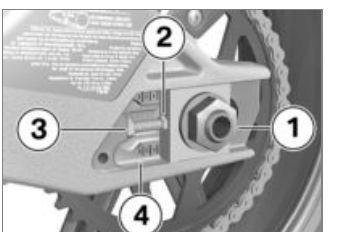
Chain sag
– 1.6...2 in (40...50 mm) (Motorcycle unloaded on side stand)

If the measured value is outside the approved tolerance:

- Adjusting chain tension (➠ 134).

Adjusting chain tension

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



- Loosen quick-release axle nut **1**.
- Loosen lock nuts **3** on left and right.
- Adjust chain tension with adjusting screws **2** on left and right.
- Checking chain tension (➠ 133).
- Ensure that the figures **4** indicating the adjustment settings are identical on left and right.
- Tighten locknuts **3** on left and right to the specified torque.

Locknut of drive-chain tensioning screw
– 14 lb/ft (19 Nm)

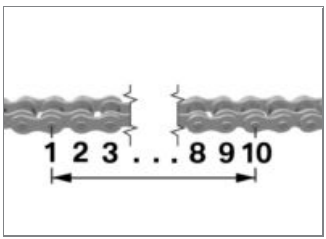
- Tighten quick-release axle nut **1** to specified torque.

Rear-wheel quick-release axle in swinging arm
– Securing device: mechanical
– 74 lb/ft (100 Nm)

Check chain wear

- Engage 1st gear.
- Rotate rear wheel toward front of vehicle until the chain is tensioned.

- Determine chain length below the rear wheel swinging arm with 9 rivets.



Permissible chain length
– max 5.7 in (max 144.30 mm) (Measured over the **center** of 10 rivets, chain tensioned)

If the chain has reached the maximum approved length:

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

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 DTC. 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.

Removing front wheel

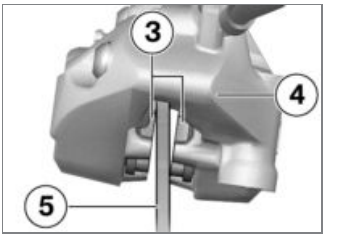
- Make sure ground is level and firm and park motorcycle.

- Remove screw **1** and extract the ABS sensor from its socket.
- Mask off area of wheel rim that could be scratched in process of removing 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 screws **2** of brake calipers on left and right.



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

- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear wheel stand.
- Mounting rear wheel stands (➠ 143).
- 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 (➠ 142).

The left axle clamping screw fixes the threaded bush in place in the front suspension.
To ensure the proper alignment of the threaded bush, do not loosen or remove the left axle clamping screw.◀

- Unscrew right-hand axle clamping screws **1**.
- Remove quick-release axle **2** while supporting wheel.
- Roll front wheel forward to remove.

Installing front wheel

Malfunctions may occur during control interventions by ABS and DTC if a wheel other than the standard wheel is installed.
Please see the information on the effect of wheel sizes on the chassis control systems ABS and DTC 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 **2** with torque.

	Quick-release axle in threaded bush
– 37 lb/ft (50 Nm)	

- Tighten right axle clamping screws **1** to specified tightening torque.

Clamping screw in axle adapter
– 14 lb/ft (19 Nm)

- Remove front wheel stand and auxiliary stand.
- Slide the brake calipers onto the rotors.

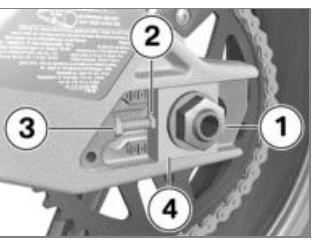
- Install screws **2** on left and right with appropriate torque.

Radial brake calipers on the axle adapter
– 28 lb/ft (38 Nm)

- Insert ABS sensor in its socket and install screw **1**.
- Remove adhesive tape from wheel rim.
- Press handbrake lever firmly a number of times until resistance point is felt.

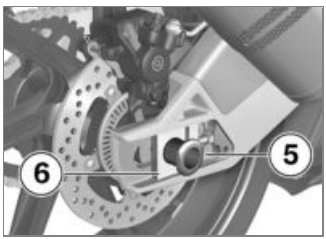
Remove rear wheel

- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear wheel stand.
- Mounting rear wheel stands (➠ 143).
- Support the rear wheel, e.g., with a wooden block, so that it cannot fall down after the quick-release axle is removed.

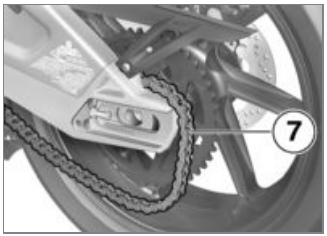


- Remove axle nut **1** with washer.
- Loosen lock nuts **3** on left and right.
- Loosen adjusting screws **2** on left and right.

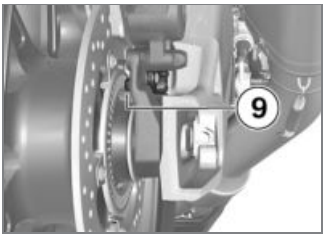
- Remove adjusting plate **4** and slide axle as far as possible toward inside.



- Remove quick-release axle **5** and take out adjusting plate **6**.



- Roll rear wheel as far forward as possible and remove chain **7** from chain sprocket.



- Make sure that the ABS sensor **9** is not damaged when rolling out the rear wheel.

- Remove brake and ABS line from bracket **8**.

- Roll rear wheel toward rear out of swing arm while pulling brake caliper carrier **10** toward

rear until rear-wheel rim can be guided past it.

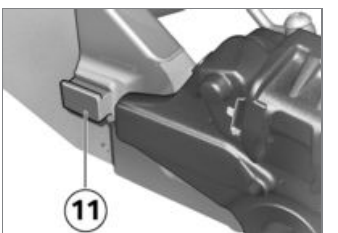
The chain sprocket and the spacer sleeves on the left and right are loosely inserted in the wheel. When removing, make sure that these parts are not damaged or lost.◀

Installing rear wheel

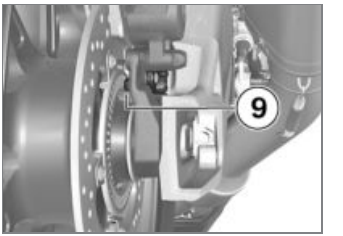
Malfunctions may occur during control interventions by ABS and DTC if a wheel other than the standard wheel is installed.
Please see the information on the effect of wheel sizes on the chassis control systems ABS and DTC at the beginning of this chapter.◀

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.◀

- Roll rear wheel on support into swing arm until brake-caliper support can be installed.



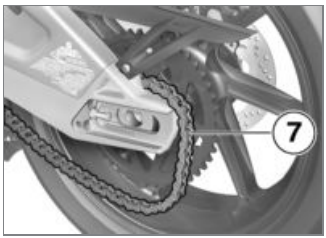
- Mount brake caliper carrier in guide **11**.



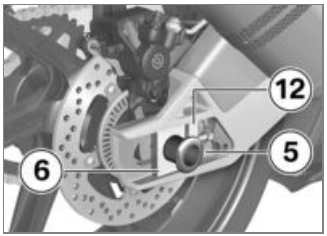
- Make sure that the ABS sensor **9** is not damaged when rolling the rear wheel into place.

- Roll rear wheel further into swing arm while simultaneously

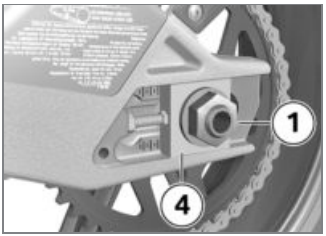
pushing brake caliper carrier **10** toward the front.



- Roll rear wheel as far forward as possible and lay chain **7** on sprocket.



- Insert the right side shim **6** in the swing arm with the travel stop **12** pointing toward the front.
- Raise the rear wheel and install the quick-release axle **5** through the shim in the brake-caliper support and the rear wheel.
- Ensure that the quick-release axle seats securely against the travel stop on the adjustment plate.



- Mount adjusting plate on left **4**.
- Install axle nut **1** with washer, however do not tighten yet.

- Mount brake and ABS line in bracket **8**.

- Adjusting chain tension (➠ 134).

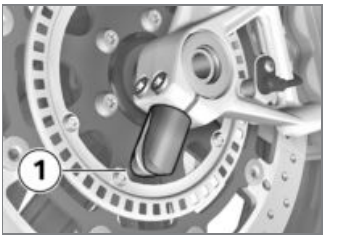
Front wheel stand

Mounting front wheel stand

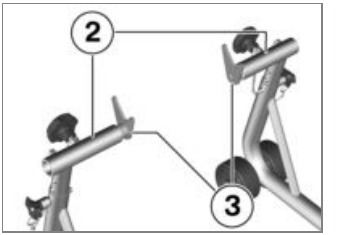
The BMW Motorrad front wheel stand is not designed for holding motorcycles without a center or other auxiliary stands. A motorcycle standing on the front wheel stand and the rear wheel alone can fall over.
Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.◀

- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear wheel stand.
- Mounting rear wheel stands (➠ 143).

- Use basic stand (83 30 0 402 241) with mounting pieces (83 30 2 152 839).



- Insert the mounting pins (83 30 2 152 840) **1** at the left and right into the front suspension.



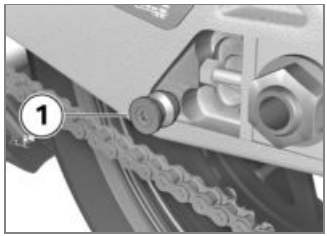
- Turn in the bracket **2** with the long sides facing the inside.
- Adjust the mounting pieces **3** to the width of the pins inserted into the front suspension.
- Adjust the height of the front wheel stand so that the front wheel is lifted slightly off the ground.

- Attach the front wheel stand to the front suspension and press it on the ground evenly.

Rear-wheel stand

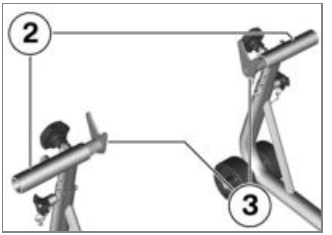
Mounting rear wheel stands

- Use basic stand with part number (83 30 0 402 241) and the mounting pieces (83 30 2 152 839).

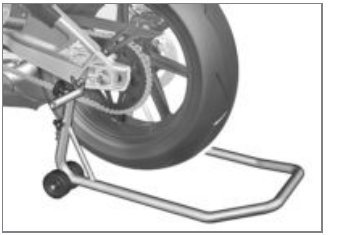


- Install the mounting pins (83 30 2 152 841) **1** on the left and right into the rear wheel swing arm, tightening to specified torque.

	Adapter on rear wheel swinging arm
–	15 lb/ft (20 Nm)



- Turn in the bracket **2** with the long sides facing the outside.
- Adjust the mounting pieces **3** to the width of the pins inserted into the rear wheel swing arm.
- Adjust the height of the rear wheel stand so that the rear wheel is lifted slightly off the ground.



- Attach the rear wheel stand to the rear wheel swing arm and press it on the ground evenly.

Lamps

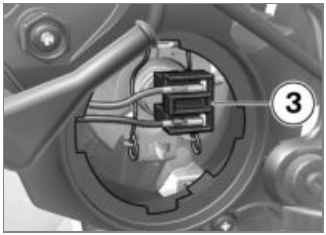
Replacing low-beam and high-beam bulbs

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

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

- Remove the cover **1** to replace the low-beam bulb.

- Remove the cover **2** to replace the high-beam bulb.



- Disconnect plug **3**.

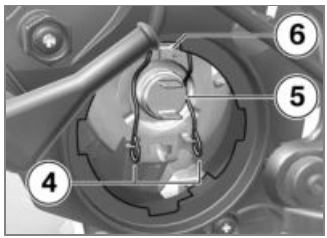
- Remove spring wire brackets **4** from their detents on left and right and swivel them up.
- Remove bulb **5** from the socket.
- Replace defective bulb.

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

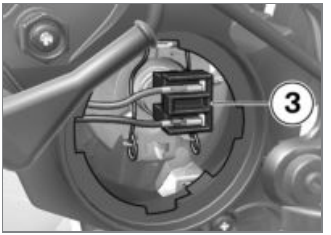
Bulbs for low-beam headlight
– H7 / 12 V / 55 W

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.



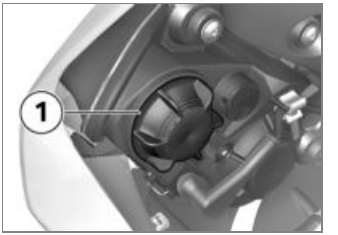
- Install bulb **5**. Start by inserting the lug **6** then press the bulb into the socket.
- Insert both sides of wire spring **4** into the retainer.



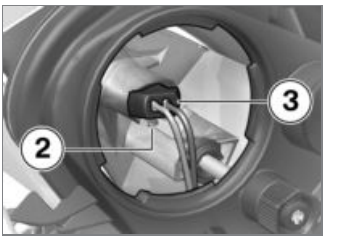
- Attach plug **3**.
- Install the cover.

Replacing left parking light bulb

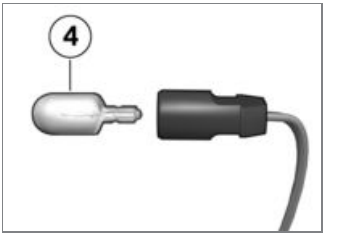
- Make sure ground is level and firm and park motorcycle.
- Switch off ignition.



- Remove parking light cover **1**.



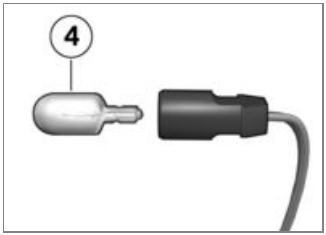
- Push the locking device **2** downwards (using a screwdriver if necessary) and pull the socket **3** out of the headlight housing.



- Remove bulb **4** from the socket.
- 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.

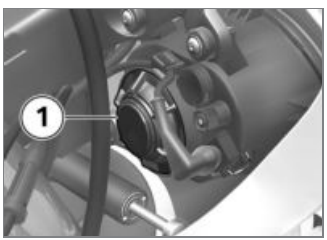


- Insert bulb **4** into the socket.

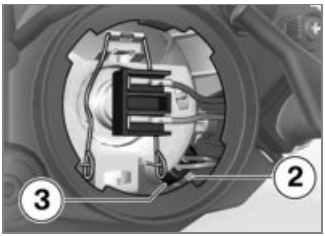
- Insert socket **3** in the headlight housing such that the retainer **2** engages.
- Install the cover.

Replacing right parking light bulb

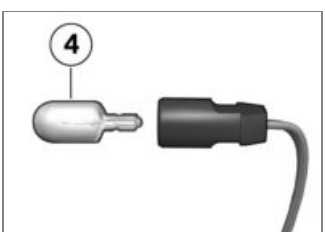
- Make sure ground is level and firm and park motorcycle.
- Switch off ignition.



- Remove cover **1**.



- Push the retainer **2** downward (using a screwdriver if necessary) and pull the socket **3** from the headlight housing.

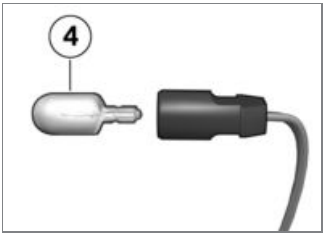


- Remove bulb **4** from the socket.

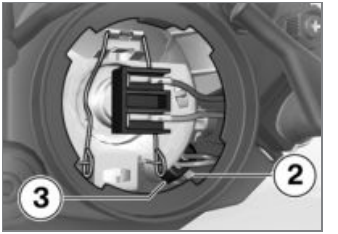
- Replace defective bulb.

	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 the socket.



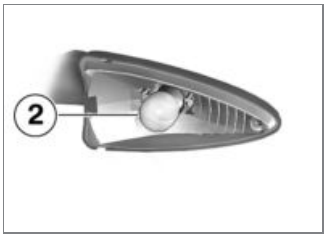
- Insert socket **3** in headlight housing, continuing to apply pressure until the retainer **2** engages.
- Install the cover.

Replacing front and rear turn indicator bulbs

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

- Remove screw **1**.

- Pull glass on screw connection side out of mirror housing.

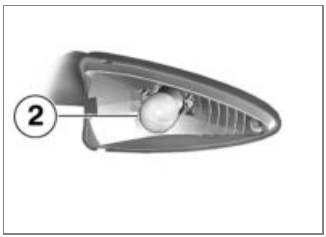


- Remove bulb **2** from light housing by turning it counterclockwise.
- Replace defective bulb.

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

Bulbs for flashing turn indicators, rear
– RY10W / 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.



- Install bulb **2** by screwing clockwise into light housing.

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

- Install screw **1**.

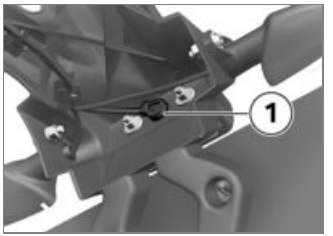
Diode tail light

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 taillight
– 1

Replacing license plate light



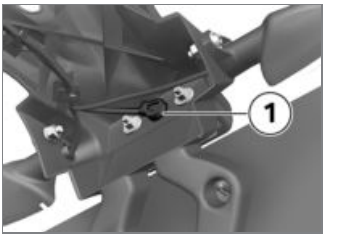
- Pull license-plate light **1** out of lamp housing.

- Pull bulb out of socket.
- Replace defective bulb.

	Bulb for license-plate 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.

- Press bulb into socket.



- Press license-plate lamp **1** into lamp housing.

Fuses

Removing fuse

If defective fuses are bridged, this results in a danger of short-circuit and thus a danger of fire.
Replace defective fuses with new fuses.◀

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

- Removing the seat humb cover (➠ 51).

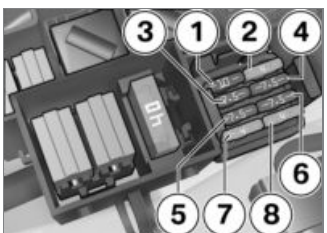
– with passenger package OE

- Removing passenger seat (➠ 52).

- Press together locking lever and remove cover of fuse box **1**.
- To replace main fuse, remove cover **2** from relay box.
- Use the tool from the on-board toolkit to pull the defective fuse up and out of the fuse box.

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

Installing fuse



- Replace defective fuse with fuse with required amperage.

An overview of the fuse assignment and the required amperages is provided in the chapter "Technical Data". The numbers in the graphic match the fuse numbers.◀

- Close fuse cover.

» Locking device audibly engages.

- Installing the seat humb cover (➠ 52).

– with passenger package OE

- Installing passenger seat (➠ 53).

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.◀

Touching live parts of the ignition system with the engine running can cause electric shock.
Do not touch parts of the igni-

tion system when the engine is running.◀

⚠ 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.◀

- When jump-starting the engine, do not disconnect the battery from the onboard electrical system.
- Removing driver's seat (➠ 53).
- 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 driver's seat (➠ 53).

Battery

Maintenance instructions

Correct upkeep, recharging and storage will prolong the life of the battery and are essential for recognition of 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.

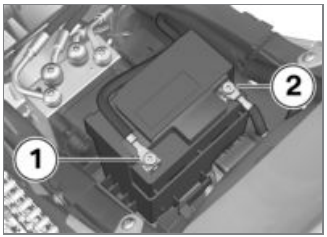
⚠ If the battery is not disconnected, the onboard electronics (clock etc.) will drain the battery. This can cause the bat-

tery 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.◀

Disconnecting battery from motorcycle

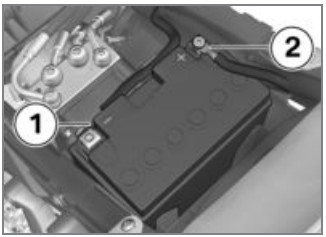
- Make sure ground is level and firm and park motorcycle.
- Removing driver's seat (➠ 53).



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**.

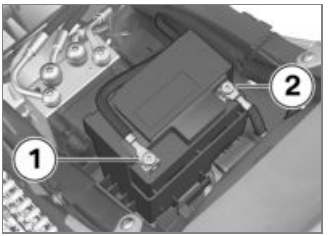
– with anti-theft alarm OE



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

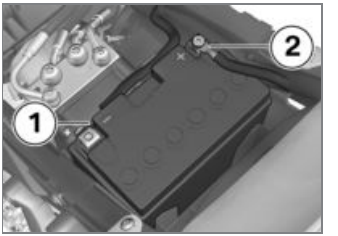
- Remove negative cable **1** first.
- Then remove positive cable **2**.◁

Connecting battery to vehicle



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

– with anti-theft alarm OE



- First install positive battery cable **2**.
- Then install negative battery cable **1**.◁
- Installing driver's seat (➠ 53).

Charging battery

- Disconnecting battery from motorcycle. (➠ 153).
- Charge battery using a suitable charger.
- Comply with operating instructions of charger.
- Once battery is fully charged, disconnect charger's terminal clips from battery terminals.

▷ 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.◀

- Connecting battery to vehicle (➠ 154).

Removing battery

- Disconnecting battery from motorcycle. (➠ 153).
- Lift battery upwards; if it is difficult to move, moving it back and forth will help.

Installing battery

▷ If the motorcycle was disconnected from the battery for a longer time, the current date must be entered in the in-

strument 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.◀

- Place battery in battery compartment, positive terminal on right in direction of travel.
- Connecting battery to vehicle (➠ 154).

- Setting the clock (➠ 35).

Care

Care products

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW CareProducts have been materials tested, laboratory tested, and field tested and provide optimum care and protection for the materials used in your vehicle.

The use of unsuitable cleaning and care products 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 disks and pads are dry.◀

Warm water intensifies the effect of salt.

Only use cold water to remove road salt.◀

The high water pressure of high-pressure cleaners (steam cleaners) can damage seals, the hydraulic brake system, the electrical system and the seat.

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

Cleaning sensitive vehicle 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. However, remove particularly aggressive materials immediately; otherwise changes in the paint or 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 Remover. Then add a protective

wax coating to the paint at these locations.

Protective wax coating

To preserve the finish of your vehicle, BMW Motorrad recommends using BMW Car Wax or agents that contain carnauba or synthetic waxes.
When water fails to form beads on the paint surface this indicates it is time to apply wax.

Storing motorcycle

- Clean the motorcycle.
- Remove battery.
- Spray brake and clutch lever, and 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 so that both wheels are unloaded.

Before putting the motorcycle into storage, have the engine oil and the oil filter element changed by a specialist workshop, preferably an authorized BMW Motorrad retailer. Combine work for storing/returning to use with maintenance service or an inspection.◀

Returning motorcycle to use

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

Technical data

Troubleshooting chart

Engine does not start at all or is very difficult to start.

Possible cause	Remedy
Side stand extended and gear engaged	Retract side stand.
Gear engaged and clutch not disengaged	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (➠ 66).
Battery drained	Charge battery.

Threaded fasteners

Front wheel	Value	Valid
Quick-release axle in threaded bush		
M24 x 1.5	37 lb/ft (50 Nm)	
Clamping screw in axle adapter		
M8 x 35	14 lb/ft (19 Nm)	
Radial brake calipers on the axle adapter		
M10 x 65	28 lb/ft (38 Nm)	

Rear wheel	Value	Valid
Locknut of drive-chain tensioning screw		
M8	14 lb/ft (19 Nm)	
Rear-wheel quick-release axle in swinging arm		
M24 x 1.5 mechanical	74 lb/ft (100 Nm)	

Rear wheel	Value	Valid
Adapter on rear wheel swinging arm		
M8 x 30	15 lb/ft (20 Nm)	
Spring strut on main frame		
M10 x 65	41 lb/ft (56 Nm)	

Mirrors	Value	Valid
Mirror on front panel carrier		
M6, replacing the nuts mechanical	6 lb/ft (8 Nm)	

Engine

Engine design	Transverse-mounted four-cylinder, four-stroke inline engine, angled 32° toward front. With four valves per cylinder, actuated by two overhead camshafts and trailing valve levers; liquid cooled, electronic fuel injection, integrated six-speed transmission, wet-sump lubrication.
Displacement	999 cc (999 cm^3)
Cylinder bore	3.1 in (80 mm)
Piston stroke	2 in (49.7 mm)
Compression ratio	13:1
Rated output	193 hp (142 kW), at engine speed: 12500 min^{-1}
Torque	83 lb/ft (112 Nm), at engine speed: 9750 min^{-1}
Maximum engine speed	max 14200 min^{-1}
Idle speed	1250 min^{-1}, Engine at operating temperature

Fuel

Recommended fuel quality	Super unleaded, (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 4.6 gal (Approx. 17.5 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)

BMW recommends the use of BP fuel

Engine oil

Engine oil, capacity	3.7 quarts (3.5 l), with filter change
Products recommended by BMW Motorrad	
Castrol Power 1 Racing	SAE 5W-40, API SL / JASO MA2
Engine oil, quantity for topping up	max 0.8 quarts (max 0.8 l), Difference between MIN and MAX

BMW recommends Castrol

Clutch

Clutch design	Multi-disk oil-bath clutch, slipper clutch

Transmission

Transmission design	Claw-shifted 6-speed transmission integrated in engine housing
Transmission gear ratios	1.652 (76:46 teeth), Primary gear ratio 2.647 (45:17 teeth), 1st gear 2.091 (46:22 teeth), 2nd gear 1.727 (38:22 teeth), 3rd gear 1.500 (36:24 teeth), 4th gear 1.360 (34:25 teeth), 5th gear 1.261 (29:23 teeth), 6th gear

Rear-wheel drive

Type of final drive	Chain drive
Type of rear suspension	Two-arm aluminum swinging arm
Number of teeth of rear-wheel drive (Pinion/ sprocket)	17/45
Secondary gear ratio	2.647

Suspension

Front wheel	
Type of front suspension	Upside-down telescopic forks
Spring travel, front	4.7 in (120 mm), On wheel
Rear wheel	
Type of rear suspension	Two-arm aluminum swinging arm
Type of final drive	Chain drive
Spring travel, rear	5.1 in (130 mm), On wheel

Brakes

Type of front brake	Hydraulic radially operated twin disk brake with 4-piston radial monoblock calipers and floating brake disks
Brake-pad material, front	Sintered metal
Type of rear brake	Hydraulic disk brake with 1-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
Front wheel	
Front wheel design	Aluminum forged wheel
Front-wheel rim size	3.50" x 17"
Front tire designation	120/70 ZR 17

Rear wheel	
Rear wheel design	Aluminum forged wheel
Rear-wheel rim size	6.0" x 17"
Rear tire designation	200/55 ZR 17
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

Fuses	
Nominal current of fuse 1 (Instrument cluster)	10 A
Nominal current of fuse 2 (Cutoff relay, diagnosis plug)	4 A
Nominal current of fuse 3 (Fan)	7.5 A
Nominal current of fuse 4 (Low-beam headlight, load relief relay)	7.5 A
Nominal current of fuse 5 (High-beam headlight)	7.5 A

Nominal current of fuse 6 (Horn)	7.5 A
Nominal current of fuse 7 (Ignition switch)	4 A
Nominal current of fuse 8 (Sensor group)	4 A
Main fuse	40 A
Battery	
Battery design	AGM (Absorptive Glass Mat) battery.
Battery voltage	12 V
Battery capacity	7 Ah
– with anti-theft alarm OE	10 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR9D-J
Electrode gap of spark plug	0.03 in (0.8 mm)
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 taillight	1
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W
Bulb for license-plate light	W5W / 12 V / 5 W

Frame

Frame design	Aluminum composite bridge frame, load-sharing engine
Location of type plate	Right steering head
Location of the vehicle identification number	Right steering head

Dimensions

Motorcycle length	80.9 in (2056 mm)
Motorcycle height	44.1 in (1120 mm), Across windshield at DIN unladen weight
Motorcycle width	32.5 in (826 mm), Across mirrors
Driver's seat height	32.3 in (820 mm), without driver
Rider's inside-leg arc, heel to heel	71.3 in (1810 mm), without driver

Weights

Unladen weight	439 lbs (199 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE
Permissible gross weight	893 lbs (405 kg)
Maximum payload	454 lbs (206 kg)

Performance data

Top speed	>124 mph (>200 km/h)

Service

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 dealer 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 multifunction display reminds you of the next service date approx. one month or 621 miles (1,000 km) before the entered values.

The specified service intervals apply to street operation. For racing operation, adjust the intervals in accordance with loading.

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,

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,

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

The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national version. No claims stemming from these differences can be recognized.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.

Original Rider's Manual, printed in Germany.

Important data for refueling:

Fuel	
Recommended fuel quality	Super unleaded, (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 4.6 gal (Approx. 17.5 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
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

BMW recommends Castrol

Order No.: 01 41 8 550 547
08.2013, 2nd edition, 07