BMW Motorrad

The Ultimate Riding Machine

Rider's Manual (US Model)

S 1000 RR

Motorcycle/Dealer Data

Motorcycle data

Model

Vehicle identification number

Color number

Initial registration

License plate

Dealer Data

Contact in Service

Ms./Mr.

Phone number

Dealer's address/phone number (company stamp)

Welcome to BMW

Congratulations on choosing a motorcycle from BMW Motorrad and welcome to the community of BMW motorcycle owners and riders. Familiarize yourself with your new motorcycle so that you can ride it safely and confidently in all highway traffic situations.

About this Rider's Manual

Please read this Rider's Manual carefully before starting to use your new BMW. It contains important information on how to operate the controls and how to get the most benefit from your BMW's advanced technical features.
In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.

Suggestions and complaints

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

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

BMW Motorrad.

01 41 8 554 767

Table of Contents

General instructions

Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle. All maintenance and repair work carried out on your motorcycle will be documented in Chapter 13. Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.
When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols

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

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

◀ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

Reference to a page with more detailed information.

◁ Indicates the end of accessory or equipment-dependent information.

Tightening torque.

Technical data.

ABS Anti-Lock Brake System.

ASC Automatic Stability Control.

DDC Dynamic Damping Control.

DTC Dynamic Traction Control.

DWA Anti-theft alarm.

EWS Electronic immobilizer.

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

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

VDS Vertical Down Sensor (fall sensor)

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.

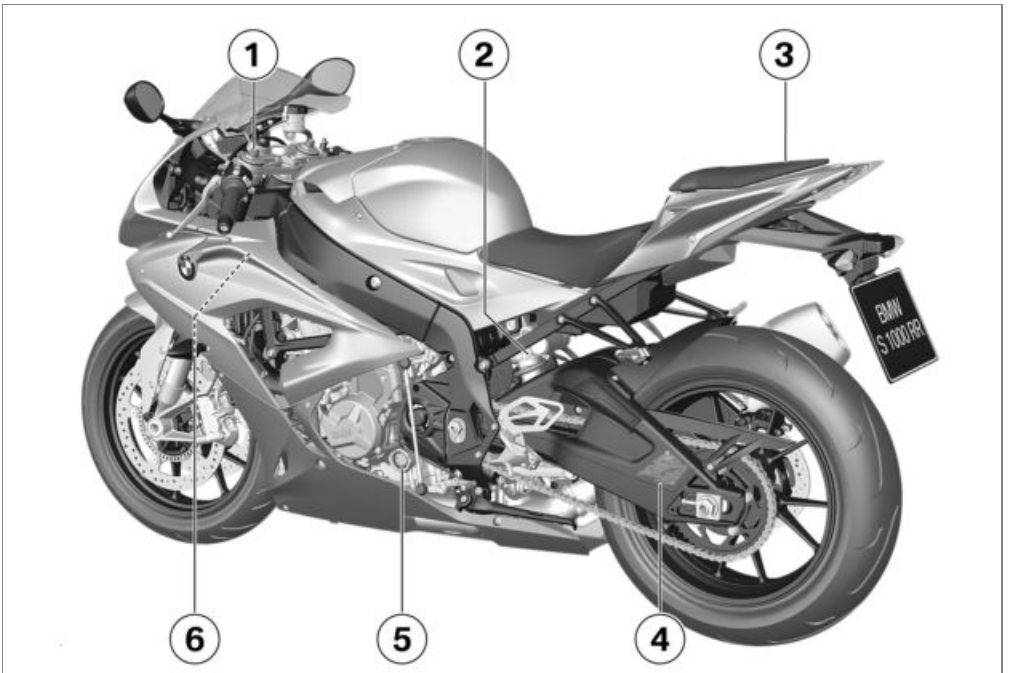
Technical data

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

Notice concerning current status

The high safety and quality standards of BMW motorcycles are maintained by consistent, ongoing development efforts embracing their design, equipment and accessories. For this reason, some aspects of your motorcycle may vary from the descriptions in this Rider's Manual. In addition, BMW Motorrad cannot guarantee the total absence of errors. We hope you will appreciate that no claims can be recognized based on the data, illustrations or descriptions in this manual.

Overviews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BMW
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General view, left side

1 – without Dynamic Damping Control[OE]
Adjuster for spring preload, front (➡ 67)
Adjusting front compression damping (red scale) (➡ 72)

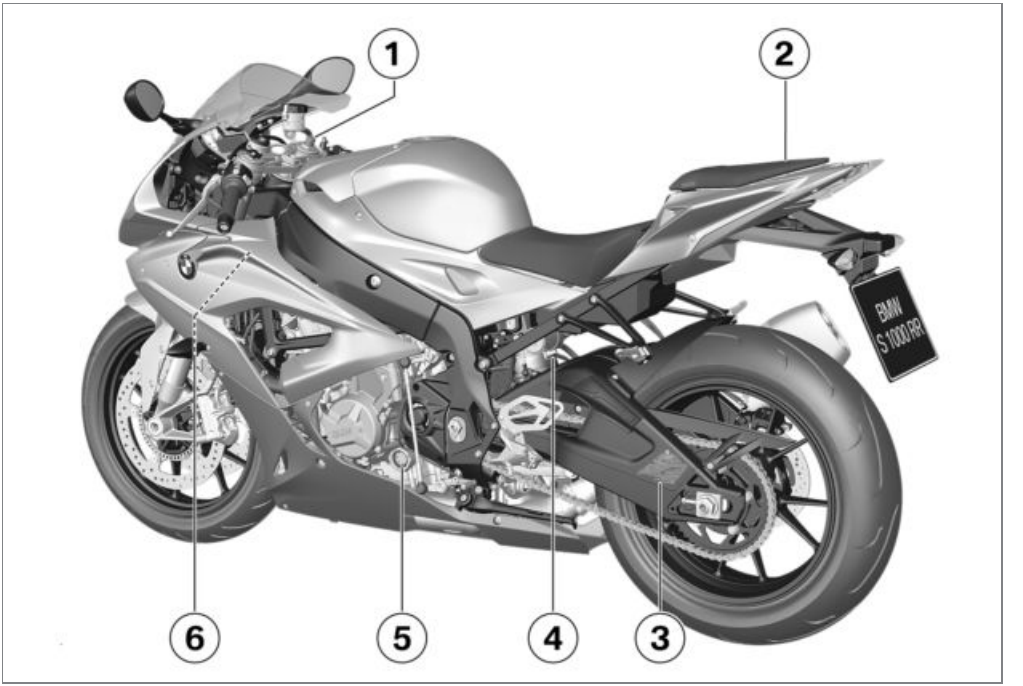
2 – without Dynamic Damping Control[OE]
Adjusting rear compression damping (red scale) (➡ 73)
Adjuster for spring preload, rear (➡ 69)

3 Seat lock (➡ 60)

4 Tire inflation pressure table
Load capacity table
Chain adjustment values

5 Engine oil level indicator (➡ 158)

6 Connector for optional accessories (➡ 136)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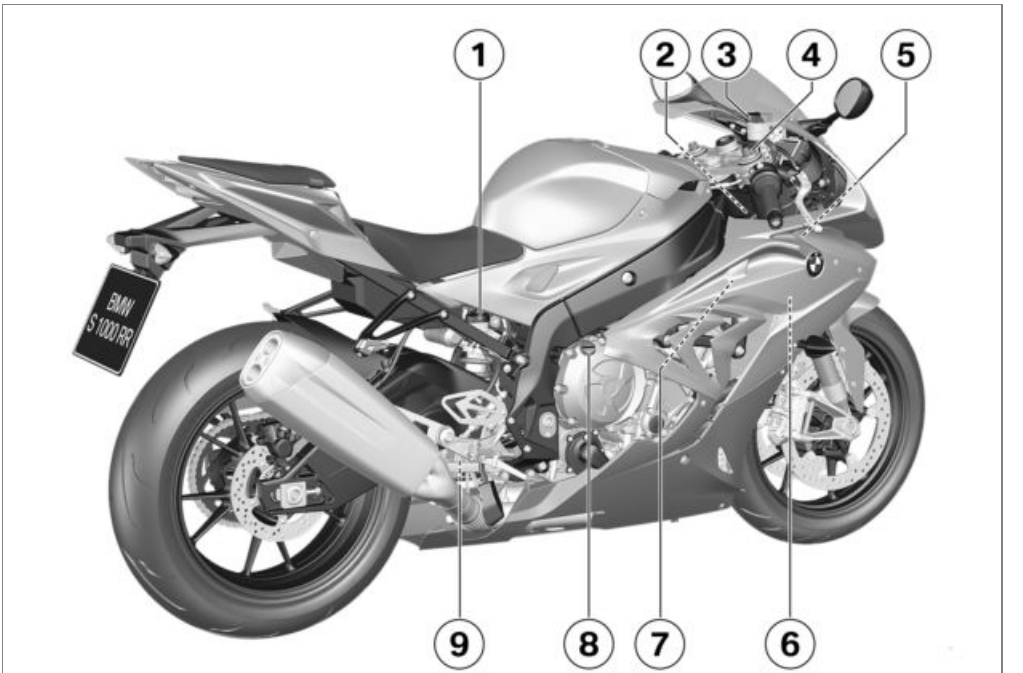
General view, left side with DDC

– with Dynamic Damping Control[OE]

1 Adjust spring preload on front wheel (➠ 68).
2 Seat lock (➠ 60)
3 Tire inflation pressure table
Load capacity table
Chain adjustment values
4 Adjuster for spring preload, rear (➠ 71)
5 Engine oil level indicator (➠ 158)
6 Connector for optional accessories (➠ 136)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General view, right side

1 Brake-fluid reservoir, rear (➠ 163)

2 Vehicle identification number and type plate (on steering head at right)

3 Brake-fluid reservoir, front (➠ 162)

4 Adjusting rebound-stage damping
– without Dynamic Damping Control OE
Rebound-stage damping on front wheel (➠ 72).

5 Adjusting the steering damper (➠ 67)

6 Checking coolant level (➠ 165)

7 Connector for optional accessories (➠ 136)

8 Oil fill location (➠ 159)

9 – without Dynamic Damping Control OE
Adjusting rear rebound-stage damping (yellow scale) (➠ 74)

Multifunction switch, left

1 Deactivating ABS (➠ 49)
ASC ausschalten (➠ 50)
– with Dynamic Traction Control (DTC)[OE]
Deactivating DTC (➠ 51)

2 High-beam headlight and headlight flasher (➠ 42)
Start time recording (➠ 98)

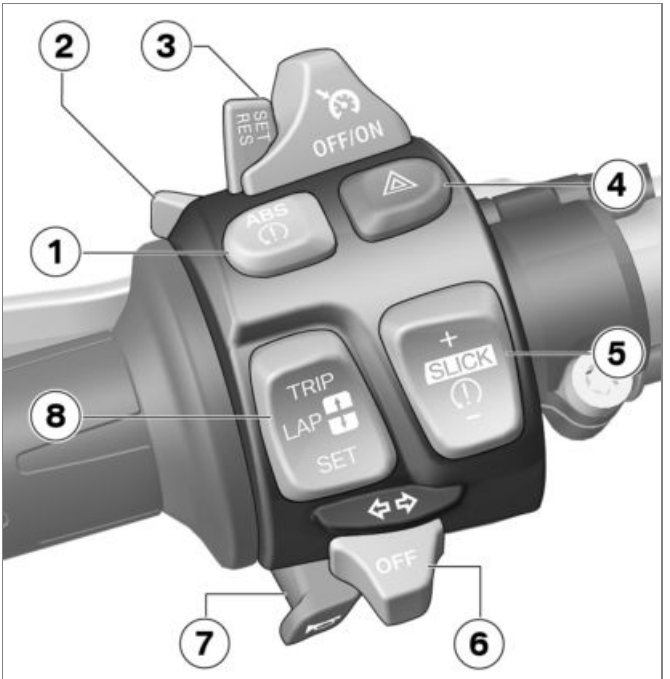
3 – with cruise control[OE]
Cruise control (➠ 55)

4 Hazard warning flashers (➠ 43)

5 – with Dynamic Traction Control (DTC)[OE]
Adjusting DTC (➠ 125)

6 Turn indicator (➠ 43)

7 Horn



8 Setting clock (➠ 49)
Resetting tripmeter
(➠ 46)
Selecting displays (➠ 45)
Individualizing lap timer
(➠ 98)
Selecting submenu
(➠ 111)

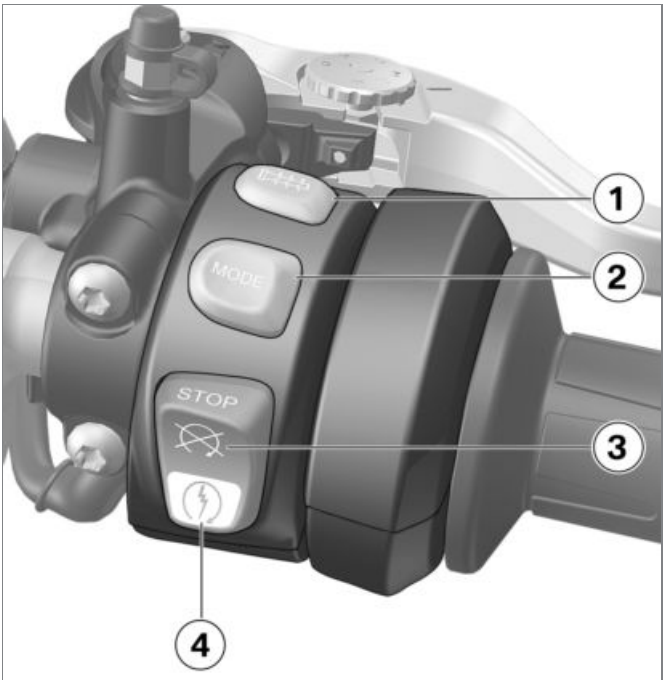
Multifunction switch, right

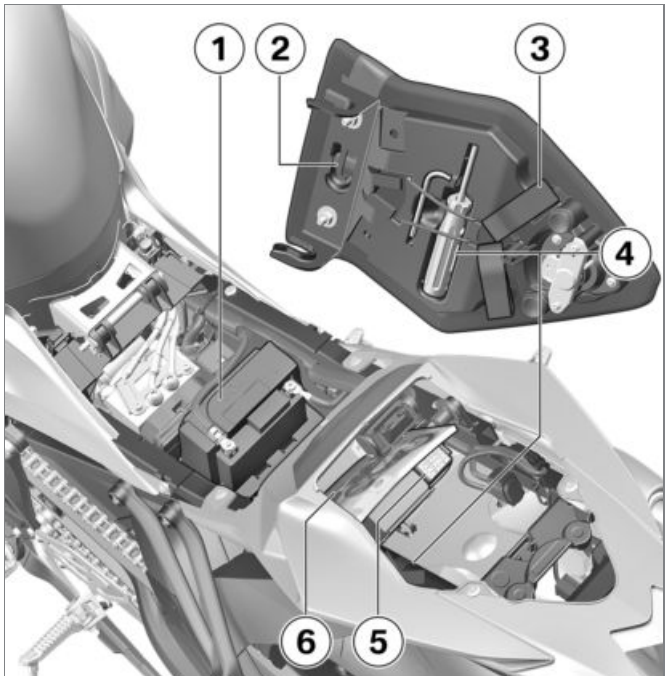
1 – with heated handlebar grips OE
Heated grip (➠ 59)

2 Selecting riding mode (➠ 52)

3 Emergency on/off switch (kill switch) (➠ 41)

4 Starter button
Starting engine (➠ 81)
– Pro riding modes OE
Launch Control (➠ 126)
Speed limiter for pit lane (➠ 128)



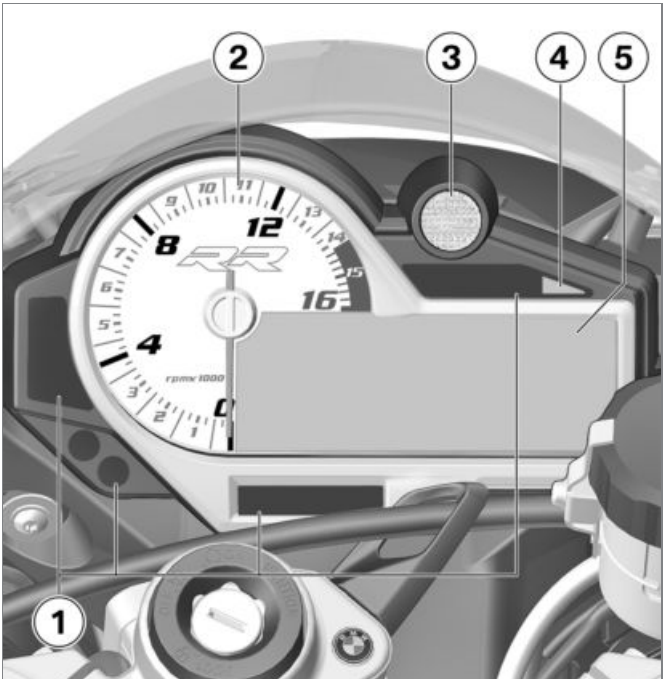


Underneath seat

1 Battery (➠ 183)
– with anti-theft alarm system (DWA)[OE]
Different position of battery terminals: shifted forward
2 Helmet holder (➠ 62)
3 Luggage straps (➠ 62)
4 Onboard tool kit (➠ 154)
5 Fuse box (➠ 185)
6 Rider's Manual (US Model)

Instrument cluster

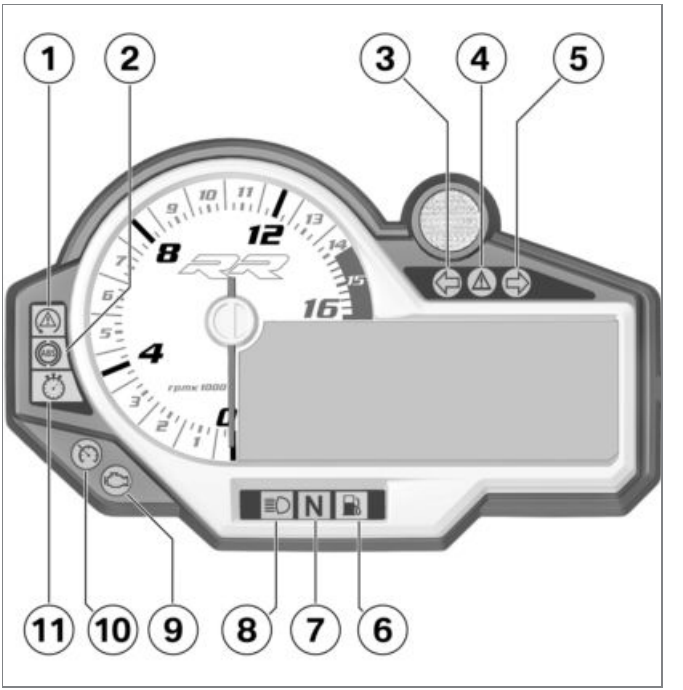
1 Indicator and warning lights (➠ 22)
2 Tachometer
3 Shiftpoint light (➠ 86)
4 Photosensor (for adjusting brightness of instrument lighting)
– with anti-theft alarm system (DWA)[OE]
DWA LED (➠ 47)
5 Multifunction display (➠ 23)

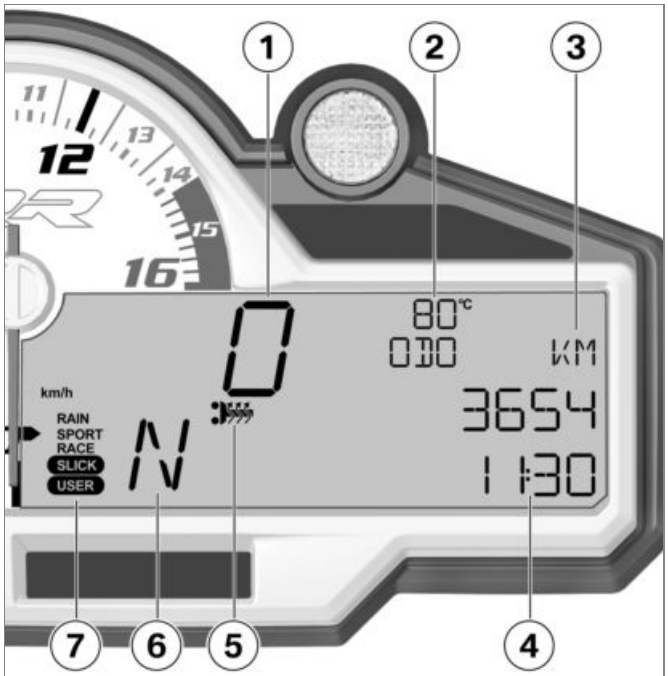


Displays

Warning and indicator lights

1 ASC warning light (➠ 32)
– with Dynamic Traction Control (DTC)[OE]
DTC warning light (➠ 33)
2 ABS warning light (➠ 32)
3 Turn indicator, left
4 Universal warning light, appears together with warnings in multifunction display (➠ 24)
5 Turn indicator, right
6 Fuel reserve (➠ 37)
7 Neutral indicator light
8 High-beam headlight
9 Engine electronics warning light (➠ 29)
10 – with cruise control[OE]
Cruise control (➠ 55)
11 Light for fastest lap (➠ 100)





Multifunction display

1 Speedometer
2 Coolant temperature
3 Odometer (➠ 45)
4 Clock (➠ 49)
5 – with heated handlebar grips OE
Heated handlebar grips (➠ 59)
6 Gear indicator display, "N" indicates "neutral".
7 Riding mode
RAIN
SPORT
RACE
Setting riding mode (➠ 52)
– Pro riding modes OE
Additional riding modes
SLICK
USER

Refer to Chapter 7 for information regarding the

display modes available for track use.◀

Warning lights

Display

Warnings are displayed with appropriate warning lights.

Warnings for which no individual warning light is present are signaled by the universal warning light **1** which lights up in combination with the appearance of a warning notice such as **2** in the multifunction display. The universal warning light shows red or yellow, depending on the urgency of the warning.

If several warnings are active, all corresponding warning lights and warning symbol are displayed; warnings appear alternately.
You will find an overview of the potential warnings on the following pages.

Overview of warning indicators

Warning and indicator lamps	Warning symbols in the display panel	Meaning
 lights up red	EWS! is displayed	Electronic immobilizer is active (➠ 29)
 flashes red	Coolant temperature display flashes	Coolant temperature too high (➠ 29)
 lights up		Engine in emergency-operation mode (➠ 29)
 flashes yellow		Severe fault in the engine management system (➠ 30)
 lights up		
	LAMP! is indicated	Lights for turn indicators defective (➠ 30)
 lights up yellow	LAMPR! is indicated	Taillight defective (➠ 30)
 lights up yellow	LAMPF! is indicated	Lights for front parking lights defective (➠ 31)

Warning and indicator lamps	Warning symbols in the display panel	Meaning
 lights up yellow	LAMPS ! is indicated	Taillight and lights for parking lights defective (➠ 31)
		Front lights defective (➠ 31)
 lights up yellow	VDS ! is shown in the empty display	Motorcycle has fallen over (➠ 31)
 lights up yellow	VDS ! is displayed	Fall sensor defective (➠ 32)
 flashes		ABS self-diagnosis not completed (➠ 32)
 lights up		ABS switched off (➠ 32)
 lights up		ABS error (➠ 32)
 flashes rapidly		ASC intervention (➠ 32)

Warning and indicator lamps	Warning symbols in the display panel	Meaning
 flashes slowly		ASC self-diagnosis not completed (➠ 33)
 lights up		ASC switched off (➠ 33)
 lights up		ASC error (➠ 33)
 flashes rapidly		DTC intervention (➠ 33)
 flashes slowly		DTC self-diagnosis not completed (➠ 33)
 lights up		DTC switched off (➠ 34)
 lights up		DTC error (➠ 34)
 lights up yellow	DDC ! is displayed	DDC error (➠ 34)

Warning and indicator lamps	Warning symbols in the display panel	Meaning
 lights up yellow	DWALO! is displayed	DWA battery charge level low (➠ 35)
 lights up yellow	DWA! is displayed	DWA battery drained (➠ 35)
 Shiftpoint light flashes or remains on continuously	SPEED! is displayed	Speed warning (➠ 35)
 Shiftpoint light flashes or remains on continuously	0L-CON! is indicated	Launch Control not ready (➠ 36)
 lights up red	NO CAN is displayed	CAN open/short circuit (➠ 36)
 lights up yellow	NO CODING is displayed	Encoding missing (➠ 36)
 lights up yellow	SERVICE! is indicated	Service date missed (➠ 36)
 lights up		Fuel down to reserve (➠ 37)

Electronic immobilizer is active


General warning light shows red.

EWS ! is displayed.
Possible cause:

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

- Remove other ignition keys located on the ignition key.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

Coolant temperature too high


General warning light flashes 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 electronics warning light lights up.


The engine is in the emergency operating mode. Unusual engine response is a possibility.
Adapt your style of riding accordingly. Avoid accelerating sharply and overtaking.◀

Possible cause:

The engine control unit has diagnosed a fault. The engine is running in the emergency-operation mode. In exceptional cases, the engine stops and can no longer be started.

- 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 service facility, preferably an authorized BMW Motorrad Dealer.

Severe fault in the engine management system


General warning light flashes yellow.


Engine electronics warning light lights up.


The engine is in its emergency operation mode.
There is a potential risk of damage to the engine.
Adapt riding style: Ride slowly, avoid accelerating and overtaking.
If possible, have motorcycle picked up and the malfunction source eliminated by a specialized service facility, preferably an authorized BMW Motorrad Dealer.◀

Possible cause:

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

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

Lights for turn indicators defective

LAMP! is indicated.


Failure of a bulb on the motorcycle is a safety risk because it potentially makes the motorcycle less noticeable to other road users.
Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle.◀

Possible cause:

Light source for turn indicator defective

- Replacing front and rear turn indicator light sources (➠ 178).

Possible cause:

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

- Install license-plate carrier (➠ 131).
- Suppress the fault message in the submenu SETUP EQUIPMENT with the WARN LAMP OFF parameter.

Taillight defective


General warning light shows yellow.

LAMPR! is indicated.

Possible cause:

Light source for taillight or brake light defective.

- The diode taillight must be replaced. Please contact a specialist service facility, preferably an authorized BMW Motorrad Dealer.

Lights for front parking lights defective

 General warning light shows yellow.

LAMPF! is indicated.

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

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

Possible cause:

Light source for parking light defective

- Replacing light source for left-hand parking light (➠ 176).
- Replacing right-hand parking light light source (➠ 177).

Taillight and lights for parking lights defective

 General warning light shows yellow.

LAMPS! is indicated. No fault is displayed when the low-beam or high-beam headlight fails.

Front lights defective

No fault is displayed when the low-beam or high-beam headlight fails.

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

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

Possible cause:

Front light source defective.

- Replacing light sources for low-beam and high-beam headlight (➠ 174).

Motorcycle has fallen over

 General warning light shows yellow.

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


General warning light shows yellow.

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 light flashes.

Possible cause:

The ABS system is not available, as self-diagnosis has not been completed. To check the wheel speed 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 switched off


ABS warning light lights up.

Possible cause:

The ABS system has been deactivated by the rider.

- Activate ABS (➠ 50).

ABS error


ABS warning light lights up.

Possible cause:

The ABS control unit has detected an error. The ABS function is not available at all or is restricted.

- It is possible to continue riding the motorcycle if you make allowance for the failed or limited ABS function. You should also take account of the additional information on situations that can lead to an ABS fault (➠ 141).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Dealer.

ASC intervention


ASC warning light flashes rapidly.

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

ASC self-diagnosis not completed

 ASC warning light flashes slowly.

Possible cause:

 ASC self-diagnosis routine not completed
The ASC function is not available, as the self-diagnosis function has not been completed. (To check wheel sensors, motorcycle must reach a minimum speed with engine running: min 3 mph (min 5 km/h))

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

ASC switched off

 ASC warning light lights up.

Possible cause:

The ASC system has been deactivated by the rider.

- Switch on ASC (➠ 51).

ASC error

 ASC warning light lights up.

Possible cause:

The ASC control unit has detected an error.

- It remains possible to continue riding. It must be noted that the ASC function is not available at all or is restricted. You should also take account of the additional information on situations that can lead to an ASC fault (➠ 143).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Dealer.

DTC intervention

– with Dynamic Traction Control (DTC)[OE]

 DTC warning light flashes rapidly.

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

DTC self-diagnosis not completed

– with Dynamic Traction Control (DTC)[OE]


DTC warning light flashes slowly.

Possible cause:

 DTC self-diagnosis not completed
The DTC function is not available, as the self-diagnosis function has not been completed. (To check wheel sensors, motorcycle must reach a minimum speed with engine running: min 3 mph (min 5 km/h))

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

DTC switched off

– with Dynamic Traction Control (DTC)[OE]


DTC warning light lights up.

Possible cause:

The DTC system has been deactivated by the rider.

- Switch on ASC (➠ 51).

DTC error

– with Dynamic Traction Control (DTC)[OE]


DTC warning light lights up.

Possible cause:

The DTC control unit has detected an error. It must be noted that the DTC function is not available at all or is restricted.

- It remains possible to continue riding. You should also take account of the additional information on situations that can lead to an DTC fault (➠ 143).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Dealer.

DDC error

– with Dynamic Damping Control[OE]


General warning light shows yellow.

DDC ! is displayed.

Possible cause:

The DDC control unit has detected an error.

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

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

Possible cause:

A DDC sensor fault has been detected.

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

» The semi-active functionality has been deactivated.

DWA battery charge level low

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


General warning light shows yellow.

DWALO! is displayed.


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

Possible cause:

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

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

DWA battery drained

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


General warning light shows yellow.

DWA! is displayed.


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

Possible cause:

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

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

Speed warning


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

SPEED! is displayed.

Possible cause:

The preset maximum speed has been exceeded.

- Reduce speed.
- Enter a new maximum speed.

Launch Control not ready

– Pro riding modes OE

Shiftpoint light lights up or flashes.

0L-CON! is indicated.
Possible cause:

The number of possible racing starts with Launch Control has been exceeded.

- Let the clutch cool down.
- Race start with Launch Control (➠ 126).

CAN open/short circuit

General warning light shows red.

NO CAN (Controller Area Network) is displayed.
Possible cause:

A defect was determined in the Controller Area Network.

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

Encoding missing

General warning light shows yellow.

NO CODING is displayed.
Possible cause:

An encoding error was discovered.

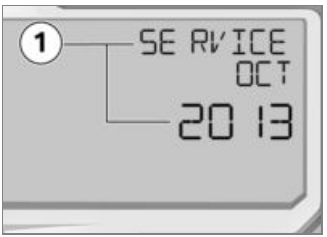
- The display goes out after 10 seconds.
- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Service date missed

General warning light shows yellow.

SERVICE! is indicated

Service display



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

If service is due within 1000 km (700 miles), the remaining distance **1** is displayed and is counted down in steps of

100 km (100 miles). They are briefly displayed following the Pre-Ride-Check.

When a service date elapses without service, the general warning light lights up in yellow, appearing together with the date and mileage (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.◀

Fuel down to reserve

Fuel-reserve warning light lights up.

A fuel shortage can cause irregular engine operation or engine shut-off (accident hazard) and the catalytic converter can be damaged.
Do not drive to the extent that the fuel tank is completely empty.◀

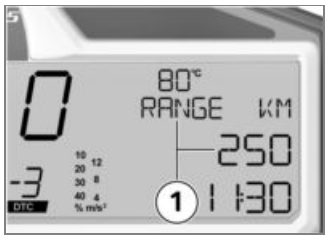
Possible cause:

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

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

- Refueling (➠ 89).

Cruising range



The RANGE cruising range **1** indicates the distance that can still be driven with the remaining fuel. This distance is calculated based on fuel quantity and average consumption.

RANGE

– 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 travel range automatically appears in the multifunction display after the fuel reserve level is reached.
– After refueling the travel range is recalculated when the fuel quantity is greater than the reserve quantity.

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

Operation

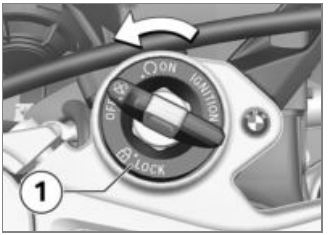
Steering and ignition lock

Keys

You are provided with 2 ignition keys.
Should you lose your keys please refer to the information regarding the electronic immobilizer (EWS) (➠ 41).
A single key fits the steering and ignition lock, the fuel filler cap and the seat lock.

Locking handlebars

- Turn handlebars to left.

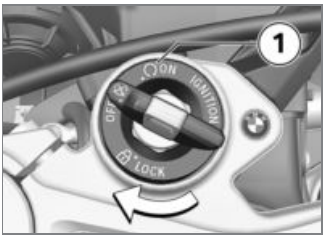


- Turn the ignition key to position **1** while moving the handlebars somewhat.

» Ignition, lights and all electrical circuits switched off.
» Handlebars locked.
» The ignition key can now be removed.

Ignition

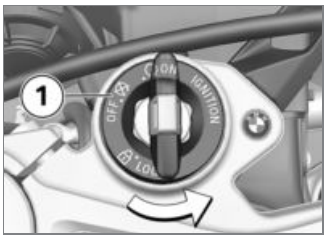
Switch on ignition



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

» Parking lights and all function circuits switched on.
» Engine can be started.
» Pre-Ride-Check in progress. (➠ 82)
» ABS self-diagnosis is performed. (➠ 83)
» ASC self-diagnosis is performed. (➠ 83)
– with Dynamic Traction Control (DTC)[OE]
» DTC self-diagnosis is performed. (➠ 84)◁

Switch off ignition



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

» Light switched off.
» Handlebars not locked.
» The ignition key can now be removed.

Electronic immobilizer

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

A further key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The EWS! warning is shown in the multifunction display.
Always store further vehicle keys separately from the ignition key.◀

If you lose an ignition key, you can have it disabled by your BMW Motorrad partner. When having a key disabled you should also bring all of the motorcycle's remaining keys with you.
The engine can no longer be started using a disabled vehicle key; however, a disabled vehicle key can be enabled again.
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 vehicle keys.

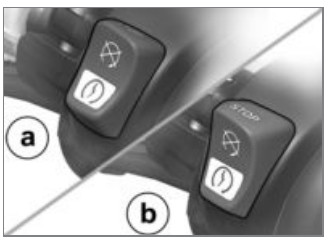
Emergency on/off switch (kill switch)

1 Emergency on/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 on/off switch.



a Engine is switched off
b Operating position

Lights

Parking lights

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

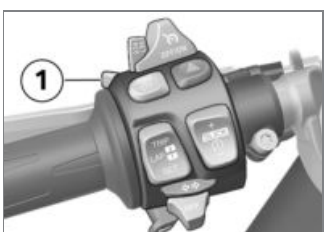
The parking lights are a strain on the battery. Do not leave the ignition switched on longer than absolutely necessary.◀

Low-beam headlight

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

Parking lights

- Switch off ignition.

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

The parking lights can only be switched on within 10 seconds after switching off the ignition.◀

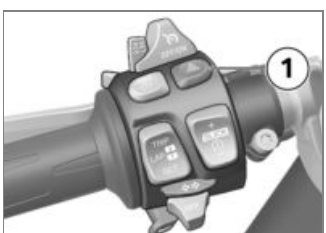
- Switch ignition on and then off again to switch off parking light.

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.◀



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

» Ignition can be switched off.

- Switch on ignition and press button **1** again to switch off hazard warning flashers.

Turn indicator

Operating turn indicators

- Switch on ignition.

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

The turn indicators automatically switch off when the defined driving time and distance have been reached. The defined riding time and distance can be set by an authorized BMW Motorrad retailer.◀

Multifunction display

Overview

— Solid line: briefly press button.

- - Dotted line: press and hold button.

1 Odometer
Standard display
Select displays in multi-function display (➠ 45).

2 LAP TIMER (➠ 97)

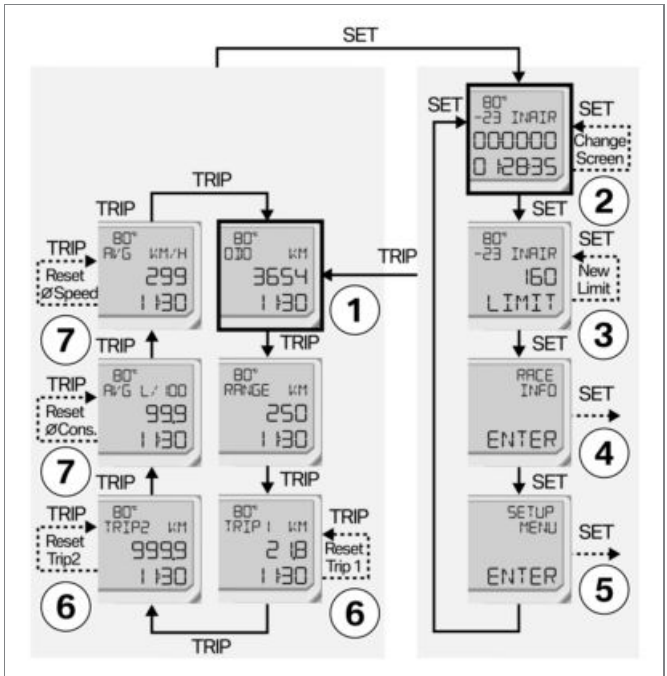
3 LIMIT (➠ 57)
Factory setting for WARN SPEED (➠ 116)

4 RACE INFO (➠ 101)

5 SETUP MENU (➠ 109)

6 TRIP 1/TRIP 2
Reset tripmeter (➠ 46).

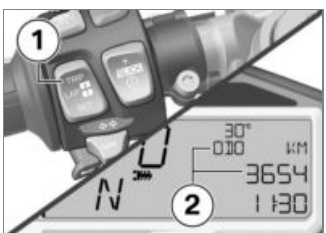
7 Average consumption and average speed
Reset average data (➠ 46).



Selecting displays in multifunction display

- Switch on ignition.

» All information required for operation on public roads is provided in the multifunction display.

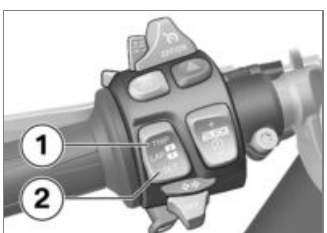


- Press TRIP **1** repeatedly until desired value is displayed in area **2**.

The following values of the onboard computer can be displayed:

– Total distance ODO (standard display)
– Cruising range RANGE
– Trip distance 1 TRIP 1
– Trip distance 2 TRIP 2
– Average consumption AVG in volume per distance or vice versa
– Average speed AVG in distance per hour

Selecting additional displays



- Briefly press SET **2** to obtain additional displays.
- Briefly press TRIP **1** to return to odometer ODO (standard display).
- Repeatedly press SET **2** until desired display is selected.

The following displays are available:

– **LAPTIMER**: The lap times and additional data can be recorded here and displayed again in the RACE INFO menu.
– **RACE INFO**: The stored information from the LAPTIMER can be displayed here. RACE INFO can only be opened with the motorcycle at a standstill.
– **SETUP MENU**: The behavior of the instrument cluster can be adjusted to the driver's preferences here. SETUP MENU can only be opened with the motorcycle at a standstill.

- If LAPTIMER is shown, press and hold SET **2** to open various displays for LAPTIMER.

- If LIMIT is shown, press and hold SET **2** to set current driving speed as new limit.
- If RACE INFO ENTER or SETUP MENU ENTER is shown, press and hold SET **2** to open the respective menu.

Resetting tripmeter

- Switch on ignition.

- Briefly press TRIP **1** repeatedly until desired tripmeter is displayed.

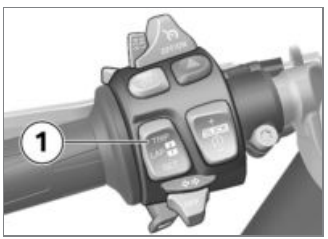
» "TRIP 1" or "TRIP 2 " is indicated.

- Press and hold TRIP **1** until tripmeter has been reset.

» Trip mileage = 0 . 0

Resetting average data

- Switch on ignition.



- Briefly press TRIP **1** repeatedly until average value to be reset is displayed.

» AVG is indicated.

- Press and hold TRIP **1** until selected value has been reset.

» Average value = 0 . 0

Alarm system

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

Activation

- Switch on ignition (➠ 40).
- DWA Adjusting (➠ 48).
- Switch off ignition.

» If the DWA is activated, the DWA is automatically activated after the ignition is switched off.
» Activation takes approximately 30 seconds to complete.
» Turn indicators are illuminated twice.
» Confirmation tone sounds twice (if programmed).
» DWA is armed.

Alarm

The alarm can be set off by:

– motion sensor
– an attempt to use an unauthorized key to switch on the ignition
– disconnecting the alarm system from the motorcycle battery (alarm system battery takes over the power supply - alarm tone only, no illumination of the turn indicators).

All functions are sustained even if the internal battery of the anti-theft alarm system is completely drained; the only difference is that an alarm cannot be triggered if the system is disconnected from the motorcycle's battery.

An alarm lasts for approximately 26 seconds. During the alarm, an alarm tone sounds and the turn indicators flash. The alarm tone type can be adjusted by an authorized BMW Motorrad retailer.

If an alarm was triggered while the motorcycle was unattended, the rider is notified accordingly by an alarm tone sounding once when the ignition is switched on. The anti-theft alarm system indicator lamp then signals the reason for the alarm for one minute. The meanings of the flash codes are as follows:

– 1 flash: motion sensor 1
– 2 flashes: motion sensor 2
– 3 flashes: ignition switched on with unauthorized key
– 4 flashes: alarm system is disconnected from the motorcycle battery
– 5 flashes: motion sensor 3

Deactivation

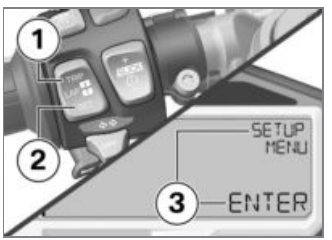
- Emergency on/off switch (kill switch) in normal operating position.
- Switch on ignition.

» Turn indicators light up once.

» Confirmation tone sounds once (if programmed).
» DWA is now switched off.

DWA Adjusting

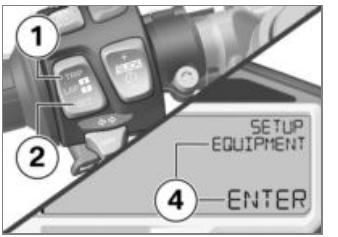
• Switch on ignition (➠ 40).



• Briefly press SET **2** repeatedly until SETUP MENU ENTER **3** is displayed.

If the display has been scrolled too far, briefly press SET **2** repeatedly until the menu returns to the start and finally to the desired display.◀

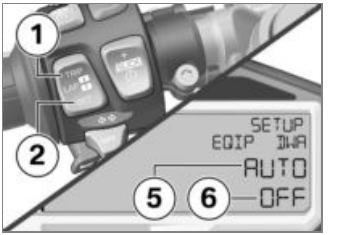
• Press and hold SET **2** to open the menu.



• Briefly press SET **2** repeatedly until SETUP EQUIPMENT ENTER **4** is displayed.

If the display has been scrolled too far, briefly press TRIP **1** to scroll back.◀

• Press and hold SET **2** to open the menu.
» Parameter DWA AUTO **5** and its current value **6** are displayed.



• Press and hold SET **2** to edit the set value **6**.
» The value **6** flashes.
• Briefly press TRIP **1** or SET **2** to change the value.

The following settings are available:

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

• Press and hold SET **2** to save the set value.
» The value **6** no longer flashes.

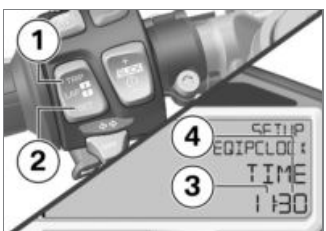
» The clock is now set.
- Press and hold TRIP **1** to cancel the adjustment procedure.

» Adjustment canceled.
» ODO is indicated

Clock

Setting clock

- Switch on ignition.



- Briefly press SET **2** repeatedly until SETUP MENU ENTER is displayed.
- Press and hold SET **2**.

» The SETUP MENU is opened.

- Briefly press SET **2** repeatedly until SETUP EQUIPMENT ENTER is displayed.
- Press and hold SET **2**.

» The SETUP EQUIPMENT menu is opened.

- Briefly press SET **2** repeatedly until SETUP EQIP:CLOCK TIME is displayed.
- Press and hold SET **2**.

» Minutes **4** flash.

- Briefly press TRIP **1** to increase minutes.
- Briefly press TRIP **2** to decrease minutes.
- When the minutes have been set as desired, press and hold SET **2**.

» Hours **3** flash.

- Briefly press TRIP **1** to increase hours.
- Briefly press TRIP **2** to decrease hours.
- When the hours have been set as desired, press and hold SET **2**.

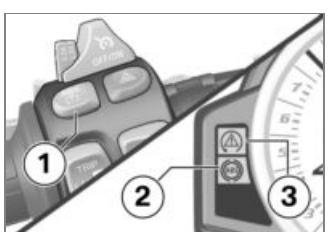
» The hours no longer flash.
» The clock is now set.

Anti-Lock Brake System

Deactivating ABS

- Switch on ignition.

The BMW Motorrad Race ABS function can also be deactivated while driving.◀



- Press and hold button **1** until first ASC/DTC warning light **3**

and then ABS warning light **2** changes its display behavior.

» The ASC/DTC setting remains unchanged.

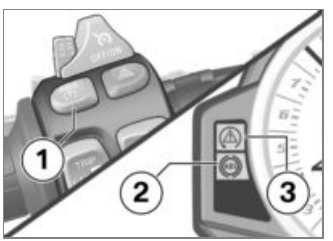
ABS warning light lights up.

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

ABS warning light remains on.

» ABS is deactivated.

Activating ABS



- Press and hold button **1** until first ASC/DTC warning light **3** and then ABS warning light **2** changes its display behavior.

» The ASC/DTC setting remains unchanged.

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

- If the coding plug for the SLICK/USER riding mode is not installed, the ignition can also be switched off and then on again as an alternative.

If the ABS warning light lights up after switching the ignition off and on and then continuing driving above the minimum speed, an ABS fault has occurred.

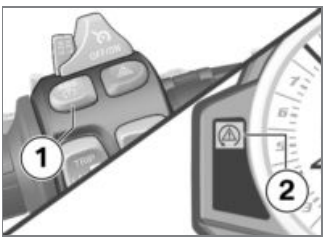
min 6 mph (min 10 km/h)

Automatic Stability Control

Deactivating ASC

- Switch on ignition.

The Automatic Stability Control (ASC) can also be deactivated while riding.◀



- Press and hold button **1** until ASC warning light **3** changes its display behavior.

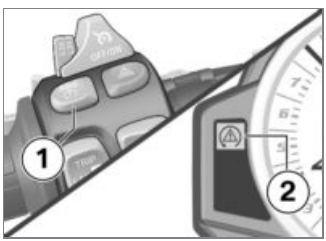
ASC warning light begins to light up.

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

ASC warning light remains on.

» ASC is deactivated.

Switching on ASC



- Press and hold button **1** until ASC warning light **2** changes its display behavior.

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

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

ASC warning light remains off or continues to flash.

» ASC activated.

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

If ASC warning light lights up after switching ignition off and on and then continuing driving at following minimum speed, an ASC fault has occurred.

min 6 mph (min 10 km/h)

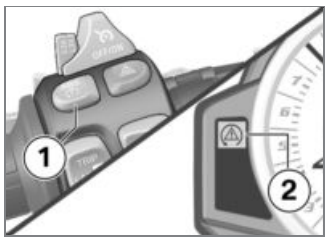
Dynamic Traction Control

– with Dynamic Traction Control (DTC)[OE]

Deactivating DTC

- Switch on ignition.

The Dynamic Traction Control (DTC) can also be deactivated while riding.◀



- Press and hold button **1** until DTC warning light **2** changes its display behavior.

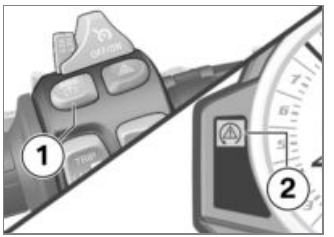
DTC warning light begins to light up.

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

DTC warning light remains on.

» DTC is deactivated.

Switching on DTC



- Press and hold button **1** until DTC warning light **2** changes its display behavior.

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

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

DTC warning light remains off or continues to flash.

» DTC activated.

- If the coding plug is not installed, the ignition can also be switched off and then on again as an alternative.

If DTC warning light lights up after switching ignition off and on and then continuing driving at following minimum speed, an DTC fault has occurred.

min 6 mph (min 10 km/h)

Riding mode

Use of the riding modes

BMW Motorrad has developed 5 riding scenarios for your motorcycle from which you can select the one matching your situation:

– Riding on wet roads.
– Sporty riding on dry roads.
– Riding on racetracks with series tires.
– with Dynamic Traction Control (DTC) OE
– Riding on racetracks with series tires.
– Riding on racetracks with racing tires while taking settings by driver into account.

For each of those 5 scenarios, the optimum balance between engine torque, throttle response, ABS control and ASC or DTC control for the situation concerned is provided.

– with Dynamic Damping Control OE

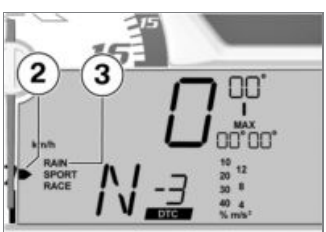
The suspension settings is adjusted to the selected scenario as well.

Setting riding mode

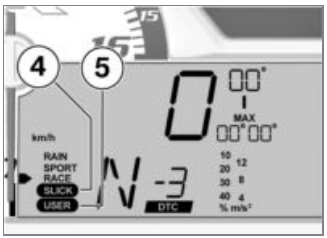
- Switch on ignition (➠ 40).

• Press button **1**.

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



The selection arrow **2** and the selectable riding modes **3** are displayed. The last active riding mode flashes.



– Pro riding modes OE
With the coding plug installed, the riding modes SLICK **4** and USER **5** are also offered.◁

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

- Press **1** button repeatedly until selection arrow **2** points to desired riding mode.
- » When the vehicle is stationary, the selected riding mode is activated after approx. 2 seconds.
- – Selection arrow **2** and inactive riding modes are hidden.

» The new riding mode is activated during operation under the following conditions:
– The throttle grip is in the neutral position.
– The brake lever is not being operated.

The following riding modes can be selected:
– RAIN: When riding on wet roads.
– SPORT: For sporty riding on dry roads.
– RACE: For riding on racetracks with series tires.

» The following riding modes can also be selected:
– Pro riding modes OE
– SLICK: For riding on racetracks with racing tires (only with coding plug installed).◁
– Pro riding modes OE
– USER: The rider can combine the settings from all available functions (ENGINE, ABS, DTC and DDC) as desired in accordance with his/her preferences or the current marginal conditions. A technical understanding of the settings is assumed (only with coding plug installed, see the chapter "Technology in detail").◁

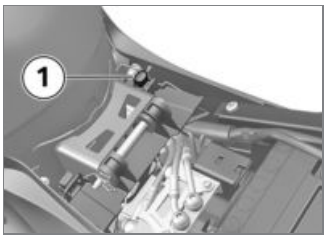
» The riding mode selected and its associated engine-characteristic, ABS DTC and DDC settings are retained even after the ignition has been switched off.
• When selecting SLICK riding mode: Observe restricted ABS control intervention at rear wheel (see chapter "Technology in detail").
» The values set in the SETUP USER–MODE are not continually displayed, but instead only after the following events for a limited time:
– After every pre-ride check with **USER** riding mode active.
– After changing to **USER** riding mode.
– When **1** (MODE) button is pressed in **USER** riding mode without changing riding mode.

Installing coding plug

– Pro riding modes OE

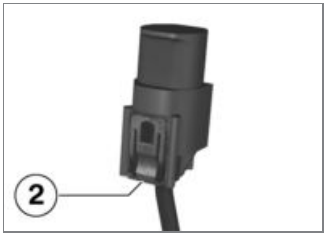
For motorcycles with power reduction, the following applies: By installing the coding plug, all riding modes are offered with increased engine output and the operating permit for public roads is voided.
The much sportier driveability with a great deal more power must be taken into account while riding.
Familiarize yourself with the more performance-oriented response.
Do not use the encoding plug on public roads.◀

- Switch off ignition (➠ 41).
- Removing rider`s seat (➠ 61).



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

- Remove cap **1** of connector.



- To do so, press in locking device **2** and pull off cap **1**.
- Insert coding plug.
- Switch on ignition.

» For safety reasons, after the coding plug is connected, the RAIN riding mode is automatically activated.

- Set riding mode (➠ 52).

» The set riding mode remains active even after the ignition is switched off.

- Installing driver's seat (➠ 61).
- Remove license-plate carrier (➠ 129).

Cruise control

– with cruise control OE

Switching on cruise control

- Push switch **1** to right.

» Button **2** is unlocked.

Storing speed

- Briefly press button **1** forward.

Adjustment range for cruise control
19...130 mph (30...210 km/h)

Indicator light for cruise-control system lights up.

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

Acceleration

- Briefly press button **1** forward.

Increase speed
Speed is increased each time button is pressed.
1 mph (1 km/h)

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

» The motorcycle accelerates steplessly.

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

Decreasing speed

- Briefly press button **1** backward.

Decreasing the speed
Speed is decreased each time button is pressed.
1 mph (1 km/h)

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

» The motorcycle decelerates steplessly.

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

Deactivating cruise control

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

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

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

» Cruise control indicator light goes out.

Resuming former cruising speed

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

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

Indicator light for cruise-control system lights up.

Switching off cruise control

- Push switch **1** to left.

» The system is deactivated.

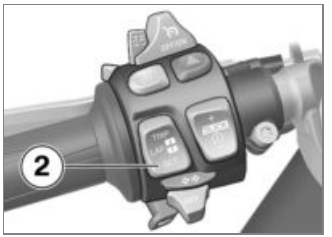
» Button **2** is locked.

Speed warning

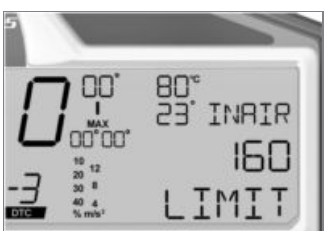
Setting speed warning

- If necessary, activate speed warning in `SETUP EQUIPMENT` submenu. See chapter "On the racetrack":

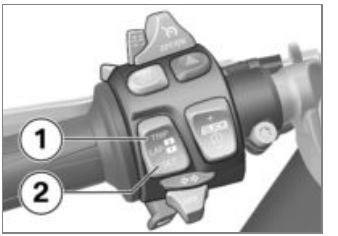
» Speed warning (➠ 116)



- Briefly press SET **2** repeatedly until LIMIT is shown in display.



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

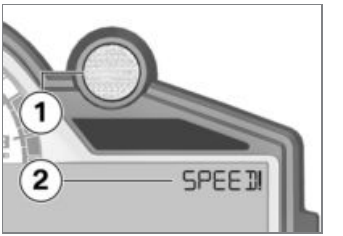


- To set current speed as new limit: press and hold SET **2**.

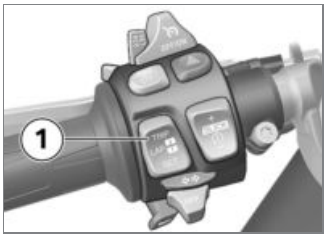
» The current speed is displayed

- To increase set speed: briefly press TRIP **1**.

» Each time you press the button the speed increases by 5 km/h.



When the preset speed is exceeded, the shiftpoint light **1** responds by lighting up or flashing at the preset frequency and the warning **2** appears in the display.



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

Heated handlebar grips

– with heated handlebar grips OE

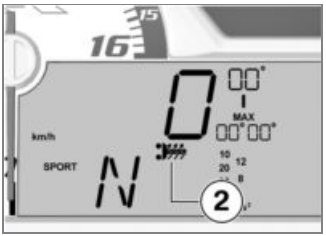
Operating heated grips

- 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 displayed in multifunction display.



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.

Second step: 100 % heating capacity

First step: 50 % heating capacity

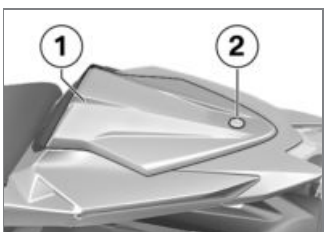
» If no further changes are made the selected heating level is adopted as the setting.

Rider and passenger seats

Removing hump cover

– with passenger cover[OE]

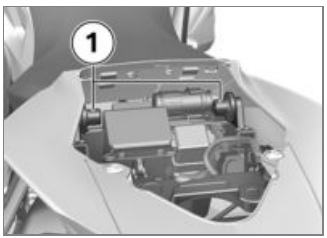
- Park motorcycle, ensuring that support surface is firm and level.



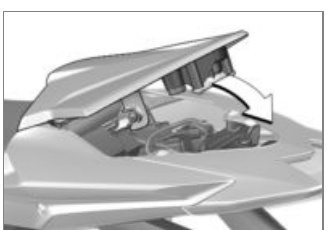
- Unlock lock **2** in hump cover **1** using ignition key.
- Lift hump cover at rear, then remove by pulling back and upward.

Installing hump cover

– with passenger cover[OE]



- Mount hump cover in mounts **1** on left and right.



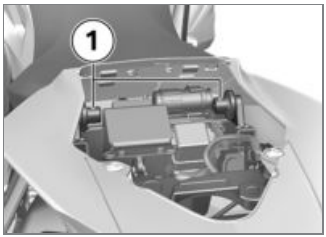
- Press the hump cover forward slightly then fold it down.
- Lock lock with ignition key.

Removing passenger seat

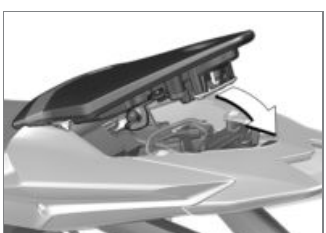
- Park motorcycle, ensuring that support surface is firm and level.

- Unlock seat lock **1** with 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 upholstered side on bottom.

Install the passenger seat

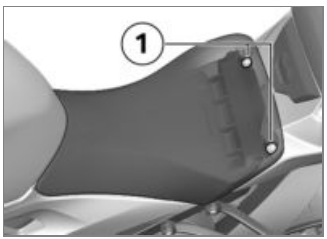


- Mount passenger seat in mounts **1** on left and right.



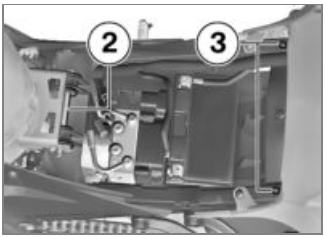
- Press the rear seat forward slightly then fold it down.
- Lock seat lock with ignition key.

Removing rider`s seat

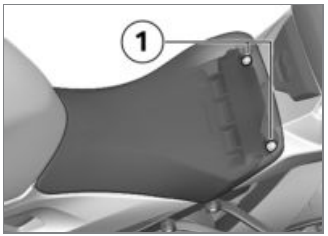


- Press cover of driver's seat above screws **1** forward somewhat and hold in place.
- Remove screws.
- Push the rider`s seat forward, lift it at the rear and remove it. When doing so, make sure that the paneling is not damaged by the screws.
- Lay the rider`s seat on a clean surface with the upholstered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

Installing driver's seat



- Mount rider`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.

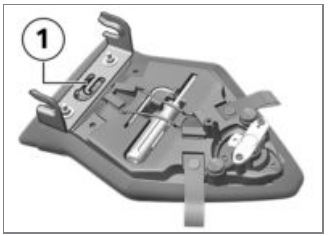


- Press cover of driver's seat over screw sockets toward front somewhat and hold in place.
- Install screws **1**.

Helmet holder

Securing helmet on motorcycle

- Remove passenger seat (➠ 60).
- Turn over passenger seat.



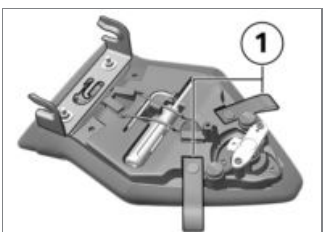
⚠ The helmet catch can scratch the paneling. When hooking on the helmet, watch the position of the helmet lock.◀

- Secure helmet on helmet holder **1** using a steel cable.
- Install the passenger seat (➠ 61).
- Set down helmet on driver's seat.

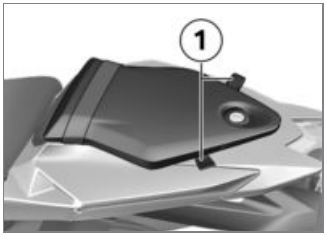
Luggage straps

Securing luggage on motorcycle

- Remove passenger seat (➠ 60).
- Turn over passenger seat.



- Remove luggage loops **1** from holders and lay to outside.
- Install the passenger seat (➠ 61).



- Use luggage 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.

Setting

Mirrors

Adjusting mirrors

- Move mirror into desired position by twisting.

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 is a doubt as to the correct headlight ranges, have the adjustment checked by a BMW authorized workshop, preferably by an authorized BMW Motorrad retailer.◀

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.◀

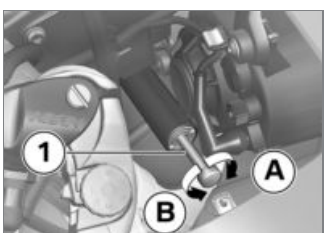
- Rotate the adjusting screw **1** into the desired position by applying gentle pressure from the rear.

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

Steering

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

Basic steering damper adjustment setting
Opens at 8 clicks (starting at fully closed) (Highway operation)
Opens at 5 clicks (starting at fully closed) (Racetrack)

Spring preload

Setting

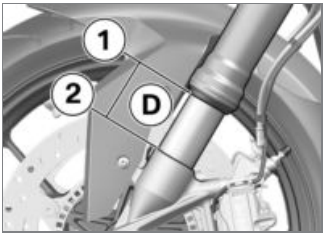
The spring preload on the front wheel must be adapted to the weight of the rider. Higher weight requires a higher spring preload, lower weight requires a lower spring preload.

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

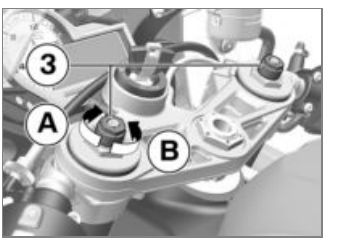
– without Dynamic Damping Control[OE]

- Park motorcycle, ensuring that support surface is firm and level.
- Make sure there is no load on the motorcycle, removing any cargo or luggage.



- Hold motorcycle in a vertical position and measure distance **D** between lower edge **1** of immersion 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
0.4...0.6 in (10...15 mm) (With rider 187 lbs (85 kg))



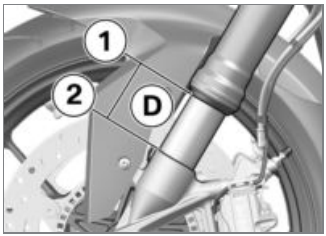
Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings. Adjust damping characteristic to changed spring preload.◀

- To decrease spring deflection (increase spring preload), turn adjusting screws **3** with tool of onboard tool kit in direction **A**.
- To increase spring deflection (decrease spring preload), turn adjusting screws **3** with tool of onboard tool kit in direction **B**.
- Ensure that settings on left and right sides are identical.

Adjusting spring preload on front wheel

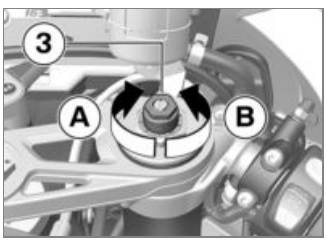
– with Dynamic Damping Control[OE]

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



- Hold motorcycle in vertical position, preferably with help of a second person (not the side stand).
- Measure distance **D** between lower edge **1** of immersion tube and front axle **2**.
- Load motorcycle with driver.
- Measure distance **D** between points **1** and **2** with assistance of a 2nd person.
- Calculate spring deflection as difference between measured values.

Adjustment of spring preload dependent on loading
Compressing front wheel
0.4...0.6 in (10...15 mm) (With rider 187 lbs (85 kg))



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

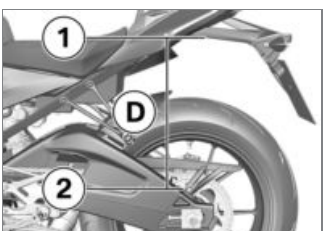
- To decrease spring deflection (increase spring preload), turn adjusting screw **3** with tool of onboard tool kit in direction **A**.
- To increase spring deflection (decrease spring preload), turn adjusting screw **3** with tool of onboard tool kit in direction **B**.

Adjusting spring preload at rear wheel

– without Dynamic Damping Control OE

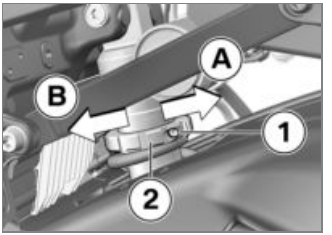
- Park motorcycle, ensuring that support surface is firm and level.
- Make sure there is no load on the motorcycle, removing any cargo or luggage.

- Loosen screw **1** with tool from onboard tool kit.



- Hold motorcycle in vertical position (not with side stand) 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
0.31...0.47 in (8...12 mm) (With rider 187 lbs (85 kg))



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

- To increase the spring deflection (reduce spring preload), use the tool from the onboard tool kit to turn the adjustment ring **2** in direction **B**.
- To decrease the spring deflection (increase spring preload), use the tool from the onboard tool kit to turn the adjustment ring **2** in direction **A**.

- Tighten screw **1** to specified torque.

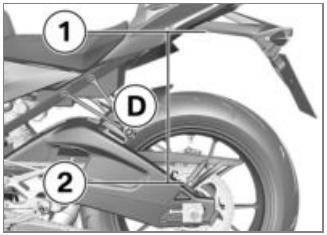
Clamp screw on upper spring plate
2 lb/ft (3 Nm)

Adjusting spring preload at rear wheel

– with Dynamic Damping Control[OE]

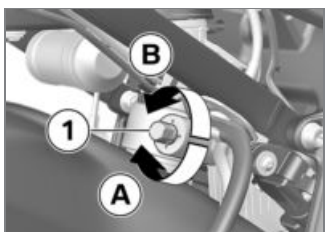
- Park motorcycle, ensuring that support surface is firm and level.
- Switch on ignition.
- Start engine to avoid discharging battery.

▷ Settings on the DDC system are only possible with the ignition switched on, as the electric valves are only active in this case.◀



- Hold motorcycle in vertical position, preferably with the help of a second person (not the side stand).
- 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
0.31...0.47 in (8...12 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 **1** in direction **A**.
- To increase the spring deflection (reduce spring preload),

use the tool from the onboard tool kit to turn the adjustment ring **1** in direction **B**.

Damping

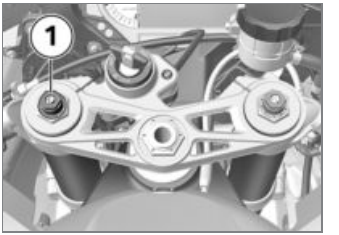
Setting

Damping must be adjusted to the road conditions and the spring preload.

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

Adjusting compression damping on front wheel

– without Dynamic Damping Control[OE]



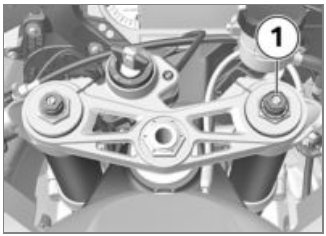
• Adjust compression damping with adjusting screw **1** and red scale on left-hand fork leg.

• To increase damping: turn adjusting screw with tool from onboard tool kit so that marking **2** points to higher figure on scale.
• To decrease damping: turn adjusting screw with tool from onboard tool kit so that marking **2** points to lower figure on scale.

Compression stage, basic setting, front
Position 2 (comfortable setting with rider 187 lbs (85 kg))
Position 4 (standard setting with rider 187 lbs (85 kg))
Position 8 (sport-oriented setting with rider 187 lbs (85 kg))

Rebound-stage damping on front wheel

– without Dynamic Damping Control[OE]



- Adjust rebound-stage damping with adjusting screw **1** and yellow scale on right-hand fork leg.

- To increase damping: turn adjusting screw with tool from onboard tool kit so that marking **2** points to a higher scale figure.
- To decrease damping: turn adjusting screw with tool from onboard tool kit so that marking **2** points to a lower figure on the scale.

Rebound stage, basic setting, front
Position 2 (comfortable setting with rider 187 lbs (85 kg))
Position 4 (standard setting with rider 187 lbs (85 kg))
Position 7 (sport-oriented setting with rider 187 lbs (85 kg))

Factory settings at front wheel

- Use following specification data to adjust to factory settings.

Factory settings for jounce/rebound at front
Position 4

Adjusting compression damping (jounce) at rear wheel

– without Dynamic Damping Control OE

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

- Adjust compression damping with adjusting screw **1** and red scale.

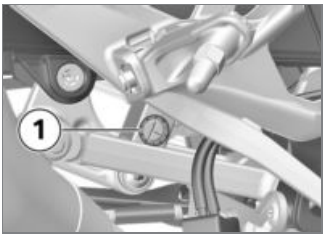
- To increase damping: turn adjusting screw with tool from onboard tool kit so that marking **2** points to a higher scale figure.
- To decrease damping: turn adjusting screw with tool from onboard tool kit so that marking **2** points to a lower figure on the scale.

Compression stage, basic setting, rear
Position 2 (comfortable setting with rider 187 lbs (85 kg))
Position 4 (standard setting with rider 187 lbs (85 kg))
Position 9 (sport-oriented setting with rider 187 lbs (85 kg))

Adjusting rebound-stage damping at rear wheel

– without Dynamic Damping Control[OE]

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



- Adjust rebound-stage damping with adjusting screw **1** and yellow scale.

- To increase damping: turn adjusting screw with tool from onboard tool kit so that mark-

ing **2** points to a higher scale figure.
- To decrease damping: turn adjusting screw with tool from onboard tool kit so that marking **2** points to a lower figure on the scale.

Rebound stage, basic setting, rear
Position 2 (comfortable setting with rider 187 lbs (85 kg))
Position 4 (standard setting with rider 187 lbs (85 kg))
Position 7 (sport-oriented setting with rider 187 lbs (85 kg))

Factory settings at rear wheel

- Use the following specification data to adjust to factory settings.

Factory settings for jounce/rebound at rear
Position 4

DDC

Setting

Damping must be adjusted to the road conditions and the spring preload.
– A rough road surface requires softer damping than a smooth road surface.
– An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

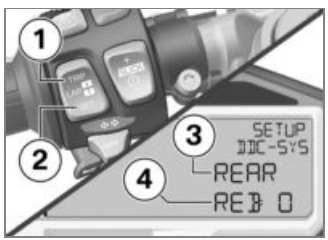
Adjusting damping on rear wheel

– with Dynamic Damping Control[OE]

Adjustment is carried out in the SETUP DDC-SYS submenu.

- Park motorcycle, ensuring that support surface is firm and level.
- Select submenu (➠ 111).

» The SETUP DDC-SYS submenu has been selected.



- To adjust the rebound at the rear wheel, briefly press TRIP **1** or SET **2** repeatedly until in line **3** REAR and in line **4** REB**:** (Rebound) is displayed.
- Press and hold SET **2**.

» The value next to REB**:** flashes.

- Adjust damping as desired with TRIP **1** and SET **2**.
» +1 ... +7: Damping increase in a maximum of seven steps (harder).
» −1 ... −7: Damping decrease in a maximum of seven steps (softer).
» 0: Factory setting
- Press and hold SET **2** until displayed value no longer flashes.
» The value for the current riding mode is saved.
- To adjust the rebound at the rear wheel, briefly press TRIP **1** or SET **2** repeatedly until in line **3** REAR and in line **4** COM**:** (Compression) is displayed.
- Press and hold SET **2**.
» The value next to COM**:** flashes.
- Adjust damping as desired with TRIP **1** and SET **2**.
- Press and hold SET **2** until displayed value no longer flashes.

Damping is adjusted and saved separately for all riding modes in the SETUP DDC−SYS submenu.
Damping is also adjusted and saved separately for the DDC modes DDC SPORT, DDC RACE and DDC SLICK possible in the USER riding mode.◀

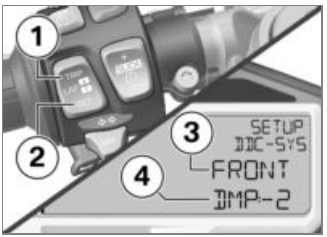
» The value for the current riding mode is saved.

Adjusting damping on front wheel

– with Dynamic Damping Control OE

Adjustment is carried out in the SETUP DDC-SYS submenu.
- Park motorcycle, ensuring that support surface is firm and level.
- Select submenu (➠ 111).
» The SETUP DDC−SYS submenu has been selected.

FRONT DMP Adjusting



- The adjust damping, briefly press TRIP **1** or SET **2** repeatedly until in line **3** FRONT is displayed and in line **4** DMP**:** (Damping).

The display differs when a spring travel sensor for the front forks is used (racing accessory).◀

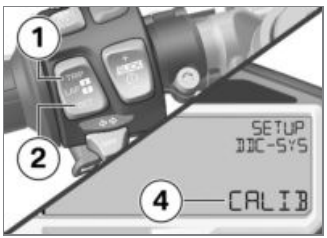
- Press and hold SET **2**.
» The value next to DMP**:** flashes.
- Adjust damping as desired with TRIP **1** and SET **2**.

» +1 ... +7: Damping increase in a maximum of seven steps (harder).
» −1 ... −7: Damping decrease in a maximum of seven steps (softer).
» 0: Factory setting
• Press and hold SET **2** until displayed value no longer flashes.
» The value for the current riding mode is saved.

Performing zero position alignment

– with Dynamic Damping Control[OE]

Adjustment is carried out in the SETUP DDC-SYS submenu.
• Place motorcycle on side stand or a suitable auxiliary stand.
• During the alignment, do not sit on the motorcycle and remove any cargo or luggage.
• Select submenu (➠ 111).
» The SETUP DDC−SYS submenu has been selected.



• To set the zero position, briefly press TRIP **1** or SET **2** repeatedly until CALIB (Calibration) is displayed in line **4**.
• Press and hold SET **2** until CALIB begins to flash.
» CALIB flashes.
» Zero position is calibrated.

If the zero position alignment has been carried out successfully, CALIB DONE is displayed in line **3** and **4**.
If CALIB FAIL is displayed:
• Repeat alignment.
• If CALIB DONE is not displayed after repeated calibration, please contact a BMW authorized workshop, preferably an authorized BMW Motorrad retailer.

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 driving stability.
Do not exceed the gross weight limit and observe the loading information.◀

- Adjust spring preload and damping rate 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 motorcycle is in use. There is a risk of burn injuries by contact with hot surfaces.
After parking the motorcycle, make sure that no one 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 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
– Coolant level
– 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 engine

- Switch on ignition.
» Pre-Ride Check in progress. (➠ 82)
» ABS self-diagnosis is performed. (➠ 83)
» ASC self-diagnosis is performed. (➠ 83)
- 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 lever to disengage clutch and twist throttle grip slightly.

- Press starter button **1**.

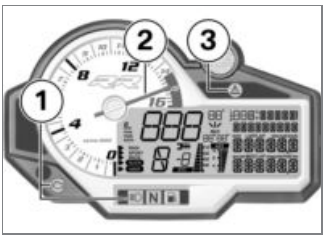
▷ The starting attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you attempt to start the engine again, or use jumper cables and a donor battery to start.
More detailed information can be found in the "Maintenance" chapter under "Jump-starting".◀

» Engine starts.
» Consult the troubleshooting chart if the engine refuses to start. (➠ 196)

Pre-Ride Check

In the "Pre-Ride-Check", the instrument-cluster module executes a test routine to check the status of the warning lights and the tachometer. Starting the engine before the test routine is completed will cancel the remainder of the routine.

Phase 1



The indicator and warning lights **1** light up and the universal warning light **3** lights up in yellow.
The tachometer needle **2** is run up to the maximum engine speed.
All segments are shown in the display.

Phase 2

The universal warning light changes from yellow to red.

Phase 3

The tachometer needle drops back to zero.

The indicator and warning lights go out.
The display reverts to the standard format. The odometer is displayed.

Should one of the warning lights 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 service facility, preferably an authorized BMW Motorrad Dealer.

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 speed sensors, the motorcycle must be driven a few yards.

Phase 1

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

ABS warning light flashes.

Phase 2

» Check wheel sensors while starting off.

ABS warning light flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

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

- It remains possible to continue riding. It must be noted that the ABS and integral function is not available at all or is restricted.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Dealer.

ASC self-diagnosis

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

Phase 1

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


ASC warning light flashes slowly.

Phase 2

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

 ASC warning light flashes slowly.

ASC self-diagnosis completed

» The ASC symbol is no longer displayed.

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

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

DTC self-diagnosis

– with Dynamic Traction Control (DTC)[OE]

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

Phase 1

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

 DTC warning light flashes slowly.

Phase 2

» Checks diagnosis-capable system components when motorcycle starts to move.

 DTC warning light flashes slowly.

DTC self-diagnosis completed

» The DTC symbol is no longer displayed.

- Watch all warning and indicator lights on the display.

 DTC self-diagnosis not completed
The DTC function is not available, as the self-diagnosis function has not been completed. (To check wheel sensors, motorcycle must reach a minimum speed with engine running: min 3 mph (min 5 km/h))

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 availability of the DTC function is restricted or it is not available at all.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Dealer.

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.

The exceeding of the run-in speeds is prevented by the engine management system. This monitoring function is not switched off until the first inspection by your authorized BMW Motorrad retailer.◀

 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))

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

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

Brake pads

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

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

Tires

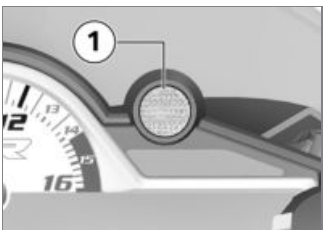
New tires have a smooth surface. This must be roughened by riding in a restrained manner at various lean angles until the tires are run in. This running in procedure is essential if the tires are to achieve maximum grip.

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 light



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

Shifting speed
During driving the shiftpoint light indicates the speed at which the rider should shift into the next-highest gear.

– Shiftpoint light flashes at the preset frequency: engine speed will soon reach upshift rpm
– Shiftpoint light goes out: shifting speed reached

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

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

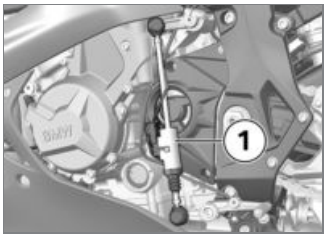
Pro Gear Shift Assistant

– with Pro Gearshift Assistant OE

The gearshift assistant provides help with upward and downward gear shifts without the clutch or the accelerator having to be operated. This is not an automatic transmission. The rider is an essential part of the system and makes the decision as to when to change gear.

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

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



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

» The sensor **1** on the gear-shift rod detects the intention to change gear and initiates gear-shift assistance.

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

» No shifting support is provided in the following situations:

– If the clutch is operated
– If the gear lever is not in the zero position
– When upshifting with the throttle closed (overrun mode) or when decelerating

- To be able to make another gear shift using gear-shift assistance, the gear lever must be fully released after the first gear change.

Brakes

How do you achieve the shortest stopping distances?

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

To achieve the shortest possible braking distance, the front brake must be applied quickly and with progressively greater levels of force. This procedure provides ideal exploitation of the extra weight transfer to the front wheel. The clutch should also be disengaged at the same time.

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

With the frequently instructed "forced braking," in which the brake pressure is generated as quickly as possible and with great force, dynamic load distribution lags behind the progressive increases in deceleration rate and the braking force cannot be completely transferred to the

road surface. Due to the missing wheel load, the ABS must already prevent a tendency of the front wheel to lock up with minimal braking action. This results in a reduced braking action.

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

Delayed or poorer braking action must be expected in the following situations:
– When driving in the rain and through puddles.
– After washing the vehicle.
– When driving on roads spread with salt.
– After working on the brakes due to oil or grease residues.
– When 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.
- On a grade, the motorcycle should always face uphill; select 1st gear.

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.

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
Premium grade unleaded fuel (max. 10 % ethanol, E10) 91 AKI (98 ROZ/RON) 91 AKI
 Alternative fuel quality
Super unleaded (minor restrictions with regard to power and fuel consumption) (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI

Refueling

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

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

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

Usable fuel quantity
Approx. 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.

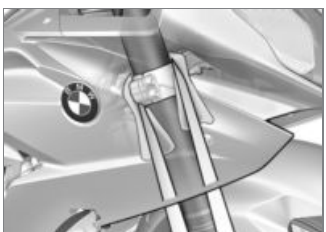
Secure motorcycle for transport

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

When jacking up the vehicle it can tip away to the side and fall over.

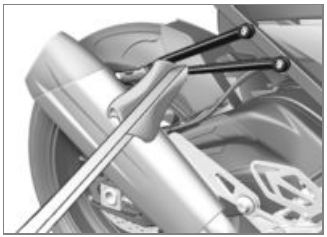
Secure motorcycle against tipping to the side, preferably with the assistance of a second person.◀

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



Components can be damaged.
Do not squeeze components such as brake lines or wiring harnesses.◀

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



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

On the racetrack

Display for racing mode

Multifunction display

1 Current angle of inclination during cornering

2 Direction for angle of inclination
\ = left
| = vertical
/ = right

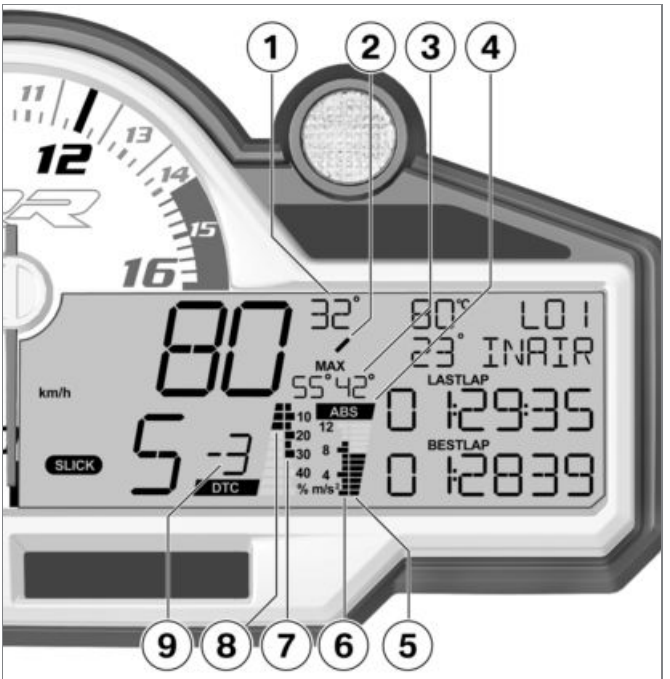
3 Maximum angle of inclination for left and right
Factory setting for BANK DISP (➠ 117)

4 ABS control intervention during braking
Deactivate ABS (➠ 49).
Activate ABS (➠ 50).

5 Current deceleration during braking
Factory setting for BRAKE DISP (➠ 118)

6 Maximum deceleration

7 Maximum DTC torque reduction

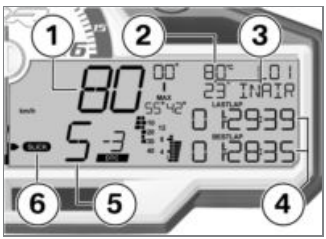


8 DTC torque reduction
– with Dynamic Traction Control (DTC) OE
Factory setting for DTC DISP (➠ 117)

9 DTC setting
– with Dynamic Traction Control (DTC) OE
Adapt DTC (➠ 125).

LAPTIMER

Multifunction display



1 Speed
2 Coolant temperature
3 Intake air temperature
4 LAP TIMER
The display in these lines can be switched over.
Individualize LAPTIMER (➠ 98).
LAPTIMER display structure (➠ 119)
In illustration:
RUN: Running time of the current lap.
BESTLAP: Fastest of the currently saved laps.
5 Gear indicator
6 Riding mode (➠ 52)

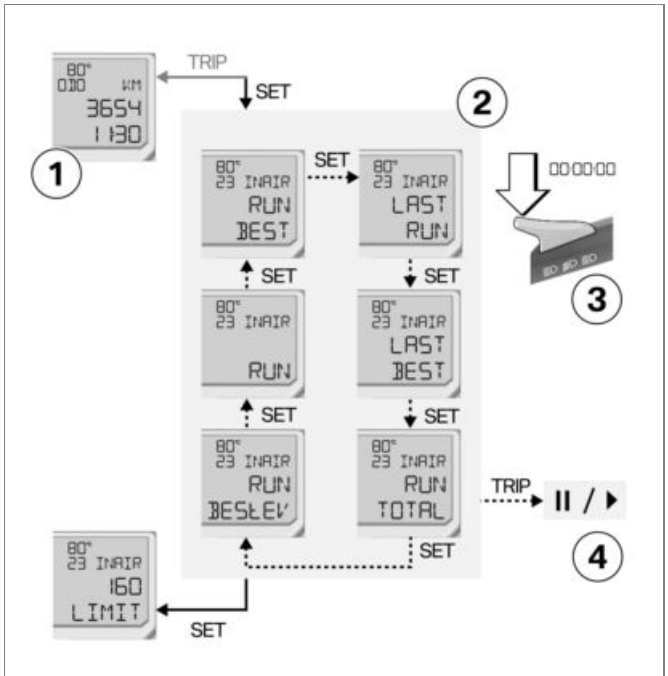
Marking displayed value

The following times can be shown in the third 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 fourth 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 (➠ 119).

The stopped time of the preceding lap is shown briefly at the start of each new lap before the display switches over to the running time of the current lap. The duration of this delay can be set as described on Page (➠ 121).



Overview of LAP TIMER

— Solid line: briefly press button.

- - Dotted line: press and hold button.

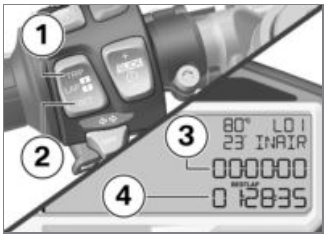
1 Odometer
Standard display
Select displays in multi-function display (➠ 45).

2 Individualize LAPTIMER (➠ 98).

3 Start time recording (➠ 98).

4 Interrupt/continue time entry (➠ 99)

Individualizing LAPTIMER



- Activate standard display (➠ 107).

» The odometer (ODO) is displayed.

- Briefly press SET **2**.

» The LAPTIMER is opened and shows RUN **3** and BEST–LAP **4** in the factory setting.

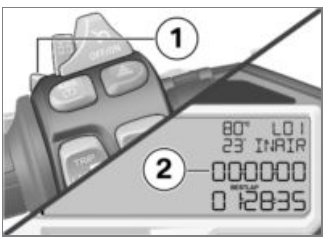
- To change content of lines **3** and **4** in LAPTIMER, repeatedly press and hold SET **2** until lines **3** and **4** are displayed as desired.

» The desired LAPTIMER display structure is adopted and saved.

» LAPTIMER display structure (➠ 119)

Starting time recording

The LAPTIMER is opened.



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

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

» Time recording RUN **2** is 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.

» RUN **2** restarts at 00:00:00.

» 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]

The LAPTIMER can be conveniently operated with an infrared signal. Here the following must be observed:

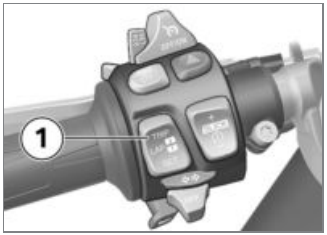
– The infrared receiver available as an optional accessory must be connected to the connector for optional accessories under

the right-hand fairing side panel (➠ 136).
– In the SETUP RACETRACK, the LAPTIMER trigger mode must be set to LAPTM TRIG AUTO or LAPTM TRIG EXTERN (➠ 122).

Operation with the headlight flasher button is also possible with the integrated infrared receiver. For this purpose, the LAPTIMER trigger mode must be set to LAPTM TRIG AUTO or LAPTM TRIG MANUAL.
To avoid the premature detection of a completed lap due to interference signals, a minimum lap time can be specified (➠ 122). Signals received before this time expires are then ignored.

Interrupting time entry

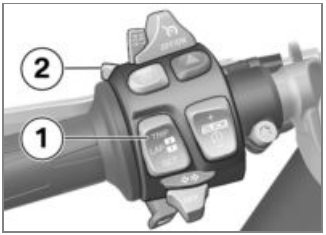
Time recording is running.



- Press and hold TRIP **1** to interrupt time recording.
- Press and hold TRIP **1** to continue time recording.

Ending time entry

Time recording is running.



- Press and hold TRIP **1** to stop time recording.
- Briefly press button **2**.

» The indicated time is deleted: `--:--:--`

– Time recording is ended.
– No lap time is saved.

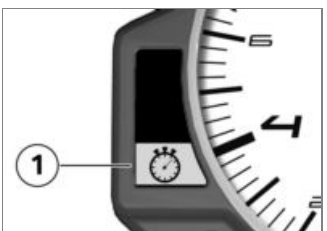
- Briefly press TRIP **1** to exit lap timer.

If additional laps are recorded at a later time, the numbering of the laps is continued. Numbering does not begin with lap 1 again until after all laps have been deleted from the RACE INFO.◀

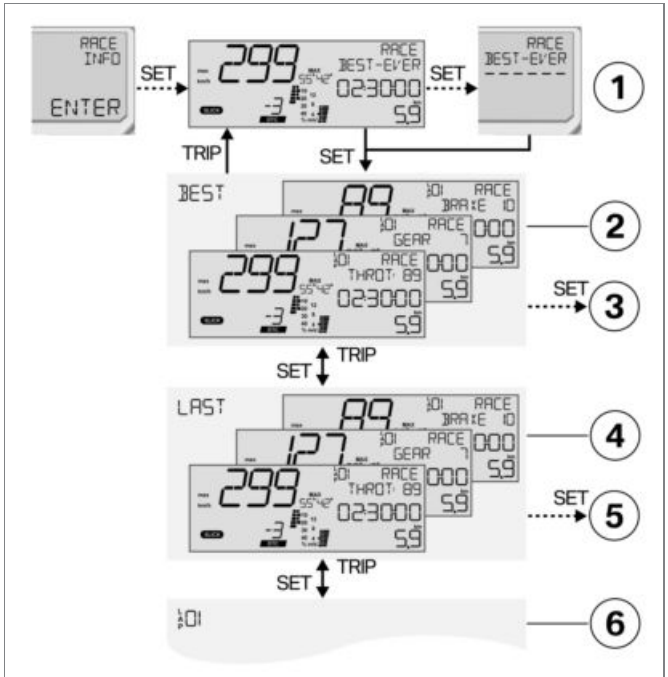
» ODO is displayed.

Fastest lap expected

This function must be activated in the SETUP RACETRACK menu (➠ 122).



When a new lap is started the intermediate elapsed times are monitored at 100 meter 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" light **1** lights up.



RACE INFO

RACE INFO Part 1

— Solid line: briefly press button.

- - Dotted line: press and hold button.

1 Deleting all-time best lap

2 Information on current best lap
Three displays in alternation
Information on each race lap (➠ 104)

3 Delete current best lap

4 Information on last lap

5 Delete last lap

6 Information on additional laps
Select saved lap (➠ 103).
Delete lap (➠ 106).

RACE INFO Part 2

— Solid line: briefly press button.

- - Dotted line: press and hold button.

1 Information on lap 01
Select saved lap (➠ 103).
Information on each race lap (➠ 104)

2 Delete lap (➠ 106).

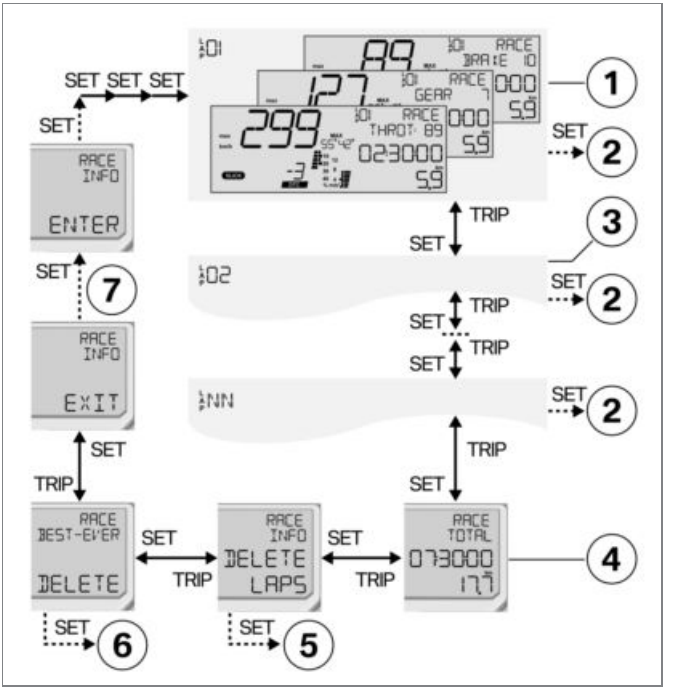
3 Information on lap 02

4 Total of all lap times and lap distances

5 Clear recording (➠ 106).

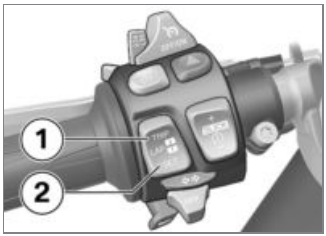
6 Delete all-time best lap

7 Exit RACE INFO (➠ 107).
Activate standard display (➠ 107).



Selecting saved lap

RACE INFO is displayed.



- Briefly press TRIP **1** or SET **2** to display saved laps consecutively.

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

When SET **2** is pressed, the stored laps and functions are displaced in the following order; each time TRIP **1** is pressed, they are displayed in the reverse order:

– All-time best lap time BEST-EVER
– Best stored lap time BEST
– Last stored lap time LAST
– All other stored laps LAP 01 ... LAP 60
– The totals of all saved lap times and lap distances TOTAL
– Delete the stored data DELETE LAPS
– Delete the stored best lap time BEST-EVER DELETE
– Exiting RACE INFO RACE INFO EXIT

Information on each race lap

1 In alternation for the indicted lap:
Top speed (max)
Average speed (Ø)
Minimum speed (min)

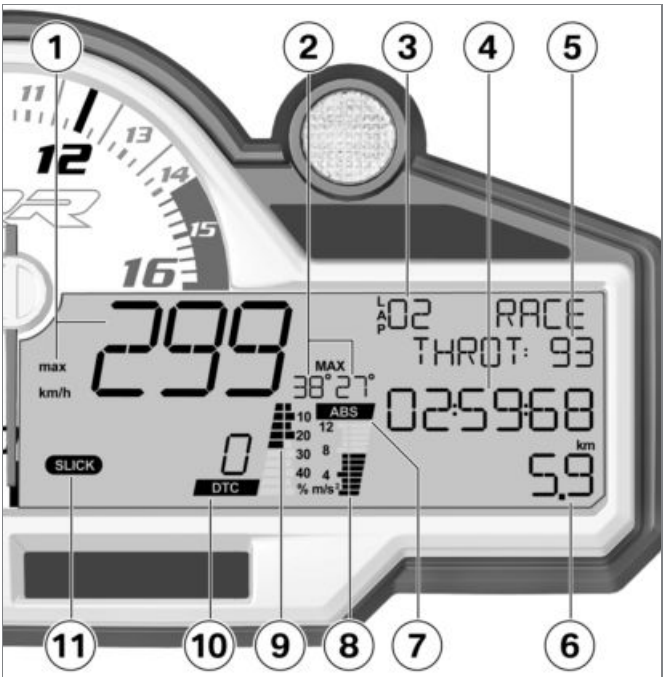
2 Maximum angle of inclination for left and right of indicated lap

3 Race lap to which displayed data refer

4 Lap time of displayed race lap

5 In alternation for the indicted lap:
Average gas utilization (THROT) in percent
Riding share with brake actuation (BRAKE) in percent
Number of gearshifts (GEAR) in the indicated lap

6 Distance of indicated lap covered



7 ABS control intervention:
"ABS" displayed = lap with ABS control intervention
"ABS" hidden = lap without ABS control intervention

8 Maximum deceleration in the indicated lap

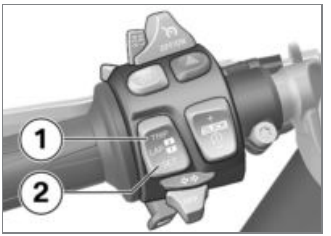
9 Maximum DTC torque reduction in the indicated lap

10 DTC setting in the indicated lap

11 Riding mode in the indicated lap

Clearing recording

RACE INFO is displayed.



- Briefly press TRIP **1** or SET **2** repeatedly until DELETE LAPS is displayed.
- Press and hold SET **2** to delete all recorded data.

» BEST-EVER DELETE is indicated.

- Either briefly press SET **2** to skip deleting of all-time best lap.
- Or press and hold SET **2** to delete data of all-time best lap.

» BEST-EVER is deleted: --:--:--

» All recordings have now been deleted.

» RACE INFO EXIT is displayed.

All-time best lap

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

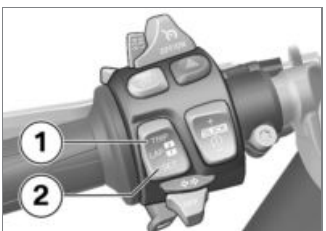
The all-time best lap remains stored even if the recorded lap is deleted. As a result, a new race can be recorded at other times and compared with the best lap from previous races.

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

RACE INFO is displayed.



- Briefly press TRIP **1** or SET **2** repeatedly until lap to be deleted is displayed.
- Press and hold SET **2** to delete lap.

» If one of the recorded laps is deleted, it is replaced as follows:

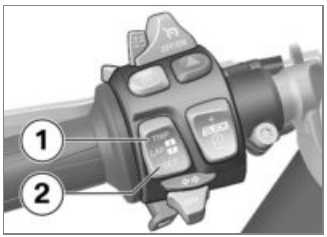
– BEST-EVER: The best lap saved is adopted as the new all-time best lap time.

– BEST: The lap that previously had been the second best lap is adopted as the new best lap.
– LAST: The lap that previously had been the second-to-the-last lap is adopted as the new last lap.

» If any desired saved lap has been deleted, the following must be taken into account:

– The deleted lap is subtracted from the overall time.
– The deleted lap is subtracted from the overall time.
– The numbering of the remaining laps is maintained.

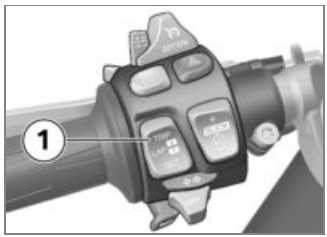
Exiting RACE INFO



- Briefly press TRIP **1** or SET **2** repeatedly until RACE INFO EXIT is displayed.
- Press and hold SET **2** to exit RACE INFO.

» The recorded values are stored.

Activating standard display

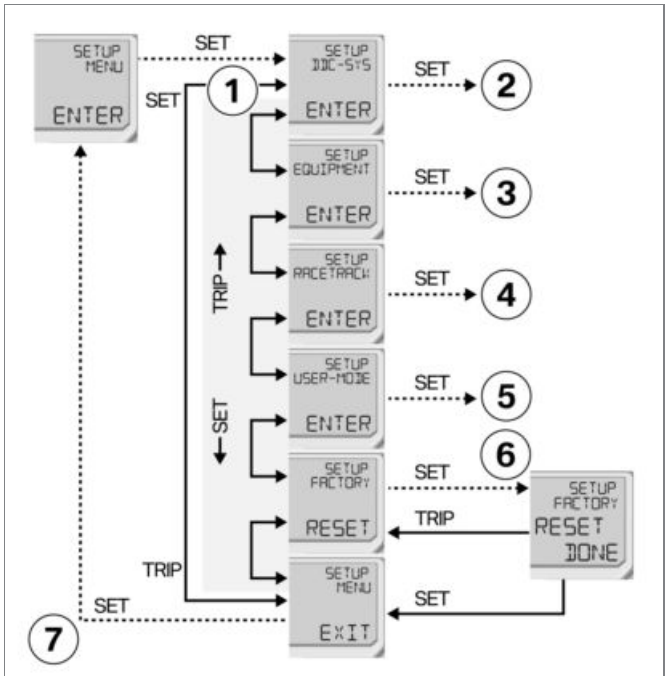


- Press and hold TRIP **1**.

Regardless of what the multifunction display shows, the standard display with the odometer ODO is always shown by pressing and holding TRIP **1**. The only exceptions are the following displays:
LAPTIMER with running/stopped time recording: pressing and holding TRIP **1** stops time recording or continues it.

Pressing and holding LIMIT: TRIP **1** switches the speed warning off (LIMIT OFF).◀

» ODO is displayed.



SETUP MENU

Overview SETUP MENU

— Solid line: briefly press button.

- - Dotted line: press and hold button.

1 Select submenu (➠ 111).

2 Display submenu
– with Dynamic Damping Control[OE]
SETUP DDC-SYS
(➠ 111)
Set parameter (➠ 113).

3 Display submenu
SETUP EQUIPMENT
(➠ 111)

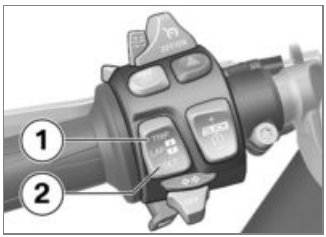
4 Display submenu
SETUP RACETRACK
(➠ 112)

5 Display submenu
Only with USER riding mode active
– Pro riding modes[OE]
SETUP USER-MODE
(➠ 113)

6 Reset all parameters FACTORY RESET

7 Exit SETUP MENÜ
Exit settings (➠ 114).

Selecting submenu



- Switch on ignition (➠ 40).
- Briefly press SET **2** repeatedly until SETUP MENU ENTER is displayed.

▷ If the display has been scrolled too far, briefly press SET **2** repeatedly until the menu returns to the start and finally to the desired display.◀

- Press and hold SET **2**.
- Briefly press TRIP **1** or SET **2** repeatedly until desired submenu is displayed.
- Press and hold SET **2** to open desired submenu.

When SET **2** is pressed, the possible parameters are displayed in the following order; each time TRIP **1** is pressed, they are displayed in the reverse order.

SETUP DDC-SYS

– with Dynamic Damping Control[OE]

SETUP DDC-SYS
– Rebound stage damping, rear REAR REB
– Compression-stage damping, rear REAR COM
– Without spring travel sensor for front forks: Front damping FRONT DMP
– With spring travel sensor for front forks: Front rebound-stage damping FRONT REB
– With spring travel sensor for front forks: Front compression damping FRONT COM
– Zero calibration CALIB
– Activate SET-DR ON (During Ride) or deactivate SET-DR OFF damping adjustable during riding
– Reset DDC settings of current riding mode RESET ACTUAL
– Reset DDC settings of all riding mode RESET ALL◁

SETUP EQUIPMENT

SETUP EQUIPMENT
– with anti-theft alarm system (DWA)[OE]
– Automatically activate the alarm function of the anti-theft alarm system after switching off the ignition DWA AUTO ON or activate it with the remote control DWA AUTO OFF◁

– Set time display
CLOCK TIME
– Set brightness
DISP BRIGHT
– Switch speed warning on
WARN SPEED ON or off
WARN SPEED OFF
– Switch display for light fault on WARN LAMP ON or off
WARN LAMP OFF
– Switch off the display for the current angle of inclination
BANK DISP OFF or switch it on with the desired update interval: BANK DISP FAST, BANK DISP MID or BANK DISP SLOW
– with Dynamic Traction Control (DTC)[OE]
– Switch the display for the current and maximum DTC torque reduction on DTC DISP ON or off DTC DISP OFF◁
– Switch the display for the current and maximum delay on
BRAKE DISP ON or off
BRAKE DISP OFF
– Submenu for switching over the units for the odometer display, residual-range display, temperature display, average consumption display and time display UNITS

SETUP EQIP:UNITS

SETUP EQIP:UNITS
– Change over the temperature unit: UNIT TEMP DEG: C or UNIT TEMP DEG: F
– Change over the average consumption unit:
UNIT CONS L⁄100,
UNIT CONS MPG: US,
UNIT CONS MPG: UK or
UNIT CONS KM⁄L
– Set the 24 or 12-hour mode for the time display:
UNIT CLOCK 24 or
UNIT CLOCK 12

SETUP RACETRACK

SETUP RACETRACK
– Switch-on speed for the shift-point light GSL ON–RPM (Gear Shift Light)
– Switch off speed for the shift-point light GSL OFF–RPM
– Shiftpoint light brightness
GSL BRIGHT
– Shiftpoint light flashing frequency GSL FREQ
– Set LAPTIMER display version: Running lap time LAPTM RUN, the required time for the previous lap LAPTM LAST, best lap time LAPTM BEST, the total of all saved lap times and lap distances LAPTM TOTAL, all-time best lap time LAPTM BEST–EVER
– Display duration for last stopped lap time
LAPTM HOLD
– Anti-rebound time (waiting time until new lap can be

started) of the headlight flasher button for the LAP TIMER LAPTM DEB–TM in seconds or LAPTM DEB–TM CUSTOM in minutes and seconds.
– If the fastest lap is expected, this must be displayed with the "Fastest lap" light BLIP ON (Best Lap In Progress) or not displayed BLIP OFF
– with infrared receiver OA
– Changeover of the headlight flasher button for starting time recording. LAPTM TRIG AUTO: Operation via headlight flasher button or infrared receiver; LAPTM TRIG MANUAL: Operation only via headlight flasher button; LAPTM TRIG EXTERN: Operation only via infrared receiver.◁
– Pro riding modes OE
– Adjust the speed for the pit lane limiter PIT LIMIT ... or switch off the pit lane limiter PIT LIMIT OFF◁

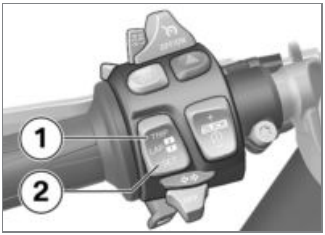
SETUP USER-MODE

– Pro riding modes OE

SETUP USER–MODE
– Antilock brake system for racing tires ABS SLICK
– Sport mode for antilock brake system ABS SPORT
– Antilock brake system for racing with series tires ABS RACE
– Dynamic traction control for racing tires DTC SLICK
– Dynamic traction control for racing with series tires DTC RACE
– Sport mode for dynamic traction control DTC SPORT
– Dynamic traction control for wet roads DTC RAIN
– Sport mode for Dynamic Damping Control DDC SPORT
– Dynamic Damping Control for racing with series tires DDC RACE
– Dynamic Damping Control for racing tires DDC SLICK
– Throttle response for racing mode ENGINE RACE
– Throttle response for wet roads ENGINE RAIN
– Reset all USER MODE settings RESET◁

Setting parameter

Parameter is indicated.



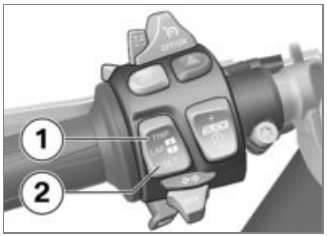
- Press and hold SET **2** until displayed parameter begins to flash.
- Briefly press TRIP **1** or SET **2** repeatedly until desired value is displayed.

If desired value is displayed:

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

» The value has been saved.

Exiting settings



- Press and hold TRIP **1** until multifunction display is switched over to standard display.

» A flashing value will still be saved.

- As an alternative: repeatedly press TRIP **1** or SET **2** until SETUP ... EXIT is shown in the respective submenu.
- Press and hold SET **2** to exit submenu.

» SETUP ... ENTER is indicated.

- Repeatedly press TRIP **1** or SET **2** until SETUP MENU EXIT is displayed.
- Press and hold SET **2** to exit SETUP MENU.

» SETUP MENU ENTER is indicated.

SETUP DDC-SYS

– with Dynamic Damping Control[OE]

Adjusting rear damping

Rebound stage damping adjustment on the rear spring strut.

Reading display range

– -7 (soft) … +7 (stiff)
– Factory setting: 0

Compression stage damping adjustment on the rear spring strut.

Reading display range

– -7 … +7
– Factory setting: 0

Adjusting front damping

Damping adjustment on the front spring strut without separation between compression and rebound stage.

Reading display range

– -7 … +7
– Factory setting: 0

The spring travel sensor required for the separate adjustment of the 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 (➠ 77)

SETUP EQUIPMENT

Display brightness

Five different intensities are available for adjusting the display brightness.

Reading display range

– 1, 2, 3, 4, 5
– Factory setting: 5

Speed warning

The speed is set in the LIMIT display. If the riding speed exceeds this limit, SPEED! is displayed as a warning and the shiftpoint light lights up or flashes.

Reading display range

– ON, OFF
– Factory setting: OFF

Light error

If the turn indicators are removed or the license plate carrier is detached for track use, the vehicle's electronic monitoring system will interpret this as a defective light or light source and the corresponding warning message will appear in the display.
This function enables the display to be suppressed.

Reading display range

– ON, OFF
– Factory setting: ON

Lean angle

Adjustment of the display for angle of inclination: angle of inclination, direction for angle of inclination and maximum angle of inclination of the current lap for left and right. The interval for updating the display can be adjusted for the display can be hidden.

Reading display range

– OFF, FAST, MID, SLOW
– Factory setting: OFF

Dynamic Traction Control

– with Dynamic Traction Control (DTC)[OE]

Adjustment of the displays for DTC: Current and maximum DTC torque reduction and DTC setting. The displays can be displayed and hidden.

Reading display range

– OFF, ON
– Factory setting: OFF

Deceleration

Adjustment of the displays for deceleration: Current and maximum deceleration in m/s², and ABS intervention. The displays can be displayed and hidden.

Reading display range

– OFF, ON
– Factory setting: OFF

SETUP RACETRACK

Switch-on speed of shifting flasher

Adjustment of the switch-on speed for the shiftpoint light.

Reading display range

– 7000, 9000, 10000, 11000, 12000, 12500, 13000, 13500, 14000
– Factory setting: 7,000
– Only speeds which lie below the switch-off speed can be selected.

Switch-off speed of shifting flasher

Adjustment of the switch-off speed for the shiftpoint light.

Reading display range

– 9000, 10000, 11000, 12000, 12500, 13000, 13500, 14000, 16000
– Factory setting: 16000
– Only speeds which lie above the switch-on speed can be selected.

Brightness of shifting flasher

Adjustment of shifting flasher brightness as a percentage of the maximum brightness.
The shifting flasher remains switched on during setting and is immediately adjusted to the selected brightness.

Reading display range

– 20, 30, 40, ... 100
– Factory setting: 100

Flashing frequency of shiftpoint light

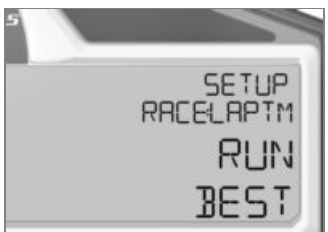
Adjustment of the flashing frequency of the shiftpoint light and the speed warning in Hz (cycles per second).

Reading display range

– 0, 4, 8
– Factory setting: 4
– When 0 is selected, the shiftpoint light and the speed warning remain on constantly.
– When 4 is selected, the shiftpoint light and the speed warning flash slowly.
– When 8 is selected, the shiftpoint light and the speed warning flash rapidly.

LAPTIMER display structure

The LAPTIMER display structure can be selected from six versions.

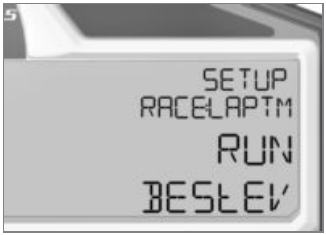


Version 1 (factory setting)
The running time of the current lap is shown in the third line and the best lap time of the stored values is shown in the fourth line.

Version 2
The required time of the previous lap is shown in the third line and the running time of the current lap is shown in the fourth line.

Version 3
The required time of the previous lap is shown in the third line and the best lap time of the stored values is shown in the fourth line.

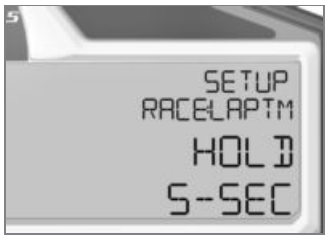
Version 4
Running time of the current lap is shown in the third line and the total of all lap times is shown in the fourth line.



Version 5
The funning time of the current lap is shown in the third line and the all-time best lap time (➠ 106) is shown in the fourth line.

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

Display duration for last stopped time



Adjustment of the display duration in seconds.
After the start of a new lap, the measured lap time of the previous lap is displayed for the set time (HOLD). Then the running time of the current lap is shown again.

Reading display range

– 0, 3, 8, 13, 18, … 30
– Factory setting: 3

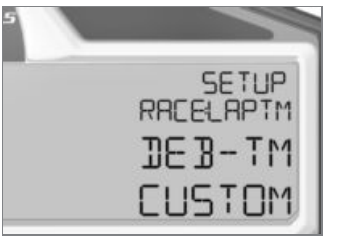
Minimum lap time

When determining the lap times, the time can be set which must elapse after the first received signal before a new signal is accepted.

– Within this anti-rebound time, the headlight flasher can be used without the signal for a new lap being output.
– When an infrared receiver is used, this prevents the signals of several transmitters positioned next to each other from being evaluated.

Reading display range

– 0, 10, 30, 45, 60, CUSTOM
– Factory setting: 10



When CUSTOM is selected, the anti-rebound time can be entered in minutes and seconds (MM:SS).

Reading display range

– 00:00 … 99:99
– Factory setting: 01:00

Fastest lap

The "fastest lap expected" function (➠ 100) is activated or deactivated.

Reading display range

– ON, OFF
– Factory setting: ON

LAP TIMER trigger mode

– with infrared receiver[OA]

The various possibilities for starting time recording are set.

Reading display range

– AUTO, EXTERN, MANUAL
– Factory setting: AUTO
– AUTO: Both the headlight flasher button and the lap trigger are accepted as a trigger source.
– EXTERN: Only the lap trigger is accepted as a trigger source.
– MANUAL: Only the headlight flasher button is accepted as a trigger source.

Speed limiter for pit lane

– Pro riding modes[OE]

Adjustment of the maximum speed (±100) of the engine when riding in the pit lane in 1st gear with the start button pressed. If exceeded, the engine speed is limited. The speed limiter for the pit lane can also be deactivated.

Reading display range

– 4000, 4100, 4200, …, 8000, OFF
– Factory setting: OFF

SETUP USER-MODE

ABS

Adjustment of antilock brake system ABS in USER-MODE.

Reading display range

– SPORT, RACE, SLICK
– Factory setting: SLICK
– The checkmark is only displayed if an adjustment has been made!
– With checkmark: The specified value has been adopted by the ABS.
– Without checkmark: The specified value has not been adopted.

DTC

Adjustment of the Dynamic Traction Control DTC in the USER-MODE.

Reading display range

- RAIN, SPORT, RACE, SLICK
- Factory setting: SLICK
- The checkmark is only displayed if an adjustment has been made!
- With checkmark: The specified value has been adopted by the DTC.
- Without checkmark: The specified value has not been adopted.

DDC

Adjustment of the Dynamic Damping Control DDC in the USER-MODE.

Reading display range

- SPORT, RACE, SLICK
- Factory setting: SPORT
- The checkmark is only displayed if an adjustment has been made!
- With checkmark: The specified value has been adopted by the DDC.
- Without checkmark: The specified value has not been adopted.

ENGINE

Adjustment of the ENGINE throttle response in the USER-MODE.

Reading display range

- RAIN, RACE, SLICK
- Factory setting: SLICK
- The checkmark is only displayed if an adjustment has been made!
- With checkmark: The specified value has been adopted by the ENGINE.
- Without checkmark: The specified value has not been adopted.

DTC

– with Dynamic Traction Control (DTC)[OE]

DTC setting

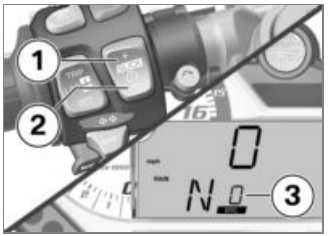
The permissible slip on the rear wheel is controlled by the DTC according to the selected riding mode.
In the SLICK and USER riding modes, it is also possible to adjust the system-dependent DTC setting.

Adapting DTC

- Activate SLICK or USER riding mode by installing coding plug if necessary.

The DTC can only be adjusted in the SLICK and USER riding modes.◀

The DTC can also be adjusted while riding.◀



- Briefly press button **1** (+) to increase value **3**.

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.◀

- Briefly press button **2** (-) to decrease value **3**.

» The set value **3** is shown in the multifunction display and is between −7 and +7:
» +1 ... +7: Reduction of slip at rear wheel by a maximum of seven steps. The value +7 is equal to the earliest DTC intervention.
» −1 ... −7: Increasing of slip at rear wheel by a maximum of seven steps. The value −7 is equal to the latest DTC intervention.
» 0: Factory setting
» DTC display and value **3** hidden: DTC activated.

DTC switch-off

On very loose substrates (e.g. a gravel bed at a racetrack) the interventions of the DTC can reduce the drive force at the rear wheel to such a degree that the rear wheel no longer turns. 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 on the DTC again.

Start of race

– Pro riding modes OE

Launch Control

Launch Control supports the rider in maintaining the ideal speed for a race start. Launch Control can only be activated in the SLICK and USER riding modes.

 Engine speed after activation of launch control at full throttle
9000 min^{-1}

When L-CON is active, the engine torque is reduced so that, for example, the maximum propulsion on level ground is set with the front wheel slightly lifting off. If the front wheel is detected as lifting off, the torque is temporarily slightly reduced. From a speed the speed limiter is deactivated.

 Speed for deactivation of speed governing for launch control
Approx. 43 mph (Approx. 70 km/h)

Launch Control is switched off under the following conditions:
– Third gear is engaged.
– Angle becomes greater than 30°.
– Engine or ignition is switched off.
– Riding mode is changed.

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

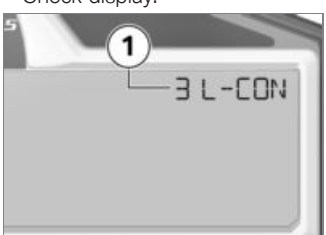
Race start with Launch Control


Risk of injury due to increased acceleration.
Launch Control allows maximum acceleration, which could result in unfamiliar riding situations.
Only use Launch Control on racetracks.◀

- Activate SLICK or USER riding 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.



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

Start with Launch Control possible.

- Perform start as described below.

If no start with Launch Control is currently possible, the number 0 is displayed with an exclamation mark **1** added.

- Let the clutch cool down.

Clutch cool-down time
Approx. 3 min (With the engine running)

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

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

Shiftpoint light lights up or flashes.

» Launch Control controls the ideal torque at the rear wheel and maintains a constant engine speed up to the speed specified below.

- Leave throttle grip completely open.

Speed for deactivation of speed governing for launch control	
Approx. 43 mph (Approx. 70 km/h)	

» Due to the full-throttle position of the throttle grip, the engine speed increases, as soon as speed limiting is deactivated.
» The throttle grip reacts again in the accustomed manner.
• Depending on the race course, upshifting and cornering at an angle.
» When third gear is engaged or the angle becomes greater than 30°, the ... L-CON display disappears.
» The start of a race is completed with Launch Control.

Speed limiter for pit lane

– Pro riding modes OE

• Ride in 1st gear.

The maximum speed PIT LIMIT ... must be set in the SETUP RACETRACK submenu.
The speed resulting from the maximum speed is dependent on the transmission ratio and the tire size.◀

• Hold down starter button **1**.
• Twist throttle grip until PIT LIMIT ... is reached.
» The engine speed is limited with ignition interruption.

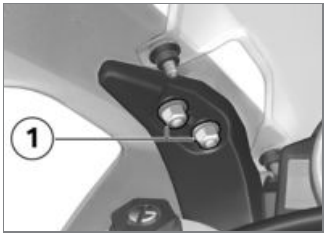
When the starter button is released, the motorcycle accelerates in accordance with the throttle grip position. In the full-throttle position this results in a strong jolt.
Do not open the throttle grip completely, but instead only until the limit speed is reached.◀

• Release starter button **1**.
» The motorcycle accelerates with maximum acceleration.

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
Thread-locking compound: mechanical	
6 lb/ft (8 Nm)	

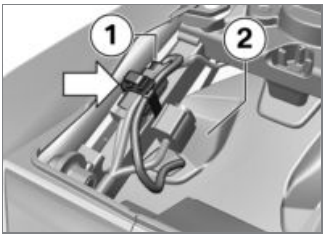
Removing and installing license-plate carrier

Remove license-plate carrier

⚠ Removing the license-plate carrier voids the operating permit for public roads.
Do not drive on public roads without a license-plate carrier.◀

- Park motorcycle, ensuring that support surface is firm and level.
- Remove passenger seat (➠ 60).

– with passenger cover[OE]
• Remove hump cover (➠ 60).

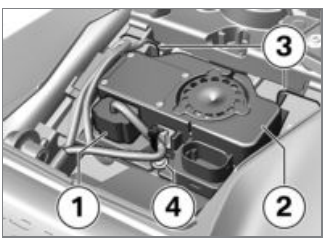


• Remove cable tie **(arrow)** and separate connector **1** for license-plate carrier.

▷ If the license plate carrier is removed for racetrack use, the vehicle's electronic monitoring system will interpret this as a defective light or light source and the corresponding warning message will appear in the display. This warning message is suppressed by activating the WARN LAMP OFF function in the SETUP EQUIPMENT submenu.◀

• Thread out connector **1** with cable through lower rear section **2**.

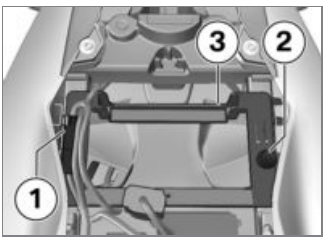
– with anti-theft alarm system (DWA)[OE]



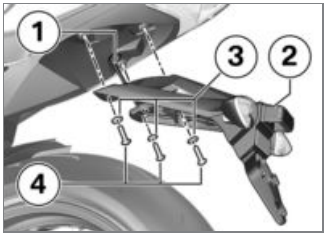
• Unplug connector **1** for anti-theft alarm system.

▷ Before the connector for the anti-theft alarm system is disconnected, it must be ensured that the DWA has been deactivated in the SETUP EQUIPMENT submenu with the DWA AUTO OFF function.◀

• Remove screw **4**.
• Remove anti-theft alarm system **2** while unhooking at bracket **3**.



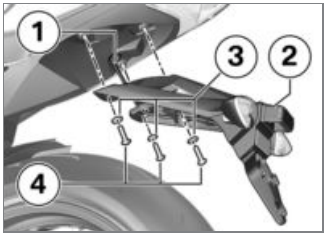
• Disconnect connector **1** for license-plate carrier.
• Remove body-bound rivets **2** on left and right.
• Remove bracket **3** for anti-theft alarm system.◁



- Remove screws **4** with washers **3**.
- Take off license-plate carrier **2** and thread out wiring harness **1**.
- Install the passenger seat (➠ 61).

Install license-plate carrier

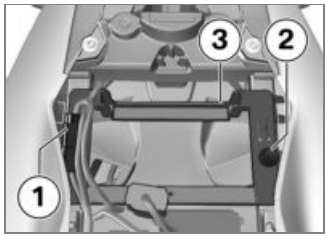
- Park motorcycle, ensuring that support surface is firm and level.
- Remove passenger seat (➠ 60).



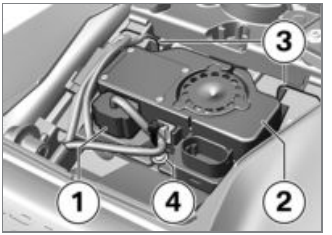
- Position license-plate carrier **2** and thread in wiring harness **1**.
- Install screws **4** with washers **3**.

	Number-plate carrier to rear frame
4 lb/ft (5 Nm)	

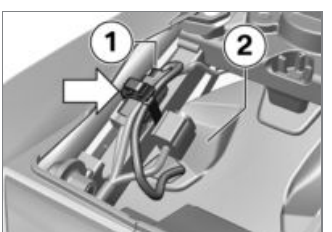
– with anti-theft alarm system (DWA)[OE]



- Install bracket **3** for anti-theft alarm system.
- Install body-bound rivet **2**.
- Fasten connector **1** for license-plate carrier.



- Insert anti-theft alarm system **2** while hooking into bracket **3**.
- Install screw **4**.
- Connect connector **1** for anti-theft alarm system.◁



- Thread connector **1** with cable through lower rear section **2**.
- Connect connector **1**, position and fasten cable tie **(arrow)**.

▷ If the light defect warning message for racetrack use is suppressed in the display, this must be activated in the SETUP EQUIPMENT submenu under the SETUP EQIP: WARN LAMP ON function before the motorcycle is put into operation in road traffic.◀

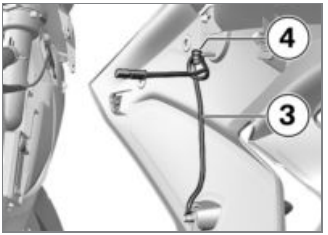
- Install the passenger seat (➠ 61).

Removing and installing front turn indicator

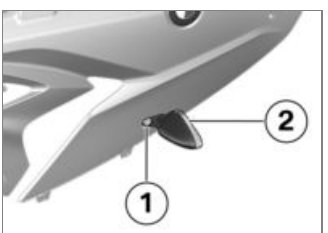
Remove front turn signal

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

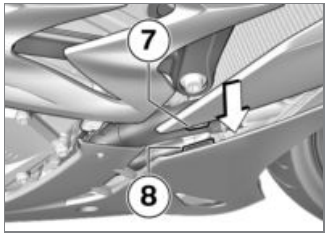
- Remove fairing side panel (➠ 180).



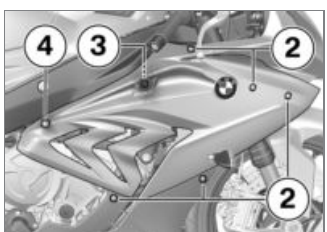
- Detach cable **3** from bracket **4**.



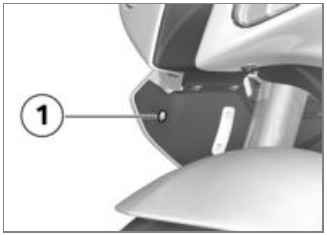
- Remove screw **1** and take off turn indicator **2**.
- Guide cable through fairing side panel.



- Mount fairing side panel **7** in mount **8** on engine spoiler.

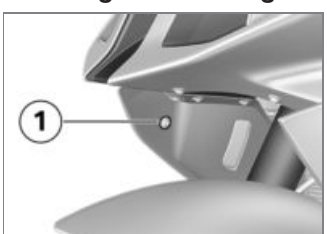


- Fasten fairing side panel in grommet **3** and detent pin **4**.
- Install screws **2**.

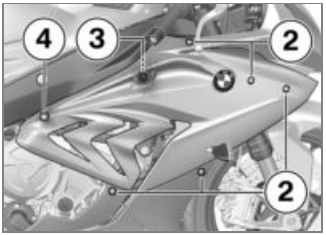


- Install screw **1**.

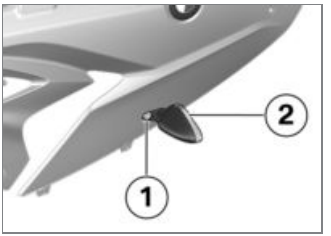
Installing front turn signal



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



- Remove screws **2**.
- Detach fairing side panel from grommet **3** and detent pin **4**.
- Guide cable through fairing side panel.



- Position turn signal **2** and install screw **1**.

- Clip in cable **3** on bracket **4**.
- Installing fairing side panel (➠ 181).

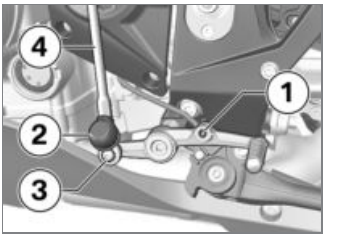
Shift pattern reversal

Shift pattern for racing mode

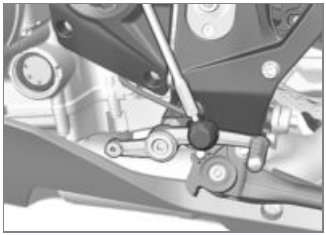
For the racing mode, the shift pattern can be reversed by modifying the gear-shift rod. Shift pattern reversal means that the gearshift lever must be actuated upward for 1st gear and downward for all other gears. This is the opposite of operation on public roads.

Reversing shift pattern

⚠ It is not permitted to drive on public roads with the shift pattern reversal.
Do not use the shift pattern reversal on public roads.◀



- Clean thread **1**.
- Slide protective cap **2** onto gear-shift rod **4**.
- Remove screw **3**.
- Remove washer between ball joint and gearshift lever.
- Reposition gear-shift rod **4** to thread **1**.



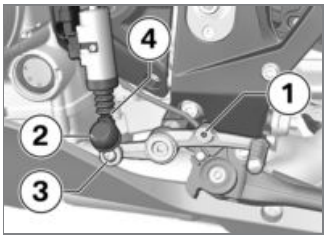
- Insert screw through ball joint and washer and install in thread for shift pattern reversal.

Shift rod on gearshift lever
Joint compound: Micro-encapsulated or medium-strength screw lock
6 lb/ft (8 Nm)

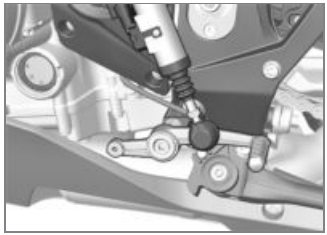
- Slide on protective cap

» The shift pattern reversal has been set up for the racing mode.

– with Pro Gearshift Assistant OE



- Clean thread **1**.
- Slide protective cap **2** onto gear-shift rod **4**.
- Remove screw **3**.
- Remove washer between ball joint and gearshift lever.
- Reposition gear-shift rod **4** to thread **1**.



- Insert screw through ball joint and washer and install in thread for shift pattern reversal.

Shift rod on gearshift lever
Joint compound: Micro-encapsulated or medium-strength screw lock
6 lb/ft (8 Nm)

- Slide on protective cap

» The shift pattern reversal has been set up for the racing mode.◁

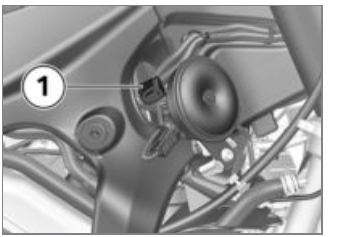
Connector for optional accessories

Equipment

The vehicle is equipped with the following connectors for special and racing accessories:

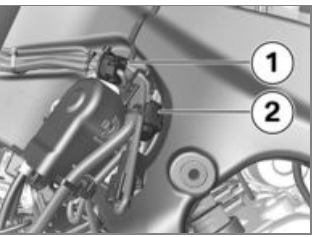
– Infrared receiver
– Spring travel sensor
– Optional accessory
– HP Race Data Logger

Under right-hand fairing side panel



1 Connector for infrared receiver

Under left-hand fairing side panel

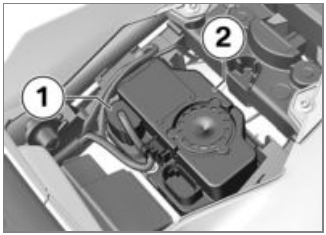


1 Optional accessories (connector with power supply + LIN; e.g. as for navigation system)

2 Spring travel sensor for front forks (racing accessory)

Under passenger seat

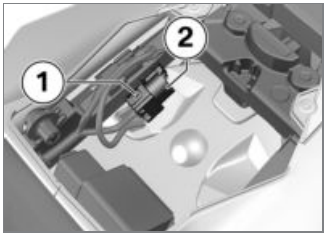
– with anti-theft alarm system (DWA)[OE]



1 Connector for DWA and HP Race data logger
2 DWA

Under passenger seat

– without anti-theft alarm system (DWA)[OE]



1 Connector for DWA and HP Race data logger
2 Terminating resistor

Mounting special and racing accessories

To access connectors, remove respective fairing side panel, passenger seat and/or hump cover.

- Remove fairing side panel (➠ 180).
- Remove passenger seat (➠ 60).

– with passenger cover[OE]

- Remove hump cover (➠ 60).
- Unlock protective cap or terminating resistor and pull off connector.
- Mount special or racing accessories.

▷ Observe installation instructions of special or racing accessories.◀

▷ So that the wiring harness can be correctly positioned and the wiring harnesses with the connectors are not routed under tension, the cable times must not be tightened until the end.◀

⚠ Dirt and moisture can get into the open plug and cause malfunctions.
Remount cover cap or terminating resistor after removing connector.◀

- Remount cover cap or terminating resistor after removing connector.

- Installing fairing side panel (➠ 181).
- Install the passenger seat (➠ 61).

– with passenger cover[OE]

- Install hump cover (➠ 60).

Technology in detail

Anti-Lock Brake System

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 only be carried out with the Antilock Brake System (ABS) switched off.◀

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 rider increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this situation occurs, ABS 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.

In what ways is the BMW Motorrad Race ABS noticeable to the rider?

If the ABS system must reduce the braking force due to the conditions described above, then vibrations can be felt through the handlebar brake lever.
If the handbrake lever is pulled, then braking pressure is built up at the rear wheel with the integral function. If the footbrake lever is first actuated after this, the brake pressure already built up can be felt earlier than the counter-pressure, than when the footbrake lever is actuated before or together with the handbrake lever.

Lifting off rear wheel

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 an extended period of time, the ABS function is deactivated for safety reasons and an ABS fault is indicated. A self-diagnosis routine must be completed before the error will be displayed.

Apart from problems on the BMW Motorrad Race ABS, unusual riding conditions can also cause a fault message to be generated.

Unusual riding 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 a properly maintained condition, it is vital that the specified service intervals are kept to.◀

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 on a corner, the motorcycle's weight and momentum take over and even BMW Motorrad Race ABS is unable to counteract their effects.

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 EDC (Electronic Damper Control) valve is opened or 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 DDC-SYS 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 spring travel sensor (racing accessory) must be installed on the front forks. 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 DDC-SYS menu.

Traction Control

How does Traction Control function?

Traction Control is available in two versions

– **Without** taking the angle into account: Automatic Stability Control ASC
– ASC is a rudimentary function intended to prevent falls.
– **With** taking the angle into account: Dynamic Traction Control DTC
– DTC conveniently controls and is suitable for improving lap times on the racetrack.

Traction Control compares the wheel circumferential speeds of the front and rear wheels. The slip, and with it the stability reserves at the rear wheel, are determined from the speed difference. The engine management system adapts the engine torque when the slip limit is exceeded.

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

Do not reduce the additional safety provided with risky driving.◀

Special situations

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

To detect spinning or slipping away of the rear wheel, among other things the speeds of the front and rear wheel are compared and the angle with DTC compared to ASC is taken into account.

– with Dynamic Traction Control (DTC)[OE]

If the value for the angle are detected to be implausible for a long period, a replacement value is used for the angle or the DTC function is deactivated. In these cases, a DTC error is displayed. A self-diagnosis routine must be completed before the error will be displayed.

Under the following unusual riding conditions, BMW Motorrad Traction Control may be deactivated automatically.

Unusual riding conditions:

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

If the coding plug is not used for the SLICK and USER riding modes, the DTC function is reactivated by switching the ignition off and on again and then riding at a minimum speed.

 Minimum speed for DTC activation
min 6 mph (min 10 km/h)

If the front wheel loses contact with the ground under extreme acceleration, the ASC or DTC function reduces the engine torque in the RAIN and SPORT riding modes until the front wheel makes contact with the ground again.
Wheely support is deactivated in the SLICK riding mode.
BMW Motorrad recommends that you respond to this condition by twisting back the throttle grip somewhat to return to stable dynamic operating conditions as quickly as possible.

On a slippery surface, the throttle grip should never be suddenly twisted back completely unless the clutch is disengaged at the same time. The engine braking torque can cause the rear wheel to slip, resulting in an unstable driving state. This case cannot be controlled by BMW Motorrad DTC.

Riding mode

Selection

There are 5 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)
– USER (only with coding plug installed)
– Pro riding modes OE

 For motorcycles with power reduction, the following applies: By installing the coding plug, all riding modes are offered with increased engine output and the operating permit for public roads is voided.
The much sportier driveability with a great deal more power must be taken into account while riding.
Familiarize yourself with the more performance-oriented response.
Do not use the encoding plug on public roads.◀

 The following applies for vehicles with power reduction: When the coding plug is used, the operating permit for public roads is voided.
Do not use the coding plug on these motorcycles 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.
The following always applies: The sportier the selected mode, the more directly the engine output can be utilized. At the same time, the support of the driver by the ABS and DTC systems is increasingly reduced.
The RAIN, SPORT, and RACE riding modes are designed for riding with series tires recommended by BMW Motorrad. The SLICK and USER riding modes are configured for racing tires and roads with excellent 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

Throttle response

– The maximum torque is not provided. The torque curve for rain applies.
– For motorcycles with power reduction: with the coding plug, the torque curve for rain applies. The operating permit for public roads is voided.
– Twisting the throttle produces a virtually linear increase in power while the engine's response is smooth.
– The overrun cutoff is activated.

ASC

– The ASC system intervenes early enough to always prevent the rear wheel from spinning if possible.
– The front wheel lift-off detection is switched on and offers maximum support.

DTC

– The DTC system intervenes early enough to always prevent the rear wheel from spinning if possible.
– The front wheel lift-off detection is switched on and offers maximum support.
– DTC switchover is deactivated.
– Launch Control (L-CON) is deactivated.

ABS

– 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.

- Maximum support for integral pressure buildup when only the handbrake lever is actuated.
- ABS for rear wheel is activated.
- The rear wheel lift-off detection function is activated.

DDC

- Damping adjustment: Road = comfortable damping
- Fine adjustment of damping is possible with the instrument cluster.

SPORT

Throttle response

- The maximum torque is provided.
- For motorcycles with power reduction: with the coding plug, the torque curve for maximum torque applies. The operating permit for public roads is voided.
- The engine's response is optimal and direct.
- The overrun cutoff is activated.

ASC

- The ASC system intervenes later than in the RAIN riding mode so that minor drifts are possible at the ends of curves.
- The front wheel lift-off detection is switched on and offers maximum support.

DTC

- The DTC system intervenes later than in the RAIN riding mode so that minor drifts are possible at the ends of curves.
- The front wheel lift-off detection is switched on and offers maximum support.
- DTC switchover is deactivated.
- Launch Control (L-CON) is deactivated.

ABS

- The behavior of the ABS system is comparable to that of the RAIN riding mode.
- 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.
- Maximum support for integral pressure buildup when only the handbrake lever is actuated.
- ABS for rear wheel is activated.
- The rear wheel lift-off detection function is activated.

DDC

- Damping adjustment: Road = comfortable damping
- Fine adjustment of damping is possible with the instrument cluster.

RACE

The RACE riding mode is the sportiest mode as long as the coding plug is not installed.

Throttle response

- The maximum torque is provided.
- For motorcycles with power reduction: with the coding plug, the torque curve for maximum torque applies. The operating permit for public roads is voided.
- The engine's response is optimal and direct.
- The overrun cutoff is activated.

ASC

- The ASC system intervenes early enough to always prevent the rear wheel from spinning if possible.
- The front wheel lift-off detection is switched on and offers maximum support.

DTC

- The DTC system intervenes even later so that longer drifts and brief wheelies are also possible at the end of curves.
- The front wheel lift-off detection is switched on, however it offers only minimal support.
- DTC switchover is deactivated.
- Launch Control (L-CON) is deactivated.

ABS

- The ABS system always intervenes so early that locking of the wheels is avoided whenever possible.
- The ABS system intervenes later in this riding mode. The wheels are still prevented from locking up, however the lift-off detection for the rear wheel is reduced. The rear wheel can lift off the ground!
- Support for integral pressure buildup is reduced.
- ABS for rear wheel is activated.

DDC

- Damping adjustment: Dynamic = sporty damping
- Fine adjustment of damping is possible with the instrument cluster.

SLICK

To activate the SLICK riding mode, the coding plug must be used.

The SLICK riding mode was developed for roads with good visibility and very high friction coefficients, as they are usually found only on racetracks. This mode also assumes that the motorcycle is riding with racing tires that have very good adhesion.

Throttle response

- The maximum torque is provided.
- For motorcycles with power reduction: with the coding plug,

the torque curve for maximum torque applies. The operating permit for public roads is voided.
– The engine output, increase in power and response are designed for maximum sportiness.
– The overrun cutoff is deactivated.

DTC

– In this riding 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 DTC system intervenes even later so that longer drifts and brief wheelies are also possible at the end of curves.
– The front wheel lift-off detection is deactivated.
– The DTC switchover is activated.
– Launch Control (L-CON) is activated.

ABS

– The ABS system is only operative when the handbrake lever is actuated.
– The ABS system intervenes later in this riding mode. Locking of the wheels continue to be prevented, however the rear wheel may lift off the ground!
– Support during integral pressure buildup is reduced earlier than in the SPORT riding mode.
– ABS for rear wheel is deactivated. However, if the footbrake lever is operated, there is no more ABS regulation on the rear wheel. The rear wheel can lock up.
– The rear wheel lift-off detection is deactivated.

DDC

– Damping adjustment: Track = sporty damping for racetracks
– Fine adjustment of damping is possible with the instrument cluster.

USER

To activate the USER riding mode, the coding plug must be used.
The behavior corresponds to the SLICK riding mode, however the following systems can be adjusted individually:

Throttle response (ENGINE)

– RAIN
– RACE
– SLICK
– The following torque curves apply for motorcycles with power reduction and mounted coding plug: RACE/SLICK setting = maximum torque, RAIN setting = torque curve for rain.

The operating permit for public roads is voided.
– The overrun cutoff is deactivated.

DTC
– RAIN
– SPORT
– RACE
– SLICK
– The DTC switchover is activated. The DTC switchover is saved separately for each DTC mode.
– Launch Control (L-CON) is activated.

ABS
– SPORT
– RACE
– SLICK

DDC
– SPORT
– RACE
– SLICK

ASC off
– Support by the ASC function is deactivated.
– The front wheel lift-off detection is deactivated.

DTC off
– Support by the DTC function is deactivated.
– The front wheel lift-off detection is deactivated.
– DTC switchover is deactivated.
– Launch Control (L-CON) is activated, however only the engine speed limitation is effective.

ABS off
– Support by the ABS function is deactivated.
– No support for integral pressure buildup when only the handbrake lever is actuated.
– ABS for rear wheel is deactivated.
– The rear wheel lift-off detection is deactivated.

Changing the setting

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 stop transmission of drive torque,
– Motorcycle must be stopped with the ignition switched on

or (during riding)
– Throttle grip must be twisted back,
– Brake levers may not be actuated.

First the desired riding mode is preselected. The new selection is not activated until the specified conditions are present in all affected systems.
The selection menu does not disappear in the display until the riding mode has been switched over.

Pro Gear Shift Assistant

– with Pro Gearshift Assistant[OE]

Your motorcycle is equipped with a Gear Shift Assistant originally developed for racing but now specially adapted for use in public road traffic. It allows you upshift and downshift under almost any load conditions and in virtually all engine-speed ranges without operating the clutch or accelerator.

Benefits

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

For the system to detect the rider's intention to change gear, the gear lever previously not operated must be moved against the force of the spring by a certain amount of "overtravel" in the desired direction with a normal to brisk action and held in that position until the gear change is completed. A further increase of the force applied to the gear lever during the gear-shift operation is not necessary. After the gear change is completed, the gear lever must be fully released before the Gear Shift Assistant Pro can execute a new gear change. When changing gear using the gear-shift assistance function, the throttle setting (twist-grip position) must be kept constant before and during the gear-change sequence. Changing the accelerator twist-grip position during the gear-shift sequence may cause the function to abort and/or the gear change to fail. No support is provided by the Gear Shift Assistant during gear changes made using the clutch.

Downshifts

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

 Maximum engine speed
max 14200 min^{-1}

Upshifts

– The Gear Shift Assistant does not provide added support when the engine speed would fall below idle in the new gear.

 Idle speed
1250 min^{-1} (Engine at operating temperature)

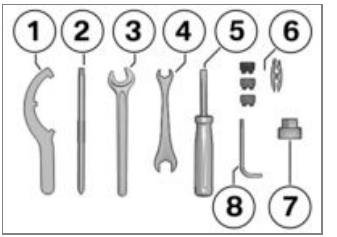
Maintenance

General instructions

The 'Maintenance' chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.
If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".
Information on additional maintenance and repair work is provided in the Repair Manual for your motorcycle 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 Hook wrench
- without Dynamic Damping Control[OE]
- Adjusting spring preload at rear wheel (➠ 69).

2 Reversible screwdriver insert
Phillips PH1 and Torx T25
- Removing and installing body panels
- Removing rider`s seat (➠ 61).
- Replacing front and rear turn indicator light sources (➠ 178).

3 Open-ended wrench
Wrench size: 17 mm
- without Dynamic Damping Control[OE]
- Adjust spring preload on front wheel (➠ 67).
- with Dynamic Damping Control[OE]
- Adjust spring preload on front wheel (➠ 68).

4 Open-ended wrench
Wrench size: 10/13
- Remove battery (➠ 185).
- with Dynamic Damping Control[OE]
- Adjusting spring preload at rear wheel (➠ 71).

5 Reversible screwdriver with Phillips and straight blade
- without Dynamic Damping Control OE
- Adjust compression damping on front wheel (➠ 72).
- without Dynamic Damping Control OE
- Rebound-stage damping on front wheel (➠ 72).
- without Dynamic Damping Control OE
- Adjusting rebound-stage damping at rear wheel (➠ 74).
- without Dynamic Damping Control OE
- Adjusting compression damping (jounce) at rear wheel (➠ 73).

6 Spare fuses with gripper
Miniature fuses, 4 A, 7.5 A and 10 A
- Puller for removing fuses
- Replacement fuses

7 Plastic attachment
- with Dynamic Damping Control OE
- Adjust spring preload on front wheel (➠ 68).

8 TORX wrench, T25
- Removing and installing body panels
- Removing rider`s seat (➠ 61).

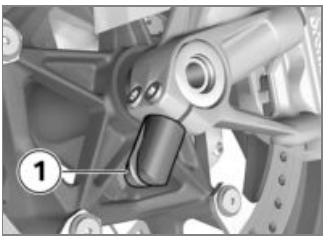
Front wheel stand

Installing the auxiliary stand on the front wheel

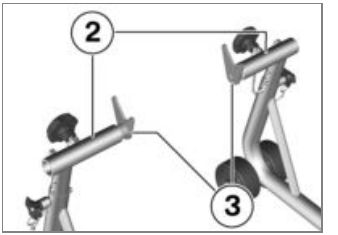
⚠ The BMW Motorrad front wheel stand is not designed for holding motorcycles without a center or other auxiliary stands. A motorcycle standing on the front wheel stand and the rear wheel alone can fall over.
Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW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

- Place motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad auxiliary stand.
- Mounting rear-wheel stands (➠ 157).

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



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



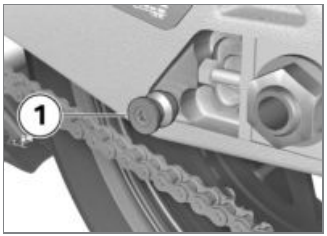
- Turn in the bracket **2** with the long sides facing the inside.
- Adjust the mounting pieces **3** to the width of the service adapter inserted into the front suspension.
- Adjust the height of the auxiliary stand so that the front wheel is lifted slightly off the ground.

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

Rear-wheel stand

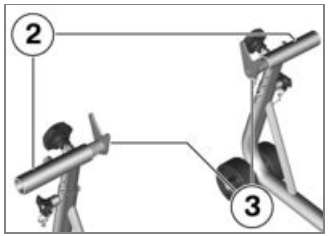
Mounting rear-wheel stands

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



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

Swinging-arm 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 service adapter inserted into the front suspension.
- 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.

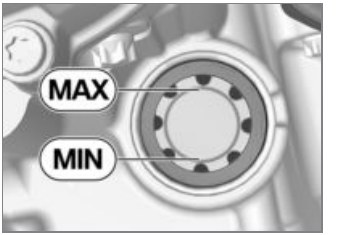
Engine oil

Check 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.
- Allow engine to run in neutral for one minute.
- Switch off ignition.

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



Specified level of engine oil	
between MIN- and MAX mark	

Engine oil, capacity
SAE 5W-40, API SL / JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited because they would attack the coatings on engine components. BMW Motorrad recommends that you use the BMW Motorrad oils available from your BMW Motorrad Dealer.
Approx. 3.7 quarts (Approx. 3.5 l) (with filter replacement)

If oil level is below minimum mark:

- Top up engine oil (➠ 159).

If oil level is above maximum mark:

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

Topping up engine oil

- Park motorcycle, ensuring that support surface is firm and level.
- Wipe area around oil fill location to clean it.

- Remove cap **1** of 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.
- Check engine oil level (➠ 158).
- Install cap of 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.

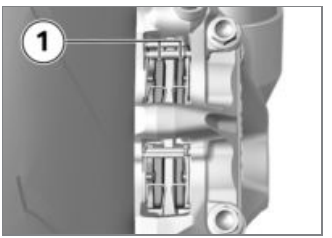
If no clear pressure points are perceptible:

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

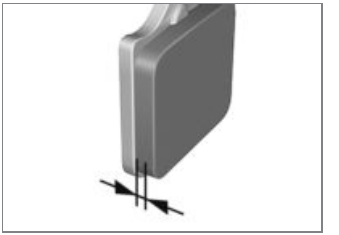
- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Checking front brake pad thickness

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



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



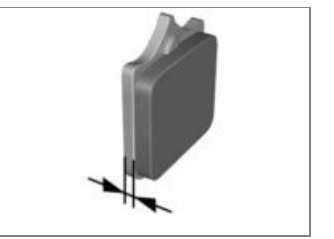
Front brake-pad wear limit
min 0.03 in (min 0.8 mm) (Only friction material without carrier plate)

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 brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.
- If genuine BMW Motorrad brake pads are not installed, be sure to check thickness of brake-pad carrier plate.



Thickness of brake-pad carrier plate
min 0.18 in (min 4.5 mm)

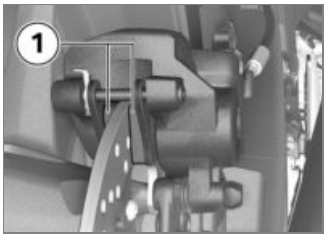
If carrier plate thickness is insufficient:

Failure of the brake system due to a possible loss of the brake pads.
Only use brake pads with a carrier plate with a thickness of at least 0.18 in (4.5 mm).◀

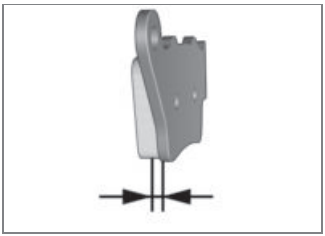
- BMW Motorrad recommends installing only genuine BMW Motorrad brake pads.

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:

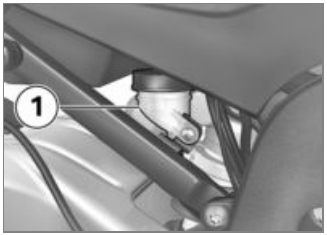
⚠ A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.

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.

Clutch

Check clutch function

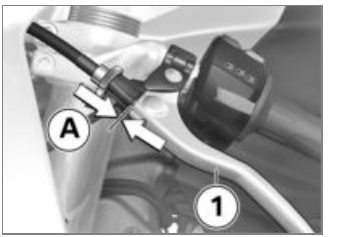
- Pull back the clutch lever.

» 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.
- 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 pedal free play is outside tolerance:

- Adjusting clutch lever play (➠ 164).

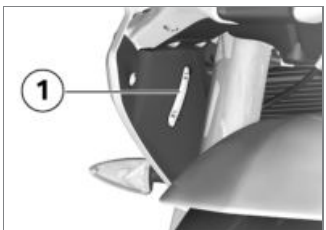
Adjusting clutch lever play

- 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 (➠ 164).
- Repeat these operations until the clutch play is correctly adjusted.

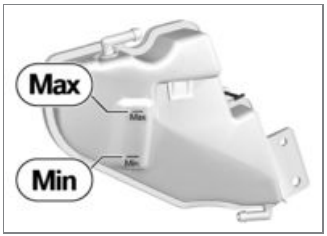
Coolant

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 permissible level:

- Add coolant.

Topping up coolant

- Remove fairing side panel (➠ 180).

- Open cap **1** of expansion tank.
- Add coolant up to specified level.
- Checking coolant level (➠ 165).
- Close cap of expansion tank.
- Installing fairing side panel (➠ 181).

Tires

Checking tire pressure

Incorrect tire inflation pressure results in poorer handing 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.

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.

Wheels

Tire recommendation

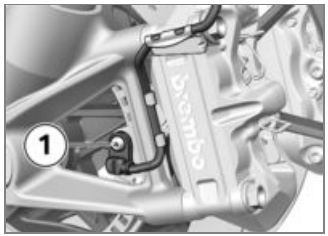
For every size of tire, BMW Motorrad has tested and approved certain makes as roadworthy. BMW Motorrad cannot evaluate the suitability of other tires, and can therefore take no responsibility for their driving safety.
BMW Motorrad recommends only using the tires tested and approved by BMW Motorrad. Detailed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

Affect of wheel sizes on suspension control systems

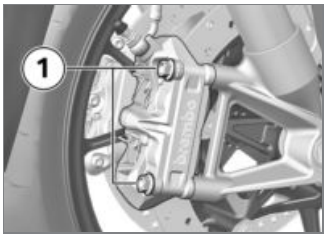
The wheel sizes play a major role in the ASC and DTC suspension-control systems. The diameter and width of the wheels stored in the control unit have particular significance as the basis for all necessary calculations. A change in these sizes resulting from conversion to wheels not installed as standard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

Removing front wheel

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

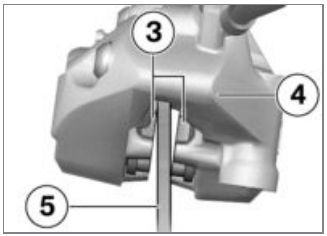


- Remove screw **1** and take wheel speed sensor out of bore.
- Mask off areas of wheel rim that could be scratched in the process of removing the brake calipers.



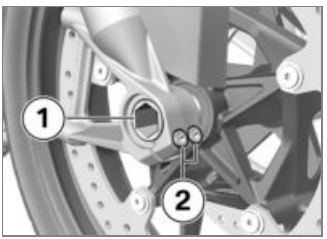
Once the calipers have been removed, there is a risk of the brake pads being pressed together to the extent that they cannot be slipped back over the brake rotor on reassembly.
Do not operate the handbrake lever when the brake calipers have been removed.◀

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



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

- Place motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear wheel stand.
- Mounting rear-wheel stands (➠ 157).
- Raise front of motorcycle until the front wheel can turn freely. BMW Motorrad recommends the BMW Motorrad front wheel stand for lifting the motorcycle.
- Installing the auxiliary stand on the front wheel (➠ 155).



The left clamping device fixes the threaded bush in place in the front suspension. A poorly aligned threaded bush results in incorrect spacing between the sensor ring and the wheel speed sensor, and therefore to ABS malfunctions or destruction of the wheel speed sensor.
To ensure the proper alignment of the threaded bush, do not

loosen or remove the left clamping device.◀

- Loosen clamping screws **2**.
- Remove quick-release axle **1** while supporting wheel.
- Roll front wheel forward to remove it.

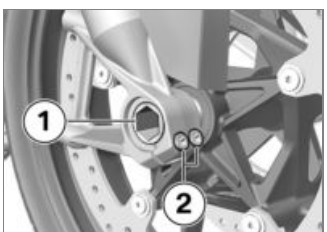
Installing front wheel

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

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

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

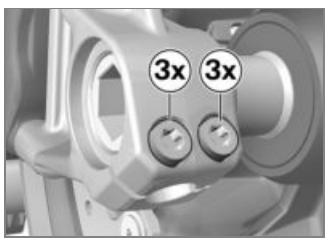
- Roll front wheel into front suspension.



- Lift front wheel and install quick-release axle **1** with torque.

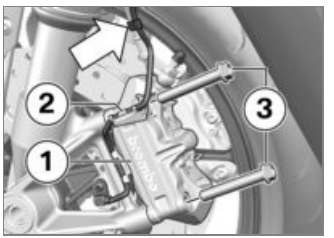
Quick-release axle in threaded bush
37 lb/ft (50 Nm)

- Tighten clamping screws **2** to specified torque.



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

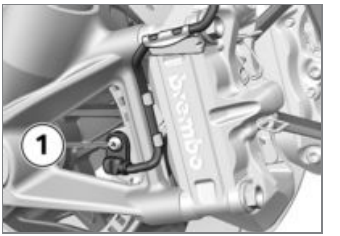
- Remove front wheel stand and auxiliary stand.
- Slide the brake calipers onto the brake rotors.



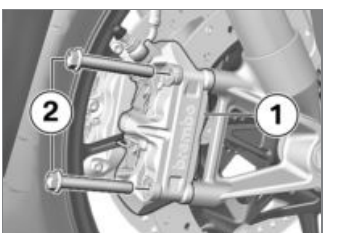
- Lay on brake caliper **1** on left and position cable guide **2**.
- Install screws **3** with specified torque.

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

- Fasten cable for wheel speed sensor in bracket **(arrow)**.



- Insert wheel speed sensor in bore and fasten with screw **1**.



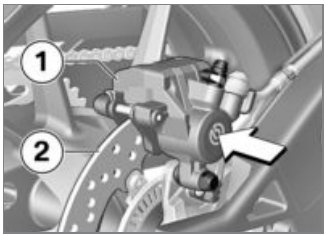
- Lay on brake caliper **1** on right and install screws **2** with specified torque.

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

- Remove adhesive tape from wheel rim.
- Press handbrake lever firmly several times until resistance point is felt.

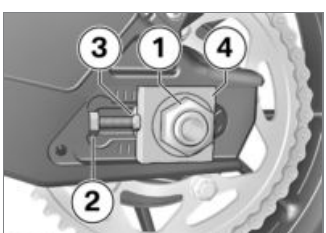
Removing rear wheel

- Raise motorcycle, preferably with a BMW Motorrad rear-wheel stand.
- Mounting rear-wheel stands (➠ 157).
- Support the rear wheel, e.g., with a wooden block, so that it cannot fall down after the quick-release axle is removed.



- Press brake caliper **1** against brake disk **2**

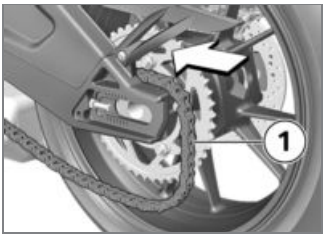
» Brake pistons are pressed back.



- Remove axle nut **1** with washer.

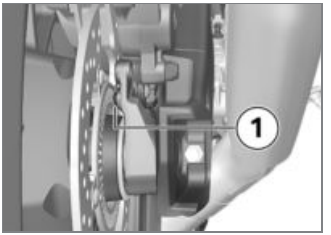
- Loosen lock nuts **2** on left and right.
- Loosen adjusting screws **3** on left and right.
- Remove adjusting plate **4** and slide axle as far as possible toward inside.

- Remove quick-release axle **2** and take out adjusting plate **1**.



- Roll rear wheel as far forward as possible and remove chain **1** from chain sprocket.

- Remove screw **1** and detach brake line from bracket **2**.



- Make sure that the wheel speed sensor **1** is not damaged when rolling out the rear wheel.

- Roll rear wheel toward rear out of swing arm while pulling brake caliper carrier **1** toward rear until rear-wheel rim can be guided past it.

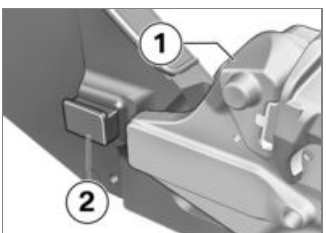
The chain sprocket and the spacer sleeves on the left and right are loosely inserted in the wheel. When removing, make sure that these parts are not damaged or lost.◀

Installing rear wheel

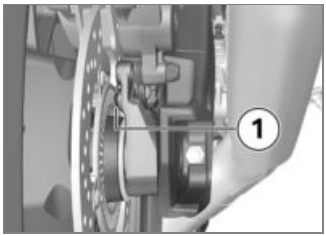
Tire size affects control systems.
When converting the rear tire size from 190 / 55 ZR 17 to 200 / 55 ZR 17 or vice versa, the parameters of the control systems must be encoded by an authorized BMW Motorrad retailer.◀

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.

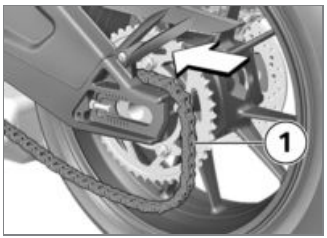


- Mount brake caliper carrier **1** in guide **2**.

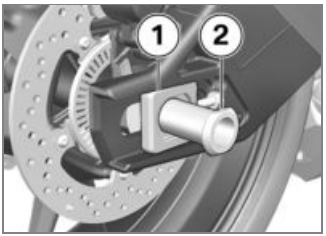


- Make sure that the wheel speed sensor **1** is not damaged when rolling the rear wheel into place.

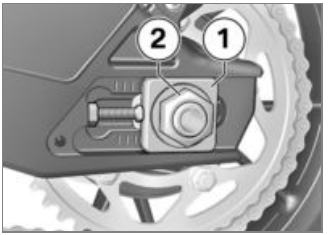
- Roll rear wheel further into swing arm while simultaneously pushing brake caliper carrier **1** toward the front.



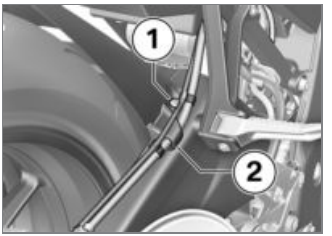
- Roll rear wheel as far forward as possible and lay chain **1** on sprocket.



- Insert right-hand adjusting plate **1** in swinging arm.
- Raise the rear wheel and install the quick-release axle **2** through the shim in the brake-caliper support and the rear wheel.
- Make sure that quick-release axle meets the recess for key surfaces.



- Mount adjusting plate on left **1**.
- Install axle nut **2** with washer, however do not tighten yet.



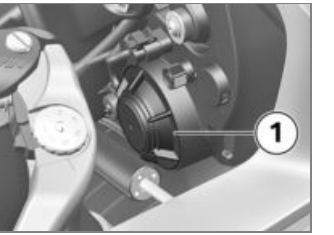
- Fasten brake line in holder **2** and install screw **1**.
- Adjusting chain tension (➠ 187).

Light sources

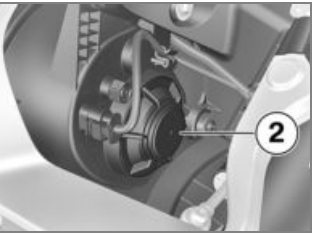
Replacing light sources for low-beam and high-beam headlight

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

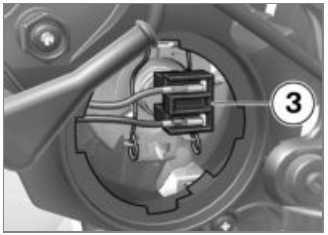
- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.



- Remove the cover **1** to replace the light source for the low-beam headlight.



- Remove the cover **2** to replace the light source for the high-beam headlight.



- Disconnect plug **3**.

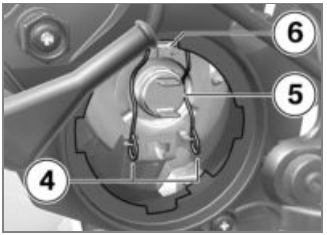
- Release wire spring **4** from catch on left and right and fold up.
- Remove light source **5** from the socket.
- Replace defective light source.

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

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

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

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



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

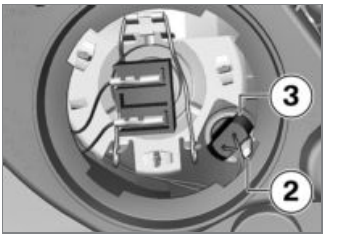
- Attach plug **3**.

- Install the cover.

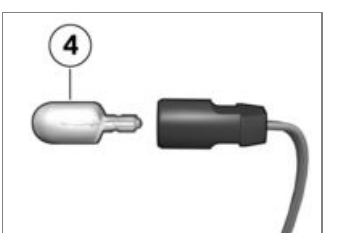
Replacing light source for left-hand parking light

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

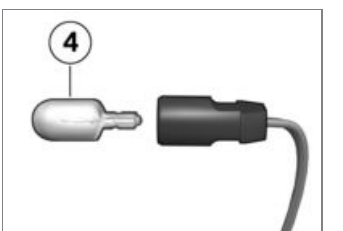


- Remove light source **4** from the socket.

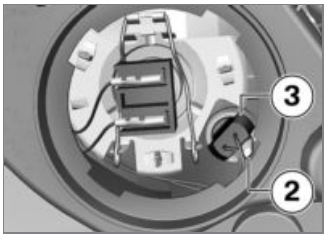
- Replacing defective light source.

	Bulb for parking light
W5W / 12 V / 5 W	

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



- Insert light source **4** in light source socket.



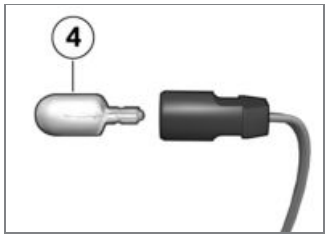
- Insert socket **3** in the headlight housing such that the retainer **2** engages.
- Install the cover.

Replacing right-hand parking light light source

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

- Remove cover **1**.

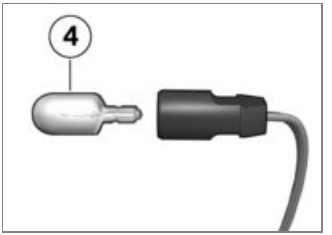
- Push the retainer **2** downward (using a screwdriver if necessary) and pull the socket **3** from the headlight housing.



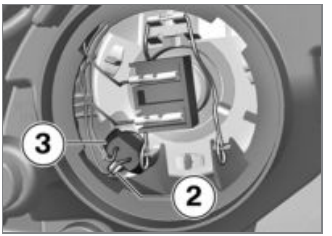
- Remove light source **4** from the socket.
- Replacing defective light source.

	Bulb for parking light
W5W / 12 V / 5 W	

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



- Insert light source **4** in light source 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 light sources

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

- Remove screw **1**.

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

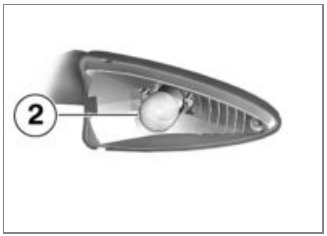
- Remove light source **2** from the light housing by turning it counterclockwise.

- Replacing defective light source.

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

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

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



- Install the light source **2** in the light housing by turning it clockwise.

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

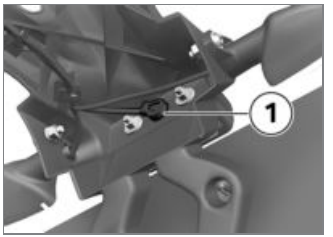
- Install screw **1**.

Diode taillight

If the taillight LEDs have failed, the taillight must be replaced. In this case:

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

Replace license plate light



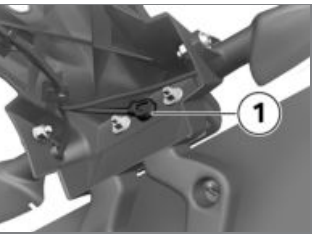
- Pull license-plate light **1** out of light housing.

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

Bulb for license-plate light
W5W / 12 V / 5 W

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

- Press light source into socket.



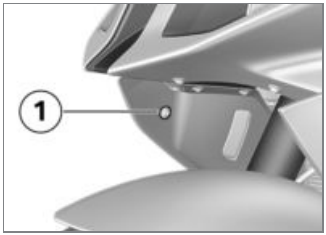
- Press license-plate light **1** into light housing.

Fairings and panels

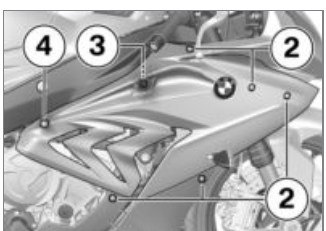
Remove fairing side panel

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

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



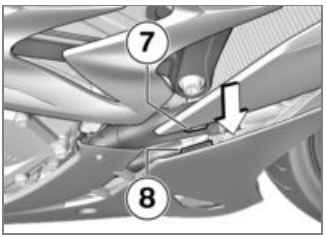
- Remove screw **1** on inside of fairing side panel.



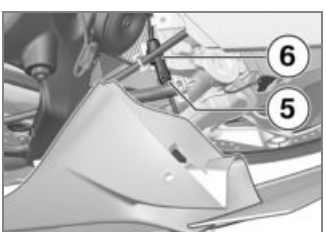
- Remove screws **2**.
- Detach fairing side panel from grommet **3** and detent pin **4**.

- Disconnect connector **5** for turn indicator.
- Take off fairing side panel.
- Protect connector on motorcycle **6** against soiling.

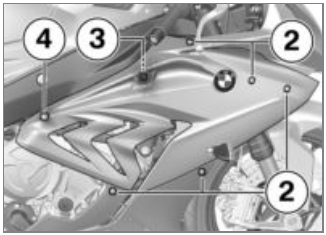
Installing fairing side panel



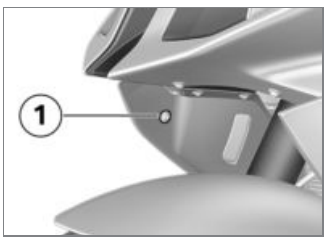
- Mount fairing side panel **7** in mount **8** on engine spoiler.



- Insert connector **5** in connector **6**.



- Fasten fairing side panel in grommet **3** and detent pin **4**.
- Install screws **2**.



- Install screw **1**.

Jump-starting

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

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

A jump-starting procedure with a voltage higher than 12 V can damage the motorcycle electronics.
The battery of the donor vehicle must have a voltage of 12 V.◀

- Do not disconnect battery from onboard electrical system for jump-starting procedure.
- Removing rider`s seat (➠ 61).
- Allow engine on support motorcycle 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 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 jumper cable from negative terminals first, then disconnect second cable from positive terminals.
- Installing driver's seat (➠ 61).

Battery

Maintenance instructions

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

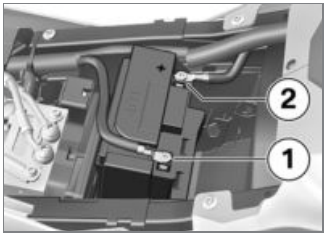
Compliance with the points below is important in order to maximize battery life:
– Keep the surface of the battery clean and dry
– Do not open the battery
– Do not top up with water
– Be sure to read and comply with the instructions for charging the battery on the following pages
– Do not turn the battery upside down.

If the battery is not disconnected, the onboard electronics (clock etc.) will drain the battery. This can cause the battery to run flat. If this happens, warranty claims will not be accepted.
During driving breaks of more than 4 weeks, a trickle-charger should be connected to the battery.◀

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

Disconnect battery from motorcycle

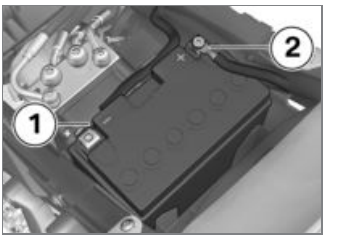
- Park motorcycle, ensuring that support surface is firm and level.
- Removing rider`s seat (➠ 61).



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

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

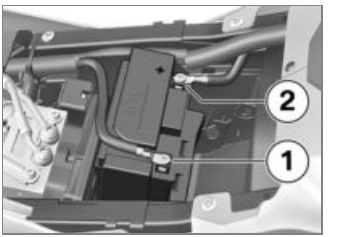
– with anti-theft alarm system (DWA)[OE]



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

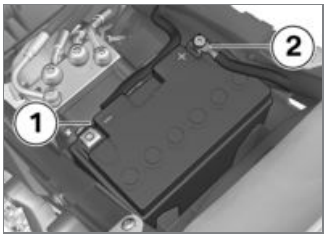
- First remove negative battery cable **1**.
- Then remove positive battery cable **2**.◁

Connect battery to vehicle



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

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



- First install positive battery cable **2**.
- Then install negative battery cable **1**.◁
- Installing driver's seat (➠ 61).

Charging battery

- Disconnect battery from motorcycle (➠ 183).
- 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.◀

- Connect battery to vehicle (➠ 184).

Removing battery

- Disconnect battery from motorcycle (➠ 183).
- 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 instrument cluster to ensure the proper operation of the service display.
Consult a certified service facility, preferably an authorized BMW Motorrad retailer, for setting of the date.◀

- Place battery in battery compartment, positive terminal on right in direction of travel.
- Place battery in battery compartment with negative terminal on left in driving direction.
- Connect battery to vehicle (➠ 184).
- Set clock (➠ 49).

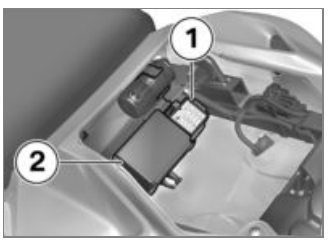
Fuses

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.◀

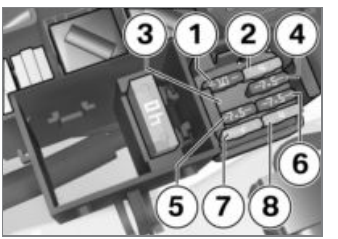
- Switch off ignition.
- Park motorcycle, ensuring that support surface is firm and level.
- Remove passenger seat (➠ 60).



- Press together locking lever and remove cover of fuse box **1**.
- To replace main fuse, remove cover **2**.
- Pull defective fuse upward out of fuse box.

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

- Install the passenger seat (➠ 61).

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.

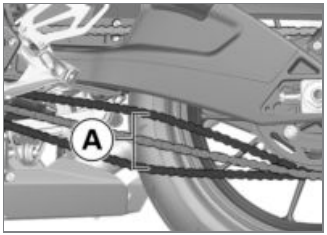
- To extend and maximize the chain's service life BMW Motorrad recommends using BMW Motorrad chain lubricant or:

Lubricant
Chain spray

- Wipe off excess lubricant.

Checking chain tension

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

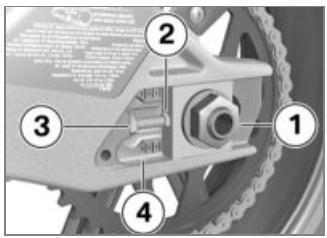
Chain sag
1.8...2 in (45...50 mm) (Motorcycle unloaded on side stand)

If the measured value is outside the approved tolerance:

- Adjusting chain tension (➠ 187).

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 (➠ 187).
- 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.

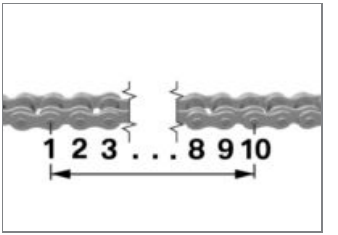
Locknut of drive-chain tensioning screw
14 lb/ft (19 Nm)

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

Rear-wheel quick-release axle in swinging arm
Thread-locking compound: mechanical
74 lb/ft (100 Nm)

Checking chain wear

- Engage 1st gear.
- Rotate rear wheel toward front of vehicle until the chain is tensioned.
- Determine chain length below rear wheel swinging arm.



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.

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 (➠ 167).

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 motorcycle must not infringe on national road-vehicle construction and use regulations of your country.

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 motorcycle.

The use of unsuitable products for cleaning and care can damage motorcycle components.
For cleaning, do not use any solvents such as nitro-thinners, cold cleaning agents, fuel or similar, and do not use cleaning agents that contain alcohol.◀

Washing your motorcycle

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the motorcycle.
To prevent stains, do not wash the motorcycle immediately after it has been exposed to bright sunlight and do not wash it in the sun.
Make sure that the motorcycle is washed frequently, especially during the winter months.
To remove road salt, clean the motorcycle with cold water immediately after completion of every trip.

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

Warm water intensifies the effect of salt.
Only use cold water to remove road salt.◀

The high water pressure from high-pressure cleaners (steam blasters) can result in damage to seals, the hydraulic brake system, the electrics and the seat.
Exercise caution when using high-pressure or steam-jet devices!◀

Cleaning sensitive motorcycle parts

Plastics

If plastic parts are cleaned using unsuitable cleaning agents, the surfaces can be damaged.
Do not use cleaning agents that

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

Fairings and panels

Clean body panels with water and BMW plastic cleaner.

Windshields and lenses are manufactured in 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 motorcycle 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

BMW Motorrad recommends that you apply BMW Car Wax or another wax containing carnauba or synthetic wax additives to protect the paintwork.
When water fails to form beads on the paint surface this indicates it is time to apply wax.

Storing the motorcycle

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

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 (➠ 89).
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	**Tighten the screws 6 times, alternating between one and the other each time**	
	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
Swinging-arm adapter on rear wheel swinging arm		
M8 x 30	15 lb/ft (20 Nm)	
Clamp screw on upper spring plate		
M5 x 25	2 lb/ft (3 Nm)	– without Dynamic Damping Control[OE]
Spring strut on main frame		
M10 x 65 - 10.9	41 lb/ft (56 Nm)	

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

Shift rod on gearshift lever	Value	Valid
Shift rod on gearshift lever		
M6 x 20 Micro-encapsulated or medium-strength screw lock	6 lb/ft (8 Nm)	

Fuel

Recommended fuel quality	Premium grade unleaded fuel (max. 10 % ethanol, E10) 91 AKI (98 ROZ/RON) 91 AKI
Alternative fuel quality	Super unleaded (minor restrictions with regard to power and fuel consumption) (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)

Engine oil

Engine oil, capacity	Approx. 3.7 quarts (Approx. 3.5 l), with filter replacement
Viscosity rating	
SAE 5W-40, API SL / JASO MA2	Additives (for instance, molybdenum-based substances) are prohibited because they would attack the coatings on engine components. BMW Motorrad recommends that you use the BMW Motorrad oils available from your BMW Motorrad retailer.
Engine oil, quantity for topping up	max 0.8 quarts (max 0.8 l), Difference between MIN and MAX

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine

Engine design	Water/oil-cooled 4-cylinder four-cycle in-line engine with four valves per cylinders and two overhead cams
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	199 hp (146 kW), at engine speed: 13500 min^{-1}
– with power reduction 79 kW^{OE}	107 hp (79 kW), at engine speed: 7750 min^{-1}
Torque	83 lb/ft (113 Nm), at engine speed: 10500 min^{-1}
– with power reduction 79 kW^{OE}	72 lb/ft (97 Nm), at engine speed: 7750 min^{-1}
Maximum engine speed	max 14200 min^{-1}
Idle speed	1250 min^{-1}, Engine at operating temperature

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 (33:22 teeth), 4th gear 1.360 (34:25 teeth), 5th gear 1.261 (29:23 teeth), 6th gear

Rear-wheel drive

Type of final drive	Chain drive
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

Frame

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

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	4.7 in (120 mm), on wheel

Brakes

Type of front brake	Hydraulic radially operated twin disk brake with 4-piston radial fixed calipers and floating brake disks
Brake-pad material, front	Sintered metal
Type of rear brake	Hydraulically operated disc brake with 1-piston floating caliper and fixed brake disc
Brake-pad material, rear	Organic

Wheels and tires

Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at bmw-motorrad.com.
Front wheel	
Front wheel design	Aluminum cast wheel
Front-wheel rim size	3.50" x 17"
Front tire designation	120/70 ZR 17
Rear wheel	
Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	6.0" x 17"
Rear tire designation	190/55 ZR 17
– with forged wheels OE	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	
Fuse 1	10 A, Instrument cluster
Fuse 2	4 A, Cutoff relay, diagnosis plug, anti-theft alarm system
Fuse 3	not in use
Fuse 4	7.5 A, Low-beam headlight
Fuse 5	7.5 A, High-beam headlight
Fuse 6	7.5 A, Optional accessory connector, license plate light
Fuse 7	4 A, Ignition switch/electronic immobilizer (EWS)
Fuse 8	4 A, Angular rate sensor, left multifunction switch, infrared receiver (optional accessories)
Main fuse	40 A
Battery	
Battery design	AGM (Absorptive Glass Mat) battery.
Battery voltage	12 V
Battery capacity	8 Ah
– with anti-theft alarm system (DWA)[OE]	10 Ah

Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR9D-J
Electrode gap of spark plug	0.03 in (0.8 mm)
Light sources	
Bulb for high-beam headlight	H7 / 12 V / 55 W
Bulbs for low-beam headlight	H7 / 12 V / 55 W
Bulb for parking light	W5W / 12 V / 5 W
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W
Bulb for license-plate light	W5W / 12 V / 5 W

Dimensions

Motorcycle length	80.7 in (2050 mm), across splash guard
Motorcycle height	44.9 in (1140 mm), across windshield at DIN unladen weight
Motorcycle width	32.5 in (826 mm), across mirrors
Rider's seat height	32.1 in (815 mm), Without driver
Rider's inside-leg arc, heel to heel	71.1 in (1805 mm), Without driver

Weights

Unladen weight	450 lbs (204 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE
Permissible gross weight	897 lbs (407 kg)
Maximum payload	448 lbs (203 kg)

Performance data

Top speed	min 124 mph (min 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. Documentation confirming regular maintenance is essential for generous treatment of claims submitted after the warranty period has expired (goodwill).

You can obtain information on the contents of the BMW Services from your BMW Motorrad retailer.

BMW Motorrad Mobility Services

The BMW Motorrad Mobility Services furnish you and your new BMW motorcycle with extra security by offering a wide array of assistance services in the event of a breakdown (BMW Roadside Assistance, breakdown assistance, vehicle recovery and retrieval, etc.).
Contact your authorized BMW Motorrad retailer for additional information on available mobility-maintenance services.

Maintenance procedures

BMW Pre-Delivery Check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns over the motorcycle to you.

BMW Running-in Check

Carrying out the first running-in check
311...746 miles (500...1200 km)

BMW Service

BMW Service is carried out once a year. The scope of the services performed may be dependent on the motorcycle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.
For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached before the next service date, service must be performed sooner.

The service display in the multifunction display reminds you of the next service date approx. one month or 700 mls 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

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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	Premium grade unleaded fuel (max. 10 % ethanol, E10) 91 AKI (98 ROZ/RON) 91 AKI
Alternative fuel quality	Super unleaded (minor restrictions with regard to power and fuel consumption) (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 ADVANTEC
ORIGINAL BMW ENGINE OIL

Order No.: 01 41 8 554 767
09.2014, 1st edition, 07