

# Rider's Manual

R 1150 GS

R 1150 GS Adventure



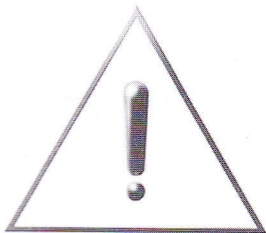
**BMW Motorrad  
On-board  
documentation**

consisting of  
Rider's Manual  
and Maintenance  
Instructions



**Warning:**

This symbol stands for precautions and measures which are essential in order to protect the rider or other persons from possibly severe or fatal injury.

**Attention:**

Instructions and precautions specifically intended to prevent damage to the motorcycle.

Disregarding them may render the warranty invalid.

**Note:**

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

### Welcome to BMW

We congratulate you on your choice of a motorcycle from BMW and welcome you to the community of BMW riders.

Familiarise yourself with your new motorcycle, so that you can ride it safely and confidently in all traffic situations.

To make sure of this, please read this Rider's Manual carefully before starting to use your new motorcycle. It contains important information on how to operate the controls and how to make the best possible use of all the motorcycle's technical features.

In addition, it contains useful hints and information on the correct equipment for machine and rider, to ensure maximum reliability and safety, and advice on how to maintain the value of your motorcycle.

If you have any questions concerning your motorcycle, your authorised BMW motorcycle dealer will gladly provide advice and assistance. We hope you enjoy reading this Rider's Manual and wish you many a pleasant, safe journey on your BMW motorcycle.

Best wishes,

**BMW Motorrad**

## General information and controls

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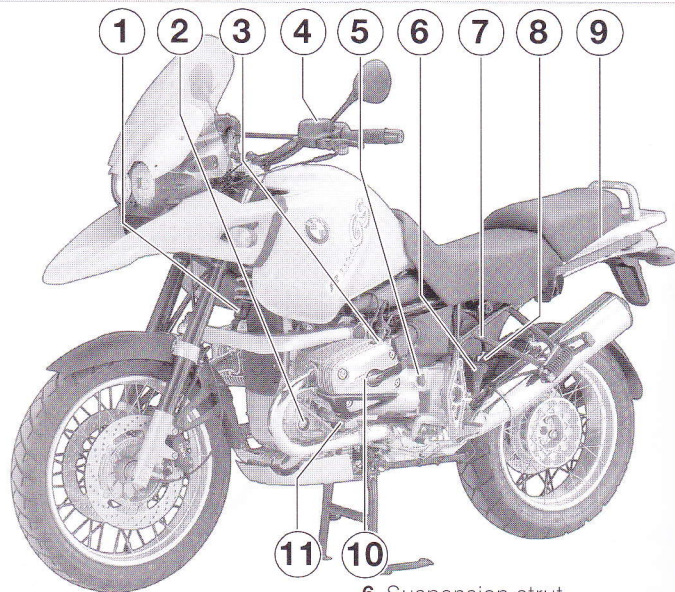
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## Arrive safely!

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## General view, left side



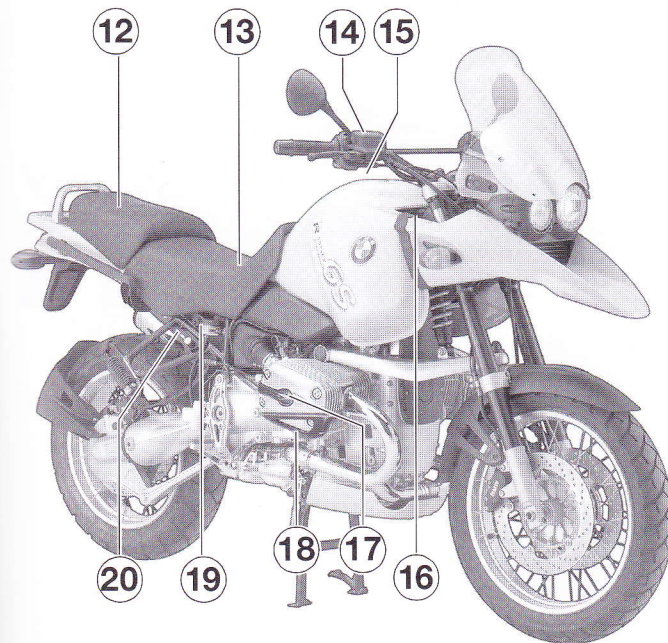
### R 1150 GS

- 1 Suspension strut, adjustment, front (► 50)
- 2 Oil level sight glass, engine (► 31)
- 3 Engine oil filler (► 31)
- 4 Reservoir for clutch fluid (► 45)
- 5 Power socket, 12V<sup>OA</sup>  
Provision for connecting additional equipment – max. load 5 A
- 6 Suspension strut, adjustment, rear (► 51)
- 7 Lifting handle
- 8 Suspension strut, adjusting shock absorber (► 52)
- 9 Dualseat lock (► 16-18)
- 10 Primary spark plug, left (► Maintenance Instructions, Chapter 2)
- 11 Secondary spark plug, left (► Maintenance Instructions, Chapter 2)

( ) Figure in brackets ► page number  
description

OA Optional accessories

## General view, right side



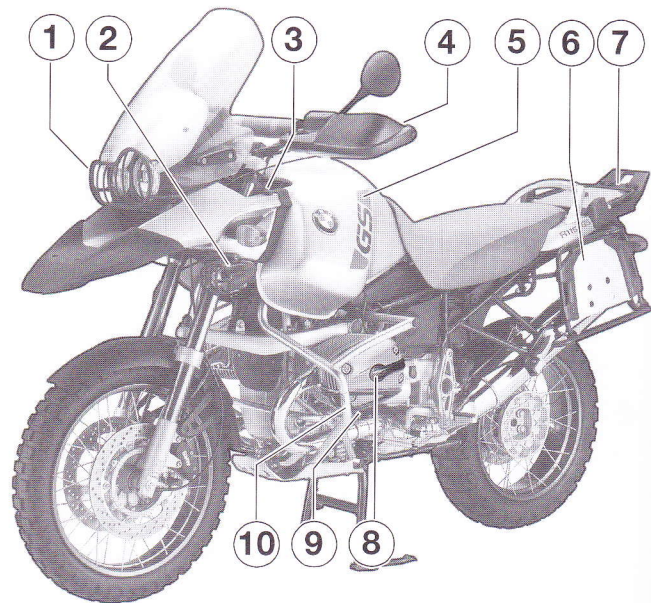
- 12 Stowage compartment for toolkit (supplied)
- 13 Fuse box
- 14 Brake fluid reservoir, front brake (► 39)
- 15 Fuel cap (► 32)
- 16 Type plate/vehicle identification number
- 17 Primary spark plug, right (► Maintenance Instructions, Chapter 2)
- 18 Secondary spark plug, right (► Maintenance Instructions, Chapter 2)
- 19 Brake fluid reservoir for rear brake (► 40)
- 20 Helmet holder

( ) Figure in brackets ► page number for  
description



## General view, left side

## General view, right side



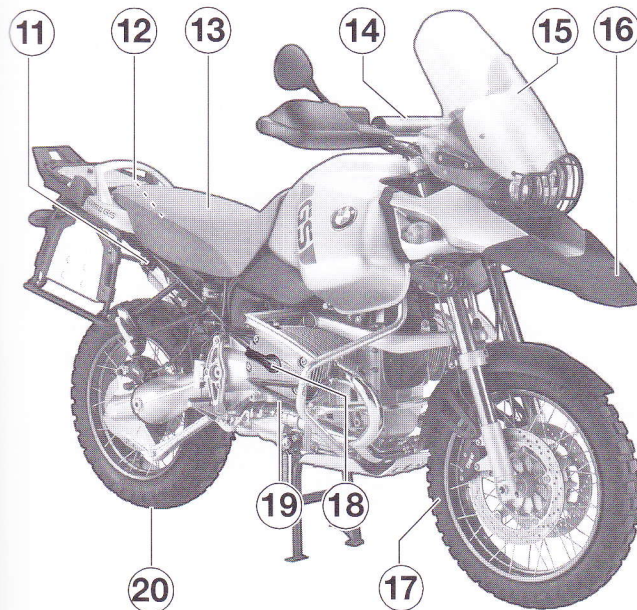
### R 1150 GS Adventure

- 1 Headlight guard<sup>OA</sup>, not allowed on public roads
- 2 Fog lamp with guard<sup>OA</sup>
- 3 Power socket
- 4 Hand protectors
- 5 Fuel tank<sup>OE</sup> capacity 30 l (6.6 gal)

- 6 Case carrier<sup>OA</sup>
- 7 Mounting plate for topcase<sup>OA</sup>
- 8 Primary spark plug, left (► Maintenance Instructions, Chapter 2)
- 9 Secondary spark plug, left (► Maintenance Instructions, Chapter 2)
- 10 Crash bar<sup>OE</sup>

<sup>OA</sup> Optional accessories

<sup>OE</sup> Optional extra



- 11 Seat lock, helmet holder
- 12 Toolkit
- 13 Dual seat
- 14 Handlebar guard
- 15 Windscreen, not adjustable
- 16 Front mudguard extension

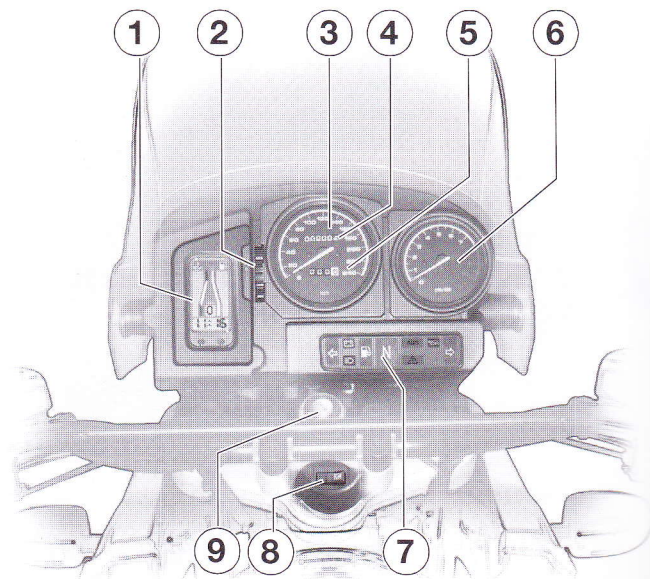
- 17 Knobby tyre, front<sup>OE</sup>
- 18 Primary spark plug, right (► Maintenance Instructions, Chapter 2)
- 19 Secondary spark plug, right (► Maintenance Instructions, Chapter 2)
- 20 Knobby tyre, rear<sup>OE</sup>

<sup>OE</sup> Optional extra

# Cockpit

1  
8

General information and controls



- 1 Rider Information Display (RID) (➡ 74)
- 2 Rotary reset knob for trip meter
- 3 Speedometer
- 4 Odometer
- 5 Trip meter

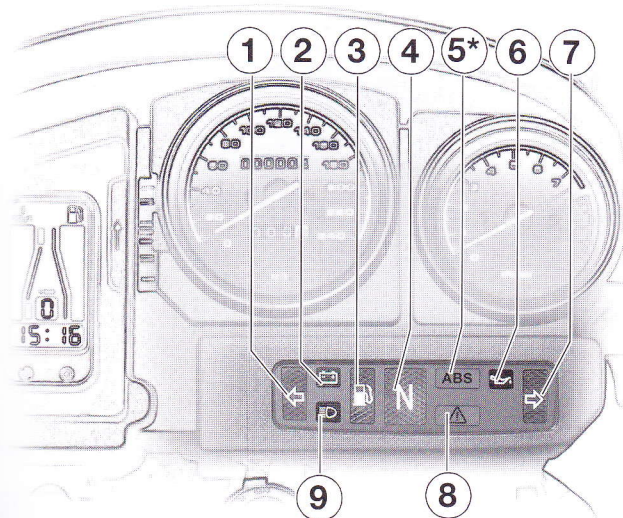
- 6 Revolution counter (➡ 66)
- 7 Telltale and warning lights (➡ 9)
- 8 Switch for fog light (GS Adventure only)
- 9 Ignition switch and steering lock (➡ 10)

( ) Figures in brackets ➡ page number for description

# Telltale and warning lights

1  
9

General information and controls



- 1 Telltale light, left turn indicator repeater **green**
- 2 Warning light, battery charge current **red**
- 3 Warning light, fuel tank content approx. 4 litres (0.9 gal) **orange** (➡ 33)
- 4 Telltale light, neutral **green** (➡ 69)
- 5 Warning light, ABS **red**
- 6 Warning light, engine oil pressure **red**
- 7 Telltale light, right turn indicator repeater **green**
- 8 Warning light, general **red** (➡ 84-89)
- 9 Telltale light, high (main) beam **blue**

( ) Figures in brackets ➡ page number for description

\* depending on national-market specification

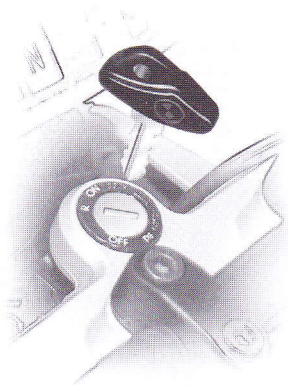
Optional extra



## Ignition switch and steering lock

1  
10

General information and controls



### Warning:

If the motorcycle is fitted with BMW Integral ABS<sup>OE</sup>, only **RESIDUAL BRAKING FUNCTIONALITY** is available when the ignition is switched off (→ 83)



### Note:

Ignition switch and steering lock, tank filler cap lock and seat lock are all operated with the same key. You can order System cases<sup>OA</sup> with locks for this key, too.

### Vehicle keys

You will receive two master keys and one spare key. The key number is on the accompanying plastic tag.

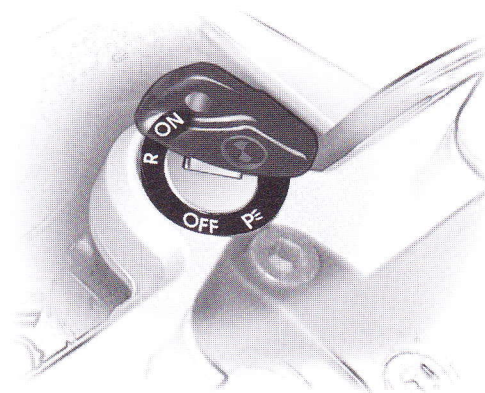
<sup>OA</sup> Optional accessories

<sup>OE</sup> Optional extra

## Ignition switch and steering lock

1  
11

General information and controls



### Key positions



### Warning:

Never turn the key to **OFF** or **P** while riding the motorcycle!

- Turn the handlebars to full left lock.



### Attention:

Engage the steering lock with the handlebars in this position only.

- ON** Operating position, ignition, lights and all electrical circuits switched on
- R** Ignition and lights off, steering lock disengaged (handlebars can be turned freely to left or right)

**OFF\*** Ignition and lights off, steering locked

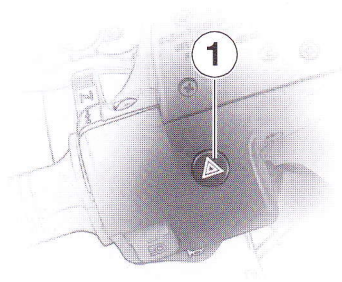
**P** \* Parking light on, steering locked



### Note:

Switch the parking light on only for limited periods. Note state of battery charge.

– The key can be removed in these positions



## Hazard warning lights



### Note:

You cannot activate the hazard warning flashers if the ignition is switched off.

Do not use the hazard warning flashers for longer than absolutely necessary.

Note state of battery charge.

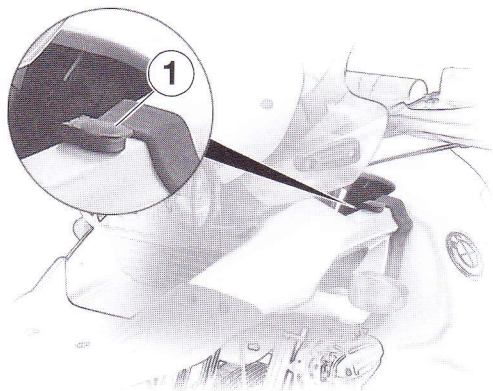
## Switching on the hazard warning lights

- Switching on the ignition
- Hazard warning lights switch **1** up

- Operate hazard warning lights switch **1**
- Hazard warning lights in operation
- The left/right flashing turn indicator repeater on the telltale light panel (► 9) flashes
- Switch off the ignition
- The hazard warning lights continue to operate
- The light in the hazard warning flasher switch goes out

## Switching off the hazard warning lights

- Operate hazard warning lights switch **1**
- Hazard warning lights switch off
- Left/right flashing turn indicator repeater on the telltale light panel (► 9) off



## R 1150 GS Adventure

### Connection

Power socket **1**, with a load rating of max. 60 W (5 A), is intended only for connecting extras mounted in the cockpit or on the handlebars, for example GPS, Roadbook, Tripmaster, etc.

### Wiring



### Note:

Have the wiring installed by a specialist workshop, preferably an authorised BMW motorcycle dealer.



### Warning:

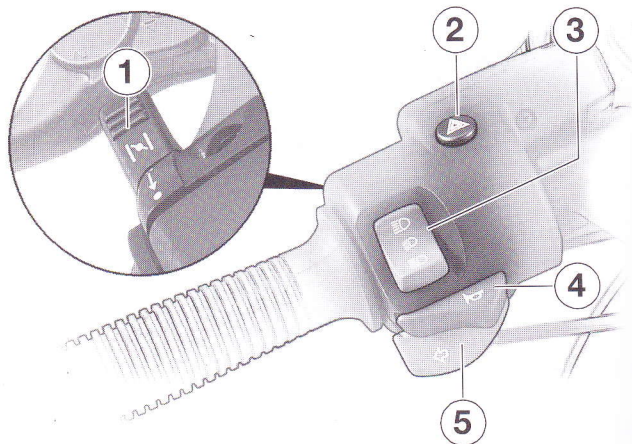
**Do not, under any circumstances, connect consumers that require exposed wiring toward the rear (heaters for helmet visors, intercoms, etc.) to the power socket.**

**The wiring must be installed in such a way that the cable(s)**

- are neither too slack nor too tight
- do not impede the rider
- do not restrict or impede movement of the handlebars and/or handling
- cannot be trapped



## Left handlebar fitting



### Warning:

To prevent air from entering the clutch system:

- do not turn the fitting on the handlebar.
- do not turn the handlebars in the clamping blocks.

- 1 Choke lever (increased engine speed) (► 71)
- 2 Hazard warning lights switch (► 12)

### 3 Headlight switch

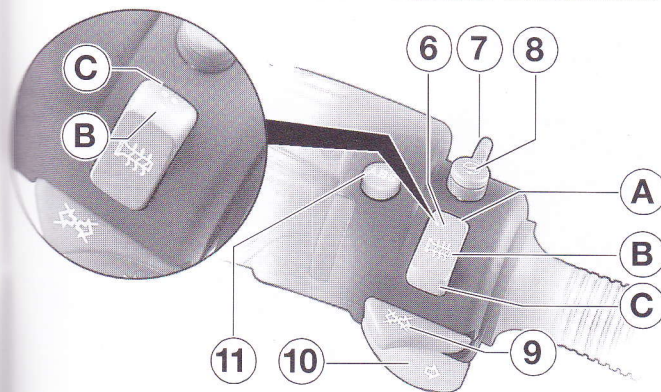
- ☰ High (main) beam
- ☒ Low (dipped) beam
- ☒ Headlight flasher

### 4 Horn button

### 5 Left turn indicator switch

- Press
- Turn indicators flash
- To switch off:
- Press turn-indicator cancel switch 9

## Right handlebar fitting



### Warning:

To prevent air from entering the brake system:

- do not turn the fitting on the handlebar.
- do not turn the handlebars in the clamping blocks.

### 6 Switch for heated handlebar grips<sup>OE</sup>

- A Heating off
- B 50% (centre position)
- C 100%

### 7 Kill switch (► 68)

### 8 Starter button

### 9 Turn-indicator cancel switch

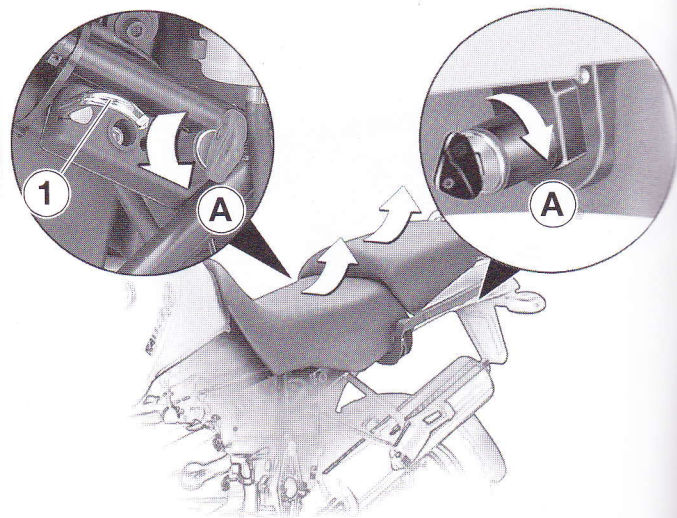
- Press
- Left/right indicators off

### 10 Right turn indicator switch

- Press
- Turn indicators flash
- To switch off:
- Press turn-indicator cancel switch 9

### 11 ABS acknowledgment button<sup>OE</sup> (► 87)

<sup>OE</sup> Optional extra



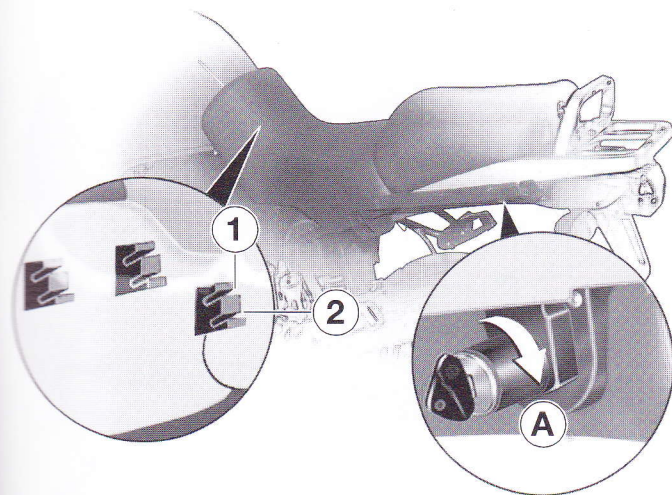
## R 1150 GS

## Helmet holder

- Turn key in helmet/seat lock to position **A**
- Helmet holder **1** is open
- Close the helmet holder by pressing it lightly into the helmet/seat lock until it engages.

## Removing dualseat

- Turn the key in the dualseat lock to position **A** and hold it in this position
- Pull rear seat to the rear and up to remove
  - This gives access to the tool box
- Turn the key in the dualseat lock to position **A** and hold it in this position
- Pull front seat to the rear and remove
  - This gives access to the fuse box and the height of the front seat can be adjusted



## Locking the dualseat

**Attention:**

When installing the dualseat, make sure it is firmly located.

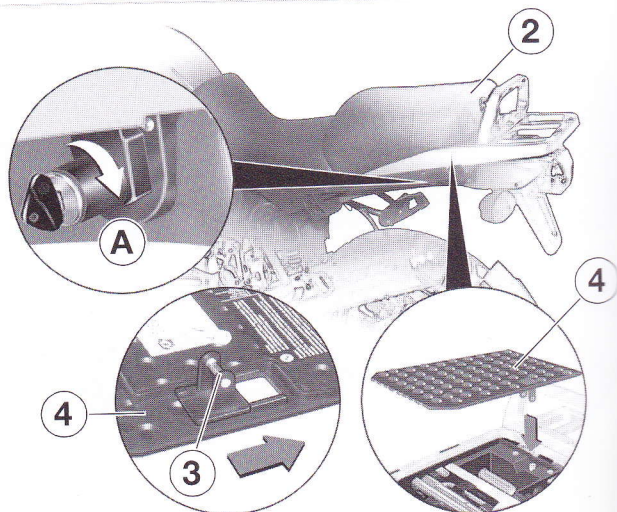
**Attention:**

When installing the dualseat, make sure it is firmly located.

Remove the front seat  
There are two front seat heights: **1** = high **2** = low

- Push the front seat into the desired position and press gently into the holder to secure
- Slide the rear seat into the guide and press gently into the holder to secure



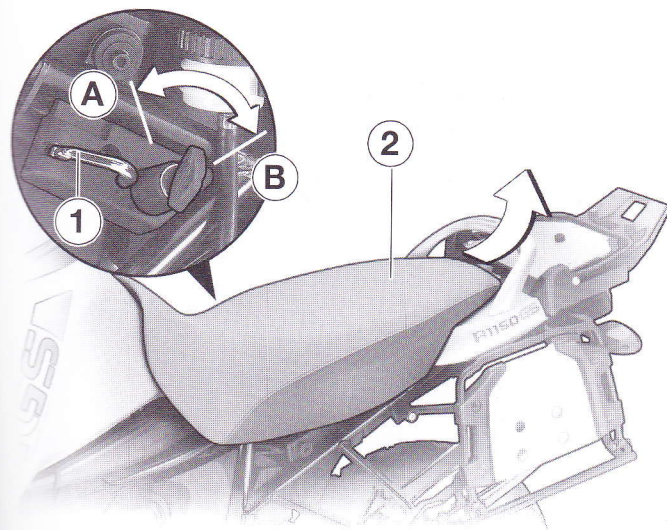


### Single seat

- Turn the key in the dualseat lock to position **A** and hold it in this position
- Remove rear seat (➡ 16)

### Locking the tool box

- Open the seat
- Remove toolbox cover **4**
- Insert locking section **3** into mount on tool box cover **4** and close tool box
- This protects the tool box against theft
- The tool box can be opened by means of the dualseat lock



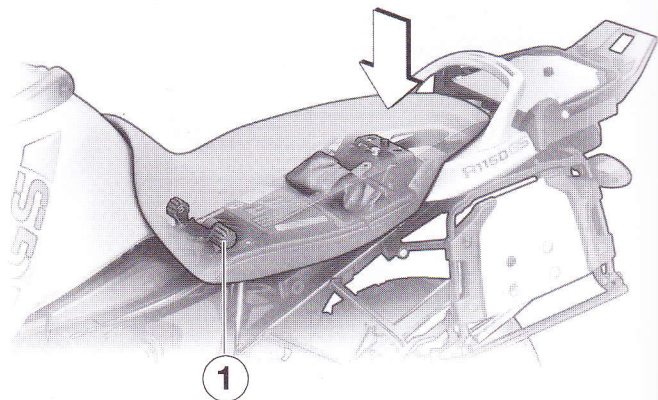
### Removing seat

- Turn key in helmet/seat lock to position **B**
- Grip seat **2** at rear and lift it up and to the rear in the direction indicated by the arrow to remove
- You now have access to the toolkit, the emergency kit, the on-board documentation and the fuses

### R 1150 GS Adventure

#### Helmet holder

- Turn key in helmet/seat lock to position **A**
- Helmet holder **1** is open
- Close the helmet holder by pressing it lightly into the helmet/seat lock until it engages.



### Locking seat



#### Attention:

When installing the seat, make sure that it is firmly located.

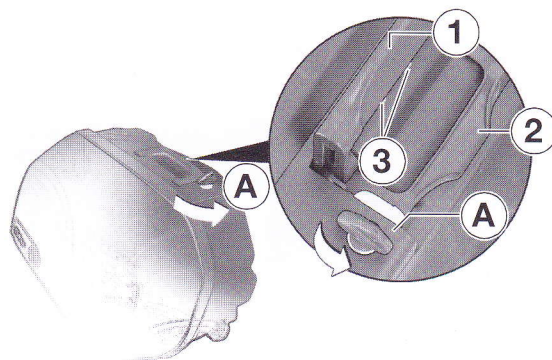
- Slide the seat into catches **1** on left and right and apply light pressure until it engages in the seat holder (arrow)

### Adjusting the seat

The height of the seat cannot be adjusted.

However, a low seat<sup>OE</sup> is available as an optional extra.

<sup>OE</sup> Optional extra



### R 1150 GS



#### Warning:

After an accident or if the motorcycle has fallen over, check that the system cases are correctly secured!

Max. load per system case: 10 kg (22 lbs).

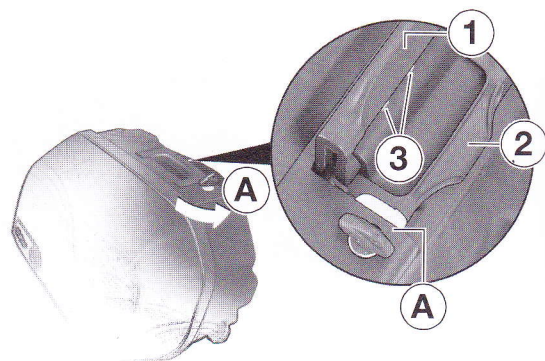
With System cases installed, it is advisable not to exceed 130 km/h (80 mph).

### Opening the System case

- Turn key in case lock to position **A**
- Pull up the carrying handle **1** and catch **2**
- The two indicators **3** turn **red**
- Open the System case

<sup>OE</sup> Optional extra





## Closing the System case



### Attention:

Risk of breaking the locking tongue.

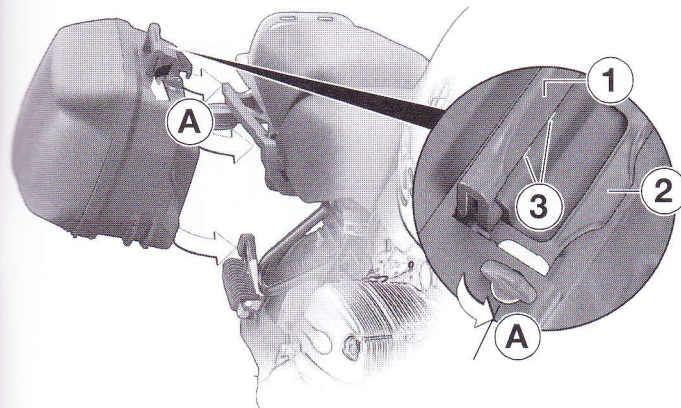
Before closing handle **1** or locking system **2**, turn the key in the case lock to position **A**.

- Turn key in case lock to position **A**
- Push down catch **2** and carrying handle **1**
- The two indicators **3** turn **black**
- Lock the case and remove the key

## Removing System case

- Turn key in case lock to position **A**
- Pull up carrying handle **1**
  - The two indicators **3** turn **red**
- Remove the key and lift the System case off its holder

<sup>OE</sup> Optional extra



### Warning:

Always make sure that the case is secured.

An incorrectly secured case could be lost and endanger other road users.

## Installing System case



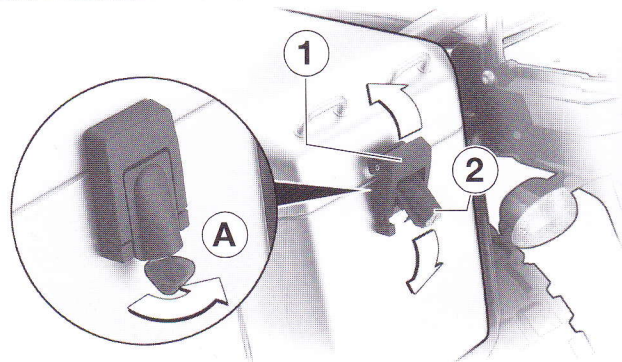
### Attention:

Risk of breaking the locking tongue.

Before closing handle **1** or locking system **2**, turn the key in the case lock to position **A**.

- Insert the System case into the holder (arrows), making sure that it is firmly seated in the lower holder and the upper hook
- Turn key in case lock to position **A**
- Push down carrying handle **1**
  - The two indicators **3** turn **black**
- Lock the case and remove the key

<sup>OE</sup> Optional extra



## R 1150 GS Adventure



### Warning:

After an accident or if the motorcycle has fallen over, check that the aluminium cases are correctly secured. Max. load on case carrier without cases fitted: max. 5kg (11 lbs) Max. load per aluminium case: 10 kg (22 lbs). With aluminium cases installed, it is advisable not to exceed 130 km/h (80 mph).

### Opening aluminium case

- Turn key in lock for lid of case to position **A**
- Pull lock barrel **2** up as far as it will go

- Latch **1** is released
- The lid of the case can now be opened

### Closing aluminium case

- Pull lock barrel **2** up as far as it will go
- Close the case lid
- Press lock barrel **2** down as far as it will go

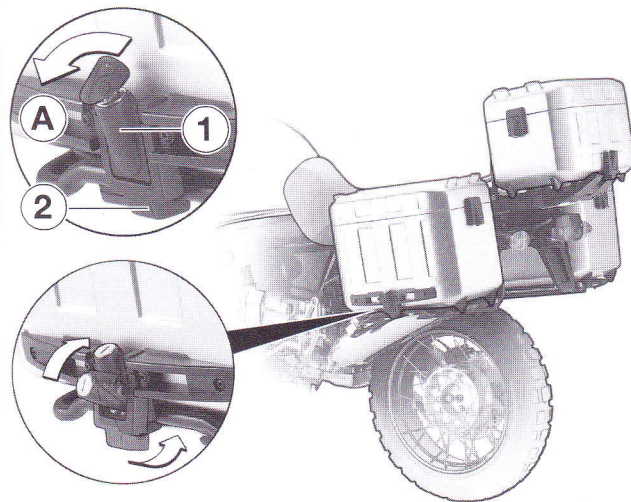


### Attention:

Make sure that latch **1** is correctly seated

- Lock the case and remove the key

<sup>OA</sup> Optional accessories



## Installing aluminium case



### Warning:

When attaching, make sure that the case is retained securely. An incorrectly secured case could be lost and endanger other road users.

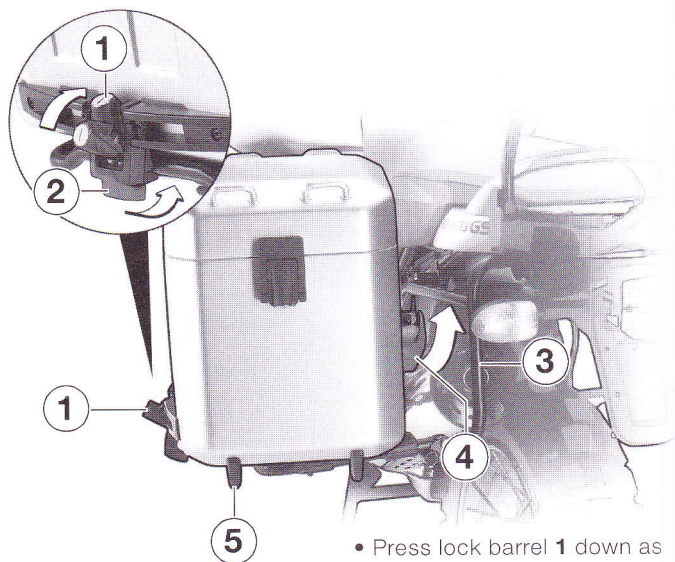
## Removing aluminium case

- Turn key in case lock to position **A**
- Press lock barrel **1** down as far as it will go
- Latch **2** is released
- Take out the key and remove the aluminium case from its holder
- Raise the plate of the case holder and lock it in this position

- Unlock the plate of the case holder and lower it into position
- Press lock barrel **1** down

<sup>OA</sup> Optional accessories





- From below, engage hook **4** of the aluminium case in retaining bar **3**
- Lower the aluminium case onto the plate and check its alignment



## Attention:

Stops **5** must be in contact with the plate at front and rear, instead of being seated on it

<sup>OA</sup> Optional accessories

- Press lock barrel **1** down as far as it will go



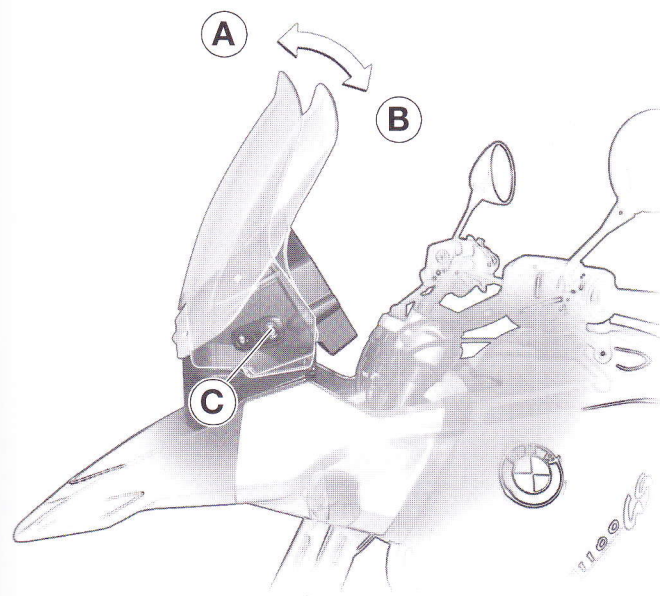
## Attention:

Make sure that latch **2** is correctly seated

- Lock the case and remove the key

## Topcase

The procedures for opening and closing, removing and installing the topcase are analogous to the procedures for the aluminium cases.



## R 1150 GS

## Adjusting the windscreen

- Loosen screws **C** at left and right
- Move the windshield in the **A** or **B** direction
- Tighten screws **C** at left and right

### Use the safety checklist – before every journey

Please perform the safety check accurately. If your motorcycle needs any routine maintenance, you can then attend to it before the journey starts (► Maintenance Instructions), or, for example have it carried out by your authorised BMW motorcycle dealer.

This is to ensure that your motorcycle corresponds with road-vehicle use and safety laws.

A motorcycle in perfect technical condition is essential for your safety and that of other road users.

For this reason, check the details in the following sections before you start the journey:

- Fuel level
- Positions of the handlebar-lever fittings
- Brakes
- Brake fluid level
- Clutch fluid level
- Warning lights and telltale lights
- Lights
- Shock absorber settings and spring preload
- Wheel rim and tyre condition, tread depth and tyre pressures
- Load, gross weight
- Check regularly (every time you stop for fuel), on the basis of the following section:
- Engine oil level (every second/third stop for fuel):
- brake pads

If you encounter any problems or difficulties, it is always best to contact your authorised BMW motorcycle dealer. He will provide the necessary advice and assistance.



## Checking oil level

Check the oil level at regular intervals.

Always check the oil level when the engine is at operating temperature, because the difference between the oil level indicated when the engine is at operating temperature and the oil level indicated when the engine is very cold due to extremely low outdoor temperatures (-10 °C/14 °F) can be as much as 10 mm (0.393 in). After switching off the engine at operating temperature, wait at least 5 minutes for the oil to drain back into the sump.

Checking the oil level after the engine has been run only briefly or when it is not properly warm will falsify the reading and could lead to the engine being operated with the wrong quantity of oil, because cold oil is viscous and takes longer to drain back into the sump. At extremely low outdoor temperatures (-10 °C/14 °F), this can take as long as 12 hours.



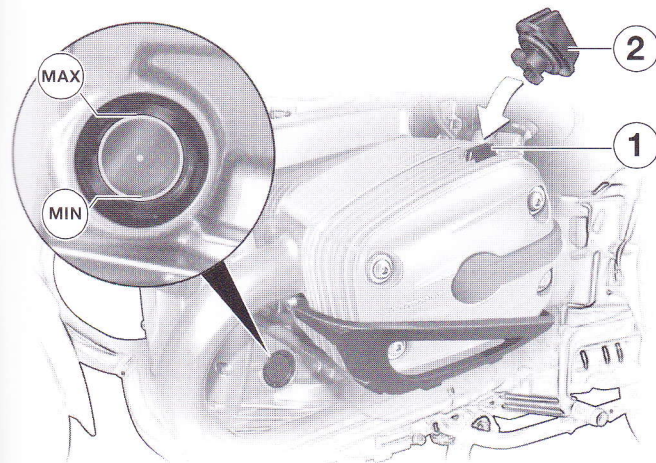
### Attention:

To avoid damage to the engine:

- Never exceed the maximum oil level.
- Always keep the oil level above the minimum mark.

Always check the oil level with the motorcycle upright.

- Check the oil level with the engine at its regular operating temperature
- Check the oil level after the engine has been stopped for at least 5 minutes
- Make sure that the motorcycle is upright
  - Make sure the ground is level and firm



- Check the oil level at the sight glass:

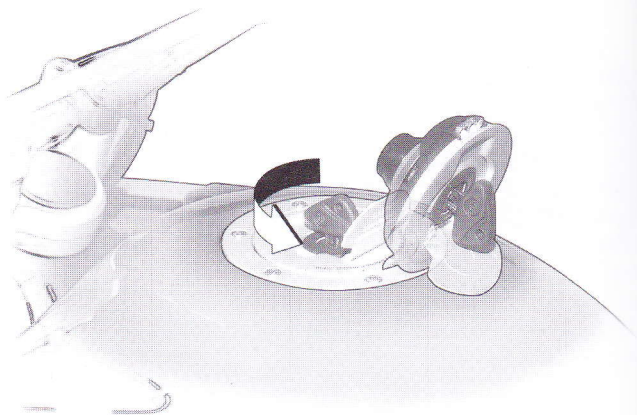
**MAX** Top edge of marking ring  
**MIN** Bottom edge of marking ring

- The difference between the two marks is approx. 0.5 litre (0.88 pint)
- If necessary, remove oil filler plug **2** and top up the engine oil through engine oil filler **1**.
- Reinstall oil filler plug **2**



### Attention:

Warning light, engine oil pressure **red** (➔ 9) indicates no (or very little) oil pressure in the lube-oil system; this light must not be regarded as an oil level check. Oil pressure builds up after 1-2 seconds and the warning light goes out – the **red** engine oil pressure warning light should remain off while the engine is running.



## Refuelling



### Warning:

Fuel is flammable and explosive. Do not smoke. Never bring a naked flame near the fuel tank.

The fuel expands when hot (for instance if the fuel tank is in the sun). For this reason, only fill as far as the lower edge of the filler neck.



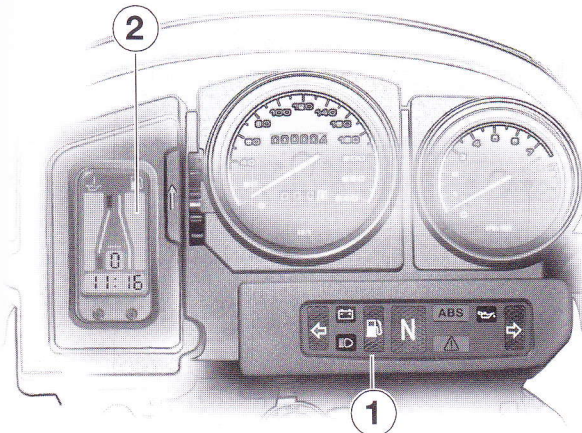
### Attention:

Leaded fuel will destroy the catalytic converter.

Do not run the fuel tank dry or you may damage the engine or the catalytic converter.

Wipe off plastic parts immediately if they are wetted with fuel.

- Place motorcycle on centre stand
- Make sure the ground is level and firm.
- Open fuel filler cap



- Refuel
- Always use super (premium) unleaded fuel to DIN 51607 or equivalent standard, minimum octane number 95 (RON) or 85 (MON)
- Close the fuel filler cap

- Usable tank capacity 22 litres (5.5 gal)
- Usable tank capacity 30 litres (5.5 gal)<sup>OE</sup> (GS Adventure only)
- When the reserve fuel level (approx. 4 litres/0.9 gal) is reached, this is indicated by **orange** warning light 1

## Capacity



### Note:

The fuel gauge and RID do not operate unless the ignition is switched on.

<sup>OE</sup> Optional extra

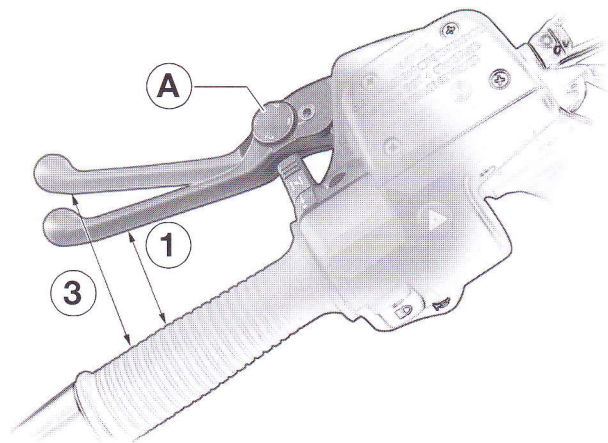
## Fuel level indicator 2 in RID<sup>OE</sup> (75)



### Note:

If only two bars are visible, approx. 4 litres (0.9 Imp. gal) of fuel remain in the tank (also indicated by **orange** warning light 1).





## Adjusting clutch lever



### Attention:

Sudden changes in play or spongy action indicate a fault in the hydraulic system.

If you are doubtful about the reliability of the hydraulic clutch operating system, it is best to consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

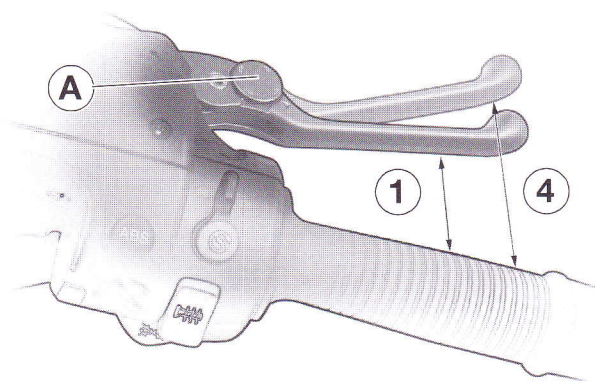


### Warning:

To prevent air from entering the clutch system:

- do not turn the fitting on the handlebar.
- do not turn the handlebars in the clamping blocks.

- Turn knob **A** to set the most comfortable span:
  - Setting **1**: minimum distance
  - Setting **3**: maximum distance



## Adjusting handbrake lever



### Warning:

To prevent air from entering the brake system:

- do not turn the fitting on the handlebar.
- do not turn the handlebars in the clamping blocks.

- Turn knob **A** to set the most comfortable span:
  - Setting **1**: minimum distance
  - Setting **4**: maximum distance

## Checking the brake system



### Warning:

Sudden changes in play or spongy action of the brake lever indicate a fault in the brake system.

Before riding off, therefore, always check the resistance of the front and rear brake levers and test operation of the brakes.

Do not ride the motorcycle if you have any doubts about the safety of the brake system.

Immediately seek the advice of a specialist workshop, preferably an authorised BMW motorcycle dealer.



### Warning:

To ensure reliability have all work on the brake systems carried out by a specialist workshop, preferably an authorised BMW motorcycle dealer.

## Checking brake pads



### Warning:

Have the brake pads replaced before they wear to the minimum permissible thickness: have the work performed by a specialist workshop, preferably an authorised BMW motorcycle dealer.

Brake pad wear depends on your personal style of riding. To ensure reliable operation of the brakes: Have the brake pads replaced before the minimum permitted thickness is reached (Maintenance Instructions ► Chapter 2).



### Checking brake fluid level

Gradual wear of the brake pads causes the brake fluid level in the reservoir to sink.



#### Warning:

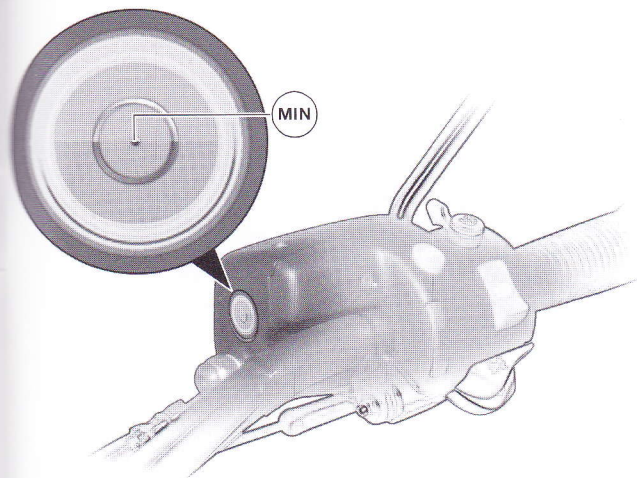
Have the brake system checked immediately if the brake fluid level in the reservoir of the front or rear brake system drops below the MIN mark (► 39, 40) ; have the brake system checked immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer.

### Changing brake fluid



#### Warning:

Brake fluid is subject to severe thermal loads and absorbs moisture from the atmosphere. The brake fluid must therefore be changed regularly (Maintenance Instructions ► Chapter 1) by a specialist workshop, preferably an authorised BMW motorcycle dealer.



### Checking front brake fluid level



#### Warning:

Do not permit the brake fluid level to drop below minimum (MIN).

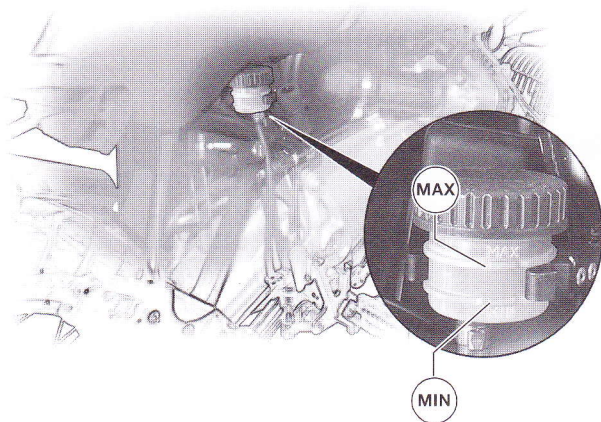
- Place the motorcycle on the centre stand
  - Make sure the ground is level and firm
- Handlebars in straight-ahead position; front wheel in contact with the ground

- Check brake fluid level at sight glass  
**MIN** minimum level (centre of sight glass)



#### Note:

Gradual wear of the brake pads causes the brake fluid level in the reservoir to drop.



## Checking rear brake fluid level



### Warning:

Never permit the brake fluid level to drop below the MIN mark on the reservoir

- Place the motorcycle on the centre stand
  - Make sure the ground is level and firm

- Check the brake fluid level
  - MAX** maximum level
  - MIN** minimum level



### Note:

Gradual wear of the brake pads causes the brake fluid level in the reservoir to drop.

## Checking brake fluid level



### Warning:

On a motorcycle equipped with BMW Integral ABS, the brake fluid level in the reservoir does NOT drop as the brake pads wear (→ 43, 44).



### Warning:

If the brake fluid level in the reservoir (→ 43, 44) drops below the MIN mark, have the brake system checked immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer.

## Changing brake fluid



### Warning:

Brake fluid is subject to severe thermal loads and absorbs moisture from the atmosphere.

The brake fluid must therefore be changed regularly (Maintenance Instructions → Chapter 1) by a specialist workshop, preferably an authorised BMW motorcycle dealer.

<sup>OE</sup> Optional extra

## Residual braking function



### Warning:

When the ignition is off, before and during self-diagnosis (➡ 84) or if the BMW Integral ABS fails, only the **RESIDUAL BRAKING FUNCTION** (➡ 83) remains available for slowing the motorcycle. When the **RESIDUAL BRAKING FUNCTION** is active, you must apply **CONSIDERABLY** higher pressure to the brake levers in question in order to apply the brakes, and lever travel is longer. When the **RESIDUAL BRAKING FUNCTION** is active, the **ABS function is unavailable in the brake systems in question.**



### Warning:

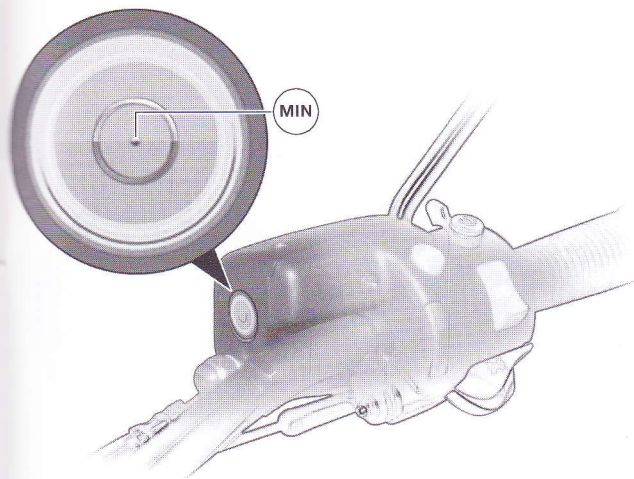
When the **RESIDUAL BRAKING FUNCTION** is active, maintain a defensive riding style and proceed immediately to the nearest specialist workshop, preferably an authorised BMW motorcycle dealer.



### Note:

When the **RESIDUAL BRAKING FUNCTION** is active, it is advisable to set adjuster **A** on the front-brake lever to position 4 (➡ 35).

<sup>OE</sup> Optional extra



## Checking front brake fluid level



### Warning:

**Never permit the brake fluid level to drop below the minimum level (MIN mark)**

- Place motorcycle on centre stand
  - Make sure the ground is level and firm

- Handlebars in straight-ahead position and front wheel in contact with the ground
- Read off brake fluid level in sight glass
  - MIN** minimum level (centre of sight glass)

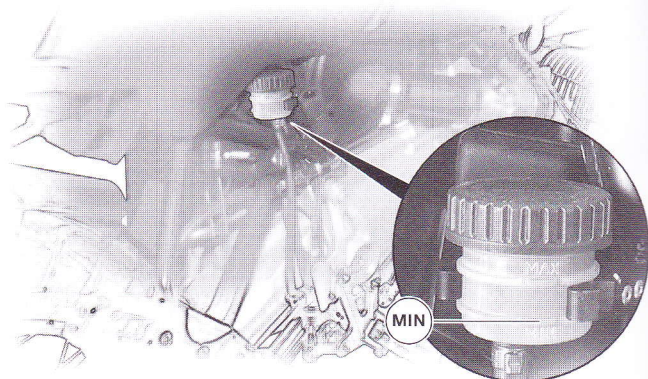


### Note:

The brake fluid level in the brake fluid reservoir remains constant despite wear of the brake pads.

<sup>OE</sup> Optional extra





## Checking rear brake fluid level



### Warning:

Never permit the brake fluid level to drop below the MIN mark on the brake fluid reservoir

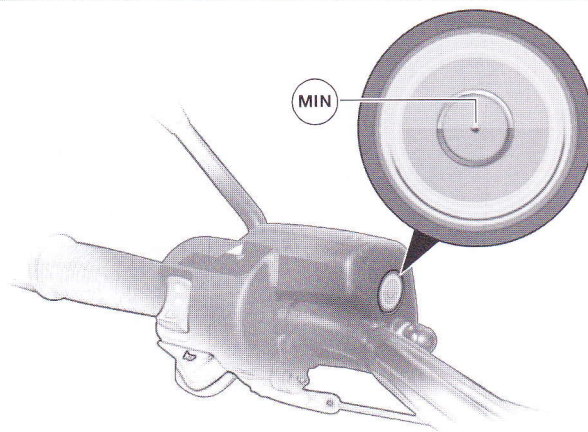
- Place motorcycle on centre stand
  - Make sure the ground is level and firm
- Check the brake fluid level  
**MIN** Minimum level



### Note:

The brake fluid level in the brake fluid reservoir remains constant despite wear of the brake pads.

<sup>OE</sup> Optional extra



## Check fluid level in the clutch fitting



### Attention:

If the fluid level drops, assume there is a defect in the clutch system.  
Have the clutch system checked immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer.



### Note:

The fluid level in the reservoir rises as the clutch plate wears.

- Place the motorcycle on the centre stand
  - Make sure the ground is level and firm
- Handlebars in straight-ahead position; front wheel in contact with the ground
- Check fluid level in sight glass  
**MIN** Minimum level (centre of sight glass)



### Warning:

Do not permit the fluid level to drop below minimum (MIN).

## Checking lights



### Attention:

Check that all lights are operational at the start of each journey.



### Note:

If turn indicator telltale light flashes at twice the usual speed: defective flasher bulb. BMW Integral ABS<sup>OE</sup>: General warning light ON (► 9): Check brake light or tail light. If the tail light is defective the brake light is dimmed and acts as a tail light. When you apply the brakes the brake light shines at full brightness.

<sup>OE</sup> Optional extra



### Note:

To change bulbs in parking lights, headlight (dipped and main beams), rear, brake and indicator lights:

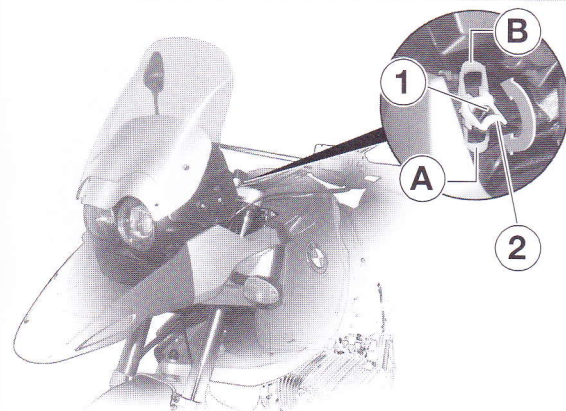
(► Maintenance Instructions, Chapter 2)

## Headlight setting, RHD/LHD traffic

For trips in countries where the traffic drives on the opposite side of the road:

Adjust the headlight accordingly (Maintenance Instructions ► Chapter 2).

When necessary, you can resort to the assistance of a specialist workshop, preferably your authorised BMW motorcycle dealer.



## Adjusting beam throw



### Note:

When the basic setting is correct, headlight beam throw is regulated when spring preload is adjusted to suit load.

Have the headlight basic setting adjusted by a specialist workshop, preferably an authorised BMW motorcycle dealer.



### Note:

Adjust beam height so that oncoming traffic is not dazzled. Make sure that the throw of the light cone adequately illuminates the road ahead of you.

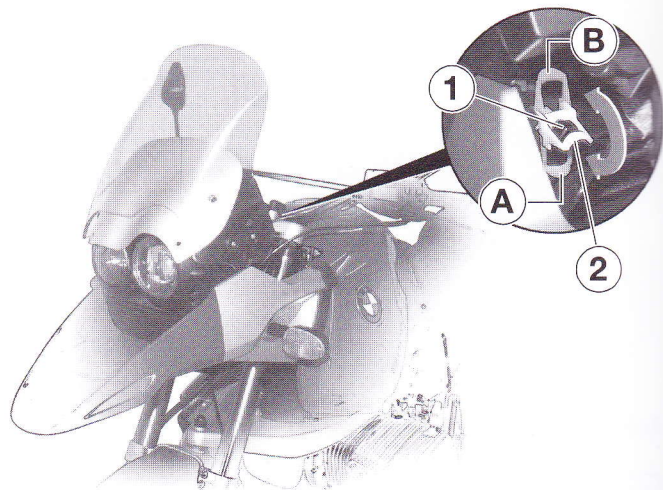
## Adjust beam throw to suit load by adjusting the spring strut:

Change the spring strut setting to suit the load (► 50, 51) – Spring preload has an effect on headlight throw

Only if the load carried on the motorcycle is very high, the headlight beam can also be lowered by moving pivot lever 2. This shortens the beam throw.

Pivot lever 2:

- A = neutral position
- B = high load



## Note:

Use adjusting screw **1** only for adjusting the basic setting of the headlight.

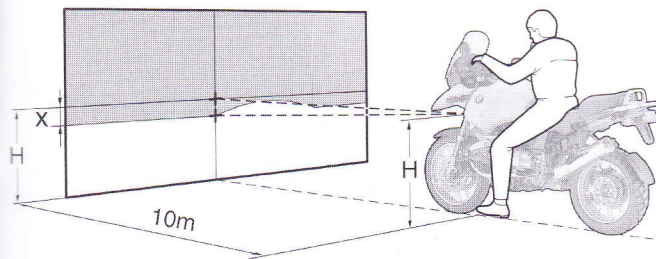
## Headlight basic setting



## Note:

Do not prop the motorcycle on the centre or side stand.

- Check tyre pressures and correct if necessary
- Set the spring-strut adjuster to the position for one-up riding
- Make sure lever **2** is horizontal (neutral position)
- Position the motorcycle on a level surface 10 metres (33 feet) (headlight) from a light-coloured wall, and with the rider's weight (approx. 85 kg/187 lbs) on the seat



- Measure the distance **H** from the ground to the centre of the headlight
- Transfer this height **H** to the wall and draw a cross on the wall at this point
- Draw a second cross (**x** = 15 cm/5.9 in) lower
- Switch on the low-beam headlight
- Turn adjusting screw **1** to align the headlight in such a way that the light-dark cutoff starts in the middle of the bottom cross and rises to the right to the height of the upper cross, before dropping again.

## • Adjusting screw **1**:

- Turn screw counter-clockwise: higher
- Turn screw clockwise: lower



## Note:

Have the headlight basic setting checked by a specialist workshop, preferably an authorised BMW motorcycle dealer.

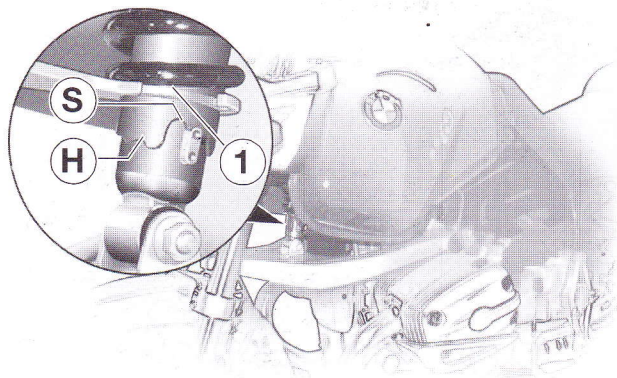


## Suspension spring preload

## Suspension spring preload

2  
50

Safety check



### Adjusting front spring preload

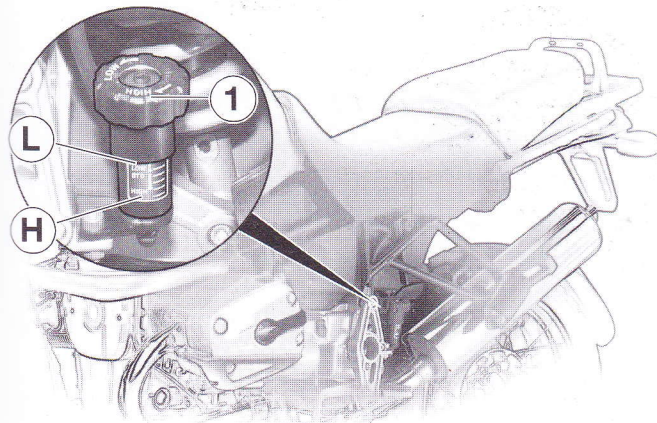
- Place motorcycle on centre stand
  - Make sure the ground is level and firm
- Use hook wrench and extension (wheel-stud wrench) to adjust preload of spring 1:
  - Stage 1 – road (S)
  - Stage 3 – loose surfaces (stone chippings etc.)
  - Stage 5 – off-road (H)



#### Warning:

Before riding off, always set spring preload to suit total weight.

For off-road riding, increase spring preload at front and rear by a suitable amount.



#### Warning:

Before riding off, always set spring preload to suit total weight.

For off-road riding, increase spring preload at front and rear by a suitable amount.

For safety reasons, never attempt to alter spring preload while the motorcycle is being ridden. Always halt the motorcycle before adjusting.

### Adjusting rear spring preload

“LOW” setting (solo):

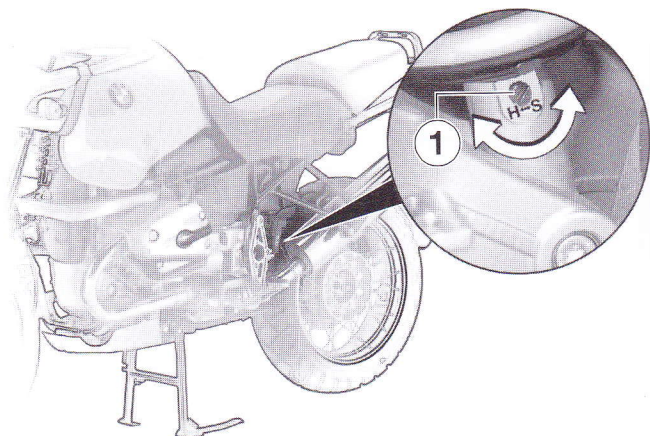
- Turn knob 1 as far as it will go in “LOW” direction (L) as indicated by arrow

“HIGH” setting (for off-road use, or two-up with luggage)

- Turn knob 1 as far as it will go in “HIGH” direction (H) as indicated by arrow

2  
51

Safety check



## Warning:

**Before starting the journey, adjust the shock absorber to match total weight. If spring preload is changed, the shock absorber has to be adjusted accordingly.**

- Place motorcycle on centre stand
  - Make sure the ground is level and firm
- Adjust the rear shock absorber with a screwdriver

## Basic setting (one-up):

- Turn adjusting screw **1** in direction indicated by arrow **H** (clockwise) as far as it will go
- Back off adjusting screw **1** half a turn in direction indicated by arrow **S** (counter-clockwise)

## Hard setting “H”:

- Turn adjusting screw **1** in direction indicated by arrow **H** (clockwise) as far as it will go

## Soft setting “S”:

- Turn adjusting screw **1** in direction indicated by arrow **S** (counter-clockwise) as far as it will go

## Checking wheel rims



## Warning:

**Have damaged wheel rims checked and, if necessary, replaced by a specialist workshop, preferably an authorised BMW motorcycle dealer.**

## Checking spokes



## Warning:

**Before riding off, always make sure that the spokes are in perfect condition. Always have damaged spokes and irregular spoke tension rectified immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer.**

- Place the motorcycle on its centre stand.
  - Make sure the ground is level and firm
- Tap spokes with a screwdriver and listen for the correct ringing sound



## Note:

If the note varies, spoke tension is uneven (some spokes too loose or too tight).

– When tyres are cold:

- Remove valve caps
- Check/correct tyre pressure

**Tyre pressures for road tyres and massive-bar tyres:**

|                    | front                 | rear                |
|--------------------|-----------------------|---------------------|
| one-up             | 2.2 bar<br>(31.9 psi) | 2.5 bar<br>(36 psi) |
| two-up             | 2.5 bar<br>(36 psi)   | 2.7 bar<br>(39 psi) |
| two-up and luggage | 2.5 bar<br>(36 psi)   | 2.9 bar<br>(42 psi) |

- Fully tighten valve caps

**Screw valve caps on tightly**



**Warning:**

At high road speeds, tyre valves have a tendency to open as a result of centrifugal force.

Use only metal valve caps with rubber seals.

Valve caps that are screwed on well prevent air from escaping suddenly.

**Checking tyre pressures**



**Warning:**

Incorrect tyre pressures have a considerable influence on handling and on tyre life.

Adjust tyre pressures to suit total weight. Never exceed either the motorcycle's gross weight or the individual wheel load limits (► 57).

**Checking tyre tread**

**Road tyres and massive-bar tyres**



**Warning:**

Comply with statutory legal requirements concerning minimum tread depth. Worn tyres can impair handling.

- Measure tread depth at the centre of the tyre tread

BMW's minimum tread depth recommendation:

|            |                |
|------------|----------------|
| front..... | 2 mm (0.08 in) |
| rear.....  | 3 mm (0.12 in) |

<sup>OE</sup> Optional extra



**Warning:**

The maximum permissible speed for a motorcycle fitted with massive-bar tyres<sup>OE</sup> is 160 km/h (100 mph); do not exceed this limit.

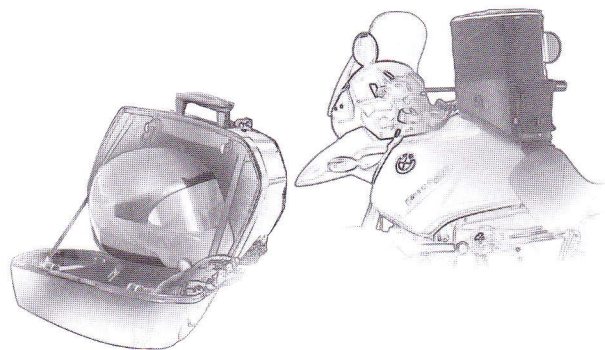
A label stating the maximum permissible speed must be affixed in the rider's field of vision.



**Attention:**

If a motorcycle is fitted with massive-bar tyres<sup>OE</sup>, the rear splash guard must be removed, (► Maintenance Instructions, Chapter 2)





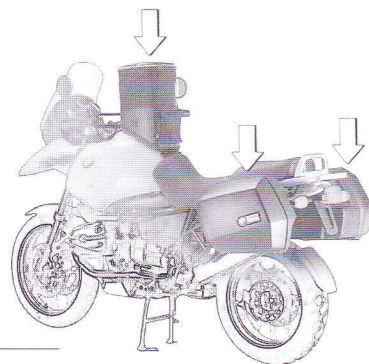
## Warning:

BMW cannot examine or test every product of outside origin to ensure that it does not represent a safety risk if used on or in connection with your BMW motorcycle. Even approval by an official inspection authority or an official permit (General Operating Permit) cannot always provide this guarantee. 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.



## Note:

BMW accessories and other products approved by BMW can be obtained from your authorised BMW motorcycle dealer.



## Correct loading



## Warning:

Overloading can impair the stability of your motorcycle.

- Make sure that the weight is uniformly distributed between right and left
- Pack heavy items at the bottom of the cases
- Left and right cases<sup>OA</sup> max. 10 kg (22 lbs) per case
- Luggage rack and tank-top rucksack<sup>OA</sup> max. 5 kg (11 lbs) each
- Check that fastenings are correctly positioned and tight



## Warning:

With cases installed, it is advisable not to exceed 130 km/h (80 mph).



## Attention:

Do not exceed the gross weight limit of 460 kg (992 lb).

Do not exceed the wheel load limits of 180 kg (300 lbs) at the front and 300 kg (728 lbs) at the rear.

Reset the suspension spring preload and the shock absorbers to match the gross weight (► 50- 52, 54)

The gross weight consists of:

- Motorcycle with full tank
- Rider
- Passenger
- Luggage

<sup>OA</sup> Optional accessories

## Handling your motorcycle safely

Each motorcycle has a character all its own. It is time now for you to familiarise yourself with the way your own motorcycle behaves:

- Acceleration
- Roadholding
- Cornering
- Braking ...

These are all things you need to become familiar with.

Please remember too that if the motorcycle has not yet covered 1,000 kilometres (600 miles), the engine is not yet fully run in.



### Attention:

BMW Integral ABS<sup>OE</sup> incorporates a brake booster, so braking efficiency is significantly higher than with conventional brake systems.



### Warning:

**The tyres need to cover a certain distance before they acquire their full road grip (➔ 67).**

When riding at high speed, always bear in mind that various boundary conditions such as: settings of the spring and shock-absorber system, unbalanced loading, loose clothing, low tyre pressures, worn tyres, etc., can affect the handling of your motorcycle.

<sup>OE</sup> Optional extra



### Warning:

**Do not ride the motorcycle after drinking alcoholic beverages. Even small amounts of alcohol or drugs, particularly if taken in conjunction with medicines, will adversely affect your perception and your ability to assess situations and make decisions, and also slow down your reflexes.**

Safe motorcycling doesn't depend on the bike alone.

Your own skill and common-sense are needed too.

The key to genuine safety on the road is a sensible balance between the bike's technical features and the rider's skill, so that together they form a single efficient unit.

Riding safely in traffic or off-road calls for a strong sense of responsibility and respect for the needs of other road users and pedestrians.

Take to the road now by all means, but think carefully about everything you do.

**BMW Integral ABS<sup>OE</sup>**  
Motorcycle equipped with  
BMW Integral ABS (→ 80)



## Warning:

**When the ignition is switched off or if the BMW Integral ABS fails, only a RESIDUAL BRAKING FUNCTION remains available for slowing the motorcycle (→ 83). Under these circumstances you must apply CONSIDERABLY higher pressure to the brake levers in order to apply the brakes, and lever travel is longer!**

## Risk of poisoning

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



## Warning:

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

**Do not run the engine in an enclosed space.**

## Risk of fatal accident

Your motorcycle is equipped with Digital Motor Electronics (Motronic) and high-power ignition system.



## Warning:

**When the engine is running or the ignition switched on, never touch electrically live parts of the ignition system or the digital engine electronics.**

<sup>OE</sup> Optional extra

## Catalytic converter



## Attention:

To avoid damage to the catalytic converter:

- Do not run the fuel tank dry
- Push-start only when the engine is cold
- Do not run the engine with a spark plug lead disconnected
- Do not exceed the engine-speed limits marked on the revolution counter
- Comply with all specified maintenance intervals
- Stop the engine at once if it misfires
- In the event of misfiring or a severe drop in engine power, consult a specialist workshop, preferably an authorised BMW motorcycle dealer
- Misfiring or malfunction of the fuel-air mixture preparation system causes unburned fuel to reach the catalytic converter, there is a risk of it overheating and being damaged.

## Risk of fire

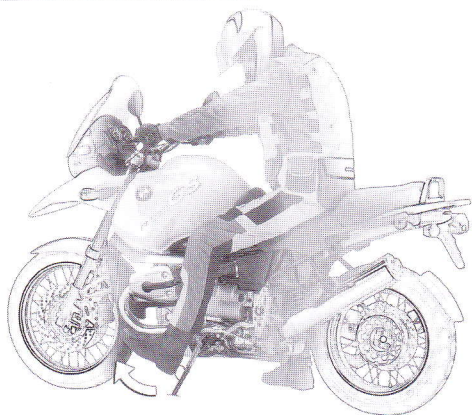
High temperatures occur at the exhaust system, particularly if a catalytic converter is installed.



## Warning:

**Make sure that whether riding or standing still or when the motorcycle is parked, no easily flammable material (for example hay, grass, leaves, clothing or luggage etc.) can come into contact with the hot exhaust system. Do not allow the engine to idle unnecessarily or for prolonged periods**  
– Risk of overheating or fire.  
**Ride away immediately after starting the engine.**





### Placing motorcycle on side stand



#### Warning:

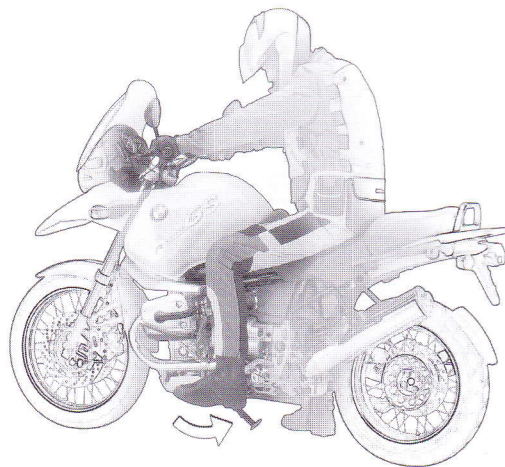
For safety reasons, never sit on the motorcycle with the side stand extended.



#### Attention:

Stop the engine before using the side stand. Make sure the surface under the stand is firm. On a gradient, the motorcycle should always face uphill; select 1st gear.

- Switch off the ignition
- Keep both feet on the ground
- Hold the left handlebar grip with your left hand
- Keep your right hand on the right handlebar grip and the handbrake lever
- Hold the motorcycle upright and balanced
- Use your left foot at the extension pin to extend the side stand fully (arrow)
- Slowly lean the motorcycle to the side until its weight is taken by the stand and dismount from the motorcycle
- Turn the handlebars to full left lock (►► 11)
- **Check that the motorcycle is firmly supported**



### Removing motorcycle from side stand



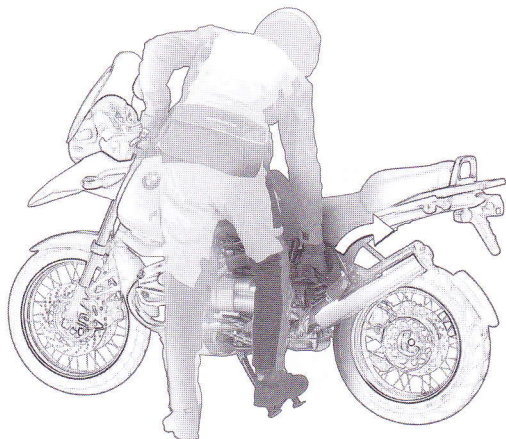
#### Warning:

If the motorcycle is equipped with BMW Integral ABS<sup>OE</sup>, only **RESIDUAL BRAKING FUNCTIONALITY** is available when the ignition is switched off (►► 83). **Make sure the side stand is fully retracted before you ride off.**

- Riding with the side stand extended is a safety risk.

- Turn the ignition key to the "R" or "ON" position (►► 11)
  - Handlebars unlocked
- Both feet on the ground, no weight on the motorcycle
- Hold the left handlebar grip with your left hand
- Keep your right hand on the right handlebar grip and the handbrake lever
- Slowly raise the motorcycle to the upright position and keep it balanced
- Sit on the motorcycle and use your left foot to retract the side stand

<sup>OE</sup> Optional extra



### Placing motorcycle on main (centre) stand



#### Warning:

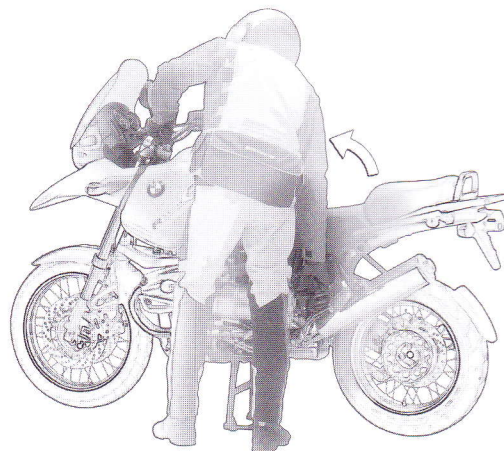
**For safety reasons, never sit on the motorcycle with the centre stand extended.**



#### Attention:

Switch off the engine before using the centre stand. Make sure the surface under the stand is firm.

- Switch off the ignition
- Hold the left handlebar grip with your left hand
- Hold the lifting handle with your right hand
- Place your right foot on the pin used to extend the centre stand, and press the stand down until its curved feet touch the ground
- Place your right foot on the tread surface of the stand
- Apply all your body weight to the stand
- Pull the motorcycle to the rear and upwards (arrow) until it rests on the centre stand
- **Check that the motorcycle is firmly supported**



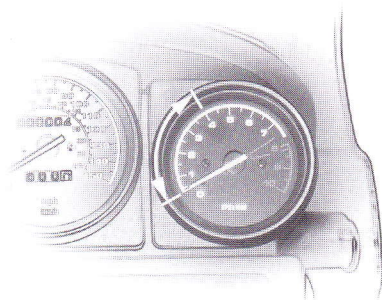
### Removing motorcycle from main (centre) stand



#### Attention:

The main (centre) stand must be fully retracted before you ride the motorcycle.

- Turn the ignition key to the "R" or "ON" position (➡ 11)
  - Handlebars unlocked
- Hold the left handlebar grip with your left hand
- Hold the lifting handle with your right hand
- Push the motorcycle forwards
- **Check that the stand has fully retracted**

**Attention:**

Exceeding the specified engine speeds while running in will lead to increased engine wear.

**Note:**

While running in the motorcycle, vary the throttle opening and engine-speed range frequently. Try to do most of your riding during this initial period on twisting, fairly hilly roads rather than high-speed main roads and highways.

### Running-in engine speeds From 0 to 1000 km (approx. 600 miles)

- Engine speed max. 4000 rpm and no full-load acceleration
- Do not omit the first inspection after 1000 km (approx. 600 miles). Make an appointment with your authorised BMW motorcycle dealer in good time, so that the work can be performed punctually.

### From 1000 to 2000 km (approx. 600 to 1200 miles)

- Engine speeds can be gradually increased after 1000 km (600 miles)
- Avoid lengthy periods at full load until 2000 km (1200 miles) have been covered

### Running in new brake pads

**Warning:**

New brake pads must “bed down” and therefore do not achieve their optimum friction levels during the first 500 km (300 miles).

This slight initial reduction in braking efficiency can be compensated for by exerting greater pressure on the lever. Try to avoid all unnecessary hard braking during this initial period.

**Attention:**

Comply with the notes on BMW Integral ABS<sup>OE</sup> (80- 89).

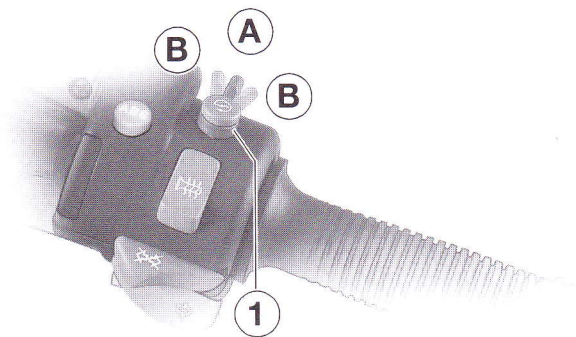
<sup>OE</sup> Optional extra

### Running in new tyres

**Warning:**

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





## In an emergency only:

- Move switch **1** to the **B** position
- The electrical circuits for the Motronic, RID, fuel pump and starter motor are de-energised

## Switching on the ignition

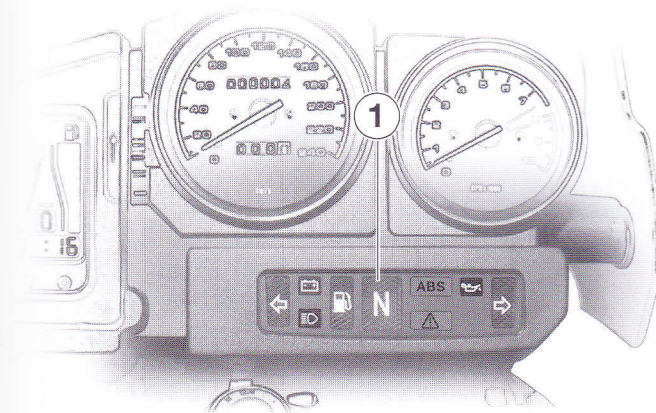
- Move the kill switch **1** to the run position **A**
- The ignition switch should be **ON** (► 11)

OE Optional extra



## Note:

If you move the kill switch to the **B** position while the ignition is on (switch in **ON** position), the BMW Integral ABS<sup>OE</sup> remains operational (► 82- 89).



## Fully retract the side stand



## Note:

If the side stand is extended and a gear engaged, you cannot start the motorcycle.

## Select neutral

- Neutral indicator light **1** comes on **green** **N** (► 9).



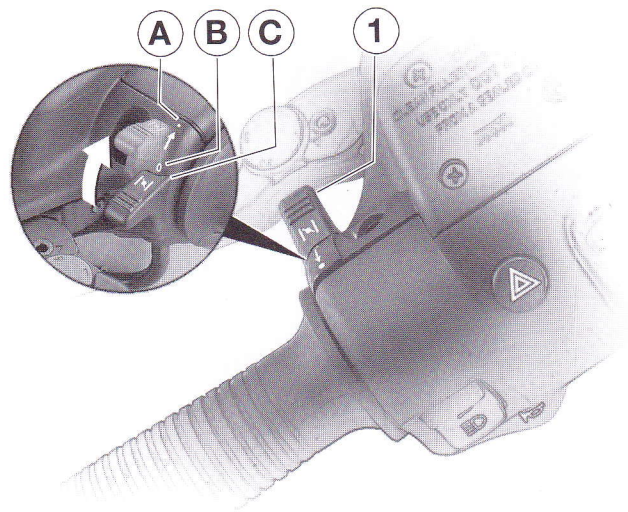
## Note:

Engine does not start:

- Move the gear lever to the **N** position or disengage the clutch

Engine stops when first gear is engaged:

- Fully retract the side stand; if necessary, consult the troubleshooting chart (► Maintenance Instructions, Chapter 2)



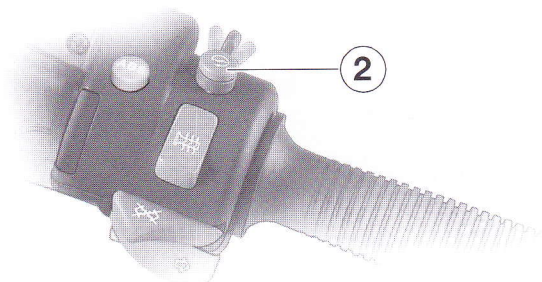
## Starting

 **Attention:**

If you attempt to start the engine when the battery is flat, you will hear the relay chattering. Further attempts will damage the starter relay and starter motor.  
Before trying again: recharge the battery.

**Warning:**

**Do not allow the engine to idle unnecessarily or for prolonged periods**  
– Risk of overheating or fire.  
**Ride away immediately after starting the engine.**  
**To avoid overheating the air-cooled engine and possible damage as a result, avoid even short warm-up periods at a standstill. Avoid high engine speeds after a cold start.**

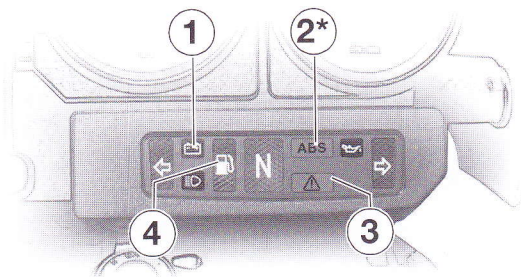
**Note:**

Do not turn the throttle twistgrip when starting the engine.

**Choke**

- Correct position of choke lever **1**:
  - Lever up, in position **A**: cold start
  - Lever down, in position **C**: engine at operating temperature
- When starting, pull lever **1** to position **A** (arrow) and hold it in this position
- Press starter button **2**
  - The engine starts
- Turn the throttle twistgrip carefully
- Release lever **1**
  - Lever **1** in position **B**
- Return choke lever **1** to position **C** as soon as possible (as soon as the engine runs smoothly)

## Warning lights

**Battery charge current**

Warning light **1** goes out above idle speed.

**Attention:**

If warning light **1** comes on during the journey: consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

**ABS warning light<sup>OE</sup>**

The ABS warning light **2** lights up if the BMW Integral ABS develops a fault (➡ 84)

**Warning light, general**

General warning light **3** lights up if a fault develops in the BMW Integral ABS<sup>OE</sup> (➡ 84), or if the tail light or brake light is defective.

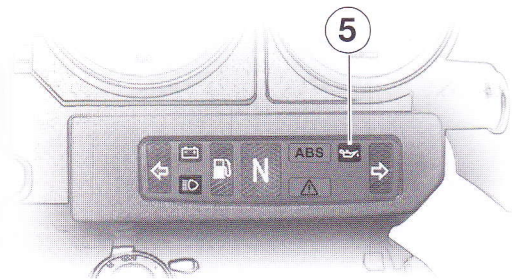
**Low fuel level**

When warning light **4** comes on, there are still approx. 4 litres (0.9 gal) of fuel in the tank.

\* <sup>OE</sup> depending on national-market specification

<sup>OE</sup> Optional extra

## Warning lights

**Engine oil pressure**

Warning light **5** goes out above idle speed.

**Attention:**

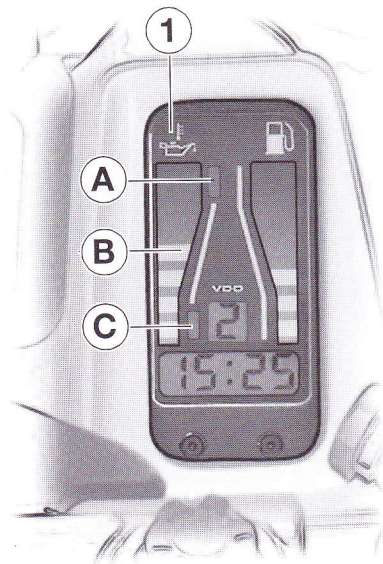
If warning light **5** comes on during the journey, take the following action as soon as traffic conditions permit:

- Declutch
- Operate the kill switch
- Bring the motorcycle safely to a halt
- Check engine oil level (➡ 31)

**Attention:**

If the warning light comes on even though the oil level is correct, you must consult a specialist workshop, preferably an authorised BMW motorcycle dealer.



Rider Information Display<sup>OE</sup> (RID)**Attention:**

Switch off the engine, wait 5 minutes and then check the oil level (► 30). If the oil level is correct, always consult a specialist workshop without delay, preferably an authorised BMW motorcycle dealer.

Avoid high engine speeds until the problem has been dealt with.

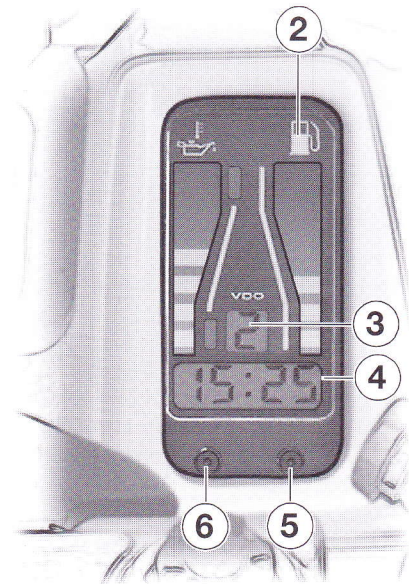
**B=** engine oil at regular operating temperature

**C=** engine oil cold (blue)

**Engine oil temperature indicator 1**

**A=** engine oil too hot (red)

<sup>OE</sup> Optional extra

Rider Information Display<sup>OE</sup> (RID)**Gear indicator 3**

1 - 0 - 2 - 3 - 4 - 5 - 6

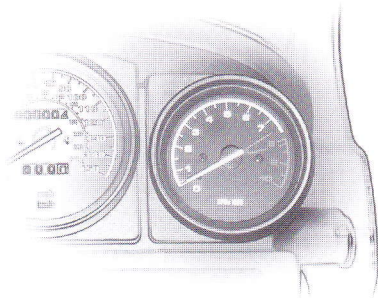
**Fuel gauge 2****Note:**

If only two bars are displayed, about 4 litres (0.9 Imp. gal) of fuel remain in the tank (the **orange** warning light also comes on (► 72)).

**Clock 4**

- To adjust, press with a ball-point pen or similar object at point 5 (minutes) or point 6 (hours)

<sup>OE</sup> Optional extra



## Load changes



### Warning:

Try not to open or close the throttle abruptly, particularly on wet or slippery roads.

## Engine speed

Limit engine speed in accordance with engine temperature, using the highest engine speeds only when the engine has reached its regular operating temperature. When the revolution counter needle enters the red zone on the dial, the fuel supply is interrupted in order to protect the engine against overspeeding.



### Note:

The governor cuts in at 7,900 rpm

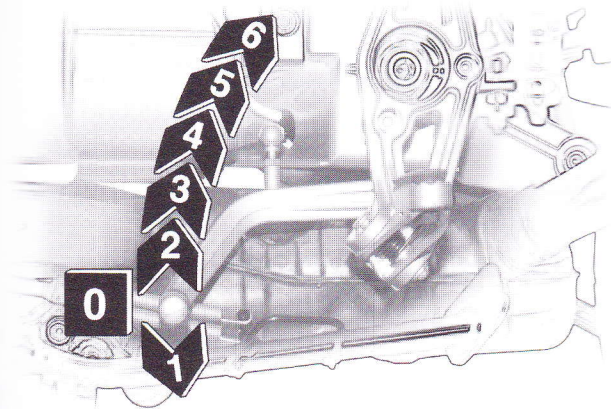
## Gear shifts



### Note:

Never slip the clutch excessively when changing gear. Vary your speed only by using the throttle in a suitable gear, not by slipping the clutch. The digital gear indicator in the Rider Information Display<sup>OE</sup> shows which gear has been selected (► 74).

<sup>OE</sup> Optional extra



## Moving off and upshifts

- Pull the clutch lever in
- Press down on the gearshift lever (to select first gear) and take your foot off the lever
- Smoothly re-engage the clutch
- Increase engine speed slightly as necessary
- Accelerate when the clutch is fully engaged
- For upshifts into 2nd, 3rd, 4th, 5th and 6th gears, pull the front of the gear lever up

## Downshifts

- Close the throttle (twistgrip)
- Pull the clutch lever in
- Select the next-lower gear: (opposite direction to arrow)
- Smoothly re-engage the clutch

## Wet brakes

After the motorcycle has been washed, ridden through water or ridden in the rain, the brake discs and pads may be wet (or iced-over in winter), and may not take effect immediately.



**Warning:**  
The brakes have to dry before they start to bite.

## Salt on brakes

The full braking effect can be delayed if the motorcycle is ridden on salt-covered roads and the brakes are not applied for some time.



**Warning:**  
The layer of salt on the brake discs and pads must first be worn away.

## Oil and grease on brakes



**Warning:**  
Brake discs and pads must be free from oil or grease.

## Dirt or mud on brakes

When riding on loose surfaces or muddy roads, the brakes may fail to take effect immediately because of dirt or moisture on the discs or brake pads.



**Warning:**  
The brakes must first be applied until the discs and pads are clean.  
Dirt on the brakes increases the rate of pad wear.



**Warning:**  
If the brake lever can be moved right to the limit of its travel, this indicates a mechanical or hydraulic fault. The brake system is defective.  
Immediately consult a specialist workshop, preferably an authorised BMW motorcycle dealer.



## Sensitive electronic control

It takes skill and sensitive control of the brakes to pull up safely on a motorcycle. If the front wheel brake locks and the wheel skids, the necessary longitudinal and lateral stabilising forces are lost, and a fall can result.

For this reason, the rider seldom makes full use of available braking performance in an emergency.

BMW Integral ABS is the latest-generation BMW ABS development: by preventing both wheels from locking and optimising braking-force distribution by means of the integral function, it offers much improved braking performance (► 82). Full use is made of technical braking capacity to minimise braking distances, even when road conditions are poor. When the motorcycle is ridden in a straight line, the BMW Integral ABS is able to handle emergency braking safely.

<sup>OE</sup> Optional extra

## Safety margin

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

- You have to familiarise yourself with the new, electronically assisted braking. Try the brakes several times when you take your motorcycle out for the first time. Find out for yourself how the brakes feel
- Never ride without due care and attention, or assume that good fortune will protect you from your own foolhardiness
- Keep within the permitted speed limits
- Take care when cornering. When you apply the brakes on a corner, the motorcycle's weight and momentum take over and even BMW Integral ABS is unable to counteract their effects.

<sup>OE</sup> Optional extra

## Brake system - with BMW Integral ABS<sup>OE</sup>

### Partially integral brakes

The integral brake function interlinks the front and rear brakes, so both wheels are braked when you operate the brake lever.

The electronic controller in the BMW Integral ABS computes the braking-force distribution between front and rear wheels, and applies the brakes accordingly.

Braking-force distribution depends on load and is recalculated every time the ABS controller comes into action. In this partially integral brake configuration, the integral braking function is activated only when you pull the handbrake lever. The footbrake lever acts only on the rear brake.

### Brake servo

The hydraulic pump in the BMW Integral ABS actively boosts the braking force acting on the wheel when the brakes are applied.

By boosting the braking force in this way, the BMW Integral ABS achieves higher braking efficiency than standard brake systems.

### ABS anti-lock brake system

ABS prevents the wheels locking under heavy braking, thus contributing significantly to road safety.

<sup>OE</sup> Optional extra

## Brake system - with BMW Integral ABS<sup>OE</sup>

### RESIDUAL BRAKING FUNCTION

If the BMW Integral ABS develops a fault, a RESIDUAL BRAKING FUNCTION only is available in the brake circuits in question.

The RESIDUAL BRAKING FUNCTION is the braking efficiency without the hydraulic servo assistance of the BMW Integral ABS. Under these circumstances, therefore, you must apply CONSIDERABLY higher pressure to the brake levers in question in order to apply the brakes, and lever travel is longer.

When the RESIDUAL BRAKING FUNCTION is active, the ABS function is unavailable in the brake system in question.

When the RESIDUAL BRAKING FUNCTION is active, the integral braking function is partially or entirely unavailable.



#### Warning:

When the RESIDUAL BRAKING FUNCTION is active, maintain a defensive riding style and proceed immediately to the nearest specialist workshop, preferably an authorised BMW motorcycle dealer.



#### Note:

When the RESIDUAL BRAKING FUNCTION is active, it is advisable to set adjuster A (➡ 35) on the front-brake lever to position 4.

The RESIDUAL BRAKING FUNCTION is active under the following circumstances:

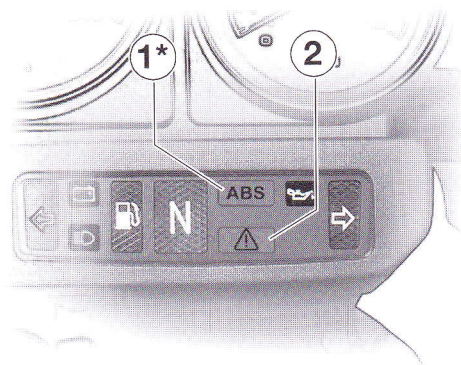
- Ignition off
- Before and during self-diagnosis (➡ 84)
- Fault in the BMW Integral ABS (➡ 88)



#### Note:

When the RESIDUAL BRAKING FUNCTION is active for both brake circuits, the noise of the pump is no longer audible when you operate the brake levers.

<sup>OE</sup> Optional extra



## Self-diagnosis with pull-away test

The BMW Integral ABS performs self-diagnosis and a pull-away test to ensure its operability.

Self-diagnosis is performed automatically when you switch on the ignition.



### Warning:

**Self-diagnosis is not performed unless both brake levers are in their fully released positions.**

**Only the RESIDUAL BRAKING FUNCTION is available until self-diagnosis is completed (→ 83).**

- Release the brake levers, if necessary
- Switch on the ignition

Initially:

- ABS warning light **1**: flashes at 4 Hz
- General warning light **2**: ON

➡ Self-diagnosis is in progress

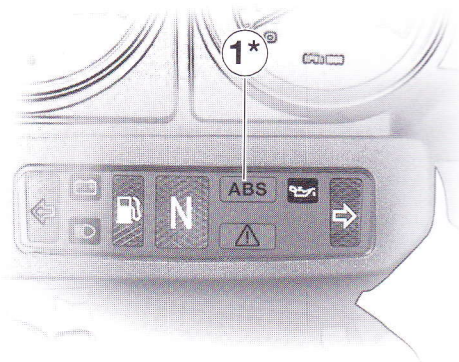
Then:

- ABS warning light **1**: flashes at 1 Hz
- General warning light **2**: OFF

➡ Self-diagnosis successfully completed

<sup>OE</sup> Optional extra

• depending on national-market specification



- Start the engine.
- Move off
- ABS warning light **1**: OFF (as of approx. 5 km/h (3 mph) road speed)
- ➡ Pull-away test successfully completed
- ➡ BMW Integral ABS is available



### Note:

Flashing at 1 Hz = 1 flash per second (slow flashing)

Flashing at 4 Hz = 4 flashes per second (fast flashing)

<sup>OE</sup> Optional extra



### Note:

Starting on gradients:

Always switch on the ignition with gear engaged, clutch lever released and both brake levers released.

Self-diagnosis cannot be performed if you do not follow this procedure.

When self-diagnosis completes, apply the brakes, disengage the clutch, and start the engine.

• depending on national-market specification



Brake system - with BMW Integral ABS<sup>OE</sup>

## Off-road deactivation

In contrast to road riding, where BMW Integral ABS can always prevent wheel locking and the resulting accident, it may be desirable for the rider to be able to lock a wheel or prevent it from rotating on rough terrain or loose surfaces. This is the reason why the BMW Integral ABS enables you to deactivate the ABS function temporarily.

<sup>OE</sup> Optional extra

## Deactivating the ABS



## Warning:

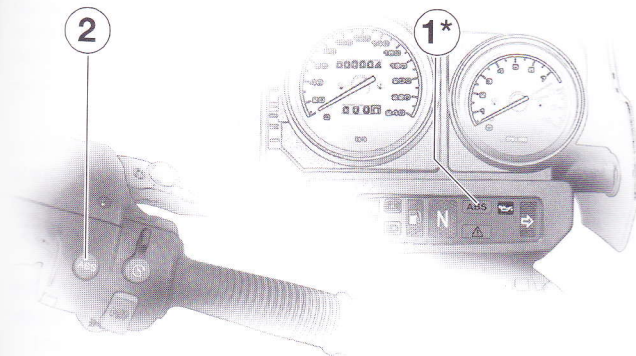
**Never switch the ignition off or on unless the motorcycle is at a standstill.**

**Brake boost and the integral function remain operational, even if the ABS function is deactivated.**



## Note:

The ABS function is reactivated once the self-diagnosis routine has completed successfully after you switch off the ignition and switch it on again with the motorcycle at a standstill.

Brake system - with BMW Integral ABS<sup>OE</sup>

## Warning:

**If the ABS function is off – as indicated by ABS warning light 1 – the safety reserves afforded by the anti-lock braking system are not available until the ABS function is reactivated. There is a risk of dropping the motorcycle if the brakes are applied too hard and the front wheel locks or the rear wheel lifts clear of the ground as a result of a high level of front tyre adhesion.**

\* depending on national-market specification

- With the motorcycle at a standstill, switch off the ignition
- Press and hold down ABS acknowledge button 2
- Switch on the ignition
- Hold down ABS acknowledge button 2 until the ABS warning light 1 remains on
- Release ABS acknowledge button 2
- The ABS function is deactivated
- Warning light 1 remains permanently on to remind you that ABS has been deactivated

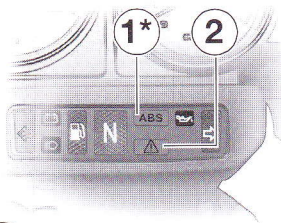
<sup>OE</sup> Optional extra

# BMW Integral ABS<sup>OE</sup> Troubleshooting

# BMW Integral ABS<sup>OE</sup> Troubleshooting

3  
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Starting - Riding - Parking



## Warning:

If the BMW Integral ABS fails in both brake circuits, a **RESIDUAL BRAKING FUNCTION** only is available! (► 83)



## Warning:

When **RESIDUAL BRAKING FUNCTION** (► 83) is active, maintain a defensive riding style and proceed immediately to a specialist workshop, preferably an authorised BMW motorcycle dealer.



## Warning:

If there is a fault in the ABS system, the reserves of safety normally afforded by ABS are not available until the defect has been put right.

There is a risk of dropping the machine if the brakes are applied too hard and the front wheel locks or the rear wheel lifts clear of the ground as a result of a high level of front tyre adhesion. Have the defect rectified immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer.

\* Ⓢ depending on national-market specification

| General warning light | ABS warning light <sup>ABS</sup> | Malfunctions                                                                                              |
|-----------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------|
| OFF                   | ON                               | Only RESIDUAL BRAKING FUNCTION available in both circuits (► 83) or the ABS function has been deactivated |
| OFF                   | Flashes at 1 Hz                  | ABS not available<br>Pull-away test not completed (► 84)                                                  |
| OFF                   | Flashes at 4 Hz                  | Only RESIDUAL BRAKING FUNCTION available in both circuits (► 83)<br>Self-diagnosis not completed (► 84)   |

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Starting - Riding - Parking

| General warning light      | ABS warning light <sup>ABS</sup> | Malfunctions                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ON                         | OFF                              | Tail light/brake light defective (Maintenance Instructions, ► Chapter 2)                                                                                                                                                                                                                                                                                                          |
| ON                         | Flashes at 1 Hz                  | At least one brake circuit without ABS (► 82)                                                                                                                                                                                                                                                                                                                                     |
| ON                         | Flashes at 4 Hz                  | At least one brake circuit in RESIDUAL BRAKING FUNCTION mode (► 83)                                                                                                                                                                                                                                                                                                               |
| Alternate flashing at 1 Hz | Alternate flashing at 1 Hz       | Fluid level in BMW Integral ABS too low. Check the motorcycle as follows: <ul style="list-style-type: none"> <li>- Ignition OFF: is brake pressure OK at the brake levers?</li> <li>- Are the brakes acting on both wheels?</li> <li>- Is the brake system leaktight, no signs of brake fluid escaping?</li> </ul> The brake system is defective if the test outcome is negative. |
| Alternate flashing at 4 Hz | Alternate flashing at 4 Hz       | Fluid level in the BMW Integral ABS is too low, perform the checks listed above. Only RESIDUAL BRAKING FUNCTION available in at least one circuit (► 83)                                                                                                                                                                                                                          |



## Warning:

**Do not ride the motorcycle if you have any doubts about the dependability of the brake system.**

OE Optional extra

## Know-how...

In recent years, motorcycles' technical design features have become more and more sophisticated.

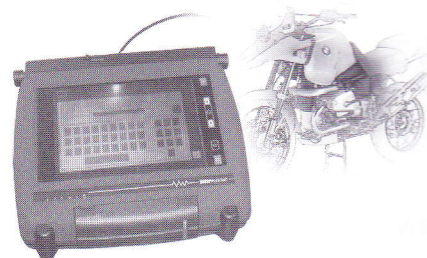
Motronic, electronic ignition, integral brakes, the catalytic converter or the use of four valves per cylinder are clear signs that far more than basic technical knowledge may be needed to solve certain problems. In addition, high-tech materials are increasingly taking the place of conventional ones, which again calls for thorough and expert knowledge if they are to be handled correctly during repair work.

To be sure of achieving the necessary standard, it is always advisable to consult your authorised BMW motorcycle dealer.

The authorised BMW motorcycle dealer employs staff who attends regular and comprehensive training courses. Authorised BMW motorcycle dealers also receive all the current technical information and are therefore fully aware of the latest developments.

## ...technical features...

The authorised BMW motorcycle dealer's staff has the experience and all the necessary facts at its disposal when it comes to solving problems quickly and effectively. Workshops are equipped with the latest technical facilities, for example the special tools developed by BMW such as the **BMW** diagnosis system or exhaust emissions tester.



Regular visits to the workshop for routine servicing are strongly recommended even after the warranty period has elapsed. They are the only way to be genuinely certain that your BMW motorcycle is being kept in perfect working order.

For goodwill work after the warranty period has expired, evidence of regular maintenance by an authorised BMW motorcycle dealer is essential.

Certain signs of wear may not otherwise be noticed until it is too late to put them right at moderate cost.

The staff in the authorised BMW motorcycle dealer or workshop know every detail of your motorcycle and can take remedial action if necessary before minor faults develop into serious problems.

By having the necessary repairs done properly and in good time, you save time and money in the long run.

## ...service

You can obtain accurate advice in all cases, and make appointments with a firm completion deadline which we will comply with punctually. But the most gratifying feeling of all is that your BMW is in genuinely good shape when it leaves the authorised BMW motorcycle dealer's workshop – and above all, safe.



**BMW Service Card**

A Service Card is available for all new BMW motorcycles. A wide range of emergency-assistance services are in place to help you in the unlikely event of a problem occurring somewhere far from home.

If you have a breakdown anywhere in Europe, just call our Central Emergency Service number from any telephone. Our experts are on duty there day and night to arrange assistance for you. They can provide practical advice on what to do next and can make arrangements on your behalf, for example notifying local emergency services anywhere in Europe, recovery and transportation of the motorcycle to the nearest authorised workshop, a taxi for you, and even a replacement vehicle and hotel accommodation, if necessary.

**BMW Service worldwide**

And if your travels take you even further afield, you have no need to worry: we are represented in more than 100 countries of the world.

**Note:**

Call us if you have any questions about the BMW dealership network. You can reach us directly by hotline in any country in Europe. The phone numbers are listed in the

**European Service** booklet (see on-board documentation). Or if you prefer you can use the homepage address to contact us on the Internet.

**Development...**

Motorcyclists have an intensive relationship with nature. BMW has made sure that they continue to enjoy the best possible prospects for successful riding in the future.

For instance, your new Boxer is available with exhaust emission control by closed-loop, three-way catalytic converter.

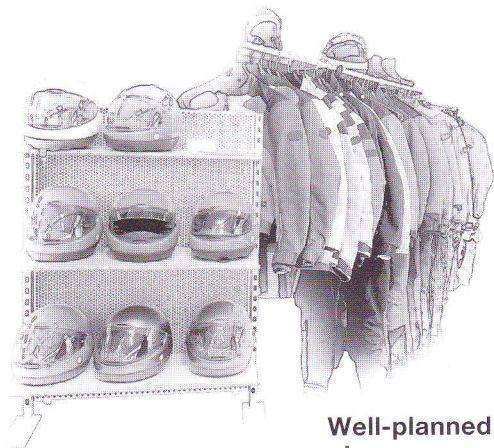
**...waste disposal...**

Behind the scenes, in the repair shop, we do not neglect the pro-environmental aspects of our work either.

Wherever possible, we use environmentally acceptable biodegradable materials. We ensure strict compliance with all environmental legislation, for example the correct disposal of old oil, which is now classified as hazardous waste in many countries.

**...recycling**

Alongside the correct disposal of environmentally hazardous materials, recycling is another high-priority issue for BMW. For example, plastics that are marked according to type can more easily be returned to the materials cycle. Remember: when it comes to making repairs to your motorcycle, the authorised BMW motorcycle workshop is far better equipped to protect the environment than you are at home.



### The essentials

To reach your destination safely every time, there is only one choice:

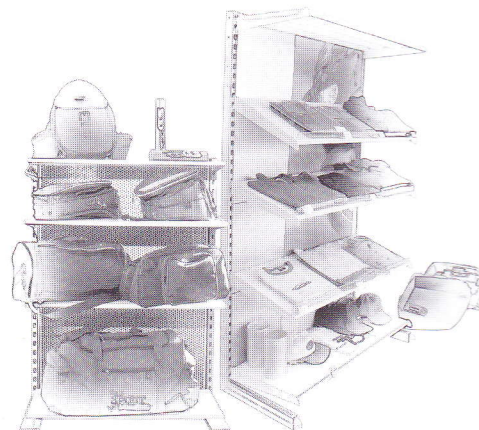
- Helmet
- Suit
- Gloves
- Boots

It is foolhardy to ride without these items of clothing. This even applies to short journeys, and to every season of the year.

### Well-planned riding pleasure

Many motorcyclists have learned the hard way that the proper clothing contributes so much to riding pleasure. You must feel comfortable and relaxed – and your own safety must never be endangered. There is no doubt about it: when buying motorcycling clothing, you simply cannot set your sights too high. It is good to know that the BMW brand can be trusted to supply you with safe, high-quality rider's clothing as well.

Information on the latest products is always available from your BMW motorcycle dealer.



### Always an idea ahead

This is our motto – and it is one we live up to. For many years now, BMW has offered the enthusiast everything capable of enhancing the fascination of motorcycling. A unique programme that is regularly updated and offers plenty of scope for choosing items according to individual preferences.

Ask your BMW motorcycle dealer for the latest upgrades and retrofits.

Every accessory product is made to the same exemplary standards of design, function and quality as the motorcycle itself. This calls for a great deal of experience, but our engineers are themselves enthusiastic motorcyclists who know what is needed. Accessories and motorcycle equipment are included when a new motorcycle is being developed, and their practical features optimised in a series of thorough tests. This is your guarantee of the high quality you expect from BMW.

## Cornering and braking need to be practiced

Develop a "sixth sense" for potentially dangerous situations. What this means: look ahead, plan how to avoid possibly dangerous situations and study other road users' behaviour with a degree of healthy scepticism.

- Take bends smoothly and rhythmically, avoiding violent braking and acceleration
- Approach bends slower than you feel they can be taken; a neat riding style will get you to your destination more safely than sheer speed
- Ride at the inner edge of the ideal line, look ahead and plan to leave the bend as smoothly as you entered it

Allow for reaction time when judging braking distances.

- At a speed of 50 km/h (31 mph), for instance, one second's hesitation means that about 14 metres (46 feet) are covered additionally before the brakes are applied
- At 90 km/h (56 mph), this distance grows to 25 metres (82 feet)

Practice applying the brakes with and without an extra load on the motorcycle, and study its reactions on various kinds of road surface.

Work up to the wheel lock limit gradually.

BMW has a worthwhile safety contribution to make in this area too – BMW Safety Training. These programmes are a wonderful opportunity: systematic basic and follow-up training enables you to master situations close to the limit and keep your motorcycle under supreme control whatever happens.

## Now it is your turn.

- Regular care is important, with all functions checked before the journey starts.
- Use only genuine BMW accessories. They comply with all the relevant safety requirements and are perfectly matched to your BMW
- Have your motorcycle serviced only by the trained, expert personnel at your local authorised BMW motorcycle dealer
- Do not under any circumstances install unapproved extras: the use of unapproved accessories constitutes a safety risk and voids your insurance and the motorcycle's permit
- It is always advisable to have technical modifications carried out only by an authorised BMW motorcycle dealer or workshop



### Note:

Your local BMW motorcycle dealer can supply you with useful items to accompany the Maintenance Instructions.

- BMW Repair Manual
- BMW set of circuit diagrams

It's good to know you've thought of everything, isn't it?

## Our aim is to make your journey safer

We want you to reach your destination safely – and for riding your BMW Boxer to be the most delightful leisure pastime in the world.



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Printed in Germany

BMW recommends Castrol



**BMW Motorrad  
Printed information**

Order No.:  
01 41 7 690 201  
10.2002  
6th edition GB / RF



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