Maintenance Instructions

K 1200 GT

BMW Motorrad

Please note

Warning:
This symbol indicates precautions and measures which are essential in protecting the rider or other persons from severe or fatal injury.

Attention:
Specific instructions and safety precautions 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.

Dear motorcycle enthusiast

For safety reasons and to maintain the value of your motorcycle, regular maintenance intervals have been laid down. Always keep to the specified maintenance intervals. This is the only way to ensure that warranty claims are not invalidated. The contents of the maintenance schedules are subject to change, for reasons of safety, due to modifications in, among other things, materials.
Your authorised BMW motorcycle dealer is best placed to provide information on the currently specified Service, Inspection and Annual Service work needed.

Important:
BMW refuses to accept liability for damage or consequential damage due to repairs or service work carried out by other than BMW-authorised workshops.

Consequently, we advise you to have service and maintenance work carried out by your authorised BMW motorcycle dealer's specially trained, expert personnel, and confirmed by an entry in the Maintenance Instructions. Authorised BMW motorcycle dealers are supplied with the latest technical information and have the necessary technical know-how and specially trained staff.
Please do not hesitate to contact your authorised BMW motorcycle dealer on all matters concerning your motorcycle. Authorised BMW motorcycle dealers are fully informed about all aspects of your motorcycle and will gladly advise and assist you.

Best wishes,

BMW Motorrad

For your own safety, use only genuine BMW spare parts and accessories approved by BMW.

If you choose genuine BMW accessories and spare parts that have been tested and approved, you can be sure that BMW has carried out the appropriate tests to confirm their suitability for use on your motorcycle. BMW accepts full liability for these products.

Note, however, that BMW is unable to accept liability for spare parts and accessories which it has not approved.

BMW cannot assess every single product of outside origin in order to decide whether it can be used on or with a BMW vehicle without constituting a safety hazard.

Nor is approval by an official technical inspection authority, or even the granting of a general operating permit necessarily a sufficient guarantee, since these test procedures are not always adequate.

Genuine BMW spare parts, accessories and other products which BMW has approved can be obtained from all authorised BMW motorcycle dealers, together with expert advice on their installation and use.

Maintenance work is divided up into Service, Inspection and Annual Inspection.

BMW Inspection, 1,000 km (600 miles)
BMW Running-in Check after the first 1,000 km (600 miles).

BMW Service
After the first 10,000 km (6,000 miles) and every further 20,000 km (12,000 miles) (30,000 km..., 50,000 km ..., 70,000 km...) (18,000 miles..., 30,000 miles..., 42,000 miles)

BMW Inspection
After the first 20,000 km (12,000 miles) and every further 20,000 km (40,000 km..., 60,000 km ..., 80,000 km...) (24,000 miles..., 36,000 miles..., 48,000 miles)

BMW Annual Inspection
Certain items of maintenance work depend on elapsed time as well as the distance the motorcycle has covered. These tasks must therefore be performed at least once a year (e.g. changing the brake fluid).
If these items cannot be carried out during a Service or an Inspection, an Annual Inspection must be performed.

Note:
Every authorised BMW motorcycle dealer has a fixed scale of charges based on work times and carefully calculated hourly rates.
Fuel, lubricants and similar substances, filters, gaskets etc. are charged separately.

Maintenance schedule

If you like, you can view the current maintenance schedule for your motorcycle on the Internet and download the file from www.bmw-motorrad.com/maintenance.

Confirmation of maintenance work

BMW pre-delivery check

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Service 10,000 km (6,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection, 1,000 km (600 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection 20,000 km (12,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

Confirmation of maintenance work

BMW Service
30,000 km (18,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Service
50,000 km (30,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection
40,000 km (24,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection
60,000 km (36,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

Confirmation of maintenance work

BMW Service
70,000 km (42,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Service
90,000 km (54,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection
80,000 km (48,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection
100,000 km (60,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

Confirmation of maintenance work

BMW Service
110,000 km (66,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Service
130,000 km (78,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection
120,000 km (72,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

BMW Inspection
140,000 km (84,000 miles)

Carried out in accordance with manufacturer's instructions

Odometer reading

Date, stamp, signature

Confirmation of maintenance work

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

Confirmation of maintenance work

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS
annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

Confirmation of maintenance work

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

BMW Annual Inspection
Carried out in accordance with manufacturer's instructions
Brake fluid changed:
Without BMW Integral ABS annually
yes ☐ no ☐
With BMW Integral ABS
Wheel circuit - annually
yes ☐ no ☐
Control circuit - every 2 years
yes ☐ no ☐
Clutch fluid changed:
Every 2 years
yes ☐ no ☐

Date, stamp, signature

Confirmation of service work

Record of all work carried out in workshop		
Work carried out	**km/miles**	**Date**

The list is intended as a record of maintenance, warranty and repair work, the installation of accessories and, if appropriate, special campaign work.

Confirmation of service work

Record of all work carried out in workshop		
Work carried out	**km/miles**	**Date**

The list is intended as a record of maintenance, warranty and repair work, the installation of optional accessories and, if appropriate, special campaign work.

Odometer replaced

Odometer reading is not total distance covered.

Odometer reading

Date, stamp, signature

Odometer replaced

Odometer reading is not total distance covered.

Odometer reading

Date, stamp, signature

Odometer replaced

Odometer reading is not total distance covered.

Odometer reading

Date, stamp, signature

Odometer replaced

Odometer reading is not total distance covered.

Odometer reading

Date, stamp, signature

Your motorcycle is equipped with Digital Motor Electronic (MOTRONIC) engine management and a high-power ignition system.

Warning:
When the engine is running or the ignition is switched on, do not touch electrically live components, terminals or wiring.
– Risk of fatal accident!
Work on the electrical system only when the circuit has been interrupted (ignition and lights switched off). For greater safety, disconnect and insulate the negative battery lead.

If you intend to perform the maintenance and general care work described in the following section yourself, you must possess the necessary knowledge of technical matters and mechanical skills.
Your motorcycle is built to high technological standards. Special tools and purpose-designed diagnosis and testing equipment, together with the appropriate knowledge, are needed to keep your motorcycle in optimum working order.

Your authorised BMW motorcycle dealer possesses the necessary technical know-how and employs company-trained staff. They can guarantee that your motorcycle is always maintained in a fault-free technical condition.
Remember: the safety and reliability of your motorcycle are the most important considerations. You should therefore not attempt any complex repair or maintenance tasks.
Keep to the specified Inspection and Service intervals.

BMW refuses to accept liability for damage or consequential damage due to repairs or service work carried out by other than BMW-authorised workshops.

Technical modifications

Warning:
The data stored in the MOTRONIC control unit is the result of extensive experimental and testing work. Tampering with the MOTRONIC control unit represents an increased safety risk for the rider.

Note:
Tampering with the MOTRONIC control unit invalidates the warranty.

There is only limited scope for technical modifications to the motorcycle.
Whenever you are planning such modifications, comply with all legal requirements. The motorcycle must not infringe your national road-vehicle construction and use regulations.
Your authorised BMW motorcycle dealer will gladly advise you on technical requirements, the manufacturer's recommendations and the overall benefit likely to be obtained.

Genuine BMW parts

For reasons of safety, use only genuine BMW parts and accessories
Genuine BMW parts are identical with those fitted to your motorcycle as original equipment.
BMW Motorrad refuses to accept any liability whatsoever for other-make spare parts and accessories.

Malfunction: Engine does not start at all or is very difficult to start

Possible cause	Remedy	See ➠ Page
Wrong ignition key position	Ignition key in ON position	➠ Rider's Manual, Chapter 1
Kill switch is off	Move kill switch to centre position	➠ Rider's Manual, Chapter 3
Side stand extended and gear engaged	Select neutral or retract side stand and pull clutch lever	➠ Rider's Manual, Chapter 3
Power supply interrupted	Blown fuse	➠ 48
Gear engaged, clutch not disengaged	Select neutral or pull clutch lever	➠ Rider's Manual, Chapter 3
No fuel in fuel tank	Add fuel	➠ Rider's Manual, Chapter 1
Fuel pump not working	Blown fuse 4	➠ 48
Incorrect operation of twistgrip		➠ Rider's Manual, Chapter 1

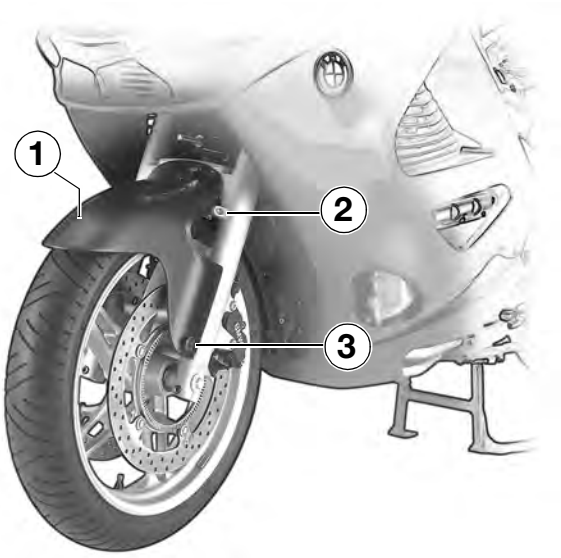
Troubleshooting chart

Malfunction: Engine does not start at all or is very difficult to start

Possible cause	Remedy	See ➠ Page
Blocked air filter element	Replace	
Defective spark plug	Replace	
Spark plug/leads or caps wet	Blow out/dry with compressed air	
Insufficient battery charge	Recharge battery	➠ 50

Note:
It is advisable to have other faults – not described on pages 14...60 – attended to by a specialist workshop, preferably an authorised BMW motorcycle dealer.

Note:
More detailed technical information is available in the following publications:
- BMW Repair Manual
- BMW electrical circuit-diagrams brochure



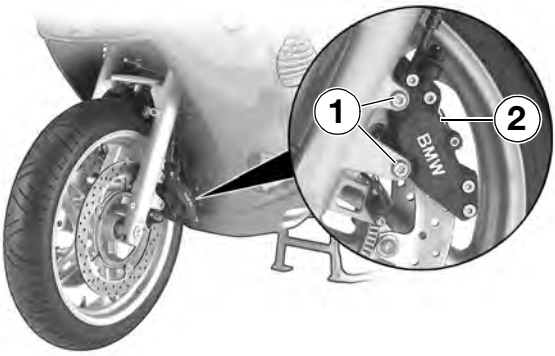
- Place the motorcycle on its main stand on a flat, firm surface

Warning:
Make sure that the motorcycle is standing firmly and cannot topple forward or to either side.

Removing the front mudguard

- Remove 1 screw **2** at left and right
- Remove 1 screw **3** at left and right
- Carefully remove front mudguard **1**

Removing the front wheel



Warning:
Motorcycle with BMW Integral ABS: Do not force the brake pads back further than necessary.
If brake fluid escapes from the bleed hose when the brake pads are forced back immediately consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

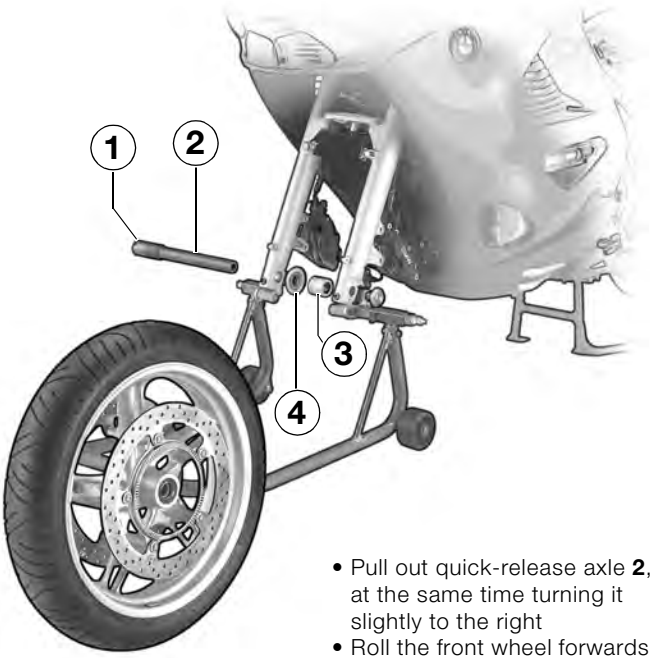
Attention:
When removing, do not damage brake lines, brake discs, brake pads and the wheel rim (mask off with tape if necessary).
Do not scratch the rim when forcing back the brake pads or removing the calipers (apply masking tape if necessary).
To prevent damage to the brake caliper and possible difficulty when assembling: never apply the brake lever when the brake calipers have been removed.
BMW Integral ABS:
Do not damage the ABS sensor cable, the ABS sensor ring and the ABS sensor.

- Remove securing screws **1** for the left/right brake calipers
- Push the brake pads **2** back a little by lightly rocking the brake calipers
- Carefully take off the left and right brake calipers

Note:
Check the brake pads (➠ 34) and have them replaced if necessary.

- Remove axle bolt **3**
- Slacken axle clamp screws **4** on the left and right
- Raise the front wheel with a suitable front-wheel stand, preferably BMW special tool No. 36 3 970 or a suitable auxiliary stand, and install suitable supports as necessary

Removing the front wheel



Note:

Mark the installed position on the tyre or ABS sensor ring or note the direction-of-rotation arrow if it is marked on the tyre.

- Insert a suitable screwdriver through hole **1** in quick-release axle **2**
- Pull out quick-release axle **2**, at the same time turning it slightly to the right
- Roll the front wheel forwards and out
- Remove spacer bushing **3** and bearing cap **4**

Attention:

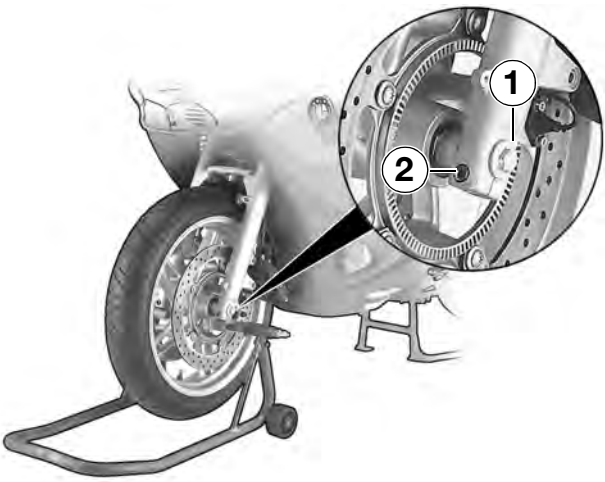
When setting down the front wheel, take care not to damage the brake discs and the ABS sensor ring. Keep dirt and moisture away from the wheel bearings.

Attention:
Do not damage brake lines, discs and pads when installing.
Keep dirt and moisture away from the wheel bearings.
Motorcycle with BMW Integral ABS:
Do not damage the ABS sensor cable, the ABS sensor ring and the ABS sensor.

Note:
Note the position marks on the tyre or ABS sensor ring, or the direction-of-rotation arrow on the tyre.

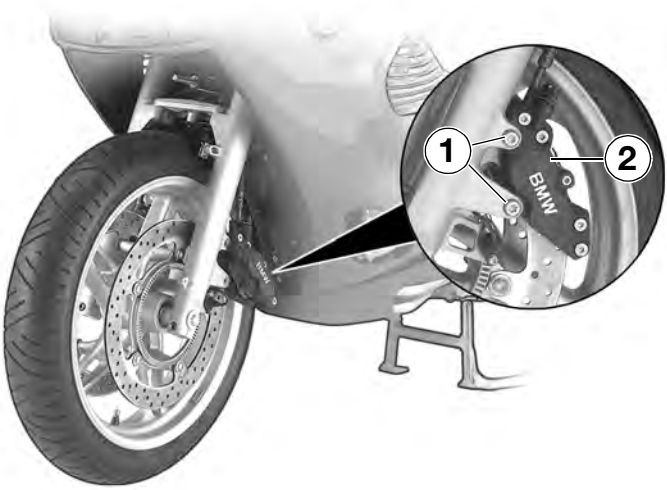
- Insert the spacer bushing and the bearing cap.
  Looking forwards:
  – left: spacer bushing **3**
  – right: bearing cap **4**
- Roll the front wheel in between the fork legs
- Clean quick-release axle **1**, grease it, and insert it from the right, turning it slightly at the same time (while holding the wheel up)

Installing the front wheel



- Hand-tighten axle bolt **1**
- Hand-tighten axle clamp screws **2**
- Remove front-wheel stand
- Compress the front forks firmly several times
- Tighten axle bolt **1** to its specified torque
- Tighten axle clamp screws **2** on left and right to their specified torque

Attention:
Always have the tightening torques checked by a specialist workshop, preferably an authorised BMW motorcycle dealer.

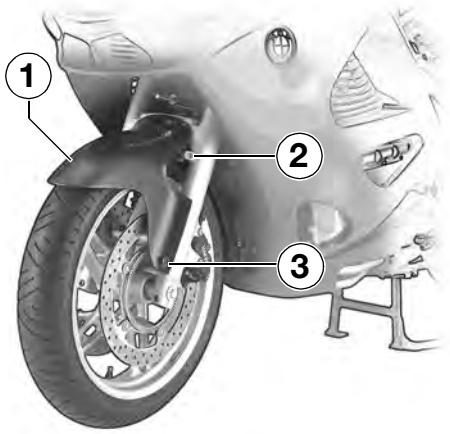


Installing brake calipers

- Carefully slip left and right brake calipers **2** over the brake discs
- Using 2 screws **1** per caliper, secure the brake calipers on each side and tighten the screws to the specified torque

Tightening torque:

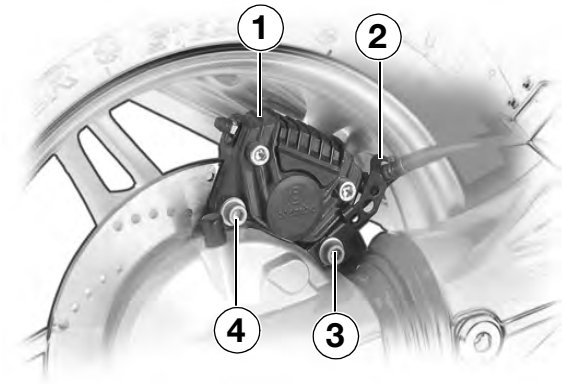
Axle bolt	30 Nm
Axle clamp screws	21 Nm
Brake caliper securing screws	30 Nm



Installing the front mudguard

- Carefully install front mudguard **1**
- Tighten 1 screw **2** at left and right, and align the rear section of the front mudguard so that it is centred over the wheel
- Tighten 1 screw **3** at left and right

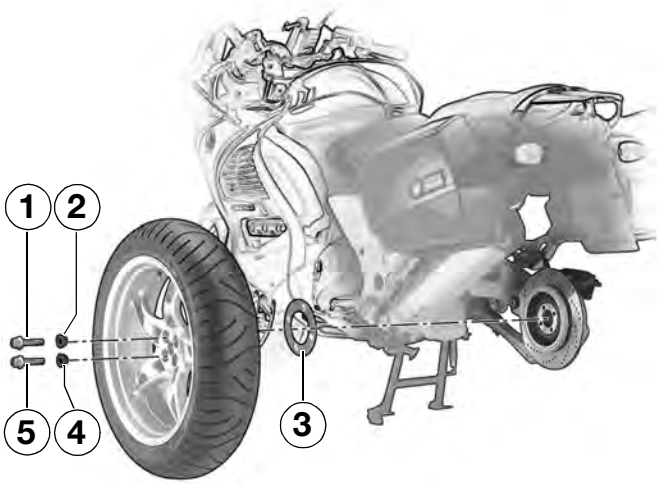
Warning:
Motorcycle with BMW Integral ABS: Once assembly work on the brake calipers has been completed, the handbrake lever has to be operated after the ignition has been switched on and self-diagnosis completed, in order to ensure full operability.



Attention:
Do not damage brake lines, brake disk, brake pads and wheel when removing.
Do not damage the ABS sensor cable, the ABS sensor ring and the ABS sensor.
Do not scratch the wheel when forcing back the brake pads or removing the caliper **1** (apply masking tape if necessary).
To prevent damage to the brake caliper and possible difficulty when assembling: never operate either brake lever when a brake caliper has been removed.

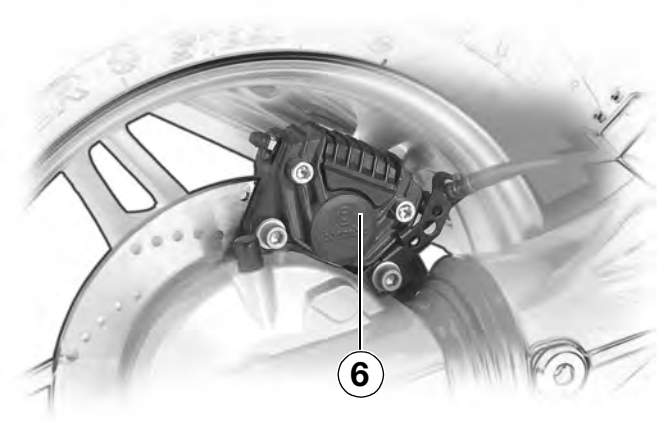
- Place the motorcycle on its main stand on a flat, firm surface (➠ Rider's Manual, Chapter 3)
- Apply a load at the front wheel so that the motorcycle cannot tip toward the rear
- Select first gear
- Push the splash guard up (➠ 33)
- Release fitted screw **3** and remove together with bracket **2**
- Remove brake-caliper screw **4**

Removing the rear wheel



Warning:
Motorcycle with BMW Integral ABS: Do not force the brake pads back further than necessary.
If brake fluid escapes from the bleed hose when the brake pads are forced back immediately consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

- Carefully push the brake pads back by lightly rocking the brake caliper
- Carefully place the brake caliper on the brake disc
- Remove the four wheel studs **1** with taper rings **2**
- Take out central screw **5** with taper ring **4**
- Pull the rear wheel off the centring spigot and set it down



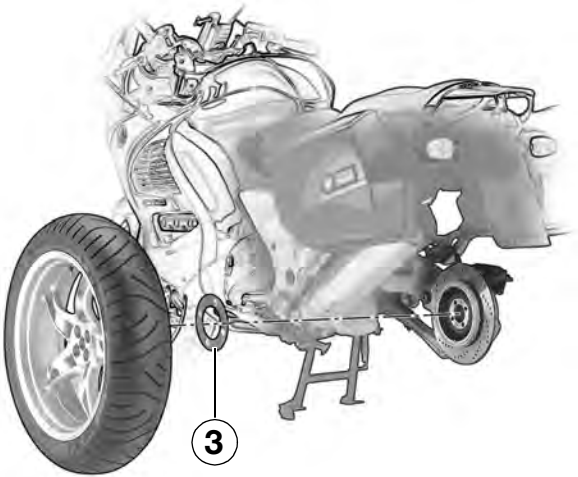
- Carefully remove brake caliper **6** and set it on the swinging arm

Note:
Check the brake pads (➠ 35) and have them replaced if necessary.

- Remove spacing washer **3** from the wheel centring spigot
- Tilt the rear wheel and lower it to the ground

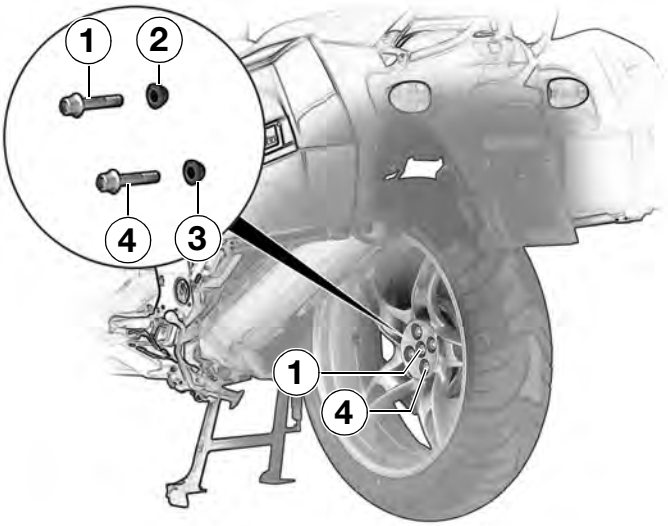
Attention:
Protect the wheel hub contact face against dust and dirt.

Installing the rear wheel



Attention:
Use only wheel studs with length code “55”. Do not oil or grease the wheel studs.
Do not damage brake lines, brake disc, brake pads and wheel rim when installing.
Do not damage the ABS sensor cable, the ABS sensor ring and the ABS sensor.

- Check that the wheel centring spigot and the contact faces of wheel hub and spacing washer **3** are free of grease
- Push spacing washer **3** onto the wheel centring spigot
- Tilt the rear wheel, guide it past the exhaust, and lower it to the ground
- Carefully place the brake caliper over the brake disc
- Insert rear wheel into centring hole

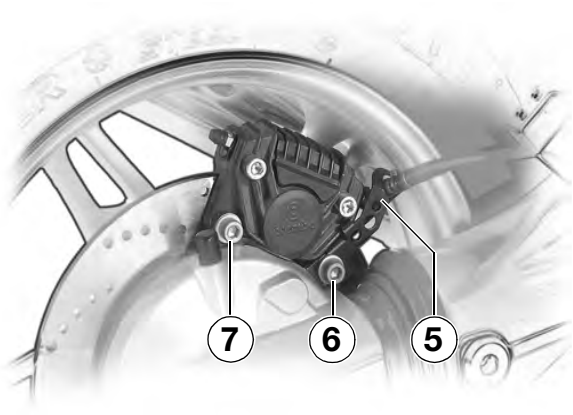


- Hand-tighten central screw **1** with taper ring **2**
- Insert four wheel studs **4** with taper rings **3** and hand-tighten, then tighten to the specified preload torque in diagonally opposite sequence
- Tighten central screw **1** to the specified torque
- Tighten the four wheel studs **4** in diagonally opposite sequence to the specified torque

Tightening torque:

Preload torque
Wheel studs ..... 50 Nm
Tightening torque
Wheel studs ..... 105 Nm
Central screw ..... 105 Nm

Installing the rear wheel



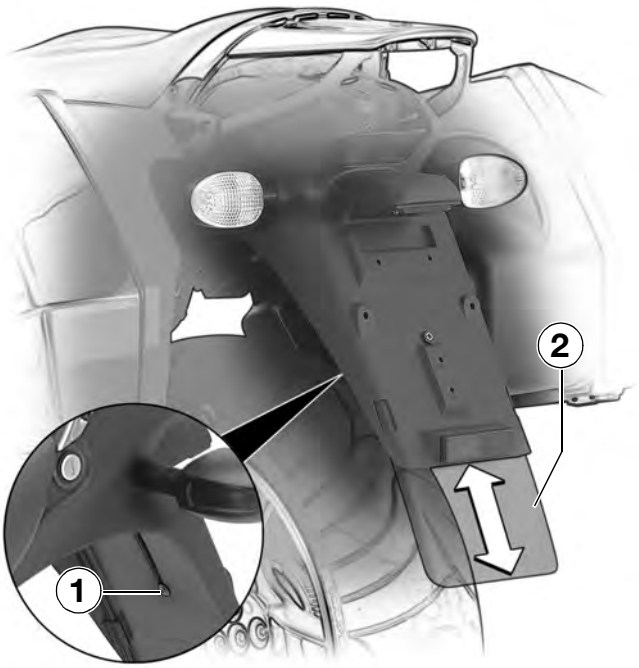
Warning:
Motorcycle with BMW Integral ABS: Once assembly work on the brake calipers has been completed, the brake lever has to be operated after the ignition has been switched on and self-diagnosis completed, in order to ensure full operability.

Attention:
Make sure that bracket **5** for the brake line is correctly positioned.

- Install fitted screw **6** with bracket **5** and brake-caliper screw **7** with washer
- Tighten fitted screw and brake-caliper screw to specified torque

Attention:
Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW motorcycle dealer.

Tightening torque:
Fitted screw ..... 40 Nm
Brake-caliper screw ..... 40 Nm

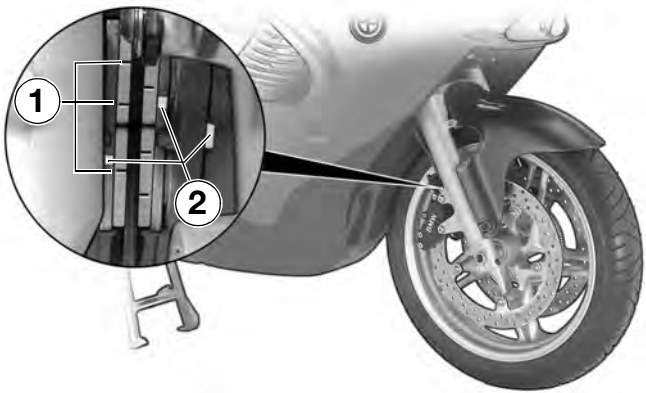


Adjusting the spray guard

Note:
You can adjust the spray guard to suit load and/or weather conditions.

- Slacken screw **1** on the inside of the rear mudguard
- Move spray guard **2** to the desired position and carefully tighten screw **1**

Checking brake pads



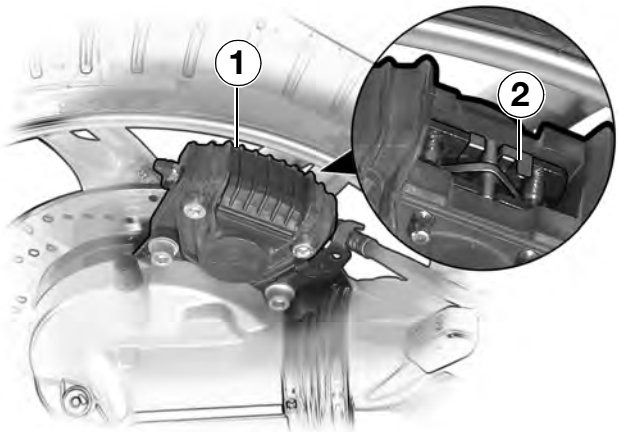
Front brake

Attention:
Have the brake pads replaced before the minimum permitted thickness is reached.

Note:
For your safety, we recommend having work on the brake system performed by a specialist workshop, preferably an authorised BMW motorcycle dealer.

- Make sure the ground is level and firm and lift the motorcycle onto its main stand
- Visually inspect both brake pads and the brake caliper and make sure that they all bear the same colour mark **2**
- Visually check brake pad thickness

Minimum pad thickness:
Wear indicating mark 1 must be clearly visible on the pads.
– If the wear indicating mark is no longer clearly visible:
have the brake pads replaced by a specialist workshop, preferably an authorised BMW motorcycle dealer.



Rear brake

Attention:
Have the brake pads replaced before the minimum permitted thickness is reached.

Note:
For your safety, we recommend having work on the brake system performed by a specialist workshop, preferably an authorised BMW motorcycle dealer.

- Make sure the ground is level and firm and lift the motorcycle onto its main stand
- Remove cover **1** from the brake caliper
- Visually check brake pad thickness

Minimum pad thickness:
Make sure that the tip of wear indicator 2 does not contact the opposing brake pad.

– If the wear indicator is in contact with the opposing brake pad:

have the brake pads replaced by a specialist workshop, preferably an authorised BMW motorcycle dealer.

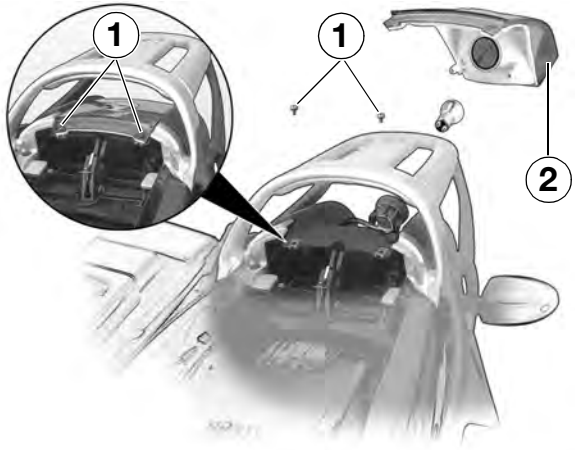
Notes on changing bulbs

Your motorcycle is equipped with Digital Motor Electronic (MOTRONIC) engine management and a high-power ignition system.

Warning:
Work on the electrical system only when the circuit has been interrupted (ignition switched off). For greater safety, disconnect and insulate the negative battery lead. When the engine is running or the ignition is switched on, do not touch electrically live components, terminals or wiring.
– Risk of fatal accident!

Attention:
Your vehicle has a high-beam/low-beam bulb, a brake-light bulb/rear-light bulb, a parking-light bulb, a bulb for the number-plate light, and four bulbs for the turn indicators. If any of these bulbs fail, you may have problems in seeing and being seen.
You should therefore always carry spare bulbs on the motorcycle.

Note:
Do not touch the glass of new bulbs with the fingers.
Use a clean, dry cloth to hold the bulbs when inserting them. Dirt deposits, in particular oil and grease, interfere with heat radiation from the bulb. This leads to overheating and shortens the bulb's operating life.



Rear/brake light

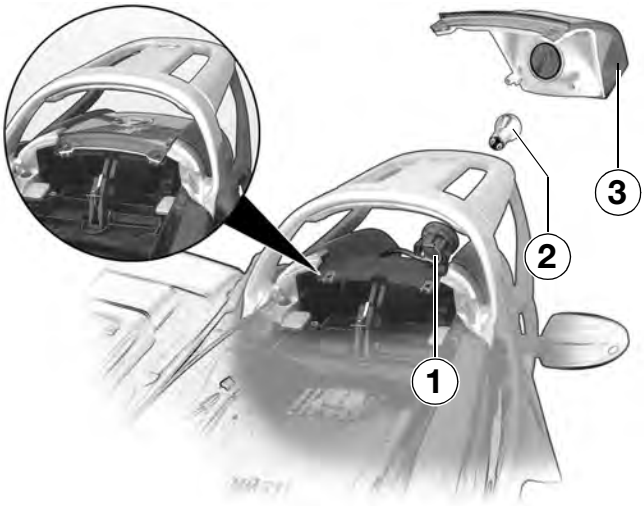
Attention:
Switch off the ignition before changing a bulb.

Note:
On a motorcycle fitted with BMW Integral ABS, the dimmed brake light takes over the function of the rear light if the rear light fails. The "general" warning light in the cockpit indicates that this is the case. (➠ Rider's Manual, Chapter 3).

Note:
Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when inserting them.

- Place the motorcycle on its main stand on a firm, flat surface
- Remove the rear seat
- Remove 2 retaining screws **1**
- Pull rear light **2** to the rear to remove

Changing bulbs



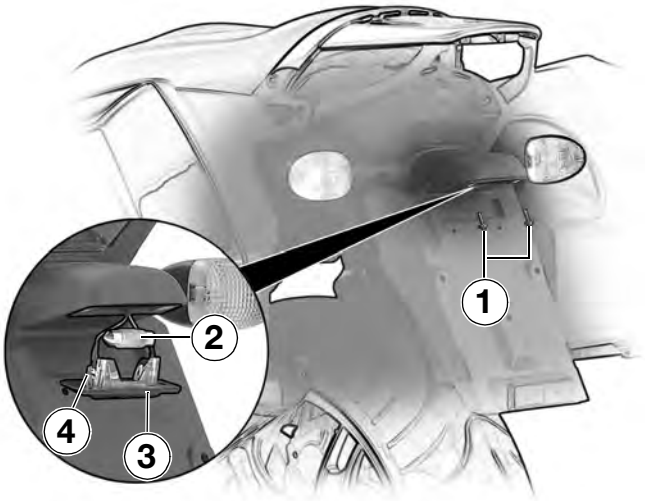
- Turn bulb socket **1** counter-clockwise to disengage and remove it from the rear light
- Press bulb **2** into its socket, and disengage it by turning it counter-clockwise
- Remove the bulb

Note:

When installing, note the different sizes of the recesses in bulb housing **3.**

- Installation is the reverse of the removal procedure

– Brake/rear light bulb **2**: **12 V 21/5 W**



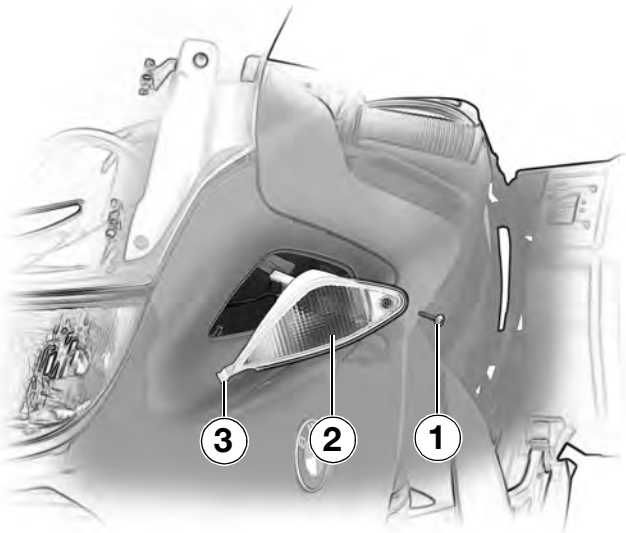
Number-plate light

Attention:
Switch off the ignition before changing a bulb.

Note:
Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when inserting them.

- Place motorcycle on main (centre) stand
- Remove two screws **1**
- Pull number-plate light **3** down to remove
- Press back the spring wire clip and remove the bulb **2**
- Place the bulb in the two spring clips
- Insert number-plate light **3** into housing, noting pin **4**
- Carefully tighten two screws **1**

– Number-plate light bulb **2**: **12 V 5 W Soffite**

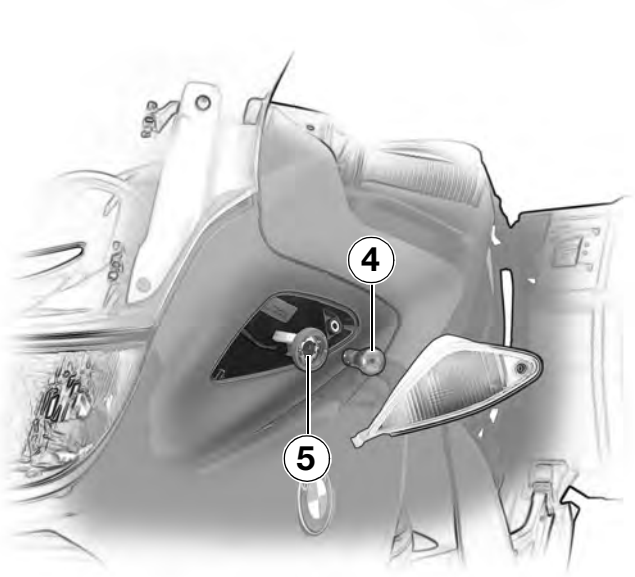


Front turn indicators

Attention:
Switch off the ignition before changing a bulb.

Note:
Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when inserting them.

- Place motorcycle on main (centre) stand
- Remove securing screw **1**
- Remove turn-indicator housing **2** from the front fairing



- Turn bulb socket **5** counter-clockwise to disengage and remove it from the turn-indicator housing
- Press bulb **4** into its socket, and disengage it by turning it counter-clockwise
- Remove the bulb

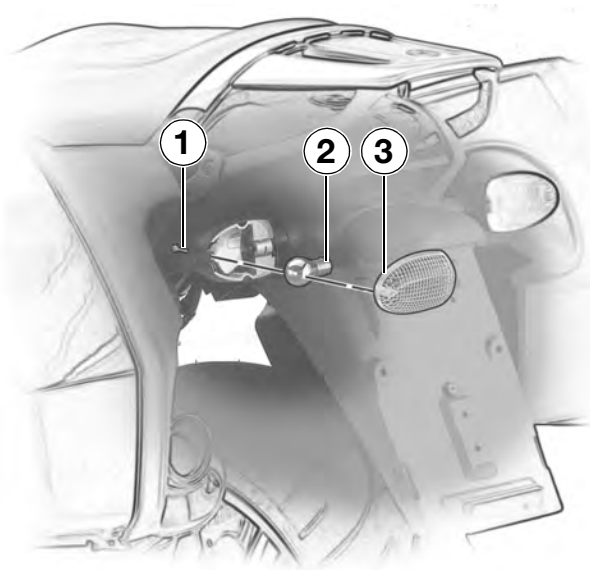
– Front turn-indicator bulbs **4**: **12 V 21 W**

- Installation is the reverse of the removal procedure

Note:

When installing the turn-indicator housing, begin by engaging spring link **3** in the front fairing.

Changing bulbs



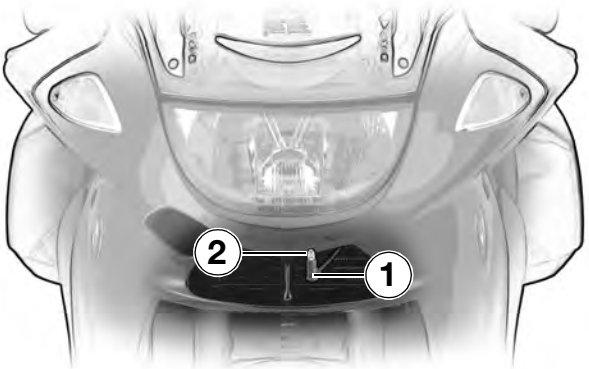
Rear turn indicators

Attention:
Switch off the ignition before changing a bulb.

Note:
Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when inserting them.

- Place motorcycle on main (centre) stand
- Remove securing screw **1**
- Take off the flashing turn indicator glass **3**
- Press bulb **2** into its socket, and disengage it by turning it counter-clockwise.
  Take out the bulb
- Installation is the reverse of the removal procedure

– Rear turn indicator bulbs **2**: **12 V 21 W**



Parking light

Attention:
Switch off the ignition before changing a bulb.

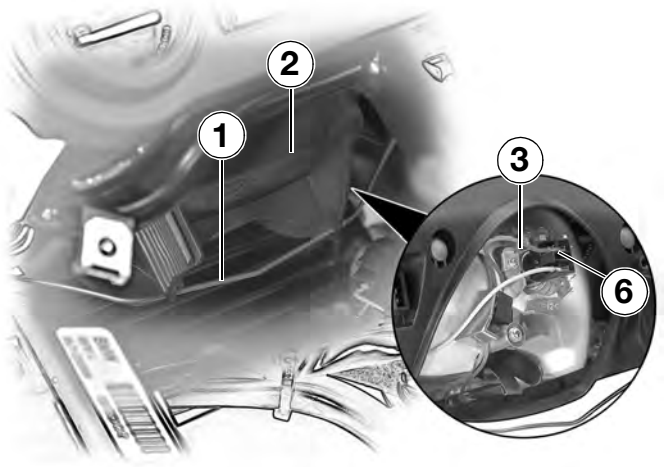
Note:
Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when inserting them.

- Place motorcycle on main (centre) stand
- Working from in front, pull bulb holder **1** down and out of the headlight housing
- Pull bulb **2** upwards out of the holder
- Insert the new bulb into the holder

– Parking light bulb **2**:
12 V 5 W

Note:
Press the bulb holder fully into its mounting.

Changing bulbs



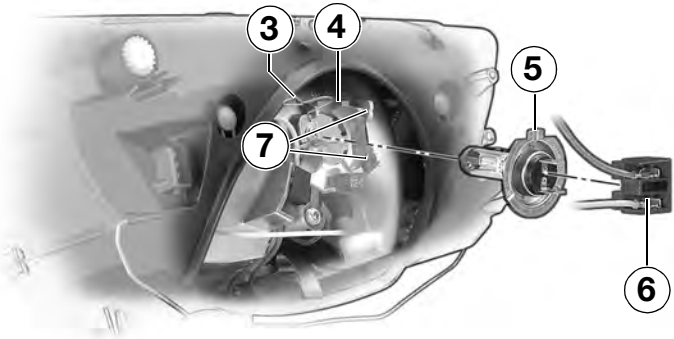
Low-beam headlight

Attention:
Switch off the ignition before changing a bulb.

Note:
Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when inserting them.

- Place motorcycle on main (centre) stand
- Turn the handlebars to the left
- Disengage retaining clip **1** on one side first, then the other, press down and disengage from cover **2**
- Remove cover **2**
- Remove connector housing **6**
- Release spring clips **3** from their catches **7** at top and bottom, and swing them back
- Remove the H7 bulb

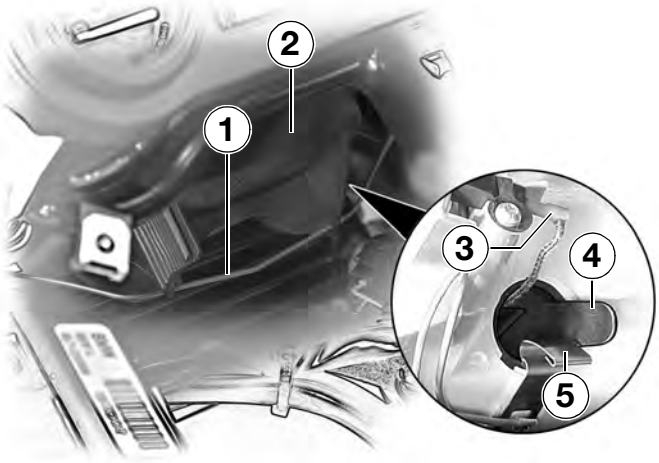
– Low-beam headlight
H7 12 V 55 W



Note:

Tab **5** must point vertically up, so that it can be inserted into recess **4**.

- Insert a new H7 bulb
- Engage spring clips **3** at top and bottom in catches **7**
- Seat plug housing **6** on bulb connections
- Insert cover **2**
- Engage retaining clip **1** on one side first, then the other, pull the clips up and engage them

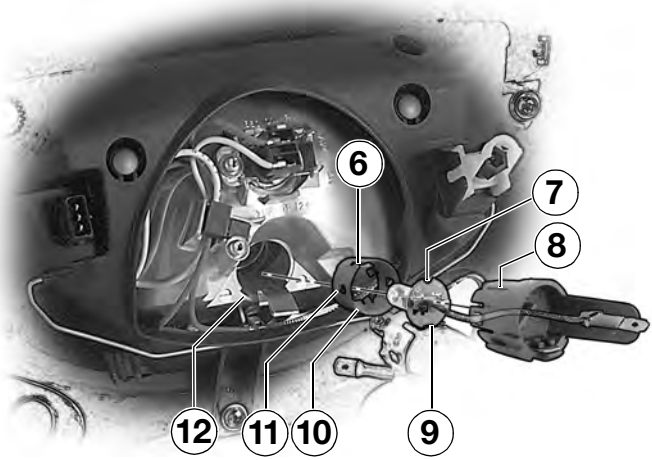


High headlight beam

Attention:
Switch off the ignition before changing a bulb.

Note:
Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when inserting them.

- Place motorcycle on main (centre) stand
- Turn the handlebars to the left
- Disengage retaining clip **1** on one side first, then the other, press down and disengage from cover **2**
- Remove cover **2**
- Disconnect connector **3**
- Press earth (ground) clip **5** down and disengage it
- Pull the bulb socket out of the headlight housing using grip **4**

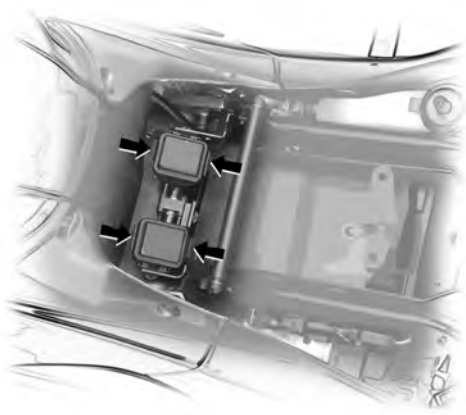


- Using a screwdriver, press in one retaining lug **11** at left and right, and open up the bulb holder
- Remove the H3 bulb from lamp ring **10**
- Installation is the reverse of the removal procedure

– High-beam headlight:
H 3 12 V 55 W

Note:

When installing
– Make sure that groove **7** (round) and groove **9** (rectangular) are correctly positioned
– Align groove **6** in such a way that it points toward guide **8**
– Make sure that retainers **11** on left and right engage
– Grip **4** to the right
– Note grooves **12** on left and right and make sure that ground clip **5** engages

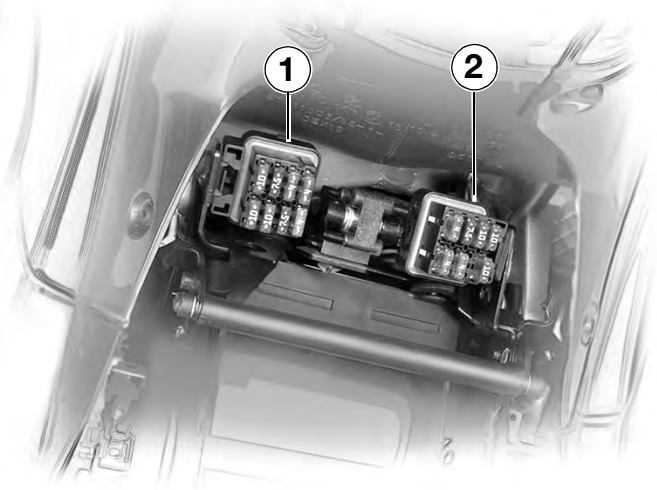


Attention:
Before changing a fuse, switch off the ignition.
Never attempt to repair a blown fuse – risk of fire!
For this reason, always carry a number of spare fuses on the motorcycle (➠ 70).
Use only fuses of the specified rating and type.

Changing fuses

- Place motorcycle on main (centre) stand
- Remove the seat
- Push the retainers in the direction indicated by the arrow and remove the cover of the fuse box
- Pull the blown fuse out of its holder
- Insert a new fuse of the correct rating
- Close the fuse box lid
- Close and lock the seat

Note:
It is advisable to have the electrical system checked by a specialist workshop, preferably an authorised BMW motorcycle dealer, if fuses blow frequently.



Equipment connected to fuses

Fuse box 1

1 Engine electronics ..... 10 A
2 Motronic and fuel pump ..... 10 A
3 Horn, anti-theft alarm[OE] ..... 10 A
4 Low-beam headlight, instrument and number-plate lights ..... 7.5 A
5 High-beam headlight ..... 7.5 A
6 Parking light, rear light ..... 4 A
7 Instrument panel ..... 4 A
8 Instrument panel, control unit fuel warning light ..... 4 A

Fuse box 2

1 Fan ..... 10 A
2 Cruise control system[OE] .. 10 A
3 Windscreen ..... 10 A
4 Not used
5 Power socket ..... 7.5 A
6 Optional accessories plug . 4 A
7 Heated handlebar grips[OE] . 4 A
8 Seat heating[OE] ..... 4 A

[OE] Optional extra

Gel batteries are maintenance-free. Compliance with the instructions below is important in order to maximise battery life:

Attention:
- Keep the surface of the battery clean and dry
- Do not attempt to open the battery
- Do not attempt to top up the battery with water
- Use only electronically controlled battery chargers with a limit voltage of 14.4 V to charge the battery.

Correct upkeep, recharging and storage will prolong the life of the battery and are essential if warranty claims are to be considered.

Warning:
Do not attempt to jump-start the motorcycle using the on-board socket
– Risk of fire!
- **Push-start the motorcycle only when the engine is cold.**

The wires leading to the power socket do not have a load-capacity rating adequate for jump-starting the engine.

Attention:
Do not attempt to jump-start the motorcycle if the battery is completely flat: recharge the battery instead.
Risk of damaging the control units.

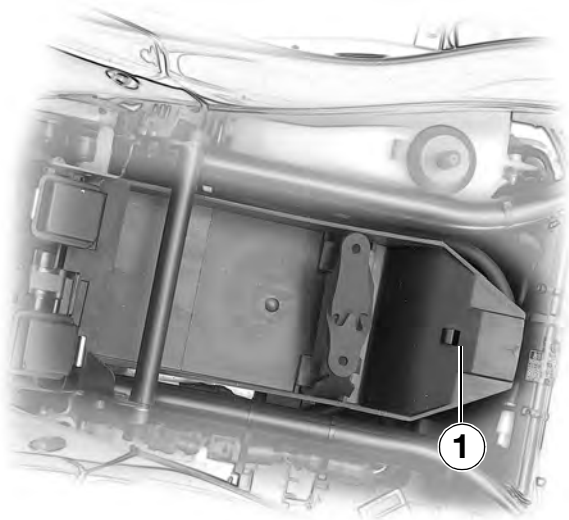
Motorcycle out of use for a lengthy period

- The battery has to be charged prior to lay-up periods of more than one month.

Attention:
If the battery is not disconnected, the on-board electronics (clock, etc.) will discharge the battery. This can cause the battery to run flat. If this happens, warranty claims will not be accepted.
Disconnect the earth cable from the battery prior to a lay-up.

– Batteries that are not in use must be stored in a cool place. Do not store a discharged battery
– If the battery is in storage for an extended period of time, recharge it at regular intervals of approx. 4 months. If the battery is not disconnected from the motorcycle's systems, recharge it every 2 months at the latest
– Always fully recharge the battery before restoring it to use

In case of doubt ask a specialist, preferably an authorised BMW motorcycle dealer, to prepare the vehicle for laying up and to undertake the necessary battery maintenance and storage

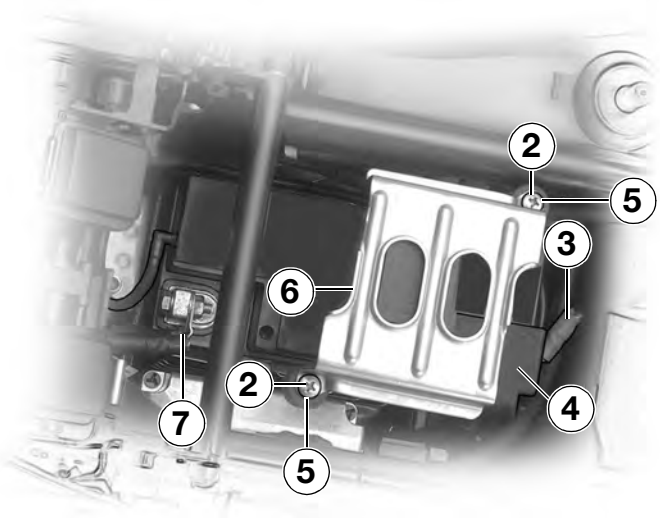


Removing the battery

Warning:
Take care not to damage fuel tank, wiring and hoses during removal work.
Before disconnecting the battery, switch off the ignition.
To avoid short-circuits:
- First disconnect the **negative** battery lead (–) ,
- then the **positive** battery lead (+).

Note:
Disconnecting the battery deletes all entries (e.g. faults, settings) stored in the Motronic control unit's memory.
Loss of settings can temporarily impair the operating characteristics when the engine is restarted.

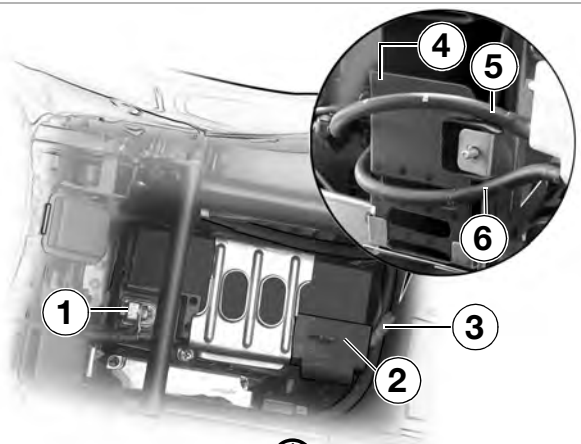
- Place motorcycle on main (centre) stand
- Remove the seat
- Remove stowage compartment **1** for toolkit



- Disconnect **negative** battery lead **7** and swing it away from the **negative** post of the battery or insulate it
- Swing up protective cap **4** at the positive post
- Disconnect **positive** battery lead **3** and swing it up out of the cable guide
- Remove 2 screws **2** from battery holder **6**

Note:
Note rubber elements **5** on left and right.

- Lift out the battery holder **6** with 2 screws **2**
- Lift out the battery



Installing the battery

Warning:
Before connecting the battery, switch off the ignition.
To avoid short-circuits:
- **Connect the positive battery lead (+) 3 first**
- **Close the protective cap at positive battery post 2**

– **Never install the battery without the protective cap.**

- **Connect negative lead (–) 1**

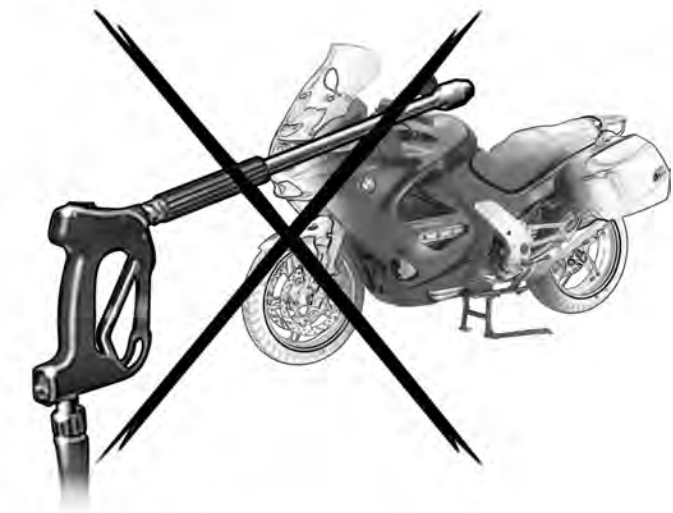
– **The toolkit storage compartment must always be in position, or else the protective cap for the positive battery lead could open.**

Warning:
Make sure that guard 4 is correctly positioned.
Make sure that brake fluid hoses 5, 6 are correctly routed to avoid rubbing.

Note:
Note the rubber elements on left and right.

- Installation is the reverse of the removal procedure
- Switch on the ignition
- Fully open the throttle once or twice

– The Motronic registers the throttle-valve positions



Note:
Regular cleaning, using the correct methods, is an important factor in maintaining the value of your motorcycle.
It also ensures that safety-relevant parts remain in full working order.

Attention:
Do not use aggressive or penetrating cleaning agents or solvents, as they would cause damage to rubber and plastic parts.
Do not use a steam jet or high-pressure cleaning equipment. High water pressure can damage seals, the hydraulic brake system or the complete electrical system.

Washing the motorcycle

- Make sure the ground is level and firm and lift the motorcycle onto its main stand
- Apply a mild cleaning agent to the wheels, engine block, gearbox and swinging arm, in accordance with the manufacturer's instructions
- Dry wet surfaces thoroughly
- Use only cleaning and care products recommended by an authorised BMW motorcycle dealer on the fairing elements and body panels.
- Do not use solvents or cleaning products to wash the instrument cluster, switches or the windscreen.
- Remove tar splashes only with an approved cleaning agent – rinse the affected area thoroughly
- Clean dead flies and other insects or similar dirt deposits off the fork stanchions.
- Treat painted and chrome-plated surfaces regularly with the approved care products.

Warning:
After cleaning and before starting a journey, always test the brakes.

Removing road salt

- Wash the motorcycle down immediately with cold water at the end of the journey.

Note:
Do not use warm water – this aggravates the effect of the salt.

- Dry the motorcycle thoroughly.
- Apply a wax-based corrosion inhibiting product to chrome-plated parts.
- After cleaning and drying the fairing and trim panels, apply a recommended wax polish.

Cleaning the windscreen

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

Note:
Soften stubborn dirt or insects by soaking with a wet kitchen tissue.

Attention:
Do not use detergent products. Fuel or chemical solvents attack the windscreen material.

Repairing damage to the paintwork

- Minor damage caused by stones striking the painted surface can be touched in with a BMW paint pencil of the correct colour.

Attention:
Comply with the manufacturer's working instructions and safety precautions.

Note:
Have severe damage repaired by a specialist workshop, preferably your authorised BMW motorcycle dealer.

Chrome-plated parts, care

Note:
Treat chrome-plated parts regularly with suitable care products.

- Apply a wax-based corrosion-proofing product to chrome-plated parts

Care of exhaust silencer

- Changes in the appearance of the exhaust system during operation or as a result of environmental influences can be treated with “Metal Polish” from the Autosol company, BMW order No. 82 14 9 400 890.

Laying up

- Clean the motorcycle (➠ 55-58)
- Remove the battery (➠ 50-53)
- Spray the brake and clutch lever pivots and the main-stand pivots with a suitable lubricant
- Coat bright metal/chrome-plated parts with an acid-free grease (e.g. Vaseline)
- Place the motorcycle on its main stand in a dry room
- Support the engine in such a way that both wheels are clear of the ground
- Remove the engine spoiler to obtain space for the support; avoid damaging the exhausts when installing the support

Note:

Before laying the vehicle up out of use have the engine oil and the oil filter element changed by a specialist workshop, preferably your authorised BMW motorcycle dealer.

It is always a good idea to combine the preparations for a lay-up and the post lay-up work with a Service or Inspection by a specialist workshop, preferably your authorised BMW motorcycle dealer.

Restoring to use

- If necessary, remove protective wax coating
- Clean the motorcycle (➠ 56)
- Install a charged battery (➠ 54)
- Run all safety checks (➠ Rider's Manual, Chapter 2)
- Check brakes (➠ Rider's Manual, Chapter 2)
- Check/correct tyre pressures (➠ Rider's Manual, Chapter 2)

	72 kW**	96 kW
Type	Water-cooled inline four-cylinder engine, longitudinal and horizontal installation, with 4 valves per cylinder, bucket-type tappets, two chain-driven overhead camshafts and wet sump lubrication.	
Displacement	1,171 cc	
Max. nominal power output acc. to 95/1/EC		
	72 kW	96 kW
- at engine speed	7,000 rpm	8,750 rpm
Max. torque	118 Nm	117 Nm
- at engine speed	5,500 rpm	6,750 rpm
Permissible engine speeds		
Maximum speed	9,400 rpm	
Idle speed	900 +50 rpm	
Bore/stroke	70.5/75 mm (2.76/2.95 in)	
Compression ratio	11.5 : 1	
Fuel consumption to ISO 7118		
at a constant speed of 90 km/h (56 mph)	4.9 l/100 km (57.7 miles/gal)	
at a constant speed of 120 km/h (75 mph)	5.8 l/100 km (48.7 miles/gal)	
Maximum oil consumption	1.0 l/1,000 km (2.825 miles/gal)	

** National-market equipment items only, depending on legal requirements

Transmission

Clutch	Single-plate dry clutch with over-centre action diaphragm spring and starter ring gear, mounted on crankshaft. Hydraulic actuation Force at handlebar lever 95 N.
Clutch plate dia.	180 mm (7.09 in)
Gearbox	6-speed with claw shift and integral torsional vibration damper
Total spread of gear ratios	1st gear = 3.863 2nd gear = 3.022 3rd gear = 2.393 4th gear = 1.961 5th gear = 1.700 6th gear = 1.511
Transmission from gearbox to rear-wheel drive	By shaft protected within hollow swinging arm of Paralever rear suspension, with integral torsional vibration damper and two universal joints.
Rear-wheel drive	Crown wheel and pinion with Palloid tooth pattern, running in anti-friction bearings; crown wheel directly attached by flange on back to rear wheel.
Final drive ratio	1 : 2.75

Frame	Chill-cast load-bearing aluminium frame, welded from 4 sections; engine mounted on silentbloc bearers to prevent the transmission of vibration.
Location of type plate	On rear frame on left (➠ Rider's Manual, Chapter 1)
Location of VIN	On rear frame, bottom right (➠ Rider's Manual, Chapter 1)
Front brake	Hydraulically operated twin disc brake with 4-piston fixed calipers, angular wear compensation and floating stainless-steel brake discs. Sintered metal brake pads Note colour coding (➠ 34)
Rear brake	Hydraulically operated disc brake with 2-piston fixed caliper and stainless-steel brake disc. Brake pads made from organic material
Brake system	BMW Integral ABS, partially integral

Frame and suspension

Wheel location	
Front	Telelever, leading link with central spring strut, pivoted centrally on main frame; no anti-dive
Rear	Cast aluminium single swinging arm with reaction link to compensate for shaft drive effects (Paralever); swinging arm with off-centre spring strut
Front suspension	Gas-filled spring/damper strut, no provision for adjustment
Spring travel (bump)	60 mm (2.36 in)
Spring travel (rebound)	55 mm (2.17 in)
Total spring travel	115 mm (4.53 in)
Fork stanchion diameter	35 mm (1.38 in)
Rear suspension	Gas-filled spring/damper strut with adjustable rebound-stage damping and mechanical spring preload adjustment; kinematic progressive rate.
Spring travel (bump)	113 mm (4.45 in)
Spring travel (rebound)	37 mm (1.46 in)
Total spring travel (at wheel)	150 mm (5.9 in)
Swinging arm length	485 mm (19.09 in)

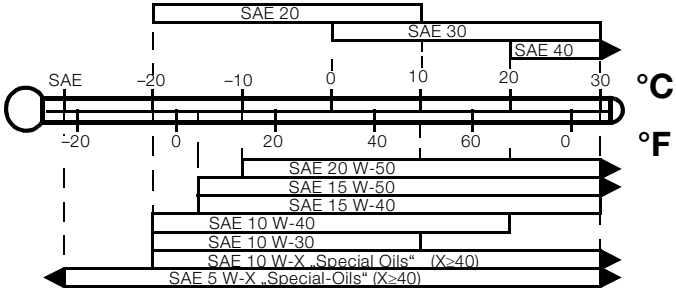
Steering lock angle	
	2 x 30°
Front wheel castor	
in normal-load position	124 mm (4.88 in)
Recommended minimum tyre tread depth	
Front wheel	2 mm (0.08 in)
Rear wheel	3 mm (0.12 in)
	Warning: **Comply with local legal requirements concerning minimum tread depth**
Tyre pressures (tyres cold)	
One-up Front	2.5 bar (36 psi)
Rear	2.9 bar (42 psi)
Two-up Front	2.5 bar (36 psi)
Rear	2.9 bar (42 psi)
Two-up+ luggage	
Front	2.5 bar (36 psi)
Rear	2.9 bar (42 psi)

Frame and suspension

Wheels and tyres	BMW cast-aluminium wheels with 5 double-spoke design, low aspect-ratio tyres **Note:** You can obtain detailed information on approved tyre sizes and makes from your authorised BMW motorcycle dealer or by visiting www.bmw-motorrad.com on the Internet
Front wheel	Angled rim shoulder and double tyre retaining hump
Size and designation	3.50 x 17”
Tyre size and designation	120/70 ZR 17 TUBELESS
Rear wheel	Angled rim shoulder and double tyre retaining hump
Size and designation	5.50 x 17”
Tyre size and designation	170/60 ZR 17 TUBELESS
Optional extra	180/55 ZR 17 TUBELESS

Engine oil

Brand-name HD oil of API classification SF, SG or SH; CD or CE amendments are permissible; or brand-name HD oil of CCMC classification G4 or G5; amendment PD2 is permissible.



The viscosity class depends on outside temperatures.
Temperatures above or below the limits quoted for the individual SAE classifications are permitted for brief periods only.
“Special Oils” are approved individually by BMW AG and available from your authorised BMW motorcycle dealer.
All engine oils supplied by BMW are subject to regular BMW quality assurance checks.
BMW does not approve the use of any upper-cylinder lubricants or similar oil additives.

Capacities, engine

with filter change	3.50 l (6.2 pints)

Fuel and lubricants

Gear oil	Brand-name hypoid gear oil, API class GL 5
Capacity	
Gearbox	0.6 l (1.06 pints) (to bottom edge of filler opening)
Rear-wheel drive	0.25 l (0.44 pints) (to bottom edge of filler opening)
Viscosity class	Castrol EPX 90 or SAE 90 API
Type of fuel	Super (premium) unleaded fuel to DIN 51 607 standard, minimum octane number 95 (RON) or 85 (MON)
Fuel tank capacity	21 l (4.62 gal) including approx. 4 l (0.9 gal) reserve

Bearing lubrication and lubricating points	Brand-name anti-friction bearing grease, usable temperature range –25 °C ...+120 °C (-13 °F...248 °F), drip point 190 °C (374 °F), high corrosion protection, good resistance to water and oxidation; e.g. Shell Retinax EP2
Brake fluid	DOT 4 We recommend BMW brake fluids
	⚠ **Attention:** Use only new brake fluid to DOT 4 specification.
Coolant	Brand-name long-life antifreeze and corrosion inhibitor, mixing ratio 50% : 50%
	⚠ **Attention:** Use only nitrite-free antifreeze and corrosion inhibitor.

Electrical system

Battery	12 V 19 Ah gel battery, maintenance-free
Spark plugs	
Approved makes/types	Bosch XR7 LDC
Electrode gap	0.8 +/-0.1 mm (0.0315 in +/-0.00394)
Wear limit	1.0 mm (0.04 in)
Fuses	"Minifuse" flat-socket fuses
Load ratings	4 A / 7.5 A / 10 A
Headlight	Halogen tandem headlights
Bulbs	
Low-beam headlight	H7 halogen bulb 12 V 55 W
High headlight beam	H3 halogen bulb 12 V 55 W
Parking light	DIN 72 601 12 V 5 W Standard designation W 10/5
Combined brake and rear light	DIN 72 601 12 V 21/5 W Standard designation P 25-2
Flashing turn indicators	DIN 72 601 12 V 21 W Standard designation P 25-1
Number-plate light	DIN 72 601 12 V 5 W Standard designation C 11
ABS warning light	DIN 72 601 12 V 3 W
Other warning lights, tell-tale lights and instrument lighting	DIN 72 601 12 V 1.7 W

Overall length	2,250 mm (88.58 in)
Width	
across handlebars (without vibration dampers)	680 mm (26.77 in)
across front footrests	691 mm (27.2 in)
across rear footrests	802 mm (31.6 in)
Overall height (windscreen lowered)	1,248 mm (49.13 in)
Height of seat at unladen weight	770/800 mm (30.3/31.5 in) 2-position adjustment
Wheelbase	
at unladen weight	1,549 mm (60.98 in)
in normal-load position	1,555 mm (61.22 in)
Ground clearance	
at unladen weight	145 mm (5.71 in)
in normal-load position	125 mm (4.92 in)
Unladen weight	
(ready to ride, tank full)	285 kg (628 lbs)
Dry weight	266 kg (586 lbs)
Permitted gross weight	500 kg (1,102 lbs)
Permissible wheel loads	
front	200 kg (440 lbs)
rear	330 kg (727 lbs))

Performance data

	72 kW**	96 kW
Maximum speed		
acc. to type approval test	more than 200 km/h (125 mph)	more than 200 km/h (125 mph)
Elasticity		
4th gear 80-120 km/h (50 - 75 mph)	2.8 s	3.0 s
5th gear 80-120 km/h (50 - 75 mph)	3.4 s	3.8 s
6th gear 80-120 km/h (50 - 75 mph)	4.3 s	4.7 s
Power/weight ratio		
ready for road + rider (85 kg/187 lbs)	5.13 kg/kW (11.30 lbs/kW)	3.85 kg/kW (8.49 lbs/kW)
at gross weight limit	6.94 kg/kW (15.30 lbs/kW)	5.21 kg/kW (11.49 lbs/kW)
Ride-past noise level		
to 97/24-9/EC	80 dB (A)	80 dB (A)

** National-market equipment items only, depending on legal requirements

Motorcycle data

Model

VIN

Colour no.

First registered on

License plate no.

Dealer data

Person of contact for Service work

Ms./Mr.

Tel. no.

Dealer's address with telephone no. (company stamp)

Details described or illustrated in this booklet may differ from the motorcycle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.

Printed in Germany

BMW recommends Castrol

BMW Motorrad

Order No.:
01 41 7 692 721
06.2004
3rd edition GB/RF

The Ultimate
Driving Machine