

Maintenance Instructions

K 1200 LT



**BMW Motorrad
On-board
documentation**

consisting of
Rider's Manual
and Maintenance
Instructions



Please note



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.



Caution:

Instructions and precautions specifically intended to prevent damage to the motorcycle. Failure to comply with them could invalidate the warranty.



Note:

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

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 maintenance plans may be amended for safety reasons, because materials have changed or for other reasons.

Your authorised BMW motorcycle dealer can provide details of 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 recommend that you have service work carried out by the specially trained experts at your BMW motorcycle dealer, and have this confirmed 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.

It is advisable to contact your authorised BMW motorcycle dealer if you have any questions regarding 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

Important safety information

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BMW Service

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

If you choose genuine accessories and spare parts that have been tested and approved by BMW, you can be sure that the appropriate tests have been carried out to confirm their suitability for use on your motorcycle. BMW accepts product liability only 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, BMW accessories and other BMW-approved products, as well as skilled advice and assistance concerning all these items, are available from all authorised BMW motorcycle dealers.

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

BMW Running-in Check after the first 1000 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 (12,000 miles) (40,000 km ..., 60,000 km ..., 80,000 km ...) (24,000 miles ..., 36,000 miles ..., 48,000 miles ...)

BMW Annual Service

Certain items of maintenance work depend on elapsed time as well as the distance the motorcycle has covered. They should therefore be carried out 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 Service must be performed.



Note:

Every 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

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BMW Service

	BMW Inspection 1,000 km (600 miles)	BMW Service	BMW Inspection	BMW Annual Service
Read the fault code memory with the BMW diagnosis system	X	X	X	X
(BMW Integral ABS) Perform bleed test with BMW diagnosis system	X	X	X	
Check throttle cable play and adjust if necessary	X		X	
Change the engine oil while at regular operating temperature and replace the oil filter 1) *)	X	X	X	X
Change the oil in the gearbox while at regular operating temperature 2) *)			X	X
Change the oil in the rear-wheel drive while at regular operating temperature 2) 3) *)	X		X	X
Examine brake pads and discs for wear, replace if necessary *)		X	X	
(BMW Integral ABS) Checking brake fluid level at handgrip		X	X	
Check operation of brake system and freedom from leaks; repair/replace items if necessary *)			X	
(BMW Integral ABS) Change brake fluid in wheel circuit once a year at the latest				X
(BMW Integral ABS) Change brake fluid in control circuit 2) *)				X
(BMW Integral ABS) Perform bleed test with BMW diagnosis system				X

Maintenance schedule

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BMW Service

	BMW Inspection 1,000 km (600 miles)	BMW Service	BMW Inspection	BMW Annual Service
Check clutch fluid level		X	X	
Change clutch fluid 2) *)				X
Replace the fuel filter 4) *)			X	
Check coolant level and concentration, top up if necessary and check cooling system for leaks	X		X	
Change the coolant 2) *)				X
Check battery acid level and add distilled water if necessary; clean and grease battery posts, not applicable to gel batteries			X	X
Replace the intake air filter element 5) *)		X	X	
Check function of side-stand switch	X	X	X	
Grease pivot of side stand, check main (centre) stand, lubricate if necessary *)		X	X	X
Check the steering damper		X	X	
Check tightness of rear wheel studs	X			
Check rear wheel bearing play			X	
Check swinging arm bearings (freedom from play), adjust if necessary *)	X		X	
Check valve clearances, adjust if necessary			X	
Replace the lining of the chain tension- ing rail, chain guide rail and thrust piece every 60,000 km (36,000 miles) *)			X	

Maintenance schedule

	BMW Inspection 1,000 km (600 miles)	BMW Service	BMW Inspection	BMW Annual Service
Replace spark plugs			X	
Final inspection with road safety and functional check: – Condition of tyres and wheels, tyre pressures – Clutch, gear shift, handbrake, foot brake, ABS, steering – Lights and signalling equipment, telltale and warning lights, instruments, horn – Reverser, Radio with remote control – Optional equipment and accessories fitted – Trial run	X	X	X	X
1) If motorcycle is used only for short journeys or at outside temperatures below 0 °C, every 3 months, but at the latest every 3,000 km (1,800 miles) 2) Every 2 years at the latest 3) Every 20,000 km (12,000 miles) 4) Normally every 40,000 km (24,000 miles), if fuel is of poor quality every 20,000 km (12,000 miles) 5) If severe dirt and dust are encountered, replace the intake air filter every 10,000 km (6,000 miles) or even more frequently. *) Charged as an additional item				

Maintenance confirmations

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BMW Service

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

Confirmations 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

Confirmations of maintenance work

1

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BMW Service

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

Confirmations 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

Confirmations of maintenance work

BMW Annual Service

Carried out in accordance with manufacturer's instructions

Brake fluid changed:

Wheel circuit - annually

yes ☐ no ☐

Control circuit - every 2 years

yes ☐ no ☐

Clutch fluid changed:

every 2 years

yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

BMW Annual Service

Carried out in accordance with manufacturer's instructions

Brake fluid changed:

Wheel circuit - annually

yes ☐ no ☐

Control circuit - every 2 years

yes ☐ no ☐

Clutch fluid changed:

every 2 years

yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

BMW Annual Service

Carried out in accordance with manufacturer's instructions

Brake fluid changed:

Wheel circuit - annually

yes ☐ no ☐

Control circuit - every 2 years

yes ☐ no ☐

Clutch fluid changed:

every 2 years

yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

BMW Annual Service

Carried out in accordance with manufacturer's instructions

Brake fluid changed:

Wheel circuit - annually

yes ☐ no ☐

Control circuit - every 2 years

yes ☐ no ☐

Clutch fluid changed:

every 2 years

yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

Confirmations of maintenance work

BMW Annual Service

Carried out in accordance with manufacturer's instructions

Brake fluid changed:

Wheel circuit - annually

yes ☐ no ☐

Control circuit - every 2 years

yes ☐ no ☐

Clutch fluid changed:

every 2 years

yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

BMW Annual Service

Carried out in accordance with manufacturer's instructions

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Clutch fluid changed:

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yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

BMW Annual Service

Carried out in accordance with manufacturer's instructions

Brake fluid changed:

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yes ☐ no ☐

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yes ☐ no ☐

Clutch fluid changed:

every 2 years

yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

BMW Annual Service

Carried out in accordance with manufacturer's instructions

Brake fluid changed:

Wheel circuit - annually

yes ☐ no ☐

Control circuit - every 2 years

yes ☐ no ☐

Clutch fluid changed:

every 2 years

yes ☐ no ☐

Coolant changed:

every 2 years

yes ☐ no ☐

Date, stamp, signature

Confirmations of Service work

1

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BMW Service

Record of all work carried out in workshop		
Work performed	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.

Confirmations of service work

1

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BMW Service

Record of all work carried out in workshop		
Work performed	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.

Confirmations of service 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:

Do not touch live parts while the engine is running or the ignition is switched on.

– 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.

Authorised BMW motorcycle dealers have the necessary technical know-how and specially trained staff.

They can ensure 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 stipulated 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:**

Manipulation of the MOTRONIC control unit voids the warranty.

There is only limited scope for technical modifications to the motorcycle.

Whenever you are planning such modifications, comply with all the legal requirements. The motorcycle must not infringe your national road-vehicle construction and use regulations.

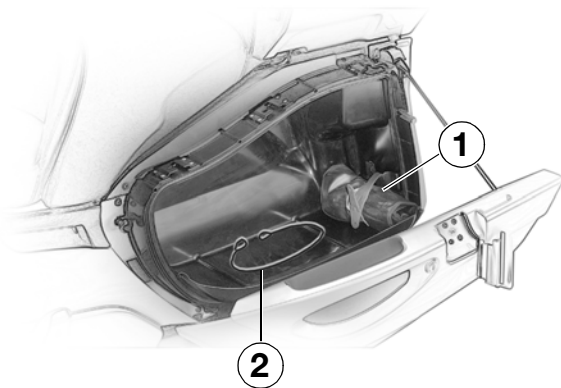
Your authorised BMW motorcycle dealer will gladly advise you on technical requirements, the manufacturer's recommendations and the overall benefit likely to be obtained.

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.



- On-board toolkit **1** stowed in the left case

Contents

- 1 wallet
- 2 fuses (4A, 15A)
- 1 pair of universal pliers
- 1 screwdriver, large, reversible blade
- 1 screwdriver, small
- 2 Torx bits, T25, T45
- 3 open-end wrenches
 - w/f* 8 x 10 mm (0.31 x 0.39 in)
 - w/f* 10 x 13 mm (0.39 x 0.51 in)
 - w/f* 17 x 19 mm (0.67 x 0.75 in)

5 Allen keys

- w/f* 3 mm (0.11 in),
- 4 mm (0.16 in),
- 5 mm (0.20 in),
- w/f* 6 mm (0.24 in),
- 8 mm (0.31 in)

1 spark plug wrench

1 wheel stud socket wrench

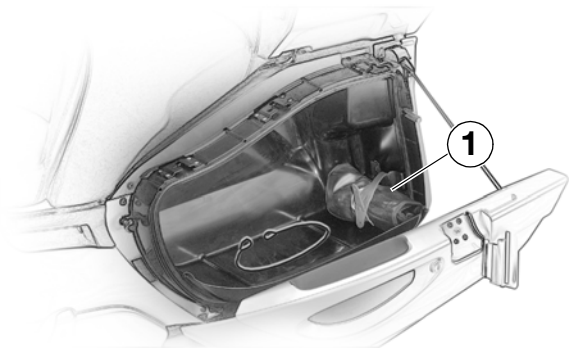
1 tubular extension



Note:

- Helmet holder **2** in toolkit
- Oil funnel in storage compartment of topcase
- Hand lamp in radio compartment.

w/f* = width across flats



Repair kit for tubeless tyres

- Repair kit **1** for tubeless tyres in toolkit in the left case



Note:

Refer to accompanying description for repair procedure.



Warning:

Do not repair tyre damage exceeding 4 mm (0.16 in) in diameter.

Max. permitted speed: 60 km/h (approx. 35 mph).

Max. permitted distance: 400 km (approx. 250 miles).

Always have the damaged tyre replaced.

Troubleshooting chart

Fault: 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, gear selected	Select neutral or retract side stand and pull clutch lever	Rider's Manual ➡ Chapter 3
Gear engaged but clutch not disengaged	Select neutral or pull clutch lever	Rider's Manual ➡ Chapter 1
Reverser set to "R"	Set reverser to "F"	Rider's Manual ➡ Chapter 1
No fuel in tank	Refuel	Rider's Manual ➡ Chapter 1
Fuel pump not working	Blown fuse 4	➡ 56

Troubleshooting chart

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

Possible cause	Remedy	See ➡ Page
Incorrect operation of twistgrip		Rider's Manual ➡ Chapter 1
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	➡ 60



Note:

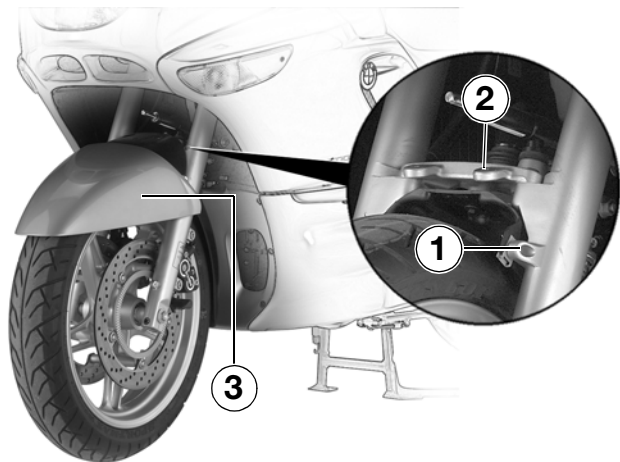
Any more serious malfunctions – and those not described on pages 18...71 – must be rectified by an authorised BMW motorcycle dealer or workshop.

Removing the front wheel

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Maintenance and care



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



Warning:

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

Removing the front mudguard

- Take out 1 screw **1** at left and right (M6x45)
- Take out 1 screw **2** at left and right (M6x16)
- Carefully remove front mudguard **3**



Note:

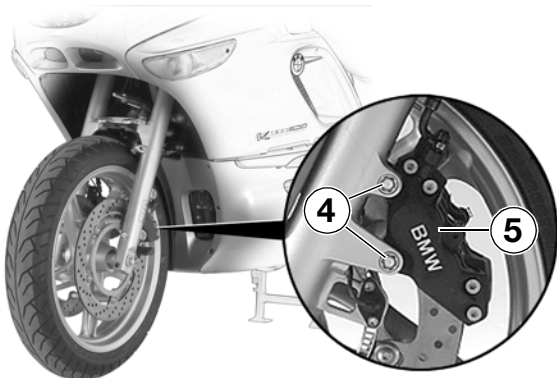
Allow the bushings at left and right for the front mudguard to remain in the fork.

Removing the front wheel

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Maintenance and care



Removing brake calipers



Caution:

When removing, avoid damage to brake pipes, brake discs, brake pads or 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).

Do not damage the ABS sensor cable, toothed ring or sensor.

- Take out 2 screws **4** for brake caliper **5** at left and right

- Push the brake pads back a little by lightly rocking the brake calipers
- Carefully remove the left and right brake calipers **5**



Caution:

To prevent damage to the brake caliper and possible difficulty when assembling: never operate the brake lever when the brake calipers have been removed.



Note:

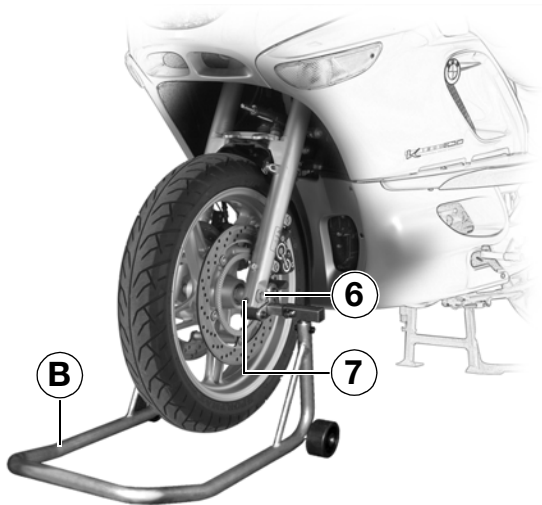
Check the brake pads, (➡ 41), have them replaced if necessary.

Removing the front wheel

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Maintenance and care



- Raise the front wheel with front wheel stand, BMW special tool No. 36 3 970, or a suitable auxiliary stand, and support if necessary



Note:

Make sure that the auxiliary stand is set to the correct width and height.

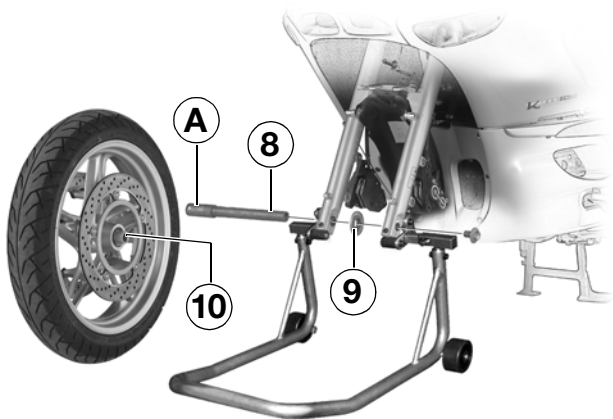


Warning:

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

- Remove axle bolt **6**
- Slacken off axle clamp screws **7** at left and right

Removing the front wheel



- Insert a suitable screwdriver through hole **A** in quick-release axle **8**
- Pull out quick-release axle **8**, at the same time turning it slightly to the right
- Remove bearing cap **9** and spacer **10**
- Roll the front wheel out forwards



Note:

Mark the installed position on the tyre and ABS toothed ring; note also the direction of rotation arrow if it is marked on the tyre.



Caution:

When setting down the front wheel, avoid damage to the brake discs and ABS toothed ring.

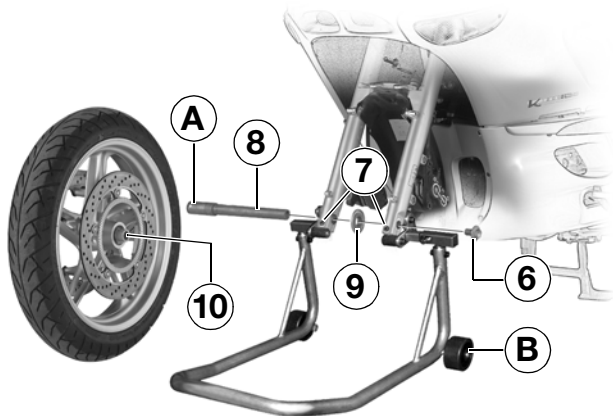
Keep dirt and moisture away from the wheel bearings.

Installing the front wheel

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Maintenance and care



Warning:

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



Caution:

Avoid damage to brake lines, discs and pads when installing. Keep dirt and moisture away from the wheel bearings.

Do not damage the ABS sensor cable, toothed ring or sensor.



Note:

Note arrow on tyre indicating correct direction of rotation.

- Roll the front wheel in between the fork stanchions
- Clean spacing bushing **10** and bearing cap **9** and insert them
- Clean quick-release axle **8**, grease it and insert it from the right (raising the wheel slightly as necessary)
- Screw up axle bolt **6** hand-tight

- Screw up axle clamp bolts **7** handtight at left and right
- Remove front-wheel stand **B** or support from under the motorcycle



Warning:

Before tightening axle bolt 6, axle clamp screws 7 and brake caliper screws 4, the support must be removed from under the motorcycle.

- Compress the front suspension firmly several times
- Tighten axle bolt **6** to the specified tightening torque (insert a screwdriver through hole **A** in quick-release axle **8** and prevent it from turning)
- Tighten axle clamp screws **7** at left and right to the specified tightening torque



Caution:

Always have the tightening torques checked, preferably by an authorised BMW motorcycle dealer.



Tightening torque:

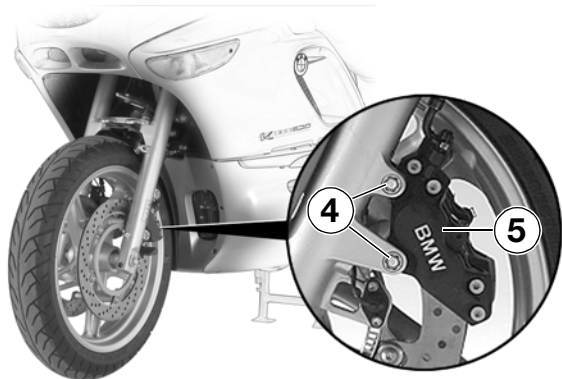
Axle bolt 6	30 Nm
Axle clamp screws 7	22 Nm

Installing the front wheel

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Maintenance and care



Installing brake calipers

- Carefully push brake calipers **5** over the brake discs at left and right
- Using 2 screws **4** per caliper, secure left/right brake calipers **5** and tighten screws to specified torque



Tightening torque:

Brake caliper
screws **4** 30 Nm



Warning:

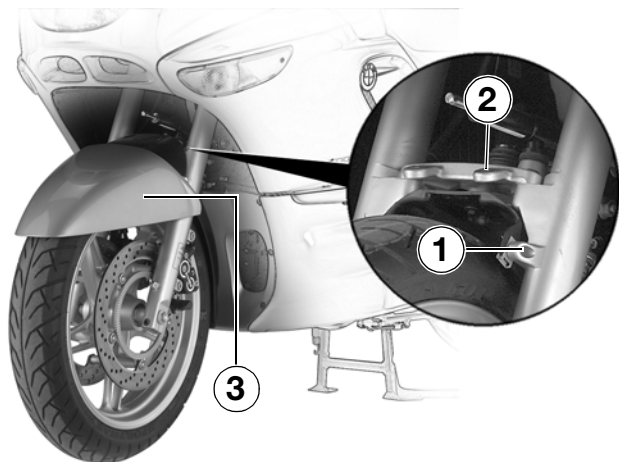
BMW Integral ABS: once assembly work on the brake calipers has been completed, the brake lever has to be operated after the ignition has been switched on and self-diagnosis completed, in order to ensure full operability.



Caution:

Always have the tightening torques checked, preferably by an authorised BMW motorcycle dealer.

Installing the front wheel



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Maintenance and care

Installing the front mudguard



Note:

Note right and left bushings

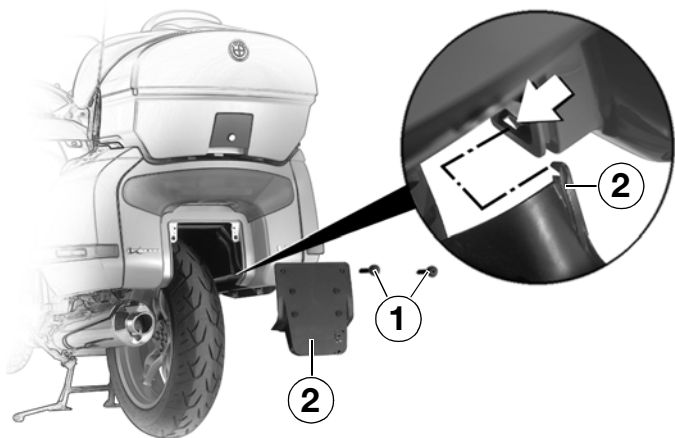
- Carefully install front mudguard **3**
- Tighten one screw **2** at left and right (M6x16)
- Tighten one screw **1** at left and right (M6x45)

Removing the rear wheel

2

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Maintenance and care

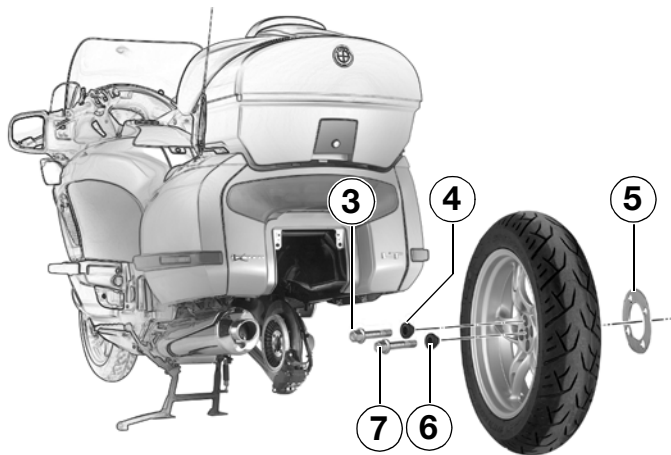


Warning:
Before removing the rear wheel, empty the topcase and the left and right cases. Allow the exhaust system to cool down. Do not sit on the motorcycle.

Removing number plate carrier

- Place the motorcycle on its main stand on a firm, flat surface
- Select 1st gear
- Remove two retaining screws **1** from number plate carrier **2**
- Lift number plate carrier **2** out of the lower left and right locating points (arrow)

Removing the rear wheel



Caution:

Avoid damage to brake lines, brake disc, brake pads and wheel when removing.
Do not damage the ABS sensor cable, toothed ring or sensor.

- Remove the four wheel studs **3** with taper rings **4**
- Remove central screw **7** with taper ring **6**

- Pull the rear wheel off the centering spigot and set it down
- Remove spacing washer **5** from the wheel centering spigot
- Carefully roll the rear wheel out to the rear



Caution:

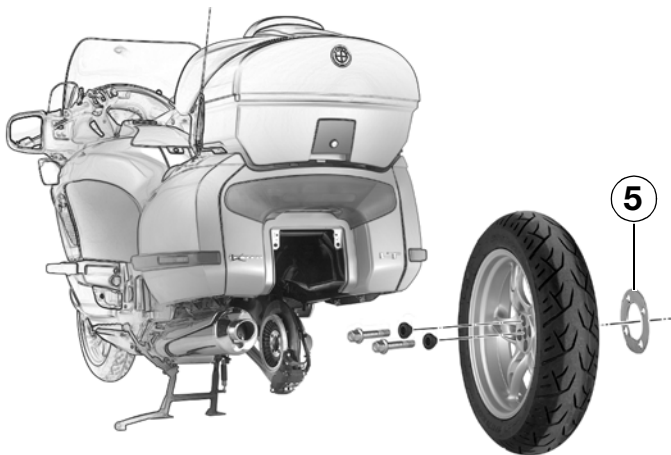
Protect the wheel hub contact face against dust and dirt.

Installing the rear wheel

2

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Maintenance and care



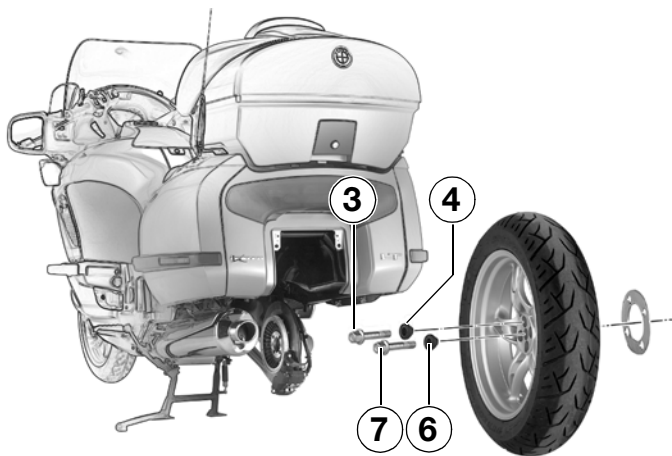
Caution:

Use only wheel studs marked with length code "55".
Do not oil or grease the wheel studs.

Avoid damage to the brake disc, wheel rim and ABS toothed ring when installing.

- Check that the wheel centering spigot and the wheel hub contact faces **5** are free from grease
- Roll the rear wheel into the wheel arch from the rear
- Push spacing washer **5** on to the wheel centering spigot
- Lift the rear wheel into the swinging arm
- Insert rear wheel into centering hole

Installing the rear wheel



- Hand-tighten central screw **7** with taper ring **6**
- Hand-tighten four wheel studs **3** with taper rings **4** and tighten to specified initial torque in diagonally opposite sequence
- Tighten central screw **6** to the specified torque
- Tighten the four wheel studs **4** to final torque in diagonally opposite sequence



Caution:

Always have the tightening torques checked, preferably by an authorised BMW motorcycle dealer.



Tightening torque:

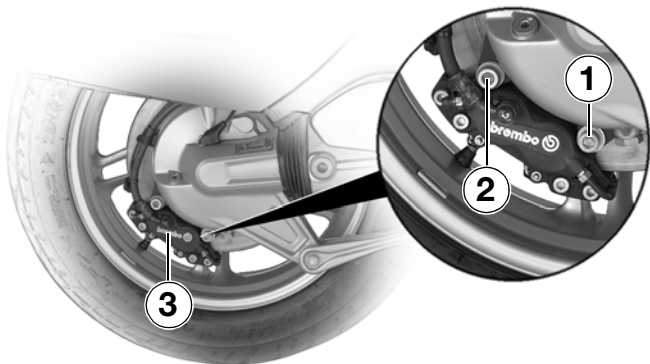
Initial torque	
Wheel studs 3	50 Nm
Tightening torque	
Wheel studs 3	105 Nm
Central stud 7	105 Nm

Removing the rear brake

2

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Maintenance and care



Caution:

Avoid damage to brake lines, brake disc, brake pads and wheel when removing.

Do not damage the ABS sensor cable, toothed ring or sensor.

Do not scratch the wheel when forcing back the brake pads or removing the caliper (apply masking tape if necessary).

To prevent damage to the brake caliper and possible difficulty when assembling: never operate the brake lever when the brake calipers have been removed.

Removing brake caliper

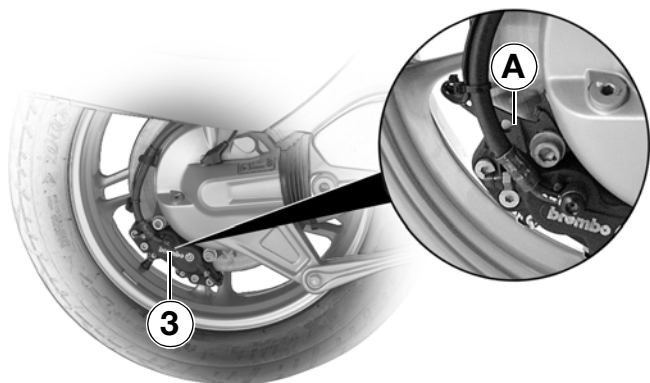
- Place the motorcycle on its main stand, making sure that the surface is flat
- Remove fitted bolt **1** and screw **2** for brake caliper **3**
- Force back the brake pads by tilting caliper **3**
- Carefully remove brake caliper **3**



Note:

Check the brake pads (➡ 42), have them replaced if necessary.

Installing rear brake



2

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Maintenance and care

Installing brake caliper



Caution:

Avoid damage to brake lines, brake disc, brake pads or the wheel when installing.

Do not damage the ABS sensor cable, toothed ring or sensor.

- Carefully place brake caliper **3** over the brake disc



Caution:

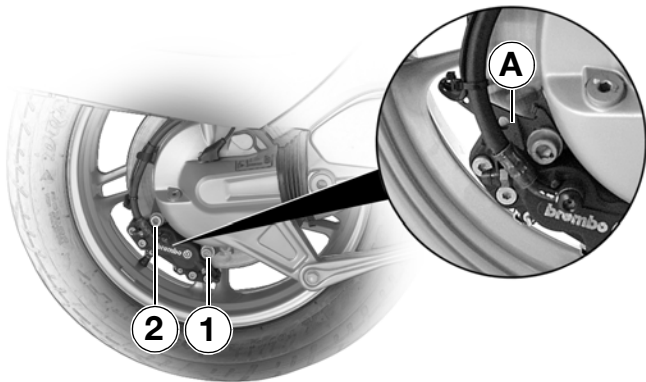
Make sure that bracket **A** for brake line is correctly positioned.

Installing rear brake

2

40

Maintenance and care



Tightening torque:

Fitted bolt **1** 40 Nm

Brake caliper

screw **2** 40 Nm

- Tighten fitted bolt **1** with washer and brake caliper screw **2** with bracket **A** to specified torque



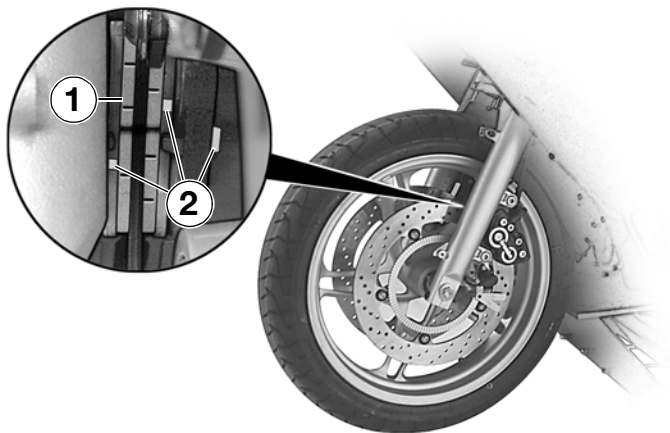
Caution:

Always have the tightening torques checked, preferably by an authorised BMW motorcycle dealer.



Warning:

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.



Front brake



Caution:

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



Note:

For your safety, we recommend having the brake system examined and the necessary work performed by an authorised BMW motorcycle dealer.

- Place the motorcycle on its main stand, making sure that the surface is flat

- Visually inspect both brake pads and the brake caliper and make sure that they all bear the same colour mark **2**
- Check brake-pad thickness by visual inspection

Minimum brake-pad thickness:

To ensure that the brakes operate safely, wear indicator 1 on the pads must be clearly visible.

- If the wear indicator is no longer clearly visible:

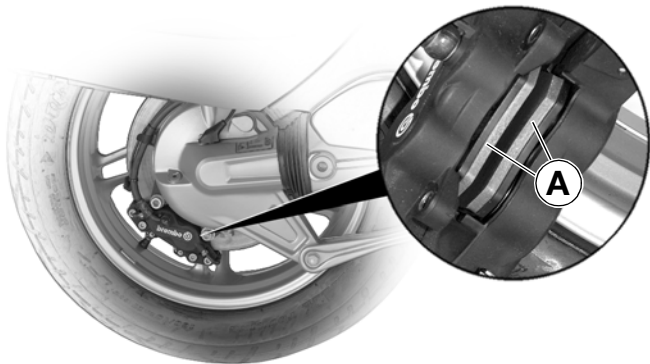
Have the brake pads changed by a specialist workshop, preferably an authorised BMW motorcycle dealer.

Checking brake pads

2

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Maintenance and care



Rear brake



Caution:

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



Note:

For your safety, we recommend having the brake system examined and the necessary work performed by an authorised BMW motorcycle dealer.

- Place the motorcycle on its main stand, making sure that the surface is flat
- Remove the brake caliper (➡ 38)
- Check/measure brake pad thickness **A** without the pad backplate
 - **Minimum pad thickness: 1.5 mm (0.08 in)**
- Before the minimum pad thickness is reached:
Have the brake pads replaced by an authorised BMW motorcycle dealer.
- Install the brake caliper (➡ 39)

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 (switch off ignition and lights). 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!

**Caution:**

Your motorcycle has one bulb each for low-beam and high-beam headlights, flashing turn indicators and parking light, and also 2 bulbs for the brake light and 3 rear light bulbs. The outer rear lights also act as brake lights and the centre rear light as a number plate light.

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.

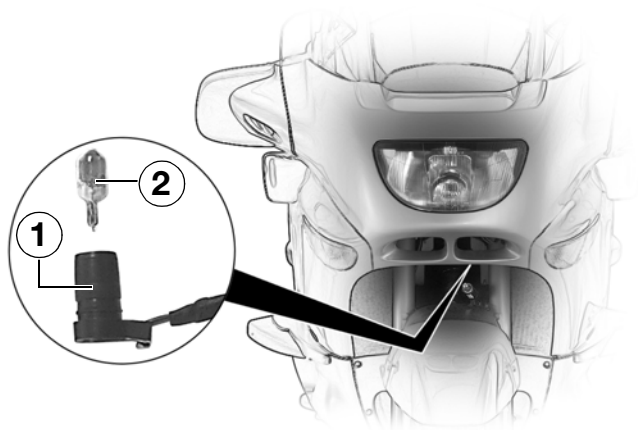
Make sure that the wiring harness is not damaged when the rear lamp glass is fitted.

**Note:**

If necessary, use the hand lamp when removing and installing bulbs.

Do not touch new bulbs with your 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.



Parking light

– Parking-light bulb: **12 V 5 W**



Caution:

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.

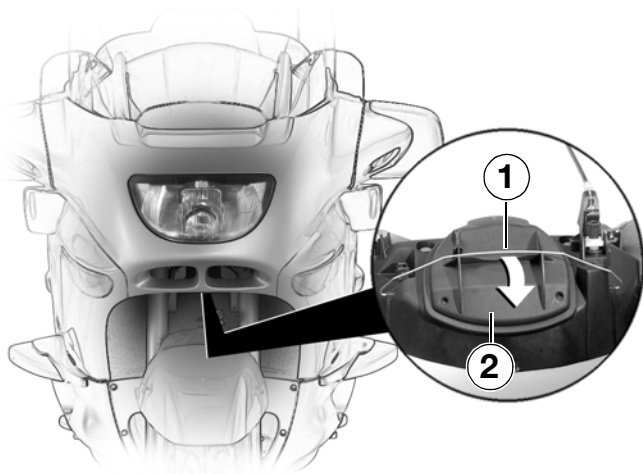
- Place the motorcycle on its main stand on a firm, flat surface
- Pull bulb holder **1** downwards from the front out of the headlight housing
- Pull bulb **2** upwards out of the bulb holder
- Insert the new bulb into the holder
- Press the bulb holder fully into its mounting

Changing bulbs

2

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Maintenance and care



Headlight

– Low-beam headlight:

H7 12 V 55 W



Caution:

Switch off the ignition before changing a bulb.

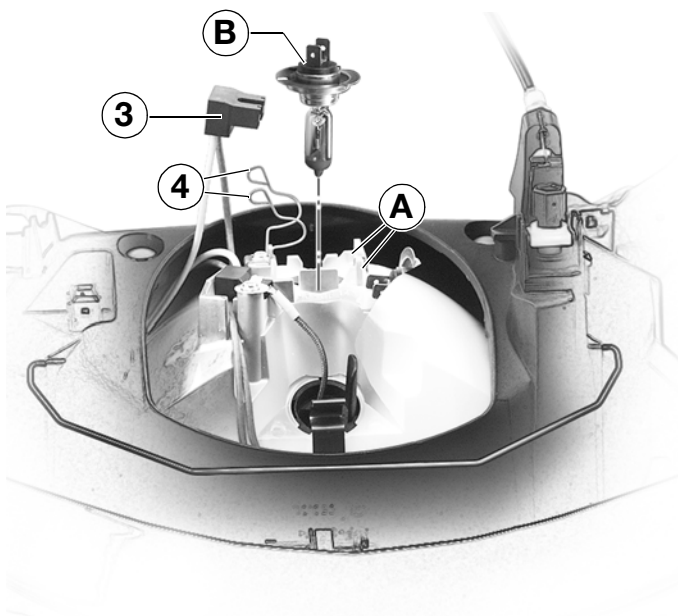


Note:

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

- Place the motorcycle on its main stand on a firm, flat surface
- Press clip **1** down (arrow)
- Take out cover **2**

Changing bulbs



2

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Maintenance and care

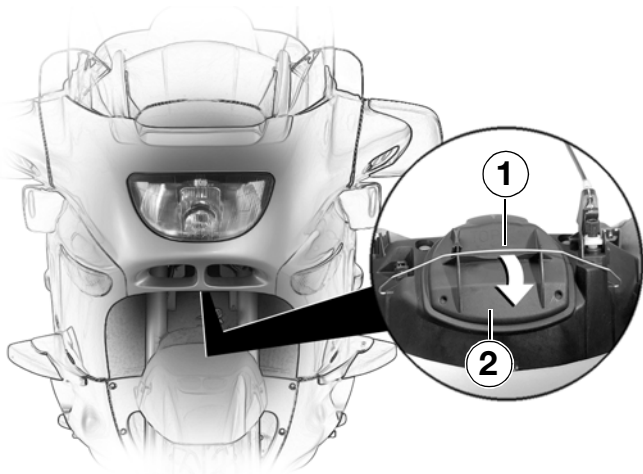
- Pull off plug housing **3**
- Release spring clips **4** from their catches **A** at top and bottom, and swing them back
- Take out the H7 bulb
- Insert a new H7 bulb, noting groove **B**
 - Groove **B** must face up
- Engage spring clips **4** at top and bottom in catch **A**
- Attach plug housing **3** to bulb connections
- Insert cover **2**
- Pull clip **1** up and make sure it engages

Changing bulbs

2

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Maintenance and care



High-beam headlight

– High-beam headlight:
H3 12 V 55 W



Caution:

Switch off the ignition before changing a bulb.

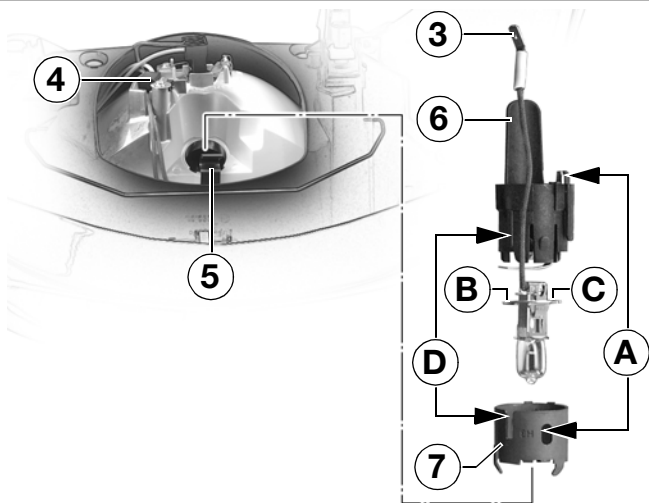


Note:

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

- Place the motorcycle on its main stand on a firm, flat surface
- Press clip **1** down (arrow)
- Take out cover **2**
- Pull cable **3** with plug connector out of socket housing **4**
- Press earth (ground) clip **5** down
- Pull the bulb holder out of the headlight housing by means of grip **6**

Changing bulbs



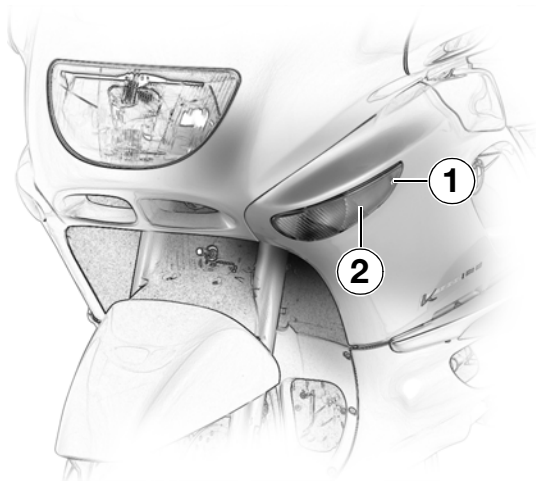
- Using a screwdriver, press in one retaining lug **A** at left and right, and open up the bulb holder
- Pull the H3 bulb out of bulb ring **7**
- Insert the new H3 bulb in bulb ring **7**, noting groove **B** and notch **C**
- Pull the bulb connecting cable **3** through the opening in the bulb holder
- Assemble bulb ring **7** with the H3 bulb and bulb holder (note groove **D**) and make sure retaining lugs **A** engage
- Insert bulb holder in headlight
- Make sure earth (ground) clip **5** engages
- Connect cable **3** with plug connector to socket housing **4**
- Insert cover **2**
- Pull clip **1** up and make sure it engages

Changing bulbs

2

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Maintenance and care



Note:

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

Front turn indicators

– Turn indicator bulb: **12 V 21 W**

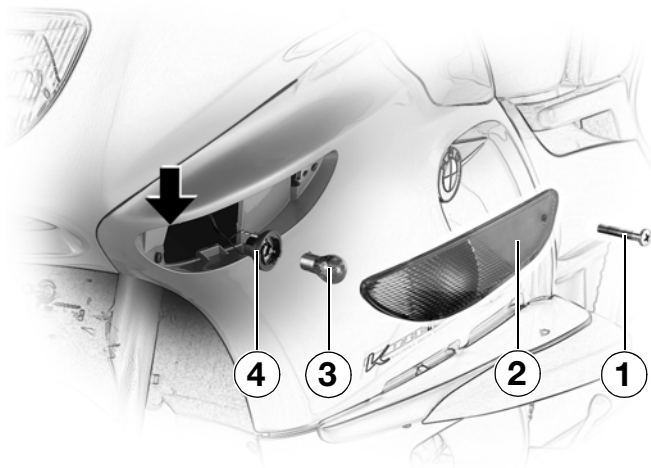


Caution:

Switch off the ignition before changing a bulb.

- Place the motorcycle on its main stand on a firm, flat surface
- Remove retaining screw **1**
- Carefully remove flashing turn indicator cover **2**

Changing bulbs



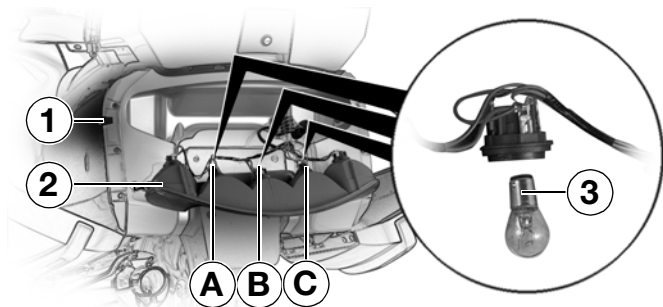
2

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Maintenance and care

- Release the bulb holder **4** by turning it to the left
- Remove the bulb **3** by turning it to the right
- Insert the new bulb **3** into the holder **4** and lock by turning it to the left
- Lock the bulb holder **4** into the turn indicator cover **2** by turning it to the right
- Carefully insert turn indicator cover **2** (arrow)
- Carefully tighten retaining screw **1**

Changing bulbs



Rear light

– Rear light bulb: **12 V 21/5 W**



Caution:

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 the motorcycle on its main stand on a firm, flat surface
- Open the left and right cases
- Remove screw **1** at left and right

- Pull rear light glass **2** out to the rear and set it down carefully
- Turn bulb holders **A**, **B** and **C** to the right and remove them
- Release bulb **3** by turning it to the left
- Remove the bulb
- Installation is the reverse of the removal procedure



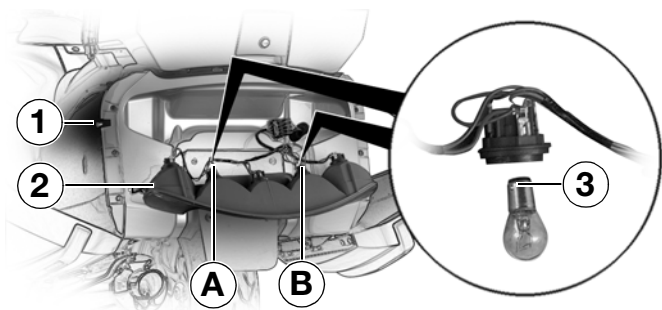
Caution:

Do not damage the wiring harness.



Note:

Insert left and right screws **1** parallel to the edge of the trim panel (arrow) and carefully tighten the screws.



Brake light

– Brake light bulb: **12 V 21/5 W**



Caution:

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 the motorcycle on its main stand on a firm, flat surface
- Open the left and right cases
- Remove screw **1** at left and right

- Pull rear light glass **2** out to the rear and set it down carefully
- Turn bulb holders **A** and **B** to the right and remove
- Release bulb **3** by turning it to the left
- Remove the bulb
- Installation is the reverse of the removal procedure



Caution:

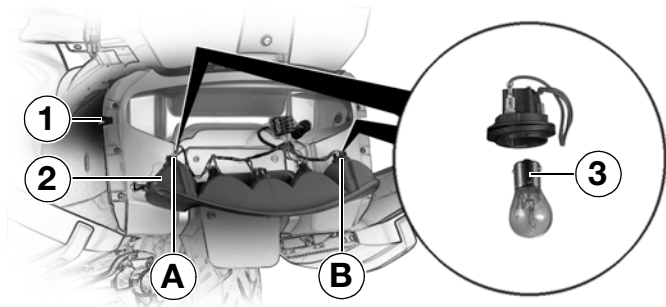
Do not damage the wiring harness.



Note:

Insert left and right screws **1** parallel to the edge of the trim panel (arrow) and carefully tighten the screws.

Changing bulbs



Rear turn indicators

- Rear turn indicator bulbs:
12 V 21 W



Caution:

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 the motorcycle on its main stand on a firm, flat surface
- Open the left and right cases
- Remove screw **1** at left and right

- Pull rear light glass **2** out to the rear and set it down carefully
- Turn bulb holders **A** and **B** to the right and remove
- Release bulb **3** by turning it to the left
- Remove the bulb
- Installation is the reverse of the removal procedure



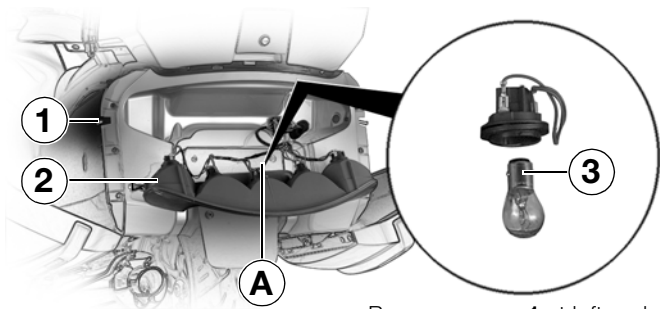
Caution:

Do not damage the wiring harness.



Note:

Insert left and right screws **1** parallel to the edge of the trim panel (arrow) and carefully tighten the screws.



Number-plate light

- Rear number plate light bulb:
12 V 21/5 W



Caution:

Switch off the ignition before changing a bulb.

- Remove screw **1** at left and right
- Pull rear light glass **2** out to the rear and set it down carefully
- Turn bulb holder **A** to the right and remove it
- Release bulb **3** by turning it to the left
- Remove the bulb
- Installation is the reverse of the removal procedure



Note:

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



Caution:

Do not damage the wiring harness.



Note:

- Place the motorcycle on its main stand on a firm, flat surface
- Open the left and right cases

Insert left and right screws **1** parallel to the edge of the trim panel (arrow) and carefully tighten the screws.

Changing fuses

- Place the motorcycle on its main stand on a firm, flat surface
- Open the front seat (Rider's Manual ➡ Chapter 1)



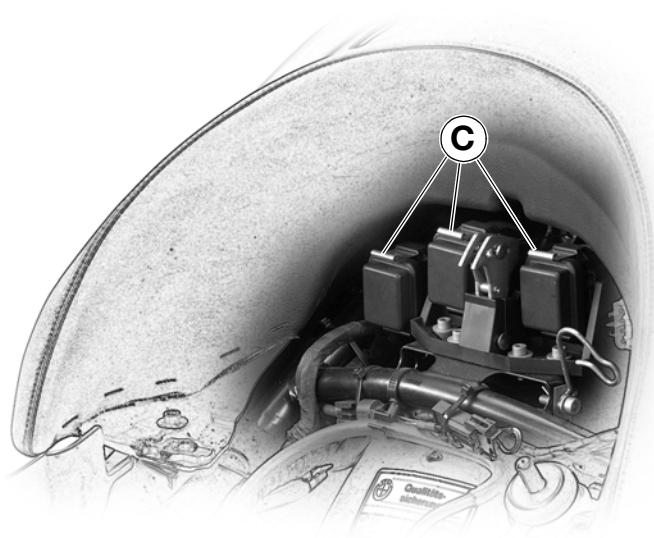
Caution:

Before changing a fuse, switch off the ignition.

Never attempt to repair a blown fuse – risk of fire!

Always carry a set of spare fuses in the toolkit (➡ 22).

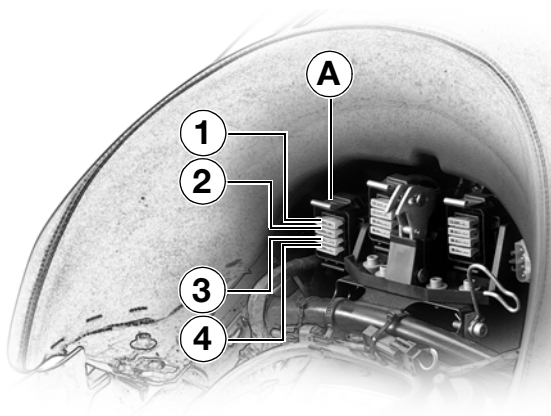
Use only fuses of the specified pattern and rating.



- Press retaining clip **C** up and take off the fuse box lid
- Pull the blown fuse out of its holder
- Insert a new fuse of the correct rating
- Close the fuse box lid
- Lock the front seat (Rider's Manual ➡ Chapter 1)

**Note:**

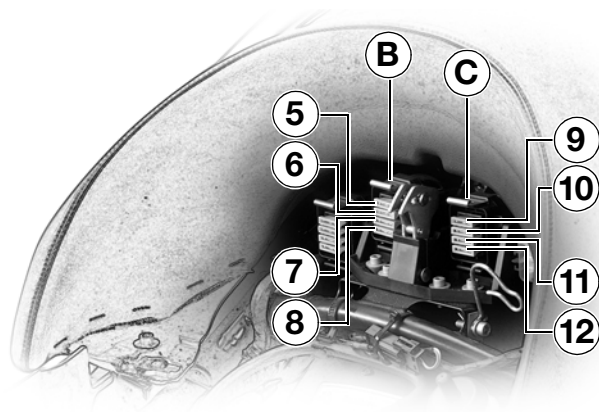
If an electrical defect occurs repeatedly, have a check performed by an authorised BMW motorcycle dealer



Fuse assignments

A Right-hand fuse box

- 1** Fuel warning light, general warning light, fan relay, instrument cluster, windscreen adjuster (switch) and on-board computer4 A
- 2** Parking light, front, and rear light.....4 A
- 3** Horn, brake light and alarm system.....15 A
- 4** Motronic (control unit/relay), fuel pump and diagnosis15 A



B Middle fuse box

- 5** Instrument cluster and on-board computer 4 A
- 6** Heated handgrips (switch) 4 A
- 7** Windscreen adjuster relay, power sockets 1 and 2 .. 15 A
- 8** Radio, reading light and topcase (interior light and power socket) 15 A

C Left fuse box

- 9** Fan, right 4 A
- 10** Fan, left 4 A
- 11** Seat heating 15 A
- 12** Cruise control 15 A

Battery safety instructions

2

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Maintenance and care

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 load capacity of the electrical wiring to the power socket is not sufficient to start the motorcycle from an outside source.



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.



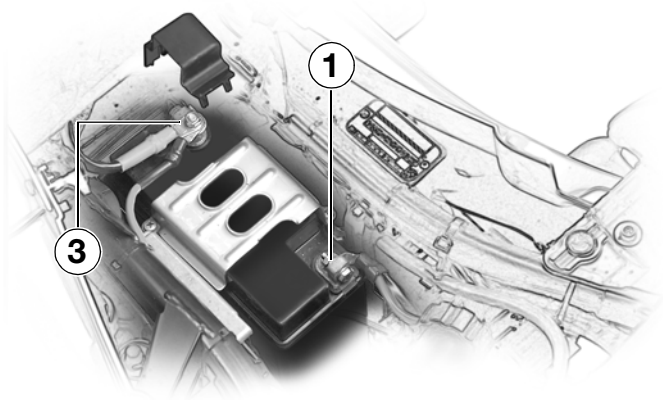
Attention:

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 ground (earth) lead 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 carry out the necessary battery maintenance and storage



Removing the battery



Warning:

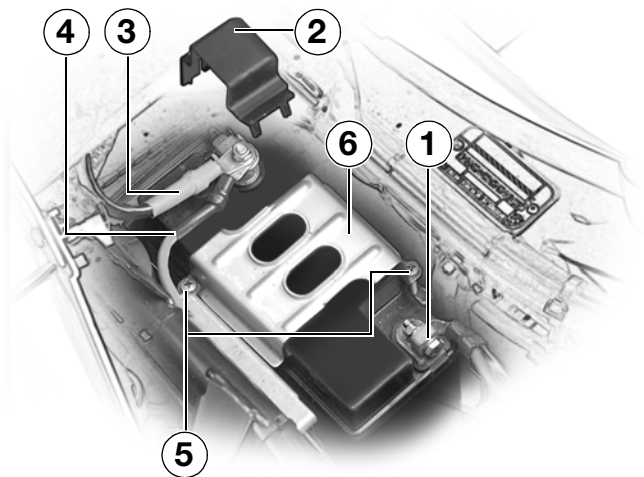
Avoid damage to fuel tank, wiring and hoses during removal work.

Before disconnecting the battery, switch off the ignition.

To avoid short-circuits:

- Disconnect the **negative** battery lead (-) **1** first,
- then the **positive** battery lead (+) **3**.

- Place the motorcycle on its main stand on a firm, flat surface
- Open the front seat (Rider's Manual ► Chapter 1)
- Disconnect **negative** battery lead **1** and swing it away from the **negative** post of the battery or insulate it
- Open and pull out the protective cap **2** for the battery positive terminal
- Disconnect the **positive** battery lead **3** and the connection **4** for the reverser control unit, and swing them up out of the cable guide



Installing the battery

- Remove the two screws **5** from the battery retainer **6**
- Lift off battery retainer **6**
- Lift out the battery



Warning:

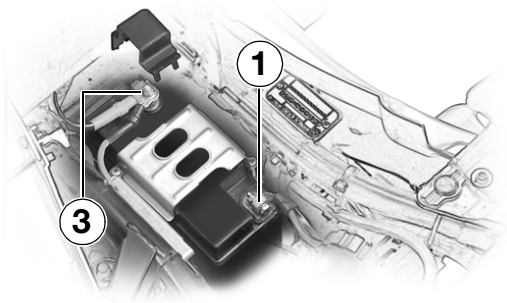
Make sure that the brake hoses are correctly positioned.

Battery

2

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Maintenance and care



- Installation is the reverse of the removal procedure
- Close the front seat (Rider's Manual ➡ Chapter 1)



Warning:

Before connecting the battery, switch off the ignition.

To avoid short-circuits:

- **Connect the positive battery lead (+) 3 and connection 4 for the reverser control unit first**
- **Place the protective cap for positive battery terminal 2 on the battery and close it**
- **Never install the battery without the protective cap**
- **Connect negative battery lead (-) 1**

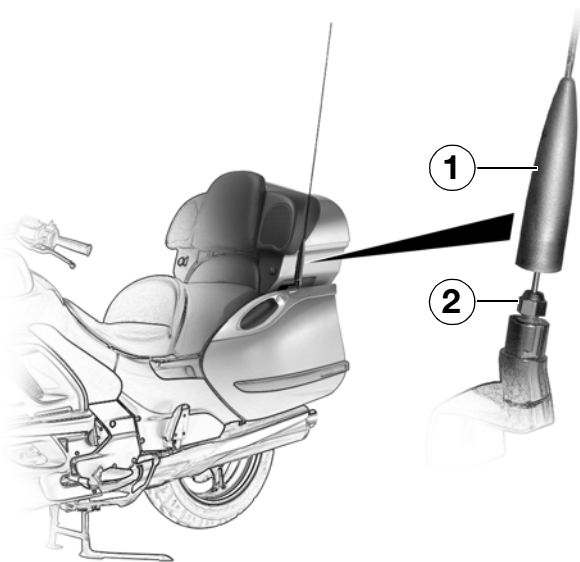


Note:

Disconnecting the battery deletes all entries (e.g. faults, settings) stored in the Motronic control unit's memory.

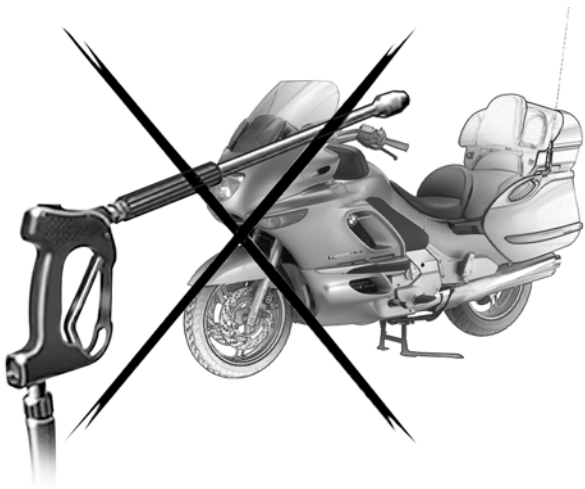
Loss of settings can temporarily impair the operating characteristics when the engine is re-started.

- Switch on the ignition
- Fully open the throttle once or twice
- The Motronic registers the throttle-valve positions



Removing and installing aerial

- Turn protective cap **1** fully to the right and pull it off
- Slacken retaining screw **2**
- Remove the aerial
- Installation is the reverse of the removal procedure

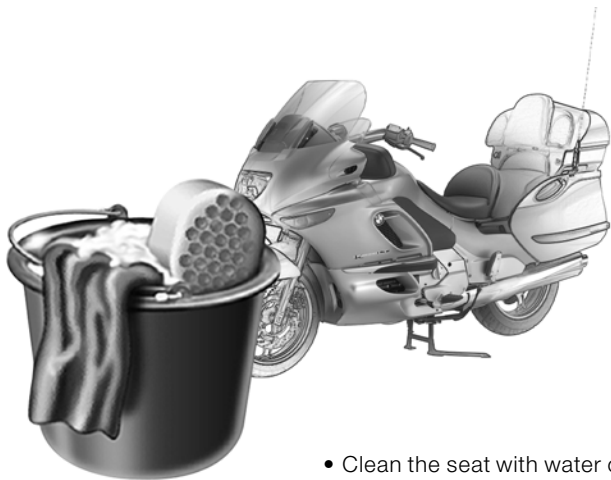
**Note:**

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.

**Caution:**

Avoid damage to rubber and plastic parts caused by aggressive or penetrating cleaning agents or solvents.

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

- Place the motorcycle on its main stand on a firm, flat surface
- Apply a mild cleaning agent to the wheels, engine block, gearbox and swinging arm, in accordance with the manufacturer's instructions.
- Thoroughly dry all wet surfaces
- Clean fairing elements only with cleaning and care products from the BMW Cleaning and Care Set
- Do not use solvents or cleaning products on the instrument cluster, switches or windscreen
- Clean the seat with water or a soapy water solution. Do not use solvents, cleansing or preservative agents.
- Remove tar splashes only with an approved product – rinse thoroughly with water afterwards.
- Clean flies and other insects off the fork stanchions
- Treat painted and chromed parts regularly with suitable care products



Warning:

After cleaning or before starting a journey, always test the brakes.



Removing road salt

- When the journey is over, wash the motorcycle immediately with cold water



Note:

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

- Thoroughly dry the motorcycle
- Apply a wax-based corrosion-proofing product to chrome-plated parts
- Coat/polish fairing elements after cleaning and drying with a recommended wax

Cleaning/care: cleaning windscreen and deflectors

- Remove dirt and dead insects with a soft sponge and plenty of water



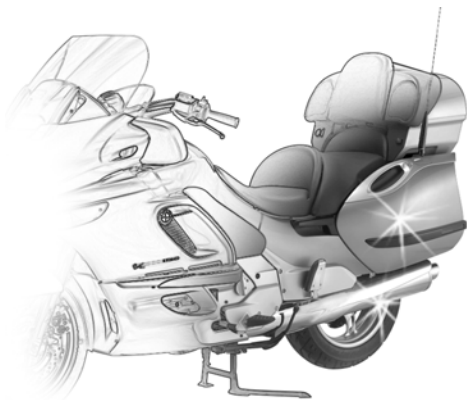
Note:

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



Caution:

Do not use cleansing agents. Fuel and chemical solvents attack the windscreen material.



Touching up paint damage

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



Caution:

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



Note:

The colour is indicated on the label on the rear frame. Have more extensive paint damage repaired by your BMW motorcycle dealer.

Cleaning the silencer

- If the silencer system becomes discoloured (for operating reasons or because of external pollution), treat it with Autosol metal polish, BMW order number 82 14 9 400 890.



- Support the motorcycle under the engine so that the wheels are not taking any weight
- Avoid damaging the fairing and exhaust pipe when supporting the motorcycle. Remove the engine spoiler if necessary.

Laying up

- Clean the motorcycle (➡ 66-69)
- Remove the battery (➡ 60-63), note the maintenance instructions (➡ 61)
- Spray the brake and clutch lever pivots and the main and side 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



Note:

Before laying up your motorcycle, have the engine oil and the oil filter element changed by an authorised BMW motorcycle dealer or workshop. Work needed in conjunction with laying up or restoring to use can often be combined with the regular Service or Inspection work performed by the authorised BMW motorcycle dealer or workshop.



Restoring motorcycle to use

- If necessary, remove protective wax coating
- Clean the motorcycle (► 67)
- Install a charged battery (► 63)
- Apply the correct grease to the battery terminals
- Check/correct tyre pressures (Rider's Manual ► Chapter 2)
- Check brakes (Rider's Manual ► Chapter 2)
- Perform safety checks (Rider's Manual ► Chapter 2)

Engine

3

72

Technical data

Engine, 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	1171 cc
Max. nominal power output acc. to 95/1/EC	72 kW
at engine speed	6,750 rpm
Maximum torque	115 Nm
at engine speed	4,750 rpm
Permissible engine speeds	
Maximum engine speed	8,500 rpm
Idle speed	950 rpm
Bore/stroke	70.5/75 mm (2.76/2.95 in)
Compression ratio	10.8 : 1
Fuel consumption	
constant 90 km/h (approx. 55 mph)	4.3 l/100 km
constant 120 km/h (approx. 75 mph)	5.7 l/100 km
Maximum oil consumption	1 l/1000 km

Clutch

Single dry plate with over-centre action diaphragm spring and starter ring gear, attached to crankshaft.
Hydraulic actuation.

Clutch plate dia.

180 mm (7.09 in)

Gearbox

Claw-action shift with integral reaction damper, 5 forward gears and reverser.

Total spread of gear ratios

1st gear = 3.864
2nd gear = 3.022
3rd gear = 2.393
4th gear = 1.819
5th gear = 1.511
Reverser = 115.7

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 teeth, running in anti-friction bearings; rear wheel directly flange-mounted to rear of crown wheel.

Final drive ratio

1 : 2.62

Frame and suspension

3

74

Technical data

Frame

Chill-cast load-bearing aluminium frame, welded from 4 sections; engine carried in frame on silent-bloc bushings to prevent the transmission of vibration.

Location of type plate

On rear frame on right
(► Rider's Manual, Chapter 1)

Location of vehicle identification number

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, "red"

Rear brake

Hydraulic disc brake with four-piston fixed caliper, angular pad wear compensation and floating stainless-steel brake disc.

Brake pads made from organic material

Brake system

BMW Integral ABS, fully integral

Frame and suspension

Wheel location

Front	Telelever, leading link with central spring strut, pivoted centrally on main frame; anti-dive fork bridge
Rear	Cast aluminium single swinging arm with additional torque reaction strut to compensate for shaft drive effects (Paralever); new swinging arm with off-centre spring strut.

Suspension, front

	Non-adjustable gas-filled spring strut
Spring compression	47 mm (1.85 in)
Spring extension	55 mm (2.16 in)
Total suspension travel	102 mm (4.01 in)
Fixed tube diameter	35 mm (1.38 in)

Rear suspension

	Gas-filled suspension strut with hydraulic spring preload adjustment by handwheel; kinematic progressive rate. Spring preload infinitely adjustable.
Spring compression	100 mm (3.93 in)
Spring extension	30 mm (1.18 in)
Total suspension travel	130 mm (5.12 in)
Swinging arm length	552 mm (21.73 in)

Frame and suspension

Steering lock angle 2 x 32°

Front wheel castor

in normal-load position 108,7 mm (4.28 in)

Recommended minimum tyre tread depth

Front wheel 2 mm (0.08 in)

Rear wheel 3 mm (0.12 in)



Warning:

Always comply with legal requirements concerning the minimum permissible tyre tread depth.

Tyre pressures (tyres cold)

One-up Front 2.50 bar
36.3 psi

Rear 2.90 bar
42.0 psi

Two-up Front 2.50 bar
36.3 psi

Rear 2.90 bar
42.0 psi

Two-up Front 2.50 bar
+ luggage 36.3 psi

Rear 3.20 bar
46.4 psi

Frame and suspension

Wheels and tyres

BMW cast-aluminium wheels with 5 double-spoke design, low aspect-ratio tyres

Front wheel

With inclined rim shoulder and double hump

Size and designation

3.50 x 17 MT H2

Tyre size and designation

120/70 – 17
TUBELESS

Rear wheel

Angled rim shoulder and double tyre retaining hump

Size and designation

5.00 x 17 MT H2

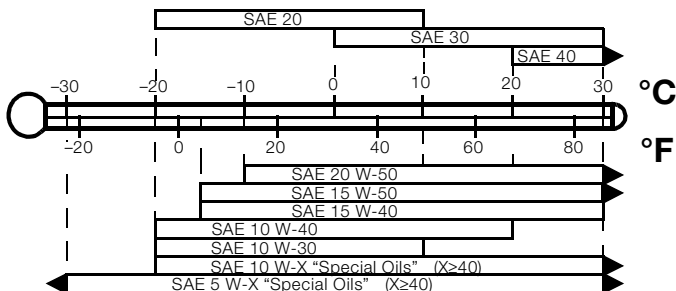
Tyre size and designation

160/70 – 17
TUBELESS

Fluids and lubricants

Engine oil

Brand-name HD oil, API classification SF, SG or SH; suffix letters CD or CE are permitted; alternatively, brand-name HD oil of CCMC classification G4 or G5; suffix PD2 is permitted.



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 subjected 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 3.5 l (6.16 Imp. pints)

Gear oil

Brand-name hypoid gear oil,
API class GL 5

Capacity

Gearbox

0.6 l (1.06 Imp. pints)
Add gearbox oil up to lower edge of
filler hole

Rear wheel drive,
for oil change

0.23 l (0.40 Imp. pints)

Rear wheel drive
after stripping down

0.25 l (0.44 Imp. pints)

Viscosity class

Castrol EPX 90 or
SAE 90 API

Fuel grade

Super (premium) unleaded fuel to
DIN 51 607, minimum octane
number 95 (RON) or 85 (MON)

Tank capacity

24 l (5.28 Imp. gal)

Fluids and lubricants

3

80

Technical data

Bearings and other lubrication points

Brand-name anti-friction bearing grease,
usable temperature range
-25 °C ... +120 °C,
drip point 190 °C,
high corrosion protection, good
resistance to water and oxidation;
e.g. Shell Retinax EP2

Brake fluid

DOT 4
We recommend BMW brake fluids



Caution:

Use only new brake fluid to DOT 4 specification.

Battery

BMW-Mareg 12 V 19 Ah or
Gel battery, 12 V 19 Ah
maintenance-free

Spark plugs

Approved makes/types

Bosch XR7 LDC

Electrode gap

no adjustment necessary

Wear limit

none – replace spark plugs in
accordance with specified maintenance intervals.

Fuses

“Minifuse”
flat-socket fuses

Load ratings

4 A and 15 A

Headlights

H7 tandem headlight

Bulbs

Low (dipped) beam	H7 halogen bulb 12 V 55 W
High (main) beam	H3 halogen bulb 12 V 55 W
Parking light	DIN 72 601 12 V 5 W Standard designation W 10/5
Brake light/rear light/ number plate 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
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

Alternator

Power output	840 W
--------------	-------

Starter

Power output	700 W
--------------	-------

Power socket

for rider and passenger	12 V Provision for connecting additional equipment – max. load 5 A, 60 W. 15 A fuse
-------------------------	--

Dimensions and weights

3

82

Technical data

Overall length	2,508 mm (98.74 in)
Width	
across mirrors	1,080 mm (42.52 in)
across handlebars (without handlebar weights)	826 mm (32.52 in)
across front footrests	708 mm (27.87 in)
across rear footrests	809 mm (31.85 in)
Overall height (windscreen lowered)	ECE model 1,395 mm (54.92 in)
Seat height, at unladen weight (without rider)	770/800 mm (30.3/31.5 in) 2-position adjustment
Wheelbase	
at unladen weight	1,629.7 mm (64.16 in)
in normal-load position	1,632.6 mm (64.27 in)
Ground clearance	
at unladen weight	115 mm (4.53 in)
in normal-load position	95 mm (3.74 in)
Unladen weight (ready to ride, tank full)	378.5 kg (835 lbs)
Permissible gross weight	600 kg (1,323 lbs)
Permissible wheel loads	
Front	204 kg (450 lbs)
Rear	402 kg (886 lbs)

Top speed

acc. to type approval test	197 km/h (approx. 122 mph)
two-up	188 km/h (approx. 117 mph)
for reverser	1.2 km/h (approx. 1 mph)

Flexibility

3rd gear 80-120 km/h (50-75 mph)	3.2 s
4th gear 80-120 km/h (50-75 mph)	4.0 s
5th gear 80-120 km/h (50-75 mph)	8.3 s
4th gear 60-140 km/h (37-87 mph)	8.3 s
5th gear 60-140 km/h (37-87 mph)	17.3 s

Power-weight ratio

ready for road +rider (85 kg/165 lb)	6.4 kg/kW
at gross weight limit	8.3 kg/kW

Noise emissions

to 97/24-9/EC	80 dB (A)
---------------	-----------

Drag coefficient

cd x A, rider seated, windscreen lowered	0.513
---	-------

cd x A, rider seated, windscreen raised	0.574
--	-------

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Motorcycle data/Dealer data

Motorcycle data

Model

Frame No.

Colour No.

First registered on

Dealer data

Person to contact for service work

Ms./Mr.

Tel. No.

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

Certain illustrations and descriptions in this handbook may differ from your own motorcycle, depending on the equipment or accessories ordered with it or the national-market specification. Please note that no claims will be entertained on the basis of such discrepancies.

Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.

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