OWNER'S MANUAL 2015

WWW.KTM.COM

1190 RC8 R EU/GB
1190 RC8 R FR
1190 RC8 R JP

Art. no. 3213276en

KTM

DEAR KTM CUSTOMER

Congratulations on your decision to purchase a KTM motorcycle. You are now the owner of a state-of-the-art sports motorcycle that will give you enormous pleasure if you service and maintain it accordingly.

We wish you a lot of enjoyment in riding this vehicle.

Please enter the serial numbers of your vehicle below.

Vehicle identification number/type label (☛ p. 20)	Dealer's stamp
Engine number (☛ p. 21)	
Key number (☛ p. 20)	

The Owner's Manual contained the latest information for this model series at the time of going to print. Minor differences due to developments in design cannot be ruled out completely.

All specifications are non-binding. KTM Motorrad AG specifically reserves the right to modify or delete technical specifications, prices, colors, forms, materials, services, designs, equipment, etc., without prior notice and without specifying reasons, to adapt these to local conditions, as well as to stop production of a particular model without prior notice. KTM accepts no liability for delivery options, deviations from illustrations and descriptions, misprints, and other errors. The models portrayed partly contain special equipment that does not belong to the regular scope of supply.

DEAR KTM CUSTOMER

ISO 9001(12 100 6061)
According to the international quality management standard ISO 9001, KTM uses quality assurance processes that lead to the maximum possible quality of the products.
Issued by: TÜV Management Service

KTM Motorrad AG
5230 Mattighofen, Austria

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

1 MEANS OF REPRESENTATION

1.1 Symbols used

The meaning of specific symbols is described below.

Indicates an expected reaction (e.g. of a work step or a function).

Indicates an unexpected reaction (e.g. of a work step or a function).

All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have these jobs performed by an authorized KTM workshop. There, your motorcycle will be optimally cared for by specially trained experts using the specialist tools required.

Indicates a page reference (more information is provided on the specified page).

1.2 Formats used

The typographical formats used in this document are explained below.

Specific name	Identifies a proprietary name.
Name®	Identifies a protected name.
Brand™	Identifies a brand available on the open market.

2 SAFETY ADVICE

2.1 Use definition - intended use

KTM sport motorcycles are designed and constructed to meet the normal demands of regular road operation and also for use on race courses, but not for offroad use.

Info

The motorcycle is only authorized for operation on public roads in the homologated version.

2.2 Safety advice

A number of safety instructions need to be followed to operate the vehicle safely. Therefore, read this manual carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.

Info

The vehicle has various information and warning labels at prominent locations. Do not remove information/warning labels. If they are missing, you or others may not recognize dangers and may therefore be injured.

2.3 Degrees of risk and symbols

Danger
Indicates a danger that will immediately and invariably lead to fatal or serious permanent injury if the appropriate measures are not taken.

Warning
Indicates a danger that is likely to lead to fatal or serious injury if the appropriate measures are not taken.

Caution
Indicates a danger that may lead to minor injuries if the appropriate measures are not taken.

Note
Indicates a danger that will lead to considerable machine and material damage if the appropriate measures are not taken.

Warning
Indicates a danger that will lead to environmental damage if the appropriate measures are not taken.

2.4 Tampering warning

Tampering with the noise control system is prohibited. Federal law prohibits the following acts or the causing thereof:

1 The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or

2 the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

1 Removal or puncturing of the main silencer, baffles, header pipes or any other components which conduct exhaust gases.
2 Removal or puncturing of parts of the intake system.
3 Lack of proper maintenance.
4 Replacing moving part of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.

2.5 Safe operation

Danger

Danger of accidents Danger arising from the rider's judgement being impaired.

– Do not operate the vehicle while under the influence of alcohol, drugs and certain medications or physically or mentally impaired.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

– When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

Warning

Danger of burns Some vehicle components become very hot when the vehicle is operated.

– Do not touch hot components such as exhaust system, radiator, engine, shock absorber, and the brake system. Allow these components to cool down before starting work on them.

Only operate the vehicle when it is in perfect technical condition, in accordance with its intended use, and in a safe and environmentally compatible manner.
The vehicle should only be used by trained persons. An appropriate driver's license is needed to ride the vehicle on public roads.
Have malfunctions that impair safety promptly eliminated by an authorized KTM workshop.
Adhere to the information and warning labels on the vehicle.

2.6 Protective clothing

Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

– Wear protective clothing (helmet, boots, gloves, pants and jacket with protectors) every time you ride the vehicle. Always wear protective clothing that is in good condition and meets the legal requirements.

In the interest of your own safety, KTM recommends that you only operate the vehicle while wearing protective clothing.

2.7 Work rules

Special tools are necessary for certain tasks. The tools are not contained in the vehicle but can be ordered under the number in parentheses. E.g.: bearing puller (15112017000)
During assembly, non-reusable parts (e.g. self-locking screws and nuts, seals and seal rings, O-rings, pins, lock washers) must be replaced by new parts.
In some instances, a thread locker (e.g. **Loctite®**) is required. The manufacturer instructions for use must be followed.
After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.
After you complete the repair or service work, check the operating safety of the vehicle.

2.8 Environment

If you use your motorcycle responsibly, you can ensure that problems and conflicts do not occur. To protect the future of the motorcycle sport, make sure that you use your motorcycle legally, display environmental consciousness, and respect the rights of others.
When disposing of used oil, other operating and auxiliary fluids, and used components, comply with the laws and regulations of the respective country.
Because motorcycles are not subject to the EU regulations governing the disposal of used vehicles, there are no legal regulations that pertain to the disposal of an end-of-life motorcycle. Your authorized KTM dealer will be glad to advise you.

2.9 Owner's Manual

It is important that you read this Owner's Manual carefully and completely before making your first trip. The Owner's Manual contains useful information and many tips on how to operate, handle, and maintain your motorcycle. Only then will you find out how to customize the vehicle ideally for your own use and how you can protect yourself from injury.
Keep the Owner's Manual in an accessible place to enable you to refer to it as needed.
If you would like to know more about the vehicle or have questions on the material you read, please contact an authorized KTM dealer.
The Owner's Manual is an important component of the vehicle and should be handed over to the new owner if the vehicle is sold.

3 IMPORTANT NOTES

3.1 Guarantee, warranty

The work prescribed in the service schedule must be carried out by an authorized KTM workshop only and confirmed in the customer's Service & Warranty Booklet and in the **KTM Dealer.net**; otherwise, all warranty claims will be void. No warranty claims can be considered for damage resulting from manipulations and/or alterations to the vehicle.
Additional information on the guarantee or warranty and the procedures involved can be found in the Service & Warranty Booklet.

3.2 Operating and auxiliary substances

Warning
Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to get into the ground water, the ground, or the sewage system.

Use operating and auxiliary substances (such as fuel and lubricants) as specified in the Owner's Manual.

3.3 Spare parts, accessories

For your own safety, only use spare parts and accessory products that are approved and/or recommended by KTM and have them installed by an authorized KTM workshop. KTM accepts no liability for other products and any resulting damage or loss.
Certain spare parts and accessory products are specified in parentheses in the descriptions. Your authorized KTM dealer will be glad to advise you.

The current **KTM PowerParts** for your vehicle can be found on the KTM website.
International KTM Website: http://www.ktm.com

3.4 Service

A prerequisite for perfect operation and prevention of premature wear is that the service, care, and tuning work on the engine and chassis is properly carried out as described in the Owner's Manual. Incorrect adjustment and tuning of the engine and chassis can lead to damage and breakage of components.

3 IMPORTANT NOTES

Use of the vehicle under difficult conditions, such in rain, high heat or with a heavy load, can lead to considerably more rapid wear of components such as the drive train, brake system, or suspension components. For this reason, it may be necessary to inspect or replace parts before the next scheduled service.
It is imperative that you adhere to the stipulated run-in times and service intervals. If you observe these exactly, you will ensure a much longer service life for your motorcycle.

3.5 Figures

The figures contained in the manual may depict special equipment.
In the interest of clarity, some components may be shown disassembled or may not be shown at all. It is not always necessary to disassemble the component to perform the activity in question. Please follow the instructions in the text.

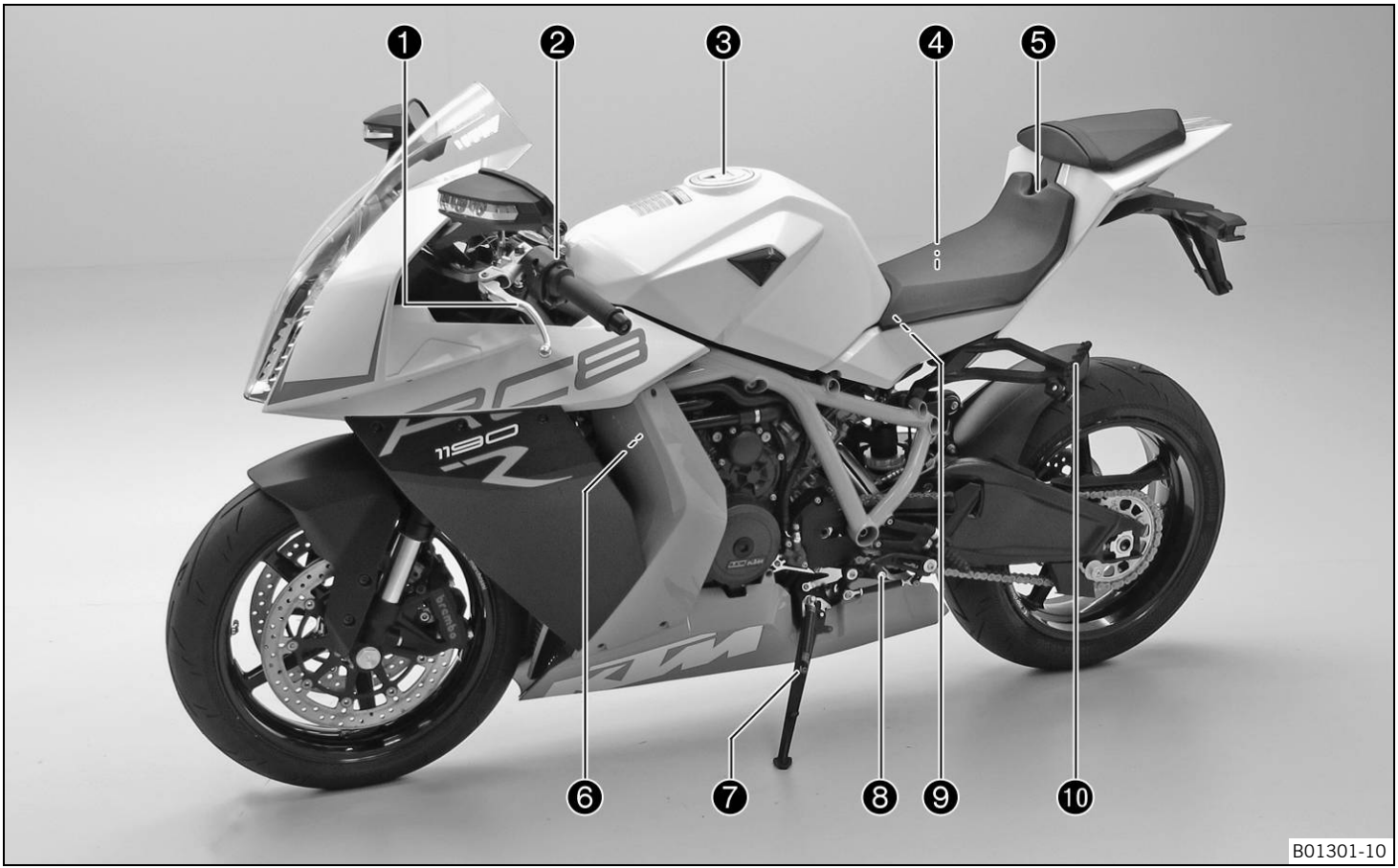
3.6 Customer service

Your authorized KTM dealer will be happy to answer any questions you may have on your vehicle and KTM.

A list of authorized KTM dealers can be found on the KTM website.
International KTM Website: http://www.ktm.com

4 VIEW OF VEHICLE

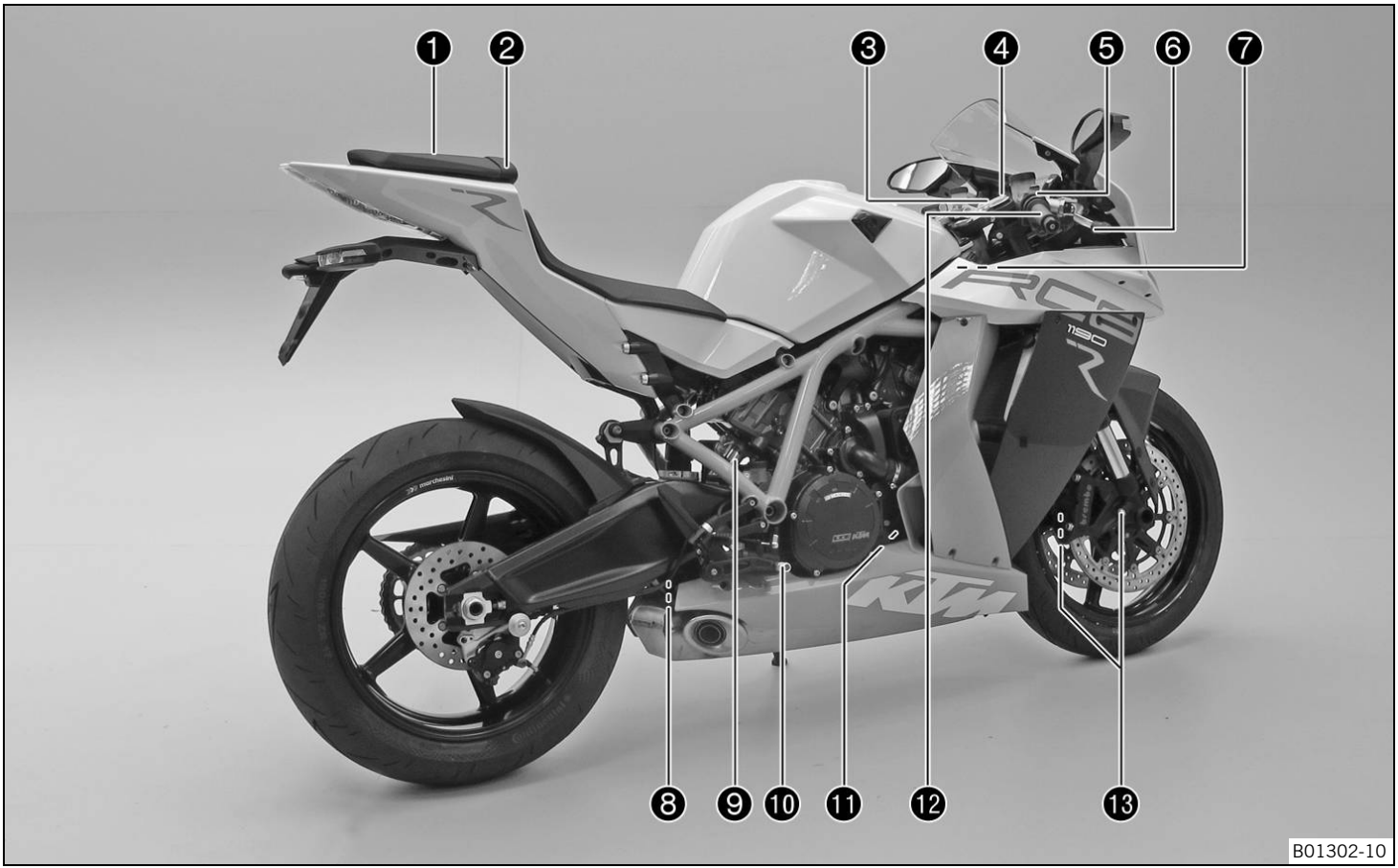
4.1 View of vehicle, front left (example)



4 VIEW OF VEHICLE

1	Clutch lever (☛ p. 23)
2	Light switch (☛ p. 25)
2	Headlight flasher switch (☛ p. 25)
2	Turn signal switch (☛ p. 26)
2	Horn button (☛ p. 24)
3	Filler cap
4	Tool set (☛ p. 100)
5	Seat lock (☛ p. 99)
6	Oil dipstick
7	Side stand (☛ p. 103)
8	Shift lever (☛ p. 101)
9	Helmet lock (☛ p. 103)
10	Passenger footrests (☛ p. 101)

4.2 View of vehicle, rear right (example)

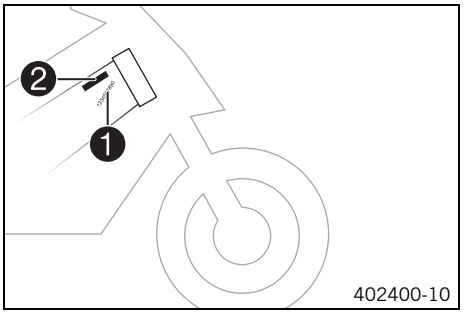


4 VIEW OF VEHICLE

1	Passenger seat
2	Supporting strap (☛ p. 100)
3	Fork rebound adjustment
4	Indicator lamps (☛ p. 33)
4	Ignition/steering lock (☛ p. 27)
5	Emergency OFF switch (☛ p. 26)
5	Electric starter button (☛ p. 27)
6	Hand brake lever (☛ p. 23)
7	Vehicle identification number/type label (☛ p. 20)
8	Shock absorber rebound adjustment
9	Shock absorber compression adjustment
10	Foot brake lever (☛ p. 102)
11	Engine number (☛ p. 21)
12	Throttle grip (☛ p. 24)
13	Fork compression adjustment

5 SERIAL NUMBERS

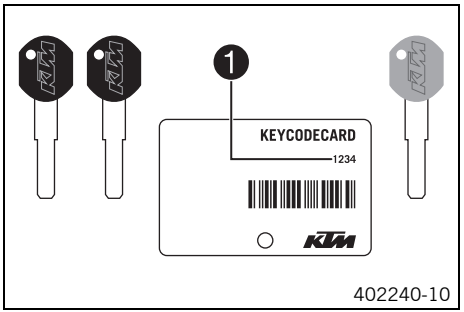
5.1 Vehicle identification number/type label



The vehicle identification number ❶ is stamped on the frame behind the steering head on the right.

The type label ❷ is on the frame above the vehicle identification number.

5.2 Key number



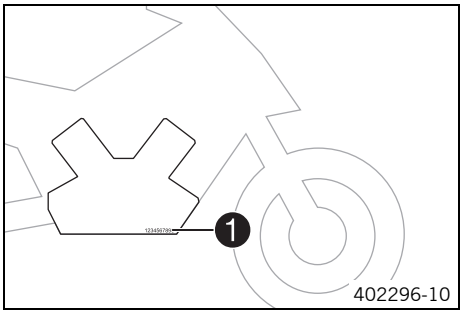
The key number **Code number** ❶ can be found on the **KEYCODECARD**.

Info

You need the key number to order a spare key. Keep the **KEYCODECARD** in a safe place.

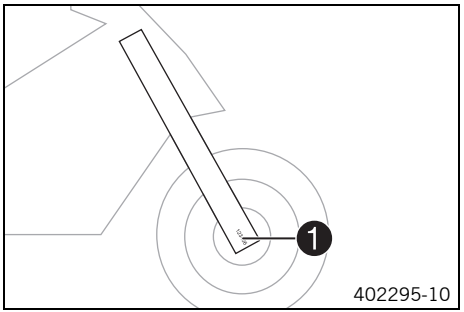
Use the orange programming key to activate and deactivate the black ignition key. Keep the orange programming key in a safe place: it must only be used for learning and programming functions.

5.3 Engine number



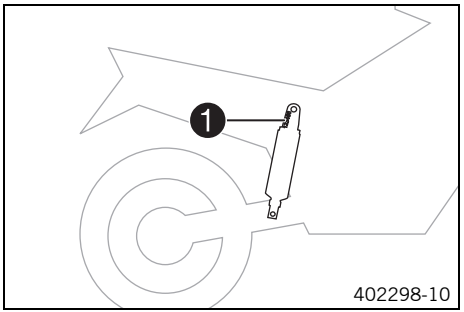
The engine number ❶ is stamped on the right side of the engine.

5.4 Fork part number



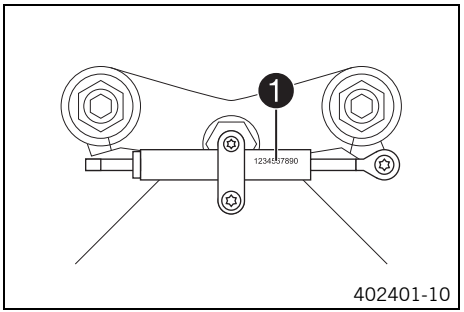
The fork part number ❶ is stamped on the inner side of the fork stub.

5.5 Shock absorber article number



The shock absorber part number ❶ is stamped on the top of the shock absorber above the adjusting ring towards the rear.

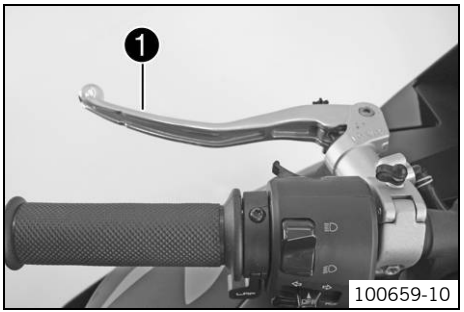
5.6 Steering damper part number



The steering damper part number ❶ is stamped on the top of the steering damper.

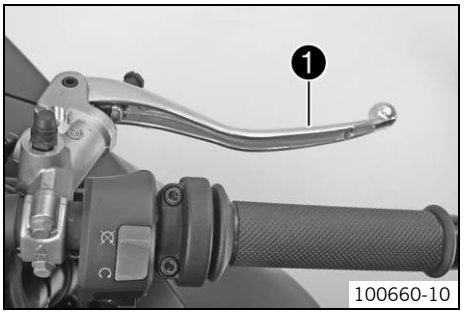
6 CONTROLS

6.1 Clutch lever



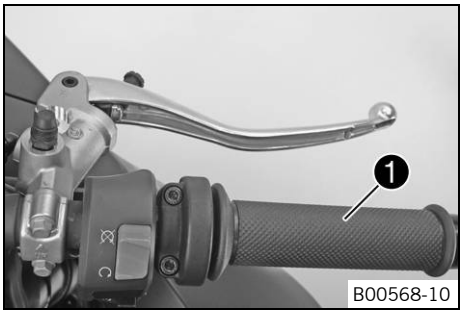
The clutch lever ❶ is fitted on the left side of the handlebar.
The clutch is hydraulic and self-adjusting.

6.2 Hand brake lever



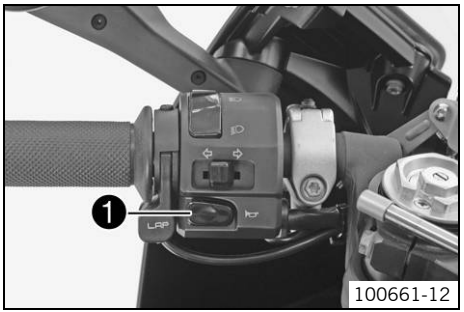
The hand brake lever ❶ is fitted on the right side of the handlebar.
The hand brake lever operates the front brake.

6.3 Throttle grip



The throttle grip ❶ is fitted on the right side of the handlebar.

6.4 Horn button

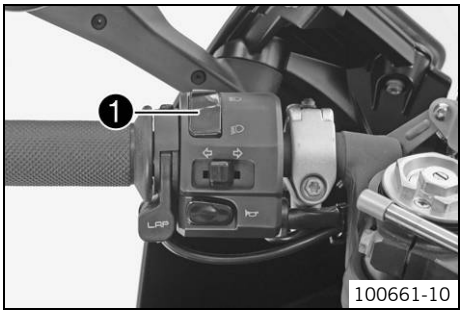


The horn button ❶ is fitted on the left side of the handlebar.

Possible states

- Horn button ⌯ in neutral position
- Horn button ⌯ pressed – The horn is operated in this position.

6.5 Light switch

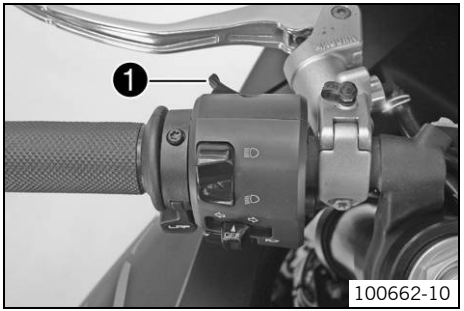


The light switch ❶ is fitted on the left side of the handlebar.

Possible states

	Low beam on – The light switch is turned downward. In this position, the low beam and tail light are switched on.
	High beam on – The light switch is turned upwards. In this position, the low beam, high beam, and tail light are switched on.

6.6 Headlight flasher switch

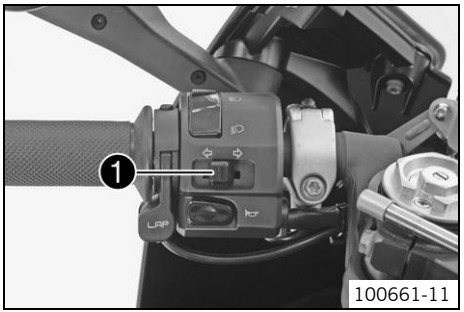


The headlight flasher switch ❶ is fitted on the left side of the handlebar.

Possible states

- Headlight flasher switch in neutral position
- Headlight flasher switch pressed – The headlight flasher switch (high beam) is operated in this position.

6.7 Turn signal switch



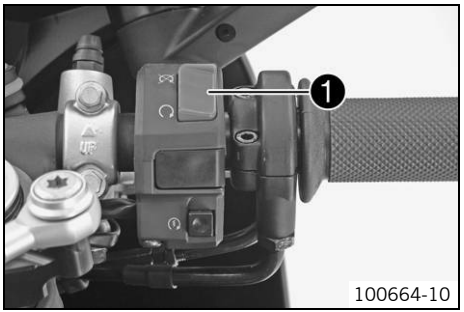
The turn signal switch ❶ is fitted on the left side of the handlebar.

Possible states

	Turn signal off
⇦	Left turn signal on – The turn signal switch is pressed to the left. The turn signal switch automatically returns to the central position after use.
⇨	Right turn signal on – The turn signal switch is pressed to the right. The turn signal switch automatically returns to the central position after use.

To switch off the turn signal, press the turn signal switch towards the switch housing.

6.8 Emergency OFF switch

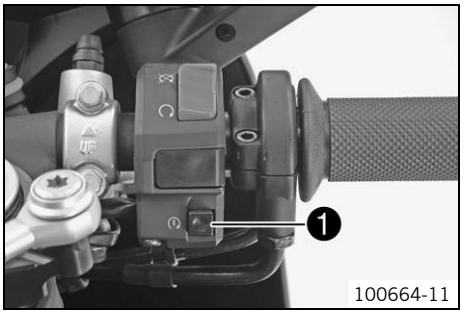


The emergency OFF switch ❶ is installed on the right side of the handlebar.

Possible states

	Emergency OFF switch on – This position is necessary for operation; the ignition circuit is closed.
	Emergency OFF switch off – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine cannot be started.

6.9 Electric starter button

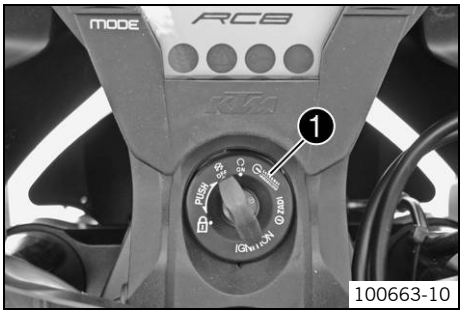


The electric starter button ❶ is fitted on the right side of the handlebar.

Possible states

- Electric starter button ⚡ in neutral position
- Electric starter button ⚡ pressed – In this position, the electric starter is operated.

6.10 Ignition/steering lock



The ignition/steering lock ❶ is located in front of the upper triple clamp.

Info

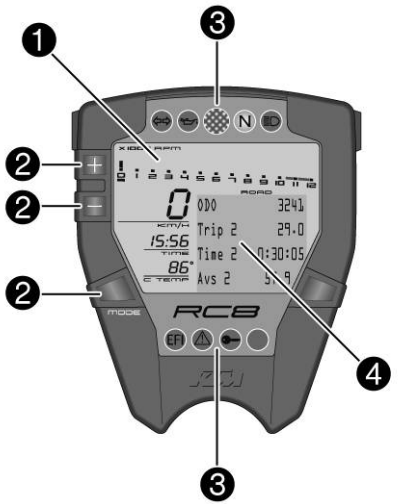
The ignition may only be switched on using a black ignition key.
Use the orange programming key to activate and deactivate the black ignition key.

Possible states

	Ignition **OFF** – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine cannot be started. The black ignition key can be removed.
	Ignition **ON** – In this position, the ignition circuit is closed and the engine can be started.
	Steering locked – In this position, the ignition circuit is interrupted and the steering locked. The black ignition key can be removed.

6.11 Combination instrument

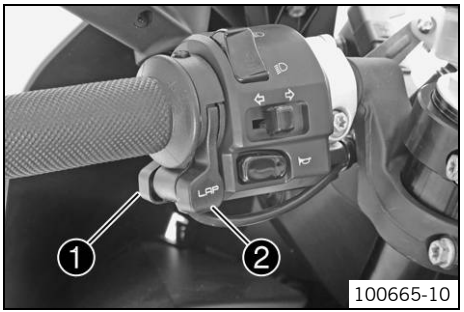
6.11.1 Overview



401121-10

1	Display (☛ p. 31)
2	Function buttons (☛ p. 32)
3	Indicator lamps (☛ p. 33)
4	Info display (☛ p. 34)

6.11.2 function buttons, handlebar



The **MODE** button ❶ is fitted on the handlebar, front left.
The **LAP** button ❷ is fitted on the handlebar, rear left.

MODE button
Changes to the next item on the info display in **ROAD** mode and in **RACE** mode.

LAP button
Changes to the next item on the info display in **ROAD** mode. Clocks the lap times in **RACE** mode.

6.11.3 Activation and test

401120-01

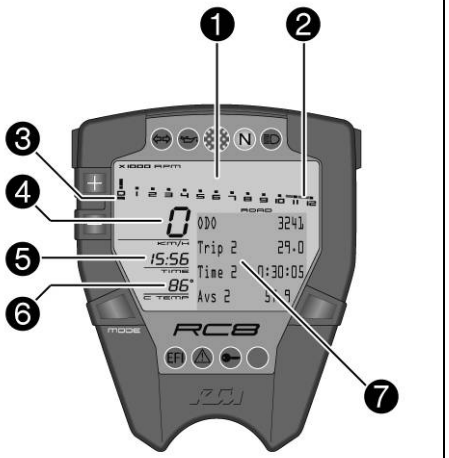
Activation

The combination instrument is activated when the ignition is switched on.

Test

The segments of the tachometer and the gear display light up in and switch off in sequence.
The speed display counts from 0 to 300 and back.
The remaining display segments outside the info display light up briefly.
The **KTM** logo appears in the info display.
The display then changes to the last selected mode.

6.11.4 Display



401121-12

The tachometer ❶ displays the engine speed in revolutions per minute (RPM).
The red marking ❷ marks the over-rev (excessive speed) range of the engine.
The gear display ❸ shows the engaged gear.

Info
The engaged gear can also be displayed in the info display.

The speed ❹ is displayed in kilometers per hour **KM/H** or in miles per hour **MPH**.
The time appears in segment ❺.

Info
The time must be reset after the battery was disconnected or the fuse was removed.

The coolant temperature is shown in degrees Celsius or Fahrenheit in segment ❻.
The info display ❼ shows additional information.

6.11.5 Function buttons

400430-11

The button ➊ controls different functions.
The button ➋ controls different functions.
The button "**MODE**" ➌ switches between display modes or opens one of the setup menus.

6.11.6 Indicator lamps

401122-01

Possible states

	The turn signal indicator lamp flashes green simultaneously with the turn signal – The turn signal is switched on.
	The oil pressure warning lamp lights up red – The oil pressure is too low.
	The shift warning lights up/flashes red – The set shift speed has been reached.
	The idle speed indicator lamp lights up green – The transmission is shifted to idle.
	The high beam indicator lamp lights up blue – The high beam is switched on.
	**EFI** warning lamp (**MIL**) lights up / flashes red – The OBD (on-board diagnosis) has detected an emission- or safety-critical error.
	The general warning lights up yellow – An operating safety (warning) message was detected. This is also shown periodically in the info display.
	The immobilizer indicator lamp lights up or flashes red – Status or error message for immobilizer/alarm system.

6.11.7 Info display

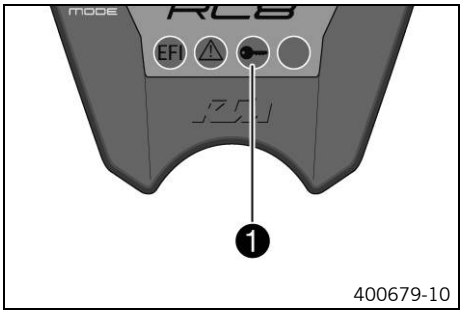
401121-13

The info display ❶ has two menus.
Menu 1 is **ROAD** mode (standard) for riding on public roads.
Menu 2 is the **RACE** mode for riding on race tracks. It allows riders to time laps themselves.
If the general warning lamp ⚠ lights up, the corresponding message is shown periodically in the info display.

Information repeat	45 s

The information shown in the info display can be controlled with the function buttons.

6.11.8 Immobilizer



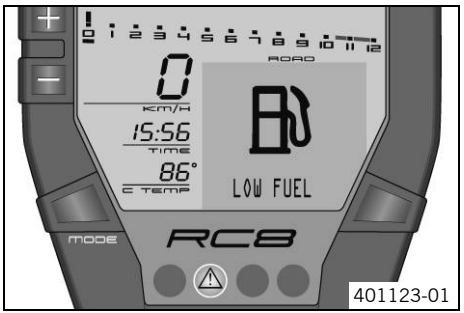
The electronic immobilizer secures the vehicle against unauthorized use.
The immobilizer is activated automatically and the engine electronics are locked when the ignition key is withdrawn.
The red warning lamp ⊶ flashes at 15 second intervals after one minute.
The red warning lamp can also indicate errors by flashing.

Info

The ignition key contains electronic components. Never attach multiple ignition keys to a single key ring; this may cause mutual interference and lead to problems.

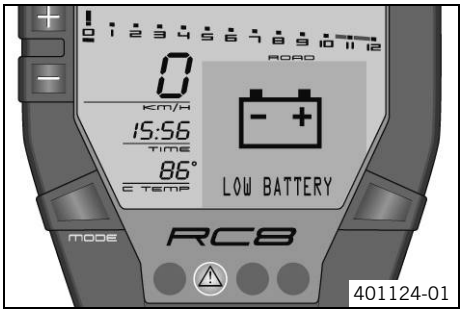
A lost black ignition key must be deactivated to prevent unauthorized persons from operating the vehicle.
The second black ignition key is activated when the vehicle is shipped.
Two additional spare ignition keys (key number on the **KEYCODECARD**) can be ordered from an authorized KTM workshop, but they must be activated before use.

6.11.9 notes/warnings



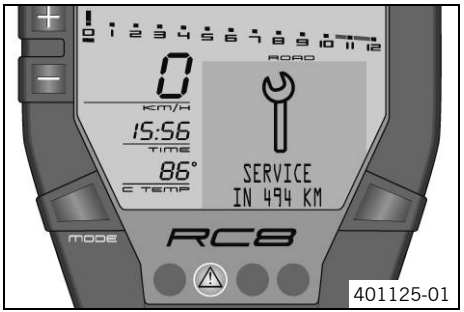
LOW FUEL appears on the info display if the minimum range falls below the specified value.

Distance	20 km (12.4 mi)



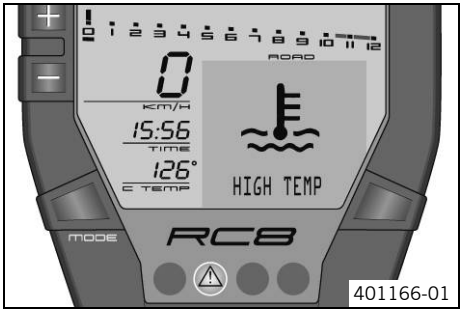
LOW BATTERY appears on the info display if the battery voltage falls below the specified value.

Battery voltage	10.80 V



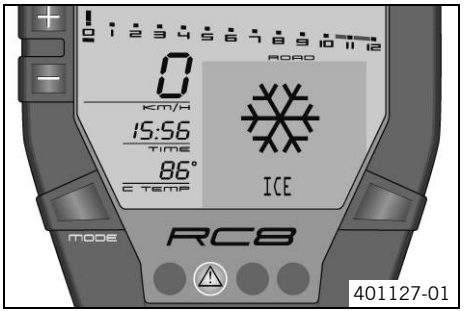
SERVICE IN xxx KM(MPH) appears on the info display if the distance to the next service falls below the specified value.

Distance	500 km (310 mi)



HIGH TEMP appears on the info display if the coolant temperature rises above the specified value.

Coolant temperature	120 °C (248 °F)



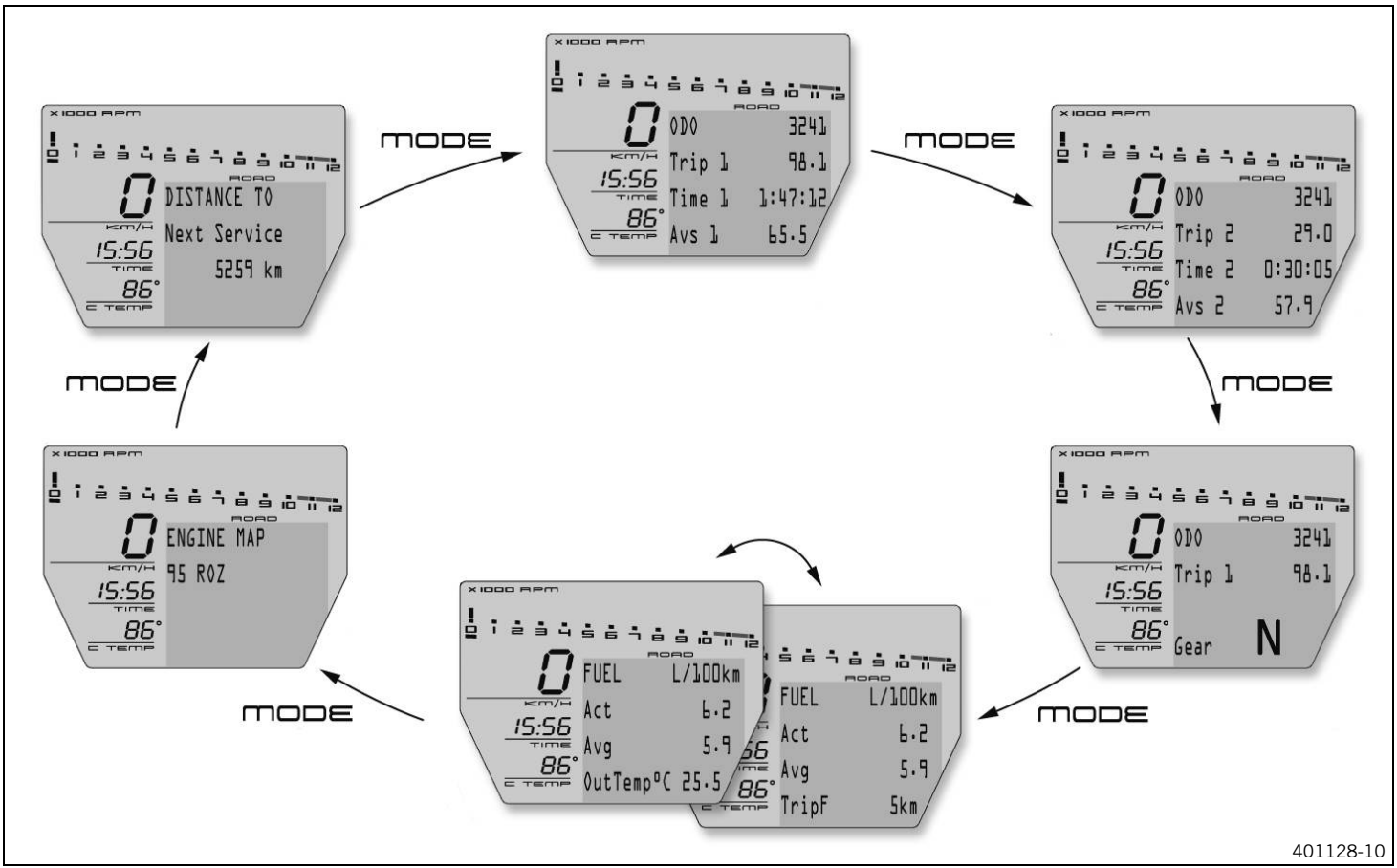
ICE appears on the info display if the external temperature falls below the specified value.

Temperature	3 °C (37 °F)

ICE disappears if the external temperature rises above the specified value.

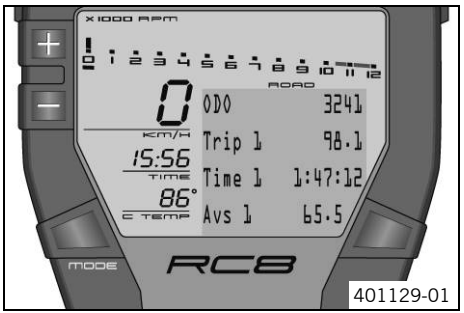
Temperature	4 °C (39 °F)

6.11.10 Overview of ROAD mode



Functions in ROAD mode
Distance menu 1, **ODO/Trip 1/Time 1/Avs 1**
Distance menu 2, **ODO/Trip 2/Time 2/Avs 2**
Gear display menu, **ODO/Trip 1/Gear**
Fuel and external temperature menu, **FUEL**
Mapping menu, **ENGINE MAP**
Next service menu, **DISTANCE TO Next Service**

6.11.11 Distance menu 1, ODO/Trip 1/Time 1/Avs 1



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

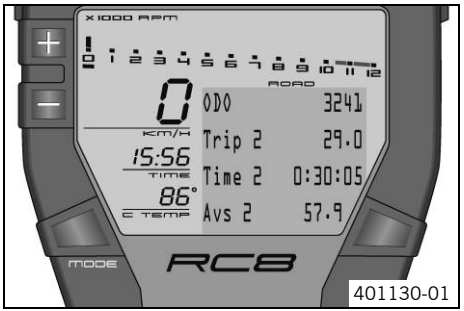
Alternative 2
- The ignition is on.
- The motorcycle is being ridden.
- **ROAD** mode

– Press the **MODE** button briefly and repeatedly until **ODO**, **Trip 1**, **Time 1**, and **Avs 1** appear in the info display.

ODO shows the total distance covered.
Trip 1 shows the distance covered since the last reset. For example, between two refueling stops. **Trip 1** is always running and counts up to **9999.9**.
Time 1 shows the journey time on the basis of **Trip 1** and resumes running as soon as a speed signal is received.
The calculation of this value starts with the first speed signal and ends 3 seconds after the last speed signal.
Avs 1 shows the average speed and is coupled with **Trip 1** and **Time 1**.

Press the button +.	No function
Press the button −.	No function
Press the button + and the button − for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	The display of **Trip 1**, **Time 1** and **Avs 1** is reset
Press the **MODE** button briefly.	Next display mode

6.11.12 Distance menu 2, ODO/Trip 2/Time 2/Avs 2



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is being ridden.
- **ROAD** mode

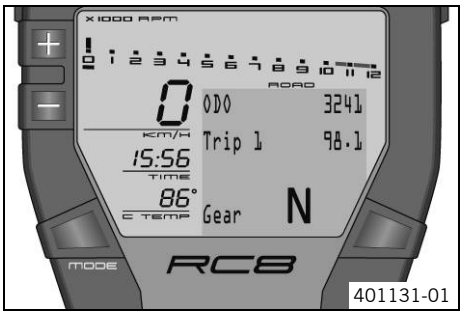
– Press the **MODE** button briefly and repeatedly until **ODO** and **Trip 2** appear in the info display.

ODO shows the total distance covered.
Trip 2 shows the distance covered since the last reset. For example, between two refueling stops. **Trip 2** is always running and counts up to **9999.9**.
Time 2 shows the journey time on the basis of **Trip 2** and resumes running as soon as a speed signal is received.

The calculation of this value starts with the first speed signal and ends 3 seconds after the last speed signal.
Avs 2 shows the average speed and is coupled with **Trip 2** and **Time 2**.

Press the button +.	No function
Press the button −.	No function
Press the button + and the button − for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	The display of **Trip 2**, **Time 2** and **Avs 2** is reset
Press the **MODE** button briefly.	Next display mode

6.11.13 Gear display menu, ODO/Trip 1/Gear



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2
- The ignition is on.
- The motorcycle is being ridden.
- **ROAD** mode

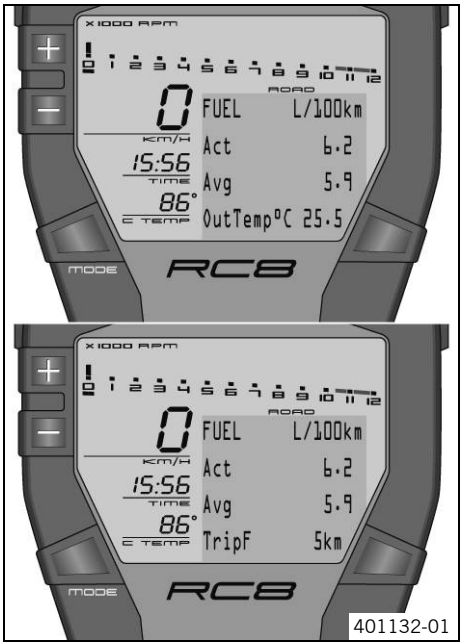
– Press the **MODE** button briefly and repeatedly until **ODO**, **Trip 1**, and **Gear** appear in the info display.

ODO shows the total distance covered.

Trip 1 shows the distance covered since the last reset. For example, between two refueling stops. **Trip 1** is always running and counts up to **9999.9**.
Gear shows the gear currently engaged.

Press the button +.	No function
Press the button −.	No function
Press the button + and the button − for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	The display of **Trip 1**, **Time 1** and **Avs 1** is reset
Press the **MODE** button briefly.	Next display mode

6.11.14 Fuel and external temperature menu, FUEL



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is being ridden.
- **ROAD** mode

– Press the **MODE** button briefly and repeatedly until **FUEL** appears in the info display.

Act shows the current fuel consumption.
Avg shows the average fuel consumption.
OutTemp shows the external temperature.
The external temperature can be switched on and off in the **SET-UP** menu.
TripF shows the distance covered since the fuel reserve level was reached.

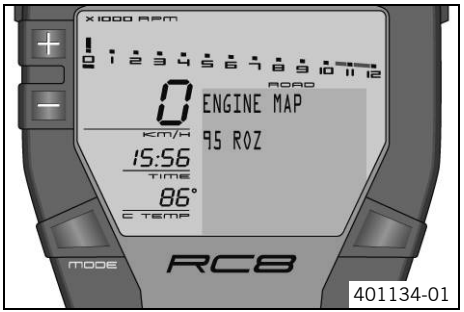
Info

The **TripF** display only appears after you receive the fuel reserve level.

Press the button +.	No function
Press the button –.	No function
Press the button + and the button – for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	Note **LOW FUEL** in info display goes out

Press the **MODE** button briefly.	Next display mode

6.11.15 Mapping menu, ENGINE MAP



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

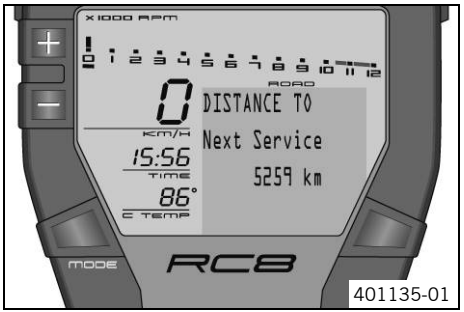
- The ignition is on.
- The motorcycle is being ridden.
- **ROAD** mode

– Press the **MODE** button briefly and repeatedly until **ENGINE MAP** appears in the info display.

ENGINE MAP shows the active mapping for the engine electronics.

Press the button ⊞.	Changes the mapping
Press the button ⊟.	Changes the mapping
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	Open and exit **ENGINE MAP** (setting is saved)
Press the **MODE** button briefly.	Closes **ENGINE MAP** (setting is not stored)

6.11.16 Next service menu, DISTANCE TO Next Service



Condition

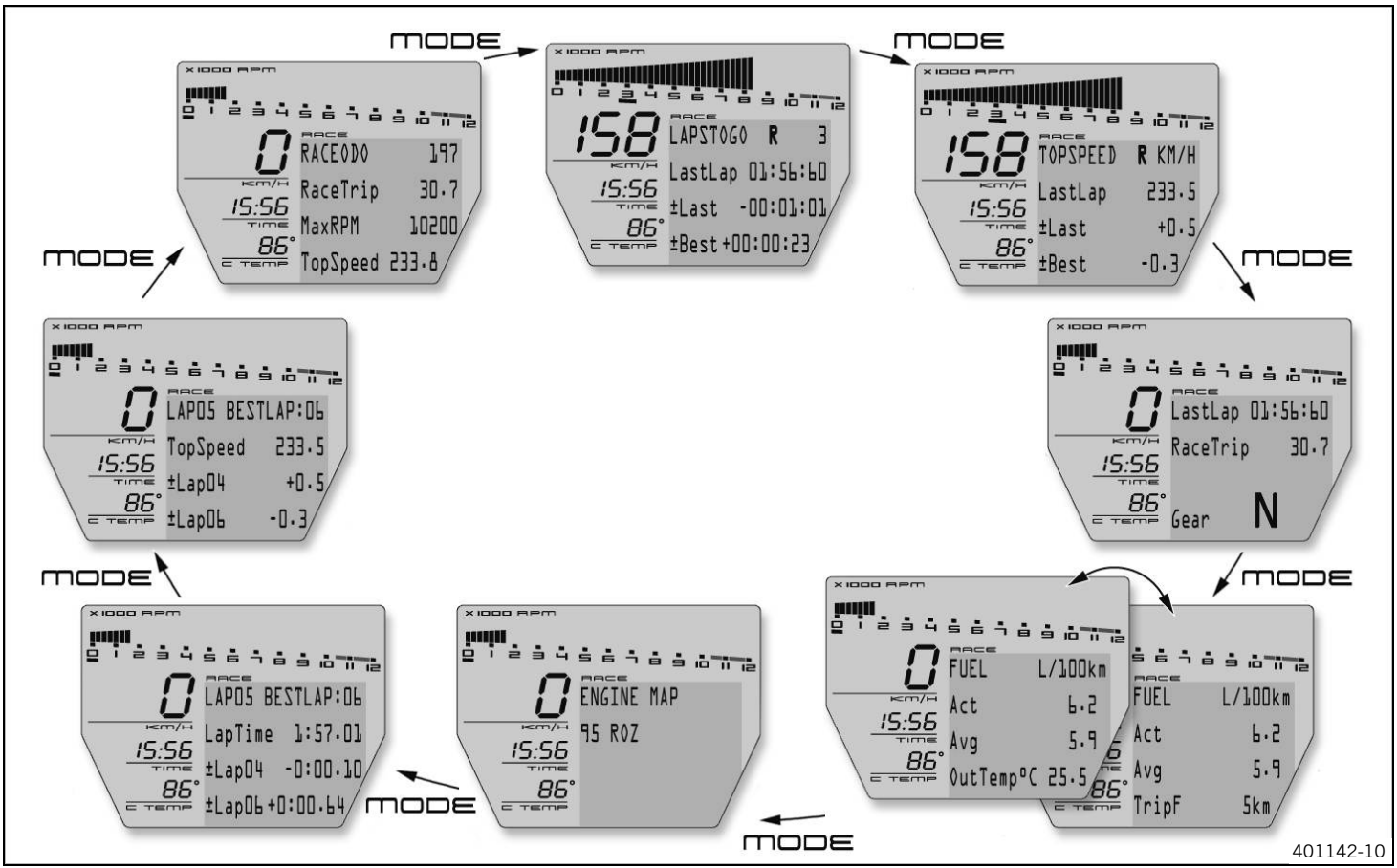
- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

– Press the **MODE** button briefly and repeatedly until **DISTANCE TONext Service** appears in the info display.

DISTANCE TO Next Service shows the distance before the next service is necessary.

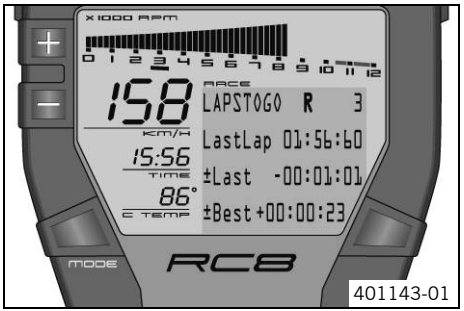
Press the button +.	No function
Press the button −.	No function
Press the button + and the button − for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	No function
Press the **MODE** button briefly.	Next display mode

6.11.17 Overview of RACE mode



Functions in RACE mode
Remaining laps menu, **LAPSTOGO**
Maximum lap speed menu, **TOPSPEED**
Gear display menu, **LastLap/RaceTrip/Gear**
Fuel and external temperature menu, **FUEL**
Mapping menu, **ENGINE MAP**
Lap times menu, **LAP/BESTLAP/LapTime**
Maximum speed menu, **LAP/BESTLAP/TopSpeed**
Total distance menu in **Race** mode **RACEODO**

6.11.18 Remaining laps menu, LAPSTOGO



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

Alternative 2

- The ignition is on.
- The motorcycle is being ridden.
- **RACE** mode

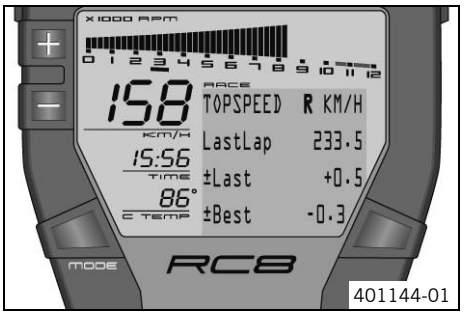
– Press the **MODE** button briefly and repeatedly until **LAPSTOGO** appears at the top left of the info display.

LAPSTOGO shows the number of remaining laps.
If an **R** appears after **LAPSTOGO**, the stopwatch is running in the background.
If a **P** appears after **LAPSTOGO**, the stopwatch in the background is active but waiting for a speed signal. The time is not running.
This function is controlled with the **LAP** button.

LastLap shows the lap time of the last lap.
±Last shows the difference between the last lap and the lap before last.
±Best shows the difference between the last lap and the best lap.
If the last lap was the fastest, you see behind **±Best**: the **Best!** symbol in the info display.

Press the button +.	No function
Press the button −.	No function
Press the button + and the button − for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	All values in **RACE** mode are reset (except **RACEODO**)
Press the **MODE** button briefly.	Next display mode

6.11.19 Maximum lap speed menu, TOPSPEED



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

Alternative 2
- The ignition is on.
- The motorcycle is being ridden.
- **RACE** mode

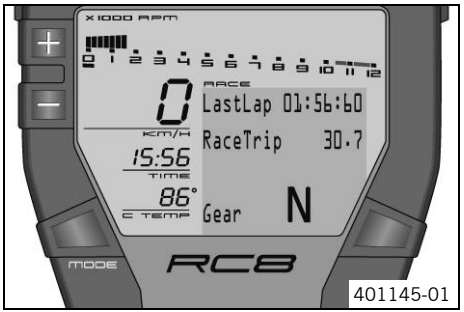
– Press the **MODE** button briefly and repeatedly until **TOPSPEED** appears at the top left of the info display.

TOPSPEED shows the highest lap speed.

If an **R** appears after **TOPSPEED**, the stopwatch is running in the background.
If a **P** appears after **TOPSPEED**, the stopwatch in the background is active but waiting for a speed signal. The time is not running.
This function is controlled with the **LAP** button.
LastLap shows the maximum speed of the last lap.
±Last shows the maximum speed difference between the last lap and the lap before.
±Best shows the maximum speed difference between the last lap and the highest maximum speed.
If the last lap was the lap with the highest maximum speed, the info display shows **±Best**: **Best!**

Press the button +.	No function
Press the button −.	No function
Press the button + and the button − for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	The display of **LastLap**, **±Last** and **±Best** are set to **0**
Press the **MODE** button briefly.	Next display mode

6.11.20 Gear display menu, LastLap/RaceTrip/Gear



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

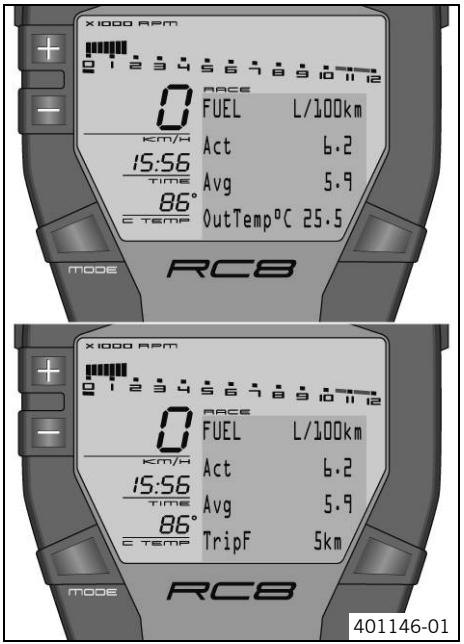
Alternative 2
- The ignition is on.
- The motorcycle is being ridden.
- **RACE** mode

– Press the **MODE** button briefly and repeatedly until **LastLap**, **RaceTrip**, and **Gear** appear in the info display.

LastLap shows the lap time of the last lap.
RaceTrip shows the distance covered since the last reset. For example, between two refueling stops. **RaceTrip** is always running and counts up to **999.9**.
Gear shows the gear currently engaged.

Press the button +.	No function
Press the button –.	No function
Press the button + and the button – for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	All values in **RACE** mode are reset (except **RACEODO**)
Press the **MODE** button briefly.	Next display mode

6.11.21 Fuel and external temperature menu, FUEL



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

Alternative 2

- The ignition is on.
- The motorcycle is being ridden.
- **RACE** mode

– Press the **MODE** button briefly and repeatedly until **FUEL** appears in the info display.

Act shows the current fuel consumption.
Avg shows the average fuel consumption.
OutTemp shows the external temperature.
The external temperature can be switched on and off in the **SET-UP** menu.
TripF shows the distance covered since the fuel reserve level was reached.

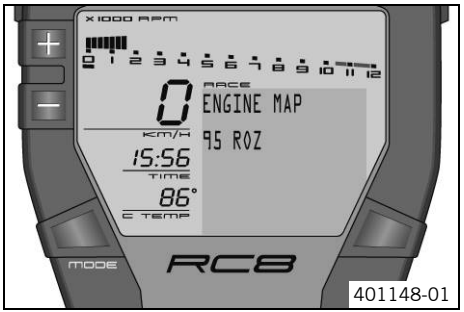
Info

The **TripF** display only appears after you receive the fuel reserve level.

Press the button +.	No function
Press the button –.	No function
Press the button + and the button – for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	Note **LOW FUEL** in info display goes out

Press the **MODE** button briefly.	Next display mode

6.11.22 Mapping menu, ENGINE MAP



401148-01

Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

Alternative 2

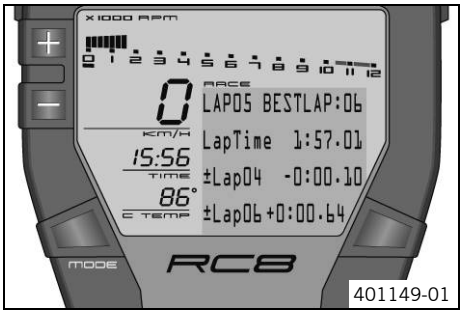
- The ignition is on.
- The motorcycle is being ridden.
- **RACE** mode

– Press the **MODE** button briefly and repeatedly until **ENGINE MAP** appears in the info display.

ENGINE MAP shows the active mapping for the engine electronics.

Press the button ⊞.	Changes the mapping
Press the button ⊟.	Changes the mapping
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	Open and exit **ENGINE MAP** (setting is saved)
Press the **MODE** button briefly.	Closes **ENGINE MAP** (setting is not stored)

6.11.23 Lap times menu, LAP/BESTLAP/LapTime



Condition

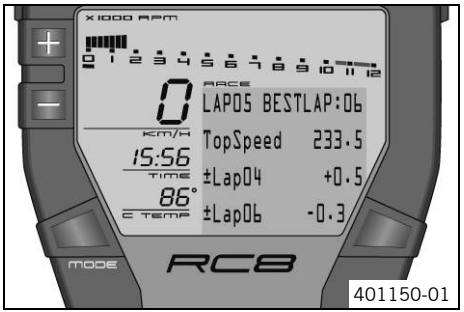
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the **MODE** button briefly and repeatedly until **LAP/BESTLAP/LapTime** appears in the info display.

LAP shows the selected lap.
BESTLAP shows the number of the lap with the best lap time.
LapTime shows the time of the lap behind **LAP**.
±Lap shows the difference to the lap before.
±Lap shows the difference to the lap after.

Press the button +.	The next lap is displayed
Press the button –.	The previous lap is displayed
Press the button + and the button – for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	All values in **RACE** mode are reset (except **RACEODO**)
Press the **MODE** button briefly.	Next display mode

6.11.24 Maximum speed menu, LAP/BESTLAP/TopSpeed



Condition

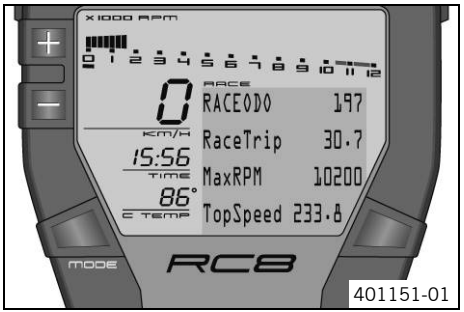
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the **MODE** button briefly and repeatedly until **LAP/BESTLAP/TopSpeed** appears in the info display.

LAP shows the selected lap.
BESTLAP shows the lap in which the highest maximum speed was reached.
TopSpeed shows maximum speed of the lap behind **LAP**.
±Lap shows the difference to the lap before.
±Lap shows the difference to the lap after.

Press the button +.	The next lap is displayed
Press the button –.	The previous lap is displayed
Press the button + and the button – for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	All values in **RACE** mode are reset (except **RACEODO**)
Press the **MODE** button briefly.	Next display mode

6.11.25 Total distance in Race mode menu, RACEODO



Condition

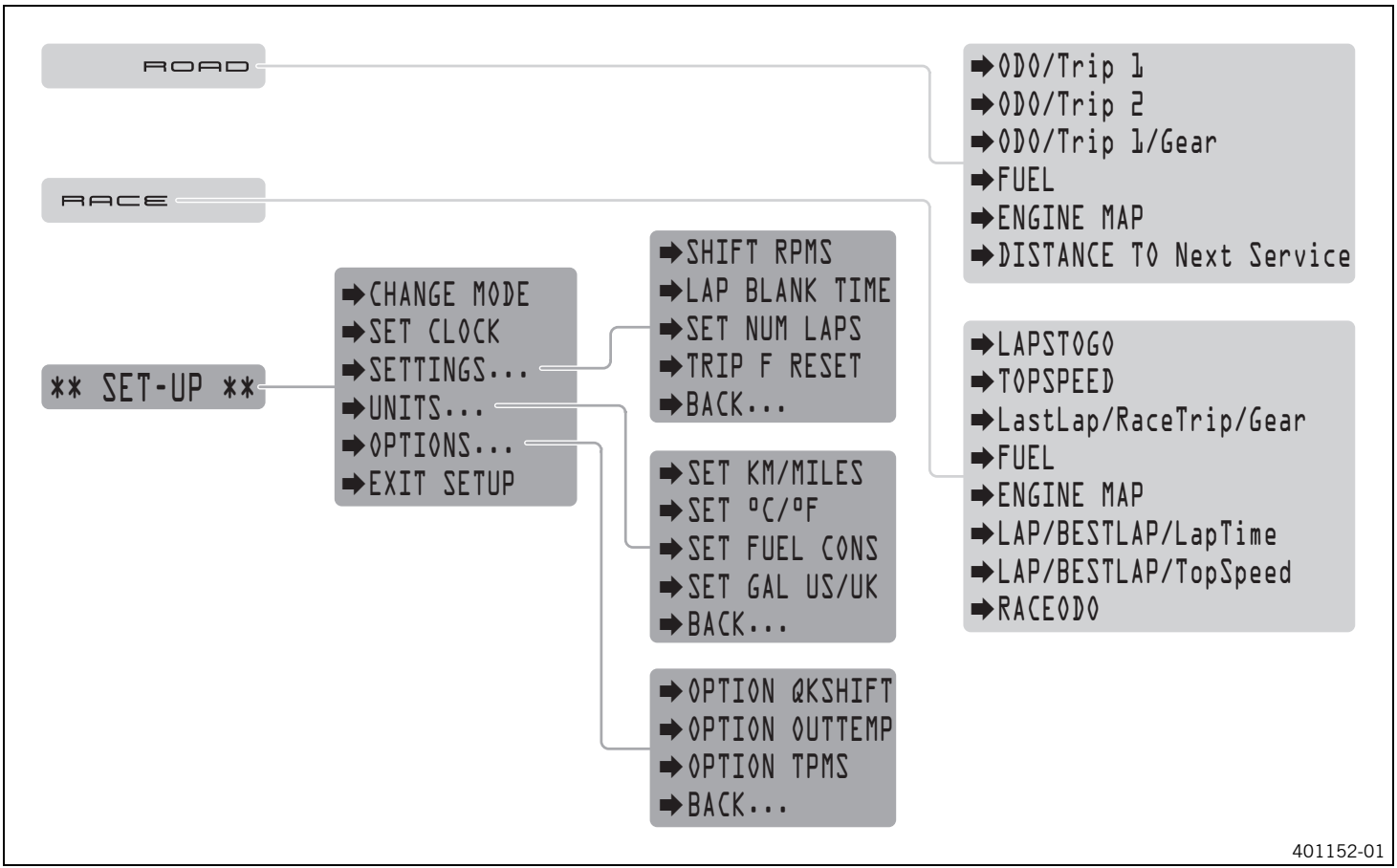
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the **MODE** button briefly and repeatedly until **RACEODO** appears at the top of the info display.

RACEODO shows the total distance covered in **RACE** mode.
RaceTrip shows the distance covered since the last reset. For example, between two refueling stops. **RaceTrip** is always running and counts up to **999.9**.
MaxRPM shows the highest engine speed reached during the **RaceTrip**.
TopSpeed shows the highest speed reached during the **RaceTrip**.

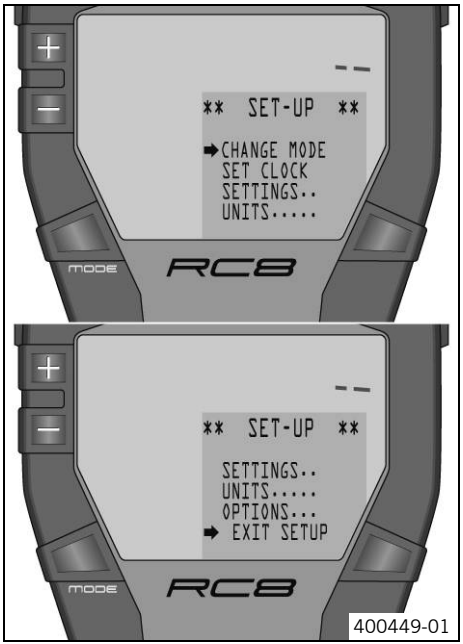
Press the button +.	No function
Press the button –.	No function
Press the button + and the button – for 3 - 5 seconds.	The display changes to the **SET-UP** menu
Press the **MODE** button for 3 - 5 seconds.	All values in **RACE** mode are reset (except **RACEODO**)
Press the **MODE** button briefly.	Next display mode

6.11.26 Overview of SET-UP mode



Settings in SET-UP mode
Mode menu, **CHANGE MODE**
Time menu, **SET CLOCK**
Settings menu, **SETTINGS**
Units menu, **UNITS**
Additional functions menu, **OPTIONS**
EXIT SETUP menu

6.11.27 SET-UP menu



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

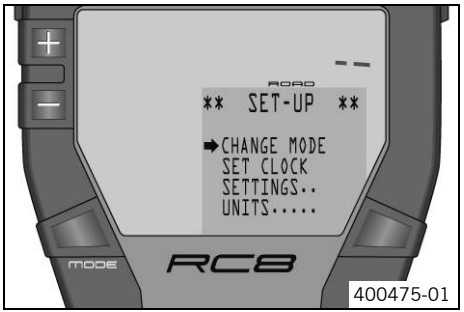
– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.

In the **CHANGE MODE** menu, you can select between **ROAD** and **RACE** mode.
You can set the clock on the **SET CLOCK** menu.
In the **SETTINGS** menu, you can set the shift warning light, the lap blank time of the **LAP** button, the number of laps, and the reset time of the fuel reserve display.
In the **UNITS** menu, you can set the units for the speed or distance, temperature and fuel consumption.
In the **OPTIONS** menu, you can switch on and off the optional quick shifter, the external temperature display and the optional tire pressure monitor.
Select **EXIT SETUP** to close the **SET-UP** menu.
The symbol ➡ indicates which menu can be activated with the **MODE** button.

Press the button ⊞.	The arrow moves up
Press the button ⊟.	The arrow moves down
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function

Press the **MODE** button for 3 - 5 seconds.	The menu in front of the arrow is selected
Press the **MODE** button briefly.	The menu in front of the arrow is selected

6.11.28 Mode menu, CHANGE MODE



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

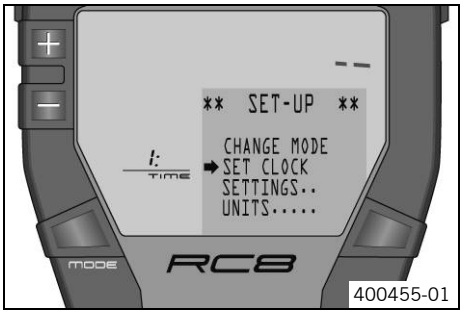
– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the **MODE** button briefly.

In the **CHANGE MODE** menu, you can select between **ROAD** and **RACE** mode.

Press the button ⊞.	Changes the menu
Press the button ⊟.	Changes the menu
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **CHANGE MODE**

Press the **MODE** button briefly.	Open and exit **CHANGE MODE**

6.11.29 Time menu, SET CLOCK



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

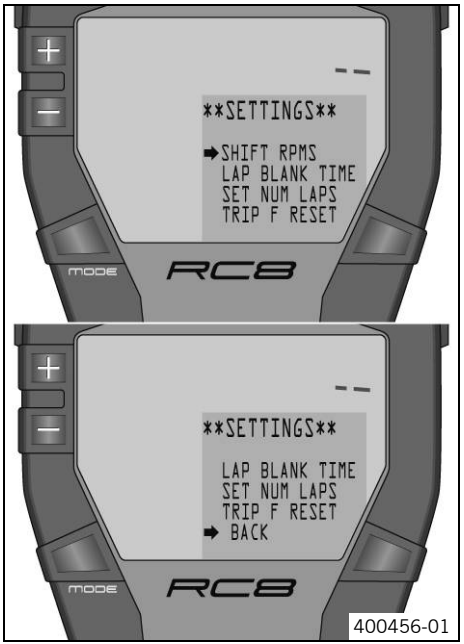
Alternative 2
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the button ➕ and the button ➖ for 3 - 5 seconds.
– Press the button ➖ once until the symbol ➡ shows **SET CLOCK** in the info display.
– Press the **MODE** button briefly.

You can set the clock in the **SET CLOCK** menu.

Press the button ➕.	Increases the value
Press the button ➖.	Decreases the value
Press the button ➕ and the button ➖ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **SET CLOCK** or change to the next value
Press the **MODE** button briefly.	Open and exit **SET CLOCK** or change to the next value

6.11.30 SETTINGS menu



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.

– Press the button ⊟ twice until the symbol ➡ shows **SETTINGS** in the info display.

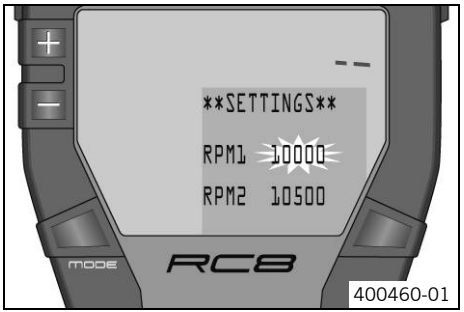
– Press the **MODE** button briefly.

In the **SHIFT RPMS** menu, you can activate the shift warning light.
In the **LAP BLANK TIME** menu, you can set the lap blank time of the **LAP** button.
In the **SET NUM LAPS** menu, you can set the number of laps to cover in **RACE** mode.
In the **TRIP F RESET** menu, you can set the reaction time of the fuel reserve display to changes in the fuel level.
In the **BACK...** menu, you can switch back to the **SET-UP** menu.
The symbol ➡ indicates which menu can be activated with the **MODE** button.

Press the button ⊞.	The arrow moves up
Press the button ⊟.	The arrow moves down
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function

Press the **MODE** button for 3 - 5 seconds.	The menu in front of the arrow is selected
Press the **MODE** button briefly.	The menu in front of the arrow is selected

6.11.31 Shift warning lamp menu, SHIFT RPMS



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.

– Press the button ⊟ twice until the symbol ➔ shows **SETTINGS** in the info display.

– Press the **MODE** button briefly.

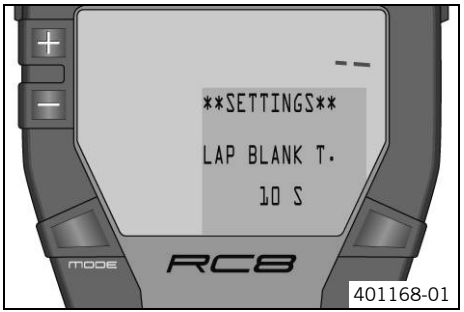
– Press the **MODE** button briefly.

In the **SHIFT RPMS** menu, you can activate the shift warning light.

Press the button ⊞.	Increases the value
Press the button ⊟.	Decreases the value
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function

Press the **MODE** button for 3 - 5 seconds.	Open and exit **SHIFT RPMS** or change to the next value
Press the **MODE** button briefly.	Open and exit **SHIFT RPMS** or change to the next value

6.11.32 LAP button blank time, LAP BLANK TIME menu



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

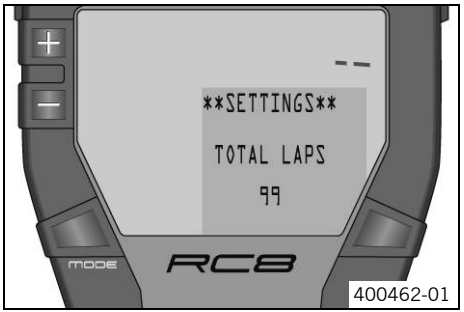
– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ twice until the symbol ➡ shows **SETTINGS** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ once until the symbol ➡ shows **LAP BLANK TIME** in the info display.
– Press the **MODE** button briefly.

In the **LAP BLANK TIME** menu, you set the lap blank time of the **LAP** button.

Press the button ⊞.	Increases the value
Press the button ⊟.	Decreases the value
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function

Press the **MODE** button for 3 - 5 seconds.	Open and exit **LAP BLANK TIME**
Press the **MODE** button briefly.	Open and exit **LAP BLANK TIME**

6.11.33 Number of laps menu, SET NUM LAPS



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

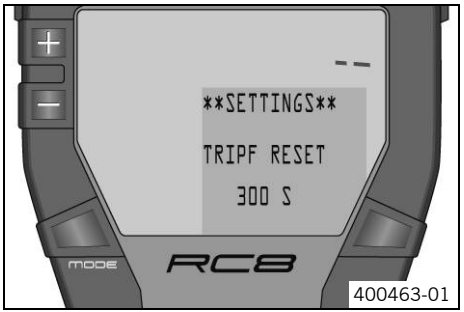
– Press the button + and the button − for 3 - 5 seconds.
– Press the button − twice until the symbol ➡ shows **SETTINGS** in the info display.
– Press the **MODE** button briefly.
– Press the button − twice until the symbol ➡ shows **SET NUM LAPS** in the info display.
– Press the **MODE** button briefly.

In the **SET NUM LAPS** menu, you can set the number of laps to cover in **RACE** mode.

Press the button +.	Increases the value
Press the button −.	Decreases the value
Press the button + and the button − for 3 - 5 seconds.	No function

Press the **MODE** button for 3 - 5 seconds.	Open and exit **SET NUM LAPS**
Press the **MODE** button briefly.	Open and exit **SET NUM LAPS**

6.11.34 Fuel reserve display menu, TRIP F RESET



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

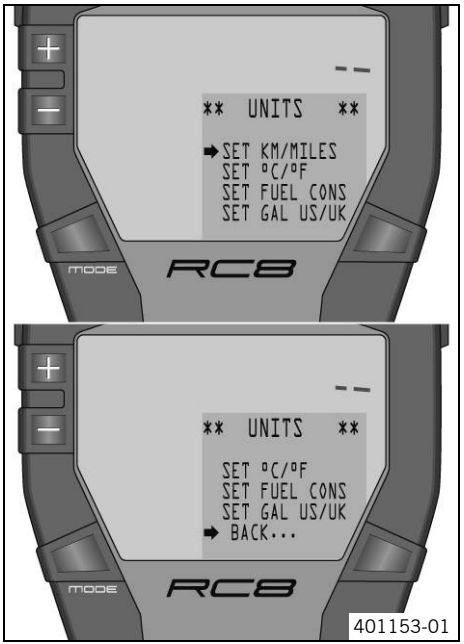
– Press the button + and the button − for 3 - 5 seconds.
– Press the button − twice until the symbol ➔ shows **SETTINGS** in the info display.
– Press the **MODE** button briefly.
– Press the button − three times until the symbol ➔ shows **TRIP F RESET** in the info display.
– Press the **MODE** button briefly.

In the **TRIP F RESET** menu, you can set the reaction time of the fuel reserve display to changes in the fuel level.

Press the button +.	Increases the value
Press the button −.	Decreases the value

Press the button + and the button − for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **TRIP F RESET**
Press the **MODE** button briefly.	Open and exit **TRIP F RESET**

6.11.35 UNITS menu



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.

– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.

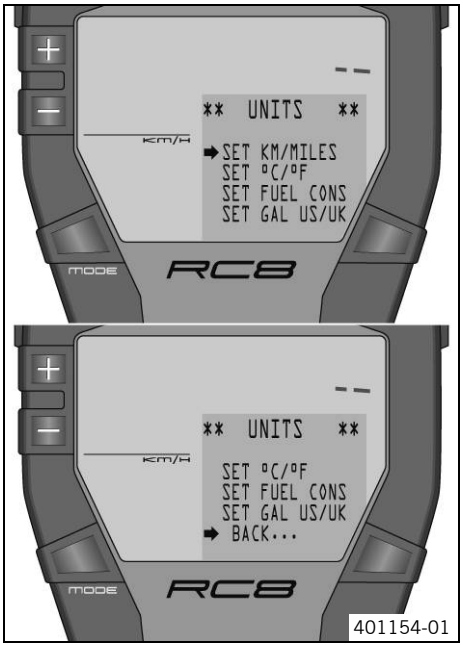
– Press the **MODE** button briefly.

In the **SET KM/MILES** menu, you can set the units for measuring speed and distance.
In the **SET °C/°F** menu, you can set the unit for the temperature display.
In the **SET FUEL CONS** menu, you can set the unit (liters) of the fuel consumption.
In the **SET GAL US/UK** menu, you can set the unit (gallons) of the fuel consumption.
In the **BACK...** menu, you can switch back to the **SET-UP** menu.
The symbol ➡ indicates which menu can be activated with the **MODE** button.

Press the button ⊞.	The arrow moves up
Press the button ⊟.	The arrow moves down
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	The menu in front of the arrow is selected

Press the **MODE** button briefly.	The menu in front of the arrow is selected

6.11.36 Kilometers/miles menu, SET KM/MILES



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.

– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.

– Press the **MODE** button briefly.

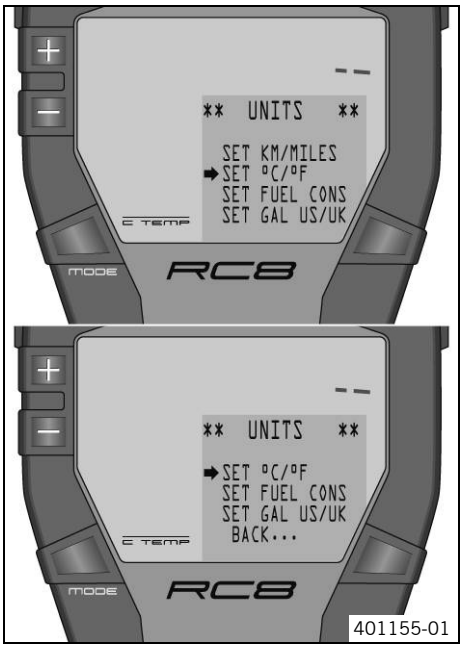
– Press the **MODE** button briefly.

In the **SET KM/MILES** menu, you can set the units for measuring speed and distance.

Press the button ⊞.	Changes the unit
Press the button ⊟.	Changes the unit
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **SET KM/MILES**

Press the **MODE** button briefly.	Open and exit **SET KM/MILES**

6.11.37 Temperature display menu, SET °C/°F



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

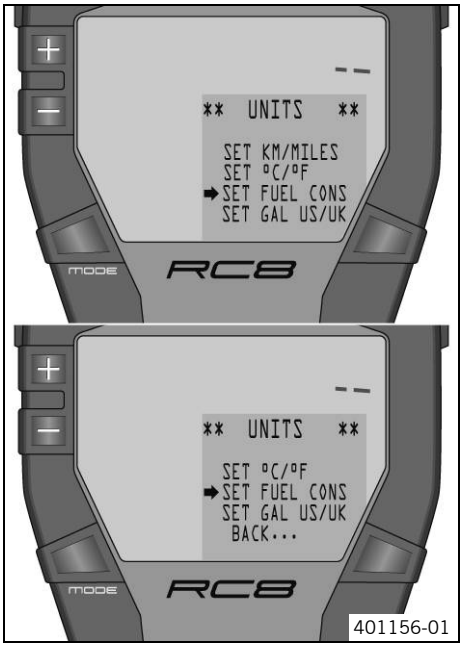
– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ once until the symbol ➡ shows **SET °C/°F** in the info display.
– Press the **MODE** button briefly.

In the **SET °C/°F** menu, you can set the unit for the temperature display.

Press the button ⊞.	Changes the unit
Press the button ⊟.	Changes the unit
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **SET °C/°F**

Press the **MODE** button briefly.	Open and exit **SET °C/°F**

6.11.38 Fuel consumption menu (liters), SET FUEL CONS



Condition

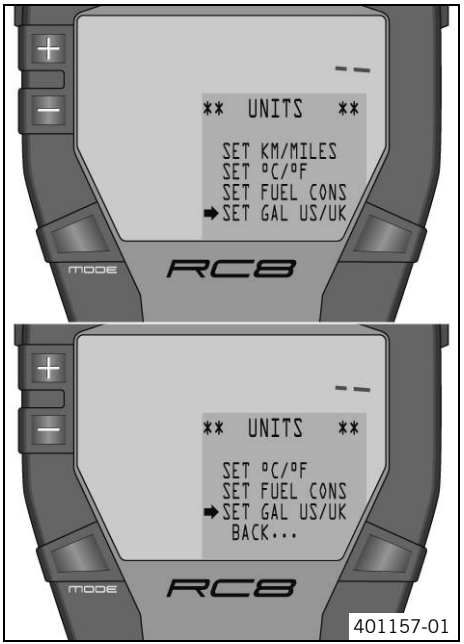
- The ignition is on.
- The motorcycle is stationary.
- The **KM/H** unit is activated.

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ twice until the symbol ➡ shows **SET FUEL CONS** in the info display.
– Press the **MODE** button briefly.

In the **SET FUEL CONS** menu, you can set the unit (liters) of the fuel consumption.

Press the button ⊞.	Changes the unit
Press the button ⊟.	Changes the unit
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **SET FUEL CONS**
Press the **MODE** button briefly.	Open and exit **SET FUEL CONS**

6.11.39 Fuel consumption menu (gallons), SET GAL US/UK



Condition

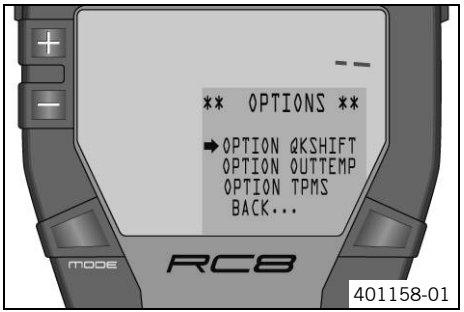
- The ignition is on.
- The motorcycle is stationary.
- The **MPH** unit is activated.

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ three times until the symbol ➡ shows **SET GAL US/UK** in the info display.
– Press the **MODE** button briefly.

In the **SET GAL US/UK** menu, you can set the unit (gallons) of the fuel consumption.

Press the button ⊞.	Changes the unit
Press the button ⊟.	Changes the unit
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **SET GAL US/UK**
Press the **MODE** button briefly.	Open and exit **SET GAL US/UK**

6.11.40 Additional functions menu, OPTIONS



Condition
Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

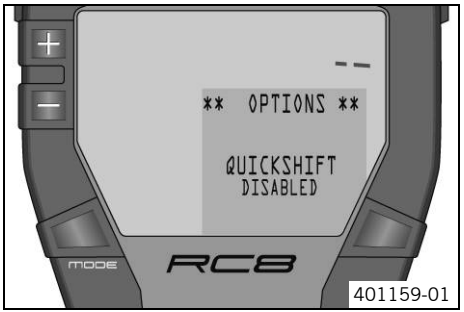
– Press the button + and the button − for 3 - 5 seconds.
– Press the button − four times until the symbol ➡ shows **OPTIONS** in the info display.
– Press the **MODE** button briefly.

In the **OPTION QKSHIFT** menu, you can switch the optional quick shifter on/off.
In the **OPTION OUTTEMP** menu, you can switch the external temperature display on/off.
In the **OPTION TPMS** menu, you can switch the tire pressure check on/off (available as accessory).
In the **BACK...** menu, you can switch back to the **SET-UP** menu.
The symbol ➡ indicates which menu can be activated with the **MODE** button.

Press the button +.	The arrow moves up
Press the button −.	The arrow moves down
Press the button + and the button − for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	The menu in front of the arrow is selected

Press the **MODE** button briefly.	The menu in front of the arrow is selected

6.11.41 Quick shifter menu, OPTION QKSHIFT



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.

– Press the button ⊟ four times until the symbol ➔ shows **OPTIONS** in the info display.

– Press the **MODE** button briefly.

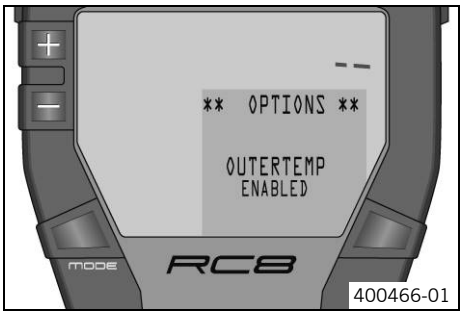
– Press the **MODE** button briefly.

In the **OPTION QKSHIFT** menu, you can switch the optional quick shifter on/off.

Press the button ⊞.	Switches quick shifter on and off
Press the button ⊟.	Switches quick shifter on and off
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **OPTION QKSHIFT**

Press the **MODE** button briefly.	Open and exit **OPTION QKSHIFT**

6.11.42 External temperature display menu, OPTION OUTTEMP



Condition
Alternative 1
- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2
- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

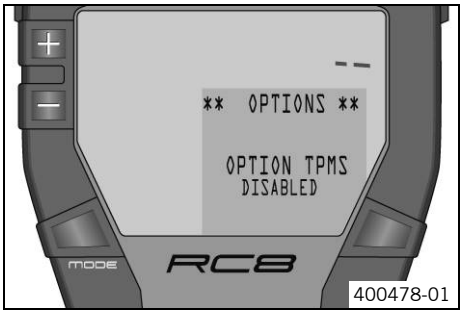
– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ four times until the symbol ➔ shows **OPTIONS** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ once until the symbol ➔ shows **OPTION OUTTEMP** in the info display.
– Press the **MODE** button briefly.

In the **OPTION OUTTEMP** menu, you can switch the external temperature display on/off.

Press the button ⊞.	Switches external temperature display on and off
Press the button ⊟.	Switches external temperature display on and off
Press the button ⊞ and the button ⊟ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **OPTIONOUTTEMP**

Press the **MODE** button briefly.	Open and exit **OPTIONOUTTEMP**

6.11.43 Tire pressure monitor menu, OPTION TPMS



Condition

Alternative 1

- The ignition is on.
- The motorcycle is stationary.
- **ROAD** mode

Alternative 2

- The ignition is on.
- The motorcycle is stationary.
- **RACE** mode

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.

– Press the button ⊟ four times until the symbol ➔ shows **OPTIONS** in the info display.

– Press the **MODE** button briefly.

Warning

Danger of accidents The tire pressure control system does not eliminate the necessity to check the tires before going on a ride.

To avoid false alarms, the tire pressure values are evaluated over a period of several minutes.

– Check the tire pressure before every ride.

– Correct the tire pressure if the tire pressure deviates from the specified value.

– Even if the tire pressure values are correct, stop the vehicle immediately if its behavior indicates a pressure loss in the tires.

– Press the button ▬ twice until the symbol ➜ shows **OPTION TPMS** in the info display.
– Press the **MODE** button briefly.

In the **OPTION TPMS** menu, you can switch the tire pressure check on/off (available as accessory).

Press the button ✚.	Switches tire pressure display on and off
Press the button ▬.	Switches tire pressure display on and off
Press the button ✚ and the button ▬ for 3 - 5 seconds.	No function
Press the **MODE** button for 3 - 5 seconds.	Open and exit **OPTION TPMS**
Press the **MODE** button briefly.	Open and exit **OPTION TPMS**

6.11.44 Table of functions

Display	**Press the button ✚.**	**Press the button ▬.**	**Press the button ✚ and the button ▬ for 3 - 5 seconds.**	**Press the MODE button for 3 - 5 seconds.**	**Press the MODE button briefly.**
Distance menu 1, **ODO/Trip 1/Time 1/Avs 1**	No function	No function	The display changes to the **SET-UP** menu	The display of **Trip 1**, **Time 1** and **Avs 1** is reset	Next display mode
Distance menu 2, **ODO/Trip 2/Time 2/Avs 2**	No function	No function	The display changes to the **SET-UP** menu	The display of **Trip 2**, **Time 2** and **Avs 2** is reset	Next display mode
Gear display menu, **ODO/Trip 1/Gear**	No function	No function	The display changes to the **SET-UP** menu	The display of **Trip 1**, **Time 1** and **Avs 1** is reset	Next display mode

Display	Press the button .	Press the button .	Press the button and the button for 3 - 5 seconds.	Press the MODE button for 3 - 5 seconds.	Press the MODE button briefly.
Fuel and external temperature menu, **FUEL**	No function	No function	The display changes to the **SET-UP** menu	Note **LOW FUEL** in info display goes out	Next display mode
Mapping menu, **ENGINE MAP**	Changes the mapping	Changes the mapping	The display changes to the **SET-UP** menu	Open and exit **ENGINE MAP** (setting is saved)	Closes **ENGINE MAP** (setting is not stored)
Next service menu, **DISTANCE TO Next Service**	No function	No function	The display changes to the **SET-UP** menu	No function	Next display mode
Remaining laps menu, **LAPSTOGO**	No function	No function	The display changes to the **SET-UP** menu	All values in **RACE** mode are reset (except **RACEODO**)	Next display mode
Maximum lap speed menu, **TOPSPEED**	No function	No function	The display changes to the **SET-UP** menu	The display of **LastLap**, **±Last** and **±Best** are set to **0**	Next display mode
Gear display menu, **LastLap/RaceTrip/Gear**	No function	No function	The display changes to the **SET-UP** menu	All values in **RACE** mode are reset (except **RACEODO**)	Next display mode
Fuel and external temperature menu, **FUEL**	No function	No function	The display changes to the **SET-UP** menu	Note **LOW FUEL** in info display goes out	Next display mode
Mapping menu, **ENGINE MAP**	Changes the mapping	Changes the mapping	The display changes to the **SET-UP** menu	Open and exit **ENGINE MAP** (setting is saved)	Closes **ENGINE MAP** (setting is not stored)

Display	Press the button .	Press the button .	Press the button and the button for 3 - 5 seconds.	Press the MODE button for 3 - 5 seconds.	Press the MODE button briefly.
Lap times menu, **LAP**/**BESTLAP**/**LapTime**	The next lap is displayed	The previous lap is displayed	The display changes to the **SET-UP** menu	All values in **RACE** mode are reset (except **RACEODO**)	Next display mode
Maximum speed menu, **LAP**/**BESTLAP**/**TopSpeed**	The next lap is displayed	The previous lap is displayed	The display changes to the **SET-UP** menu	All values in **RACE** mode are reset (except **RACEODO**)	Next display mode
Total distance in **Race** mode menu, **RACEODO**	No function	No function	The display changes to the **SET-UP** menu	All values in **RACE** mode are reset (except **RACEODO**)	Next display mode
SET-UP menu	The arrow moves up	The arrow moves down	No function	The menu in front of the arrow is selected	The menu in front of the arrow is selected
Mode menu, **CHANGE MODE**	Changes the menu	Changes the menu	No function	Open and exit **CHANGE MODE**	Open and exit **CHANGE MODE**
Time menu, **SET CLOCK**	Increases the value	Decreases the value	No function	Open and exit **SET CLOCK** or change to the next value	Open and exit **SET CLOCK** or change to the next value
SETTINGS menu	The arrow moves up	The arrow moves down	No function	The menu in front of the arrow is selected	The menu in front of the arrow is selected
Shift warning lamp menu, **SHIFT RPMS**	Increases the value	Decreases the value	No function	Open and exit **SHIFT RPMS** or change to the next value	Open and exit **SHIFT RPMS** or change to the next value

Display	Press the button .	Press the button .	Press the button and the button for 3 - 5 seconds.	Press the MODE button for 3 - 5 seconds.	Press the MODE button briefly.
LAP button blank time, **LAP BLANK TIME** menu	Increases the value	Decreases the value	No function	Open and exit **LAP BLANK TIME**	Open and exit **LAP BLANK TIME**
Number of laps menu, **SET NUM LAPS**	Increases the value	Decreases the value	No function	Open and exit **SET NUM LAPS**	Open and exit **SET NUM LAPS**
Fuel reserve display menu, **TRIP F RESET**	Increases the value	Decreases the value	No function	Open and exit **TRIP F RESET**	Open and exit **TRIP F RESET**
UNITS menu	The arrow moves up	The arrow moves down	No function	The menu in front of the arrow is selected	The menu in front of the arrow is selected
Kilometers/miles menu, **SET KM/MILES**	Changes the unit	Changes the unit	No function	Open and exit **SET KM/MILES**	Open and exit **SET KM/MILES**
Temperature display menu, **SET °C/°F**	Changes the unit	Changes the unit	No function	Open and exit **SET °C/°F**	Open and exit **SET °C/°F**
Fuel consumption menu (liters), **SET FUEL CONS**	Changes the unit	Changes the unit	No function	Open and exit **SET FUEL CONS**	Open and exit **SET FUEL CONS**
Fuel consumption menu (gallons), **SET GAL US/UK**	Changes the unit	Changes the unit	No function	Open and exit **SET GAL US/UK**	Open and exit **SET GAL US/UK**
Additional functions menu, **OPTIONS**	The arrow moves up	The arrow moves down	No function	The menu in front of the arrow is selected	The menu in front of the arrow is selected
Quick shifter menu, **OPTION QKSHIFT**	Switches quick shifter on and off	Switches quick shifter on and off	No function	Open and exit **OPTION QKSHIFT**	Open and exit **OPTION QKSHIFT**
External temperature display menu, **OPTION OUTTEMP**	Switches external temperature display on and off	Switches external temperature display on and off	No function	Open and exit **OPTIONOUTTEMP**	Open and exit **OPTIONOUTTEMP**

Display	Press the button +.	Press the button −.	Press the button + and the button − for 3 - 5 seconds.	Press the MODE button for 3 - 5 seconds.	Press the MODE button briefly.
Tire pressure monitor menu, **OPTION TPMS**	Switches tire pressure display on and off	Switches tire pressure display on and off	No function	Open and exit **OPTION TPMS**	Open and exit **OPTION TPMS**

6.11.45 Table of conditions and menu activation

Display	• The ignition is on. • The motorcycle is stationary. • **ROAD** mode	• The ignition is on. • The motorcycle is being ridden. • **ROAD** mode	• The ignition is on. • The motorcycle is stationary. • **RACE** mode	• The ignition is on. • The motorcycle is being ridden. • **RACE** mode	• The ignition is on. • The motorcycle is stationary. • The **KM/H** unit is activated.	• The ignition is on. • The motorcycle is stationary. • The **MPH** unit is activated.	**Menu can be activated**
Distance menu 1, **ODO/Trip 1/Time 1/Avs 1**	•	•					
Distance menu 2, **ODO/Trip 2/Time 2/Avs 2**	•	•					
Gear display menu, **ODO/Trip 1/Gear**	•	•					
Fuel and external temperature menu, **FUEL**	•	•					

Display	• The ignition is on. • The motorcycle is stationary. • **ROAD** mode	• The ignition is on. • The motorcycle is being ridden. • **ROAD** mode	• The ignition is on. • The motorcycle is stationary. • **RACE** mode	• The ignition is on. • The motorcycle is being ridden. • **RACE** mode	• The ignition is on. • The motorcycle is stationary. • The **KM/H** unit is activated.	• The ignition is on. • The motorcycle is stationary. • The **MPH** unit is activated.	**Menu can be activated**
Mapping menu, **ENGINE MAP**	•	•					
Next service menu, **DISTANCE TO Next Service**	•						
Remaining laps menu, **LAPS-TOGO**			•	•			
Maximum lap speed menu, **TOP-SPEED**			•	•			
Gear display menu, **LastLap/RaceTrip/Gear**			•	•			
Fuel and external temperature menu, **FUEL**			•	•			
Mapping menu, **ENGINE MAP**			•	•			
Lap times menu, **LAP/BESTLAP/ LapTime**			•				
Maximum speed menu, **LAP/ BESTLAP/TopSpeed**			•				

Display	• The ignition is on. • The motorcycle is stationary. • **ROAD** mode	• The ignition is on. • The motorcycle is being ridden. • **ROAD** mode	• The ignition is on. • The motorcycle is stationary. • **RACE** mode	• The ignition is on. • The motorcycle is being ridden. • **RACE** mode	• The ignition is on. • The motorcycle is stationary. • The **KM/H** unit is activated.	• The ignition is on. • The motorcycle is stationary. • The **MPH** unit is activated.	**Menu can be activated**
Total distance in **Race** mode menu, **RACEODO**			•				
SET-UP menu	•		•				
Mode menu, **CHANGE MODE**	•		•				•
Time menu, **SET CLOCK**	•		•				
SETTINGS menu	•		•				
Shift warning lamp menu, **SHIFT RPMS**	•		•				
LAP button blank time, **LAP BLANK TIME** menu	•		•				
Number of laps menu, **SET NUM LAPS**	•		•				
Fuel reserve display menu, **TRIP F RESET**	•		•				
UNITS menu	•		•				

Display	• The ignition is on. • The motorcycle is stationary. • **ROAD** mode	• The ignition is on. • The motorcycle is being ridden. • **ROAD** mode	• The ignition is on. • The motorcycle is stationary. • **RACE** mode	• The ignition is on. • The motorcycle is being ridden. • **RACE** mode	• The ignition is on. • The motorcycle is stationary. • The **KM/H** unit is activated.	• The ignition is on. • The motorcycle is stationary. • The **MPH** unit is activated.	**Menu can be activated**
Kilometers/miles menu, **SET KM/MILES**	•		•				
Temperature display menu, **SET °C/°F**	•		•				
Fuel consumption menu (liters), **SET FUEL CONS**					•		
Fuel consumption menu (gallons), **SET GAL US/UK**						•	
Additional functions menu, **OPTIONS**	•		•				
Quick shifter menu, **OPTION QKSHIFT**	•		•				•
External temperature display menu, **OPTION OUTTEMP**	•		•				•
Tire pressure monitor menu, **OPTION TPMS**	•		•				•

6.11.46 Adjusting the mapping of the engine electronics ENGINE MAP

Note

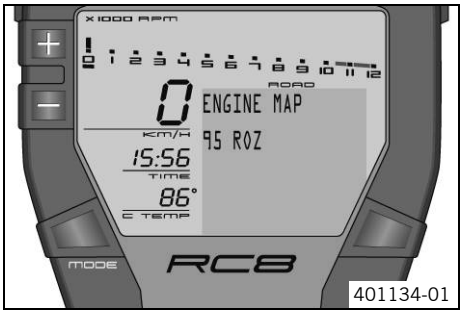
Material damage Incorrect mapping damages the engine.

– Adjust the mapping of the engine electronics for the fuel quality currently in use.

Condition

The ignition is on.

The motorcycle is stationary.



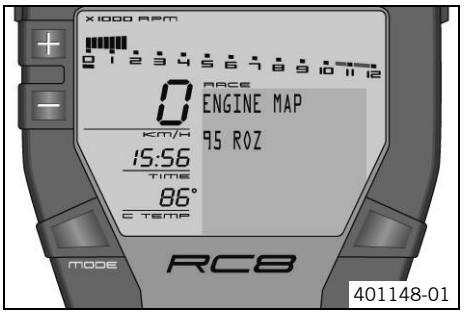
401134-01

Condition

ROAD mode

– Press the **MODE** button briefly and repeatedly until **ENGINE MAP** appears in the info display.
– Press the **MODE** button for 3 - 5 seconds.
– Select the mapping with the button + or the button −.
– Press the **MODE** button for 3 - 5 seconds.

✓ The setting is stored.



401148-01

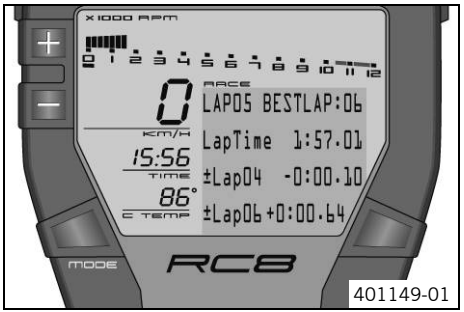
Condition

RACE mode

– Press the **MODE** button briefly and repeatedly until **ENGINE MAP** appears in the info display.
– Press the **MODE** button for 3 - 5 seconds.
– Select the mapping with the button + or the button −.
– Press the **MODE** button for 3 - 5 seconds.

✓ The setting is stored.

6.11.47 Displaying lap times

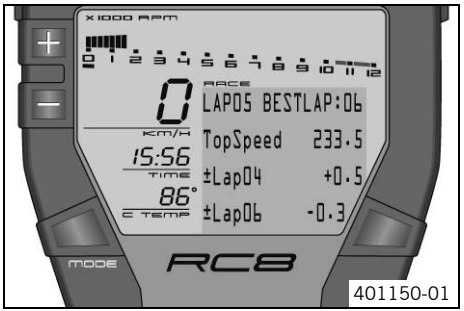


Condition
The ignition is on.
The motorcycle is stationary.
RACE mode

– Press the **MODE** button briefly and repeatedly until **LAP/BESTLAP/LapTime** appears in the info display.
  ✔ **LAP01** appears on the left of the info display.
– Press the button ⊞.
  ✔ The next lap is displayed.
– Press the button ⊟.
  ✔ The previous lap is displayed.
– Press the **MODE** button briefly.
  ✔ Next display mode

6.11.48 Displaying maximum speed

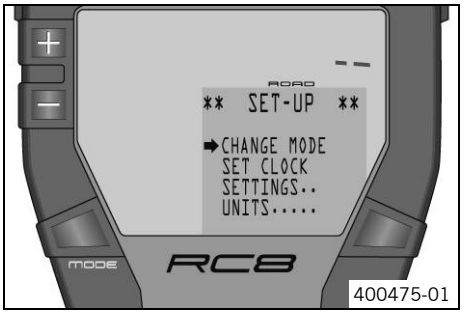
Condition
The ignition is on.
The motorcycle is stationary.
RACE mode



– Press the **MODE** button briefly and repeatedly until **LAP/BESTLAP/TopSpeed** appears in the info display.
  ✔ **LAP01** appears on the left of the info display.
– Press the button ⊞.
  ✔ The next lap is displayed.
– Press the button ⊟.
  ✔ The previous lap is displayed.
– Press the **MODE** button briefly.
  ✔ Next display mode

6.11.49 Setting ROAD or RACE mode

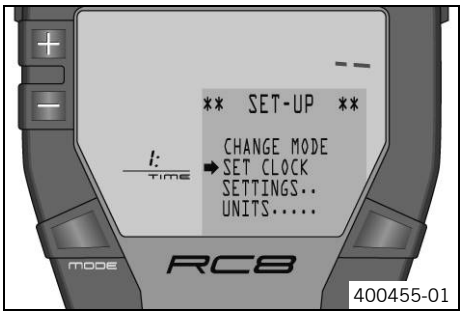
Condition
The ignition is on.
The motorcycle is stationary.



– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the **MODE** button briefly.
  ✔ The mode set is shown in the info display.
– Select **ROAD** mode or **RACE** mode with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✔ The settings are stored and the display changes to the **SET-UP** menu.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.50 Setting the clock with SET CLOCK

Condition
The ignition is on.

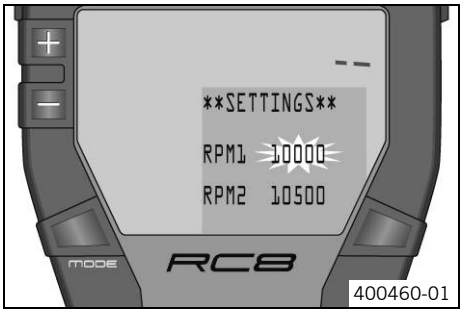


The motorcycle is stationary.

– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ once until the symbol ➡ shows **SET CLOCK** in the info display.
– Press the **MODE** button briefly.
  ✔ The hour is shown.
– Set the hour with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✔ The minutes are shown.
– Set the minutes with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✔ The settings are stored and the display changes to the **SET-UP** menu.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.51 Adjusting the shift speed RPM1/2

Condition
The ignition is on.
The motorcycle is stationary.



– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ twice until the symbol ➜ shows **SETTINGS** in the info display.
– Press the **MODE** button briefly.
– Press the **MODE** button briefly.
  ✔ **RPM1** and **RPM2** appear on the info display.
  ✔ The engine speed after **RPM1** flashes.

Info
The engine speed can be set at intervals of 50.
RPM1 is the engine speed above which the shift warning light starts to flash.

– Set the engine speed with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✔ The engine speed after **RPM2** flashes.

Info
RPM2 is the engine speed above which the shift warning light lights up constantly. If **RPM1** = **RPM2**, the shift warning light lights up constantly when you reach the engine speed set.

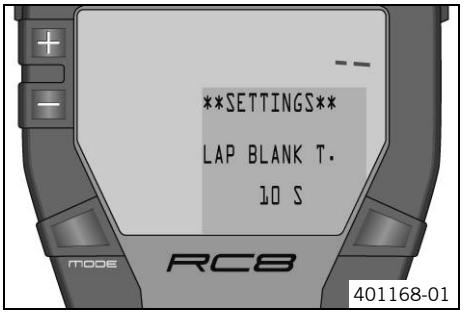
– Set the engine speed with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✔ The settings are stored and the display switches to the **SETTINGS** menu.

Info
At delivery, **RPM1** is set to 10000 and **RPM2** to 10500.

– Press the button ⊟ briefly and repeatedly until the symbol ➜ shows **BACK...** in the info display.

– Press the **MODE** button briefly.
– Press the button − briefly and repeatedly until the symbol ➔ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.52 Setting the blank time of the LAP button LAP BLANK TIME



Condition
The ignition is on.
The motorcycle is stationary.

– Press the button + and the button − for 3 - 5 seconds.
– Press the button − twice until the symbol ➔ shows **SETTINGS** in the info display.
– Press the **MODE** button briefly.
– Press the button − once until the symbol ➔ shows **LAP BLANK TIME** in the info display.
– Press the **MODE** button briefly.
✓ **LAP BLANK T.** appears on the info display.

Info
At delivery, **LAP BLANK T.** is set to **10** seconds.

Tip
With **LAP BLANK TIME** function, you can prevent the lap from being timed too short. This may happen if you accidentally press the **LAP** button twice in a row.

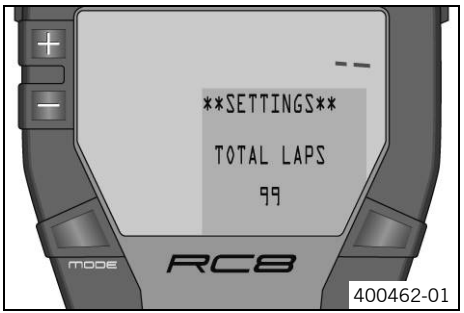
– Set the blank time of the **LAP** button with the button + or the button −.

Info
LAP BLANK T. can be set between **1** and **200**.

– Press the **MODE** button briefly.
✓ The settings are stored and the display changes to the **SETTINGS** menu.

– Press the button ➖ briefly and repeatedly until the symbol ➜ shows **BACK...** in the info display.
– Press the **MODE** button briefly.
– Press the button ➖ briefly and repeatedly until the symbol ➜ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.53 Setting the number of laps SET NUM LAPS



Condition
The ignition is on.
The motorcycle is stationary.

– Press the button ➕ and the button ➖ for 3 - 5 seconds.
– Press the button ➖ twice until the symbol ➜ shows **SETTINGS** in the info display.
– Press the **MODE** button briefly.
– Press the button ➖ twice until the symbol ➜ shows **SET NUM LAPS** in the info display.
– Press the **MODE** button briefly.
✓ **TOTAL LAPS** appears on the info display with the number of laps.

Info
When delivered, the number of **TOTAL LAPS** is set to 99 laps.

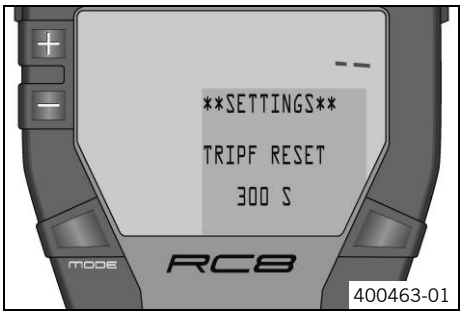
– Set the number of laps with the button ➕ or the button ➖.

Info
You can set **TOTAL LAPS** to between 1 and 99 laps.

– Press the **MODE** button briefly.
✓ The settings are stored and the display switches to the **SETTINGS** menu.

– Press the button ➖ briefly and repeatedly until the symbol ➡ shows **BACK...** in the info display.
– Press the **MODE** button briefly.
– Press the button ➖ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.54 Setting the fuel reserve display TRIP F RESET



Condition
The ignition is on.
The motorcycle is stationary.

– Press the button ➕ and the button ➖ for 3 - 5 seconds.
– Press the button ➖ twice until the symbol ➡ shows **SETTINGS** in the info display.
– Press the **MODE** button briefly.
– Press the button ➖ three times until the symbol ➡ shows **TRIP F RESET** in the info display.
– Press the **MODE** button briefly.
✓ **TRIPF RESET** appears in the info display with the reaction time.

Info
At delivery, **TRIPF RESET** is set to 300 seconds.

– Set the reaction time of the fuel reserve display with the ➕ button or the ➖ button.

Info
You can set the **TRIPF RESET** to between 10 and 1000 seconds in steps of 10.

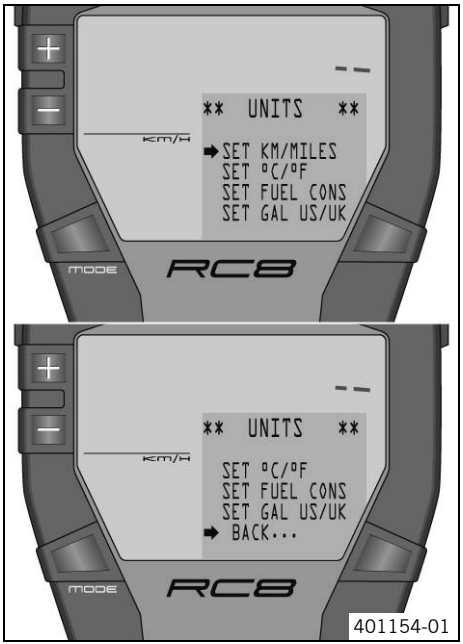
– Press the **MODE** button briefly.
✓ The settings are stored and the display changes to the **SETTINGS** menu.

– Press the button briefly and repeatedly until the symbol ➜ shows **BACK...** in the info display.
– Press the **MODE** button briefly.
– Press the button briefly and repeatedly until the symbol ➜ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.55 Setting the kilometers/miles SET KM/MILES

Info
Making a country-specific setting.

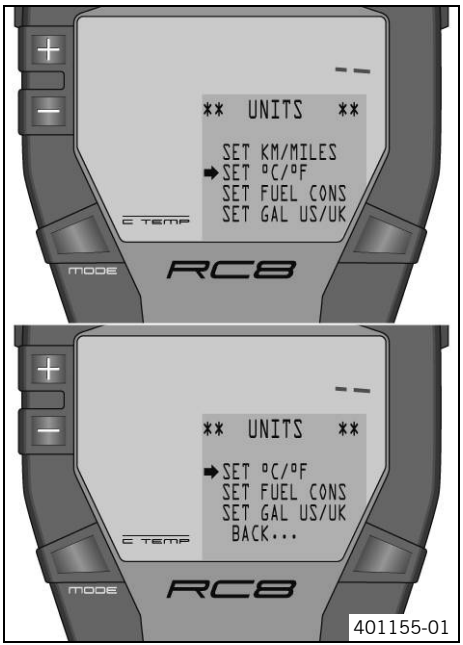
Condition
The ignition is on.
The motorcycle is stationary.



– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.
– Press the **MODE** button briefly.
– Press the **MODE** button briefly.
  ✔ The selected unit appears on the left in the display.
– Select the unit with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✔ The settings are stored and the display changes to the **UNITS** menu.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **BACK...** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.56 Setting the temperature unit SET °C/°F

Condition
The ignition is on.
The motorcycle is stationary.

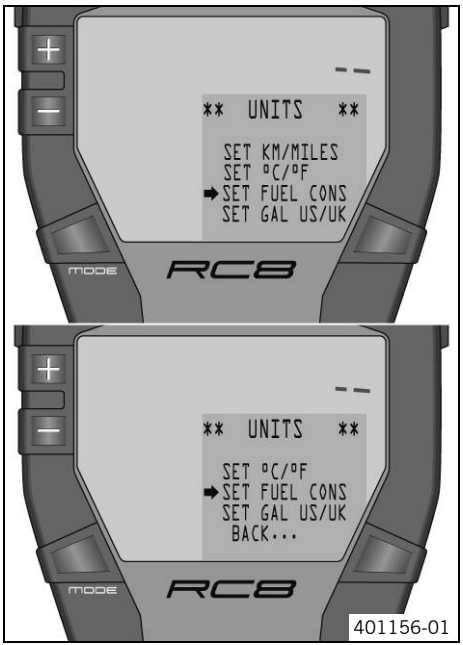


- Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
- Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.
- Press the **MODE** button briefly.
- Press the button ⊟ once until the symbol ➡ shows **SET °C/°F** in the info display.
- Press the **MODE** button briefly.
  ✓ The selected unit appears on the left in the display.
- Select the unit with the button ⊞ or the button ⊟.
- Press the **MODE** button briefly.
  ✓ The settings are stored and the display changes to the **UNITS** menu.
- Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **BACK...** in the info display.
- Press the **MODE** button briefly.
- Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
- Press the **MODE** button briefly.

6.11.57 Setting the unit of fuel consumption (liters) SET FUEL CONS

Info
The **SET FUEL CONS** menu is only active if the unit in the **SET KM/MILES** menu is set to **KM/H**.

Condition
The ignition is on.
The motorcycle is stationary.
The **KM/H** unit is activated.

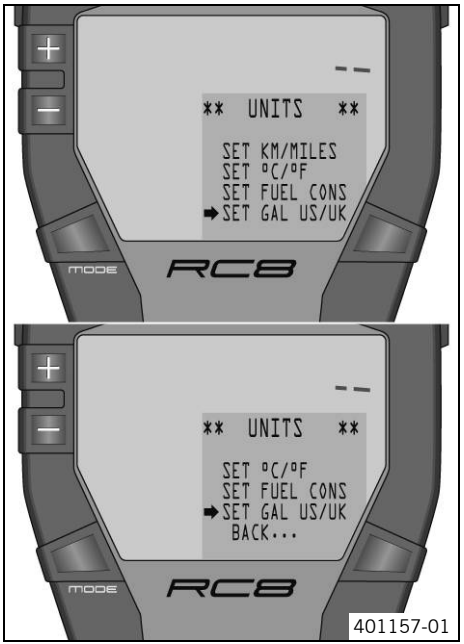


– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ twice until the symbol ➡ shows **SET FUEL CONS** in the info display.
– Press the **MODE** button briefly.
  ✓ The selected unit appears in the info display.
– Select the unit with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✓ The settings are stored and the display changes to the **UNITS** menu.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **BACK...** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.58 Unit of fuel consumption (gallons) SET GAL US/UK

Info
The **SET GAL US/UK** menu is only active if the unit in the **SET KM/MILES** menu is set to **MPH**.

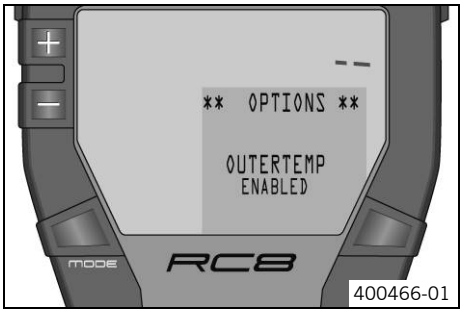
Condition
The ignition is on.
The motorcycle is stationary.
The **MPH** unit is activated.



– Press the button ⊞ and the button ⊟ for 3 - 5 seconds.
– Press the button ⊟ three times until the symbol ➡ shows **UNITS** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ three times until the symbol ➡ shows **SET GAL US/UK** in the info display.
– Press the **MODE** button briefly.
  ✔ The selected unit appears in the info display.
– Select the unit with the button ⊞ or the button ⊟.
– Press the **MODE** button briefly.
  ✔ The settings are stored and the display changes to the **UNITS** menu.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **BACK...** in the info display.
– Press the **MODE** button briefly.
– Press the button ⊟ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
– Press the **MODE** button briefly.

6.11.59 Switching the external temperature display on/off

Condition
The ignition is on.
The motorcycle is stationary.



- Press the button ➕ and the button ➖ for 3 - 5 seconds.
- Press the button ➖ four times until the symbol ➡ shows **OPTIONS** in the info display.
- Press the **MODE** button briefly.
- Press the button ➖ once until the symbol ➡ shows **OPTION OUTTEMP** in the info display.
- Press the **MODE** button briefly.
  ✔ You see **ENABLED** or **DISABLED** in the info display.
- You can switch the external temperature display on/off with the ➕ button or the ➖ button.
- Press the **MODE** button briefly.
  ✔ The settings are stored and the display changes to the **OPTIONS** menu.
- Press the button ➖ briefly and repeatedly until the symbol ➡ shows **BACK...** in the info display.
- Press the **MODE** button briefly.
- Press the button ➖ briefly and repeatedly until the symbol ➡ shows **EXIT SETUP** in the info display.
- Press the **MODE** button briefly.

6.12 Opening the filler cap

Danger

Fire hazard Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.

Warning

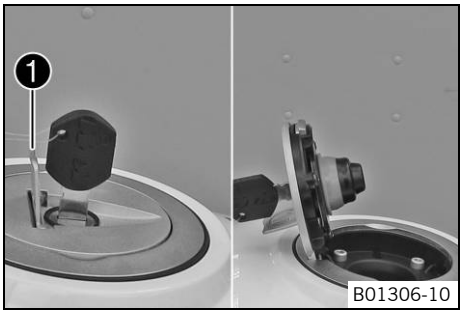
Danger of poisoning Fuel is poisonous and a health hazard.

– Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with fuel. Store fuel properly in a suitable canister and keep away from children.

Warning

Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to get into the ground water, the ground, or the sewage system.



– Lift the cover ❶ of the filler cap and insert the ignition key in the lock.

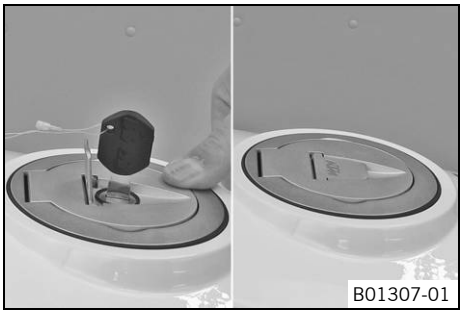
Note

Danger of damage Ignition key breakage.

– To take pressure off of the ignition key, push down on the filler cap. Damaged ignition keys must be replaced.

– Turn the ignition key 90° clockwise.
– Open the filler cap.

6.13 Closing the filler cap



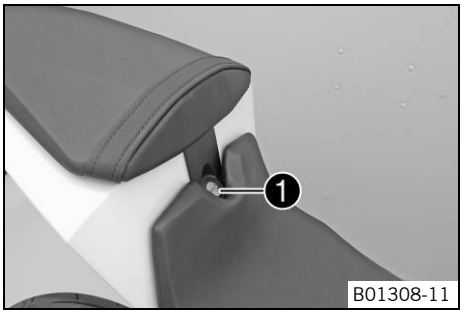
Warning

Fire hazard Fuel is highly flammable, poisonous and harmful to your health.

– After closing the filler cap, ensure that it is locked properly. Change clothing that has been contaminated with fuel. Immediately clean contaminated areas on the skin with soap and water.

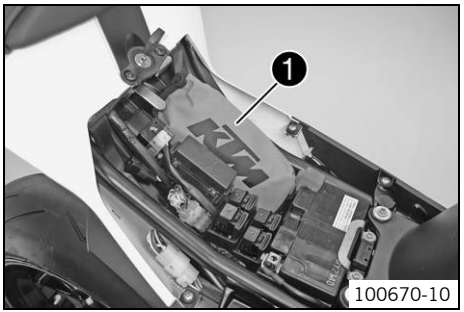
– Close the filler cap. Push down the filler cap slightly until the lock closes.
– Remove the ignition key and close the cover.

6.14 Seat lock



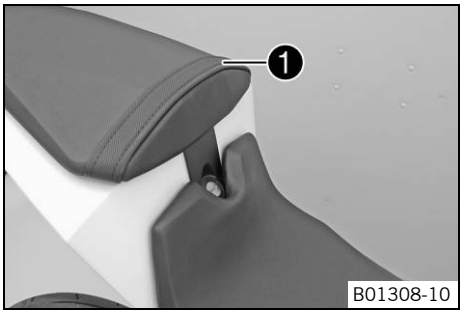
The seat lock ❶ is behind the seat.
It can be locked with the ignition key.

6.15 Tool set



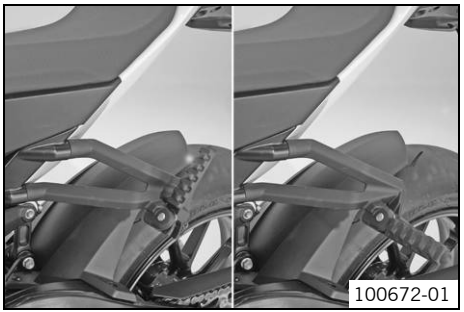
The tool set ❶ is in the storage compartment under the seat.

6.16 Supporting strap



The supporting strap ❶ is provided for the passenger to hold on to.

6.17 Passenger footrests

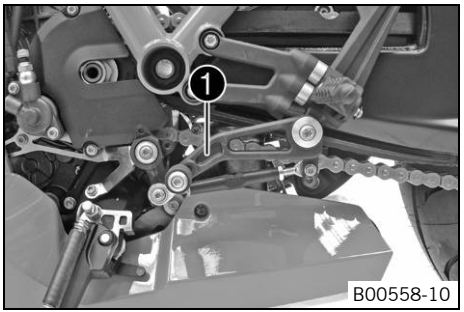


The passenger footrests can be folded up and down.

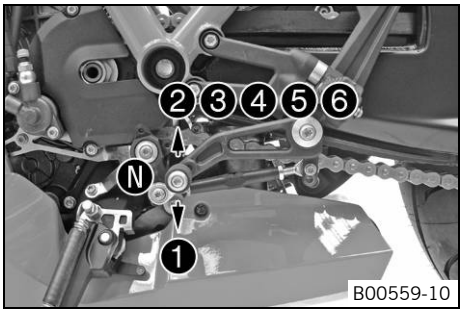
Possible states

- Passenger footrests folded up – For operation without a passenger.
- Passenger footrests folded down – For operation with a passenger.

6.18 Shift lever

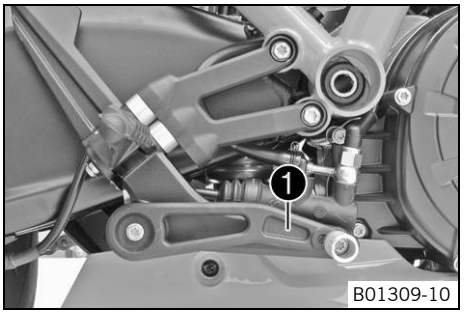


The shift lever ❶ is mounted on the left of the engine.



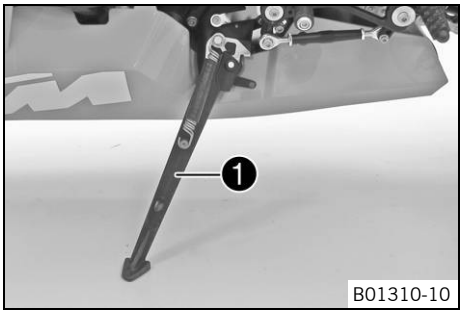
The gear positions can be seen in the picture.
The neutral or idle position (N) is between the first and second gear.

6.19 Foot brake lever



The foot brake lever (1) is in front of the right footrest.
The foot brake lever operates the rear brake.

6.20 Side stand



The side stand ❶ is located on the left side of the vehicle.
The side stand is used for parking the motorcycle.

Info

The side stand must be folded up during motorcycle use.
The side stand is coupled with the safety start system; see the riding instructions.

Possible states

- Side stand folded out – The vehicle can be leaned on the side stand. The safety start system is active.
- Side stand folded in – This position is mandatory for all journeys. The safety start system is inactive.

6.21 Helmet lock

The steel cable in the tool set can be used to lock a helmet to the vehicle to prevent it from being stolen.

Warning

Danger of accidents Impairment of vehicle handling and vehicle operation if a helmet or helmet lock is attached to the vehicle.

– Do not use the helmet lock for holding a helmet or other objects during the journey. Always remove the helmet lock before starting out.

7 PREPARING FOR USE

7.1 Advice on first use

Danger

Danger of accidents Danger arising from the rider's judgement being impaired.

– Do not operate the vehicle while under the influence of alcohol, drugs and certain medications or physically or mentally impaired.

Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

– Wear protective clothing (helmet, boots, gloves, pants and jacket with protectors) every time you ride the vehicle. Always wear protective clothing that is in good condition and meets the legal requirements.

Warning

Danger of crashing Poor vehicle handling due to different tire tread patterns on front and rear wheels.

– The front and rear wheels must be fitted with tires with similar tread patterns to prevent loss of control over the vehicle.

Warning

Danger of accidents Uncontrollable handling characteristic due to non-approved and/or non-recommended tires/wheels.

– Only tires/wheels approved by KTM and with the corresponding speed index should be used.

Warning

Danger of accidents Reduced road grip with new tires.

– New tires have a smooth rolling surface and therefore cannot provide full road grip. The entire rolling surface must be roughened in the first 200 kilometers (124.3 miles) by moderate riding at alternating angles. The full grip levels are not achieved until the tires have been run in.

Info

When using your vehicle, remember that others may feel disturbed by excessive noise.

– Make sure that the pre-delivery inspection work has been carried out exclusively by an authorized KTM workshop.
  ✓ You receive a delivery certificate and the Service and Warranty Booklet at vehicle handover.
– Before your first trip, read the entire operating instructions carefully.
– Get to know the controls.
– Adjust the basic position of clutch lever. (☛ p. 169)
– Adjust the basic position of hand brake lever. (☛ p. 171)
– Adjust the foot brake lever. (☛ p. 144)
– Adjust the shift lever. (☛ p. 140)
– Get used to handling the vehicle on suitable terrain before making a longer trip. Try also to ride as slowly as possible to get a better feeling for the motorcycle.
– Hold the handlebars firmly with both hands and keep your feet on the footrests when riding.
– Run the engine in. (☛ p. 105)

7.2 Running the engine in

– Do not exceed the specified engine speed and load during the running-in period.
  Guideline

Maximum engine speed	
During the first: 1,000 km (620 mi)	7,500 rpm
After the first: 1,000 km (620 mi)	10,500 rpm

– Avoid full-throttle operation!

7.3 Loading the vehicle

Warning
Danger of accidents Unstable handling characteristics.

– Do not exceed the maximum permitted weight and axle loads. The overall weight consists of: motorcycle operational and with a full tank, driver and passenger with protective clothing and helmet, baggage.

Warning
Danger of accidents Unstable handling characteristics due to incorrect mounting of suitcase and/or tank rucksack.

– Mount and secure suitcase and tank rucksack according to the manufacturer's instructions.

Warning
Danger of accidents Unstable handling characteristics at high speed.

– Adapt your speed according to your payload. If the motorcycle is loaded with luggage, ride more slowly.

Maximum speed with luggage	130 km/h (80.8 mph)

Warning
Danger of accidents Destruction of luggage carrier system.

– If the motorcycle is fitted with luggage cases, note the manufacturer's specifications concerning the maximum payload.

Warning
Danger of accidents Poor visibility for other road users due to slipped baggage.

– If the tail light is covered, you are less visible to traffic behind you, especially in the dark. Check that your baggage is fixed properly at regular intervals.

Warning
Danger of accidents Changed handling characteristics and longer stopping distance with excessive payload.

– Adapt your speed according to your payload.

Warning

Danger of accidents Unstable handling characteristics due to slipped baggage.

– Check the way your baggage is fixed regularly.

– If you carry any baggage, make sure it is fixed firmly as close as possible to the center of the vehicle and ensure even weight distribution between the front and rear wheels.
– Do not exceed the overall maximum permitted weight and the axle loads.

Guideline

Maximum permissible total weight	380 kg (838 lb.)
Maximum permissible front axle load	150 kg (331 lb.)
Maximum permissible rear axle load	240 kg (529 lb.)

8.1 Checks and maintenance measures when preparing for use

Info

Before every trip, check the condition of the vehicle and ensure that it is roadworthy.
The vehicle must be in perfect technical condition when it is being operated.

- Check the engine oil level. (☛ p. 218)
- Check the front brake fluid level. (☛ p. 173)
- Check the rear brake fluid level. (☛ p. 176)
- Check the front brake linings. (☛ p. 175)
- Check the rear brake linings. (☛ p. 179)
- Check the brake system.
- Check the coolant level. (☛ p. 213)
- Check the chain for dirt. (☛ p. 162)
- Check the chain tension. (☛ p. 163)
- Check the tire condition. (☛ p. 188)
- Check the tire pressure. (☛ p. 190)
- Check the adjustment and smooth operation of all controls.
- Check that the electrical equipment is functioning properly.
- Sit on the motorcycle and check the setting of the rear mirror.
- Check the fuel level.

8.2 Starting

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

– When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

Caution

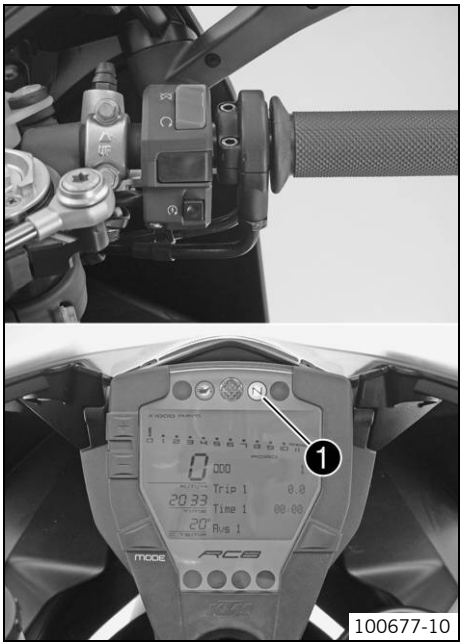
Danger of accidents If the vehicle is operated with a discharged battery or without a battery, electronic components and safety equipment may be damaged.

– Never operate the vehicle with a discharged battery or without a battery.

Note

Engine failure High engine speeds in cold engines have a negative effect on the service life of the engine.

– Always warm up the engine at low engine speeds.



– Press the emergency OFF switch into the position ○.
– Switch on the ignition by turning the black programming key to the position **ON** ○.
  ✔ After you switch on the ignition, you can hear the fuel pump working for about two seconds. The function test of the combination instrument is run at the same time.
– Shift into neutral.
  ✔ The green idling speed indicator lamp **N** ❶ lights up.
– Press the electric starter button ⓢ.

Info

Do not press the electric starter button until the function test of the combination instrument is finished.
When starting the engine, **DO NOT** apply the throttle. If you apply the throttle during the starting procedure, the engine management shuts off the injectors and the engine will not start.
Press the starter for a maximum of 5 seconds. Wait for a least 5 seconds before trying again.
This motorcycle is equipped with a safety start system. You can only start the engine if the transmission is in neutral or if the clutch is pulled when a gear is engaged. If the side stand is folded down and you shift into gear and release the clutch, the engine stops.

– Take the weight off the side stand and swing it upwards with your foot as far as it will go.

8.3 Starting off

– Pull the clutch lever, shift into first gear, release the clutch slowly and at the same time open the throttle.

8.4 Shifting, riding

Warning
Danger of accidents Abrupt load alterations can cause the vehicle to get out of control.

– Avoid abrupt load alterations and sudden braking actions, and adapt your speed to the road conditions.

Warning
Danger of accidents If you change down at high engine speed, the rear wheel can lock up.

– Do not change into a low gear at high engine speed. The engine races and the rear wheel can lock up.

Warning
Danger of accidents Malfunctions caused by incorrect ignition key position.

– Do not change the ignition key position during a journey.

Warning
Danger of accidents Distraction from traffic activity by adjustments to the vehicle.

– Make all adjustments when the vehicle is at a standstill.

Warning
Risk of injury The passenger must be able to hold himself or herself properly on the passenger seat.

– The passenger must hold on to the rider or supporting strap firmly and place his/her feet on the passenger footrests. Observe the regulations concerning the minimum age for passengers in your country.

Warning
Danger of accidents Danger of accidents caused by dangerous driving.

– Comply with traffic regulations and ride defensively and foresightedly to detect sources of danger early on.

Warning

Danger of accidents Reduced road grip with cold tires.

– On every journey, take the first miles carefully at moderate speed until the tires reach operating temperature and optimal road grip is ensured.

Warning

Danger of accidents Reduced road grip with new tires.

– New tires have a smooth rolling surface and therefore cannot provide full road grip. The entire rolling surface must be roughened in the first 200 kilometers (124.3 miles) by moderate riding at alternating angles. The full grip levels are not achieved until the tires have been run in.

Warning

Danger of accidents Unstable handling characteristics.

– Do not exceed the maximum permitted weight and axle loads. The overall weight consists of: motorcycle operational and with a full tank, driver and passenger with protective clothing and helmet, baggage.

Warning

Danger of accidents Unstable handling characteristics due to slipped baggage.

– Check the way your baggage is fixed regularly.

Warning

Danger of accidents Lack of roadworthiness.

– After a fall, check the vehicle as usual before preparing for use.

Note

Engine failure Unfiltered intake air has a negative effect on the service life of the engine.

– Never operate the vehicle without an air filter as dust and dirt will enter the engine and lead to increased wear.

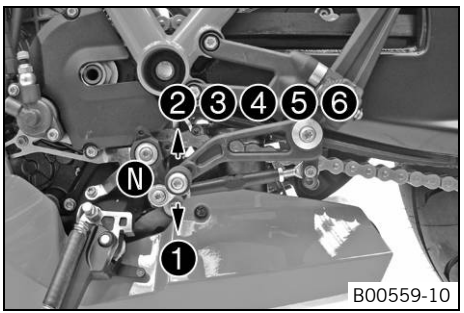
Note

Engine damage Engine overheating.

– If the coolant temperature warning lamp lights up, stop the vehicle and switch off the engine. Let the engine cool, check the coolant level in the radiator, and correct it if necessary. If you continue riding while the coolant temperature warning lamp is lit, the engine may be damaged.

Info

If you hear unusual noises while riding, stop immediately, switch off the engine and contact an authorized KTM workshop.



– When conditions allow (incline, road situation, etc.), you can shift into a higher gear.
– Release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch and open the throttle.

Info

You can see the positions of the 6 forward gears in the figure. The neutral or idle position is between the first and second gears. First gear is used for starting off or for steep inclines.

– After reaching maximum speed by fully opening the throttle, turn the throttle back so it is ¾ open. This will barely reduce the speed but fuel consumption will be considerably lower.
– Accelerate only up to a speed suitable for the road surface and weather conditions. When traveling in bends, do not shift, and accelerate very carefully.
– To shift down, brake if necessary and close the throttle at the same time.
– Pull the clutch lever and shift into a lower gear, release the clutch lever slowly and open the throttle or shift again.
– If the engine stalls (e.g. at a crossroads), pull the clutch lever only and press the starter button. You do not have to shift into neutral.

– Switch off the engine if you expect to be standing for a long time.
– If the **EFI** warning lamp (**MIL**) starts to light up during the journey, stop immediately. If you shift to neutral, the **EFI** warning lamp (**MIL**) begins to blink.

Info
From the flashing rhythm, you can derive a two-digit number, the so-called blink code. The flashing code tells you which component has a fault.

8.5 Braking

Warning
Danger of accidents If you brake too hard, the wheels can lock.

– Adapt your braking to the traffic situation and the road conditions.

Warning
Danger of accidents Reduced braking efficiency due to a wet or dirty brake system.

– Clean or dry a dirty or wet brake system by riding and braking gently.

Warning
Danger of accidents Reduced braking effect caused by spongy pressure point of front or rear brake.

– Check the brake system and do not continue riding. (Your authorized KTM workshop will be pleased to help.)

Warning
Danger of accidents Failure of brake system.

– If the foot brake lever is not released, the brake linings drag continuously. The rear brake may fail due to overheating. Take your foot off the foot brake lever when you are not braking.

Warning
Danger of accidents Longer stopping distance due to higher overall weight.

– Take the longer stopping distance into account when carrying a passenger and baggage.

Warning

Danger of accidents Delayed brake action on salted roads.

– There may be salt deposits on the brake discs. In order to restore the normal braking efficiency, you will need to remove the deposits from the discs by carefully applying the brakes.

– When braking, first throttle back and then apply the front and rear brakes at the same time.
– On wet or slippery surfaces, mainly use the rear brake.
– Braking should always be completed before you enter a bend. Shift down to a lower gear that is appropriate to the vehicle speed.
– On long downhill stretches, use the braking effect of the engine. Do this by changing down two gears, but do not race the engine. You will require less braking force and the brakes will not overheat.

8.6 Stopping, parking

Warning

Risk of misappropriation Usage by unauthorized persons.

– Never leave the vehicle while the engine is running. Secure the vehicle against use by unauthorized persons. If you leave the vehicle, lock the steering and remove the ignition key.

Warning

Danger of burns Some vehicle components become very hot when the vehicle is operated.

– Do not touch hot components such as exhaust system, radiator, engine, shock absorber, and the brake system. Allow these components to cool down before starting work on them.

Note

Danger of damage The parked vehicle may roll away or fall over.

– Always place the vehicle on a firm and even surface.

Note

Fire hazard Some vehicle components become very hot when the vehicle is operated.

– Do not park the vehicle near flammable or explosive substances. Do not place objects on the vehicle while it is still warm from being run. Always let the vehicle cool first.

Note

Material damage Damage to or destruction of components due to excessive load.

– The side stand is only designed for the weight of the motorcycle. Do no sit on the motorcycle when it is resting on the side stand. The side stand or the frame may become damaged and the motorcycle may fall over.

– Apply the brakes.
– Shift into neutral.
– Switch off the ignition by turning the black programming key to the position **OFF** ⊠.

Info

If you switch off the engine with the emergency OFF switch but the ignition remains switched on at the ignition lock, power continues to flow to most power consumers and the battery is soon discharged. Therefore, always switch off the engine with the ignition key, the emergency OFF switch is provided for emergency situations only.

– Park the motorcycle on firm ground.
– Swing the side stand to the front with your foot as far as it will go, and lean the vehicle onto it.
– Lock the steering, by turning it to the left, press black ignition key down to position **OFF** ⊠ and turn to position ⍾. In order to ease steering lock engagement, move the handlebars gently back and forth. Remove the black ignition key.

8.7 Transport

Note

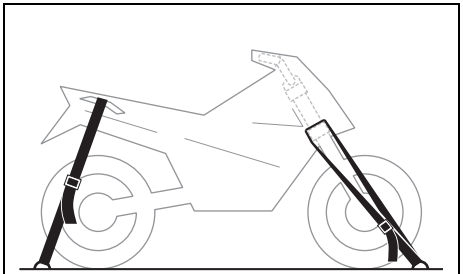
Danger of damage The parked vehicle may roll away or fall over.

– Always place the vehicle on a firm and even surface.

Note

Fire hazard Some vehicle components become very hot when the vehicle is operated.

– Do not park the vehicle near flammable or explosive substances. Do not place objects on the vehicle while it is still warm from being run. Always let the vehicle cool first.



– Switch off the engine and remove the ignition key.
– Use tension belts or other suitable devices to secure the motorcycle against accidents or falling over.

8.8 Refueling

Danger

Fire hazard Fuel is highly flammable.

– Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
– The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

– Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with fuel.

Note

Material damage Premature clogging of the fuel filter.

– In some countries and regions, the available fuel quality and cleanliness may not be sufficient. This will result in problems with the fuel system. (Your authorized KTM workshop will be pleased to help.)
– Only refuel with clean fuel that meets the specified standards.

Note

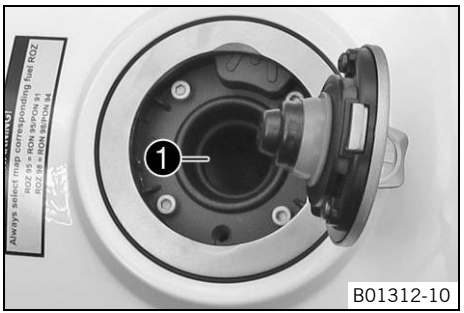
Material damage Incorrect mapping damages the engine.

– Adjust the mapping of the engine electronics for the fuel quality currently in use.

Warning

Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to get into the ground water, the ground, or the sewage system.



– Switch off the engine.
– Open the filler cap. (☛ p. 97)
– Fill the fuel tank with fuel up to the lower edge ❶ of the fuel filler.

Total fuel tank capacity, approx.	16.5 l (4.36 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (☛ p. 260)
		Super unleaded (ROZ 98 / RON 98 / PON 94) (☛ p. 261)

– Close the filler cap. (☛ p. 99)
– Adjust the mapping of the engine electronics. (☛ p. 84)

9.1 Service schedule

	Once after 1,000 km (621.4 mi)	Every 10,000 km (6,214 mi) or annually	Every 20,000 km (12,428 mi) or every 2 years or after every sporting use	Every 40,000 km (24,855 mi) or every 4 years
Check that the electrical equipment is functioning properly.	○	●	●	●
Read out the trouble code memory using the KTM diagnostics tool. 🔧	○	●	●	●
Check the measured service values with the KTM diagnostics tool. 🔧		●	●	●
Change the engine oil and filter, clean the oil screen. 🔧 (☛ p. 218)	○	●	●	●
Check the oil nozzle for the clutch lubrication. 🔧	○		●	●
Check the front brake linings. (☛ p. 175)	○	●	●	●
Check the front brake discs. (☛ p. 171)	○	●	●	●
Check the rear brake linings. (☛ p. 179)	○	●	●	●
Check the rear brake disc. (☛ p. 172)	○	●	●	●
Check that brake lines are undamaged and free of leaks.	○	●	●	●
Check the rear brake fluid level. (☛ p. 176)	○	●	●	●
Check the free travel of the foot brake lever. (☛ p. 144)	○	●	●	●
Check that the shock absorber and fork are leak tight. If necessary and depending on use, service the fork and shock absorber.	○	●	●	●
Check the swingarm bearings. 🔧		●	●	●
Check wheel bearings for play. 🔧		●	●	●
Check the tire condition. (☛ p. 188)	○	●	●	●
Check the tire pressure. (☛ p. 190)	○	●	●	●
Check the chain, rear sprocket and engine sprocket. (☛ p. 166)		●	●	●

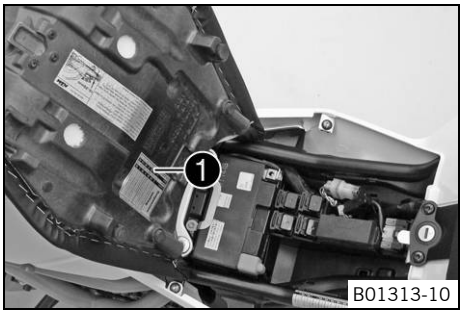
	Once after 1,000 km (621.4 mi)	Every 10,000 km (6,214 mi) or annually	Every 20,000 km (12,428 mi) or every 2 years or after every sporting use	Every 40,000 km (24,855 mi) or every 4 years
Check the chain tension. (☛ p. 163)	○	●	●	●
Grease all moving parts (e.g. side stand, hand lever, chain, ...) and check for smooth operation. 🔧	○	●	●	●
Clean the dust boots of the fork legs.		●	●	●
Check the front brake fluid level. (☛ p. 173)	○	●	●	●
Bleed fork legs. (☛ p. 159)		●	●	●
Check the steering head bearing play.	○	●	●	●
Change the spark plugs. 🔧			●	●
Check the valve clearance. 🔧			●	●
Change the secondary air system membranes. 🔧				●
Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing. 🔧			●	●
Drain the drainage hose of the air filter box. 🔧		●	●	●
Check the antifreeze and coolant level.	○	●	●	●
Check the wiring harness of the throttle valve body for damage and correct routing. 🔧			●	●
Check cables for damage and kink-free routing. 🔧		●	●	●
Check that the cables are undamaged, routed without sharp bends and set correctly.	○	●	●	●
Check the play in the throttle cable. (☛ p. 216)	○	●	●	●
Change the air filter. Clean the air filter box. 🔧		●	●	●
Check the fuel pressure. 🔧		●	●	●
Check the value of the manifold absolute pressure sensor (PM value) with the KTM diagnostics tool. 🔧		●	●	●
Check the CO adjustment with the KTM diagnostics tool. 🔧		●	●	●

	Once after 1,000 km (621.4 mi)	Every 10,000 km (6,214 mi) or annually	Every 20,000 km (12,428 mi) or every 2 years or after every sporting use	Every 40,000 km (24,855 mi) or every 4 years
Check the fluid level of the hydraulic clutch. (☛ p. 169)		●	●	●
Check the screws and nuts for tightness. 🔧	○	●	●	●
Change the coolant. 🔧				●
Change the front brake fluid. 🔧			●	●
Change the rear brake fluid. 🔧			●	●
Check the headlight setting. (☛ p. 208)	○	●	●	●
Check that the radiator fan is functioning properly. 🔧	○	●	●	●
Final check: Check the vehicle for roadworthiness and take a test ride.	○	●	●	●
Read out the fault memory using the KTM diagnostics tool after a test ride. 🔧	○	●	●	●
Set the service interval display. 🔧	○	●	●	●
Make the service entry in the **KTM Dealer.net** and in the Service and Warranty Booklet. 🔧	○	●	●	●

○ One-time interval

● Periodic interval

10.1 Fork/shock absorber



The fork and the shock absorber offer many options of adapting the chassis to your riding style and the payload.

Info

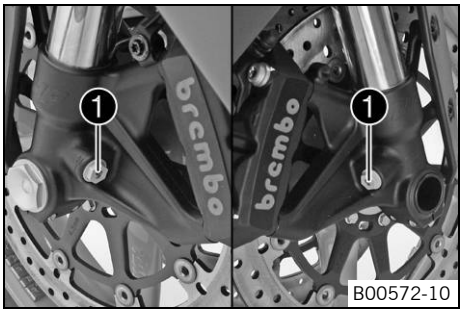
To help you adapt the vehicle, we have summarized our findings in Table ❶. You will find the table on the underside of the seat. In all settings except for the spring preload of the shock absorber, the value is adjusted by first turning the screw all the way in and then setting the value. Do not tighten the adjusting screw up against the stop with force, set the last discernible click as the last position.

These adjustments should be understood as a guideline and should always be the basis of your own personal chassis adaptation. Do not change the adjustments at random or by more than ± 40%, since otherwise the riding characteristics could deteriorate, particularly at high speeds.

10.2 Adjusting the compression damping of the fork

Info

The hydraulic compression damping determines the fork suspension behavior.
An optimally adjusted compression damping ensures that the fork does not compress too far and fast when you brake hard or when the load shifts very fast. It gives the rider good feedback about the road conditions.



– Turn adjusting screws ❶ clockwise to the stop.

Info
The adjusting screws are located at the bottom end of the fork legs.
Make the same adjustment on both fork legs.

– Turn counterclockwise by the number of clicks corresponding to the fork type.

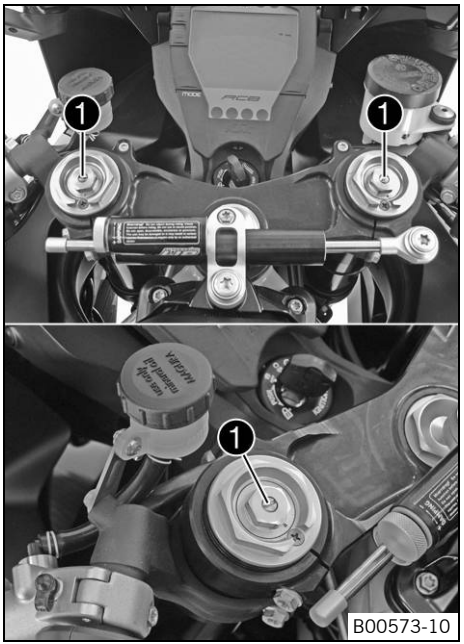
Guideline

Compression damping	
Comfort	20 clicks
Standard	15 clicks
Sport	15 clicks
Full payload	15 clicks

Info
Turn clockwise to increase damping, turn counterclockwise to reduce suspension damping.

10.3 Adjusting the rebound damping of the fork

Info
The hydraulic rebound damping determines the fork suspension behavior.
An optimally adjusted rebound damping brakes the springing energy and enables a fast, vibration-free resetting of the fork to the zero position.



– Turn adjusting screws ❶ clockwise to the stop.

Info
The adjustment screws are located at the top end of the fork legs.
Make the same adjustment on both fork legs.

– Turn counterclockwise by the number of clicks corresponding to the fork type.

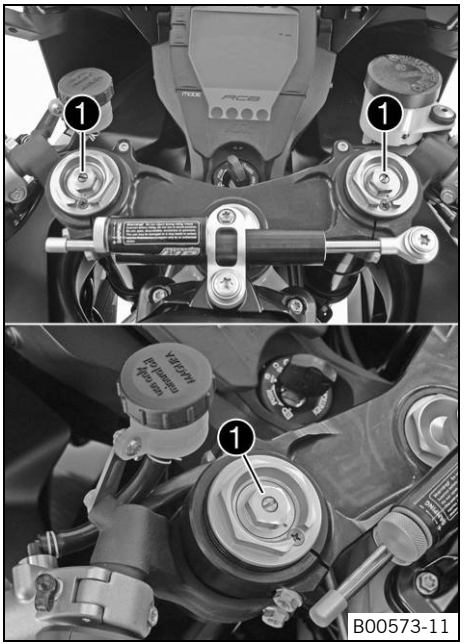
Guideline

Rebound damping	
Comfort	20 clicks
Standard	20 clicks
Sport	10 clicks
Full payload	10 clicks

Info
Turn clockwise to increase suspension damping; turn counterclockwise to reduce damping.

10.4 Adjusting the spring preload of the fork

Info
Spring preload determines the initial fork position.
The best spring preload setting is achieved when it is set for the weight of the rider and that of any baggage and a passenger, thus ensuring an ideal compromise between maneuverability and stability.



– Turn adjusting screws ❶ clockwise to the stop.

Info
The adjustment screws are located at the top end of the fork legs.
Make the same adjustment on both fork legs.

– Turn counterclockwise by the number of rotations corresponding to the fork type.

Guideline

Spring preload - **Preload Adjuster**	
Comfort	5 turns
Standard	5 turns
Sport	3 turns
Full payload	3 turns

Info
Turn clockwise to increase preload; turn counterclockwise to reduce spring preload.
Changing the spring preload has no influence on the rebound damping although the adjusting screws turn during the adjustment work. However, you should also adjust the rebound damping when you alter the spring preload.

10.5 Compression damping of the shock absorber

The compression damping of the shock absorber is divided into two ranges: high-speed and low-speed.
High-speed and low-speed refer to the compression speed of the rear wheel suspension and not to the vehicle speed.
The high-speed setting, for example, has an effect when riding over an asphalt edge: the rear wheel suspension compresses quickly.
The low-speed setting, for example, has an effect when riding over long ground swells: the rear wheel suspension compresses more slowly.
These two ranges can be adjusted separately, although the transition between high-speed and low-speed is gradual. Thus, changes in the high-speed range affect the compression damping in the low-speed range and vice versa.

10.6 Adjusting the low-speed compression damping of the shock absorber

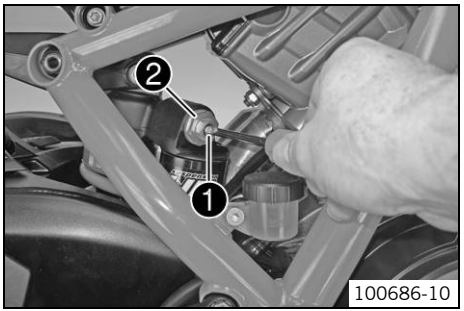
Caution

Danger of accidents Disassembly of pressurized parts can lead to injury.

– The shock absorber is filled with high density nitrogen. Adhere to the description provided. (Your authorized KTM workshop will be pleased to help.)

Info

The low-speed setting can be seen during the slow to normal compression of the shock absorber.



– Turn adjusting screw ❶ clockwise with a screwdriver up to the last perceptible click.

Info

Do not loosen nut ❷!

– Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Compression damping, low-speed	
Comfort	20 clicks
Standard	20 clicks
Sport	20 clicks
Full payload	20 clicks

Info

Turn clockwise to increase damping; turn counterclockwise to reduce damping.

10.7 Adjusting the high-speed compression damping of the shock absorber

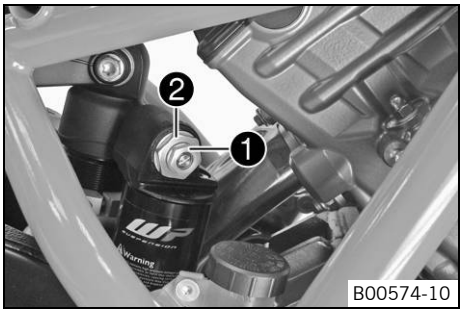
Caution

Danger of accidents Disassembly of pressurized parts can lead to injury.

– The shock absorber is filled with high density nitrogen. Adhere to the description provided. (Your authorized KTM workshop will be pleased to help.)

Info

The high-speed setting can be seen during the fast compression of the shock absorber.



– Turn adjusting screw ❶ clockwise all the way using a socket wrench.

Info

Do not loosen nut ❷!

– Turn counterclockwise by the number of turns corresponding to the shock absorber type.

Guideline

Compression damping, high-speed	
Comfort	3 turns
Standard	2.5 turns
Sport	1.5 turns
Full payload	1.5 turns

Info

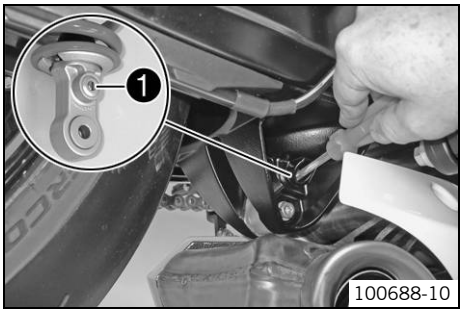
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

10.8 Adjusting the rebound damping of the shock absorber

Caution

Danger of accidents Disassembly of pressurized parts can lead to injury.

– The shock absorber is filled with high density nitrogen. Adhere to the description provided. (Your authorized KTM workshop will be pleased to help.)



– Turn adjusting screw 1 clockwise up to the last perceptible click.
– Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Rebound damping	
Comfort	20 clicks
Standard	15 clicks
Sport	15 clicks
Full payload	15 clicks

Info

Turn clockwise to increase suspension damping; turn counterclockwise to reduce damping.

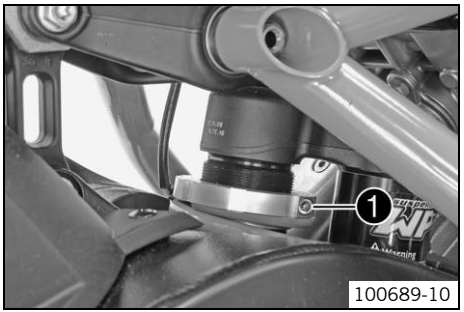
10.9 Adjusting the spring preload of the shock absorber

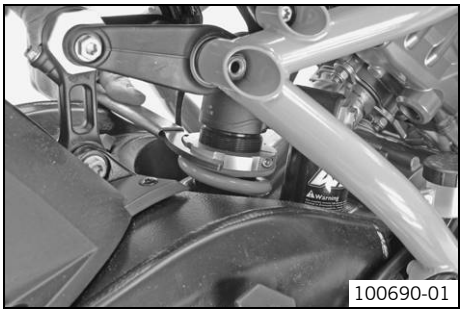
Warning

Danger of accidents Modifications to the suspension settings can seriously alter the vehicle's ride behavior.

– Following modifications, ride slowly at first to get the feel of the new ride behavior.

Info
The spring preload defines the initial situation of the spring process on the shock absorber.
The best spring preload setting is achieved when it is set for the weight of the rider and that of any baggage and a passenger, thus ensuring an ideal compromise between maneuverability and stability.





– Take the weight off the rear wheel and swingarm.

Info
The spring preload can be adjusted correctly only if the rear wheel and the swingarm are fully relieved of weight.

– Loosen screw 1 by two turns.

– Turn the adjusting ring counterclockwise with the wrench from the tool kit until the spring is no longer under tension.

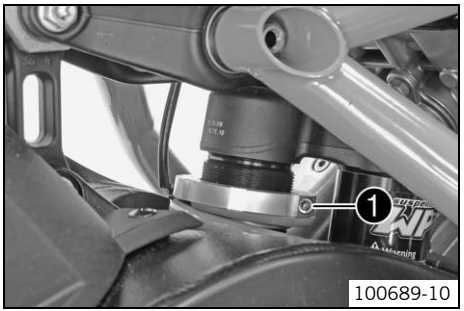
Hook wrench (69012022000)
Extension (60012060000)

– Turn the adjusting ring clockwise and tension it to the specified value.

Guideline

Spring preload	
Comfort	9 mm (0.35 in)
Standard	9 mm (0.35 in)
Sport	9 mm (0.35 in)
Full payload	10 mm (0.39 in)

Info
Turn clockwise to increase preload, turn counterclockwise to reduce spring preload.

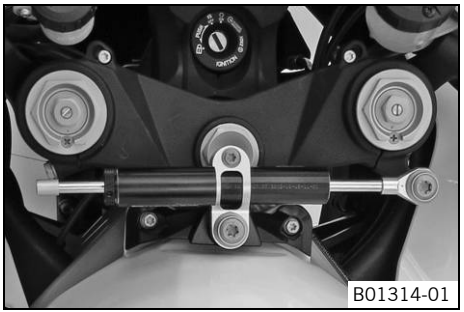


– Tighten screw ❶.

Guideline

Remaining frame bolts	M5	5 Nm (3.7 lbf ft)

10.10 Steering damper

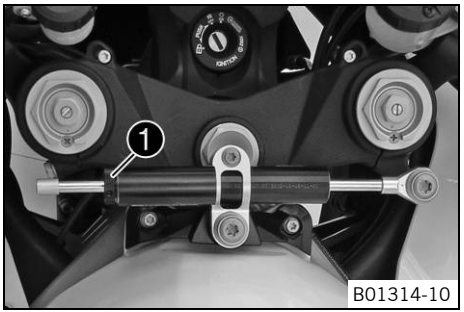


The steering damper suppresses shocks to the steering arising from acceleration on uneven ground at high speed or when the load is temporarily taken from the front wheel.
The steering damper is adjusted to suit the riding style and the road conditions. For high speeds, a setting with high damping can be chosen to make the best possible use of the steering damper function. In slow, tight bends, intensive damping can negatively affect handling and steering precision, so the damping should be set to low.

10.11 Adjusting the steering damper

Info

The hydraulic steering damper stabilizes the steering if the front wheel is raised off the ground or carries no load.
In contrast to other damping elements, the steering damper is adjusted with the damping element open.



– Turn the adjusting screw ❶ counterclockwise towards "**–**" as far as the last perceptible click.
– Adjust the steering damper according to your riding style and the road conditions by turning the adjust screw clockwise towards "**+**".

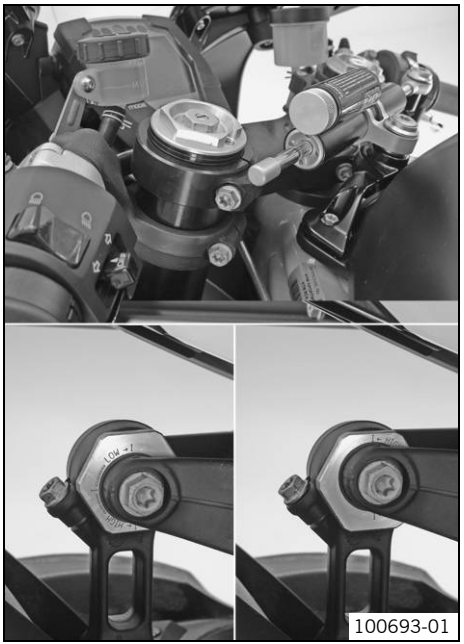
Guideline

Steering damper adjustment range	1... 32 clicks
Recommended range for use	1... 20 clicks
Standard	1 click

Info

Do not change the adjustment of the steering damper during the journey!
After adjusting the steering damper, check the steering for freedom of movement. The handlebar must move from one stop to the other without a locking tendency.

10.12 Vehicle level



Warning

Danger of accidents Modifications to the suspension settings can seriously alter the vehicle's ride behavior.

– Following modifications, ride slowly at first to get the feel of the new ride behavior.

The vehicle level can be adjusted at the front by means of the fork leg clamp and at the rear by the eccentric shaft.
The fork legs can be clamped at three positions in the triple clamp.

Upper triple clamp flush with upper edge of fork legs	0 mm (0 in)
Upper triple clamp flush with 1st ring of fork legs	2.5 mm (0.098 in)
Upper triple clamp flush with 2nd ring of fork legs (standard)	5 mm (0.2 in)

The infinitely variable frame height setting can be adjusted by turning the eccentric shaft.

Frame height difference **HIGH** - **LOW**	12 mm (0.47 in)

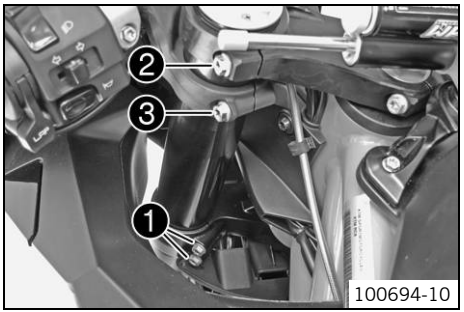
Maximum adjustment range between **HIGH** - **LOW**	180°

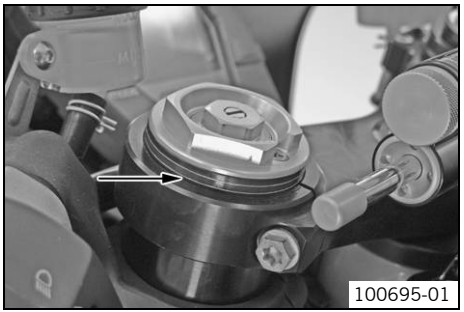
10.13 Adjusting front vehicle level

Warning

Danger of accidents Modifications to the suspension settings can seriously alter the vehicle's ride behavior.

– Following modifications, ride slowly at first to get the feel of the new ride behavior.





– Loosen screws ❶ on the lower triple clamp.
– Loosen screw ❷ on the upper triple clamp.
– Loosen screw ❸ of the handlebar stub.

Info

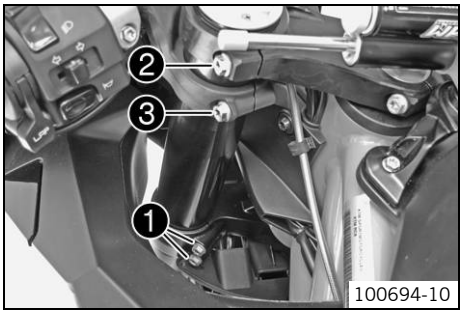
Loosen the screws far enough to prevent damage to the lacquer when the fork legs are moved.
Make the adjustments first on one fork leg and then on the other. When the screws of both fork legs are loosened, the vehicle sags toward the front.

– Align the fork leg in the desired position by means of the fork rings.

Guideline

Upper triple clamp flush with upper edge of fork legs	0 mm (0 in)
Upper triple clamp flush with 1st ring of fork legs	2.5 mm (0.098 in)
Upper triple clamp flush with 2nd ring of fork legs (standard)	5 mm (0.2 in)

Info
The standard adjustment is the setting that provides the best vehicle handling. When the fork is compressed, the suspension setting changes, causing the vehicle to become more stable but also more difficult to handle.



– Tighten screw ❷.

Guideline

Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)

– Tighten screws ❶.

Guideline

Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)

– Tighten screw ❸.

Guideline

Screw, handlebar stub	M8	20 Nm (14.8 lbf ft)

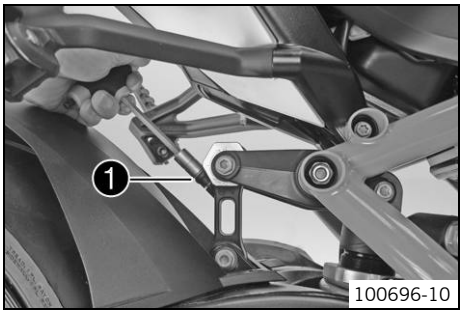
– Repeat the adjustment on the other fork leg.

Info
The vehicle level setting on both fork legs must be identical.

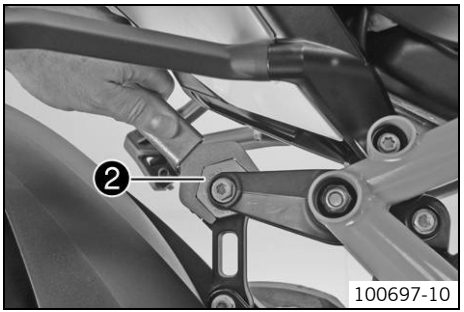
10.14 Adjusting the vehicle level at the rear

Warning
Danger of accidents Modifications to the suspension settings can seriously alter the vehicle's ride behavior.

– Following modifications, ride slowly at first to get the feel of the new ride behavior.



– Loosen screw ❶.



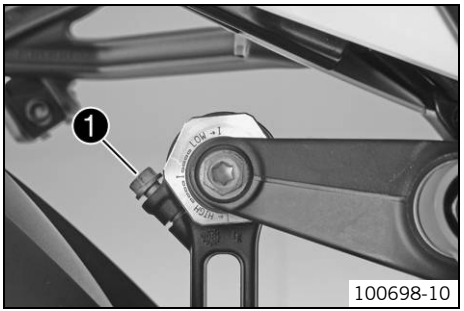
– Turn eccentric shaft ❷ to the desired position using the tool from the tool set.

Guideline

Standard	**LOW**
Maximum adjustment range between **HIGH** - **LOW**	180°

Open end wrench SW 38 (69012021000)

Info
The chassis height can be adjusted in both directions.

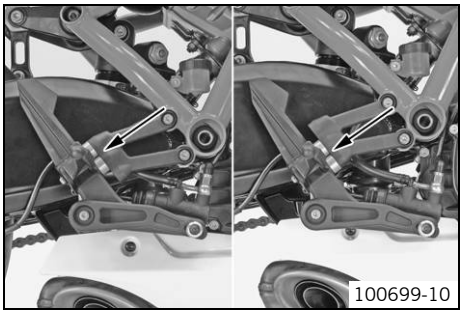


– Tighten screw ❶.

Guideline

Screw, clamp, eccentric shaft of deflector	M8	18 Nm (13.3 lbf ft)

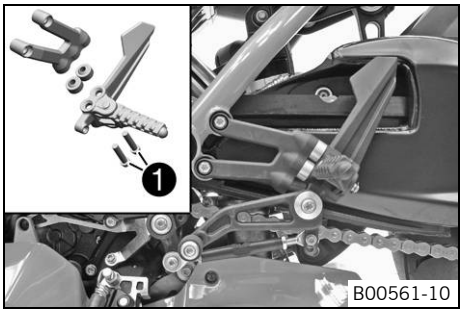
10.15 Footrest position



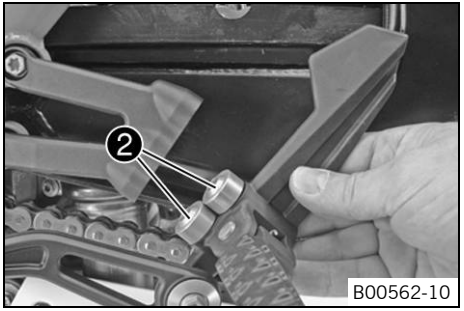
The adjustable footrest system enables an individual setting of the footrest height and an individual adjustment of the controls.
The lower footrest position enables a more comfortable knee angle, the upper footrest position a sporting sitting position and more forward-leaning freedom for use in racing.

10.16 Adjusting the footrest position

Info
The footrest position must be identical on the left and the right.



– Remove screws ❶.



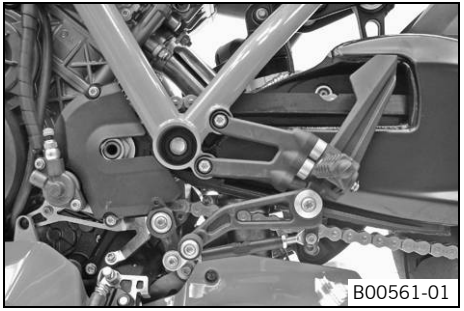
– Position the footrest bracket with spacers ❷ and screws.

Guideline

Standard	Upper position

Info

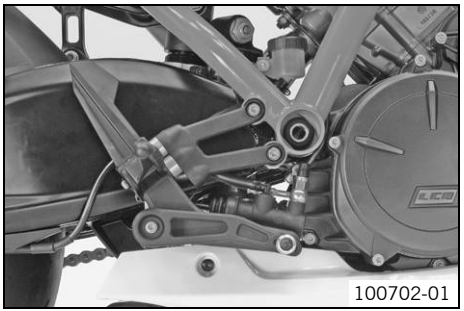
The adjustable footrest bracket enables a more comfortable lower footrest position or a sporting upper footrest position.



– Mount and tighten the screws.

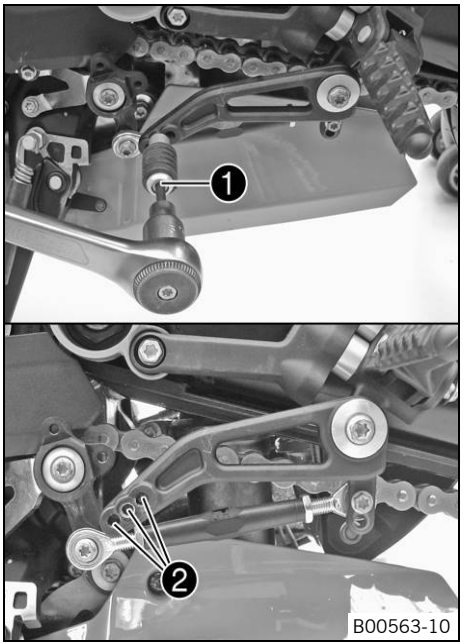
Guideline

Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**


100702-01

– Repeat adjustment work on the footrest bracket on the other side.
– Adjust the shift lever. (☛ p. 140)
– Adjust the foot brake lever. (☛ p. 144)

10.17 Adjusting shift lever stub



– Remove the screw ❶ with the shift lever stub.
– Position the shift lever stub with the screw in one of the holes ❷ according to the desired lever length.

Guideline

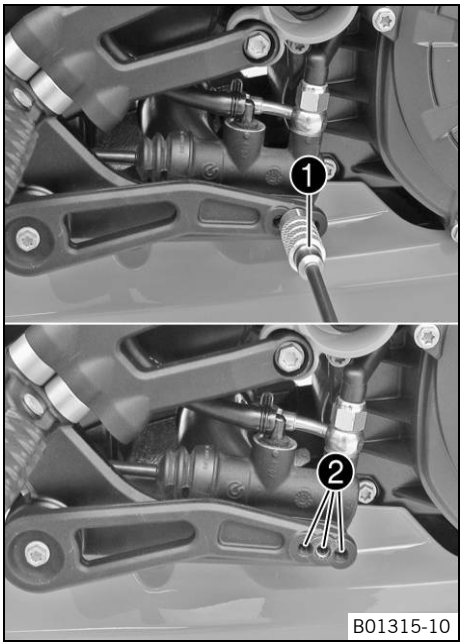
Standard	Central hole

– Tighten screw.

Guideline

Screw, shift lever stub	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**

10.18 Adjusting the foot brake lever stub



– Remove the screw ❶ with the foot brake lever stub.
– Position the foot brake lever stub with the screw in one of the holes ❷ according to the desired lever length.

Guideline

Standard	Central hole

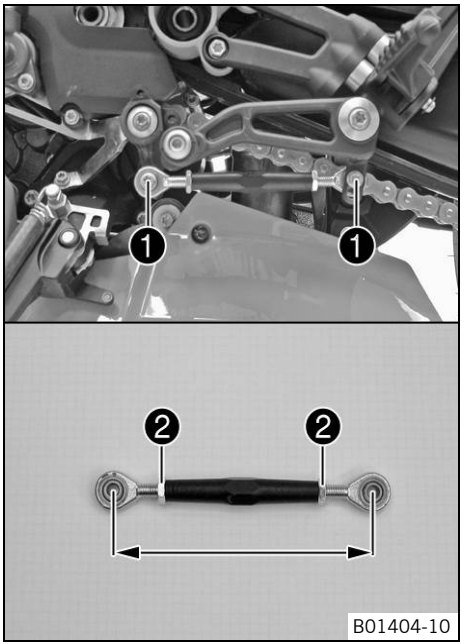
– Tighten the screw.

Guideline

Bolt, foot brake lever stub	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**

10.19 Adjusting shift lever

Info
The footrest system offers many ways of adjusting the shift lever to your riding style and requirements.



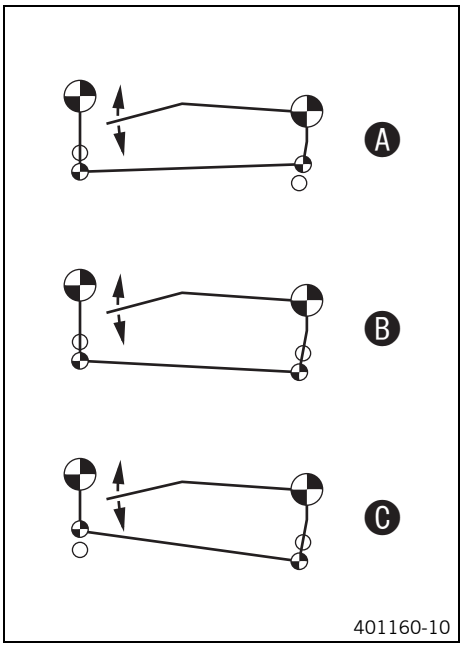
– Remove screws ❶ and take off the shift rod.
– Loosen lock nuts ❷.
– Adjust the shift rod.

Guideline

Shift rod adjustment range	114... 153 mm (4.49... 6.02 in)

Info

Make the same adjustments on both sides.
At least 5 screw threads must be screwed into the seating.



– Position the shift rod.

Guideline

Standard Ⓐ	shift lever: upper drill hole, shift shaft: lower drill hole
Medium shift force, medium shift distance Ⓑ	shift lever: lower drill hole, shift shaft: lower drill hole
Shift power high, short shift travel Ⓒ	shift lever: lower drill hole, shift shaft: upper drill hole

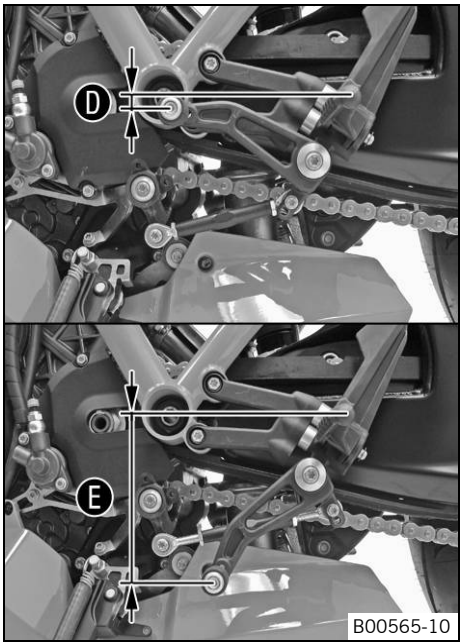
Info

The shift rod can be mounted both on the shift lever variably at an upper or lower position, and on the reverse gear change of the shift shaft in two different positions.

– Mount and tighten the screws.

Guideline

Screw, shift rod	M6	12 Nm (8.9 lbf ft)	**Loctite® 243™**



– Adjust the shift lever by turning the shift rod.

Info

The position of the shift lever can be greatly varied, depending on the length of the shift rod and the drill holes selected. As seen from the footrest, there is either a high position of the shift lever D or a low position of the shift lever E.

– Tighten the lock nuts of the shift rod.

Info

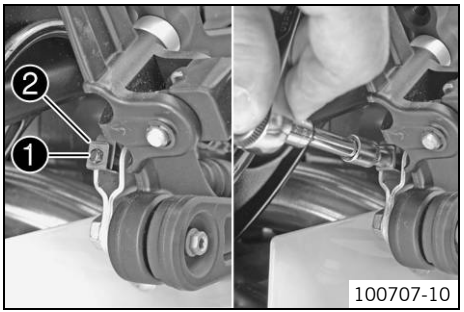
After the counter nuts have been tightened, the bearings of the shift shaft must be central and aligned identically to each other in order to ensure freedom of movement in the bearing shells.

– Check the shift lever to ensure it is functioning properly and can move freely.

Guideline

The moving parts of the shift lever must have a minimum clearance to the other parts of the vehicle.	
Minimum clearance	5 mm (0.2 in)

10.20 Adjusting the foot brake lever

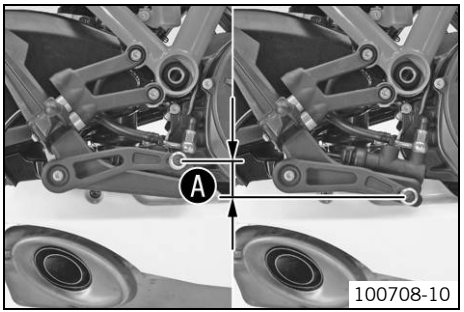


– Use the tool to press in the anti-rotation lock ❷, then turn the piston rod ❶.

Info
The range of adjustment is limited.

– Remove the tool.

✔ The spring tension on the anti-rotation lock is released and the hex nut is locked.



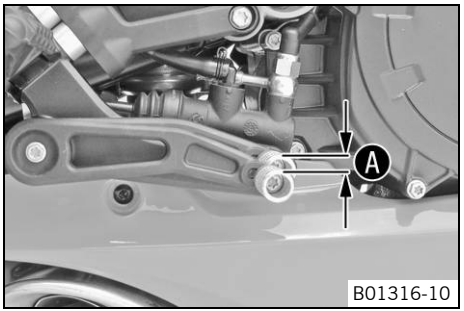
– Check the foot brake lever setting.

Info
Position Ⓐ of the foot brake lever may vary considerably, depending on the setting.

10.21 Checking the free travel of the foot brake lever

Warning
Danger of accidents Brake system failure.

– If there is no free travel on the foot brake lever, pressure builds up on the rear brake circuit. The rear brake can fail due to overheating. Adjust the free travel on foot brake lever according to specifications.



– Move the foot brake lever back and forth between the end stop and the contact to the foot brake cylinder piston and check free travel Ⓐ.

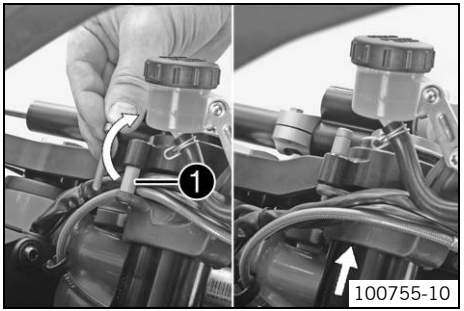
Guideline

Free travel at foot brake lever	3... 5 mm (0.12... 0.2 in)

Info
The piston rod should not move in the process.

» If the free travel does not meet specifications:
– Adjust the free travel.

10.22 Handlebar height/position



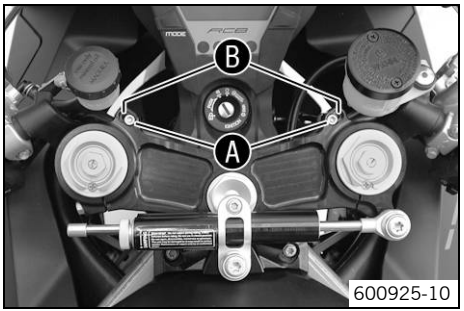
Handlebar height

By removing or inserting distance sleeve ❶, you can set the handlebar height to two different positions.

Length, distance sleeve	15 mm (0.59 in)

With distance sleeves, the handlebar stub is positioned low for sports use. Removing the distance sleeves gives a more upright sitting position.

Standard	Low position with distance sleeve



Handlebar position

The handlebar stubs can be set in position Ⓐ or Ⓑ, enabling ergonomic adjustment of the handlebar position.

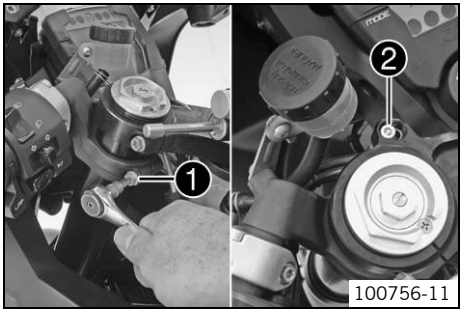
Handlebar position difference	6.5°

Standard	Position Ⓐ

10.23 Adjusting the handlebar height/position

Info

The handlebar stub position must be identical on the left and right of the vehicle.



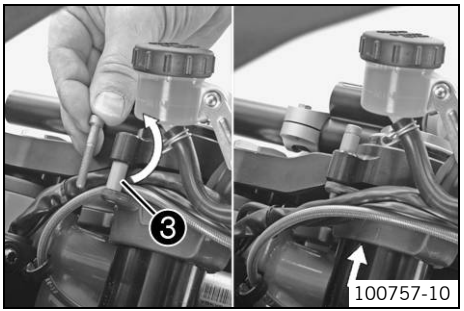
Adjusting the high position of the handlebar stubs:

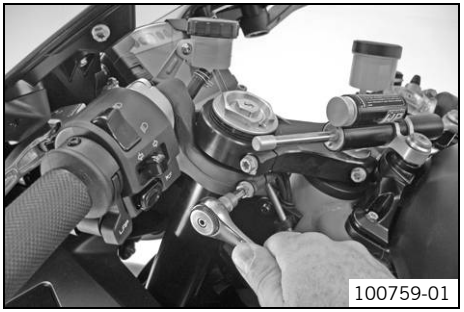
– Loosen screw ❶.

Info

Loosen the screw several turns to prevent damage to the fork paint when moving the handlebar stub.

– Remove screw ❷.





– Remove distance sleeve ❸.
– All cables routed under the upper triple clamp must now be routed under the handlebar stub.
– Push the handlebar stub carefully up to the upper triple clamp. Watch out for the handlebar position difference.

  Guideline

Handlebar position difference	6.5°

– Position the distance sleeve above the triple clamp.
– Mount and tighten screw.

  Guideline

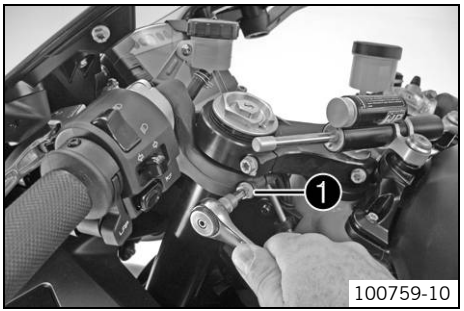
Remaining frame bolts	M5	5 Nm (3.7 lbf ft)

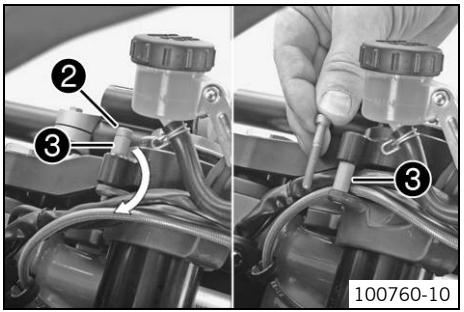
– Tighten the screw.

  Guideline

Screw, handlebar stub	M8	20 Nm (14.8 lbf ft)

– Repeat the adjustments on the other handlebar stub.
– Move the handlebar to and fro over the entire steering range.
  » If the cables restrict the freedom of movement of the steering:
    – Correct the cable routing.
  » If a component restricts the freedom of movement of the steering or comes into contact with the trim:
    – Establish freedom of movement and reposition the component.





Adjusting the low position of the handlebar stubs:

– Loosen screw ❶.

Info
Loosen the screw several turns to prevent damage to the fork paint when moving the handlebar stub.

– Remove screw ❷ with distance sleeve ❸.
– Carefully shift the handlebar stub by the length of the distance sleeve. Watch out for the handlebar position difference.

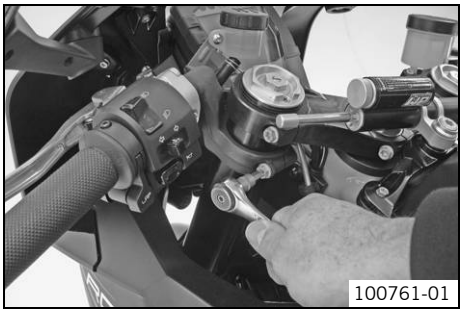
Guideline

Length, distance sleeve	15 mm (0.59 in)
Handlebar position difference	6.5°

– Lay all cables between the upper triple clamp and the handlebar stub.
– Position the distance sleeve.
– Mount and tighten screw.

Guideline

Remaining frame bolts	M5	5 Nm (3.7 lbf ft)

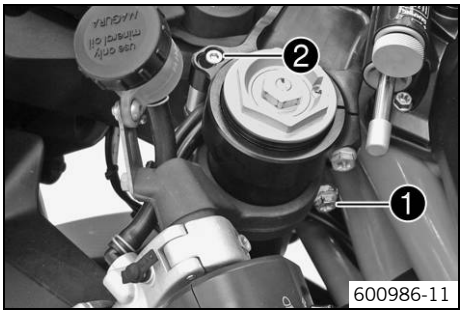


– Tighten the screw.

Guideline

Screw, handlebar stub	M8	20 Nm (14.8 lbf ft)

– Repeat the adjustments on the other handlebar stub.
– Move the handlebar to and fro over the entire steering range.
  » If the cables restrict the freedom of movement of the steering:
    – Correct the cable routing.
  » If a component restricts the freedom of movement of the steering or comes into contact with the trim:
    – Establish freedom of movement and reposition the component.



Adjusting the narrow position of the handlebar stubs:

– Loosen screw ❶.

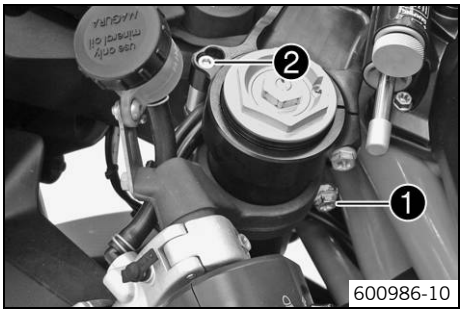
Info

Loosen the screw several turns to prevent damage to the fork paint when moving the handlebar stub.

– Remove screw ❷ with distance sleeve.
– Carefully turn the handlebar stub toward the fuel tank.

Guideline

Handlebar position difference	6.5°



– Position the distance sleeve.
– Mount and tighten screw ❷.

Guideline

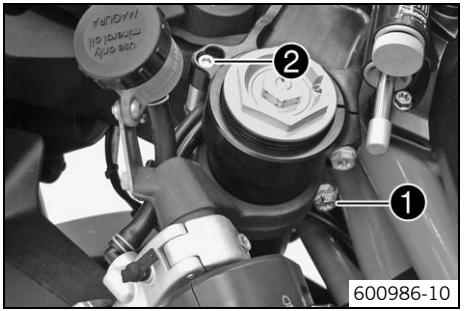
Remaining frame bolts	M5	5 Nm (3.7 lbf ft)

– Tighten screw ❶.

Guideline

Screw, handlebar stub	M8	20 Nm (14.8 lbf ft)

– Repeat the adjustments on the other handlebar stub.
– Carefully move the handlebar to and fro over the entire steering range.
  » If a component restricts the freedom of movement of the steering or comes into contact with the trim:
    – Establish freedom of movement and reposition the component.



Adjusting the wide position of the handlebar stubs:

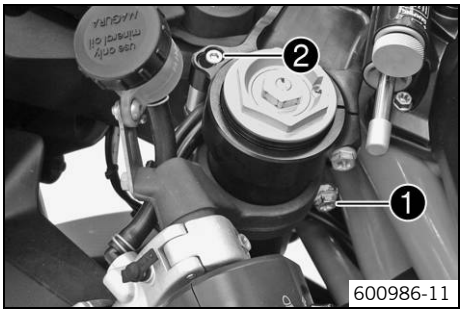
– Loosen screw ❶.

Info
Loosen the screw several turns to prevent damage to the fork paint when moving the handlebar stub.

– Remove screw ❷ with distance sleeve.
– Carefully turn the handlebar stub away from the fuel tank.

Guideline

Handlebar position difference	6.5°



– Position the distance sleeve.
– Mount and tighten screw ❷.

  Guideline

Remaining frame bolts	M5	5 Nm (3.7 lbf ft)

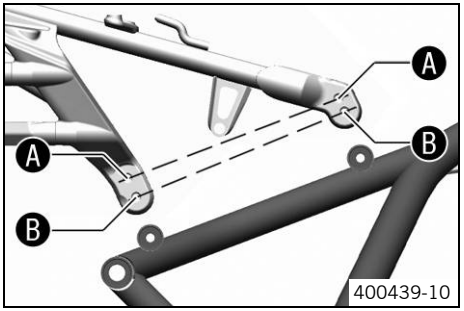
– Tighten screw ❶.

  Guideline

Screw, handlebar stub	M8	20 Nm (14.8 lbf ft)

– Repeat the adjustments on the other handlebar stub.
– Carefully move the handlebar to and fro over the entire steering range.
  » If a component restricts the freedom of movement of the steering or comes into contact with the trim:
    – Establish freedom of movement and reposition the component.

10.24 Subframe position



The subframe can be mounted in two different positions. This enables the seat to be positioned at an ergonomic height.

Seat height Ⓐ	805 mm (31.69 in)
Seat height Ⓑ (standard)	825 mm (32.48 in)

10.25 Adjusting the subframe position

Warning

Danger of accidents Modifications to the suspension settings can seriously alter the vehicle's ride behavior.

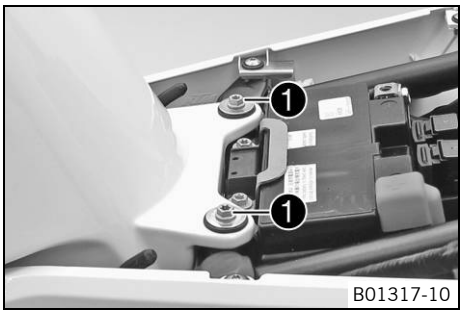
– Following modifications, ride slowly at first to get the feel of the new ride behavior.

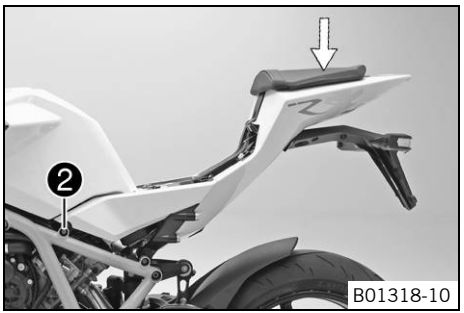
Preparatory work

– Remove the seat. (☛ p. 159)

Main work

– Remove screws ❶ with the bushings.

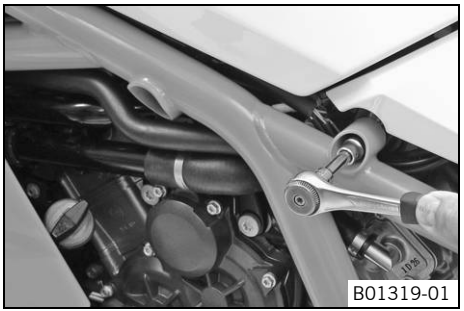




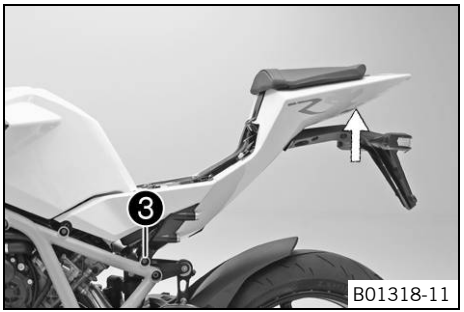
Raising the seat position:

– Remove screws ❷ with the washers on the left and right sides of the vehicle.

– Push down on the subframe until the drilled holes of the frame are aligned with the holes at the bottom front of the subframe.


B01319-01

– Mount the screws with the washer on the left and right sides of the vehicle but do not tighten yet.



B01318-11

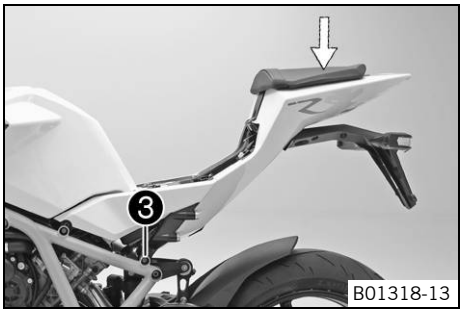
– Remove screws ❸ with the washers on the left and right sides of the vehicle.
– Push up on the subframe until the drilled holes of the frame are aligned with the holes at the bottom rear of the subframe.

B01318-12

– Tighten screws ❸ on the left and right sides of the vehicle.

Guideline

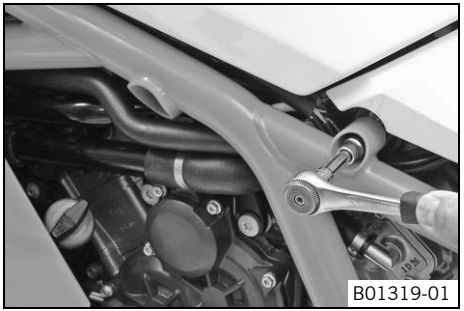
Screw, subframe	M8	20 Nm (14.8 lbf ft)	**Loctite® 243™**



Lowering the seat position:

- Remove screws ❸ with the washers on the left and right sides of the vehicle.
- Push down on the subframe until the drilled holes of the frame are aligned with the holes at the top rear of the subframe.
- Mount the screws with the washer on the left and right sides of the vehicle but do not tighten yet.

- Remove screws ❷ with the washers on the left and right sides of the vehicle.
- Push up on the subframe until the drilled holes of the frame are aligned with the holes at the top front of the subframe.



- Mount and tighten the screws with the washers on the left and right sides of the vehicle.

  Guideline

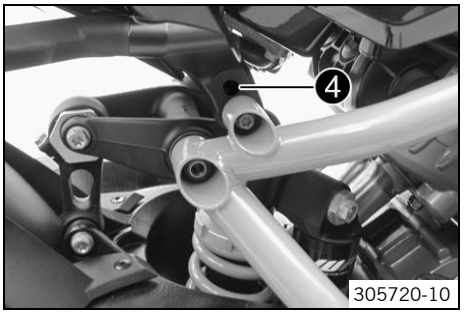
Screw, subframe	M8	20 Nm (14.8 lbf ft)	**Loctite® 243™**

– Tighten screws ❸ on the left and right sides of the vehicle.

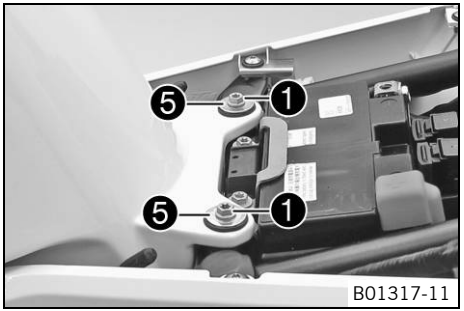
Guideline

Screw, subframe	M8	20 Nm (14.8 lbf ft)	**Loctite® 243™**

Info
Check the cable routing; the lambda sensor cable should not be taut.



– Mount rubber cover ❹ in the vacant threaded holes on both sides.



– Position bushings ❺.
– Mount and tighten screws ❶.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)

Finishing work

– Fit the seat. (☛ p. 160)

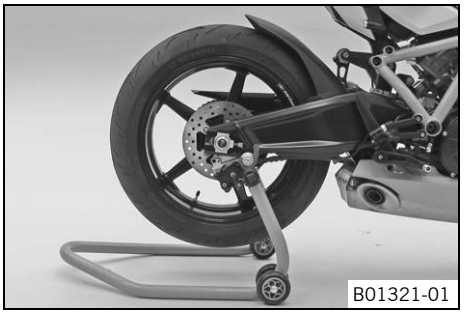
11 SERVICE WORK ON THE CHASSIS

11.1 Raising the rear of the motorcycle with lifting gear

Note

Danger of damage The parked vehicle may roll away or fall over.

– Always place the vehicle on a firm and even surface.



– Insert the adapter into the lifting gear at the rear.

Adapter (61029055120)
Rear wheel stand (61029055400)

– Stand the motorcycle upright, align the lifting gear to the link fork and the adapters, and raise the motorcycle.

11.2 Removing the rear of motorcycle from the lifting gear

Note

Danger of damage The parked vehicle may roll away or fall over.

– Always place the vehicle on a firm and even surface.

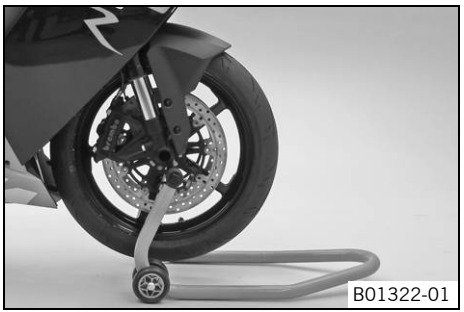
– Secure the motorcycle against falling over.
– Remove the work stand from the rear and lean the vehicle on the side stand.

11.3 Raising the front of the motorcycle with lifting gear

Note

Danger of damage The parked vehicle may roll away or fall over.

– Always place the vehicle on a firm and even surface.


B01322-01

Preparatory work

– Raise the rear of the motorcycle with lifting gear. (☛ p. 157)

Main work

– Move the handlebar to the straight-ahead position. Align the lifting gear at the front with the adapters to the fork legs.

Front wheel stand (61029055300)

Info
Always raise the rear of the motorcycle first.

– Raise the motorcycle at the front.

11.4 Taking the motorcycle off of the front wheel stand

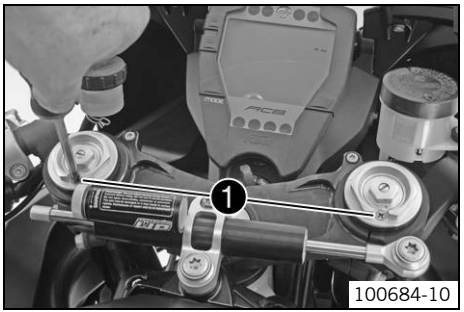
Note

Danger of damage The parked vehicle may roll away or fall over.

– Always place the vehicle on a firm and even surface.

– Secure the motorcycle against falling over.
– Remove the lifting gear from the front.

11.5 Bleeding fork legs



Preparatory work

– Lean the motorcycle on the side stand.

Main work

– Release bleeder screws ❶.

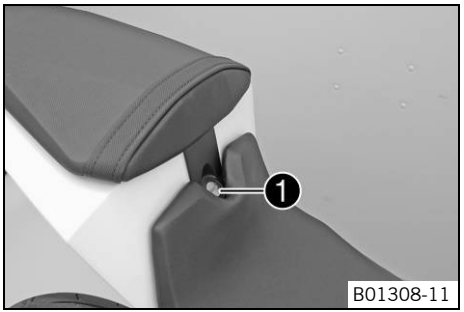
✓ Any excess pressure escapes from the interior of the fork.

– Tighten the bleeder screws.

Info

Perform this action on both fork legs.

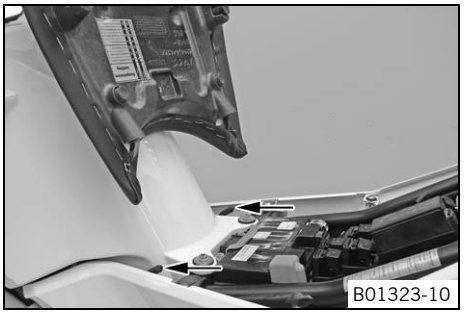
11.6 Removing the seat



– Insert the ignition key in the seat lock ❶ and turn it clockwise.

– Raise the rear of the seat, push it towards the rear, and remove it upwards.

11.7 Fitting the seat



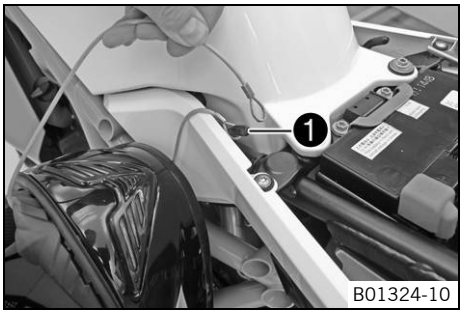
– Position the recesses of the seat to the lugs on the frame, lower the rear end and simultaneously push it forward.
– Lock the seat by turning the ignition key in the seat lock.
– Remove the ignition key from the seat lock.
– Finally, check that the seat is correctly mounted.

11.8 Mounting the helmet lock on the vehicle

Warning

Danger of accidents Impairment of vehicle handling and vehicle operation if a helmet or helmet lock is attached to the vehicle.

– Do not use the helmet lock for holding a helmet or other objects during the journey. Always remove the helmet lock before starting out.

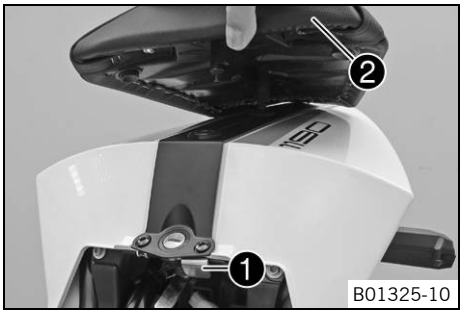


– Remove the seat. (☛ p. 159)
– Position the steel cable from the tool kit with one loop on the lug ❶.

Steel cable (60012015000)

– Guide the steel cable through the helmet opening.
– Then position the free loop of the steel cable on the lug.
– Position the helmet carefully on the side of the vehicle.
– Fit the seat. (☛ p. 160)

11.9 Removing the passenger seat



– Remove the seat. (☛ p. 159)
– Activate the release lever ❶.
– Take off the passenger seat ❷ toward the top.

11.10 Mounting the passenger seat

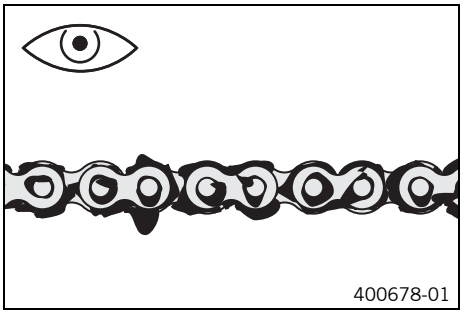
Warning

Danger of accidents The passenger seat can come loose from the anchoring if it is not mounted correctly.

– After mounting the passenger seat, check that it is locked correctly by pulling up.

– Position the passenger seat in the space provided.
– Press down the passenger seat until it clicks into place.
– Finally, check that the passenger seat is correctly mounted.

11.11 Checking for chain dirt



– Check the chain for loose dirt.
  » If the chain is very dirty:
    – Clean the chain. (☛ p. 162)

11.12 Cleaning the chain

Warning
Danger of accidents Oil or grease on the tires reduces their grip.

– Remove oil and grease with a suitable cleaning material.

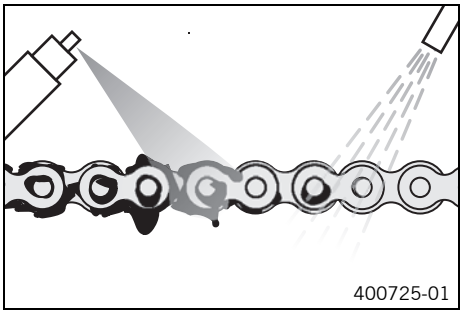
Warning
Danger of accidents Reduced braking efficiency due to oil or grease on the brake discs.

– Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.

Warning
Environmental hazard Hazardous substances cause environmental damage.

– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

Info
The service life of the chain depends largely on its maintenance.



– Clean the chain regularly.
– Rinse off loose dirt with a soft jet of water.
– Remove old grease remains with chain cleaner.

Chain cleaner (☛ p. 262)

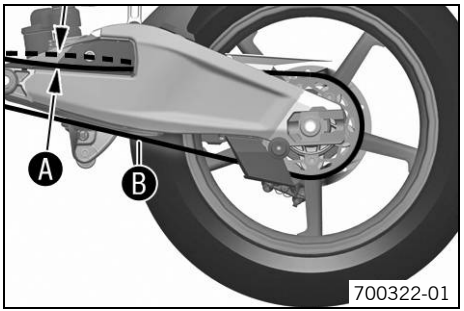
– After drying, apply chain spray.

Chain lube for road use (☛ p. 262)

11.13 Checking the chain tension

Warning
Danger of accidents Danger caused by incorrect chain tension.

– If the chain is too taut, the components of the secondary power transmission (chain, engine sprocket, rear sprocket, bearings in the transmission and in the rear wheel) will be under additional load. In addition to premature wear, this can cause the chain or the countershaft of the transmission to break in extreme cases. If the chain is too loose, however, it may fall off the engine sprocket or rear sprocket and block the rear wheel or damage the engine. Ensure that the chain tension is correct and adjust it if necessary.



– Lean the motorcycle on the side stand.
– Shift into neutral.
– Push the chain upwards where the chain passes through the swingarm and measure chain tension Ⓐ.

Info

The lower chain section Ⓑ must be taut.
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Chain tension	15... 20 mm (0.59... 0.79 in)

» If the chain tension does not meet specifications:
– Adjust the chain tension. (☛ p. 164)

11.14 Adjusting the chain tension

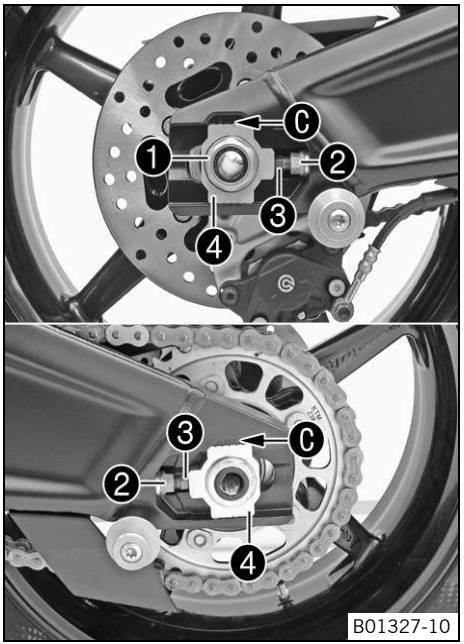
Warning

Danger of accidents Danger caused by incorrect chain tension.

– If the chain is too taut, the components of the secondary power transmission (chain, engine sprocket, rear sprocket, bearings in the transmission and in the rear wheel) will be under additional load. In addition to premature wear, this can cause the chain or the countershaft of the transmission to break in extreme cases. If the chain is too loose, however, it may fall off the engine sprocket or rear sprocket and block the rear wheel or damage the engine. Ensure that the chain tension is correct and adjust it if necessary.

Preparatory work

– Check the chain tension. (☛ p. 163)



Main work

- Loosen nut ❶.
- Loosen nuts ❷.
- Adjust chain tension by turning the adjustment screws ❸ on the left and right.

Guideline

Chain tension	15... 20 mm (0.59... 0.79 in)
Turn adjusting screws ❸ on the left and right so that the markings on the left and right chain adjusters ❹ are in the same position relative to reference marks Ⓒ. The rear wheel is then correctly aligned.	

Info

The lower chain section must be taut.
Chain wear is not always even, so you should repeat this measurement at different chain positions.

- Tighten nuts ❷.
- Make sure that the chain adjusters ❹ are on the adjusting screws ❸.
- Tighten nut ❶.

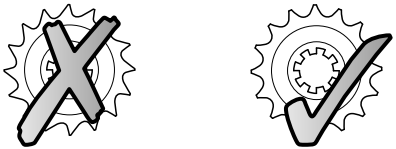
Guideline

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	Thread greased

Info

The wide adjustment range of the chain adjuster (35mm / 1.38") allows different secondary transmission ratios to be used with the same chain length.
The chain adjusters ❹ can be turned through 180°.

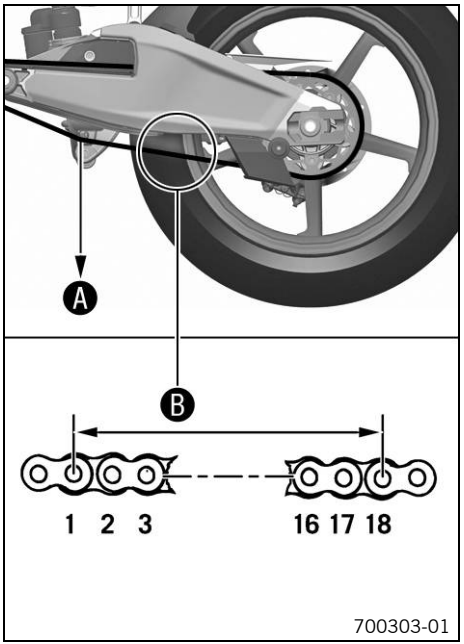
11.15 Checking the chain, rear sprocket and engine sprocket



100132-10

– Check the rear sprocket and engine sprocket for wear.
  » If the rear sprocket and engine sprocket are worn:
    – Change the power set.

Info
The engine sprocket, rear sprocket and chain should always be replaced together.



– Shift into neutral.
– Pull the lower chain section with specified weight Ⓐ.

Guideline

Weight, chain wear measurement	15 kg (33 lb.)

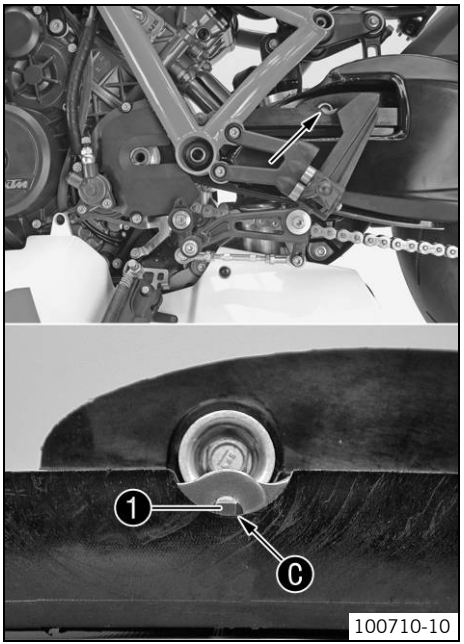
– Measure the distance Ⓑ of 18 chain links in the lower chain section.

Info
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Maximum distance Ⓑ at the longest chain section	272 mm (10.71 in)

» If distance Ⓑ is greater than the specified measurement:
– Change the power set.

Info
When the chain is replaced, the rear sprocket and engine sprocket should also be changed.
A new chain wears out faster on old, worn sprockets.
For safety reasons, the chain has no chain joint.

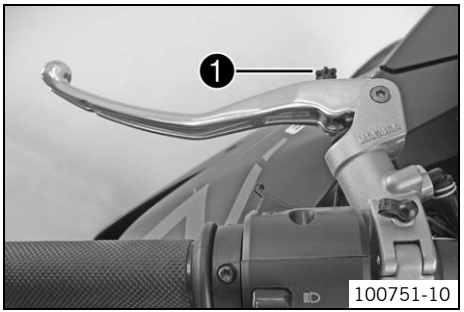


– Check the chain sliding guard for wear at the opening.
  » If the rivets ❶ of the chain are no longer visible at the lower edge Ⓒ of the opening of the chain sliding guard:
    – Change the chain sliding guard. 🔧
– Check that the chain sliding guard is firmly seated.
  » If the chain sliding guard is loose:
    – Tighten the chain sliding guard.

    Guideline

Screw, chain sliding guard	M5	5 Nm (3.7 lbf ft)

11.16 Adjusting basic position of clutch lever



– Adjust the basic setting of the clutch lever to your hand size by turning adjusting screw 1.

Info

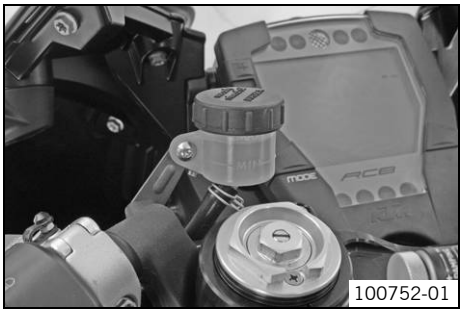
Turn the adjusting screw clockwise to increase the distance between the clutch lever and the handlebar.
Turn the adjusting screw counterclockwise to decrease the distance between the clutch lever and the handlebar.
The range of adjustment is limited.
Turn the adjusting screw by hand only, and do not apply any force.
Do not make any adjustments while riding!

11.17 Checking fluid level of hydraulic clutch

Info

The fluid level rises with increasing wear of the clutch lining disc.
Do not use brake fluid.

– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.



– Check the fluid level.

The fluid level must be between the **MIN** and **MAX** markings.

» If the coolant level does not meet specifications:
– Correct the fluid level of the hydraulic clutch. (☛ p. 170)

11.18 Correcting fluid level of hydraulic clutch

Info
The fluid level rises with increasing wear of the clutch lining disc.
Do not use brake fluid.

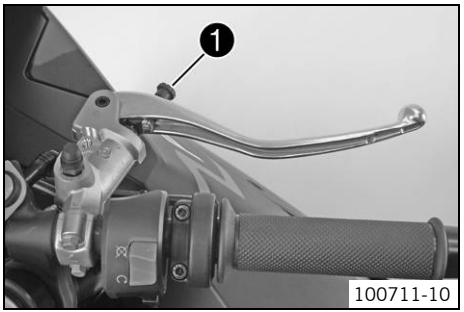
– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screw cap with membrane.
– Correct the fuel level.
Guideline

The fluid level must be between the **MIN** and **MAX** markings.

Hydraulic fluid (15) (☛ p. 260)

– Refit the screw cap with the membrane.

12.1 Adjusting the basic position of the hand brake lever



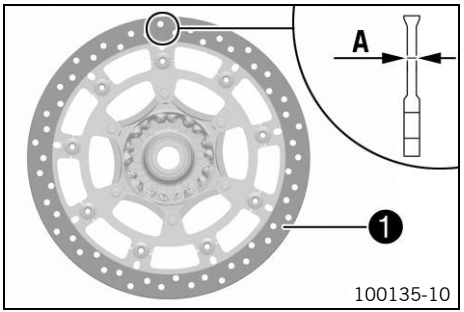
– Pull the brake lever forwards.
– Adjust the basic setting of the hand brake lever to your hand size by turning adjusting wheel 1.

Info
Do not make any adjustments while riding!

12.2 Checking the front brake discs

Warning
Danger of accidents Reduced braking efficiency due to worn brake disc(s).

– Change the worn brake disc(s) without delay. (Your authorized KTM workshop will be pleased to help.)



– Check the thickness of the brake disc in several places to see if it is within the specified wear tolerance A.

Info
Wear reduces the thickness of the brake discs in area 1 of the brake discs.

Brake discs - wear limit	
Front	4.5 mm (0.177 in)

» If the brake disc thickness is less than the specified value:
– Change the brake discs.

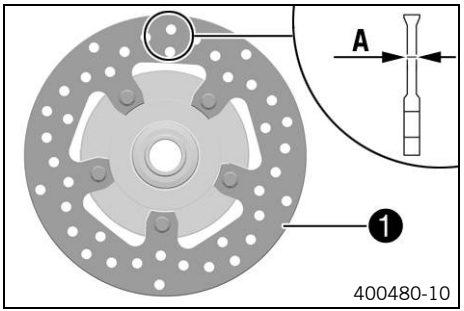
– Check the brake discs for damage, cracking and deformation.
  » If the brake discs exhibit damage, cracking or deformation:
    – Change the brake discs. 🔧

12.3 Checking the rear brake disc

Warning

Danger of accidents Reduced braking efficiency due to worn brake disc(s).

– Change the worn brake disc(s) without delay. (Your authorized KTM workshop will be pleased to help.)



– Check the thickness of the brake disc in several places to see if it conforms to measurement A.

Info

Wear reduces the thickness of the brake disc in area 1 of the brake disc.

Brake disc - wear limit	
Rear	4.5 mm (0.177 in)

  » If the brake disc thickness is less than the specified value:
    – Change the brake disc. 🔧
– Check the brake disc for damage, cracking and deformation.
  » If damage, cracks or deformation are visible on the brake disc:
    – Change the brake disc. 🔧

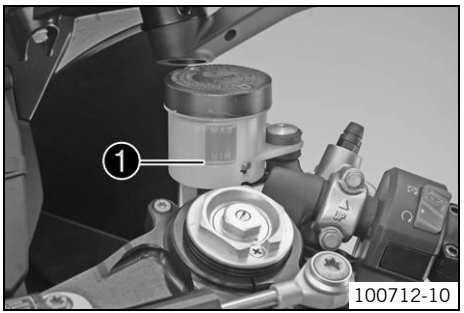
12.4 Checking the front brake fluid level

Warning
Danger of accidents Failure of the brake system.

– If the brake fluid level falls below the **MIN** mark, this indicates a leakage in the brake system or worn-out brake linings. Check the brake system and do not continue riding. (Your authorized KTM workshop will be pleased to help.)

Warning
Danger of accidents Reduced braking efficiency due to old brake fluid.

– Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be pleased to help.)



– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Check the brake fluid level in the brake fluid reservoir ❶.
  » If the brake fluid is below the **MIN** marking:
    – Add front brake fluid. 🔧 (☛ p. 173)

12.5 Adding brake fluid of front brake 🔧

Warning
Danger of accidents Failure of the brake system.

– If the brake fluid level falls below the **MIN** mark, this indicates a leakage in the brake system or worn-out brake linings. Check the brake system and do not continue riding. (Your authorized KTM workshop will be pleased to help.)

Warning

Skin irritation Brake fluid can cause skin irritation on contact.

– Avoid contact with skin and eyes, and keep out of the reach of children.
– Wear suitable protective clothing and goggles.
– If brake fluid comes into contact with the eyes, flush the eyes thoroughly with water and consult a physician immediately.

Warning

Danger of accidents Reduced braking efficiency due to old brake fluid.

– Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be pleased to help.)

Warning

Environmental hazard Hazardous substances cause environmental damage.

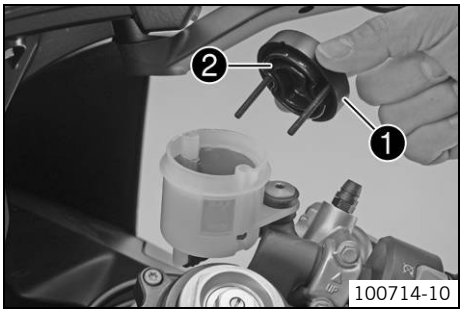
– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

Info

Never use DOT 5 brake fluid! It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid is corrosive and will damage painted surfaces.
Use only clean brake fluid from a sealed container!

Preparatory work

– Check the front brake linings. (☛ p. 175)



Main work

– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Loosen screw.
– Remove cap ❶ with membrane ❷.
– Add brake fluid to the **MAX** level.

Brake fluid DOT 4 / DOT 5.1 (☛ p. 258)

– Position the cap with the membrane. Mount and tighten the screws.

Info
Clean up overflowed or spilt brake fluid immediately with water.

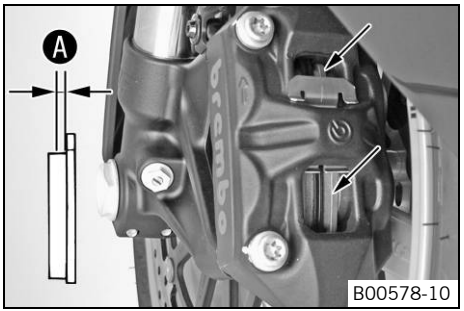
12.6 Checking the front brake linings

Warning
Danger of accidents Reduced braking efficiency caused by worn brake linings.

– Change worn brake linings immediately. (Your authorized KTM workshop will be pleased to help.)

Note
Danger of accidents Reduced braking efficiency caused by damaged brake discs.

– If the brake linings are not changed in time, the steel brake lining carriers grind on the brake disc. The braking effect is greatly reduced and the brake discs are destroyed. Check the brake linings regularly.



– Check all brake linings on both brake calipers to ensure they have minimum thickness A.

Minimum thickness A	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
– Change the front brake linings.

– Check all brake linings on both brake calipers for damage and cracking.

» If damage or wear is encountered:
– Change the front brake linings.

12.7 Checking the rear brake fluid level

Warning

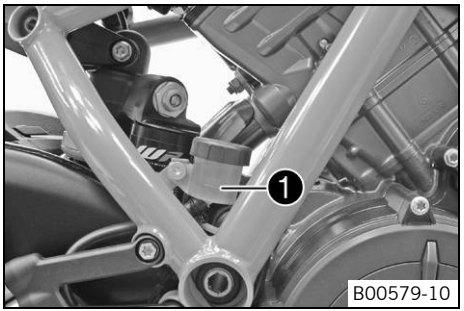
Danger of accidents Failure of the brake system.

– If the brake fluid level falls below the **MIN** mark, this indicates a leakage in the brake system or worn-out brake linings. Check the brake system and do not continue riding. (Your authorized KTM workshop will be pleased to help.)

Warning

Danger of accidents Reduced braking efficiency due to old brake fluid.

– Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be pleased to help.)



– Stand the vehicle upright.
– Check the brake fluid level of the brake fluid reservoir.
  » When the fluid level reaches the **MIN** mark 1:
    – Add rear brake fluid. (p. 177)

12.8 Adding rear brake fluid

Warning
Danger of accidents Failure of the brake system.

– If the brake fluid level falls below the **MIN** mark, this indicates a leakage in the brake system or worn-out brake linings. Check the brake system and do not continue riding. (Your authorized KTM workshop will be pleased to help.)

Warning
Skin irritation Brake fluid can cause skin irritation on contact.

– Avoid contact with skin and eyes, and keep out of the reach of children.
– Wear suitable protective clothing and goggles.
– If brake fluid comes into contact with the eyes, flush the eyes thoroughly with water and consult a physician immediately.

Warning
Danger of accidents Reduced braking efficiency due to old brake fluid.

– Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be pleased to help.)

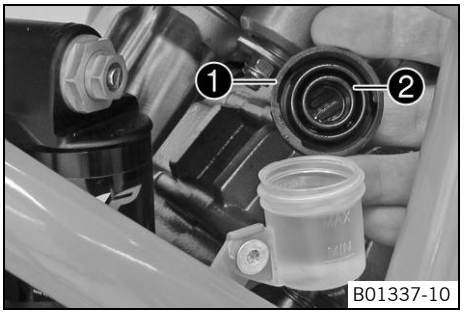
Warning

Environmental hazard Hazardous substances cause environmental damage.

– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

Info

Never use DOT 5 brake fluid! It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid is corrosive and will damage painted surfaces.
Use only clean brake fluid from a sealed container!



Preparatory work

– Check the rear brake linings. (☛ p. 179)

Main work

– Stand the vehicle upright.
– Remove screw cap ❶ with membrane ❷.
– Add brake fluid to the **MAX** level.

Brake fluid DOT 4 / DOT 5.1 (☛ p. 258)

– Refit screw with membrane.

Info

Clean up overflowed or spilt brake fluid immediately with water.

12.9 Checking the rear brake linings

Warning

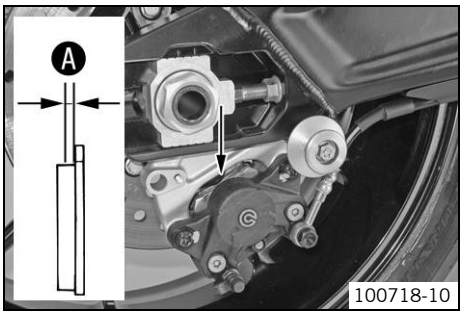
Danger of accidents Reduced braking efficiency caused by worn brake linings.

– Change worn brake linings immediately. (Your authorized KTM workshop will be pleased to help.)

Note

Danger of accidents Reduced braking efficiency caused by damaged brake discs.

– If the brake linings are not changed in time, the steel brake lining carriers grind on the brake disc. The braking effect is greatly reduced and the brake discs are destroyed. Check the brake linings regularly.



– Check the brake linings for minimum thickness A.

Minimum thickness A	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:

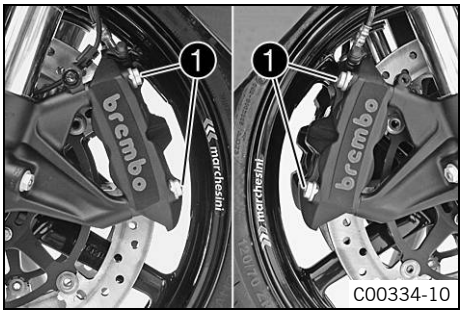
– Change the rear brake linings.

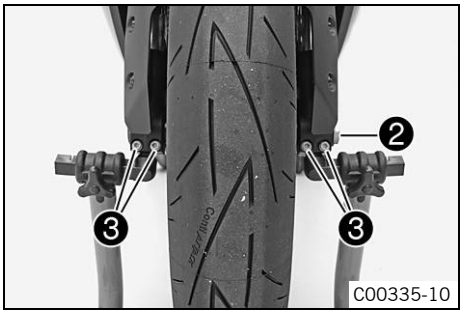
– Check the brake linings for damage and cracking.

» If damage or wear is encountered:

– Change the rear brake linings.

13.1 Removing the front wheel





Preparatory work

– Raise the rear of the motorcycle with lifting gear. (☛ p. 157)
– Raise the front of the motorcycle with lifting gear. (☛ p. 158)

Main work

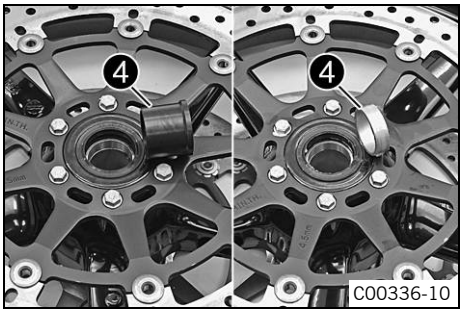
– Remove the screws ❶ from both brake calipers.
– Press back the brake linings with a light lateral tilting of the brake calipers on the brake disc. Pull the brake calipers carefully back from the brake discs and hang them to one side.

Info
Do not pull the hand brake lever when the brake calipers are removed.

– Loosen screw ❷ by several rotations.
– Release screws ❸.
– Press on screw ❷ to push the wheel spindle out of the axle clamp.
– Remove screw ❷.

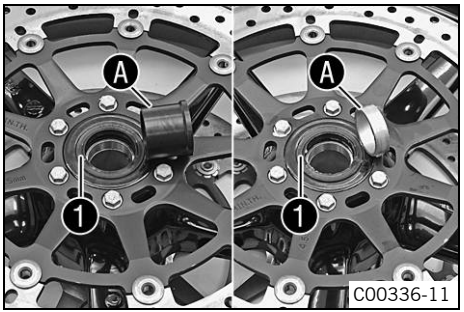
Warning
Danger of accidents Reduced braking efficiency due to damaged brake discs.
– Always lay down the wheel in such a way that the brake discs are not damaged.

– Holding the front wheel, withdraw the wheel spindle. Take the front wheel out of the fork.



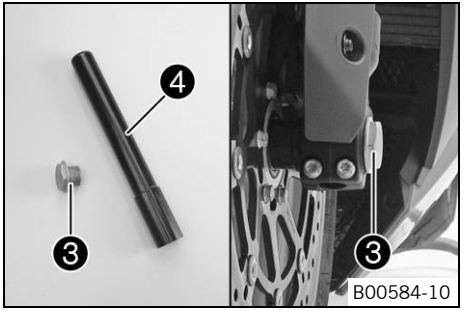
– Remove spacers ❹.

13.2 Installing the front wheel



– Check the wheel bearing for damage and wear.
  » If the wheel bearing is damaged or worn:
    – Replace the wheel bearing.
– Clean and grease the shaft seal rings ❶ and mating surfaces Ⓐ of the spacers.

Long-life grease (☛ p. 262)



– Insert the wide spacer on the left-hand side ❷ (when looking in the direction of travel).

Info

The arrow Ⓑ indicates the direction of rotation of the front wheel.

– Insert the narrow spacer on the right-hand side (when viewed in the direction of travel).

Warning

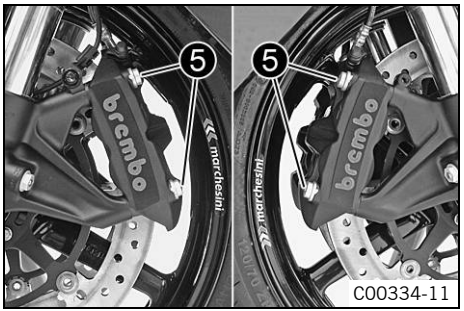
Danger of accidents Reduced braking efficiency due to oil or grease on the brake discs.

– Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.

– Clean screw ❸ and axle ❹.
– Lift the front wheel into the fork, position it, and insert the wheel spindle.
– Mount and tighten screw ❸.

Guideline

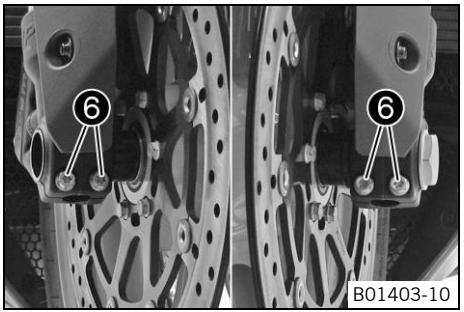
Bolt, front axle	M25x1.5	45 Nm (33.2 lbf ft)



– Position the brake calipers.
  ✔ The brake linings are correctly positioned.
– Mount screws ❺ on both brake calipers but do not tighten yet.
– Operate the hand brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point. Fixate the hand brake lever while it is actuated.
  ✔ The brake calipers align themselves.
– Tighten screws ❺ on both brake calipers.
  Guideline

Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft)	**Loctite® 243™**

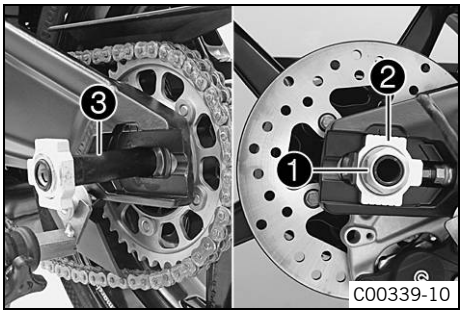
– Release the fixation of the hand brake lever.
– Take the motorcycle off of the front wheel stand. (☛ p. 158)
– Remove the rear of the motorcycle from the lifting gear. (☛ p. 157)



– Pull the front brake and compress the fork powerfully a few times.
  ✔ The fork legs straighten.
– Fully tighten screws ❻.
  Guideline

Fork end pinch bolts	M8	15 Nm (11.1 lbf ft)

13.3 Removing the rear wheel



Preparatory work

– Raise the rear of the motorcycle with lifting gear. (☛ p. 157)

Main work

– Remove nut ❶.

– Remove chain adjuster ❷.

– Remove wheel spindle ❸.

– Push the rear wheel as far forward as possible and then remove the chain from the rear sprocket.

Info
Cover the components to protect them against damage.

Warning
Danger of accidents Reduced braking efficiency due to damaged brake discs.

– Always lay down the wheel in such a way that the brake discs are not damaged.

– Pull the rear wheel back and take it out of the swingarm.

Info
Do not operate the foot brake lever when the rear wheel is removed.

13.4 Installing the rear wheel

Warning

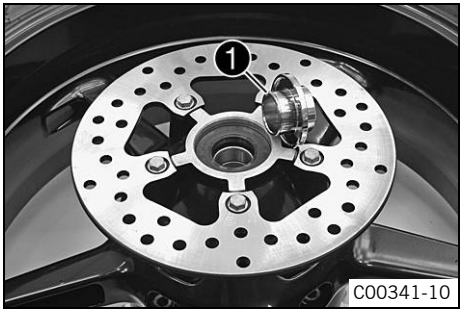
Danger of accidents Reduced braking efficiency due to oil or grease on the brake discs.

– Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.

Warning

Danger of accidents No braking effect when operating the rear brake.

– After installing the rear wheel, always operate the foot brake until the pressure point is reached.



Main work

– Check the rear hub cush drive. (p. 187)

– Remove bushing 1. Clean and grease the mating surfaces of the bushing and the shaft seal rings.

Long-life grease (p. 262)

– Check the wheel bearing for damage and wear.

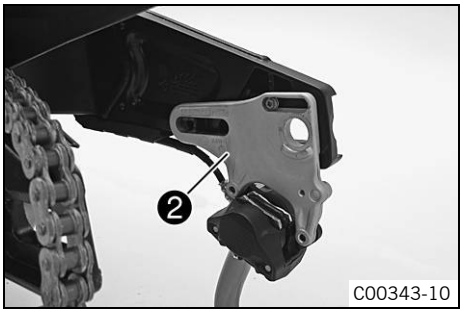
» If the wheel bearing is damaged or worn:

– Replace the wheel bearing.

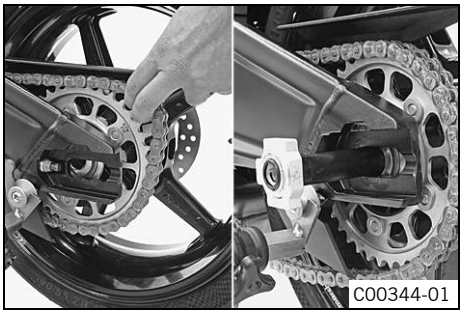
– Install the bushing.

– Clean the thread of the axle and nut.

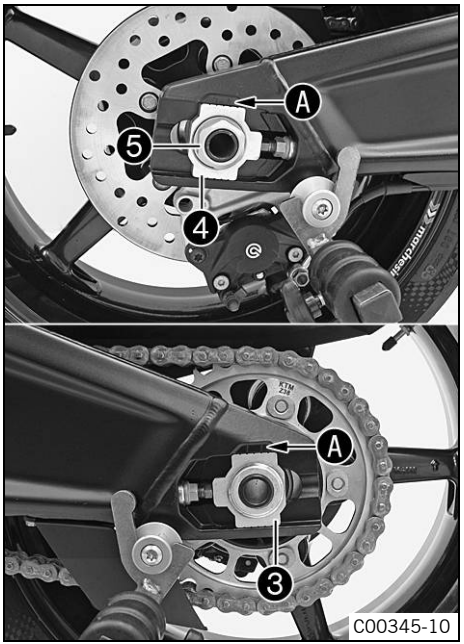
– Clean the mating surfaces of the brake caliper frame and swingarm.



– Push the brake caliper frame ❷ completely to the rear.
– Position the rear wheel.
  ✔ The brake caliper support and brake linings are correctly positioned.



– Push the rear wheel as far forward as possible and place the chain on the rear sprocket.
– Pull the rear wheel back and insert the wheel spindle.



– Place the chain adjuster ❸ on the tensioning screw.
– Position the chain adjuster ❹ and place it on the tensioning screw.
– Tighten nut ❺.

Guideline

In order for the rear wheel to be correctly aligned, the markings on the left and right chain adjusters must be in the same position relative to the reference marks Ⓐ.

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	Thread greased

– Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

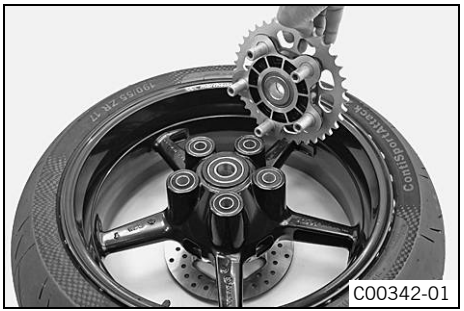
Finishing work

– Remove the rear of the motorcycle from the lifting gear. (☛ p. 157)
– Check the chain tension. (☛ p. 163)

13.5 Checking rear hub cush drive

Info

The engine power is transmitted by the rear sprocket to the rear wheel through five shock absorbers. They eventually wear out during operation. If the shock absorbers are not changed in time, the rear sprocket carrier and the rear hub are damaged.



Preparatory work
- Raise the rear of the motorcycle with lifting gear. (☛ p. 157)
- Remove the rear wheel. 🔧 (☛ p. 184)

Main work
- Remove the rear sprocket carrier.
- Check the rear hub for damage and wear.
  - » If the rear hub cush drive is damaged or worn:
    - Change the rubber damper. 🔧
- Position the rear sprocket carrier.

Info
A set of bolts and shock absorbers should have as little free travel as possible to increase the service life of the shock absorbers.

Finishing work
- Install the rear wheel. 🔧 (☛ p. 185)
- Remove the rear of the motorcycle from the lifting gear. (☛ p. 157)
- Check the chain tension. (☛ p. 163)

13.6 Checking the tire condition

Warning
Danger of accidents Uncontrollable vehicle handling in the event of a flat tire.
- In the interest of safety, replace damaged or worn tires immediately. (Your authorized KTM workshop will be pleased to help.)

Warning
Danger of crashing Poor vehicle handling due to different tire tread patterns on front and rear wheels.
- The front and rear wheels must be fitted with tires with similar tread patterns to prevent loss of control over the vehicle.

Warning

Danger of accidents Uncontrollable handling characteristic due to non-approved and/or non-recommended tires/wheels.

– Only tires/wheels approved by KTM and with the corresponding speed index should be used.

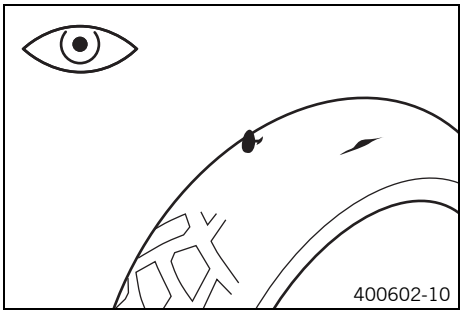
Warning

Danger of accidents Reduced road grip with new tires.

– New tires have a smooth rolling surface and therefore cannot provide full road grip. The entire rolling surface must be roughened in the first 200 kilometers (124.3 miles) by moderate riding at alternating angles. The full grip levels are not achieved until the tires have been run in.

Info

The type, condition and air pressure of the tires all have a major impact on the handling of the motorcycle.
Worn tires have a negative effect on handling characteristics, especially on wet surfaces.



– Check the front and rear tires for cuts, run-in objects and other damage.
  » If the tires exhibit cuts, run-in objects or other damage:
    – Change the tires.
– Check the depth of the tread.

Info

Note local national regulations concerning the minimum tread depth.

Minimum tread depth	≥ 2 mm (≥ 0.08 in)

  » If the tread depth is less than the minimum permissible depth:
    – Change the tires.
– Check the age of the tires.

Info

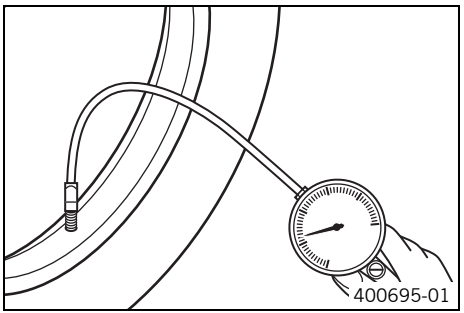
The tire's date of manufacture is usually part of the tire markings and is indicated by the last four digits of the **DOT** marking. The first two digits refer to the week of manufacture and last two digits refer to the year of manufacture.
KTM recommends that the tires are changed regardless of the actual wear, at the latest after five years.

» If a tire is more than five years old:
– Change the tires.

13.7 Checking the tire pressure

Info

Low tire pressure leads to abnormal wear and overheating of the tire.
Correct tire pressure tool kit comfort and maximum tire service life.



– Remove the dust cap.
– Check the tire pressure when the tires are cold.

Tire air pressure, solo	
Front	2.5 bar (36 psi)
Rear	2.5 bar (36 psi)

Tire air pressure with passenger / full payload	
Front	2.5 bar (36 psi)
Rear	2.9 bar (42 psi)

» If the tire pressure does not meet specifications:
– Correct the tire pressure.

– Mount the dust cap.

Info
The rubber seal in the dust cap prevents air from leaking out of the tire if the valve is defective.

14.1 Removing the battery

Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep sparks and open flames away from the battery. Only charge in well-ventilated rooms.
- In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.

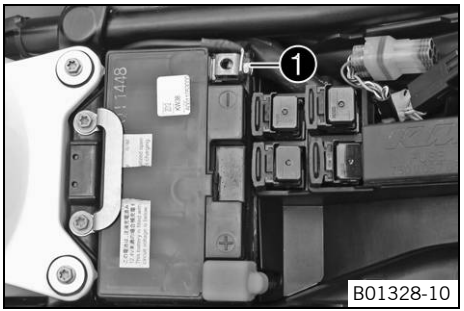
Caution

Danger of accidents If the vehicle is operated with a discharged battery or without a battery, electronic components and safety equipment may be damaged.

- Never operate the vehicle with a discharged battery or without a battery.

Preparatory work

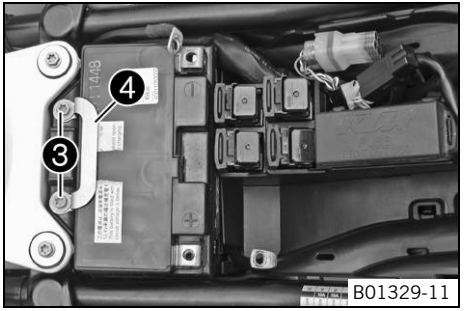
- Switch off all power consumers and switch off the engine.
- Remove the seat. (☛ p. 159)



Main work

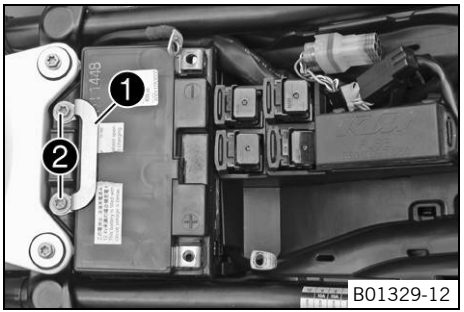
– Disconnect negative cable ❶ from the battery.

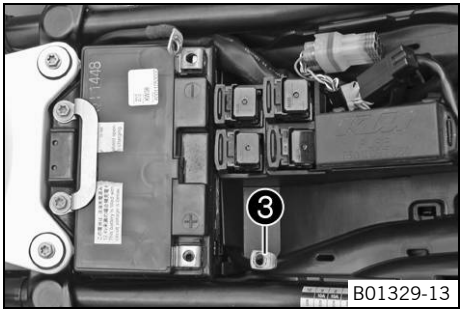
– Remove the cover of the positive terminal.
– Disconnect positive cable ❷ from the battery.



– Remove screws ❸.
– Remove holder ❹.
– Lift out the battery.

14.2 Installing the battery





Main work

– Position the battery in the battery compartment.

Guideline

The poles of the battery must face the rear of the vehicle.

Battery (YTZ14S) (☛ p. 251)

– Position holder ❶.

– Mount and tighten screws ❷.

Guideline

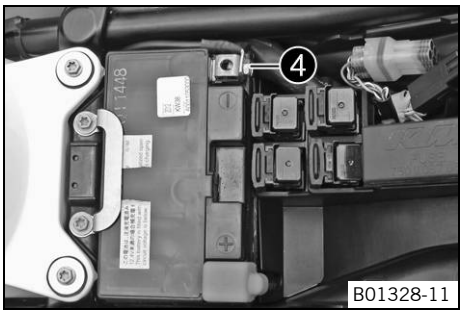
Remaining chassis screws	M6	10 Nm (7.4 lbf ft)

– Position the positive cable ❸ and mount and tighten the screw.

Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)

– Mount the positive terminal cover.



– Position the negative cable ❹ and mount and tighten the screw.

Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)

Finishing work

– Fit the seat. (☛ p. 160)
– Set the clock with **SET CLOCK**. (☛ p. 86)

14.3 Recharging the battery

Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

– Keep batteries out of the reach of children.
– Wear suitable protective clothing and goggles.
– Avoid contact with battery acid and battery gases.
– Keep sparks and open flames away from the battery. Only charge in well-ventilated rooms.
– In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.

Warning

Environmental hazard The battery contains elements that are harmful to the environment.

– Do not dispose of batteries with the household waste. Dispose of a defective battery in an environmentally friendly manner. Give the battery to your authorized KTM dealer or dispose of it at a collection point for used batteries.

Warning

Environmental hazard Hazardous substances cause environmental damage.

– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

Info

Even when there is no load on the battery, it discharges steadily.
The charge state and the type of charge are very important for the service life of the battery.
Rapid recharging with a high charging current shortens the battery's service life.
If the charging current, charging voltage and charging time are exceeded, electrolyte escapes through the safety valves. This reduces the battery capacity.
If the battery is depleted from starting the vehicle repeatedly, the battery must be charged immediately.
If the battery is left in a discharged state for an extended period, it will become over-discharged and sulfate, destroying the battery.
The battery is maintenance-free, i.e., the acid level does not have to be checked.

Preparatory work

– Switch off all power consumers and switch off the engine.
– Remove the seat. (☛ p. 159)
– Disconnect the negative cable of the battery to avoid damage to the onboard electronics.

Main work

– Connect the battery charger to the battery. Switch on the battery charger.

Battery charger (58429074000)

You can also use the battery charger to test the rest potential and start potential of the battery, and to test the alternator. With this device, you cannot overcharge the battery.

Info

Never remove lid ❶.
Charge the battery to a maximum of 10% of the capacity specified on battery housing ❷.

– Switch off the battery charger after charging and disconnect from the battery.

Guideline

The charge current, charge voltage and charge time must not be exceeded.	
Charge the battery regularly when the motorcycle is not in use	3 months

– Connect the negative cable with the battery.

Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)

Finishing work

– Fit the seat. (☛ p. 160)
– Set the clock with **SET CLOCK**. (☛ p. 86)

14.4 Changing the main fuse

Warning

Fire hazard The electrical system can be overloaded if the wrong fuses are used.

– Use only fuses with the prescribed amperage. Never bypass or repair fuses.

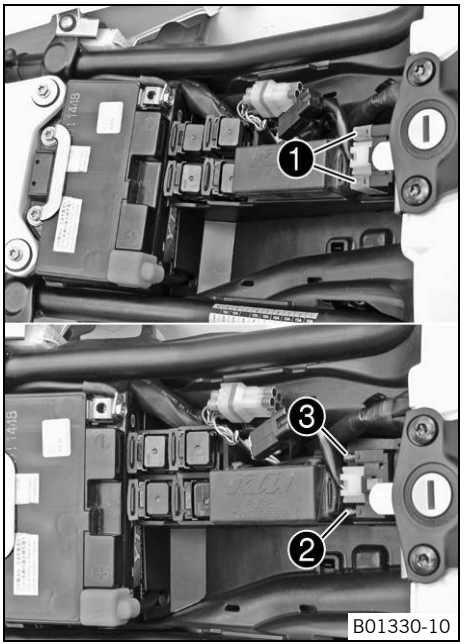
Info

The main fuse protects all power consumers of the vehicle. The main fuse is under the seat.

Preparatory work

– Switch off all power consumers and the engine.

– Remove the seat. (☛ p. 159)



Main work

– Remove protection covers ❶.

– Remove the faulty main fuse ❷.

Info
A reserve fuse ❸ is located in the starter relay.

– Install a new main fuse.

Fuse (58011109130) (☛ p. 251)

Tip
Place the spare fuse in the starter relay so that it is available if needed.

– Attach the protection covers ❶.

Finishing work

– Fit the seat. (☛ p. 160)

– Set the clock with **SET CLOCK**. (☛ p. 86)

14.5 Changing the fuses of individual power consumers

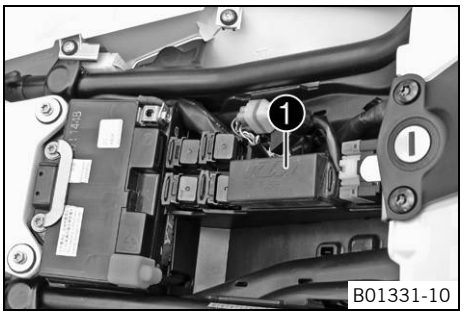
Warning

Fire hazard The electrical system can be overloaded if the wrong fuses are used.

– Use only fuses with the prescribed amperage. Never bypass or repair fuses.

Info

The fuse box containing the fuses of individual power consumers is located under the seat.



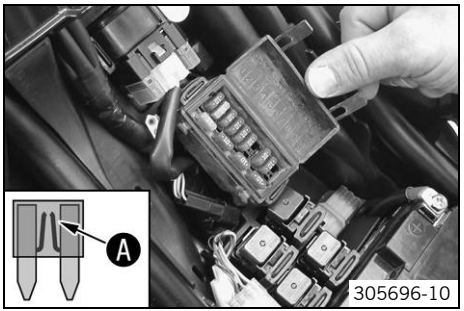
Preparatory work

– Switch off all power consumers and the engine.

– Remove the seat. (☛ p. 159)

Main work

– Open fuse box cover ❶.



– Check the fuses.

Info
A defective fuse can be identified by the burned-out fuse wire Ⓐ.

– Remove the faulty fuse.

Guideline

Fuse **1** - 10 A - ignition, combination instrument, immobilizer, alarm system (optional)
Fuse **2** - 15 A - high beam, low beam, parking light, tail light, license plate lamp
Fuse **3** - 10 A - horn, brake light
Fuse **4** - 10 A - radiator fan
Fuse **5** - 10 A - fuel pump
Fuse **6** - 10 A - ignition/fuel injection
Fuse **7** - not used
Fuse **8** - 10 A - for auxiliary equipment (permanent positive)
Fuse **9** - 10 A - for auxiliary equipment (accessories connected to the ignition switch)
Fuse **10** - not used
Fuse **SPARE** - 10 A/15 A - spare fuses

– Use spare fuses with the correct rating only.

Fuse (75011088010) (☛ p. 251)
Fuse (75011088015) (☛ p. 251)

Tip
Replace the spare fuse in the fuse box so that it is available if needed.

– Close the fuse box cover.

Finishing work

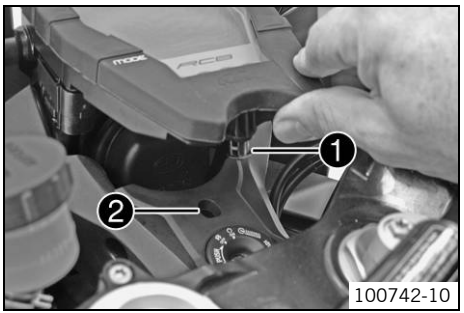
– Fit the seat. (☛ p. 160)

14.6 Changing the low beam bulb

Note

Damage to reflector Reduced brightness.

– Grease on the lamp will evaporate due to the heat and be deposited on the reflector. Clean the lamp and keep it free of grease before mounting.



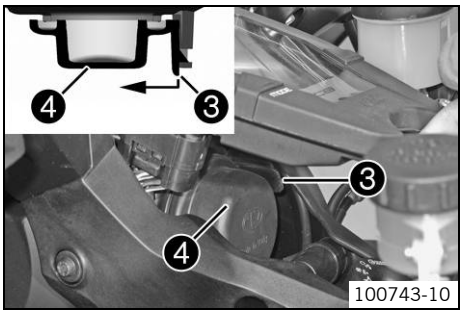
Preparatory work

– Switch off all power consumers and the engine.

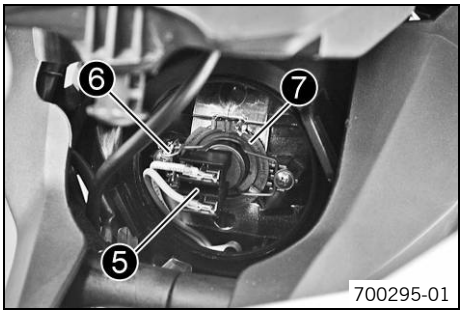
Main work

– Fold up the combination instrument. Pull the lug ❶ out of the rubber retainer ❷.

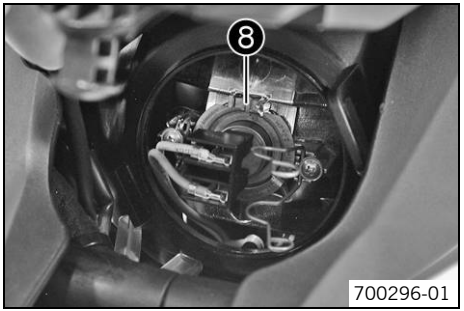
– Remove the rubber retainer.



– Push latch ❸ in the direction of the arrow.
– Remove the lamp cover ❹.



– Unplug connector ❺.
– Push off the retaining clamp ❻ on both sides, squeeze and fold to the side.
– Remove headlight bulb ❼.

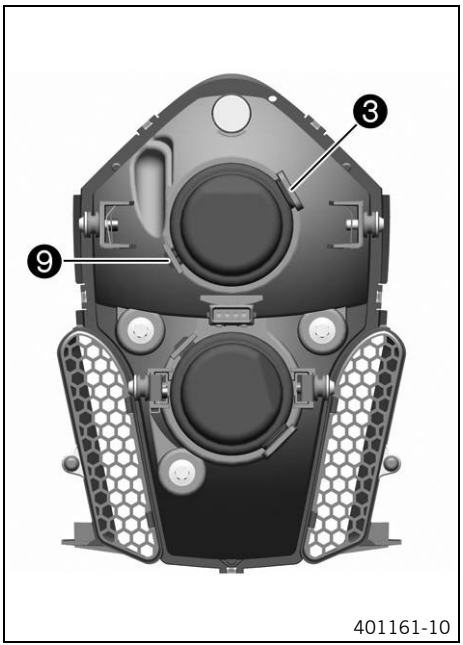


– Position the new headlight bulb in the headlight housing.
  Guideline

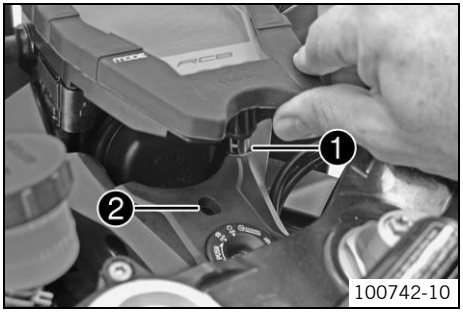
Insert the headlight bulb so that lug ❽ is positioned in the cut-out.

Low beam / high beam (H7 / base PX26d) (☛ p. 251)

– Position the retaining clamp.
– Plug in the connector.



- Position lug ❾ of the lamp cover in the notch.
- Engage latch ❸.
- Check that the lighting is functioning properly.



- Position the rubber holder ❷.
- Fold down the combination instrument. Position the lug ❶ in the rubber retainer.

14.7 Changing the high beam bulb

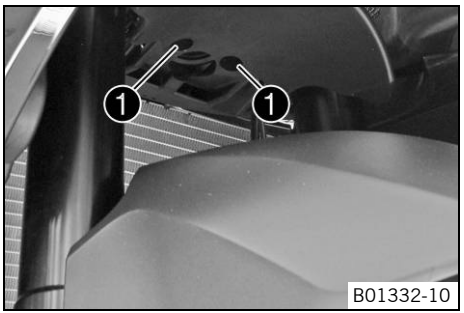
Note

Damage to reflector Reduced brightness.

– Grease on the lamp will evaporate due to the heat and be deposited on the reflector. Clean the lamp and keep it free of grease before mounting.

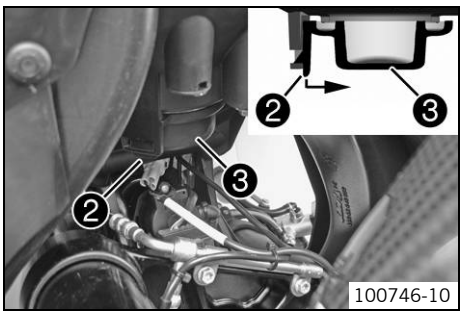
Preparatory work

– Switch off all power consumers and the engine.

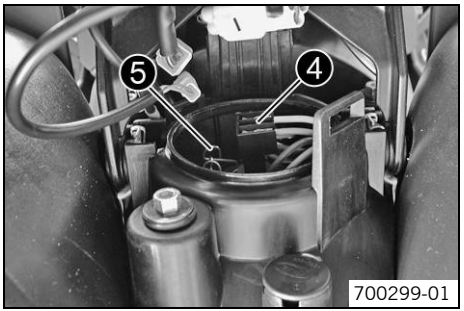


Main work

– Remove screws ❶. Remove the cover.



– Push latch ❷ in the direction of the arrow.
– Remove the lamp cover ❸.

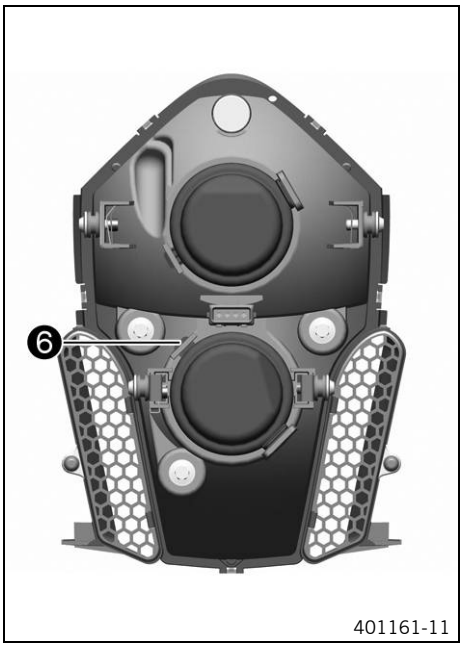


– Unplug connector ❹.
– Push off the retaining clamp ❺ on both sides, squeeze and fold to the side.
– Remove headlight bulb.
– Position the new headlight bulb in the headlight housing.
  Guideline

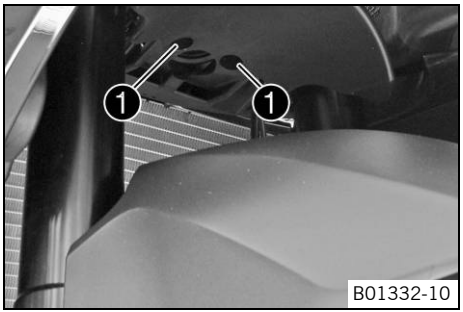
Insert the headlight bulb so that the lug is positioned in the cut-out.

Low beam / high beam (H7 / base PX26d) (☛ p. 251)

– Position the retaining clamp.
– Plug in the connector.



– Position lug ❻ of the lamp cover in the notch.
– Engage the latch.
– Check that the lighting is functioning properly.



– Position the cover.

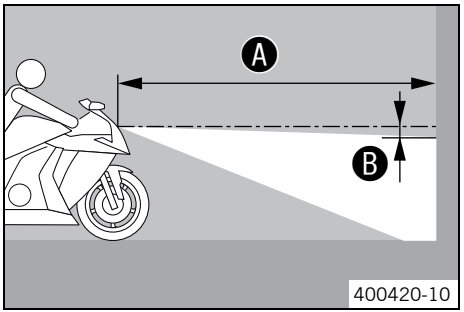
Info
Check for correct positioning and freedom of movement of the brake lines.

– Mount and tighten screws ❶.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)

14.8 Checking the headlight setting



– Stand the vehicle upright on a horizontal surface in front of a light wall and make a mark at the height of the center of the low beam headlight.
– Make another mark at a distance Ⓑ under the first mark.

Guideline

Distance Ⓑ	5 cm (2 in)

– Position the vehicle vertically at a distance Ⓐ in front of the wall and switch on the low beam.

Guideline

Distance Ⓐ	5 m (16 ft)

– The rider, with luggage and passenger if applicable, now mounts the motorcycle.
– Check the headlight setting.

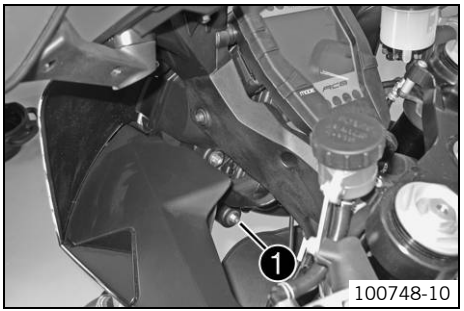
The light-dark boundary must lie exactly on the lower mark when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger if applicable.

» If the boundary between light and dark does not meet specifications:
– Adjust the headlight range. (☛ p. 208)

14.9 Adjusting the headlight range

Preparatory work

– Check the headlight setting. (☛ p. 208)



Main work

– Turn the screw ❶ to adjust the headlight range.

Guideline

A motorcycle with rider, including the luggage and a passenger (where applicable) the light cut off must be aligned exactly on the lower mark (when checking headlight adjustment).

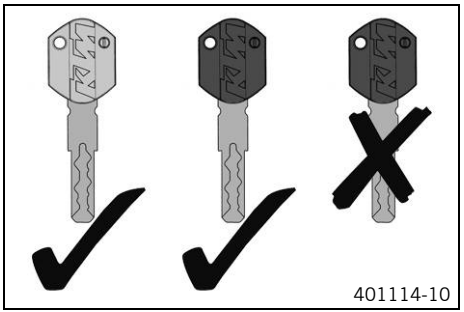
Info

Turn clockwise to increase the headlight range; turn counterclockwise to reduce the headlight range.
If you have a payload, you may have to correct the headlight range.

14.10 Activating/deactivating ignition key

Info

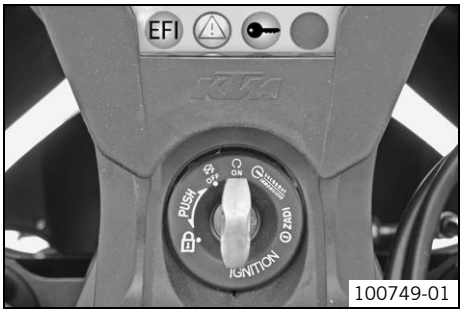
The orange programming key must only be used for activating and deactivating!



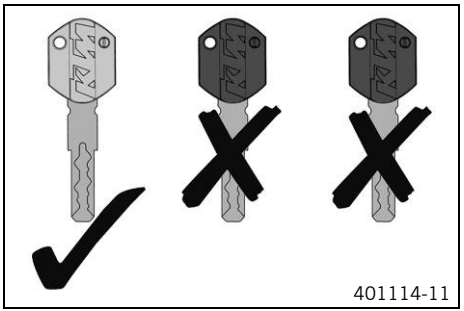
Loss of a black ignition key (second black ignition key available):

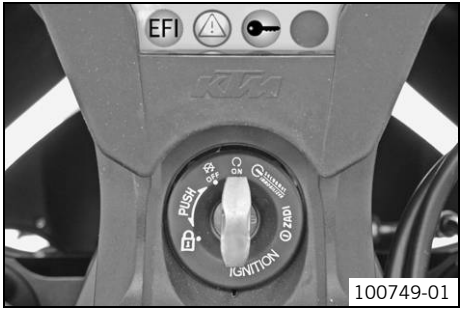
If a black ignition key is lost or replaced, the black ignition keys must be individually activated/deactivated using the orange programming key. This will also prevent the vehicle from being operated without authorization with the lost black ignition key.
The following procedure deactivates all activated black ignition keys that are not included in the procedure.

– Press the emergency OFF switch into the position ○.



– Insert the orange programming key in the ignition lock.
– Switch on the ignition by turning the orange programming key to the **ON** position ○.
  ✔ **EFI** warning lamp Ⓔ (**MIL**) lights up, switches off, and then starts to flash.
  ✔ The immobilizer indicator lamp ⊖ lights up.
– Switch off the ignition by turning the orange programming key to the **OFF** position ⊗.
– Pull out the orange programming key.
– Insert the black ignition key in the ignition lock.
– Switch on the ignition by turning the black programming key to the position **ON** ○.
  ✔ **EFI** warning lamp Ⓔ (**MIL**) lights up, switches off, and then starts to flash.
  ✔ The immobilizer indicator lamp ⊖ lights up, switches off briefly, and switches on again.
– Switch off the ignition by turning the black programming key to the position **OFF** ⊗.
– Remove the black ignition key.
– Insert the orange programming key in the ignition lock.
– Switch on the ignition by turning the orange programming key to the **ON** position ○.
  ✔ **EFI** warning lamp Ⓔ (**MIL**) lights up, switches off, and then starts to flash.
  ✔ The immobilizer indicator lamp ⊖ lights up, switches off briefly, and flashes according to the number of functioning black ignition keys including the orange programming key. In this case, twice.
– Switch off the ignition by turning the orange programming key to the **OFF** position ⊗.
– Pull out the orange programming key.
  ✔ The lost black ignition key is deactivated.
  ✔ The existing black ignition key is reactivated.


401114-11



100749-01

Loss of both black ignition keys (no black ignition key available):

This procedure is important to prevent misuse of the lost black ignition key.

– Press the emergency OFF switch into the position ○.

– Insert the orange programming key in the ignition lock.
– Switch on the ignition by turning the orange programming key to the **ON** position ○.
  ✓ **EFI** warning lamp (EFI) (**MIL**) lights up, switches off, and then starts to flash.
  ✓ The immobilizer indicator lamp ⊖ lights up.
– Switch off the ignition by turning the orange programming key to the **OFF** position ⊠.
– Switch on the ignition by turning the orange programming key to the **ON** position ○.
  ✓ **EFI** warning lamp (EFI) (**MIL**) lights up, switches off, and then starts to flash.
  ✓ The immobilizer indicator lamp ⊖ lights up, switches off briefly, and flashes according to the number of functioning black ignition keys including the orange programming key. In this case once, since all black ignition keys are deactivated.
– Switch off the ignition by turning the orange programming key to the **OFF** position ⊠.
– Pull out the orange programming key.
  ✓ All black ignition keys are deactivated.
– Order a new black ignition key according to the key number on the **KEYCODECARD** and activate it.

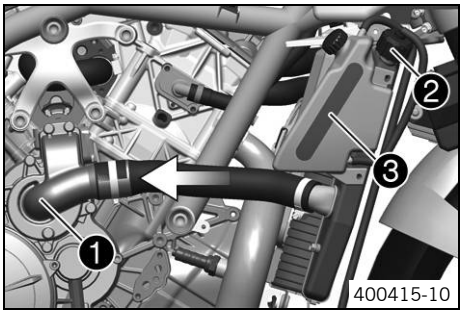
Activating ignition key:

You can activate or deactivate up to four black ignition keys. Only the black ignition keys programmed during an activation procedure are valid. All black ignition keys not

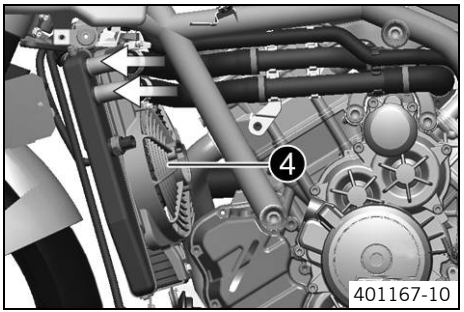
programmed during the activation procedure are invalid, but can be reprogrammed in a further activation procedure.

– Press the emergency OFF switch into the position ○.
– Insert the orange programming key in the ignition lock.
– Switch on the ignition by turning the orange programming key to the **ON** position ○.
  ✓ **EFI** warning lamp (EFI) (**MIL**) lights up, switches off, and then starts to flash.
  ✓ The immobilizer indicator lamp ⊖ lights up.
– Switch off the ignition by turning the orange programming key to the **OFF** position ⊠.
– Pull out the orange programming key.
– Insert the black ignition key in the ignition lock.
– Switch on the ignition by turning the black programming key to the position **ON** ○.
  ✓ **EFI** warning lamp (EFI) (**MIL**) lights up, switches off, and then starts to flash.
  ✓ The immobilizer indicator lamp ⊖ lights up, switches off briefly, and switches on again.
– Switch off the ignition by turning the black programming key to the position **OFF** ⊠.
– Remove the black ignition key.
– To activate further ignition keys, repeat the last 4 steps with the respective ignition key.
– Insert the orange programming key in the ignition lock.
– Switch on the ignition by turning the orange programming key to the **ON** position ○.
  ✓ **EFI** warning lamp (EFI) (**MIL**) lights up, switches off, and then starts to flash.
  ✓ The immobilizer indicator lamp ⊖ lights up, switches off briefly, and flashes according to the number of functioning black ignition keys including the orange programming key.
– Switch off the ignition by turning the orange programming key to the **OFF** position ⊠.
– Pull out the orange programming key.
  ✓ All black ignition keys are activated included in this job sequence are activated.

15.1 Cooling system



The water pump with a 3D water pump wheel ❶ in the engine ensures forced circulation of the coolant. The heat exchanger enables faster warming of the engine oil at the start of a journey and better heat dissipation for the engine oil during the journey.
The pressure in the cooling system resulting from heat is regulated by a valve in the radiator cap ❷. The heat expansion causes the surplus coolant to flow into the compensating tank ❸. When the temperature falls, this surplus coolant is sucked back into the cooling system.



Cooling takes place by means of the air stream and a radiator fan ❹, which is controlled by a thermoswitch.
The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.

15.2 Checking the coolant level

Warning

Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– Do not remove the radiator cap, radiator hoses or other cooling system components when the engine is hot. Allow the engine and cooling system to cool down. In case of scalding, rinse immediately with lukewarm water.

Condition
The engine is cold.
The radiator is completely full.

– Rest the motorcycle on its side stand on a horizontal surface.
– Check the coolant level in the compensating tank.

The coolant level must be between **MIN** and **MAX**.

» If there is no coolant in the compensating tank:
– Check the cooling system for leaks.

Info
Do not start up the motorcycle!

– Add coolant/bleed the cooling system.

» If the coolant level in the compensating tank does not meet specifications, but the tank is not empty:
– Check the cooling system for leaks.
– Fill the cooling system compensating tank. (☛ p. 214)

15.3 Filling cooling system compensating tank

Warning
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– Do not remove the radiator cap, radiator hoses or other cooling system components when the engine is hot. Allow the engine and cooling system to cool down. In case of scalding, rinse immediately with lukewarm water.

Warning

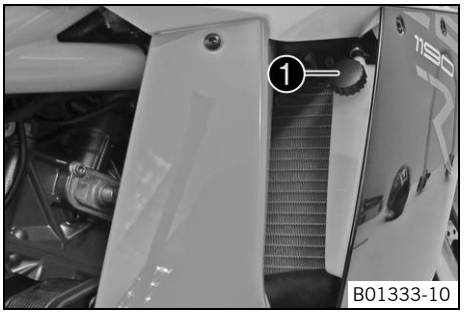
Danger of poisoning Coolant is poisonous and a health hazard.

– Coolant must not come into contact with the skin, eyes, or clothing. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If coolant is swallowed, contact a physician immediately. Change clothing that is contaminated with coolant. Keep coolant out of reach of children.

Note

Engine damage Impaired cooling efficiency due to air trapped in the cooling system.

– After draining coolant and refilling the cooling system, the motorcycle must be raised at the front according to the model type. This is the only way of ensuring that the cooling system is filled without air bubbles. (Your authorized KTM workshop will be pleased to help.)



– Check the coolant level. (☛ p. 213)
– Remove cap ❶ of the compensating tank.
– Add coolant to the specified level.

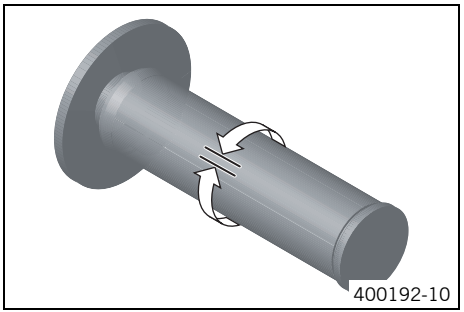
  Guideline

The coolant level must be between **MIN** and **MAX**.

Coolant (☛ p. 258)

– Mount the cap of the compensating tank.

16.1 Checking the play in the throttle cable



– Check the throttle grip for smooth operation.
– Move the handlebar to the straight-ahead position. Move the throttle grip backwards and forwards to ascertain the play in the throttle cable.

Throttle cable play	3... 5 mm (0.12... 0.2 in)

» If the throttle cable play does not meet specifications:
– Adjust the play in the throttle cable. 🔧 (☛ p. 217)

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

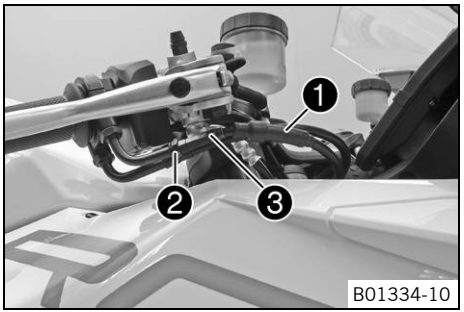
– When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

– Start the engine and let it run idle. Move the handlebar to and fro over the entire steering range.

The idle speed must not change.

» If the idle speed changes:
– Adjust the play in the throttle cable. 🔧 (☛ p. 217)

16.2 Adjusting the play in the throttle cable



– Move the handlebar to the straight-ahead position.
– Throttle position sensor circuit A - check in zero position.

Info
It is imperative to use the KTM diagnostics tool for this.

– Push back protection cap 1.
– Unscrew lock nut 2.
– Set the play in the throttle cable by turning adjusting screw 3.

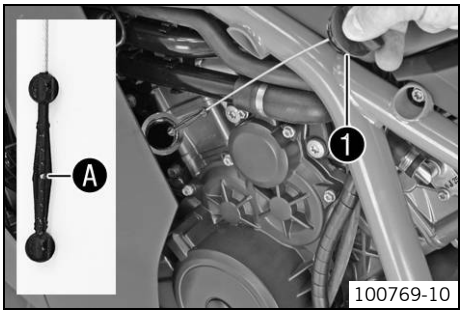
Guideline

Throttle cable play	3... 5 mm (0.12... 0.2 in)

– Tighten lock nut 2.
– Mount the protection cap.

17 SERVICE WORK ON THE ENGINE

17.1 Checking the engine oil level



Condition

The engine is at operating temperature.

Preparatory work

– Stand the motorcycle upright on a horizontal surface.

Main work

– Remove oil dipstick ❶. Check the engine oil level in the measurement range.

Info

After switching off the engine, wait one minute before checking the level.

The engine oil level must be in the middle Ⓐ of the dip stick measurement range.

» If the engine oil level is not at the specified level:

– Add engine oil. (☛ p. 226)

– Replace the oil dipstick.

17.2 Changing engine oil and filter, cleaning oil screen

– Drain the engine oil and clean the oil screens. (☛ p. 219)

– Remove the oil filter. (☛ p. 222)

– Install the oil filter. (☛ p. 224)

– Fill up with engine oil. (☛ p. 224)

17.3 Draining engine oil, cleaning oil screens

Warning

Danger of scalding Engine oil and gear oil get very hot when the motorcycle is ridden.

– Wear appropriate protective clothing and safety gloves. In case of burns, rinse immediately with lukewarm water.

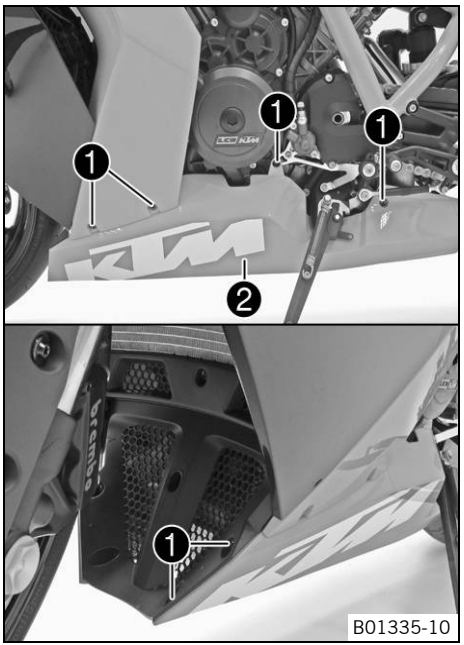
Warning

Environmental hazard Hazardous substances cause environmental damage.

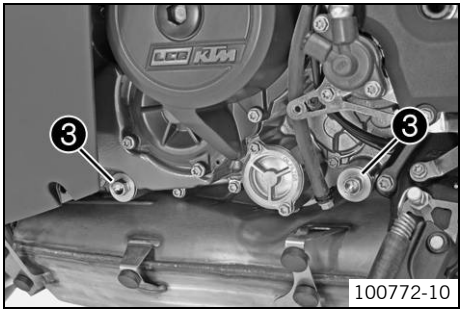
– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

Info

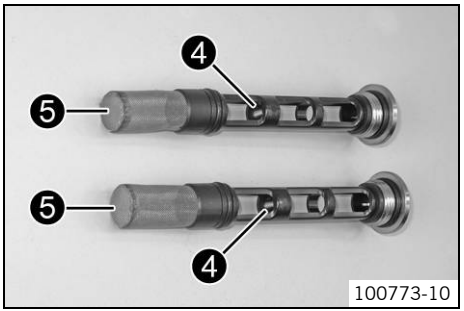
Drain the engine oil only when the engine is warm.



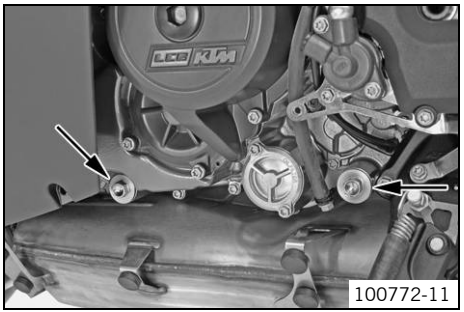
- Remove screws ❶.
- Take off the left exhaust cover ❷.



- Stand the motorcycle on its side stand on a level surface.
- Place a suitable container under the engine.
- Remove the oil drain plugs ❸ with the magnets, O-rings, and oil screens.
- Remove the oil filter. (☛ p. 222)
- Completely drain the engine oil.



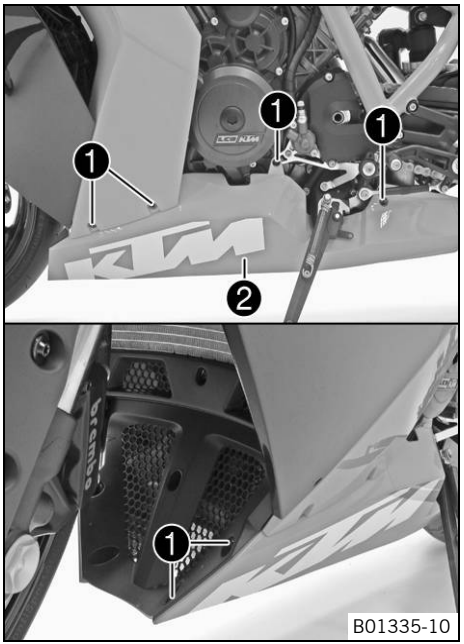
– Thoroughly clean magnets ❹ and oil screens ❺ of the oil drain plugs.



– Mount and tighten the oil drain plugs with the magnets, O-rings, and oil screens.
Guideline

Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)

– Install the oil filter. (p. 224)



– Position the left exhaust cover ❷.
– Mount and tighten screws ❶.

Guideline

Screw, painted trim parts	M5	3.5 Nm (2.58 lbf ft)

17.4 Removing the oil filter

Warning

Danger of scalding Engine oil and gear oil get very hot when the motorcycle is ridden.

– Wear appropriate protective clothing and safety gloves. In case of burns, rinse immediately with lukewarm water.

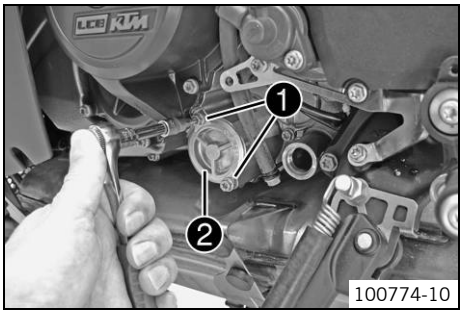
Warning

Environmental hazard Hazardous substances cause environmental damage.

– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

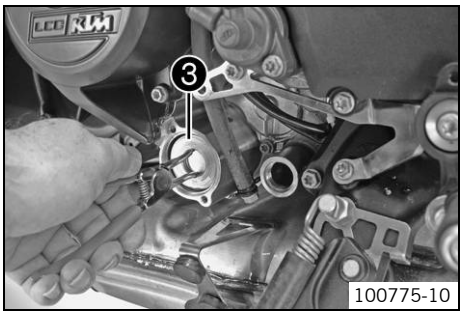
Preparatory work

– Place a suitable container under the engine.



Main work

– Remove screws ❶. Take off oil filter cover ❷ with the O-ring.



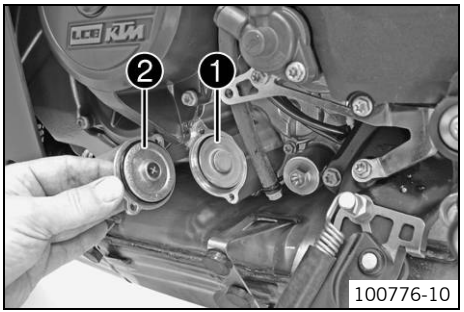
– Pull oil filter ❸ out of the oil filter housing.

Circlip pliers reverse (51012011000)

– Completely drain the engine oil.

– Clean the parts and the sealing area thoroughly.

17.5 Installing the oil filter

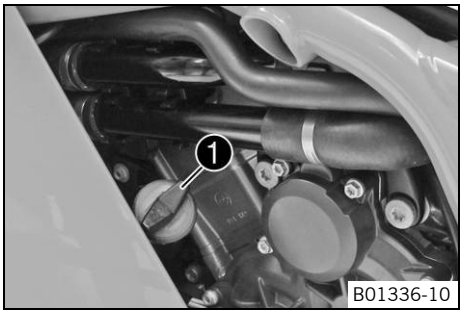


– Insert oil filter ❶.
– Lubricate the O-ring of the oil filter cover. Position oil filter cover ❷.
– Mount and tighten the screws.
Guideline

Remaining engine screws	M5	6 Nm (4.4 lbf ft)

17.6 Filling up with engine oil

Info
Too little engine oil or poor-quality engine oil results in premature wear to the engine.



Main work
– The oil must be topped up in two steps.

Engine oil	3.60 l (3.8 qt.)	External temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (☛ p. 258)
		External temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (☛ p. 259)

– Remove the dipstick ❶ and top up the engine oil.

Engine oil (1st quantity)	3.00 l (3.17 qt.)	External temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (☛ p. 258)
		External temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (☛ p. 259)

– Replace the oil dipstick ❶.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

– When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

– Start the engine and check that it is oil-tight.

– Remove the dipstick ❶ and pour in the remaining engine oil.

Engine oil (2nd quantity)	0.60 l (0.63 qt.)	External temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (☛ p. 258)
		External temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (☛ p. 259)

– Replace the oil dipstick ❶.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

– When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

– Start the engine and check that it is oil-tight.

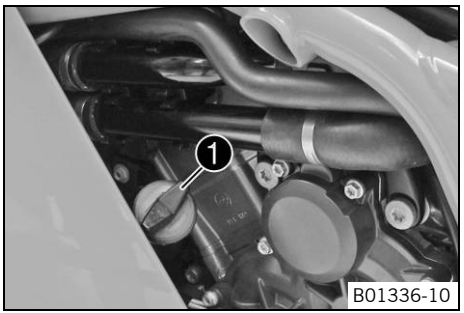
Finishing work

– Check the engine oil level. (☛ p. 218)

17.7 Adding engine oil

Info

Too little engine oil or poor-quality engine oil results in premature wear to the engine.



Preparatory work

– Stand the motorcycle upright on a horizontal surface.

– Check the engine oil level. (☛ p. 218)

Main work

– Remove the dipstick ❶ and add engine oil.

Condition

External temperature: ≥ 0 °C (≥ 32 °F)

Engine oil (SAE 10W/50) (☛ p. 258)

Condition

External temperature: < 0 °C (< 32 °F)

Engine oil (SAE 5W/40) (☛ p. 259)

Info

For optimal performance of the engine oil, do not mix different types of engine oil.
If appropriate, change the engine oil.

– Replace oil dipstick ❶.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

– When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

– Start the engine and check that it is oil-tight.

Finishing work

– Check the engine oil level. (☛ p. 218)

18.1 Cleaning motorcycle

Note

Material damage Damage and destruction of components by high-pressure cleaning equipment.

– When cleaning the vehicle with a pressure cleaner, do not point the water jet directly onto electrical components, connectors, cables, bearings, etc. Maintain a minimum distance of 60 cm between the nozzle of the pressure cleaner and the component. Excessive pressure can cause malfunctions or destroy these parts.

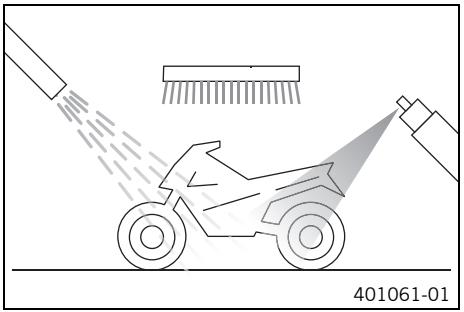
Warning

Environmental hazard Hazardous substances cause environmental damage.

– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

Info

To maintain the value and appearance of the motorcycle over a long period, clean it regularly.
Avoid direct sunshine when cleaning the motorcycle.



– Close off the exhaust system to keep water from entering.
– Remove coarse dirt particles with a gentle spray of water.
– Spray very dirty parts with a normal commercial engine cleaner and then brush off with a soft brush.

Motorcycle cleaner (☛ p. 262)

Info

Use warm water containing normal motorcycle cleaner and a soft sponge.
Never apply motorcycle cleaner to the dry vehicle; always rinse with water first.
If the vehicle has been used on salted roads, clean it with cold water. Warm water intensifies the effects of salt.

– After rinsing the motorcycle with a gentle spray of water, allow it to dry thoroughly.
– Remove the plug from the exhaust system.

Warning
Danger of accidents Reduced braking efficiency due to a wet or dirty brake system.
– Clean or dry a dirty or wet brake system by riding and braking gently.

– After cleaning, ride a short distance until the engine reaches operating temperature.

Info
The heat produced causes water at inaccessible locations in the engine and brake system to evaporate.

– After the motorcycle has cooled off, lubricate all moving parts and bearings.
– Clean the chain. (☛ p. 162)
– Treat bare metal (except for brake discs and the exhaust system) with an anticorrosive.

Preserving materials for paints, metal and rubber (☛ p. 263)

– Treat all painted parts with a mild paint care product.

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (☛ p. 263)

– Treat all plastic parts and powder-coated parts with a mild cleaning and care product.

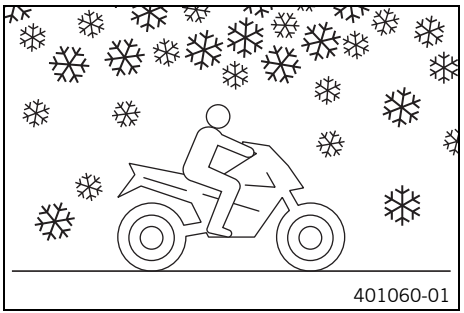
Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (☛ p. 263)

– Oil the ignition/steering lock, tank lock, and seat lock.

Universal oil spray (☛ p. 263)

18.2 Checks and maintenance steps for winter operation

Info
If the motorcycle is used in the winter, salt can be expected on the roads. Precautions need to be taken against road salt corrosion. If the vehicle was operated in road salt, clean it with cold water after riding. Warm water intensifies the effects of salt.


401060-01

– Clean the motorcycle. (☛ p. 228)
– Clean the brake system.

Info
After **EVERY** trip on salted roads, thoroughly clean the brake calipers and brake linings after they have cooled down while they are installed; use cold water and dry them well.
After riding on salted roads, thoroughly wash the motorcycle with cold water and dry it well.

– Treat the engine, swingarm and all other bright and zinc-plated parts (except for the brake discs) with a wax-based corrosion inhibitor.

Info
Corrosion inhibitor is not permitted to come in contact with the brake discs as this would greatly reduce the braking force.

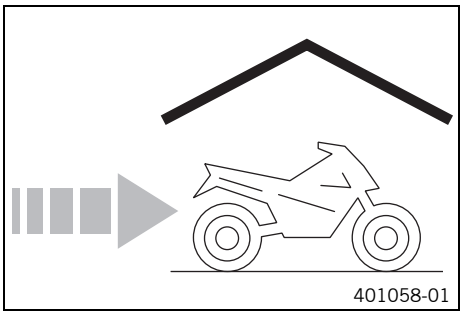
– Clean the chain. (☛ p. 162)

19 STORAGE

19.1 Storage

Info

If you want to garage the motorcycle for a longer period, take the following actions.
Before storing the motorcycle, check all parts for function and wear. If service, repairs or replacements are necessary, you should do this during the storage period (less workshop overload). In this way, you can avoid long workshop waiting times at the start of the new season.



– When refueling for the last time before taking the motorcycle out of service, add fuel additive.

Fuel additive (☛ p. 262)

– Fill up with fuel. (☛ p. 117)
– Clean the motorcycle. (☛ p. 228)
– Change the engine oil and filter, clean the oil screen. 🔧 (☛ p. 218)
– Check the coolant level. (☛ p. 213)
– Check the antifreeze. 🔧
– Check the tire pressure. (☛ p. 190)
– Remove the battery. 🔧 (☛ p. 192)
– Recharge the battery. 🔧 (☛ p. 195)

Guideline

Storage temperature of battery without direct sunshine.	0… 35 °C (32… 95 °F)

– Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

Info

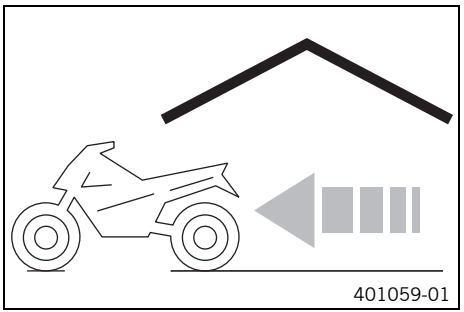
KTM recommends raising the motorcycle.

– Raise the rear of the motorcycle with lifting gear. (☛ p. 157)
– Raise the front of the motorcycle with lifting gear. (☛ p. 158)
– Cover the motorcycle with a porous sheet or blanket.

Info

Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.
Avoid running the engine for a short time only. Since the engine cannot warm up properly, the water vapor produced during combustion condenses and causes valves and exhaust system to rust.

19.2 Preparing for use after storage



– Take the motorcycle off of the front wheel stand. (☛ p. 158)
– Remove the rear of the motorcycle from the lifting gear. (☛ p. 157)
– Install the battery. 🔧 (☛ p. 194)
– Set the clock with **SET CLOCK**. (☛ p. 86)
– Perform checks and maintenance measures when preparing for use. (☛ p. 108)
– Take a test ride.

Faults	Possible cause	Action
Engine doesn't crank when the electric starter button is pressed	Operating error	– Carry out the start procedure. (☛ p. 109)
	Battery discharged	– Recharge the battery. 🔧 (☛ p. 195) – Check closed-circuit current. 🔧
	Fuse **1** or **6** is blown	– Change the fuses of individual power consumers. (☛ p. 200)
	Main fuse blown	– Change the main fuse. (☛ p. 198)
	Ignition/steering lock or emergency OFF switch defective	– Check the ignition/steering lock. 🔧 – Check the emergency OFF switch. 🔧
	Safety start system defective	– Read out the trouble code memory using the KTM diagnostics tool. 🔧
	Immobilizer active	– Read the immobilizer blink code.
	EFI control unit not activated	– Encode the EFI control unit. 🔧
	Malfunction in CAN bus communication	– Read out the trouble code memory using the KTM diagnostics tool. 🔧
	Combination instrument defective	– Check the combination instrument. 🔧
Engine cranks only if the clutch lever is pulled	A gear is engaged	– Shift into neutral.
	Safety start system defective	– Read out the trouble code memory using the KTM diagnostics tool. 🔧
Engine cranks although it is in gear	Safety start system defective	– Read out the trouble code memory using the KTM diagnostics tool. 🔧
Engine cranks but doesn't start	Fuse **5** blown	– Change the fuses of individual power consumers. (☛ p. 200)
	The plug-in connection of the fuel hose connection is not connected	– Connect the plug-in connection of the fuel line.
	Plug connector of wiring harness oxidized	– Clean plug connector and treat with contact spray.

Faults	Possible cause	Action
Engine cranks but doesn't start	Fault in fuel injection system	– Read out the trouble code memory using the KTM diagnostics tool.
	Fuel pump control defective	– Read out the trouble code memory using the KTM diagnostics tool.
	Fuel quality insufficient	– Add suitable fuel.
Engine has too little power	Air filter very dirty	– Change the air filter.
	Fuel filter very dirty	– Change the fuel filter.
	Fault in fuel injection system	– Read out the trouble code memory using the KTM diagnostics tool.
Engine overheats **HIGH TEMP**	Too little coolant in cooling system	– Check the cooling system for leaks. – Check the coolant level. (☛ p. 213)
	Cooling fins very dirty	– Clean cooling fins.
	Kinked or damaged radiator hose	– Change the coolant hose.
	Thermostat defective	– Check the thermostat.
	Fuse **4** blown	– Change the fuses of individual power consumers. (☛ p. 200)
	Defect in radiator fan system	– Check the radiator fan system.
	Air in cooling system	– Add coolant/bleed the cooling system.
EFI warning lamp (**MIL**) lights up / flashes	Fault in fuel injection system	– Read out the trouble code memory using the KTM diagnostics tool.
Engine dies during the journey	Lack of fuel	– Fill up with fuel. (☛ p. 117)
	Fuse **1**, **5** or **6** blown	– Change the fuses of individual power consumers. (☛ p. 200)
High oil consumption	Engine oil level too high	– Check the engine oil level. (☛ p. 218)

Faults	Possible cause	Action
High oil consumption	Engine oil too thin (viscosity)	– Change the engine oil and filter, clean the oil screen. 🔧 (☛ p. 218)
Headlight and parking light do not work	Fuse **2** blown	– Change the fuses of individual power consumers. (☛ p. 200)
Brake light and horn do not work	Fuse **3** blown	– Change the fuses of individual power consumers. (☛ p. 200)
Battery discharged	Ignition not switched off when vehicle parked	– Recharge the battery. 🔧 (☛ p. 195)
	Battery is not charged by the alternator	– Check charging voltage. 🔧
Combination instrument shows nothing in display	Fuse **1** blown	– Change the fuses of individual power consumers. (☛ p. 200)
Speedometer in combination instrument doesn't work	The wiring harness of the wheel speed sensor is damaged or the plug-in connector is oxidized	– Check the wheel speed sensor. 🔧

Blink code of immobilizer indicator lamp	 12 Immobilizer indicator lamp flashes 1x short, 1 second pause, 2x short
Error level condition	All ignition keys inactive

Blink code of immobilizer indicator lamp	 13 Immobilizer indicator lamp flashes 1x short, 1 second pause, 3x short
Error level condition	ICU antenna malfunction

Blink code of immobilizer indicator lamp	 14 Immobilizer indicator lamp flashes 1x short, 1 second pause, 4x short
Error level condition	Malfunction in transponder of black ignition key

Blink code of immobilizer indicator lamp	 15 Immobilizer indicator lamp flashes 1x short, 1 second pause, 5x short
Error level condition	Black ignition key inactive

Blink code of immobilizer indicator lamp	 16 Immobilizer indicator lamp flashes 1x short, 1 second pause, 6x short
Error level condition	Malfunction, encryption, immobilizer control unit to black ignition key

Blink code of immobilizer indicator lamp	 21 Immobilizer indicator lamp flashes 2x short, 1 second pause, 1x short
Error level condition	Immobilizer control unit not activated

21 IMMOBILIZER BLINK CODE

Blink code of immobilizer indicator lamp	 31 Immobilizer indicator lamp flashes 3x short, 1 second pause, 1x short
Error level condition	Malfunction, encryption query from EFI control unit to immobilizer control unit

Blink code of immobilizer indicator lamp	 32 Immobilizer indicator lamp flashes 3x short, 1 second pause, 2x short
Error level condition	Malfunction in CAN bus communication

Blink code of immobilizer indicator lamp	 60 Immobilizer indicator lamp flashes 6x short
Error level condition	**E²PROM** malfunction

Blink code EFI warning lamp (MIL)	 02 **EFI** warning lamp (**MIL**) flashes 2x short
Error level condition	Crankshaft position sensor - circuit fault

Blink code EFI warning lamp (MIL)	 06 **EFI** warning lamp (**MIL**) flashes 6x short
Error level condition	Throttle position sensor circuit A - input signal too low
	Throttle position sensor circuit A - input signal too high

Blink code EFI warning lamp (MIL)	 07 **EFI** warning lamp (**MIL**) flashes 7x short
Error level condition	Throttle position sensor circuit B - input signal too low
	Throttle position sensor circuit B - input signal too high

Blink code EFI warning lamp (MIL)	 09 **EFI** warning lamp (**MIL**) flashes 9x short
Error level condition	Manifold absolute pressure sensor cylinder 1 - input signal too low
	Manifold absolute pressure sensor cylinder 1 - input signal too high

Blink code EFI warning lamp (MIL)	 11 **EFI** warning lamp (**MIL**) flashes 1x long, 1x short
Error level condition	Manifold absolute pressure sensor cylinder 2 - input signal too low
	Manifold absolute pressure sensor cylinder 2 - input signal too high

Blink code EFI warning lamp (MIL)	 12 **EFI** warning lamp (**MIL**) flashes 1x long, 2x short
Error level condition	Engine coolant temperature sensor - input signal too low
	Engine coolant temperature sensor - input signal too high

Blink code EFI warning lamp (MIL)	 13 **EFI** warning lamp (**MIL**) flashes 1x long, 3x short
Error level condition	Intake air temperature sensor - input signal too low
	Intake air temperature sensor - input signal too high

Blink code EFI warning lamp (MIL)	 14 **EFI** warning lamp (**MIL**) flashes 1x long, 4x short
Error level condition	Ambient air pressure sensor - input signal too low
	Ambient air pressure sensor - input signal too high

Blink code EFI warning lamp (MIL)	 15 **EFI** warning lamp (**MIL**) flashes 1x long, 5x short
Error level condition	Rollover sensor - input signal too low
	Rollover sensor - input signal too high

Blink code EFI warning lamp (MIL)	 17 **EFI** warning lamp (**MIL**) flashes 1x long, 7x short
Error level condition	Lambda sensor cylinder 1, sensor 1 - circuit fault

Blink code EFI warning lamp (MIL)	 18 **EFI** warning lamp (**MIL**) flashes 1x long, 8x short
Error level condition	Lambda sensor cylinder 2, sensor 1 - circuit fault

Blink code EFI warning lamp (MIL)	 22 **EFI** warning lamp (**MIL**) flashes 2x long, 2x short
Error level condition	Gear position sensor - circuit fault

Blink code EFI warning lamp (MIL)	 24 **EFI** warning lamp (**MIL**) flashes 2x long, 4x short
Error level condition	Power supply - circuit fault

Blink code EFI warning lamp (MIL)	 25 **EFI** warning lamp (**MIL**) flashes 2x long, 5x short
Error level condition	Side stand switch - circuit fault

Blink code EFI warning lamp (MIL)	 33 **EFI** warning lamp (**MIL**) flashes 3x long, 3x short
Error level condition	Injector cylinder 1 - circuit fault

Blink code EFI warning lamp (MIL)	 34 **EFI** warning lamp (**MIL**) flashes 3x long, 4x short
Error level condition	Injector cylinder 2 - circuit fault

Blink code EFI warning lamp (MIL)	 37 **EFI** warning lamp (**MIL**) flashes 3x long, 7x short
Error level condition	Ignition coil 1, cylinder 1 - circuit fault

Blink code EFI warning lamp (MIL)	 38 **EFI** warning lamp (**MIL**) flashes 3x long, 8x short
Error level condition	Ignition coil 1, cylinder 2 - circuit fault

Blink code EFI warning lamp (MIL)	 39 **EFI** warning lamp (**MIL**) flashes 3x long, 9x short
Error level condition	Ignition coil 2, cylinder 1 - circuit fault

Blink code EFI warning lamp (MIL)	 40 **EFI** warning lamp (**MIL**) flashes 4x long
Error level condition	Ignition coil 2, cylinder 2 - circuit fault

Blink code EFI warning lamp (MIL)	 41 **EFI** warning lamp (**MIL**) flashes 4x long, 1x short
Error level condition	Fuel pump control - short circuit to ground or open circuit
	Fuel pump control - input signal too high

Blink code EFI warning lamp (MIL)	 45 **EFI** warning lamp (**MIL**) flashes 4x long, 5x short
Error level condition	Lambda sensor heater cylinder 1, sensor 1 - short circuit to ground or open circuit
	Lambda sensor heater cylinder 1, sensor 1 - input signal too high

Blink code EFI warning lamp (MIL)	 46 **EFI** warning lamp (**MIL**) flashes 4x long, 6x short
Error level condition	Lambda sensor heater cylinder 2, sensor 1 - short circuit to ground or open circuit
	Lambda sensor heater cylinder 2, sensor 1 - input signal too high

Blink code EFI warning lamp (MIL)	 49 **EFI** warning lamp (**MIL**) flashes 4x long, 9x short
Error level condition	Motor drive circuit A - circuit fault

Blink code EFI warning lamp (MIL)	 50 **EFI** warning lamp (**MIL**) flashes 5x long
Error level condition	Motor drive circuit B - circuit fault

Blink code EFI warning lamp (MIL)	 54 **EFI** warning lamp (**MIL**) flashes 5x long, 4x short
Error level condition	Secondary air valve - short circuit to ground or open circuit
	Secondary air valve - input signal too high

Blink code EFI warning lamp (MIL)	 68 **EFI** warning lamp (**MIL**) flashes 6x long, 8x short
Error level condition	Manifold absolute pressure sensor cylinder 1 - connection leaks

Blink code EFI warning lamp (MIL)	 69 **EFI** warning lamp (**MIL**) flashes 6x long, 9x short
Error level condition	Manifold absolute pressure sensor cylinder 2 - connection leaks

Blink code EFI warning lamp (MIL)	 81 **EFI** warning lamp (**MIL**) flashes 8x long, 1x short
Error level condition	Immobilizer control unit - circuit fault

Blink code EFI warning lamp (MIL)	 91 **EFI** warning lamp (**MIL**) flashes 9x long, 1x short
Error level condition	CAN bus communication error

23.1 Engine

Design	2-cylinder 4-stroke Otto engine, 75° V arrangement, water-cooled
Displacement	1,195 cm³ (72.92 cu in)
Stroke	69 mm (2.72 in)
Bore	105 mm (4.13 in)
Compression ratio	13.5:1
Control	DOHC, 4 valves per cylinder, chain-driven
Valve - valve stem diameter	
Intake	42 mm (1.65 in)
Exhaust	34 mm (1.34 in)
Valve clearance	
Exhaust at: 20 °C (68 °F)	0.25... 0.30 mm (0.0098... 0.0118 in)
Intake at: 20 °C (68 °F)	0.10... 0.15 mm (0.0039... 0.0059 in)
Crankshaft bearing	Sleeve bearing
Conrod bearing	Sleeve bearing
Piston pin bearing	No bearing bushes - DLC-coated piston pins
Piston	Forged light alloy
Piston ring	1 upper compression (rectangular) ring, 1 lower compression ring, 1 oil scraper ring
Engine lubrication	Dry sump lubrication system with three rotor pumps
Primary transmission	40:76
Clutch	antihopping clutch in oil bath/hydraulically operated
Transmission	6-speed claw gears
Transmission ratio	

1st gear	14:36
2nd gear	16:30
3rd gear	20:30
4th gear	21:27
5th gear	23:26
6th gear	25:26
Mixture preparation	Electronically controlled fuel injection
Ignition system	Contactless controlled fully electronic ignition with digital ignition adjustment
Alternator	12 V, 450 W
Spark plug	
Inside spark plug	NGK LKAR9BI9
Outside spark plug	NGK LMAR7A-9
Electrode gap, spark plug	0.8... 0.9 mm (0.031... 0.035 in)
Cooling	Water cooling, permanent circulation of coolant by water pump
Idle speed	1,500... 1,600 rpm
Cold start device	Electric starter

23.2 Engine tightening torques

Screw, damping plate, clutch cover	**EJOT ALtracs®** M6x10	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, retaining bracket, valve cover, rear	**EJOT ALtracs®** M6x10	10 Nm (7.4 lbf ft)	–
Hose clip, intake flange	M4	1.5 Nm (1.11 lbf ft)	–
Remaining engine screws	M5	6 Nm (4.4 lbf ft)	–
Screw, bearing retainer	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**

Screw, gear sensor	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, pulse generator	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Camshaft drive sprocket bolt	M6	14 Nm (10.3 lbf ft)	–
Freewheel ring bolt	M6 – 10.9	15 Nm (11.1 lbf ft)	**Loctite® 648™**
Nut, cylinder head	M6	9 Nm (6.6 lbf ft)	–
Plug, vacuum connection	M6	5 Nm (3.7 lbf ft)	**Loctite® 243™**
Remaining engine screws	M6	10 Nm (7.4 lbf ft)	–
Screw, camshaft bearing support	M6 – 10.9	10 Nm (7.4 lbf ft)	–
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch spring	M6	12 Nm (8.9 lbf ft)	–
Screw, coolant connection on cylinder head	M6	10 Nm (7.4 lbf ft)	–
Screw, engine case	M6x60	10 Nm (7.4 lbf ft)	–
Screw, engine case	M6x80	10 Nm (7.4 lbf ft)	–
Screw, engine case	M6x90	10 Nm (7.4 lbf ft)	–
Screw, freewheel holder	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, locking lever	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, oil pump cover	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, shift lever	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, starter motor	M6	10 Nm (7.4 lbf ft)	–
Screw, stator	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, valve cover	M6	10 Nm (7.4 lbf ft)	–
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	–
Screw, water pump wheel	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**

Stud, chain shaft	M6	8 Nm (5.9 lbf ft)	–
Vacuum connection	M6	2.5 Nm (1.84 lbf ft)	**Loctite® 243™**
Oil nozzle	M6x0.75	4 Nm (3 lbf ft)	**Loctite® 243™**
Plug, crankshaft retainer	M8	15 Nm (11.1 lbf ft)	–
Screw, camshaft bearing support	M8 – 10.9	Step 1 10 Nm (7.4 lbf ft) Step 2 18 Nm (13.3 lbf ft)	–
Screw, camshaft bearing support	M8 – 10.9	Step 1 8.5 Nm (6.27 lbf ft) Step 2 14.5 Nm (10.7 lbf ft)	Only applies when using: Hex key bit (61229025000)
Screw, engine case	M8	18 Nm (13.3 lbf ft)	–
Screw, heat exchanger	M8	15 Nm (11.1 lbf ft)	–
Screw, timing chain guide rail	M8	15 Nm (11.1 lbf ft)	**Loctite® 243™**
Screw, timing chain tensioning rail	M8	15 Nm (11.1 lbf ft)	**Loctite® 243™**
Stud, exhaust flange	M8	10 Nm (7.4 lbf ft)	–
Screw, engine bearer	M10	45 Nm (33.2 lbf ft)	–
Oil pressure sensor	M10x1	10 Nm (7.4 lbf ft)	–
Plug, cam lever axis	M10x1	15 Nm (11.1 lbf ft)	–
Plug, clutch lubrication	M10x1	10 Nm (7.4 lbf ft)	–
Screw, conrod bearing	M10x1	Step 1 25 Nm (18.4 lbf ft) Step 2 30 Nm (22.1 lbf ft) Step 3 90°	–

Screw, timing chain tensioner release	M10x1	10 Nm (7.4 lbf ft)	–
Spark plug	M10x1	15 Nm (11.1 lbf ft)	–
Cylinder head screw	M11x1.5	Tightening sequence: Using a crisscross pattern Step 1 15 Nm (11.1 lbf ft) Step 2 30 Nm (22.1 lbf ft) Step 3 90° Step 4 90°	Lubricated with engine oil
Coolant temperature sensor	M12x1.5	12 Nm (8.9 lbf ft)	–
Rotor screw	M12x1.5	90 Nm (66.4 lbf ft)	–
Spark plug	M12x1.5	15 Nm (11.1 lbf ft)	–
Nut of engine sprocket	M20x1.5	100 Nm (73.8 lbf ft)	**Loctite® 243™**
Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)	–
Nut, inner clutch hub	M22x1.5	120 Nm (88.5 lbf ft)	**Loctite® 243™**
Plug, timing-chain tensioner	M24x1.5	25 Nm (18.4 lbf ft)	–
Screw in alternator cover	M24x1.5	8 Nm (5.9 lbf ft)	–
Nut, primary gear	M33LHx1.5	130 Nm (95.9 lbf ft)	**Loctite® 243™**

23.3 Capacities

23.3.1 Engine oil

Engine oil	3.60 l (3.8 qt.)	External temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (☛ p. 258)

Engine oil	3.60 l (3.8 qt.)	External temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (☛ p. 259)

23.3.2 Coolant

Coolant	2.60 l (2.75 qt.)	Coolant (☛ p. 258)

23.3.3 Fuel

Total fuel tank capacity, approx.	16.5 l (4.36 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (☛ p. 260)
		Super unleaded (ROZ 98 / RON 98 / PON 94) (☛ p. 261)
Fuel reserve, approx.		3.5 l (3.7 qt.)

23.4 Chassis

Frame	Lattice frame made of chromium molybdenum steel tubing, powder-coated
Fork	**WP Suspension** Up Side Down 4354
Shock absorber	**WP Suspension** 4014 VP
Suspension travel	
Front	120 mm (4.72 in)
Rear	120 mm (4.72 in)
Brake system	
Front	Twin floating disc with radial mount, 4-piston calipers
Rear	Single non-floating disc with 2 piston brake caliper
Brake discs - diameter	
Front	320 mm (12.6 in)

Rear	220 mm (8.66 in)
Brake discs - wear limit	
Front	4.5 mm (0.177 in)
Brake disc - wear limit	
Rear	4.5 mm (0.177 in)
Tire air pressure, solo	
Front	2.5 bar (36 psi)
Rear	2.5 bar (36 psi)
Tire air pressure with passenger / full payload	
Front	2.5 bar (36 psi)
Rear	2.9 bar (42 psi)
Secondary drive	17:38
Chain	5/8 x 5/16” X-ring
Steering head angle	66.7°
Wheelbase	1,425 mm (56.1 in)
Seat height, unloaded	
Lower frame rear position	805 mm (31.69 in)
Upper frame rear position	825 mm (32.48 in)
Ground clearance, unloaded	110 mm (4.33 in)
Weight without fuel approx.	184 kg (406 lb.)
Maximum permissible front axle load	150 kg (331 lb.)
Maximum permissible rear axle load	240 kg (529 lb.)
Maximum permissible total weight	380 kg (838 lb.)

23.5 Electrical system

Battery	YTZ14S	Battery voltage: 12 V Nominal capacity: 11.2 Ah maintenance-free
Fuse	58011109130	30 A
Fuse	75011088015	15 A
Fuse	75011088010	10 A
Low beam / high beam	H7 / base PX26d	12 V 55 W
Parking light	LED	
Instrument lights and control lamps	LED	
Turn signal	LED	
Brake/tail light	LED	
License plate lamp	W5W / base W2.1x9.5d	12 V 5 W

23.6 Tires

Front tires	Rear tires
120/70 ZR 17 M/C 58W TL Continental Conti SportAttack 2	**190/55 ZR 17 M/C 75W TL** Continental Conti SportAttack 2
Additional information is available in the Service section under: http://www.ktm.com	

23.7 Fork

Fork part number	05.18.7K.07
Fork	**WP Suspension** Up Side Down 4354
Compression damping	
Comfort	20 clicks
Standard	15 clicks
Sport	15 clicks
Full payload	15 clicks
Rebound damping	
Comfort	20 clicks
Standard	20 clicks
Sport	10 clicks
Full payload	10 clicks
Spring preload - **Preload Adjuster**	
Comfort	5 turns
Standard	5 turns
Sport	3 turns
Full payload	3 turns
Spring length with preload spacer(s)	405 mm (15.94 in)
Spring rate	
Medium (standard)	9.5 N/mm (54.2 lb/in)
Air chamber length	110^{+10}_{-20} mm ($4.33^{+0.39}_{-0.79}$ in)
Fork length	728 mm (28.66 in)

Fork oil per fork leg	500 ml (16.9 fl. oz.)	Fork oil (SAE 5) (☛ p. 259)

23.8 Shock absorber

Shock absorber part number	17.18.7K.07
Shock absorber	**WP Suspension** 4014 VP
Compression damping, high-speed	
Comfort	3 turns
Standard	2.5 turns
Sport	1.5 turns
Full payload	1.5 turns
Compression damping, low-speed	
Comfort	20 clicks
Standard	20 clicks
Sport	20 clicks
Full payload	20 clicks
Rebound damping	
Comfort	20 clicks
Standard	15 clicks
Sport	15 clicks
Full payload	15 clicks
Spring preload	
Comfort	9 mm (0.35 in)
Standard	9 mm (0.35 in)
Sport	9 mm (0.35 in)
Full payload	10 mm (0.39 in)
Spring rate	

Medium (standard)	85 N/mm (485 lb/in)
Hard	95 N/mm (542 lb/in)
Spring length	160 mm (6.3 in)
Gas pressure	10 bar (145 psi)
Static sag	11... 15 mm (0.43... 0.59 in)
Riding sag	28... 35 mm (1.1... 1.38 in)
Inbuilt length	290 mm (11.42 in)
Shock absorber fluid (☛ p. 260)	SAE 2.5

23.9 Chassis tightening torques

Screw, side stand switch	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Remaining frame bolts	M5	5 Nm (3.7 lbf ft)	–
Screw, brake fluid reservoir of rear brake	M5	5 Nm (3.7 lbf ft)	**Loctite® 243™**
Screw, brake line holder	M5	5 Nm (3.7 lbf ft)	–
Screw, chain guard	M5	5 Nm (3.7 lbf ft)	–
Screw, chain sliding guard	M5	5 Nm (3.7 lbf ft)	–
Screw, fuel level indicator	M5	3 Nm (2.2 lbf ft)	–
Screw, fuel tank guard	M5x12	3 Nm (2.2 lbf ft)	–
Screw, painted trim parts	M5	3.5 Nm (2.58 lbf ft)	–
Screw, steering damper fixing bracket	M5	5 Nm (3.7 lbf ft)	**Loctite® 243™**
Bolt, foot brake lever stub	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Remaining chassis nuts	M6	10 Nm (7.4 lbf ft)	–
Remaining chassis screws	M6	10 Nm (7.4 lbf ft)	–
Screw for wheel speed sensor bracket	M6	3 Nm (2.2 lbf ft)	**Loctite® 243™**

Screw, exhaust clamp	M6	8 Nm (5.9 lbf ft)	–
Screw, exhaust heat shield	M6	15 Nm (11.1 lbf ft)	–
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, foot brake lever	M6	15 Nm (11.1 lbf ft)	**Loctite® 243™**
Screw, fuel pump	M6	6 Nm (4.4 lbf ft)	–
Screw, mirror bracket	M6	6 Nm (4.4 lbf ft)	–
Screw, shift lever stub	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, shift rod	M6	12 Nm (8.9 lbf ft)	**Loctite® 243™**
Screw, shift shaft deflector on chain securing guide	M6	7 Nm (5.2 lbf ft)	**Loctite® 243™**
Screw, shift shaft deflector on shift shaft	M6	18 Nm (13.3 lbf ft)	**Loctite® 243™**
Fork end pinch bolts	M8	15 Nm (11.1 lbf ft)	–
Nut, forked bracket on foot brake lever	M8	30 Nm (22.1 lbf ft)	**Loctite® 243™**
Remaining chassis nuts	M8	25 Nm (18.4 lbf ft)	–
Remaining chassis screws	M8	25 Nm (18.4 lbf ft)	–
Screw for lifting gear support, rear	M8	18 Nm (13.3 lbf ft)	–
Screw of rear brake caliper	M8	22 Nm (16.2 lbf ft)	**Loctite® 243™**
Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)	–
Screw, clamp, eccentric shaft of deflector	M8	18 Nm (13.3 lbf ft)	–
Screw, front brake disc	M8	30 Nm (22.1 lbf ft)	**Loctite® 243™**
Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**
Screw, handlebar stub	M8	20 Nm (14.8 lbf ft)	–
Screw, ignition lock	M8	16 Nm (11.8 lbf ft)	**Loctite® 243™**

Screw, rear brake disc	M8	30 Nm (22.1 lbf ft)	**Loctite® 243™**
Screw, rear footrest bracket	M8	25 Nm (18.4 lbf ft)	–
Screw, rear footrest bracket (footrest bracket not mounted)	M8x25	15 Nm (11.1 lbf ft)	–
Screw, shift lever	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**
Screw, side stand bracket	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**
Screw, spring holder on side stand bracket	M8	15 Nm (11.1 lbf ft)	**Loctite® 243™**
Screw, steering damper clamp on console	M8	20 Nm (14.8 lbf ft)	**Loctite® 243™**
Screw, steering damper fixing bracket on triple clamp	M8	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, steering stem	M8	20 Nm (14.8 lbf ft)	–
Screw, subframe	M8	20 Nm (14.8 lbf ft)	**Loctite® 243™**
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)	–
Remaining chassis nuts	M10	45 Nm (33.2 lbf ft)	–
Remaining chassis screws	M10	45 Nm (33.2 lbf ft)	–
Screw, connecting lever, shock absorber deflector	M10	45 Nm (33.2 lbf ft)	**Loctite® 243™**
Screw, engine bearer	M10	45 Nm (33.2 lbf ft)	–
Screw, shock absorber	M10	45 Nm (33.2 lbf ft)	**Loctite® 243™**
Screw, side stand	M10	35 Nm (25.8 lbf ft)	**Loctite® 243™**
Rear sprocket bolt	M10x1.25	50 Nm (36.9 lbf ft)	**Loctite® 243™**
Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft)	**Loctite® 243™**
Nut of bell crank on frame	M14x1.5	100 Nm (73.8 lbf ft)	–
Lambda sensor	M18x1.5	45 Nm (33.2 lbf ft)	–

Nut, swingarm pivot	M19x1.5	130 Nm (95.9 lbf ft)	Thread greased
Screw, seat lock	M22x1.5	8 Nm (5.9 lbf ft)	–
Bolt, front axle	M25x1.5	45 Nm (33.2 lbf ft)	–
Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	Thread greased
Screw, steering head	M25x1.5	18 Nm (13.3 lbf ft)	–

Brake fluid DOT 4 / DOT 5.1

Standard/classification

– DOT

Guideline

– Use only brake fluid that complies with the specified standard (see specifications on the container) and that exhibits the corresponding properties.

Recommended supplier

Castrol

– **RESPONSE BRAKE FLUID SUPER DOT 4**

Motorex®

– **Brake Fluid DOT 5.1**

Coolant

Guideline

– Only use high quality coolant with corrosion inhibitor for aluminum motors (even in countries with high temperatures). Using inferior antifreeze can result in corrosion and foaming.

Mixture ratio

Antifreeze protection: −25… −45 °C (−13… −49 °F)	anti-corrosion/antifreeze distilled water

Recommended supplier

Motorex®

– **COOLANT M3.0**

Engine oil (SAE 10W/50)

Standard/classification

– JASO T903 MA (☛ p. 264)

– SAE (☛ p. 264) (SAE 10W/50)

Guideline

– Use only engine oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties.

Fully synthetic engine oil

Recommended supplier

Motorex®

– **Power Synt 4T**

Engine oil (SAE 5W/40)

Standard/classification

– JASO T903 MA (☛ p. 264)

– SAE (☛ p. 264) (SAE 5W/40)

Guideline

– Use only engine oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties.

Synthetic engine oil

Recommended supplier

Motorex®

– **Power Synt 4T**

Fork oil (SAE 5)

Standard/classification

– SAE (☛ p. 264) (SAE 5)

Guideline

– Use only oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties.

Recommended supplier
Motorex®
– **Racing Fork Oil**

Hydraulic fluid (15)

Standard/classification
– ISO VG (15)

Guideline
– Use only hydraulic oil that complies with the specified standard (see specifications on the container) and that possesses the corresponding properties.

Recommended supplier
Motorex®
– **Hydraulic Fluid 75**

Shock absorber fluid (SAE 2.5) (50180751S1)

Standard/classification
– SAE (☛ p. 264) (SAE 2.5)

Guideline
– Use only oils that comply with the specified standards (see specifications on the container) and that exhibit the corresponding properties.

Super unleaded (ROZ 95/RON 95/PON 91)

Standard/classification
– DIN EN 228 (ROZ 95/RON 95/PON 91)

Guideline
– Only use unleaded super fuel that matches or is equivalent to the specified fuel grade.
– Fuel with an ethanol content of up to 10 % (E10 fuel) is safe to use.

Info
Do **not** use fuel containing methanol (e. g. M15, M85, M100) or more than 10 % ethanol (e. g. E15, E25, E85, E100).

Super unleaded (ROZ 98 / RON 98 / PON 94)

Standard/classification
– DIN EN 228 (ROZ 98 / RON 98 / PON 94)

Chain cleaner

Recommended supplier
Motorex®
– **Chain Clean**

Chain lube for road use

Guideline

Recommended supplier
Motorex®
– **Chainlube Road**

Fuel additive

Recommended supplier
Motorex®
– **Fuel Stabilizer**

Long-life grease

Recommended supplier
Motorex®
– **Bike Grease 2000**

Motorcycle cleaner

Recommended supplier
Motorex®
– **Moto Clean**

Preserving materials for paints, metal and rubber

Recommended supplier
Motorex®
– **Moto Protect**

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces

Recommended supplier
Motorex®
– **Quick Cleaner**

Universal oil spray

Recommended supplier
Motorex®
– **Joker 440 Synthetic**

JASO T903 MA

Different technical development directions required a new specification for 4-stroke motorcycles – the JASO T903 MA Standard. Earlier, engine oils from the automobile industry were used for 4-stroke motorcycles because there was no separate motorcycle specification. Whereas long service intervals are demanded for automobile engines, high performance at high engine speeds are in the foreground for motorcycle engines. In most motorcycles, the gearbox and the clutch are lubricated with the same oil as the engine. The JASO MA Standard meets these special requirements.

SAE

The SAE viscosity classes were defined by the Society of Automotive Engineers and are used for classifying oils according to their viscosity. The viscosity describes only one property of oil and says nothing about quality.

WWW.KTM.COM

3213276en
11/2014

KTM Motorrad AG
5230 Mattighofen/Austria
http://www.ktm.com

KTM Group Partner

Photo: Mitterbauer/KTM