

FANTIC WANTS TO THANK YOU

for choosing one of its products.

We recommend that you read this manual before driving your vehicle. It contains information, advice and warnings on the vehicle maintenance and use. The instructions in this manual have been prepared to give you a simple and clear guide for use. We are sure that taking it into consideration you will gain confidence with your new vehicle, which you can use for a long time and with full satisfaction.

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This manual is an integral part of the vehicle and if the vehicle should be resold, it must be delivered together with the vehicle.

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MANUFACTURER DATA AND EDITION

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Edition: 02/2019.

The symbols indicated in the booklet are very important. They are used to highlight parts of text to which it is necessary to pay more attention. Read this manual carefully before starting the engine. Your safety and that of others does not depend only on your quickness of reflexes and agility, but also on your knowledge of the vehicle, its condition and your knowledge of the rules for safe driving. We therefore recommend that you familiarize yourself with the vehicle so that you can move in all driving situations with mastery and safety.

In this booklet you will find notes to warnings preceded by the following symbols:

 **Important safety regulations for the vehicle and the driver.**

 **Information notes on the vehicle use and characteristics.**

MOTORCYCLE CARE

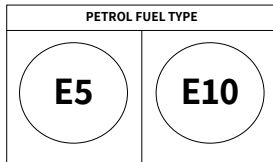
Fantic Motor recommends using appropriate vehicle care products. Using products that contain alcohol, nitro diluents, cold detergents, fuels or similar can ruin and/or damage vehicle components.

Regular care preserves the aesthetic and functional quality of your vehicle for a long time.

CARBON MONOXIDE

 **The exhaust fumes contain carbon monoxide, a poisonous gas that can cause death. Therefore, for certain operations, make sure you are in an open space, or in a suitable and well-ventilated room, never in enclosed spaces. If operating in enclosed spaces, use an evacuation system for the exhaust fumes.**

FUEL



 **The fuel used is extremely flammable and can become explosive under certain conditions. Refuelling and maintenance operations must be carried out in a ventilated area and with the vehicle switched off. Do not smoke during refuelling and near fuel vapours; avoid contact with open flames, sparks and any other source that could cause ignition or explosion.**

 **Do not disperse in the environment and keep away from children.**

HOT COMPONENTS

The engine and certain components become very hot and remain hot for a while even when the engine is off. Before carrying out any operation near the engine or exhaust system, wear insulating gloves or wait for their cooling.

GENERAL WARNINGS

USED ENGINE AND GEARBOX OIL

Used engine and gearbox oil is harmful to health, whether it is inhaled or swallowed. It is also irritating and can cause serious consequences if it comes into contact with the skin.

Spreading and dispersion into the environment is prohibited.

-  **If swallowed, do not induce vomiting, but go urgently to a first aid centre, indicating the cause and how the accident occurred.**
-  **In case of contact with the skin, immediately wash the affected part with soap and water, repeating the operation until the affected part is free from residues.**
-  **In case of contact with eyes and ears, immediately rinse the affected parts with plenty of water and urgently go to a first aid center, indicating the cause and how the accident occurred.**
-  **In case of contact with clothing, undress and wash thoroughly with soap and water. Change the dirty cloths which must be specifically washes as soon as possible.**
-  **Always use gloves suitable to protect your hands during the maintenance operations.**
-  **Keep out of the reach of children.**
-  **Used engine and gearbox oil must be collected in a sealed container, and delivered to the nearest service station or at a waste oil collection centre where you will find personnel authorized to dispose of it.**

BRAKE FLUID

-  **Brake fluid may damage painted, plastic or rubber surfaces. Protect these components with a clean rag when performing certain operations.**
-  **Always wear protective glasses and in case of accidental contact with eyes, rinse immediately with plenty of clean, fresh water and consult a doctor immediately. Keep out of the reach of children.**

ELECTROLYTE AND HYDROGEN GAS FROM THE BATTERY

-  The electrolyte of the battery is toxic and caustic. In contact with skin it can cause burns, as it contains sulphuric acid. Wear gloves and protective clothing.
-  If the electrolyte liquid comes into contact with the skin, wash it thoroughly with fresh water.
-  Protect your eyes, as battery fluid can cause blindness. If it comes into contact with the eyes, wash thoroughly with water for fifteen minutes and promptly contact an eye specialist.
-  The battery emits explosive gases, it is advisable to keep away flames, sparks and any other source of heat. Provide adequate ventilation when servicing or recharging the battery.
-  Keep out of the reach of children.
-  The battery fluid is corrosive. Do not pour it or spread it, especially on plastic parts.
-  Provide for regular disposal.

KICKSTAND

-  Before leaving make sure that the kickstand is fully up. Do not load your weight or the passenger's weight on the side kickstand.

PRECAUTIONS AND GENERAL WARNINGS

-  Unless otherwise specified in this manual, do not disassemble any mechanical or electrical components.

BEHAVIOUR AND DRIVING

Some safety tips are given below to avoid damage to people and/or things and to use your vehicle with an easier and safer drive.

Vehicle use

To use the vehicle it is necessary to meet all the law requirements.

It is advisable, in order to acquire a good knowledge of the vehicle, to use the vehicle in areas without traffic or unpopulated stretches of road.

It is advisable to always respect the highway code while driving, to avoid sudden or dangerous manoeuvres keeping both hands on the handlebar and always keeping your feet on the appropriate footrests. Pay close attention while riding.

 **Do not ride the vehicle while drunk, under the influence of drugs, after taking certain medicines or in a state of physical fatigue and drowsiness. Failure to comply with these rules is considered extremely dangerous and could cause serious damage to property and/or people.**

Evaluate and keep in consideration the conditions of the road surface, visibility and weather. In a situation not suitable for safe driving, reduce the speed and drive carefully.

The braking effect in wet roads without ever having applied the brakes is initially less; under these conditions it is advised to periodically operate the brakes.

 **Although the vehicle is equipped with an ABS system, pay attention during braking on a wet road and on an unpaved or slippery ground.**

In case the vehicle is used on roads dirty with sand, mud, snow mixed with salt, we recommend checking and if necessary cleaning the brake discs with special non-aggressive detergents, so as to prevent the formation of abrasive agglomerates inside the holes and an early wear of the brake pads.

 **Do not alter or modify in any way the original features and performance of the vehicle. The alteration or modification of the original parts of the vehicle is prohibited by law and makes the vehicle no longer compliant and it becomes dangerous for driving. These changes lead not only to the of the annulment of the guarantee, but also to possible fines.**

 **It is recommended to always comply with national and local laws and regulations regarding vehicle equipment.**

FUNDAMENTAL SAFETY RULES

The getting on and off from the vehicle must be in complete freedom of movement and without impediments. Go up and down only from the left side of the vehicle and with the kickstand down to prevent unbalancing or loss of balance, causing falls or overturns.

 **The rider is always the first to go on and the last to go down as he/she has to govern the stability of the vehicle.**

Getting on

The passenger must make the movements to get on with the utmost caution, avoiding to unbalance the rider and the vehicle.

Place your feet on the ground and hold the vehicle in running position.

-  **The kickstand is designed to support the weight of the vehicle and a minimum load, without rider and passenger.**
-  **If it is not possible to have both feet on the ground when getting on, keep only the right foot on the ground, as the left side of the vehicle is “protected” from the kickstand, in case of imbalance or loss of balance.**

The footboards must be extracted from the passenger and wait for him/her to get on the vehicle.

-  **The rider must instruct the passenger on how to get on the vehicle. The passenger must climb with the utmost caution, avoiding to unbalance the rider and the vehicle.**
-  **The passenger must always get on from the left side of the vehicle, using the left footrest.**

Use the left foot to retract the lateral kickstand.

Getting off

Stop the vehicle in an area suitable for stopping or parking, ensuring that the ground is stable and free of obstacles. Fully extend the kickstand using the left foot.

-  **If it is not possible to have both feet on the ground when getting off, keep only the right foot on the ground, as the left side is “protected” from the kickstand, in case of imbalance or loss of balance.**

Keeping the vehicle in running position, wait for the passenger to get off the vehicle.

-  **The passenger must always get off from the left side of the vehicle, using the left footrest.**

 **The rider must instruct the passenger on how to get off the vehicle. The passenger must get off with the utmost caution, avoiding unbalancing the rider and the vehicle.**

 **Do not get off the vehicle jumping or by stretching the leg to touch the ground. The stability and balance of the vehicle would be compromised.**

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Tilt the vehicle making the kickstand touch the ground. Get off the vehicle and turn the handlebar completely to the left.

 **Make sure that the vehicle is stationary and stable.**

 **Do not lift the vehicle grasping the license plate holder frame, in order to avoid damage.**

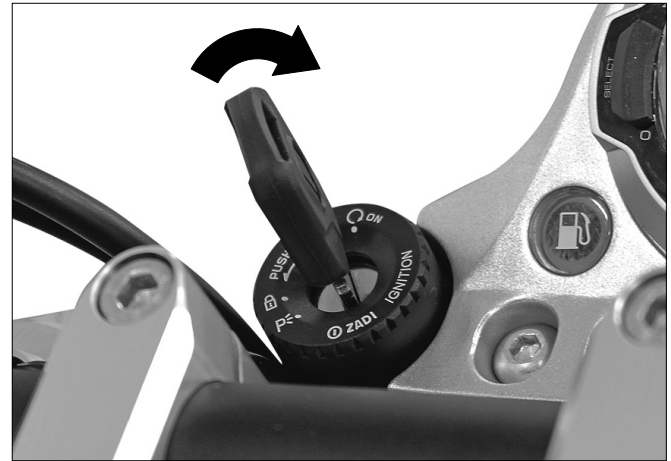
FUNDAMENTAL SAFETY RULES

Starting

Release the steering lock turning the key clockwise and get on the vehicle assuming the correct posture, making sure that the kickstand is completely retracted.

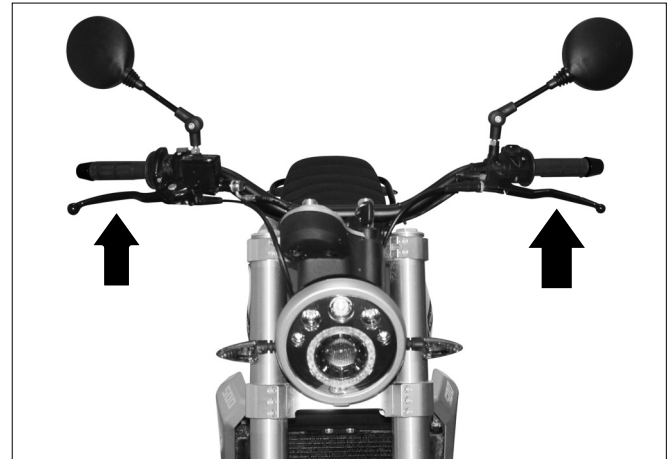


If the kickstand is lowered, the vehicle can be started only with the gearbox in neutral. If you try to engage the gear the vehicle will switch off.



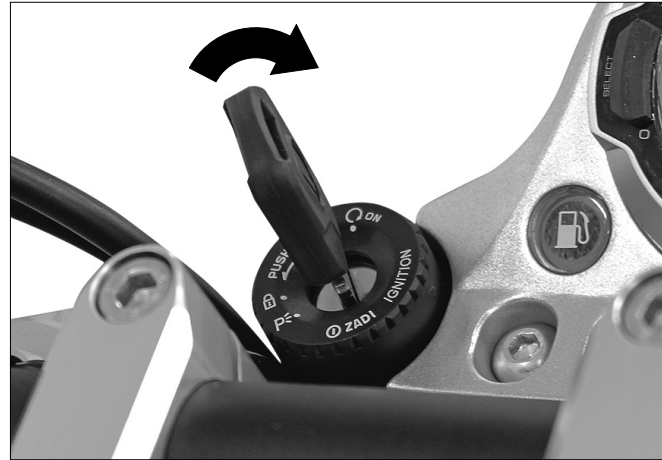
Apply the front and/or rear brake.

Pull the clutch lever and make sure that the gearbox is in neutral.



FUNDAMENTAL SAFETY RULES

Turn the key to “ON” and wait a few seconds to load the standard parameters on the dashboard display.

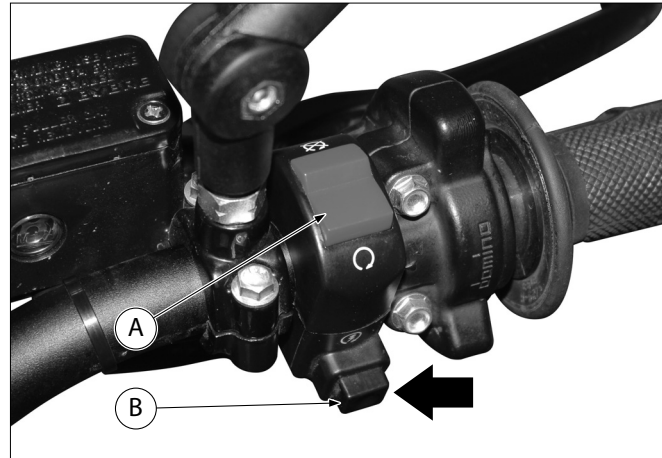


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Press the engine stop button “A” and then press the start button “B” once.

⚠ It is advisable to warm up the engine well, proceeding for the first kilometres at reduced speed. Do not start abruptly with the cold engine.

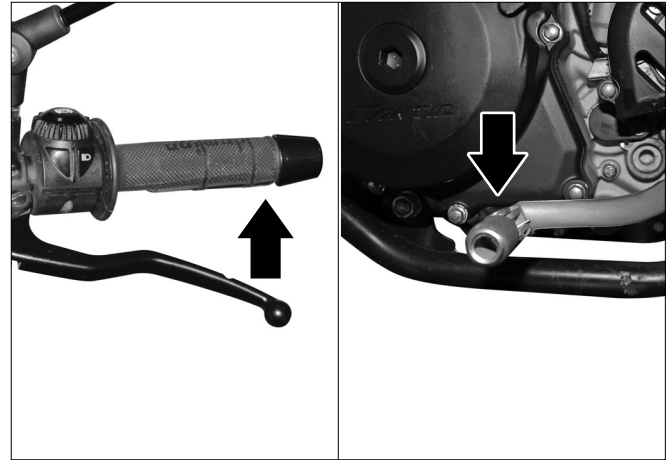
i If the fuel reserve warning light comes on, refuel as soon as possible.



FUNDAMENTAL SAFETY RULES

Starting

After starting the vehicle and warming the engine well, operate the clutch lever and engage the first gear pressing the gear lever downwards. The neutral indicator light will go off on the dashboard.



Releasing the clutch slowly, gradually accelerate to allow the vehicle to move forward.

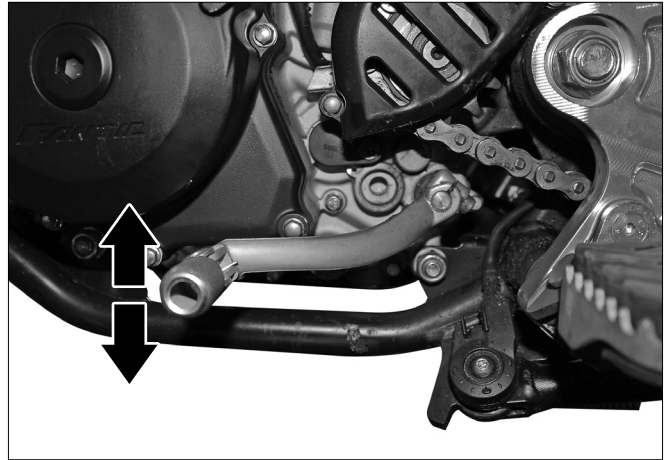


Gearbox use

To change gears, release the throttle control knob, operate the clutch lever and raise the gearbox pedal upward to shift up and/or down to shift down.

i If you are a beginner in driving the vehicle, it is important to familiarize yourself with the vehicle controls and its functions.

! Shift one gear at a time. Upshifting or downshifting the gearbox more than a single gear at a time may cause the engine to run out of speed and risk to exceed the maximum speed allowed by it.

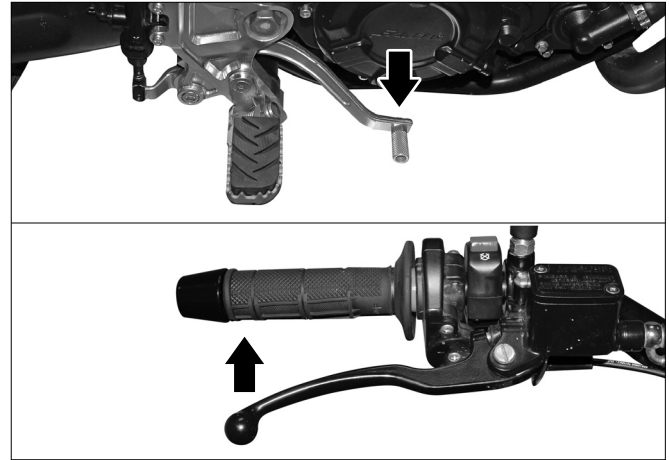


FUNDAMENTAL SAFETY RULES

Engine stop

To stop the vehicle and the engine, apply the front and/or rear brake until the vehicle is stopped. Set the shift lever to neutral.

 **Do not intervene on the engine stop switch when the vehicle is running, this would cause the engine to stop; this can damage the engine and above all may cause loss of control of the vehicle.**

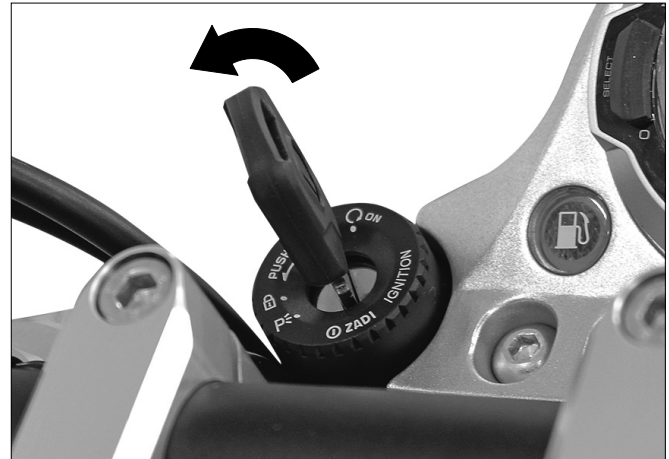


Only after these operations, press the engine stop button and turn the key counterclockwise to “OFF”.

 **If you forget the key turned to “ON”, the battery charge level will decrease until it is down and will need to be replaced.**

 **When the vehicle is turned off, do not release the clutch too quickly or suddenly. It could cause the engine to stop or an unintended wheelie of the vehicle.**

 **Avoid sudden stops or sudden vehicle slow-downs.**



Running-in rules

When using the vehicle the first few times it is essential to carry out a running-in period, for the correct operation and duration of the engine. During this period, it is necessary to follow certain rules in order to prepare the engine and vehicle components for subsequent maximum performance (after running-in).

❗ The best performance will be achieved only after having completed the inspection at the end of the running in.

The following tips are indicative and can help the user to perform a good running-in.

It is important to stress the engine and vehicle components appropriately, but it is necessary not to exceed or fail to do this because in both cases the engine and the vehicle components would be affected. Do not make sudden accelerations and gradually change the speed.

❗ Full acceleration is allowed, but it is necessary not to travel too long and at full speed.

When driving on mountain roads, be careful not to force the engine, brakes and suspension. It is more suitable to travel on roads with moderate curves and hills where engine, brakes and suspensions alternate periods of stress to periods of reduced or no stress.

The brake pads at the purchase are new and the friction surface initially does not make perfect friction on the discs; to be fully operative, it must be run in so that is perfectly adhering to the disc during braking. The running-in requires approximately 200 km (125 mi) of urban route.

In this period, consider longer braking distances and use the brake lever with greater strength.

❗ Abrupt braking and prolonged periods are to be avoided.

During the first 1000 km (600 mi) check the maintenance operations required for this mileage.

⚠ At the estimated mileage, perform the checks in the “Scheduled Maintenance Table” at an authorized Fantic Motor Service Center. Check and carry out these operations to avoid damage to the vehicle, to others and to yourself.

⚠ Failure to comply with these rules can negatively affect the subsequent performance of the engine and vehicle components in general.

FUNDAMENTAL SAFETY RULES

CLOTHING

Always wear and fasten the helmet before starting to ride the vehicle. The helmet must be approved, intact and with the visor intact and clean. Wear appropriate protective clothing and no hanging accessories that could create problems when riding the vehicle. Do not wear or carry sharp objects as they are potentially dangerous in the event of a fall.

 **All these recommendations also apply to the passenger.**

TIPS TO PREVENT THEFT

Never leave the ignition key on and always use the steering lock. Park the vehicle in a safe place, possibly in a garage or in a monitored place. Check that the documents and the circulation tax are in order.

PARKING

Choose the parking zone carefully and with attention. It is very important to respect the road signs and the indications given below.

 **Do not park the vehicle placing it against the walls or laying it on the ground. Make sure that the parking area is solid and level.**

 **Make sure that parts subject to high temperatures (silencer, engine, radiator, brake discs, etc.) are not dangerous for people and the surrounding environment.**

 **Never leave the vehicle on and unattended with the key inserted.**

TRANSPORT

Before transporting the vehicle, the fuel tank must be completely emptied. Avoid accidental fuel leaks and check that the components are completely dry. The vehicle must be firmly secured, with the first gear engaged and in running order.

 **In the event of failure, do not perform towing or unsafe and risky procedures that may endanger people and/or things. This would result in the risk of causing accidents or damage to the vehicle.**

SILENCER

This component, with regard to exhaust gas, has the task of oxidizing carbon monoxide converting it into carbon dioxide, of transforming unburnt hydrocarbons into water vapour and reducing nitrogen oxides converting them into oxygen and nitrogen.

 During the vehicle use, the part of the exhaust system corresponding to the catalytic element can take a bright red colour: this colour variation is absolutely normal and indicates a correct operation of the catalyst.

 Avoid stopping or parking the vehicle near places where there is dry brushwood.

 Avoid places accessible to children and/or people.

 The silencer reaches high temperatures, so avoid any kind of contact and pay the maximum attention until it has not completely cooled down.

 It is forbidden to modify, alter or tamper with the exhaust system in any way.

 Do not use leaded petrol as it will ruin the catalyst.

Check that there are no holes and signs of rust or wear on the exhaust system.

Check that the exhaust system always works correctly.

In case of increased or abnormal noise, contact a Authorized Fantic Motor Center as soon as possible.

 For maintenance, repair or replacement work, contact an Authorized Fantic Motor Center.

VEHICLE IDENTIFICATION

EN

Frame number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Engine number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Fantic Motor vehicles are equipped with frame and engine identification numbers. It is advisable to write down the identification numbers in the spaces indicated above, in order to remind them in case of loss or damage.

 **Do not modify the identification data in order to avoid serious penal and administrative sanctions. In addition, the warranty for new vehicles will be invalidated if the frame identification number has been changed and can not be readily determined.**

GENERAL CONTENT AND CONSULTATION

Frame number

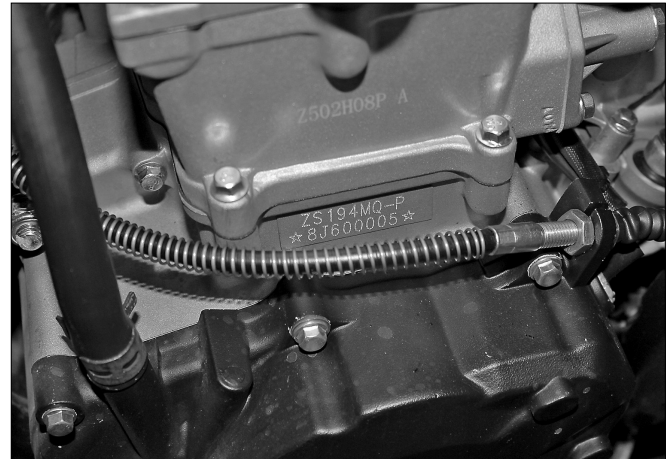
The frame number is punched on the steering tube on the right side.

- i** For the original spare parts supply this identification number to your dealer.

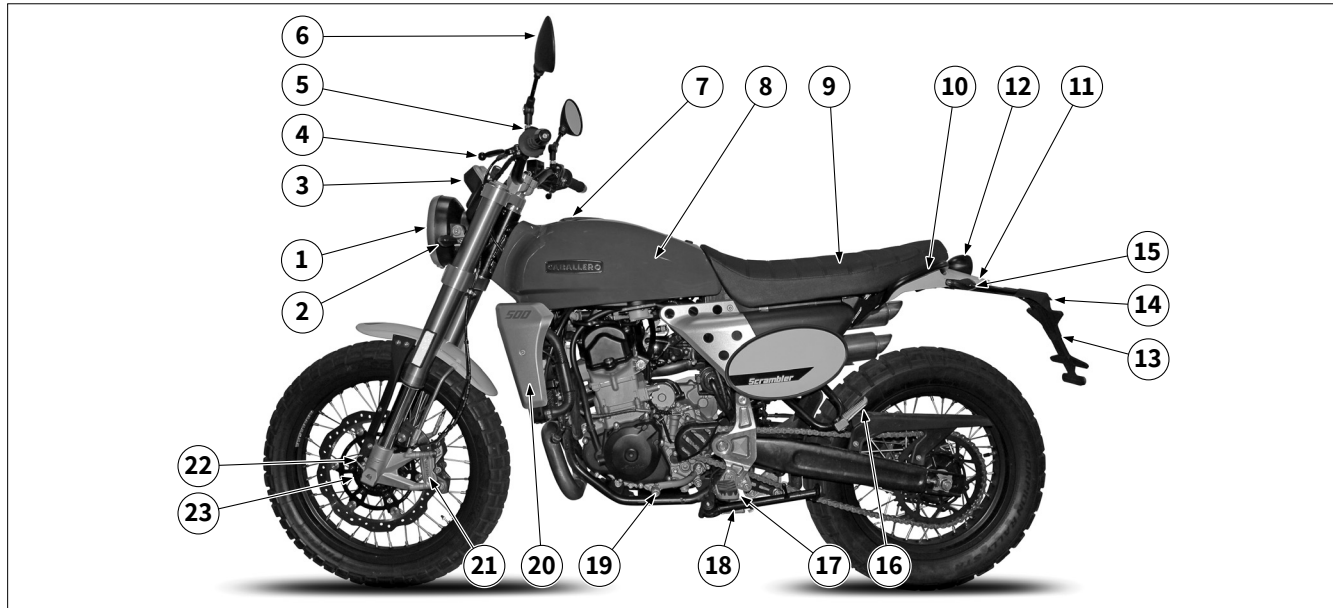


Engine number

The engine number is punched on the left side of the crankcase.



MAIN CONTROLS (SCRAMBLER VERSION)

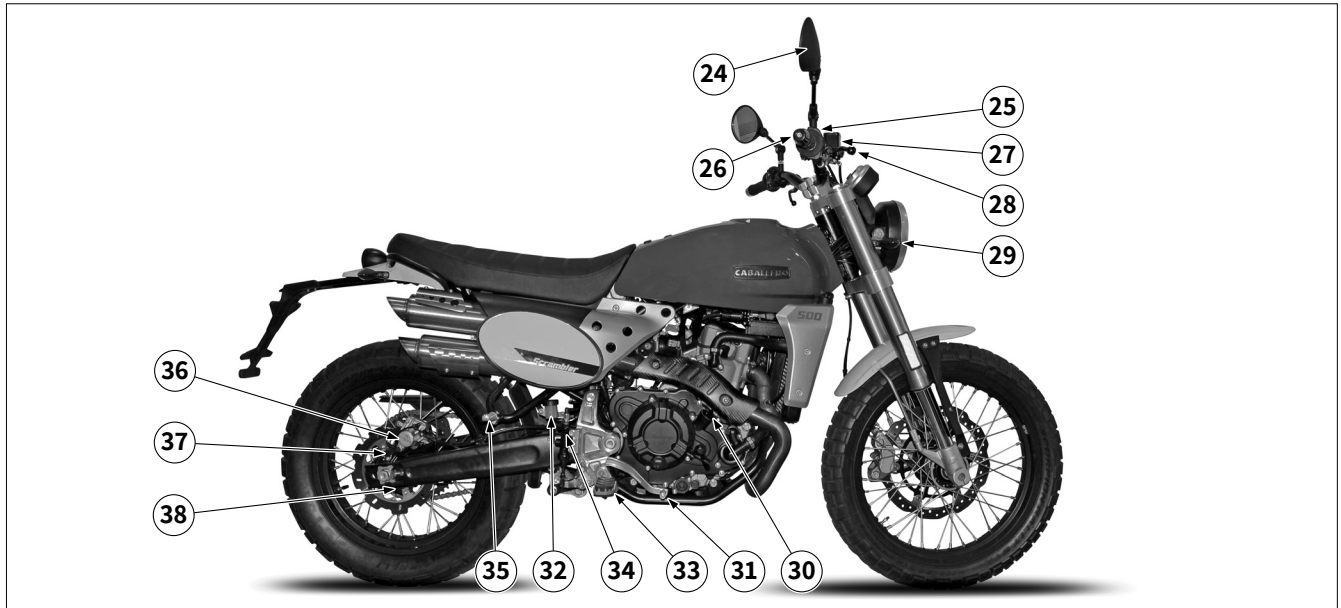


1. Headlight
2. Left front turn indicator
3. Dashboard
4. Clutch lever
5. Left light stalk
6. Left rear-view mirror
7. Tank cap
8. Fuel tank
9. Rider and passenger saddle

10. Rear handle
11. Rear fender
12. Tail light
13. License plate holder
14. License plate light
15. Left rear turn indicator
16. Left passenger footrest
17. Left rider footrest
18. Side kickstand

19. Gear shift lever
20. Left radiator cover
21. Front brake calliper
22. Front speed sensor
23. Phonic wheel

GENERAL CONTENT AND CONSULTATION



24. Right rear-view mirror

25. Right light stalk

26. Gas command

27. Front brake master cylinder

28. Front brake lever

29. Right front turn signal

30. Engine oil cap

31. Rear brake lever

32. Rear brake oil tank

33. Right rider footrest

34. Rear brake master cylinder

35. Right passenger footrest

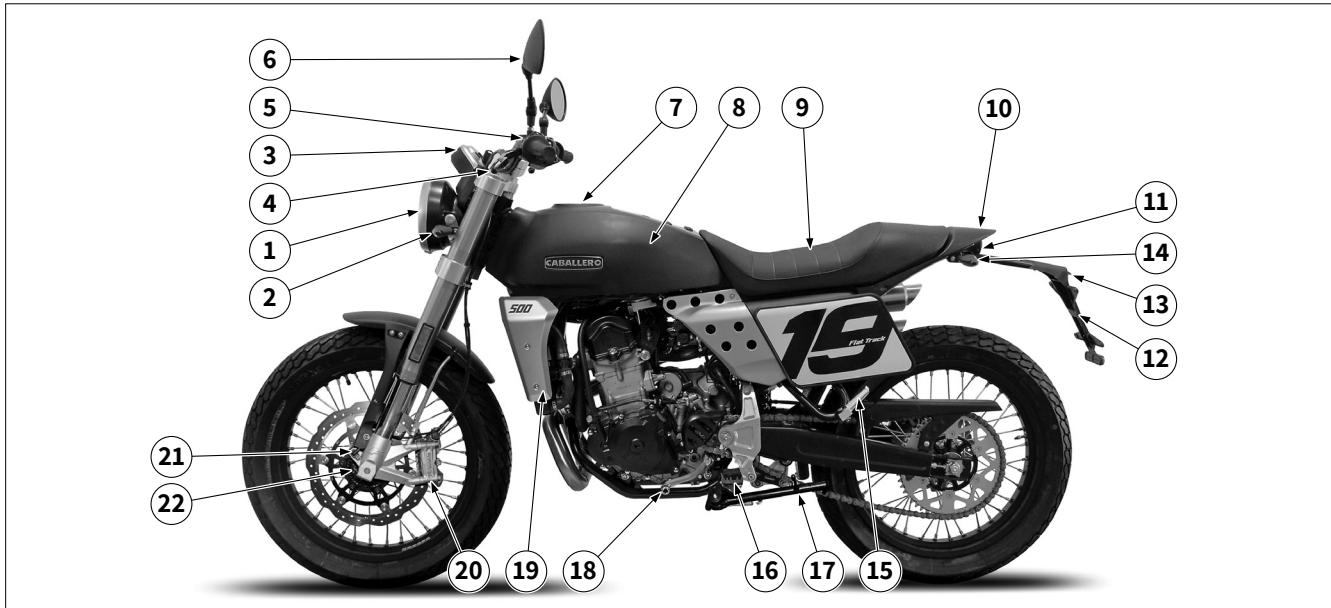
36. Rear brake calliper

37. Rear speed sensor

38. Phonic wheel

MAIN CONTROLS (FLAT TRACK VERSION)

EN



1. Headlight
2. Left front turn indicator
3. Dashboard
4. Clutch lever
5. Left light stalk
6. Left rear-view mirror
7. Tank cap
8. Fuel tank
9. Rider and passenger saddle

10. Rear fender
11. Tail light
12. License plate holder
13. License plate light
14. Left rear turn indicator
15. Left passenger footrest
16. Left rider footrest
17. Side kickstand
18. Gear shift lever

19. Left radiator cover
20. Front brake calliper
21. Front speed sensor
22. Phonic wheel

GENERAL CONTENT AND CONSULTATION

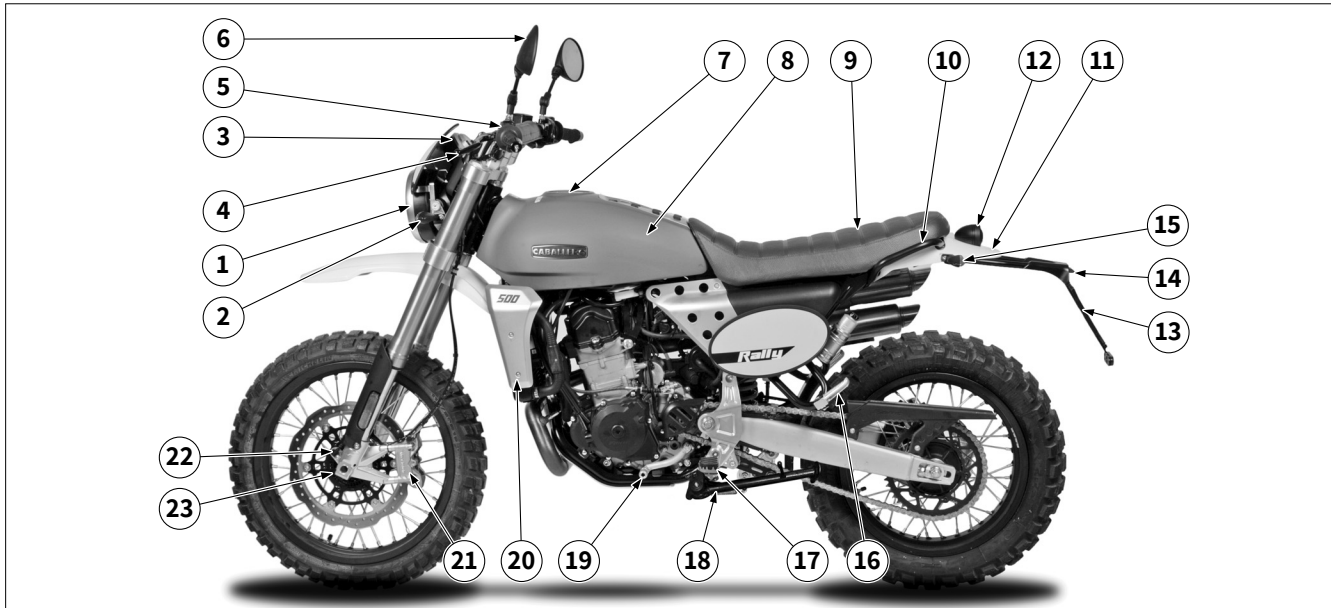


- 23. Right rear-view mirror
- 24. Right light stalk
- 25. Gas command
- 26. Front brake master cylinder
- 27. Front brake lever
- 28. Right front turn signal
- 29. Engine oil #M# cap/dipstick
- 30. Rear brake lever
- 31. Rear brake oil tank

- 32. Right rider footrest
- 33. Rear brake master cylinder
- 34. Right passenger footrest
- 35. Rear brake calliper
- 36. Rear speed sensor
- 37. Phonic wheel

MAIN CONTROLS (RALLY VERSION)

EN

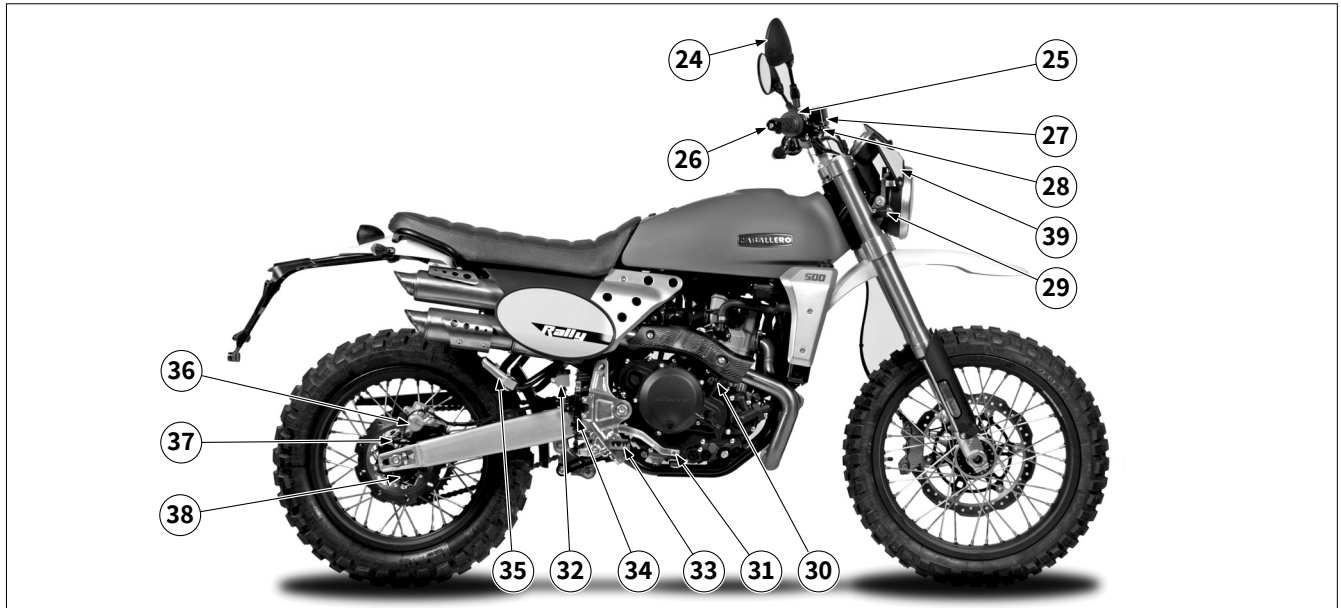


1. Headlight
2. Left front turn indicator
3. Dashboard
4. Clutch lever
5. Left light stalk
6. Left rear-view mirror
7. Tank cap
8. Fuel tank
9. Rider and passenger saddle

10. Rear handle
11. Rear fender
12. Tail light
13. License plate holder
14. License plate light
15. Left rear turn indicator
16. Left passenger footrest
17. Left rider footrest
18. Side kickstand

19. Gear shift lever
20. Left radiator cover
21. Front brake calliper
22. Front speed sensor
23. Phonic wheel

GENERAL CONTENT AND CONSULTATION



24. Right rear-view mirror

25. Right light stalk

26. Gas command

27. Front brake master cylinder

28. Front brake lever

29. Right front turn signal

30. Engine oil cap

31. Rear brake lever

32. Rear brake oil tank

33. Right rider footrest

34. Rear brake master cylinder

35. Right passenger footrest

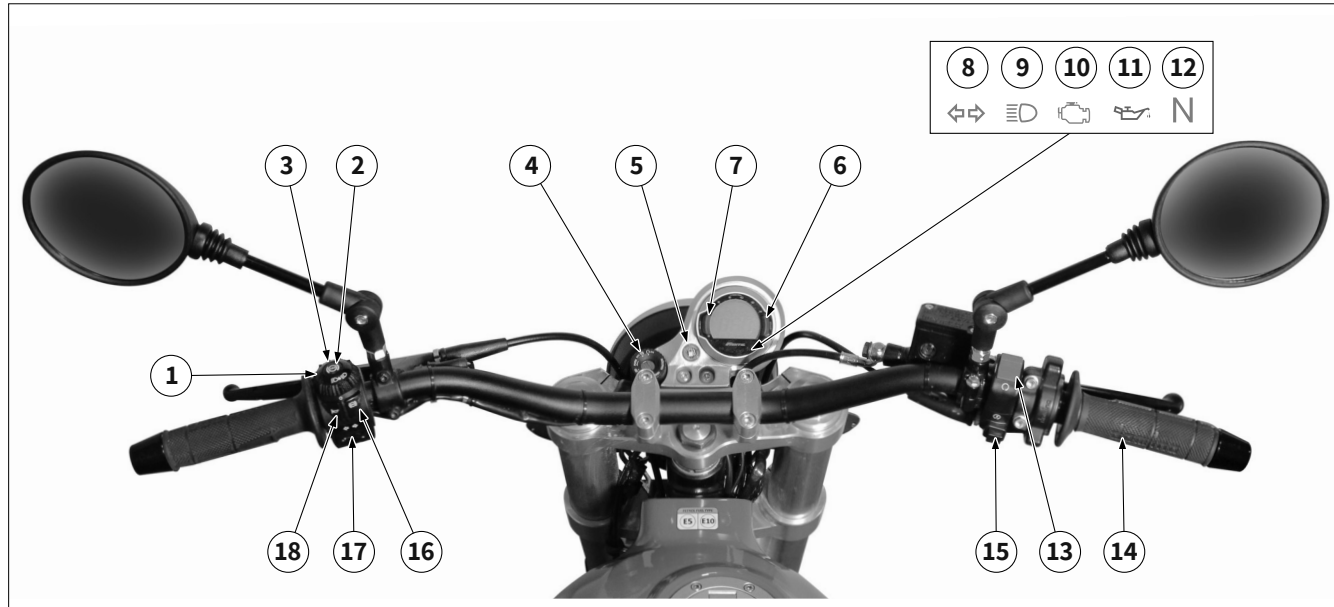
36. Rear brake calliper

37. Rear speed sensor

38. Phonic wheel

39. Number plate

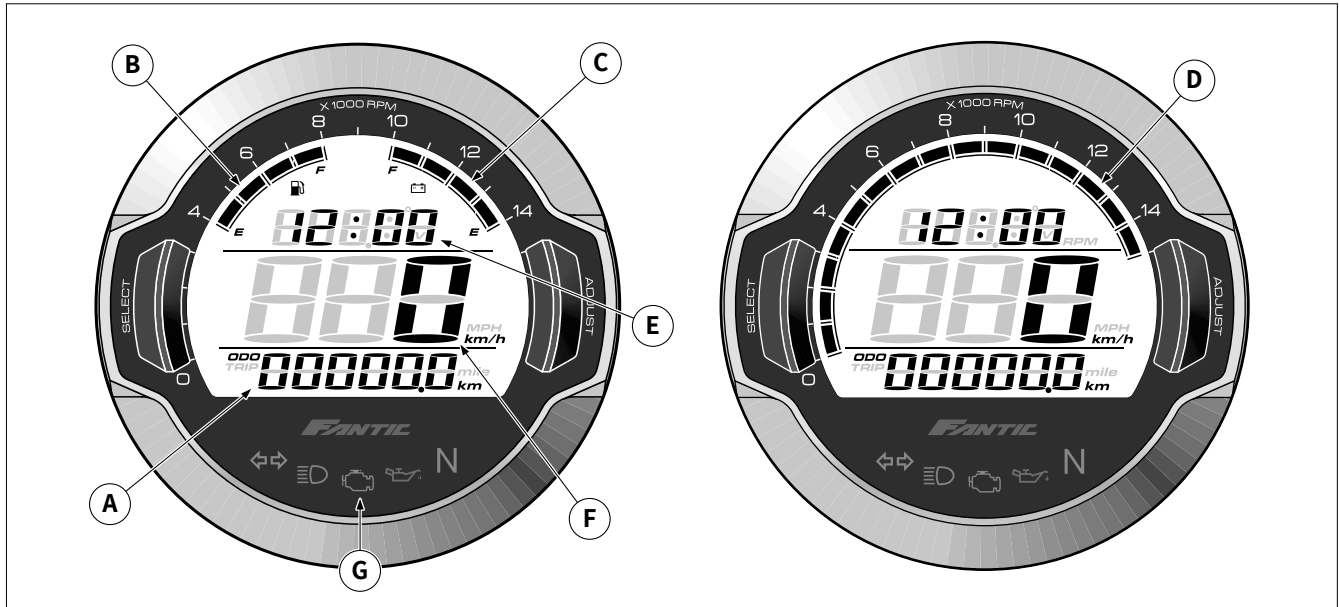
PANEL COMMANDS



- | | |
|------------------------------------|---|
| 1. Low beam/high beam light switch | 10. Engine indicator light |
| 2. ABS indicator light | 11. Engine oil indicator light (not used) |
| 3. High beam flashing button | 12. Neutral indicator light |
| 4. Ignition switch | 13. Engine stop button |
| 5. Fuel reserve indicator light | 14. Gas command |
| 6. "ADJUST" button | 15. Start button |
| 7. "SELECT" button | 16. ABS button |
| 8. Turn signal indicator light | 17. Speedlight switch |
| 9. High beam light indicator | 18. Horn button |

GENERAL CONTENT AND CONSULTATION

DASHBOARD



A. Odometer

- Total trip distance recorder
- Partial trip distance recorder "A"
- Partial trip distance counter "B"
- Remaining Fuel/Distance

B. Fuel level

C. Digital voltmeter

D. Tachometer

E. Clock

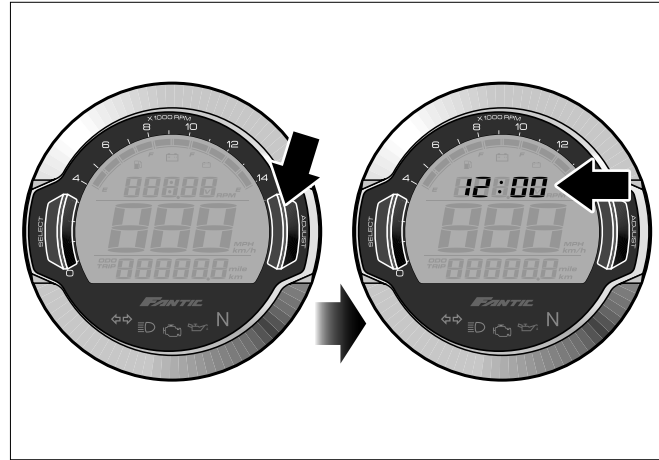
F. Speedometer

G. Indicator light

Functions instructions with dashboard in stand-by

When the dashboard is off, press the adjustment button (“ADJUST”) or the selection button (“SELECT”) to activate the clock.

The clock will remain visible on the screen for 30 seconds after activation.

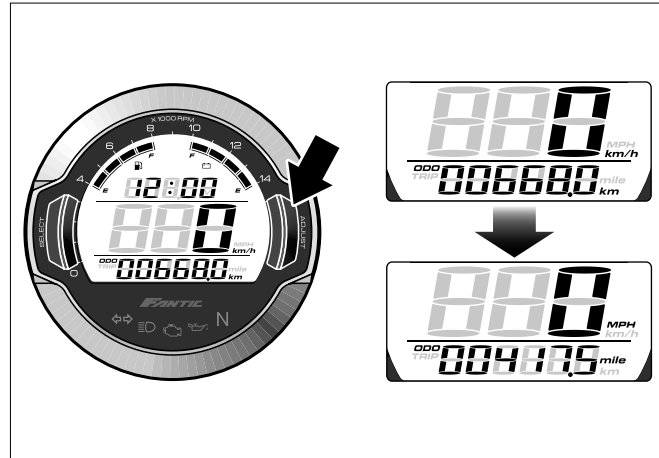


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Adjustment button instructions (“ADJUST” button)

In the main screen (ODO) press once the adjustment button (“ADJUST”) to activate the partial trip distance recorder A.

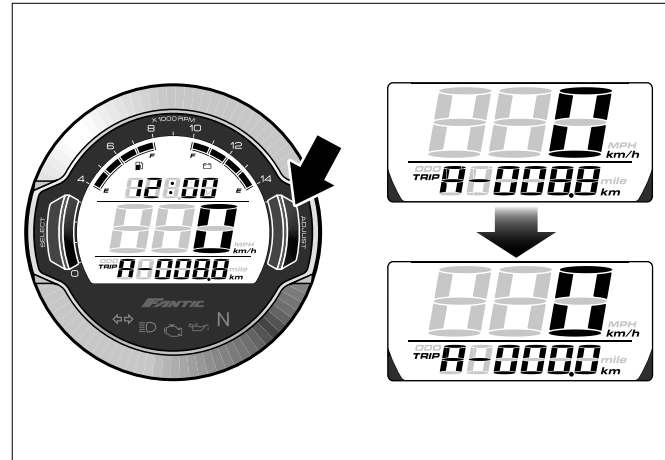
Press and hold the adjustment button (“ADJUST”) for three seconds to change the Odometer measurement units, from kilometres (“km”) to miles (“mile”), and the speedometer measurement units, from kilometres per hour (“km/h”) to miles per hour (“MPH”), and vice versa.



GENERAL CONTENT AND CONSULTATION

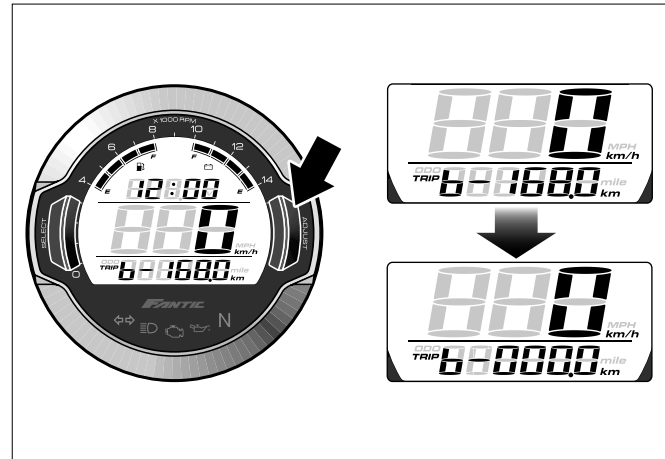
In the partial trip distance counter A screen press once the adjustment button (“ADJUST”) to activate the partial trip distance counter B.

Press and hold the adjustment button (“ADJUST”) for three seconds to reset the partial trip distance counter A.



In the partial trip distance counter B screen press once the adjustment button (“ADJUST”) to activate the remaining fuel/distance screen.

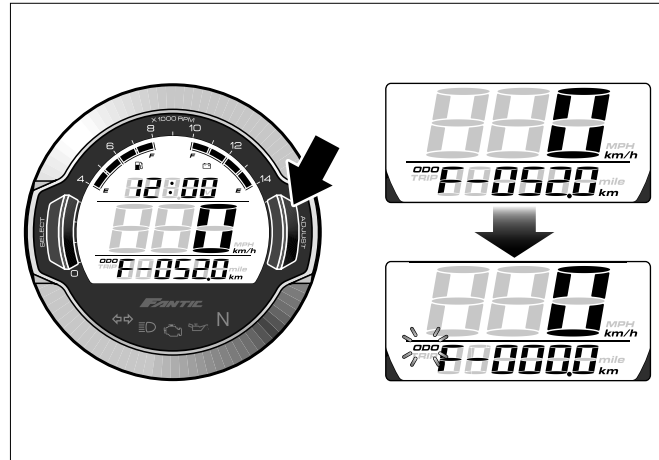
Press and hold the adjustment button (“ADJUST”) for three seconds to reset the partial trip distance counter B.



In the remaining fuel/distance screen, press once the adjustment button (“ADJUST”) to reactivate the main screen (Odometer function).

Remaining distance learning procedure

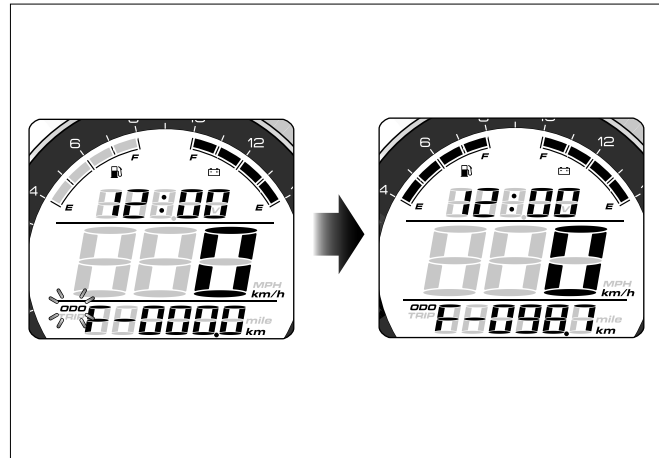
Fill with fuel and, in the remaining fuel/distance screen, press and hold the adjustment button (“ADJUST”) for ten seconds; the symbol ODO flashes and the remaining distance is reset to 0 and the learning is restarted.



EN

When the fuel level reaches 0, refuel. At the end of this operation, the ODO symbol stops flashing; this means that the remaining distance learning has been completed.

⚠ The actual remaining distance indicated may be different from the calculated distance depending on the road conditions, the vehicle conditions, the type of driving and so on. For these reasons the remaining distance is only a reference for the rider.

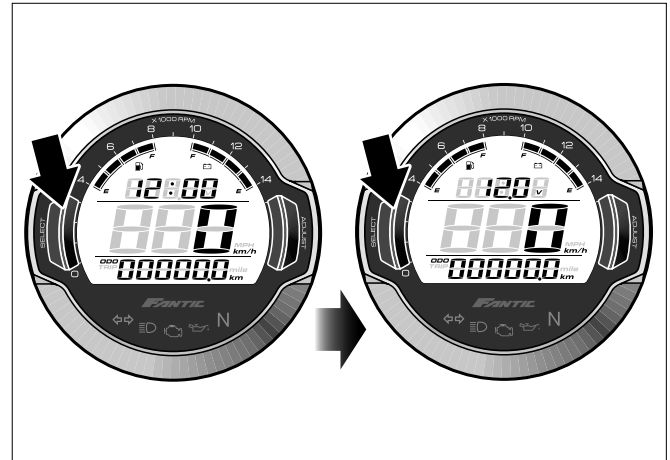


GENERAL CONTENT AND CONSULTATION

Selection button instructions (“SELECT” button)

In the clock screen, press once the selection button (“SELECT”) to display the battery voltage screen.

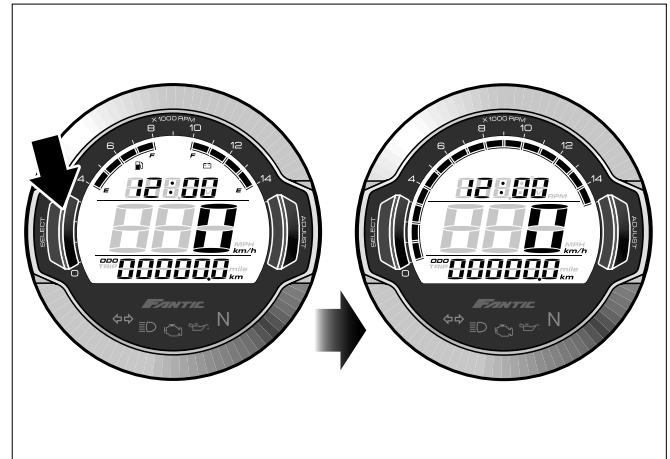
In the battery voltage screen, press once the selection button (“SELECT”) to activate the clock.



RPM (engine speed) operating instructions

On the screen showing the remaining fuel/distance and battery voltage, press and hold the selection button (“SELECT”) for three seconds to display the RPM (engine speed) screen.

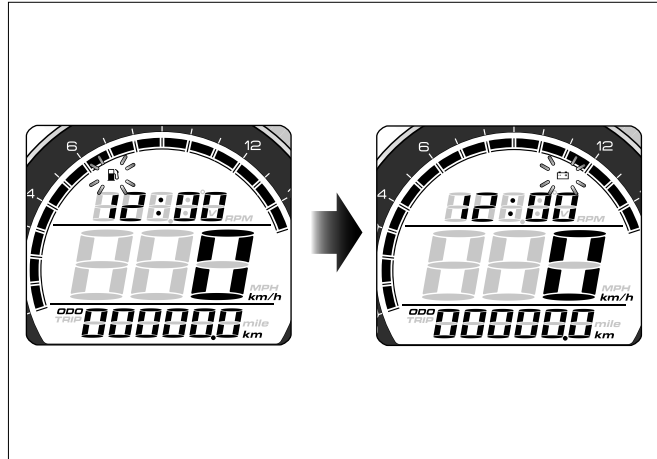
In the RPM (engine speed) screen, press and hold the selection button (“SELECT”) to display to the remaining fuel/distance screen and battery voltage screen.



On the RPM screen (engine revolutions)

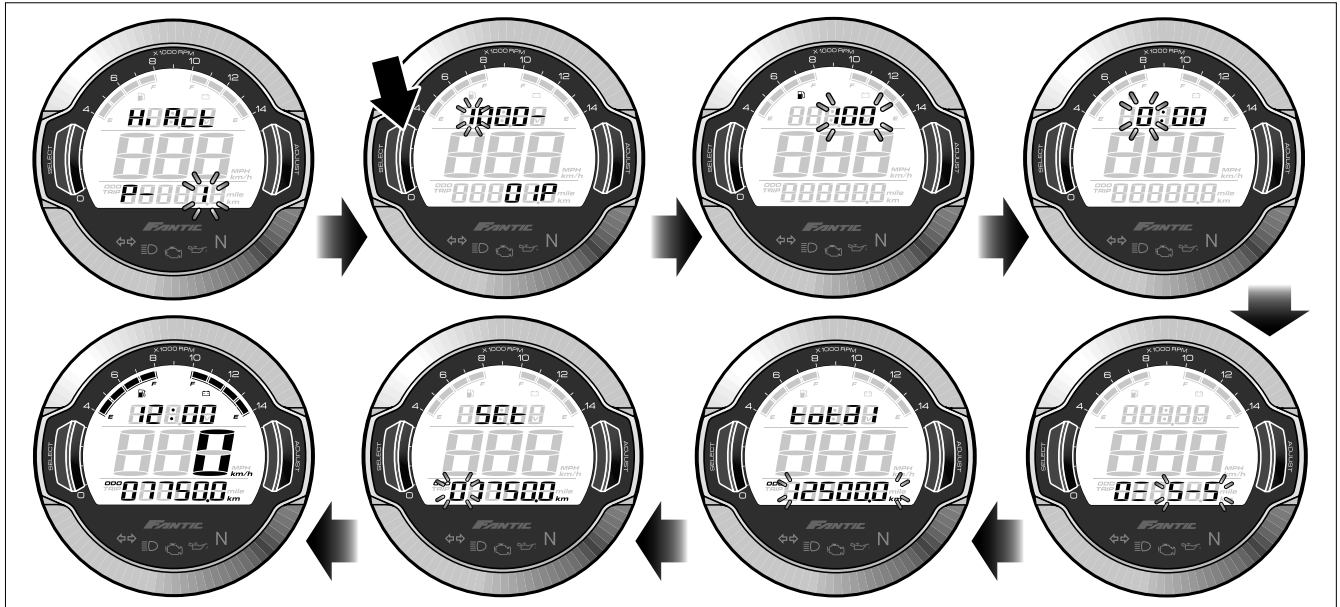
When the remaining fuel level is at 1 the fuel symbol flashes as a warning.

When the remaining battery voltage level is at 1 the Battery symbol flashes as a warning.



GENERAL CONTENT AND CONSULTATION

Settings screen instructions



In the settings screen, it is possible to press the selection button (“SELECT”) to access the settings. The settings screen has the following order of options:

- input pulse setting (RPM function);
- tire circumference setting;
- fuel resistance setting;
- clock setting;

- dashboard backlight setting;
- total internal odometer screen setting;
- total external odometer screen setting.

⚠ If no action is taken within 30 seconds, the dashboard automatically returns to display the main screen.

Access the settings screen

On the main screen, press and hold the selection (“SELECT”) and adjust (“ADJUST”) buttons simultaneously for three seconds to activate the Settings screen.



EN

Input signal setting (RPM)

Press the adjustment button (“ADJUST”) to change the setting.

The setting digit flashes during the modification operations.

i Adjustment range: 0.5, 1 ~24.



GENERAL CONTENT AND CONSULTATION

Press the selection button (“SELECT”) until the desired input pulses value is reached.

⚠ It is advisable, if the exact value is not known, not to change the preset value. In case of need, contact an Authorized Fantic Motor Center.

❗ The correct value is: 0,5.



Press the adjustment button (“ADJUST”) to select the correct waveform.

❗ The RPM pulse is defined as “Hi” (positive pulse) and “Lo” (negative pulse).

The writing that identifies the waveform setting, flashes during the modification operations.

❗ If the speed (RPM) is incorrect or not correctly displayed, select another setting and try again.

⚠ It is advisable, if the exact value is not known, not to change the preset value. In case of need, contact an Authorized Fantic Motor Center.



! Check with the engine running idle if the RPM indicator indicates a notch and if, with a slight rotation of the gas, it indicates two. In this case, the configuration adopted is correct, otherwise try again.

In the event that the standard configuration values are not successful, try the following combinations:

i **No. of pulses / waveform:**
 “1”/”Lo”, “1”/”Hi”, “2”/”Lo”, “2”/”Hi”.

After completing the settings, press one and hold the selection button (“SELECT”) to display the next setting view.



Tire circumference compensation setting

! When tires of another size are installed it is necessary to reset the setting value.

Press and hold the selection button (“SELECT”) until the specific value to be entered is reached. The correct compensation value (expressed as a percentage) to be entered can be calculated.

The calculation to define the value to insert is the following:

$$A \div B \cdot 100\%.$$

A. Circumference of the new tire.

B. Circumference of the original tire.

Setting values:

Scrambler version = 2202 mm;

Flat Track version = 2250 mm.



GENERAL CONTENT AND CONSULTATION

 The number that identifies the setting flashes during the modification operations.

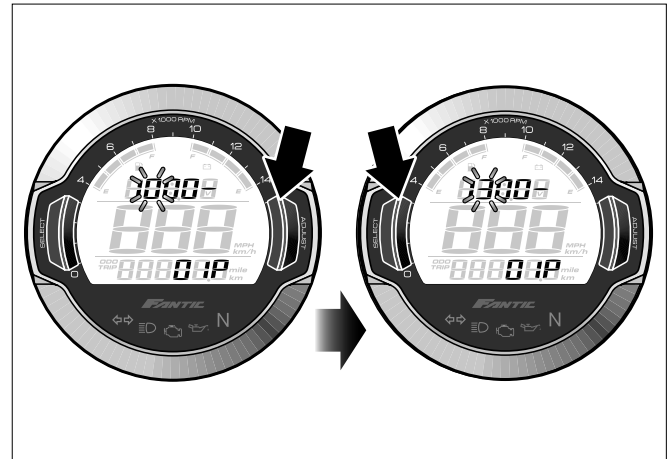
 **Range displayed: 300~2500.**
Unit of measure: 1 mm.

Tip: it is possible to define the valve as the starting and ending point to measure the wheel circumference with a tape measure.



Press the adjustment button (“ADJUST”) to change the wheel circumference value.

At the end of the setting, press once and hold the selection button (“SELECT”) to display the next setting view.



Press the adjustment button (“ADJUST”) to change the setting.

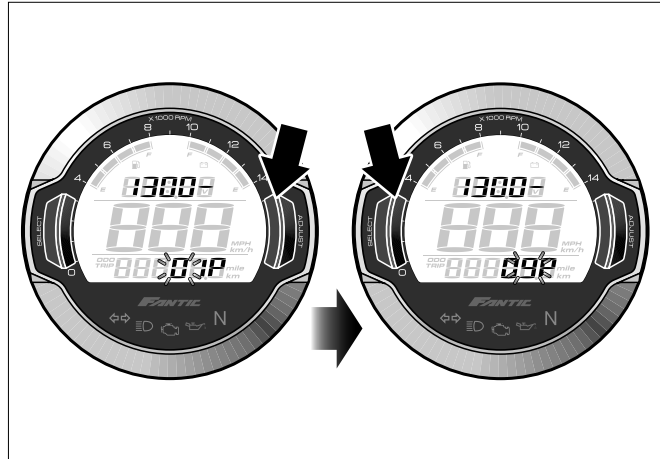
⚠ The number that identifies the setting flashes during the modification operations.

i Value range: 1~20 points.

⚠ Standard value to set: 9 pulses (points).

At the end of the setting, press once and hold the selection button (“SELECT”) to display the next setting view.

⚠ It is advisable, if the exact value is not known, not to change the preset value. In case of need, contact an Authorized Fantic Motor Center.



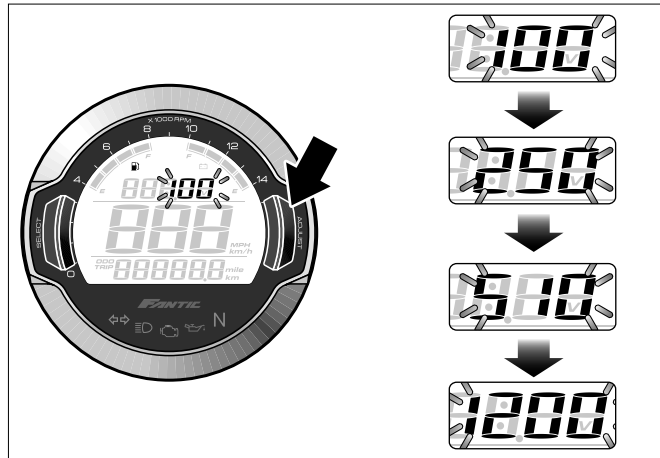
Fuel resistance setting

Press the adjustment button (“ADJUST”) to select the number to be set.

i The resistance values which can be selected are: 100 Ω, 250 Ω, 510 Ω and 1200 Ω.

i Correct fuel resistance value: 100 Ω.

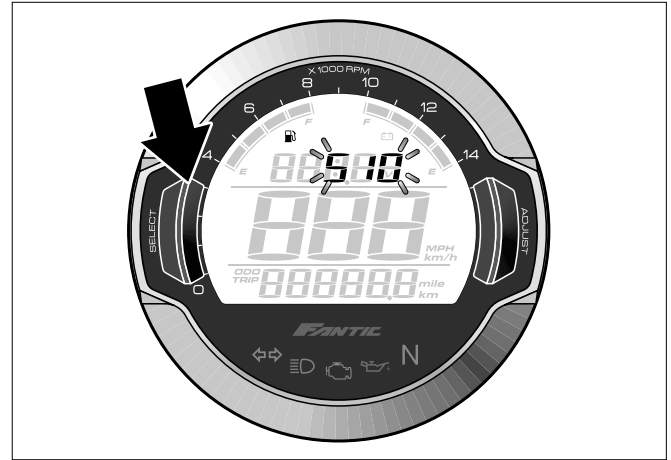
⚠ It is advisable, if the exact value is not known, not to change the preset value. In case of need, contact an Authorized Fantic Motor Center.



GENERAL CONTENT AND CONSULTATION

After completing the setting, press once and hold the selection button ("SELECT") to display the next setting view.

- i** When the fuel resistance value is changed, the remaining distance is reset to 0 and learning is restarted.



Clock setting

Press and hold the selection button (“SELECT”) and release it when the desired digit is displayed.

⚠ During the modification, the selected digit will continue to flash.

❗ This is a clock with 24-hour format. The setting follows the order from hours to minutes.

Press the adjust button (“ADJUST”) to select another digit to change.

At the end of the adjustment, press once and hold the selection button (“SELECT”) to display the next setting view.



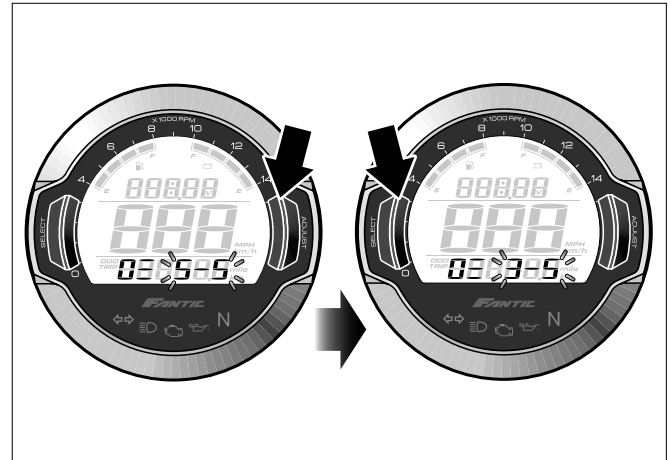
GENERAL CONTENT AND CONSULTATION

Dashboard backlight setting

Press and hold the adjustment button (“ADJUST”) and release it when the desired illumination value is selected.

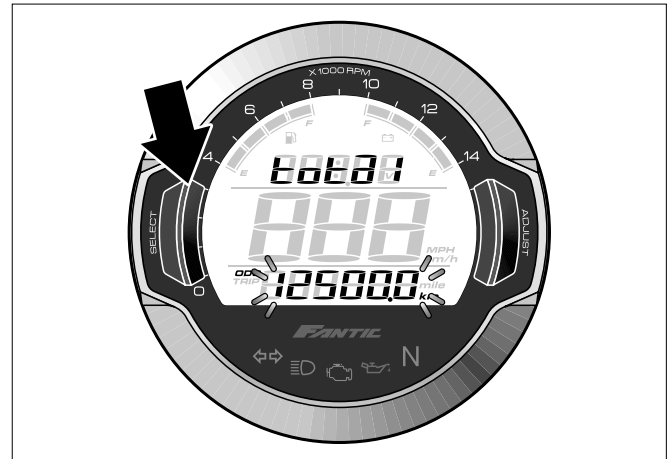
- ① **Lighting values range from 1-5 (darker) to 5-5 (lighter). The brightness of the dashboard changes immediately after setting the value.**

At the end of the, press once and hold the selection button (“SELECT”) to confirm and to display the next setting view.



Internal total odometer screen setting

Press once and hold the selection button (“SELECT”) to display the next setting view.



External total odometer screen setting

Press and hold the selection button (“SELECT”) until the desired digit is displayed.

Then, press the adjust button (“ADJUST”) to change the digit to be changed.



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Once the desired value has been set, press once and hold the selection button (“SELECT”) to confirm and return to the main screen.

Dashboard main screen after applying the customized settings.



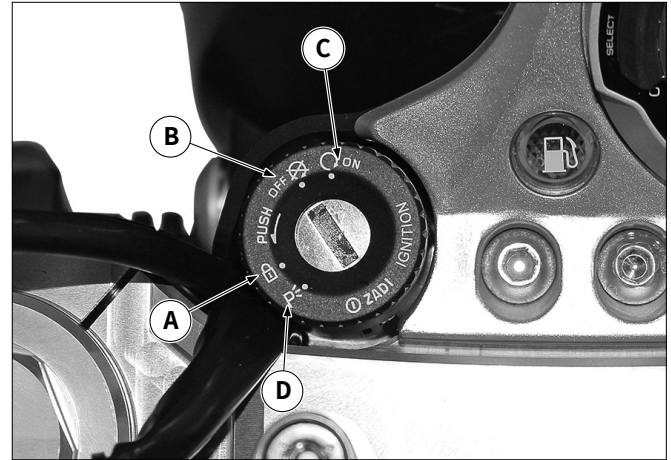
GENERAL CONTENT AND CONSULTATION

IGNITION SWITCH

The ignition switch is located at the front of the vehicle near the dashboard.

The functions of the ignition switch are the following:

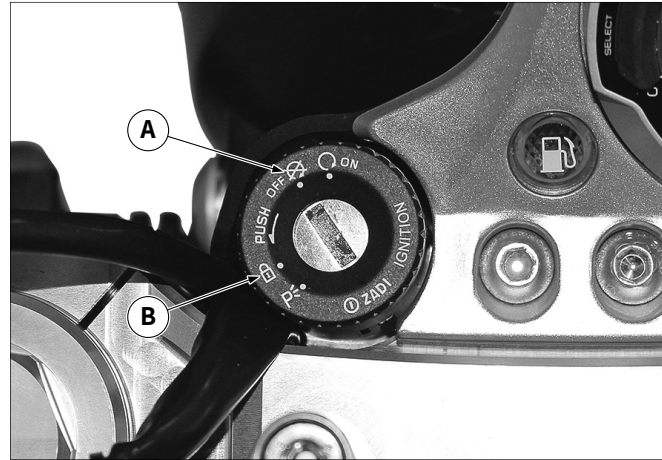
- A. The handlebar is locked and the vehicle cannot be started and the lights cannot be switched on. The key can be removed.
- B. The vehicle and the lights can not be operated and the key can be removed.
- C. The vehicle can be put into operation but the key can not be removed.
- D. The handlebar is locked and the vehicle can not be started. The position lights of the headlight and tail light are activated. The key can be removed.



- i** The vehicle is delivered with two keys, one of which is spare. Keep the spare key in a place other than the vehicle.
- i** The lights switch off when the ignition switch is positioned on “B”.
- i** The key, besides the ignition switch, activates the tank cap.
- i** When the vehicle is started, the lights turn on automatically.

STEERING LOCK ENGAGEMENT

To insert the steering lock, turn the handlebar completely to the left and turn the key to position “A”.
Press and turn the key anticlockwise and slowly turn the handlebar until the key is positioned on “B”.



EN

HORN BUTTON

Press to activate the horn.



GENERAL CONTENT AND CONSULTATION

TURN SIGNAL SWITCH

Press the switch to the left or right to indicate the turn.
Press the switch, bringing it to the center position to deactivate the indicators.



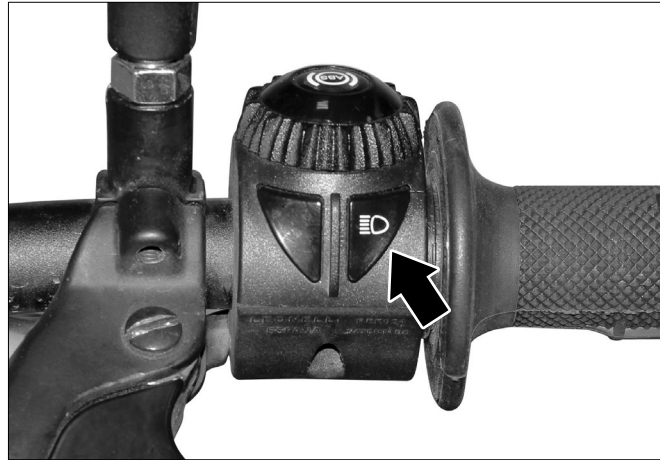
LIGHT SWITCH

When the light switch is turned counterclockwise it activates the high beam.
To reactivate the low beam light operation, turn the light switch clockwise.



HIGH BEAM FLASHING BUTTON

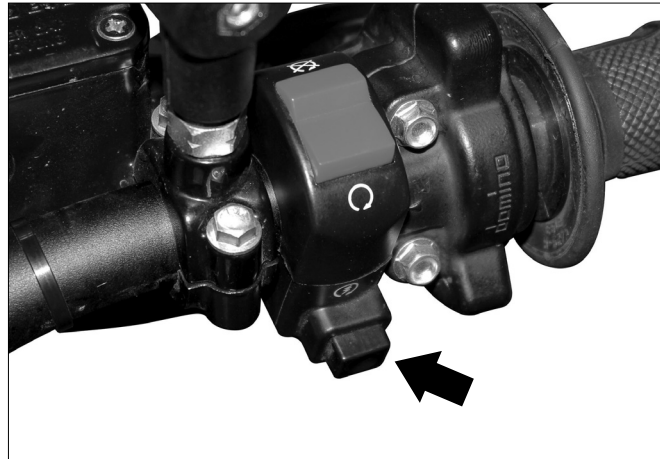
Pressing it activates the flashing of the high beam. It is usually used to indicate danger or emergency situations. When the button is released, the high beam flashing is deactivated.



EN

START BUTTON

With the key inserted and set to "ON", with the engine stop button deactivated, when the button is pressed, the engine will start.



GENERAL CONTENT AND CONSULTATION

ENGINE STOP BUTTON

Pressing it stops the engine.

It has the function of a safety or emergency switch.



Do not intervene on the switch when the vehicle is running, this would cause the engine to stop. This could result in loss of control of the vehicle, increasing the risk of accidents and damaging things and/or people.



ABS SYSTEM

The vehicle is equipped with an ABS system that operates on both wheels. The ABS system is composed of an electro-hydraulic device which limits the pressure inside the braking system at the moment of braking. This occurs through the detection of the tendency to block the phonic wheels “A” (installed on the brake discs) carried out by the angular speed sensors “B” placed on the forks.

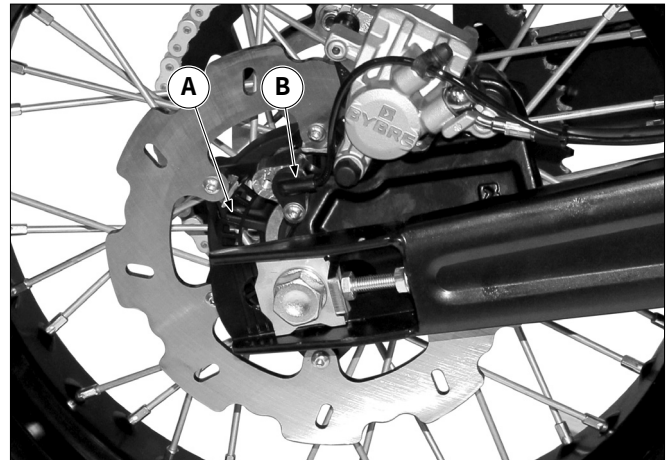
The ABS system allows an increase in the braking stability of the vehicle compared to a traditional braking system with the aim of reducing the risk of falling.

⚠ Do not exceed the physical road holding limits of the vehicle. It is the rider's responsibility to ride at appropriate speeds, always evaluating the weather and road conditions. The ABS cannot compensate for errors in judgement and/or incorrect use of the vehicle.

ⓘ When the key is turned to the “ON” position, the ABS indicator light turns on and flashes until the vehicle exceeds 5 km/h, and then it turns off.

⚠ In the event of a battery malfunction, the ABS system is deactivated.

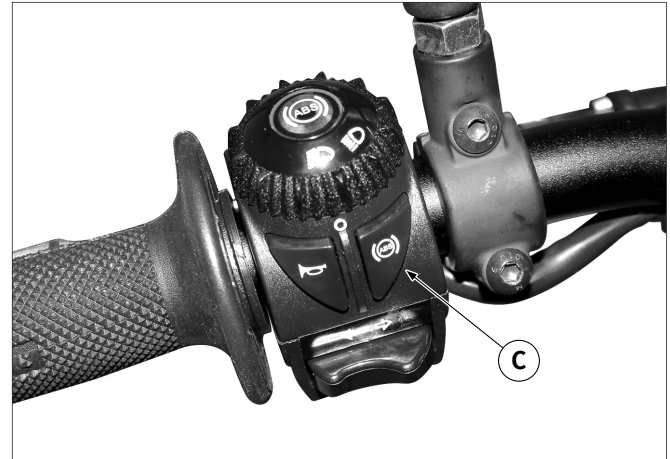
⚠ The ABS system intervenes on both wheels, receiving information from the phonic wheels. It is important to always check that the phonic wheels are clean and periodically check that the distance from the sensor is fully constant. For verification and adjustment, contact an authorized Fantic Motor Center.



GENERAL CONTENT AND CONSULTATION

The ABS can be activated/deactivated by pressing, for a few seconds, the ABS button “C”.

- ① **The ABS warning light stays on permanently if the ABS system has been manually deactivated.**
- ⚠ **In case of failure of the ABS system, the indicator light turns on, the vehicle retains the characteristics of a traditional braking system. Moderate the speed and go to an authorized Fantic Motor Center.**
- ⚠ **At low speed the ABS system is not active: pay particular attention to the braking situations in conditions of low grip at low speed.**



SADDLE OPENING

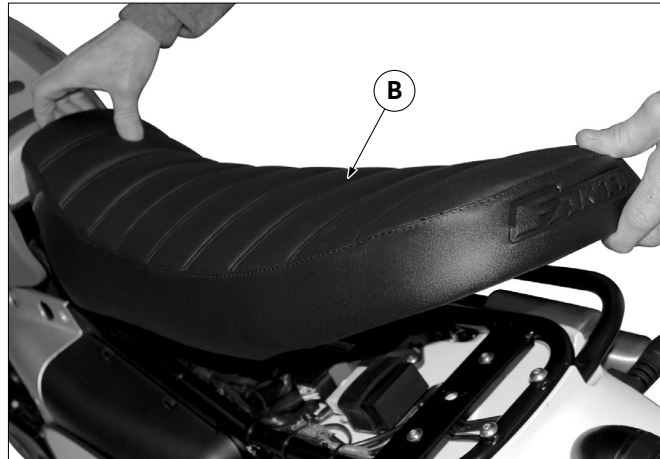
To open the saddle, unscrew and remove the screw “A”.



Lift up and remove the saddle “B”.

 **Before reassembling the saddle make sure you have not forgotten the key in the area under the saddle.**

 **Before riding, check that the saddle has been correctly fixed.**



GENERAL CONTENT AND CONSULTATION

REFUELLING

To refuel, lift the cover “A”.
Insert the key “B” and turn it anticlockwise.
Lift the cap “C” and refuel.

 **When refuelling, do not smoke or use open flames, avoid using electrical devices or any source that can trigger sparks or ignition. Failure to comply with these rules could result in a danger of fire or explosion, causing serious damage to property and/or persons.**

 **Do not add additives or other substances to the fuel during refuelling.**

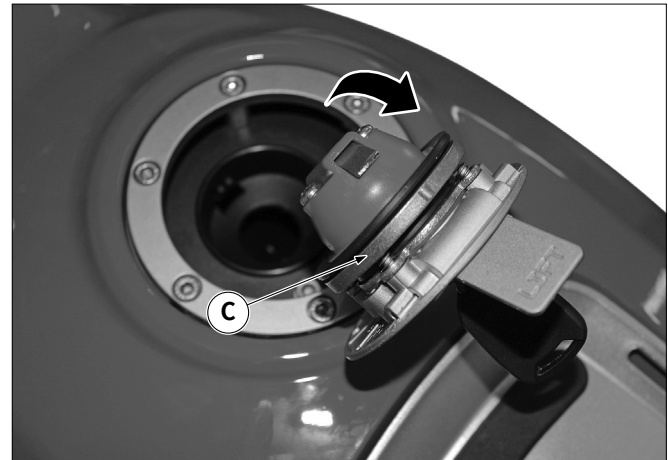
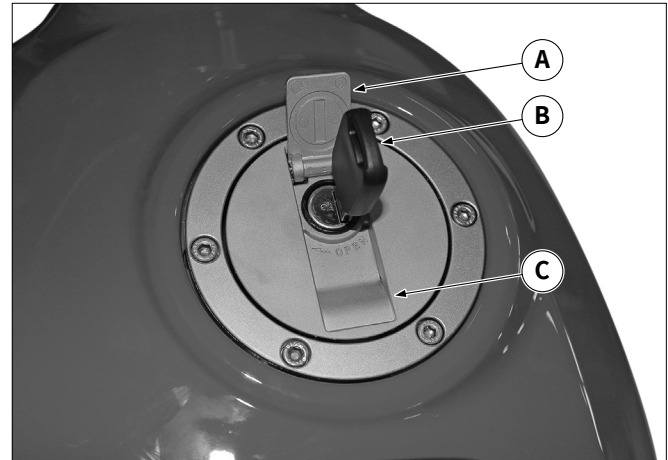
 **Avoid fuel leakage during refuelling. If you use a funnel, make sure that it is perfectly clean.**

 **It is recommended to use the type of fuel indicated in the technical specifications of this manual. Do not use different fuels, they could damage the fuel system and compromise the operation of the engine.**

After refuelling, close the cap “C”.
Turn the key “B” clockwise and then remove it.
Close the cover “A”.

 **The tank cap can be closed only with the key inserted.**

 **Make sure that the tank cap is closed.**



VEHICLE INACTIVITY

If the vehicle should remain inactive for months it is advisable to take some precautions:

- Empty the tank completely.
- Remove the battery and charge it with a suitable battery charger every two weeks.

 **The battery must be kept in a dry place and at a temperature between 5-35 °C (41-95 °F). Keep the battery out of reach of children.**

- Position the vehicle with the tires raised off the ground using the appropriate supports and periodically check the tire pressure.
- Lubricate the chain.
- Cover the exhaust terminal with a well-tied bag to prevent moisture from entering inside.
- Cover the vehicle with an appropriate sheet (in breathable material) of a size sufficient to fully cover the vehicle.
- The vehicle must be placed in an unheated place with minimal temperature variations, free from humidity and protected from sunlight.

After the period of inactivity

- Uncover and wash the vehicle.
- Check the battery status
- Perform preliminary checks.

 **Take a test drive for a few kilometres (miles) at moderate speed in an area away from traffic.**

GENERAL CONTENT AND CONSULTATION

VEHICLE WASHING

It is good that the vehicle is washed periodically to keep its components in good condition.

If the vehicle is used under the following conditions, more frequent washing is recommended:

- Areas where humidity and salinity of the atmosphere are higher than normal.
- Roads or areas where salt or de-icing chemicals are used.
- Roads or areas with the presence of industrial dust or tar stains.
- Sport use and off-road driving.
- Presence on the vehicle body of dead insects, bird excrement, etc.

It is advisable not to stop or park the vehicle under plants or trees. Certain plants or trees release residues, resins, fruits or leaves containing substances harmful to the vehicle components and bodywork.



Before washing the vehicle, protect the saddle with a suitable cover to prevent water penetration.

Do not wash in the sun, especially in summer, with the body still warm, as if the detergent dries before rinsing it could cause damage to the paintwork.

Do not use liquids at temperatures above 40 °C (104 °F) to clean plastic components.

Do not direct air jets, steam or water at high pressure on:

- Wheel hubs.
- Handlebar switches.
- Bearings.
- Brake oil master cylinder and tanks.
- Tools and indicators.
- Exhaust system fumes outlet hole.
- Steering lock.
- Fuel tank cap or similar.
- Headlight and tail light.
- Electrical components.
- Decals.



Do not use products that contain alcohol, petrol or solvent for cleaning the saddle, rubber and/or plastic parts. Use of unsuitable products can damage vehicle components.

The use of a jet of high pressure water can damage some components of the vehicle.

Use a jet of warm water at low pressure, rinse the vehicle thoroughly and in particular the dirtiest parts. With a soft sponge rub all parts of the vehicle.

Rinse the vehicle well and thoroughly using a low pressure jet. With a chamois leather cloth, proceed to dry the vehicle.

It is possible that after the wash the braking efficiency is reduced, it is therefore recommended to dry the discs well and wait for the pads to dry.

If the vehicle is started, proceed with caution and operate the brakes repeatedly.

Only after a scrupulous and thorough washing it is possible to proceed with the polishing phase with silicone waxes.

-  **Do not use abrasive pastes on the vehicle, they could damage the painted parts.**
-  **Do not apply protective wax on the parts of the braking system, it could compromise their operation.**
-  **Do not pass wax on the saddle, it could damage it and make it slippery, reducing the stability of the rider's and/or passenger's seat thus increasing the risk of accidents and/or damage to things and/or people.**

INTRODUCTION

For specific maintenance and repairs it is advisable to contact our Authorized Fantic Motor Centers, which will guarantee an accurate and prompt service, always using original spare parts.
It is recommended, after the first hours of use, to carry out the preliminary checks.

 **Failure to follow these procedures can result in serious injury to persons and to the vehicle. Contact an Authorized Fantic Motor Center if malfunctions or anomalies are found.**

EN

PRELIMINARY CHECKS

PART	DESCRIPTION
Front and rear disc brake	Check the levers operation, idle stroke, fluid level and check for leaks. If necessary, top up the brake fluid.
Throttle control	Make sure that the knob rotation is smooth and fluid from both directions and that there are no jamming.
Engine oil	Check the level and top up if necessary.
Wheels and tires	Check the tires surface conditions, pressure, wear and the presence of damage. Remove the trapped foreign bodies, if any.
Levers and brakes	Check that it works correctly during engagement and release without jamming, tearing or slipping. Lubricate the joints if necessary.
Clutch lever	Check that it works correctly during engagement and release without jamming, tearing or slipping. Lubricate the joints if necessary.
Handlebar	Make sure that the complete rotation on both sides is free and homogeneous and without clearance or slack.

MAINTENANCE

PART	DESCRIPTION
Kickstand	Check its rotation and sliding. Check that the spring tension returns it to its normal position. Lubricate the joints if necessary. Check the correct operation of the safety switch.
Fastening elements	Check that there are no loose fasteners. If necessary, adjust and tighten.
Fuel tank	Check the fuel level and refill if necessary. Check the correct closing of the fuel cap and that there are no leaks in the circuit.
Engine stop switch	Check the correct operation.
Start switch	Check the correct operation.
Phonic wheels	Check that they are perfectly clean and not damaged.
Acoustic and visual devices	Check the correct operation. Replace in case of failure.

ENGINE OIL

⚠ Check and verify the engine oil level every 1,000 km (600 mi).

Check the engine oil level

Periodically check the engine oil level.

ⓘ The engine oil check must be carried out with hot engine.

⚠ Do not rest the vehicle on the side kickstand when checking the engine oil.

Position and keep the vehicle in a vertical position and with both wheels resting on the ground.

Start the engine and warm it up for at least two minutes at idling speed and then turn it off: wait two minutes before checking the oil level.

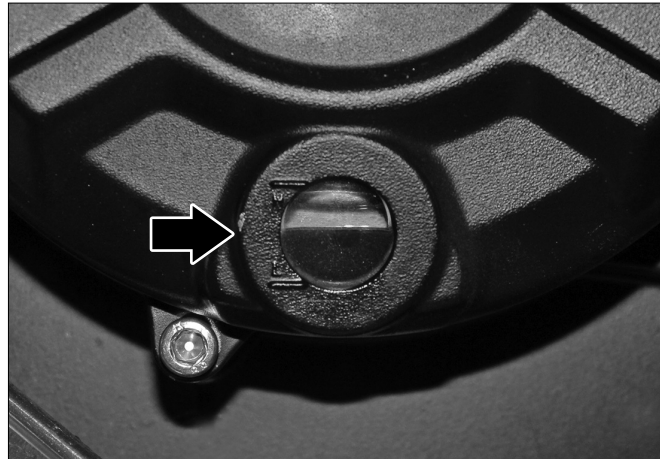
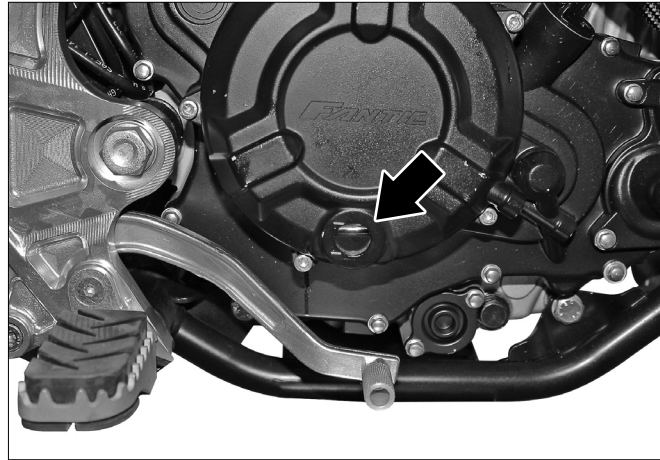
Check the oil level from the porthole.

The level must remain between the notches at the porthole.

H = MAX

L = MIN

ⓘ The oil level must not go beyond the “H” marking and must never be below the “L” marking, in order not to damage the engine.



MAINTENANCE

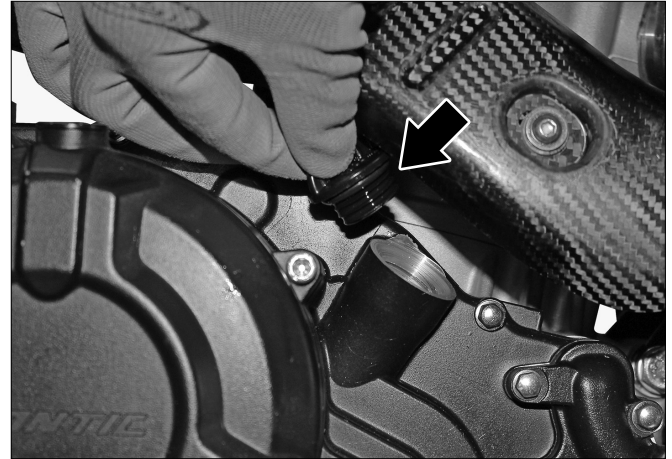
Engine oil topping up

If after checking the engine oil level, the level is not in the right parameters, topping up is required.

Therefore remove the oil level plug and top up.

i If you use a funnel or something else, make sure of the perfect cleaning.

! Do not add additives or other substances and use the products recommended in the “RECOMMENDED PRODUCTS TABLE” section.



Engine oil replacement

 **The operations for filter and engine oil replacement are complicated for an inexperienced operator. It is advisable to contact an Authorized Fantic Motor Center if you need to remove and replace the filter and the engine oil.**

EN

Amount of engine oil

- Total amount: 1.8 l (0.4 UK gal, 0.48 US gal)
- Without replacement of the oil filter element: 1.15 l (0.25 UK gal, 0.3 US gal)
- With replacement of the oil filter element: 1.2 l (0.26 UK gal, 0.32 US gal)

MAINTENANCE

TIRES

For tire pressure values, brand, type and dimensions refer to the “TECHNICAL DATA” section.

⚠ Check the tire pressure at room temperature, because if the tires are warm, the measurement will not be correct.

i The tires ambient temperature means that the vehicle has been stationary for at least three hours or has travelled a distance of less than 2 km (1 mi).

Check the fuel consumption and tire pressure (at room temperature) before and after each long trip.

⚠ If the inflation pressure is too high, the irregularities of the ground are not properly cushioned and are then transmitted to the handlebar, compromising road holding in turns. If the inflation pressure is insufficient, the sidewalls of the tires work harder and there is a risk of tire slippage on the rim or detachment, with consequent loss of control of the vehicle: in the event of sudden braking, the tires could come off from the rims. In turns, the vehicle may skid.

i It is advisable, if possible, to always use the same pressure gauge to check the pressure so as not to measure incorrect values caused by the variability between different gauges.

SCRAMBLER



FLAT TRACK

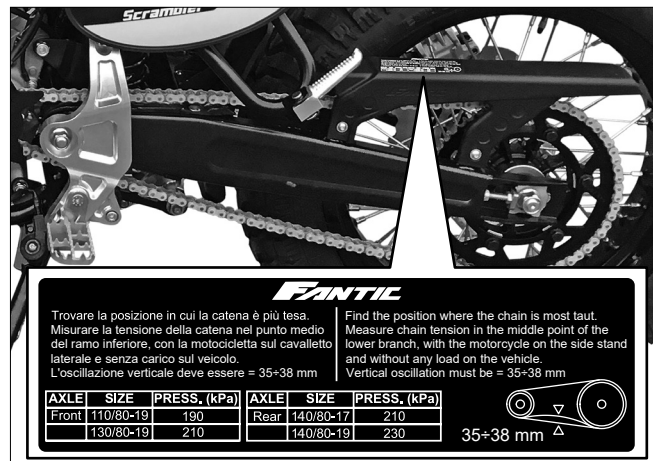


RALLY



The sticker indicates the inflation pressure of the front and rear tires.

- ① It can be positioned on the chain guard, left side of the vehicle.



EN

- ⚠ Check the surface condition and wear. A poor tire condition compromises the grip and manoeuvrability of the vehicle. Replace the tire if worn or punctured. After repairing or replacing a tire, carry out the wheel balancing. Use only and exclusively tires of the dimensions indicated by the manufacturer. The use of tires other than those specified may compromise the handling and stability of the vehicle with the risk of accidents, damage to property and/or persons and the risk of serious injury and even death.

MAINTENANCE

 **Check that the pressure valves are always fitted with protective caps and that they are properly closed to avoid sudden tire deflation.**

 **If the tires are new, they can be covered with a slippery film. Drive carefully for the first few kilometres/miles. Do not grease the tires with unsuitable liquid. If the tires are old, even if not completely worn out, they can harden and do not guarantee road holding, therefore replace them.**

Replacement, repair and maintenance are very important and must be performed with appropriate tools and by an operator with the necessary experience.

For this reason, it is advisable to contact an authorized Fantic Motor Center or a tire specialist for the execution of certain operations.

 **The tires supplied are of the tubeless type and are mounted on spoked rims together with the inner tube. Avoid tubeless tires without the inner tubes.**

Tread depth (Scrambler)

The maximum tread values for the Scrambler version are:

- Front tire: 5.60 mm (0.22 in);
- Rear tire: 7.60 mm (0.29 in).

Tread depth (Flat Track)

The maximum tread values for the Flat Track version are:

- Front tire: 7.30 mm (0.28 in);
- Rear tire: 7.30 mm (0.28 in).

Tread depth (Rally)

The maximum tread values for the Rally version are:

- Front tire: 9.50 mm (0.37 in);
- Rear tire: 12.00 mm (0.47 in).

 **The tread depths should never be less than 1 mm (0.03 in) or less than required by the legislation in force in the country where the vehicle is used.**

SPARK PLUG

 **To check, clean and replace the spark plug, contact an Authorized Fantic Motor Center.**

AIR FILTER

 **The type of air filter does not require cleaning, but only replacement.**

For the maintenance operations, refer to the “SCHEDULED MAINTENANCE TABLE” section, under “Air filter”.

 **To disassemble, check, clean and replace the air filter, contact an Authorized Fantic Motor Center.**

COOLANT

For the maintenance operations, refer to the “SCHEDULED MAINTENANCE TABLE” section, under “Cooling system”.

 **Do not use the vehicle if the coolant level is below the minimum level.**

 **To replace, check and top up the coolant, contact an authorized Fantic Motor Service Center.**

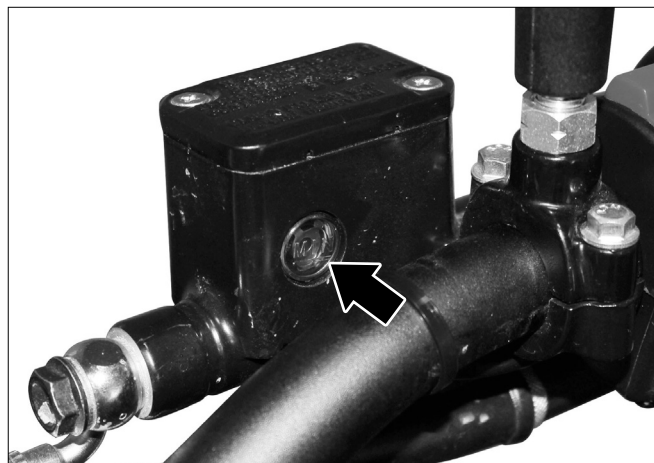
MAINTENANCE

BRAKING SYSTEM

Check the front brake fluid level

To check the front brake fluid level, position the vehicle on the kickstand and turn the handlebar, so that the liquid contained in the brake oil reservoir is parallel to the cap. Check that the liquid is over the “MIN” mark.

 **If the liquid level does not reach at least the “MIN” mark, check the brake disc and pads wear. If the brake disc and the brake pads are not to be replaced, contact an authorized Fantic Motor Service Center.**



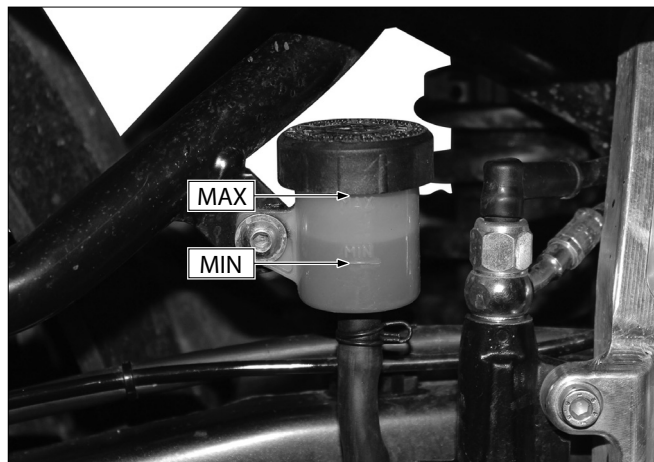
Check the rear brake fluid level

To check the rear brake fluid, keep the vehicle in vertical position, so that the liquid contained in the brake oil reservoir is parallel to the cap. Check that the liquid is between the “MIN” and “MAX” marks.

 **If the liquid level does not reach at least the “MIN” mark, check the brake disc and pads wear. If the brake disc and the brake pads are not to be replaced, contact an authorized Fantic Motor Service Center.**

Refilling the brake system

 **To top up the brake fluid, do to an authorized Fantic Motor Service Centre.**

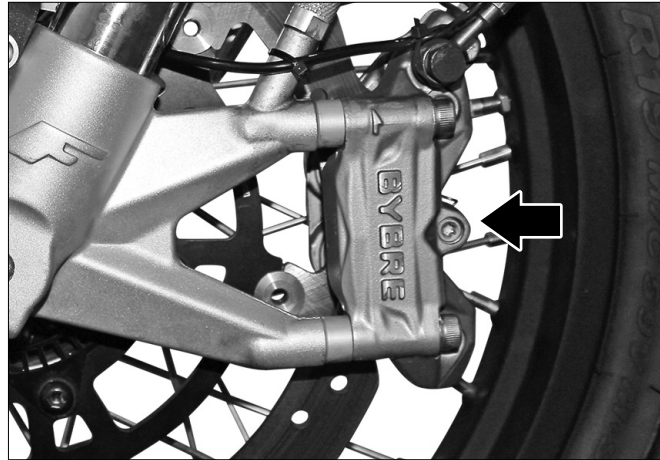


Pads wear check

i It is recommended to check the pads wear before each trip and at the end of each use.

The pads have a groove that must always be visible. The disc brake pads wear depends on the use, the type of driving and the type of road.

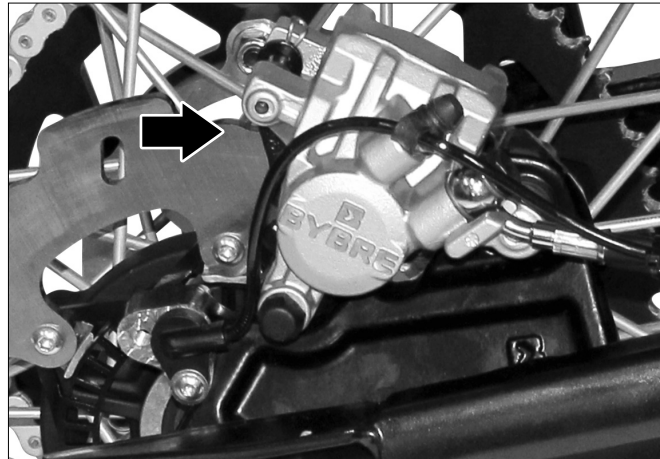
To quickly check the pads wear, position the vehicle on the kickstand.



Perform a visual check between disc and pads, looking from the bottom upwards in the direction of the calliper wheel pin for the front brake callipers and from the top rear for the rear brake calliper.

⚠ Wear that goes beyond the limit of the friction material leads to contact of the pad metal shoe with the disk with consequent metallic noise and sparks flying from the calliper; braking efficiency, safety and completeness of the disk would be affected.

If the groove has disappeared (1.5 mm (0.05 in) friction material height) replace the pad pair.



MAINTENANCE

SUSPENSIONS (SCRAMBLER/FLAT TRACK VERSIONS)

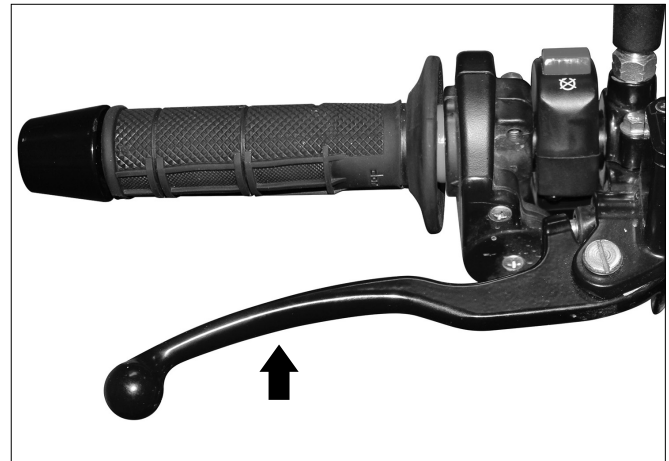
Front wheel suspension

 **For the replacement of the front suspension oil, go to an authorized Fantic Motor Service Center.**

For the maintenance operations, refer to the “SCHEDULED MAINTENANCE TABLE” section, under “Fork”.

Check

Apply the front brake lever, push repeatedly on the handlebars, making the fork compress. The stroke must be gentle and there should be no traces of oil on the rods. Check that all the front suspension components are tight.



 **In the event that malfunctions are noticed or specialized personnel need to be contacted, go to an authorized Fantic Motor Service Center.**

Adjustment

This type of suspension does not require any type of adjustment. The basic setting of the suspension is done by Fantic Motor.



Rear suspension

For maintenance intervals, refer to the “SCHEDULED MAINTENANCE TABLE” section under “Rear shock absorber”. The rear wheel suspension is composed of a damper and linkage unit and is connected in the upper part to the shock absorber head and in the lower part (linkage) to the swing arm.

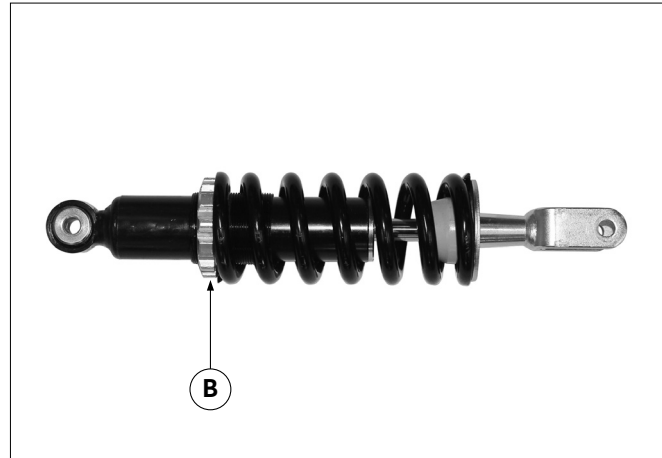
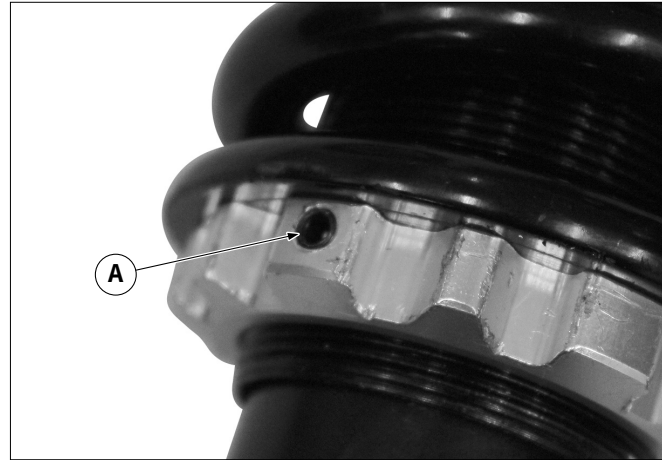
Shock absorber preload adjustment

For different use needs, it is possible to customize the setting. To make changes it is recommended to wait until the engine is completely cold. Adjust the spring preload according to the conditions of use of the vehicle.

- Loosen the fixing screw “A” of the ring nut;
- Using a hook wrench to turn the ring nut “B” to the desired position;
- Re-tighten fixing screw “A” or ring nut.

⚠ Do not force the rotation of the registers beyond the limit switch (in both directions), to avoid possible damage.

❗ The basic setting of the suspension is done by Fantic Motor.



MAINTENANCE

SUSPENSIONS (RALLY VERSION)

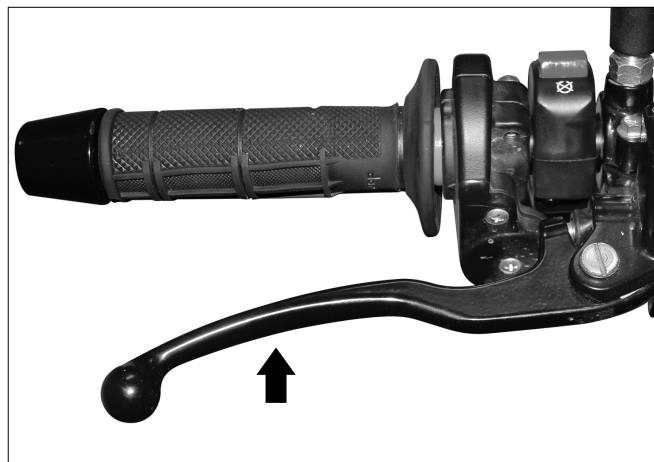
Front suspension (Rally)

 **For the replacement of the front suspension oil, go to an authorized Fantic Motor Service Center.**

For the maintenance operations, refer to the “SCHEDULED MAINTENANCE TABLE” section, under “Fork”.

 **For good vehicle stability, make sure that the suspensions are adjusted equally between the front and the rear.**

 **The standard suspension adjustment is set at 50% of the strokes.**



Check

Apply the front brake lever, push repeatedly on the handlebars, making the fork compress. The stroke must be gentle and there should be no traces of oil on the rods. Check that all the front suspension components are tight.

 **In the event that malfunctions are noticed or specialized personnel need to be contacted, go to an authorized Fantic Motor Service Center.**

Adjustment

On this version it is possible to adjust the front suspensions.



⚠ The standard adjustment of the front fork is designed to adapt to most driving styles and situations, however it is possible to make custom adjustments.

The left stem adjustment is divided into two types:

- compression;
- rebound;

To adjust the compression of the left stem it is necessary, initially, to turn the adjustment screw "A" completely clockwise.

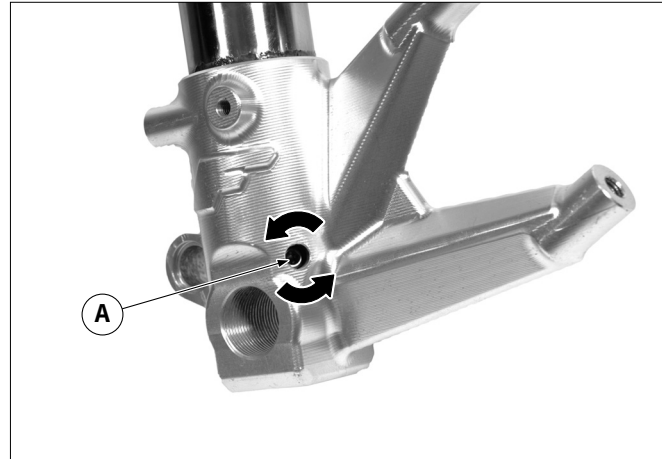
Turn the adjustment screw "A" counter-clockwise, counting 12 clicks.

(i) Total number of clicks "A" = 22 (from fully closed).

To adjust the left stem rebound it is necessary, initially, to turn the adjustment screw "B" completely clockwise ("+").

Turn the adjustment screw "B" counter-clockwise ("-"), counting 10 clicks.

(i) Total number of clicks "B" = 20 (from fully closed).



MAINTENANCE

The adjustment of the right stem consists only in the adjustment of the spring preload.

To adjust the right stem spring preload it is necessary, initially, to turn the adjustment screw “C” completely counter-clockwise (“-”).

Turn the adjustment screw “C” clockwise (“+”), counting 5 turns.

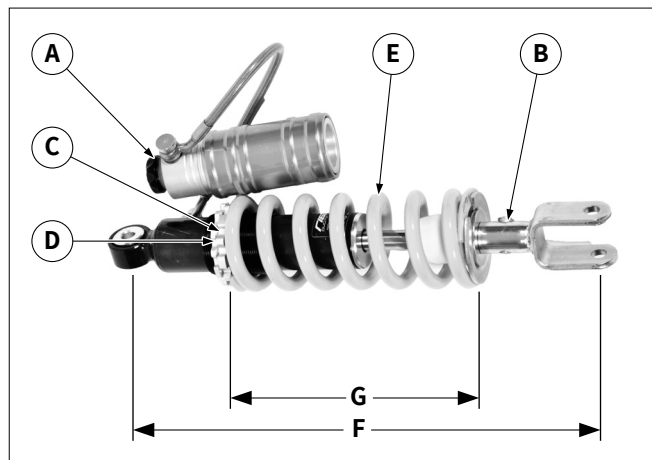
i Total number of turns “C” = 10 (from fully open).



Rear suspension (Rally)

The rear shock absorber is equipped with:

- A. Register for compression adjustment;
- B. Register for extension adjustment;
- C. Ring nut register for adjusting the shock absorber spring preload;
- D. Ring nut register for locking the shock absorber spring preload;
- E. Rear shock absorber spring;
- F. Preloaded shock absorber wheelbase
Standard value = 344 mm (13.54 in);
- G. Spring preload
Standard value = 176 mm (6.93 in).



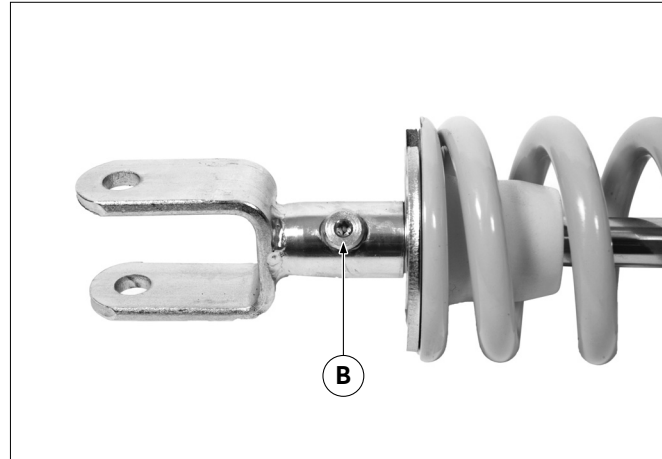
Adjustment

⚠ The standard adjustment of the rear shock absorber is designed to adapt to most driving styles and situations, however it is possible to make custom adjustments.

To adjust the rear shock absorber spring extension it is necessary, initially, to fully close the adjustment screw “B” turning it clockwise.

Turn the adjustment screw “B” counter-clockwise, counting 8 clicks.

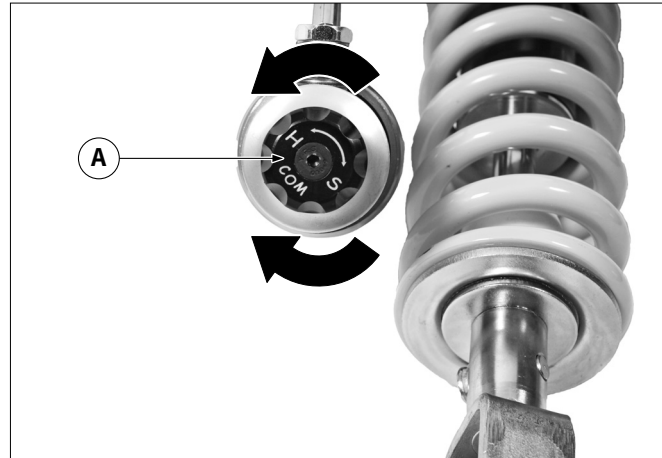
ⓘ Total number of clicks “B” = 16 (from fully closed).



To adjust the hydraulic brake compression during the compression it is necessary, initially, to completely close the adjustment knob “A” turning it clockwise.

Turn the adjustment knob “A” counterclockwise, counting 13 clicks.

ⓘ Total number of clicks “A” = 24 (from fully closed).



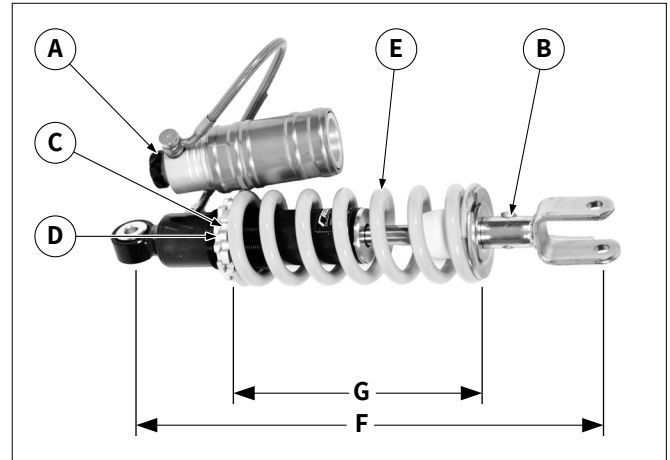
MAINTENANCE

Adjust the rear shock absorber preload as follows:

- Unscrew the locking ring nut “C”;
- Use the adjustment ring nut “D” to adjust the shock absorber spring preload “E”;
- Screw in to increase the preload, vice versa, unscrew to decrease it;
- After the adjustment, tighten the locking ring nut “C”.



Do not force the rotation of the ring nut registers “C” and “D” beyond the stroke end in both directions, to avoid possible damage.

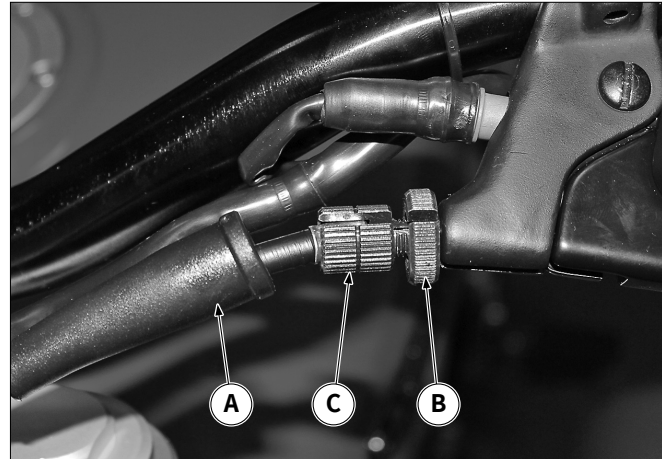


CLUTCH LEVER AND GEARBOX

Perform the clutch adjustment when the engine stops or the vehicle tends to move forward with the clutch lever and the gear engaged, or if the clutch “slips”, causing an acceleration delay with respect to the engine rpm.

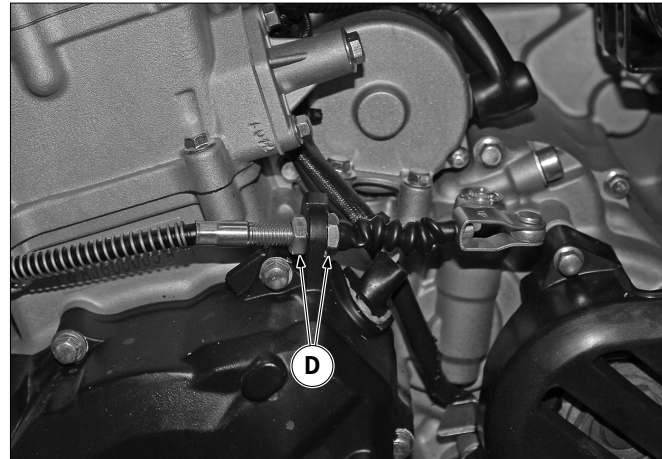
To make the adjustment:

- Remove protection cowl “A”.
- Loosen the ring nut “B”.
- Turn the adjuster “C” until the idle stroke of the clutch lever, with the handlebar straight, is not 2 mm (0.08 in).
- Tighten the ring nut “B” keeping the adjuster “C” still.
- Reposition the protective cowl “A”.
- If the stroke of the “C” adjuster is not sufficient to guarantee the required clearance, operate on the clutch lever adjusters “D”, located on the engine crankcase.



⚠ Check the integrity of the clutch cable in its entire length; the sheath must not show cracks, cuts, crushing or wear, if only one of these defects is present, replace the clutch cable at an authorized Fantic Motor Center.

i If the adjustments made are not sufficient to guarantee the required clearance, contact an authorized Fantic Motor Center.



MAINTENANCE

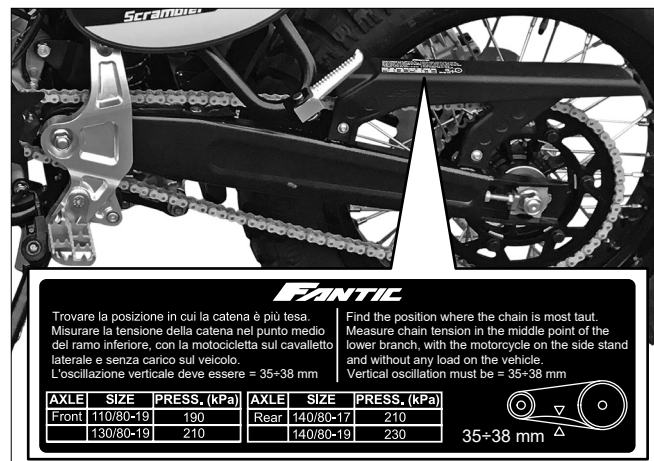
CHAIN

Check the chain, pinion and crown wear

Check the following parts and check that the chain, pinion and crown do not show:

- worn rollers;
- loose pins;
- dry, rusty, crushed or seized meshes;
- missing sealing rings;
- pinion teeth and/or crown teeth excessively worn or damaged.

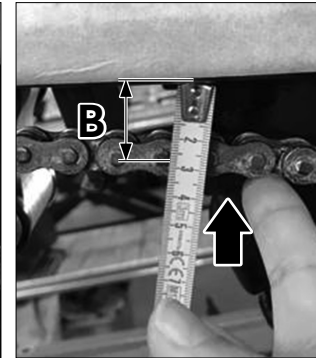
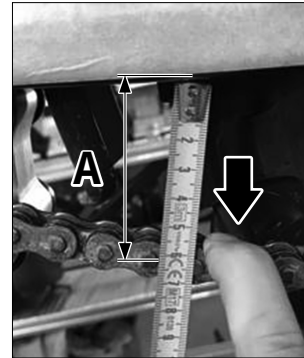
The sticker shows how to position the vehicle to measure the chain tension and the minimum and maximum clearance tolerances.



- i** It can be positioned on the chain guard, left side of the vehicle.
- !** If one of these components is damaged, the entire chain assembly (pinion, chain and crown) must be replaced.
- i** Also check the wear of the chain guide and the chain sliding shoe.
- !** Excessive loosening of the chain could make it come off from the pinion, causing accidents and serious damage to the vehicle. Check the clearance regularly. For chain replacement, contact an authorized Fantic Motor Center only.
- !** Improper maintenance can cause premature chain wear and/or damage the pinion and/or crown.

Clearance check

- Stop the engine;
- Position the vehicle on the kickstand;
- Place the gear lever in neutral;
- Pressing with a finger an intermediate point between the pinion and the rim, press the lower branch of the chain first downwards and then towards the other, measuring the distance from the edge of the swingarm; check that the vertical oscillation, obtained as the difference between the highest value “A” and the lowest value “B”, is about **35 mm (1.37 in)**.
- Move the vehicle forward, in order to check the vertical oscillation of the chain also in other positions; the clearance must remain constant in all the phases of the wheel rotation.



⚠ If there is a higher clearance in certain positions, it means that there are crushed or seized meshes, in this case contact an Authorized Fantic Motor Center. To prevent the risk of seizure, it is recommended to lubricate the chain correctly.

Lubrication and cleaning

The chain must always be kept well lubricated and must be cleaned especially after riding off-road with mud or sand. If there are dry or rusty parts, if there are crushed or seized meshes, it is advisable to lubricate the chain and replace the damaged parts in working conditions. If this is not possible, contact an Authorized Fantic Motor Centre.

⚠ Do not wash the chain with jets of water, steam, high pressure jets and solvents with a high degree of flammability.

ℹ For chain recommended lubrication and cleaning products, refer to the “RECOMMENDED PRODUCTS TABLE” section.

MAINTENANCE

BATTERY

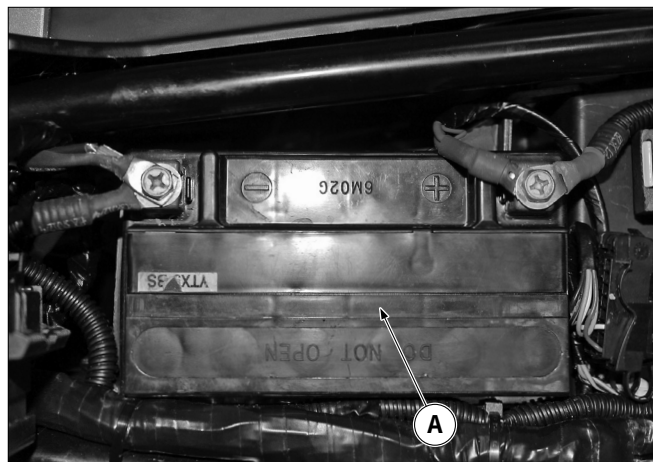
The “A” battery is located under the saddle. The type of battery installed does not require maintenance. It is therefore not necessary to check the electrolyte level or top up with water.

- ⓘ Keep the battery poles clean and, if necessary, lightly grease them with acid-free grease.**

Battery disassembly

Remove the saddle and disconnect the negative and then the positive pole from the battery.

Remove the battery.



When installing the battery, insert it with the positive pole positioned as shown in the figure and connect the negative pole to the battery at the end.

- ⚠ If for any reason there is an electrolyte (sulphuric acid) leak from the battery, the maximum precaution is recommended.**
- ⚠ Keep sparks or open flames away from the battery.**
- ⚠ Keep exhausted batteries out of reach of children and arrange for regular disposal.**
- ⚠ Do not remove the protections and install the battery respecting the polarities.**
- ⚠ Protect the battery clamps with Vaseline grease.**

FUSES AND RELAYS

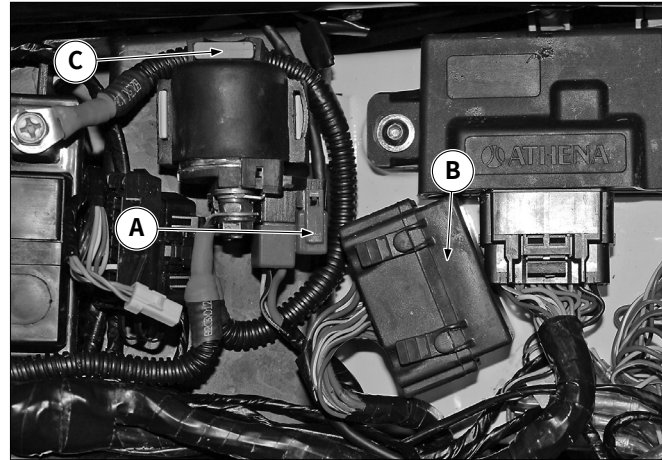
To check the fuses, set the ignition switch to “OFF” to avoid the risk of a short circuit.

Remove the saddle and the fuse box cover.

Remove one fuse at a time and check if the filament is broken.

Replace the fuse, if damaged, with a type of the same amperage.

⚠ Do not repair faulty fuses and never use a fuse of a different power than specified, it could cause a short circuit and consequently the risk of fire.



Fuses arrangement

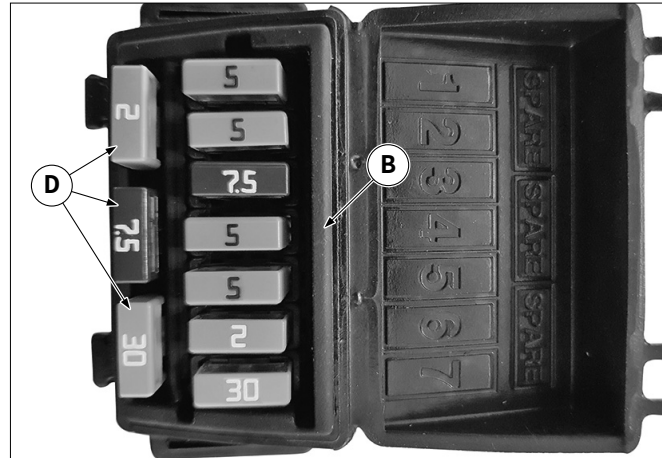
H. Main fuse (30 A)

I. Fuse box

1. Engine control unit fuse (key-operated power supply), ABS control unit (key-operated power supply), left and right light stalk, turn signals, position lights, brake light (5 A)
2. Parking lights fuse (5 A)
3. Fuel pump, electronic injection system and OBD socket fuse (7.5 A)
4. Headlight and tail light fuse (5 A)
5. Cooling fan fuse (5 A)
6. Engine control unit fuse (direct supply) (2 A)
7. ABS control unit fuse (direct supply) (30 A)

J. Spare main fuse (30 A)

K. Spare fuses (2 A, 7.5 A, 30 A)



MAINTENANCE

LIGHTS AND TURN SIGNALS

 **For disassembling, checking and/or replacing the headlight, tail light and license plate light, contact an authorized Fantic Motor Service Center.**

Headlight adjustment

To check the correct orientation of the front light beam, place the vehicle at 10 m (32.8 ft) away from a vertical wall, making sure that the ground is level. Turn on the low beam, sit on the vehicle, and check that the light beam projected onto the wall is slightly below the horizontal straight line of the projector (about 9/10 of the total height). To carry out the vertical adjustment of the light beam, position the vehicle in running position, loosen the screws “A” on both sides of the vehicle and manually adjust the desired position of the light beam. Tighten the screws “A”. Check again the correct orientation of the light beam.

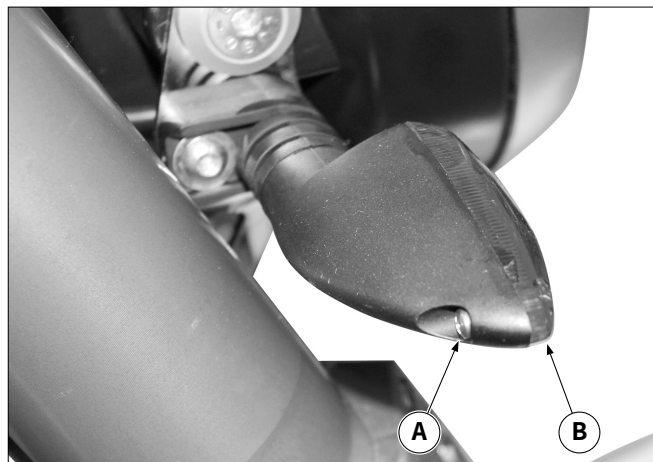
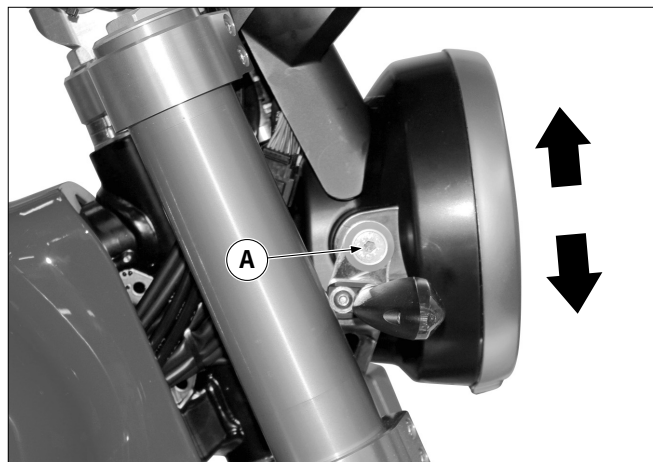
Turn signals

To replace the front and/or rear turn signal lamps, position the vehicle on the kickstand. Unscrew and remove the screw “A” and cover “B”.

Gently press the bulb and turn it counterclockwise, then pull the lamp out. Install a new lamp of the same type correctly.

 **If the reflector inside comes out of its seat, reposition it correctly.**

 **Make sure to have correctly inserted the lamp.**



REAR-VIEW MIRRORS

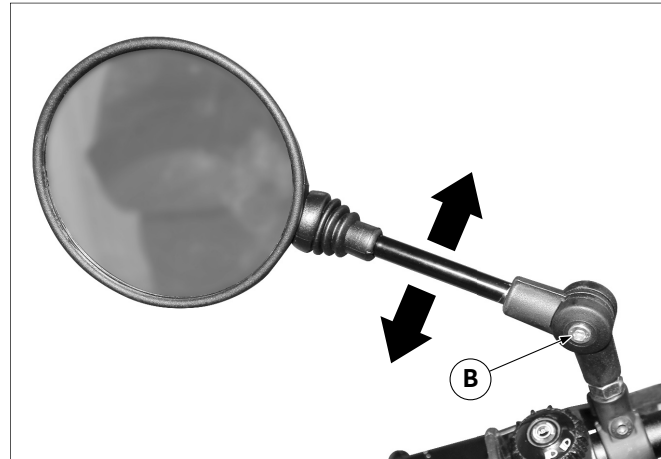
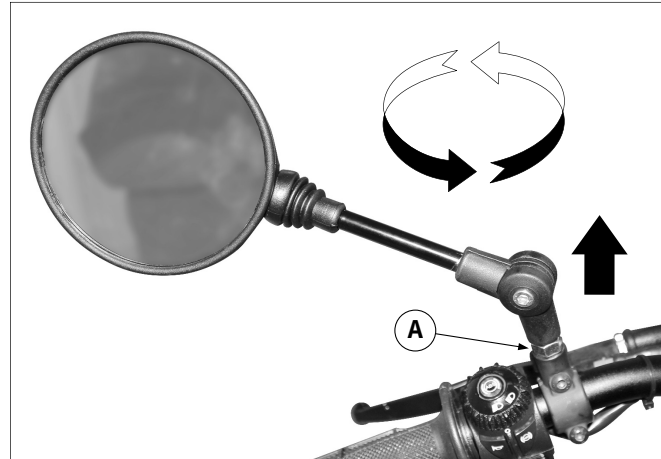
i The operations described below apply to both rear-view mirrors.

Place the vehicle on the kickstand and on a flat and stable surface. Loosen the lock nut “A”, turn the left-hand mirror counter-clockwise and remove it, then turn the right-hand mirror clockwise and remove it.

i During reassembly, before tightening the nut, check that the mirror support rod is aligned with the handlebar.

Rear-view mirror adjustment

To adjust the rear-view mirrors, get on the vehicle in the driving position and turn the rear-view mirror according to your needs. It is also possible to adjust the inclination of the rear-view mirror support rod. To carry out this operation, loosen the screw “B” and move the support rod sideways. Adjust and tighten screw “B”.



MAINTENANCE TABLE

SCHEDULED MAINTENANCE TABLE

Expert users can normally carry out some maintenance operations even though they require the use of specific equipment and suitable technical preparation.

-  **If you do not have all the specific tools, suitable clothing and protections, and a suitable place to operate in complete safety, it is not recommended to perform maintenance operations. If it is necessary to have technical advice or request service, contact the Authorized Fantic Motor Center.**
-  **Fantic Motor declines all civil and criminal liability for damage to the vehicle, property and/or persons due to maintenance operations performed by the user.**
-  **If the user is not interested in performing certain routine maintenance operations, we recommend going to an Authorized Fantic Motor Service Center.**
-  **Carry out maintenance operations more frequently if the vehicle is used in rainy, dusty areas, rough roads or in the case of fast riding.**
-  **Check the engine oil level every 1,000 km (600 mi).**
-  **It is essential to make the first inspection and servicing by the end of the first year of use of the vehicle even if the deadline of 1,000 km (600 mi) has not been reached.**
-  **It is essential to make inspection and servicing by the end of the second year of use of the vehicle even if the specified deadline has not been reached.**
-  **The timely execution of the inspection and servicing indicated (the first one in the first year and the second one in the second year) is necessary for the correct use of the warranty.**
-  **Perform the annual checks on a regular basis unless a kilometre (or mileage) interval has expired previously.**

MAINTENANCE TABLE

EN

Position	Operation	1,000 km (600 mi)	5,000 km (3,000 mi)	10,000 km (6,000 mi)	15,000 km (9,000 mi)	20,000 km (12,000 mi)
Fuel circuit	– Check that the fuel pipes are not cracked or damaged.		√		√	
Spark plug	– Check its status. – Clean and restore the electrode distance.	√	√	√	√	√
	– Replace.			√		√
Valves	– Check the valve clearance. – Adjust.	√	√	√	√	√
Cylinder head	– Check the cylinder head fastening bolts tightening.	√				
Additional fuel filter	– Replace.	Every 10,000 km (6,000 mi).				
Air filter	– Clean.	√		√		
	– Replace.		√		√	
Clutch	– Check its operation. – Adjust.	√	√		√	
Front brake	– Check its operation, the fluid level and absence of leakage in the vehicle.	√	√		√	
	– Replace the brake pads.	If worn up to the limit.				
Rear brake	– Check its operation, the fluid level and absence of leakage in the vehicle.	√	√		√	
	– Replace the brake pads.	If worn up to the limit.				

MAINTENANCE TABLE

Position	Operation	1,000 km (600 mi)	5,000 km (3,000 mi)	10,000 km (6,000 mi)	15,000 km (9,000 mi)	20,000 km (12,000 mi)
Brake tubes	– Check for cracks or damage. – Check that the installation and tightening are correct.		√		√	
	– Replace.	Every 4 years.				
Brake fluid	– Replace.	Every 2 years.				
Wheels	– Check for misalignment and damage.		√		√	
Tires	– Check the tread depth and damage. – Replace if necessary. – Check the air pressure. – Correct if necessary.		√		√	
Wheel bearings	– Check that the bearings are not loose or damaged.		√		√	
Swing arm	– Check its operation and excessive clearance.		√		√	
	– Lubricate with lithium soap based grease.	Every 24,000 km (14,000 mi).				
Transmission chain	– Check the tension, alignment and conditions of the drive chain. – Check the crown and pinion. – Check the clearance on the rear sprocket flexible coupling. – Fully adjust and lubricate the drive chain with a specific lubricant.	Every 500 km (300 mi). Following heavy use.				
	– Replace.	If the chain elongation exceeds 2%.				

MAINTENANCE TABLE

EN

Position	Operation	1,000 km (600 mi)	5,000 km (3,000 mi)	10,000 km (6,000 mi)	15,000 km (9,000 mi)	20,000 km (12,000 mi)
Handlebar bearings	– Check the bearing clearance and the handlebar hardness.	√	√		√	
	– Lubricate with lithium soap based grease.	Every 24,000 km (14,000 mi).				
Fixings the frame parts	– Make sure that all nuts, bolts and screws are properly tightened.	√	√	√	√	√
Brake lever rotation pin	– Lubricate with silicone grease.		√		√	
Brake pedal rotation pin	– Lubricate with lithium soap based grease.		√		√	
Clutch lever rotation pin	– Lubricate with lithium soap based grease.		√		√	
Side kickstand	– Check its operation. – Lubricate with lithium soap based grease.	√	√		√	
Side kickstand switch	– Check its operation.	√	√	√	√	√
Fork	– Check its operation and the absence of oil leaks.		√		√	
	– Replace oil.			√		√
Rear shock absorber	– Check its operation and the absence of oil leaks in the shock absorber.		√		√	
Rear suspension rotation points	– Check the swing arm operation.		√		√	
	– Check the junction arm operation.	√	√	√	√	√
	– Lubricate the suspension rotation points.	√	√	√	√	√

MAINTENANCE TABLE

Position	Operation	1,000 km (600 mi)	5,000 km (3,000 mi)	10,000 km (6,000 mi)	15,000 km (9,000 mi)	20,000 km (12,000 mi)
Passenger foot pegs	– Lubricate the passenger foot pegs	✓	✓	✓	✓	✓
Engine oil	– Check the oil level and the absence of oil leaks in the vehicle.	Every 1,000 km (600 mi).				
	– Change.	✓	✓	✓	✓	✓
Engine oil filter	– Replace.	✓	✓	✓	✓	✓
Cooling system	– Check the coolant level and the absence of oil leaks in the vehicle.		✓		✓	
	– Coolant change.	Every 3 years.				
Front brake and rear brake switches	– Check its operation.	✓	✓		✓	
Moving parts and cables	– Lubricate.	✓	✓	✓	✓	✓
Throttle control knob	– Check its operation. – Check the throttle knob grip clearance and adjust if necessary. – Lubricate the cable and the knob body.		✓		✓	
Lights, signals and switches	– Check its operation. – Adjust the headlight beam.	✓	✓		✓	

RECOMMENDED PRODUCTS TABLE

- i** Use lubricating and fluid products that meet the equivalent specifications, or higher than those prescribed. These same indications are also valid for topping up.

EN

Product	Characteristics	Remarks
4-stroke gear engine oil	SAE 10W40, API service type SG or greater, JASO standard MA	Do not use mineral oils.
Grease for bearings, joints, articulations and levers	Lithium grease	
Coolant	Antifreeze liquid based on ethylene glycol with organic additives	Do not dilute with water.
Fork oil	Fork oil gradation 15W	
Transmission chain lubricant	Spray grease for transmission chains	
Brake oil	Dot 4 or 5.1 brake fluid	
Cleaner for electrical contacts	Contact cleaner	
Fuel	95 or 98 lead-free super petrol	PETROL FUEL TYPE E5 E10
Paste for carter and engine covers coupling	Three Bond N. 1215®	
Safety lock medium tightening	Medium threadlocker	

MAINTENANCE TABLE

Product	Characteristics	Remarks
Safety lock strong tightening	Strong threadlocker	
Lubricant for bolts unlocking	Unblocking protective lubricant	
Anti-friction lubricant for screw tightening torques	Generic engine oil	
Lubricant for rubber oil seals and OR parts	Lithium soap grease	
Battery poles	White vaseline grease	
Vehicle wash	Low pressure water at room temperature Ecological neutral liquid soap	Avoid aggressive detergents.
External cleaning of the brake system (brake discs and seats)	Spray Disc Brake Cleaner	Do not use to clean brake pads and plastic parts.

TECHNICAL DATA

Technical Data	
Maximum length (Scrambler)	2166 mm (85.27 in)
Maximum length (Flat Track)	2180 mm (85.82 in)
Maximum length (Rally)	2190 mm (86.22 in)
Maximum width	820 mm (32.28 in)
Maximum height (Scrambler)	1135 mm (44.68 in)
Maximum height (Flat Track)	1154 mm (45.43 in)
Maximum height (Rally)	1185 mm (46.65 in)
Wheel base (Scrambler)	1423 mm (56.02 in)
Wheel base (Flat Track)	1423 mm (56.02 in)
Wheel base (Rally)	1432 mm (56.38 in)
Weight in running order	160 kg (337.30 lb)
Weight at full load (vehicle, rider, baggage)	330 kg (727.52 lb)
Engine type	4-stroke single cylinder
Number of cylinders	1
Total displacement	448.88 cc (27.39 cu in)
Bore/Stroke	94.5 mm/64 mm (3.72/2.51 in)
Compression ratio	10.8 / 11.5:1
Starting type	Electric
N ° of engine revolutions at idle speed	1600 (1 ± 10%) rpm
Clutch	Multidisk in oil bath Control on the left side of the handlebar
Lubrication system	Casing in oil bath. Pressure system regulated by trochoidal pump

Technical Data	
Type of cooling	Liquid
Coolant	1.5 l (0.32 UK gal, 0.39 US gal)
Type of gearbox	6-speed mechanical Pedal control on the left side of the engine
Transmission ratios (Scrambler)	Primary transmission: $64/28 = 2.286$ 1st gear ratio: $33/14 = 2.357$ 2nd gear ratio: $31/17 = 1.824$ 3rd gear ratio: $28/19 = 1.747$ 4th gear ratio: $26/22 = 1.182$ 5th gear ratio: $25/23 = 0.920$ 6th gear ratio: $21/27 = 0.778$ Secondary transmission: $48/13=3.692$
Transmission ratios (Flat Track)	Primary transmission: $64/28 = 2.286$ 1st gear ratio: $33/14 = 2.357$ 2nd gear ratio: $31/17 = 1.824$ 3rd gear ratio: $28/19 = 1.747$ 4th gear ratio: $26/22 = 1.182$ 5th gear ratio: $25/23 = 0.920$ 6th gear ratio: $21/27 = 0.778$ Secondary transmission: $52/13=4$
Transmission ratios (Rally)	Primary transmission: $64/28 = 2.286$ 1st gear ratio: $33/14 = 2.357$ 2nd gear ratio: $31/17 = 1.824$ 3rd gear ratio: $28/19 = 1.747$ 4th gear ratio: $26/22 = 1.182$ 5th gear ratio: $25/23 = 0.920$ 6th gear ratio: $21/27 = 0.778$ Secondary transmission: $52/14=3.714$

TECHNICAL DATA

Technical Data	
Transmission chain	520 Regina model 135 ZRA
Air filter	Paper
Tank capacity (including reserve)	11.5 l (2.52 UK gal, 3.03 US gal)
Capacity of the fuel reserve only	3.5 l (0.76 UK gal, 0.92 US gal)
Engine oil	Quantity (disassembled) 1.8 l (0.4 UK gal, 0.48 US gal) Without oil filter change 1.15 l (0.25 UK gal, 0.3 US gal) With oil filter change 1.2 l (0.26 UK gal, 0.32 US gal)
Seats	2
Maximum allowable weight (rider, passenger, baggage)	177 kg (390.21 lb)
Fuel system	40 mm single-body Athena electronic injection, singlepoint single injector..
Fuel	95-98 octane super lead-free petrol
Frame	Closed double cradle frame in molybdenum chrome steel with forged aluminium elements
Swing arm (Scrambler)	Steel swing arm with variable section
Swing arm (Flat Track)	Steel swing arm with variable section
Swing arm (Rally)	Variable-section aluminium swingarm made of solid metal
Steering angle (with extended suspensions)	24°
Steering angle (both sides)	39° ± 1°
Front suspension (Scrambler)	Upside down fork ø41 Stroke 150 mm (5.90 in)
Front suspension (Flat Track)	Upside down fork ø41 Stroke 150 mm (5.90 in)

Technical Data	
Front suspension (Rally)	Fork with spring on the right and hydraulic adjustment on the left ø43 Stroke 200 mm (7.88 in)
Rear suspension (Scrambler)	Mono-shock absorber in adjustable compression and progressive linkage Stroke 56 ± 2 mm (2.20 ± 0.07 in)
Rear suspension (Flat Track)	Mono-shock absorber in adjustable compression and progressive linkage Stroke 56 ± 2 mm (2.20 ± 0.07 in)
Rear suspension (Rally)	Gas mono-shock absorber with tank positioned outside for convenient adjustment Stroke 76 ± 2 mm (2.99 ± 0.07 in)
Front brake	Four-piston calliper 28 mm (1.10 in) , 320 mm floating disk (12.59 in)
Rear brake	One-piston floating calliper 32 mm (1.25 in) , 230 mm disk (9.05 in)
Rims/tires (Scrambler)	Aluminium spoked rims with tubeless tires with inner tube: front 2.50 x 19" / rear 3.50 x 17". Inflation pressure: front 1.9 bar (190 kPa $\pm$ 10) (27.55 PSI) rear 2.1 bar (210 kPa $\pm$ 10) (30.45 PSI)
Rims/tires (Flat Track)	Aluminium spoked rims with tubeless tires with inner tube: front 2.50 x 19" / rear 3.00 x 19". Inflation pressure: front 2.1 bar (210 kPa $\pm$ 10) (30.45 PSI) rear 2.3 bar (230 kPa $\pm$ 10) (33.35 PSI)

TECHNICAL DATA

Technical Data	
Rims/tires (Rally)	Aluminium spoked rims with tubeless tires with inner tube: front 2.50 x 19" / rear 3.50 x 17". Inflation pressure: front 1.9 bar (190 kPa ± 10) (27.55 PSI) rear 2.1 bar (210 kPa ± 10) (30.45 PSI) Reference model: Michelin Anakee Wild
ABS system	ABS system on two independent and disconnectable channels
Spark plug	NGK ER9EH-6N
Battery	12 V - 8 Ah
Fuses	Main fuse 30 A Secondary fuses 2 A, 5 A (4), 7.5 A, 30 A
Generator	12 V - 300 W
Turn signals	12 V - 6 W
High/low beam light	Led
Position/brake light	Led
License plate light	Led
ABS warning light	Led
Fuel reserve indicator light	Led
Turn signal indicator light	Led
Neutral indicator light	Led
Oil pressure warning light	Led: not activated
Engine warning light	Led
High beam light indicator	Led