USER MANUAL

XE 50

XM 50

FANTIC

CODE V0009005

EN

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.

⚠ **It is recommended, after the first hours of use, to have all tightening checked with particular attention to:**

A. Front / Rear brake calliper
B. Wheels axle
C. Rear sprocket
D. Engine bolts
E. Rear suspension mounting nuts
F. Wheels spokes
G. Rear frame

The vehicle is equipped by catalytic exhaust (accredited Euro 5) that can catch up high temperatures. Absolutely avoid the contact with body parts, clothes inflammable materials!

⚠ **If necessary consult a FANTIC MOTOR dealer.**

⚠ **The technical information and specifications for maintenance contained in this handbook were correct at the time of going to press. FANTIC MOTOR reserves the right to change the specifications, design data and necessary equipment at any time without notice.**

INDEX

INDEX

EN

This handbook is an integral part of the vehicle and must accompany it if resold. **FANTIC MOTOR** reserves the right to make changes to the models described in this handbook without notice, while guaranteeing the essential features described and shown herein.
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MANUFACTURER'S DATA AND EDITION

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Code: V0009005.

INTRODUCTION

GENERAL CONTENTS AND CONSULTATION

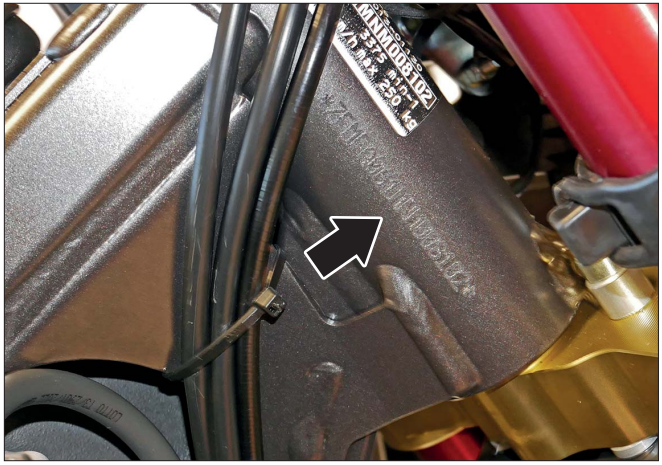
All the specifications and helpful instructions for normal use and maintenance of the vehicle are given in the handbook.
It is advisable to contact our Authorised Dealers for maintenance and any repairs, since they guarantee a prompt and precise service and always use original spare parts.

EN

IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER (V.I.N.)

FANTIC MOTOR vehicles have a vehicle identification number (V.I.N.) visible on the steering head tube. When requesting original spare parts, give this identification number to your Dealer.



Do not change the vehicle identification number (V.I.N.) otherwise the guarantee becomes invalid and there is the risk of serious penalties and administrative fines.

We recommend that you write the vehicle identification number (V.I.N.) in the relative space below in case the number becomes illegible or damaged.

ENGINE IDENTIFICATION NUMBER

Each FANTIC MOTOR vehicle is also fitted with an engine identification number which can be found on the left crankcase base at the rear near the frame fastening.
We recommend that you write this number in the relative space below in case the number becomes illegible or damaged.

INTRODUCTION

CHANGES APPLIED

Any modification to the vehicle, and the removal of original components can compromise the performance of the same, then decrease the security level or even make it illegal. We recommend that you always comply with all national and local laws and regulations regarding vehicle equipment. In particular, technical modifications designed to increase performance or alter the original characteristics of the vehicle must be avoided. Modifications of the vehicle involve the cancellation of the warranty and the decay of the homogenisation. Any arbitrary modification made, relieves
FANTIC MOTOR of any responsibility resulting from damage or injury to property, persons or animals. The user is personally responsible for the choice of installation and use of accessories. FANTIC MOTOR recommends the use of original accessories.

SYMBOLS USED IN THE HANDBOOK

Scrupulously abide by the warnings preceded by the following symbols:

⚠ **Important safety norms for the vehicle and the rider.**

ⓘ **Information note on the procedure described and on the characteristics of the vehicle: it provides useful information to make the procedure easier and clearer.**

BEHAVIOUR AND DRIVING

This handbook should be read and understood before using the vehicle. To use this vehicle it is necessary to have fulfilled all the requirements of law (driving licence, minimum age, insurance, government taxes, registration, number plate, etc.). The taking of certain medicines, alcohol and narcotics or a state of physical fatigue and somnolence may considerably increase the risk of accidents as they affect the body.
If the rider is inexperienced, it is advisable to become familiar with the vehicle on sections of road with little traffic. NEVER lend the vehicle to inexperienced persons and in any case ensure that the person has the necessary qualifications for riding the vehicle.
The Highway Code must be meticulously observed when riding the vehicle. It is absolutely forbidden to race with the vehicles outside special authorised circuits supervised by appointed personnel. Avoid riding off-road.
Always ride correctly, avoiding manoeuvres that are abrupt or dangerous for yourself and others (e.g.: wheeling , remaining in the slipstream of the vehicles in front, failing to comply with speed limits, etc.). Assess and always take into due consideration road conditions, visibility, etc. Always keep both hands on the handlebars in order to steer properly and always keep both feet on the relative footrests. Under no circumstances is it allowed to stand up or to stretch out limbs while riding.
While riding it is a good rule to pay the utmost attention, avoiding being distracted or influenced by persons, things, actions (e.g. do not smoke, eat, drink, read, etc.). The vehicle should always be kept in perfect condition, checking that the fuel, brake fluid and coolant are always within the recommended levels. Only use specific lubricants and fuels of the type indicated in the relative tables for the vehicle in question.
After a fall, check all the controls, levers, pipes, cables, braking systems, wheels and tyres for damage. If any damage is found, do not ride the vehicle, but have it suitably transported (complying with safety and legal regulations) to a FANTIC MOTOR authorised dealer.

⚠ **It is forbidden to change in any way whatsoever the position, angle or colour of: number plate, turn indicators, lighting devices and horns. Do not make technical changes to increase performance or to alter the original characteristics of the vehicle in any way.**

Such changes lead to cancellation of the warranty and may jeopardise the performance and therefore decrease the level of safety of the vehicle or even make it illegal and subject to penal sanctions.
Compliance with all legal provisions as well as national and local regulations regarding vehicle equipment is recommended at all times.

BASIC SAFETY RULES

CLOTHING

Before starting the vehicle, always put a helmet on and fasten it correctly.
The helmet must be:
– approved;
– intact;
– the correct size;
– with intact and clean visor.
Wear close-fitting protective clothing without dangling accessories (e.g. ties, belts, cords, scarves, etc.), which could be entrapped and create problems in steering the vehicle.
Preferably light coloured or reflecting clothing is recommended in order to be more visible and be better protected in the event of a fall.
If sharp pointed objects are worn they could be dangerous in a fall, for example:
– keys;
– pens;
– glass containers, etc.
All these recommendations are also applicable for the passenger.

ACCESSORIES

FANTIC MOTOR advises using original accessories obtainable from authorised dealers.
If the installed accessories are other than original, the user must be responsible for the choice and for correct installation of the same.
Under no circumstances must the accessory:
– limit travel of the suspensions;
– cover any part of the acoustic or visual devices;
– limit use of the steering and controls (brakes, throttle, etc.);
– reduce the steering angle;
– hinder the rake of the vehicle in cornering.
Any large fairing and windscreen mounted on the vehicle could reduce its stability.
The specific **FANTIC MOTOR** accessories excepted, do not install or make changes to the electrical equipment: there could be a dangerous failure of current that is necessary for the acoustic and visual warning devices to work.

LOAD

Loading luggage on the vehicle could affect steering and it is therefore advisable to keep the luggage on the vehicle's centre of gravity if possible so that the weight is evenly and well distributed. Ensure that the load is firmly secured to the vehicle (under no circumstances secure it to the handlebars, the forks or the front mudguard/fender). A load secured in this way would affect the response of the vehicle in cornering, decreasing its stability and controllability. When carrying luggage, take care that it does not project excessively and check that it does not cover the acoustic and visual warning devices.

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.**

SIDE KICKSTAND

The side kickstand is located on the left side of the frame. Raise or lower the side kickstand with your foot while holding the vehicle straight.

The side kickstand is equipped with an ignition circuit breaker system and has the following functions:
– prevent starting when the gearshift is engaged and the kickstand is raised, with the clutch lever not pulled.
– prevent starting when the gearshift is engaged and the clutch lever is pulled, but with the side kickstand still down.
– switch off the engine when the gearshift is engaged and with the side kickstand down.

The kickstand sensor is part of the ignition circuit interruption system. This system allows you to stop the ignition.

It is necessary to check the operation of the kickstand interruption system and the kickstand itself regularly. In case of failure or malfunction contact a Fantic dealer to repair it.

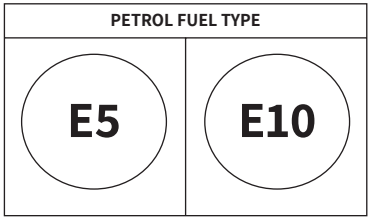
MOTORCYCLE CARE

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.

⚠ **It is recommended, after the first hours of use, to have all tightening checked with particular attention to:**
A. Front / Rear brake calliper
B. Wheels axle
C. Rear sprocket
D. Engine bolts
E. Rear suspension mounting nuts
F. Wheels spokes
G. Rear frame

The vehicle is equipped by catalytic exhaust (accredited Euro5) that can catch up high temperatures.

⚠ **Absolutely avoid the contact with body parts, clothes inflammable materials !**

⚠ **If necessary consult a FANTIC MOTOR dealer.**

MAIN PARTS

CONTROLS (“ENDURO” VERSION)

1. Clutch control lever
2. Secondary engine stop switch
3. Cold start device or choke
4. Beam diverter
5. Indicator switch
6. Horn button
7. Steering lock
8. Fuel filler cap
9. Fuel tank
10. Air filter
11. Auto-Mixer oil reservoir
12. Auto-Mixer oil reservoir filler cap
13. Engine idling speed adjusting screw
14. Gear lever
15. Left footrest
16. Side stand
17. Chain

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18. Front brake fluid tank
19. Stop engine switch
20. Kick starter
21. Coolant radiator cap
22. Front brake lever
23. Throttle control
24. Rear brake fluid tank
25. Right footrest
26. Gear oil drain plug
27. Rear brake pedal
28. Gear oil level plug
29. Gear oil filler cap
30. Spark plug
31. Coolant radiator

MAIN PARTS

CONTROLS (“MOTARD” VERSION)

1. Clutch control lever
2. Secondary engine stop switch
3. Cold start device or choke
4. Beam diverter
5. Indicator switch
6. Horn button
7. Steering lock
8. Fuel filler cap
9. Fuel tank
10. Air filter
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12. Auto-Mixer oil reservoir filler cap
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14. Gear lever
15. Left footrest
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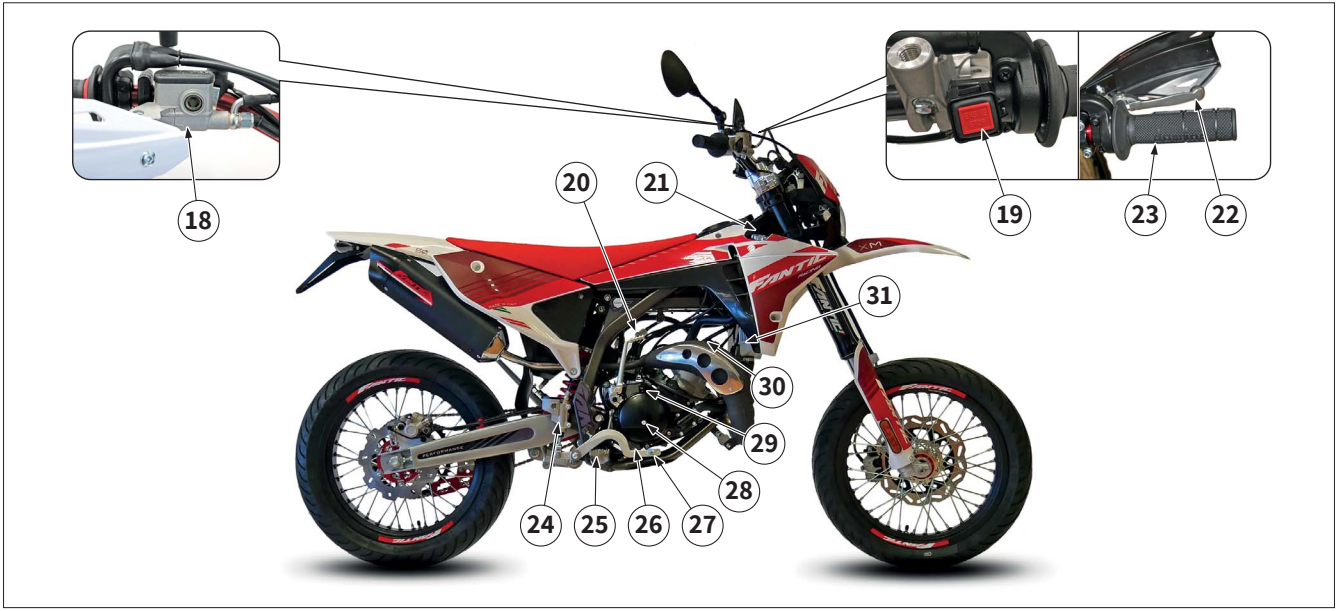

18. Front brake fluid tank
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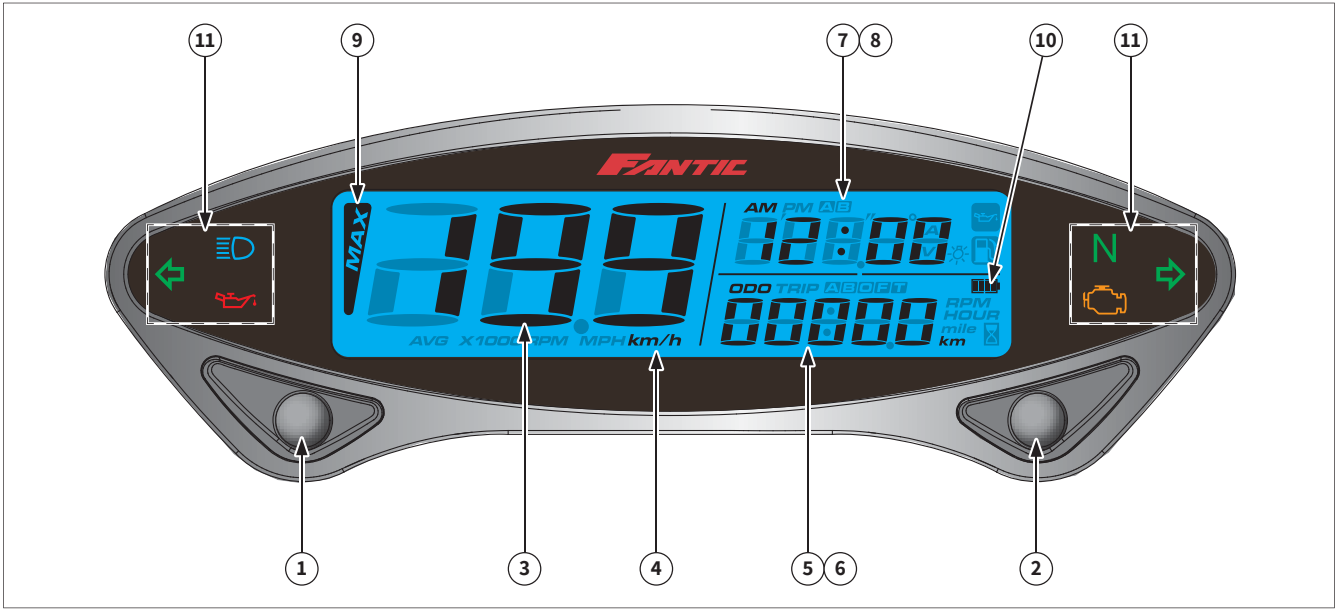
DASHBOARD

Instruction of function

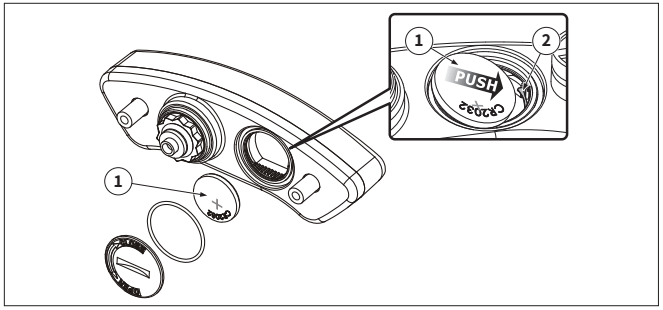


1. Select button
   - Press the Select button on the main screen to switch between 12–24 hour mode, speedometer record, stopwatch , and MAX record;
2. Adjust button
   - Press the Adjust button on the main screen to switch between ODO, Trip A–B, Total Hour meter, Hour meter A–B;
3. Speedometer
   - Display range : 0~360km/h (0~225 MPH);

4. Speedometer
   - Display unit : km/h (MPH);
5. Odo meter
   - Display range : 0~99999 km (mile), automatically reset after 99999 km (mile);
   - Display unit : 1 km (mile);
6. Trip meter
   - Display range : 0~9999.9 km (mile), automatically reset after 9999.9 km (mile);
   - Display unit : 0.1 km (mile);
7. Clock
   - 12–24 MODE;
8. Stopwatch function
   - Can be either programmed for manual activation or by wheel activation;
9. Max Record function
   - Average speed : 0 ~ 360 km/h (0 ~ 225 MPH);
   - MAX Speed : 0 ~ 360 km/h (0 ~ 225 MPH);
10. Inner battery display range
    - 4 levels;
11. Indicator lights
    - High beam light (Blue);
    - Direction light (Green);
    - Neutral light(Green);
    - FI light (Yellow);
    - Oil light (Red).

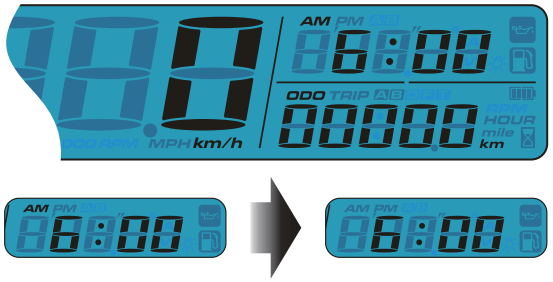
Battery replacement
Follow this procedure for installation:
- The meter includes an internal battery “1” (CR2032). This battery shall be replaced only when power runs out.
- In order to install the battery “1” properly, push the battery as show on figure to make sure the battery is placed underneath the metal tab “2”.

⚠ **Not following this procedure could result in permanent damage to the meter.**



Switch Function Instructions
Instructions for select button:
- Press the Select button while on main screen to switch from Clock to Stopwatch.
- Press and hold the Select button for 3 seconds to alternate 12/24 hour modes.

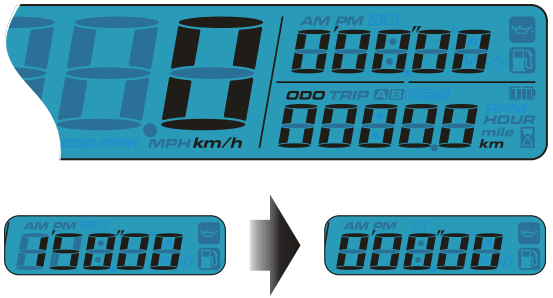
ⓘ **If 24 hour mode is chosen, then the AM/PM symbol will not be displayed.**



- Press the Select button to switch from Stopwatch to Average record.

ⓘ **When the option for manually resetting the stopwatch is chosen, press Select button and hold for 6 sec. to switch to Average record.**

- Press and hold the Select button for 3 seconds to reset the Stopwatch.



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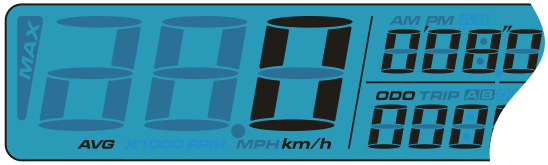
– Press the Select button to switch from Average record to clock meter.

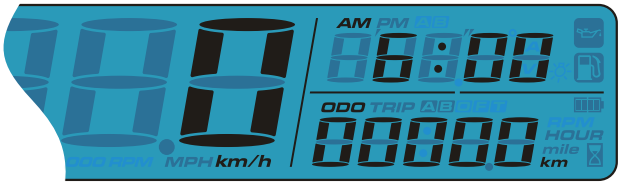
ⓘ **Average speed and the Max speed display in the 3 seconds rotation.**

– Press and hold the Select button for 3 seconds to reset all records.

ⓘ **When Maintenance Symbol is ON, please reset under this function screen.**

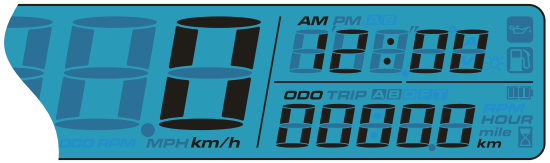


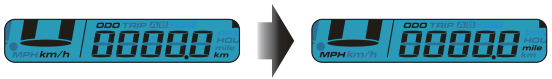
– Back to clock screen.



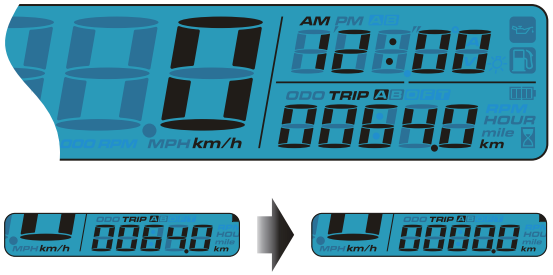
Instructions for adjust button:

– While on odometer screen, press the Adjust button to switch from odometer to trip A.
– While on odometer screen, press and hold the Adjust button for 3 seconds to change the speed unit.

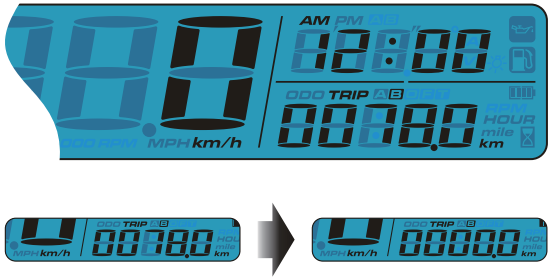




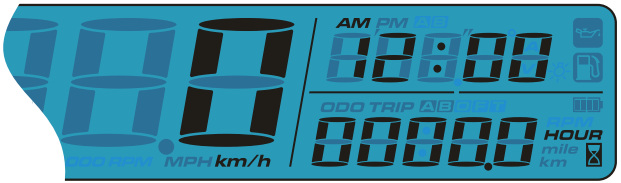
- Press the Adjust button to switch from trip A to trip B.
- Press and hold the Adjust button for 3 seconds to reset the trip A .



- Press the Adjust button to switch from trip B to total hour meter.
- Press and hold the Adjust button for 3 seconds to reset the trip B .



- Press the Adjust button to switch from total hour meter to hour meter A.



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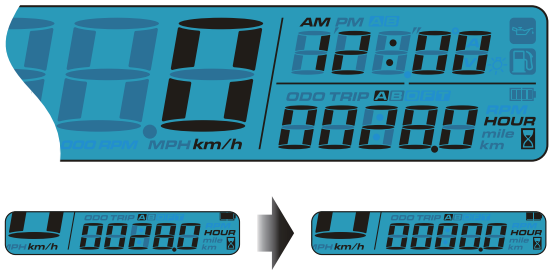
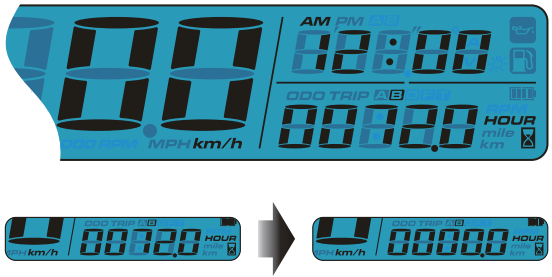
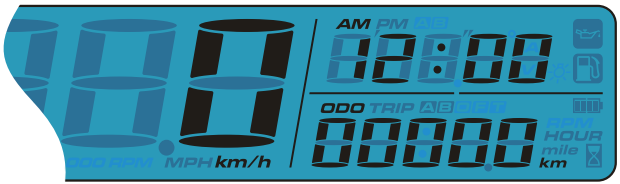
– Press the Adjust button to switch from hour meter A to hour meter B.
– Press and hold the Adjust button for 3 seconds to reset the hour meter A .



– Press the Adjust button to exit from hour meter B and to go back to odometer screen.
– Press and hold the Adjust button for 3 seconds to reset the hour meter B.



– Back to the odometer screen.



Setting Mode

– While on main screen, press the Adjust + Select 3 seconds to enter the tire circumference and sensing point settings (for setting a different tire size).
– Use the Adjust button to set the circumference.

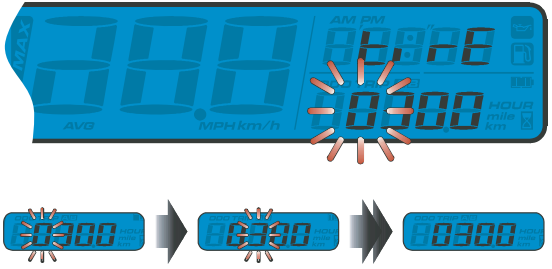
The tire circumference and sensing point setting

ⓘ **Example: the tire circumference is 1300 mm.**

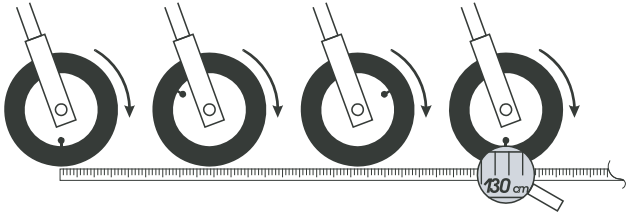
– Press the Adjust button to move the digit you want to set.

ⓘ **The tire circumference setting range is from 300 to 2500 mm.**

Default setting: 1000 mm.



– Use the valve stem as the starting point and the terminal point to measure the wheel circumference with a measuring tape.



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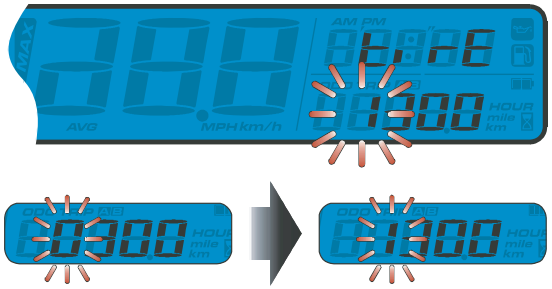
Example: the tire circumference setting is changed from 1000 mm to 1300 mm.

- Press the Select button to change the setting.
- Press the Adjust button three times to enter the sensing point setting.



Sensing point setting

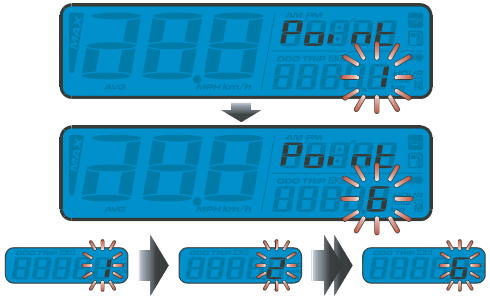
Example: to change the sensing point to 6.

The sensing point settings range from 1 to 6 points.

Default value: 1.

Example: the sensing point setting has been changed from 1 to 6.

- Press the Select button to choose the hour you want to set.
- Press Adjust button to go back to tire circumferences value and sensing point setting screen.



– From d 1 switch to d 2 screen.
– Press the Select button to enter the clock (Hour) setting.

The clock (hour) setting

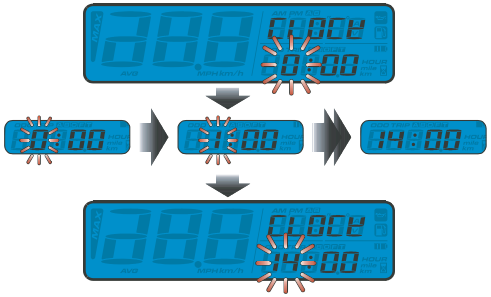
ⓘ **Example: the hours have to be set to 14.**

– Press the Select button to choose the hour you want to set.

Setting range: 0~24 H.

ⓘ **Example: the hours have now been changed from 0:00 to 14:00.**

– Press the Adjust button to enter the minute setting.



The clock (minute) setting

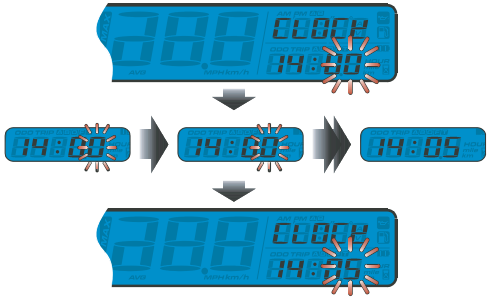
ⓘ **Example: to change the setting to 14:05.**

Press the Select button to choose the minute to be set.

Setting range: 0~59 minutes.

ⓘ **Example:the time is now changed to 14:05.**

Press Adjust button to go back to Clock setting screen.



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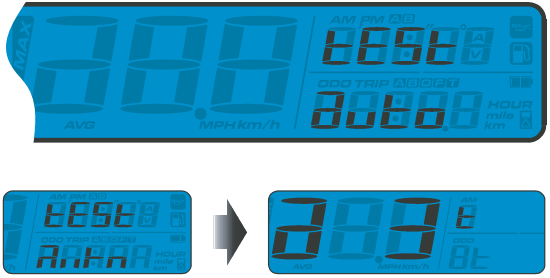
– From d 2 switch to d 3 screen.
– Press the Select button again to enter the Stop watch Setup.

Stop watch Setup

– Press Adjust button to choose between Auto mode (Stop watch starts/stops according to the wheel rotation) and Manual mode (Stop watch starts/stops by pressing the meter button of the optional thumb switch).
– If “Auto” option is chosen, press Adjust button to exit the Stop watch setup.

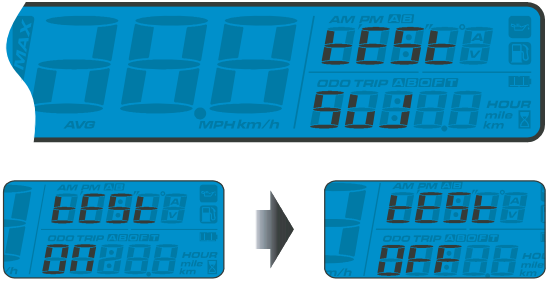
Default value: AUTO.



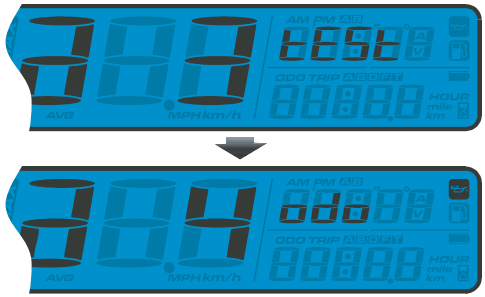
– If Manual mode “SW” (switch) option is chosen, press Adjust button to enter the menu then Select button to switch between “ON” (external button - optional) or “OFF” (meter button).

Default value: OFF.

– Press the Adjust button to enter the ODO setting.



– From d 3 switch to d 4 screen.
– Press the Adjust button to enter the Maintenance Oil Light Setting.

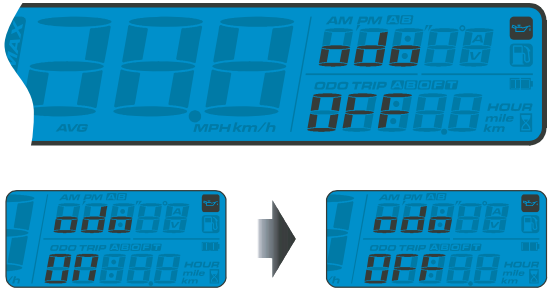


Maintenance Oil Light Setting

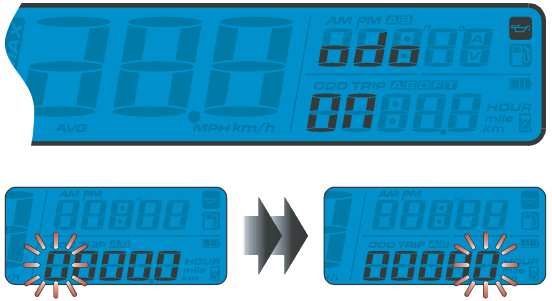
Example: select ON/OFF to enable/disable the maintenance oil light function.

– If “OFF” is selected, the press the Adjust button once to exit the maintenance mileage setting.

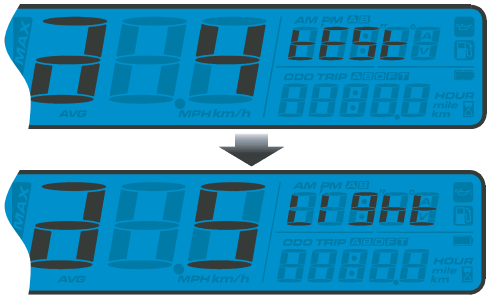
Default value: OFF.



– If “ON” is chosen, press Adjust button to enter the maintenance oil light setting.
– Press the Adjust button to move the cursor to the digit to be set.
– If “OFF” is chosen, then press the Adjust button to exit the maintenace oil light setting.



– From d 4 switch to d 5 screen.
– Press the Adjust button to enter the Backlight Brightness setting.



Backlight brightness

ⓘ **Example: to change the Backlight brightness setting to 1.**

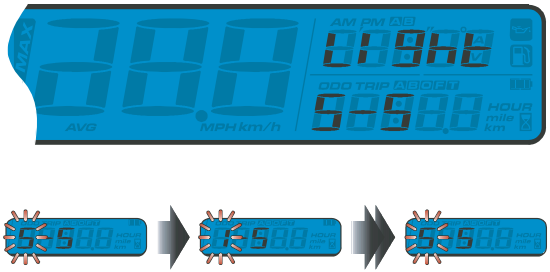
– Press the Select button to adjust the brightness of the backlight.

Adjustable Range: 1~5.

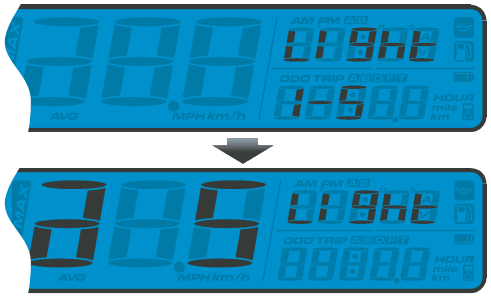
Default value: 5.

ⓘ **Example: the Backlight brightness setting is changed from 5 to 1.**

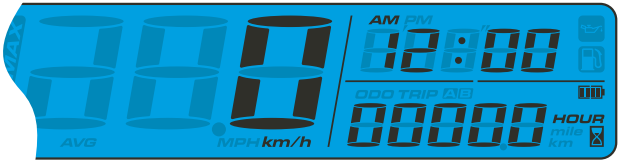
– Press the Adjust button to confirm and exit the Backlight Brightness setting.



– Then press and hold both the Adjust and Select buttons 3 seconds to exit and go back to the main screen.



– Back to the main screen.

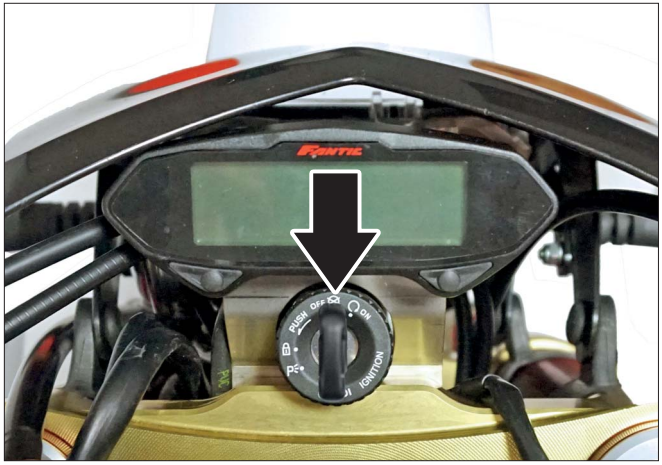


Dashboard setting values

Dashboard setting	Version	Standard value
Wheel circumference	Motard	1880
Wheel circumference	Enduro	2000
Sensitive point	–	P9
RPM pulse	–	HI-ACT
Fuel reserve	–	SWITCH

STEERING LOCK

To lock the steering, put the vehicle on the stand and then turn the handlebar fully to the right.
Insert the key into the steering lock.



Press the key into the lock.

Turn it counter-clockwise.

Release the key and pull it out.

PRELIMINARY CHECKLIST

Part	Check
Disk brake, front and rear	– regular braking (smoothly, without skidding) upon application and release; – correct no-load travel and good sliding of front and rear brake lever; – brake fluid level in tank, front and rear; – for any leaks along the braking circuit (brake fluid tank, brake hose pipe, brake calliper), front and rear; – front and rear brake pads for wear.
Throttle control	That twisting of the handle control and acceleration of the engine are soft, continuous and smooth.
Gear oil	Correct level (see relative table under MAINTENANCE).
Wheels and tyres	– tyre pressure (see relative table under MAINTENANCE); – tyre tread for wear; – general state of tyres and wheels; – the tread for foreign matter and remove; – for any damage.
Clutch	– proper operation (without binding, jerking or slipping) upon activation and release; – correct no-load travel and good sliding of clutch control lever.
Steering	– complete, even, smooth rotation; – no play.
Stand	– complete, even, smooth rotation; – no play on fulcrum pin; – correct retraction of stand to rest position; – that the springs keep the stand in the rest position without play.
Engine stop switch	Correct operation.
Kick starter	Correct operation.

Part	Check
Driving chain	– slack; – chain, sprocket and ring gear for wear; – cleanliness and lubrication.
Fuel tank	– that the fuel tap lever turns freely to all positions; – that the fuel tap lever is in the “ON” position; – fuel level; – fuel cap closure; – for any leaks along the fuel circuit (fuel tank, fuel pipes).
Auto-Mixer oil reservoir	– correct operation of the oil indicator light; – mixing oil level; – mixer oil reservoir cap closure; – for any leaks along the mixing oil circuit (mixer oil reservoir, coolant pipes).
Instrument panel	– instrument panel function settings (if envisaged); – lights; – general operation; – direction indicator tell tale; – full beam indicator light; – neutral indicator light.
Acoustic and visual devices	– horn; – headlamp and tail lamp; – stop light; – direction indicators.
Battery	Charge level.
Cooling system	Check level of liquid.

RUNNING-IN RULES

A running-in period is necessary when first using the vehicle. This is fundamental for correct operation and long-life of the engine. Certain rules must be complied with during this period to prepare the engine and vehicle parts for subsequent top performance (after running in).
The following tips are given as an indication to help the user carry out a good running-in period: failure to comply may not lead to immediate damage, but could have a negative effect on the subsequent efficiency of the engine and the vehicle parts in general.

Stress
It is important for the engine and vehicle parts to be subjected to stress appropriately.
It is also important neither to overstress nor to under stress, as in both cases the engine and the vehicle parts would suer.

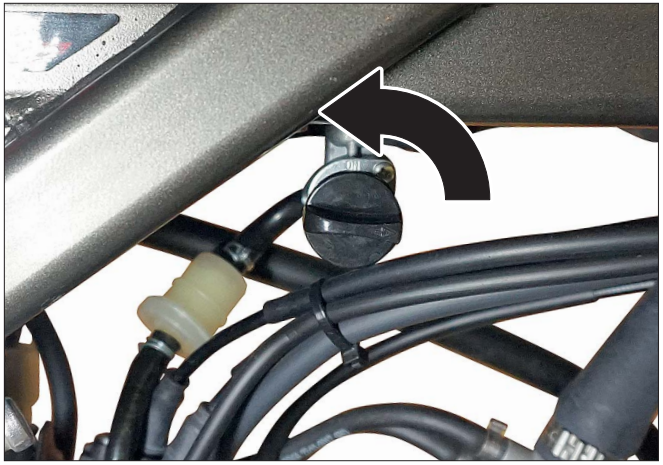
Routes
When riding along mountain roads, take care not to force the engine, brakes and suspensions.
The vehicle is more suited to travelling along winding and moderately hilly roads where the engine, brakes and suspensions alternate periods of stress with periods of reduced or no stress.

Speed
Change the speed gradually (no sudden full throttling).
Full throttling is allowed, but do NOT travel for long stretches with the accelerator handle control fully twisted (full speed).

Braking
The brake pads are new at the time of purchase; the friction surface does not create perfect friction on the disks at first. To be fully operative the surface must be run-in, after which it will adhere perfectly to the disk during braking. Running-in requires approximately 200 km (125 mi) of urban route. During this period, take into account that you will need longer braking spaces and apply the brake lever more forcefully. Abrupt and prolonged braking is to be avoided.
During the first 1000 km (625 mi), ensure that any maintenance operations envisaged for this mileage are carried out.

STARTING

After having checked that there is fuel in the tank, open the fuel tap on the tank.



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 will prevent the operation of the start button.**

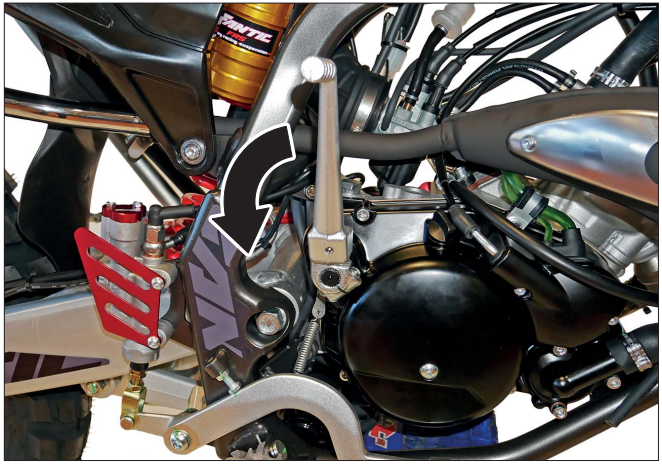
Apply the front brake. Pull the clutch lever and make sure that the gearbox is in neutral.

Vigorously press the kick starter with your foot while at the same time twisting the accelerator handle control with moderation.

In the case of a cold start, see the next paragraph.

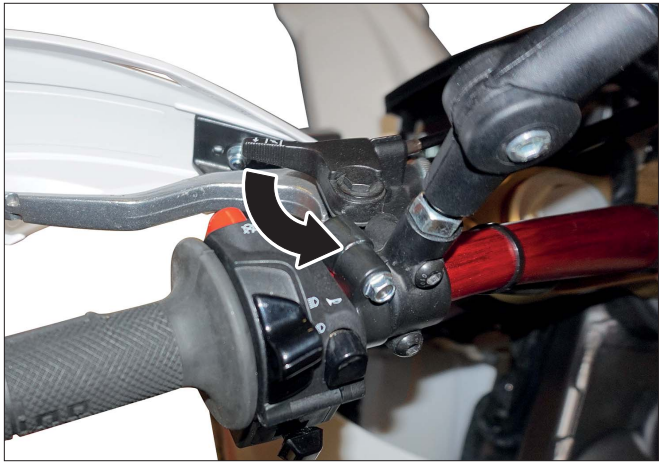
If the low Auto-mix oil warning light comes on during normal running of the engine, this means that the mixing oil level has reached reserve; it is therefore necessary to top up the Auto-mix oil.

Do not keep the kick starter pressed nor touch it again once the engine has started.



COLD START

The vehicle is fitted with a cold start device or choke, which it's controlled either by a lever located above the clutch lever on the left of the handlebar.
To carry out this procedure, pull the cold start lever, start the vehicle, wait a few moments with the lever activated until the engine reaches operating temperature, then return the lever to its initial position.



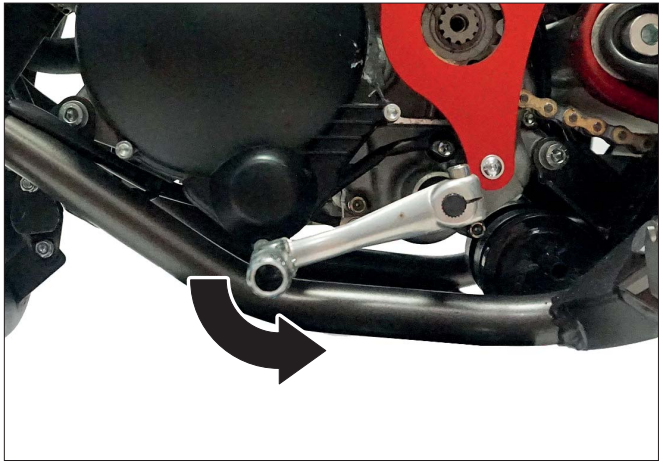
⚠ **Prolonged connection of the choke (with engine running) could jeopardise engine operation and efficiency.**

⚠ **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.**

STARTING OFF

After having warmed up the engine, use the clutch control lever and engage 1st gear (gear lever downwards neutral indicator (N) on the instrument panel is not lit).

Gradually release the clutch and at the same time throttle with moderation.

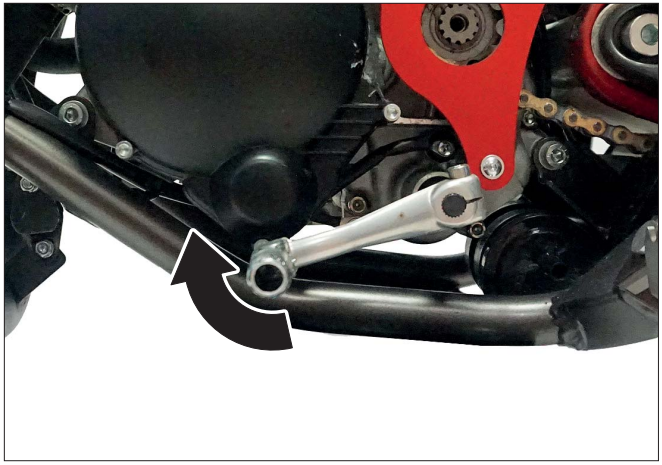


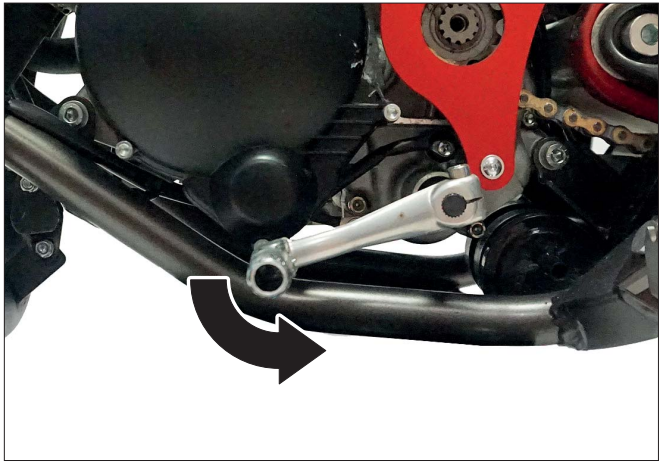
USING THE GEARS

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

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.





STOPPING THE ENGINE

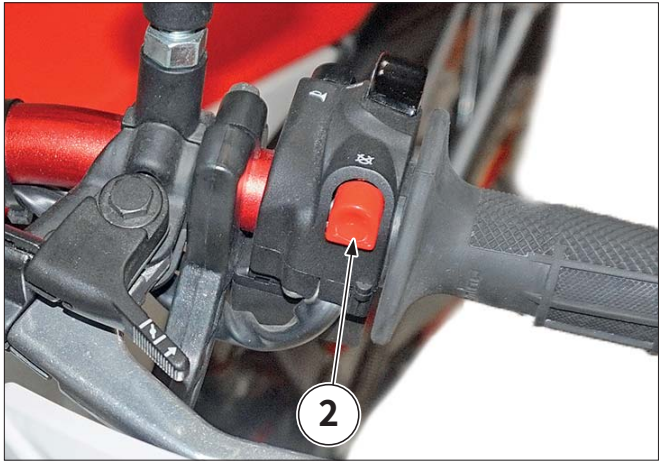
⚠ **Do not use the engine stop switch when the vehicle is running (this would cause a MOMENTARY stop of the engine and subsequent restart upon releasing the switch; this could damage the engine and in particular cause loss of control over the vehicle).**

To turn the engine off, stop the vehicle and put the gear lever in neutral. Only then press the engine stop switch (1) and keep it pressed until the engine comes to a COMPLETE stop, ensure to turn the switch key anticlockwise.

ⓘ **Alternatively, the secondary engine stop switch (2) can also be pressed to switch off the engine.**

If you forget to turn off the key, battery quickly reduce the charge and should be replaced.

Put the vehicle on its side stand after having dismounted from the left side of the vehicle and if necessary engage the steering lock, see under the paragraph STEERING LOCK.



INTRODUCTION

Before carrying out any maintenance or inspection on the vehicle, switch off the engine and wait for it and the exhaust system to cool to avoid the danger of burns.
Some vehicle parts are harmful or even toxic and care must be taken when handling them.

Check that the following norms are satisfied:
- The place where the work will be carried out must be sufficiently ventilated and there must be a sufficient change of air in the room;
- The area where the work is carried out must not be dusty, dirty or cluttered with other parts not belonging to the vehicle;
- The tools and equipment must be suitable for the type of maintenance to be carried out;
- Wear suitable clothing (work overalls), working gloves, latex gloves, protective goggles (or mask) during maintenance that requires them;
- Have original spare parts to hand or the necessary liquids for maintenance to be carried out (such as brake pads, gear oil, brake fluid, coolant).

Unless expressly described otherwise, reassemble units that have been disassembled by proceeding in the reverse order to the disassembly operations. The user can normally carry out routine maintenance work, even though specific tools/ equipment and a technical preparation may sometimes be required. If you do not have all the tools or equipment for carrying out the work, it is inadvisable to proceed by trial and error.

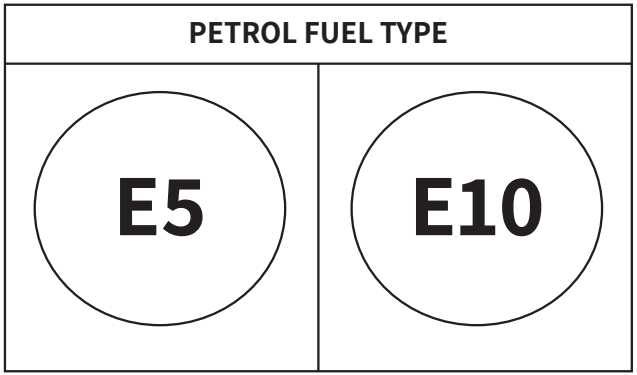
If it is necessary to call the service centre or to have technical advice, contract a FANTIC MOTOR Dealer.
If the user is not interested in carrying out routine maintenance, we recommend going to a FANTIC MOTOR Dealer.

In this case it is the responsibility of the user to tell the Dealer of any maintenance work already carried out so that it is not repeated unnecessarily.

FUEL

⚠ **l 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.**



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PERIODIC MAINTENANCE CHART

All scheduled maintenance operations including those interposed between the services, for the continuation of the guarantee must be certified with specific documentation for the type of operation performed.

Work by dealer

The company cannot be held civilly or criminally liable for damage to the vehicle and property or injury to persons due to maintenance carried out by the user.

Key

❶ **check and clean, adjust, lubricate if necessary;**

❷ **clean;**

❸ **replace;**

❹ **adjust.**

ⓘ **Carry out maintenance more frequently if the vehicle is used in rainy or dusty areas or on rough routes.**

Parts	End of running-in 1000 km (600 mi)	Once every 3000 km (1750 mi) or 12 months	Once every 6000 km (3500 mi) or 12 months
Spark plug	❷	❸	❸
Clutch play	❹	❹	–
Light System	❶	❶	–
Coolant liquid	every 2000 km (1250 mi): ❶		
Auto-Mix oil level	every 500 km (312 mi): ❶		
Gear oil	❸	❶	❸
Tightening of nut and bolts	❶	❶	–
Engine idling speed rate	❹	❹	–
Wheels/tyres and inflation pressure	every month: ❶		
Tension and lubrication of driving chain	every 500 km (312 mi): ❶		
Wear of front and rear brake pads	every 2000 km (1250 mi): ❶		

⚠ **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.**

Work by the dealer
All scheduled maintenance operations including those interposed between the services, for the continuation of the guarantee must be certified with specific documentation for the type of operation performed.

The company cannot be held civilly or criminally liable for damage to the vehicle and property or injury to persons due to maintenance carried out by the user.

Key

❶ **check and clean, adjust, lubricate if necessary;**

❷ **clean;**

❸ **replace;**

❹ **adjust.**

ⓘ **Carry out maintenance more frequently if the vehicle is used in rainy or dusty areas or on rough routes.**

Parts	End of running-in 1000 km (600 mi)	Once every 3000 km (1750 mi) or 12 months	Once every 6000 km (3500 mi) or 12 months
Rear shock absorber	–	–	❶
Carburettor	❷	❷	❷
Drive and control cables	❶	❶	–
Wheel truing	–	❶	–
Steering head tube bearings and steering play	❶	❶	–
Wheel bearings	–	❶	–
Brake disks	❶	❶	–
Air filter	❸	❸	❸
Additional fuel filter	❸	❸	❸
General running of vehicle	❶	❶	–
Braking systems	❶	❶	–
Cooling system	❶	❶	–
Brake fluid	every two years: ❸		
Silencer/exhaust system	–	❷	–
Exhaust gas purification system maintenance	every 12000 km (7500 mi): ❸		
Fork oil and oil seal	every 12000 km (7500 mi): ❸		
Piston and piston rings	after the first 8000 km (5000 mi): ❶		every 8000 km and multiples: ❸

Key

❶ **check and clean, adjust, lubricate if necessary;**

❷ **clean;**

❸ **replace;**

❹ **adjust.**

ⓘ **Carry out maintenance more frequently if the vehicle is used in rainy or dusty areas or on rough routes.**

Parts	End of running-in 1000 km (600 mi)	Once every 3000 km (1750 mi) or 12 months	Once every 6000 km (3500 mi) or 12 months
Wheels/tyres and inflation pressure	❶	❶	–
Tightening of nuts and bolts	❶	❶	–
Final drive (chain, sprocket, ring)	❶	❶	–
Fuel pipe	–	❶	every 4 years: ❸
Auto-Mix oil pipe	–	❶	every 4 years: ❸
Clutch wear	–	❶	–

ENGINE OIL

⚠ **PAY ATTENTION TO THE FOLLOWING !**

Change the engine oil after the first 1000 km/625 miles. For subsequent oil changes, follow the instructions given on the chart using the lubricants recommended.

The gear oil is:
- harmful by inhalation, if swallowed or in contact with skin, with possible serious consequences;
- irritating to skin;
- harmful for the environment.

To be avoided:
- contact with skin;
- inhalation of vapours;
- ingestion;
- release to the environment;
- exposure to air.

- If swallowed do NOT induce vomiting but seek medical advice immediately (first aid post), indicating the cause and how the accident occurred.
- After contact with skin, wash the affected part immediately with soap and water, repeating the operation until there are no more residues.
- In case of contact with eyes or ears, rinse the affected parts immediately with plenty of water and seek medical advice immediately (first aid post), indicating the cause and how the accident occurred.
- After contact with clothes, remove contaminated articles and wash immediately with plenty of water and soap. Substitute the contaminated clothes, which must be cleaned appropriately as soon as possible.
- If gear oil is accidentally spilt on the floor or in other areas, clean the contaminated area. Always wear latex gloves to protect hands when carrying out maintenance.
- Always close the gear oil cap properly after every topping up.

KEEP OUT OF REACH OF CHILDREN.

DISPOSE OF THE OIL AT A SPECIAL WASTE COLLECTION POINT.

– The used gear oil must be put in a sealed container and taken to the nearest service station or to a waste oil collection point where it will be disposed of correctly.

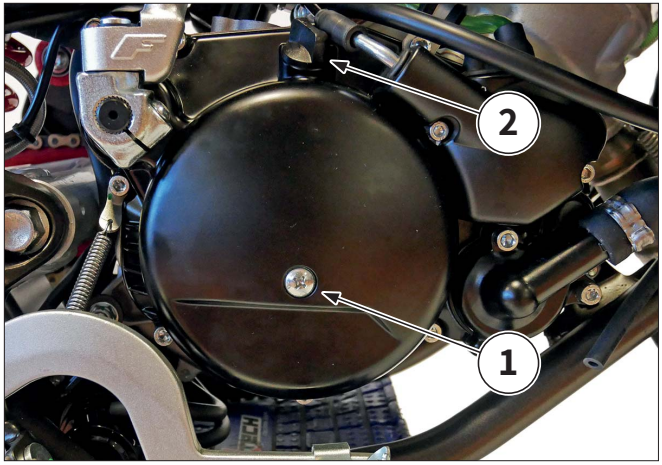
Engine oil level check
You should wear gloves when doing this.

⚠ **Do not perform this check with the motorcycle resting on the kickstand.**

Place the vehicle on a flat surface.

⚠ **Keep the vehicle in a vertical position and with both wheels resting on the ground.**

⚠ **The level must be controlled with the engine cold. If the vehicle has just been used, it is advisable to wait at least ten minutes for the engine to cool so that the oil circulating in the crankcase settles and cools.**



⚠ **The engine oil also lubricates the clutch. The wrong oil or chemical additives may cause the clutch to slip. Therefore, do not add chemical additives or use motor oil a grade of "CD" "C" or higher and do not use oil with the label "ENERGY CONSERVING II" "d".**

⚠ **Do not allow foreign material to enter the crankcase.**

Remove the control screw (1) located in the right-hand part of the crankcase; the oil level is correct when it does not exceed the bottom lip of the hole.

⚠ **The level must never exceed the lower edge of the hole and at the same time it must be lower than the hole itself. In the first case, excess oil will leak out; in the second case, the engine could be seriously damaged.**

Top up if necessary.

EN

Topping up
For the type of gear oil to be used, see (LUBRICANTS) under: Gear oil.
– Unscrew and remove the filler cap (2).
– Pour in a small amount of oil and wait approx. one minute for the oil to flow uniformly inside the crankcase.
– Repeat topping up with small amounts of oil and check that the correct level has been reached.
– When the level is correct, screw the cap (2) back on and the level control screw (1).

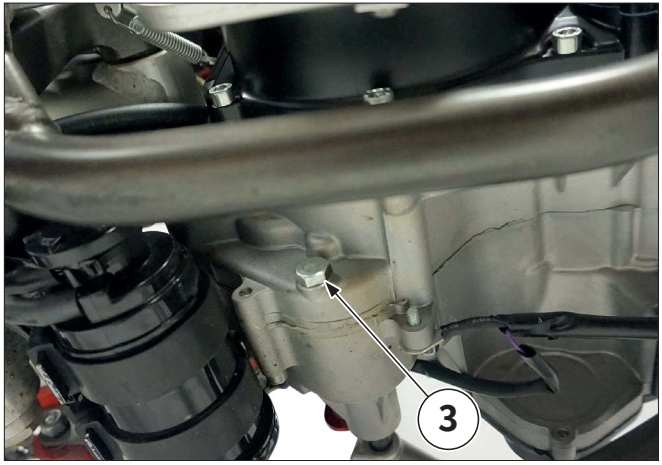
Changing the oil
The oil should be changed when the engine is warm (to facilitate drainage), proceeding as described below.
– Place the vehicle on firm and level ground;
– Keep the vehicle upright with both wheels resting on the ground.
– Place a container with a capacity of over 820 cm3 under the drain plug (3).
– Unscrew and remove the drain plug (3) and the filler cap (2).
– Let the oil flow out and then drip for a few minutes into the container.
– Remove any metal residues attached to the magnet on the drain plug.

– Check, and if necessary replace, the sealing washer of the drain plug.

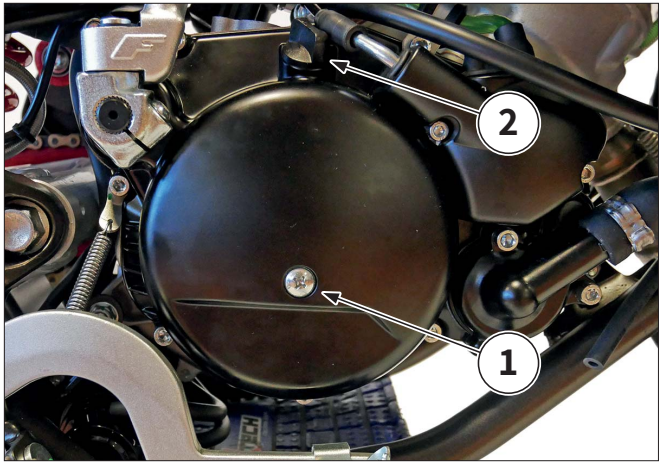
ⓘ **It is recommended to replace the sealing washer of the drain plug every time the gearbox oil is changed.**

– Close the drain plug (3).

ⓘ **Torque wrench setting for drain plug (3): 15 Nm (1.5 kgm).**



- Pour 750 cm of gear oil into the filling hole (2), see (LUBRICANTS).
- Refit the filler cap (2).
- Start the vehicle, see (STARTING) and let it idle for a short period to allow the gear oil to circulate.
- Check the oil level and top up if necessary.



⚠ **Close the filler cap and drain plug well and make sure there is no oil leak. Wipe away any drops or smears of oil left from putting in the oil. Periodically check for leaks around the gasket of the crankcase cover.**

⚠ **Do not use the vehicle if the lubricant level is insufficient or the lubricant is dirty since this would accelerate wear and tear of the moving parts and could lead to irreparable damage.**

Amount of oil

ⓘ **Total quantity: 0,75L (0,79 US qt) (0,66 Imp. qt)**

TYRE INFLATION PRESSURE

Specifications
The brand, type and size of the specific tyres for this vehicle are given on page SPECIFICATIONS.

Tyre pressure
For the tyre pressures see SPECIFICATIONS.

The right tyre pressure ensures that the vehicle is in the best conditions for:

– better ride ability;
– better drive ability;
– longer tread life;
– better road holding.

Under inflation of the tyre results in:

– irregular wear;
– poorer drive ability and road holding;
– higher fuel consumption;
– possibility of bursting (due to increase in working temperature).

Overinflation of the tyre results in:

– irregular wear;
– poorer drive ability and road holding;
– jeopardised ride ability and comfort.

Checks
For the maintenance intervals, see (PERIODIC MAINTENANCE CHARTS), under:
– Tyres;
– Tyre pressure;
– Wheels/Tyres.
Check tyre wear and pressure (at ambient temperature) before and after every long journey and as described in the SPECIFICATIONS.

Ambient temperature of the tyre means that the vehicle has been stationary for at least three hours or that it has travelled in this time a distance of no more than 2 km (1 mi). If there is no choice but to check the pressure after having travelled many kilometres, remember that the measured values are 30-40 kPa (0.3- 0.4 bar) higher than those measured at ambient temperature. This is normal, so do not deflate the tyres to obtain the recommended values (valid for ambient temperature), otherwise the tyre pressure will be insufficient.

If possible always use the same pressure gauge to check the pressure, so as not to risk wrong values caused by the variability between different gauges. If you note a loss of pressure, carefully check the tyre and try to find the point from where the air is leaking.

At every pressure control, check for:

– damage, wear, foreign matter lodged in the tread.

Check very carefully for:

– bulging on the tread or the side wall of the tyre. If present, the tyre must be changed;
– side wall cracks, cuts or slits. If present or if the fabric breaker is visible, the tyre must be changed;
– an excessively smooth tread.

Certain types of tyres have wear indicators; several types exist. Speak to the dealer, who can give you information also regarding the methods of checking wear.

Tread depth
The minimum tread height must never be less than 1 mm (0.03 in) and in any case not less than what is prescribed by the legislation in force in the country where the vehicle is used.

⚠ **If the tyre is worn or if any puncture in the tread area is larger than 5 mm, the tyre must be changed.**

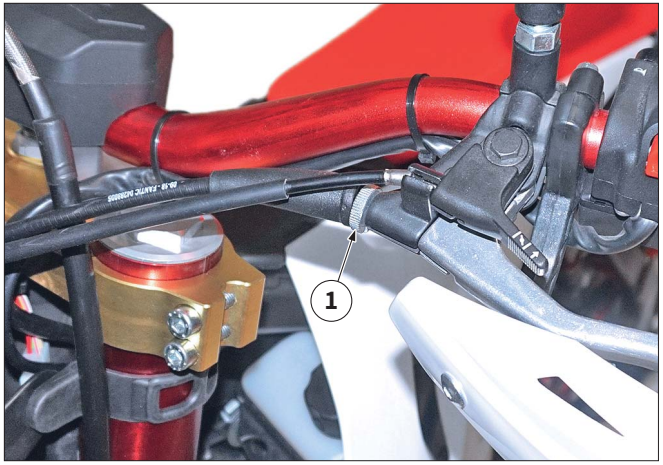
Changing a tyre

When changing a tyre, use the type and model recommended by the manufacturer. The use of other than recommended tyres could jeopardise the drive ability and stability of the vehicle with consequent danger of accidents and risk of serious injury and even death.

Replacements, repairs and maintenance are very important, require experience and must be carried out with the appropriate tools. For this reason it is recommended going to a FANTIC MOTOR Dealer or a specialised tyre repairer for the above procedures.

Precautions
High speed tends to open the tyre pressure valves (due to the centrifugal force generated by wheel rotation). Correctly closed pressure valve nipples prevent a sudden drop in pressure of the tyres.
Check that the pressure valves always have caps fitted on them.
New tyres are covered with a slippery coating that disappears after the first few kilometres; ride with caution during this period.
Do not grease the tyres with unsuitable liquid and do not clean them with petrol or any other diluent.
If the tyres are old, even if not completely smooth, they could harden and no longer guarantee good road holding. In this case they must be changed. Take great care when removing/fitting tyres to avoid scratching or damaging the rims with the tools and the vices.

CLUTCH



Tips

The clutch must be adjusted if:

– the vehicle tends to move forward with the clutch pressed and the gear engaged (in this case the clutch does not disengage);
– upon starting or during running, when releasing the clutch the engine revs excessively and delays in transferring movement to the rear wheel (the clutch binds and therefore slips).

Adjustment is made using the adjusting screw (1) located on the clutch connection to the handlebar.

Adjustment

This model is equipped with a single adjustment device (1) for the clutch cable length.

Periodically check correct adjustment of the clutch cable, ensuring that the travel without load of the control lever is 3-4 mm. If the measure is not respected, adjust using the control lever adjuster (1).

Control

Start the engine, see (STARTING). Pull the clutch control lever as far as it will go and engage first gear. Release the clutch and at the same time throttle with moderation.

Check that:

– upon releasing the clutch the vehicle makes a smooth start without any of the previously listed problems, see “TIPS”.

To prevent the clutch cable from corroding and early wear, it is as well to lubricate it with a suitable lubricant.

Check the whole length of the clutch cable for damage; the sheath must present no slits,cuts, crushing or wear. If any one of these defects is to be found, have the clutch cable replaced by a FANTIC MOTOR Dealer.

FUEL

The fuel used for internal-combustion engines is:
– highly inflammable and, in certain circumstances, may become explosive;
– harmful by inhalation, if swallowed or in contact with skin, with possible serious consequences;
– irritating to skin;
– harmful to the soil and aquatic environment, harmful to flora and fauna.

To be avoided:

– contact with skin;
– inhalation of vapours;
– ingestion;
– release to the environment;
– exposure of the fuel to air.

⚠ **Do NOT use your mouth to suck up, with a tube or other means, fuel from the tank. The fuel vapours are dangerous.**

⚠ **Under NO circumstances put your face near the fuel tank filler.**

During refuelling and in the vicinity of fuel vapours:

– do not smoke;
– do not use naked flames, sparks or any other source of ignition or explosion;
– switch off the engine and the lights.

If swallowed do NOT induce vomiting but seek medical advice immediately (first aid post), indicating the cause and how the accident occurred.
After contact with skin, wash the affected part immediately with soap and water, repeating the operation until completely clean.
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.
After contact with clothes, remove contaminated articles and wash immediately with plenty of water and soap. Change the dirty clothes, which must be washed as soon as possible.

Avoid fuel spilling or overflowing from the tank; if it comes into contact with overheated engine parts it could cause a fire. If fuel is accidentally spilt, clean the affected area thoroughly, making sure that it is completely dry before starting the engine.
The fuel must only be used as fuel for internal combustion engines and sold only by putting it directly into the vehicle tank. An increase in the temperature (also environmental) causes the fuel to increase in volume. There is an air gap between the “fill level” and a completely full tank designed to allow the fuel volume to increase without danger of it leaking out. At the end of refuelling, always ensure that the fuel tank cap is well closed.

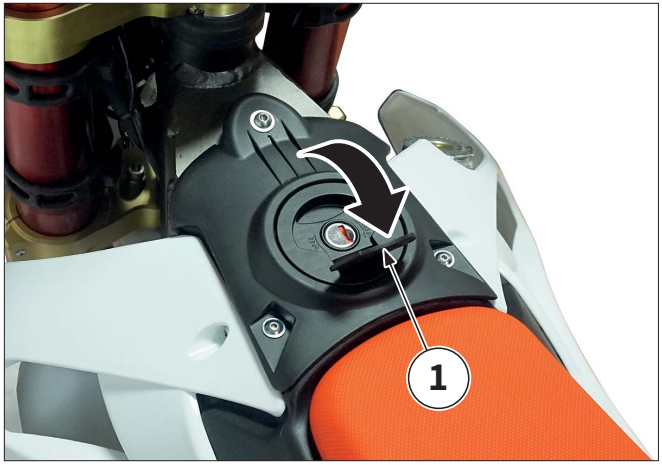
⚠ **KEEP OUT OF REACH OF CHILDREN.**

⚠ **DISPOSE OF THE FUEL AT A SPECIAL WASTE COLLECTION POINT.**

Refuelling
For the type of fuel to be used, refer to “Fuel” in the TECHNICAL CHARACTERISTICS paragraph.
To know the “Total tank capacity / Reserve” see the TECHNICAL CHARACTERISTICS paragraph.

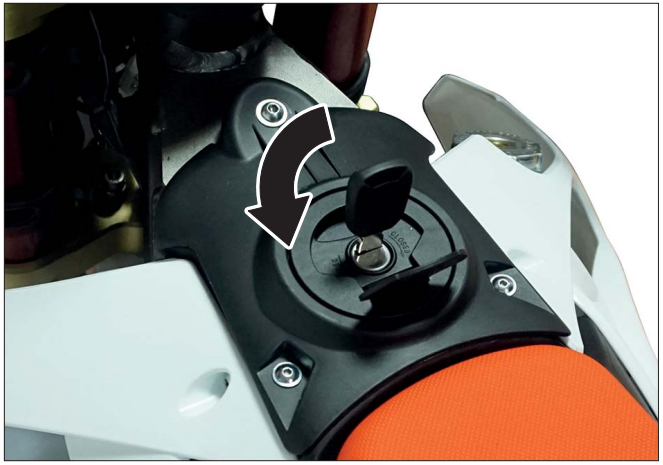
To refuel:
Do not add additives or other substances to the fuel. If a funnel or such is used, make sure that it is perfectly clean.

Open the protective cover (1).



Insert the ignition key (2) in the lock.

Turn counter-clockwise.



Remove the fuel tank cap (3).

Fill level
When refuelling, do not exceed the “fill level”.“Fill level” means there is an air gap of 20-25 mm.
Complete refuelling and close the tank cap (3). Make sure that the cap is perfectly closed.

MIXING UNIT

Precautions
The mixing oil is:
– harmful by inhalation, if swallowed or in contact with skin, with possible serious consequences;
– irritating to skin;
– harmful to the soil and aquatic environment, harmful to flora and fauna.

To be avoided:
– contact with skin;
– inhalation of vapours;
– ingestion;
– release to the environment;
– exposure of the fuel to air.

⚠ **Do NOT use your mouth to suck up, with a tube or other means, fuel from the tank. The fuel vapours are dangerous.**

⚠ **Under NO circumstances put your face near the fuel tank filler.**

During refuelling and in the vicinity of fuel vapours:
– do not smoke;
– do not use naked flames, sparks or any other source of ignition or explosion;
– switch off the engine and the lights.

If swallowed do NOT induce vomiting but seek medical advice immediately (first aid post), indicating the cause and how the accident occurred.
After contact with skin, wash the affected part immediately with soap and water, repeating the operation until completely clean.
In case of contact with eyes or ears, rinse the affected parts immediately with plenty of water and seek medical advice immediately (first aid post), indicating the cause and how the accident occurred.

After contact with clothes, remove contaminated articles and wash immediately with plenty of water and soap. Change the dirty clothes, which must be washed as soon as possible.
Avoid mixing oil spilling or overflowing from the reservoir; if it comes into contact with overheated engine parts it could cause a fire.
If mixing oil is accidentally spilt, clean the aected area thoroughly, making sure that it is completely dry before starting the engine.
Always wear latex gloves to protect hands when topping up the mixing oil.

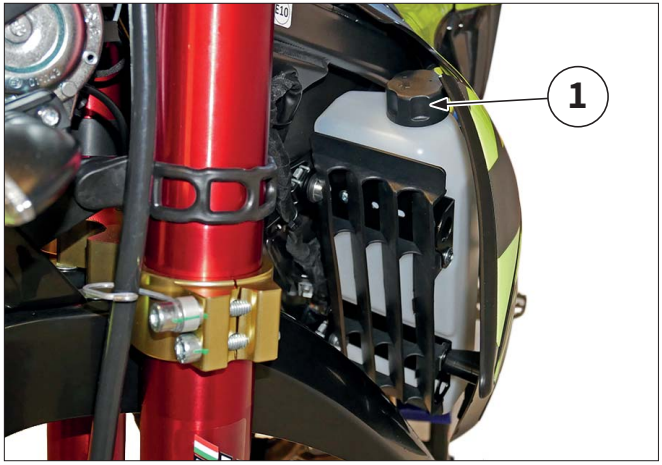
Auto-mix oil system
The vehicle is fitted with a separate mixer oil reservoir that allows the petrol to be mixed with oil to lubricate the engine.
Insufficient oil is shown by the lighting up of the low mixing oil warning light  located on the instrument panel only with the engine running.

⚠ **VISUALLY CHECK FOR OIL IN THE MIXER TANK BEFORE EACH POWER ON.**

⚠ **Using the vehicle without mixing oil causes serious damage to the engine. If the oil contained in the mixer oil reservoir is allowed to finish or if the mixing oil pipe is removed, it is necessary to consult a Dealer to bleed the system. This is indispensable, since running the engine with air in the mixing oil system could cause serious damage to the actual engine.**

Top-up
For the type of mixer oil to be used, see “Mixer oil” in the LUBRICANT-PRODUCTS TABLE paragraph.
To know the “ Mixer oil tank capacity / Reserve (dashboard warning light)” see the TECHNICAL CHARACTERISTICS paragraph.

Procedure for topping up the Auto-mix oil:
Unscrew and remove the mixer oil reservoir filler cap (1) on the left side of the fuel tank.



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

⚠ **If a funnel or such is used, make sure that it is perfectly clean.**

⚠ **When topping up, do not exceed the “fill level”.**

⚠ **Make sure that the cap is perfectly closed.**

BRAKES

Brake fluid

The brake fluid is:
- harmful by inhalation, if swallowed or in contact with skin, with possible serious consequences;
- irritating to skin;
- harmful to the soil and aquatic environment, harmful to flora and fauna.

To be avoided:

- contact with skin;
- inhalation of vapours;
- ingestion;
- release to the environment;
- exposure to air.

If swallowed do NOT induce vomiting but seek medical advice immediately (first aid post), indicating the cause and how the accident occurred.
After contact with skin, wash the affected part immediately with soap and water, repeating the ope- ting the cause and how the accident occurred.
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.
After contact with clothes, remove contaminated articles and wash immediately with plenty of water and soap. Change the dirty clothes, which must be washed as soon as possible. If brake fluid is accidentally spilt, clean the affected area thoroughly.
Always wear latex gloves to protect hands when carrying out maintenance. Always close the brake fluid cover well after every filling up.

⚠ **KEEP OUT OF REACH OF CHILDREN.**

⚠ **DISPOSE OF THE BRAKE FLUID AT A SPECIAL WASTE COLLECTION POINT.**

The used brake fluid must be put in a sealed container and taken to the nearest service station or to a waste oil collection point where it will be disposed of correctly.

Disk brakes

The brakes are a fundamental part for vehicle safety. Always keep them fully efficient. Check them for wear prior to setting off on any journey.

A decrease in braking power could be caused by water depositing on the disks and on the brake pads and it is therefore recommended that the vehicle be dried thoroughly after washing. If travelling on wet roads, proceed with caution and continuously try out the brakes.

Also the salt used to melt snow and ice causes a decrease in the efficiency of the braking system, as does grease, oil and brake fluid; in this case it is best to change the pads.

Whenever the pads are changed, take care for he first 200 km when braking, as the pads do not immediately adhere perfectly to the disk.

During this period it is preferable to brake early and to apply the brake lever more forcefully, while avoiding abrupt and prolonged braking so as not to burn the pads and disks. Do not use the vehicle if brake fluid is detected leaking from the braking system.

The vehicle is fitted with disk brakes both at the front and the rear, with separate hydraulic circuits.

Over a period of time the hydraulic system can cause variations in the play of the brake levers or an elastic resistance.

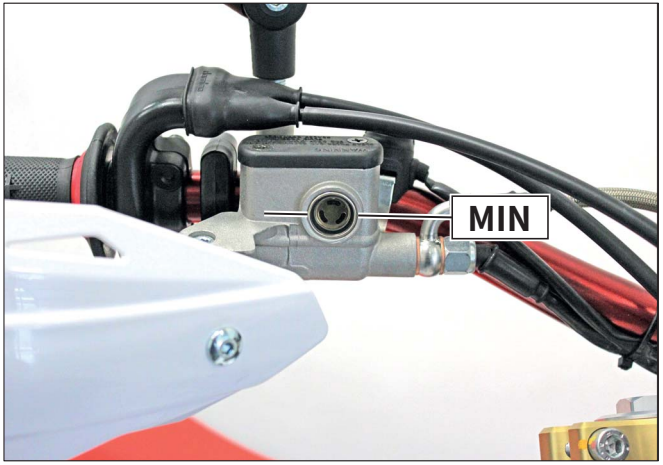
If you are unable to carry out the necessary controls or doubt the safety of the vehicle, contact a FANTIC MOTOR Dealer.

Also check that the braking system pipes are not twisted, worn or present cracks, cuts or slits.

Take care that water or dust do not accidentally enter the hydraulic system. As the pads become worn the level of fluid inside the tanks decreases to automatically compensate the wear.

Front brake
Check that the brake fluid level is over the “MIN” mark. Check the pads and disks for wear and if they do not need replacing, proceed with topping up.

Front brake topping up
Using a Phillips screwdriver loosen the two screws securing the brake fluid tank cover. Remove the latter and its gasket, taking care to place them on a clean surface. Top up with suitable brake fluid, see LUBRICANTS, taking care not to exceed the “MAX” level positioned inside the fluid tank.



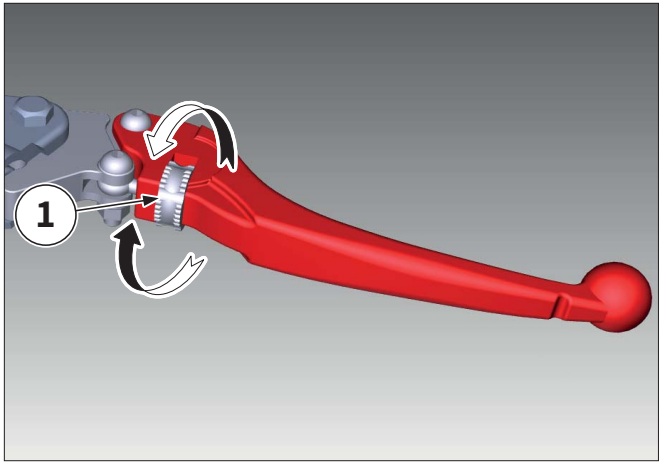
When pads or disks are worn, never top up to the “MAX” level because if these parts are subsequently replaced, the fluid could flow out of its tank.

If, on the contrary, these parts have been replaced, it is advisable to top up to the “MAX” level.

Replace the gasket and replace the cover; insert and tighten the two screws and wipe the surfaces clean with a cloth if there has been any spillage.

Check braking efficiency and check the braking system for leaks; in the event of malfunction, consult a FANTIC MOTOR Dealer.

Front brake lever adjustment
(only for “Competition” version)
Use the adjuster (1) to adjust the position of the front brake lever as desired.
– Turn the adjuster (1) forwards to decrease the distance of the lever from the knob;
– Turn the adjuster (1) backwards to increase the distance of the lever from the knob.



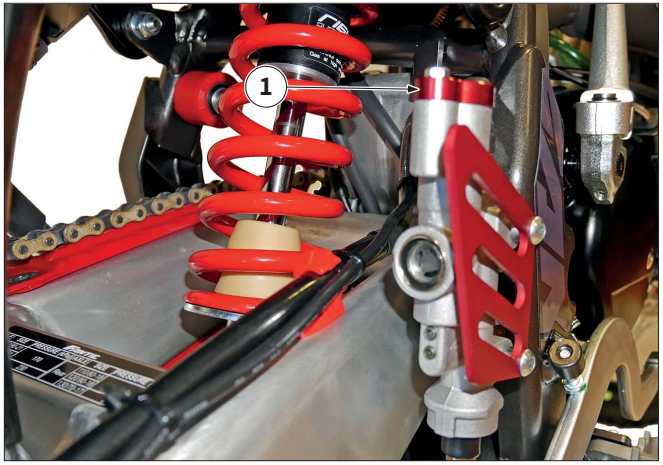
Rear brake
The brake fluid tank for the rear disk brake is located on the right-hand side of the vehicle. It is a good thing to check the fluid level in the tank periodically, and especially before setting off on long journeys. As the brake pads and the disk become worn,the brake fluid level tends to drop and it is there fore necessary to top it up. Use suitable brake fluid, see (LUBRICANTS).
For the check:
keep the vehicle upright so that the fluid contained in the tank is parallel with the cap (1).
ensure that the fluid is above the “MIN” mark.

MIN = minimum level
MAX = maximum level

If the fluid is below the “MIN” mark, check the pads and disk for wear and, if in good condition, proceed with topping up. Do not top up the fluid to the “MAX” level if the pads are worn, because if they are subsequently replaced the brake fluid would overflow.

Topping up the rear brake
Keep the brake fluid in the tank parallel to the tank rim (in a horizontal position) to prevent spillage during topping up. Do not add additives or other substances to the brake fluid. If a funnel or such is used, make sure that it is perfectly clean.
– Loosen the screws and remove the cap (1).
– Remove the gasket.
– Top up with brake fluid, see (LUBRICANTS), until the level is between the MIN. reference and the upper part of the inspection window.
– Replace the gasket and screw the cap back on the tank.

Check braking efficiency and check the braking system for leaks; in the event of malfunction, consult a FANTIC MOTOR Dealer.



Check pad wear
Once every 2000 km it is advisable to check the pads for wear; when using the vehicle o road,with mud or sand, check after every use. The pads have a groove that must always be visible.

Disk brake pad wear depends on use as well as style of driving and road.

For a quick check of pad wear:
– Position the vehicle on the stand.
– Both the front and the rear brake callipers are fitted with two brake pads.
Make a visual inspection between disk and pads, looking:
– upwards toward the “calliper pivot pin” for the front brake callipers;
– downwards at the 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 thus be affected. If the groove has disappeared (friction material depth 1.5 mm), replace the pair of pads.

SUSPENSIONS

Front-wheel suspension
To change the oil of the front fork, go to a FANTIC MOTOR Dealer who will guarantee thorough, prompt service. Carefully read (MAINTENANCE). For the maintenance intervals, see (PERIODIC MAINTENANCE CHARTS) under:
– Fork oil and oil seal.

Control
Carry out the following checks.
– Apply the front brake lever, push down hard and repeatedly on the handlebar making the fork compress. The movement must be gentle and there must be no trace of oil on the rods.
– Check that all the parts of the front-wheel suspension are tight.
In the event of malfunction or if the work of specialists is needed, consult a Dealer.
The front-wheel suspension consists of:
– a hydraulic fork connected through two plates to steering head tube.

Adjustment

ⓘ **No type of adjustment is envisaged for this type suspension is done by FANTIC MOTOR to satisfy ideal riding conditions [rider only (weight approx. 75 kg)].**

Rear-wheel suspension
For maintenance intervals, see (PERIODIC MAINTENANCE CHARTS) under:
– Rear shock absorber.
The rear-wheel suspension consists of:
– a damper/linkage unit.
The unit is connected:
– at the top (damper head) to the frame;
– at the bottom (linkage) to the rear fork.

Adjustment dumper preload
("Competition" models)
The basic setting of the suspension is done by FANTIC MOTOR. If different use is required, the setting may be customised.

It is advisable to wait for the engine to be completely cold before making changes.

Adjust the spring preload according to the conditions of use of the vehicle.

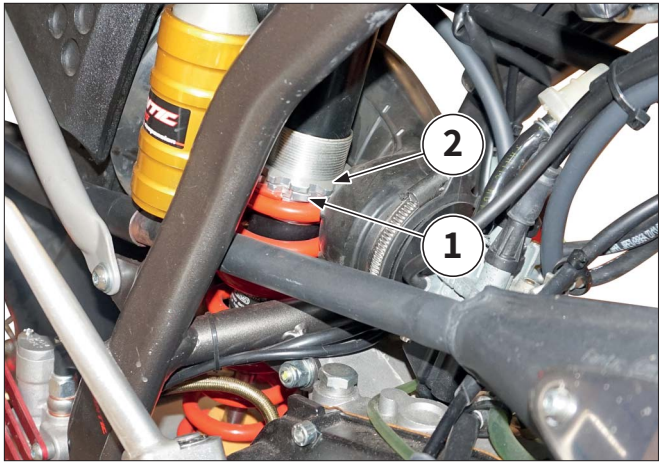
Do not force rotation of the adjusting devices beyond the limit (in either direction) to avoid possible damage.

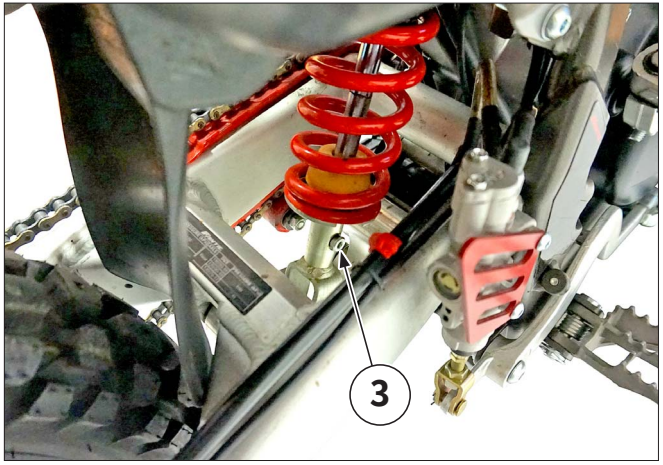
The settings for racing use are recommended at the time of organised competitions or sporting events to be held on circuits cut off from road traffic and with the approval of the authorities having jurisdiction.

ⓘ **The ring nut (1) adjustment requires removal of the air manifold and use of a specific pin wrench.**

- Loosen the locking screw of the ring nut (2).
- By using a hook wrench or an aluminium punch turn the adjusting ring nut (1) to the desired position by reloading or not the spring in relation to your weight and riding style.
- Tighten the locking screw of the ring nut.

The shock absorber is equipped with a 5 mm Allen key (3) for adjusting its extension. To obtain a softer braking turn the Allen screw counter-clockwise; act inversely to achieve harder braking.



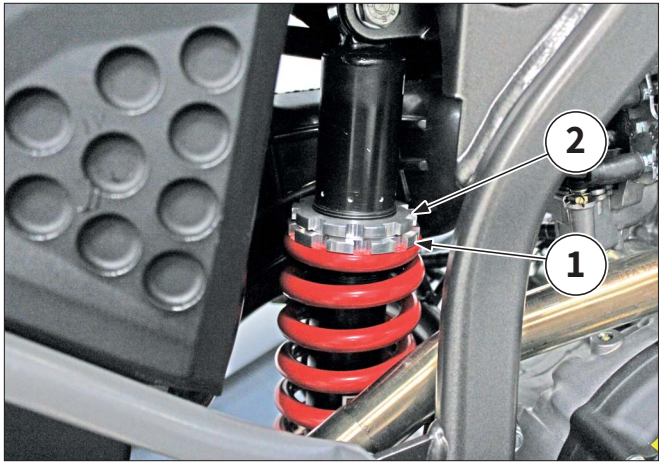


Adjustment dumper preload
("Performance" models)
The basic setting of the suspension is done by FANTIC MOTOR. If different use is required, the setting may be customised.

It is advisable to wait for the engine to be completely cold before making changes.

Adjust the spring preload according to the conditions of use of the vehicle.

Do not force rotation of the adjusting devices beyond the limit (in either direction) to avoid possible damage.



The settings for racing use are recommended at the time of organised competitions or sporting events to be held on circuits cut off from road traffic and with the approval of the authorities having jurisdiction.

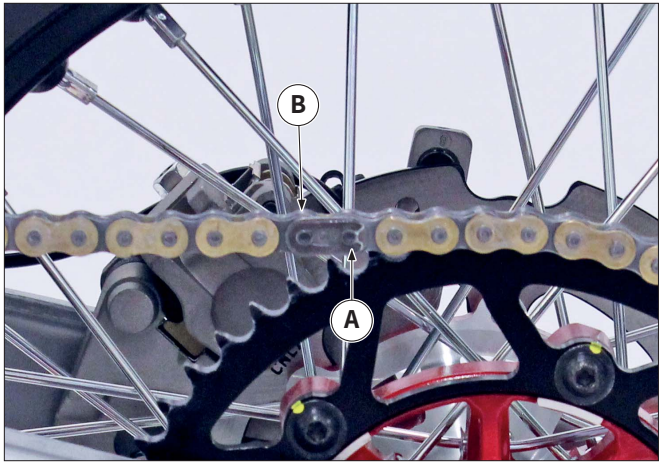
The ring nut adjustment (1) requires the removal of the air manifold and the use of a specific sector wrench.

- Loosen the locking ring nut (2) using the sector wrench.
- Using a hook wrench or an aluminium punch, turn the adjusting ring (1) to the desired position, reloading or not the spring in relation to the weight and riding style.
- Tighten the retaining ring nut (2) again.

CHAIN

The vehicle is equipped with a junction mesh 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.



⚠ **If one of these components is damaged, the entire chain assembly (pinion, chain and crown) must be replaced.**

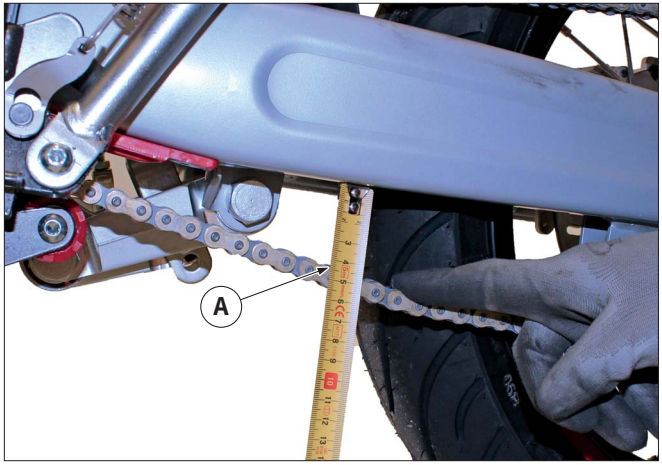
ⓘ **Also check the wear of the chain guide and the chain sliding shoe.**

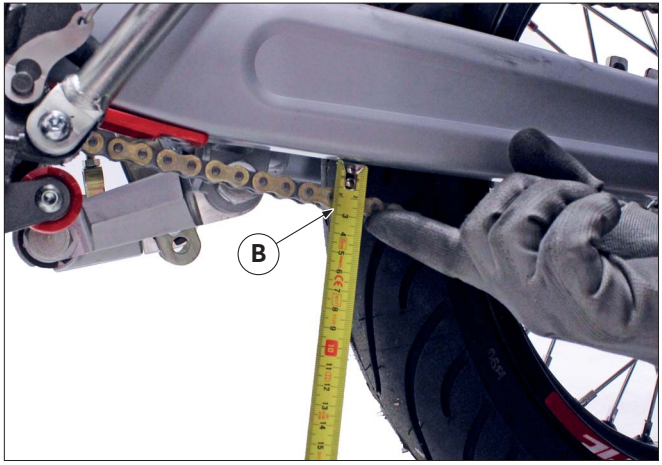
⚠ **The junction mesh of the chain must be disassembled exclusively for the purpose of replacing the chain with a new one.**

⚠ **Make sure that the junction mesh "A" is always installed from the inside towards the outside of the vehicle, and that the pins are perfectly locked by the fork "B", to avoid loosing the chain: the closed end of fork "B" must be facing in the drive chain direction of rotation.**

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 **35–38 mm (1,38–1,50 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.





Checking the chain, sprocket and ring gear for wear
Check the following parts and check the chain, sprocket and ring gear for:
– worn rollers;
– loose pins;
– dry, rusted, crushed or bound links;
– excessive wear;
– missing sealing rings;
– excessively worn or damaged sprocket or gear teeth.

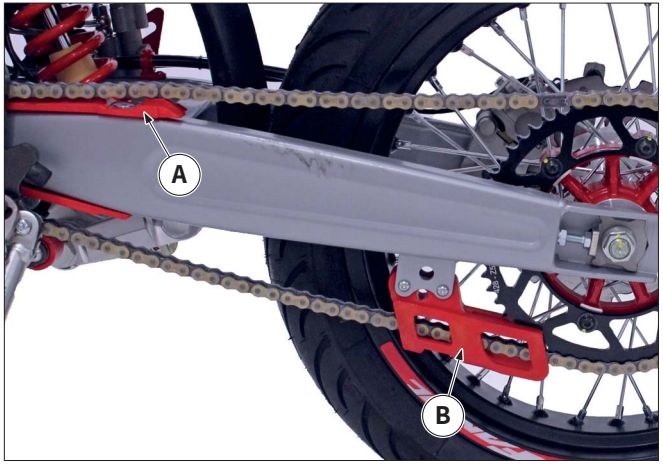
If any one of these parts is damaged, the whole chain assembly (sprocket, chain and ring gear) must be replaced.

Also check the chain guide (B) and chain slider (A).

Lubrication and cleaning
The chain should always be kept well lubricated and must be cleaned especially after having been o road with mud or sand. Whenever there are dry or rusted parts, if there are crushed or bound links, the chain must be lubricated and the deteriorated parts restored to working condition. It this is impossible, consult a Dealer.

Do not clean the chain with jets of water or steam, high-pressure water jets or highly inflammable solvents.

See the LUBRICANTS table for products recommended for lubricating and cleaning the chain.



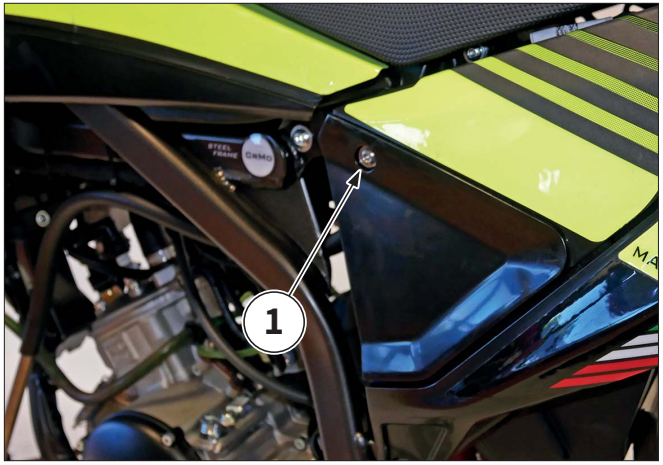
AIR FILTER

Do not use petrol or inflammable solvents for cleaning the filter to avoid the risk of fire or explosion.

ⓘ **The filter element is washable and, under standard conditions, no surface lubrication with oil is required.**

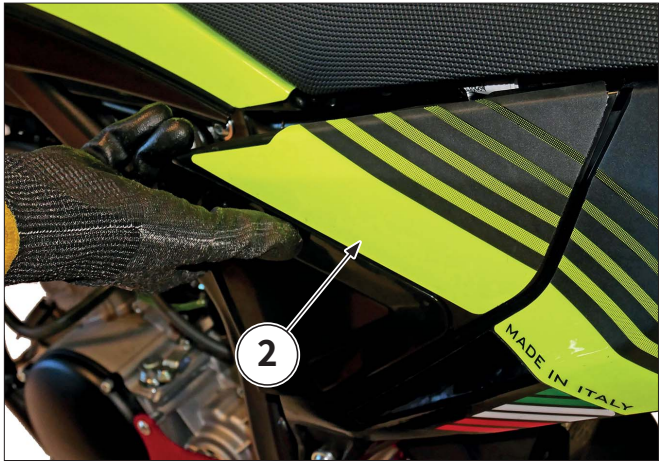
For the maintenance intervals, see (PERIODIC MAINTENANCE CHARTS) under:
– Air filter.

Replacement of air filter
– Working on the left side of the vehicle, unscrew the screw (1);

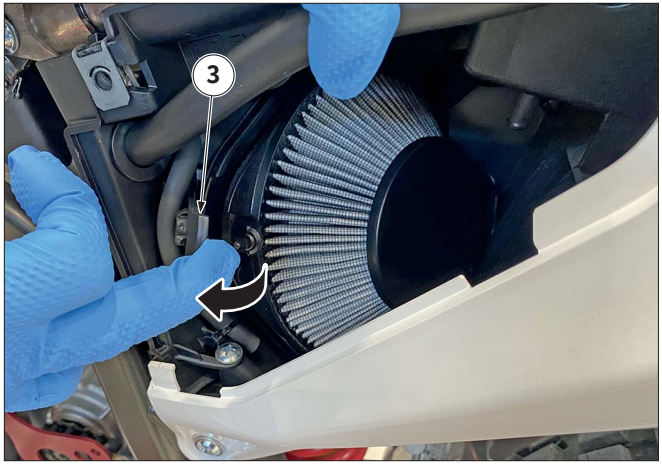


ⓘ **Filter casing cover Allen screw: 4 mm.**

– Pull the left side panel (2) towards the outside of the air filter box, unhook it and remove it;



– Pull the closing flap (3) outwards;



– Lift the air filter (4) and pull it outwards to disconnect the second anchor point;
– Remove the air filter;

ⓘ **Use a cloth to clean the inside of the filter box before inserting the filter to keep dust and foreign objects from entering the intake manifold.**

THIS TYPE OF FILTER DOES NOT REQUIRE CLEANING INTERVENTIONS BUT ONLY REPLACEMENT which must take place every 3000 km (1750 ml) for road use and at least every 1000 km in case of off-road use.

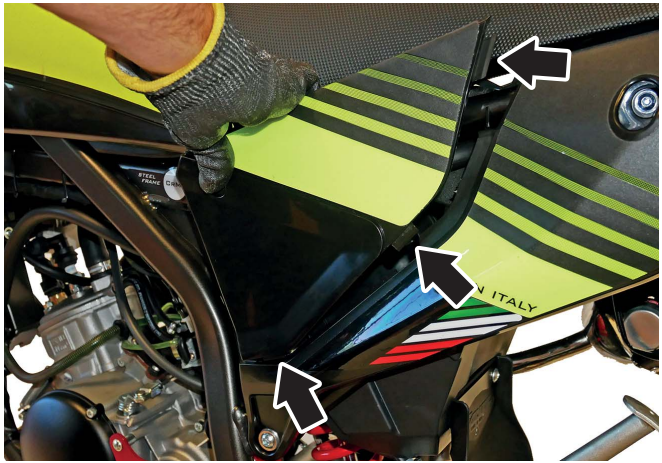
– Replace the filter with a new one of the same type.

When reassembling:
– Insert the filter in the seat of the filter box.
– Push the filter until the internal pin engages with the internal support (5) in the filter casing;
– Check that the filter adheres perfectly to the wall of the filter casing;
– Close the closing flap on the external pin of the air filter.

– Reposition the left side panel of the air filter box;

Pay attention to the three interlocking tabs on the cover so that they adhere perfectly to the rear side panel.

– Tighten the cover fastening screw.



COOLANT

The coolant is:

– inflammable and emits invisible flames;
– harmful by inhalation, if swallowed or in contact with skin, with possible serious consequences;;
– irritating to skin;
– harmful to the soil and aquatic environment, harmful to flora and fauna.

To be avoided:

– contact with skin;
– inhalation of vapours;
– ingestion;
– release to the environment;
– exposure of coolant to air.

During filling and in the vicinity of coolant vapours:

– do not smoke;
– do not use naked flames, sparks or any other source of ignition;
– switch off the engine and the lights.

If swallowed do not induce vomiting but seek medical advice immediately (first aid post), indicating the cause and how the accident occurred. If the time required to reach a first aid post exceeds one hour, induce vomiting but in any case seek medical attention. After contact with skin, wash the affected part immediately with soap and water, repeating the operation until completely clean. 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.
After contact with clothes, remove contaminated articles and wash immediately with plenty of water and soap. Change the dirty clothes, which must be washed as soon as possible.
Avoid coolant spilling or overflowing from the tank; if it comes into contact with overheated engine parts it could cause a fire with invisible flames. If coolant is accidentally spilt, clean the affected area thoroughly. Always wear latex gloves to protect hands when carrying out maintenance.

ⓘ **An increase in the temperature causes the coolant to increase in volume.**

The coolant has a specific “fill level”, see (FILL LEVEL). There is an air gap between the “fill level” and a completely full designed to allow the coolant volume to increase without danger of it leaking out.

During refilling, do not exceed the “fill level”. At the end of refilling, always close the filler cap well.

KEEP OUT OF REACH OF CHILDREN.

DISPOSE OF THE COOLANT AT A SPECIAL WASTE COLLECTION POINT.

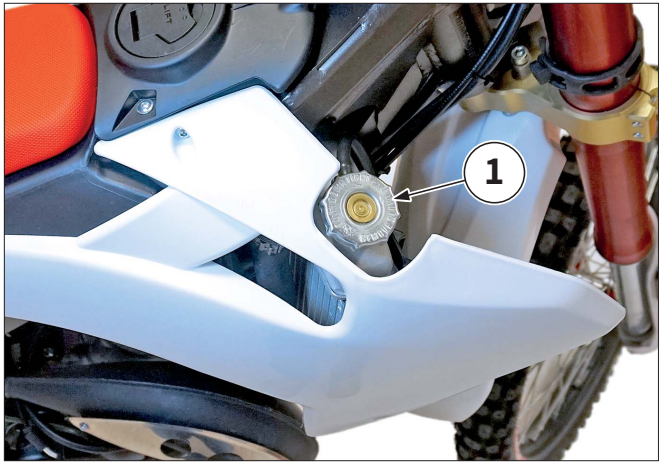
Control and topping up

For the maintenance intervals, see (PERIODIC MAINTENANCE CHARTS), under:
– coolant.
Do not use the vehicle if the coolant level is below the minimum level.
For the type of coolant to be used, see (LUBRICANTS) under:
– coolant.

Only use coolant of the specified type. If other types are used, there is a build-up of mineral salts that affect the efficiency of the cooling system.

To change the liquid, it is advisable to go to a FANTIC MOTOR Dealer.

Fill level



⚠ **When the engine is hot the coolant is under pressure and reaches a high temperature. If the cap is opened there is the risk of burns to the skin. ONLY remove the coolant cap (1) when the engine is at ambient temperature.**

If the coolant level, when the cap is removed, is visible and completely covers the internal channels of the radiator, then there is a “full level”.

To check the full level, follow this procedure:
- Make sure that the engine is cold.
- Keep the vehicle in a vertical position and with both wheels resting on the ground.
- Turn the handlebar to the left.
- Unscrew (counter-clockwise) the filler cap (1) about one turn.
- Wait a few seconds to allow the pressure in the system, if any, to release.
- Unscrew the filler cap (1) again (counter-clockwise) and remove it.
- Check the coolant level inside the radiator.
- Add the coolant necessary to restore the correct level.

⚠ **When adding the coolant, be very careful not to exceed the “full level”, otherwise spillages may occur during the vehicle operation and its operation may be affected.**

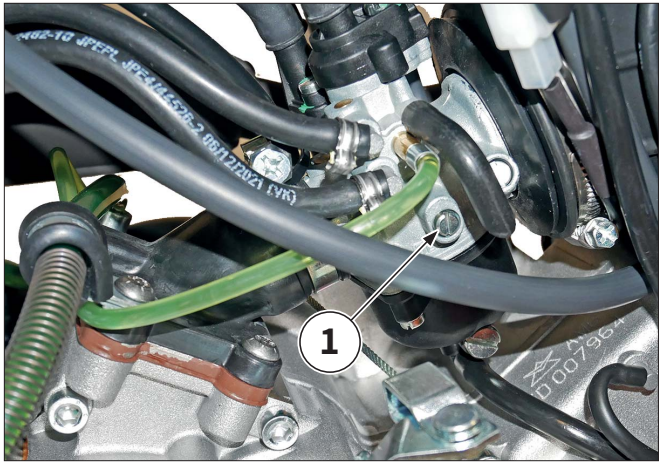
⚠ **If a significant liquid consumption is noticed, check that there are no leaks from the radiator or from the pipe sleeves. Contact a FANTIC MOTOR Dealer for repairs.**

CARBURETTOR

Idling

For the maintenance intervals, see (PERIODIC MAINTENANCE CHARTS), under:
– Idling.

⚠ **To check the idling speed the vehicle engine must be at normal running temperature. If the check is made with a cool engine the calibration will be out of tune.**



Check

– Run a few kilometres until normal operating temperature is reached, then stop the vehicle.
– Place it on the stand.

⚠ **Take care not to touch the hot engine parts with bare skin, as there is the risk of burns.**

– Work from the left side of the vehicle.
– The engine idling speed must be approx.: 2000 ± 200 rpm.

If the engine tends to cut out, without using the throttle control, this means that the idling speed must be adjusted using the screw located on the carburettor.

Adjustment

– Adjust the screw (1) located on the carburettor (left side).
– TIGHTENING (clockwise), the revs increase.
– LOOSENING (counter-clockwise), the revs decrease.

To check correct operation and if the idling speed remains stable, twist the accelerator handle to accelerate and throttle down a few times.

⚠ **Do not adjust the air adjusting screw to avoid altering the mixture settings.**

⚠ **If necessary, consult a Dealer.**

THROTTLE CONTROL

For the maintenance intervals, see (PERIODIC MAINTENANCE CHARTS), under:
– Throttle control.

Check
The no-load travel (A) of the accelerator handle must be 2–3 mm, measured on the rim of the actual twist grip handle.
Adjustment
– Place the vehicle on the stand.
– Remove the protective sleeve (1).
– Loosen the ring nut (2).
– Turn the adjusting device (3) to reset the recommended value.

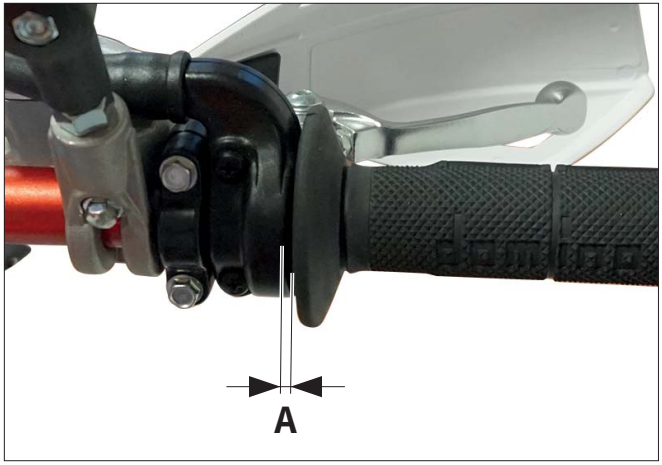
After the adjustment:

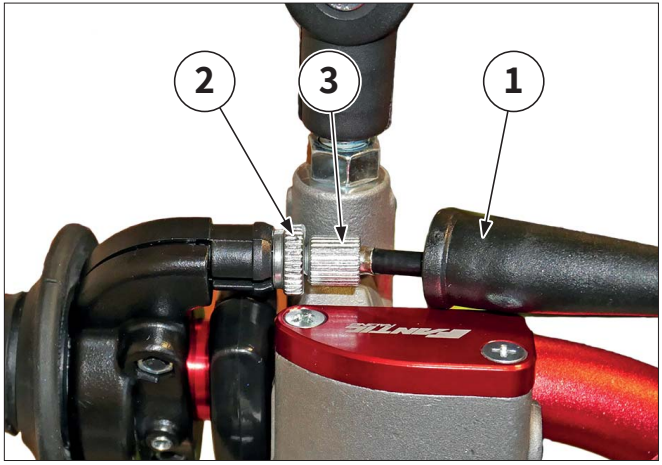
– Manually lock the adjuster rotation (3) and tighten the ring nut (2).
– Check the no-load stroke (A).

If the outcome is positive:

– Replace the protective sleeve.

After having completed adjustment, check that the engine idle speed does not change upon turning the handlebar and that when the accelerator handle is released it returns automatically to the rest position.

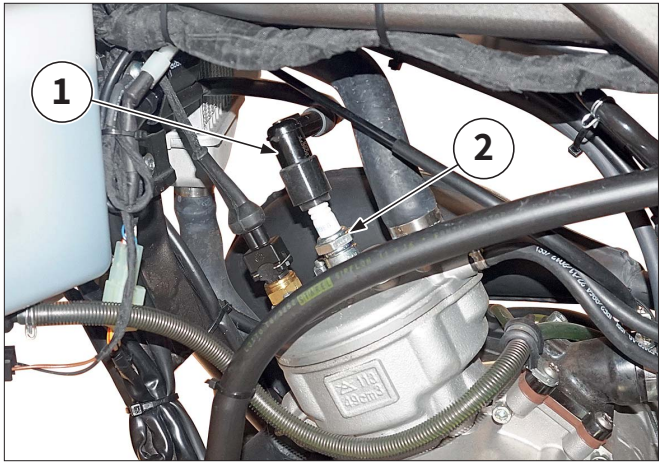




SPARK PLUG

The spark plug is a very important part for good engine efficiency and special care must be given to it.

Before unscrewing the spark plug, the engine head must be cleaned with a jet of compressed air to prevent particles of sand, mud or any other type of dirt on it from entering the cylinder.



Disassembling the spark plug

The engine must be cold for this operation.

- Remove the spark plug cap (1).
- Release the spark plug (2) using the relative wrench and then unscrewing by hand until it can be fully removed.
- Clean it with a metal brush and check that the distance between the electrodes is 0.5 - 0.6 mm.

This should be done approx. once every 1000 km, while the plug must be changed once every 6000 km.

- Refit the spark plug, inserting it first by hand and only using the wrench for the final tightening.
- Replace the spark plug cover tube (1), ensuring that it has been inserted correctly.

Whenever the spark plug is changed, check the pitch and the reach of the thread. If the threaded part is too short, carbon deposits will build up on the thread seat thereby risking damaging the engine when the correct spark plug is refitted.
Only use spark plugs of the recommended type, see (SPECIFICATIONS), otherwise engine performance and life could be adversely affected.

ELECTRICAL SYSTEM AND HEADLAMPS

Changing the headlamp bulb

The headlamp houses:
– a position light bulb;
– a dipped/full beam bulb.

Accessing the bulbs

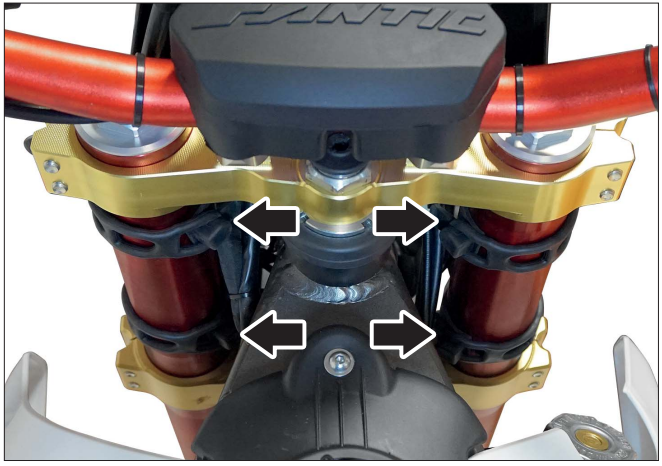
– Place the vehicle on the stand.
– Release the four lamp-bracket flexible supports.

The lamp bracket complete with headlamp remains connected to the electric cables. DO NOT TUG ON THE ELECTRIC CABLES.

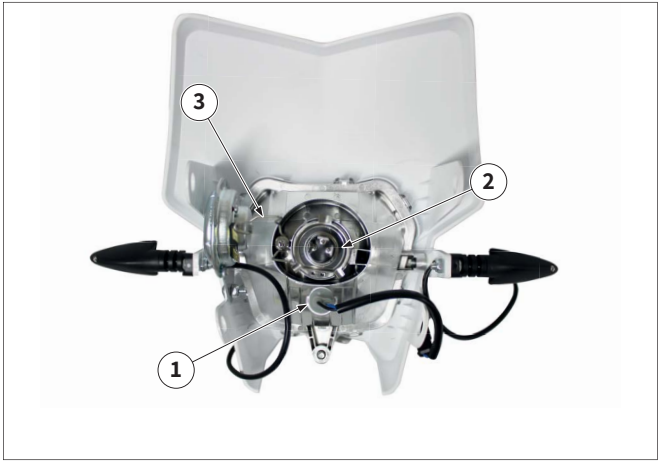
To work more comfortably the headlamp may be detached by loosening the two side screws.

– Shift the complete lamp bracket to the side.

ⓘ **Handle the plastic parts with care; do not scratch or damage them.**



Position light bulb
Do not tug on the electric cables to take out the lamp-holder.
– Grasp the lamp-holder and pull it out of its seat.
– Take out the position light bulb (1) and replace it with one of the same type.



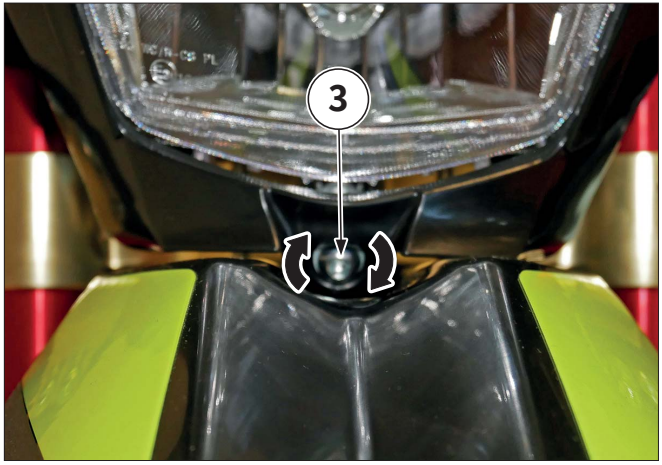
Dipped/full beam bulb
– Do not tug on the electric cables to remove the bulb electric connector.
– Remove the black rubber sleeve from the central lamp-holder.
– Release the lamp-holder retaining spring (3) and remove it.
– Draw out the lamp-holder (2) from the parabola seat.
– Press the bulb gently and turn it counter clockwise.
– Take out the bulb from its seat.

Once the bulb has been changed, just proceed with the disassembly stages in the reverse order in order to remount the optical unit.

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 “1” and “2” securing the headlight.

– Turn the adjustment screw “3”; tighten it to raise the beam, unscrew it to lower it.
– Check again the correct orientation of the light beam.
– Tighten screws “1” and “2” to secure the headlight.

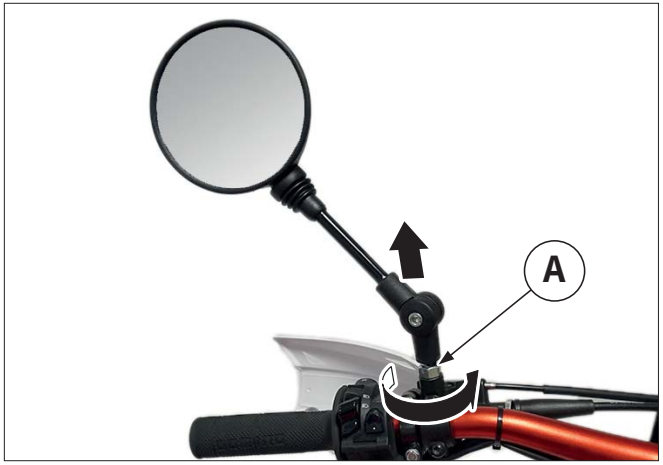


REAR VIEW MIRRORS

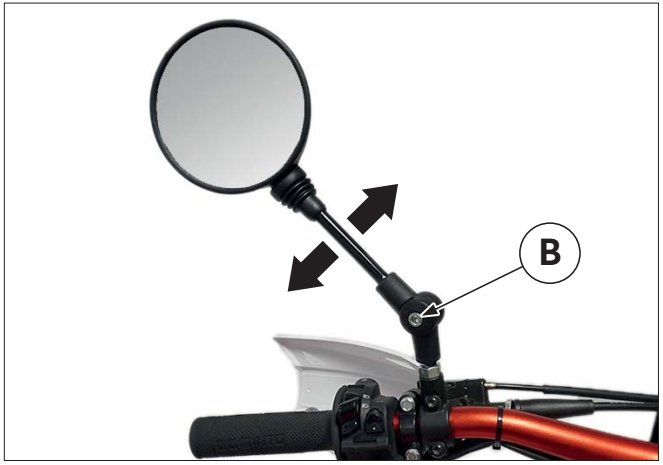
The operations described below are valid for both rear-view mirrors.

Place the vehicle on the stand and on a flat and stable surface. Loosen the lock nut “A”, turn the mirror counter clockwise and remove it.

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



Rear view mirrors adjustment
To adjust the rear-view mirrors, steer onto the vehicle in running position and rotate the mirror according to your needs. It is also possible to adjust the inclination of the rear-view mirror support rod. To do this, loosen the screw “B” and move the support rod sideways. Make the adjustment and tighten the screw “B”.



CLEANING THE VEHICLE AND INACTIVITY

It is a good rule to clean the vehicle periodically to keep its parts in good condition. If the vehicle is used in the following conditions, more frequent washing is recommended:
- Coastal areas or areas with a hot and humid climate in which the humidity and salinity in the atmosphere are higher than normal.
- Roads or areas where salt or chemical products are used to melt snow and ice.
- Roads or areas where there are industrial dusts or patches of tar
- Sporting use and off road riding.
- Presence on the vehicle body of dead insects, bird droppings, etc.

It is advisable not to stop or park the vehicle under plants or trees. In some seasons certain plants and trees release residues, resins, fruits or leaves containing harmful substances (in particular harmful for the bodywork).

Rules for washing
Do not wash the vehicle in direct sunlight, especially in summer, when the body is still warm since the detergent would dry before rinsing and could thus damage the paintwork.
Do not use liquids at a temperature over 40°C to clean the plastic parts of the vehicle.

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

Do not direct high-pressure air (or water) jets or steam jets onto the following parts:
- wheel hubs;
- controls located on the right and left side of the handlebar;
- bearings;
- brake tanks and pumps;
- instruments and indicators;
- silencer outlet;
- steering lock;
- radiator fins;
- fuel filler cap and other caps or plugs;
- lamps;
- electrical connections;
- decals.

Do not use alcohol, petrol or solvents to clean plastic or rubber parts or the saddle.

To clean the external parts of the engine only, use a degreasing detergent, brushes and cloths, see LUBRICANTS table.

Using a high-pressure water jet could damage certain vehicle parts.
Use a low-pressure water jet to rinse the vehicle thoroughly and in particular the dirtiest parts. Using a soft sponge for the bodywork, wipe over the whole vehicle.
Rinse the vehicle thoroughly, always using a low-pressure water jet. Dry with a clean chamois leather.

Rules for end of washing
Braking efficiency could be reduced after washing, since brake disks and pads are wet. It is therefore advisable to dry the disks well and wait for the pads to dry, after which proceed with caution and repeatedly try out the brakes.
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, since they ruin flat varnishes.
Do not apply protective wax on the braking parts, disks and pads, as it could affect their operation. Do not apply it on the saddle either, as it could make it slippery and therefore be the cause of a fall.

INACTIVITY

If the vehicle is not going to be used for several months, it is advisable:
- To clean and protect the painted parts by applying special waxes;
- To drain all the fuel from the tank, close the tap and make sure there is none in the float chamber. To do this, close the tank tap and start the vehicle. Wait for it to cut out on its own;
- Remove the spark plug and pour a spoonful of oil for two-stroke engines into the cylinder. Replace the spark plug and use the kick starter to spread oil over the walls of the cylinder;
- Periodically check the tyre pressure;
- Lubricate the chain.
- Cover the end of the exhaust pipe with a bag and tie it tightly to prevent humidity from entering;
- Cover the vehicle with a sheet (in cotton or wool or other breathable material) that is large enough to fully cover it but without touching the ground.

After a period of inactivity
- Uncover and wash the vehicle, see (CLEANING).
- Fill the fuel tank, see (FUEL).
- Carry out the preliminary checks, see (PRELIMINARY CHECKLIST).

Do a test run of a few kilometres at a moderate speed in an area with no traffic.

	ENDURO PERFORMANCE	MOTARD PERFORMANCE	ENDURO COMPETITION	MOTARD COMPETITION
Length (mm)	2040	1985	2040	1985
Width (mm)	780	780	780	780
Height (mm)	1200	1160	1200	1160
Ground clearance (mm)	340	300	340	300
Wheel base (mm)	1395	1395	1395	1395
Saddle height (mm)	910	870	910	870
Net dry weight (Kg)	100	101	100	101
Type of engine	Single-cylinder 2-stroke with mixer and countershaft	Single-cylinder 2-stroke with mixer and countershaft	Single-cylinder 2-stroke with mixer and countershaft	Single-cylinder 2-stroke with mixer and countershaft
Cooling	liquid with forced circulation	liquid with forced circulation	liquid with forced circulation	liquid with forced circulation
Bore/Stroke	40.3x39.0	40.3x39.0	40.3x39.0	40.3x39.0
Displacement	49,7 cm3	49,7 cm3	49,7 cm3	49,7 cm3
Compression ratio	12:1	12:1	12:1	12:1
Engine idling speed	2000 ± 200	2000 ± 200	2000 ± 200	2000 ± 200
Speed change	6 gears	6 gears	6 gears	6 gears
Clutch	Oil-bath multidisc system	Oil-bath multidisc system	Oil-bath multidisc system	Oil-bath multidisc system
Ignition	Electronic	Electronic	Electronic	Electronic
Carburettor	Dell'Orto PHBN 16 Ø 16 mm diffuser	Dell'Orto PHBN 16 Ø 16 mm diffuser	Dell'Orto PHBN 16 Ø 16 mm diffuser	Dell'Orto PHBN 16 Ø 16 mm diffuser

SPECIFICATIONS

	ENDURO PERFORMANCE	MOTARD PERFORMANCE	ENDURO COMPETITION	MOTARD COMPETITION
Fuel supply	Mixture of petrol (min. 98 octane) and 2% 2-stroke oil (automatic mixer)	Mixture of petrol (min. 98 octane) and 2% 2-stroke oil (automatic mixer)	Mixture of petrol (min. 98 octane) and 2% 2-stroke oil (automatic mixer)	Mixture of petrol (min. 98 octane) and 2% 2-stroke oil (automatic mixer)
Spark plug	NGK R MR8E-9	NGK R MR8E-9	NGK R MR8E-9	NGK R MR8E-9
Total tank / Reserve capacity	7,5 L / 1 L	7,5 L / 1 L	7,5 L / 1 L	7,5 L / 1 L
Mixer / Reserve oil tank total capacity (dashboard light)	1,3 L / 0,5 L	1,3 L / 0,5 L	1,3 L / 0,5 L	1,3 L / 0,5 L
Air filter	made of synthetic material HSR30	made of synthetic material HSR30	made of synthetic material HSR30	made of synthetic material HSR30
Cooling circuit capacity	750 cc (see lubricant table)	750 cc (see lubricant table)	750 cc (see lubricant table)	750 cc (see lubricant table)
Gear oil	820 cm3 (see lubricant table)	820 cm3 (see lubricant table)	820 cm3 (see lubricant table)	820 cm3 (see lubricant table)
Primary transmission	1:3,55 (Z=20/71)	1:3,55 (Z=20/71)	1:3,55 (Z=20/71)	1:3,55 (Z=20/71)
Final drive	Chain 420, (Z=11/60)	Chain 420, (Z=11/58)	Chain 420, (Z=11/60)	Chain 420, (Z=11/58)
Frame	Perimeter in CrMo steel	Perimeter in CrMo steel	Perimeter in CrMo steel	Perimeter in CrMo steel
Rear fork	Steel variable section	Steel variable section	Aluminium variable section	Steel variable section
Front suspension	Hydraulic telescopic fork, travel 265mm	Hydraulic telescopic fork, travel 265mm	Hydraulic telescopic fork, travel 265mm	Hydraulic telescopic fork, travel 265mm

	ENDURO PERFORMANCE	MOTARD PERFORMANCE	ENDURO COMPETITION	MOTARD COMPETITION
Rear suspension	Hydraulic monodamper, stroke 100 mm	Hydraulic monodamper, stroke 100 mm	Hydraulic monodamper, bump and rebound adjustment, stroke 100 mm	Hydraulic monodamper, bump and rebound adjustment, stroke 100 mm
Front brake	Hydraulic disk brake 260mm	Hydraulic disk brake 260mm	Hydraulic disk brake 260mm	Hydraulic disk brake 260mm
Rear brake	Hydraulic disk brake 220mm	Hydraulic disk brake 220mm	Hydraulic disk brake 220mm	Hydraulic disk brake 220mm
Tyre rims	In aluminium alloy with tangential spokes fr. 21x1.6” rear 18x1.85”	In aluminium alloy with tangential spokes fr. 17x2,5” rear 17x3,5”	In aluminium alloy with tangential spokes fr. 21x1.6” rear 18x1.85”	In aluminium alloy with tangential spokes fr. 17x2,5” rear 17x3,5”
Front tyre / pressure	80/90x21 1,7 bar 1,1 (off-road use)	100/80x17 2,3 bar 1,1 (off-road use)	80/90x21 1,7 bar 1,1 (off-road use)	100/80x17 2,3 bar 1,1 (off-road use)
Rear tyre / pressure	110/80x18 1,8 bar 1,0 (off-road use)	130/70x17 2,3 bar 1,0 (off-road use)	110/80x18 1,8 bar 1,0 (off-road use)	130/70x17 2,3 bar 1,0 (off-road use)
Dipped / full beam	12V - 35/35 W	12V - 35/35 W	12V - 35/35 W	12V - 35/35 W
Position light	12V - 4 W	12V - 4 W	12V - 4 W	12V - 4 W
Turn signals	LED	LED	LED	LED

AFTER E-SALES SERVICE NUMBER	
SERVICE MONTH	
VIN/CHASSIS/FRAME NO.	
FUEL Unleaded petrol (95 octane)	
ENGINE OIL When topping up with oil, do not exceed the maximum level.	
BREAK FLUID When topping up with oil, do not exceed the maximum level.	
COOLANT When topping up with oil, do not exceed the maximum level.	

TYRES
Type of tyre and inflation pressure with standard load in bar.

FRONT	
REAR	

FAST GUIDE OF REFERENCE

MAKE SURE THAT THE FOLLOWING ARE CHECKED REGULARLY BETWEEN ONE SERVICE AND ANOTHER:

- Engine oil level.
- Brake fluid level.
- Correct operation of all lights.
- Coolant level.
- Tyre pressure and condition (cold).

Applications	Original products	Equivalent products	Observations
Oil engine / gearbox		Sae 10w30,10w40,15w40, 20W40,20w50 API service type SG or higher, JASO standard MA	Do not use mineral oils
Mixer oil		2-stroke oil for separate mixers	Use only synthetic oil Do not use mineral oil
Grease for bearings, couplings, joints and levers		Lithium grease	
Coolant		Antifreeze liquid based on ethylene glycol with organic additives	Do not dilute with water
Transmission chain lubricant		Spray grease for transmission chains	
Brake oil		Brake Fluid Dot 4 or 5.1	
Cleaner for electrical contacts		Contact cleaner	
Fuel		Premium unleaded petrol 95 or 98	
Paste for carter and engine covers coupling		Three bond no.1215	
Fork oil		Sae oil 15 W	
Blocking medium tightening security		Medium threadlocker	
Safety locking device strong tightening		Strong threadlocker	

LUBRICANTS TABLE

Applications	Original products	Equivalent products	Observations
Lubricant unlocks bolts		Unblocking protective lubricant	
Antifriction lubricant for tightening torque of the screws		Generic engine oil	
Lubricant for oil seals in rubber parts and OR		Lithium soap grease	
Poly battery		White vaseline grease	
Vehicle wash		Low pressure water and ambient temperature and ecological neutral liquid soap	Avoid aggressive detergents and hot water
External cleaning of the brake system		Spray cleaner disc brake cleaner	For discs and seats pads No for brake pads and plastic parts