

EN

FANTIC
ENDURO / MOTARD
125

USER MANUAL

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INTRODUCTION

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

FANTIC MOTOR
Via Scattolin, 4
31055 - Quinto di Treviso (TV) Italy
Tel. +39 0422 634192
Fax +39 0422 1830124
E-mail: info@fanticmotor.it
www.fanticmotor.it
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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.

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.

[illegible]

ENGINE IDENTIFICATION NUMBER

Every FANTIC MOTOR vehicle also has an engine identification number to be found on the crankcase cover on the upper left side.



We recommend that you write this number in the relative space below in case the number becomes illegible or damaged.



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

BASIC SAFETY RULES

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.

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.

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.

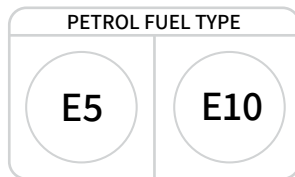


CARBON MONOXIDE

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.

WARNING

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

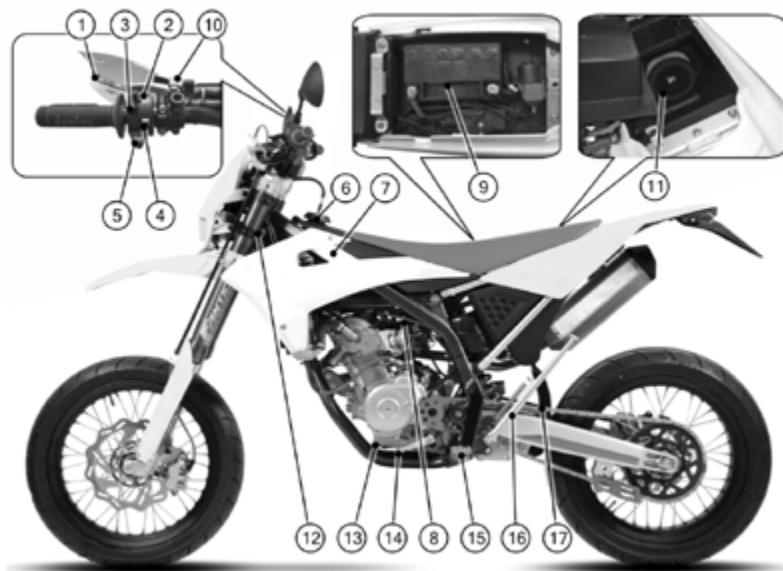
G Rear frame

The vehicle is equipped by catalytic exhaust (accredited Euro4) that can catch up high temperatures. **Absolutely avoid the contact with body parts, clothes inflammable materials !**

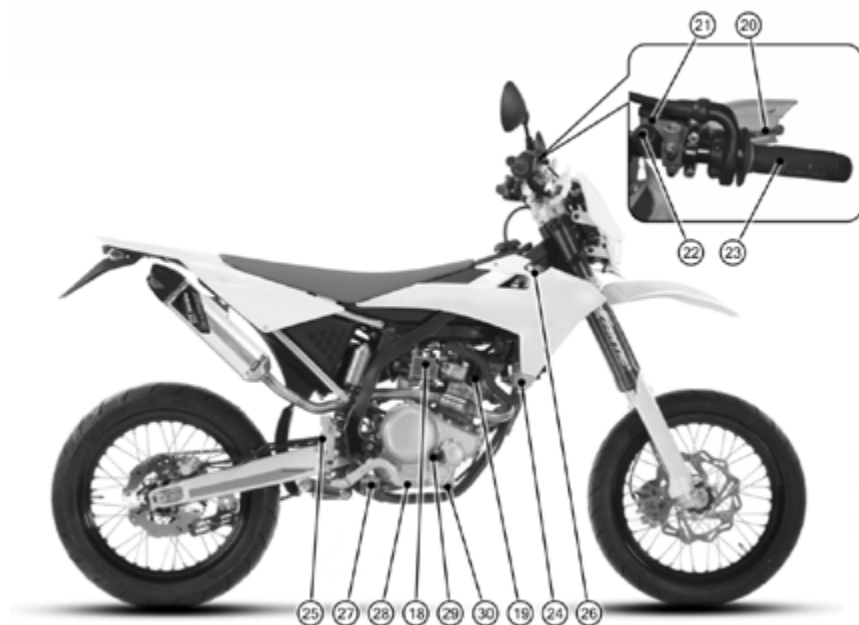
WARNING

If necessary consult a FANTIC MOTOR dealer.

MAIN PARTS



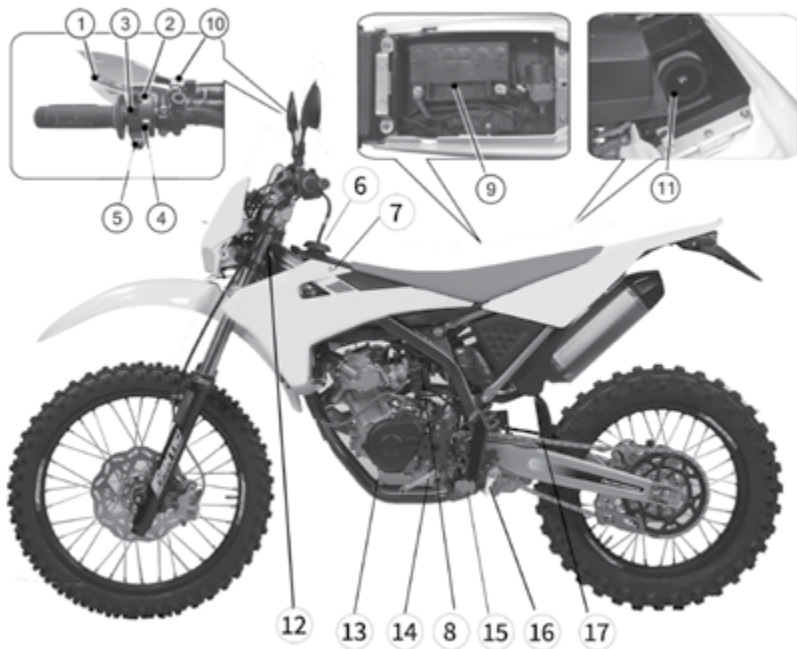
Pos.	Description
1	Horn button
2	Stop engine switch
3	Beam diverter
4	Cold start device or choke
5	Clutch control lever
6	Fuel filler cap
7	Fuel tank
8	Engine idling speed adjusting screw
9	Auto-Mixer oil reservoir filler cap
10	Auto-Mixer oil reservoir
11	Air filter
12	Steering lock
13	Spark plug
14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



Pos.	Description
18	Chain
19	Horn
20	Throttle control
21	Front brake lever
22	Front brake fluid tank
23	Coolant radiator cap
24	Coolant radiator
25	Rear brake fluid tank
26	Kick starter
27	Right footpeg
28	Gear oil drain plug
29	Rear brake pedal
30	Gear oil level plug

MAIN PARTS

MOTARD



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



Pos.	Description
18	Fuel tap
19	Spark plug
20	Front brake lever
21	Front brake fluid tank
22	Electric start button
23	Throttle control
24	Coolant radiator
25	Rear brake fluid tank
26	Radiator cap
27	Right footrest
28	Rear brake pedal
29	Gear oil level plug
30	Filter oil cap

DASHBOARD Function

Maximum speed record

- Display range : 0 ~ 360 km/h (0 ~ 225 mile)
- Maximum RPM record**
- Display range : 0 ~ 15,000 RPM

Speedometer

- Display range :
0 ~ 360 km/h (0 ~ 225 mile)

Indication light

- Neutral (green light) N
- Right indication light (green light) →
- Water temperature (red light) ㉿
- Motor oil (red light) ㉿
- Engine (yellow light)
- Fuel (yellow light) not used ㉿
- Left indication light (green light) ←
- High beam light (blue light) ㉿

Average speed record

- Recording range :
0 ~ 360 km/h (0 ~ 225 MPH)

Tachometer

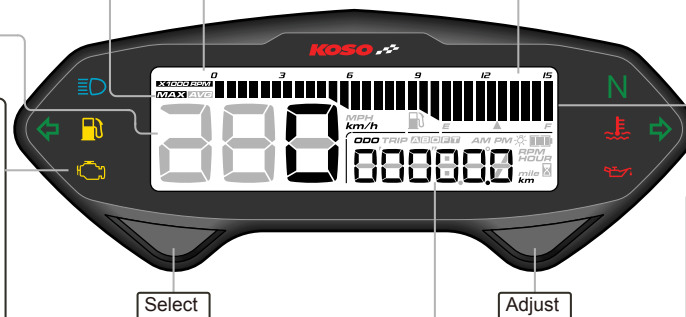
- Display range : 0 ~ 10,000 RPM 、 0 ~ 12,000 RPM 、 0 ~ 15,000 RPM

Fuel Level

- Setting range : 100Ω ~ 250Ω
~ 270Ω ~ 510Ω ~ 1200Ω
SWITCH ~ USER

Low fuel warning

- Setting range : 10 ~ 50%,
when lower than (including)
setting value, fuel level
symbol will blink.



Total engine operating time

- Display range : 0~99,999.9 hours
- Display unit : 0.1 hour

Engine operating time A,B

- Display range : 0~9,999.9 hours
- Display unit : 0.1 hour

Odometer

- Display range : 0 ~ 99999.9 km (mile),
return to zero upon exceed.
- Display unit : 0.1 km (mile)

Trip meter A ~ B

- Display range : 0 ~ 999.9 km (mile),
return to zero upon exceed.
- Display unit : 0.1 km (mile)

Tachometer

- Display range : 0 ~ 15,000 RPM
- Display unit : 10 RPM

Voltmeter

- Display range : DC 8.0 V ~ 16.0 V
- Display unit : 0.1 V

Motor oil maintenance millage

- Display range : SI unit :
500 (~ 8,000 km, user adjustable) ~ -999 km, automatic decrease according to the increase of total millage.
- Display range : Inch :
300 (~ 5,000 mile user adjustable) ~ -999 mile, automatic decrease according to the increase of total millage.
- Display unit : 1 km (mile)

Internal ODO

- Display range : 0 ~ 99,999.9 km (mile) ,
user unadjustable.
- Display unit : 0.1 km (mile)

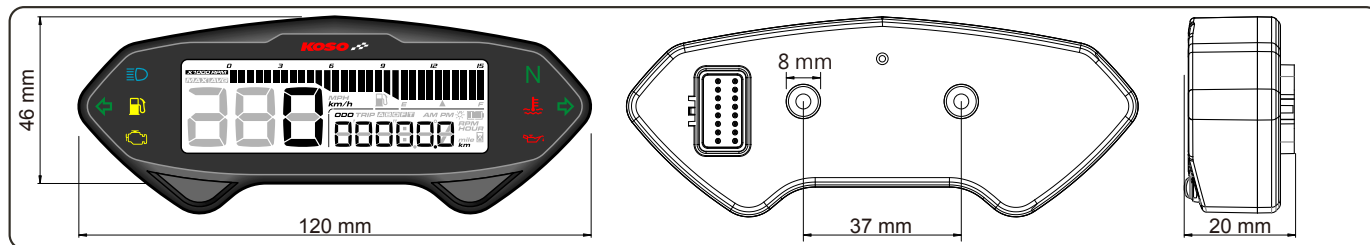
External ODO

- Setting range : 0 ~ 99,999 km (mile)
- Setting unit : 1 km (mile)

BASIC FUNCTION INSTRUCTION

● Speedometer	Display range : 0 ~ 360 km/h (0 ~ 225 MPH) Will blink when exceed range. Display unit : 1 km (mile)	● Fuel level	Setting range : 100Ω、250Ω、270Ω、510Ω、 1200Ω、SWITCH、USER
○ Display internal	<0.5 second	○ Staged fuel gauge	Setting range : 10 stage display Warning range : Fuel level warning stage below (including) setting value, fuel level symbol will blink.
○ Odometer	Display range : 0 ~ 99,999.9 km (mile), return to zero upon exceed. Display unit : 0.1km (mile)	○ Digital fuel gauge	Setting range : 0 ~ 100 % Setting unit : 10 %
○ Trip meter A、B	Display range : 0 ~ 999.9 km (mile), return to zero upon exceed. Display unit : 0.1km (mile)	○ Low fuel warning	Setting range : 10 ~ 50 %, when lower than (including) setting value, fuel level symbol will blink. Setting unit : 10%
● Motor oil maintenance millage	Display range : SI unit : 500 (~8000 km, user adjustable) ~ -999 km, automatic decrease according to the increase of total millage. Display range : Inch : 300 (~ 5000 mile user adjustable) ~ -999 km, automatic decrease according to the increase of total millage. Display unit : 1 km (mile)	● Volt meter	Display range : DC8.0 V ~ 16.0 V Display unit : 0.1V
○ Maximum speed record	Display range : 0 ~ 360 km (0 ~ 225 mile) Display unit : 1 km (mile)	● Internal ODO	Display range : 0~99999.9 km (mile), user unadjustable Display unit : 0.1 km (mile)
○ Average speed record	Recording range : 0 ~ 360km/h (0 ~ 225 MPH)	● External ODO	Setting range : 0~99999 km (mile) Setting unit : 1km (mile)
○ Tire circumference	Setting range : 300 ~ 2,500 mm Setting unit : 1 mm	● Backlight color	Display range: white
○ Sensitive point	Setting range : 1 ~ 20 points Setting range : 1 point	● Effective voltage	DC 12 V
● Tachometer	Display range : 0 ~ 15,000 RPM Display unit : 10 RPM	● Effective temperature	range +60 °C
○ Display internal	<0.5 second	● Meter standard	JIS D 0203 (S2)
○ Stage tachometer	Display range : 0 ~ 10,000 RPM、 0 ~ 12,000 RPM、0 ~ 15000 RPM Display unit : 0 ~ 10,000 RPM (333 RPM each stage) 0 ~ 12,000 RPM (400 RPM each stage) 0 ~ 15,000 RPM (500 RPM each stage)	● Meter size	120 x 46 x 20 mm
○ MAX RPM record	Display range : 0 ~ 15,000 RPM Display unit : 10 RPM	● Meter weight	Around 240 g
○ The RPM input signal number setting	Setting range : P-0.5,P-1~P-25	● Indicator light	Neutral (green light) N Right indication light (green light) → Water temperature (red light) 水温計 Motor oil (red light) 油圧計 High beam light (blue light) 高光束 Left indication light (green light) ← Fuel (yellow light) 燃料計 Engine (yellow light) エンジン
○ The RPM input pulse	Setting range : lo-Act, Hi-Act	NOTE Any design and specification changes will not be notify.	
● Total hour meter	Display range : 0 ~ 99,999.9 hour Display unit : 0.1 hour		
○ Hour meter A、B	Display range : 0 ~ 9,999.9 hour Display unit : 0.1 hour		

3-3 Meter size

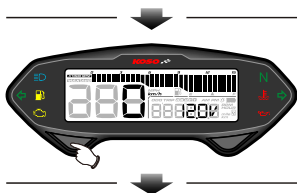


3-4 Select button function instruction



- In the clock screen, press the **Select** button one time to enter the volt screen.

- In any screen, press and hold the **Select** buttons for 3 seconds to switch between rpm and fuel bar screen.



- In the volt screen, press the **Select** button one time to enter the fuel level screen.



- In the fuel level screen, press the **Select** button one time to go back to the clock screen.



- In the clock screen.

3-5 Adjust button function instruction



- In the ODO screen, press the **Adjust button** to enter the Trip A screen.
- In the ODO screen, press the **Select+Adjust buttons for 3 seconds** to enter settings (Please refer to 4).



- In the Trip A screen, Press the **Adjust button** to enter the Trip B screen.
- Press and hold the **Adjust button for 3 seconds** to reset Trip A screen.



- In the Trip B screen, press the **Adjust button** to enter the oil maintenance mileage screen.
- Press and hold the **Adjust button for 3 seconds** to reset Trip B screen.



- In the oil maintenance mileage screen, press the **Adjust button** to enter the total hour meter screen.
- Press and hold the **Adjust button for 3 seconds** to reset oil maintenance mileage screen.



- In total hour meter screen, press the **Adjust button** to enter the hour meter A screen.



- In the hour meter A screen, press the **Adjust button** to enter the hour meter B screen.
- Press and hold the **Adjust button for 3 seconds** to reset hour meter A screen.



- In the hour meter B screen, press the **Adjust button** to enter the Max. record screen.
- Press and hold the **Adjust button for 3 seconds** to reset hour meter B screen.



- In the Max. record screen, press the **Adjust button** one time to enter the Average speed record screen.
- Press and hold the **Adjust button for 3 seconds** to reset Max. record screen.

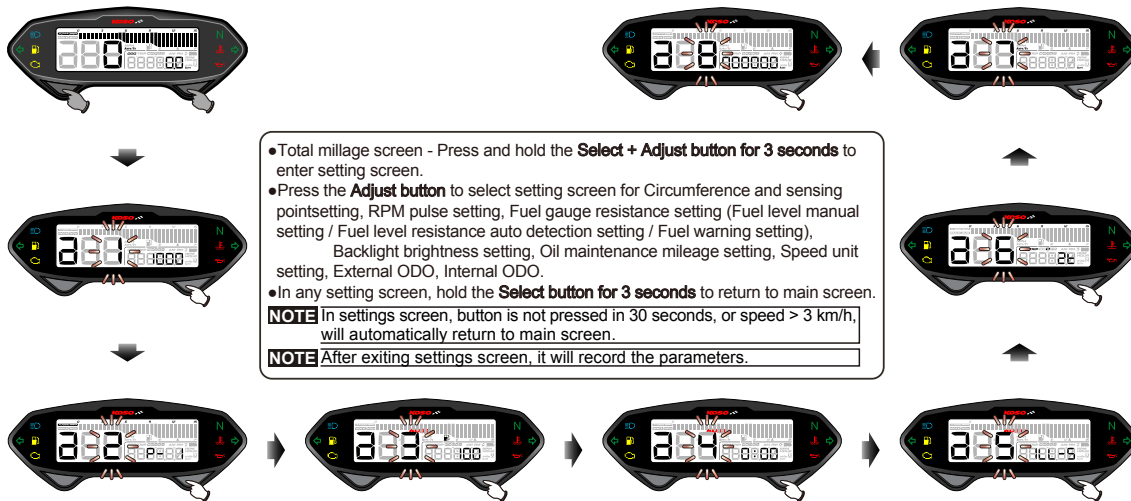


- In the Average speed record screen, press the **Adjust button** one time to enter the ODO screen.
- Press and hold the **Adjust button for 3 seconds** to reset Average speed record screen.

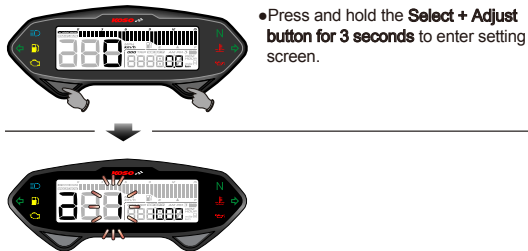


- In the ODO screen.

3-6 The settings screen description



4 Enter settings and function index menu



4-1 Circumference and sensing pointsetting



- Press the **Select** button to enter the circumference and sensing point setting screen.

⚠ CAUTION!

- Please measure the tire circumference (The tire you will install the sensor on) and make sure the number of magnet sensor point (You could install the magnet into the disc screw or the sprocket screw.)
- The speed displayed on the meter will be affected by the setting, please make sure the setting number is correct before you make the setting.

⚠ Please reset this setting value when you change a different size tire.



- **Example : If the tire circumference is 1,300 mm.**

- Press the **Select** button to choose the setting number.
- EX. Now the tire circumference is setting from 1,000 mm.

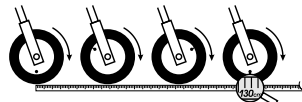
⚠ Now the digit in thousands setting number is flashing!

NOTE Setting range : 300 ~ 2,500 mm
Setting unit : 1 mm

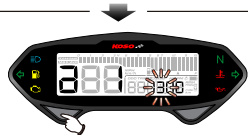
PS.



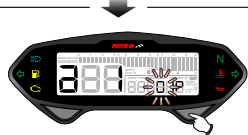
- You could define the valve as the starting point and the terminal point to measure the wheel circumference with a measuring tape.



- Press the **Adjust** button to choose the setting number.



- Press the **Select** button to enter the sensor point setting.
- EX. The circumference setting is changed from 1,000 mm to 1,300 mm.

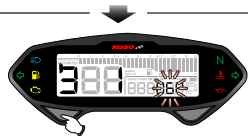


- **Example : If the sensor point is setting 6P.**

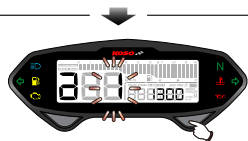
- Press the **Adjust** button to choose the setting number.
- EX. Now the sensor point is setting from 1P.

⚠ Now the setting value is flashing!

NOTE Sensitive point : 1 ~ 20



- Press the **Select** button to go back to the circumference and sensing point setting screen.
- EX. Now the sensor point is setting from 1P to 6P.



- Press the **Adjust** button to enter next operation setting.

4-2 RPM pulse setting



- Press the **Select** button to enter the RPM pulse setting screen.



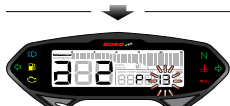
- EX. You want to connect the RPM signal wire to the pick up signal and there are 13 flywheel signals per turn.
- Press the **Adjust** button to choose the setting number.

⚠ Currently setting value will blink.

NOTE Setting range : 0.5 ~ 1 ~ 25

The setting value	The corresponding stroke and pistons number	The corresponding RPM signal number per ignition
0.5	4C-1P	2 RPM signals per 1 ignition.
1	2C-1P 4C-2P	1 RPM signal per 1 ignition.
2	2C-2P 4C-4P	1 RPM signal per 2 ignition.
3	2C-3P 4C-6P	1 RPM signal per 3 ignition.
4	2C-4P 4C-8P	1 RPM signal per 4 ignition.
5	4C-10P	1 RPM signal per 5 ignition.
6	2C-6P 4C-12P	1 RPM signal per 6 ignition.

⚠ **CAUTION!** Most of the 4-cycle bikes with one single piston are igniting every 360 degree once, so the setting should be the same as the bike with 2-cycle and one piston engine.



- Press the **Select** button to enter waveform setting screen.
- EX. Setting engine ignition angle from P-1 to P-13.



- Example : To set waveform to high waveform (Hi-Act).
- Press the **Adjust** button to choose the setting number.

⚠ Currently setting value will blink.

NOTE Setting range : Hi-Act ~ Lo-Act

NOTE During RPM signal detection, if there is any bad sensing or interference, please select another RPM sensing waveform.



- Press the **Select** button to enter rpm stage setting screen.
- EX. Setting from high wave (Hi-Act) to low wave (Lo-Act).



- Example : To set rpm stage value as 10,000 RPM.

- Press the **Select** button to choose the setting number.
- EX. Current rpm stage value is 15,000 RPM.

⚠ Currently setting value will blink.

NOTE Setting range : 10,000 ~ 12,000 ~ 15,000 RPM *



- Press the **Adjust** button to choose the setting number.



- Press the **Select** button to return to rpm stage setting screen.
- EX. Setting rpm stage value form 15,000 RPM to 10,000 RPM.



- Press the **Adjust** button to enter next operation setting.

NOTE**ATTENTION**

- 4-3 Fuel gauge resistance setting
- 4-3-1 Fuel level manual setting
- 4-3-2 Fuel level resistance auto detection setting
- 4-3-3 Fuel warning setting

All Functions related to the fuel are disabled in this vehicle

4-3 Fuel gauge resistance setting

- Press the **Select button** to enter the circumference and sensing point setting screen.



- **Example:** If the vehicle is a YAMAHA T-MAX 530, its resistance is 100 Ω according to the service manual.
- Press the **Adjust button** to choose the setting number.

⚠ Currently setting value will blink.

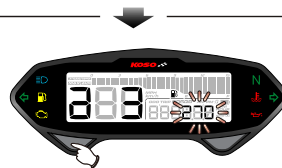
NOTE The fuel gauge resistance setting range : USER 、 100 Ω 、 250 Ω 、 270 Ω 、 510 Ω 、 1200 Ω 、 SW (turn off)

NOTE

Custom fuel level resistance:
1) Manual - Please check 4-3-1 Fuel Level Resistance Manual Setting Instructions.
2) Auto - Please check 4-3-2 Fuel Level Resistance Auto Setting Instructions.

NOTE

Fuel meter will be displayed with the wiring connected.



- Press the **Select button** to enter 4-3-3 fuel warning setting screen.
- **EX.** Setting fuel meter's resistance value from 100 to 270.

4-3-1 Fuel level manual setting



- Press the **Select** button to enter the lowest fuel level's resistance setting screen.

P.S.



- You could find your fuel level sensor resistance range in the electronic components section in the service manual.

- Normally, we will recommend to choose the closest number set as the range to ensure that riders will not run out of gas before the fuel level indication.

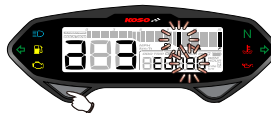


- **Example : To set minimum fuel level as 90 Ω.**
- Press the **Select** button to choose the setting number.

⚠ Currently setting value will blink.



- Press the **Adjust** button to choose the setting number.



- Press the **Select** button **twice** to enter maximum fuel resistance value setting screen.
- EX : Setting minimum fuel level from 0 to 90.



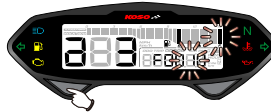
- **Example : To set maximum fuel level as 10.**

- Press the **Select** button to choose the setting number.

⚠ Currently setting value will blink.



- Press the **Adjust** button to choose the setting number.



- Press the **Select** button **twice** to enter 4-3-3 fuel warning setting menu.
- EX. The highest fuel level setting is changed from 0 to 10 Ω.

4-3-2 Fuel level resistance auto detection setting



- Press the **Select button** to enter the lowest fuel level's resistance auto detection screen.

⚠ CAUTION!

- Before detection, ensure that your current fuel level is in the lowest position that you would like to have.
- Stop the vehicle for a few seconds to allow the fuel surface to become steady, then start the detection of the resistance.



- Press the **Adjust button** to detect the lowest fuel level's resistance.



- Press the **Select button 5 times** to enter the lowest fuel level resistance auto detection screen.
- EX. Auto Detection the lowest fuel level resistance is 90 Ω.

⚠ CAUTION!

- Before detection, please ensure your current fuel level is in the highest position that you would like to have.
- Stop the vehicle for a few seconds to allow the fuel surface become steady, then start the detection of the resistance.



- Press the **Adjust button** to detect the highest fuel level resistance.



- Press the **Select button 5 times** to go back to the fuel gauge resistance.
- EX. Automatically detect the highest fuel level resistance value as 10 Ω.

4-3-3 Fuel warning setting



●Example : To set fuel warning value as 30%.

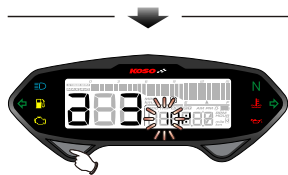
●Press the **Adjust** button to choose the setting number.

⚠ Currently setting value will blink.

NOTE Setting range : 10%, 20%, 30%, 40%, 50%.
Fuel meter will not display when fuel meter's wire is not installed.



●Press the **Adjust** button to enter next operation setting.



●Press the **Select** button to return to fuel level resistance value setting screen.

●EX. Setting maximum fuel level from 30% to 10%.

4-4 Backlight brightness setting



- Press the **Select** button to enter the backlight brightness setting screen.



- **Example** : You want to set the brightness at 60 % (3).
- Press the **Adjust** button to choose the setting number.

⚠ Currently setting value will blink.

NOTE Setting range :
1 (Darkest) ~ 5 (Brightest),
5 different levels available.
Setting unit : 20% per level.
The backlight brightness will
change immediately after you
set the value.



- Press the **Select** button to go back to the backlight brightness setting screen.
- EX. The backlight brightness setting is changed from 5 (100%) to 3 (60%).

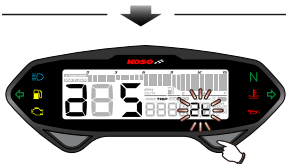


- Press the **Adjust** button to enter next operation setting.

4-5 Oil maintenance mileage setting



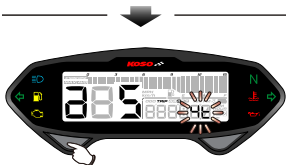
- Press the **Select** button to enter the oil maintenance mileage setting screen.



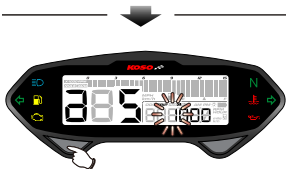
- **Example** : To set motor oil mileage value as 4T.
- Press the **Adjust** button to choose the setting number.
- EX. Current motor oil mileage is 2T.

⚠ Currently setting value will blink.

NOTE Setting range : 2T / 4T



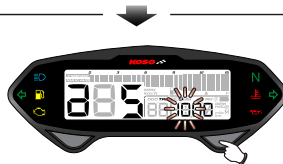
- Press the **Select** button to enter 4T motor oil mileage setting main screen.
- EX. Setting motor oil mileage value from 2T to 4T.



- **Example** : To set motor oil mileage parameter as 1,500.
- Press the **Select** button to choose the setting number.
- EX. Current motor oil mileage parameter is 1,000.

⚠ Currently setting value will blink.

NOTE ● 2-stroke motor oil mileage is indicated by external signal warning (motor oil indicator will lit).
● 4-stroke motor oil mileage is internally set by the chronograph.



- Press the **Adjust** button to choose the setting number.



- Press the **Select** button to go back oil maintenance mileage setting screen.
- EX. Setting motor oil mileage parameter from 1,000 to 1,500.



- Press the **Adjust** button to enter next operation setting.

4-6 Speed unit setting



- Press the **Select** button to enter the speed unit setting screen.



- Press the **Adjust** button to choose the setting number.



- Press the **Select** button to go back speed unit setting screen.
- EX. The speed unit setting is changed km/h \ km to MPH \ mlie.



- Press the **Adjust** button to enter next operation setting.

4-7 External ODO



- Press the **Select** button to enter the external ODO setting screen.



- **Example : To set external total millage value to 12,500 km.**
- Press the **Select** button to choose the setting number.
- ⚠ Currently setting value will blink.

NOTE Setting range :
0 ~ 99,999 km (mile)



- Press the **Adjust** button to choose the setting number.



- Press the **Select** button to the external ODO setting screen.
- EX. The external ODO is changed 0 to 12,500 km.



- Press the **Adjust** button to enter next operation setting.

4-8 Internal ODO



- Example : Current internal ODO is 50,000 km.
- Press the **Select** button three seconds to go back to ODO screen.

⚠ User unable to adjust and clear internal ODO.

NOTE Setting range :
99999.9 km (mlie).



- The main screen.

ATTENTION TECHNICAL DATA FOR SETTING

a.1 Circumference and sensing point setting Motard 2090



P9



Enduro 2290



P9



a.2 RPM pulse setting

Hi-Act



5 Trouble shooting

The following situation do not indicate malfunction of the meter. Please check the following before taking it in for repair.

Trouble	Check item	Trouble	Check item
The meter doesn't work when the power is on.	The power doesn't supply to the meter. →Please make sure the wiring is connected. The wiring and fuse are not broken. →The battery is broken or the battery is too old to supply enough power (DC 8 V) to make the meter work.	Tachometer does not appear or appear incorrectly	- Please check the RPM sensor wiring is connected correctly. - Please check the spark plug is R type or not. If not, please replace the spark plug with the R type spark plug. - Please check your setting. →Please refer to the manual 4-2 RPM pulse setting.
The meter shows wrong information.	Check the voltage of your battery, and make sure the voltage is over DC 8 V.	The odometer and trip meter is not accumulated or accumulated wrong data.	It is possible that the permanent power wire is not connected well. →Please check the red positive wire is connect well or not.
Speed does not appear or appear incorrectly.	- Make sure the speed sensor is connected properly. →Please check if speed sensor is connected and working properly. Also check whether the cable of speed sensor has broken or lose or not. - Check the tire-size setting. →Refer to the manual 4-1 circumference and sensing point setting.	Fuel gauge does not appear or appear incorrectly.	- Check your fuel tank. - Check the wiring harness. →Is the wire connected properly. - Check the tire-size setting. →Refer to the manual 4-3 fuel gauge resistance setting.
The odometer and trip meter are not accumulated or accumulated the wrong data.	It is possible that the permanent power wire is not connected properly. →Check if the red positive wire is connect properly.		

* If the problem is not resolved after following the steps shown above, please contact your local distributor for assistance.

STEERING LOCK

Never leave the key inserted in the steering lock while the vehicle is running.

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

Turn the lock cover upwards.



Insert the key into the lock, turn counter-clockwise and press.

Release the key and remove it.



The key comes with the motorcycle.



PRELIMINARY CHECKLIST

Part	
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.

Part	Verifica
Cooling system	Check level of liquid
Start button	correct operation
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)
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

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 suffer.

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.

NOTE: the first 1000 km (625 mi) represent the end of running-in threshold, but only after 1000 km (625 mi) is best performance of the vehicle obtained.

During the first 500 km (312 mi), ensure that any maintenance operations envisaged for this mileage are carried out.

USE

STARTING



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

Release the steering lock if it has been engaged, following the instructions given in the relative section and turn the key clockwise.



FANTIC

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

ELECTRIC STARTER

Pull the clutch lever while pushing the start button on the throttle control without turning the throttle twist grip.



COLD START

The vehicle is fitted with a cold start device or choke. It is controlled either by a lever located above the clutch lever on the left of the handlebar or by a button on the carburettor.



To connect the choke, pull the lever when the engine is switched off and cold.

Keep pulling on the lever and press the start button.



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

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 shift gear, let go of the accelerator handle control, move the clutch lever and raise the gear lever to up-shift or lower to down-shift.

If it is the first time you are riding a motorcycle, it is as well to familiarise yourself with the controls and their functions.



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 and keep it pressed until the engine comes to a COMPLETE stop, ensure to turn the switch key anticlockwise. **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.

MAINTENANCE

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.

PERIODIC MAINTENANCE CHART

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

NOTE: 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 4000 km (1800 mi) or 12 months	Once every 8000 km (3500 mi) or 12 months
Spark plug	❶	❶	❸
Clutch play	❹	❹	-
Light System	❶	❶	-
Coolant liquid	every 2000 km (1250 mi): ❶		
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

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

➊ → check and clean, adjust, lubricate if necessary;

➋ → clean;

➌ → replace;

➍ → adjust.

NOTE: carry out maintenance more frequently if the vehicle is used in rainy or dusty areas or on rough routes.

Parts	End of running-in 1000km (600mi)	Once every 4000 km (1800mi) or 12 months	Ogni 8000km (3500mi) o 12 months
Rear shock absorber			➊
Carburettor	➋	➋	➋
Drive and control cables	➊	➊	
Wheel truing		➊	
Steering head tube bearings and steering	➊	➊	
Wheel bearings		➊	
Brake disks	➊	➊	
Air filter	➌	➌	➌
Filtro benzina supplementare	after the first 1000 km (625mi): ➌ every 6000km (5000 mi): ➌		
General running of vehicle	➊	➊	
Braking systems	➊	➊	
Cooling system	➊	➊	
Brake fluid	every two years ➌		
Valve play	➊	➊	
Silencer/exhaust system			
Engine oil and oil filter	➌	➌	
Fork oil and oil seal	every 12000 km (7500 mi): ➌		
Wheels/tyres and inflation pressure	➊	➊	
Tightening of nuts and bolts	➊	➊	
Final drive (chain, sprocket, ring)		➊	
Fuel pipe		➊	every four years ➌
Clutch wear	➊	➊	

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 wa-

ste oil collection point where it will be disposed of correctly.

CHECKING TRANSMISSION OIL

You should wear gloves when doing this.

NOTE: do not perform this check with the motorcycle resting on the kickstand.

Place the vehicle on a flat surface.

NOTE: place the vehicle on a suitable support and make sure it is straight.

Start the engine and let it warm up for a few minutes. Then turn it off. Check the motor oil. Its level should be between the minimum level "L" and the maximum level "H". If it is below the minimum level, add recommended motor oil until the correct level is reached.





NOTE: before you check the motor oil, wait a few minutes for it to settle. Do not screw in the motor oil fill cap (dipstick) “1” when checking the oil.

ATTENTION:

- 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.

Start the engine and let it warm up for a few minutes. Then turn it off. Check the motor oil again. **NOTE:** before you check the motor oil, wait a few minutes for it to settle.

CHANGING MOTOR OIL

Start the engine and let it warm up for a few minutes. Then turn it off. Place a container under the oil drain bolt. Remove the motor oil fill cap (dipstick) “1”, the motor oil cap “2”, the O-ring, the spring and the motor oil filter. Completely drain the motor oil from the crankcase.



If the filter also needs to be replaced, proceed

as follows: remove the cover of the oil filter “1” and the oil filter “2”. Install a new O-ring. Then install the new oil filter and the oil filter cover. Check motor oil filter. If it is dirty it will need to be cleaned. Re-install the spring, the new O-ring and the oil drain cap. Fill the crankcase with the recommended amount of motor oil.

AMOUNT OF OIL

Total quantity: 1.15L (1.22 US qt) (1.01 Imp. qt)
Without changing the oil filter: 0.95L (1.00 US qt) (0.84 Imp. qt)
Changing the oil filter: 1.00L (1.06 US qt) (0.88 Imp. qt).

Re-insert the motor oil fill pipe cap. Start the engine and let it warm up for a few minutes. Then turn it off. Check the engine for leakage of motor oil. Refer to “LEVEL CHECK” for the motor oil level. Also check the motor oil pressure.

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.

NOTE: 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.

NOTE: 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.

NOTE: 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.

CAUTION

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 fitted with two adjustment devices for the length of the clutch cable.



FANTIC

Periodically check correct adjustment of the clutch cable, ensuring that the travel without load of the control lever is 3-4 mm.

If this measurement is different, use the control lever adjusting screw (1) or the relative adjusting screw on the engine case to carry out the adjustment.



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.

NOTE: 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 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 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, see (SPECIFICATIONS) under:

- FUEL.

Tank capacity (reserve included) and tank reserve: see (SPECIFICATIONS) under FUEL.



To refuel:

Unscrew and remove the fuel tank filler cap (1). Do not add additives or other substances to the fuel. If a funnel or such is used, make sure that it is perfectly clean.

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 (1). 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-

ration 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.

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 the 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.

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 therefore

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 two marks.
- 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 on 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

(models Casa and Performance)

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

NOTE: 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

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.



NOTE: 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 (2).

The shock absorber of the CASA model instead is equipped instead of a 5 mm Allen screw.



To restore the standard calibration, turn the Allen screw clockwise to the fully closed position, then turn back the aforementioned shots. To obtain a softer braking, turn the Allen wrench counter-clockwise; act inversely to get a harder braking.

SUSPENSIONS

(models from competition)

FRONT-WHEEL SUSPENSION

A fork is mounted by the manufacturer on these models that envisages two types of adjustment.

At the time the vehicle is sold the adjustment is naturally standard. This setting may, however, be changed according to personal preferences and to the type of road surface.

Adjustment is not complicated but if you are not sure of correct procedures, it is best to go to a Dealer and ask them to carry out the adjustment.

ADJUSTING THE OF PRELOAD SPRING

Standard setting: fully open + 3 click turns. To restore the standard setting, turn the adjusting device anticlockwise and then turn back for the number of turns indicated above.



To obtain smoother braking action, turn the adjusting screw counter-clockwise; reverse the direction to obtain an inferior braking action.

EXTENSION ADJUSTMENT (REGISTER REBOUND)

Standard setting: fully closed – 6 click. To restore the standard setting, turn the adjusting device (R) clockwise and then turn back for the number of turns indicated above.

To obtain smoother braking action, turn the adjusting screw IN DIRECTION (H=); acting inversely-(S=+) to obtain a biggest braking action.



Proceed as follows:

The spring preload adjustment requires removal of the air manifold and use of a specific pin wrench

- Loosen the locking screw of the ring nut (2)
- Tighten 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 (2).



DUMPER COMPRESSION ADJUSTMENT

Standard setting -16 clicks from fully closed To obtain gentler braking, turn the adjusting ring nut in the direction (S= -); reverse the direction (H=+) to obtain harder braking action.

To restore the standard setting, turn the adjusting device anticlockwise and then turn back for the number of turns indicated above.



ADJUSTING HYDRAULIC BRAKE

Standard setting:

- 15 clicks from fully closed.

To restore the standard setting, turn the adjusting ring in (H=+) direction as far as the fully closed position and then turn back for the number of clicks indicated above. To obtain smoother braking action, turn the adjusting device in direction (S=-); reverse the direction (H=+) to obtain harder braking action.



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.



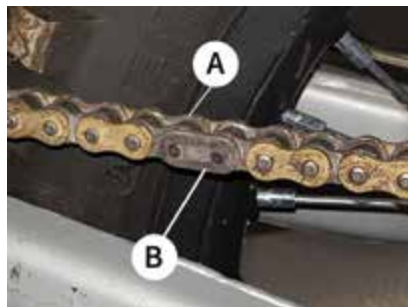
Also check the wear of the chain guide and the chain sliding shoe.



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 loosening 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 25 mm (0,98 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 on 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. If 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.

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

- Air filter.

REPLACEMENT OF AIR FILTER

- Remove the saddle.
- Unscrew and remove the screw shown in the picture below.



- Lift the battery support tray "3" positioning it laterally as illustrated
- Loosen and remove the screw (1).
- Draw out the filter (2) complete with retainer.

NOTE: 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.

- Unscrew and remove the screw (1).
- Remove the filter (2)



NOTE: THE TYPE OF FILTER DOES NOT REQUIRE CLEANING BUT ONLY REPLACEMENT

which must occur every 4000 km (2500 miles) for road use and at least every 1000 km for off road use.

- Replace the filter (2) with a new one of the same type.

When reassembling:

- Insert the filter in the seat of the filter box.
- Manually tighten the screw (1).

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 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 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.

NOTE: 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.

NOTE: during refilling, do not exceed the “fill level”.

At the end of refilling, always close the filler cap well.

NOTE: 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.



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

- Make sure that the engine is cold.
- Place the vehicle on the stand.
- Keep the vehicle upright with both wheels resting on the ground.
- Turn the handlebar to the left.
- Unscrew (by turning counter-clockwise) the filler cap (1) by about one turn.
- Wait for a few seconds to allow any pressure in the system to be released.
- Unscrew the filler cap (1) by turning counter clockwise and remove it.

FILL LEVEL

Having removed the cap, if the coolant level is visible and fully covers the plates, then it is in the condition of "fill level". If this level has not been reached, the coolant must be topped up.

Take great care when adding the liquid not to exceed the "fill level", otherwise there could be overflow when the vehicle is running, which could affect operation.

If there is a high consumption of coolant, check for leaks from the radiator or the pipe couplings. Consult a FANTIC MOTOR Dealer for repairs.

CARBURETTOR/THROTTLE CONTROL

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.: 1250-1550 rounds/min

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.

NOTE: 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.
- Loosen the ring nut (2).
- Turn the adjusting device (3) to reset the recommended value.

After adjustment:

- Manually lock rotation of the adjusting device (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 4000 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.

BATTERY

Maintenance-free battery (1) is installed under the seat into the airbox.

There is no need to check the level of the electrolyte or top up with water.

Keep the battery terminals clean. If necessary, protect them with a thin film of acid free grease.



REMOVING THE BATTERY

- Remove seat and disconnect the negative terminal and then the positive terminal from the battery.
- Remove the battery.

When reinstalling the battery, fit it with the terminals facing outward (see figure) and connect the positive and then the negative terminal to the battery.

INACTIVITY

If the vehicle is not going to be used for a long time, remove the battery and charge it every 15 days using a suitable charger. Store the battery in a dry

place at a temperature of 5 to 35°C and out of the reach of children.

WARNING:

Exercise extreme caution if, for any reason, the electrolyte (sulphuric acid) should come out of the battery.

The electrolyte can cause serious burns. In case of contact with the skin, rinse abundantly with water. Should the electrolyte come into contact with the eyes, rinse with water for at least 15 minutes and immediately seek medical attention. Even though the battery is sealed, there is a possibility that explosive gases may leak out.

Keep sparks and open flames away from the battery. Keep spent batteries out of the reach of children and dispose of them as prescribed by law. Do not remove the protections. When installing the battery.

CHANGING THE HEADLAMP BULB

The headlamp houses:

- a position light bulb;
- a dipped/full beam bulb.
- Release the four lamp-bracket flexible supports



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.



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.

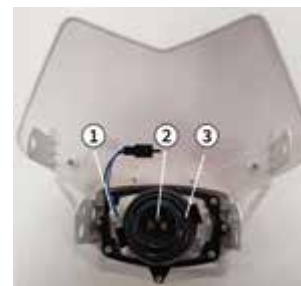
- Shift the complete lamp bracket to the side.

NOTE: 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.

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.

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.
- electrical connections;
- decals.

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

NOTE: 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 meticulous and thorough washing should you proceed with polishing using silicone wax. 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.

SPECIFICATIONS

	ENDURO PERFORMANCE	MOTARD PERFORMANCE	ENDURO CASA	MOTARD CASA
Length (mm)	2040	1985	2050	1985
Width (mm)	780	780	780	780
Height (mm)	1200	1160	1200	1160
Ground clearance (mm)	340	340	330	300
Wheel base (mm)	1395	1395	1395	1395
Saddle height (mm)	920	900	940	920
Net dry weight (Kg)	98	99	97	98
Type of engine	Single cylinder 4 stroke	Single cylinder 4 stroke	Single cylinder 4 stroke	Single cylinder 4 stroke
Cooling	liquid cooling	liquid cooling	liquid cooling	liquid cooling
Bore/Stroke	52.0X58,6	52.0X58,6	52.0X58,6	52.0X58,6
Displacement	124,7 cm3	124,7 cm3	124,7 cm3	124,7 cm3
Compression ratio	11,20:1	11,20:1	11,20:1	11,20:1
Engine idling speed	1200 ± 100	1200 ± 100	1200 ± 100	1200 ± 100
Speed change	6 gears	6 gears	6 gears	6 gears
Clutch	wet multiple-disk	wet multiple-disk	wet multiple-disk	wet multiple-disk
Ignition	Electronic	Electronic	Electronic	electronic
Carburettor	Keihin CVK30	Keihin CVK30	Keihin CVK30	Keihin CVK30
Spark plug	NGK CR8E	NGK CR8E	NGK CR8E	NGK CR8E

	ENDURO PERFORMANCE	MOTARD PERFORMANCE	ENDURO CASA	MOTARD CASA
Fuel	Petrol super (min. 98 octane)	Petrol super (min. 98 octane)	Petrol super (min. 98 octane)	Mixture of petrol (min. 98 octane) and 2-stroke oil for 2% mixture (auto mix)
Total tank/ Reserve capacity	8,5 L / 0,5 L	8,5 L / 0,5 L	8,5 L / 0,5 L	8,5 L / 0,5 L
Air filter	In paper	In paper	In paper	In paper
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	1000 cc (see lubricant table)	1000 cc (see lubricant table)	1000 cc (see lubricant table)	1000 cc (see lubricant table)
Primary transmission	3,042	3,042	3,042	3,042
Final drive	Chain 428, (Z=14/58)	Chain 428, (Z=11/54)	Chain 428, (Z=14/58)	Chain 428, (Z=11/54)
Frame	Perimeter in CrMo steel	Perimeter in CrMo steel	Perimeter in CrMo steel	Perimeter in CrMo steel
Rear fork	In steel	In steel	With variable section in aluminum	With variable section in aluminum
Front suspension	Hydraulic telescopic fork, travel 265mm	Hydraulic telescopic fork, travel 265mm	Hydraulic telescopic fork, travel 265mm	Hydraulic telescopic fork, travel 265mm
Rear suspension	Hydraulic monodamper, bump and rebound adjustment, stroke 100 mm	Hydraulic monodamper, bump and rebound adjustment, stroke 100mm	Hydraulic monodamper, bump and rebound adjustment, stroke 110mm	Hydraulic monodamper, bump and rebound adjustment, stroke 100mm
Front brake	hydraulic disk brake 260mm	hydraulic disk brake 320mm	hydraulic disk brake 260mm	hydraulic disk brake 320mm
Rear brake	hydraulic disk brake 220mm	hydraulic disk brake 220mm	hydraulic disk brake 220mm	hydraulic disk brake 220mm

	ENDURO PERFORMANCE	MOTARD PERFORMANCE	ENDURO CASA	MOTARD CASA
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	90/90x21 road 1,6 bar off-road 1,3 bar	100/80x17 road 1,6 bar off-road 1,3 bar	90/90x21 road 1,6 bar off-road 1,3 bar	100/80x17 road 1,6 bar off-road 1,3 bar
Rear tyre/ pressure	120/80x18 road 1,8 bar off-road 1,6 bar	130/70x17 road 1,8 bar off-road 1,6 bar	120/80x18 road 1,8 bar off-road 1,6 bar	130/70x17 road 1,8 bar off-road 1,6 bar
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

GUIDA RAPIDA DI RIFERIMENTO / FAST GUIDE OF REFERENCE / GUIDE RAPIDE DE RÉFÉRENCE/ KURZANLEITUNG

NUMERO CENTRO ASSISTENZA
AFTER-SALES SERVICE NUMBER
NUMMER DES ASSISTENZENTRUMS
NUMÉRO DU CENTRE D'ASSISTANCE

MESE TAGLIANDO
SERVICE MONTH
INSPEKTIONSMONAT
MOIS DU COUPON

NUMERO TELAIO
VIN/CHASSIS/FRAME No.
FAHRGESTELLNUMMER
NUMÉRO DE CHÂSSIS

CARBURANTE Benzina senza piombo (95 ottani)
FUEL Unleaded petrol (95 octane)
KRAFTSTOFF Bleifreies Benzin (95 Oktan)
CARBURANT Essence sans plomb (95 octanes)

OLIO MOTORE / ENGINE OIL / HUILE DU MOTEUR / MOTORÖL
Se si aggiunge olio non superare il livello massimo indicato.
When topping up with oil, do not exceed the maximum level.
Wenn Öl nachgefüllt wird, darf der angegebene Höchstfüllstand nicht überschritten werden.
En ajoutant de l'huile, ne pas dépasser le niveau maximum indiqué.

OLIO FRENI / BREAK FLUID / HUILE DES FREINS/ BREMSÖL
Se si aggiunge olio non superare il livello massimo indicato.
When topping up with oil, do not exceed the maximum level.
Wenn Öl nachgefüllt wird, darf der angegebene Höchstfüllstand nicht überschritten werden.
En ajoutant de l'huile, ne pas dépasser le niveau maximum indiqué.

LIQUIDO REFRIGERANTE / COOLANT/ KÜHLFLÜSSIGKEIT/
LIQUIDE RÉFRIGÉRANT
Se si aggiunge olio non superare il livello massimo indicato.
When topping up with oil, do not exceed the maximum level.
Wenn Öl nachgefüllt wird, darf der angegebene Höchstfüllstand nicht überschritten werden.
En ajoutant de l'huile, ne pas dépasser le niveau maximum indiqué.

PNEUMATICI / TYRES / PNEUS/ REIFEN

Tipo di pneumatico e pressione di gonfiaggio con carico standard in bar.

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

Reifentyp und Fülldruck mit Standardlast in bar.

Type de pneu et pression de gonflage avec charge standard en bar.

ANTERIORE / FRONT / VORN / AVANT



POSTERIORE / REAR / HINTEN/ ARRIÈRE



TRA UN TAGLIANDO E L'ALTRO, ACCERTARSI CHE VENGANO REGOLARMENTE CONTROLLATI:

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

ZWISCHEN EINER INSPEKTION UND DER NÄCHSTEN MUSS FOLGENDES REGELMÄSSIG KONTROLLIERT WERDEN:

ENTRE UN COUPON ET L'AUTRE, VEILLER À CE QUE SOIENT RÉGULIÈREMENT CONTRÔLÉS

Livello dell'olio del motore.

Engine oil level.

Füllstand des Motoröls.

Niveau de l'huile du moteur.

Livello del liquido dei freni.

Brake fluid level.

Füllstand der Bremsflüssigkeit.

Niveau du liquide des freins.

Funzionamento di tutte le luci.

Correct operation of all lights.

Funktionsweise aller Lichter.

Fonctionnement de toutes les lumières.

Livello del liquido refrigerante.

Coolant level.

Füllstand der Kühlflüssigkeit.

Niveau du liquide réfrigérant.

Pressione e condizioni dei pneumatici (a freddo)

Tyre pressure and condition (cold)

Druck und Zustand der Reifen (kalt).

Pression et condition des pneus (à froid).

TABELLA LUBRIFICANTI-PRODOTTI/ LUBRICANTS-PRODUCTS TABLE
TABELLE SCHMIERSTOFFE ABFERTIGUNGEN / TABLEAU DES LUBRIFICANTS-PRODUITS

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	Olio motore cambio Oil engine / gearbox Ölmotor / Getriebe Huile moteur / boîte de vitesses	- Sae 10w30,10w40,15w40, 0W40,20w50 Api service tipo sg o superiore, JASO standard MA - Sae 10w30,10w40,15w40, 20W40,20w50 API service type SG or higher, JASO standard MA -Sae 10w30,10w40,15w40, 20W40,20w50 API-Diensttyp SG oder höher, JASO standard MA - Sae 10w30,10w40,15w40, 20W40,20w50 Service api de type sg ou supérieur, standard JASO MA	Non usare oli minerali Do not use mineral oils Verwenden Sie keine Mineralöle Ne pas utiliser d'huiles minérales

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	- Grasso per cuscinetti, giunti, snodi e leveraggi - Grease for bearings, couplings, joints and levers - Fett für Lager, Kupplungen, Gelenke und Hebel - Graisse pour roulements, joints, articulations et leviers	Grasso al litio Lithium grease Lithium-FettGraisse au lithium Graisse au lithium	
	Liquido refrigerante Coolant Kühlmittel Liquide de refroidissement	Liquido antigelo a base di glicole etilenico con additivazione ad azione organica Antifreeze liquid based on ethylene glycol with organic additives Frostschutzmittel auf Ethylenglykol-basis mit organischen Zusätzen Liquide antigel à base d'éthylène glycol avec des additifs organiques	Non diluire con acqua Do not dilute with water Nicht mit Wasser verdünnen Ne pas diluer avec de l'eau

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	-Lubrificante catena di trasmissione -Transmission chain lubricant - Schmierstoff Antriebskette - Lubrifiant de chaîne de transmission	- Grasso spray per catene di trasmissione - Spray grease for transmission chains - Kettenspray für Antriebsketten - Graisse spray pour les chaînes de transmission	
	Olio freni Brake oil Bremsflüssigkeit Huile de frein	Fluido freni Dot 4 o 5.1 Brake Fluid Dot 4 or 5.1 Bremsflüssigkeit Dot 4 oder 5.1 Liquide de frein Dot 4 ou 5.1	
	Pulitore per contatti elettrici Cleaner for electrical contacts Kraftstoff Nettoyant pour contacts électriques	Pulitore contatti Contact cleaner Bleifreies Superbenzin 95 oder 98 Nettoyeur de contact	

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	Carburante Fuel Kraftstoff Carburant	Benzina super senza piombo 95 o 98 Premium unleaded petrol 95 or 98 Bleifreies Superbenzin 95 oder 98 Essence sans plomb 95 ou 98	
	-Pasta per accoppiamento carter e coperchi motore -Paste for carter and engine covers coupling -Dichtmittel für Gehäuseteile und Motor-Verschlussdeckel - Pâte pour le couplage du carter et la couverture du moteur	Three bond no.1215	
	Olio forcella Fork oil GabelölHuile de fourche Huile de Sae 15 W	Olio Sae 15 W Sae oil 15 W Sae oil 15 W Huile de Sae 15 W	

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	-Bloccante di sicurezza serraggi medi - Blocking medium tightening security - Sicherheits- Schraubensicherung mittelfeste Gewindeverbindungen - Blocage sécurité de serrage moyen	Frenafilletti medio Medium threadlocker Schraubensicherung mittelfest Moyen frein-filet	
	-Bloccante di sicurezza serraggi forti -Safety locking device strong tightening -Sicherheits- Schraubensicherung hochfeste Gewindeverbindungen -Blocage de la sécurité de serrage forte	Frenafilletti forte Strong threadlocker Schraubensicherung hochfest Fort frein-filet	

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	-Lubrificante sblocca bulloni -Lubricant unlocks bolts -Schmierstoff zum Lösen von Gewindeverbindungen -Le lubrifiant débloque les boulons	-Sbloccante lubrificante protettivo -Unblocking protective lubricant - Schmierendes und schützendes Lösespray -Lubrifiant protecteur de déblocage	
	-Lubrificante antiattrito per serraggi a coppia delle viti -Antifriction lubricant for tightening torque of the screws -Reibungsmindernder Schmierstoff für Anzugsmomente der Schrauben -Lubrifiant Antifriction pour le couple de serrage des vis	Olio motore generico Generic engine oil Allgemeines Motoröl Huile moteur générique	

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	-Lubrificante per parti in gomma paraoli e OR -Lubricant for oil seals in rubber parts and OR -Schmierstoff für Gummiteile, Dichtungen und O-Ringe -Lubrifiant pour joints d'huile dans les pièces en caoutchouc et OR	Grasso al sapone di litio Lithium soap grease Schmierfett mit Lithiumseife Graisse au savon de lithium	
	Poli batteria Poly battery Batteriepole Batterie poly	Grasso vaselina bianca White vaseline grease Weißes Vaseline Graisse de vaseline blanche	

PRODOTTI ORIGINALI ORIGINAL PRODUCTS ORIGINAL PRODUKTE PRODUITS ORIGINAUX	APPLICAZIONI APPLICATIONS ANWENDUNGENAPPLICATIONS APPLICATIONS	PRODOTTI EQUIVALENTI EQUIVALENT PRODUCTS ÄQUIVALENTE PRODUKTE PRODUITS ÉQUIVALENTS	OSSERVAZIONI OBSERVATIONS ANMERKUNG OBSERVATIONS
	Lavaggio veicolo Vehicle wash Fahrzeugwäsche Lavage de véhicule	-Acqua a bassa pressione e temperatura ambiente e sapone liquido neutro ecologico -Low pressure water and ambient temperature and ecological neutral liquid soap -Wasser mit niedrigem Druck und Raumtemperatur und umweltfreundlicher, neutraler Flüssigseife -Eau à basse pression et température ambiante et savon liquide écologique neutre	-Evitare detersivi aggressivi e acqua calda -Avoid aggressive detergents and hot water Die Verwendung von aggressiven Reinigungsmitteln und heißem Wasser ist zu vermeiden. - Évitez les détergents agressifs et l'eau chaude
	-Pulizia esterna impianto freno External cleaning of the brake system - Außenreinigung der Bremsanlage -Nettoyage externe du système de freinage	-Detersivo spray disc brake cleaner -Spray cleaner disc brake cleaner -Reinigungsspray für Scheibenbremsen -Nettoyant de frein à disque	-Per dischi e sedi pastiglie No per pastiglie freno e parti in plastica -For discs and seats pads No for brake pads and plastic parts -Für Brems Scheiben und Sitze der Bremsbeläge. Nicht für Bremsbeläge und Kunststoffteile. -Pour les disques et les coussins de sièges Non pour les plaquettes de frein et les pièces en plastique

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VIA SCATTOLIN 4 - 31055 QUINTO DI TREVISO (TV) ITALY - WWW.FANTICMOTOR.IT - INFO@FANTICMOTOR.IT