

SWM



Manual - Operation - Maintenance
HOKU 400

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PRESENTATION

Welcome to the SWM motorcycling Family!

Your new SWM motorcycle is designed and manufactured to be the best in its category. The instructions in this manual have been prepared to provide a simple and understandable guide for your motorcycle's operation and care. Follow the instructions carefully to enjoy maximum performance.

It contains instructions to carry out the required maintenance operations. More specific or major repair or maintenance operations require the attention of a skilled mechanic and the use of special tools and equipment. Your SWM Dealer has the original spare parts, the experience and all equipment necessary to provide a valuable service.

Finally, please remember that the "Use and Maintenance Manual" is an integral part of the motorcycle, hence, it shall remain with the motorcycle even when sold to another user.

This motorcycle is fitted with components designed and constructed using cutting-edge systems and technologies.

To ensure proper operation of the motorcycle, it is necessary to follow the maintenance and inspection table available in Appendix A.

IMPORTANT NOTICES

The **HOKU** model is a motorcycle for ROAD use, guaranteed and free of defects and covered by legal warranty provided that the STANDARD CONFIGURATION IS MAINTAINED and the maintenance table in Appendix A is complied with.



IMPORTANT

In order to maintain the vehicle's "Operation Guarantee", the Customer must follow the maintenance programme indicated in the use and maintenance manual by having scheduled maintenance carried out at authorised SWM workshops.

The cost for changing parts and for the labour necessary in order to comply with the maintenance plan is charged to the Customer.



NOTE

The warranty is NULL AND VOID if the motorcycle is rented.

Important Notice

Read this manual carefully and pay special attention to statements preceded by the following words:



WARNING

Indicates the possibility of severe personal injury or death if instructions are not followed.



CAUTION

Indicates the possibility of personal injury or vehicle damage if instructions are not followed.



NOTE

It gives useful information.

Parts Replacement

When parts replacement is required, use only SWM ORIGINAL parts.



WARNING

After a fall, inspect the motorcycle carefully. Make sure that the throttle, brake, clutch and all other systems and controls are undamaged. Riding with a damaged motorcycle can lead to serious accidents



WARNING

Never attempt to start or operate your motorcycle unless you are wearing appropriate protective apparel. Always wear a motorcycle helmet, boots, gloves, goggles and other appropriate protective apparel.

PRECAUTIONS FOR CHILDREN



WARNING

- Park the vehicle where it cannot be easily bumped or damaged.

Even slight or involuntary bumps can cause the vehicle to tip over, with subsequent risk of serious harm to people or children.

- To prevent the vehicle from tipping over, never park it on soft or uneven ground, nor on asphalt strongly heated by the sun.
- Engine and exhaust system may become very hot. Park your motorcycle where pedestrians or children cannot easily reach these parts.

SAFE RIDING AND MOTORCYCLE SAFETY

Here are some basic principles for riding your motorcycle safely.

- Remember that your safety and the safety of your passenger come first. Reaching your destination safely must be your main aim.
- The rider and the passenger must wear appropriate protective clothing, such as suit, gloves, shoes and helmet homologated for motorcycle use.
- The rider must be seated on the motorcycle in a position that gives the best possible visibility of the road ahead.
- Ride the motorcycle carefully and set the speed according to traffic and the type of road.

Smooth riding helps you to assess danger and enter bends more precisely.

- Always observe road signs and adjust your speed accordingly.
- Always observe speed limits.

- Always assess the road conditions and adjust your speed accordingly.
- Reduce speed if it is raining and especially if there are puddles of water on the road.
- When riding on wet or low grip surfaces (snow, ice, mud, etc.) keep a moderate speed and avoid sudden braking and manoeuvres.
- Keep a safe distance from the vehicles in front of you.
- Before overtaking, check there are no obstacles in front of the vehicle you want to overtake and always check in the rear-view mirrors that there are no vehicles coming up from behind.
- Brake using both the front and the rear brake at the same time: this helps to maintain the stability of the vehicle.
- Release the clutch gradually when downshifting.
- If you feel tired or sleepy, take a break.

- Downshift in the following instances:

When going downhill and when braking to increase the braking action through engine compression; using only brakes when going downhill could cause the brake pads to overheat and reduce the braking action;

When going uphill or on the flat when the gear does not match the speed of the motorcycle (high gear and low speed);



WARNING

Downshift one gear at a time; downshifting more than one gear at a time may cause the engine to overrev and/or block the rear wheel.

- Do not switch off the engine when going downhill.
- When you ride with a passenger, increase the distance from the vehicles in front of you and bear in mind his/her weight when you brake and when you have to take a bend or overtake.
- The riding position of both the rider and the passenger is important for motorcycle control.

- While riding, the rider must keep both hands on the handlebar and both feet on the footrests in order to keep the motorcycle under control.
- The passenger must always hold on to the rider or the passenger handle with both hands and keep both feet on the passenger footrests. Never carry a passenger that is unable to firmly place both feet on the passenger footrests.
- Never ride under the influence of alcohol or drugs.
- This motorcycle is designed exclusively for road use. It is not suitable for off-road use.
- Do not use straps, cords, etc. to fasten luggage.
- Only use approved panniers suitable for the type of motorcycle you are using.
- The maximum load carried (rider, passenger and luggage) may not exceed 322kg.
- The luggage weight may never exceed 10 kg.

Anti-lock braking system - ABS

The ABS is an electromechanical braking-aid system:

It prevents the wheels from locking during braking and helps keep the vehicle stable whenever the road surface is slippery, wet or dirty.

When road-holding conditions are bad, the system can operate to extend the braking distance (e.g., whenever there is gravel on the road or the road surface is slippery). In any case, it provides the minimum distance required for that particular road surface.

Nor should the fact that an ABS system is fitted provoke careless riding. The rider should always take every care on the road.

-Always use the recommended pads and tyres to ensure the ABS system's proper functionality.

Risks related to carbon monoxide

Exhaust gas contains carbon monoxide, a colorless and odorless gas. Breathing in carbon monoxide may cause loss of consciousness and death.

If you start the engine in a fully or partially closed environment, the air you breathe in may contain a hazardous amount of carbon monoxide. Never start the motorcycle in a garage or other closed places.



WARNING

Carbon monoxide is a toxic gas.

Breathing in carbon monoxide may cause loss of consciousness and death.

Avoid any areas or activities where you may be exposed to carbon monoxide.

IDENTIFICATION DATA

The engine identification number is stamped at the top of the crankcase, while vehicle serial number or Vehicle Identification Number is stamped on the steering tube of the frame.

Always quote **the number stamped on the frame** when ordering spare parts or requesting further details about your vehicle and note it on this booklet.

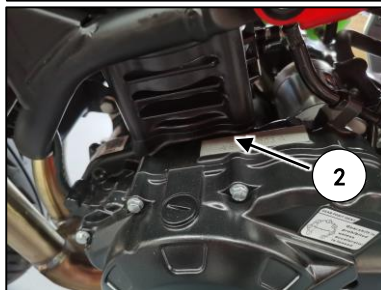
VIN

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ENGINE NUMBER

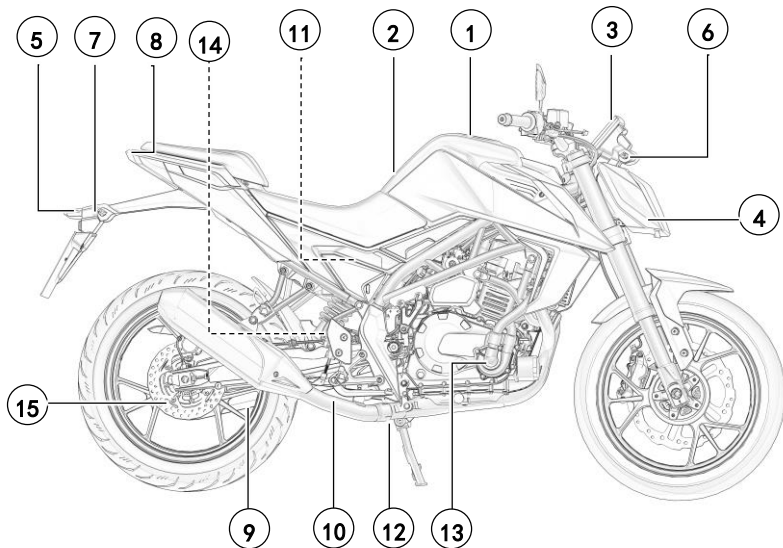
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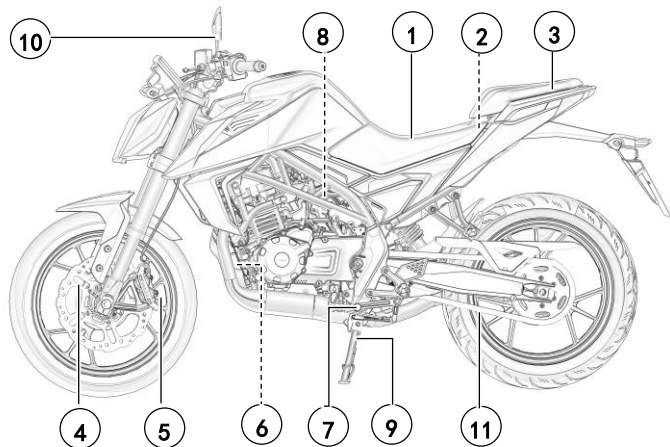


1 Chassis serial number 2 Engine serial number

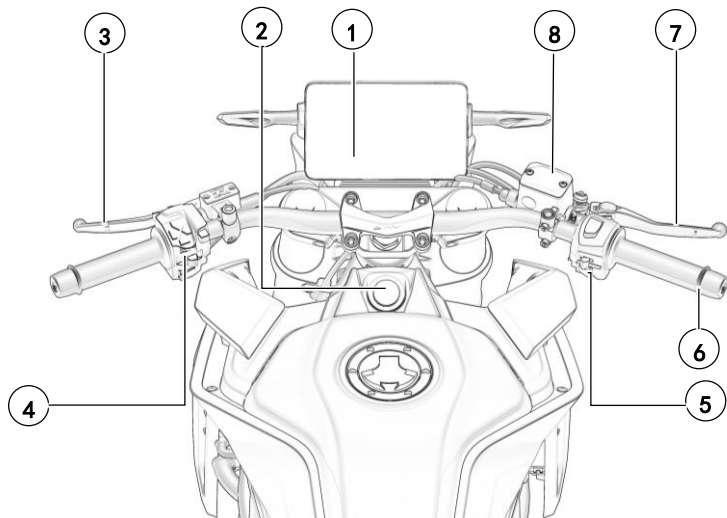
VIEWS OF MOTORCYCLES



1. Fuel tank cap
2. Fuel tank
3. Instrument panel
4. Headlight
5. Plate lighting device
6. Front turning indicators
7. Rear turning indicators
8. Taillight
9. Exhaust muffler
10. Rear brake pump
11. Air filter assembly
12. Brake control pedal
13. Engine oil dipstick
14. ABS control unit
15. Rear brake caliper



1. Rider seat
2. Battery
3. Passenger seat
4. Front brake disc
5. Front brake caliper
6. Engine oil filter
7. Gear shift pedal
8. Throttle body
9. Side stand
10. Rear-view mirror
11. Transmission chain



1. Instruments
2. Ignition/steering lock block
3. Clutch control lever
4. Left-hand switch
5. Right-hand switch
6. Throttle twist grip
7. Front brake control lever
8. Front brake fluid reservoir

TECHNICAL DATA**DIMENSION & WEIGHT**

Overall length.....	2045mm
Overall width.....	840mm
Overall height.....	1060mm
Wheelbase.....	1360 mm
Saddle height.....	780 mm
Min. ground clearance.....	150 mm
Dry weight.....	172kg

VEHICLE BODY

Frame type.....	trellis perimeter frame made of high-resistance steel tubes
Front suspension device.....	tele-hydraulic with inverted fork legs Ø 41 mm
Rear suspension device.....	single hydraulic shock absorber (adjustable in pre-load)
Front Tire size.....	110/70-17
Rear Tire size.....	150/60-17
Front wheel pressure.....	260 kPa
Rear wheel pressure.....	260 kPa
Front brake.....	fixed disc Ø 300 mm. with hydraulic control and floating caliper
Rear brake.....	fixed Ø220 disc with hydraulic control and floating caliper
Fuel grade.....	E95
Fuel tank capacity.....	13L

ENGINE

Mode.....	Inline twin cylinder, water-cooling 4 stroke
Bore.....	68mm
Stroke	55.2 mm
Displacement.....	400.9ml
Compression ratio.....	11.6:1
Max. power.....	31.5/9500kW/r/min
Max. torque.....	34/8000N·m/r/min
Valve clearance (cold)	0.05-0.07
Air filter.....	Oilpaper filter
Cooling method.....	Water-cooling
Lubrication method.....	Pressure / Splash
Engine, gearbox lubricating oil.....	SJ 10W
Oil replacement.....	2.5 l
Oil and oil filter replacement.....	2.7 l
Cooling circuit capacity.....	1.8 l
Engine oil filter element.....	Oilpaper filter
Starting	electr

DRIVING SYSTEM









Clutch.....	Wet clutch multidisc
Clutch operating system.....	Manual mechanical
Variable speed gear.....	6-speed constant mesh gear type
Primary reduction ratio.....	3.087
1st gear.....	2.333
2nd gear.....	1.529
3rd gear.....	1.182
4th gear.....	1.043
5th gear.....	0.909
6th gear.....	0.807
Final reduction ratio.....	2.800
Gear shifting mode.....	Left foot operated to and back type

ELECTRICAL SYSTEM

Electric generator.....	ermanent magnet DC magneto
Accumulator capacity.....	12V/4Ah
Ignition type.....	electronic, inductive discharge
Spark plug type.....	JH9RC - TORCH
Spark plug gap.....	0.6-0.8 mm
Ignition coil type.....	electronic, inductive discharge
Fuel system.....	Electronic injection feed
Front lamp.....	12V/6W/9W
Turn lamp.....	12V/1.6W
Stop / Rear-position lamp.....	12V/12.5W/2.5W

INSTRUMENTS

WARNING AND SIGNAL LIGHTS

- 1) Left turn indicator light 
- 2) Right turn indicator light 
- 3) High-beam light. 
- 4) Gear position display light.
- 5) Engine failure warning light. 
- 6) Fuel reserve warning light. 
- 7) Excessive coolant temperature indicator 
- 8) ABS warning light 
- 9) Tire pressure warning light 



DIRECTION INDICATOR LIGHTS “  ”

The light flashes when activating the left or right hand turning indicator using the control lever on the left-hand switch.

HIGH-BEAM LIGHT “  ”

The light comes on when activating the high-beam light using the control on the left-hand switch.

ENGINE FAILURE WARNING LIGHT “  ”

When the ignition key is turned, the engine control unit runs a self-test, the light comes on for a few seconds and then goes off if no fault is found.

If the light comes on while the engine is running, it means that there is an engine or injection system failure.

- Stop and turn off the engine.
- Wait a few minutes and restart the engine;

If the light comes on again, contact your nearest SWM dealer to have the self-test system checked.

GEAR INDICATOR LIGHT

The gear position is displayed.

EXCESSIVE COOLANT TEMPERATURE INDICATOR.

“  ”

The indicator lighting up warns that the engine overheated reaching an alarm temperature.

- Stop and turn off the engine;
- Wait for the engine to cool down and then restart the engine.
- If the problem occurs again, it is necessary to refer to the nearest SWM's dealer for a check.

FUEL RESERVE WARNING LIGHT “  ”

When the ignition key is turned, the light comes on for a few seconds and then goes off. If the light comes on while riding the motorcycle, it means that the fuel has gone into reserve (3 litres) and you need to refuel as soon as possible.

ABS SYSTEM FAULT WARNING LIGHT “”

When the key is turned, the ABS control unit runs a self-test, the light comes on for a few seconds and then goes off indicating there is no fault.

If instead the light comes on while the motorbike is running, it means that there is a fault of the ABS braking system:

- Stop and turn off the engine.
- Wait for a few minutes and restart the engine.

If the light turns on again, see the closest SWM dealer to check the ABS system.

TIRE PRESSURE WARNING LIGHT “”

The tire pressure alarm light will turn on, indicating that the tire pressure is insufficient. Please stop the engine immediately in this case, checking whether the tire is damaged, and replenish the tire pressure to the specified value.

MULTIFUNCTION DISPLAY**1) Speedometer**

Indicates motorcycle speed.

2) Speed scale indication

Km/h = kilometres/hour.

Mph = miles/hour.

3) Display parameters

ODO = Odometer (read-only value).

TRIP = Partial odometer (see /TRIP settings).

4) Tachometer

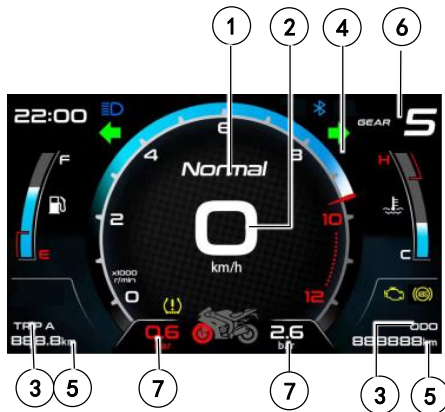
Indicates engine rpm.

Maintain the engine speed within 11500 rpm.

5) Unit of measurement

Mile = indicates that the value shown in the ODO and TRIP functions is in miles.

Km = indicates that the value shown in the ODO and TRIP functions is in kilometres.

6) Engine cooling water temperature indicator.**7) Front or rear tire pressure indicator.**

There're three buttons: upkey, downkey and set.



PROJECTION INTERFACE SETTINGS

Long press DOWNKEY to switch between PROJECTION INTERFACE and MAIN INTERFACE;

Display Projection status, Short press enter. Short press up/down key to switch Adroid (default) and IOS.Short press enter return to the Projection interface.

BRIGHTNESS SETTINGS

Display brightness status ,Short press the "SET" key to enter. Short press the up/down key to switch (Automatic、20%、40%、60%、80%、100%)。 Short press the "SET" key to confirm. Please return to the main interface after with no operaton in 8s.

THEME SETTINGS

Display theme status ,Short press the "SET" key to enter. Short press the up/down key to switch between Theme 1(Default) and Theme 2. Short press the " SET "key to confirm or please return to the main interface after with no operaton in 8s.

BLUETOOTH SETTINGS

Display bluetooth status, Short press the "SET" key to enter. Short press the up/down key to switch between. Then short press the " SET "key to switch the mode. Please return to the bluetooth interface after with short press the "SET" key.

MILEAGE RESET SETTINGS

Display mileage reset status, Short press the "SET" key to enter. Short press the up/down key to switch between Cancel (default) and Confir. Short press the "SET" key to confirm. Please return to the main interface after with no operaton in 8s.

UNIT SETTINGS

Display unit status, Short press the "SET" key to enter. Short press the up/down key to switch between "Imperial" and "Metric" (default) ; Short press the "SET" key to the unit interface after with. Please return to the main interface after with no operaton in 8s.

TIME SETTINGS

Display time status, Short press the "SET" key. Hour setting tens digit, Short press up/down key to switch: 0~2. Short press the "SET" key, Hour setting units digit. Short press up/down key to switch: 0~3. Short press the "SET" key. Minutes setting tens digit. Short press up/down key to switch: 0~5. Short press the "SET" key. Minutes setting units digit. Short press up/down key to switch: 0~9. Short press the "SET" key to the time interface afterwith.

Please return to the main interface after with no operaton in 8s.

TIRE PRESSURE SETTINGS

Display tire pressure status, Short press the "SET" key to enter. Short press the up/down key to switch between "Front wheel sensor learning" and "Front wheel sensor learning "or "EXIT" ; Short press the "SET" key Learning. Display "EXIT" status, Please return to the tire pressure interface after with short press the "SET" key.

LANGUAGE SETTINGS

Display Language status, Short press the "SET" key to enter. Short press the up/down key to switch between "English" (Default), "Italian", "German", "French" and "Spanish" ; Please return to the main interface after with no operaton in 8s.

REVOLUTION COUNTER

The rev. counter allows the driver to monitor the number of engine revs.

Maintain the engine speed within 11500 rpm.

WARNING

The motor can be ruined by exceeding 11500 rpm.

ERROR MESSAGES

In the event of a fault, the relevant “ABS” error code is indicated on the display ①, the relevant “ECU” error code is indicated on the display ②; Find the nearest SWM dealer to check the fault.



②

①

ECU FAULT CODE

Index	Fault Path	DTC	Description of DTC	Active MIL
1	CDCDK	P0122	Throttle/Pedal Pos.Sensor Circ. Low Input	√
2		P0123	Throttle/Pedal Pos.Sensor Circ. High Input	√
3	CDCEV1	P0201	Cylinder 1- Injector Circuit open	√
4		P0261	Cylinder 1- Injector Circuit Low	√
5		P0262	Cylinder 1- Injector Circuit High	√
6	CDCEV2	P0202	Cylinder 2- Injector Circuit open	√
7		P0264	Cylinder 2- Injector Circuit Low	√
8		P0265	Cylinder 2- Injector Circuit High	√
9	CDCFRAU	P2177	System Too Lean bank1	√
10		P2178	System Too Rich bank1	√
11	CDCFRAU2	P2179	System Too Lean bank2	√
12		P2180	System Too Rich bank2	√
13	CDCHSV	P0053	O2 Sensor Heater Resistance(Bank② Sensor 2)	√
14	CDCHSV2	P0059	O2 Sensor Heater Resistance(Bank② Sensor 2)	√

15	CDCHSVE	P0030	O2 Sensor Heater Resistance(Bank② Sensor 2)	√
16	CDCDK	P0031	O2 Sensor Heater Resistance(Bank② Sensor 2)	√
17		P0032	O2 Sensor Heater Resistance(Bank② Sensor 2)	√
18	CDCHSVE2	P0050	O2 Sensor Heater Resistance(Bank② Sensor 2)	√
19		P0051	O2 Sensor Heater Resistance(Bank② Sensor 2)	√
20		P0052	O2 Sensor Heater Resistance(Bank② Sensor 2)	√
21	CDCKPE	P0627	Fuel Pump "A" Control Circuit /Open	√
22		P0628	Fuel Pump "A" Control Circuit Low	√
23		P0629	Fuel Pump "A" Control Circuit High	√
24	CDCLATP	P0133	O2 Sensor Circ.,Bank1-Sensor1 Slow Response	√
25	CDCLATP2	P0153	O2 Sensor Circ.,Bank1-Sensor2Slow Response	√
26	CDCLM	P0105	Manifold Abs.Pressure or Bar.Pressure Circuit	√
27		P0106	Manifold Abs.Pressure or Bar.Pressure Range/Performance	√
28	CDCHSV	P0107	Manifold Abs.Pressure or Bar.Pressure Low Input	√
29		P0108	Manifold Abs.Pressure or Bar.Pressure High Input	√

30	CDCLSV	P0130	O2 Sensor Circ.,Bank1-Sensor1 Malfunction	√
31		P0131	O2 Sensor Circ.,Bank1-Sensor1 Low Voltage	√
32		P0132	O2 Sensor Circ.,Bank1-Sensor1 High Voltage	√
33		P0134	O2 Sensor Circ.,Bank1-Sensor1 No Activity Detected	√
34	CDCLSV2	P0150	O2 Sensor Circ.,Bank1-Sensor2 Malfunction	√
35		P0151	O2 Sensor Circ.,Bank1-Sensor2 Low Voltage	√
36		P0152	O2 Sensor Circ.,Bank1-Sensor2 High Voltage	√
37		P0154	O2 Sensor Circ.,Bank1-Sensor2 No Activity Detected	√
38	CDCMD_00	P0301	Cyl.1 Misfire Detected	√ or Blink
39	CDCMD_01	P0302	Cyl.2 Misfire Detected	√ or Blink
40	CDCSTPE	P0511	Idle Air Control Circuit	√
41	CDCSVSE	P0650	Malfunction Indicator Lamp Control Circ.	×
42	CDCTA	P0111	Intake Air Temp.Circ. struck/Performance	√
43		P0112	Intake Air Temp.Circ. Low Input/range	√
44		P0113	Intake Air Temp.Circ. High Input	√

45	CDCTEVE	P0444	Canister purge valve Circuit open	√
46		P0458	Canister purge valve Circuit low	√
47		P0459	Canister purge valve Circuit high	√
48	CDCTM	P0116	Engine Coolant Temp.Circ. Range/Performance	√
49		P0117	Engine Coolant Temp.Circ. Low Input	√
50		P0118	Engine Coolant Temp.Circ. High Input	√
51		P0119	Engine Coolant Temperature Sensor 1 Circuit Intermittent	√
52	CDCTOX	U0198	Lost Communication With Telematic Control Module	×
53	CDCDASH	U0155	Lost Communication With Instrument Panel Cluster (IPC) Control Module	×
54	CDCCIF	U0073	Control Module Communication Bus Off	×

ABS FAULT CODE

DTC	Malfunction	Possible Causes	Recommended Measures
C1101	ECU Voltage supply: high voltage	Poor connect of battery terminal.	Clean the terminal.
C1102	ECU Voltage supply: low voltage	Poor connect of battery terminal.	Clean the terminal.
C1200	Wheel-speed sensor, front: signal cable is short or open circuit; power supply cable is open circuit	Poor connect of sensor cable.	Check the cable connection.
C1201	Wheel-speed sensor, front: (signal failure) out of range, lost, noise, Intermittent	Dirt on the sensor probe or tone wheel.	Clean the probe and tone wheel.
C1202	Wheel-speed sensor, front: general error	Too much gap between the sensor probe with tone wheel.	Check the distance between the sensor probe with tone wheel.
C1206	Wheel-speed sensor, rear: signal cable is short or open circuit; power supply cable is open circuit	Poor connect of sensor cable.	Check the cable connection.
C1207	Wheel-speed sensor, rear: (signal failure) out of range, lost, noise, Intermittent	Dirt on the sensor probe or tone wheel.	Clean the probe and tone wheel.

C1208	Wheel-speed sensor, rear: general error	Too much gap between the sensor probe with tone wheel.	Check the distance between the sensor probe with tone wheel.
C1604	ECU error (hardware, Micro-controller error)	ABS Internal damage	Replace ABS
C2308	Valve fault, inlet valve front	ABS Internal damage	Replace ABS
C2312	Valve fault, outlet valve front	ABS Internal damage	Replace ABS
C2324	Valve fault, inlet valve rear	ABS Internal damage	Replace ABS
C2328	Valve fault, outlet valve rear	ABS Internal damage	Replace ABS
C2112	Valve relay error	ABS Internal damage	Replace ABS
C2402	Reflux pump fault	ABS Internal damage	Replace ABS

CONTROLS

IGNITION SWITCH

The ignition switch ① has three positions:

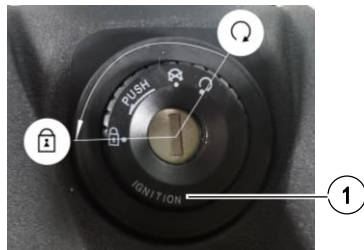
- 🔑 Motorcycle start position (key not removable);
- 🔒 Key removal position;
- 🔒 Steering lock position (key removable).

Key removal position " 🔒 "

Turning the key to position 🔒, the engine and the lights go off and you can remove the key from the ignition block.

Start position" 🔑 "



From the key removal position 🔒 turn the key clockwise to the start position 🔑; the lights and the display will come and you can start the motorcycle.



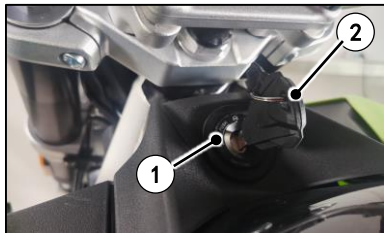
STEERING LOCK

The motorcycle comes with a steering lock located on the ignition switch ①.

Lock the steering as follows:

- Turn the handlebar to the left.
- Insert key ② in the ignition switch ① set to .
- Press the key in ② and turn it anticlockwise to position .
- Remove the key ②.



To unlock the steering lock, reverse the above procedure.




RH HANDLEBAR SWITCH


The right-hand switch features the following controls:

1) Engine start button

Pressing the button ① with the key in  position and the switch ② in  position, the engine starts.

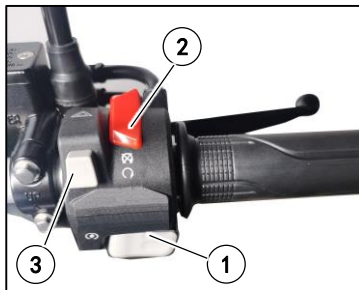
2) Engine KILL SWITCH.

Flicked to  position, disables engine starting and running.

Flicked to  position, enables engine starting and running.






3) Hazard Light

The Hazard Light and the Left/right turn signal light comes on when you push on the Warning light switch.



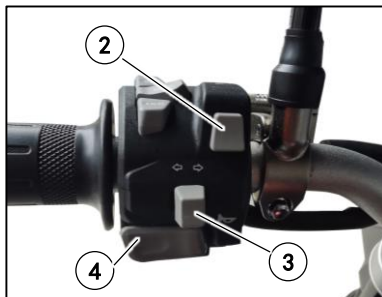
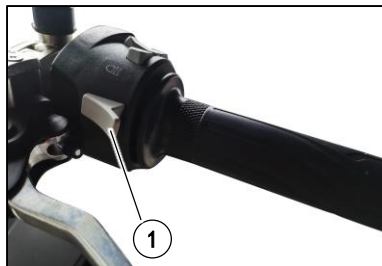
LH HANDLEBAR SWITCH

The left-hand switch features the following controls:

- 1)  High beam flasher (self-cancelling).
- 2)  High beam.
 Low beam.
- 3)  Left-hand turning indicators (self-cancelling).
 Right-hand turning indicators (self-cancelling).

To deactivate the turning indicators, press the control lever after it is returned to the center.

- 4)  Warning horn.



THROTTLE CONTROL

The throttle twistgrip ① is located on the right-hand side of the handlebar.



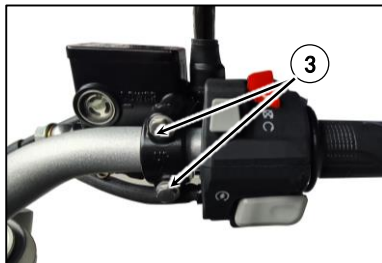
FRONT BRAKE CONTROL

The brake control lever ② is located on the right-hand side of the handlebar. A stop switch, during the braking action, causes the stop light on the tail light to come on. The control position can be adjusted by loosening the two retaining screws ③.



CAUTION

Do not forget to tighten the screws ③ after the adjustment

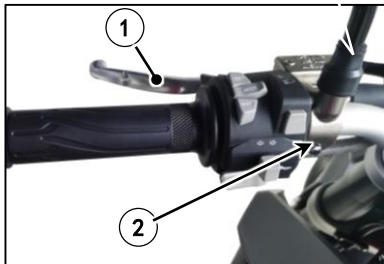


CLUTCH CONTROL

The clutch control lever ① is located on the left-hand side of the handlebar and is equipped with a protection. The clutch control position on the handlebar can be adjusted by loosening the retaining screws ②.

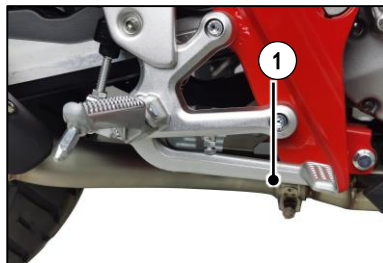
CAUTION

Do not forget to tighten the screws ② after the adjustment.



REAR BRAKE CONTROL

The rear brake control pedal ① is placed on the right-hand side of the motorcycle. A stop switch, during the braking action, causes the stop light on the tail light to come on.



GEAR SHIFT CONTROL

The lever ① is placed on the left-hand side of the engine.

The rider must release the lever after each gear change to allow it to return to its central position. Neutral position (N) is between the first and second gears.

First gear is engaged by pushing the lever downwards; the other gears are engaged in a sequence by pushing the lever upwards.

The lever position on the shaft can be changed. To carry out this operation, loosen the screw, pull the lever out, and place it in a new position on the shaft.

Tighten the screw once operation is completed.

⚠ CAUTION

Do not downshift when travelling at a speed that would force the engine to “overrev” or cause the rear wheel to lose grip, if the immediately lower gear is selected.

⚠ WARNING

Do not shift gears without disengaging the clutch and closing the throttle. The engine could be damaged by “over-revving”.



FUELLING

Recommended fuel: premium grade UNLEADED fuel (R.O.N 95).

WARNING

Fuel is extremely flammable and can be explosive under certain conditions.

Always stop the engine and do not smoke or allow flames or sparks in the area where the motorcycle is refuelled or fuel is stored.

Proceed as follows:

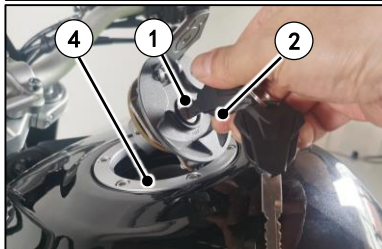
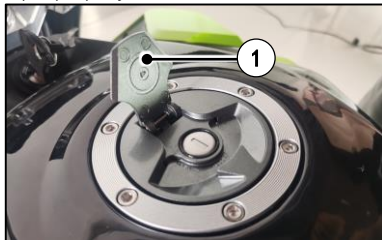
Turn off the engine.

- Lift the lock protection tab①.
- Insert the key②and turn it clockwise to release the plug.
- Lift the plug③.
- Refuel through the filler neck④.

Close the plug③again, following the removal procedure in reverse order, then remove the key ② and lower the protection tab①.

NOTE

To refit the fuel cap③, the key must be into the lock; the key②can be removed from the cap③only if the cap it properly closed.



SIDE STAND

A side stand ① is supplied with every motorcycle. Periodically check the side stand (see “Scheduled Maintenance Chart”); make sure that the springs are not damaged and the side stand moves freely. If the side stand is noisy, lubricate the fastening pivot.

WARNING

The stand is designed to support the **WEIGHT** of the **MOTORCYCLE ONLY**. Do not sit astride the motorcycle using the stand for support as this could cause structural failure to the stand resulting in serious injury.

WARNING

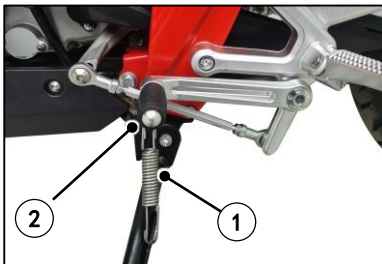
The motorcycle must be placed on its side stand **ONLY AFTER** the rider has dismounted.

WARNING

A safety sensor ② is fitted on the motorbike, which allows starting it with the stand lowered and the gear in neutral. If a gear is engaged with the stand lowered, the engine turns off.

NOTE

Lower the stand with your right foot keeping the motorcycle balanced. When the stand has been lowered, make the bike rest on it. Once the motorbike has been brought from its rest position on the ground to vertical position, the rider has to raise the stand from the lowered to the raised position with his/her left foot.



INSTRUCTIONS FOR USING THE MOTORCYCLE


NOTE

If you are not familiar with the motorcycle operation, read paragraphs on "CONTROLS" before riding this motorcycle.

PRELIMINARY CHECKS

Any time you ride your motorcycle, make a general inspection first and proceed to check the following:



- Check fuel level and engine oil level;
- Check the brake fluid level;
- Check the steering by turning the handlebar both ways, fully home;
- Check the tyre pressure;
- Check the chain tension;
- Check and if necessary adjust the throttle control;

-Turn the ignition switch to  position: check the lighting of instrument display and, with gearbox in neutral, make sure that the neutral warning light comes on;

-Turn on the high-beam light and check that the relative warning light comes on;

-Operate the turning indicators and check that the warning light comes on;

-Check if the rear stop light is functioning;

-Check that, after starting, the " "Engine fault" and the " "ABS fault" lights are not on.

INSTRUCTIONS FOR RUNNING-IN

The exclusivity of the design, with the high quality of the materials used and the accuracy of the assembly, guarantee the highest comfort right from the start.

However, when running for the first 1000 Km, **SCRUPULOUSLY** follow the rules mentioned below. Please note that **FAILURE TO COMPLY WITH THESE RULES MAY COMPROMISE THE LIFE AND THE PERFORMANCE OF THE MOTORCYCLE:**

- Warm up the engine by running at low rpm before using the motorcycle;
- Avoid quick starts and never rev up the engine when in low gear;
- Ride at low speed until the engine is warmed up;
- Apply both brakes several times to run-in the pads and the discs;
- Do not maintain the same speed for a long time;
- Do not ride for a long time without stopping;

-NEVER ride downhill with GEARBOX IN NEUTRAL, but shift into gear in order to use the engine braking, thus preventing the fast wear of the brake pads.

OPERATION PROBLEMS

The following list is used for troubleshooting and to find the necessary remedies

The engine does not start

- The starting procedures are not correctly followed: follow the instructions given on paragraph "Starting the engine".
- Dirty spark plug: clean;
- The spark plug does not spark: adjust the electrodes gap;
- Faulty starter motor: repair or replace;
- Faulty start button: replace the switch;
- Side stand lowered.

The engine has starting troubles

- Dirty or worn out spark plug: clean or replace;

The engine starts, but it is erratic

- Dirty or worn out spark plug: clean or replace;
- Faulty spark plug electrode gap: adjust;

The spark plug gets easily dirt:

- Unfit spark plug: replace;

The engine lacks power

- Dirty air filter: clean
- The spark plug electrode gap is too large: adjust;
- Incorrect valve clearance: adjust;
- Insufficient compression: check for the cause;
- Fuel pump protection filter or injector protection filter dirty; clean or replace the filters;

The engine knocks

- Excessive carbon deposit on the piston crown, or in the combustion chamber: clean;
- Faulty spark plug or wrong heat rating: replace;

The alternator fails to charge, or its charge is insufficient

- The cables on the voltage regulator are badly connected, or in short-circuit: correctly connect, or replace;
- Faulty alternator coil: replace;
- De-magnetised alternator rotor: replace;
- Faulty voltage regulator: replace;

The battery overheats

-Faulty voltage regulator: replace;

Difficulty in shifting gears

-Engine oil with too high viscosity rating: replace with the recommended oil;

The clutch slips

-Insufficient spring load: replace;
-Worn-out clutch plates: replace;

Faulty brakes

-Worn-out pads: replace;

MOUNTING/DISMOUNTING OF RIDER AND PASSENGER

General

Carefully read the instructions below as they provide important information for rider and passenger safety and to prevent harm to persons or damage to the motorcycle.

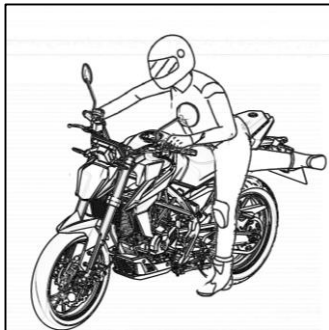
The motorcycle must always be mounted or dismounted from the left-hand side with your hands free, no obstacles in the way and with the stand down.

The rider must be the first to get on and the last to get off the motorcycle and must control the stability of the motorcycle while the passengers mounts and dismounts.

Do not get off the vehicle by jumping or extending your legs and always dismount by following the instructions given in the relevant section.

Mounting of rider

With the motorcycle on the side stand, do the following:
-From the left side, hold the handlebar correctly with both hands and extend your right leg over the saddle.



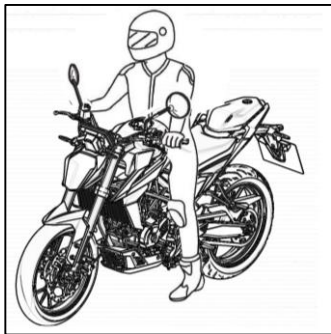
-Sit on the motorcycle and place both feet on the ground. Balance the vehicle without putting all your weight on the side stand.

! CAUTION

If you are unable to place both feet on the ground, put your right leg down with your left leg poised.

-Start the motorcycle as described in the relevant section.

-Using your left leg, fully retract the stand.

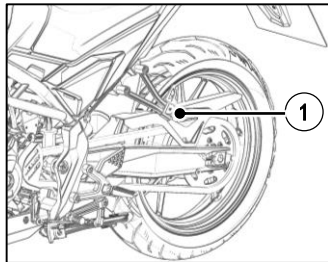
**Mounting of passenger**

Get the rider to mount first as described in the relevant section without starting the engine.

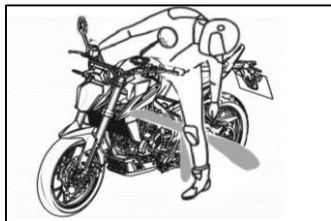
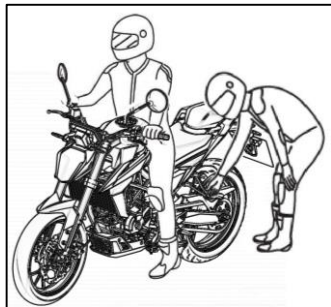
-Get the passenger to put the passenger footrests ① down.

! CAUTION

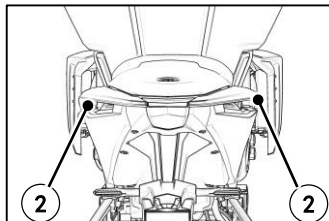
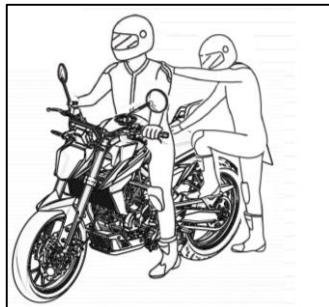
When in a riding position, the rider must not pull out or attempt to pull out the rear passenger footrests since this may unbalance the vehicle.



-Place your left hand on the rider's shoulder, your left foot on the footrest and then mount the motorcycle by lifting your right leg and moving carefully to avoid unbalancing the vehicle and the rider.



-Hold onto the special handles ②.
-Using your left leg, fully retract the stand.
-Start the motorcycle as described in the relevant section.



Dismounting the motorcycle

-Stop the vehicle and switch off the engine.

! CAUTION

Make sure that the area where you want to park the vehicle is stable and level.

Place both feet on the ground.

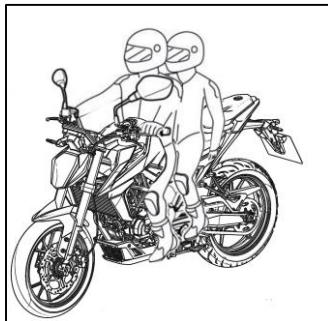
Switch off the motorcycle as described in the relevant section.

Using your left leg, fully extend the stand.

Get the passenger to dismount first from the left-hand side of the vehicle by placing their foot on the left-hand footrest and raising their right leg.

Tilt the motorcycle to the left until it rests on the stand.

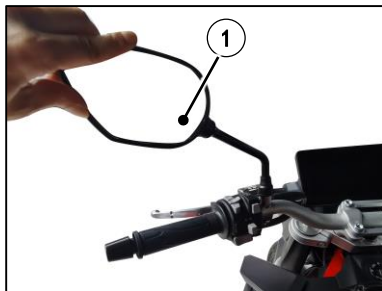
Firmly grasp the handlebar and dismount on the left-hand side by lifting your right leg.



ADJUSTING THE REAR-VIEW MIRRORS

Sit on the motorcycle as described in the relative paragraph.

Adjust both mirrors ① so that you can clearly see the road behind you when seated.



STARTING THE ENGINE

After getting on the motorcycle as described in the relative paragraph, operate as follows to start the engine:

- Place ignition key ① to Ω position (the buzz that you hear when you turn the key to Ω is caused by the fuel pump which puts the feeding system under pressure);
- Pull the clutch lever ②, lift the side stand, or shift gear pedal ③ to neutral, check that the button ④ is in Ω position and then press the start button ⑤.

When a cold engine has just been started, do not increase revs, to ensure an adequate oil warmup and circulation.



WARNING

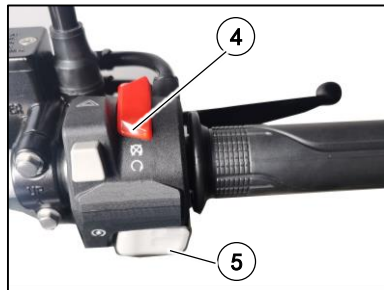
Do not run the cold motor with a high number of revs.



! NOTE

A safety switch is set on the clutch lever support. This switch allows you to ONLY start the engine with the gearbox idle, or with the gear engaged and the clutch lever pulled.

With the stand lowered, the bike can only be started with the gear in neutral.



IMPORTANT NOTE IN CASE OF COLD STARTS AT LOW TEMPERATURES

It is recommended to briefly warm up at idle speed until you get a normal engine response to the accelerator openings

In this way the oil can reach all the surfaces needing lubrication and the coolant will reach the necessary temperature for correct engine function

Avoid overheating the engine

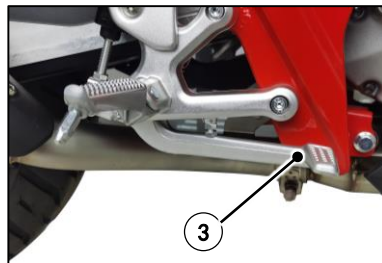
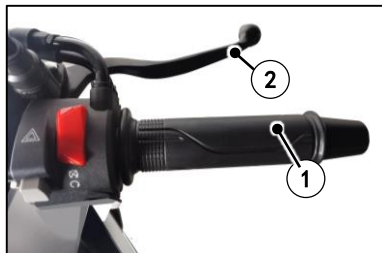
IMPORTANT*: Never accelerate the engine after a cold start.

**WARNING**

Exhaust contains poisonous carbon monoxide gas. Never run the engine in a closed garage or in a confined area.

STOPPING THE MOTORCYCLE AND THE ENGINE



- Fully close the throttle twist grip①to decelerate the motorcycle.
- Apply both front②and rear③brakes while downshifting (for sharp deceleration, operate in a decided manner on the brake lever and pedal).



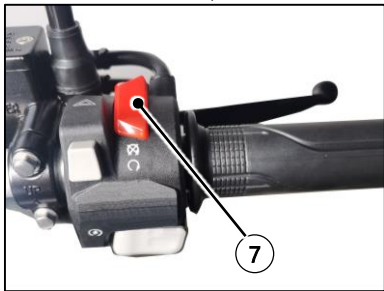
- When stopped, pull the clutch lever ④ and shift gear lever ⑤ into the neutral position
- Turn the ignition key ⑥ to the \otimes position (position for removing key).



ENGINE EMERGENCY STOP

- Flick the red switch ⑦ to  stop the engine and then flick it back to  position

When the bike is off, place it on its side stand.



WARNING

It can be useful to use the front brake independently or to use the combined braking depending on the situation. Be careful when using the front brake, especially on slippery surfaces. Improper use of the brakes can lead to a serious crash.



WARNING

If the throttle locks in open position or another malfunction occurs that causes the engine to run uncontrolled, IMMEDIATELY press the engine stop button ⑦. While pressing the stop button, keep the motorcycle under control using the brakes and steering.

PERIODIC MAINTENANCE AND ADJUSTMENTS

Carry out proper maintenance according to the table given in Appendix A in this manual, which indicates the periodic maintenance intervals. The intervals indicated in the maintenance table refer to normal use. Nevertheless, it may be necessary to reduce these intervals in relation to the climatic conditions and individual use.



CAUTION

Before carrying out any maintenance operation, check that you have the necessary tools, components and technical skills.

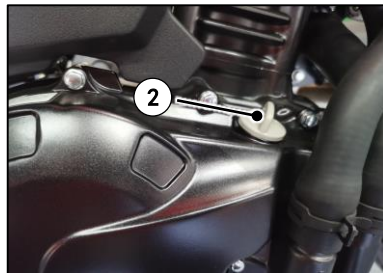
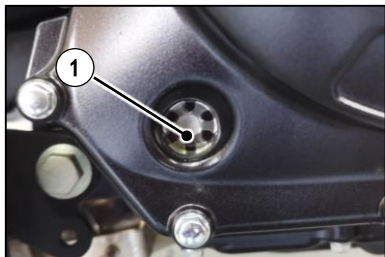
- Turn off the engine and park the motorcycle on a flat and solid surface.
- Wait for the engine, the silencers and the brake discs to cool down.

OIL LEVEL CHECK**⚠ NOTE**

Check the oil level when the engine has just been turned off and is still hot.

⚠ WARNING**Be careful not to touch hot engine oil**

- Position the motorcycle on a flat surface in vertical position.
- Check the oil level through the inspection glass ①.
- If the oil needs to be topped up, unscrew the plug ② and pour the oil through the hole ③ until reaching the proper level.



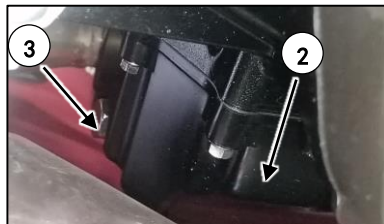
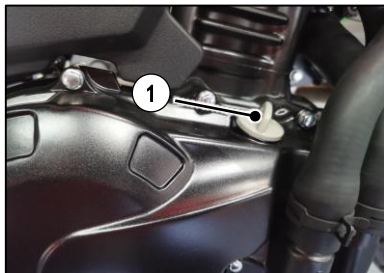
ENGINE OIL AND FILTER CHANGE**⚠ NOTE**

Carry out this operation with the engine hot.

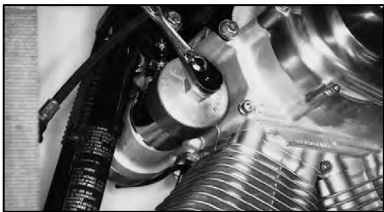
⚠ CAUTION

Be careful not to touch the hot oil.

- Position the motorcycle on a flat surface in vertical position.
- Start the engine. Warm it up for several minutes, and then turn it off.
- Remove the inspection glass ①.
- Place an oil pan ② under the engine to collect the used oil.
- Remove the drain plug ③ to drain the oil from the crankcase.
- Refit the drain plug ③ replacing the sealing washer.



- Pour about 2.5 L of oil into the oil tank through the filler neck ④.
- Check whether or not the engine oil level is among the lowest and highest level of the oil ruler.



CLEANING THE OIL PAN AND THE PRIMARY FILTER

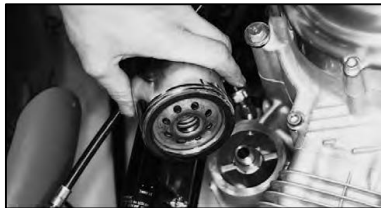
Remove the oil filter cap with an oil filter wrench. Cleaning the installation surface, Install the new oil filter with an oil filter wrench, Pour about 0.12 L of oil into the oil filter, and then tighten it to the specified torque with a torque wrench.

Remove the oil pan and the primary filter, Cleaning the primary filter, Install the oil primary filter and the oil pan.



CAUTION

Contact your genuine motorcycles dealer for service. Check the primary filter and the oil seal for damage, replace it with a new one as required. Replace it with a new one seal washer.



ENGINE COOLANT LEVEL CHECK

The engine coolant level must be between the MIN and MAX notches on the clear reservoir ①.

The coolant level check must be carried out with engine cold and motorcycle perpendicular to the ground.

If topping up is required, unscrew the plug ② and pour coolant through the filler neck.

It is also necessary to restore the level in the reservoir ①.

CAUTION

With engine hot, do not remove the reservoir plug, risk of burns!

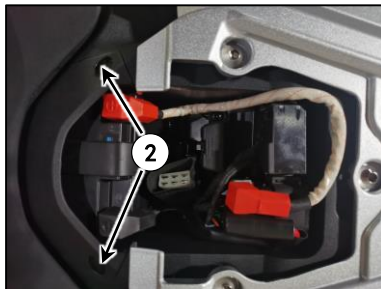


AIR FILTER CHECK AND/OR REPLACEMENT

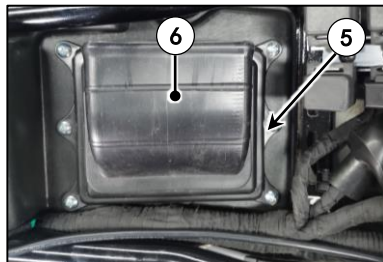
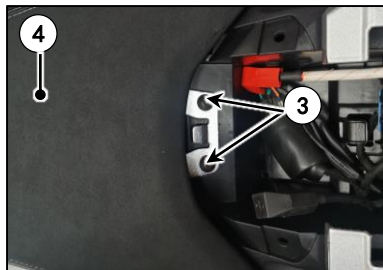
Turn the key ①, lift the passenger seat and remove it.

- Remove the cover ②.

- Unscrew the screw ③ and remove the front seat cushion assembly ④



- Unscrew the screw (5) and remove the filter cover (6).
- Remove the filter and check its condition; to clean it, blow it with compressed air; if it is very dirty, replace it.
- Refit all components following removal operations in reverse order



SPARK PLUG CHECK

Spark plug gap must be 0.6 ~ 0.8 mm.

A greater gap may cause starting difficulties and coil overload, a shorter gap may cause problems with acceleration, idling and low speed performance.

To reach the spark plug, carry out the following removal operations:

- Remove the seat;
- Remove the side panels;
- Remove the front fairing;
- Remove the tank plug;
- Remove the tank cover;
- Overturn the frame and the tank;



CAUTION

As this procedure is quite complex, it is advised to contact an SWM Dealer for spark plug check/replacement.

It is very useful to examine the status of the spark plug just after it has been removed from its seat, since the deposits and the colour of the insulator provide useful information.

Correct heat rating:

The tip of the insulator should be dry and the colour should be light brown or grey.

High heat rating:

In this case, the insulator tip is dry and covered with dark deposits.

Low heat rating:

In this case, the spark plug has overheated and insulator tip is vitrified (glazed), white or grey in colour.



WARNING

If the spark plug is replaced, use one with the same rating.

⚠ WARNING

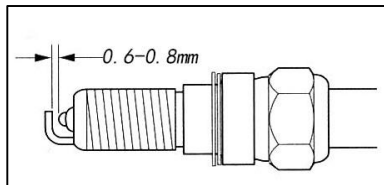
A spark plug with heat rating too high can cause pre-ignition and possible engine damage. A spark plug with heat rating too low can cause a significant increase in carbon deposits.

⚠ CAUTION

Carefully change the spark plug, if necessary, using one having the same rating.

Before refitting the plug, thoroughly clean the electrodes and the insulator using a metal brush. Smear graphite grease on spark plug thread, manually screw it fully home, then tighten it to a torque of 10~12 Nm. Loosen the spark plug then tighten it again to 10~12 Nm.

Spark plugs with cracked insulators or corroded electrodes should be replaced.



TYRES

This motorcycle is equipped with tyres with inner tube.



WARNING

The wheels have been designed to mount tyres with inner tube It is prohibited to mount tubeless tyres.

Check the condition of the tyres, they should not have any cracks, abrasions, etc; also check the state of wear of the tread by means of the indicators on the tyre.

MINIMUM HEIGHT OF THE TREAD	
FRONT	3 mm
REAR	3 mm

-Check the tyre pressure which should be as indicated under TECHNICAL DATA.



WARNING

The front and rear tyre must be of the same brand and model Using different types of tyre for the front and rear will compromise motorcycle stability and handling.



NOTE

Tyres age even if they do not visibly appear worn; cracks in the sides or deformation of the tyre body are a sign of ageing. Have the tyres checked by a tyre dealer before using the motorcycle.



WARNING

Using the motorcycle with the tyres inflated to an incorrect pressure or with worn or deteriorated tyres may cause serious injury or death if losing control of the motorcycle.

FRONT BRAKE FLUID LEVEL CHECK

The fluid level in the pump reservoir may never drop below the "LOWER" notch visible on the sightglass ① on the rear of the pump body.

A decrease of the fluid level will let air into the system, hence an extension of the lever stroke.

WARNING

If the brake lever feels too "soft" when pulled, there may be air in the brake lines or the brake may be defective. Since it is dangerous to ride the motorcycle under such conditions, have the brake system immediately checked by the SWM Dealer.

CAUTION

Do not spill brake fluid onto any painted surface or light lens.

CAUTION

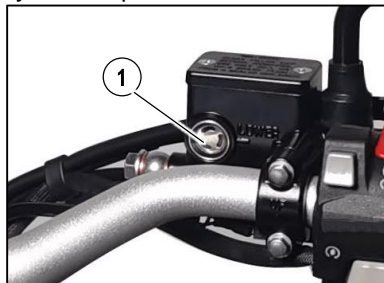
Do not mix two brands of fluid.

Completely change the brake fluid in the brake system if you wish to switch to another fluid brand.

CAUTION

Brake fluid may cause pungency.

Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.



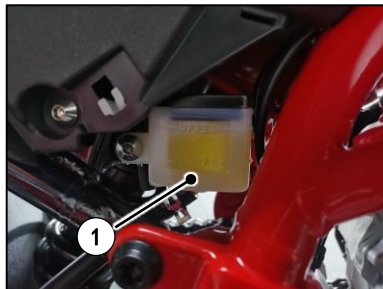
REAR BRAKE FLUID LEVEL CHECK

The level of fluid in the pump reservoir must never be below the minimum value ① indicated on the see-through reservoir. ①.

A decrease of the fluid level will let air into the system, hence an extension of the lever stroke.

WARNING

If the brake lever feels too "soft" when pulled, there may be air in the brake lines or the brake may be defective. Since it is dangerous to ride the motorcycle under such conditions, have the brake system immediately checked by the SWM Dealer.



BRAKE PAD WEAR CHECK

Check the wear status of front brake pads ① and rear brake pads ②.

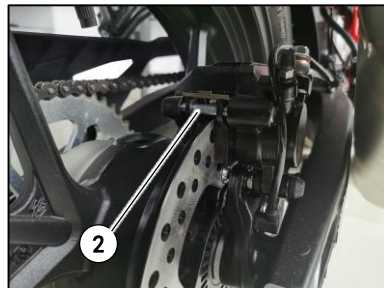
-The pads have a groove ③ that indicates wear; when the groove has almost disappeared, the pair of brake pads has to be replaced.

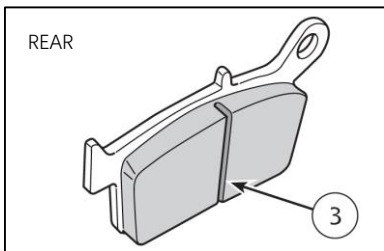
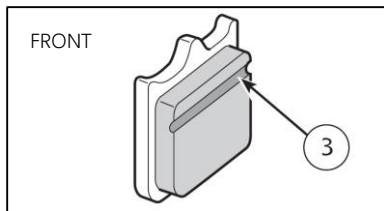
⚠ CAUTION

Contact an SWM dealer to have the brake pads replaced.

⚠ WARNING

After the brake pads have been replaced, ride carefully and brake gradually in order to allow the brake pads to properly run in/couple to the relative discs.





PAD CLEANING

Make sure that there are no traces of brake fluid or oil on the pads or discs. Use alcohol to clean the pads or discs from any traces of fluid or oil.

If the pads cannot be cleaned properly, replace them.

PAD INSTALLATION

Refit the pads following the removal procedure in reverse order.



WARNING

Do not ride the motorcycle until the brake lever or pedal is fully effective. "Pump" the brake lever or pedal until the pads are against the discs. The brake will not operate when the lever or pedal is activated for the first time.

DISC CLEANING

A poor braking efficiency can also be caused by the presence of oil on the disc. Oil or grease on the disc can be removed using a high flammability index solvent such as acetone or similar products.

BRAKE DISC WEAR

Measure the thickness of each disc in the point of maximum wear. Replace the disc if it wear exceeds the limit provided.

DISC	STANDARD	SERVICE LIMIT
FRONT	5 mm	4.5 mm
REAR	4 mm	3.5 mm



COMBINED BRAKING PEDAL POSITION ADJUSTMENT

The position of the rear brake pedal with respect to the footrest may be adjusted according to the individual needs.

To adjust, proceed as follows.

- Loosen the nut ①;
- Act on the screw ② to adjust the pedal position ③.

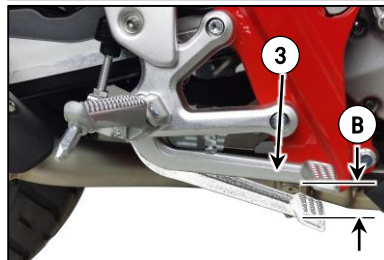
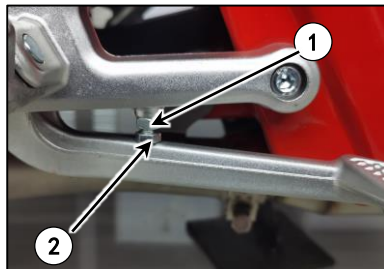
Once this adjustment is completed, adjust the free play of the pedal as follows.

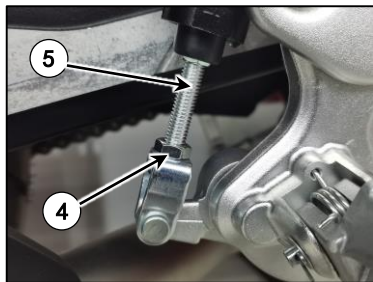
REAR BRAKE PEDAL FREE PLAY ADJUSTMENT

The combined braking pedal ③ must have a free play (B) of 3 mm before the braking action starts.

Should this not happen, adjust as follows:

- Loosen nut ④;
- Operate the pump rod (5) to increase or decrease the free play;



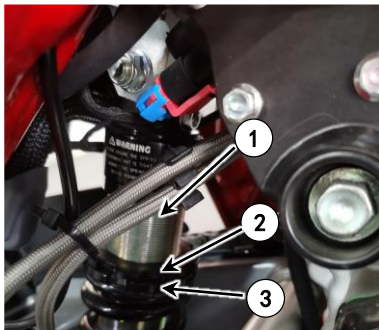
**WARNING**

In the absence of the required free play, the brake pads will rapidly wear, resulting in the risk of **TOTAL BRAKE INEFFICIENCY** or rear brake lock.

SINGLE REAR SHOCK ABSORBER SPRING PRELOAD ADJUSTMENT

The single rear shock absorber ① spring preload can be adjusted; to make the adjustment, operate as follows:

- Clean lock ring nut ② and adjusting ring nut ③ of the spring;
- Either with a hook wrench or an aluminium punch, loosen the lock ring nut;
- Turn the adjuster ring nut as required;
- When the adjusting operation is over according to your weight and riding style -tighten the lock ring nut (tightening torque: 50 Nm).



WARNING

Be careful not to touch hot exhaust pipe while adjusting the shock absorber.

FORK FUNCTIONALITY CHECK

To check proper operation of front fork, operate as follows:

- Get on the motorcycle;
- Pull the front brake lever and forcefully push the handlebar downwards a few times to check that the fork extends and compresses correctly;
- If you notice oil leaks and jamming, have it checked by an SWM dealer;



STEERING BEARING CHECK

Place the motorcycle on a stand in vertical position and secure it so that it cannot overturn.

- Stand in front of the motorcycle;
- Firmly hold the lower part of both fork legs and move the fork forward and backward checking that there is no play.



WARNING

If you feel any play during the movement, have proper tightening of the steering bearings checked by an SWM dealer.

CHAIN CLEANING AND LUBRICATION

The motorcycle is equipped with a chain ① with O-rings; to clean it, operate as follows;

-Position the motorcycle in such a way that the rear wheel is lifted from the ground and can turn.

-Clean the chain using detergents specifically for chains with O-rings, then dry it with a clean cloth.

-Lubricate the chain ① with a suitable spray lubricant for chains with O-ring.

CAUTION

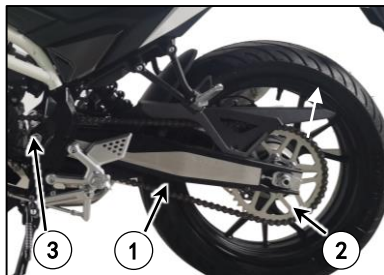
Never use grease to lubricate the chain Grease helps to accumulate dust and mud, which act as abrasive and help to rapidly wear out the chain, the front and rear sprockets.



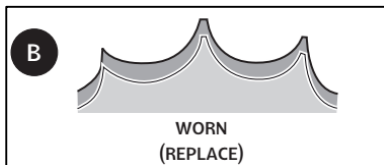
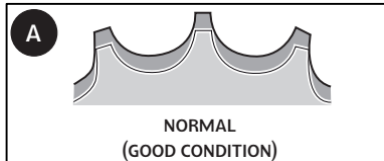
CHAIN /FRONT SPROCKET/REAR SPROCKET WEAR CHECK

-Check the condition of the chain ①; there may not be any damaged rollers, loosened pins or missing O-rings.

-Check the condition of the pinion ② and crown ③ teeth; if the teeth are as shown in Figure A, they are in good condition, while if they are as shown in Figure B, they are to be replaced.

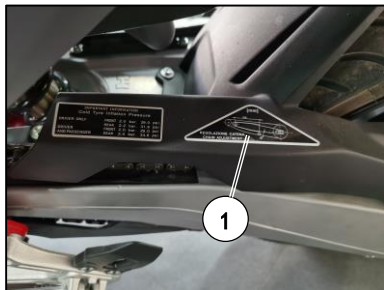
**⚠ NOTE**

If worn, the pinion, crown and chain have to be replaced; using a new chain with a worn pinion or crown, the chain will rapidly wear out.



Chain should be checked, adjusted and lubricated as per the Maintenance Chart to ensure safety and prevent excessive wear. If the chain becomes badly worn or is poorly adjusted (ie, if it is too loose or too taut), it could escape from sprocket or break.

Make sure that the chain features a slack measuring approximately 20 mm, as shown in the nameplate ① on swingarm

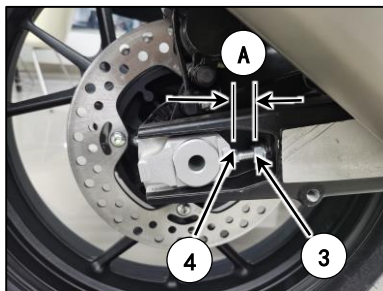
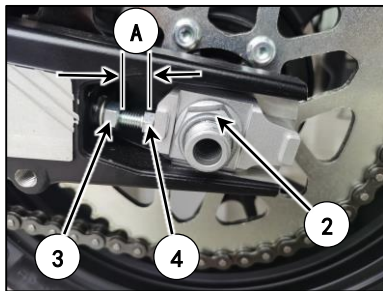


Preliminary Operations:

- Place the bike on a stand so as to have an adequate working space in the area of the rear wheel shaft.
- The bike must be firmly fixed and the rear wheel must be raised and free to rotate.

Procedure:

- Loosen the lock nuts ③.
- Loosen the wheel shaft by unscrewing the nut ② so that the rear wheel is free to slide in the slot but without excessive clearance.
- Operate the adjusters ④ alternately to the right and to the left and keep visually equal the distances indicated, until achieving the correct tensioning.
- Measure the indicated distance (A) with a gauge and make it identical on both sides, using the adjusters ④.
- Check that tensioning is correct in several positions and that the wheel is free to rotate without hard spots. If this is not the case, repeat points 3 and 4.
- Tighten the wheel shaft using the nut ② (tightening torque 120Nm).
- Make the adjusters rest on the sliding blocks using the nut ④ (anticlockwise rotation), slightly tighten.
- Tighten the lock nuts ③.



THROTTLE CONTROL CABLE ADJUSTMENT

To check proper adjustment of the throttle control transmission, operate as follows:

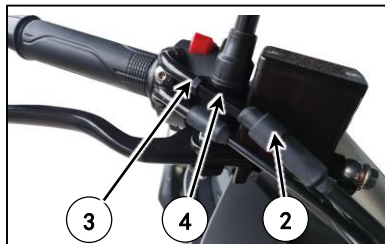
- Turn throttle twistgrip ① and make sure it has a clearance of approx. 2 mm;
- Should this not be the case, move the two protective rubber elements ②;
- Loosen the lock nuts ③ and act on the adjuster ④ to adjust the clearance;
- Tighten back the lock nuts ③;
- Reassemble all parts, proceeding in reverse order.

WARNING

Using the motorcycle with a damaged throttle control cable considerably compromises safe riding.

WARNING

Exhaust gas contains poisonous carbon monoxide never run the engine indoors.

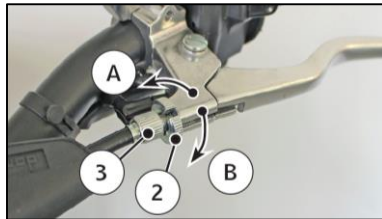
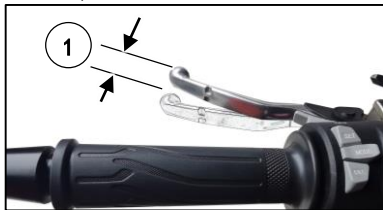


CLUTCH ADJUSTMENT

Normally, the clutch is adjusted by only stretching the cable using the adjusting unit positioned on the handlebar. As a rule, it is sufficient to operate on the handlebar adjuster to restore the clearance due to the flexible transmission stretch.

The control lever must always have a free play (C) (about 3 mm -0.12 in.) before starting to disengage the clutch. To adjust this play, loosen the lock nut (2), operate the adjuster (3) after removing the rubber cap (1).

The adjustment can also be carried out through the tensioner (4) on the right side of the frame. If the clutch slips under load or drags in disengaged position after play has been adjusted, it must be taken apart for inspection. For this operation contact a Dealer.



REMOVING THE FRONT WHEEL

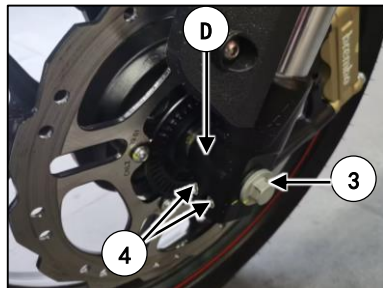
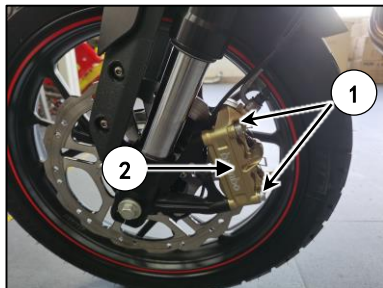
Position the motorcycle in such a way that the front wheel is lifted from the ground.

Unscrew the two screws ① and remove the brake calliper ②.

Loosen the bolts ③ holding the wheel shaft ④ to the fork leg supports. Hold the head of the wheel shaft in place, and unscrew the bolt ⑤ on the opposite side; draw the wheel shaft out.

NOTE

Do not operate the brake lever when the wheel has been removed; this causes the calliper pistons to move outwards. After removal, lay down the wheel with brake disc facing up.



REFITTING THE FRONT WHEEL

Fit the LH spacer (D) on the wheel hub.

Fit the wheel between the fork legs.

Fit the previously greased wheel shaft (5) from the right-hand side until it is fully home on the wheel bearing; it is advisable to turn the wheel while carrying out this operation. Tighten the screw (3) on the fork LH side but DO NOT lock it.

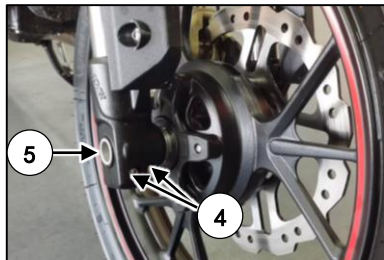
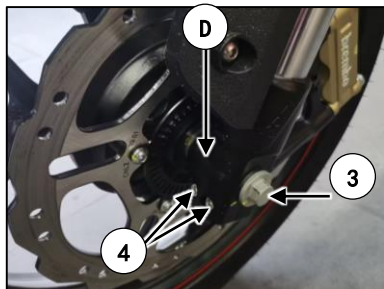
Now, pump for a while, pushing the handlebar downwards until you are sure that the fork legs are perfectly aligned. Lock: the screws (4) on the RH leg (10.4 Nm), the screw (3) on the LH side (50 Nm), and the screws (4) on the LH leg (10.4 Nm).

Fit the brake calliper on the disc assemble it on the relevant support and tighten the two screws (1) to 25.5 Nm. Ensure that the brake disc slides between the calliper pads without any friction or hard spots.



NOTE

After reassembly, pull the brake control lever until the pads are against the brake disc.



REMOVING THE REAR WHEEL

Unscrew the nut ① of the wheel pin and extract it. It is not necessary to loosen the chain tensioners; in this way, the chain tension will remain unchanged after reassembly. Extract the complete wheel, paying attention to the spacers located at the hub sides.

To reassemble, reverse the above procedure remembering to insert the brake disc into the calliper. (Tightening torque of nut ① 120 Nm).



NOTE

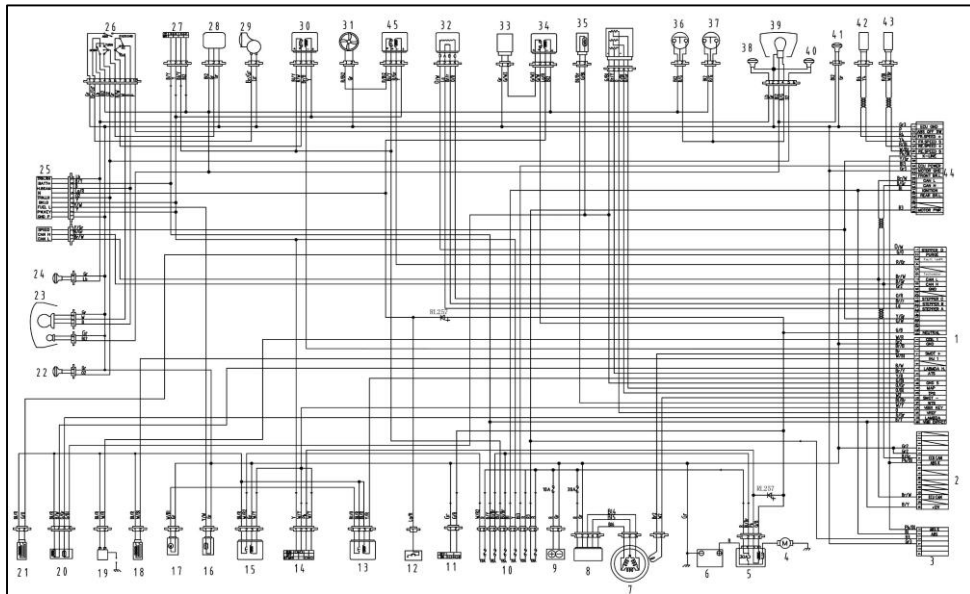
Do not operate the rear brake pedal when the wheel has been removed; this causes the calliper pistons to move forwards.

After removal, lay down the wheel with brake disc facing up.

After reassembling the wheel, depress the brake pedal until the pads are against the disc.



WIRING DIAGRAM



CABLE COLOUR CODING

B	Blue
B/Y	Blue/Yellow
B/Gr	Blue /Grey
B/R	Blue / Red
B/W	Blue / White
Bk	Black
Bk/R	Black /Red
Bk/O	Black / Orange
Bk/Br	Black / Brown
Bk /Y	Black /Yellow
Bk/W	Black /White
Br	Brown
Br/R	Brown/Red
Br/W	Brown/White
Br/Y	Brown/Yellow
Br/ B	Brown/ Blue
Br/ Bk	Brown/ Black
B/W	Blue / White
G	Green
G/B	Green/ Blue
G/Bk	Green/Black
G/Gr	Green/Grey

G/O	Green/Orange
Gr	Grey
G/W	Green/White
Gr/W	Grey/ White
Lg /R	Light Green /Red
Lb	Light Blue
Lg	Light Green
Lg/W	Light Green/ White
O	Orange
O/Bk	Orange/Black
O/Gr	Orange/ Grey
O/W	Orange/ White
R	Red
R/G	Red / Green
R/Gr	Red / Grey
R/ Bk	Red / Black
W	White
W/Bk	White/Black
W/Br	White/ Brown
W/R	White/Red
W/Y	White/Yellow
Y	Yellow
Y/W	Yellow /White
Y/Br	Yellow/ Brown

Y/R	Yellow/Red
Y/B	Yellow/ Blue
Pk	Pink
Pk/ B	Pink/ Blue
Pk/Bk	Pink/Black
P	Purple
P/Y	Purple/Yellow

KEY TO WIRING DIAGRAM

- 1) Electronic power unit
- 2) OBD unit interface
- 3) Brake fluid filler
- 4) Starting motor
- 5) Start relay
- 6) Battery
- 7) Alternator
- 8) Voltage regulator
- 9) Power
- 10) Fuses
- 11) Clutch switch
- 12) Neutral switch
- 13) Relay fuel pump
- 14) RH Switch
- 15) Power relay
- 16) Fuel sensor

- 17) Fuel pump
- 18) Injector
- 19) HT coil
- 20) Lambda sensor
- 21) Solenoid valve
- 22) Front LH turning indicator
- 23) Headlight
- 24) Front RH turning indicator
- 25) Instrument
- 26) LH Switch
- 27) Ignition switch lock
- 28) Flash relay
- 29) Horn
- 30) Front headlamp relay
- 31) Cooling fan
- 32) Stepping motor
- 33) Side stand
- 34) Side stand sensor
- 35) Coolant temperature sensor
- 36) Front stop switch
- 37) Rear stop switch
- 38) Rear RH turning indicato
- 39) Tail light
- 40) Rear LH turning indicato
- 41) Plate lighting
- 42) Front vehicle Speed Sensor
- 43) Rear vehicle Speed Sensor
- 44) ABS
- 45) Cooling fan relay

BATTERY

The sealed battery does not require any maintenance.

If electrolyte leaks, or other failure of the electrical system, are detected, contact the SWM Dealer.

If the vehicle remains unused for long periods, it is recommended to disconnect the battery from the electrical system and store it in a dry place.

-After an intensive use of the battery, it is advisable to carry out a standard slow charging cycle (12V-9Ah battery: 0.9A for 10 hours).

-Quick charging is advised only in situations of extreme need since the life of lead elements is drastically reduced by such cycle (12V-9Ah battery: 9A for 0.5 hours).



BATTERY CHARGER

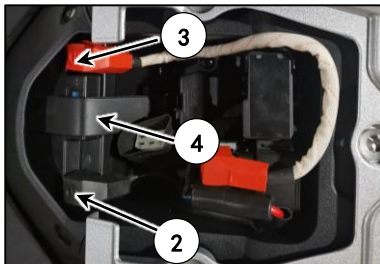
To gain access to the battery, proceed as follows:

- To access the battery compartment, turn the key ①, lift the passenger seat and remove it. Remove the battery cover.

-First remove the BLACK negative cable ② and then the RED positive cable ③ (when refitting, first connect the RED positive cable and then the BLACK negative cable) by unscrewing the relevant retaining nuts;

-Pull the tab ④, remove the battery retaining elastic band and remove the battery from its seat. Check, using a voltmeter, that battery voltage is not less than 12.5 V.

If this is not the case, the battery needs to be charged.



Using a battery charger with a constant voltage, first connect the RED positive cable to the battery positive terminal then the BLACK negative cable to the battery negative terminal.

The voltage reaches a constant value only after a few hours, therefore it is recommended NOT to measure it immediately after having charged or discharged the battery. Always check the battery charge before reinstalling it on the motorcycle.

The battery should be kept clean and the terminals coated with grease



WARNING

The battery contains sulphuric acid Avoid contact with skin, eyes or clothing.

Antidote:

In case of contact with the acid: Flush with water.

In case of acid ingestion: Drink large quantities of water or milk. After milk, take magnesia, beaten eggs or vegetable oil. Seek medical advice immediately.

In case of contact with the eyes: Flush with water for no less than 15 minutes and seek medical attention.



WARNING

If the battery is unused, it has to be in any case recharged with slow cycle (12V-9Ah battery: 0.9 A for 10 hours) at least every 3 weeks.



WARNING

Batteries produce explosive gas, ventilate when charging or using the battery indoors. When using a battery charger, always connect the battery to the charger before turning it on. This procedure prevents sparks at the battery terminals which could ignite any battery gases.

FUSES

Fuse malfunction could cause problems for the motorcycle.

To access the fuse box, remove the passenger seat and open the protective door ①.

To prevent short circuits, turn the ON/OFF switch to OFF, BEFORE working on the fuses.



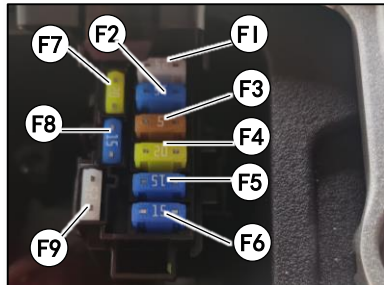
CAUTION

Do not use fuses with a different capacity from the original one.



FUSE TABLE

FUSE	AMPERE	PROTECTION
F1	25A	Motor power fuse
F2	15A	ABS
F3	5A	Ignition
F4	20A	Main fuse
F5	15A	DC fuse
F6	15A	Power fuse
F7	20A	Spare fuse.
F8	25A	Spare fuse.
F9	15A	Spare fuse.



PROJECTOR BULB REPLACEMENT

-The front projector ① is the LED type, replace it if it does not work.

**TAILLIGHT BULB REPLACEMENT / PLATE LIGHT**

-The tail light ② is of LED type, if it does not work, replace it.

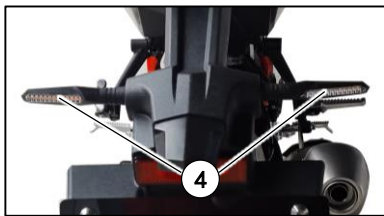
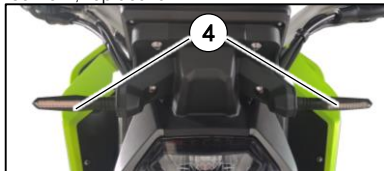


PLATE LIGHT BULB REPLACEMENT

-The plate light ③ is of LED type, if it does not work, replace it.

**TURNING INDICATOR BULB REPLACEMENT**

-The turning indicators light ④ is of LED type, if it does not work, replace it.

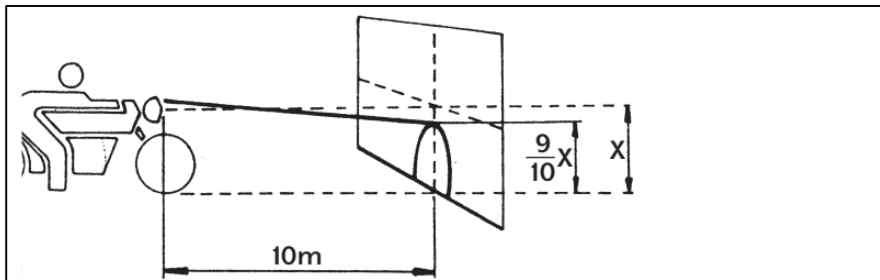


HEADLIGHT ADJUSTMENT

When checking the proper aiming of the headlight beam: inflate tyres at the right pressure, have a person sit astride the motorcycle and set the motorcycle perpendicular to its longitudinal axis.

At 10 metres from a wall or screen, trace a horizontal line at the height of headlight centre and a vertical one, in line with vehicle longitudinal axis.

If possible, execute this operation in a shaded place. When the low beam is on, the upper edge between dark and light zone should be at $\frac{9}{10}$ th of headlight centre from ground. Any adjustment of the direction can be carried out by directly using the screw ① positioned under the headlight.



LONG PERIOD OF INACTIVITY

When the motorcycle is to be stored for a certain period, it should be prepared for storage as follows.

- Clean the entire motorcycle thoroughly.
- Drain all fuel from the tank.
- Fill the tank with fuel added with a stabiliser.
- Lubricate the final drive chain and all the wirings and hoses.
- Spray oil on all unpainted metal surfaces to prevent rusting. Avoid getting oil on rubber parts or brakes.
- Set the motorcycle on a support or stand so that both wheels are raised off the ground (if this cannot be done, put boards under the wheels to keep moisture away from the tyres).
- Tie a plastic bag over the exhaust pipe to prevent moisture from entering.
- Put a cover over the motorcycle to keep dust and dirt from collecting on it.

To reactivate the motorcycle after storage, proceed as follows:

- Make sure the spark plug is tightened;
- Fill the fuel tank;
- Run the engine to warm the oil up then drain the oil;
- Refill with fresh oil;
- Check all the points listed under the section "Checks and Adjustments" (Appendix A);
- Lubricate all the points listed under the section "Lubrication" (Appendix A).



WARNING

Never release fuel into the environment or let the engine run indoors

CLEANING

Before washing the motorcycle, it is necessary to duly protect the following parts:

- a) Rear opening of the muffler;
- b) Air filter intake;



CAUTION

Do not clean the motorcycle with highpressure jets!

After washing:

- Lubricate the points listed in the "Maintenance Chart" (Appendix A)
- Briefly warm up the engine
- Test the brakes before riding the motorcycle



WARNING

Never wax or lubricate the brake discs.

Loss of braking efficiency and an accident could result.

Clean the disc with a solvent such as acetone.

PRE-DELIVERY INSPECTION

Description	Operation	Pre-delivery
Engine oil	Check level	☆
Spark plugs	Check / Replace	☆
Throttle body	Check and adjust	☆
Brakes / Clutch	Check operation	☆
Brakes	Check lines for leakage	☆
Throttle control	Check operation	☆
Throttle control	Check / Adjust play	☆
Flexible controls and transm	Check / Adjust	☆
Drive chain	Check / Adjust	☆
Tyres	Check pressure	☆
Side stand	Check operation	☆
Side stand switch	Check operation	☆
Electrical equipment	Check operation	☆

Instrument panel	Check operation	☆
Lights / Visula signals	Check operation	☆
Horn	Check operation	☆
Headlight	Check operation	☆
Ignition switch	Check operation	☆
Locks	Check operation	☆
Screws and nuts	Check / Tighten	☆
Hose clamps Check	Check / Tighten	☆
General lubricatio		☆
General test		☆

SWIM

APPENDIX A

HOKU 400	SCHEDULED MAINTENANCE CHART (TO BE CARRIED OUT AT THE SWM DEALER) Km					
	1000	5000	10000	15000	20000	REPLACE IF NECESSARY
VALVES	C (*)		C (*)		C (*)	X
VALVE SPRING					C	X
VALVE CUP, VALVE HALF CONE CUVETTES,					C	X
ROCKER ARM (INTAKE –EXHAUST)			C		C	X
CAMSHAFT					C	
VALVE TIMING CHAIN			C		S	
VALVE TIMING CHAIN SLIDER					S	
VALVE TIMING CHAIN TENSIONER					C	
INTAKE MANIFOLD		C		C		X
CYLINDER ASSY					C	X
PISTON ASSY				C	C	

HOKU 400	SCHEDULED MAINTENANCE CHART (TO BE CARRIED OUT AT THE SWM DEALER) Km					
	1000	5000	10000	15000	20000	REPLACE IF NECESSARY
VALVES	C (*)		C (*)		C (*)	X
VALVE SPRING					C	X
VALVE CUP, VALVE HALF CONE CUVETTES,					C	X
ROCKER ARM (INTAKE –EXHAUST)			C		C	X
CAMSHAFT					C	
VALVE TIMING CHAIN			C		S	
VALVE TIMING CHAIN SLIDER					S	
VALVE TIMING CHAIN TENSIONER					C	
INTAKE MANIFOLD		C		C		X
CYLINDER ASSY					C	X
PISTON ASSY				C	C	
ENGINE OIL	S	S	S	S	S	

HOKU 400	SCHEDULED MAINTENANCE CHART (TO BE CARRIED OUT AT THE SWM DEALER)					
Km	1000	5000	10000	15000	20000	REPLACE IF NECESSARY
OIL PUMP					C	
OIL FILTER CARTRIDGE	S	S	S	S	S	
CLUTCH HUB			C			X
CLUTCH DISCS			C		S	X
CLUTCH SPRING				C		X
CLUTCH DISCS HOUSING				C		X
DRIVE SPROCKET		C	C	C	S	X
SPARK PLUG		P	P	P	S	
SPARK PLUG CAP		C	C	C	C	
AIR FILTER		S	S	S	S	
COOLANT	C	C	C	C	S	X
FOOTRESTS, FOOTRESTS PINS AND SPRINGS	C		C		C	X

HOKU 400	SCHEDULED MAINTENANCE CHART (TO BE CARRIED OUT AT THE SWM DEALER)					
Km	1000	5000	10000	15000	20000	REPLACE IF NECESSARY
SEAT FRAME FASTENING BOLTS, ENGINE FASTENING BOLTS	C		C		C	
SIDE STAND	C	C	C	C	C	
STEERING BEARINGS PLAY	C/L	C/L	C/L	C/L	C/L	
FRONT FORK			C		R	
HANDLEBAR HOLDERS AND FASTENING SET	C		C		C	
REAR SHOCK ABSORBER					R	
REAR SUSPENSION LINKS NEEDLE BEARINGS AND GUDGEON PIN					L/C	
THROTTLE CONTROL ASSY		C	C	C	C	
CLUTCH CABLE			C		C	
BRAKE DISC		C	C	C	C	X

HOKU 400	SCHEDULED MAINTENANCE CHART (TO BE CARRIED OUT AT THE SWM DEALER)					
Km	1000	5000	10000	15000	20000	REPLACE IF NECESSARY
BRAKE FLUID	C	C	S	C	S	
CBS SYSTEM FLUID		C			S	
BRAKE PADS		C	C	C	C	X
FUEL HOSES		C	C	C	S	X
WHEEL HUB BEARINGS					S	X
REAR DRIVEN SPROCKET	C	C	C	C	S	X
REAR DRIVEN SPROCKET SCREWS TIGHTENING	C		C		S	
REAR TRANSMISSION CHAIN	L/C	L/C	L/C	L/C	S	X
BOLTS AND NUTS TIGHTNESS GENERAL CHECK	C		C		C	

C: CHECK

C (*): CHECK CLEARANCE

S: CHANGE

L: LUBRICATE

R: OVERHAUL

P: CLEANING

**NOTE**

Upon every removal replace the gaskets;
Replace screws and nuts if worn;
General check after riding on mud or sand.

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