PREFACE

Thank you for selecting a HMCL Niloy Bangladesh Ltd. **KARIZMA XMR 210**. We wish you many miles of continued riding pleasure in the years ahead.

We at HMCL Niloy Bangladesh Ltd., are committed to demonstrate excellence in our environment performance on a continual basis, as an intrinsic element of our corporate philosophy. To achieve this we commit ourselves to continue product innovations to improve environment compatibility, comply with all applicable legislation including environment legislation and strengthen the green supply chain.

This booklet is your guide to the basic operation and maintenance of your new HMCL Niloy Bangladesh Ltd. **KARIZMA XMR 210**. Please take time to read it carefully. As with any fine machine, proper care and maintenance are essential for trouble-free operation and optimum performance.

Authorised Distributor or dealer(s) of the Distributor **("Dealer")** will be glad to provide further information or assistance and is equipped to handle your future service needs.

Let us make this world a safer, healthier and more environment friendly place.





NOTE

ALL INFORMATION, ILLUSTRATION, PHOTOGRAPH, DIRECTIONS, SPECIFICATIONS AND OTHER CONTENTS COVERED IN THIS OWNER'S MANUAL ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF ITS PUBLISHING APPROVAL, AND THE ACCURACY OR CORRECTNESS OF THE SAME IS NOT UNDERTAKEN OR GUARANTEED.

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01

Safety Information

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VEHICLE SAFETY

IMPORTANT SAFETY INFORMATION

Your vehicle can provide many years of service and pleasure if you take responsibility for your own safety and understand the challenges you can meet on the road.

There is much that you can do to protect yourself when you ride. You will find many helpful recommendations through out this manual. Following are a few that we consider most important.

Always wear a helmet

It is a proven fact, helmet significantly reduces the number and severity of head injuries. So always wear a helmet and make sure your pillion rider does the same. We also recommend that you wear eye protection, sturdy boots, gloves and other protective gear.



Before riding your vehicle

Make sure that you are physically fit, mentally focused and free of alcohol and drugs. Check that you and your pillion are both wearing an approved vehicle helmet and protective apparel. Instruct your pillion on holding onto the grab rail or your waist, leaning with you in turns, and keeping their feet on the footrest, even when the vehicle is stopped.



Take time to learn & practice your vehicle

Even if you have ridden other vehicles, practice riding in a safe area to become familiar with how this vehicle works and handles, and to become accustomed to the vehicle's size and weight.



Ride defensively

Always pay due attention to other vehicles around you, and do not assume that other drivers see you. Be prepared to stop quickly or perform an evasive maneuver.

Make yourself easily visible

Some drivers do not see vehicles because they are not looking for them. To make yourself more visible, wear bright reflective clothing, position yourself so that others can see you, signal before turning or changing lanes, and use horn which will help others to notice you.

Ride within your limits

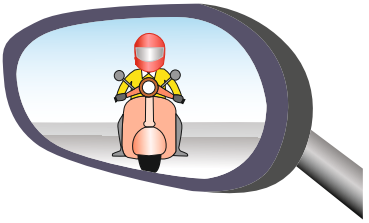
Pushing the limits is another major cause of vehicle accidents. Never ride beyond your personal abilities or faster than conditions demand. Remember that fatigue and negligence can significantly reduce your ability to make good judgements and ride safely.

Do not drink and ride

Riding under the influence of alcohol or drugs is dangerous. Alcohol can reduce your ability to respond to changing conditions and reduce the reaction time. Do not drink and ride.

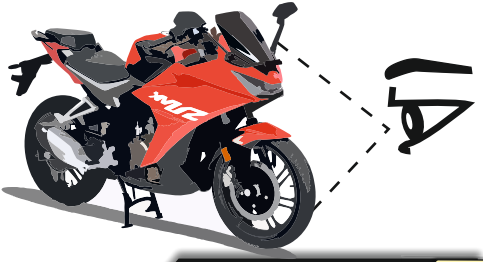
Keep your vehicle in safe condition

For safe riding, it's important to inspect your vehicle before every ride and perform all recommended maintenance. Never exceed load limits, and use accessories that have been recommended by HMCL Niloy BangladeshLtd. for this vehicle.









If you are involved in a crash

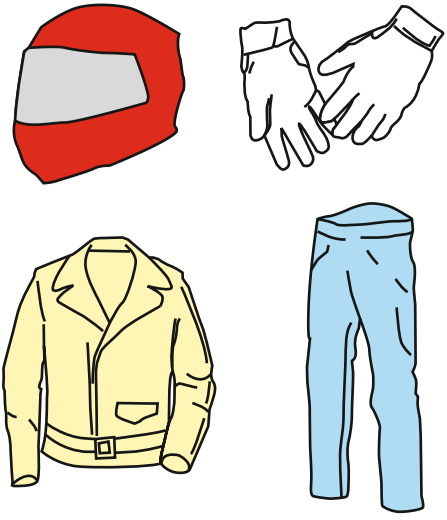
Personal safety is your first priority. If you or anyone else has been injured, take time to assess the severity of the injuries and whether it is safe to continue riding. Call for emergency assistance if needed. Also follow applicable laws and regulations if another person or vehicle is involved in the crash.

If you decide to continue riding, first evaluate the condition of your vehicle. If the engine is still running, turn it off. Inspect for fluid leaks, check the tightness of critical nuts and bolts, and check the handlebar, brake levers, brakes, and wheels. Ride slowly and cautiously. Your vehicle may have suffered damage that is not immediately apparent. Have your vehicle thoroughly checked at a qualified service facility as soon as possible.

PROTECTIVE APPAREL

For your safety, we strongly recommend that you always wear a helmet which should conform as per your country standards, in addition to eye protection, boots, gloves, long pants and a long sleeve shirt or jacket whenever you ride. Take care of loose/ hanging clothes while solo/pillion riding. Although complete protection is not possible, wearing proper gear can reduce the chance of injury when you ride.

Following are suggestions to help you choose proper riding gear.



Helmets and eye protection

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely. A bright coloured helmet can make you more noticeable in traffic, as can reflective strips.

An open-face helmet offers some protection, but a full-face helmet offers more. Always wear face shield or goggles to protect your eyes and help your vision.

Additional riding gear

In addition to a helmet and eye protection, we also recommend:

- Sturdy boots with non-slip soles to help protect your feet and ankles.
- Leather gloves to keep your hands warm and help prevent blisters, cuts, burns, and bruises.
- A two wheeler riding suit or jacket for comfort as well as protection. Bright coloured reflective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your vehicle.

⚠ WARNING

- ***Not wearing a helmet increases the chance of serious injury or death in a crash.***
- ***Be sure you and your pillion always wear a helmet, eye protection and other protective apparel when you ride.***

ACCESSORIES & MODIFICATIONS

Modifying your vehicle or using non-genuine-accessories can make your vehicle unsafe. Before you consider making any modifications or adding an accessory, be sure to read the following information.

⚠ WARNING

- ***Improper accessories or modifications can cause a crash in which you can be seriously hurt or killed.***
- ***Follow all instructions in this owner's manual regarding accessories and modifications.***

Accessories

- Make sure that the accessory does not obscure any lamps, reduce ground clearance, limit suspension travel or steering travel, affect your riding position or interfere with operating any controls.
- Be sure electrical equipment does not exceed the vehicle's electrical system capacity **(page 4-2).** A blown fuse can cause a loss of lights.
- Do not pull a trailer or sidecar with your vehicle. This vehicle was not designed for these attachments, and their use can seriously impair your vehicle's handling.

Modifications

We strongly advise you not to remove any original equipment or modify your vehicle in any way that would change its design or operation. Such changes could seriously impair your vehicle's handling, stability and braking, making it unsafe to ride. Removing or modifying your lamps, mufflers, emission control system or other equipment can also make your vehicle illegal.

ANTI-THEFT TIPS

- Always lock the steering and never leave the key in the ignition switch. This sounds simple but people do forget.
- Be sure the registration information for your vehicle is accurate and correct.
- Park your vehicle in a locked garage whenever possible.
- Use an additional anti-theft device of good quality.
- Never park your vehicle in an isolated area. Park as far as possible in a designated area.
- Keep note all the time in your vehicle maintaining your contact number, address and contact details. Many times stolen vehicles are identified by information in the Owner's Manuals that are still with them.





NAME: _____

ADDRESS:_____

_____

PHONE NO.:_____

SAFE RIDING TIPS



Do's:

- Always conduct simple pre-ride inspection **(page 6-1)**.
- Always wear a helmet with chinstrap securely fastened and insist on a helmet for your pillion rider. Helmet should conform as per safety standards applicable in your country.
- While riding, sit in a comfortable position with your legs close to fuel tank.
- Ride defensively and at a steady speed (between 40-50 km/hr).
- For stopping vehicle, use both brakes simultaneously, keeping throttle in the closed position.
- During night time, dip headlamps of your vehicle for oncoming traffic, or when following another vehicle.
- Give way to others on the road and signal before you make a turn.
- To make yourself more visible, wear bright reflective clothing that fits well.
- Take care of loose/hanging clothes while solo/pillion riding.
- Get your vehicle serviced regularly by the Authorised Distributor/Dealer.
- Before riding make sure that integrated start-kill switch is in "ON" (⏼) position.
- Keep checking the ABS indicator. At any point if indicator remains on, then ABS is not working **(page 5-26).**
- Keep checking speedometer. In case of ABS malfunction, speed display may go to zero.
- It is suggested to go through the do's & dont's of ABS **(page 6-6)** and practice riding your ABS vehicle initially in low-traffic condition unless you are thoroughly familiar with your vehicle and its controls.

SAFE RIDING TIPS



Don'ts

- Never use cell phone while riding the vehicle.
- Avoid sudden acceleration, braking and turning of your vehicle.
- Never shift gears without disengaging the clutch and closing the throttle.
- Avoid keeping any cloth or flammable object between hot parts (muffler, radiator, engine) and fairing.
- Never touch any part of the hot exhaust system like muffler.
- Never ride under the influence of alcohol or drugs.
- Concentrate on the road and avoid talking to the pillion rider or others on the road.
- Do not litter the road.
- Do not cross the continuous white/yellow line in the center of the road, while overtaking.
- Do not attach large or heavy items to the handlebars, front forks, or fenders.
- Never take your hands off the steering handle while riding.
- Do not attempt to apply the brake intermittently for ABS vehicle.
- Do not panic by mechanical noises or slight pedal pulses while applying the brake in vehicle. These conditions are normal and indicates that ABS is working.
- Do not apply the hard braking in wet or rainy conditions.
- Do not switch off the integrated start-kill switch ( ) while riding the vehicle **(page 5-22).**
- Do not move the side stand down while riding, as engine will stop while vehicle is in gear **(page 5-27)** (Wheel locking leading to accident, part damage, etc.).
- Navigation system assists you to reach your destination, don't be distracted while riding. Ride safely and always obey traffic rules.
- Do not ride the vehicle, when the coolant temperature indicator segments reaches "H" range **(page 7-13) .**

TIPS FOR HEALTHY ENVIRONMENT

The following tips shall ensure a healthy vehicle, healthy environment, and a healthy you.

- **Healthy engine:** The engine is the lifeline of every vehicle. To keep it healthy, it should be tuned regularly, which will also help reduce pollution and improve vehicle performance & fuel efficiency.

- **Regular servicing:** Get your vehicle serviced at an Authorised Distributor/Dealer, as per the service schedule, for an optimum performance and keep the emission level under check.

- **Genuine spares:** Always insist on genuine parts as spurious or incompatible spares and accessories can upset or deteriorate your vehicle's running condition.

- **Genuine engine oil:** Hero Xotic+ SAE 10W 30 SL MA2 fully synthetic PAO based oil recommended by HMCL Niloy Bangladesh Ltd. and make sure you change it every 12000 km. (with top up every 6000 kilometres) to keep the engine fit and environment healthy.

- **Noise pollution:** Noise beyond a certain decibel is pollution. Whether it is from horns or defective mufflers, excessive noise will cause headaches and discomfort.

- **Fuel saving & reduce pollution:** Switch "OFF" the engine while waiting at traffic signal points to save fuel and reduce pollution, if the waiting period is long.

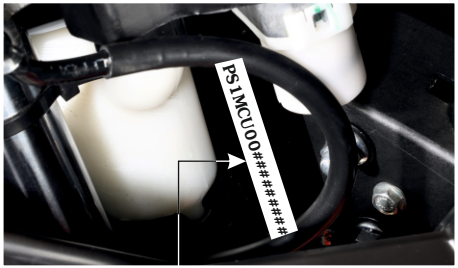


Vehicle Identification

02

Vehicle identification.....2-1

VEHICLE IDENTIFICATION



Vehicle Identification Number (VIN)
Location: Stamped on the right side of the steering head tube.



Engine No.
Location: Stamped on the lower side of the left crankcase.

VIN: PS1MCU00#########

PS1	MCU00	#	#	#	#	#####
Manufacturer code	Vehicle Description	Check Digit	Model Year	Plant Code	Month of Manufacturing	Production Serial Number

Engine No.: MC01AA########

MC01AA	#	#	#	#####
Engine Description	Year of Manufacturing	Assembly Plant	Month of Manufacturing	Serial Number

Model: KARIZMA XMR 210

Variants	VIN	Engine
Electric start/Front and rear disc with ABS/Cast wheel	MCU00	MC01AA

VIN and Engine No. may be required:

- During registration of the vehicle.
- For dealing with legal & insurance departments.

03

Vehicle Overview

Front view.....3-1

Rear view.....3-2

Left side view.....3-3

Right side view.....3-4

Top view.....3-5

VEHICLE OVERVIEW

FRONT VIEW



1. Front fender	5. Headlamp
2. Right position lamp/Day time running lamp	6. Front left turn signal lamp
3. Front right turn signal lamp	7. Left position lamp/Day time running lamp
4. Windshield/visor	8. Radiator

*Accessories and features shown may not be part of standard fitment.

REAR VIEW



1. Left rear turn signal lamp	5. Right rear turn signal lamp
2. Tail/stop lamp	6. Rear reflex reflector
3. Rear view mirrors	7. Rear fender
4. Licence plate lamp	

*Accessories and features shown may not be part of standard fitment.

LEFT SIDE VIEW



1. Side reflex reflector	6. Side stand	11. Left side cover
2. Under cowl	7. Rider footrest	12. Battery compartment (inside)
3. Main stand (optional)	8. Pillion footrest	13. Side faring
4. Side stand switch	9. Saree guard	
5. Gearshift pedal	10. Rear grip	

*Accessories and features shown may not be part of standard fitment.

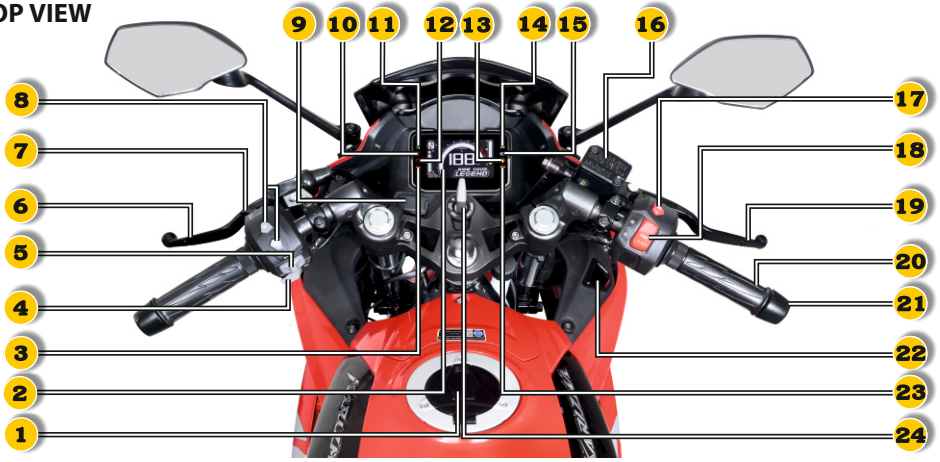
RIGHT SIDE VIEW



1. Rear disc	6. Front caliper assembly	11. Pillion seat
2. Rear brake master cylinder	7. Front disc	12. Seat lock
3. Rear brake pedal	8. Throttle body	13. Rear brake fluid reservoir
4. Oil filler cap	9. Starter motor	14. Exhaust muffler assembly
5. Water pump	10. Rider seat	15. Rear caliper assembly

*Accessories and features shown may not be part of standard fitment.

TOP VIEW



(1) Fuel tank cap
(2) LCD panel of Meter console. Refer instruments and indicators (page 5-5) for fuel gauge, speedometer and other features of console
(3) Oil pressure indicator
(4) Horn switch
(5) Turn signal switch
(6) Clutch lever
(7) Headlamp dimmer/pass lamp switch
(8) Mode (M) and Set (S) buttons
(9) USB charging port
(10) Side stand indicator
(11) Neutral indicator
(12) Programmed FI malfunction indicator lamp (MIL)
(13) Low fuel indicator
(14) Left and right turn signal indicator
(15) High beam indicator
(16) Front brake master cylinder/Reservoir
(17) Hazard switch
(18) Integrated start-kill switch
(19) Front brake lever
(20) Throttle grip
(21) Handlebar weight
(22) Windshield/visor adjuster push button
(23) ABS indicator
(24) Ignition switch with key

*Accessories and features shown may not be part of standard fitment.

Vehicle Specification

04

Vehicle specification.....4-1

VEHICLE SPECIFICATION

ITEM		SPECIFICATIONS
Dimensions		
Overall length		2068 mm
Overall width		760 mm
Overall height		1109 mm
Wheelbase		1351 mm
Saddle height		809.5 mm
Ground clearance		160 mm
Weight		
Kerb weight		163.5 kg
Capacities		
Engine oil		1650 ml at disassembly and 1250 ml at draining
Fuel tank capacity		11 litres
Hydraulic brake fluid		DoT-4
Engine		
Maximum power		25.5 Ps @ 9250 r/min
Maximum torque		20.4 N-m @ 7250 r/min
Bore and stroke		73x50 mm
Compression ratio		12:1
Displacement		210 cc
Spark plug		BOSCH-VR5NEU
Spark plug gap		1.0-1.1 mm
Valve clearance	Intake (cold)	0.10 mm±0.02 mm
	Exhaust (cold)	0.21 mm±0.02 mm
Idle speed		1600±100 r/min
Chassis and suspension		
Front suspension		Telescopic front forks with anti friction bush
Rear suspension		Rectangular swingarm with 6 step adjustable gas charged mono shock absorber
Caster angle		23.25°
Trail length		88 mm
Tyre size	Front	100/80 17 M/C 52H TL
	Rear	140/70 17 M/C 66H TL
Tyre pressure	Front (Rider/pillion)	2.0 kg/cm^2 (29 psi)
	Rear (Rider/pillion)	2.0 kg/cm^2 (29 psi)

ITEM		SPECIFICATIONS
Brakes	Front (Disc type)	Dia. 300 mm
	Rear (Disc type)	Dia. 230 mm
Transmission		
Primary reduction		3.13
Final reduction		3
Gear box		6 Speed constant mesh
Gear ratio,1st		2.92
2nd		2.07
3rd		1.56
4th		1.24
5th		1.04
6th		0.92
Electricals		
Battery		*MF Battery 12V-6 Ah/ETZ-7
Alternator		320 W @ 5000 r/min
Headlamp (Main/Low/DRL)		LED (28 V - 28 W / 14 V - 14 W / 13.5 V - 12.5 W)
Position lamp		13.5 V - 2.85 W (LED)
Tail/Stop lamp		7.5 V - 3.8/0.99 W (LED)
Turn signal lamp		7.45 V - 1.05 W x 4 (LED)
Meter illumination		LED
Neutral indicator		LED
Turn signal indicator (RH/LH)		LED
Hi beam indicator		LED
ABS indicator		LED
Service reminder indicator		LCD display
Licence plate lamp		6.5V-0.4W (LED)
Programmed-Fi malfunction indicator lamp (MIL)		LED
Side stand indicator		LED
Low fuel indicator		LED
Coolant temperature indicator		LCD display
Low oil pressure indicator		LED
Fuse	Starter magnetic switch	20A (Main fuse) & 20A (Spare fuse)
	Fuse box	15A X 3 & 10A X 3 (Main fuse) 15A & 10A (Spare fuse)

*MF stands for Maintenance Free

05

Instrument And Control Functions

Ignition switch 5-1

Instruments and indicators.....5-2

LCD panel.....5-5

Low fuel indicator.....5-11

Features.....5-11

Handlebar switches control.....5-20

Fuel 5-24

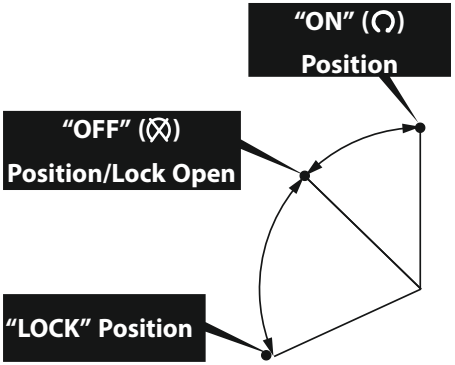
ABS indicator.....5-26

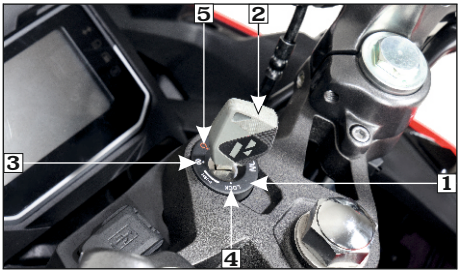
Side stand indicator.....5-26

Seat lock.....5-28

USB charger.....5-30

IGNITION SWITCH





1. Ignition switch
2. Ignition key
3. "OFF" (⊗) position
4. Steering lock position
5. "ON" (Ω) position

Key position	Function	Key removal
"ON" (Ω)	The LCD panel illuminates & initial display of multi-function digital segments are displayed. The tachometer segment, engine coolant temperature segment and the fuel gauge segment will swing to the maximum scale once and back to its normal position. Gear advisory, welcome message and service reminder indicator will appear for few seconds when the ignition switch is turned "ON". The engine can be started. Turn signal lamp, horn, tail/stop lamp, fuel gauge, pass lamp, position lamp & neutral indicator will be functional. Programmed FI malfunction indicator lamp (MIL) illuminates continuously.	Key cannot be removed.
"OFF" (⊗)	Engine cannot be started and no electrical system will be functional.	Key can be removed.
"LOCK"	Steering can be locked.	Key can be removed.

INSTRUMENTS AND INDICATORS

The indicators are in the speedometer panel above the headlamp. The functions are shown below.



Sl. No.	Description	Function
1	Gear indicator	Displays the selected gear while riding **(page 5-12).**
2	Gear up/down advisory	Assists the rider to shift gear for achieving optimum fuel efficiency based on vehicle's engine performance **(page 5-11)**.
3	Tachometer	Shows engine revolution per minute. The tachometer digital segments will swing to maximum scale on the meter console once the ignition switch is turned "ON" .
4	Service reminder indicator	Displays when the next service is due. **(page 5-8).**
5	Fuel gauge	Indicates approximate fuel available in the form of digital segments. The digital segments will swing to maximum scale on the meter console once the ignition switch is turned "ON" ( ) **(page 5-8).**
6	Turn signal indicator	Flashes when left/right turn signal switch or hazard switch is operated.
7	High beam indicator	Light glows when headlamp is in high beam.
8	Low fuel indicator	Light glows when the fuel quantity is low.
9	Anti-lock braking system (ABS) indicator	This indicator normally comes on for approx 1.8 seconds when the ignition switch is turned "ON" ( ) & then keeps blinking until the vehicle attains speed of 5 km/h. If there is a problem with the anti-lock brake system, ABS indicator turns on **(page 5-26).**
10	Odometer	Shows accumulated distance travelled **(page 5-6).**
11	Calender configuration	Displays the day, month and year.

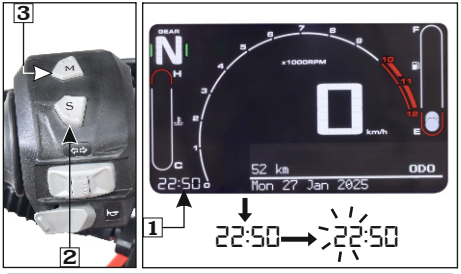
Sl. No.	Description	Function
12	Welcome message display	Displays the welcome message **"RIDE YOUR LEGEND"** for few seconds when the ignition switch is turned "ON".
13	Speedometer	Indicates riding speed**.**
14	Digital clock	Indicates hours & minutes **(page 5-5)**.
15	Engine coolant temperature indicator	Indicates the coolant temperature and warns when the coolant temperature is too high **(page 7-13).**
16	Ambient light sensor	Controls the LCD display backlight and headlamp.
17	Low oil pressure indicator 	When the ignition switch is turned "ON" the low oil pressure indicator lamp glows continuously and then should go "OFF" once the engine is started. It indicates that engine oil pressure in the system is OK. **If it glows continuously during a trip, stop immediately, switch off the engine and contact an Authorised** Distributor/Dealer**.**
18	Programmed-FI malfunction indicator lamp (MIL) 	When the ignition switch is turned "ON" the programmed FI malfunction indicator lamp (MIL) glows continuously and then should go "OFF" once the engine is started. It indicates that programmed FI system is OK. If it glows continuously there is an abnormality in the programmed FI system, it is recommended to reduce the speed and ride to the Authorised Distributor/Dealer for check-up.
19	Side stand indicator 	Light glows when the vehicle is parked on the side stand **(page 5-26)**.
20	Neutral indicator 	Light glows when vehicle is in neutral.

LCD PANEL

(a) Digital clock

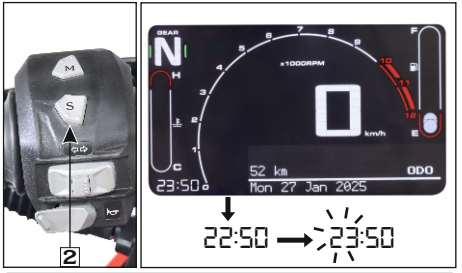
Digital clock (1) shows hour and minute. To adjust the time, proceed as follows :

- Turn the ignition switch "ON" (🔑).
- Press and hold set button (2) and mode button (3) simultaneously for more than 2 seconds. The clock will be set in the adjust mode with the hour's digit display blinking.



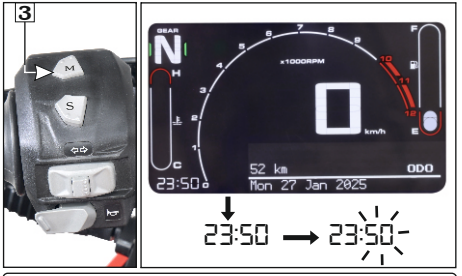
(1) Digital clock **(2) Set button**
(3) Mode button

- To set the hour, press set button (2) until the desired hour is displayed. Clock format is 24 hours type. The hour display will return to "00" after "23".
  - The time is advanced by 1 hour each time the button is pressed.
  - The time advances fast when the button is pressed and held.



(2) Set button

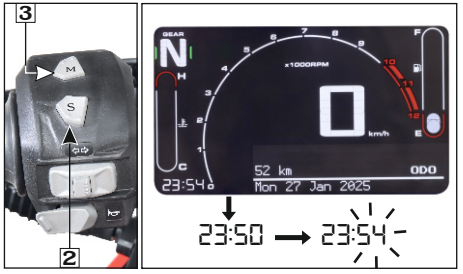
- Press the mode button (3). The minutes display starts blinking.



(3) Mode button

- To set the minute, press set button (2) until the desired minute is displayed. The minute display will return to "00" after "59" without affecting the hour display.
  - The time advances by 1 minute, each time the button is pressed.

- The time advances fast when the button is pressed and held.



(2) Set button **(3) Mode button**

- To end the adjustment press the mode button (3) until clock display stops blinking.

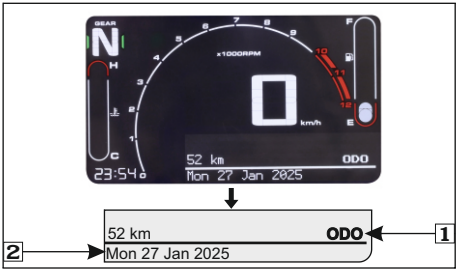
NOTE

The clock will reset to "1:00" if the battery is disconnected.

(b) Odometer (ODO)

The odometer (1) shows accumulated distance travelled.

The odometer can be displayed from "0 to 999999" km.

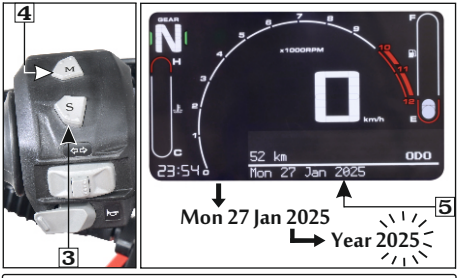


(1) Odometer **(2) Date**

Below odometer, date (2) is displayed.

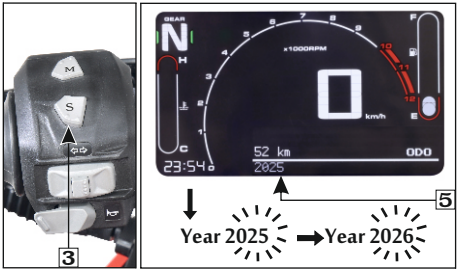
To update the date proceed as as follows :

- Turn the ignition switch "ON" (🔑).
- Press and hold set button (3) and mode button (4) simultaneously for more than 2 seconds. The clock display will start blinking **(page 5-5)**.
- Keep pressing and releasing mode button (4) until date display (5) starts blinking.



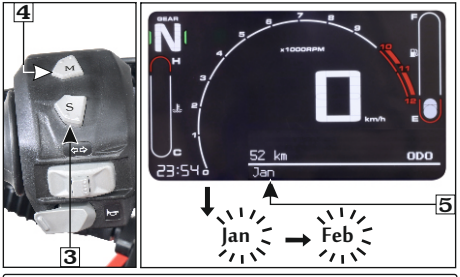
(3) Set button **(4) Mode button**
(5) Date display

- Now to set year, press set button (3) until the desired year is displayed.



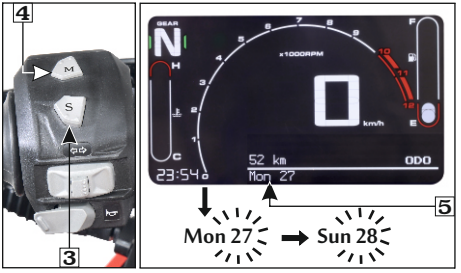
(3) Set button **(5) Date display**

- To set month, press the mode button (4) to switch from year to month display. Now press the set button (3) until the desired month is displayed.



(3) Set button **(4) Mode button**
(5) Date display

- To set day, press the mode button (4) to switch from month to day display. Now press the set button (3) until the desired day is displayed.



(3) Set button **(4) Mode button**
(5) Date display

- To end the adjustment press the mode button until date display stops blinking.

NOTE

Date display appears only with the odometer display.

(c)Tripmeter

The tripmeter shows distance travelled since trip meter was reset last time. There are two tripmeters, "Trip A" and "Trip B".

To select "Trip A" and "Trip B", keep pressing and releasing mode button (2) until "Trip A" and "Trip B" are displayed.

"Trip A" and "Trip B" can be displayed upto "999.9" km.

If the tripmeter exceeds "999.9" km it will return to "0.0" km automatically.

Trip meter displays following parameters:

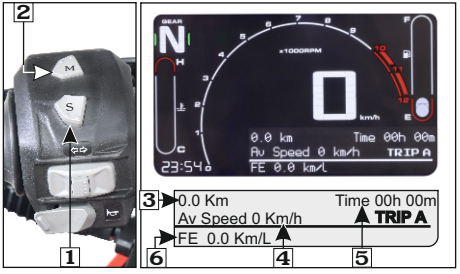
1. Distance (3): distance covered in a trip.

2. Av speed (4): average speed at which vehicle completes a trip

3. Time (5): time taken to complete a trip.

4. Avg fuel consumption (FE) (6)**:** Average fuel consumed during the trip.

When tripmeter is selected, long press (more than 2 seconds) the set button (1) to reset tripmeter to zero.

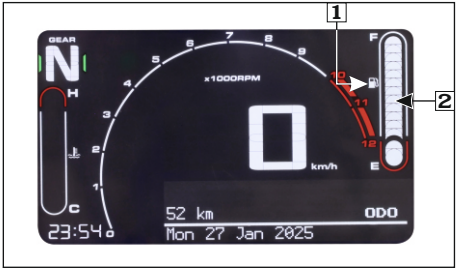


(1) Set button	**(2) Mode button**
(3) Distance	**(4) Avg speed**
(5) Trip time	**(6) Avg fuel consumption (FE)**

(d) Fuel gauge

The fuel gauge (1) indicates approximate fuel available in the form of digital segments.

The digital segments (2) will swing to maximum scale on the meter console once the ignition switch is turned "ON" (). If all the segments are displayed it means fuel quantity in the fuel tank is 11 litres.

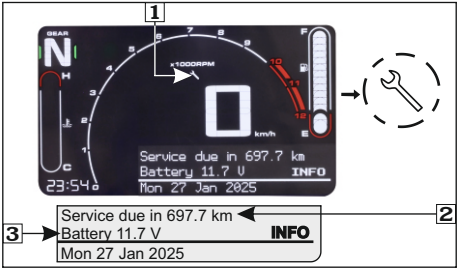


(1) Fuel gauge	**(2) Segment**

(e) Service reminder indicator

The service reminder indicator (1) is to indicate the user to bring the vehicle to an Authorised Distributor/Dealer for service. The indicator shall start blinking when the vehicle covers kilometers as specified in the maintenance schedule. The indicator will keep on blinking throughout the kilometer interval for a particular service and will stay "ON" thereafter.

Meter console also displays the next service distance (2). It indicates how many kilometers are left before the next service is due. The vehicle battery status also appears with next service due.



(1) Service reminder indicator
(2) Next service distance (3) Vehicle battery status

Keep pressing and releasing mode button until service due distance (2) along with vehicle battery status (3) are displayed.

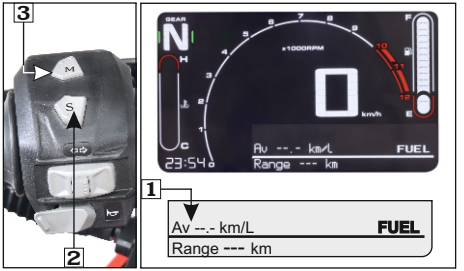
The service reminder indicator "🔧" can be reset at an Authorised Distributor/Dealer.

NOTE

After getting the vehicle serviced, make sure that the Service Reminder Indicator has been reset.

(f) Real time mileage indicator (RTMI)

The real time mileage indicator (RTMI) "Av" (1) shows the current mileage of the vehicle in km/litre and is refreshed after every 3 seconds.



(1) Real time mileage indicator (RTMI)
(2) Set button (3) Mode button

To display RTMI, keep pressing and releasing mode button (3) until RTMI is displayed.

When the ignition switch is turned "ON" (), the real time mileage indicator will temporarily show the digit "Av --.- km/L". The display range is from 0 to 120 km/litre.

The fuel consumption shall be displayed when the speed of the vehicle is more than 5±2 km/hr. If the speed is less than 5±2 km/hr "--.-" shall be displayed.

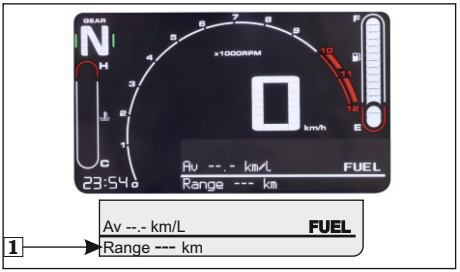
During coasting with throttle fully closed, the fuel consumption is very minimal and hence the display can go up to 120 km/litre.

NOTE

While riding, RTMI will show its first reading at 10 seconds with minimum vehicle speed of 5 kmph and thereafter will update in every 3 seconds.

(g) DTE (Distance to empty)

Distance to empty indicator "Range" (1) shows how many kilometres are left before the complete fuel is consumed in the fuel tank during riding.



(1) Distance to empty (DTE)

NOTE

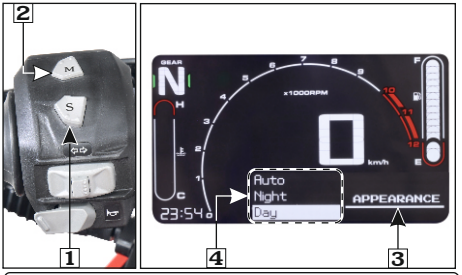
In low fuel condition, DTE will show "---".

(h) Appearance

Appearance feature allows the user to adjust the brightness level of the LCD display and headlamp **(page 5-20)**.

Operation : To change the appearance modes, follow the below procedure:

- Turn the ignition switch "ON".
- Keep pressing and releasing mode button (2) until appearance (3) is displayed.
- Long press the set button (1) to get Auto, Night and Day modes display.
- Keep pressing and releasing mode button to scroll the desired mode.
- Now press the set button to select the desired mode.



(1) Set button **(2) Mode button**
(3) Appearance **(4) Appearance modes**

LCD back light brightness based on selected appearance mode:

- Day Mode: Brightness increases.
- Night Mode: Brightness reduces.
- Auto Mode: Brightness automatically changes as per the ambient sensor (sensing the amount of ambient/surrounding light present) located in meter-console.

Headlamp brightness based on selected appearance mode:

For headlamp brightness based on auto, night and day mode, refer **"headlamp dimmer/pass switch"** topic **(page 5-20)**.

LOW FUEL INDICATOR

Low fuel indicator (1) is a warning indicator for the user to fill the fuel as soon as possible.



(1) Low fuel indicator

CAUTION

Please ensure the vehicle is not used with low fuel indicator glowing continuously. It will not only result in the vehicle running out of fuel, but may also cause serious damage to the fuel pump. Please ensure fuel is refilled as soon as the low fuel indicator starts glowing.

NOTE

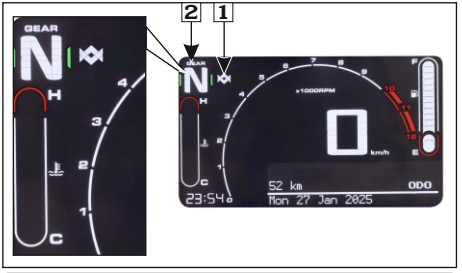
To check the fuel level indication, the vehicle should be on levelled surface and in stationary condition.

FEATURES

(a) Gear up/down advisory

Gear up/down advisory (1) assists the rider to achieve optimum fuel efficiency.

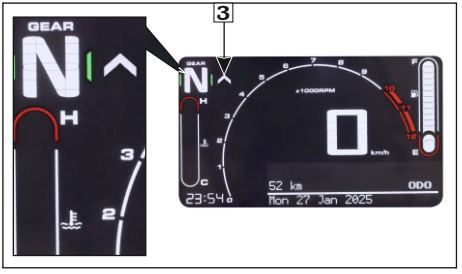
It is displayed beside the gear indicator (2).



(1) Gear up/down advisory (2) Gear indicator

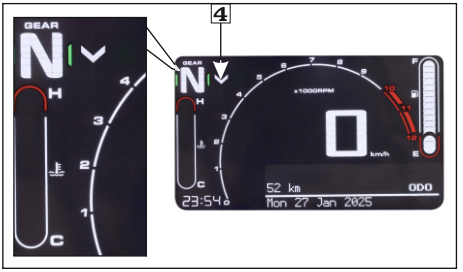
It displays following riding instructions :

- Gear up advisory (3): It recommends shifting to higher gear



(3) Gear up advisory

- Gear down advisory (4): It recommends shifting to lower gear.



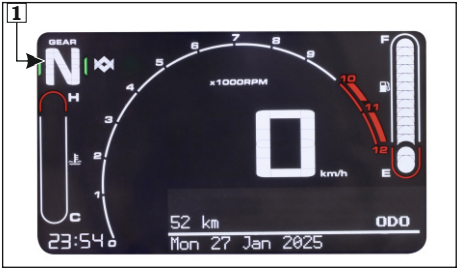
(4) Gear down advisory

NOTE

Gear up/down advisory assists the rider to achieve optimum fuel efficiency based on your vehicle's engine performance. It is recommended to ride your vehicle as per road and traffic conditions.

(b) Gear indicator

Gear indicator (1) indicates current gear position of your vehicle in which it is running.



(1) Gear indicator

NOTE

Gear indicator displays "N" when your vehicle is in neutral.

(c) Hero ride guide/Navigation

Application:

Hero navigation application is available in the google play store (for androids) or App Store (for iOS), which can be installed in your device to access bluetooth, incoming calls alerts, missed call alerts, mobile low battery alert, message alert and navigation features.

NOTE

- ***Compatibility and performance of hero ride guide application may vary based on your device and software version.***
- ***Application needs GPS signal, internet and bluetooth connectivity to perform the desired navigation functionality.***

Bluetooth:

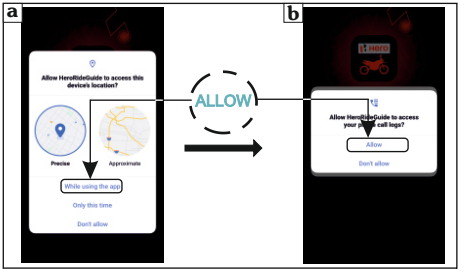
Your vehicle is equipped with bluetooth connectivity feature by which you can pair your smartphone with the meter console of your **KARIZMA XMR 210** vehicle through Hero navigation application.

To connect your device proceed as follows:

- Turn the ignition switch "ON".
- Open hero navigation application on your smartphone.
- For first time pairing, allow the application to access:

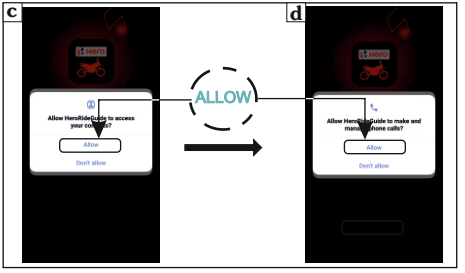
a. Device's location if GPS is not enabled in your device

b. Access your phone call logs

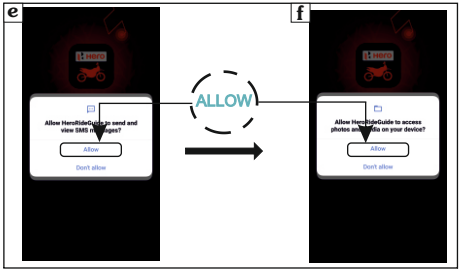


c. Contacts

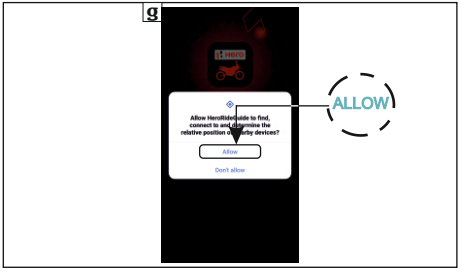
d. Make and manage phone calls



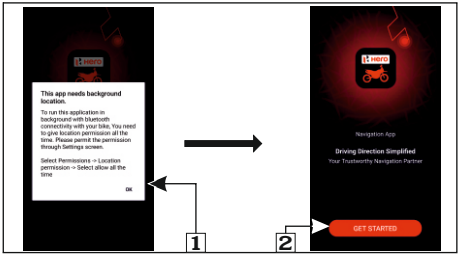
e. Send and view SMS messages
f. Photo and media



g. Relative position of nearby devices

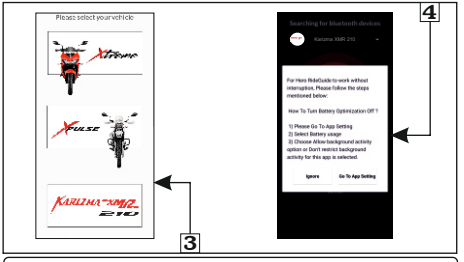


- Now application asks the user to run the application on background (1). It can be done by following the steps which are mentioned in the application and click OK.
- Now select "GET STARTED" (2) to proceed.



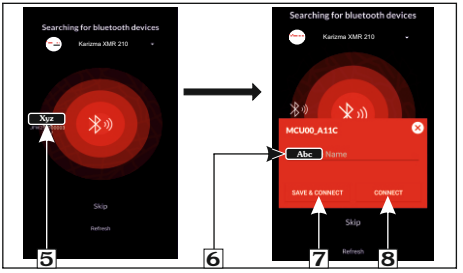
(1) Run application in background (2) Get started

- Now select your vehicle (3).
- Now application asks the user to turn the battery optimization off (4). It can be done by following the steps which are mentioned in the application or the user can ignore this step.



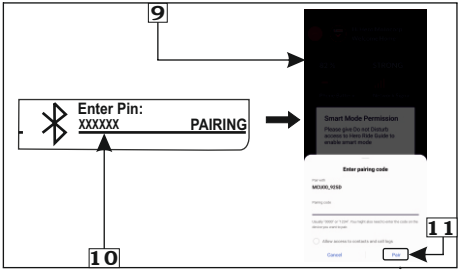
(3) Select your vehicle (4) Battery optimization

- The application searches for a while and displays all compatible nearby devices. Select the device with your name (5).
- Update your name (6) (if required) and select either save and connect (7) or connect (8) to proceed.



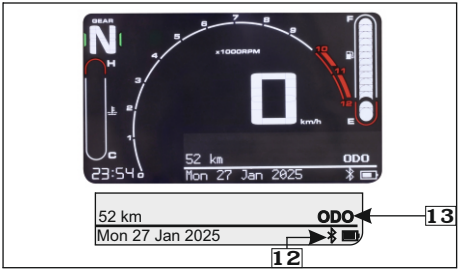
(5) Select your device
(6) Update your name
(7) Save and connect **(8) Connect**

- Now application will display bluetooth pairing request screen (9).
- Now meter console will display paring pin (10).
- Enter the same pin in device screen and select "Pair" (11).



(9) Pairing request notification
(10) Pin **(11) "Pair"**

- On pairing, meter console will connect to your device through bluetooth. Bluetooth symbol (12) is displayed below the odometer symbol (ODO) (13).

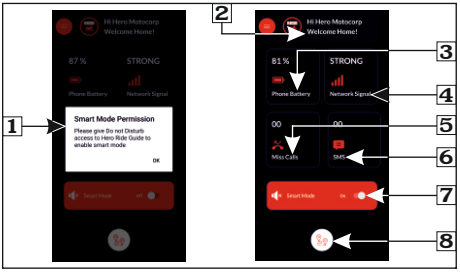


(12) Bluetooth symbol **(13) Odometer (ODO)**

Navigation:

To use navigation feature proceed as follows:

- Connect your vehicle with your hero ride guide/navigation application via bluetooth **(page 5-13).**
- After successful connection, the application will display smart mode permission (1) and "Hi Hero MotoCorp Welcome Home!" (2). This screen will display following parameters:
  - Phone battery (3)
  - Network signal (4)
  - Miss calls (5)
  - SMS (6)
  - Smart mode (7)
  - Navigation symbol (8)

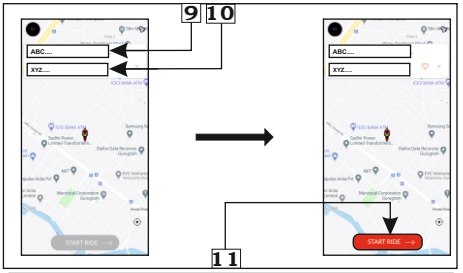


(1) Smart mode permission
(2) Hi Hero MotoCorp welcome home
(3) Phone battery **(4) Network signal**
(5) Miss calls **(6) SMS**
(7) Smart mode **(8) Navigation symbol**

NOTE

Once smart mode is turned on, the user device switches to vibrating mode.

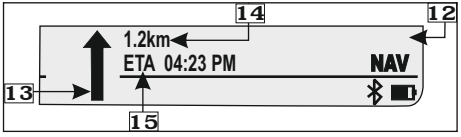
Now, on clicking navigation symbol (8), application and meter console display will automatically switch to navigation mode (12). It will also update your current location (9) through GPS system.

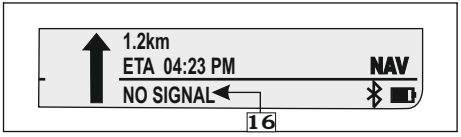


(9) Current location **(10) Choose destination**
(11) Start ride

- Now choose your destination (10) through the application and select "start ride" (11).
- After processing for a while, meter console will display the direction (13), distance for next move (14) and estimated time of arrival (ETA) (15). Estimated time of arrival will be displayed in "AM"or "PM". Hero navigation app and meter console of your vehicle will display step by step navigation guidance/ direction through navigation signs **(page 10-1).**







(12) Navigation mode	**(13) Direction**
(14) Distance for next move	**(15) ETA**
(16) No signal	

NOTE

At any point, if Navigation system loses signal, then it displays "NO SIGNAL" (16) on meter console when vehicle is in navigation mode.

WARNING

Navigation system assists you to reach your destination, don't be distracted while riding. Ride safely and always obey traffic rules.

Autopairing:

Your vehicle is equipped with autopairing feature by which if you turn "OFF" vehicle's ignition switch after successful pairing with hero navigation application, it will reconnect automatically once ignition switch is turned "ON".

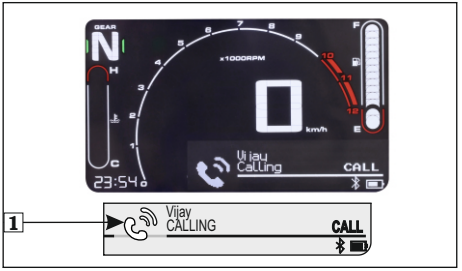
NOTE

Always keep your smartphone close to your vehicle during the course of pairing, autopairing and navigation.

Incoming call alert:

If your smartphone is paired with the meter console of your vehicle via bluetooth **(page 5-13)**, then you will get all the incoming call alerts on the meter console. It will display the name of the caller if it is stored in your compatible smartphone. For example: If caller's number is stored in your compatible smartphone by name of Vijay, then your meter console will display Vijay calling (1).

If the number is not saved in your device by name or your device is an iOS, then it will display "unknown calling" (2).



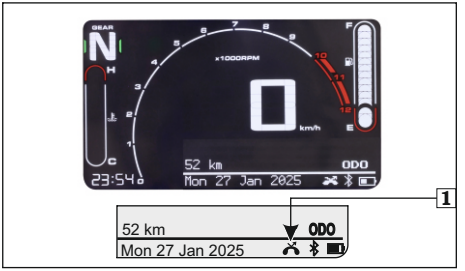
(1) Incoming call alert by name



(2) Incoming call alert by unknown number

Missed call alert:

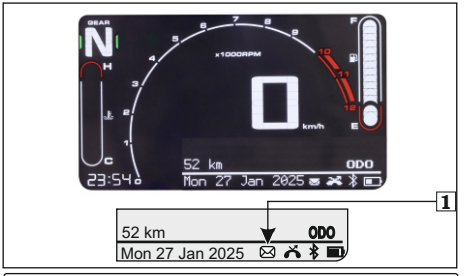
If your smartphone is paired with the meter console of your vehicle via bluetooth **(page 5-13),** then you will get all the missed calls alerts (1) on the meter console.



(1) Missed call alert

Message alert:

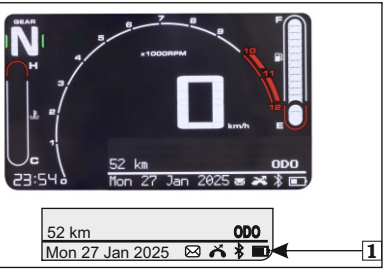
If your smartphone (android) is paired with the meter console of your vehicle via bluetooth **(page 5-13)**, then you will get all the message alerts (1) on the meter console.



(1) Message alert

Phone battery status:

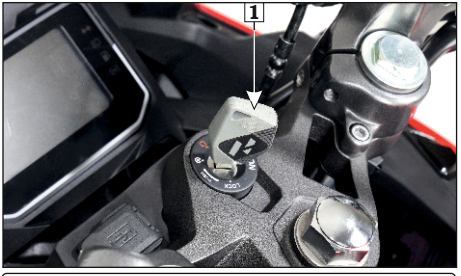
If your smartphone is paired with the meter console of your vehicle via bluetooth **(page 5-13),** then it will display phone battery status (1) of your smartphone on the meter console.



(1) Phone battery status

(d) Steering lock

Steering lock is with the ignition switch, turn the key (1) to "OFF" (⊠) position & turn the handle bar towards left or right & push the key downwards & turn towards "Lock" position. After locking take out the key.



(1) Ignition key

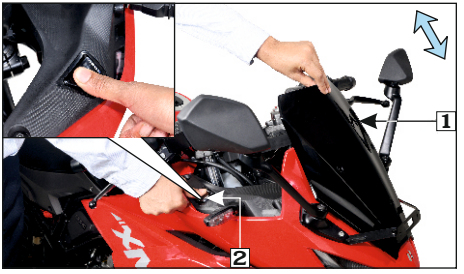
(e) Windshield/Windshield adjuster

This model is equipped with windshield (1) to make the airflow to be streamlined during riding.

Windshield installed on the vehicle can be manually adjusted through the windshield adjuster push button (2).

To change the windshield adjustment, follow the below procedure:

- Press the windshield/visor adjuster push button (2).
- Gently pull the windshield up or down to the required height.
- Release the windshield adjuster push button (2).



(1) Windshield
(2) Windshield/visor adjuster push button

⚠ WARNING

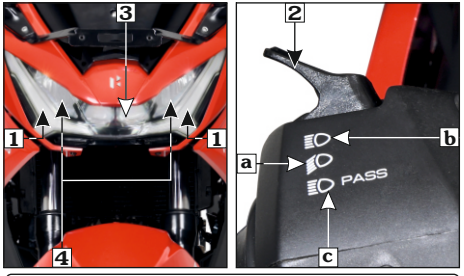
It is not recommended to clean and adjust the windshield while riding the vehicle, which may result in loss of vehicle control and an accident.

HANDLEBAR SWITCHES CONTROL

Left handlebar controls

1. Headlamp dimmer/pass switch

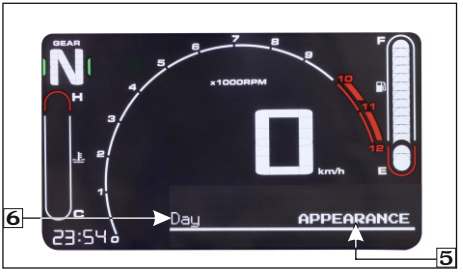
Headlamp is equipped with a day time running lamp (DRL) to enhance the day light time visibility of the vehicle to other road users.



(1) Position lamp/Daytime running lamp (DRL)
(2) Headlamp dimmer/pass switch
(3) Low beam **(4) High beam**
(a) **(b)** **(c) PASS**

Headlamp dimmer/pass switch (2) has three positions. The three positions of headlamp dimmer/pass switch "" , "" and "**PASS**" function differently based on day, night and auto mode as follows:

I) When appearance (5) is set to day mode (6) (page 5-10).



(5) Appearance **(6) Day mode**

When the ignition switch is turned "ON", the position lamp will illuminate.

Once the engine is turned "ON" and the headlamp dimmer/pass switch is set to " " (a) position, the DRL (1) will illuminate.

- DRL will be "ON".
- High beam will be "OFF".
- Low beam will be "OFF".

In engine running condition, when the headlamp dimmer/pass switch is set to " " (b) position, the DRL (1) will illuminate.

- DRL will be "ON".

- High beam will be "OFF".
- Low beam will be "OFF".

PASS

In engine running condition, when headlamp dimmer/pass switch " **PASS** ", (c) position is pressed:

- High beam (4) will be "ON" till the time it is pressed.
- Low beam (3) will be "ON" till the time it is pressed.
- DRL (1) will be "ON".

ii) When appearance is set to night mode (7) (page 5-10).



7

(7) Night mode

In engine running condition, when headlamp dimmer/pass switch is set to " " (a) position. low beam (3) and position lamp (1) will be "ON".

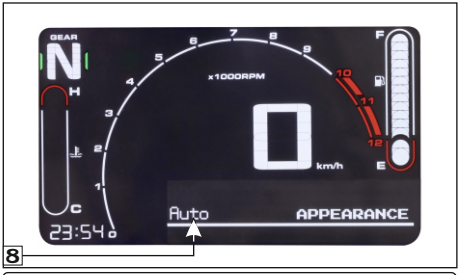
In engine running condition, when headlamp dimmer/pass switch is set to " " (b) position. High beam (4), low beam (3) and position lamp (1) will be "ON".

PASS

In engine running condition, when headlamp dimmer/pass switch " **PASS** ", (c) position is pressed:

- High beam (4) will be "ON" till the time it is pressed.
- Low beam (3) will be "ON".
- Position lamp (1) will be "ON".

iii) When appearance is set to auto mode (8) (page 5-10).



8

(8) Auto mode

Once the appearance is in auto mode, headlamp illuminates as per the lighting condition around the vehicle.

WARNING

It is recommended to use the dimmer/pass switch positions " ", " ", " PASS" and day/auto /night modes as per the visibility, road and traffic conditions.

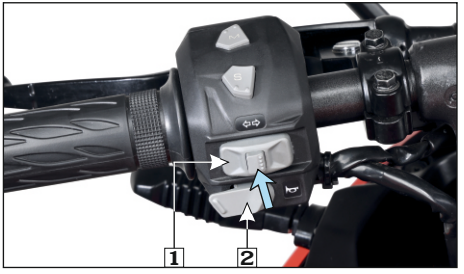
2. Turn signal lamp switch

Shift the turn signal switch (1) sideways for right/left indications and leave it to come back to its normal position on its own.

IMPORTANT : To switch "OFF" the turn signal after completing the turn, gently push the switch inside.

3. Horn switch

Press the switch to operate the horn (2).



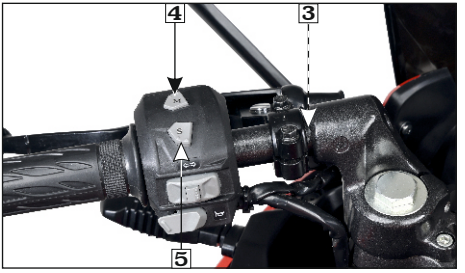
(1) Turn signal switch **(3) Horn switch**

4. Clutch switch

There is a clutch switch (3) provided for the safety of the rider. The vehicle cannot be started by electric starter switch until the clutch lever is operated when the vehicle is engaged in gear.

5. Mode and set button

Mode button (4) and set button (5) are used to operate the functions of the LCD display.



(3) Clutch switch **(4) Mode button**
(5) Set button

Right handlebar controls

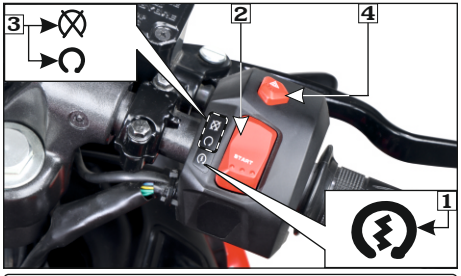
1. Integrated start-kill switch

(a) Electric starter operation

Press the electric starter () (1) of integrated start-kill switch (2) downwards to start the vehicle. Ensure the electric starter operation is done when the vehicle transmission is in neutral. If the vehicle is engaged in gear, press the clutch lever before electric starter () operation. Release switch after the engine has started.

CAUTION

Never hold electric starter (🔘) of integrated start-kill switch continuously more than 5 seconds as continuous cranking of engine will discharge the battery.



(1) Electric starter
(2) Integrated start-kill switch
(3) Engine stop (ON/OFF)
(4) Hazard switch

(b) Engine stop operation

For engine stop operation (3) integrated start-kill switch (1) has two positions. In "ON" (🔘) position, engine will operate and in "OFF" (⊗) position, engine will not operate. The prime function of it is to stop the engine during emergency (Vehicle tip over, throttle cable stuck etc.). The switch should normally remain in "ON" (🔘) position. During emergency, put the switch to "OFF" (⊗) position.

WARNING

While riding the vehicle in normal condition, do not press the "Integrated start-kill switch to "OFF" (⊗) position to avoid any damage (Wheel locking leading to accident, part damage, battery discharge etc).

2. Hazard switch (⚠)

Press the hazard switch (4) in ignition "ON" condition whenever your vehicle becomes a temporary hazard for other road users and it is necessary to park the vehicle due to breakdown or other unavoidable problems.

Upon pressing the hazard switch, all turn signal lamps start flashing simultaneously to warn other road users behind you of a hazard or obstruction ahead.

To turn "OFF" the indicator lamps in hazard switch "ON" condition, press the hazard switch again.

NOTE

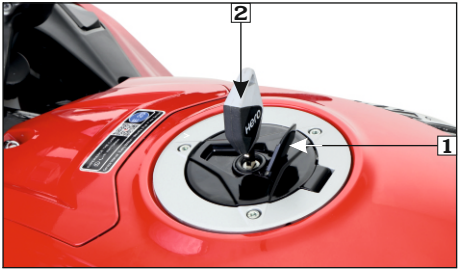
Use hazard lights only when your vehicle becomes a temporary hazard for other road users.

FUEL

(a) Fuel tank

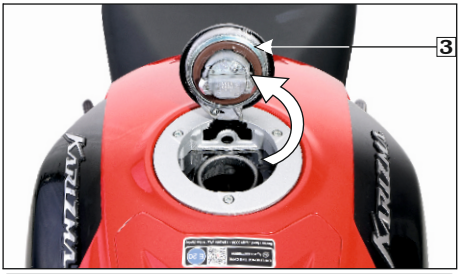
Fuel tank capacity is 11 litres (Be sure to fill the fuel tank when low fuel indicator glows).

- To unlock fuel tank cap, lift the key hole cover (1), insert key (2) turn it clockwise and lift open the cap (3).

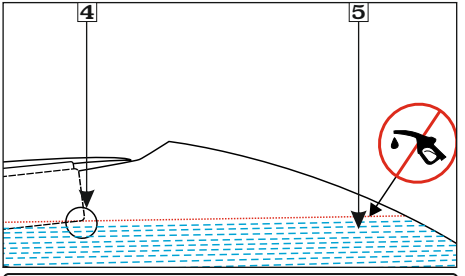


(1) Key hole cover (2) Ignition key

- Do not overfill the tank. There should be no fuel in filler neck (4). Fill the tank with fuel (5) as shown.
- To lock fuel tank cap, close the cap back on the opening and press gently. The key springs back to the normal position and cap gets locked.
- Remove the key and put back the keyhole cover.



(3) Fuel tank cap



(4) Filler neck (5) Fuel

! CAUTION

Do not park the vehicle under direct sunlight as it causes evaporation of petrol due to heat and deterioration of paint gloss due to ultra violet rays.

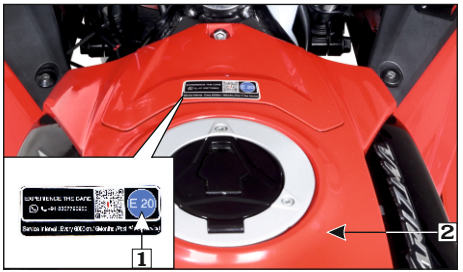
⚠ WARNING

Petrol is extremely flammable and is explosive under certain conditions. Refill in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the vehicle is refilled or where petrol is stored.

(b) Petrol containing alcohol

Fuel available at your location may contain ethanol. Ethanol is a form of alcohol and is generally mixed with petrol to reduce emissions.

E20 sticker on the battery cover indicates that the vehicle parts are compliant up to the blend of "20% ethanol with petrol".



(1) E20 sticker (2) Fuel tank

It is recommended not to use petrol containing more than 20% of ethanol to avoid any damage to engine and other parts of the vehicle.

If you observe any problem related to the operational performance of the vehicle, contact your Authorized Distributor/Dealer.

! CAUTION

Please ensure the vehicle is not used with low fuel indicator glowing continuously. It will not only result in the vehicle running out of fuel, it may also cause serious damage to the fuel pump. Please ensure fuel is filled up as soon as the low fuel indicator starts glowing.

⚠ WARNING

- ***Petrol is highly flammable and explosive. You can be burned or seriously injured when handling fuel.***
- ***Stop the engine and keep heat, sparks and flame away.***
- ***Refuel only outdoors.***
- ***Wipe off spills immediately.***

ABS INDICATOR

The ABS indicator (1) on speedometer come "ON" for 1.8 seconds when the ignition switch is turned "ON" (ON) & then keeps blinking until the vehicle attains a speed of 5 km/h.

When the system functions normally indicator goes "OFF" (ABS) once vehicle speed exceeds 5 km/h.

At any point if ABS indicator remains "ON" then ABS is not working, but the brakes still work normally. Reduce your vehicle speed and visit your Authorised Distributor/Dealer.



(1) ABS indicator

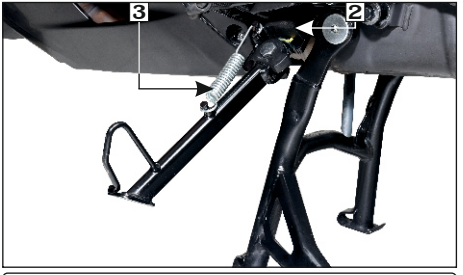
SIDE STAND INDICATOR/SWITCH

For the safety of the customer a side stand indicator (1) is provided.



(1) Side stand indicator

A side stand switch (2) is provided in the side stand, when the side stand is down (ignition switch "ON" (ON)), the switch enables the side stand indicator lamp to glow on the speedometer panel.



(2) Side stand switch **(3) Side stand spring**

- Check the side stand for proper function and the spring (3) for damage or loss of tension and the side stand assembly for free movement.
- Check whether the side stand indicator (1) glows when the side stand is down.
- Side stand indicator (1) should go off when side stand is raised.
- If the side stand indicator (1) does not operate as described in above steps, please visit your Authorised Distributor/Dealer.

CAUTION

Ensure that adequate care should be taken while cleaning the side stand switch.

Your vehicle is equipped with "Side stand engine kill" feature for safety purpose.

This feature has following functions:

- It prevents starting the engine when transmission is in gear (irrespective of clutch lever operation) and side stand is down.
- It stops the running engine when transmission is in gear (irrespective of clutch lever operation) and side stand is moved down.

WARNING

"Side stand engine kill" system is not affected by clutch lever operation.

To inspect the functionality of this feature, park the vehicle on its main stand and check all the conditions described in the inspection flow diagram:

INSPECTION FLOW DIAGRAM

1. Turn the ignition switch to "ON" (Ω) position and press the electric starter (with transmission in neutral and side stand is down).

↓

Does engine start? — NO → Visit Authorised Distributor/Dealer

↓ YES

2. Then shift the transmission to gear (with engine running and irrespective of clutch lever operation).

↓

Does engine stop? — NO → Visit Authorised Distributor/Dealer

↓ YES

3. Now press the electric starter switch (After engine has stopped).

↓

Does engine start? — YES → Visit Authorised Distributor/Dealer

↓ NO

SYSTEM IS OK

If your vehicle doesn't operate as described in above flow diagram, please visit your Authorised Distributor/Dealer.

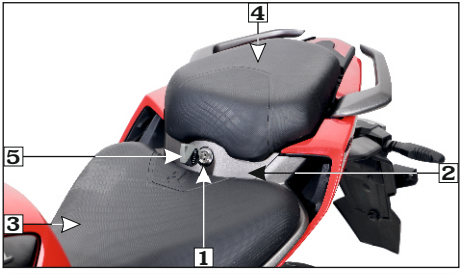
⚠ WARNING

Regularly inspect the functionality of "Side stand engine kill" feature and in case of any malfunction visit Authorised Distributor/Dealer.

SEAT LOCK

Location : Seat lock (1) is located on the seat lock panel (2) between rider seat (3) and pillion seat (4).

Operation: Insert the ignition key (5) into the seat lock and unlock by turning the key clockwise.



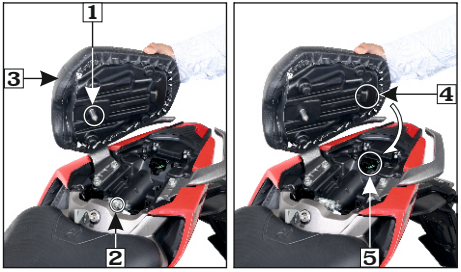
(1) Seat lock
(2) Seat lock panel
(3) Rider seat
(4) Pillion seat
(5) Ignition key

Removing pillion seat

- Unlock the seat as explained in seat lock operation.
- Release the seat lug (1) from the frame slot (2) and remove the pillion seat (3).

Installing pillion seat

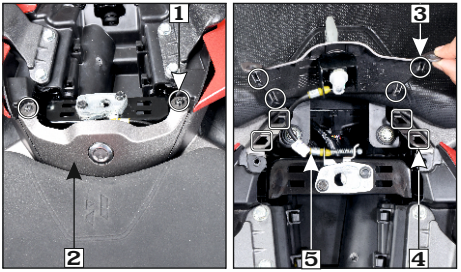
- To install the pillion seat, engage the seat tab (4) on the under side of the seat with the bracket (5) on the frame.
- Simultaneously, align the lug (1) into the slot (2) and press the top rear side of the seat until the seat gets locked.



(1) Lug (2) Slot (3) Pillion seat
(4) Tab (5) Bracket

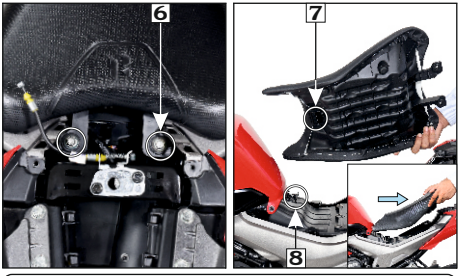
Removing rider seat

- Remove the pillion seat **(page 5-28).**
- Remove the screws (1) from the seat lock panel (2).
- Remove the seat lock panel by dislodging 4 tabs (3) from the slots (4).
- Disconnect the seat catch cable (5) from the seat lock.



(1) Screw (2) Seat lock panel (3) Tab
(4) Slot (5) Seat catch cable

- Remove the rider side mounting bolts (6).
- Dislodge the tab (7) from the slot (8) and remove the rider seat.



(6) Mounting bolt (7) Tab (8) Slot

Installation of rider seat is in reverse order of removal.

NOTE

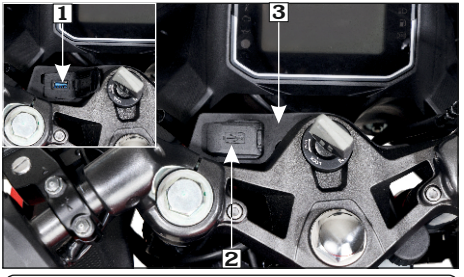
- ***Be careful not to damage the seat catch cable while removing the seat lock panel.***
- ***While installing the rider seat align the tab with the slot properly.***

USB CHARGER

A USB charger (1) with a cap (2) mounted on the USB charger stay (3) to charge your mobile phone safely while riding.

Use of non-standard USB cable may cause damage to the mobile phones.

To connect a mobile phone to the charger, first open the cap from the USB charger and then plug in the charger cable to it. Hero MotoCorp will not be responsible for damages caused due to use of non-standard USB cable.



(1) USB charger **(2) USB charger cap**
(3) USB charger stay

CAUTION

- ***Always place the device in a soft clean cloth/towel to avoid any damage due to road shocks while riding.***
- ***Multiple charging of USB devices have to be avoided, simultaneous charging may lead to slow or no charging.***
- ***USB port is for charging compatible USB devices.***
- ***Do not leave the USB device and USB cable in the vehicle when the vehicle is parked.***
- ***Charge your device when the engine is operational/while riding.***
- ***USB charger will not be covered under warranty in case of USB charger cap damage.***

NOTE

- ***Do not apply any soap solution, oil or grease inside the USB charger.***
- ***Any personal belongings have to be removed before water washing to avoid damage.***
- ***Always keep the USB port cap closed after use to prevent dust or water entry during rains/water wash.***
- ***Do not direct water jet towards the port even with cap closed to avoid any short circuit. Always dry the area using a dry cloth or moisture free compressed air before use.***
- ***The charging time of mobile may vary, depending on the mobile's battery state of the charge, mobile make and conditions.***

How To Ride Your Vehicle

06

Pre-ride inspection.....6-1

Starting the engine.....6-2

Riding.....6-4

Braking.....6-5

Parking.....6-7

HOW TO RIDE YOUR VEHICLE

PRE- RIDE INSPECTION

You should conduct pre ride inspection before riding the vehicle to enhance riding comfort and safety.

Clean your vehicle regularly. It protects the surface finish. Avoid cleaning with products that are not specifically designed for vehicle surfaces.

Inspect your vehicle every day before you start the engine. The items listed here will only take a few minutes, and in the long run they can save time, expense, and possibly your life.

Please follow the tips as given below:

- **Engine oil level-**Check and top up engine oil if required **(page 7-8).** Check for leaks.
- **Engine coolant level-**Check for correct coolant level in overflow tank **(page 7-12).**
- **Programmed FI malfunction indicator lamp (MIL)-**When the ignition switch is turned "ON" the programmed FI malfunction indicator lamp (MIL) glows continuously and then should go "OFF" once the engine is started.
- **Fuel level-**Ensure sufficient fuel is available in your fuel tank for journey. Check for leaks.
- **Low fuel indicator**-Vehicle should not be operated with low fuel indicator glowing continuously **(page 5-11)**.
- **Front brake-**Check for correct brake fluid level in master cylinder/reservoir **(page 7-22).**
- **ABS indicator-**Check ABS indicator for proper functioning of ABS **(page 5-26).**
- **Rear brake-**Check for correct brake fluid level in the reservoir **(page 7-23).**
- **Tyres-**Check condition and pressure **(page 7-28).**
- **Clutch-**Check for smooth operation. Adjust free play if necessary **(page 7-16).**
- **Drive chain-**Check condition and slackness **(page 7-18).** Lubricate if necessary.
- **Throttle-**Check for smooth opening and closing in all steering positions **(page 7-17).**
- **Lamps & Horn-**Check that headlamp, position lamps, tail/stop lamp, turn signal lamps, indicators and horn function properly.
- **Rear view mirror-**Ensure that the rear view mirror gives a good rear view when you are sitting on the vehicle.
- **Integrated start-kill switch-**Check for proper functionality **(page 5-22).**
- **Fitting & Fasteners-**Check & tighten if necessary.
- **Steering-**Check for smooth action and for easy maneuverability.
- **Side stand-**Check for proper functionality **(page 5-26).**

STARTING THE ENGINE

Always follow the proper starting procedure described below :

- To protect the catalytic converter in your vehicle's exhaust system.
  - Avoid extended idling.
  - Avoid use of leaded petrol.
- Your vehicle's exhaust contains poisonous carbon monoxide gas. High levels of carbon monoxide can collect rapidly in enclosed areas such as garage. Do not run the engine with the garage door closed.

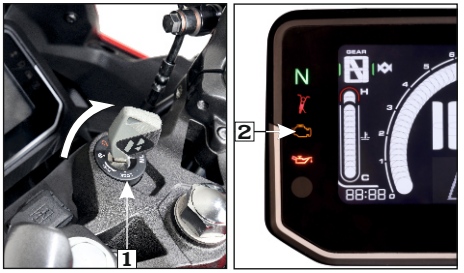
! CAUTION

- ***Never hold electric starter (⟲) of integrated start-kill switch continuously more than 5 seconds as continuous cranking of engine will discharge the battery.***
- ***This vehicle is equipped with a side stand engine kill feature (page 5-26).***

Preparation

Before starting insert the key and follow the below mentioned procedure :

- Turn the ignition switch (1) to "ON".
- Confirm that the programmed FI malfunction indicator lamp (MIL) (2) glows continuously and then should go "OFF" once the engine is started.

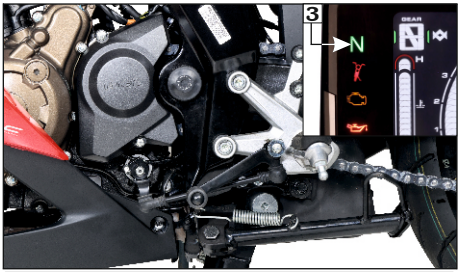


(1) Ignition switch
(2) Malfunction indicator lamp (MIL)

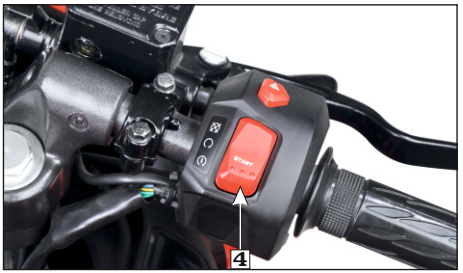
NOTE

If MIL remains "ON" even if the vehicle is started, there is an abnormality in the programmed FI system. It is recommended to reduce the speed and ride to the Authorised **Distributor/Dealer** ***for check-up.***

- Find neutral position & check neutral (N) indicator (3) on instrument console with ignition "ON".
- Make sure that the integrated start-kill switch (4) is at engine "ON" (⟲) position.



(3) Neutral indicator



(4) Integrated start-kill switch

Press the electric starter (⟲) of integrated start-kill switch with fully closed throttle.

! CAUTION

- ***Do not open excessive throttle when engine is idling and the vehicle is parked, as it may lead to overheating and damage to engine and exhaust system components.***
- ***Running the engine at idle for more than 3 minutes may also result in engine overheating.***

Starting procedure

At any ambient temperature, Press the electric starter (⟲) of integrated start-kill switch with the throttle completely closed.

NOTE

- ***This vehicle has a fuel-injected engine with an idle air control valve (IACV).***
- ***It is not recommended to start engine with throttle.***
- ***Engine will not start if throttle is kept fully open as Electronic Control Unit (ECU) cuts-off the fuel supply for internal components safety.***

Flooded engine

If the engine fails to start after repeated attempts, it may be flooded with excess fuel.

1. Open the throttle fully.
2. Press the electric starter (⟲) of integrated start-kill switch for 5 seconds.
3. Follow the normal starting procedure.
4. If the engine starts with unstable idle, open the throttle slightly.
5. If the engine does not start wait for 10 seconds, then follow first 3 steps again.

Ignition cut off

Your vehicle is designed to automatically stop the engine & fuel pump, if vehicle falls down. (Bank angle sensor cuts off the ignition).

NOTE

If the vehicle has fallen down, before restarting the engine you must turn the ignition switch to "OFF" (⊗) position and then back to "ON" (⊙) position.

Running in

Help assure your vehicle's future reliability and performance by paying extra attention to how you ride during the first 500 km.

During this period, avoid full-throttle and rapid acceleration.

NOTE

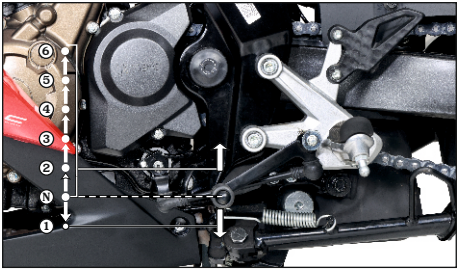
- ***To start the engine, if any gear is engaged, press the clutch lever and press the integrated start-kill switch.***
- ***Do not open the throttle during starting the vehicle.***

WARNING

Never run the engine in a closed area as the exhaust contains poisonous gases.

RIDING

- Excessive revving the engine during cold condition can reduce engine life.
- While the engine is idling, press the clutch lever and depress the gearshift pedal downwards using the toe to shift into 1st gear.
- Slowly release the clutch lever and at the same time, gradually increase engine speed by opening the throttle. Coordination of the throttle and clutch lever will assure a smooth positive start.
- When the vehicle attains a moderate speed, close the throttle, press the clutch lever and shift to 2nd gear by placing the toe on the underside of gear pedal and lift upwards.
- This sequence is repeated progressively to shift to 3rd, 4th, 5thand 6th gear.



CAUTION

Do not shift gears without operation of clutch and without closing the throttle otherwise this would lead to damage of gears.

BRAKING

Anti-lock braking system (ABS)

This model is equipped with a Dual-channel ABS which enhances active safety by helping to prevent both the wheels from locking during braking.

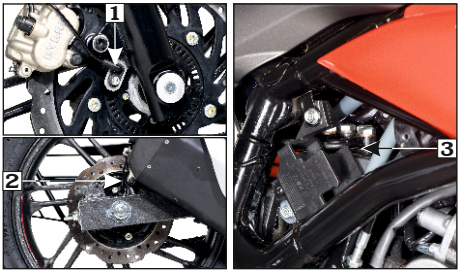
ABS is designed to meet two essential requirements during every brake application:

- To help provide vehicle stability.
- To help maintain steering control and maneuverability–on road surfaces.

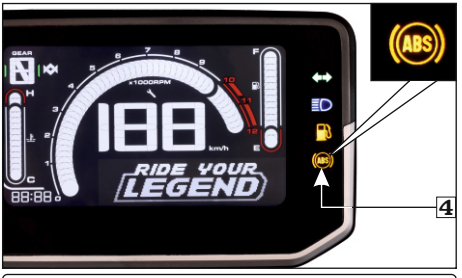
The ABS system is self-regulating and always active once vehicle speed exceeds 5 km/h provided ABS indicator lamp is "OFF" on the meter console.

- The ABS controller acts on the basis of the comparative speeds of the wheels. The use of non-approved tyres can affect the speed of the wheels and supply incorrect information to the ABS computer.

The system has a wheel speed sensor on both the wheels, a hydraulic electronic control unit (HECU) (3), and an ABS indicator lamp (4) on meter console.



(1) Wheel speed sensor (Front wheel)
(2) Wheel speed sensor (Rear wheel)
(3) Hydraulic electronic control unit (HECU)



(4) ABS indicator

Whenever you ride your vehicle, **Wheel speed sensor** generates the rotation of wheel signal to **Hydraulic electronic control unit (HECU)**. Then HECU calculates the speed of the wheel & vehicle, HECU becomes active when vehicle speed exceeds 5km/h.

Now whenever you will apply front or rear brake, ABS will come into picture based on the input from respective wheel speed sensor, if wheel is getting locked, HECU will modulate the pressure at respective caliper thus avoiding wheel to lock and in turn resulting in safe stop of the vehicle.

Do's and Dont's

Do's

- Check your brake pads and be sure you have clean brake fluid. ABS systems can also fail due to worn brake pads or air or dirt in brake fluid.
- Use the recommended brake fluid.
- Rider is recommended not to ride at high speed when the brakes get wet. If brake gets wet, apply the brake while riding at low speed until the brakes are dry.
- It is recommended that ABS should be serviced at Authorised Distributor/Dealer.
- Read your owner's manual for additional riding instructions.
- Carefully remove the wheel during the puncture/tyre replacement to prevent the Sensor ring damage/bend.
- Use only the recommended make, type, size of tyre and maintain specified tyre pressure **(page 7-29).**
- Keep checking speedometer. In case of ABS malfunction, speed display may go to zero.
- Always maintain sufficient distance from the objects/vehicles ahead, for proper braking and to match riding speed.
- On certain surfaces, such as rough road or gravel road, brake lever may have hard/ pulsating feel. Apply full braking on the lever even on the hard or pulsating feel of the lever to get the optimum performance.
- In case of ABS malfunction, the brake system will work as conventional (Non-ABS) brake. Rider is recommended not to apply hard brake to prevent wheel lock and visit Authorised Distributor/Dealer.

Don't's

- Don't panic by mechanical noises or slight lever pulses while applying the brake (whenever ABS actuates) in vehicle. These conditions are normal and indicates that ABS is working.
- Don't apply the hard braking in wet or rainy conditions and while taking a turn.
- Do not adjust the wheel speed sensor air gap by yourself.
- Do not attempt to correct the encoder teeth by bending manually or by using any other mode. Do not use a different encoder teeth.

- Do not insert any metallic part near wheel speed sensor.
- Don't try to service HECU or open to separate the parts.
- Don't use the non-genuine spares like pads, discs, tyres etc.

NOTE

- ***ABS may get activated without brake application while riding on uneven road surfaces (sharp drop or rise on the road level). This is normal functioning of ABS and won't be having any impact on performance.***
- ***ABS may not work if the battery is discharged.***
- ***ABS operation is also affected by road conditions, vehicle handling and brake operation. It is the rider's responsibility to ride at reasonable speed and to leave a margin of safety.***
- ***ABS consists of an electric motor, from which sound can be heard.***

WARNING

During extreme riding conditons, sometimes it is not possible to balance the vehicle (example- luggage loaded with higher center of gravity, varying road surfaces, hard braking without disengaging the gear).

Adapt your riding style to the road conditions and your riding ability as well.

PARKING

After stopping the vehicle, shift the transmission to neutral, turn the ignition switch "OFF" (⊠), park the vehicle on main stand, lock the steering and remove the key.

CAUTION

- ***Park the vehicle on firm level ground to prevent overturning.***
- ***While parking on side stand engage the first gear.***

Periodic Maintenance

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PERIODIC MAINTENANCE

MAINTENANCE

The importance of maintenance

A well-maintained vehicle is essential for safe economical and trouble-free riding. It will also help reduce pollution.

To help you, take proper care of your vehicle, the following pages include a maintenance schedule and a maintenance record for regular scheduled maintenance.

These instructions are based on the assumption that the vehicle will be used exclusively for its designed purpose. Sustained high speed operation or operation in unusually wet or dusty conditions will require more frequent service than specified in the maintenance schedule. Consult your Authorised Distributor/Dealer for recommendation applicable to your individual needs and use. If your vehicle overturns or is involved in a crash, be sure that you visit your Authorised Distributor/Dealer for detailed inspections.

⚠ WARNING

- ***Improperly maintaining this vehicle or failing to correct a problem before you ride can cause a crash in which you can be seriously hurt or killed.***
- ***Always follow the inspection and maintenance recommendations and schedules in this owner's manual.***

Maintenance safety

This section includes instructions on some important maintenance tasks. You can perform some of these tasks with the tools provided (if you have basic mechanical skills).

Other tasks that are more difficult and require special tools are best performed by professionals. It is recommended that wheel removal should normally be handled by Authorised Distributor/Dealer.

You will come across some of the most important safety precautions in the following pages of this manual.

However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

⚠ WARNING

- ***Failure to follow maintenance instructions and precautions properly can seriously injure you.***
- ***Always follow the procedures and precautions in this owner's manual.***

CLEANING AND WASHING OF VEHICLE

Follow the below mentioned steps for washing the vehicle.

- Wet the vehicle with light water spray. Avoid directing high pressure water spray to meter console, muffler outlets, electrical parts and radiator.

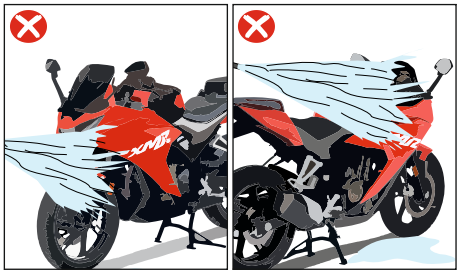
- Clean the headlamp lens and other plastic parts using a cloth or sponge dampened with a solution of mild detergent and water.
- After cleaning spray water thoroughly.
- Dry the vehicle by wiping with dry soft cloth.

NOTE

- ***Our Authorised dealerships take all above mentioned precautions like usage of recommended detergents to ensure quality wash.***
- ***While washing the vehicle, it is recommended to take necessary precautions to avoid damage to the radiator fins and water entry into muffler.***

WARNING

Avoid direct high pressure water spray on any electrical, electronic components and radiator.



SAFETY PRECAUTIONS

- Make sure the engine is "OFF" before you begin any maintenance or repair. This will help to eliminate several potential hazards:
  - **Carbon monoxide poisoning from engine exhaust.**
    Be sure there is adequate ventilation whenever you operate the engine.
  - **Burns from hot parts.**
    Let the engine and exhaust system cool before touching.
  - **Injury from moving parts.**
    Do not run the engine unless instructed to do so.
- Read the instruction before you begin and make sure you have the tools and skills required.
- To help prevent the vehicle from falling over, park it on a firm, level surface on the main stand.
- To reduce the possibility of a fire or explosion, be careful when working around petrol or batteries. Use only nonflammable solvent, not petrol, to clean parts. Keep cigarettes, sparks and flames away from the battery and all fuel-related parts.

Remember that your Authorised Distributor/Dealer knows your vehicle best and is fully equipped to maintain and repair it.
To ensure best quality and reliability, it is recommended to use Hero MotoCorp genuine parts for repair and replacement.

MAINTENANCE SCHEDULE

Perform the pre-ride inspection **(page 6-1)** at each scheduled maintenance period.

I: INSPECT C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE T: TOP UP E: EMISSION CHECK

The following maintenance schedule specifies all maintenance required to keep your vehicle in peak operating condition. Maintenance work should be performed in accordance with standards and specifications of Hero MotoCorp by properly trained and equipped technicians. Your Authorised Distributor/Dealer meets all of these requirements.

Ensure that each paid service is availed within **180** days or **6000** km from the date of previous service, whichever is earlier.



To be serviced by your Authorised Distributor/Dealer unless the owner has the relevant tools, technical information and is technically qualified.



In the interest of safety, we recommend that these jobs are carried out only by your Authorised Distributor/Dealer.

Note-1 : At higher odometer readings, repeat the frequency interval established here.

Note-2 : Service more frequently if the vehicle is ridden in unusually wet or dusty areas.

Note-3 : Inspect, adjust the spark plug and replace in every 12000 km.

Note-4 : Inspect and adjust in every 12000 km.

Note-5 : Replace engine oil at 1st service and in every 12000 km. Top up if the oil level is at or near the lower level mark.

Note-6 : Visit Authorised Distributor/Dealer for inspection, cleaning, lubrication and adjustment of drive chain at every 1000 km.

Note-7 : Replace brake fluid once in every two years or 30000 km, whichever is earlier.

Note-8 : Inspect & maintain specified torque.

Note-9 : Inspect the wheel bearings free play, replace if necessary.

Note-10 : Inspect, replace if necessary/damaged. Replace the tyre as per tread wear indicator (TWI).

Note-11 : Replace front fork oil once in a every 2 years or 30000 km, whichever is earlier.

Note-12 : Inspect rear suspension mounting bushes play, replace rear shock absorber if necessary.

Note-13 : Check CO emission at idle.

Note-14 : Inspect the canister hoses for deterioration, damage or loose connections and canister for cracks or other damages.

Note-15 : Replace the radiator coolant in every 2 year or 24000 km, whichever is earlier. Inspect and top up Hero pre-mix coolant if required (50:50 ratio).

Note

- Service more frequently if the vehicle is ridden in wet or dusty areas.
- Service more frequently if the vehicle is ridden in rain or at full throttle.
- Always wipe the water from the vehicle after washing. Use clean soft cloth or pressurized air for completely drying the water.
- Always replace gaskets, O-rings, circlips and cotter pins with new one once removed.

MAINTENANCE SCHEDULE

Dear Customer,

We would strongly recommend the following schedule, to keep your vehicle in perfect running condition and healthy environment. Vehicle subjected to severe use or ridden in dusty area will require more frequent servicing.

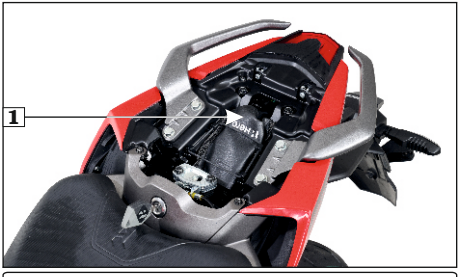
	ITEMS	SERVICE	1st	2nd	3rd	4th	5th	6th
		DAYS	1st 60	Next 180	Next 180	Next 180	Next 180	Next 180
		KM Note-1	500-750	6000-6500	12000-12500	18000-18500	24000-24500	30000-30500
	Fuel Line		I	I	I	I	I	I
	Throttle Operation		I, A	I, A	I, A	I, A	I, A	I, A
	Air Cleaner Element	Note-2	C	C	R	C	R	C
	Spark Plug	Note-3	I, C, A	I, C, A	R	I,C,A	R	I,C,A
	Valve Clearance	Note-4	I,A	-	I, A	-	I, A	-
	Engine Oil	Note-5	R	I, T	R	I,T	R	I,T
	Engine Oil Filter		R	-	R	-	R	-
	Radiator and Hoses		I	I	I	I	I	I
	Electric Starter		-	I	I	I	I	I
	Oil Pressure Indicator		I	I	I	I	I	I
	Drive Chain	Note-6	I, C, L, A at every 1000 km			I, C, L, A at every 1000 km		
	Drive Chain Slider		-	I	I	I	I	I
	Battery Voltage		I	I	I	I	I	I
	Brake Pad Wear		I	I	I	I	I	I
	Brake System & Brake Pedal		-	C, L	C, L	C, L	C, L	C, L
	Brake Fluid	Note-7	-	I	I	I	I	R

ITEMS		SERVICE	1st	2nd	3rd	4th	5th	6th
		DAYS	1st 60	Next 180	Next 180	Next 180	Next 180	Next 180
		KM Note-1	500-750	6000-6500	12000-12500	18000-18500	24000-24500	30000-30500
	Stop Lamp Switch		I	I	I	I	I	I
	Headlamp Focus		I	I	I	I	I	I
	Clutch Lever Free Play		I,A	I,A	I,A	I,A	I,A	I,A
	Side Stand		L	L	L	L	L	L
	Main Stand (Optional)		L	L	L	L	L	L
	Side Stand Switch		I	I	I	I	I	I
	Nut, Bolts, Fasteners & Grommets	Note-8	I	I	I	I	I	I
	Wheel Bearings and Flange Bearing	Note-9	I	I	I	I	I	I
	Wheels/Tyres	Note-10	I	I	I	I	I	I
	Steering Head Bearing		I,A	I,A	I,L,A	I,A	I,L,A	I,A
	Front Suspension/Oil	Note-11	I	I	I	I	I	R
	Rear Suspension	Note-12	I	I	I	I	I	I
	Muffler (Catalytic Converter)	Note-13	-	I,E	I,E	I,E	I,E	I,E
	Evaporative Emission Control System	Note-14	I	I	I	I	I	I
	Rear Wheel Damper		I	I	I	I	I	I
	Radiator Coolant	Note-15	Replacement every 2 year or 24000 km, whichever is earlier					
	Cooling System		I	I	I	I	I	I
	Fuel Filter (External)		-	-	R	-	R	-
	Radiator Fins and Heat Shield		I	I	I	I	I	I

TOOL KIT

The tool kit is located below the pillion seat. Some emergency repairs, minor adjustment and parts replacement can be performed with the tools contained in the kit.
Kit consists of following tool:

- Tool bag-1 No.
- +, - No.2 Driver-1 No.
- Grip-1 No.
- Eye wrench 24 mm-1 No.
- Handle pin spanner-1 No.
- Pin spanner-1 No.
- Allen key 10 mm-1 No.
- Allen key 6 mm-1 No.
- Hand wrench spark plug-1 No.

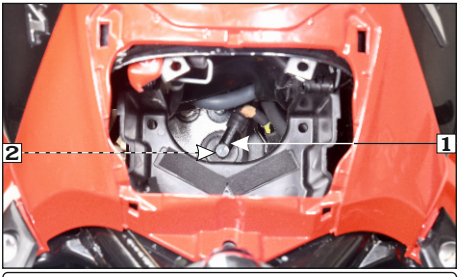


(1) Tool kit

SPARK PLUG INSPECTION

Recommended plug:
BOSCH-VR5NEU
For most riding conditions this spark plug heat range number is satisfactory.

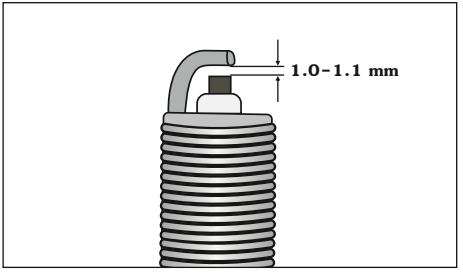
- Remove the battery **(page 7-33).**
- Clean dirt around the spark plug base.
- Disconnect the noise suppressor cap (1) and remove the spark plug (2) with the help of hand wrench spark plug provided in the tool bag.



(1) Noise suppressor cap **(2) Spark plug**

- Visually inspect the spark plug electrodes for wear. The center electrode should have square edges and the side electrode should not be eroded. Discard the spark plug if there is apparent wear or if the insulator is cracked or chipped.

- Make sure that the spark plug gap is **1.0-1.1 mm** using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode carefully. Make sure the plug washer is in good conditions.



- With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.
- Tighten a new spark plug 1/2 turn after the plug seats, with a hand wrench spark plug to compress the washer. If you are reusing a plug, it should only take 1/8-1/4 turn after the plug seats.
- Reinstall the battery in the reverse order of removal. Be sure to connect the battery (+) ve terminal first, then the (-) ve terminal.

! CAUTION

- ***Do not remove the spark plug and test for spark on the vehicle by cranking the engine as this could lead to fire or explosion***
- ***Never use a spark plug with improper heat range.***
- ***Install a dummy spark plug in the cylinder head and test for spark.***
- ***Always use resistor type spark plug.***
- ***Loose rubber sleeve may lead to fitment and misfiring issue.***

ENGINE OIL

Use hero genuine engine oil or recommended grade oil.

BRAND: Hero Xotic+

GRADE: SAE 10W 30 SL MA2 fully synthetic PAO based oil.

Manufactured by:

Indian Oil Corporation Limited.

OIL CAPACITY :

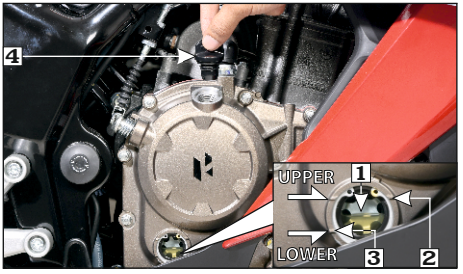
1650 ml (at disassembly)

1250 ml (at draining)

Engine oil level inspection/
Top up process

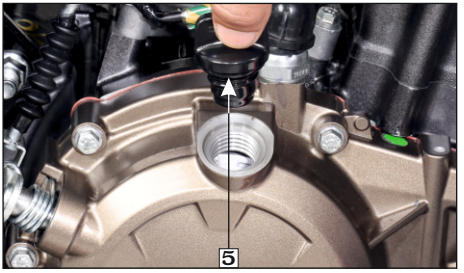
Check engine oil level each day before operating the vehicle. The oil level window (1) is on the right crankcase cover for measuring oil level. Oil level must be maintained between the upper (2) and lower (3) level marks on the oil level window.

- Add the specified oil by removing the oil filler cap (4) and filling till the upper level mark (2). Do not overfill.



(1) Oil level window **(2) Upper level mark**
(3) Lower level mark **(4) Oil filler cap**

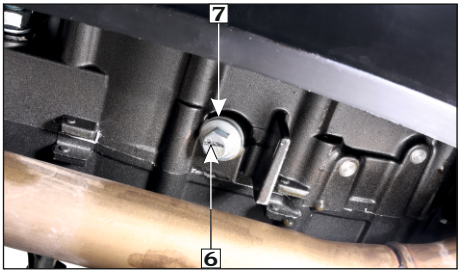
- Do top up if oil level reaches towards the lower level mark or every 6000 km whichever is earlier.
- Park the vehicle on its main stand.
- Start the engine & let it idle for 3-5 minutes.
- Stop the engine and wait for 2-3 minutes.
- Check the oil level in the oil level window.
- If required, add the specified oil up to the upper level mark. Do not overfill.
- Reinstall oil filler cap with new O-ring (5) and check for oil leaks.



(5) O-ring

Engine oil replacement

- Start the engine, warm it up for several minutes and then turn it off.
- Wait a few minutes until the oil settles down.
- To drain the oil, remove the oil filler cap, drain bolt (6) and sealing washer (7).



(6) Drain bolt (7) Sealing washer

- After the oil is completely drained, reinstall the drain bolt (6) with a new sealing washer (7).
- Fill the crankcase through the oil filler hole with 1250 ml (approximately) of the recommended grade oil as the right crankcase cover is not removed.
- Reinstall the oil level filler cap with a new O-ring.
- Start the engine and allow it to idle for few minutes.
- Stop the engine and let the engine oil settle down.
- Recheck the oil level.
- Make sure that oil level is at the "UPPER" level mark of the oil level window with the vehicle in an upright position and that there are no oil leaks.

! CAUTION

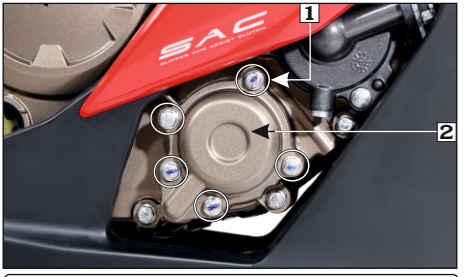
- ***Engine oil is a major factor affecting the performance and service life of the engine. Non-detergent, vegetable or castor based racing oils are not recommended.***
- ***Running the engine with insufficient oil can cause serious engine damage.***
- ***Running the engine with excessive oil can cause spark plug fouling & loss in performance.***

ENGINE OIL FILTER ELEMENT

NOTE

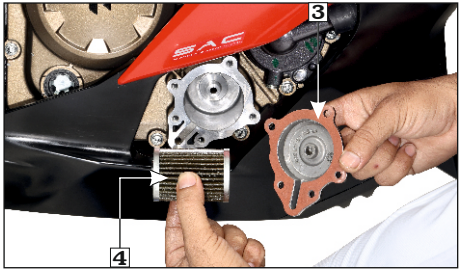
Drain the engine oil thoroughly (page 7-8) in case of engine oil filter element replacement.

- Remove the five mounting bolts (1).
- Remove the engine oil filter element cover (2) with gasket (3).



(1) Mounting bolts
(2) Engine oil filter element cover

- Remove the engine oil filter element (4) from the cover.



(3) Gasket (4) Engine oil filter element

- Replace the engine oil filter element (4).



(4) Engine oil filter element

NOTE

- ***When the engine oil filter element replaced always replace the gasket with the new one.***
- ***Make sure that gasket is properly seated.***

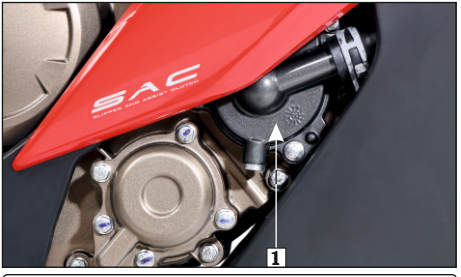
- ***Apply engine oil on engine oil filter element before installation.***
- ***Inspect and replace engine oil filter element as specified in the maintenance schedule.***

- Installation is in the reverse order of removal.

COOLING SYSTEM

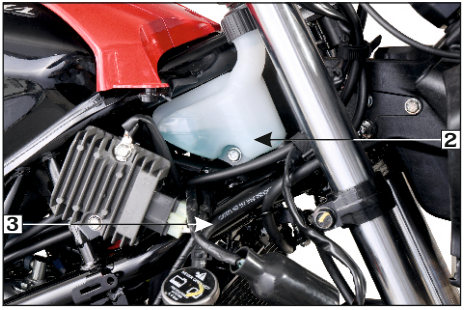
This model is equipped with liquid cooling system that uses coolant to cool the engine.

- Water pump (1) in the engine ensures the circulation of the coolant in the cooling system.
- While flowing through radiator, coolant is cooled by air stream and radiator fan.



(1) Water pump

- As the coolant temperature raises, high pressure coolant is released from radiator to overflow bottle (2) through overflow bottle hose (3).
- When the temperature reduces, this surplus coolant is sucked back into the radiator through the overflow bottle hose.



(2) Overflow bottle **(3) Overflow bottle hose**

NOTE

- ***Radiator fan is turned "ON" or "OFF" as per the engine coolant temperature.***
- ***When engine temperature is 95°C or more, then radiator fan will be turned on and will be turned off when it cools down to 90°C or below.***
- ***During the fan working condition, if the ignition key is turned off, then the fan may still be on for 10-20 seconds depending upon the engine temperature.***

CAUTION

- ***Ensure that adequate care should be taken while removing the engine radiator hose to avoid any damage or leakage.***
- ***No hard objects to be used for cleaning the engine radiator, otherwise the fins will get damaged.***
- ***High pressure washing of the radiator is not recommended as it may damage the fins, any physical contact with fins is to be avoided.***
- ***During vehicle operation, coolant gets very hot and is under high pressure. Allow the engine and cooling system to cool down. Do not open any cooling system components as high pressure coolant can come out and causes injuries.***
- ***On scalding, rinse it immediately with lukewarm water.***
- ***Avoid keeping any cloth or flammable object between hot parts (muffler, radiator, engine) and fairing.***
- ***Do not obstruct engine cooling by adding mud protection sheet from front.***

Coolant

Use recommended genuine Hero pre-mix coolant.

Coolant : 50:50 ratio Hero pre-mix.

Manufactured by:
Savita Oil Technologies Limited
Indian Oil Corporation Limited

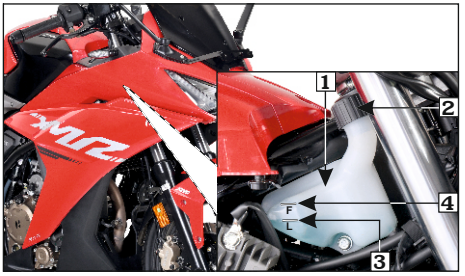
COOLANT CAPACITY :

Total coolant capacity : 1000 ml
Coolant capacity in :
a) Radiator & engine : 800 ml
b) Overflow tank : 200 ml

Rider should check the coolant level in the overflow bottle (1) before every ride. The coolant level must be between "F" (4) and "L" (3) level mark.

Coolant Top-up

- Place the vehicle on a leveled surface and hold it in the upright position.
- Ensure coolant level in the overflow bottle is between "L" (low level) and "F" (full level) mark.
- If the coolant is at or below the "L" mark (3), remove the overflow bottle cap (2).
- Add coolant up to the "F" (full level) mark (4) through the overflow bottle cap and then install the cap.



(1) Overflow bottle (2) Overflow bottle cap
(3) Coolant low level (L) mark
(4) Coolant full level (F) mark

NOTE

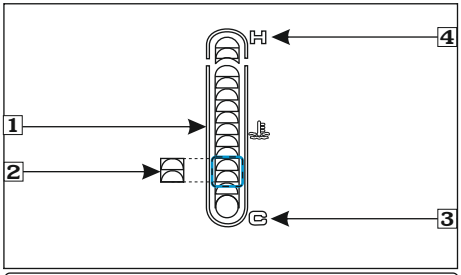
Make sure the cooling system is filled with a genuine Hero pre-mix coolant.

WARNING

- ***Coolant is poisonous so, keep coolant out of reach of children.***
- ***Avoid contact between coolant and skin, eyes or clothing. Clean the contaminated areas on the skin with soap and water immediately.***
- ***If coolant is swallowed, contact a doctor as soon as possible.***
- ***Always wear nitrile rubber hand gloves while coolant draining and top- up.***
- ***If coolant gets into eyes, rinse immediately with water and consult a doctor.***
- ***Ensure coolant top-up is done through overflow tank only. Do not top-up through radiator.***

Engine coolant temperature indicator

Coolant temperature indicator (1) indicates the coolant temperature.



(1) Engine coolant temperature indicator
(2) Segment (3) Cold (4) Hot

Engine coolant temperature indicator consists of 7 segment. The digital segments (2) will swing to maximum scale on the meter console once the ignition switch is turned "ON" (🔑) and comes back as per the engine coolant temperature.

Coolant will be more hotter as more segments light-up.

- If 2 segments are displayed, this indicates engine is cold "C" (3).
- 3-6 segment light-on indicates, engine is warm.
- 7 segment light-on indicates, engine is hot "H" (4).

⚠ WARNING

Riding the vehicle with very high engine coolant temperature may cause serious damage to engine components :

- ***Once coolant temperature indicator reaches 6 segment, system will not allow vehicle to go beyond 6000 rpm.***

  If vehicle is still running, engine will be cut-off and MIL will be on.

  In that case, it is recommended to stop the vehicle and wait for some time until the engine cools down and then restart the vehicle again.

  If the following problems reoccur, then stop the vehicle and immediately contact an Authorized Distributor/Dealer:
  - ***MIL is still on.***
  - ***The vehicle does not start.***
  - ***The coolant temperature rises quickly.***
- ***It is recommended to immediately contact an Authorized Distributor/Dealer as soon as the coolant temperature indicator reaches 6 segments.***

AIR CLEANER

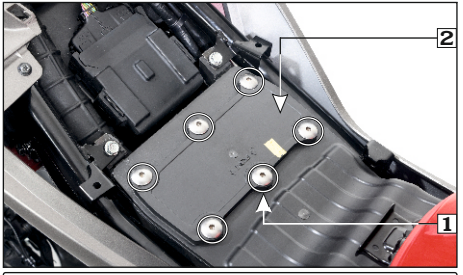
Air cleaner element inspection

Refer to the safety precautions **(page 7-2).**

The air cleaner element is of dry paper pleated type, it should be serviced at specified intervals **(page 7-4).**

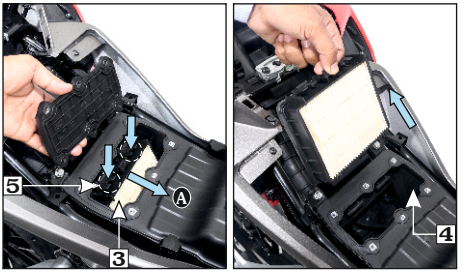
Service more frequently when riding in unusually wet or dusty areas.

- Remove the pillion and rider seat **(page 5-28).**
- Remove the air cleaner cover screws (1) and cover (2).



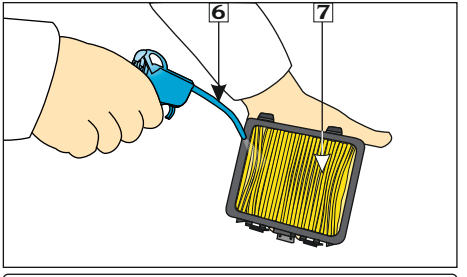
(1) Air cleaner cover screws
(2) Air cleaner cover

- Press the air cleaner element lock (5) downwards and simultaneously push the air cleaner element (3) towards direction (A).
- Once the air cleaner element is free from the lock, pull it outside housing (4).



(3) Air cleaner element **(4) Air cleaner housing**
(5) Air cleaner element lock

- Air cleaner element cleaning
  - Clean the element by tapping it gently to loosen dust.
  - Blow away the remaining dust by forcing compressed moisture-free air using an air nozzle (6) from the housing side (7) of the air cleaner.
  - Replace the air cleaner element if it is excessively dirty, torn or damaged.

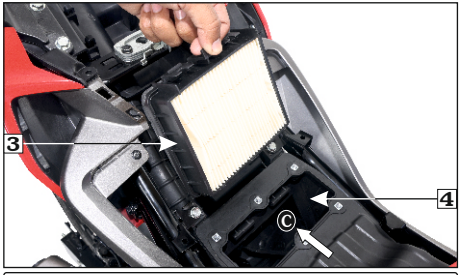


(6) Air nozzle **(7) Housing side**

CAUTION

- ***Never wash the air cleaner element. Only blow air in the air cleaner element for cleaning dust, as explained. Replace air cleaner element once in every 12000 km.***
- ***Replace it earlier if it becomes very dirty, damaged on surface or on the sealing area.***

- Clean the air cleaner housing using a shop towel.
- Install the new air cleaner element (3) inside the air cleaner housing (4) and keep pressing towards direction (C) until a click sound comes.
- Install the air cleaner element cover.
- Install the rider and pillion seat **(page 5-29)**.



(3) Air cleaner element **(4) Air cleaner housing**

CAUTION

Make sure that the air cleaner element is properly locked inside the air cleaner housing after cleaning/replacement.

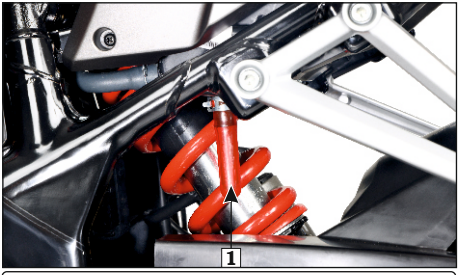
NOTE

Align the tabs of air cleaner cover before installing screws & the cover.

Air cleaner drain tube cleaning

Remove the drain tube (1) and drain the deposit into a container.

Follow the above process more frequently when riding in rain or at full throttle.



(1) Drain tube

NOTE

Always ensure to reinstall the drain tube after draining the deposit.

VALVE CLEARANCE

Engine valve clearance changes with use, which may result in improper air-fuel mixture and /or engine noise. To prevent this, the valve clearance must be adjusted at Authorised Distributor/Dealer at the intervals specified in the maintenance schedule **(page 7-4).**

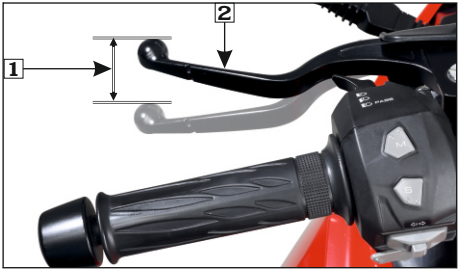
CLUTCH

This vehicle is equipped with a **Slip and Assist Clutch** which minimizes the effect of rapid gear down-shifting. During a rapid down-shift, it allows a controlled clutch slippage to prevent rear wheel locking and engine damage.

Clutch lever free play adjustment

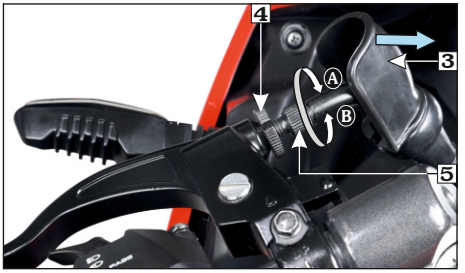
Clutch adjustment may be required if the vehicle stalls when shifting into gear or tends to creep or if the clutch slips, causing acceleration to lag behind engine speed.

Normal clutch lever free play (1) is 10-15 mm at the lever (2).



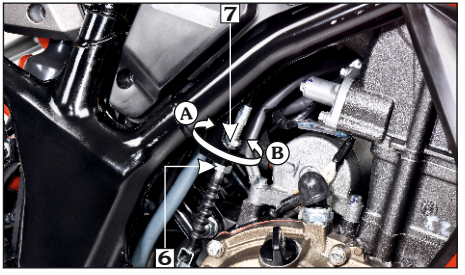
(1) Free play: 10-15 mm **(2) Clutch lever**

- To adjust the free play at the clutch lever end, slide the boot (3) backwards and then loosen the lock nut (4). Turn the adjuster (5) towards direction "A" or "B" to adjust free play. After adjustment, tighten the lock nut and slide the boot on the adjuster and lock nut securely.



(3) Boot **(4) Lock nut** **(5) Adjuster**
(A) Increase free play **(B) Decrease free play**

- To adjust the free play at engine end, loosen the lock nut (6). Turn the adjusting nut (7) towards direction "A" or "B" to obtain the specified free play. Tighten the lock nut and check the adjustment.



(6) Lock nut **(7) Clutch cable adjusting nut**
(A) Decrease free play **(B) Increase free play**

- Start the engine, press the clutch lever and shift into gear. Make sure the engine does not stall, and the vehicle does not travel. Gradually release the clutch lever and open the throttle. The vehicle should start smoothly and accelerate.

NOTE

- ***Perform clutch lever free play adjustment at engine end, if the specified clutch lever play is not obtained at lever end.***
- ***If proper adjustment cannot be obtained or the clutch does not work correctly, visit your Authorised Distributor/Dealer.***

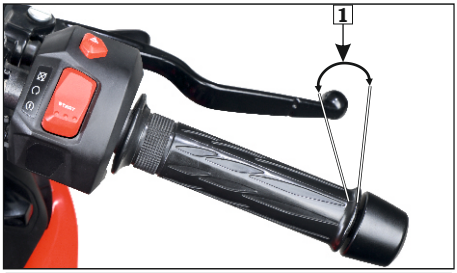
Other checks

- Check the clutch cable for kinks or signs of wear that could cause sticking or failure.
- Check for clutch cable model. Use genuine clutch cables.
- Check for clutch cable routing.

THROTTLE OPERATION

Cable inspection

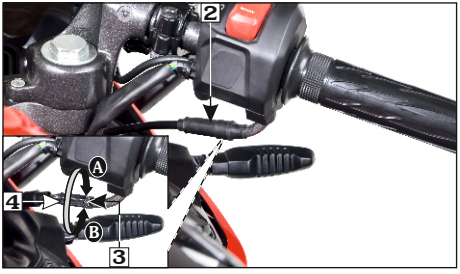
Check for smooth rotation of the throttle grip from the fully open to the fully closed position. Check at full left and full right steering positions. Inspect the condition of the throttle cable from the throttle grip down to the throttle body. If the cable is kinked, chafed or improperly routed, it should be replaced or rerouted. Standard throttle grip free play (1) is approximately 2-6 mm of the grip rotation.



(1) Free play 2-6 mm

Free play adjustment

To adjust the free play, slide the boot (2), then loosen the lock nut (3). Turn the adjuster (4) towards direction "A" or "B" to adjust free play. After adjustment, tighten the lock nut and slide the boot on the adjuster and lock nut securely.



(2) Boot (3) Lock nut (4) Adjuster
(A) Decrease free play (B) Increase free play

DRIVE CHAIN SLACKNESS

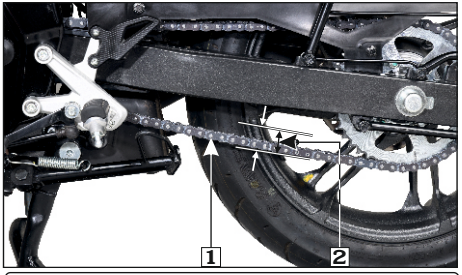
The service life of the drive chain depends upon proper lubrication and adjustment.

Poor maintenance can cause premature wear or damage to the drive chain and sprockets.

The drive chain (1) should be checked and lubricated as part of the pre-ride inspection **(page 6-1).** Under severe usage, or when the vehicle is ridden in unusually dusty areas, more frequent maintenance will be necessary.

Inspection

- Turn the engine "OFF", park the vehicle on its main stand and shift the transmission to neutral.
- Drive chain slack (2) should be checked in the lower run midway between the sprockets. Move the drive chain up and down by hand and chain slack should be adjusted to 20-25 mm vertical movement by hand.



(1) Drive chain
(2) Drive chain slack: 20-25 mm

NOTE

Drive chain slack should be adjusted at your Authorised Distributor/Dealer as per the specification.

- Rotate the rear wheel slowly and inspect the drive chain and sprockets for any of the following conditions.

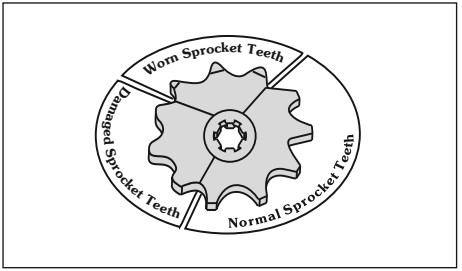
- **Drive chain**
- Damaged rollers
- Loose pins
- Dry or rusted links
- Kinked or binding links
- Excessive wear
- Improper adjustment
- Damaged or missing O-rings.

Sprockets

- Excessively worn teeth
- Broken or damaged teeth.
- If the drive chain has damaged rollers, loose links or missing O-rings, replace it. If the chain is dry or rusted, it should be lubricated.

Lubricate the chain if the links are kinked or binding. If the problem is not solved after lubrication, replace the chain.

If the drive chain or sprockets are excessively worn or damaged, they should be replaced.



! CAUTION

Always replace the drive chain and sprockets as a set. Otherwise the new part will wear prematurely.

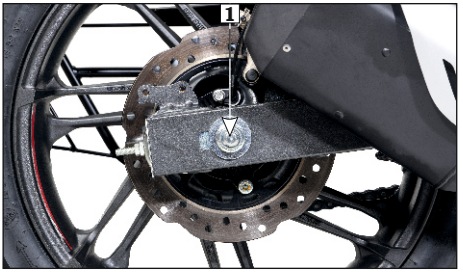
Adjustment

Drive chain slack should be checked and adjusted, if necessary at every 1000 km.

When operated at sustained high speeds or under conditions of frequent rapid acceleration, the chain may require more frequent adjustments.

If the drive chain requires adjustment, follow the procedures below:

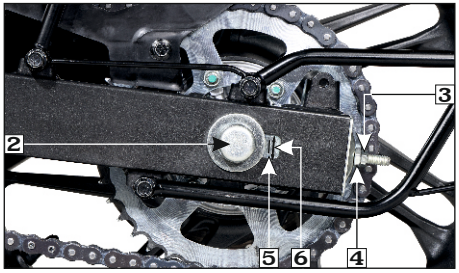
- Park the vehicle on its main stand with the transmission in neutral and the ignition switch in "OFF" position.
- Loosen the rear axle nut (1).



(1) Rear axle nut

- Loosen the drive chain lock nut (3) from both side.
- Turn the adjusting nut (4) in an equal number of turns until the correct drive chain slack is obtained. Turn the adjusting nut clockwise to decrease the slack or anticlockwise to increase the slack of the chain.
- Align the chain adjuster index mark (5) with the rear edge (6) of the adjusting slots on both sides of the swingarm equally.
- Tighten the rear axle nut.

  Torque: 11 kgf-m
- Check the drive chain slack again.
- If after adjustment of drive chain slack, axle (2) touches to the rear edge of adjustment slot (6). Chain kit has to be replaced.



(2) Axle (3) Drive chain lock nut
(4) Drive chain adjusting nut (5) Index mark
(6) Rear edge of adjusting slot

WARNING

If a torque wrench is not used for installation, see your Authorised Distributor/Dealer as soon as possible to check for proper assembly.

Cleaning and Lubrication

Lubricate every 1000 km or sooner if the chain appears dry.

- Turn the engine off, park the vehicle on its main stand and shift the transmission into neutral. Open side stand to facilitate cleaning.
- Spray a commercially available chain cleaner for cleaning the drive chain over its entire length.

NOTE

Ensure that the chain cleaner and lubricant used is the one recommended for use on an O-ring chain, otherwise the O-rings may deteriorate, fail and lose their sealing properties.

- Rotate the rear wheel backwards to expose the next section of the drive chain and repeat second step until all of the drive chain is cleaned.
- Let the spray dry for about five minutes.
- To remove stubborn dirt, scrub the rollers and side plates with soft nylon brush.
- Apply SAE 90 grade oil on the hanger side of the entire length of the chain using an oil can.
- Wait for 7-10 minutes for penetration of lubricant inside the bush and roller, wipe the excessive lubricant from the chain and near by parts using a clean rag.

NOTE

Excessive lubricant if not wiped off, will aid in accumulation of dust, sand and dirt on the drive chain, increasing its wear. Excessive lubricant may also be sprayed on the vehicle as well due to chain movement.

CAUTION

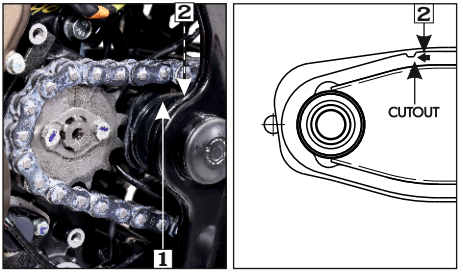
- ***Steam cleaning, high pressure washers and certain solvents can damage the drive chain O-rings.***
- ***While lubricating and cleaning, hold the rear wheel with one hand to prevent the possibility of your finger being trapped between the chain and sprocket.***
- ***Clean and lubricate the chain, whenever possible, after riding the vehicle under rain or in terrain with excessive dust, mud or sand.***
- ***The drive chain is fitted with O-rings between the link plates. These O-rings retain grease inside the chain to improve its service life. However, special precautions must be taken when adjusting, lubricating, washing and replacing the chain.***
- ***If the chain is excessively dirty, it should be removed and cleaned before lubrication. For your own safety, we recommend that service be performed by an Authorised Distributor/ Dealer.***

DRIVE CHAIN SLIDER INSPECTION

(Refer to "Maintenance Schedule" on **page 7-4**).

Check the chain slider (1) for wear, The chain slider must be replaced if wear limit (2) is reached.

For replacement, see your Authorised Distributor/Dealer.



(1) Chain slider (2) Wear limit

BRAKES

(a) Front brake

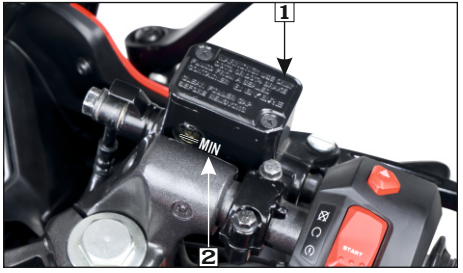
Refer to the safety precautions on **(page 7-2).**

Master Cylinder/Reservoir (1)

Location : Right handlebar.

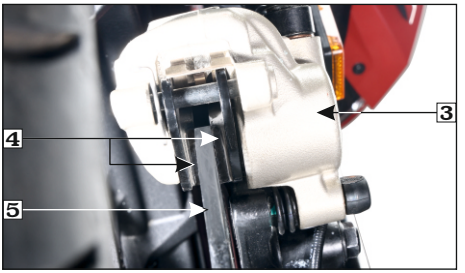
Brake fluid recommended:

DoT-4.



(1) Master cylinder/reservoir **(2) Minimum mark**

Fluid level - Ensure that the brake fluid level does not fall below "MIN" (minimum) mark (2) on master cylinder, when checked with the master cylinder parallel to the ground. The level decreases gradually due to piston movement to compensate pad wear. If the level decreases abruptly, check for the leakages in the brake system and consult your Authorised Distributor/Dealer.



(3) Front brake caliper **(4) Brake pad**
(5) Disc

NOTE

- ***Clean the dirt and mud accumulation between the front brake caliper* (3), *brake pads* (4) *and the disc* (5) *by using a water jet.***
- ***Always contact your Authorised Distributor/ Dealer for refilling of master cylinder/reservoir when necessary.***
- ***Always use recommended tyres* (page 7-31) *for better braking performance.***

(b) Rear brake

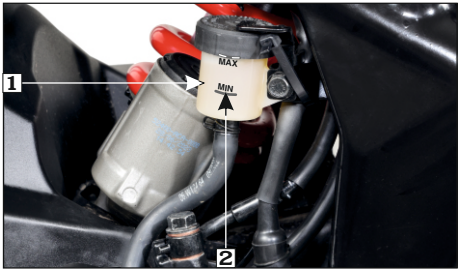
Refer to the safety precautions on **(page 7-2).**

Reservoir (1)

Location : Above the rear brake master cylinder.

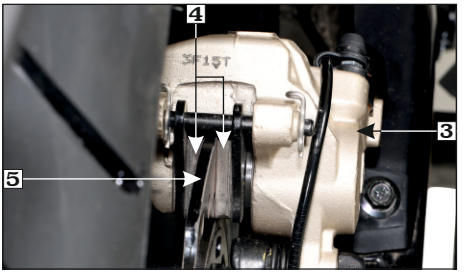
Brake fluid recommended :

DoT-4.



(1) Reservoir **(2) "Min" mark**

Fluid level - Ensure that the brake fluid level does not fall below "MIN" mark (2) on the reservoir parallel to the ground. The level decreases gradually due to piston movement to compensate pad wear. If the level decreases abruptly, check for the leakages in the brake system and consult your Authorised Distributor/Dealer.



(3) Rear brake caliper **(4) Brake pads** **(5) Disc**

NOTE

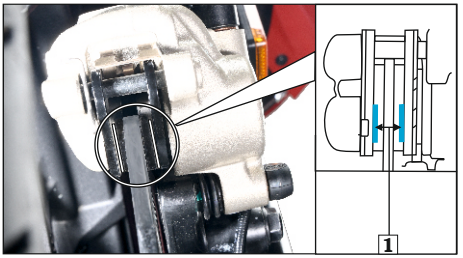
- ***Clean the dirt and mud accumulation between the rear brake caliper (3), brake pads (4) and the disc (5) by using a water jet.***
- ***Always contact your Authorised Distributor/ Dealer for refilling of reservoir when necessary.***

(c) Brake pad wear

Brake pad wear depends upon the severity of usage, type of riding & road conditions. Generally, the pads will wear faster on wet & dirty roads. Inspect the pads at each regular maintenance interval.

Front brake

- Check the brake pads for wear by examining the wear indicator groove (1) on each pad.

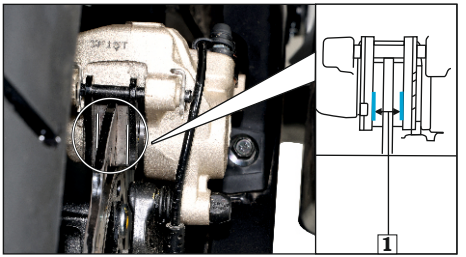


(1) Wear indicator groove

- If either pad is worn to the bottom of the grooves replace both pads as a set. Visit your Authorised Distributor/Dealer for this service.

Rear brake

Check the wear indicator groove (1) in each pad. If either pad is worn to the bottom of the groove, replace both as a set. Visit your Authorised Distributor/Dealer for this service.



(1) Wear indicator groove

SUSPENSION

Front and rear suspension inspection

- Check the front forks by locking the front brake and pumping the front fork up and down vigorously. The suspension action should be smooth and there should be no oil leakage.

- Check the rear monoshock absorber by pushing hard downwards on rear grip while the vehicle is not parked on stand. The suspension action should be smooth and there should be no oil leakage.

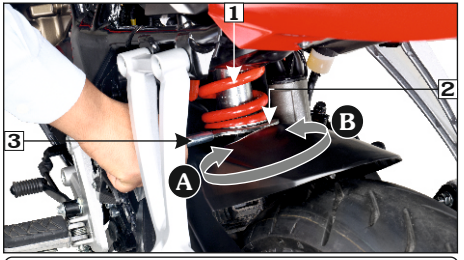


- **Rear mono shock absorber adjustment**

Rear monoshock absorber adjustment can be made in any position from 1st to 6th according to the load/road conditions or owner's requirement.

Recommend adjustment

- Solo rider : 2nd position
- Rider + Pillion : 6th position (max pre load)



(1) Rear mono shock absorber (2) Pin spanner
(3) Pin spanner handle (A) Softer (B) Stiffer

- In direction A: Softer
- In direction B: Stiffer

NOTE

To adjust the rear mono shock absorber (1), use the rear shock absorber adjustment tool [Pin spanner (2) with handle (3)] available in the tool kit.

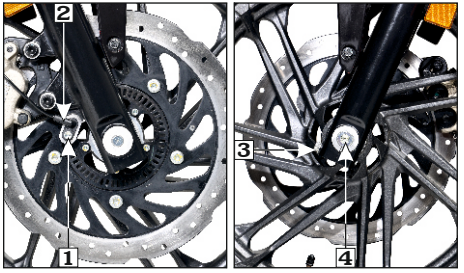
WHEEL

(a) Front wheel

Removal

Refer to the safety precautions on **(page 7-2).**

- Support the vehicle securely on the main stand and raise the front wheel off the ground.
- Remove the wheel speed sensor bolt (1) from right fork leg and disconnect the wheel speed sensor (2).
- Loosen the front fork side bolt (3).
- Remove the front axle allen key nut with axle (4).



(1) Wheel speed sensor bolt
(2) Wheel speed sensor
(3) Side bolt (4) Front axle nut

! CAUTION

Do not operate front brake lever when the wheel is removed.

- Remove the side collars (5) from both sides of the wheel.

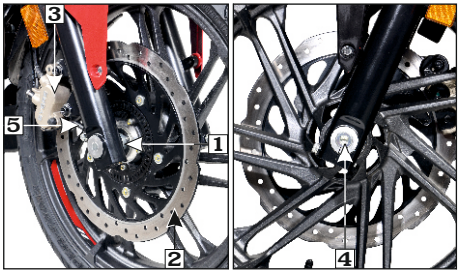


(5) Side collars

Installation

- Install the side collars (1) to both sides of the wheel hub.
- Insert the disc (2) between the pads in the caliper assembly (3). When installing the wheel, carefully fit the brake disc between the brake pads to avoid damage to the pads.
- Tighten the front axle nut (4) to the specified torque.

  TORQUE : 6.8 kgf-m
- Tighten the front fork side bolt.
- Install the wheel speed sensor (5).
- After installing the wheel apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.



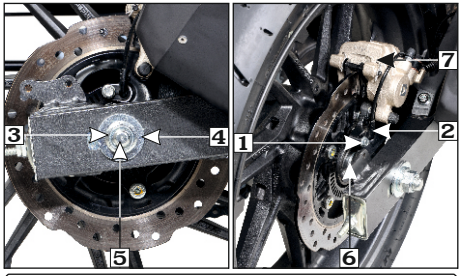
(1) Side collar **(2) Disc**
(3) Caliper **(4) Front axle nut**
(5) Wheel speed sensor

(b) Rear wheel

Removal

Refer safety precautions on **(page 7-2).**

- Support the vehicle securely on the main stand and raise the rear wheel off the ground.
- Remove the wheel speed sensor bolt (1) and disconnect the wheel speed sensor (2) cable.
- Remove the rear axle nut (3) and washer (4).
- Remove the axle (5) and the right side collar (6).
- Move the caliper assembly (7) upwards.
- Slide the wheel out from right side.

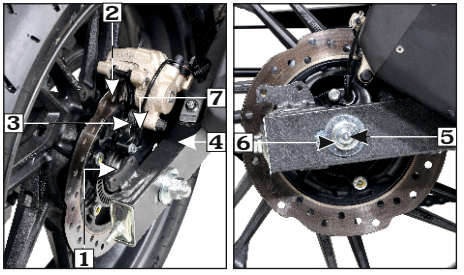


(1) Wheel speed sensor bolt
(2) Wheel speed sensor **(3) Rear axle nut**
(4) Washer **(5) Axle** **(6) Side collar**
(7) Caliper assembly

Installation

- Install the side collar (1) to the right side of the wheel hub.
- Position the rear wheel between the swingarm.
- Insert the disc (2) between the pads in the caliper assembly. When installing the wheel, carefully fit the brake disc between the brake pads to avoid damage to the pads.
- Align the rear caliper holder (3) with the swingarm (4).
- Insert the axle (5) from the left side through the swingarm, wheel hub, collar and rear caliper holder.
- Tighten the rear axle nut (6) to the specified torque.

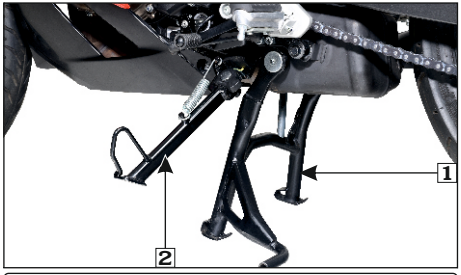
  TORQUE : 11 kgf-m
- Install the wheel speed sensor (7).
- Adjust the drive chain slack **(page 7-19).**



(1) Side collar **(2) Disc**
(3) Caliper holder **(4) Swingarm**
(5) Rear axle **(6) Rear axle nut**
(7) Wheel speed sensor

MAIN/SIDE STAND LUBRICATION

- Park the vehicle on the level surface.
- Check the main/side stand return spring for damage or loss of tension.
- Check the main stand (1)/side stand (2) for freedom of movement.
- Lubricate the main stand/side stand.
- Make sure the main/side stand is not bent.



(1) Main stand **(2) Side stand**

TUBELESS TYRES

The tyres fitted on your vehicles are of TUBELESS type.

To safely operate your vehicle, your tyres must be of the proper type and size, in good condition with adequate tread, and correctly inflated for the load you are carrying.

The following pages give more detailed information on how and when to check the air pressure, how to inspect your tyres for damage, and what to do when your tyres need to be repaired or replaced.

⚠ WARNING

- ***Using tyres that are excessively worn or improperly inflated can cause a crash in which you can be seriously hurt or killed.***
- ***Follow all instructions in this owner's manual regarding tyres inflation and maintenance.***

Air pressure

Keeping your tyres properly inflated provides the best combination of handling, tread life and riding comfort.

Generally, under-inflated tyres wear unevenly, adversely affect handling and are more likely to fail from being overheated.

Under inflated tyres can also cause wheel damage in rocky terrain.

Over-inflated tyres make your vehicle ride harshly, are more prone to damage from road hazards, and wear unevenly.

We recommend that you visually check your tyres before every ride and use a air pressure gauge (1) to measure air pressure at least once a month or any time you think the tyres pressure might be low.



(1) Air pressure gauge

Tubeless tyres have some self-sealing ability if they are punctured. However, because leakage is often very slow, you should look closely for punctures whenever a tyre is not fully inflated.

Always check air pressure when your tyres are "cold"-when the vehicle has been parked for at least three hours. If you check air pressure when your tyres are "warm"-when the vehicle has been ridden for even a few km-the readings will be higher than if the tyres were "cold". This is normal, so do not let air out of the tyres to match the recommended cold air pressures given below. If you do, the tyres will be under-inflated.

The recommended "cold" tyre pressures are:

	Rider only	Rider and Pillion
Front	2.0 kg / cm^2 (29 psi)	2.0 kg / cm^2 (29 psi)
Rear	2.0 kg / cm^2 (29 psi)	2.0 kg / cm^2 (29 psi)

! CAUTION

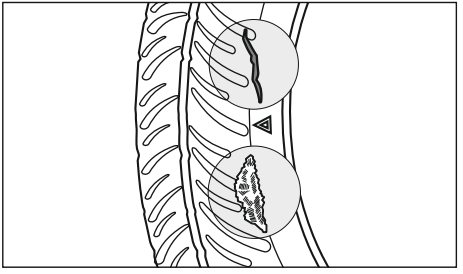
Over inflation/Under inflation of tyres may affect the performance.

Inspection

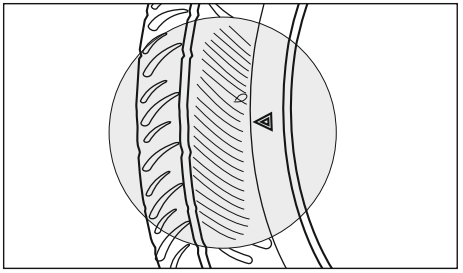
Whenever you check the tyre pressure, you should also examine tyre treads & side walls for wear, damage & foreign objects.

Look for:

- Bumps or bulges in the side of the tyre or the tread. Replace the tyre if you find any bumps or bulges.
- Cuts, splits or cracks in the tyre. Replace the tyre if you can see fabric or cord.



- Excessive tread wear.



- Carefully inspect the tyres for any damage, if the vehicle hits a pothole or hard object.

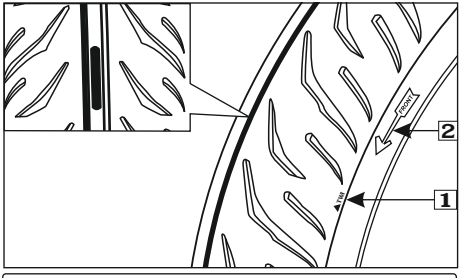
Tread wear

Replace tyres immediately when the wear indicator (1) appears on the tyre. The tread limits are:

MINIMUM TREAD DEPTH:

Front: 0.8 mm **Rear:** 0.8 mm

Check the tread wear indicator for tyre wear.



(1) Tread wear indicator **(2) Arrow mark**

Unidirectional tyres

Whenever the tyre is removed and put back in case of puncture, ensure the arrow mark (2) on the tyre is in the same direction as that of forward rotation of wheel.

Tyre repair

Repairing a puncture or removing a wheel requires special tools and technical expertise. If a tyre is punctured or damaged, it is advised to visit nearest tyre manufacture, Authorised Distributor/Dealer or the tyre repair shop who has expertise in repairing methods of tubeless tyre.

A tyre that is repaired either temporarily or permanently, will have lower speed and performance limits than a new tyre. After an emergency repair, always have the tyre inspected/replaced at our authorised dealer and replace the tyre if suggested.

You should not exceed 70 km/hour for the 1st 24 hours or 105 km/hour at any time thereafter. In addition, you may not be able to safely carry as much load as with a new tyre.

If you decide to have a tyre replace be sure the wheel is balanced before you ride.

Tyre replacement

The tyres that were installed on your vehicle were designed to match the performance capabilities of your vehicle and provide the best combination of handling, braking, durability and comfort.

The recommended tyre for your vehicle are:

Front	100/80 17 M/C 52H TL
Rear	140/70 17 M/C 66H TL

NOTE

For repair and replacement of tyre it is advised to visit your Authorised Distributor/Dealer.

WARNING

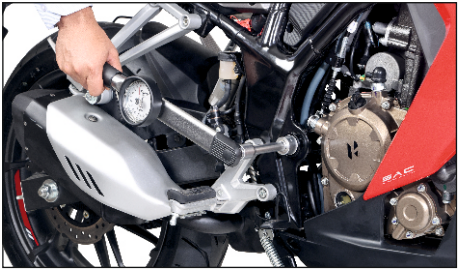
- ***Operation with excessively worn tyres is hazardous and will adversely affect traction and handling.***
- ***Under-inflation may result in the tyre slipping on or tyre coming off the rim.***
- ***Always use the size and type of tyres recommended in this owner's manual.***

Important safety reminders

- Do not install a tube inside a tubeless tyre on this vehicle. Excessive heat buildup can cause the tube to burst.
- Use only tubeless tyres on this vehicle. The rims are designed for tubeless tyres, and during hard acceleration or braking, a tube-type tyre could slip on the rim and cause the tyre to rapidly deflate.

NUTS, BOLTS & FASTENERS

- Tighten bolts and nuts at regular interval shown in the maintenance schedule.
- Check that all chassis nuts and bolts are tightened to correct torque values.
- Check that all cotter pins, safety clips, hose clamps and cable stays are in place.



BATTERY

Refer to the safety precautions on **(page 7-2).**

Location

The battery is located inside the fuel tank cover.

Specification

*MF Battery-12V-6 Ah/ETZ-7

It is not necessary to check the battery electrolyte level or add distilled water as the battery is a **Maintenance-Free (sealed)** type. If your battery seems weak and/or electrolyte is leaking (causing hard starting or other electrical troubles), contact your Authorised Distributor/Dealer.

***MF stands for Maintenance Free**

NOTE



This symbol on the battery means that this product must not be treated as household waste.



This symbol on the battery means the old battery must be returned to your Authorised Distributor/Dealer as it must be treated as recyclable material.

- ***Battery is a maintenance-free (sealed) type and can be permanently damaged if the sealing strip is removed.***
- ***An improperly disposed battery can be harmful to the environment and human health. Always confirm local regulations for battery disposal.***

Battery charging

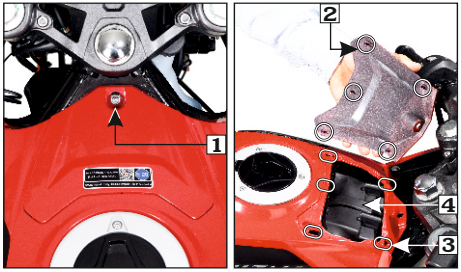
Always visit your Authorised Distributor/Dealer if you see any symptom of battery discharge as earliest as possible to get the battery charged. The battery has a tendency to discharge rapidly if additional electrical accessories are fitted on the vehicle.

Battery storage

- If in case your vehicle is not used for more than a month remove the battery, fully charge and store in a cool and dry place.
- If the battery is expected to be stored for more than two months, ensure to fully charge the battery once in a month.
- Always ensure the battery is fully charged before installation.
- Ensure the battery leads are properly connected to the battery terminals during installation.

Battery removal

- Make sure the ignition switch is "OFF" (⊗).
- Remove the battery cover screw (1) using 6 mm allen key provided in the tool bag .
- Remove the battery cover by dislodging 5 tabs (2) from the slots (3).

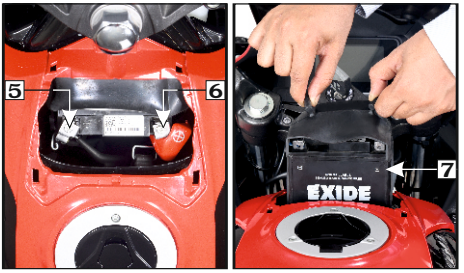


(1) Battery cover screw **(2) Tab**
(3) Slot **(4) Battery strap**

- Remove the battery holding belt/rubber strap (4).
- Disconnect the (-)ve terminal lead (5) from the battery first, then disconnect the (+)ve terminal lead (6).
- Pullout the battery from the battery box by holding the belt/rubber strap gently upwards.

! CAUTION

Do not use a regular allen key to remove/install the battery cover screw.



(5) (-)ve terminal **(6) (+) ve terminal**
(7) Battery

Battery installation

- Reinstall in the reverse order of removal. Be sure to connect the (+)ve terminal first, then the (-)ve terminal.
- Check all bolt and other fasteners are secured properly.

FUSE REPLACEMENT

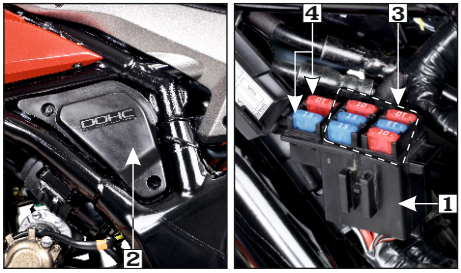
Refer to the safety precautions on **(page 7-2).**

Location: The fuse box (1) is inside the left side utility cover (2).

Fuse type: Blade fuse

Fuse box

Main fuse (3) : 15A X 3, 10A X 3
Spare fuse (4) : 15A, 10A



(1) Fuse box (2) Utility cover
(3) Main fuse : 15A X 3, 10A X 3
(4) Spare fuse : 15A, 10A

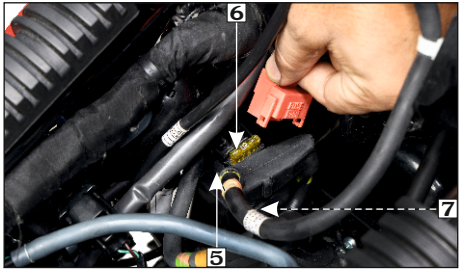
Starter magnetic switch (5)

Location : Below fuel tank.

Fuse Type: Blade fuse

Main fuse (6) : 20A

Spare fuse (7) : 20A



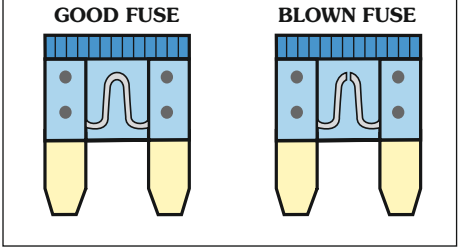
(5) Starter magnetic switch
(6) Main fuse:20A (7) Spare fuse : 20A

⚠ WARNING

- ***Never use a fuse with a different rating from that specified. It may lead to serious damage to the electrical system or a fire due to short circuit.***
- ***Battery gives off explosive gases. Keep sparks, flames & cigarettes away.***

! CAUTION

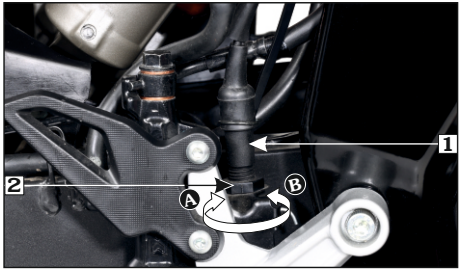
- ***Do not attempt to start or ride the vehicle without a charged battery, it can cause a permanent damage to certain electrical components.***
- ***Turn the ignition switch "OFF" before checking or replacing the fuse to prevent accidental short-circuiting.***



STOP LAMP SWITCH

The stop lamp switch (1) must be adjusted so that stop lamp glows when rear brake is applied. The procedure for adjusting stop lamp is as follows :

- Turn the ignition switch to the "ON" (⏼) position.

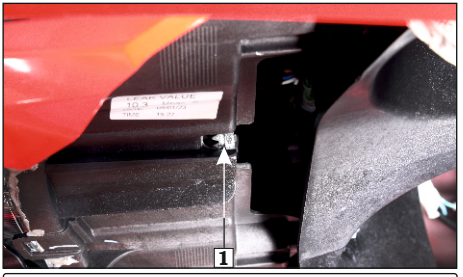


(1) Stop lamp switch	**(A) Advance**
(2) Adjusting nut	**(B) Retard**

- Turn the adjusting nut (2) to position stop lamp switch at a point where the stop lamp glows once the brake pedal is depressed. Turn the adjusting nut in direction (A) to advance switch timing or in direction (B) to retard switch timing.

HEADLAMP FOCUS ADJUSTMENT

- Headlamp is factory pre-set. However in case of adjustment required, please follow the steps as given below:
- Headlamp adjustment is done by the loosening or tightening the screw (1) located behind the headlamp assembly.
- Park the vehicle on it main stand on level ground.
- Adjust the headlamp beam by loosening or tightening the screw (1) located behind the headlamp assembly for correct focus adjustment.
- For correct headlamp focus adjustment, it is recommended to visit Authorised Distributor/Dealer.



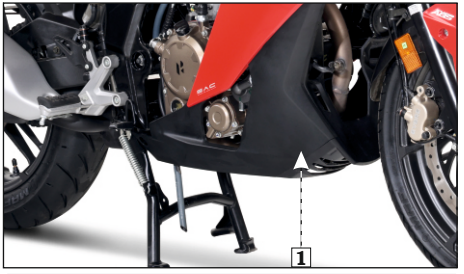
(1) Headlamp adjusting screw

⚠ WARNING

An improperly adjust headlamp may blind oncoming rider/driver or it may fail to light the road for a safe distance.

CATALYTIC CONVERTER

This vehicle is equipped with a catalytic converter (1) in the muffler to meet the emission norms.



(1) Catalytic converter

The catalytic converter contains precious metals that serve as catalysts, promoting chemical reactions to convert the exhaust gasses without affecting the metals. The catalytic converter acts on hydrocarbons (HC), carbon monoxide (CO) and nitrogen oxides (NOx).

The catalytic converter must operate at a high temperature for the chemical reactions to take place. It can set on fire any combustible material that come near it. Park your vehicle away from high grasses, dry leaves, or other flammable material.

Follow these guidelines to protect your vehicle's catalytic converter.

- Always use unleaded petrol. Even a small amount of leaded petrol can contaminate the catalyst metals, making the catalytic converter ineffective.
- Keep the engine in good running condition. A poorly running engine can cause the catalytic converter to overheat.
- If your engine is misfiring, backfiring, stalling, or otherwise not running properly, stop riding and turn "OFF" the engine. Have your vehicle serviced as soon as possible.

! CAUTION

Avoid keeping any cloth or flammable object between hot parts (muffler, radiator, engine) and fairing.

EVAPORATIVE EMISSION CONTROL SYSTEM

This vehicle is equipped with an evaporative emission control system to meet emission standards. During warm weather, the petrol vapours (containing hydrocarbons (HC)) evaporates easily into the atmosphere from the fuel tank, if the fuel system is unsealed or open.

The evaporative emission control system is used to prevent petrol vapours from escaping into the atmosphere from fuel tank.



(1) Canister

The canister (1) collects the fuel vapour from the fuel tank and then the fuel vapour is drawn into the engine for re-burning to avoid pollution caused by the fuel vapour diffused into the air.

POLISHING OF VEHICLE

After washing your vehicle, wax all painted surfaces (except matte painted surfaces) using a commercially available polish/quality liquid or paste wax to finish the job. Use only a non abrasive polish or wax made specifically for automobiles. Apply the polish or wax according to the instructions on the container.

NOTE

Polishing or waxing is not applicable for models having matte paint.

Basic Troubleshooting

08

Basic troubleshooting.....8-1

BASIC TROUBLESHOOTING

1. STARTING TROUBLE - ENGINE DOES NOT START

A. Integrated Start-Kill Switch

Check engine stop switch position → "OFF" → Turn to "ON" (Ω) position

↓ "ON" (Ω) position

Consult Authorised Distributor/Dealer

B. Side Stand Engine Kill System

Check side stand in gear condition **(page 5-28)** → Side stand "Down" → Move the side stand up

↓ Side stand "Up"

Consult Authorised Distributor/Dealer

C. Fuel System

Check fuel gauge → Low fuel indicator glows continuously → Refill the fuel tank

↓ Key "ON" position

Check fuel lines → Leakage → **Consult Authorised Distributor/Dealer**

↓ OK

Check for operating sound of fuel pump → Broken fuel pump wire connector → Secure connections

↓ OK

Consult Authorised Distributor/Dealer

D. Electric Starter Not Working

Check fuse → Fused → Replace fuse **(page 7-34)**

↓ OK

Inspect battery → Weak → **Consult Authorised Distributor/Dealer**

↓ OK

Check connections, ignition switch/starter switch → Loose → Secure connections

↓ OK

Consult Authorised Distributor/Dealer

BASIC TROUBLESHOOTING

E. No Spark At Spark Plug

Check ignition switch → "OFF" (⊗) position → Turn ignition switch "ON" (⏻)

OK

Check spark plug for fouling/ improper electrode gap → No spark → Replace spark plug/adjust Spark plug gap **(1.0–1.1 mm)**

OK

Check for poorly connected or loose spark plug wire → Loose contact → Secure properly

OK

Consult Authorised Distributor/Dealer

2. ENGINE STARTS BUT STALLS

Check fuel lines → Leakage → **Consult Authorised Distributor/Dealer**

OK

Check air cleaner element → Dirty/Clogged → Clean & Refit

OK

Consult Authorised Distributor/Dealer

3. POOR PICK UP

Spark plug loose in cylinder head → Loose → Tighten the spark plug

OK

Check air cleaner element → Dirty/Clogged → Clean & Refit

OK

Check brake binding → Improper functioning → **Consult Authorised Distributor/Dealer**

OK

Check tyre inflation pressure → Under inflated → Correct tyre pressure

OK

Consult Authorised Distributor/Dealer

BASIC TROUBLESHOOTING

4. ELECTRICAL SYSTEM

Feeble Horn Sound or No Light

- Check fuse → Broken fuse → Replace fuse
- OK
- Inspect battery → Weak → **Consult Authorised Distributor/Dealer**
- OK
- Check LED's lamp functioning → Improper functioning → **Consult Authorised Distributor/Dealer**
- OK
- Check connections → Loose → Secure connections
- OK
- **Consult Authorised Distributor/Dealer**

5. COOLING SYSTEM – ENGINE OVERHEATS

- Check coolant level → Less → Top up coolant
- OK
- Check hose connections for leakages → Leakage → **Consult Authorised Distributor/Dealer**
- OK
- Check radiator fins → Dirty → Clean radiator fins. Do not use high pressure jet to clean the radiator.
- OK
- Check foam formation in cooling system → Improper functioning → **Consult Authorised Distributor/Dealer**
- OK
- Check radiator fan system → Improper functioning → **Consult Authorised Distributor/Dealer**
- OK
- **Consult Authorised Distributor/Dealer**

Navigation Signs

10

Navigation signs.....9-1

NAVIGATION SIGNS

Navigation signs: Hero navigation app. and meter console of your vehicle will display step by step navigation guidance/direction through below navigation signs when your vehicle is in navigation mode with your smartphone.


Turn Left


Turn Right

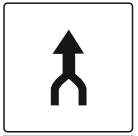

Turn Slight Left

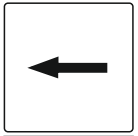

Turn Slight Right

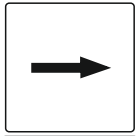

Turn Sharp Left

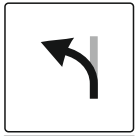

Turn Sharp Right

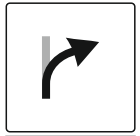

Straight

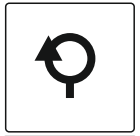

Merge

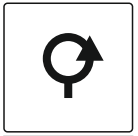

Keep Left


Keep Right

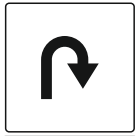

Ramp Left


Ramp Right

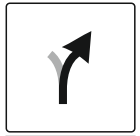

Round About Left


Round About Right


U Turn Left


U Turn Right


Fork Left


Fork Right


Ferry


Ferry Train


Destination Reached



Wrong way

03

Certificate & Records

Delivery Certificate.....10-1

Hero Genuine Parts.....10-5

Jobs Applicable To Periodic Services....10-7

Service Record Sheet.....10-9

Service Advice Sheet.....10-10

Ownership Record And Data.....10-11

CUSTOMER'S COPY

KARIZMA XMR 210

HMCL Niloy Bangladesh Ltd.

DELIVERY CERTIFICATE

I certify having taken delivery of one HMCL Niloy Bangladesh Ltd. **KARIZMA XMR 210** Vehicle bearing the following particulars:-

Engine No. _____

VIN _____

Colour/Model _____ **Key No.** _____

Allotment No. _____ **Date of Sale** _____

Customer's Name _____

I have been explained by the dealer about correct and safe driving habits, warranty terms and conditions, service schedules and maintenance tips and understood the same.

Customer's Copy

KARIZMA-XMR 210

HMCL Niloy Bangladesh Ltd.

Alongwith the vehicle I have also received the following:-

1. Owner's Manual
2. 2 Nos. Keys
3. 1 Set of tools **(for details see below)**
4. Standard Accessories **(optional accessories is/are chargeable)**
5. Battery Make _____ Sr. No. _____
6. Tyre **Front** Make _____ Sr. No. _____
   Rear Make _____ Sr. No. _____

The vehicle has been delivered in factory fresh conditions to my satisfaction & I have understood all terms and conditions of warranty and shall abide by them.

Customer's Name _____

Customer's Address _____

Customer's Signature _____

Authorised Distributor/Dealer Name _____

Authorised Distributor/Dealer Address _____

Details of Tool kit

Tool bag-1 No., +, - No.2 Driver-1 No. , Grip-1 No., Eye wrench 24 mm-1 No., Handle pin spanner-1 No., Pin spanner-1 No, Allen key 10 mm-1 No., Allen key 6 mm-1 No., Hand wrench spark plug-1 No.

HMCL Niloy Bangladesh Ltd.

AUTHORISED DISTRIBUTOR/DEALER COPY

DELIVERY CERTIFICATE

I certify having taken delivery of one HMCL Niloy Bangladesh Ltd. **KARIZMA XMR 210** Vehicle bearing the following particulars:–

Engine No. _____

VIN _____

Colour/Model _____ **Key No.** _____

Allotment No. _____ **Date of Sale** _____

Customer's Name _____

I have been explained by the dealer about correct and safe driving habits, warranty terms and conditions, service schedules and maintenance tips and understood the same.

Authorised Distributor/Dealer copy

KARIZMA-XMR 210

HMCL Niloy Bangladesh Ltd.

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1. Owner's Manual
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3. 1 Set of tools **(for details see below)**
4. Standard Accessories **(optional accessories is/are chargeable)**
5. Battery Make _____ Sr. No. _____
6. Tyre **Front** Make _____ Sr. No. _____
   Rear Make _____ Sr. No. _____

The vehicle has been delivered in factory fresh conditions to my satisfaction & I have understood all terms and conditions of warranty and shall abide by them.

Customer's Name _____

Customer's Address _____

Customer's Signature _____

Authorised Distributor/Dealer Name _____

Authorised Distributor/Dealer Address _____

Details of Tool kit

Tool bag-1 No., +, - No.2 Driver-1 No. , Grip-1 No., Eye wrench 24 mm-1 No., Handle pin spanner-1 No., Pin spanner-1 No, Allen key 10 mm-1 No., Allen key 6 mm-1 No., Hand wrench spark plug-1 No.

GENUINE PARTS

WHAT ARE THE BENEFITS OF GENUINE SPARE PARTS ?

- Assures long life
- Ensures economy for a long time
- Safety of vehicle and rider
- Peace of mind
- Value for money
- Assured quality

CONSEQUENTIAL DAMAGES ON USING NON-GENUINE PARTS

Clutch Plate	• Material used is inferior • Damages other parts of clutch like, clutch center and outer clutch • Affects fuel efficiency • Poor acceleration
Cam Chain Kit	• Poor performance • Reduced life
Gasket Cylinder Head	• Improper sealing • Engine knocking • Leads to leakage and smoky exhaust • Higher emission level

GENUINE PARTS

CONSEQUENTIAL DAMAGES ON USING NON-GENUINE PARTS

Element Air Cleaner	• Improper air filtration resulting in premature engine failure • Affects fuel efficiency • Poor engine performance
Spark Plug	• Frequent stalling of engine • Higher emission level • Poor engine performance • Affects fuel efficiency • Spark plug and rubber sleeve
Brake Pads/Shoes	• Poor braking efficiency • Rider safety-an issue • Discs/Drum wear out, resulting in subsequent repair cost
Chain Sprocket Kit	• Noisy operation • Failure of chain can cause fatal accident

KARIZMA-XMR 210

HMCL Niloy Bangladesh Ltd.

JOBS APPLICABLE TO PERIODIC SERVICES

- Test drive the vehicle if required for reported troubles, if any.
- Wash the vehicle, blow dry with air at every service.
- Fuel line inspection at every service.
- Inspect throttle free play and operation at every service, adjust if necessary.
- Clean air cleaner element at every service (replace at every 12000 km).
- Inspect, clean the spark plug at every service, adjust if necessary. (replace at every 12000 km).
- Inspect and adjust the valve clearance at 1st service and then at every 120000 km.
- Engine oil top up or change as per the maintenance schedule **(page 7-4)**.
- Replace engine oil filter at every 12000 km.
- Inspect radiator and hoses at every service.
- Inspect electric starter operation at every service.
- Inspect oil pressure indicator at every service.
- Inspect, clean, lubricate and adjust the drive chain at every 1000 km.
- Inspect the drive chain slider.
- Inspect battery voltage at every service and charge if required.
- Inspect brake pad wear at every service.
- Clean and lubricate brake pedal at every 6000 km.
- Inspect brake fluid level at every service (replace at 30000 km or 2 year whichever is earlier).
- Inspect all lamps, horn and switches at every service, adjust if necessary.
- Inspect headlamp focus at every service, adjust if necessary.
- Inspect clutch lever free play at every service, adjust if necessary.
- Lubricate the side stand and main stand (optional) at every service.
- Inspect the side stand switch at every service.
- Inspect nut, bolts, fastener, grommets and tighten to the specified torque (if required).
- Inspect the wheel bearings and flange bearing free play, replace if necessary.
- Inspect wheels/tyres. Inflate tyre to specified pressure at every service.

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JOBS APPLICABLE TO PERIODIC SERVICES

- Inspect steering for smooth operation, adjust (if necessary) in every alternate service and lubricate at every 12000 km.
- Inspect front suspension at every service, replace oil once in every 2 year or 30000 km whichever is earlier.
- Inspect rear suspension mounting bushes play, replace if necessary.
- Check CO emission at idle.
- Inspect the canister hoses for deterioration, damage or loose connections and canister for cracks or other damages at every service.
- Replace the radiator coolant in every 2 year or 24000 km, whichever is earlier. Inspect and top up Hero pre-mix coolant if required (50:50 ratio).
- Replace fuel filter (external) at every 12000 km.
- Inspect the rear wheel damper at every service.
- Inspect radiator fins and heat shield at every service.
- Test drive the vehicle for repair of problems reported.
- Polish entire vehicle.

SERVICE RECORD SHEET
To be Filled in by Supervisor

Free/Paid Service	Km. Range	Date	Km. Reading	Job Card No.	Authorised Distributor/Dealer (Sig. & Stamp)
I	500 - 750				
II	6000 - 6500				
III	12000 - 12500				
IV	18000 - 18500				
V	24000 - 24500				
VI	30000 - 30500				
VII	36000 - 36500				
VIII	42000 - 42500				
IX	48000 - 48500				
X	54000 - 54500				
XI	60000 - 60500				
XII	66000 - 66500				
XIII	72000 - 72500				

NOTE

It is suggested to avail all free and paid services as per the recommended schedule for optimum performance of your vehicle. Vehicle malfunction due to unauthorized tempering of the vehicle will not be covered under the warranty policy. Please ensure that each paid service is availed within 180 days from the date of previous service or as per the recommended schedule, whichever is earlier.

SERVICE ADVICE SHEET
Normal wear and tear components replacement advice

Date	Km Job Card No.	Advice	Authorised Distributor/Dealer (Sig. & Stamp)	Completion Dt. Job Card No.

KARIZMA-XMR 210

HMCL Niloy Bangladesh Ltd.

OWNERSHIP RECORD AND DATA

NAME_____

ADDRESS_____

MODEL_____ REGN. NO. _____

ENGINE NO._____

VIN_____

DATE OF PURCHASE_____KM. READING _____

AUTHORISED DISTRIBUTOR/DEALER NAME_____

ADDRESS_____

_____

BATTERY MAKE_____ SERIAL NO._____

AUTHORISED DISTRIBUTOR/DEALER
STAMP AND SIGNATURE