



Read this manual carefully before operating this vehicle.

Baca manual ini dengan teliti sebelum mengendalikan kendaraan.

Owner's Manual

Manual Pemilik

Vanguard
180

WELCOME

Congratulations and thank you for selecting **Aveta** product!

This manual should be considered a permanent part of the vehicle and should remain with the vehicle when it is resold.

This publication includes the latest production information on the primary data, basic structure, and main procedures for operating, maintaining, and troubleshooting the motorcycle.

Please note that ongoing product enhancements may result in variations between the vehicle and this manual.
Aveta Global Marketing Sdn Bhd reserves the right to make changes at any time without incurring any obligation.

Scan here for digital owner's manual



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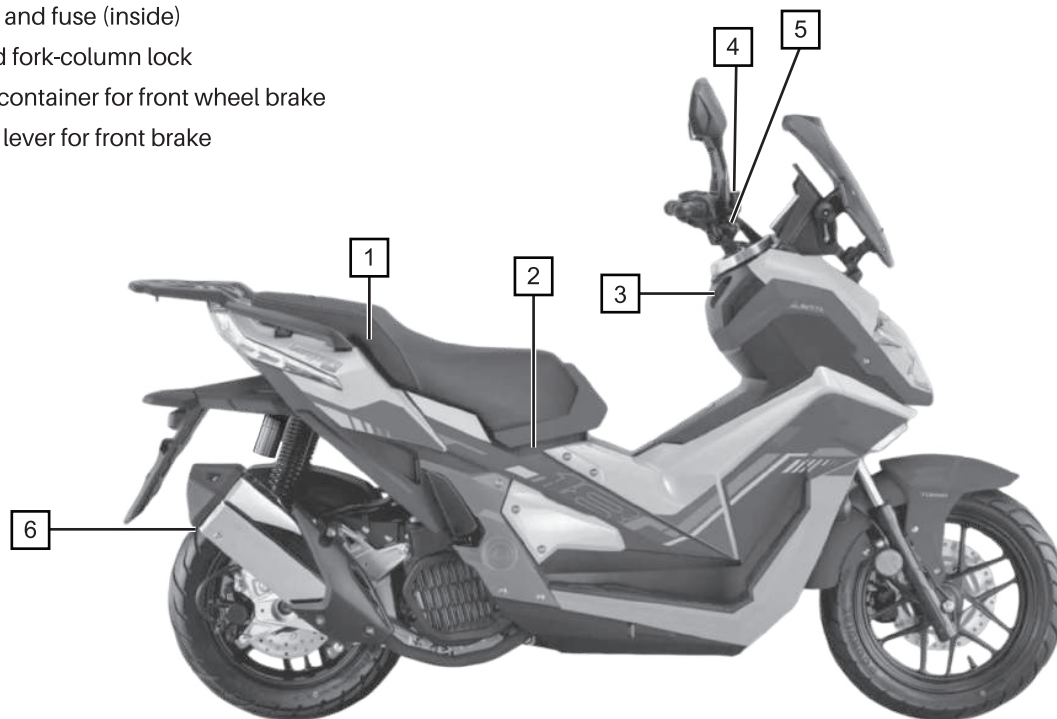
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OVERVIEW AND OPERATION

Right-hand side view

1. Storage box with tool kit
2. Battery box and fuse (inside)
3. Ignition and fork-column lock
4. Brake fluid container for front wheel brake
5. Handbrake lever for front brake
6. Muffler



OVERVIEW AND OPERATION

Left-hand side view

- 7. Handbrake lever for rear brake
- 8. Brake fluid container for rear wheel brake
- 9. Fuel tank cap
- 10. Air filter
- 11. Side stand



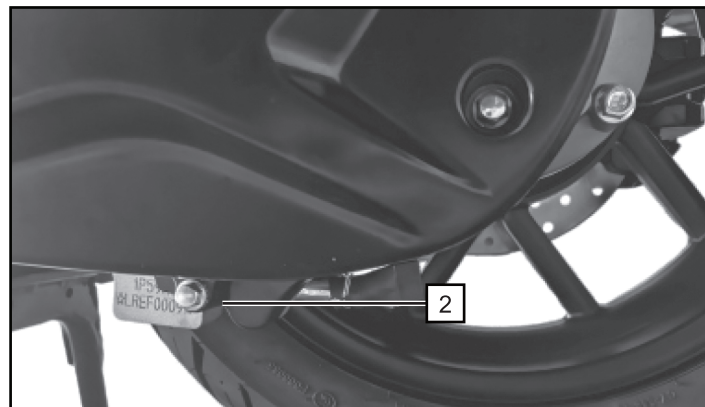
OVERVIEW AND OPERATION

Chassis Number



The VIN number (1) is located inside the bucket.

Engine Number



The engine number (2) is located on the left side of the crankcase.

OVERVIEW AND OPERATION

Instrument Screen



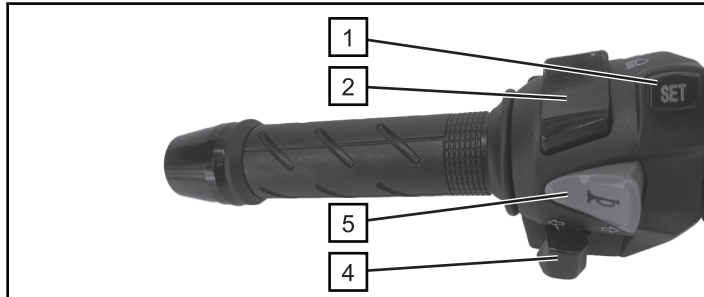
Indicator Lights

- 1. Speedometer km/h
- 2. Odometer / Trip Meter km/mile
- 3. Fuel Gauge 
- 4. Date & Time

- 5. Left & Right Direction Indicator  green
- 6. High Beam Indicator  blue
- 7. EFI Indicator  yellow
- 8. Battery Charging Status
- 9. Tachometer (RPM)

OVERVIEW AND OPERATION

Handlebar Controls : Left



1. "SET" button

- Short press the button to adjust the brightness of the instrument screen. Long press the button to enter the instrument setting interface. If no operation is performed within 30 seconds, the setting interface automatically returns to the main interface.

2. Headlamp dimmer switch

- Turn on the headlight dimmer switch to "(low beam symbol)" when low beam is required. When high beam is needed, turn the switch to "(high beam symbol)".

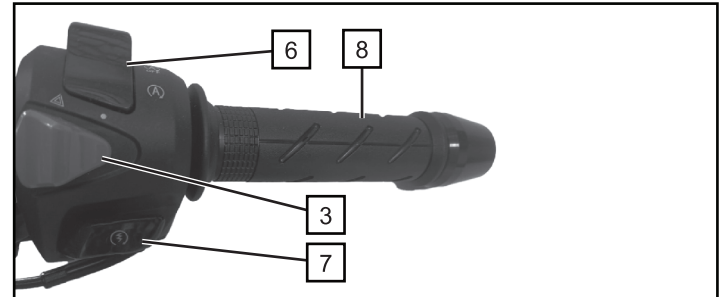
3. Emergency warning lights switch

4. Turn lights switch

- (⇐) Left turn signal
(⇒) Right turn signal

5. Horn Button

Handlebar Controls : Right



6. Start / stop idling start-stop (ISS)

- () Press Start-stop OFF;
- () Press Start-stop ON;

7. Start button

- Press the brake lever and the electric start button to start the engine.

8. Throttle grip

- The throttle grip is used to adjust the opening of the throttle valve and control the speed of the motorcycle.

Ignition Lock And Fork-Column Lock



WARNING

While riding, do not switch the ignition off "⊗"!

NOTE

Keys

With the scooter you get two indefinite ignition keys. Keep the spare key at a safety place.

Key positions



NOTE

Activate the parking light only for a limited period. Take into account the charge of the battery.

The key can be removed in positions "OFF" and "LOCK"

Emergency mechanical lock

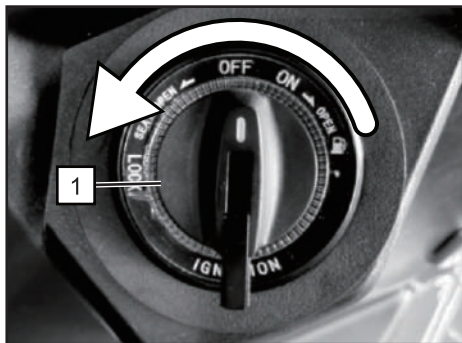
- **OFF (⊗):** The circuit is disconnected and the engine can not be started
- **ON (○):** The whole circuit is connected and the engine can be started.
- **OPEN (↙):** Open the seat cushion
- **OPEN (↗):** Open the fuel door

Steering lock position

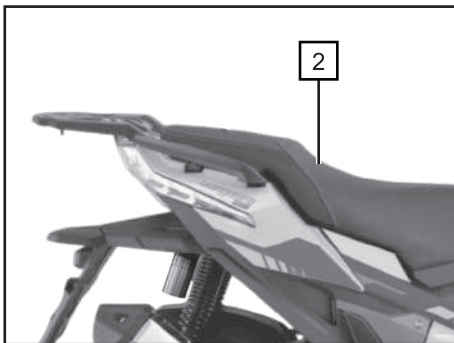
- **LOCK (🔒):** Indicates the position of the steering handle lock, insert the key and press the left turn to lock the steering handle.

OVERVIEW AND OPERATION

Storage Box



- Do not store valuables in the box.
- Make sure that the seat has been locked completely after it was pressed down.
- Take out valuables before washing to avoid wetting these objects.
- Do not place thermal sensitive objects in the box because of engine's heat and high temperature.



Unlock

- Insert the ignition key (1) into the lock turn to the left to open.

Lock

- Press down the seat (2) until the lock is engaged.
- Pull out the ignition key.

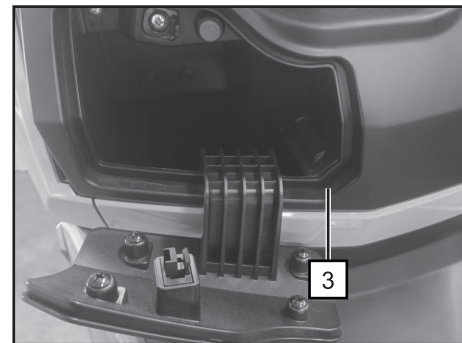
Never leave the key in the storage box.

WARNING

After the seat is closed check if it was locked firmly! - Risk of accidents!

Maximum Load Capacity: 10 kg

Glove Box



There is a press buckle at the toolbox, which can realize the separation of the box body and the box cover by pressing. Press the box cover again to realize the closure of the box body and the box cover. Use the toolbox (3) only for small baggage pieces.

CAUTION

Maximum load capacity: 1.5 kg
Do not transport bulky loads.

OVERVIEW AND OPERATION

Refueling



NOTE

- When the fuel indicator scale (1) starts flashing, it indicates the scooter is using reserve fuel (approximately 1 liter). Refill the tank promptly.
- The scale with the tank symbol “” serves as a reminder to refuel.
- Avoid running the fuel tank until it is completely empty.

Filling up with fuel

- Use only premium lead-free fuel (min. 95 octane)

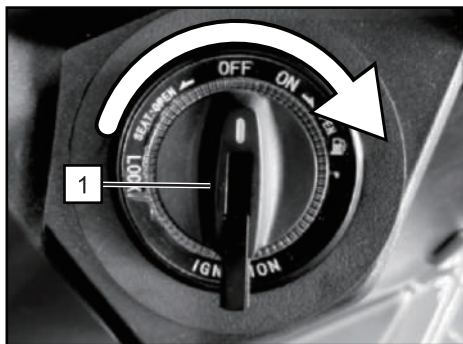
WARNING

Fuel is highly flammable and can explode. Do not smoke or bring an open flame near the fuel tank.

Fuel expands when exposed to heat or sunlight. Therefore, never fill the tank to the brim, and avoid refueling while the engine is running.

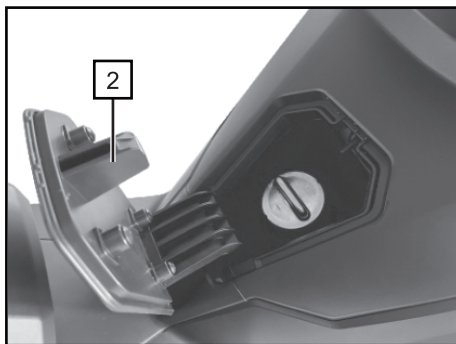
Never bring a lit cigarette or open flame near an open tank, as fuel vapors can ignite suddenly.

Fuel Tank Cap



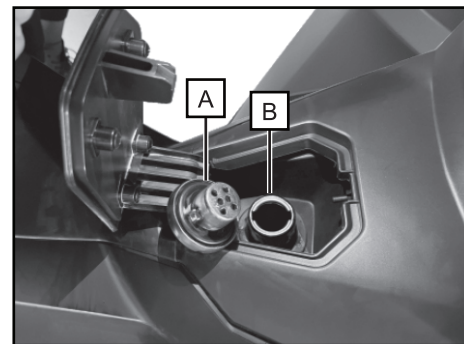
Unlock

- "OPEN" directly turn the key (1) to the right in ON gear to OPEN the cover of the fuel tank cover (2).
- Turn the cap clockwise to open the tank.



Lock

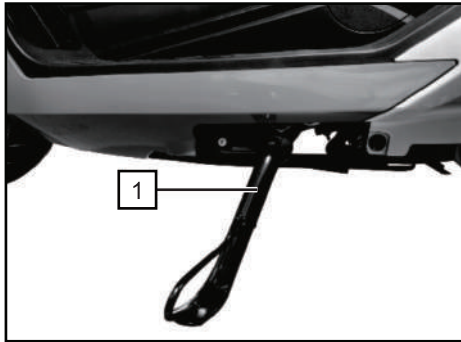
- Align (A) to (B), press the tank cap and turn it clockwise.
- Close the fuel tank flap (2).



NOTE

The tank cap is located at the front of the seat.

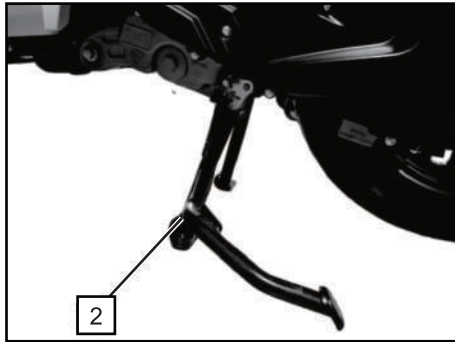
Side Stand And Parking Stand



Propping up the scooter on the side stand and parking stand.

WARNING

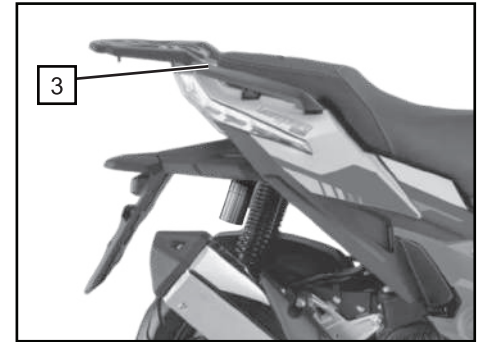
Always make sure that the stand is resting on firm ground. On sloping roads, always park the scooter facing uphill. It is essential that the side stand is folded up before starting off! - Risk of accidents!



Side stand.

The scooter is equipped with a side stand switch. If the side stand is folded up the engine is shut off and will not start.

- Switch off the engine.
- Put your left hand on the left-hand handlebar grip.
- Hold with your right hand the holder grip (3).
- Fold out the arm to the side stand (1) as far forward as it will go and stop by foot.
- Slowly tilt the scooter to the left until its weight is supported.



Parking stand

- Switch off the engine.
- Put your left hand on the left-hand handlebar grip.
- Hold the holder grip (3) with your right hand.
- Push the parking stand (2) down until the two skids are on the ground.
- Put your full body weight on the operating mandrel of the main standard.
- Pull the scooter towards the rear and simultaneously upwards onto parking stand.
- Check that the scooter is standing firmly.

Checklist

Before each ride, carry out a safety check using the checklist.

Take the safety check seriously. Carry out maintenance activities before you start your ride or ask a specialized dealer to do so. This will provide you with the certainty that your motorcycle corresponds to traffic regulations. A technically faultless motorcycle is a basic requirement for the safety of both yourself and other road users.

Before starting your ride, check the following :

- Steering (smooth and free play)
- Engine oil quantity
- Fuel quantity
- Front brake
- Rear brake
- Tyres (profile and pressure)
- Telescopic fork
- Load / weight
- Total weight
- Lights
- Brake fluid (lever)
- Brake (operation)

In case of problems or difficulties, contact a dealer, who will do everything possible to assist you.



WARNING

While the engine is running or the ignition is on, do not touch the ignition system.



FIRE HAZARD

The exhaust system becomes very hot. While riding, idling or parking, make sure that no inflammable materials (e.g. hay, leaves, grass, coverings or luggage, etc.) can come into contact with it!

SAFETY CHECKS

Load / Weight

WARNING

For the sake of your safety, use only original accessories or products released by us.

We cannot judge for each third-party product whether it can be safely used in combination with your scooter.

Nor can an official approval give such a guarantee in all cases, since the test scope is not always sufficient.

NOTE

Our accessories and approved products as well as qualified advice are available from all specialized dealers.

Correct Load

- Make sure that the left-right weight distribution is balanced.
- Check that fastenings are correct and tight.
- Do not transport bulky loads.
- Do not cover the lights.

WARNING

The total allowable weight may not be exceeded.

Check the tyre pressure.

Check the lights

WARNING

Before any ride, check the operation of all lighting components.

- Check that the headlamps and lenses are clean.

Ride Safely

CAUTION

Riding safety is largely also determined by the manner of riding.

Therefore :

- Put on a tested/ approved safety helmet and correct close the buckle.
- Wear suitable protective clothes.
- Rest your feet on the footrests.
- Do not ride if your riding ability has been compromised.

Your reactions can be adversely affected not only by alcohol, but also by drugs and medicines.

- Strictly observe all traffic regulations
- Always adapt your riding speed to the traffic and road conditions.

On smooth, slippery roads take into account that your riding stability and braking power are limited by the grip of the tyres on the road top.

Ride economically and be aware of the environment

Fuel consumption, environmental pollution, and wear on the engine, brakes, and tires depend on various factors.

Your personal riding style plays a significant role in determining fuel efficiency, exhaust gas emissions, and noise levels.

While idling, the engine takes a long time to warm up to operational temperature. In the warm-up phase, however, the wear level and pollutant emissions are very high. It is therefore best to start riding immediately after start-up.

Avoid rapid acceleration

Open the throttle not further than needed, in order to reduce fuel consumption as well as pollution and wear levels.

Do not use excessive revs; change up as soon as possible and do not change down until it is necessary to do so.

Ride as evenly as possible and look ahead

Unnecessary acceleration and hard braking cause high fuel consumption and increased pollution levels.

Turn off the engine when stopped in traffic

Different riding conditions affect fuel consumption. The following conditions are unfavourable for fuel consumption :

- High traffic density, especially in cities with frequent stops at traffic lights.
- Frequent short rides with repeated starts and warm-ups of the engine.
- Riding in a column of motorcycles at low speed, meaning riding with relatively high revs.

Plan your rides to avoid heavy traffic whenever possible.

Fuel consumption is also affected by conditions that are out of your control, for instance, poor road condition, hills, riding in winter.

Observe the following aspects for economical fuel consumption :

- The planned inspection intervals must be closely observed.
- Check the tyre pressure every two weeks.
- Low tyre pressure increases rolling resistance. This increases fuel consumption and tyre wear and adversely affects riding behaviour.
- Continually check fuel consumption.
- Frequently check the engine-oil level.

Running-in period

Running-in instructions for engine and transmission.



CAUTION

Excessive revs during the running-in period increase engine wear. Any engine faults that occur during this time must be reported to a specialized dealer immediately.

During the first 500 km:

Do not exceed 1/2 throttle.

Up to 1000 km:

Do not exceed 3/4 throttle.



CAUTION

The first inspection must be performed immediately after completing the first 1000 km.

You can save yourself delays by making an appointment with a specialized dealer in advance.

Running-in new tyres



CAUTION

New tyres have a smooth surface. They must therefore be roughened by carefully running them in at various slanted positions.

Only then will the surface obtain its full grip!

Running-in new brake linings



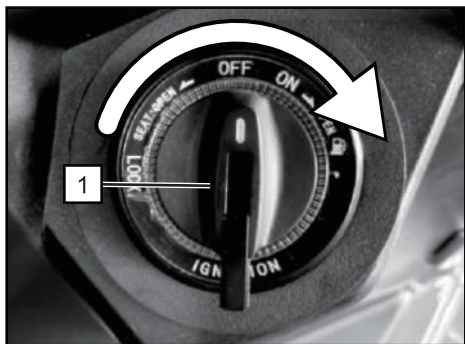
WARNING

New brake linings must be run-in and will not have their full friction power until after 500 km.

The slightly reduced braking effect can be compensated for by an increase in the pressure on the brake lever.

During this period, avoid unnecessary hard braking actions.

Starting With The Electric Starter



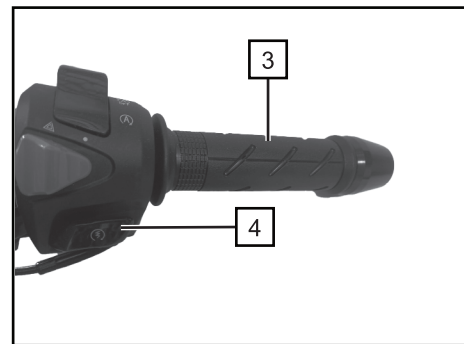
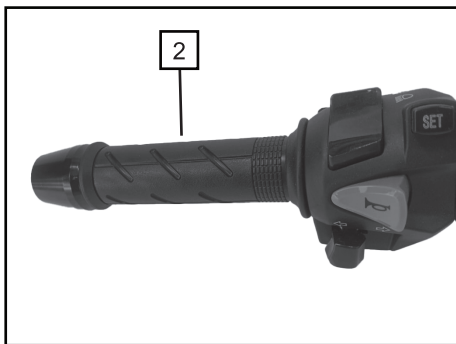
WARNING

Propping up the scooter with the parking stand. Operate the rear hand-brake lever to avoid a moving of the scooter.

Avoid high engine rpm's while the vehicle is standing still, otherwise the clutch will engage.

NOTE

The scooter is equipped with a side stand switch. If the side stand is folded up the engine is shut down and will not start.



Before starting

- Propping up the scooter with the parking stand (2).
- Turn the ignition lock (1) with the ignition key to its operating position "ON".
- Do not open the throttle (3).
- Operate the start button (4).
- If the engine can not be started after the starter motor is running for 3-5 seconds, open the throttle (3) 1/8-1/4 turns and start again.
- Push the scooter off its parking stand.
- Mount the scooter.
- Release the brake before riding.

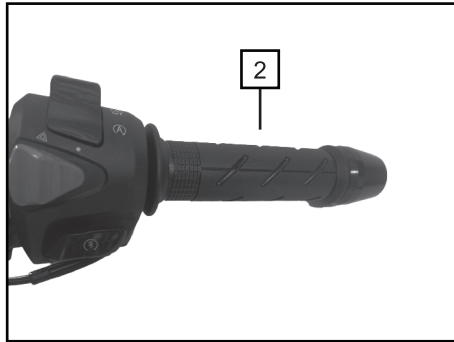
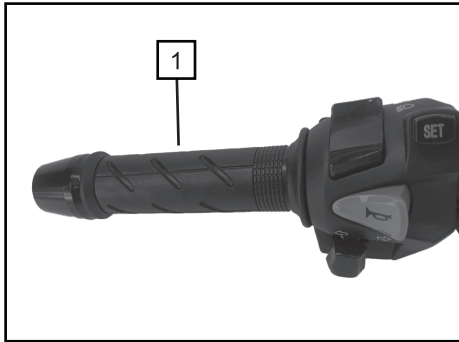
CAUTION

If the engine won't start immediately, release the start button, wait a few seconds and push it again. Each time, push the start button for just a few seconds in order to save the battery. Never push the start button for more than 10 seconds.

WARNING

Never allow the engine to run in an enclosed space. Exhaust gases are highly toxic and can kill.

Braking



Brake Lever

The front brake and rear brake are operated independently from each other. The front brake is operated via the right-hand brake lever(1) on the handlebars, and the rear brake is operated via the left-hand brake lever(2).

When stopping or slowing down, release the throttle gas and operate both brakes at the same time.

On tight curves, sandy/ dirty streets, wet asphalt and icy roads, use the front brake carefully: if the front wheel locks, the bike will slide sideways.

Brake with care. Locked wheels do not have much braking effect and can lead to skidding/crashing. In principle, do not brake on a curve, but before the curve. Braking on a curve increases the danger of sliding.

Braking on a curve increases the danger of sliding.

Braking

Wet brakes

Washing the scooter or riding through water or rain can delay the braking effect due to wet or (in winter) ice-covered brake discs and linings.

WARNING

The brakes must first be operated until they are dry.

Salt film on the brakes

When riding on salted streets without braking for a while, the full braking effect may be delayed.

Oil and grease

WARNING

The brake discs and linings must be free of oil and grease!

If the scooter is not used for a while, a rust film may form on the brakes and thus increase the braking effect. A thick rust film can cause the brakes to lock up. When setting out on a ride after a long lay-up period, carefully operate the brakes several times until they work normally.

NOTE

Make sure you practice braking for emergency situations, but do so where you will not pose a risk to yourself or others (e.g. a deserted parking area).

Wet brakes

When riding on dirty streets, the braking effect can be delayed due to dirty brake disc and linings.

WARNING

Operate the brake until they are clean. Lining wear is increased by dirty brakes!

SCREEN NAVIGATION SETTINGS

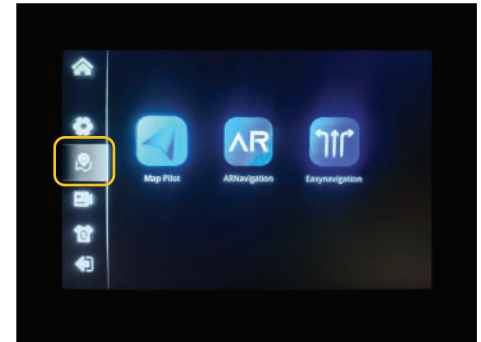
Instruction : Menu Page



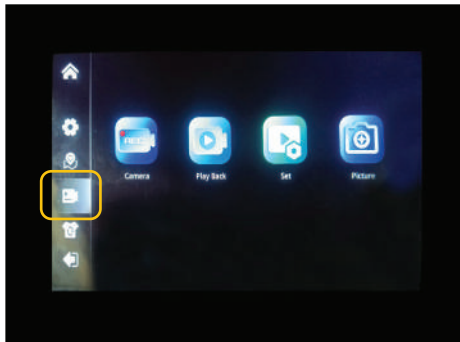
Press "SET" button to access menu page.



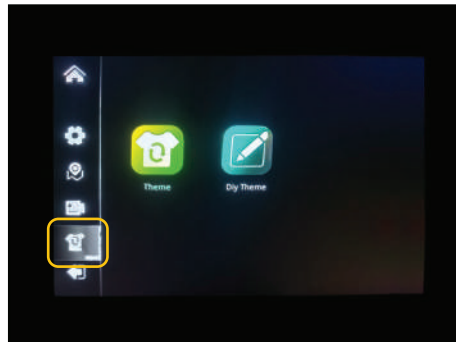
Display will transfer screen into menu page.



Press touchscreen icon "MAP" for navigation page.



Press touchscreen icon "CAM" for video record page.



Press touchscreen icon "SHIRT" for theme page.



Press touchscreen icon "BACK" to exit menu page.

SCREEN NAVIGATION SETTINGS

App Function & Instruction

Download app for phone

Scan the QR code below to install **EY Link** app onto smartphone.

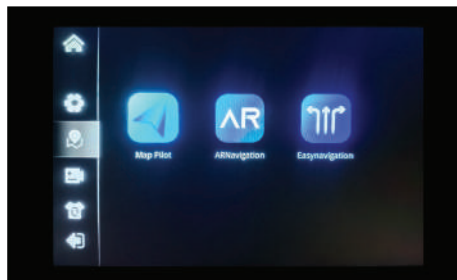


NOTE

Video playback and viewing are accessible through the mobile app.

Instructions for connecting app to meter display

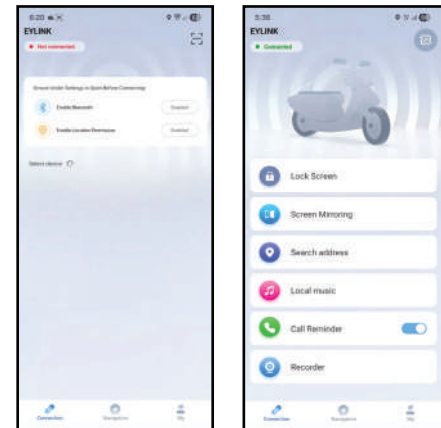
Press "SET" to access menu page.
Press touchscreen "MAP" icon to access navigation page.



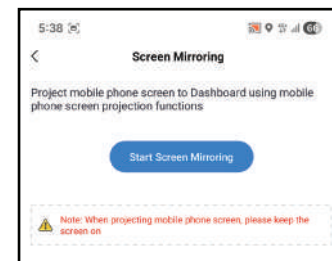
Press touchscreen "Map Pilot" icon to access onboard QR code.



Open **EY Link** app on phone.
Press "SCAN" to scan on board QR code.



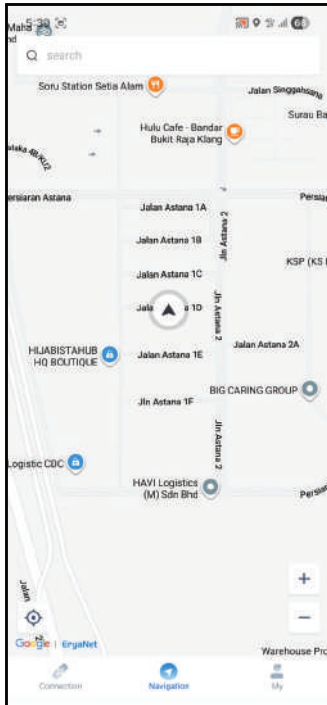
Select "Screen Mirroring" to access share screen.



SCREEN NAVIGATION SETTINGS

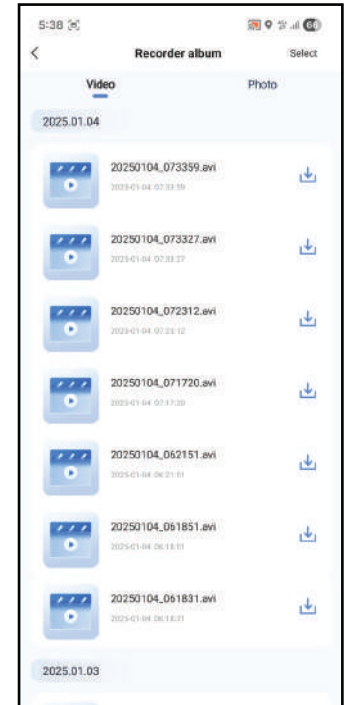
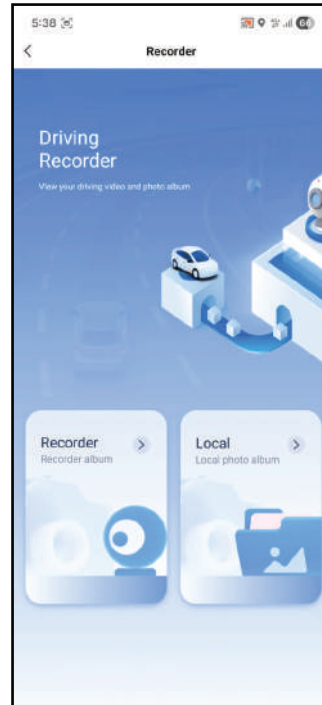
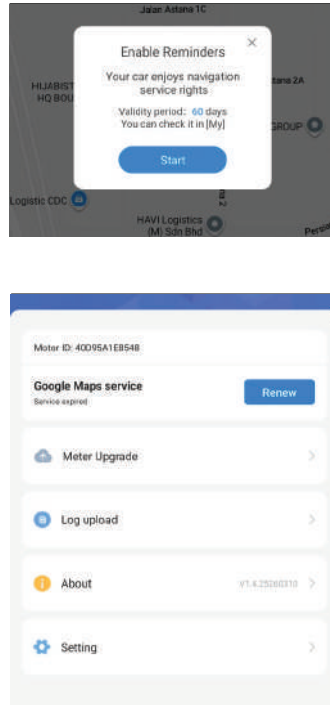
App Function & Instruction

Select "Search Address" to access navigation



Navigation service rights is valid for the first 60 days period.
After 60 days, the service rights can be renewed via app.

Select "Recorder" to access recording files.



Press "Recorder" icon to access video recordings. Select
"Download" icon to save video files into phone.
Press "Local" icon to access downloaded files on phone.

SCREEN NAVIGATION SETTINGS

Please Read The Following Instructions Carefully

- This product uses negative grounding and 12V power supply.
- Please turn off the power of the motorcycle before installation, and turn on the power after installation is completed.
- It is strictly forbidden to use a high-pressure water gun to wash the recorder host and lens accessories to prevent water from entering the body.
- It is strictly forbidden to use alcohol, stain remover, detergent and other corrosive solvents to wipe the recorder host and lens accessories, which will damage the appearance and waterproofness of the recorder.
- Do not bend the power cord and lens line during installation.
- This machine supports a maximum of 128G TF memory card. To ensure normal recording, please use Class10 high-speed card. The memory card needs to be formatted on the recorder before use for the first time.
- After the memory card is used for a period of time, it will produce a lot of fragmented files. Please format the memory card regularly.



NOTE

After installing the memory card, please press and flatten the rubber plug to ensure the waterproof effect of the recorder!



WARNING

This recorder is only used as a riding video recording tool. It is strictly forbidden to watch the recorder while riding.

Watching the display screen to judge the driving conditions of the front and rear vehicles during riding may cause danger!

Product Description

1. Status Indicator/Reset
2. Front lens connector
3. Power cord connector
4. TF card slot

Operation and APP Instructions

Turn on the machine : The ignition machine will automatically start when the motorcycle is turned on. The device will automatically shut down.

Insert the memory card : Push the Micro SD memory card straight into the card slot until you hear a "click" sound.

Remove the card : Push the Micro SD card forward. The card pops out and can be removed.



NOTE

Removing the TF card during recording may damage the file. Please shut down the device before removing the card.

Servicing the scooter / cleaning agent



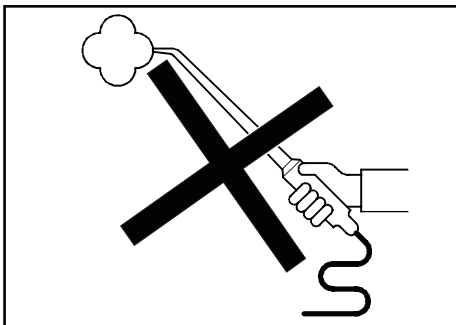
NOTE

Regular, expert service will help maintain the value of your scooter and is a condition for guarantee claims for corrosion and other such damage.



CAUTION

Rubber and plastic parts will be damaged by caustic or penetrating cleaning agents or solvents.



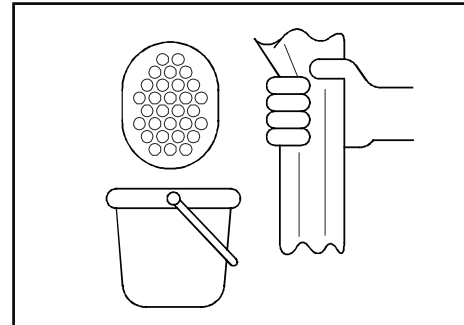
WARNING

Always carry out a brake test after cleaning and before starting a ride!



CAUTION

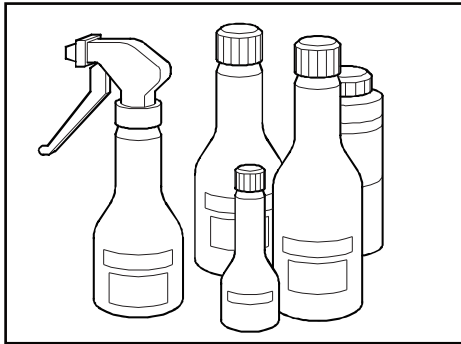
Do not use steam or high-pressure jet devices!
Such devices can damage seals, the hydraulic braking system and the electrical system.



Cleaning

- To wash the motorcycle, use a soft sponge and clean water.
- Afterwards, dry off with a polishing cloth or chamois.
- Do not wipe off dust or dirt with a dry cloth, to avoid scratching the paint or covering.

Servicing the scooter / cleaning agent



Preservation Agents

When necessary, the scooter must be preserved with commercially available preserving and cleaning agents.

- By way of precaution (especially in winter), regularly treat parts liable to corrosion with preservation agents.

CAUTION

Never use paint-polishing agents on plastic parts.

- After a longish ride, thoroughly clean the chassis and the aluminium parts and preserve them with a commercially available anti-corrosion agent.

Operation in winter and anti-corrosion protection

NOTE

Protect the environment by using only environmentally friendly preservation agents, and use them frugally.

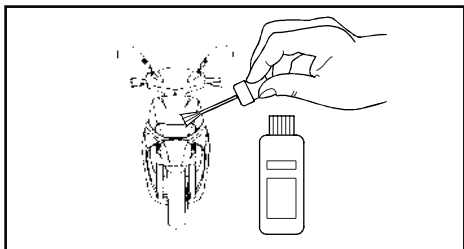
Use of the motorcycle in the winter can cause considerable damage due to the presence of salt on the roads.

CAUTION

Do not use hot water, which would increase the effect of the salt.

- At the end of each ride, wash the motorcycle with cold water.
- Thoroughly dry the motorcycle.
- Treat parts liable to corrosion with waxborne anti-corrosion agents.

Repairing paint damage



Minor paint damage should be immediately repaired.

Servicing Tyres

During the first 500 km:

If the scooter is not used for a longer period, it is recommended to support the scooter so that its weight is not on the tyres. You can prevent the tyres from becoming dry and brittle by spraying them with a silicone-rubber treatment. First thoroughly clean the tyres.

Do not store the scooter or the tyres in hot spaces (such as a boiler room) for longer periods.

WARNING

A minimum tyre-profile depth of 2.0 mm must be maintained at all times.

Lay-up

- Clean the scooter.
- Remove the battery.
- Observe the maintenance instructions.

Spray suitable lubricants onto the brake lever and the side stand and parking stand and bearings.

- Rub bright / chromium-plated parts with acid-free grease (Vaseline).

Lay-up / Commission

- Store the scooter in a dry room and jack it up so that its weight is not on the wheels.



NOTE

Combine lay-up / commission activities with an inspection by a dealer.

Commission

- Remove the preservation agents from the outside.
- Clean the motorcycle.
- Install the charged battery.
- Preserve the battery terminals with terminal grease.
- Check adjust the tyre pressure.
- Check the brakes.
- Carry out activities according to the inspection plan.
- Carry out the safety checks.

Technical changes, accessories and spare parts

WARNING

Technical changes to the scooter can lead to cancellation of the EC operating license.

Should you want to make technical changes, observe our guidelines. This will serve to prevent the scooter from being damaged and the traffic and operational safety being retained. A specialised dealer can carry out these activities with meticulous care.

Always consult a dealer before buying accessories or making any technical changes.

CAUTION

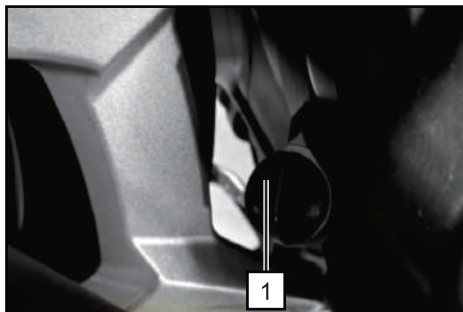
We recommend using only approved accessories and original spare parts for our scooter.

This is in your own interests : the safety, suitability and reliability of these accessories and parts will have been tested specifically for the scooter.

Although we keep track of the market, we cannot evaluate nor be held liable for the quality of non-approved accessories and parts, even if they have a certificate of acceptance from an officially recognised technical testing / supervision agency, or a license issued by the authorities.

For approved accessories and original spare parts, see AVETA specialised dealer. Aveta authorised dealer will also ensure that all accessories and spare parts are professionally installed.

Engine Oil



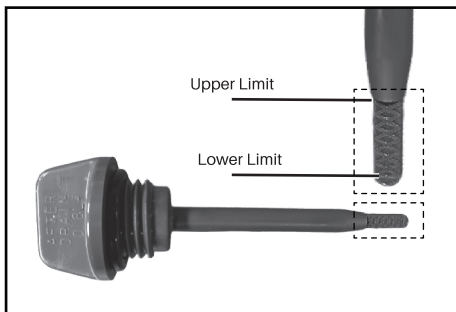
Before starting

CAUTION

Checking the oil while the engine is cold will lead to a wrong measurement and therefore the wrong oil quantity. In order to avoid engine damage, never exceed the maximum oil level nor let it drop below the minimum level.

NOTE

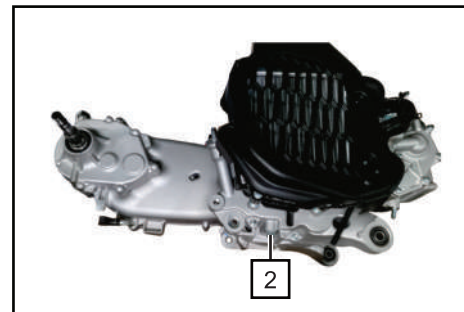
Make sure that the scooter during oil-level checks stands level in all respects. Even the slightest inclination towards the side will produce measurement errors.



- Stop the warmed-up engine, wait for approx. 5 minutes and hold the scooter upright.
- Propping up the scooter on the parking stand.
- Stop the engine and remove the oil filler cap(1) on the lower right of the crank-case.
- Clean the oil filler cap at the MIN-MAX area with a clean rag.

CAUTION

For checking the oil level only insert the oil filler cap and don't screw in! Otherwise there will be a wrong measurement in order to avoid engine damage.



- The oil level must be between the minimum and maximum marks.
- Tighten the oil filler cap by hand.

If required, replenish the engine oil. SAE 10W/40 via the oil level up to the MAX level mark.

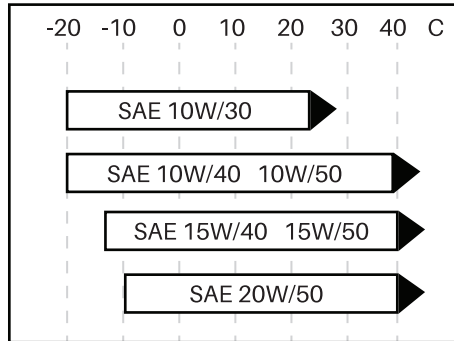
- When changing new engine oil, remove the oil hole screw(2), till all engine oil is flow out, then tighten the screw(2) and add new oil till the level up to the MAX mark.

Engine Oil

CAUTION

Do not use additives. Since the oil also serves to lubricate the clutch, do not use car engine oils supplemented with friction modifiers (such energy-conserving oils can lead to the clutch slipping).

- If required, replenish the engine oil (for classification and viscosity, see the table) via the oil-filler opening up to the maximum level marking.

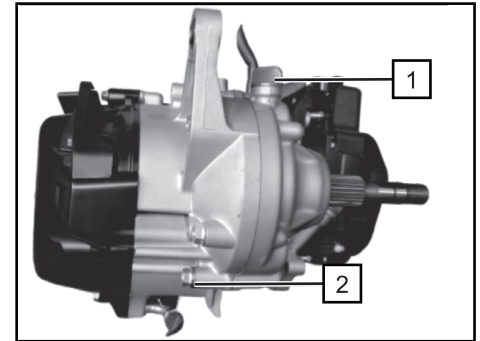


Recommended grade:

Per API:SG or higher or also with additional release status: ACEA A3/96 (CCMC G5)

Recommended viscosity: Viscosity depends on the outside temperature. For short while, the temperature may exceed or fall short of the limits of the SAE grades.

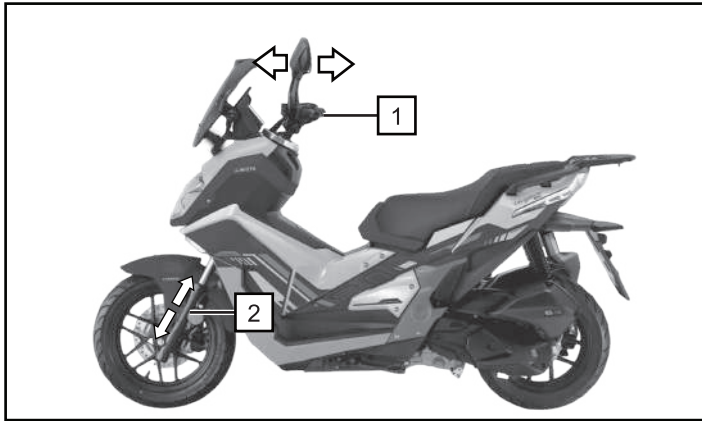
The recommended viscosity grade SAE 10W/40 (0.9L) covers the ambient temperature range -15°C to +40°C and therefore represents the optimum for our latitudes.



Checking the transmission oil level

- Stop the warmed-up engine, wait for approximately 5 minutes.
- Remove the oil filler screw(1) and check if the oil level is below the oil-filler opening.
- If required, replenish transmission oil SAE 85W-90 (0.2L) via the oil-filler opening.
- When change new transmission oil, open the oil hole screw(2), till all transmission oil is flow out, then tighten the screw(2) and add new oil via the oil-filler opening.
- Tighten the oil filler screw(1).

Checking The Steering Bearings



NOTE

The telescopic fork should not jam up when turned and it should swing back lightly to both end positions.

- The telescopic fork should not jam up when turned and it should swing back lightly to both end positions.
- Hold the handlebar with both hands and try to move the handle bar(1) back and front.
- If the fork column bearing shows noticeable play, it must be adjusted by a specialised dealer.

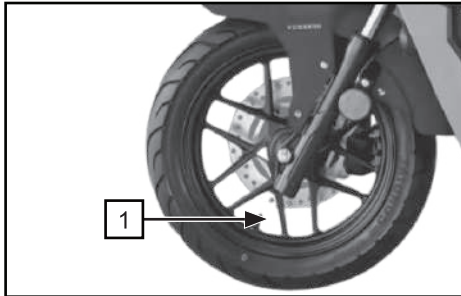
Checking The Telescopic Fork

- Pull the hand brake to block the front wheel brake.
- Now pump the fork girders(2) several times up and down using the handlebar.
- The suspension should respond perfectly.
- Check the fork girders for oil leaks.

NOTE

If damage to the telescopic fork or the spring strut is found have the motorbike examined by a professional dealer.

Tyre Profile



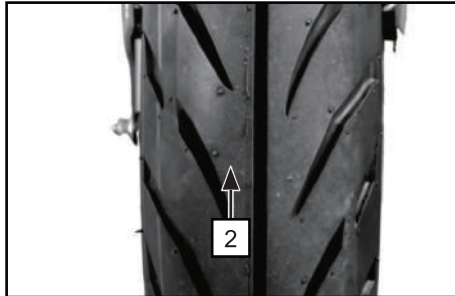
Checking the profile depth

WARNING

Observe the minimum profile depth prescribed by law.
Never ride without valve caps(1). Firmly tightened valve caps prevent the tire from suddenly losing pressure.

- Measure the profile depth at the center(2) of the tire's tread.

Recommended minimum profile depth : 2.0 mm
Observe the wear marks(3).



Checking the tire pressure

WARNING

Adjust the tire pressure according to the total weight load. Never exceed the rated total weight or the bearing capacity of the tires.

Incorrect tire pressure will have a considerable effect on the riding properties of the scooter and the lifespan of the tires.

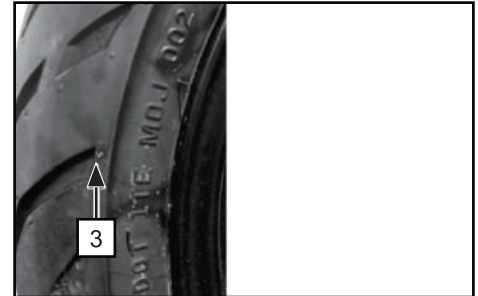
While the tires are cold :
Twist off the valve caps.

- Check / adjust the tire pressure.
- Twist on the valve caps.

Tire pressure

One rider : Front : 225kpa / Rear : 250kpa

Two rider : Front : 250kpa / Rear : 280kpa



Tire size and type

This scooter is provided with the following tire sizes :

Front : 110/80-14

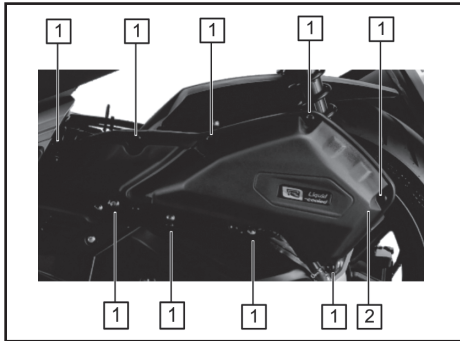
Rear : 130/70-13

All Tires are tubeless.

WARNING

Use only tires approved by the manufacturer. The use of non-approved tire brands, types or sizes leads to the operating permit of the vehicle becoming null and void. Use only pairs of tyres produced by the same manufacturer.

Replacing The Air Filter

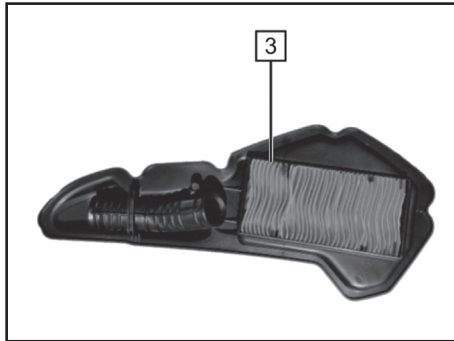


NOTE

The scooter is attached with a oil foam air filter. In case of heavy dirtiness the paper filter element (3) has to be replaced.

Disassembly and cleaning:

- Remove cross screws(1) and take off the air filter cover(2).
- Take off the paper filter part(3).
- Dust out the paper filter and clean with air pressure or replace if necessary.



NOTE

Usually the installation takes place in reverse order to disassembly.

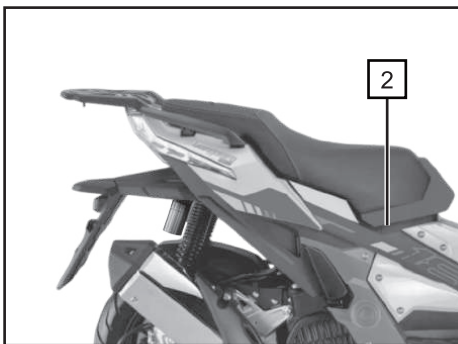


CAUTION

Never run the engine without air filter.

- Dust deposit is one of the major causes of reducing output horsepower and increasing fuel consumption.
- Change the air cleaner element more frequently to prolong the engine's service life if the scooter is ride on dusty roads very often.
- Check for properly installation of the foam housing in the filter case.
- Otherwise the engine runs poorly or lead to serious engine damage.
- Be careful not to soak the air cleaner when washing the scooter. Otherwise it will cause engine hard to start.

Checking the fuse



CAUTION

Never install a fuse with a larger rating, since this could destroy the entire electrical system.

The fuse is located behind the inspection cover.

- Insert the ignition key(1) into the lock turn to the left to open.
- Turn the ignition key to the left and open the seat cushion(2).
- Open the small cover of the fuse box cover on the main seat bucket (3).
- Open the fuse case(4) and remove the fuse.
- A faulty or blown fuse must be replaced by a new one with 15A (ABS), 20A (charging system), 25A (injection)
- Check the fuse for correct contact. Loose fuse will blow.

Installation takes place in reverse order to disassembly.

Battery

WARNING

Always wear safety glasses when handling batteries. Keep children away from batteries and battery acid.

EXPLOSION DANGER

Batteries produce highly explosive gases while being charged. Keep sparks, open flames, and smoking materials away from the battery at all times.

FIRE HAZARD

Avoid short circuits. Prevent sparks and electrostatic discharge when handling cables and electrical devices.

CORROSIVE DANGER

Battery acid is highly corrosive and can cause severe chemical burns. Avoid contact with skin, eyes, or clothing.

FIRST AID

Eye Contact: If acid comes into contact with the eyes, immediately flush them with fresh water for several minutes and seek medical attention immediately.

Skin or Clothing Contact: Immediately wash the affected area with soapy water to neutralize the acid, then flush thoroughly with plenty of water.

Ingestion: If acid is swallowed, seek medical attention immediately.

CAUTION

- **Do not expose batteries to direct sunlight.**
- **Discharged batteries are susceptible to freezing. Store batteries in a location where the temperature remains between 5°C and 15°C.**
- **Proper maintenance, charging, and storage will significantly increase the battery's lifespan and are required conditions for honoring warranty claims.**

WARNING

Never dispose of a dead battery in standard household waste. Always take old batteries to an authorized recycling facility or collection point.

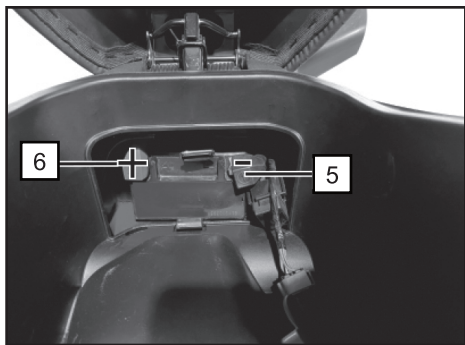
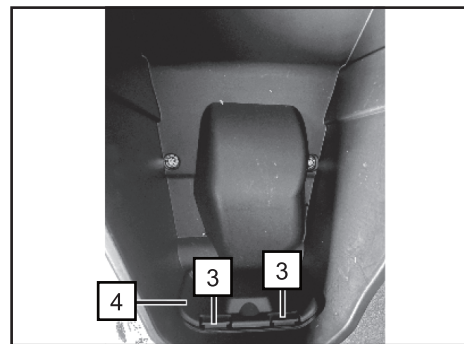
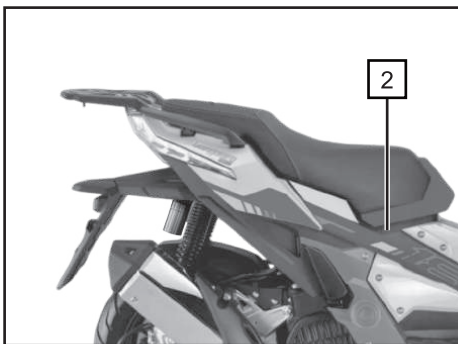
Charging the battery

- If the scooter is stored for a long period (3 to 4 months), the battery must be recharged.
- The charging current (in Amperes) must not exceed 1/10th of the battery's total capacity (Ah).
- Do not use a fast charger. The battery may only be charged using a charger specifically approved for Maintenance-Free (MF) batteries.

Maintenance

- Although the battery is a "maintenance-free" type, it still requires basic care.
- Never leave the battery in a fully discharged state.
- Keep the battery casing clean and dry, and ensure the terminal connections are firmly tightened.

Removing And Installing The Battery



CAUTION

The battery may only be connected or disconnected while the ignition is inactive.

- Turn off the ignition.
- Turn the ignition key to the left and open the seat cushion (2).
- Press the key (3) and remove the battery cover (4).

First disconnect the minus terminal (5, black cable).

Then disconnect the plus terminal (6, red cable).

- Disconnect the battery.
- Remove the battery.

Installation takes place in reverse order to disassembly.

When installing the battery, first connect the plus terminal (6, red cable).

The battery is maintenance-free. Do not try to open it.

TECHNICAL DATA

Vanguard 180 Specifications

Engine Type & Power Transmission	
Engine type	Single-cylinder, 4-stroke
Displacement	174 cc
Bore x Stroke	61.0 mm x 59.6 mm
Compression ratio	11.5:1
Cooling System	Liquid-cooled
Maximum Power	13.6 kW @ 8,500 rpm
Maximum Torque	17.2 Nm @ 6,500 rpm
Ignition System	ECU-controlled Electronic Ignition
Spark Plug	CPR8EA
Spark Plug Gap	0.8 – 1.0 mm
Fuel System	Electronic Fuel Injection (EFI)
Idle Speed	1,700 ± 100 rpm
Air Filter	Viscous paper element
Starter System	Electric
Clutch Type	Dry, centrifugal automatic
Transmission Type	CVT (Continuously Variable Transmission)

TECHNICAL DATA

Vanguard 180 Specifications

Lubricants and Operating Fluids	
Fuel Tank Capacity	10.5 liters
Recommended Fuel	Unleaded petrol (minimum RON 95)
Engine Oil Type	SAE 10W-40 (API SL or higher)
Engine Oil Capacity	0.9 liters
Transmission Oil Type	SAE 80W-90 (API GL-4 or higher)
Transmission Oil Capacity	0.2 liters

Electrical Equipment		
Generator Output	12 V / 210 W	
Battery	12 V / 7 Ah	
Main Fuse	20 A	
Headlight (High Beam)	Head Beam : LED 12 V / 15.5 W	Low Beam : LED 12 V / 6.0 W
Position Light	Front : LED 12 V / 1.0 W	Rear : LED 12 V / 0.4 W
Brake Light	LED 12 V / 3.0 W	
Turn Signals	Front : LED 12 V / 2.0 W	Rear : LED 12 V / 3.0 W

TECHNICAL DATA

Vanguard 180 Specifications

Chassis	
Front Suspension	Telescopic fork
Rear Suspension	Dual shock absorbers
Front Wheel Rim	MT 2.5 x 14
Rear Wheel Rim	MT 3.50 x 13
Front Tire Size	110/80-14
Rear Tire Size	130/70-13
Tire Pressure	Single Rider: Front: 225 kPa / Rear: 250 kPa
	Two Riders: Front: 250 kPa / Rear: 280 kPa
Front Brake	Hydraulic disc with ABS and TCS
Rear Brake	Hydraulic disc with ABS and TCS

TECHNICAL DATA

Vanguard 180 Specifications

Dimensions and Weights	
Length x Width x Height	1970 mm x 760 mm x 1180 mm
Wheelbase	1375 mm
Seat Height	780 mm
Curb Weight	140 kg
Ground Clearance	140 mm

TROUBLESHOOTING

Fault Codes

Component/ System	Fault code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	MIL activation	Demonstration Test
Fuel injector	P0262	Circuit check	short to battery plus			5 seconds after Fault	idle
	P0261		short to ground				idle
	P0201		open circuit				idle
Fuel pump	P0629	Circuit check	short to battery plus			5 seconds after Fault	idle
	P0628		short to ground				idle
	P0627		open circuit				idle
Idle air control system	P0509	Circuit check	short to battery plus			5 seconds after Fault	idle
	P0508		short to ground				
	P0511		open circuit				
	P0511		Over current				
Ignition Coil	P2300	Circuit check	short to ground			5 seconds after Fault	idle

TROUBLESHOOTING

Fault Codes

Ignitioncoils	P2300	1 cylinder ignition coil short circuit to ground	EUVprojectmustcheckitemPIN36andPIN5 (ignition ground)shortcircuit
MIL	P0650	MILLlightcontrolcircuit failure	WhenB_Milis set (MILLightis on),PIN29andPIN33 (continuous powersupply) are short-circuited WhenB_Milis set (Mill lightis off), PIN29andPIN5 (ignition ground) are short-circuited. WhenB_Milis set (MILLightis on), PIN29is open circuit
TIP sensor	P1099	Tip sensorshorted to powersupply	PIN38andPIN33 (continuous powersupply)short circuit
	P1098	Tip sensorshortcircuit to ground	PIN38andPIN5 (ignition ground)are short-circuited and B_dump_ua is set.
Carbon canister control valve	P0459	The carbon canister control valve control circuit is short-circuited to the power supply.	PIN6andPIN33 (continuous powersupply)are short-circuited and the carbon canisterdoesnot work (diagnosed only when the carbon canisteris working)
	P0458	Carbon canister control valve control circuit shortcircuit to ground	PIN6andPIN5 (ignition ground)are short-circuited, and the carbon canister is alwaysworking (diagnosed only when the carbon canisteris not working)
	P0444	Carbon canister control valve control circuit open circuit	PIN6opencircuit (diagnosed only when the carbon canisteris working)
	P0441	The carbon canister control valve controls the flow unreasonably	Diagnosticenablecondition B_dteven is set, B_tevopenok=false or B_tevopenclose=flase and dtevencnt is greaterthan 700. Referto TEVBG500.11
Intake manifold pressure sensor	P0108	Intake manifold pressure sensor voltage is too high fault	PIN9andPIN30 (5Vpowersupply)are short-circuited
	P0107	Intake manifold pressure sensor voltage is too low fault	PIN9andPIN5 (ignition ground)shortcircuit
	P0105	Intake manifold pressure sensor voltage failure	10mssamplingacquisition variablepsini_w/psdss_w changesDPDDF to the upper limit, and the calibration amountis always satisfied by psini_w-psdss_w<DPDDF;

TROUBLESHOOTING

Fault Codes

	P0106	Intake manifold pressure sensor signal is unreasonable	Modify KFPSDMX so that psdss in the driving cycle > the current value of KFPSDMX or modify KFPSDN so that psdss in the driving cycle is less than KFFPSMN;
Speed sensor	P0322	Speed sensor signal failure	Disconnect PIN43and42 to start
Idle speed	P0507	Idle speed is too high fault	First, you need to let the vehicle speed sensor complete the diagnosis (turn the drum or ride in 1st gear for rapid acceleration, then close the accelerator and coast, and let the engine cut off the oil for more than 5 seconds). The vehicle speed diagnosis is completed Z_vfz=1 and there is no vehicle speed fault E_VFZ=0; The idle speed diagnosis can only be carried out after the vehicle speed diagnosis is completed, that is, B_IIa=1; B_mxlrr=1 requires dn_w_ua<DNDLLRU and qregi_ua=DQMNL_UA; B_mnlrr=1 requires dn_W_ua>DNDLLRO and qregi_ua=DQMXL_UA
	P0506	Idle speed is too low fault	
Intake air temperature sensor	P0113	Intake air temperature sensor signal voltage is too high	PIN 11 and PIN30 (5V power supply) are short-circuited
	P0112	Intake air temperature sensor signal voltage is too low	PIN 11 and PIN5 (ignition ground) short circuit
	P0111	Intake air temperature sensor signal is unreasonable	option1: adjust TADHZLL to 100 °C, TMDTAHLL adjust to -5°C. That is, when tanslin < TADHZLL, tmot > TMDTAHLL fault report option2: DTAFIX adjust to the maximum value that can be filled in, and drive the vehicle to ensure the following working conditions tmst < TMSPTAFX&vfzg > VPTAFXO&ml > MLPTAFX And tmst < TMSPTAFX&vfzg < VPTAFXU&tmot > TMPTAFXU meets the conditions at least 2 times

TROUBLESHOOTING

Fault Codes

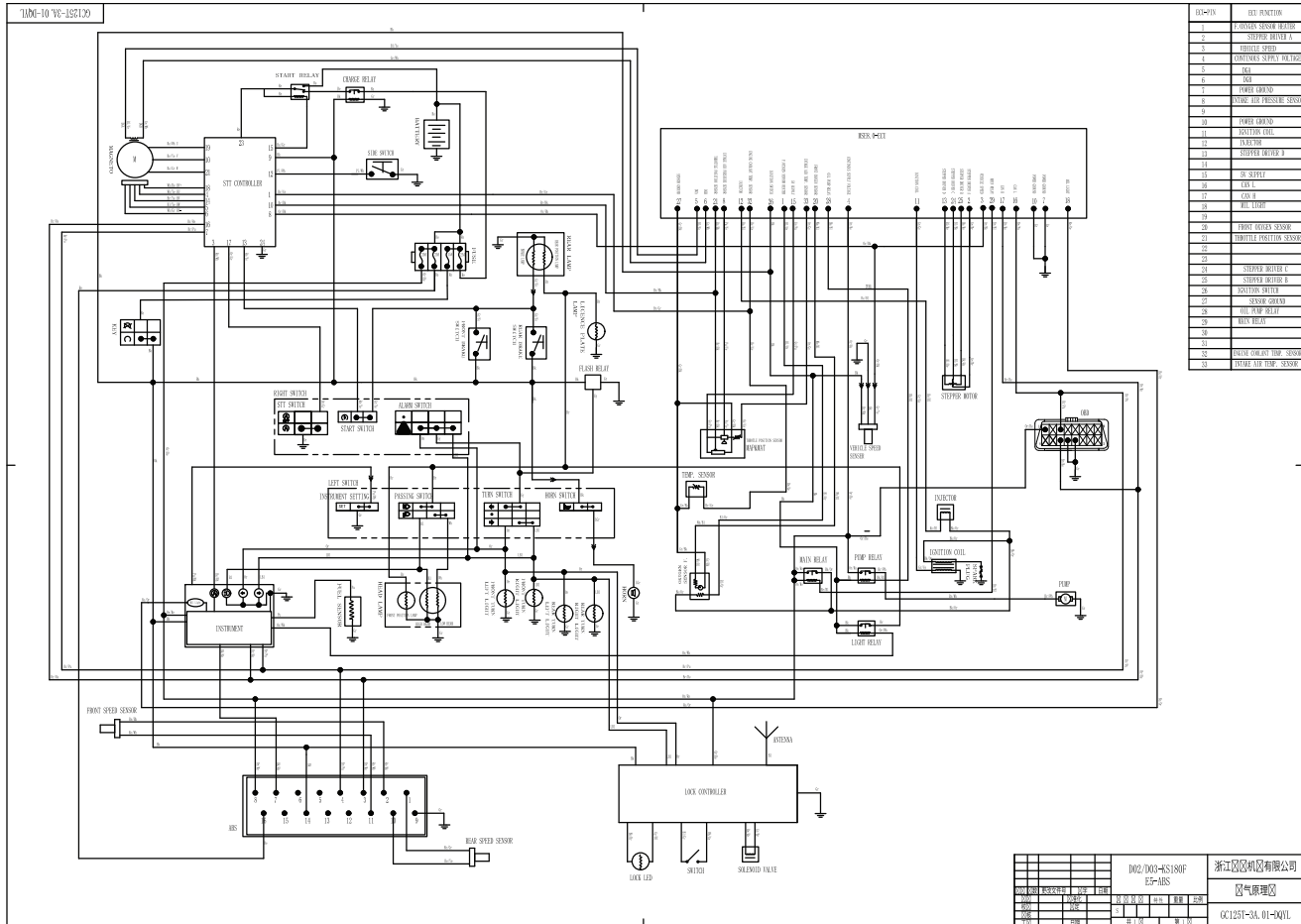
	P0111	Intake air temperature sensor signal is unreasonable	option1: adjust TADHZLL to 100°C, TMDTAHLL adjust to -5°C. That is, when $tanslin < TADHZLL$, $tmtot > TMDTAHLL$ fault report option2: DTAFIX adjust to the maximum value that can be filled in, and drive the vehicle to ensure the following working conditions $tmtst < TMSPTAFX \& vfgz > VPTAFXO \& ml > MLPTAFX$ And $tmtst < TMSPTAFX \& vfgz < VPTAFXU \& tmtot > TMPTAFXU$ meets the conditions at least 2 times;
engine coolant temperature	P0118	Engine coolant temperature sensor signal voltage is too high	PIN13 (watercooling) OR PIN22 (aircooling) and PIN30 (5V power supply) are short circuited
	P0117	Engine coolant temperature sensor signal voltage is too low	PIN13 (watercooling) OR PIN22 (aircooling) and PIN5 (ignition ground) are short circuited
	P0116	Engine coolant temperature signal is unreasonable	Driving the vehicle, pay attention to the upward trend of $tmrw$. When $tmrw=60$, modify TMOTELI to make $tmtot$ less than $tmrw-DTMDMA$
System voltage	P0563	System voltage is high	Change UBDMX to a smaller size so that $wub_w > UBDMX \text{ speed} > VMDUB$
	P0562	System voltage is low	Change the size of UBDMN1 to make $wub < UBDMN1 \text{ speed} > VMDUB$
	P0560	System voltage	Change the size of UBDMN1 to make $wub < UBDMN2 \text{ speed} > VMDUB$
vehicle speed sensor	P0501	Vehicle speed sensor A signal is unreasonable	When rotating the drum or riding in 1st gear, accelerate rapidly and then coast with the throttle closed, allowing the engine to back up and cut off the oil for more than 5 seconds; Modify VDMN to the maximum value
Throttle position sensor	P0123	TPS sensor signal voltage is high	PIN12 and PIN30 (5V power supply) are short-circuited
	P0122	TPS sensor signal voltage is low	PIN12 and PIN5 (ignition ground) short circuit
1-cylinder non-idling fuel supply system	P2177	The fuel supply system of cylinder 1 is too thin in non-idling state.	Modify FRKAP=0.75 during idling, and frau will self-learn to be less than FRAUDN.
	P2178	The fuel supply system of cylinder 1 in non-idling state is too rich.	Modify FRKAP=1.25 during idling, and frau will self-learn to be greater than FRAUDX

TROUBLESHOOTING

Fault Codes

Oxygen sensor heater (row 1)	P0032	Oxygen sensor heating signal voltage is high	PIN2 and PIN33 (continuous power supply) short circuit
	P0031	Oxygen sensor heating signal voltage is low	PIN2 and PIN5 (ignition ground) short circuit
	P0030	Oxygen sensor heating circuit open circuit	PIN2 disconnected
	P0053	Oxygen sensor heating resistance is too large	Oxygen Heating Resistor Simulator Set 35ohm Resistor
Oxygen sensor (row 1)	P0133	Oxygen sensor signal response efficiency is low	Oxygen aging simulator, set cycle extension delay time to 600ms
Oxygen sensor (row 1)	P0132	Oxygen sensor signal voltage is high	PIN19 and PIN30 (5V power supply) are short-circuited
	P0131	Oxygen sensor signal voltage is low	Demonstration when the engine is cold: that is, the starting temperature is less than TMSV 40°C ; The engine shutdown temperature is greater than TMSVA 60°C ; PIN19 and PIN5 (ignition ground) are short-circuited;
	P0134	Oxygen sensor signal voltage deactivated	Disconnect PIN19
	P0130	Oxygen sensor signal voltage	PIN 19 and PIN2 short circuit

ELECTRICAL CHART



INSPECTION TABLE

Maintenance Schedule

Item	Before each trip	1st Service (After 1000km)	Every 3,000km / 6 Months	Every 6,000km / 12 Months	Every 12,000km / 24 Months
Air filter ^{*1}		I	I		I
Engine oil	I	R	R	R	R
Engine oil strainer screen		C	C	C	C
Oil filter		N/A	N/A	N/A	N/A
Transmission oil	I	R		R	R
Spark plug		I	I	R	R
Valve clearance			I	I	I
Throttle operation	I	I	I	I	I
Fuel filter				I	I
Engine ventilation		I	C	C	C
Engine idle speed		I	I	I	I
Radiator coolant	I		I	I	I
Cooling system			I	I	I

I = Inspection
(clean, adjust, lubricate
or replace if necessary)

C = Clean
L = Lubricate
R = Replace

N/A = Not Applicable

Notes:

^{*1} : Service more frequently when riding in unusually wet or dusty areas.

INSPECTION TABLE

Maintenance Schedule

Item	Before each trip	1st Service (After 1000km)	Every 3,000km / 6 Months	Every 6,000km / 12 Months	Every 12,000km / 24 Months
Drive Belt		I	I	I	R
Roller set weight		I	I	I	R
Clutch shoes wear				I	I
Battery		I	I	I	I
Brake fluid	I	I	I	I	I / R-Every 2 years
Brake pads wear	I	I	I	I	I
Brake system		I	I	I	I
Lights / Horn	I				
Steering head bearings				I	I
Suspension		I	I	I	I
Nuts, bolts, fasteners		I		I	I
Wheels / Tires	I		I	I	I
Main and side stands	I		I	I	I

I = Inspection

(clean, adjust, lubricate
or replace if necessary)

C = Clean

L = Lubricate

R = Replace

WARRANTY CLAIM POLICY

Warranty Claim Coverage and Guideline

No.	Engine component / Related with engine	Warranty Cover	Guideline
1.	Engine component / Related with engine	2 Years @ 20,000km	Based on registration date
2.	Chassis component / Related with chassis	3 Months	Based on registration date
3.	Electrical Components	1 Year@ 10,000km	Based on registration date
4.	Battery	6 months	Based on registration date
5.	Wear and tear	Case-by-case Basis	Subject to case-by-case approval

Warranty Claim Process Flow

1. To receive immediate assistance, customers are encouraged to visit any AVETA authorized dealer or contact our service hotline at **012-503 5409(Customers/End Users)**. Our support team is available and ready to assist with any inquiries or concerns.
2. In order to be eligible for warranty claim services, customers must present a valid proof of purchase along with the defective part or the affected motorcycle to the nearest authorized AVETA dealer.
3. Please note that this warranty does not cover any inconvenience, loss of use of the motorcycle, or costs associated with transporting the motorcycle to or from an AVETA dealer.

WARRANTY CLAIM POLICY

Warranty Limitations and Exclusions

1. AVETA warranty does not cover consumable parts that are subject to normal wear and tear. These include items such as sprockets, air filters, light bulbs, engine oil, coolant, belting, clutch plates, bearings, brake shoes, brake pads, spark plugs, brake discs, gaskets, fuses, and oil filters.
2. The warranty is also void if any parts of the motorcycle have been subjected to misuse, involved in an accident, treated negligently, or used with parts and equipment not manufactured or approved by AVETA. Such use may adversely affect the performance and reliability of the motorcycle.
3. Any parts that have been altered, modified, or replaced in an unauthorized manner will not be covered under the warranty if, in AVETA's sole judgment, such changes impact the motorcycle's performance or reliability.
4. AVETA's warranty does not extend to any indirect or consequential losses. This includes loss of profits, transportation expenses, downtime, or any external repair charges resulting from the breakdown of the motorcycle.
5. Damage or rust caused by environmental exposure—such as to acids, detergents, animal urine, seawater, cement water—as well as damage due to natural disasters including floods, earthquakes, and fires, or any external factors beyond AVETA's control, are also excluded from warranty coverage.

Judgment of Warranty Claims

AVETA Malaysia reserves the sole and final right to determine the validity of all warranty claims.



Aveta Global Marketing Sdn Bhd

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