



USER MANUAL

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We prepared this manual to brief you about certain characteristics of your vehicle. The more that you know about your vehicle, the greater the safety and pleasure you will get from riding it. Thank you for choosing Rakun Mobilite Teknoloji ve Ticaret A.Ş.

Careless riding can cause you to lose control of the vehicle, it may cause accidents and injuries. We recommend you to be very careful when using hardware which may distract you. Your primary responsibility is the safe operation of your vehicle. We recommend that you do not operate any hand-held devices and use voice operated systems whenever possible during riding. Make yourself familiar with all applicable local laws that may affect the use of electronic devices while riding.

Note: This manual describes the features of the vehicle and the available options in this vehicle class, sometimes even before these features and options are started to be used. Therefore, some of the features here may not apply to the vehicle that you have purchased.

Note: Some of the illustrations in this manual may show features as used in different models, some may appear different to you on your vehicle. However, the essential information in the illustrations is always correct.

Note: Always use and operate your vehicle in line with all applicable laws and regulations. The information contained in this publication was correct at the time of going to print. In the interest of continuous development the right is reserved to change specifications, design or equipment at any time without notice and without incurring any obligations. No part of this publication can be duplicated, transferred, stored in a storage system or translated into any language in any way without our written approval. There might be mistakes and missing parts.

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PARTS AND ACCESSORIES

PARTS AND ACCESSORIES

Your raccoon vehicle is manufactured to the highest standards using high quality Rakun Mobilite Teknoloji ve Ticaret A.Ş. Original Parts. You may enjoy riding your vehicle for years. If an unexpected condition occurs and an important part needs to be replaced, we recommend that you do not use any parts other than Rakun Mobilite Teknoloji ve Ticaret A.Ş. Original Spare Parts. Rakun Mobilite Teknoloji ve Ticaret A.Ş. Original Parts ensures that your vehicle is repaired to its pre-accident condition and maintains its maximum residual value. Rakun Mobilite Teknoloji ve Ticaret A.Ş. Original Spare Parts complies with the strictest safety conditions and high reliability standards of Rakun Mobilite Teknoloji ve Ticaret A.Ş. Thus,

they offer the best total repair cost including the costs of parts and labour.

ASSEMBLY OF ACCESSORIES AND RECOMMENDATIONS FOR SAFETY MEASURES

A large number of accessories are available for RAKUN owners.

The user is responsible for any nonconformities and/or problems which may arise from accessories that are installed in RAKUN products.

Additional electrical accessories can cause damage to the existing electrical system. Overloads can cause damage of the cable harness or hazardous situations due to loss of electrical power during use of the vehicle.

WARNING

Replacing parts of the vehicle by non-authorized persons adversely affects safety. The safety and traffic rules specified in the legislations must be observed. The manufacturer is in no way responsible for any nonconformity which is caused by unauthorized persons and improper replacements.

ACCESSORIES, SPARE PARTS, RAKUN MOBILITE TEKNOLOJİ ve TICARET A.Ş. MODIFICATIONS

Today, there are many non-original parts and accessories are being sold in the market for Rakun Mobilite Teknoloji ve Ticaret A.Ş. vehicles. Using these type of non-original Rakun Mobilite Teknoloji ve Ticaret A.Ş. parts and accessories (even these parts are authorized by some institutions in your country) may have an adverse effect on the safety of your vehicle. Therefore, non-original Rakun Mobilite Teknoloji ve Ticaret A.Ş. parts and accessories and problems likely to result from the usage of these are not considered under warranty and this does not put FORD CARGO under any liability.

No modifications should be performed on this vehicle. Any modification on your vehicle could effect your vehicle's performance, safety, and durability, and it might also be against legal regulations. Additionally, any damage and performance problems due to the modification of your vehicle are not considered under warranty cover.

RAKUN MOBİLİTE TEKNOLOJİ ve TICARET A.Ş.

PARTS AND ACCESSORIES

- When the warning on the battery indicator turns to red, connect the batteries to the charger, do not expect them to discharge completely.
- Batteries on the product will experience a decrease in lifespan with each charging process, each charging process will result in a decrease in the product's km distance.
- There may be an extended charging time due to quality problems in the mains or deterioration of on-board charging equipment. The disruptions caused by energy quality problems of the mains electricity cannot be evaluated within the scope of warranty.
- Overloading and frequent use of ramps which are steeper than the given value will cause the vehicle to wear out in less time than its declared lifespan. In this way, excessive wearing and ageing will not be covered by the warranty.
- Do not park in puddles which are higher than the tyre level, you can cause water to ingress into the rear rim, rusting and circuit failures may occur, it is not considered under the scope of the warranty.
- Periodic maintenance is mandatory and the product is under the responsibility of its owner, the product that is not periodically maintained is excluded from the warranty. To avoid traffic accidents, please follow the necessary traffic rules and wear your helmet.
- The user is responsible for any accidents and consequences that may occur and these do not bind the seller, manufacturer and importer company.
- Please call your nearest authorised service for any problems you may encounter during the assembly and installation stages.
- The information and images in the user manual are for reference purposes.
- The state of charge of the batteries must be checked every 30 days and they should be stored when the battery charge is 50% during storage. Otherwise, the lifespan of the battery gets shorter, its performance decreases.
- Batteries must certainly be charged within 30 days. Batteries that are not charged within more than 30 days have shorter lifespans and their performances decrease.
- Do not wash the Rakun with a pressure washer gun and pressurized water. Wipe it only with a damp cloth. Otherwise, failures which may occur are not covered by the warranty.
- Any alterations, repairs, modifications and modifications made except for the Rakun's original are not covered by the warranty. Repair of any failures which may occur in such cases and legal responsibilities belong to the user.
- Do not clean the vehicle when the vehicle drive system is engaged or the vehicle is plugged to be charged. Before cleaning the parts of the vehicle which include the electric components, make sure that the vehicle enters completely into the sleep mode.

SAFETY

Rules of safe riding

1. Checks must be certainly carried out before riding to avoid a possible accident and any damage to parts of your vehicle.
2. To use your RAKUN, you only need to have a A/A2 or B license. However, we recommend at least 10000 km of motorcycle riding experience to use the vehicle.
3. Always maintain your riding within your own abilities, you can avoid possible accidents that you may encounter by this way.
4. Wear bright and light clothes while riding to avoid a possible accident caused by other drivers of the vehicles.
5. Follow the traffic rules completely. Adjust your speed according to traffic rules and condition of the road. Do not change lanes abruptly, use your turn signals when turning or changing lanes to warn other drivers in traffic, be more careful on highways, intersections, stopping and taking off moments.
6. In rainy weather, be particularly careful on wet and loose grounds, the ability to manoeuvre and stop will decrease. In rainy weather, the braking distance will become double. Depending on the road conditions, slow down your speed in any hesitation you may have. Show extreme attention when passing over metal, tile, painted surfaces and painted areas, which will increase the possibility of slipping in rainy weather.
7. Both of your hands should be on the grips and both of your feet should be on the steps while riding. If available, the passenger should hold on to the rider with his/her hands and put his/her feet on the steps.
8. Never ride after using alcohol or drugs that distract you.

SAFETY

IMPORTANT SAFETY INFORMATION

If you take responsibility for your own safety and become aware of the challenges you may face on the road, your motorcycle will serve and give enjoyment to you for many years. There are many measures you can take to protect yourself while riding. In this manual you will find many recommendations to help for the subject of security.

The following are the recommendations that we think are the most important.

Always wear a helmet when riding your vehicle. Helmets significantly reduce the number and severity of head injuries.

When choosing a helmet, we recommend that you choose helmets which have received 5 stars from the SHARP safety test.

Other safety standards which we recommend that the helmets you use have:

- SNELL
- ECE R22.05
- DOT

We also recommend wearing eye protection, durable boots, gloves and other protective clothing.

Make yourself easily visible. Some drivers don't see the motorcyclists on the road because they don't particularly look at them. Wear bright reflective clothes to make yourself visible, stand in a position where other drivers can see you, use your turn signals when turning or changing lanes, and use the horn if it will help others to notice you.

Use the motorcycle within its limits, another important cause of motorcycle accidents is pushing the limits. Don't ride a motorcycle exceeding your personal abilities or go any faster than the conditions permit. Please note that alcohol and drug use, fatigue and inability to pay attention to the road significantly reduce your ability to make the right decisions and ride safely.

Do not ride vehicles when you are drunk. Alcohol and riding do not comply with each other. Even a single glass limits your ability of responding to changing conditions and your response time increases with each glass. Thus, do not drive vehicles after drinking alcohol and do not allow your friends to drive vehicles after drinking alcohol.

SAFETY

Keep your motorcycle in a safe position. For a safe ride, it is important to check your motorcycle before riding and perform all the recommended maintenance. For your safety, we strongly recommend that you always wear an approved motorcycle helmet, eye protection, boots, long pants and a long-sleeved T-shirt or jacket when riding a motorcycle. Although full protection is not possible, wearing appropriate clothes reduces the risk of injury while riding a motorcycle. Failure to wear the helmet increases the risk of serious injury or death during a collision. Make sure that you and your passenger always wear helmets, eye protectors and other protective clothes while riding. Your helmet is the most important part of the riding clothing, as helmets and eye protection provide the best protection against head injuries. The helmet should fit comfortably and safely to your head. A brightly coloured helmet with reflective stripes makes you more visible in traffic. Although an open face helmet provides some protection, a full-face helmet provides more protection. Always wear face protection or glasses to protect your eyes and help your vision. Additional Riding Suits We also recommend the following in addition to helmet and eye protection:

Durable boots without slippery soles to protect your feet and wrists.

Leather gloves to keep your hands warm and help to prevent blisters, cuts, burns and irritations.

Motorcycle riding suit or jacket provides protection as well as comfort. Brightly coloured and reflective clothing helps you to be more visible in traffic.

Failure to wear the helmet increases the risk of serious injury or death during a collision. Make sure that you and your passenger always wear helmets, eye protectors and other protective clothes while riding.

SAFETY

Using on the bends and ramps

In terms of safe riding, it is appropriate to pay attention to the following points in bends and going ramp down.

- When approaching a bend, never increase your speed, lower your speed for a safe turn by throttling off and braking before entering to the bend. After completing your turn, continue on your road by gassing gradually.
- When descending from a steep ramp, turn off the gas completely and use the brakes to slow down the RAKUN. Do not use the brakes continuously when descending the ramp, as this will cause both the linings to heat and the loss of features in the linings.

Protective equipment

When riding, you should wear protective clothes such as helmets, gloves and glasses (appropriate pants, jackets, shoes). At the same time, the passenger also should wear a helmet. In particular, not wearing a helmet will cause you to face serious injury and death hazards in the event of an accident. Do not wear long, dangling clothing that can be attached to wheels, steps, pedals and grips.

Load Limitations And Accessories

1.The load limit that should be the maximum for your vehicle is as follows;

Payload:

- 144kg for wheel (including rider, passenger and luggage)
- 164kg for wheel (including rider, passenger and luggage)

Do not exceed the maximum payloads mentioned above. Otherwise, the manufacturer is not responsible for any damages on your product that may occur due to overload. Due to over-capacity loading or use on sloping terrain, the electric motor is heavily loaded. This can cause damage to the cable harness, control unit or electric motor. Do not expose your vehicle to such loadings. Otherwise, any damages that may occur will be deemed user error and the vehicle will be excluded from the warranty. Distribute the load evenly on the left and right side of the vehicle and fix it securely.

2.Do not load to the rear port luggage in a way to block the tail light. Make sure that the luggage you carry is as small as possible and does not protrude from your vehicle, the centre of gravity of the baggage should be close to your Rakun vehicle. Protruding luggage makes it difficult to control your vehicle.

3.Check tyre air pressures frequently according to the recommended pressure values.

4.Secure your load tightly.

SAFETY

WARNING: Overloading can compromise the balance, current power and safety of your vehicle.

Adding accessories to the Rakun or replacing its original parts may result in a breach of safety and laws. So, do not make any modifications on Rakun which do not comply with the legal regulations. Additional modifications to the electrical components will definitely damage the vehicle's electrical system. Intervention made in the vehicle's energy storage and electrical system will cause **irreparable damage to wiring, energy storage and electric drive systems**. The vehicle is not designed for any system to work except electrical devices and accessories with factory output on them. The responsibility for the addition of accessories to the electrical components is entirely the responsibility of the user. Overloading and frequent use of ramps which are steeper than the given value will cause the vehicle to wear out in less time than its declared lifespan. In this way, excessive wearing and ageing will not be covered by the warranty.

WARNING:

For Rakun Pro3 (3 Wheels), we highly recommend to use original box and mounting equipment. In case of alternative usage, you should not put your load in the wheel travel zone. It is essential that box, mounting equipment, etc. are positioned at least 30mm above the loading platform. Otherwise, Rakun Mobility A.Ş. does not accept responsibility.

RIDING

IMPORTANT

WARNING/CAUTION/NOTE

Please read this manual carefully and follow the instructions. Words such as (WARNING), (CAUTION) and (NOTE) are used to emphasize special information.

WARNING

It is a matter of the security of the user. Ignoring this information may cause harm to the user.

CAUTION

These instructions specify special operations or measures that need to be followed to prevent damage to the vehicle.

**INFORMATION FOR CONSUMERS
SAFE RIDING ADVICES FOR USERS**

WARNING

The use of the vehicle is quite fun and exciting. The use of the vehicle also requires some extra measures for safety of the user and the passenger.

These measures are the following.

- Read this user manual carefully to recognize its features and learn about safety and maintenance requirements before the initial use of the vehicle. Review all the instructions, requirements and warnings related to the rider.
- Before the first use of the vehicle, make sure that you know the locations of all the controls and learn how to use the vehicle properly.
- For the initial use of the vehicle, ride in a flat, open area to learn how the rider's controls work and how they are operated and used.

RIDING

- Observe traffic rules, traffic signs and markers.
- Do not overspeed, go with the most suitable speed that your product and your condition allow.
- The rider must wear helmets, protective goggles and protective clothes (gloves, leather or thick fabric pants, long-sleeved shirt or jacket, boots).
- Periodic maintenance operations should be carried out by the authorized service.
- Do not make any changes on the vehicle. Changes can adversely affect safety of the vehicle or make its use illegal.

WARNING

When riding, the rider must place both his/her feet on the foot steps. Otherwise, the vehicle control capability may be lost, causing undesirable events.

WARNING

Keep both of your hands on the handlebars during the use of the vehicle. Pulling your hands off the handlebars will cause you to lose control of the vehicle.

WARNING

Always turn on the gas gradually to avoid sudden take-offs. Failure to comply with these warnings may result in loss of control.

CAUTION

Never place the switch in the OFF position while riding and do not remove the switch.

RIDING

KNOW YOUR LIMITS

WARNING

Always ride your vehicle within its own limits of capability. Knowing these limits and not exceeding them will help you to avoid accidents.

BE VERY CAREFUL IN BAD WEATHER CONDITIONS

CAUTION

Be extremely careful in bad weather (especially in rainy weather). In rainy weather, the braking distance becomes double. Avoid painted surfaces, sewer covers and areas which seem oily as they will be slippery. Be extremely careful at railway crossings and on metal grids and bridges. If you are concerned about the condition of the road, slow down!

REGENERATIVE BRAKE USE IN BAD WEATHER CONDITIONS

CAUTION

The rear brake of the vehicle (mechanical brake activated by the left brake manet) will also activate the regenerative braking system. Sudden and hard braking application causes higher-than-expected braking force. Follow other advice for bad weather with additional caution.

LIMITATIONS IN VEHICLE MOVEMENT OF NON-OPERATING RAKUN

CAUTION

If you have to move the vehicle when not in normal operation mode, make sure that vehicle is fully asleep before moving the vehicle on its wheels. When moving in this condition, make sure vehicle does not exceed a speed of 5km/h. Do not move the vehicle on its wheels if: key has just been turned off or vehicle is plugged in. If forced to move in these conditions, damage may occur in electric powertrain components.

VEHICLE DEMONSTRATION

LOCATION OF CHASSIS NUMBER

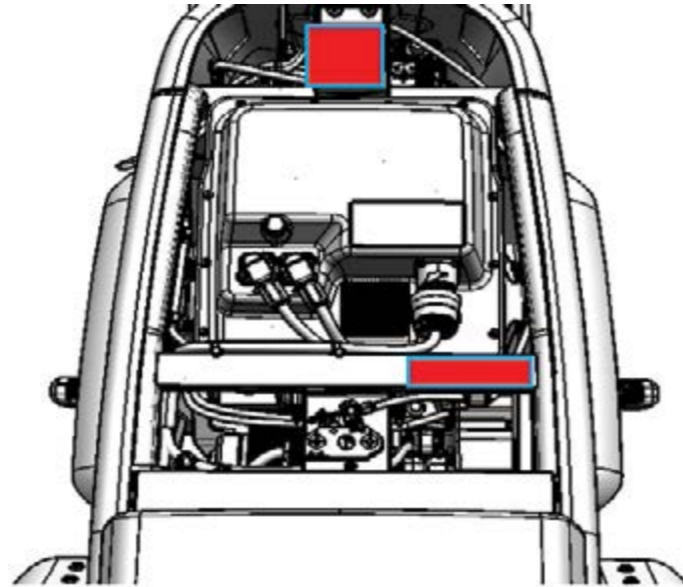
Chassis number

The chassis serial number helps during the order of spare parts or about specific service information.

To take advantage of it in the future, type these numbers in the spaces below.

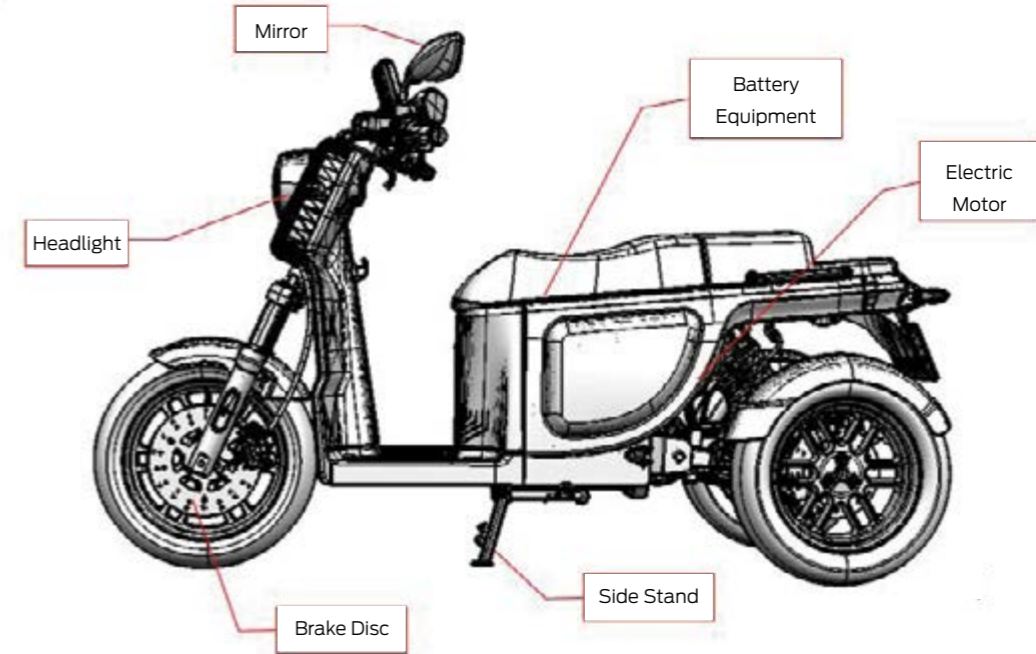
Chassis Number:

The chassis number is written on the support beam under the seat of the vehicle on the right and on the label riveted on the seat connection bracket.



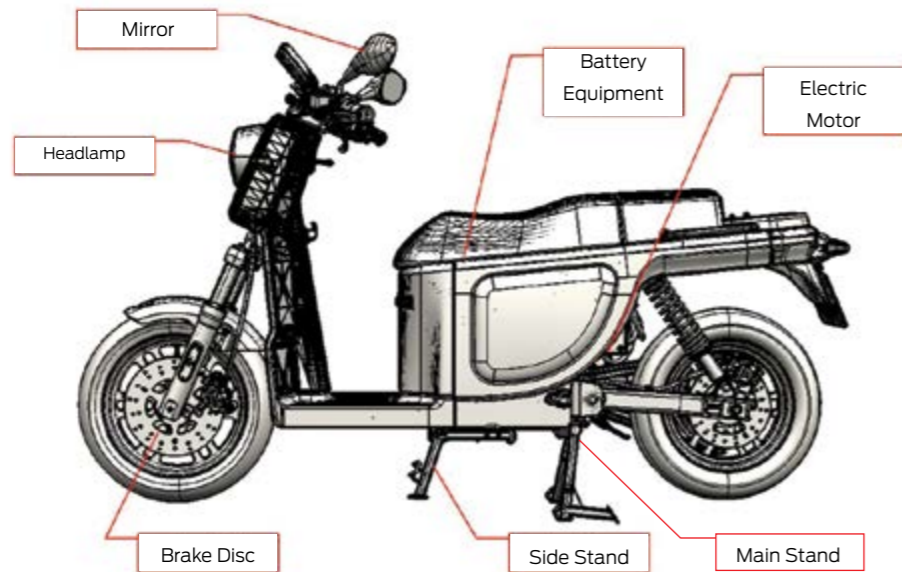
VEHICLE DEMONSTRATION

3-Wheel Variant

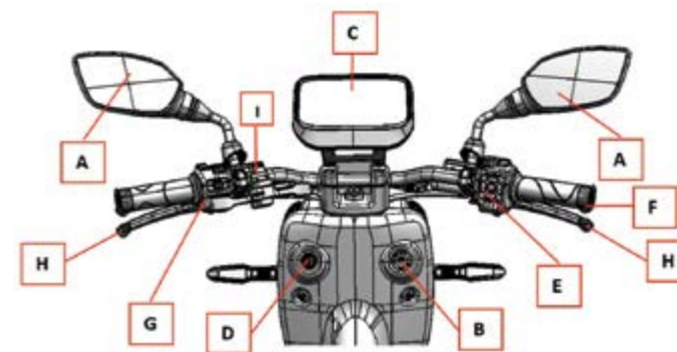


VEHICLE DEMONSTRATION

2-Wheel Variant

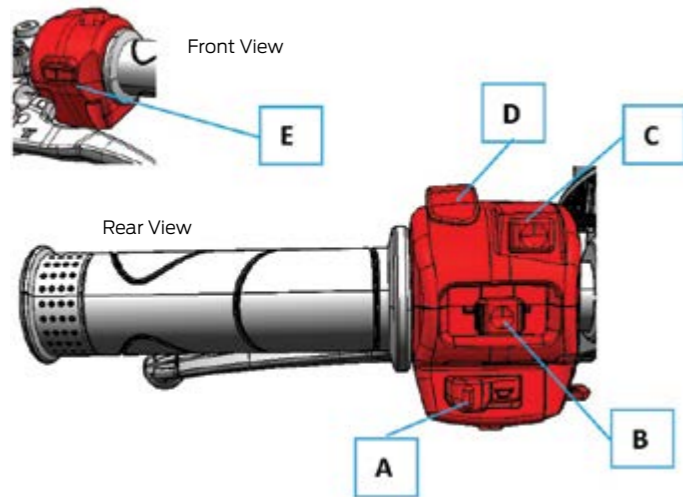


CONTROLS AND INDICATORS



- A. MIRRORS
- B. STARTER KEY/HANDLEBAR LOCK
- C. HMI
- D. POWER BUTTON
- E. RIGHT CONTROL PANEL
- F. THROTTLE LEVER
- G. LEFT CONTROL PANEL
- H. BRAKE HANDLE
- I. (ONLY FOR 3 WHEELER)

CONTROLS AND INDICATORS





LEFT CONTROL PANEL

A. HORN SWITCH

It is positioned at the bottom of the left control panel. Use in situations that require warnings and cautions.

B. SIGNAL SWITCH



It is used when changing direction and turning to right or left. When pressed in the middle, it turns off the signal given to the right or left.

-  Location: The left turn signal light lights up.
-  Location: The right turn signal light lights up.

C. REVERSING SWITCH

D. HEADLAMP SWITCH

Allows you to choose main and dipped beams.

-  Main beam lights up. The indicator also lights up the main beam indicator light.
-  Dipped beam lights up.

E. WARNING HEADLIGHT SWITCH

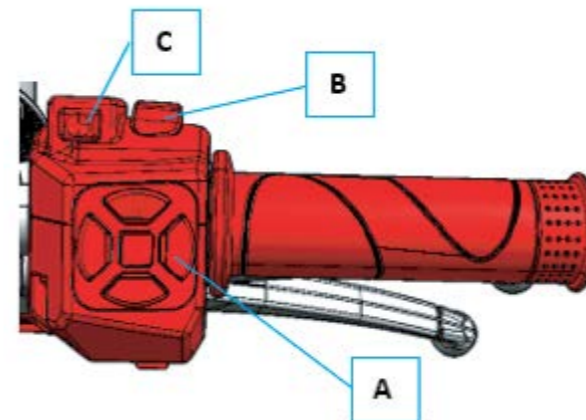
CAUTION

Always use turn signals when you change lanes or turn. Always switch the signal button to "OFF" after you finish the process of turning or changing lanes.

CAUTION






If the signal light does not turn on due to a malfunction, the signal indicator light will not be on. Thus, it is determined that it is defective.

CONTROLS AND INDICATORS





RIGHT CONTROL PANEL

A. MENU BUTTON SET

-  It is in the middle position of the menu keys. It is used to select menu options and riding modes.
-  Phone mirroring button. It mirrors or removes the phone screen from the instrument panel.
-  Up-direction button. It is used to move to the up-direction in the menu.
-  Down-direction button. It is used to move to the down-direction in the menu.
-  Back button. It is used to exit the menu.

B. KILL SWITCH

-  Location: It cuts off the gas signal. The vehicle cannot be accelerated. The vehicle cannot be moved while it is in an inert state.
-  Location: Gas signal is actively transmitted.

C. HAZARD WARNING

When this function is activated, the hazard warning alerts other drivers on the road by simultaneously turning on and off all the vehicle's signal lights.

WARNING

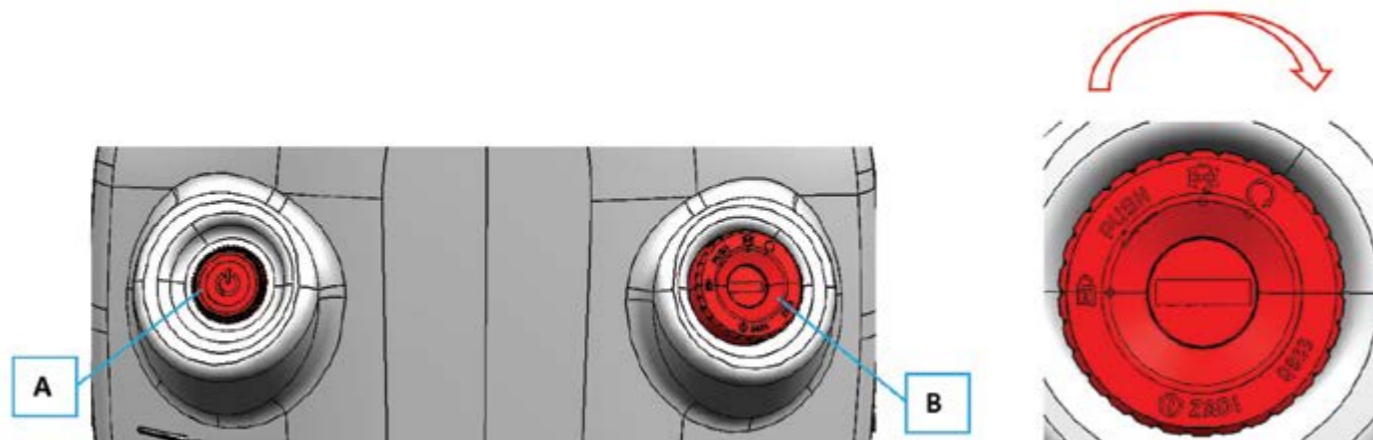
Do not apply pressurized water to the indicator when washing your vehicle. Protect the indicator from water ingress. Failures and damages due to these reasons will be considered as user error.

CAUTION

Do not press the gas cut-off switch while riding, if you press it, the vehicle will lose power and a dangerous condition will arise.

CONTROLS AND INDICATORS

POWER BUTTON AND STARTER KEY/HANDLEBAR LOCK



A. POWER BUTTON

The power button is used to activate the 48V and 12V line. It is the first key to be pressed to make the vehicle ready for riding. Press the power button to start the vehicle first.

B. STARTER KEY/HANDLEBAR LOCK

After pressing the power button, plug in the switch and move it to the operating position in the direction of the arrow.

When you are not using the product, you can lock it by turning the steering wheel to the left, plugging the switch into place and turning it to the right.

CONTROLS AND INDICATORS

OPERATING THE VEHICLE

After the power button is pressed, a 'Plug the Key' warning will appear on the Instrument Panel.



OPERATING THE VEHICLE

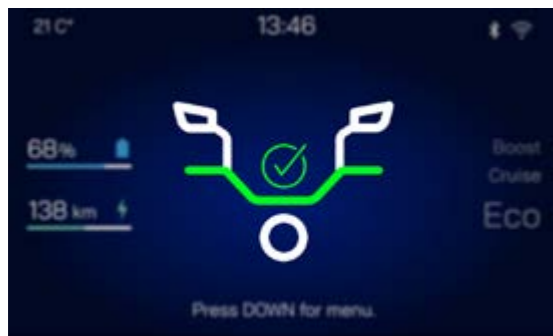
After installing the switch and putting it in the operating position, the Instrument Panel will turn on.



CONTROLS AND INDICATORS

OPERATING THE VEHICLE

Left Brake and OK/MENU key must be pressed simultaneously to unlock the combination lock. An audible warning will be heard when the lock is unlocked.



OPERATING THE VEHICLE

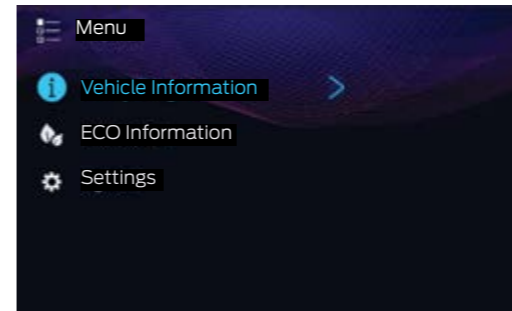
The desired riding mode (Turbo, Cruising, Eco, Walking) is selected by pressing the up and down direction buttons on the right control panel, and the vehicle will move when you turn the fuel lever.



CONTROLS AND INDICATORS

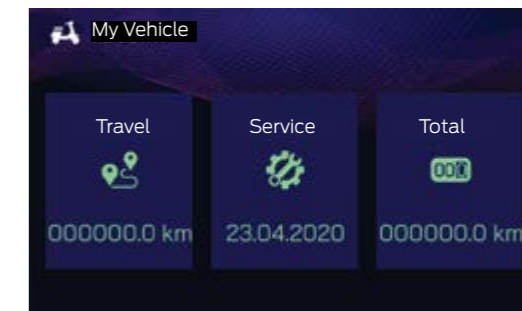
VEHICLE MENU

When you press the BACK button on the right control panel, you will see menu options. Access to the menu is only possible on the lock screen / P mode.



VEHICLE MENU > VEHICLE INFORMATION

When you select VEHICLE INFORMATION under the menu, you can find the travel distance, next service maintenance date and the total travelled distance information about your vehicle.



CONTROLS AND INDICATORS

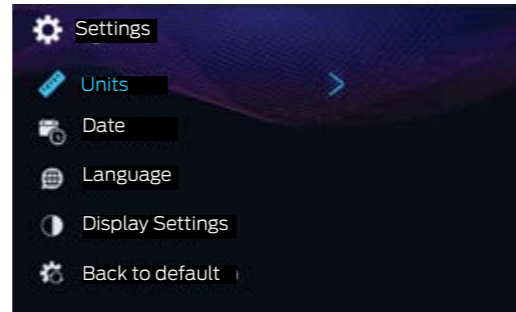
VEHICLE MENU > ECO INFORMATION

When you select ECO INFORMATION under the menu, you can find the information about gasoline saved in liters, prevented CO2 emissions in kg units and rider evaluation.



VEHICLE MENU > SETTINGS

When you select SETTINGS under the menu, you can switch to Units, Time & Date, Language, Display Settings, Back to Default screens.



CONTROLS AND INDICATORS

VEHICLE MENU > SETTINGS > UNITS

You can change the Distance, Volume, Temperature, Weight units when you select the UNITS screen under the SETTINGS screen.



VEHICLE MENU > SETTINGS > TIME & DATE

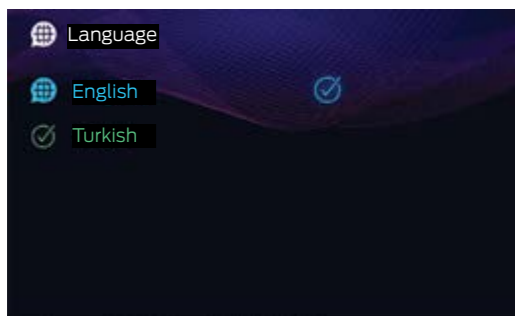
When you select the TIME & DATE screen under the SETTINGS screen, you can adjust the time, date, format.



CONTROLS AND INDICATORS

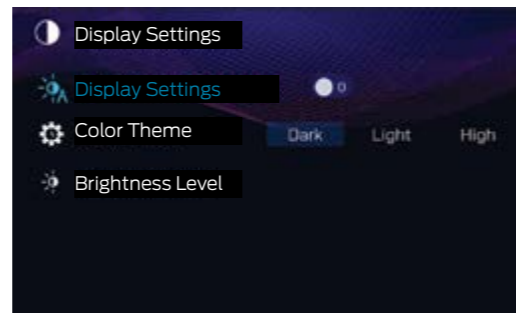
VEHICLE MENU > SETTINGS > LANGUAGE

When you select the LANGUAGE screen under the SETTINGS screen, you can switch to different language options.



VEHICLE MENU > SETTINGS > DISPLAY SETTINGS

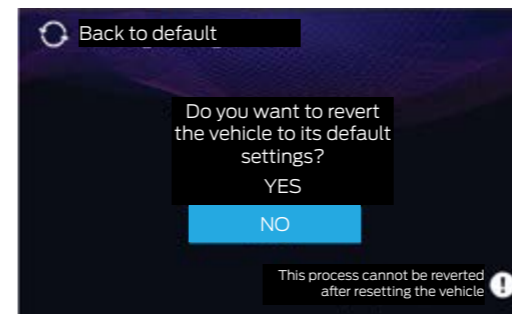
When you select the DISPLAY SETTINGS screen under the SETTINGS screen, you can turn automatic brightness on or off, change the colour theme and brightness level.



CONTROLS AND INDICATORS

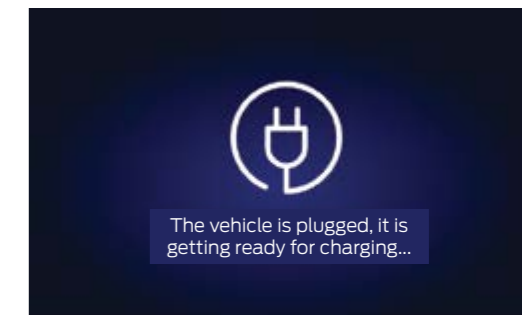
VEHICLE MENU > SETTINGS > BACK TO DEFAULT

When you select the BACK TO DEFAULT screen under the SETTINGS screen, you can return to factory settings.



CHARGING THE VEHICLE

To charge your vehicle, the vehicle must be in the parking position and the side foot should be open. After plugging the charging cable into the 230/220VAC socket, the vehicle will prepare itself for charging. Make sure that the socket you plug in is grounded and can provide at least a 6A current.



If the vehicle is in sleep state, you should wake the vehicle by pressing the power button. When you see the screen above, the car gets prepared for the charging.

Note: The vehicle does not automatically wake up when plugged in! The vehicle must be awake to detect that it is plugged in.

CONTROLS AND INDICATORS

CHARGING THE VEHICLE

The required time will be instantly displayed on the screen until your vehicle's battery is fully charged.



As soon as the remaining charging time is seen at a value other than 00:00, it means that the vehicle has started charging.

Note: If the side leg of the vehicle is not open / the safety contact is not turned off, it does not start charging.

Note: If the vehicle moves during charging, the charging process will be ended.
It must be ensured that the vehicle remains immobile.

Otherwise, charging will be stopped and will not start again.

OPERATION

Suspension System

The suspension system consists of two structures: front fork and shock absorber. Shock absorbers have been developed to prevent the movements from directly affecting the user through the front and rear connections and the damage of the parts against hard impacts, depending on the condition of the bump, hole or road. The most suitable products in terms of riding comfort and handling of the vehicle are used in your vehicle. Front and rear suspension matching is crucial for cornering ability. Replacing parts and using different types of shock absorbers can disturb the dynamic balance of your vehicle. Do not use different shock absorbers and fittings in your Rakun except the original ones. If a change is required, it must be done by authorized personnel in the service.

Do not load your vehicle outside the specified usage limits. Otherwise, parts of the suspension system will be damaged and will not be able to perform their duties.

Check your vehicle's suspensions once a month to make sure that there are no oil leaks.



OPERATION

Tyre

The tyres used in your vehicle are designated to provide safe handling and requirements for comfortable riding. In this context, always use the original sized tyre in your vehicle. It is recommended to use tyres which are suitable for seasonal conditions determined by local authorities for the best braking distance. Before each use, check the tyre pressure of your vehicle visually. Check the air of your tyres with a pressure gauge at least once a month.

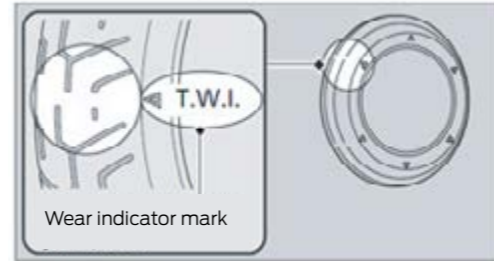
Check the tyres or wires for cuts, slits or cracks, or if nails or other foreign substances got stuck in the side wall or treads of the tyre. Also check the side walls of the tyres for abnormal inflation or swelling.

Check for abnormal wear marks on the contact surface of the tyres. There may be regional wear after sudden braking or general wear as a result of the tyre's completion of its lifespan. In this case, you need to change your tyre.

Check the indicators for the depth of threads at an interval of 1000km. If they become visible, replace the tyres immediately.

The use of extremely worn or improperly inflated tyres can lead to an accident. Follow all instructions on the subject of inflating and maintaining the tyres contained in this user manual. Installing the wrong tyres on your motorcycle can adversely affect handling and balance and cause an accident that you may be seriously injured or killed.

Always use the tyre type and size recommended in this user manual.



Tyre Size	Normal Load	Full Load
	Psi (bar)	Psi (bar)
100/90/14 57 P	26(1.8)	34(2.3)
130/70/13 63 Q	26(1.8)	34(2.3)

OPERATION

Pre-Rider Checks

If you detect a problem with RAKUN pre-ride checks, make sure you have solved the problem or have it fixed by an authorised service. The use of RAKUN with an error seen before riding may cause accident and even death risks.

For security reasons, it is important to take a few minutes to perform external checks of the Rakun before each use. Be sure to do the following checks before riding;

Handlebar;

- Check its direction,
- Check the wheel fit (angle) with the handlebars,
- Check the condition of looseness, gaps and wobbles,
- Make sure that there are no halts on the control cables.

Brakes;

- Check the pull suitability of the brake lever and pedal,
- Check that the brakes are working at an adequate level.
- Check for hydraulic discharge on the brake connections.

Tyres;

- Check tyre air pressures,
- Check the condition of the tyre tabs,
- Check the tyre for cracks, cuts.

OPERATION

Lamps;

- Check whether the illumination lamps (headlight, stop, license plate) are illuminated,
- Check whether the warning lamps (signal, brake) are illuminated,
- Check whether the warning and illumination lamps on the instrument panel are illuminated.

Horn;

- Check if it works.

Gas Grip;

- Check whether there is any seize in the gas grip,
- Make sure that there is no contraction or seize during the left and right turns.

Shock absorbers;

- Check whether the suspension is soft,
- Check whether there is an oil leak in the shock absorbers.
- Check whether there is any impact when looking at shock absorbers.

Loading;

- If you are using a back box, check that its connections are robust.
- If you are carrying a load without a box, make sure it is connected correctly.

Belt;

- Check that your belts are on the right tension.
- Check that your belts are within the thickness of the pulleys.

OPERATION

Riding

To start the vehicle, press the power key first.

When you press the button, the button will turn on, the vehicle instrument panel will start working.

Wait until the display asking you to insert the key appears on the instrument panel. Alternatively, you can wait by inserting the key and turning it to the "ON" position.

If the vehicle electric drive system is activated correctly, headlights of the vehicle will be activated.

At this point in the instrument panel of the vehicle, you will see the "unlock the vehicle to ride" screen.

You can unlock the vehicle by pressing "OK" on the left brake and menu keys at the same time.

If the side leg is open, or if the red ignition lock key (the red key on the right hand) is turned off, the vehicle will appear on the screen in P mode. When you close the side leg and unlock the ignition, you can ride the vehicle.

When the vehicle comes to the ride-able mode, you need to choose between the riding modes of the vehicle with up/down menu keys. All riding modes that can be selected in this way will move the vehicle forward.

To ride the vehicle reverse, you can move the vehicle back by holding down the "R" button on the left hand and depressing the accelerator.

After selecting the desired direction and riding mode, you can move the vehicle by turning the fuel lever (on the right hand) in the rider's direction.

If the ignition lock is turned off or the side leg is opened while riding, the vehicle drive system will stop energizing.

In order to start to move, the engine makes a sudden noise due to electromagnetic current occurring as soon as the gas grip is first moved, this is a normal condition.

- Never increase your speed while turning, reduce your speed before turning for a safe turn. Use your RAKUN at low speeds and carefully in rainy weather and slippery conditions. Follow the speed limits which are specified by traffic rules.
- Fast use of Rakun can cause you to lose control.
- Never separate your hands from the handlebars and your feet from the steps when using the Rakun, your ability to control the Rakun will decrease.
- In places such as vehicle overtaking and tunnel exit, sudden wind effects make it difficult to control the product, go in a controlled way by reducing your speed.

OPERATION

Braking

- Turn the gas grip clockwise to cut the gas completely.
- Use the front and rear brakes to reduce your speed until it stops. During the deceleration of the Rakun, it is important to use the gas grip and the front and rear brakes harmoniously, the front and rear brakes should be used together.
- Check the stopping distance before performing the braking.
- Turn the switch on to turn the ignition off. If you need to lock the handlebar, turn the switch to the left and move it to its position, remove the switch.
- When you want to stop with the Rakun, certainly avoid sudden and hard braking which causes the Rakun's wheels to lock and drift in sudden braking, you will lose control of the vehicle.
- If you use only the "rear brake" when you want to brake, stopping distance of the vehicle will be longer compared to the use of both brakes. If you use only the "front brake", the probability of slippage and loss of control of the front wheel is very high. Simultaneous use of both brakes at the time of stop is the most suitable one for maximum braking performance.
- At high speeds, stopping distance will be longer. Maintain your tracking distance by taking into account the speed of the vehicle in front of you.
- Avoid using the front brake when the vehicle's handlebar is rotated. Before and after rotational actions, the use of the front brake is safer.

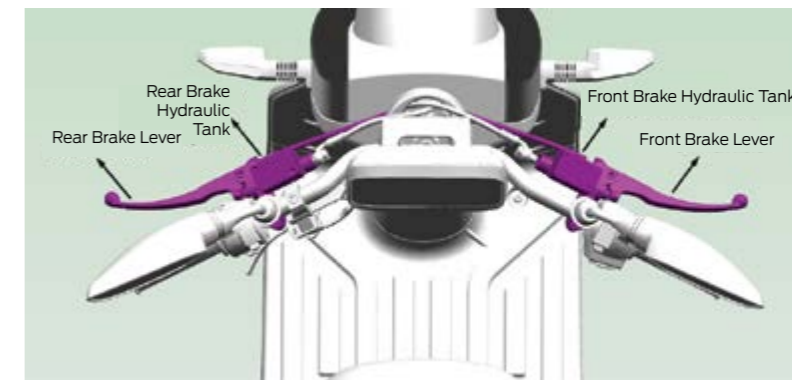
OPERATION

Wet or Rainy Weather Conditions

In such weather conditions, the road surface becomes slippery and wet brakes further reduce the braking effect. Be more careful when braking in wet conditions. If the brakes get wet, brake while riding at low speed to help them dry out.

Brake system

There is a braking system that distributes braking power between the front and rear brakes in your motorcycle. The distribution of the braking force varies if the front and rear brakes are applied only with the front brake lever and only with the rear brake lever. For full braking efficiency, use the front and rear brakes together.



OPERATION

Break Fluid

Do not add brake fluid or change brake fluid except in emergency situations. Only use a clean brake fluid in a closed container. If you add fluid, have your braking system serviced in your service as soon as possible.

CAUTION

Brake fluid can damage plastic and painted surfaces. Wipe the spilled area immediately and wash thoroughly.

Recommended brake fluid: DOT4

Checking the Brake Fluid

1. Park the Rakun in a upstanding position on a solid, flat floor.
2. Check that the brake fluid container is horizontal and the fluid level is above the lower level mark.

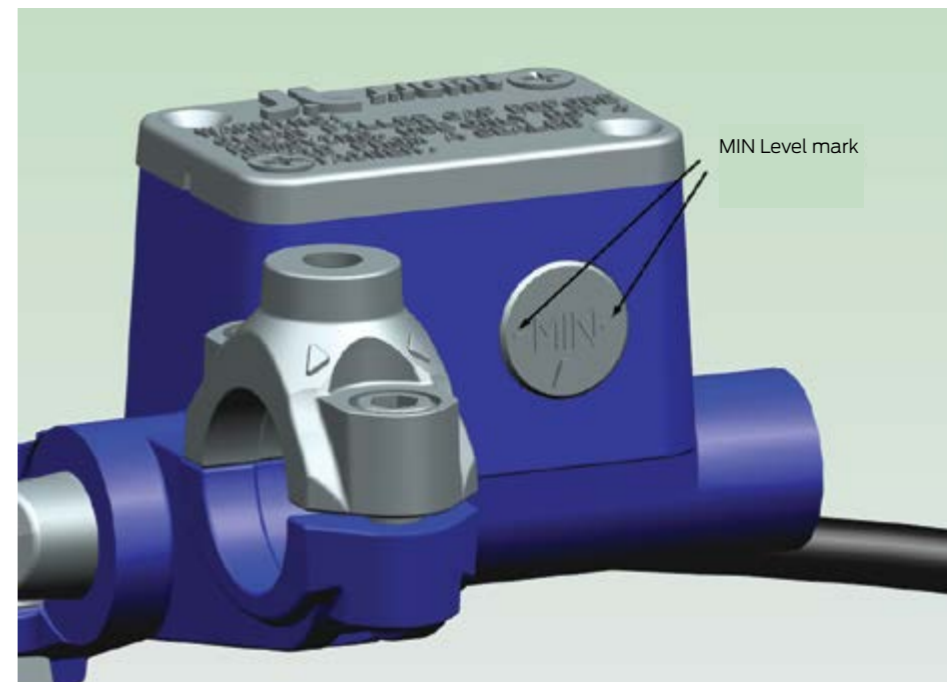
If the brake fluid level in any fluid container is below the LOWER level mark or the brake lever gap is excessive, check if there is any wear in the brake pads. If the brake pads are not worn, there is probably a leak. Have your motorcycle checked by your service.

After each brake fluid change, the air that will form on the brake line must be bled off. Otherwise, the brakes of your vehicle will not work. This operation must be carried out by authorized services.

CAUTION

DOT4 fluid can cause severe eye irritation.

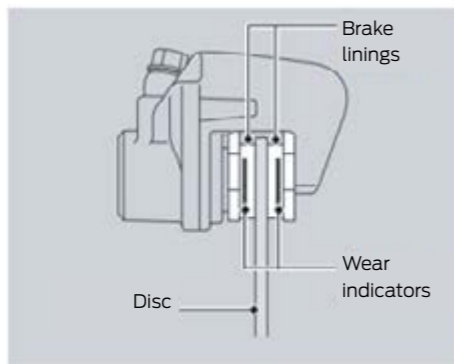
OPERATION



OPERATION

Checking the Brake Linings

Check the status of the brake lining wear indicators. If a lining is worn to the limit of wear, it is necessary to replace the linings. Check the brake linings under the brake calliper. If necessary, have the linings changed in your service. Always change the left and right linings at the same time.



MAINTENANCE

x: Inspect and adjust, clean, lubricate if necessary or replace if necessary

R: Review, C: Clean, A: Adjust, C: Replace, L: Lubricate

Part/Section to Be Maintained	Maintenance Interval							
	KM Month	500 2. End of the Month	Every 6,000	75,000	12. End of the Month	24. End of the Month	36. End of the Month	48. End of the Month
Belt			X	D	X	X	D	X
Brake Hose			X			X		D
Hydraulic Brake Fluid			X			D		D
Lights & Control Keys		X	X		X	X		X
Power Distribution System		X	X		X	X		X
Nut, Bolt, Fittings		X	X		X	X		X
Front/Rear Brake Linings			X		X	X		X
Front/Rear Brake Discs			X		X	X		X
Front/Rear Brake System		X	X					
Handlebar		X	X		X	X		X
Handlebar Bearing			X					
Tyre			X		X	X		X
Wheel			X		X	X		X
Wheel Bearing			X					
Front Suspension & Front System Connection			X					
Rear Shock Absorber			X					
Electric Motor		X	X		X	X		X
Battery		X	X		X	X		X
Charger & Fan			X					
Gas Control Grip		X	X		X	X		X

BATTERY

Battery Bearing

The batteries in your Rakun are positioned under the seat in the fairing's interior side.

WARNING

Since your Rakun is powered by an electric system, certainly do not apply water during the cleaning process. If desired, the battery can be cleaned with a damp cloth.

Never try to repair the battery on your own. In the event of any hardware failure or ambiguous behaviour, turn off the key of the vehicle and contact the battery manufacturer immediately.

Making changes on the product are prohibited. Any changes made on the product may lead to abnormal behaviour or inestimable hazards. Rakun Mobilite Teknoloji ve Ticaret A.Ş. accepts no responsibility for the claims arising from the changes made to the product. The resulting results are not covered by customer service or warranty.

In case of an abnormal behaviour of a battery, if possible, detach the battery from the charger and/or load and leave the area as soon as possible.



Warning: This battery must only be serviced by the service authorized to operate on the battery. Unauthorized interventions can result in injury, death and loss of property.

If the battery is in a very low charging state, this may affect the operation or performance of some functions of the vehicle. If the battery charge is close

to 0%, you need to charge it as soon as possible. There is no obstacle for using the full capacity of the battery during normal daily use, but you can follow the recommendations below to get the best efficiency from your battery.

- Not charging immediately after intensive use, preferably waiting 1-2 hours.
- Not charging the vehicle directly under the sun.
- Charging up to 95% capacity at most.
- Bringing the battery charge to a level of 30-40% if the vehicle will not be used for a long time.
- Not storing the vehicle above 35 degrees for a long time without using it.

Operating battery temperature	0 to 55 (charging) -10 to 55 (use)
-------------------------------	---------------------------------------

Caution!

If the vehicle is stored at sub zero temperatures for a long time, battery cell temperatures may drop below 0 degree. In this case, battery won't be charged to prolong battery life.

Users shouldn't leave the vehicle in sub zero temperatures for extensive time. Batteries won't be charged if the cell temperature is below zero.

It is recommended to store vehicle in an enclosed area to protect from extreme cold&hot weather conditions.

Battery and vehicle can still be used between -10 and 55 degree cell celcius temperatures.

Battery may limit charge and discharger power when operating near temperature limits to protect battery health.

BATTERY

Batteries That Completes Their Life

Batteries must be recycled according to local legislation.

There is an active cooling system in the battery. Therefore, reduced vehicle performance can be observed due to the structure of Li-Ion batteries below 0 degrees. If the battery temperature is below 0 degrees, the battery will restrict the charging current.

The battery has an auto off function which isolates the battery from the vehicle system if the battery does not supply power. Press the power button on the left of the ignition to start the battery.

Table 1 - Battery Properties

Min./Nom./Max. Voltage	42/51,1/58,1 V DC
Capacity	101,4 Ah
Weight	36 kg

The battery has a cooler to dissipate the heat which is generated by the power electronics. No load should be applied to the cooler.

During operation, the coolant temperature can rise up to 50°C.

The battery electronic controller may limit battery power depending on the battery temperature.

This is the normal behaviour of the vehicle and does not mean an abnormality.

Do not put weights on the battery box, do not step on it, do not sit.

Do not remove the battery cables.

BATTERY

Battery & Charger

The battery is located at the bottom of the seat. The battery produced for your Rakun is a lithium-ion maintenance-free battery. Your charger is specially manufactured for your Rakun batteries. Make sure that the mains electricity is in the current which is suitable for your product. The required current values are also indicated on your charger. Voltage rises and drops in the electric current may damage product components. The ignition switch must be in the off position during battery charging process. In order to make the most effective use of the performance of the battery and product, you need to check the battery status of your Rakun via the instrument panel after each use and carry out the charging process if necessary. Carry out the charging process of your vehicle by plugging the plug under the seat into a grounded mains outlet. During the charging process, the charger will be warmed up a little, please carry out the charging process in a dry and ventilated environment. If you notice overheating of the battery or an abnormality in the indicator, stop charging process immediately and contact the nearest authorised service. When the charging process is complete, the warning light will light up on the charger. Unplug your vehicle after charging process is complete. Long periods of time with the vehicle battery fully charged will shorten the life of the battery. If you anticipate that the car will not be used for more than 1 day, leaving the vehicle in a 49% ~50% charging state helps the battery maintain its maximum performance.

- Keep the battery away from the fire. Do not keep your battery in very cold and very hot environments.
- Keeping the battery at a low charged state for a long time will reduce the life of the battery.
- Energy quality problems in mains electricity, vehicle failures due to problems caused by reaching values outside the Low Voltage Regulation will not be considered as part of the warranty.
- If you are not going to use your Rakun for a long time, remove the battery connections and store them in a well-ventilated space. Keep the battery charge at 50% to maintain battery performance when you're not in use. Check the charging status once in a month and charge up to the level of 50% if necessary.

Batteries on Rakun are capable of charging 1000 times, each charging process will result in a decrease in battery life and a decrease in maximum range distance. The range given in the technical data is reported with no-load data under laboratory conditions. In urban and out-of-town uses, there will be decreases in both travelled road distance and battery life, depending on the load, road condition.

FUSE PANEL

Fuses

Fuses protect the electrical circuits on your motorcycle. If somehow the electrical system on your motorcycle stops, check for any blown fuses and replace them if available.

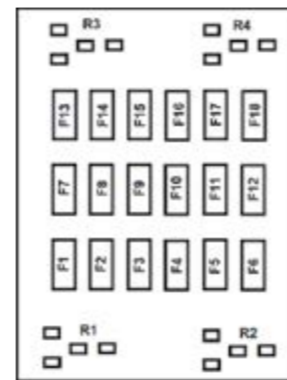
Checking and Replacing Fuses

To remove and check the fuses, turn the ignition switch to (Off) position. If the fuse is blown, replace it with another fuse of the same value. See "Fuse Technical Specifications" section for fuse values.

CAUTION

Replacing the fuse with a higher value fuse greatly increases the likelihood of damage to the electrical system. If a fuse is constantly blown, this indicates that there is a problem with your electrical system. Please have your vehicle checked at a service station.

Fuse Technical Specifications



Fuse	A (amps)
F1	15
F2	5
F3	5
F4	5
F5	7.5
F6	5
F7	3
F8	5
F9	DIODE
F10	DIODE
F11	DIODE
F12	DIODE
F13	3

Fuse	A (amps)
F1	15
F2	5
F3	5
F4	5

STORAGE AND CLEANLINESS

Mirror

Mirrors are for the Rakun user to see his/her back at the time of driving and must be adjusted. Always keep your mirrors clean and replace your damaged mirrors immediately for your road safety.

STORAGE AND CLEANLINESS

Storage

If you are not going to use your Rakun for a long time, consider the recommendations given below. This process will prevent your Rakun from being exposed to corrosion or damage during the long storage process. Also, if there is any fault in your Rakun, always correct the fault before storage, and if this fault is forgotten in post-storage use, you may encounter serious problems.

1. Place your Rakun on the lifting tables on a flat floor.
2. Ensure that it is kept in a dry environment so that it is not affected by moisture and humidity.
3. Cut the contact of tyres with the ground.
4. Cover your Rakun with any sheath or cover.

Post-Storage Use

1. Remove the covers on your Rakun and make a surface cleaning.
2. Check the battery and charge it if necessary.
4. Test-drive your Rakun after performing your pre-ride checks.

STORAGE AND CLEANLINESS

Cleaning

Clean your Rakun regularly for surface protection. In your Rakun, check for fluid, and if there is leakage, immediately clean the surfaces that are in contact without waiting for routine cleaning processes. Evaluate the effect of missing fluid on vehicle driving. Do not clean your Rakun with chemicals that will damage metal, paint and plastic surfaces in your cleaning processes. Proper cleaning will positively affect both the performance and life of your Rakun.

WARNING

Do not make cleaning process with high pressure washer guns. This will cause serious damages on the Rakun.

For cleaning process;

1. Prevent electrical parts from coming into contact with water during the cleaning process.
2. First rinse with cold water, allowing dust and loosely structured dirt to be removed from the Rakun.
3. Wipe the Rakun thoroughly with water using a sponge or soft cloth. Make sure that plastic parts and other parts are not scratched during the wiping process.
4. After the wiping and cleaning processes are complete, rinse the Rakun with clean water.
5. Finally, carry out drying process to the Raccoon.
6. The Rakun's brake assembly may be wet, in which case your brakes are dangerous. If there is such a case, test your Rakun's brakes at low speed, making occasional brakings to return the brake to its performance.

FAULTS AND TROUBLESHOOTING

Fault	Possible Causes	Remedy Suggestions
If the driving distance is below the standards	<ol style="list-style-type: none"> 1. The ramp can be very steep. 2. The battery may be empty. 3. The battery may not be charging due to a fault in the charger. 4. The battery life may be over. 5. The loading may have been overloaded. 	<ol style="list-style-type: none"> 1. Charge or discharge the battery. 2. Use it on an appropriate angled road. 3. Charge the battery. 4. Ask the authorised service for assistance. 5. Replace the battery. 6. Do not overload the loading. 7. In order for the battery to correct itself, it may need to remain charging above the standard charging time. Charging the vehicle when not in use gives the system time for battery balancing.
If the engine is not engaged	<ol style="list-style-type: none"> 1. Battery cable connections may be loose. 2. The gas grip may be disabled (short-circuited). 3. Fuse can be blown. 4. Motor connection cables may be loose and dislocated. 	<ol style="list-style-type: none"> 1. Make the connection again. 2. Replace. 3. Replace. 4. Make the connection again firmly.
If the speed setting is out of control	<ol style="list-style-type: none"> 1. The gas control arm doesn't let the sensor pass. 2. There may be loosening or short-circuiting in the cable connections. 	<ol style="list-style-type: none"> 1. Replace. 2. Check the cable connections.
If the voltage value is normal but the indicator does not lit and the electric current does not pass	<ol style="list-style-type: none"> 1. The electrodes of the battery case and the cable may not be in contact with each other. 2. Fuse can be blown. 	<ol style="list-style-type: none"> 1. Ask the authorised service for assistance. 2. Replace.

FAULTS AND TROUBLESHOOTING

Fault	Possible Causes	Remedy Suggestions
"Interface Fault" message on HMI screen	<ol style="list-style-type: none"> 1. Throttle may be faulty. 2. Throttle harness may be faulty. 3. Motor temperature sensor may be faulty. 4. Motor temperature sensor harness may be faulty. 5. Motor position sensor (encoder) may be faulty. 6. Motor position sensor (encoder) harness may be faulty. 	For diagnosis & repairs, please head to the nearest Rakun service station.
"State Fault" message on HMI screen	<ol style="list-style-type: none"> 1. Vehicle detects both charge condition & ride request simultaneously. 2. HMI or inverter low voltage harness may be faulty. 	For diagnosis & repairs, please head to the nearest Rakun service station. Vehicle cannot be charged while this fault is active.
"Electical Fault" message on HMI screen	<ol style="list-style-type: none"> 1. Overcurrent fault @ eMotor may have occurred. 2. Inverter may have measured too high voltage. 3. High current harness between battery & inverter may be faulty. 	For diagnosis & repairs, please head to the nearest Rakun service station. If the fault condition is persistent, do not try to restart / ride the vehicle to avoid further permanent damage to the powertrain. Failure to do so may also result in rider health & safety problems.
"Electical Fault" , "Inverter Hardware Fault" message on HMI screen simultaneously	<ol style="list-style-type: none"> 1. Inverter has a permanent internal fault 	For diagnosis & repairs, please head to the nearest Rakun service station. Inverter may have to be replaced.

FAULTS AND TROUBLESHOOTING

Fault	Possible Causes	Remedy Suggestions
"Electical Fault" "Battery Fault" message on HMI screen simultaneously	1. Battery safety switch is stuck.	For diagnosis & repairs, please head to the nearest Rakun service station. The vehicle must be taken to service station as soon as possible. Failure to do so may cause the battery to be damaged beyond repair. Live voltage risk is also imminent.
"Communication Fault" message on HMI screen	Vehicle communication network is faulty.	For diagnosis & repairs, please head to the nearest Rakun service station.
"Battery Fault" message on HMI screen	Vehicle traction battery is faulty.	For diagnosis & repairs, please head to the nearest Rakun service station.
"Inverter Control Fault" message on HMI screen	<ol style="list-style-type: none"> 1. Inverter is experincing an irreversible software fault. Motor drive function is disabled. 2. Battery - inverter high current harness may be faulty 3. Inverter low voltage harness may be faulty 	For diagnosis & repairs, please head to the nearest Rakun service station.
"Inverter Hardware Fault" message on HMI screen	1. Inverter is experincing an irreversible electronic/electrical hardware fault. Motor drive function is disabled.	For diagnosis & repairs, please head to the nearest Rakun service station. Inverter may have to be replaced.
"Speed detected, Charge Terminated" message on HMI screen	Charge is stopped due to detection of vehicle movement.	To avoid this fault, user must ensure that the vehicle shall be completely stationary while charging. After encountering this fault, charge must be restarted.

FAULTS AND TROUBLESHOOTING

Fault	Possible Causes	Remedy Suggestions
"Charge Failed" message on HMI screen	Vehicle couldn't start charging, failed to start charge sequence.	Try to restart the charging process. If persistent, for diagnosis & repairs, please head to the nearest Rakun service station.
"Interface Warning" message on HMI screen	<ol style="list-style-type: none"> 1. One of 2 throttle sensor channels may be faulty 2. Misreading of a vehicle sensor 3. Vehicle may have been used at high performance for a long time. " 	If persistent, for diagnosis & repairs, please head to the nearest Rakun service station.
"Performance Warning" message on HMI screen	<ol style="list-style-type: none"> 1. Available power may be lowered due to high motor temperature 2. Available power may be lowered due to high inverter temperature 3. Available power may be lowered due to battery internal states 4. Available power may be lowered due to battery state of charge " 	User should expect a lower than usual vehicle performance when this message comes up on HMI screen. Exercise caution at performance requiring maneuvers such as overtaking.
"Electrical Warning" message on HMI screen	<ol style="list-style-type: none"> 1. High current harness between battery & inverter may be faulty. 2. Internal hardware fault in battery may be present. 3. Low voltage harness of the vehicle may be faulty 4. Vehicle may have been used at high performance for a long time. " 	If persistent, for diagnosis & repairs, please head to the nearest Rakun service station.

WARNING

If the user does not act in accordance with the warnings and/or cautions specified in this manual, the user shall be solely responsible for any material damages incurred for this reason. The user may not demand or claim any compensation from the manufacturer/distributor in this regard. Also, even if the warranty period of the product has not expired, the product shall be deemed to be outside the scope of the warranty.

TECHNICAL SPECIFICATIONS

	Rakun 2 Wheels	Rakun 3 Wheels
Dimensions (Length x Width x Height) (mm)	2023 x 826 x 1207	2023 x 826 x 1207
Wheelbase (mm)	1470	1470
Weights Without Load (kg)	Commercial - 145 kg Personal - 149kg	Commercial - 171 kg Personal - 175 kg
Max. Payload (kg)	Commercial - 155kg Personal - 151 kg	Commercial - 179 kg Personal - 175kg
Maximum speed (km/h)	45	45
Average Range* (km)	112	85
Climbing Ability **	30% slope	25% slope
Engine Power	2.5kW Rated 4kW Peak Power	2.5kW Rated 4kW Peak Power
Battery	5kWh Capacity 50.4V Li-ion Battery	5kWh Capacity 50.4V Li-ion Battery
Charging Duration and Type	~4,5 hours 100% Charged Domestic Type Socket	~4,5 hours 100% Charged Domestic Type Socket
Instrument	5" TFT Display	5" TFT Display
Brake System	Front/Rear Disc CBS - Combined Break System	Front/Rear Disc CBS - Combined Break System
Regenerative Braking	Yes	Yes

*Range is given on average. It may vary depending on the road and loading conditions.

**It may vary depending on loading status.

**Rakun Mobilite
Teknoloji ve
Ticaret A.Ş.**

You can reach the current version of the user manual on our official [website www.rakunmobilite.com](http://www.rakunmobilite.com)