

601

ELECTRIC
MOTORCYCLE



Thank you for purchasing your DEVS Type 601.

These operating instructions correspond to the date of printing and are the latest version of the series. It is not possible to exclude minor deviations that arise from further design developments.

All data contained herein are non-binding. DEVS reserves the right in particular to change technical specifications, prices, colors, types, materials, services and service services, design, equipment and other, without notice and without giving any reason is free to remove, replace the local conditions as well as stop the production of a particular model without prior notice. It does not guarantee delivery, differences in illustrations and descriptions, or misprints and mistakes. No part of this publication may be reproduced without the relevant prior written permission. The illustrations used in this use and maintenance manual may not exactly match your vehicle.

This manual must stay with the vehicle at all times. If you choose to sell your 601, please pass it to the new owner.

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SAFETY WARNINGS

Read this user manual carefully before riding this motorcycle!

The motorcycle is designed and homologated to the highest standards for road traffic. It is not designed for field use or racing. Please pay attention to the warning labels when touching or disconnecting elements. They are seen for example on the battery charger, battery box and other high voltage areas.

For the safe handling of the DEVS 601, observe these safety instructions in the operating instructions and carefully read this manual.

It is forbidden to remove any equipment or parts of the DEVS 601. Any manipulation of the wiring of the DEVS 601 outside an authorized service center is prohibited. It is forbidden to use the DEVS 601 in an unattended condition. It is forbidden to replace parts of the DEVS 601 with parts not approved by the manufacturer.

Do not operate the DEVS 601 under the influence of alcohol, drugs or medication. Do not operate the DEVS 601 when you are not physically fit and able. Be highly visible at all times. Follow the road rules.

The 601 is designed to carry you and one passenger. When you carry a load or passenger it can affect the stability and handling. Always ride at reduced speeds and observe the limits when carrying loads.

Wear protective clothing, such as a helmet, gloves, suitable boots, trousers and protectors with each ride. Use protective clothing that is in perfect condition and complies with legal regulations. For the sake of your safety, it is recommended that you use the DEVS 601 only whilst wearing suitable protective clothing.

For some operations, special tools need to be used. If you do not have these tools, contact an authorized service center. Components that cannot be reused after disassembly must always be replaced by new ones. Some screws require gluing, follow the manufacturer's instructions when working with them. Components that will be reused should be carefully checked and cleaned. After the service, you need to make sure the 601 is in perfect condition.

Read these operating instructions before your first ride. It will help you find out how to operate the 601 correctly and make it easy for you to get to know its special features.

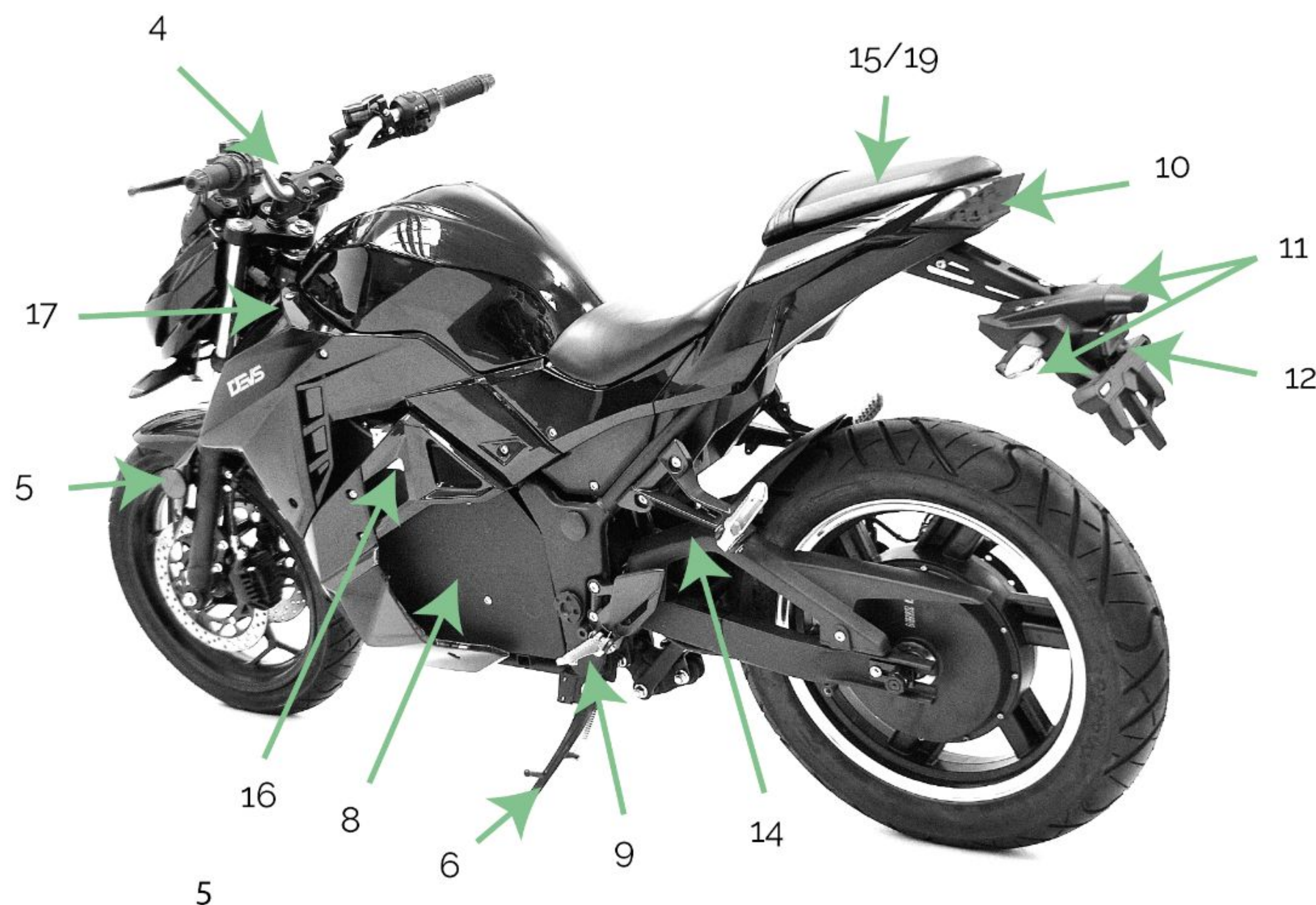
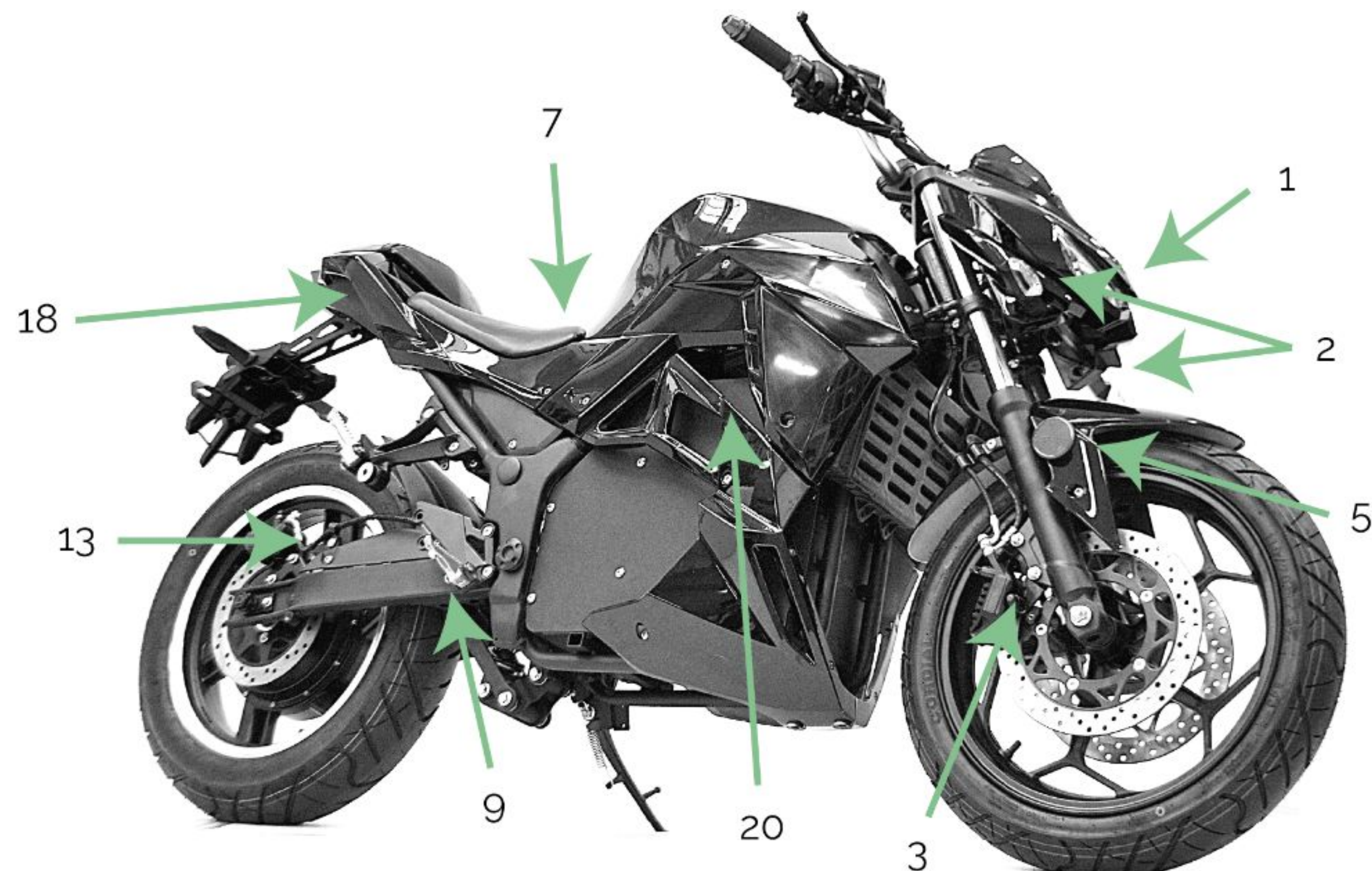
The standard warranty guarantee is covered by the terms and conditions. It will be voided by damage caused by actions contrary to these operating instructions.

For your safety, use only the spare parts supplied by DEVS. Damage arising from the use of third-party products is not a responsibility of DEVS. Removing or modifying your lights other equipment can also make your 601 illegal.

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COMPONENT LOCATION

1. Headlight
2. Front direction indicators
3. Front brake
4. Instruments
5. Side reflectors
6. Stand
7. Rider's main seat
8. Battery
9. Rider's main foot pegs
10. Rear position and brake light
11. Rear direction indicators
12. Rear reflector
13. Rear brake
14. Rear adjustable suspension
15. Passenger seat
16. Main 100A breaker fuse
17. VIN plate
18. Passenger grab handle
19. 12V/15A fuse (under seat)
20. BMS control switch



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INSTRUMENTATION

1. Air temperature. Use as a reference for the operation of the battery within the stated safe range.
2. Quick reference indicator of battery charge level.
3. Actual battery voltage. Use as an accurate reference for the remaining capacity of the battery.
4. Trip timer.
5. Total kilometers (displayed for 5 seconds after switch on), and subsequently trip kilometers.
6. Speed in kilometers per hour. Use as a reference to the stated road speed limits.
7. Mode selected (currently not used).
8. Warning lights for indicators.
9. Warning lights for high beam.



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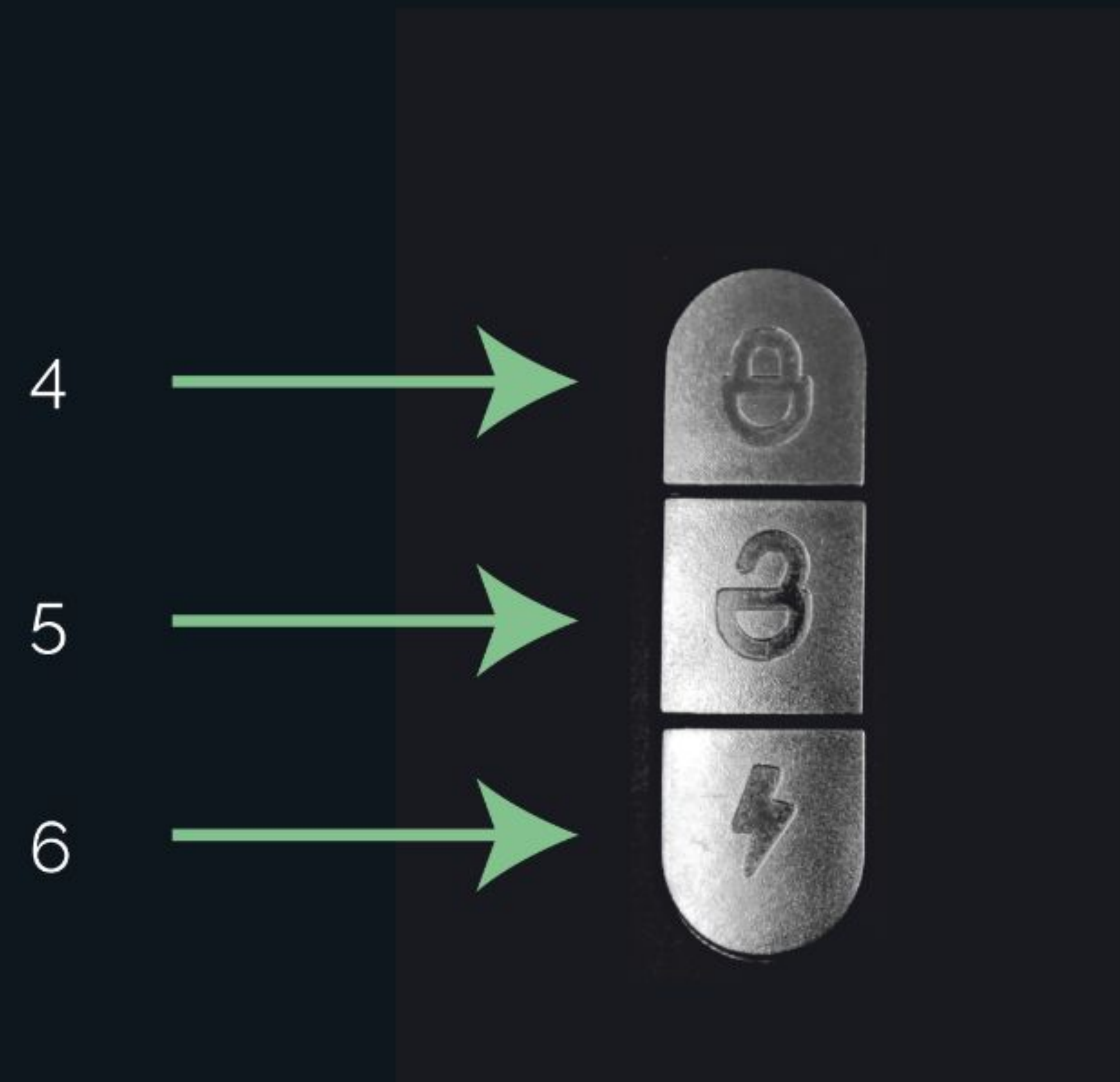
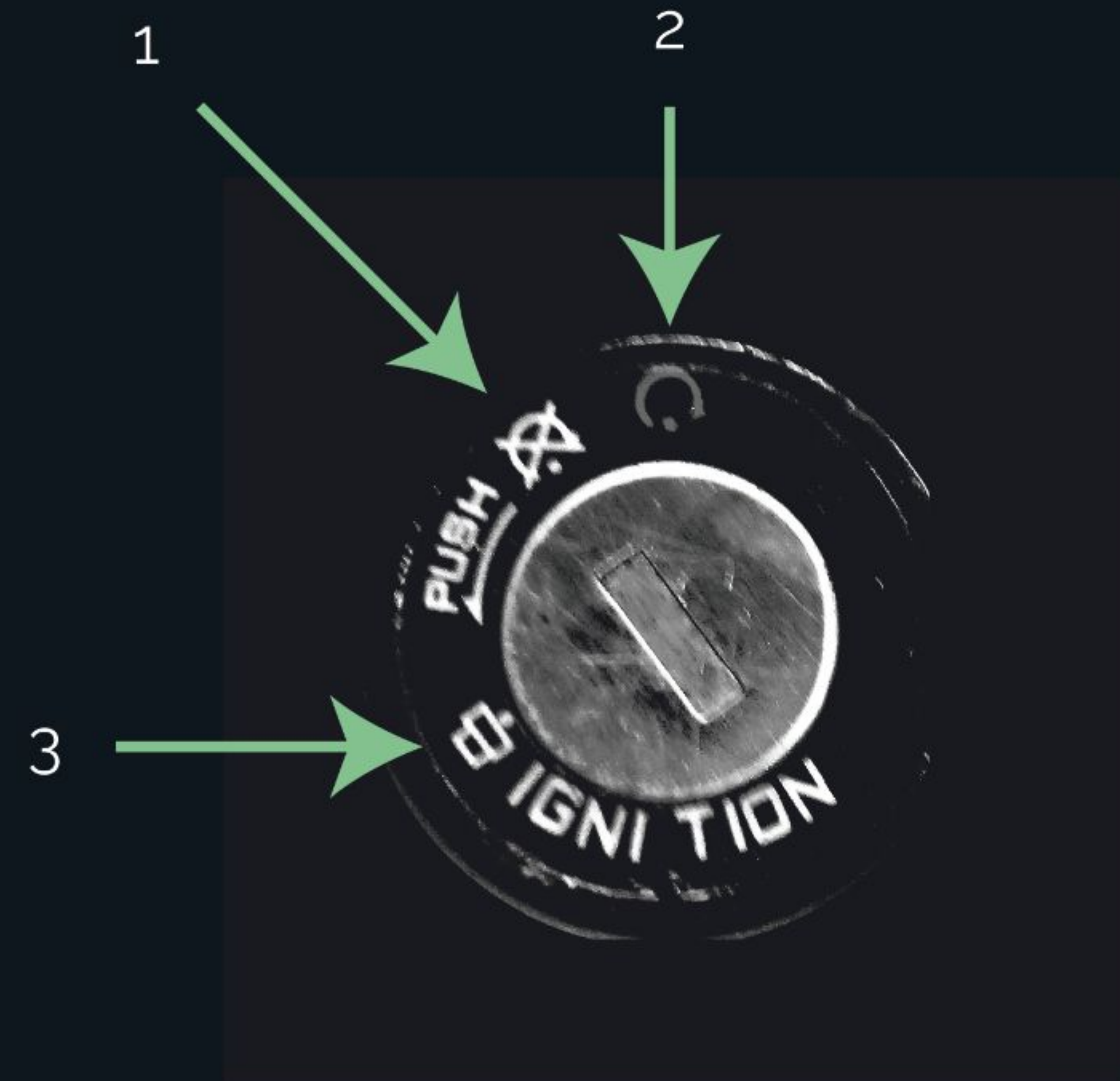
KEY, LOCK AND ALARM

This switch controls the ignition and locks the steering. The various positions are described as below.

1. OFF position. All electric system are off. The key can be removed.
2. ON position. Used for operating the motorbike. Install the key and turn clockwise. At this position the lights and dashboard will illuminate.
3. Steering lock position. With the key in the OFF position, turn the handlebars all the way to the left. Push the key down once, release and then turn the key counter-clockwise before removing. To unlock, install the key and turn clockwise.

The alarm control varies in appearance but the switches are usually defined as below.

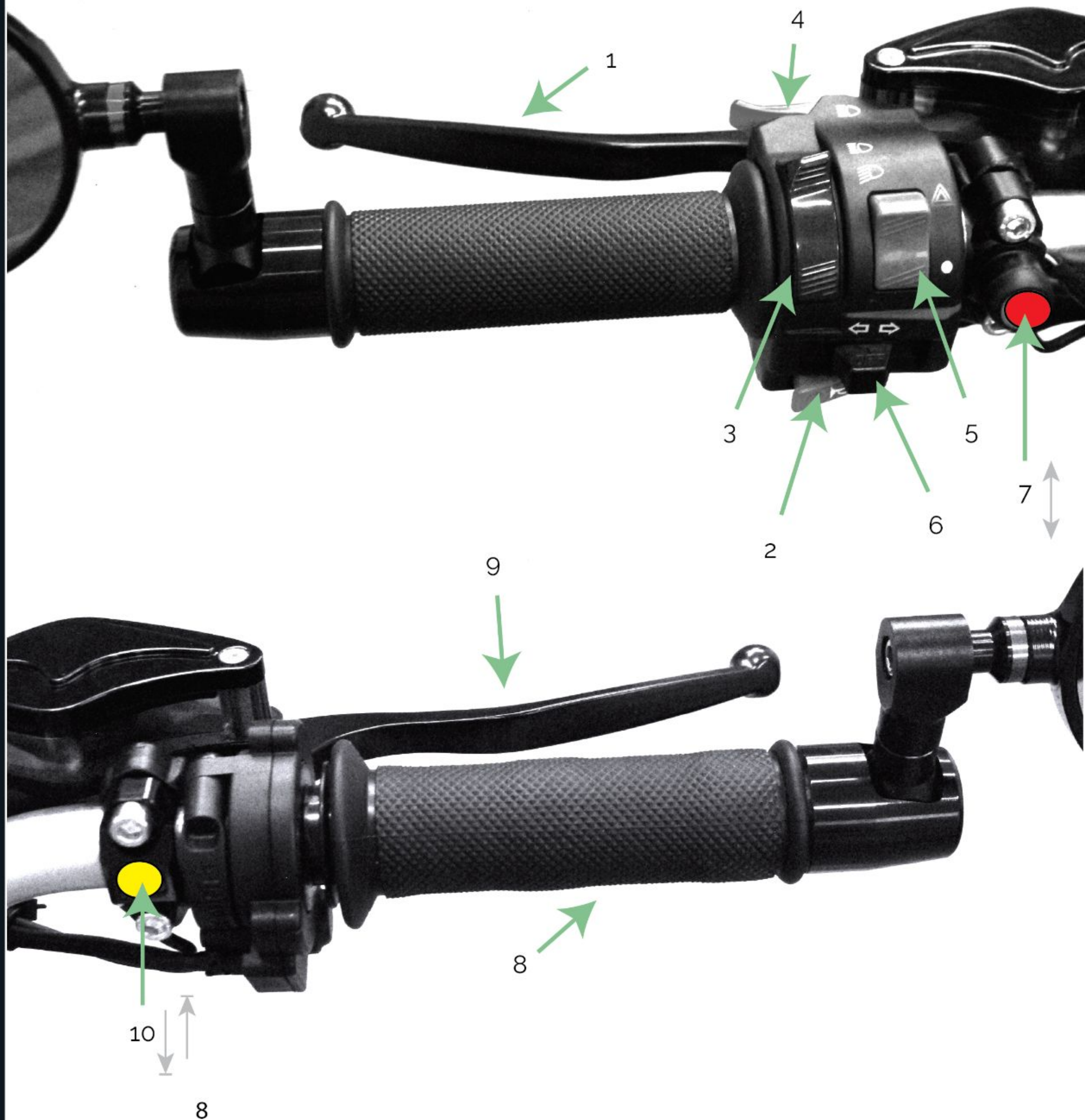
4. Activate alarm.
5. Deactivate alarm.
6. Remote start upgrade. Turn ON without need for



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CONTROLS

1. Left lever, operates rear brake
2. Horn switch
3. Headlight switch - dip and high beam
4. Headlight high beam flash
5. Hazard light switch
6. Indicator switch. When the switch is pressed to the left or right, the indicator will blink as appropriate. Depress to switch off.
7. Reverse momentary (red) switch. Hold in to operate in coordination with throttle.
8. Throttle. To accelerate, twist towards you. To decelerate, turn it in the opposite direction.
9. Right lever, operates front brake
10. Control (yellow) switch. Depress to activate electronic brake recuperation. With this enabled, the right brake lever (9) works as a combined front and rear brake system (**see page 17 for more details and options**).



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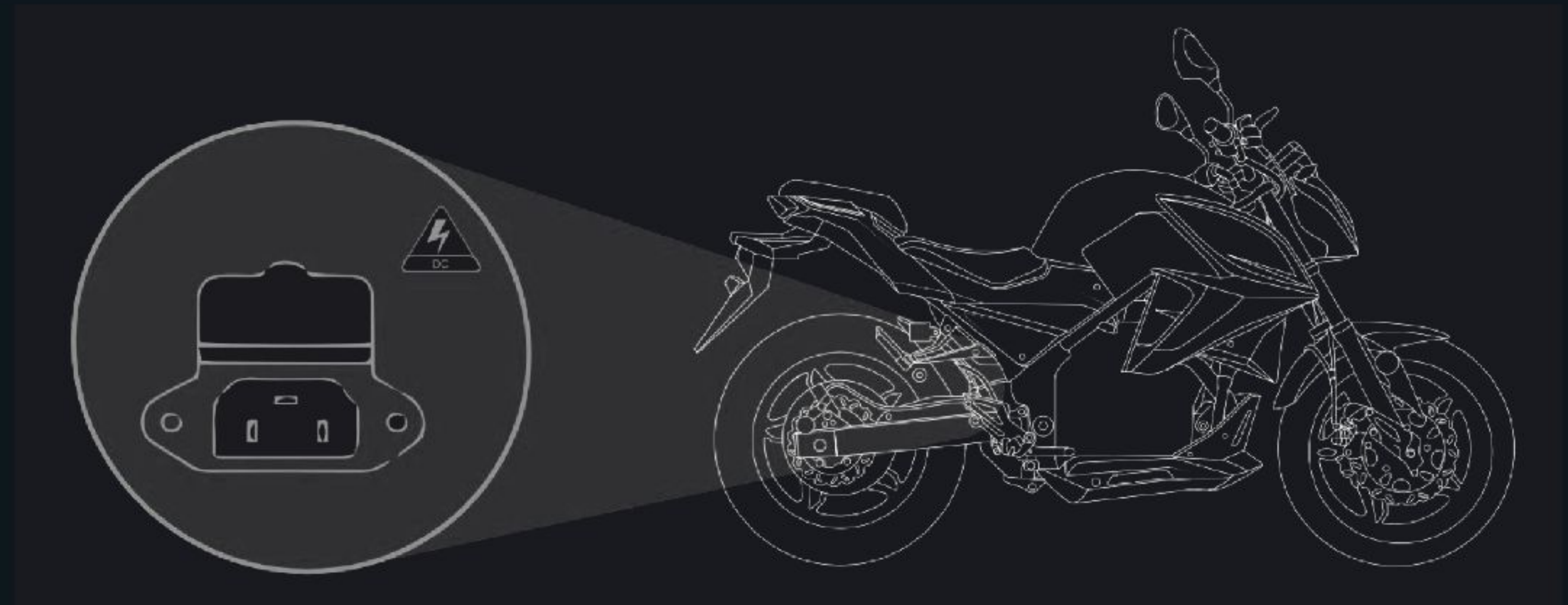
CHARGING THE BATTERY

The charger is built-into the motorcycle and the connection is located on the right side of the body above the foot peg.

Plug the power lead into 220V local AC power supply. When the charger's lead is connected, a cooling fan will start after 5 seconds, warning that the charging process has started.

The standard 0-100% charging time, according to the time specified by the charger, is 4 hours. The ideal room temperature should be 25 ° C. In other environmental conditions, the duration of recharging may vary.

Charging is fully-automated and optimised by on-board electronics. When finished, the charger will cut off power from AC power automatically.



The operating range of the battery is 60V (0%) to 84V (100%) and the charging temperature range is 0C to 45C.



When recharging, put the 601 in a safe place that children cannot touch.



Do not use a charger lead other than the one provided by the manufacturer.



Avoid operating the motorcycle while it is being recharged.



Please only charge it in a dry and well ventilated environment.



BATTERY SAFETY WARNINGS

Observe these important points!

The lithium battery is a kind of consumable. The correct use method can extend the life of the lithium battery.

The 601 should be charged immediately after each use when the indicator indicates that the energy is less than 20%. When the battery charge is less than 20% it should not be stored, recharge it immediately.

When using the vehicle, try to avoid that the load drops to 0% (protection status), this will accelerate the degradation and shorten its useful life.

All battery cells are controlled within 0.1V in their manufacturing process. During the first 10 cycles, the battery management system (BMS) will reduce this difference down to as low as 0.05V difference. Look at 'DeltaV' on the battery APP to see this figure for your battery.

Please note, it is possible during the first 10 cycles that one cell may not be balanced and could fall below its low voltage protection level when you apply high acceleration. If this happens, the vehicle's BMS will disconnect the battery. Turning the vehicle off and back on will reset the BMS and allow the vehicle to continue. Using more gentle acceleration during the first 10 cycles is recommended to avoid this problem.

When the vehicle is stopped for a long time, store it in a cool, dry place, away from combustible materials. When stored, the lithium battery should maintain a capacity between 50% and 75% and should be checked every 30 days.

If the battery is depleted, not recharged in time, or stored with a charge below 20%, it may cause degradation and therefore loss of warranty.

Care must be taken when installing or removing lithium battery packs to avoid shocks or drops.

If you find that the battery is deformed or broken, it should be immediately discontinued and placed in an open place away from people and materials.

It is dangerous to disassemble the lithium battery. Go to an official DEVS service. Please read the instructions carefully before charging the lithium battery.

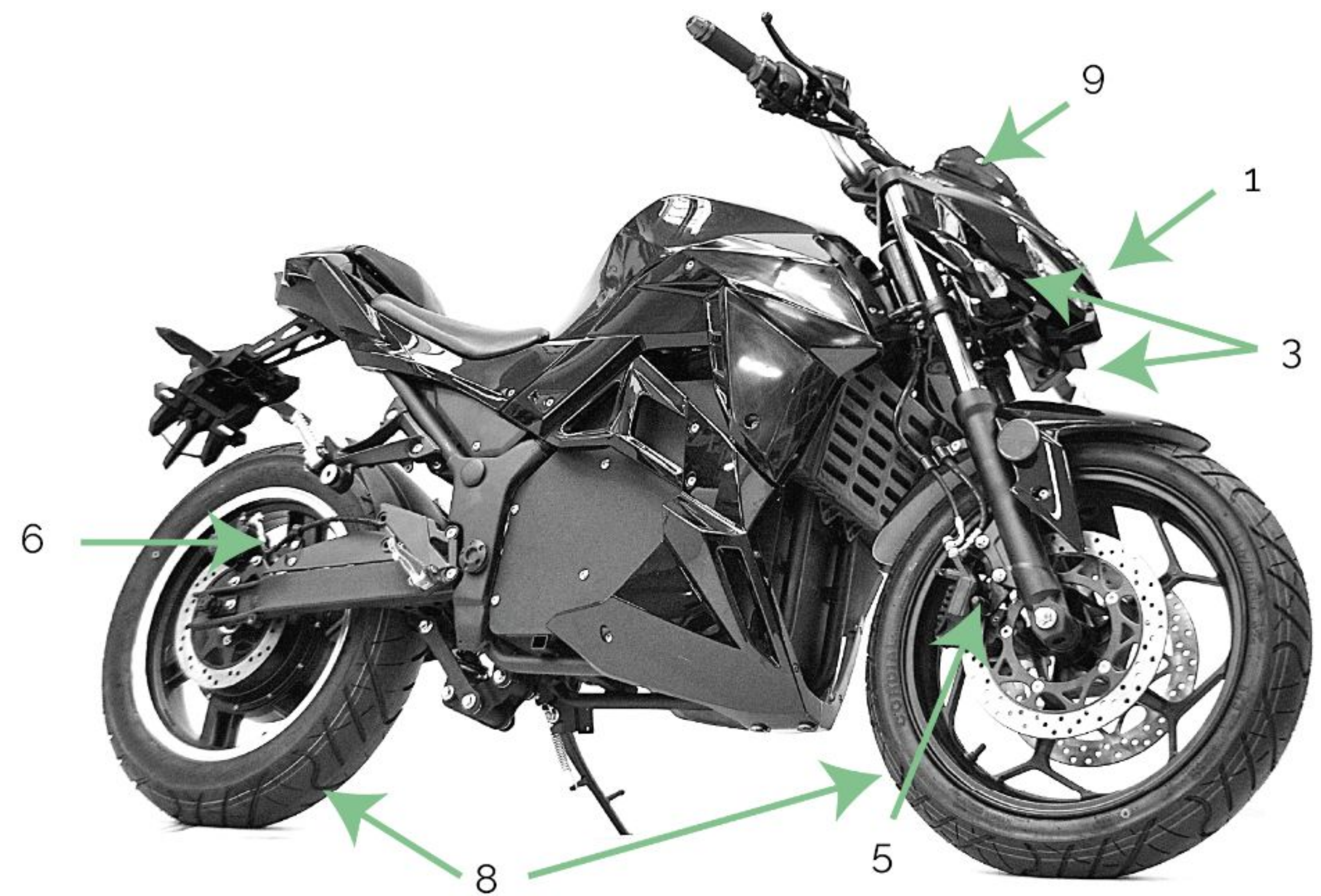
When connecting the charger, make sure the charging plug is properly connected to the charging socket and locked. During charging, make sure the lithium battery and charger are fully vented.

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PRE-DRIVING INSPECTION

1. Activate headlight, tail light and brake lights to verify operation and headlight aim (**see page 16**)
2. Check rear seat is securely locked in place.
3. and 4. Activate indicators to test operation and warning light on instrument panel
5. and 6. Inspect brake lines are without leaks and brake pads have adequate depth
7. Check side reflectors not damaged
8. Verify tyres are correctly inflated, have legally required tread depth and without damage
9. Check that the battery is at 100% for the expected distance
10. Twist the throttle grip to ensure it rotates smoothly and returns normally to its starting point

The condition of a vehicle is the owners' responsibility. The operator should check the vehicle by simple but thorough inspection to prevent the vehicle from serious consequence/accident.



RIDING

TIPS

Take your first steps of riding in a safe and spacious area, especially if you are riding a motorcycle for the first time.

Hold the handlebar firmly with both hands, never release either hand from the handlebar unless absolutely necessary.

Do not accelerate when turning the motorcycle unless absolutely necessary.

Ride at the proper speed within safe margins.

If the ground is wet or slippery, you should slow down.

Obey the rules of the road and never exceed the speed limits.

RIDING

TIPS

Use the motorcycle's brakes according to the road traffic conditions. Use the front and rear brake simultaneously and evenly, applying the pressure on both axles with the right and left levers.

The higher the speed, the greater the braking distance must be. Be sure to keep a safe distance between your motorcycle and other vehicles.

It is very dangerous to use only the front or rear brake, as the motorcycle may skid or lose control. You must be very careful when using the brake on wet roads and when cornering. Sudden braking on slippery or rough roads is extremely dangerous.

The motorcycle should be parked on level and firm ground. If the motorcycle needs to be parked on a slope, always point it uphill.

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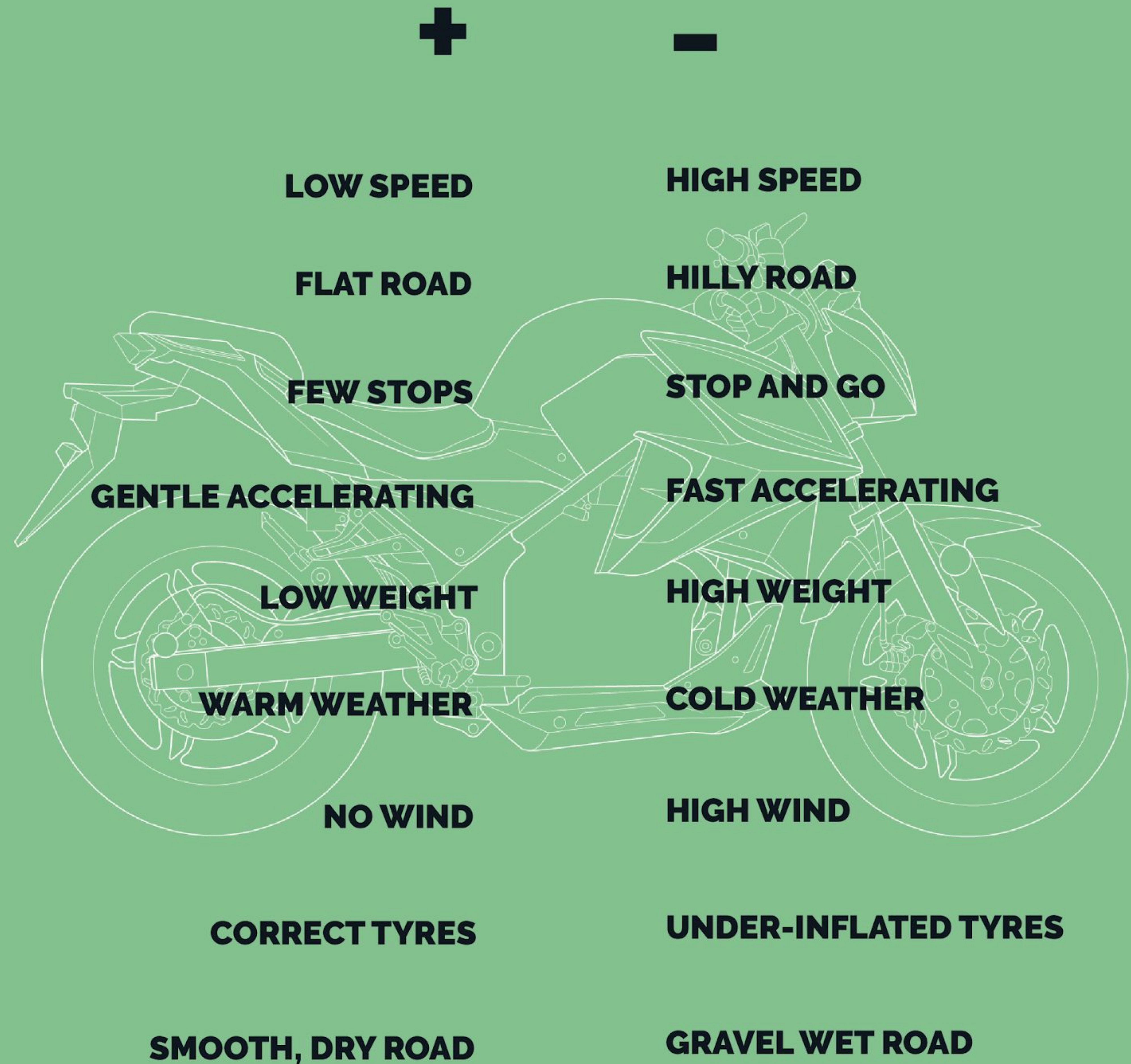
ELECTRIC MOTORCYCLE RANGE

The range performance of an electric motorcycle is different from petrol-engine driven or human-powered vehicles. It's very important to understand how the electric 601 works before riding.

The range is largely influenced by the driver's weight and the additional load, weather conditions, road conditions, the way it's driven, the number of starts (e.g. on crossings), the condition of tyres (especially their inflation) and battery wear and tear. In extreme conditions, the range can be reduced to less than 50% of the indicated value.

IDEAL CONDITIONS

Flat terrain, constant speed, no full load, no head-wind, correct tire pressure, driver weight < 70kg, no payload, approx. 20°C ambient temperature.





OPERATION

Always perform the entire pre-ride checklist before riding as this can help you spot problems that could interfere with safe operation. Failure to follow this entire checklist before every ride can cause serious injury, and/or property damage to yourself and/or others.

STARTING

- Sit on the 601 whilst it is still on the side stand. You may hold the handlebars to assist yourself. Set the mirrors so that you have a good view of what's happening around you.
- Activate the ignition with the key. The headlights and instrumentation will activate.
- Check the battery level is adequate for your journey.
- Select reverse if needed by holding the reverse button. Reverse gear has limited power to make it easier to control.
- Lift the side stand with your left foot.
- Check the road is clear.
- Accelerate by rotating the throttle towards you. Decelerate by rotating the throttle away from you. The throttle includes a safety spring that snaps the throttle back to end when released.
- Always ride with a helmet, firmly secured to your head.

STOPPING

- Release the throttle to end position.
- Operate the brakes. When braking, always engage the rear brake first to retain maximum control of the scooter. Wet, oily, or sandy roads reduce braking effectiveness. Hard braking on these surfaces is dangerous.
- If the electronic brake is activated, be aware that this will initiate extra rear wheel braking that must be compensated by applying less force on the left brake lever.
- After the vehicle is stopped turn off the ignition.
- Lower the side stand with your left foot while holding the motorcycle upright.
- Remove the key from the main switch.

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SPECIAL FEATURES

STORAGE BOX

Remove passenger seat using the ignition key in the lock under the left side of the seat (1). The maximum load of ported objects is 3 kg.

THROTTLE CUT-OFF

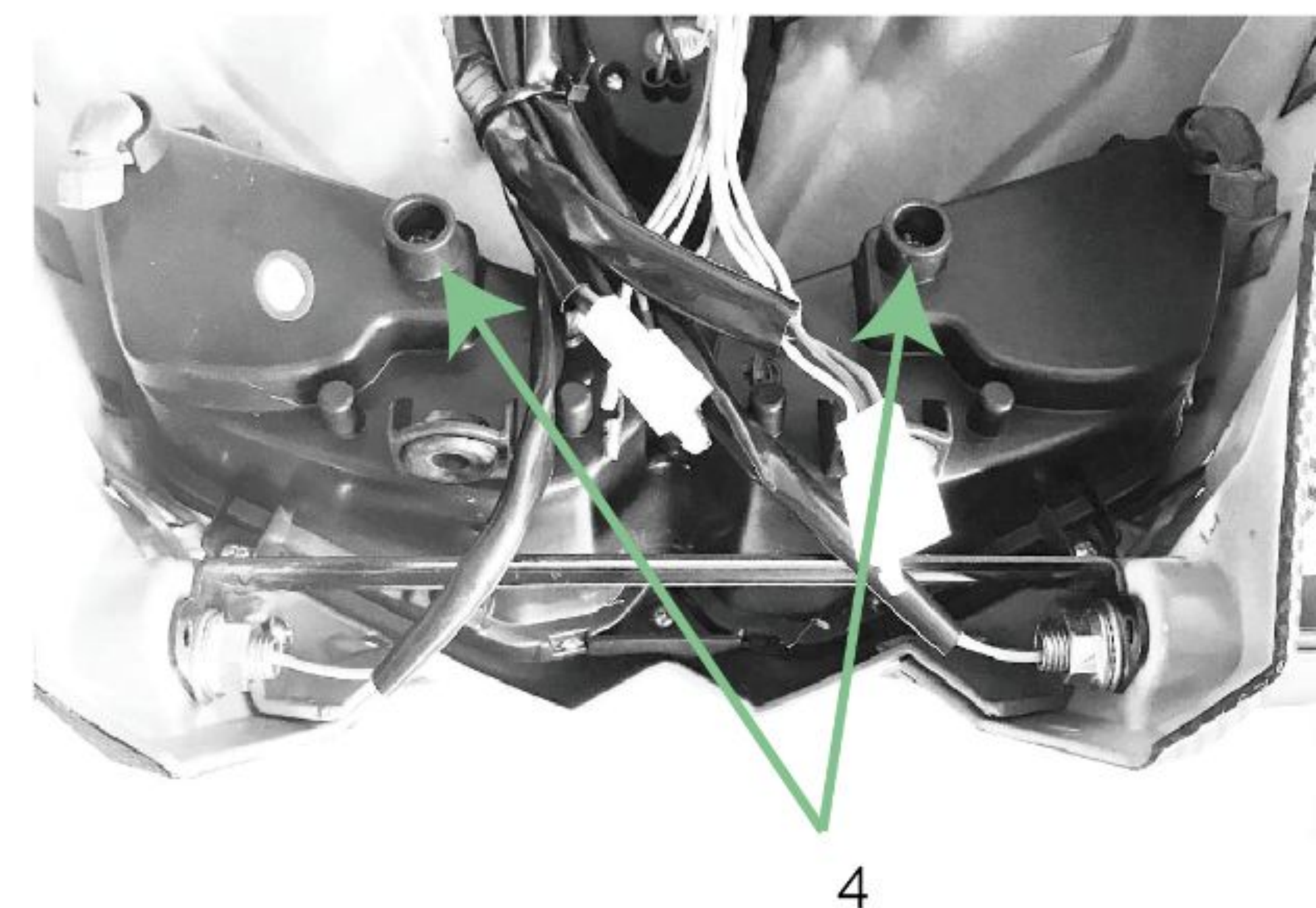
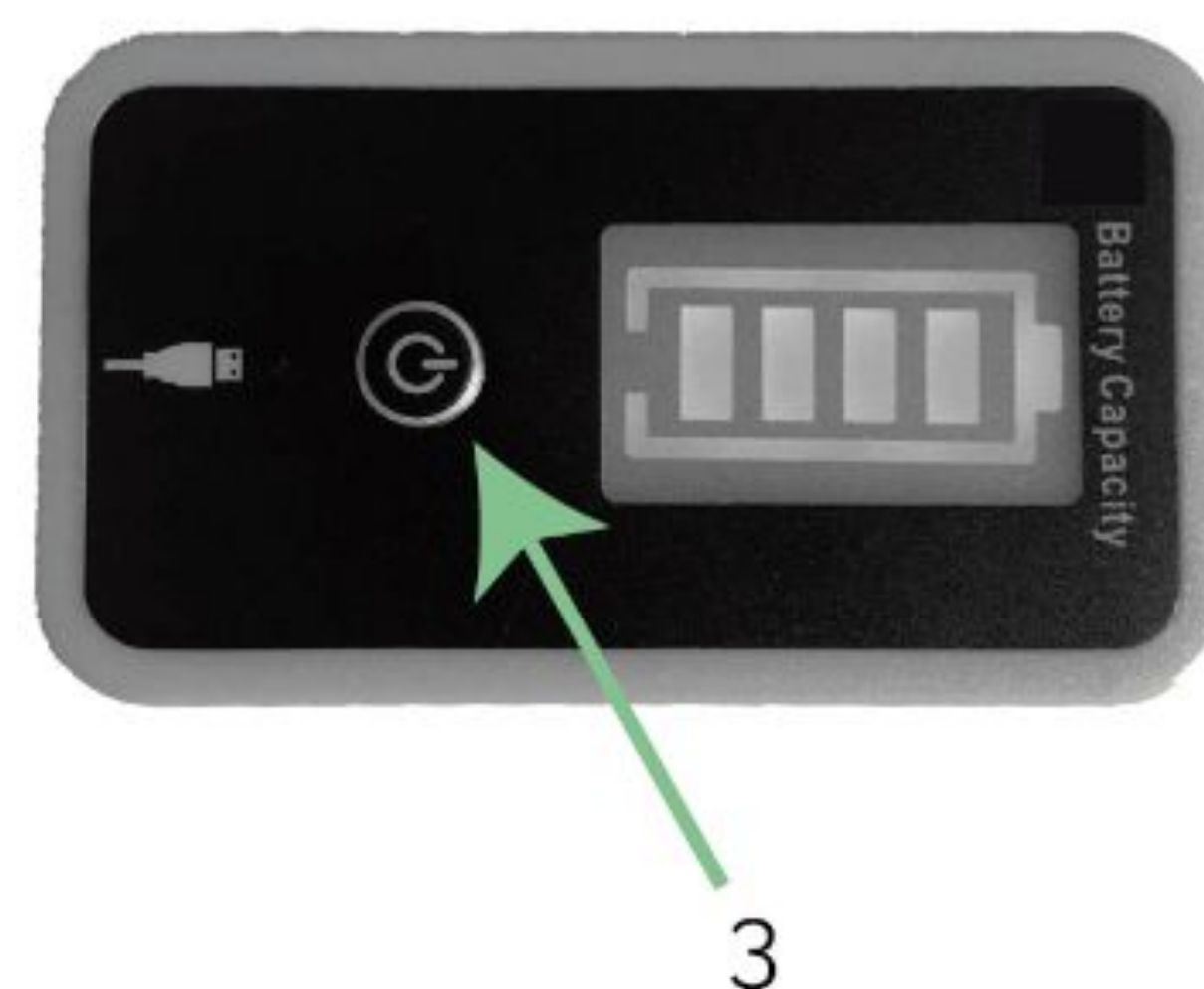
In its default 'off' position, the throttle (2) opens a safety switch to cut off its power.

BMS SWITCH

This automatically goes into standby mode after 1 hour and will turn on during charging and discharging. It is also possible to turn on the BMS using the switch (3). The battery icon lights to indicate the BMS is on as well as indicating the state of charge.

HEADLAMP AIM ADJUSTMENT

Locate the screws behind the headlamp (4) and adjust the aim up (clockwise) or down (anticlockwise).



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SPECIAL FEATURES

SINGLE YELLOW SWITCH (1)

Depressing the switch enables the electronic brake, which recuperates energy in coordination with the application of the brake levers. It is important that this is 'off' when the battery has just been fully-charged or in case of using the throttle (2) and brakes together for a hill start.

MULTI-SWITCH (OPTION)

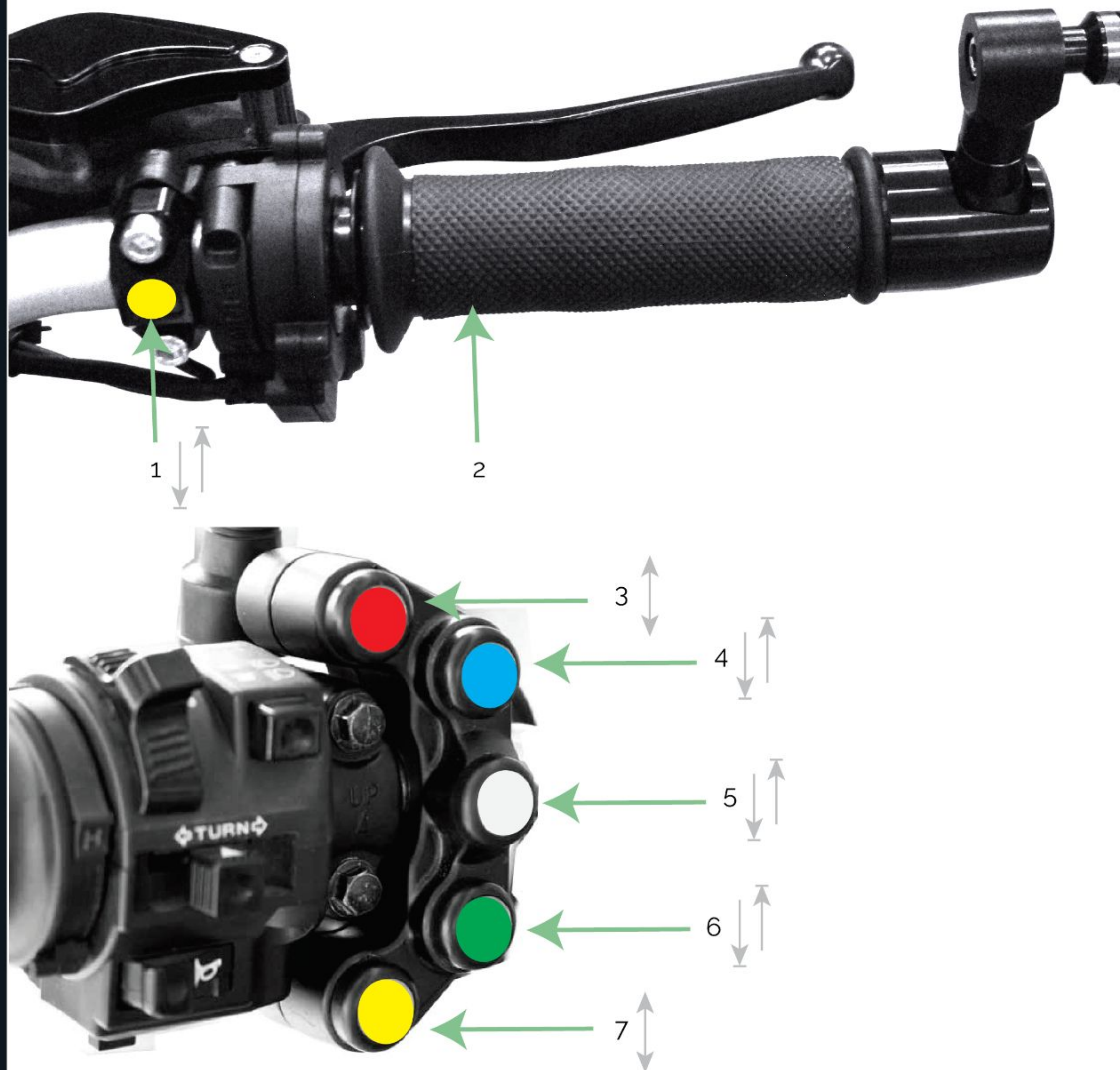
(3) Reverse (*see page 8*)

(4) Electronic brake (as above)

(5) Cruise control: Depressing the switch at desired speed enables cruise control. Whilst enabled, accelerating temporarily increases speed and depressing either brake lever permanently reduces cruise speed. Releasing switch and either accelerating or braking disables the cruise control function.

(6) Camera / Speaker

(7) Power boost



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INSPECTION, MAINTENANCE AND STORAGE

Regular maintenance can enhance service life and driving safety. Please refer to the inspection suggestions and take care of your e-motorcycle.

RECOMMENDED PROFESSIONAL SERVICE

The first maintenance should be carried out one month after purchase or after the first 500Km. After the first inspection, maintenance should be carried out to our after-sales services every 6 months or 3000km. Assembly, maintenance and/or repair should only be performed by designated dealers or authorized repair centers for e-motorcycle repairs to ensure quality work

BATTERY WINTER STORAGE

Lithium batteries should be charged to 80% capacity before winter storage. They will lose on average 9% of their charge per month. They may be safely stored at temperatures below freezing.

BRAKES

Check braking performance, inspect lines and pads for wear, prevents accidents. Check the front brake lever free play. This measurement must be between 10 - 20 mm. travel.

DAILY

TYRES

Check tyre damage & air pressure, prevents flat tyre or power over-consumption during riding. The control of tyre pressures must be carried out cold.

FRONT WHEEL 196 kPa (28 PSI) / REAR WHEEL 221 kPa (32 PSI). Always replace the tyres when the tread depth reaches a limit of 1.6 mm. Increase pressure when carrying extra weight.

DAILY

WHEELS

Check rim strength & remove dirt in bearing, prevents rim breaking or jamming.

WEEKLY

SUSPENSION

Check front & rear shock absorbers, remove dirt & maintain lubrication, prevents shock absorber jamming.

WEEKLY

THROTTLE

Check throttle, prevents jamming or occasional failure. Check wire connector isn't loose or damaged, prevents wire malfunction.

WEEKLY

SCREWS

Check screw connectors aren't loose or damage, prevents screw malfunction.

WEEKLY

BATTERY

Check battery cell performance, prevents malfunction & lengthens lifespan. Check whether charger wire is damaged and braking and other connectors complete and reliable or not.

MONTHLY

LUBRICATION

Check wheel axles and brakes if needed to add lubrication or not.

MONTHLY

CLEANING

Surface cleaning.

MONTHLY

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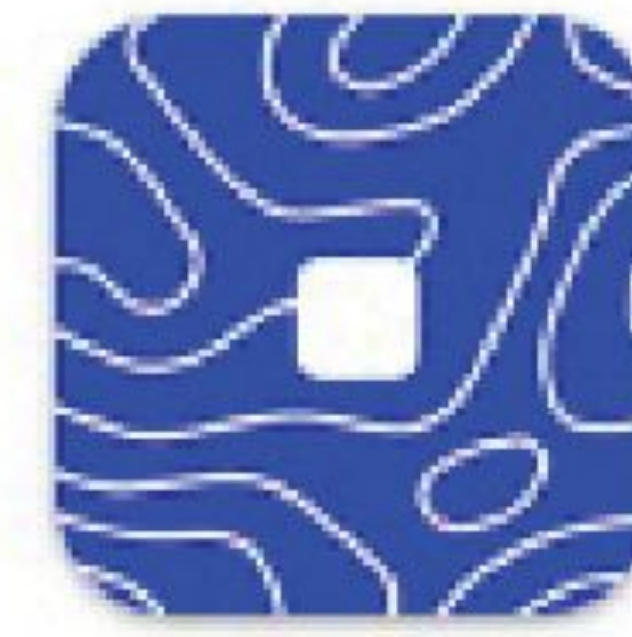
SMART APP INSTRUCTIONS

Download APP client software to perform the following functions from your smartphone:

- Battery monitoring
- GPS tracking
- LED lighting control
- Motor tuning (for service technicians)

Use the icons listed here to find the software for the battery and GPS. You will also find a QR code for the LED lighting on its control box under the rear seat.

We also recommend PlugShare APP as a useful tool for finding public charging points.



Invoxia GPS
INVOXIA



SMART BMS
DalyBMS



LED LAMP
tanguixing



PlugShare
PlugShare LLC

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TROUBLESHOOTING

Note: If there are other usage and related problems, you can check the content of the help center on the website. If you cannot solve your problem, you can contact us for consultation.

EMAIL FOR SERVICE

mail@devs.bike

NO OPERATION

Check the main fuse is ON and 12V/15A fuse is functional.
Check the battery level is above the 60V cutoff.
Check temperature is in operational range -20C to 60C.

NO CHARGING

Check the connections are secure.
Check that the battery isn't already full.
Check the external temperature is in the allowable range of 0C to 45C.
Use the APP to check that the BMS is active.

SYSTEMS ARE ON BUT MOTOR IS NOT WORKING

Check that the brake is not engaged, which disables the throttle when the yellow switch is turned on.
Check the throttle wiring is intact.
Roll the bike forward and backwards and try again to move.
If a 'beep' is heard, check the error code against the list on the next page.

THE SUSPENSION IS UNCOMFORTABLE

Loosen the locknut and adjust the spring tension down to firm or up to soften.
Check you are not over the allowable weight (155 kg)

12V ACCESSORIES NOT WORKING (LIGHTS, HORN ETC)

Check the 12V/15A system fuse under the rear seat and replace if necessary (blade fuse).
Check wiring connections are secure.
Remove accessory and verify operation from external 12V source.

THE BIKE MAKES A RATTLING NOISE

Some such noise is possible on all motorbike, but it is more obvious because an electric motorbike is otherwise quiet. Assess if the noise shows some part has come loose.

THE RANGE IS SHORTER THAN EXPECTED

Follow the tips for riding to maximise range. Some decline of approximately 20-40% is expected over a period of 5 years' of average use.



ERROR CODES

When an error occurs, a buzzer will send out information.

When the 601 is turned on normally, the buzzer will sound once and then stop.

If there is a long beep, please check whether the brake and throttle are effective at the same time.

If there are 1 to 15 beeps, judge the fault based on the number of sounds. The fault table is as follows:

1 – Motor Hall fault. The signal wire between the controller and the motor is not connected properly.

2 – Throttle failure. The throttle does not return to zero, or the throttle is broken. Note that the fault will be displayed by default when the controller is restarted, and the fault will disappear after the self-check is passed.

3 – Current protection restart.

4 – Phase current overcurrent.

5 – Voltage failure. The voltage is too low or too high, which exceeds the allowable range of the controller.

6 – Anti-theft alarm signal.

7 – Motor over temperature. Motor temperature is too low or too high beyond the scope of use.

8 – Controller over temperature. The temperature of the controller is too low or too high beyond the use range.

9 – Phase current overflow.

10 – Phase current zero point fault.

11 – Phase line short circuit fault. The phase line is short-circuited, or the motor is faulty.

12 – Wire current zero point fault.

13 – MOSFET upper bridge fault. The upper bridge of the controller is damaged.

14 – MOSFET lower bridge fault. The lower bridge of the controller is damaged.

15 – Peak line current protection. Hardware overcurrent protection alarm.

TECH

DATA

Motor 5000W continuous, 8500W peak
Maximum speed 90-100 km / h
Climbing 35°

Battery type Lithium NMC
Power 72V 7.2 kWh
Autonomy 150 km (see graph)
Cycles >1000 times

Tyre specification
Front: 110/70 - 17 Rear: 140/70 -17

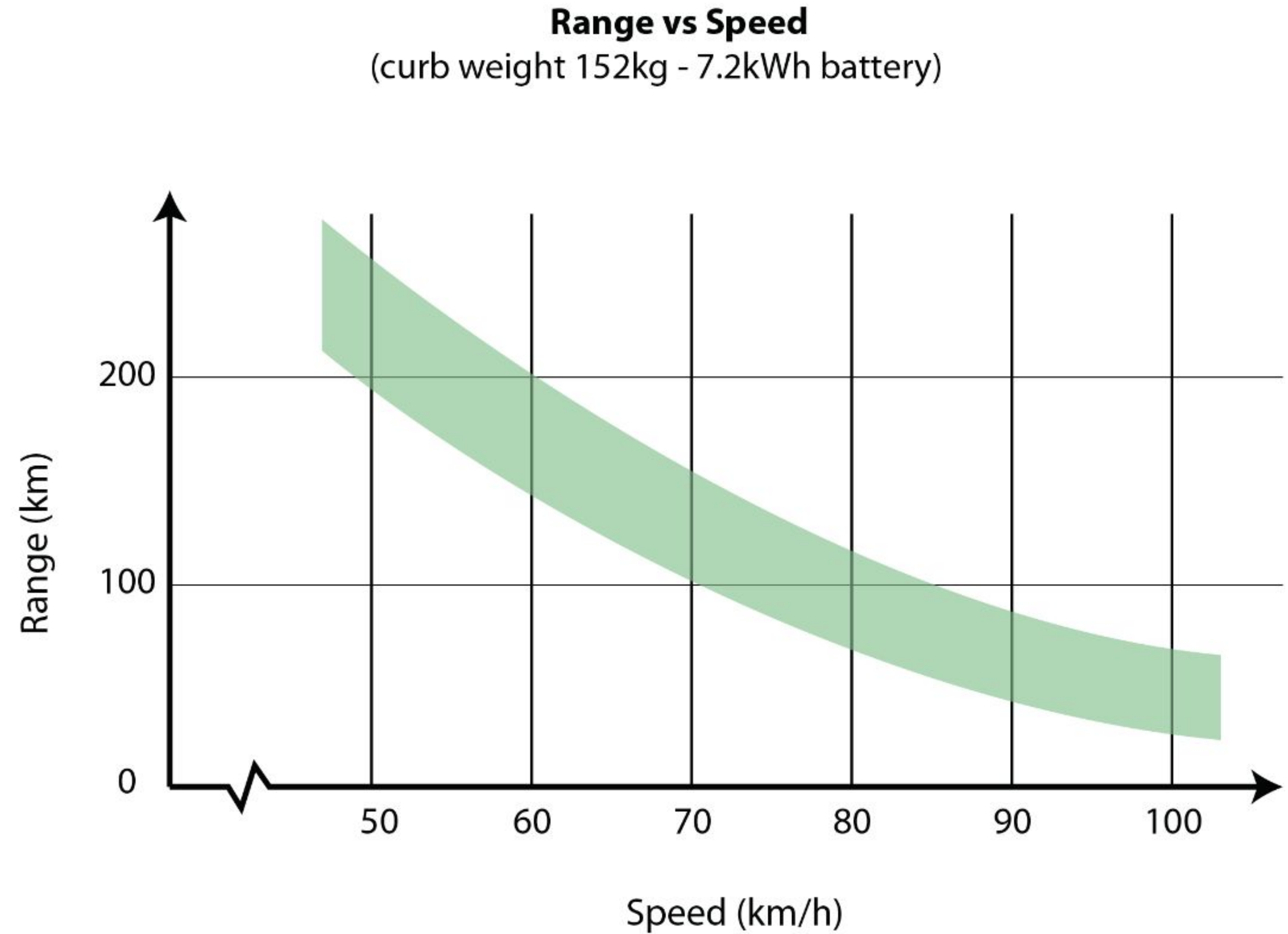
Net weight 119 kg (without battery)
Maximum load <155 kg
Total length 2035 mm
Full width 720 mm
Full height 1140 mm
Seat height 800 mm
Distance between axis 1300 mm

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BATTERY RANGE TEST RESULTS

The slower you go, the further you'll go.

The actual range isn't one number, it's between 50km and 250km. The stated range of 150km is an average of these figures.



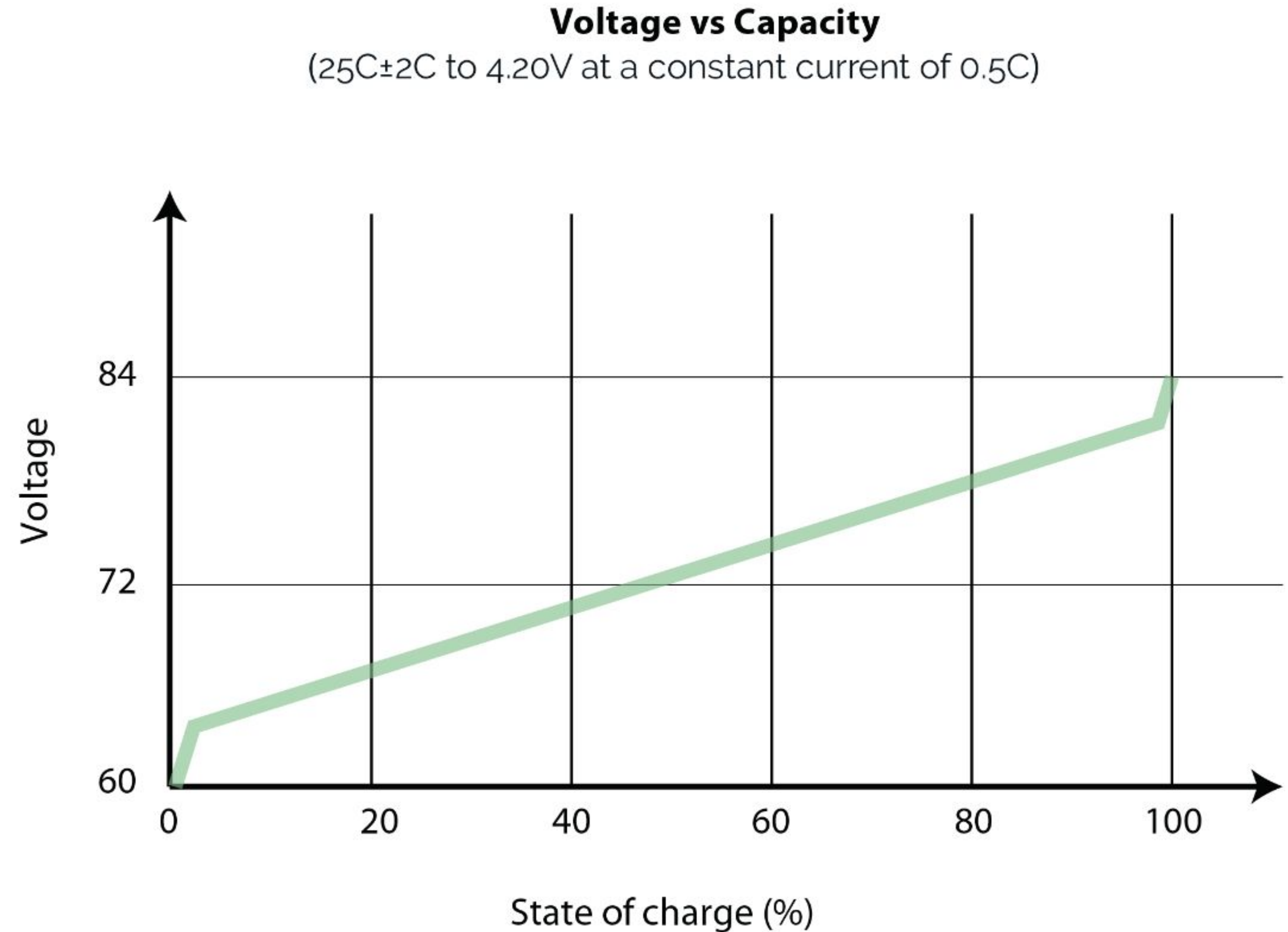
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BATTERY VOLTAGE- CAPACITY CHART

The battery state of charge follows a roughly straight line relationship to the voltage.

Fully-charged voltage is 84V, half-full voltage is 72V and low cut-off voltage is 60V.

Electronics controlling the charging and discharging of the battery ensure that the voltage is always within these upper and lower limits.



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ACCESSORIES

Please check our website for the latest updated list of accessories with prices.

WWW.DEVS.BIKE

IMPROVE PERFORMANCE

Recuperation sensors to extend battery range*
Reverse mode for easier maneuvering
Remote keyless fob for easier start
Ferrite Beads for EMF reduction*

CUSTOM STYLING

Carbon wrapping of panels*
Custom painting in any colour scheme
Protective wrap for panels

HIGHER SECURITY

Lock for helmet*
Remote alarm system
GPS tracking with smartphone APP control

CLEVER CHARGING

Battery monitor with smartphone APP control*
Smartphone mount and USB Charger for Google maps etc
On board mounting of charger for use away from home*
Higher speed charger for faster recharging
Solar charging system for fossil-free operation

STORAGE

Saddlebags for shopping etc

ENTERTAINMENT

Speaker for music, radio and enhanced safety
LED body lighting with smartphone APP control*

AC OUTPUT

AC output 230V for running appliances from the bike

THE BARE NECESSITIES

Essentials kit for emergencies*

*included as standard for free

GUARANTEE POLICY

All our motorcycles are guaranteed against manufacturing defects for 24 months from the moment of delivery.

For reference, the latest applicable warranty terms are published on our website - www.devs.bike.

EXCEPTION

· All components susceptible to wear such as brake pads, tires, axles, bearings and bulbs are excluded from the warranty.

VOIDING

The warranty will be voided when any of the following cases are met:

- When a malfunction attributable to human error or negligence of the user of the machine is demonstrated.
- Meteorological causes or Acts of God.
- When the technical limit of use of the machine is breached.
- If operated in professional or commercial use.
- When non-original DEVS parts are used during repairs or when any maintenance or repair operation is carried out by a technical service not authorized by DEVS.
- All motorcycles and components have recommended maintenance periods and must be periodically checked by an official dealer. Failure to comply with these conditions invalidates the warranty against manufacturing defects.



REGISTERED COMPANY

ROCKETMAN S.R.O.
TROJANOVA 16
PRAGUE 120 00
CZECH REPUBLIC

GARAGE

V KORYTECH 10
STRASNICE
PRAGUE 100 00
CZECH REPUBLIC

version 3.9.22

