MANUAL

DENZEL TECHNO

WWW.DENZEL.BIKE

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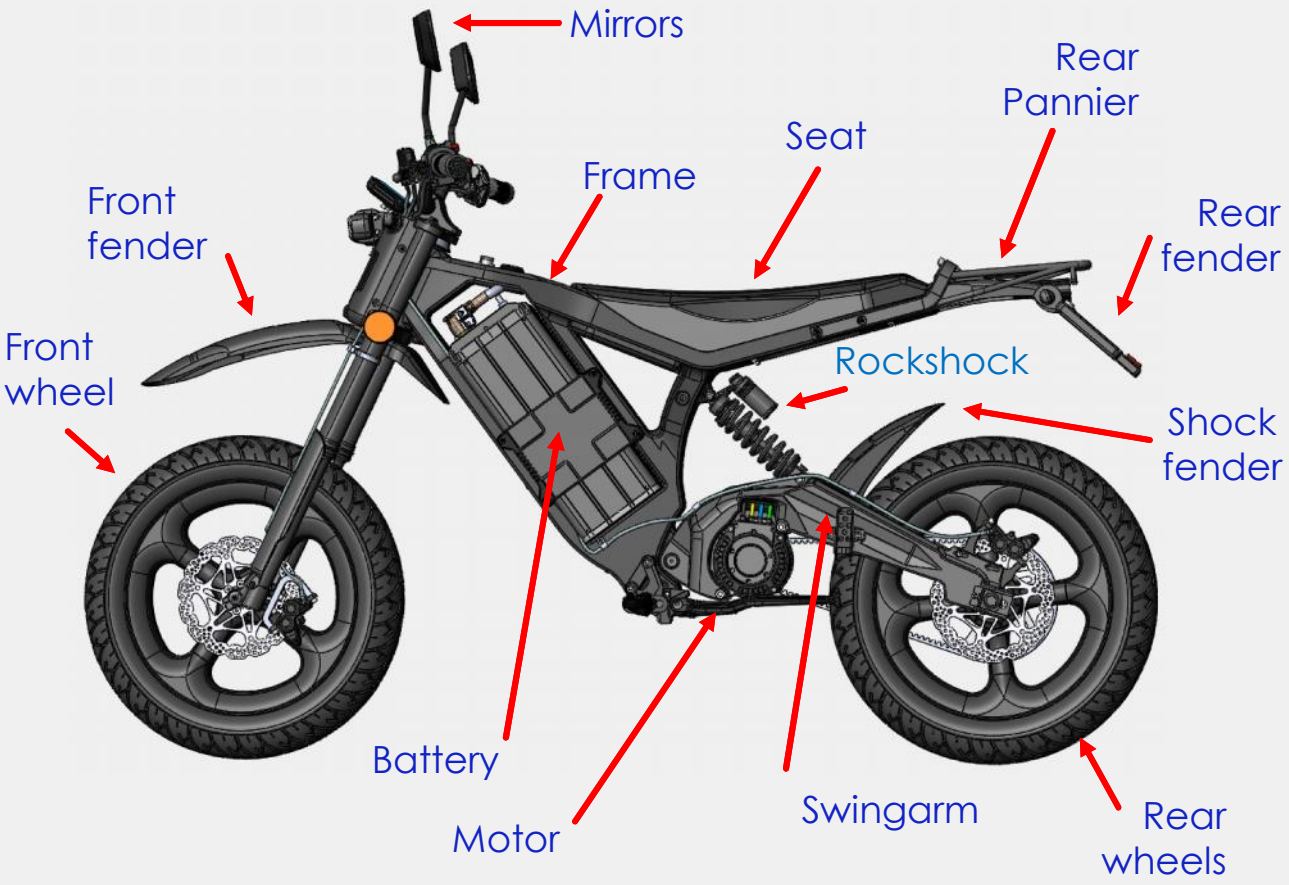
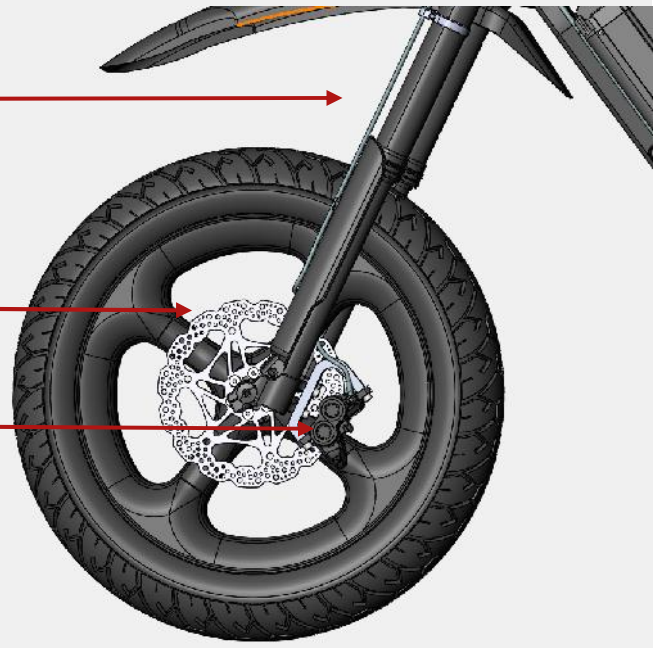
1.GENERAL OVERVIEW OF CONFIGURATION

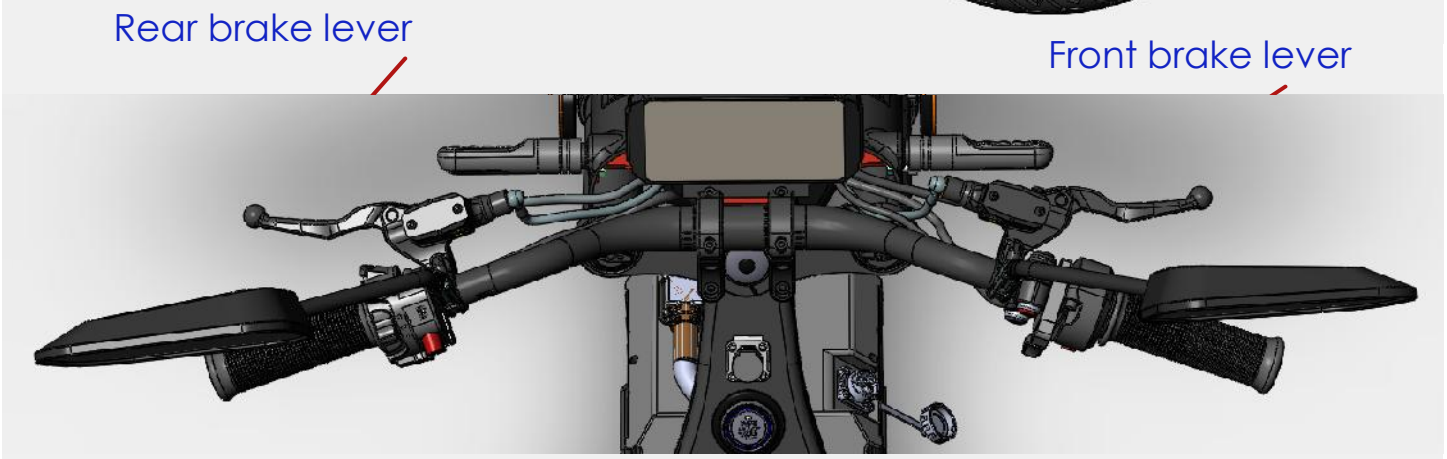
The configuration of the electric bike shown in the picture may differ from the delivered configuration.

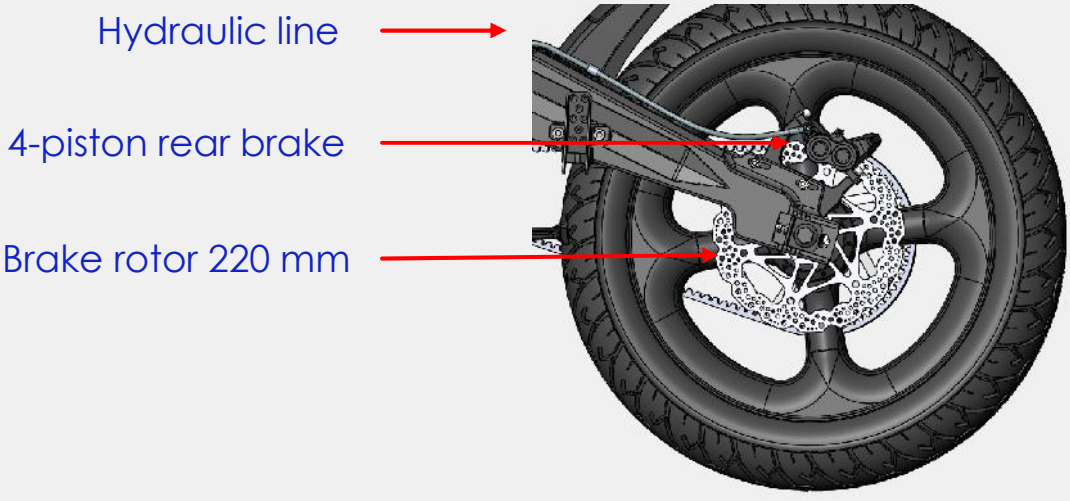
1.1 MAIN PARTS



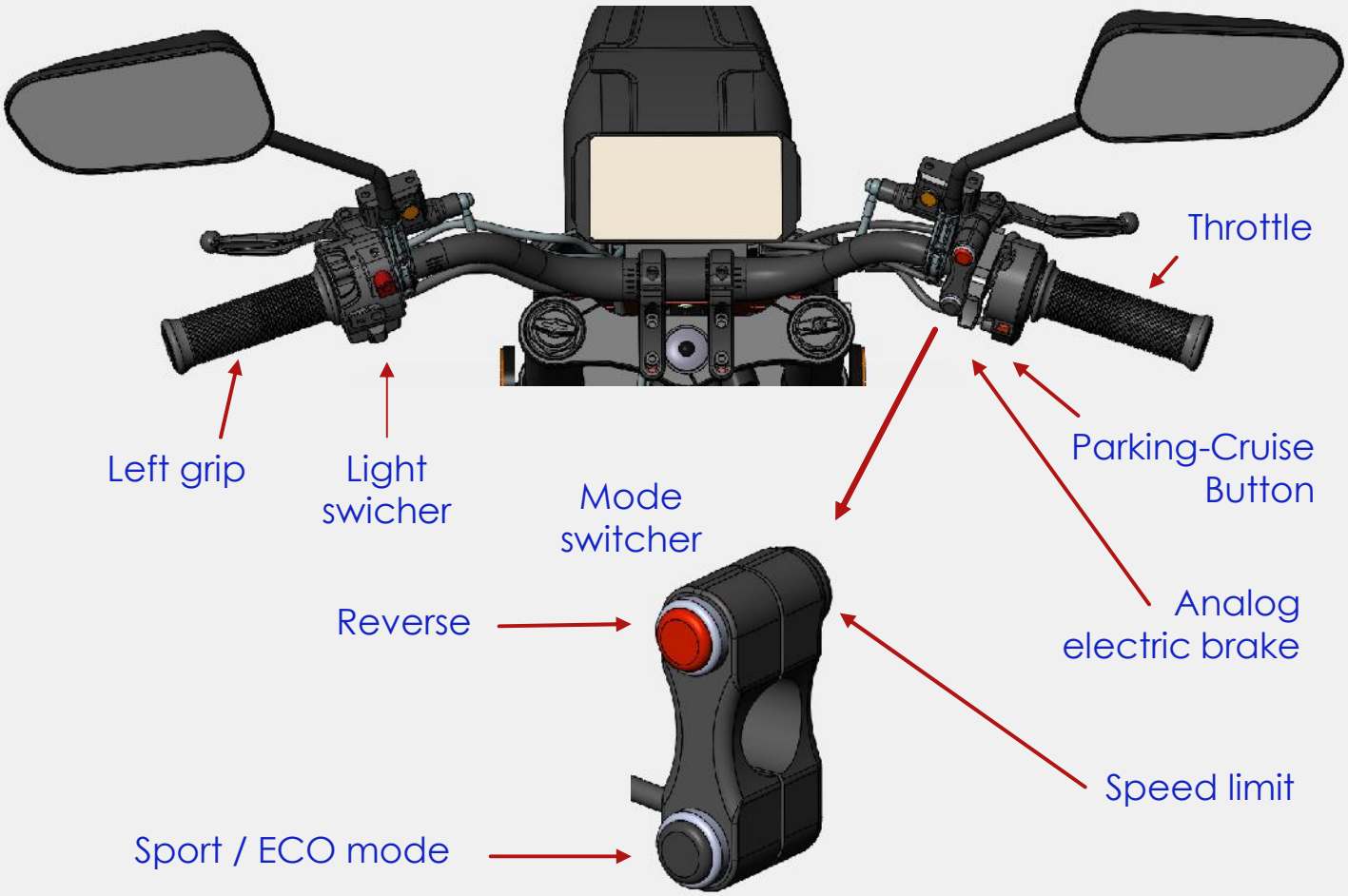
1.2 BRAKE

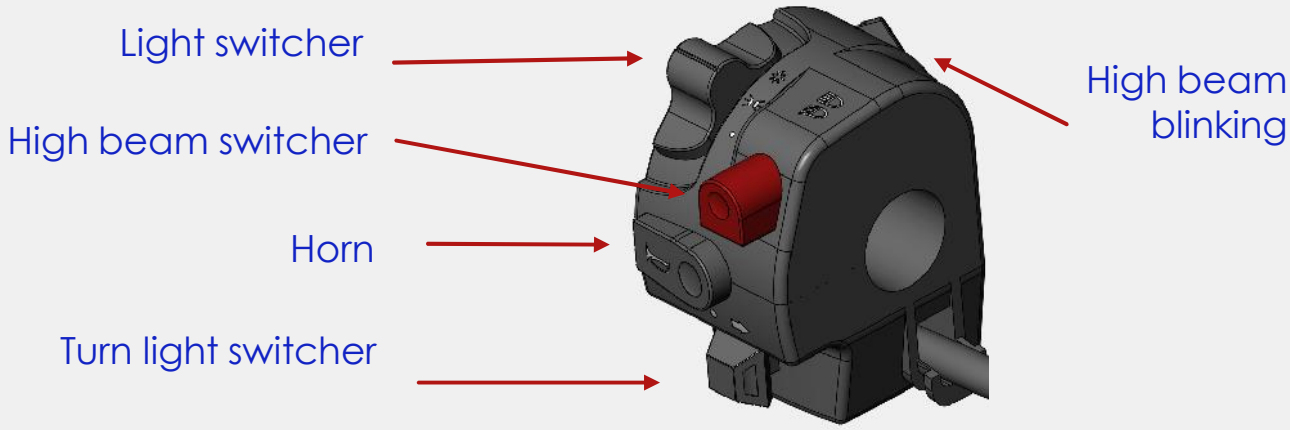

Hydraulic line
Brake rotor 220 mm
4-piston front brake


Rear brake lever
Front brake lever


Hydraulic line
4-piston rear brake
Brake rotor 220 mm

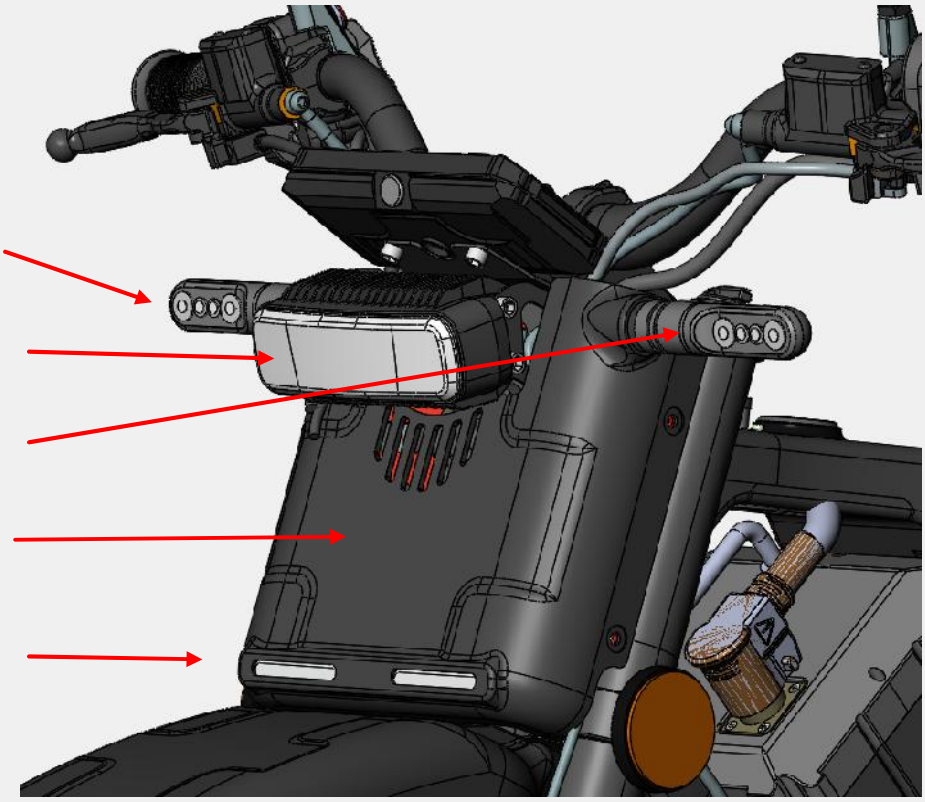
1.3 HANDLE BAR



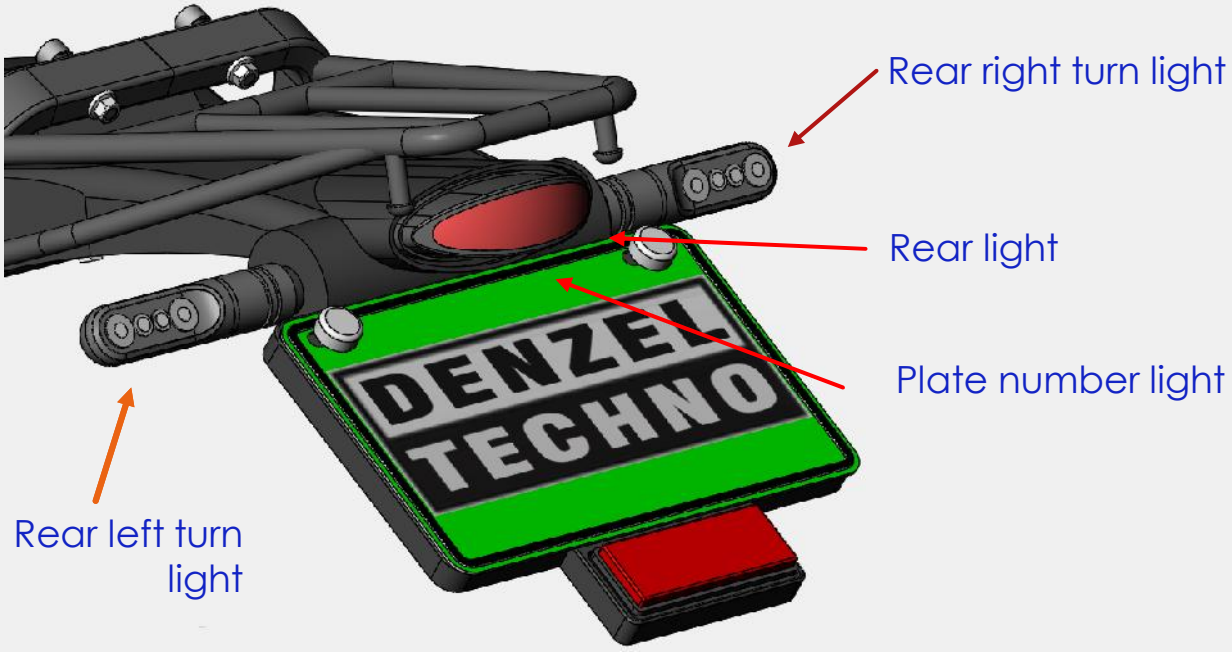


1.4 LIGHT

FRONT LIGHT

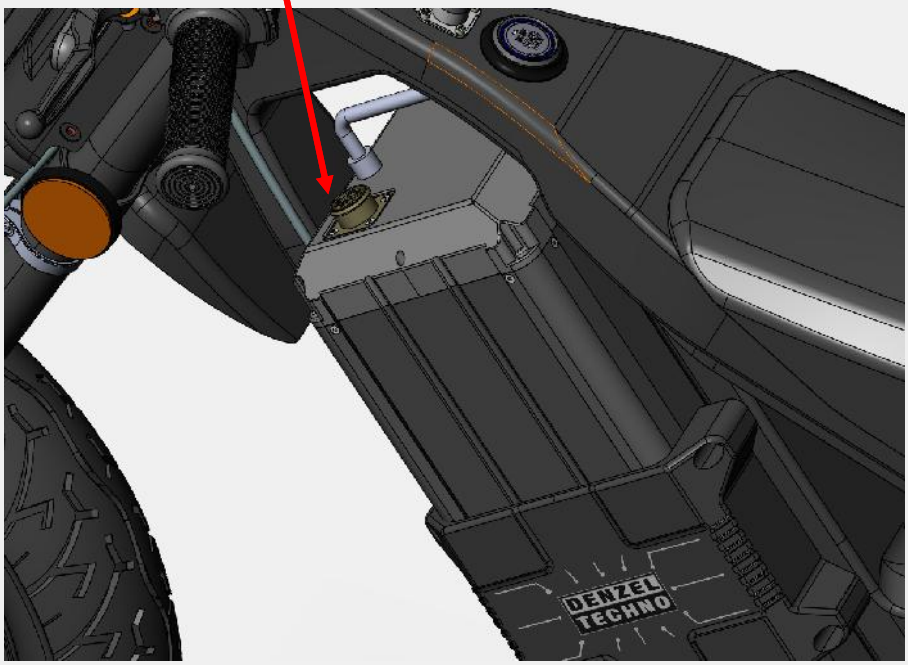


REAR LIGHT

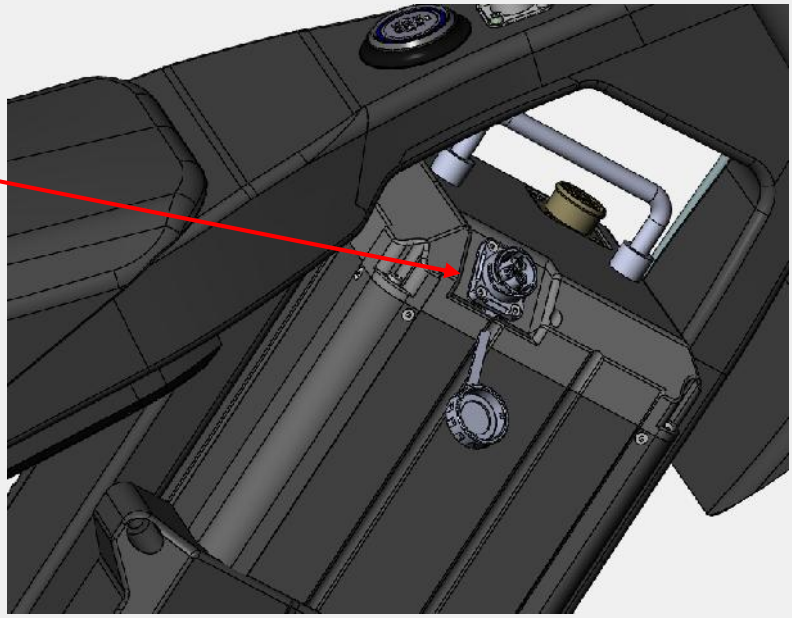


1.5 BATTERY

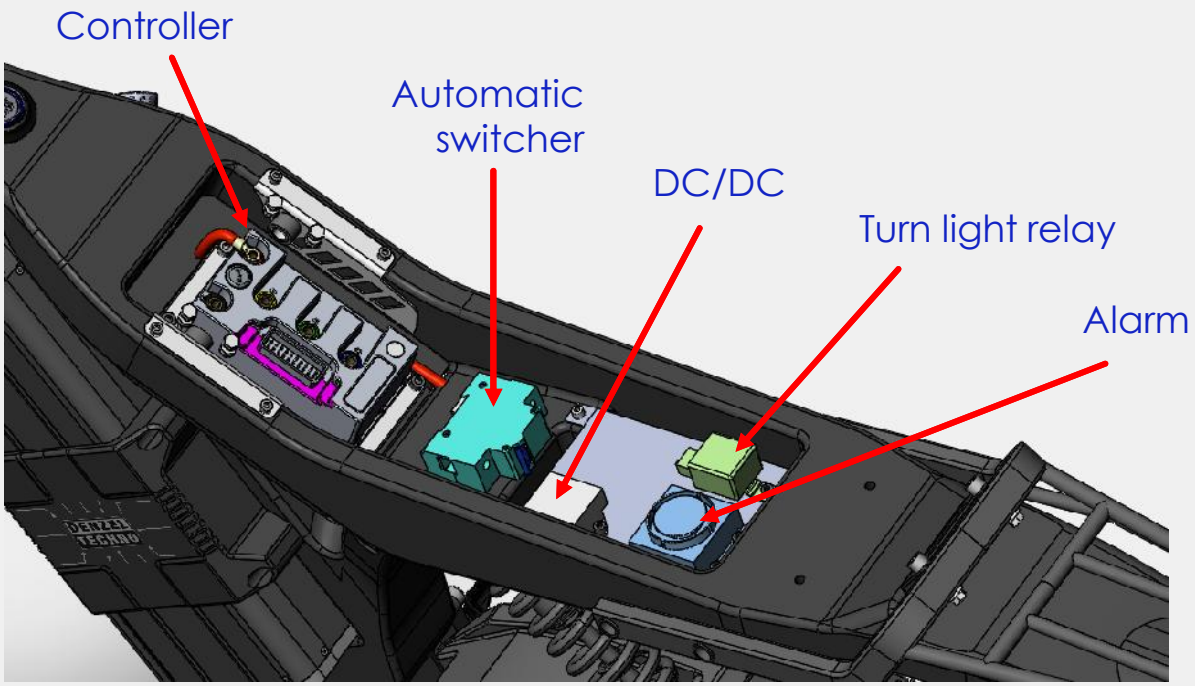
Discharge powerful socket

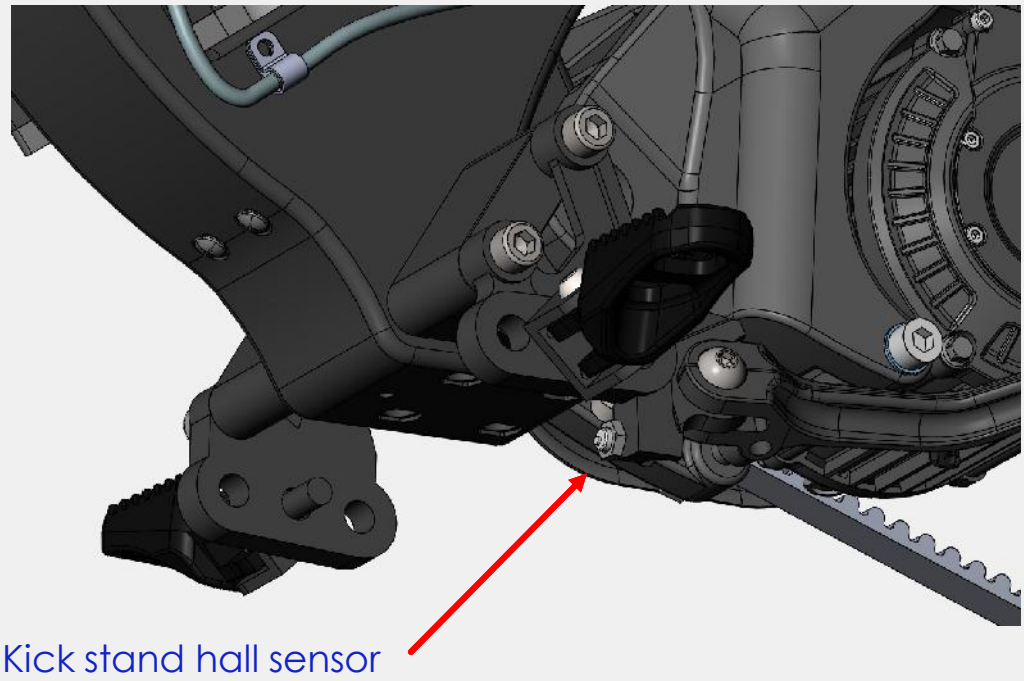


Charge powerful socket

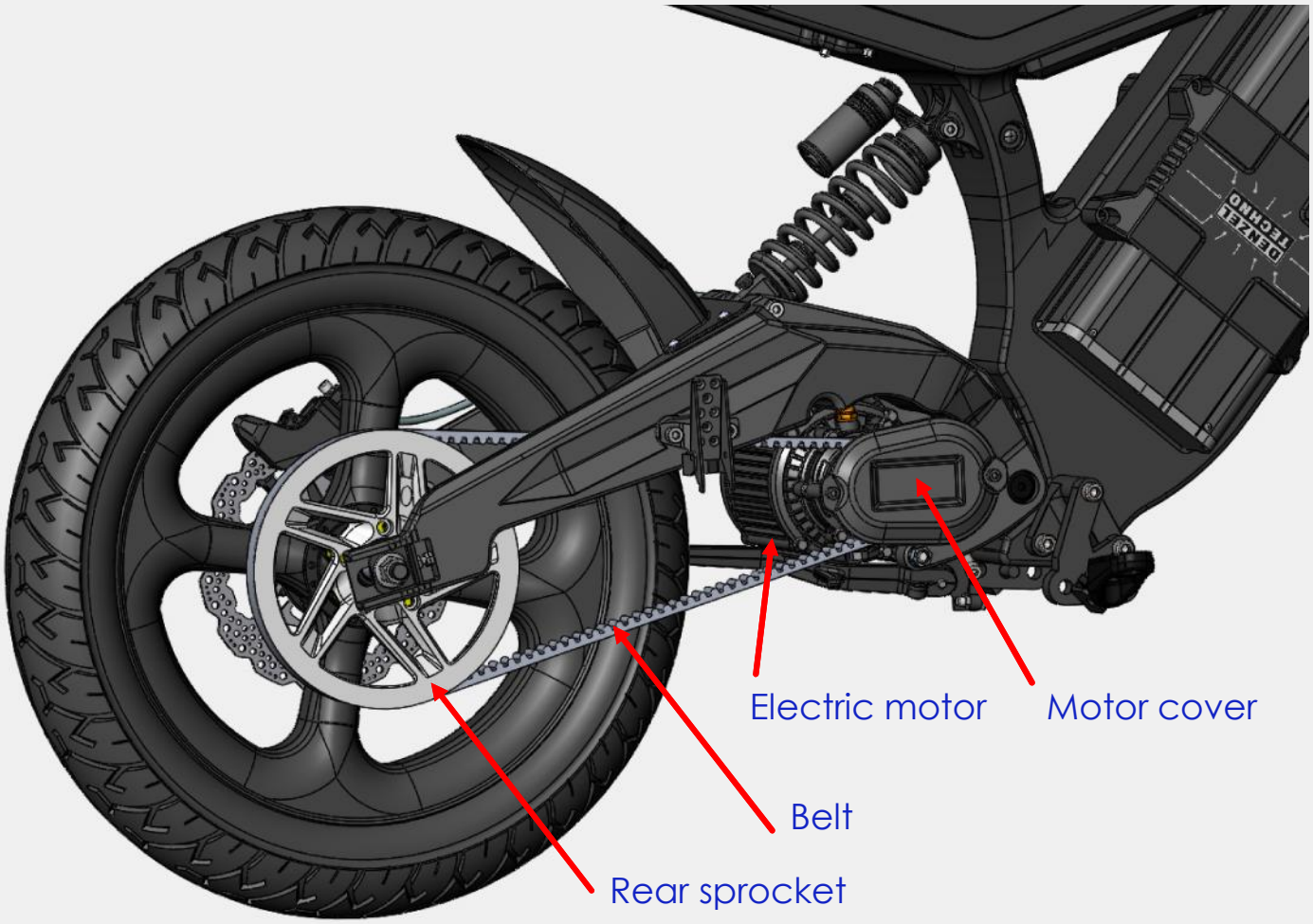


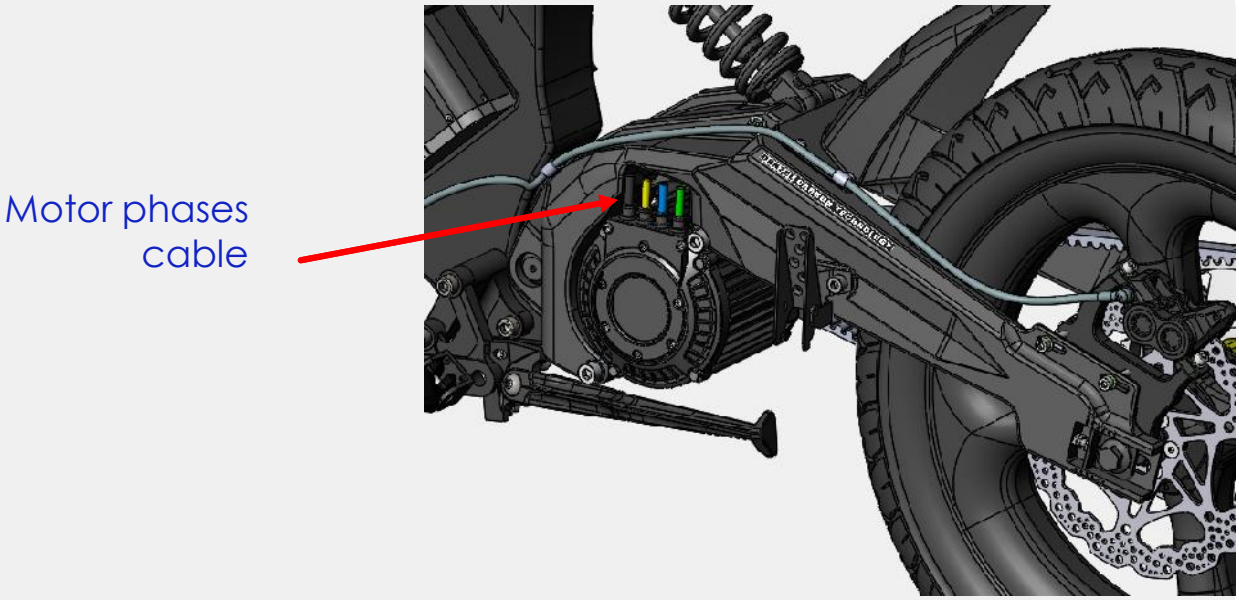
1.6 ELECTRIC COMPONENT





1.7 MOTOR AND TRANSMISSION





2. SPECIFICATION

Name	Description
Model	Techno V1.0.CW-60H
Frame material	Carbon fiber
Swing arm material	Carbon fiber
Wheel material	Carbon fiber
Electric motor, type, power	QS-120-60HDNZ, rated power 3 kW brushless
Controller	Denzel Orient 450A, bluetooth
Battery cells	NCM
Battery life	1500 cycles
Battery capacity	72V 60Ah
Speedometer	Denzel TFT,
Rims, size	2.75 - 16" (moto-size)
Tires, type	3.5 - 16" (moto) all-terrain
Type of drive	Rear-wheel drive
Transmission	Belt drive
Front sprocket	11M-P18
Rear sprocket	11M-P62
Belt model	11M-1408-17
Front brake	4-Pistons hydraulic disc brake KARASAWA
Rear brake	4-Pistons hydraulic disc brake KARASAWA
Front fork	Shock absorber, dual crown. DNM (denzel)
Rear shock absorber	DNM (denzel) (L=220 mm, LBS=450)
Saddle	Motorcycle saddle
Handlebar	aluminum
Alarm	With two keyfobs
Charger	72V 10A
Front light	Day light, Main light, low beam, high beam, left and right turn signal lights
Back light	Daytime running lights, brake light, rear turn signals
Horn	12V, standard motorcycle type
Electric bike dimensions	2040 x 1075 x 160 cm
Package dimensions	1680×915×420 mm
Bike weight with battery	70 kg

3. PARAMETERS

Name	Parametrs
Max speed	90 km/h
Max speed (official limited by EEC)	45 km/h
Range (40 km/h)	150 km
Loads	200 kg
Max speed in reverse mode	10 km/h
Maximum climb angle	>30 degree
Waterproof level	IP67

4. ASSEMBLY AN ELECTRIC MOTORCYCLE

You can find and download the assembly instructions for the Techno electric motorcycle on the manufacturer's website, in the support section.
www.denzel.bike

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5. CONTROL AND MANAGE

5.1 Tires and Tire Pressure

You can use the following tire sizes: 110/80-R16, 120/80-R16, 3.5"-R16. The Techno electric motorcycle is a very light electric motorcycle, and our advice when choosing a motorcycle-type tire is to select the one that is lighter and softer.

The recommended tire pressure is 2.5-3.0 atmospheres. Tire pressure should be checked weekly as it directly impacts riding safety.

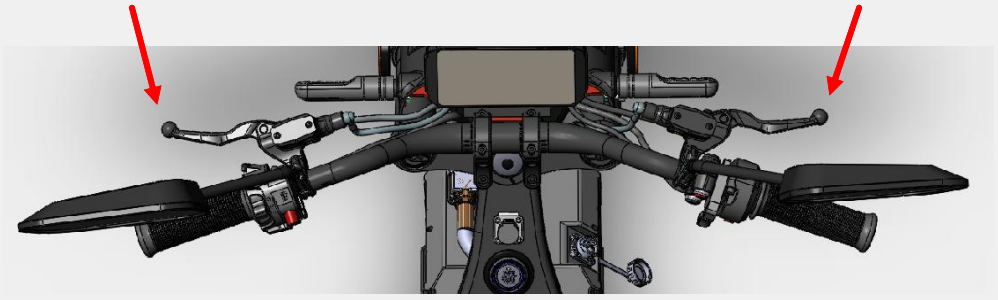
5.2 Brake Control

The Techno electric motorcycle is equipped with high-quality 4-piston hydraulic brakes from the company KARASAWA. Both the front and rear brake levers have brake sensors that activate the motor lock system, engage the electronic brake, and turn on the regeneration mode. Therefore, when you lightly press a brake lever, the electric motor's operation will be blocked.

Brake lever location.

Rear brake lever on the left side

Front brake lever on the right side

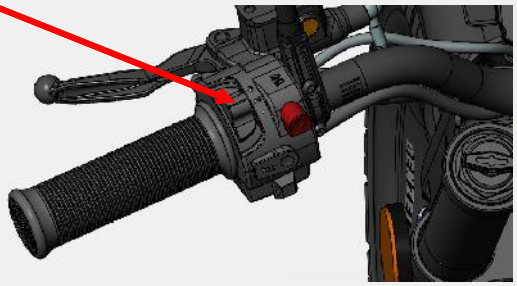


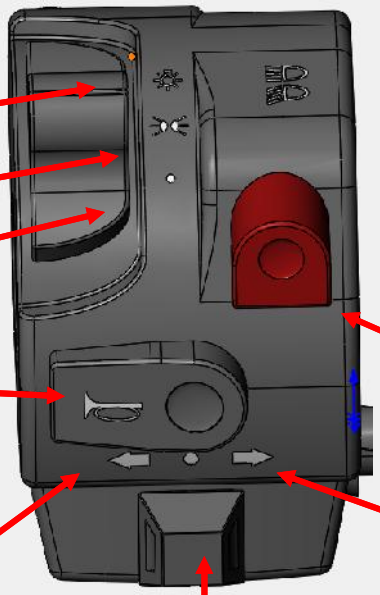
You should always begin braking with the rear brake. The front brake should only be used for additional slowing or stopping.

5.3 Light Control

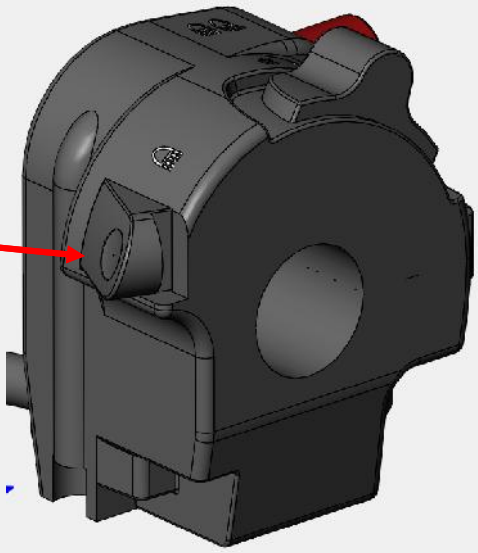
The TECHNO electric motorcycle is equipped with a full set of standard motorcycle lighting. It uses high-quality LED lamps. For your safety, the front running lights as well as the rear taillight are always on.

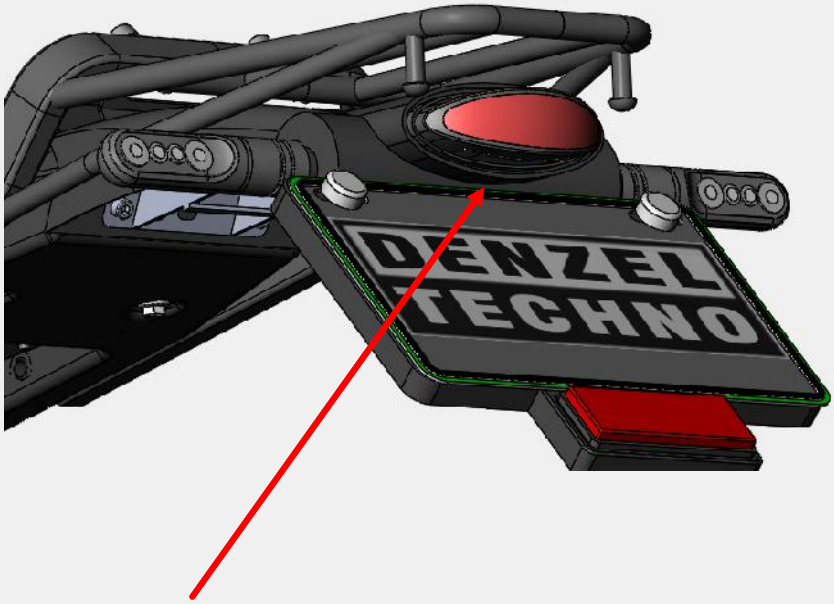
Lighting control is managed from a single location: the light control switch located on the left side of the handlebar.





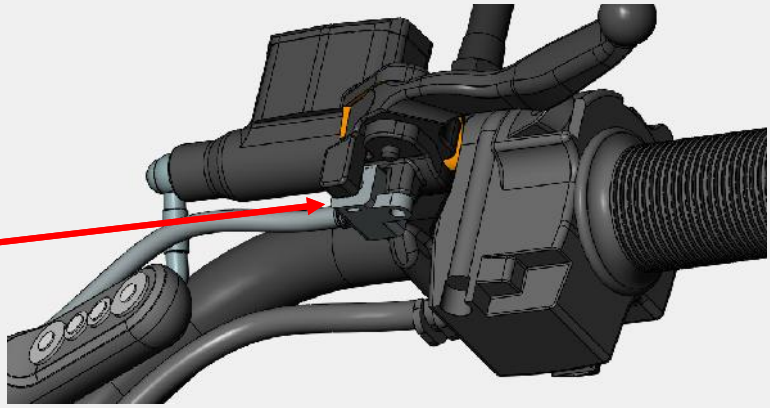
Located in front of the switch is the high-beam flash button.





As we mentioned above, the taillight is always on, and the motorcycle's license plate light is also always illuminated. However, the activation of the brake light is triggered by the brake sensors located on the brake levers.

Motorcycle plate number light

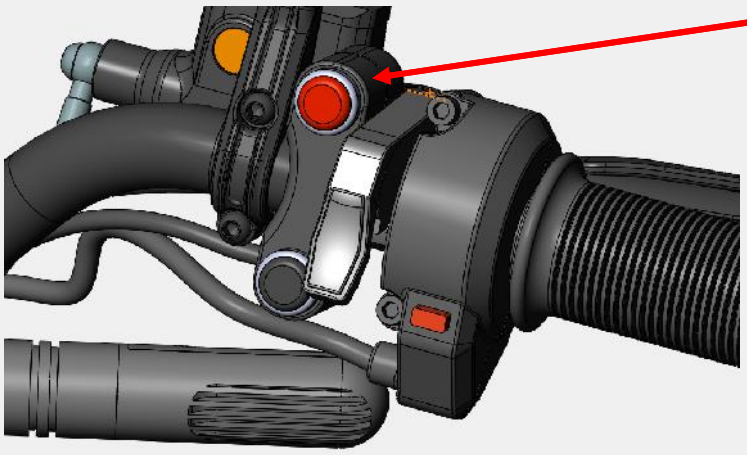


Brake sensor

HEAD LAMP

In your motorcycle – we use high quality LED head lamp with E4 certificate, - TAIFA

5.4 Mode Control



The electric motorcycle's operating mode switch is located on the right handlebar.

Reverse switcher

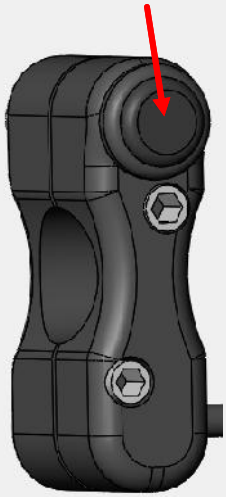
Sport / ECO mode switcher

Note

Switching between SPORT and ECO modes can be done at any time, including while the motorcycle is in motion; stopping the motor is not required for this.

The reverse mode can only be activated after the motor has come to a complete stop.

Speed limit switcher



Note

When the speed restriction mode is activated, switching between SPORT and ECO modes is disabled.

Any settings such as: Power, speed in Sport, ECO, and Speed Restriction modes can be adjusted using a phone via the application. For instructions on how to do this, please contact the seller.

5.5 Parking / Cruise

The PARKING - CRUISE button is located on the throttle handle.
When the motorcycle is powered on and stationary (not moving), this button controls the PARKING function. At this time, you can engage or disengage the parking mode (the activation of this function can be seen on the display).
However, while riding, this button is responsible for activating the "Cruise Control" function.

***Activation**: When you have reached your desired speed, you press the CRUISE button. After this, the bike will maintain that speed without the use of the throttle.*

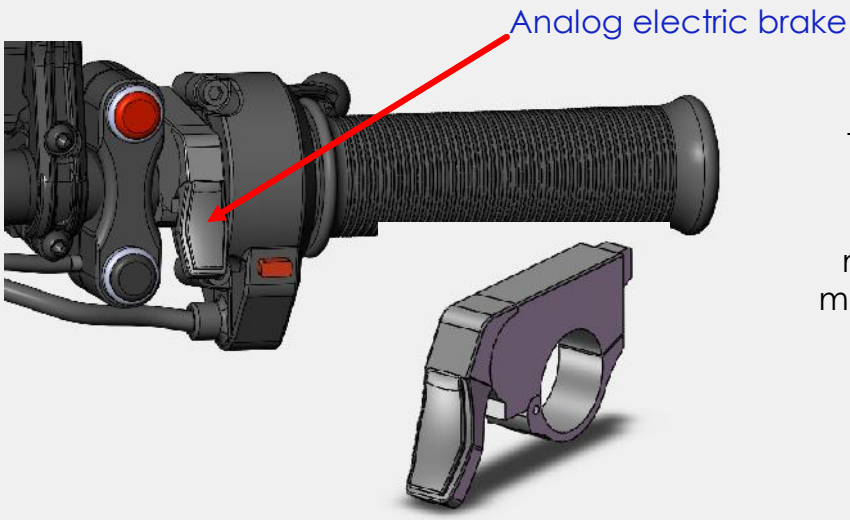
***Deactivation:** To deactivate the CRUISE function, you must either:*

* *Press the CRUISE button again,*
* *OR press either of the brake levers,*
* *OR twist the throttle.*

Note about CRUISE

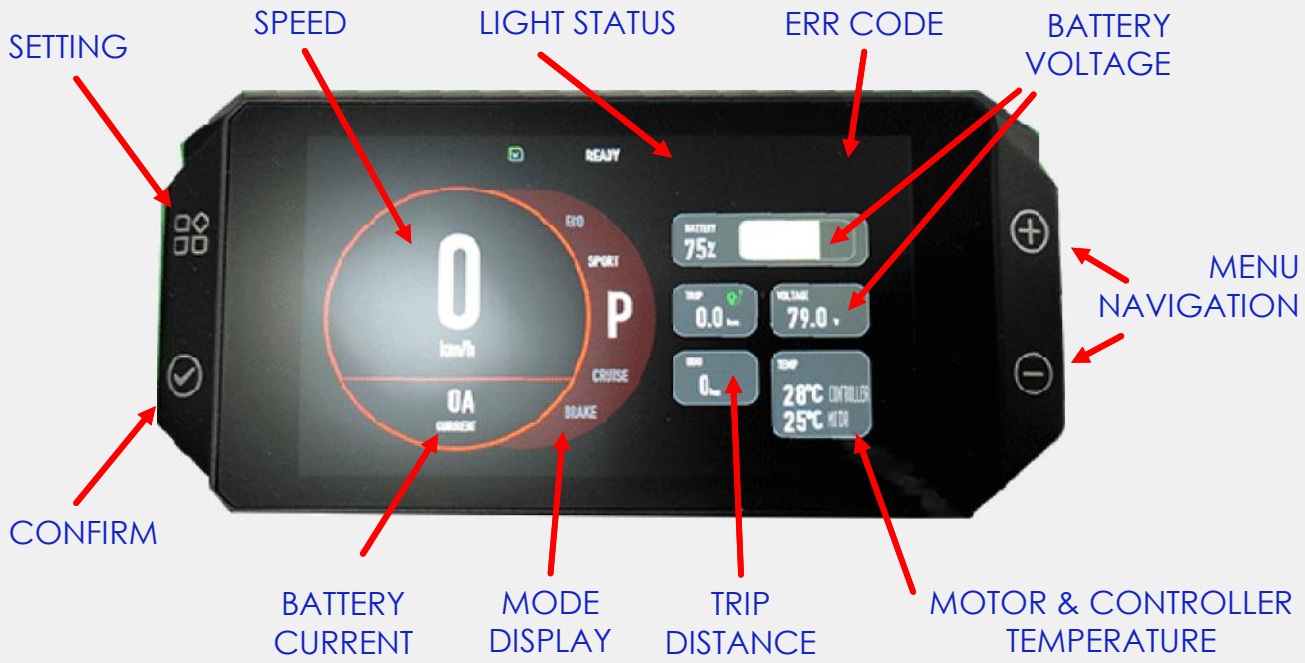
We have designed the Cruise Control mode to maximize energy savings. Therefore, when the bike is coasting downhill, the cruise control will not apply braking to maintain the set speed. Instead, it will allow the bike to exceed the set speed while coasting, and the motor will not provide any power during this time.

5.6 Analog Electric Brake



The analog electric brake is designed for adaptive electric braking via the motor. When activated, the motor switches to "generator" mode. The strength of the recuperation depends on how far the electric brake lever is pulled.

5.7 DISPLAY



The motorcycle is equipped with a specially designed, high-quality, waterproof IP67 display. Available languages: English, Chinese, Russian. It features a built-in video recorder for capturing road activity, a micro SD card slot, as well as Bluetooth and a TYPE C phone charging port.

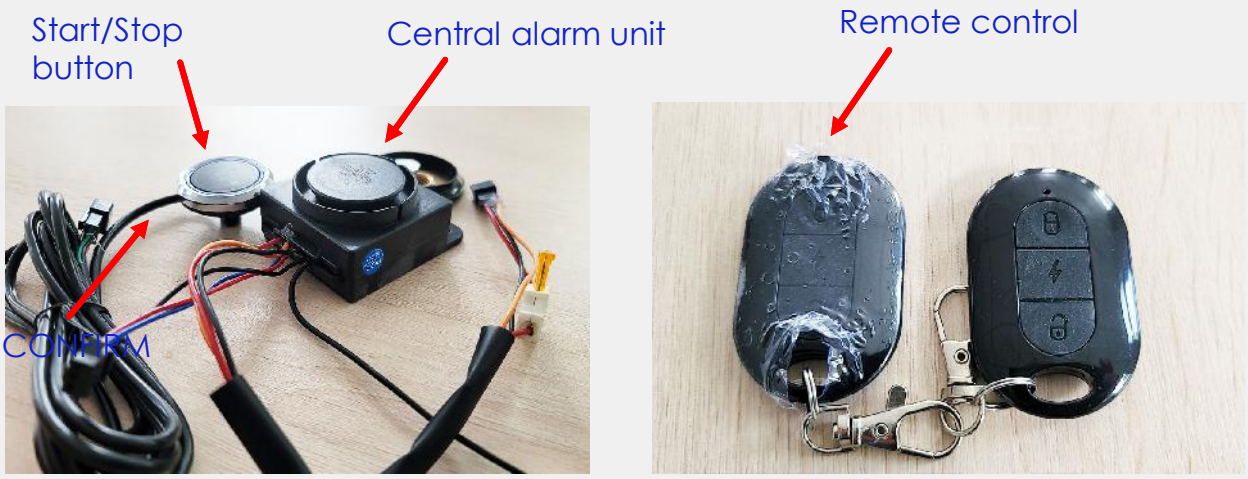
Note

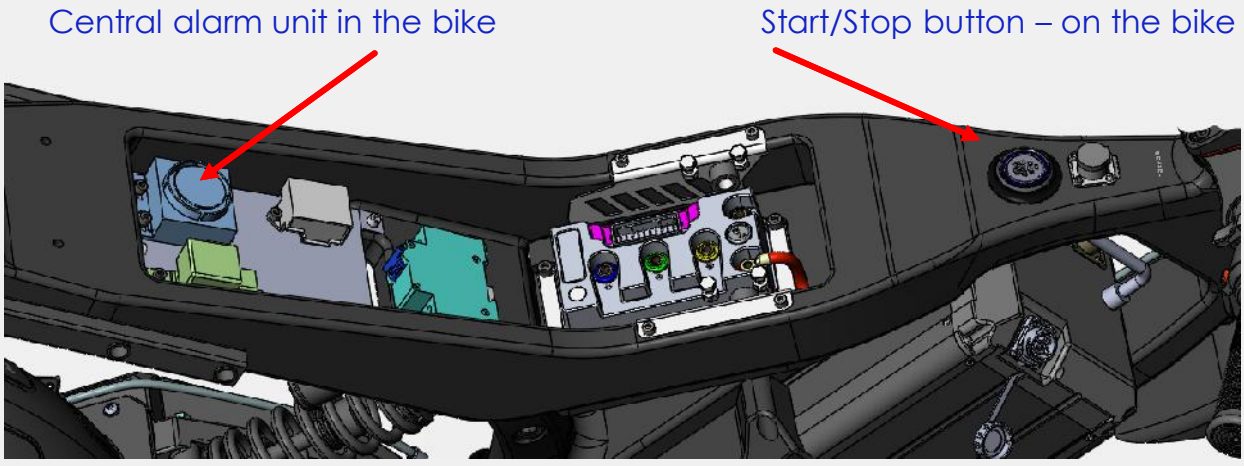
A detailed display video instruction can be found and downloaded on the manufacturer's website.

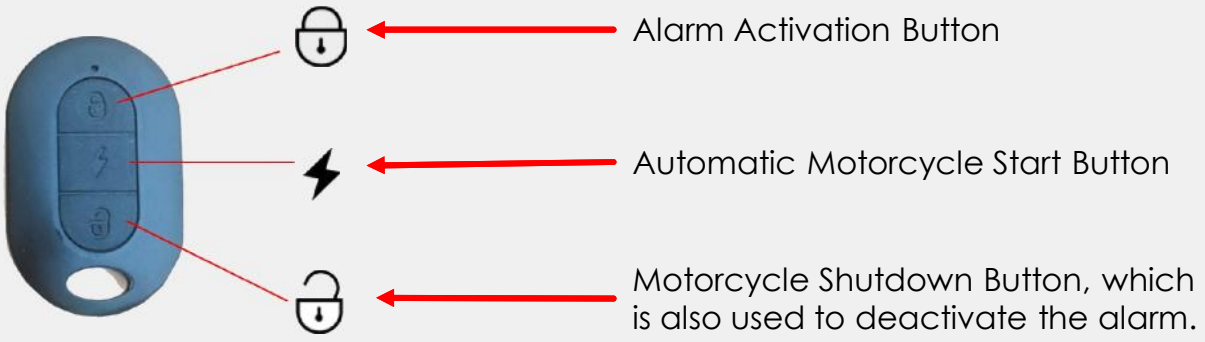
www.denzel.bike

5.8 ALARM SET

The alarm system kit consists of a central alarm unit, which is installed inside the bike, a "Start-Stop" button, and two remote control key fobs.



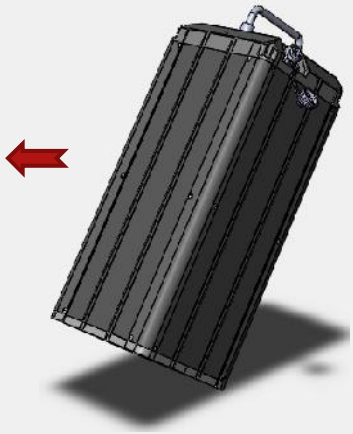


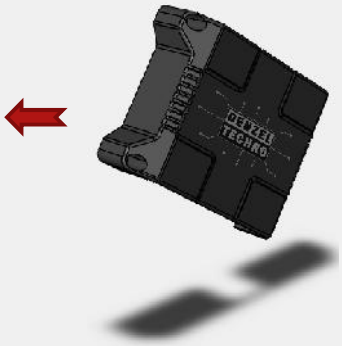


6. FIRST STARTUP OF THE ELECTRIC MOTORCYCLE

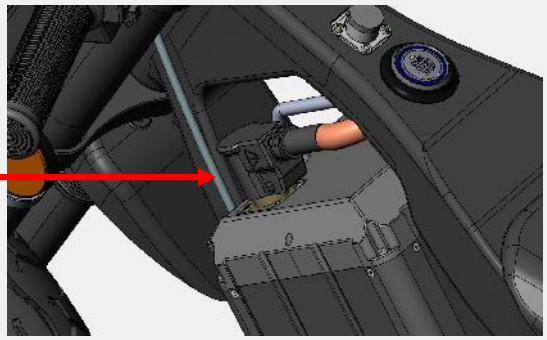
6.1 Battery Installation and Power Connection

Install the battery into the motorcycle's battery compartment and secure it. To do this, you need to remove the battery mounting cover, install the battery, and then reinstall the battery mounting cover.

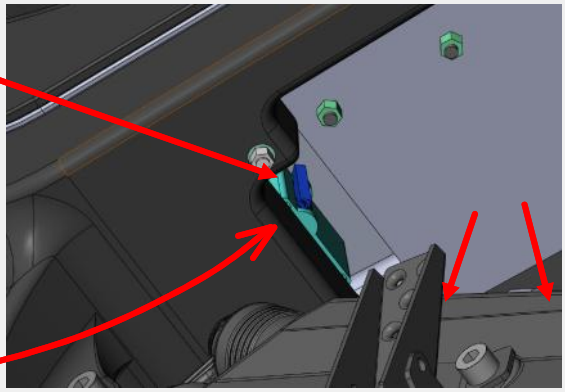




Connect the power connector to the battery.



Turn on the circuit breaker (if it was switched off).



6.2 System Functionality Check

6.2.1 **Power On Check:**
* Take the remote control key fob and press the button with the "lightning bolt" icon twice. You should hear an audible beep, the display should turn on, and the front running lights and rear taillight should illuminate. (If this does not happen, carefully read the troubleshooting section of the manual or contact the seller).

6.2.2. **Electronic Brake Check:**
* Press either brake lever. The rear brake light should illuminate, and the word **BRAKE** should light up on the display simultaneously.

6.2.3. **Turn Signal Check:**
* Activate the left turn signal. The front and rear left turn signals should flash, along with the left turn indicator on the speedometer display. Repeat this check for the right turn signal.

6.2.4. **Headlight Check:**
* Press the headlight button on the light switch. This headlight has three modes: parking light, low beam, and high beam.

6.2.5. **Horn Check:**
* Press the horn button (on the handlebar switch). Ensure the horn is functional.

6.2.6. **Parking Mode Check:**
* Fold up the motorcycle's side stand.
* Press the parking button. After deactivating parking mode, you will see the letter **D** on the display.
* Press the parking button again; the letter **P** should appear on the display, indicating that parking mode is active again.

6.2.7. **Riding Mode Switch Check:**
* Deactivate parking mode (display shows **D**).
* On the mode switch, engage **REVERSE**. The letter **R** should light up on the display.
* Disengage reverse; the display should show the letter **D**.
* Press the **SPORT-ECO** button. When toggling this button, the display color should change from red to green and back.

6.2.8. **Initial Movement Check (if safe to do so):**

* Sit on the motorcycle. Deactivate parking mode (the display should show the letter **D**).
* Try to move slowly by twisting the throttle smoothly and gradually. The motorcycle should begin to move smoothly and without jerking. If this does not happen, please turn off the bike and contact the seller.

6.2.9 **Motorcycle Shutdown:**

* To turn off the bike, press the button with the "**Open Lock**" icon on the key fob. You will hear the alarm trigger a sound and the bike will power down.
* Alternatively, simply press the "**Start / Stop**" button located on the frame in front of the seat.

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7. RANGE AND RIDING MODES

The range of the electric moped is not a fixed value; it can vary from 80 km to 150 km (or more). The actual range depends on riding style, terrain, and weather conditions.

The total range is influenced by:

* Total weight (weight of the moped, rider, and any cargo on the rack)
* Type of road surface (asphalt, concrete, gravel, etc.)
* Terrain (uphill, downhill, flat)
* Speed and direction of the wind relative to the direction of travel (headwind or tailwind)
* Ambient air temperature (battery capacity decreases in cold weather)
* Battery charge level
* Riding habits (e.g., acceleration rate, braking intensity)
* Tire pressure, and other factors.

Recommendations for increasing the motorcycle's range:

* Use sharp acceleration only in emergencies – the more abruptly the bike changes speed, the more energy is consumed.
* Remember that the most economical speed for travel is between 40-45 km/h.
* Use coasting wisely, as well as the capabilities of the electronic brake and regeneration.

8. BATTERYSTORAGE AND TRANSPORTAION

The battery must be stored in a clean, dry, and well-ventilated area, away from sources of fire and heat. The ambient temperature should be between +5°C and +25°C with a relative humidity of 40-60%. Avoid contact with moisture.

Even if you are not using the electric motorcycle, you must charge the battery once every two months for 3-4 hours, until the green indicator on the charger lights up.

Attention: Using a non-standard charger to charge the lithium-ion battery is **NOT PERMITTED!**

Winter Battery Storage:
Winter storage of the lithium-ion battery should be carried out in a cool, dry room with a temperature between +5°C and +25°C and a relative humidity of 40-60%. Do not forget to turn off the electric bike when putting it into storage.

Transportation:
During transportation, the battery must be packaged in its box and must not be subjected to impacts or pressure. The packaged battery can be transported in any vehicle, such as a car, airplane, etc.

8. CHARGER AND BATTERY CHARGING INSTRUCTION

8.1 Short charger's parameters

Model name	**840CG7212L**
Charge current	10A - 12A
Rated charger voltage	72V
Input voltage	100VAC – 240VAC 50Hz – 60Hz
Waterproof	IP67
Charger DC socket	NLINKO YM-20-J03SX-02-402A

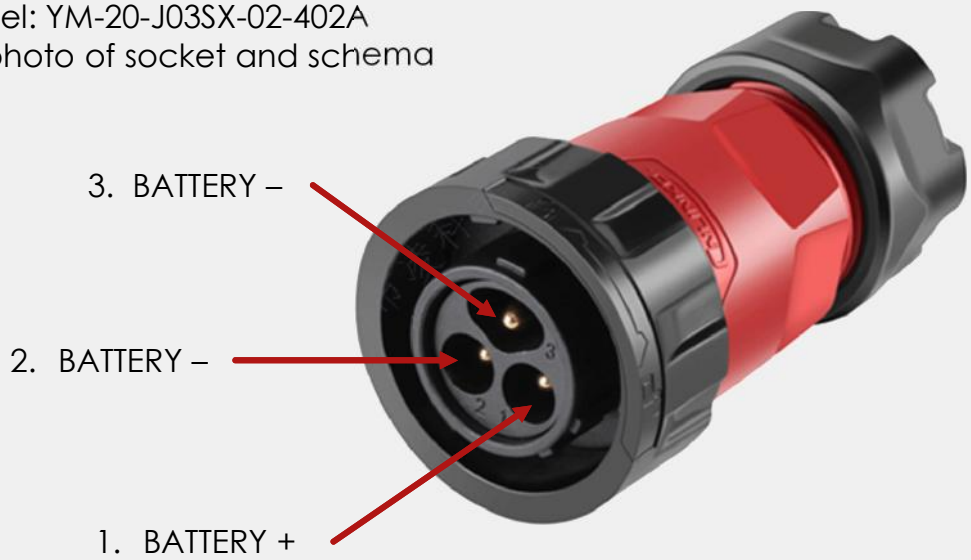
Charger Appearance

The supplied standard charger is designed to charge a lithium-ion battery with a 20S configuration.

The charger is equipped with overheating protection and automatic short-circuit protection.

8.2 Battery Charging Socket

Socket brand: Nlinko
Socket model: YM-20-J03SX-02-402A
Bellow the photo of socket and schema



8.3 Battery Charging

The battery charging process is very simple. To do it:

1. Carefully inspect the charger for any external damage.
2. Connect the charger's output cable to the socket on the battery case.
3. Plug your charger's power cord into a standard household electrical outlet.

Once connected, the charging indicator should flash with a **red light** – signifying that charging is in progress – and the cooling fan should be running.

When charging is complete, and provided no errors occurred during the process, a **green LED** will illuminate steadily, indicating that charging is finished.

Typically, the time to fully charge a completely depleted battery does not exceed 4 hours.

8.4 Battery Charging Tips

Use the Official Charger:
- Always use the designated charger supplied with your motorcycle. Using an incorrect charger can severely damage the battery and pose a fire risk.

Monitor the Temperature:
- Charge the battery in a well-ventilated area with an ambient temperature between +5°C and +25°C. Avoid charging in direct sunlight or in very cold conditions.

Disconnect After Full Charge:
- Once the charger's indicator turns green, disconnect the battery. While our charger have protection, it is good practice not to leave it connected unnecessarily for extended periods.

Regular Maintenance Charging:
- If you are not using the motorcycle, charge the battery at least once every two months to maintain its health and prevent deep discharge.

Inspect Before Charging:
- Always check the charger, cables, and battery connector for any signs of damage before plugging it in.

Safety First:
- Never cover the charger or battery during the charging process, as they need ventilation to dissipate heat.

8.5 Battery Storage and Transportation

1. Storage Conditions

Environment:
- Store the battery in a **clean, dry, and well-ventilated** area.

Temperature:
- The ideal ambient temperature is between “+5°C to +25°C” with a relative humidity of “40-60%.”

Hazards:
* Keep the battery -away from sources of fire, heat, and direct sunlight.- Avoid contact with moisture.

Long-Term Storage:
* If not using the motorcycle for an extended period (e.g., winter storage), **turn off the electric bike.**
* Perform a **maintenance charge once every two months**. Charge the battery for 3-4 hours until the charger's indicator turns green to prevent deep discharge.

2. Transportation

Packaging:
- The battery must be securely packaged in its original box or equivalent protective packaging.

Handling:
- Do not subject the battery to impacts, pressure, or crushing.

Vehicles:
- A properly packaged battery can be transported in any vehicle, including cars and airplanes (always check with the carrier's specific regulations first).

9. SAFETY TIPS

Attention! Always obey the traffic rules! Before riding the electric moped, ensure you are familiar with the operating rules and have carefully read this manual.

What to check before riding the electric moped:

1. Handlebar fastening.
2. Tire pressure.
3. Brake pad wear; replace them if necessary.
4. Brake mechanism adjustment.
5. Drive belt tension.
6. Battery status via the electric motorcycle's indicators.
7. Brake effectiveness. **Do not use the front wheel brake for sudden, hard stops.**
8. The secure fastening of all nuts and bolts (including those installed at the factory)..

10. WARRANTY SERVICE

1. The warranty period is 12 months from the date of purchase.
2. The warranty covers parts and assemblies of the vehicle that have manufacturing or assembly defects due to faults by the manufacturer. This excludes parts and assemblies subject to natural wear and tear, as specified below.
3. A special condition of the warranty is the timely performance of maintenance according to the service schedule, as well as operating the vehicle within an ambient temperature range of 0°C to +50°C and a humidity level not exceeding 80%.

The warranty does not cover:

* Parts and assemblies subject to natural wear and tear, namely: body panels and lighting elements, plastic parts, wearing parts (friction pads, drive belt, chain, springs, etc.); periodically replaced brake system components (pads, brake cables, brake discs, fittings, etc.); consumables (bulbs, fuses, tires, bearings, shock absorbers, etc.); other control elements that failed as a result of a fall; as well as chargers.

* Batteries in the following cases: storage or use of the electric moped at temperatures below 0°C; storage of the battery in a discharged state without monthly recharging; systematic deep discharge of the battery; presence of mechanical damage; use of the electric moped for rental purposes.
* Damage resulting from operating the vehicle in violation of the user manual instructions, or from overloading the vehicle.
* Damage to the vehicle resulting from a traffic accident.
* Damage caused by external factors, such as damage to painted surfaces caused by exposure to chemicals or other agents, damage resulting from careless handling.
* Damage caused by force majeure circumstances, namely: snow, hail, hurricane, fire, flood, and other natural disasters.
* Damage to the vehicle caused by third parties.

11. OPTION

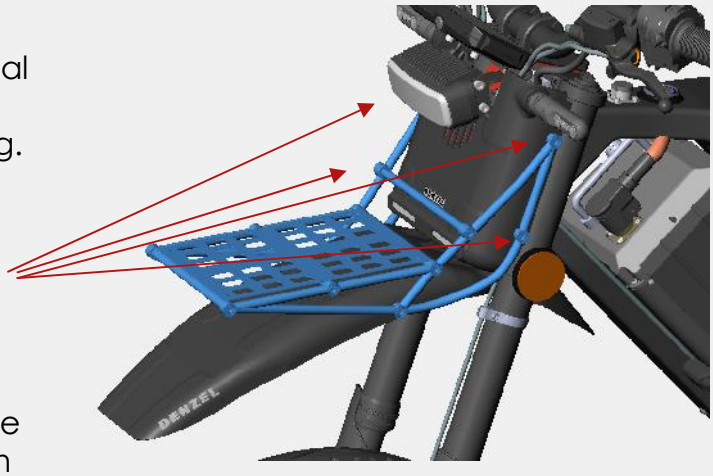
The Denzel Techno electric motorcycle has four main options: an onboard charger, a front luggage rack, rear side cases, and an additional mounting bracket for rear passenger footpegs.

11.1 Front luggage rack

The front luggage rack is easy to install and requires no special skills. The maximum load capacity is no more than 10 kg.

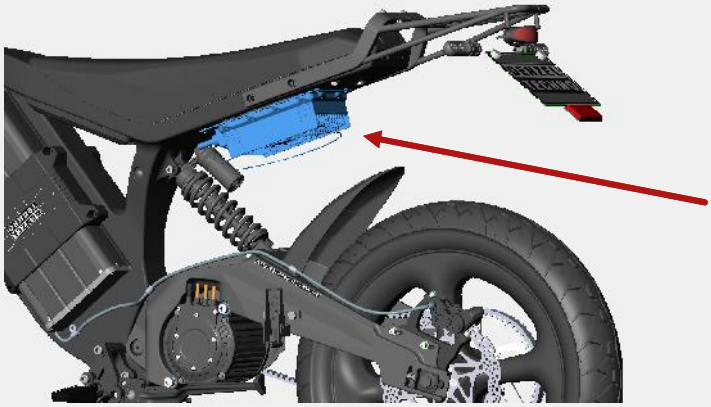
You only need to tighten four M6 mounting bolts.

The assembly instructions for the luggage rack can be found on the manufacturer's website.



11.2 On-board charge

One of the most convenient options is the "Onboard Charger." After installing the charger, you will no longer need to carry it with you or worry about where to put it. You only need to have a simple cable to connect it to your standard city power grid.



It is installed in a special compartment under the seat, beneath the frame. Installing the charger requires some basic skill with hand tools. If you do not feel confident and assured in your ability to perform this work, please contact a service company for assistance.

You can find a detailed video instruction for installing the onboard charger on the manufacturer's website.

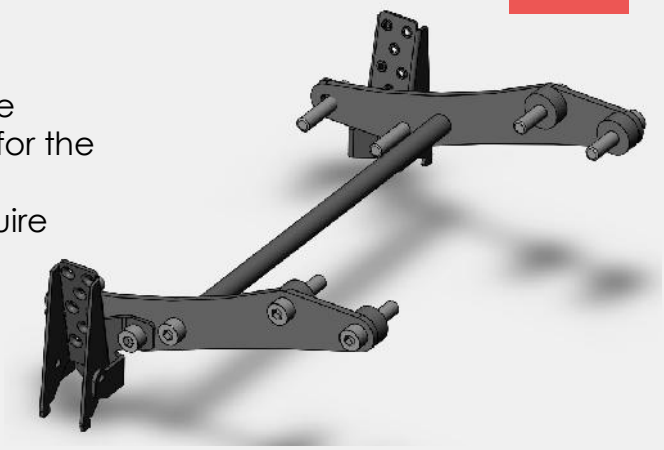
11.3 Rear side cases

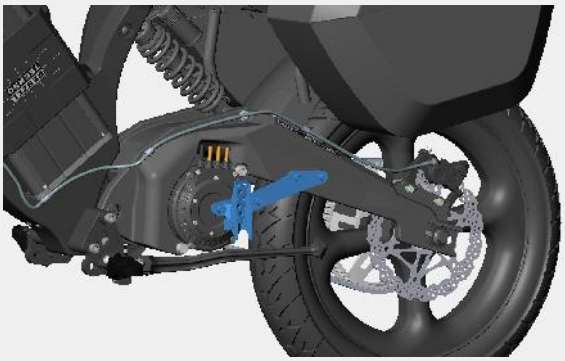
The side cases are from the company SHAD (Spain), model SH23, and are made from high-quality plastic.

You can find a detailed video instruction for installing the onboard charger on the manufacturer's website.v

11.4 Extra footpegs for passenger

If you have installed the side cases, we have developed extended footpegs for the convenience of the passenger. Their installation is simple and does not require any special skills.





12. NOTE

Please note that a bicycle with an electric motor is a high-risk vehicle. To ensure your safety, we recommend using existing specialized hybrid bicycle protective gear: a helmet, knee pads, and elbow pads.

The model's configuration is subject to change at the manufacturer's discretion without prior notice.

Always obey traffic regulations! Before riding the electric moped, ensure you are familiar with the operating rules and have carefully read this manual.

What to check before riding the electric moped:
1. Handlebar fastening.
2. Tire pressure.
3. Brake pad wear; replace them if necessary.
4. Brake mechanism adjustment.
5. Drive belt tension.
6. Battery status via the electric motorcycle's indicators.
7. Brake effectiveness. **Do not use the front wheel brake for a sudden, hard stop.**
8. The secure fastening of all nuts and bolts (including those installed at the factory).

You can always get additional information and assistance from your seller or on the company's website: www.denzel.bike