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Dear Client,

We appreciate the confidence in acquiring **KEYU MULE** to be your working partner. **MULE** is a 100% electric utility, and to make the most of what it can offer you, we recommend reading and understanding of this manual with a view to using correct, offering the best working conditions and guaranteeing safety to users.

Any questions or suggestions you have, we will always be at your disposal at any of our direct channels.

We wish you every happiness with your new **MULE**.



website: www.keyu.co.za

[Mail: info@keyu.co.za](mailto:info@keyu.co.za)

Reminder

- Warning: **KDW-5** is a vehicle for exclusive use in areas.
- Closed and not allowed to move on public roads.
- Be careful that the vehicle is always used within the safety rules. The released autonomy of **KDW-5** is calculated with flat road use, without.
- Load in the container, without use of headlamps, at room temperature of 25°C.
- Constant speed of 50 km/h and new batteries.
- Never modify the technical specifications of the vehicle or modify the circuit.
- The technicians of **KEYU** , is available if needed
- Ensuring and not compromising the safety and quality of the vehicle and its users.

Reminder



KEYU Motors' main objective is offer a working vehicle with great cost benefit and practicality to user.

MULE has a lot of versatility.

short distance use, always in a safe, economical way, fun and ecologically correct.

Frontal View

1. Wipers
2. Rearview mirror
3. Front bumper
4. Bar light
5. Spot lights



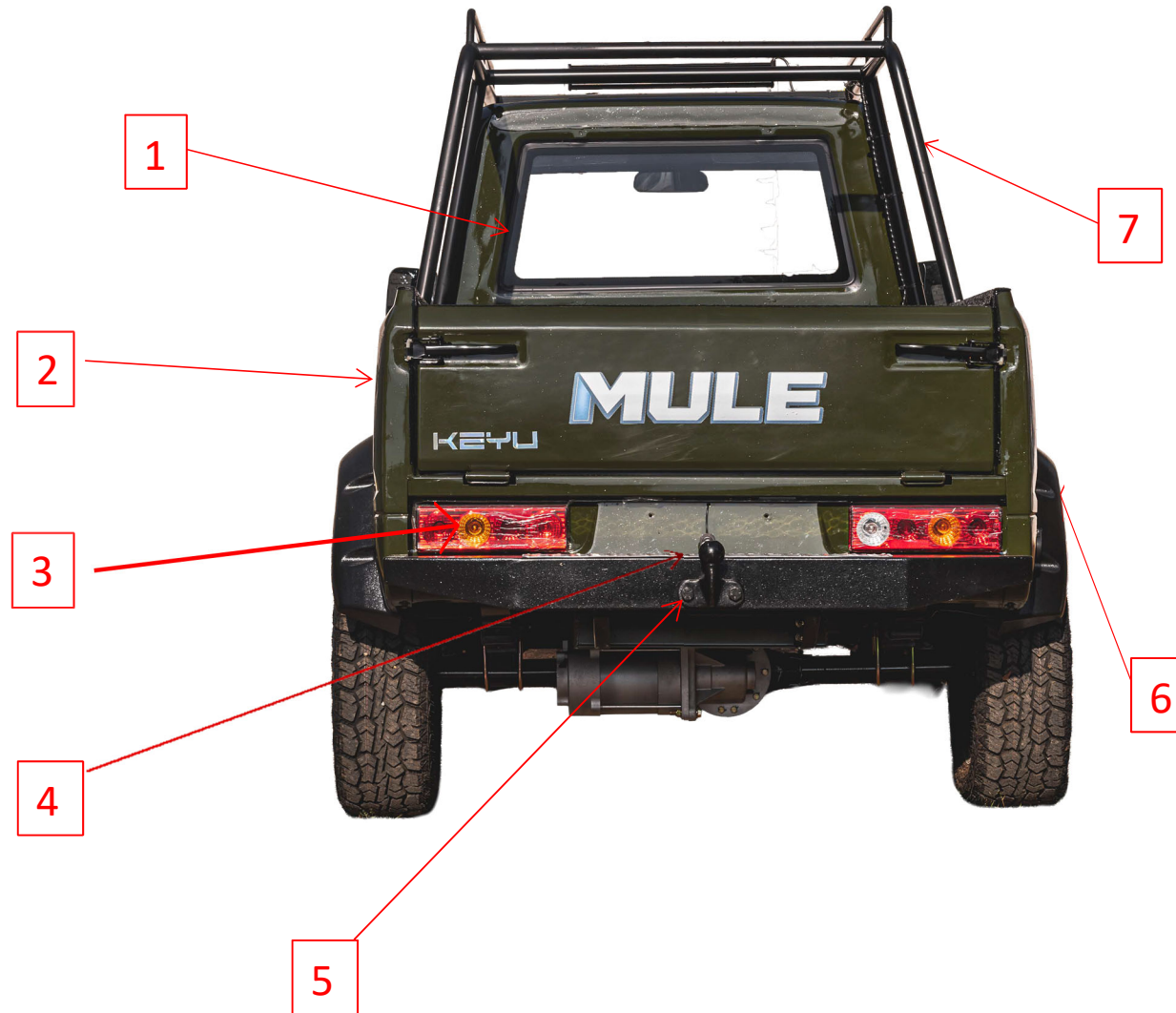
Lateral View

- 1. Bar roof lights
- 2. Rear bumper
- 3. Door handle
- 4. Front bumper



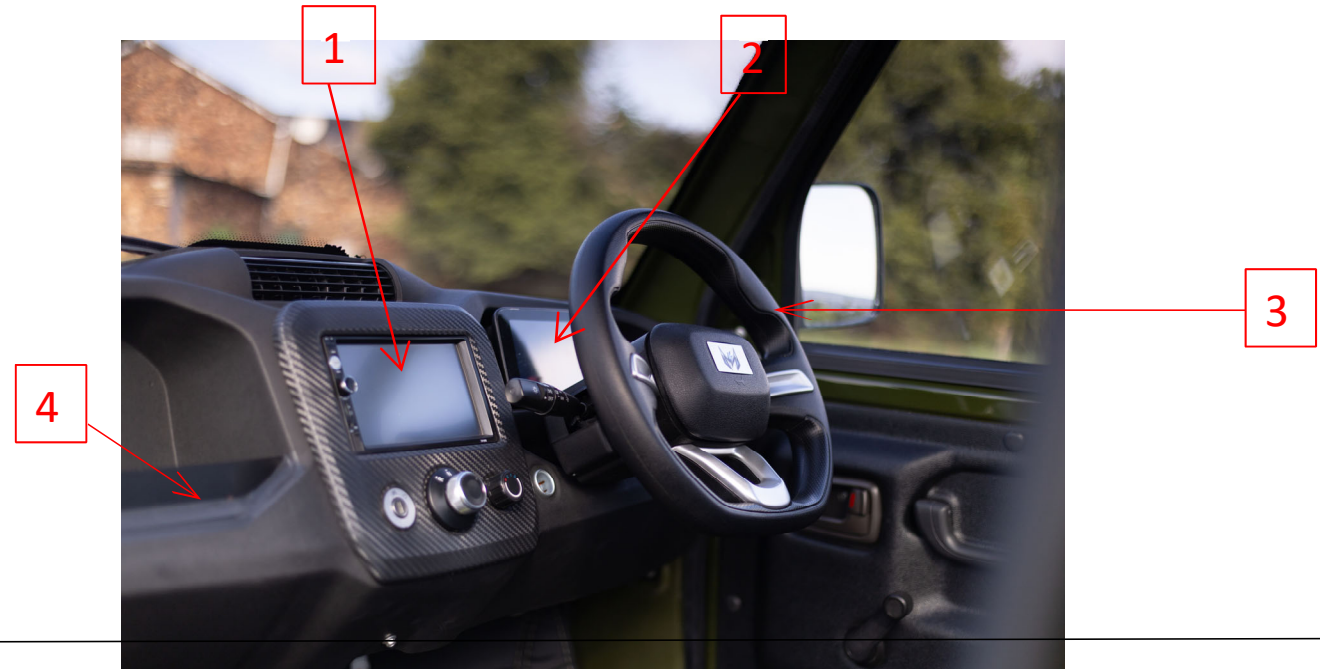
Back View

- 1. Rear windshield
- 2. Car door handle
- 3. Rear tail light
- 4. Camera
- 5. Rear bumper
- 6. Charging port
- 7. Dragon skeleton

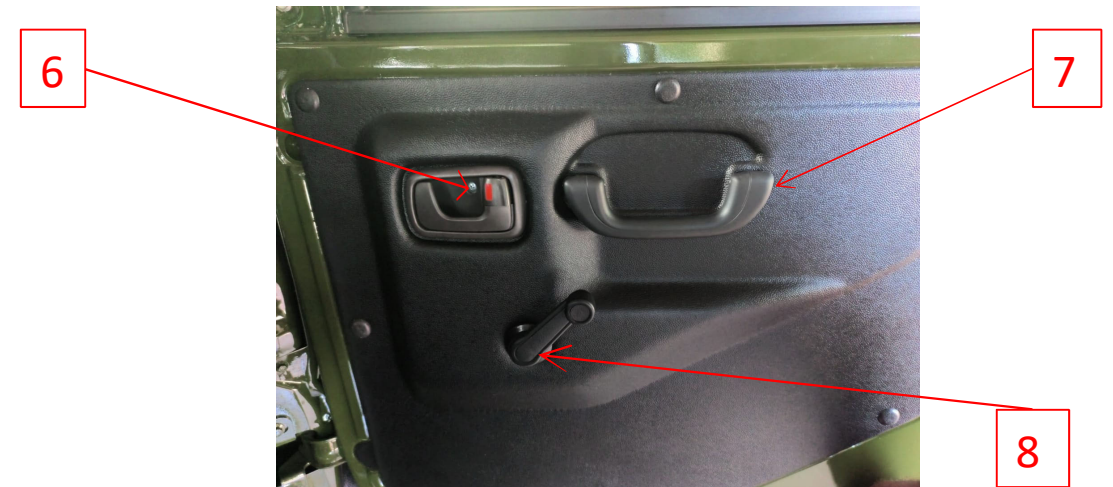


Panel View

1. Multimedia
2. Meter
3. Steering wheel
4. Storage box



- 6. Inner lock block
- 7. Door handles inside
- 8. Window crank



Vehicle Parameters

DATA	
Size(mm)	3650*1550*1850
Carriage size(mm)	1650*1300*340
Wheel base(mm)	2350
Wheel tread(mm)	1340/1340
Max speed(km/h)	50
Min steering radius(m)	≤5
Max climbing ability full)	20%
Working Range(km)	150 -180

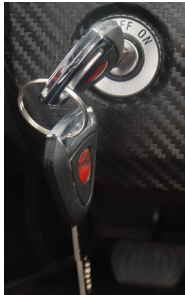
Min Ground Clearance(mm)	≥350
Loading Capacity(kg)	500

ELECT	
Charger	Build-in smart car charger
Charging time(h)	5-10
Controller	Imported in-power controller
Driven Method	RR
Braking Method	Front disc and rear drum
Body Structure	Intelligent loading body

Tyre	195-65R15 off road tyres
Steering system	Gear chain
Seat	leather+PU

Note: Some parameters may be changed due to ambient temperature and the floor of the place of use.

Vehicle key



The car is equipped with two suitable keys for the vehicle start, open/ close doors and compartment forward.

Note:

Keep the keys in place.
insurance to prevent accidents and unnecessary problems.

Lock of the door



To lock or unlock the door, Enter key and turn towards time or counter clockwise. Pull the handle to open the door.

Internal door knob



To open the door, pull the handle and Push the door.

Vehicle Usage

Front cover

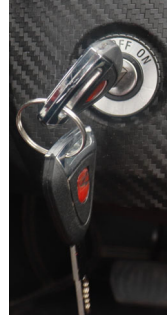


There is a handle on the lower left of the steering wheel in the main driver, and the front hood can be opened by pulling it

▲ **Note:**

When opening the hood, use the support rod to prevent the hood from falling accidentally.

Starting switch

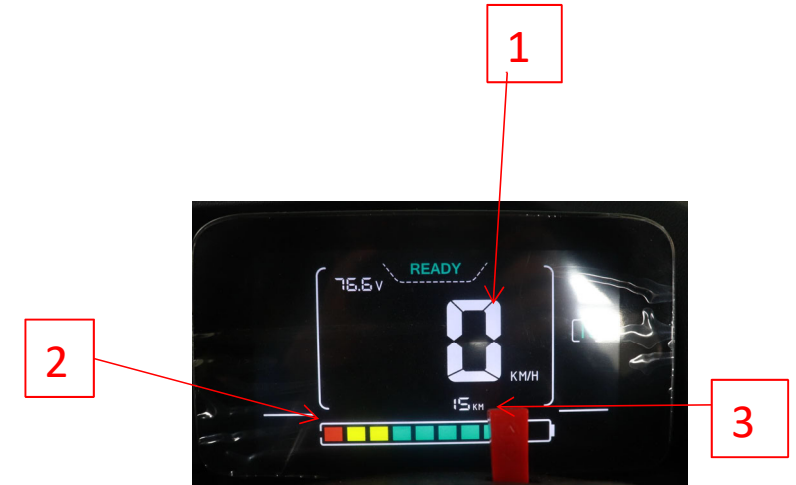


The start switch is located in the panel.
To connect the vehicle, enter the key and rotate clockwise, position ON
To turn off, turn it anti-2time, off position and remove the Key.

▲ **WARNING:**

The vehicle is easy to drive, so stop avoid accidents, do not leave children alone in the inside it.

Instrument Screen



1. Speed
2. Meter power
3. Milage

Vehicle Usage

Indicator lamps

Symbol	Function
	Right Arrow
	Left Arrow
	Lights on
	Forward
	Nutral
	Reverse



When the key is turned on, the meter displays the current battery voltage and switches to the mileage indicator after 3 Seconds.

Direction indicator



Left direction indicator, move to slider and slider indicator direction to the right, move the lever to upstairs. To disable, return the lever manually to default position.



Light switch

Flip the top switch on the lever. When the switch is in position OFF, the lights go off. Turn the key up to turn on the flashlights. Flip the switch twice to turn on the lights down. Keep the lights status low and light the forward lever to engage the vehicle headlamp.



Warning lamp switch

The indicator switch is on located above the column of direction. To connect, press the button down. Pull the button up for off.

▲ Note:

It is important to trigger alert blinkers every time the vehicle is stopped at circulating sites of persons or vehicles.

Vehicle Usage

wiper control



Windscreen wiper switch;
Press the lever down
to control front windshield



Note:

The windscreen must be kept wet
when the cleaner is in operation.

pedal



The left side of the picture is the
brake pedal and right side is the
Accelerator pedal.



Note:

Make sure you step on the pedal from
brake whenever you turn on or off
the ignition.

Steering switch



The change of direction key has three
positions: "D" marches forward, "N" point
Dead, "R" in reverse.

When the ignition key is switched on, the
indicator on rotating button lights to
indicate the selected direction.



Attention:

When parking, the steering switch shall
be turned to position "N" to avoid
sudden movement of the vehicle caused
accidental pressure of the pedal
Accelerator. NEVER FORGET TO ACTIVATE THE
Parking brake.

Seat and seat belt



The cabin seat is divided for driver and passenger.

The driver's seat can be adjusted back and forth by the lever.

The passenger seat is fixed and the back is attached to the rear wall.

The vehicle has the main and co-pilot seat belt.

The seat belt must be close to the body, free of breath, to offer the best protection.

To affix the safety belt insert the buckle into the brake beam.

To disable, press the red button on the beam and then retract the belt from Security. If the seat belt cannot be collected, retract it manually to avoid leave

▲ NOTA:

The seat belt can be fastened and cannot be pulled under the following conditions:

When you pull too fast, in braking or acceleration and If the vehicle is tilted too far.

Vehicle Usage

Window Crank



Open or close the window glass .
To open or close the window glass,
crank the handle.

Parking brake



The parking brake lever is on.
located on the floor, right side of the
seat of the driver.
To push, press the button and pull to
upstairs.
To disable, press the button and descend
to the floors.

▲ Note:

To avoid accidents, before leaving the vehicle,
make sure the handbrake is properly
driven and the wheels really stuck.

Multimedia

On/off button: lightly press the button located in the bottom corner The device to turn on or off the player.

-+ Button: these buttons serve to increase or decrease the volume. It can also be used to select music, movie, BT modes, Explorer, photo and setting or change the chosen track.

Enter button: Whenever you select one of the modes on the screen, press The Enter key to activate the mode.

Functions on the screen

USB port: This device has a USB port for flash drive reading

MicroSD port: performs reading of files inserted into the memory card Of micro SD type.

Music: mode compatible with the latest music files

Movie: Video Player

BT: connection via Bluetooth

Explorer: Media Explorer



Reverse Camera



The reverse camera that equips eccopick is triggered automatically when turning the selector key to the “R” position.

A Image appears on the multimedia installed in the dashboard.

To disable, Simply return the selector key to the “n” or “D” position.

It's available on the dashboard, 5V USB charger with 1A and 2A, for recharging Mobile phone and other accessories.

USB charger



Batteries

The traction batteries, consisting of 6 units, are Located in the compartment below the driver's seats and passenger.

To have access, in case of need, you must withdraw the Screws that fix the base plate of the seats and lift it.



▲ Note:

If the vehicle is going to be unused for more than 7 days, Batteries should be kept fully charged.

Attention: never forget to turn off the Safety switch before Access the batteries

Vehicle Usage



To start recharging the batteries, keep Turned on the safety switch,
Connect the charger cable to the 220V outlet.
Open the cover of the charging connector, located next to the right rear flashlight and Connect the charger cable.
The charger cable must be connected first in the charging port and later in the car.

Important:

Do not recharge in wet environment or during lightning and thunder;
Recharge the batteries at a temperature of -5°C to 40°C ;
Always use the original charging cable;
Do not forget to remove the keys from the vehicle before the Loading, to avoid accidents.



Tyre pressure



The standard air pressure of the front/rear tyres is 1.5 bar

The air pressure of the front tyres with excessive load is 2 bar and the the air pressure of the rear tyres is 2.2 bar.

Maintain adequate tyre pressure to maintain driving comfort. If the tyre pressure is not within the specifications, it will It will wear out quickly, affect the operation of the vehicle, the steering and the Energy consumption. Regularly examine the tyre pressure.

Attention:

⚠ Do not check the pressure when the tyre is hot. For the transport of cargo the pressure of the rear tyres should be calibrated differently. With load above 300KG, the pressure of the rear tyres can be increased to 2.2 bar. Poor road conditions, such as driving on the road with mud or ice, will decrease the adhesion of the tyre and may lead to loss Of vehicle control. Be always attentive and drive slowly and safely.

Tyre exchange

- 1) park the vehicle in a safe place, with flat surface and Firm. Turn off the ignition key and drive the brake Parking;
- 2) use a wheel wrench to loosen the cube screw, Move-towards anti-clockwise. Do not remove the screw before That the wheel is out of the ground;
- 3) place the jack vertically below the frame near the Wheel that will be replaced and lift the vehicle until the tire Get off the floor. Do not lift the vehicle more than necessary. Remove the screws from the wheels and remove the wheels;
- 4) fit the new wheel and use wheel keys to tighten the Screws, always in the "diagonal" mode;
- 5) turn the jack lever counterclockwise to download the vehicle on the ground;
- 6) finish the tightening of the wheels, always in the "Diagonal" mode.

Attention: The jack is supplied as a loose item and make sure that the jack is always in the car and available.

Wiper pot



The red arrow is marked as the wiper pot.

The propulsion motor is electric and is located in the Rear axle of the vehicle. Regularly check the engine condition each Six months, but remember that the inspection cycle Can be reduced in operating conditions Frequent and/or severe.

Remove dirt from the surface of the motor to ensure A good heat dissipation. Regularly check if the motor connection is Well fixed, no damage or oxidation.

Motor



Note:

The safety key and the power must be turned off Check and/or maintain the engine to avoid accidents.

Never Dismantle the electric motor without the help of KEYU .

Fuse Box

All functions and components Electrical are protected by fuses, aiming to avoid damage to the system Electric vehicle due to eventual Short-circuits or overload Current. If an electrical component or function Not working, it may be because the fuse of this component is overloaded and burned. If there is repeated burning of fuse it is a Indication that the circuit is defective and it needs to be checked.

10A	20A	15A	10A
Brake/ Pump Vacuum	Ignition	Ventilatio n	Key Selector of Direction
Key of Arrow/Fla sh Alert	Key Selector of Direction/ Multimedi a	Key of Light/ Cleaner Windshiel d	Light of Brake
10A	15A	15A	15A

Description of the fuses

⚠ Note:

It is forbidden to use a fuse that is Different from the original amperage. When replacing the fuse, make sure Use the same model. Never use other objects in Replacement to the fuse

Inspection before start

- Available battery load;
- Tire pressure;
- Brake operation;
- Adjustment of the rear-view mirrors;
- Indicator lights;
- Cleaning of the windshield;
- Leakage of fluids and lubricants.

Departure

- 1) Drive the safety switch;
- 2) Turn the selector switch to on position;
- 3) Step on the brake pedal;
- 4) Release the parking brake;
- 5) Drive the desired gear position;
- 6) Step slightly on the accelerator pedal to start moving the vehicle.

Notes

Keep driving speed stable to ensure the highest durability of the vehicle and batteries.

With higher weight, the vehicle has higher energy consumption. Try not to overload the vehicle.

Avoid starting or strong acceleration as a lot of energy will be wasted and will lead to a decrease in autonomy or It will affect the engine.

Avoid strong braking as it can lead to waste of energy, decrease the autonomy and service life of the pads Brake.

Insufficient tire pressure will increase the resistance in the ground, which will lead to higher energy consumption. Maintain the indicated tire pressure.

Autonomy will be affected by the environment and driving habits, such as: temperature, acceleration or Frequent deceleration, uneven roads, rises or amount of loads.

KDW-5 is not suitable for use in low temperature conditions (below-5 °C). Make sure that the Vehicle be with the batteries fully charged; otherwise, the cold may damage them, since the Electrolyte may freeze.

Attention: in case of emergency, if you need to tow the vehicle, the safety key should be Off, the steering lever should be in the “n” position and the traction shaft (rear) should be be suspended, avoiding damage to the motor and controller.

battery model	Rated voltage (v)	Rated Capacity (3hr,Ah)	size				weight (kg)
			long	Width	high	High	
6-EVF-72	12	72	259	168	211	211	23.5
6-EVF-80	12	80	259	168	211	211	26.5
6-EVF-80LD	12	80	450	170	146	146	26.8
6-EVF-100A	12	100	331	177	215	220	32.7
6-EVF-100A (QX)	12	105	331	177	215	220	31.2
6-EVF-100LD	12	100	450	216	146	146	34.0
6-EVF-120A	12	120	407	174	209	216	39.5
6-EVF-120	12	120	407	171	239	239	39.8
6-EVF-150A	12	150	484	170	241	241	49.0
4-EVF-150A	8	150	260	180	261	261	33.2
3-EVF-200A	6	200	260	181	269	274	32.9
6-EVF-43T(CWEP12-53)	12	43	226	120	173	173	12.0
6-EVF-55T(CWEP12-63)	12	55	226	148	173	173	15.0
6-EVF-59T(CWEP12-67)	12	59	226	160	173	173	16.5

Assure: The warranty for each product is different. Normally, it is one year for the machine without wearing spare parts and humanity damages, for lead acid battery, it is one year. For Lithium battery, it is three years or 1500times cycling charges depends on which comes first.

1. Master the charging time correctly

During the use of electric vehicles, accurately grasp the charging time according to the actual situation, refer to the usual frequency and mileage, and grasp the charging frequency. When driving normally, if the power indicator indicates the red and yellow lights, it should be charged; if only the red light is on, it should stop running and charge it as soon as possible, otherwise the battery will severely shorten its life. After full charging, the running time is charged, and the charging time should not be too long, otherwise it will form an over-charging to heat the battery. Excessive charging, excessive discharge and insufficient charging will shorten the battery life. Generally, the average charging time of the battery is about 10 hours. If the battery temperature exceeds 65 ° C, the charging process should stop charging.

2. It is strictly forbidden to be at a loss when the battery is stored

The loss of power means that the battery is not charged in time after use. In the state of power, the battery is stored, and sulfate is easy to appear. Lead sulfate crystals are attached to the pole plate, which will block the electrical ion channel, resulting in insufficient charging, and the battery capacity decreases. The longer the idle time of the power loss, the heavier the battery is damaged. Therefore, when the battery is idle, it should be replenished once a month, so that the battery is healthy.

3. Try to avoid stepping on acceleration

In the process of using, if the continuation mileage of electric vehicles suddenly drops sharply by more than ten kilometers in a short period of time, it is likely that there is at least one battery problem in the battery pack. When the electric vehicle starts, normal, and uphill, try to avoid stepping on acceleration as much as possible, forming an instant large current discharge. Large-current discharge can easily lead to lead-sulfate crystals, which will damage the physical properties of the battery plate.

4. It is strictly forbidden to expose it for a long time in the sun

The environment with high temperature will increase the internal pressure of the battery and cause the battery to lose water, which will cause the battery activity to decrease, and accelerate the aging of the plate.

The fault alarm method of the Inbore AC controller and the suggested treatment method

number	Fault name	Alarm method	Possible causes and suggested solutions
1	high pedal ban	long chirping	When stepping on the accelerator to open the key, the accelerator has signal output; or the accelerator connector is in poor contact; or the accelerator wiring is wrong; or the accelerator signal does not match the controller
2	ignition failure	One long two short	The controller fails to ignite, turn off the key and then turn the key back on
3	overcurrent	One long three short	The main wiring of the motor is short-circuited, loose or the encoder signal is abnormal. It is recommended to check whether the motor wiring or encoder signal is correct
4	Controller overheating	One long four short	Recommended parking for cooling
5	relay lost	One long five short	The internal relay of the controller does not pull in or the B+ terminal is not tightly connected to the positive terminal of the battery; please check whether the voltage between B+ and B- is the battery voltage
6	Current detection failure	One long six short	The internal current detector of the controller is faulty; it is recommended to return to the factory
7	Encoder failure	One long seven short	The encoder output is abnormal or the encoder is short-circuited
8	lithium cell BMS hitch	One long eight short	This fault is only for the lithium battery system, and the cause of the fault is the failure of the lithium battery or its management system; it is recommended to check the lithium battery or BMS

9	battery undervoltage	One long nine short	It is recommended to check the battery pack voltage
10	battery overvoltage	One long ten short	It is recommended to check the battery pack voltage

11	Motor overheating	One long eleven short	Check the motor temperature, if it is overheated, it is recommended to stop and cool down, if the motor is not hot, it is recommended to check the wiring of the motor temperature sensor
12	accelerator failure	One longthirteen short	There are three factors that cause this fault: (1) The accelerator has no switch signal (LOCK) output after stepping on the accelerator (2) If the accelerator is not stepped on, the accelerator has an acceleration signal output and is higher than 0.5V (3) The accelerator output signal is higher than 4.8V , it is recommended to check whether the accelerator output signal and switch signal are within the normal range

The guarantee does not cover

1. After 90 days from the date of issue of the invoice of sale of the vehicle to the final customer, the warranty does not cover Natural wear parts, including bushings, rubbers, joints, tires, discs and brake pads.
2. Glass and wiper blade;
3. Fuses, relays and the like
4. Fluids, oils and lubricants.
5. Failure or damage caused by accidents, floods, fires, earthquakes, storms, electrical discharge Excessive or overload.
6. Failure or damage due to natural or external factors such as lightning, external pollution, rust, oxidation, Stones And other causes generated by external force.
7. Damage or failure caused by the use of unsuitable parts for replacement or in the change of characteristics Vehicle originals.
8. Any expenses, costs or losses incurred for lost time, use of other tools Mobility or any loss that the vehicle may cause to the user/owner during repairs in the period Warranty or out of it.

Information

KEYU provides its professional team to provide technical assistance services and Maintenance in your **KDW-5**, be through workshops

Own or accredited.

If you have any questions about the company or Our partners representatives, do not hesitate to US Contact through service channels Made available by **KEYU**.

We recommend that you keep your Vouchers and records related to the vehicle, Including:

1. Commercial invoice;
2. Maintenance, overhaul and repair records.

If you have any problems or doubts when using your **KDW-5**, contact the channels of **KEYU**.

When to forward your **KDW-5** to perform Maintenance services or warranty, you need Present the maintenance and warranty manual.

Owner		Vehicle	
Owner Name:		Chassis number:	
Tax bill number:		Model:	
Phone/cell phone:		Color:	
E-mail:		Date of sale:	
Address:			
Representative stamp:	Delivery review stamp:		



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