Charge the Wild!

TAIZHOU ANTELOPOWER TECHNOLOGY CO.,LTD

High Performance Electric Dirt Bike

www.antelopower.com

Antelopower Charge the wild

Lear Antelope

Owner's Manual & Riding Guide

CONTENTS

1. Introduction

2. Usage Instructions

3. Function Brief Introduction

3.1. Important Vehicle Information

3.2. Left Vehicle Exterior Component Names

3.3. Right Vehicle Exterior Component Names

3.4. Name and Function of Control Components

3.5. Speedometer Indications and Function Descriptions

3.6. Combination Switch Function Descriptions

4. Starting and Driving

4.1. Pre-Driving Inspection Items

4.2. Front Suspension Adjustment

4.3. Rear Suspension Adjustment

4.4. Electric Vehicle Driving Operations

4.5. Inspection and Adjustment After Running-In Period

5. Maintenance

5.1. Maintenance Schedule

CONTENTS

5.2. Torque Maintenance of Key Fasteners
5.3. Brake System Maintenance
5.4. Front and Rear Shock Absorber Maintenance
5.5. Wheel and Tire Maintenance
5.6. Chain Maintenance and Adjustment
5.7. Charger Product Description, Usage and Maintenance
5.8. Battery Precautions
5.9. Battery Removal Steps
5.10. Controller Replacement Steps
5.11. Motor Replacement Steps
5.12. Plastic Parts and Lamps
5.13. Cleaning and Storage
6. Vehicle Specification Parameter Table
7. Troubleshooting
7.1. Electrical Schematic Diagram
7.2. Troubleshooting
8. Maintenance Records

INTRODUCTION

Thank you for purchasing our electric dirtbike.

We sincerely welcome you to become a user of our e-bike.

Please be sure to read this manual in detail before driving. Please do not use it without understanding the characteristics of LEAP ANTELOPE.

This manual aims to help you have a more comprehensive understanding of how to use and basic maintenance of LEAP ANTELOPE.

This e-dirtbike prohibit at public road. Driving on the road is limited to one person. LEAP ANTELOPE are high-performance off-road dirtbike. You should be especially careful.

Please abide by local laws and regulations.

Before using this product, please read this manual carefully and correctly master the basic operation functions, usage methods and other common sense of the model.

All the data descriptions, technical specifications, performance parameters and other contents published in this manual are compiled according to the latest information of the model. Please read this manual in detail when using the e-dirtbike for the first time. At the same time, We sincerely hope that you can make valuable comments on the operation, manufacturing process and quality of our product.

If you have any good suggestions and opinions, you can inform the company by letter so that we can improve it in time.

The second half of this manual explains the maintenance of the whole vehicle, and the component atlas is attached. It is helpful to understand the part name, installation structure, fault phenomenon, repair method and so on.

If you need more details, please contact the local dealer or repair station.

Our company will provide you with the best quality and fastest service.

Please do not throw away waste batteries at will so as not to pollute the environment.

The contents and pictures of this instruction manual are for reference only. Please refer to the physical product.

Please purchase the original parts and accessories produced by our company.

Customer Support Email：**info@antelopower.com**

DANGER

1. Strictly abide by traffic laws and regulations and drive safely.
2. It is forbidden for people without driving licenses to drive electric dirtbike.
3. Electric dirtbike are not allowed to be lent to minors.
4. In order to ensure driving safety, it is forbidden to drive under the influence of alcohol and after taking drugs.
5. It is forbidden to participate in various competitions. If it causes mechanical accidents and personal injury, the consequences will be borne by you.
6. Mental patients and people with a history of mental illness, heart patients, deaf and disabled people are prohibited from driving electric dirtbike.

CAUTION

1. After unpacking, please list the accessories according to the packing list.
2. This model can only carry one person, and the max payload of the LEAP ANTELOPE is 100kg.
3. Modifying the LEAP ANTELOPE may make the dirtbike unsafe and may cause serious personal injury. The manufacturer is not responsible for unofficially recognized modifications.

WARNING

1. You must wear helmets, dustproof glasses, gloves and other protective equipment while driving.
2. It is forbidden to hang items on the steering wheelbars, otherwise it will affect driving safety.
3. Please choose the original charger matched by our company for charging, otherwise the battery will be damaged.
4. It is forbidden to wear loose clothes, slippers, etc., otherwise it is easy to hook the handle and accessories, causing safety hazards.
5. When unplugging the power plug, please close the e-lock first.

PROPOSE

1. This manual is one of the essential accessories for the electric dirtbike. When the electric dirtbike is transferred to another person for use, the manual shall be provided along with the dirtbike.
2. When the electric dirtbike is not in use for a long time, the battery cable should be unplugged and charged once a month to avoid battery decay caused by long-term power loss.
3. During the break-in period or warranty period, the user should regularly go to the dealer or the repair service station for regular maintenance.

Function Overview

Key Info for E-Dirtbikes

A. Vehicle identification code

B. Controller high-voltage warning

C. Controller fastening screw torque

D. Basic information label of the controller

E. Motor identify number

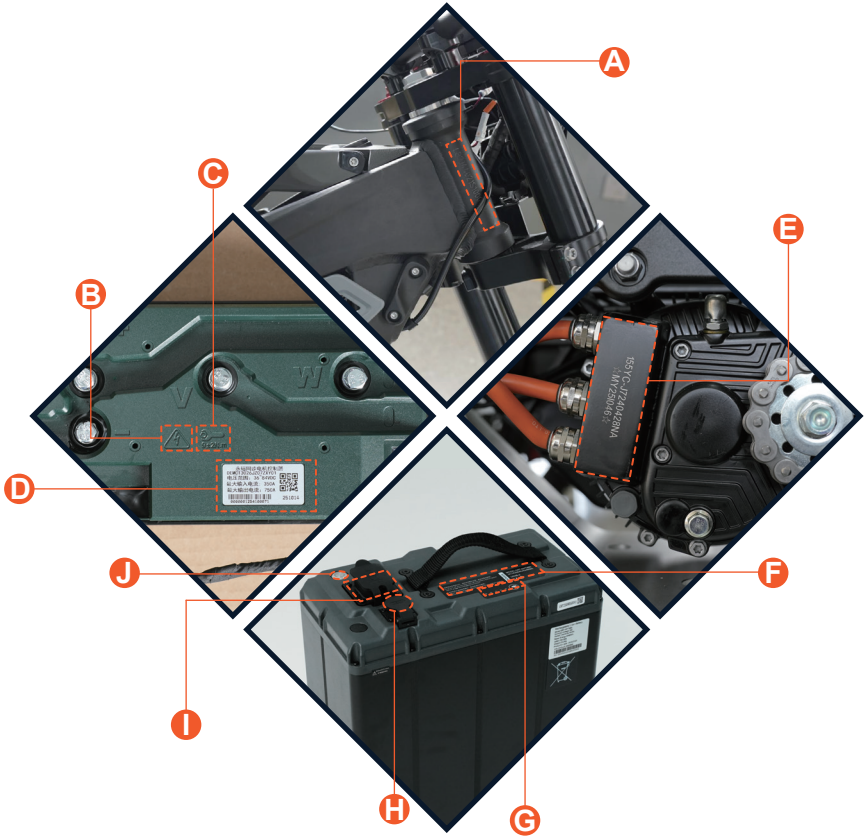
F. Battery basic information label

G. Battery power indicator

H. Battery charging port

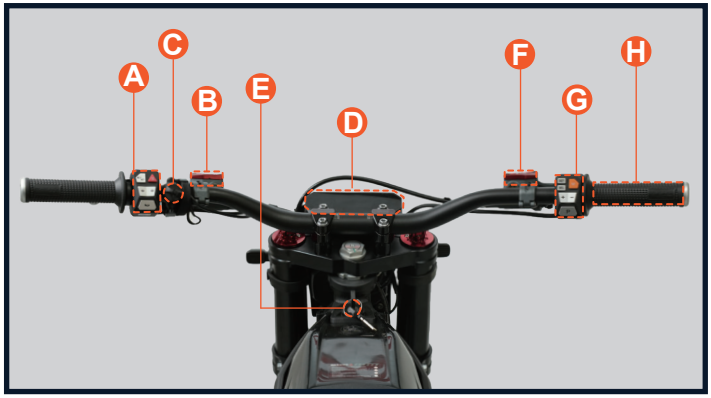
I. Battery discharge port

J. Battery power switch




Charging port
Rear brake master cylinder
Front cover
Seat
Rear plastic parts
Left plastic parts
Headlight cowl
Taillight
Headlight
Front fender
Front left suspension
Swingarm wear pad
Rear tire
Front wheel
Kickstand
Chain
Rear wheel
Front tire
Lower left plastic shield
Front brake disc
Front disc brake caliper
Rear sprocket
Upper left plastic shield

Function Overview



A) Left combination switch

For instructions and operations, please refer to "combination switch function description".

B) Rear brake master cylinder

Free travel:10mm-20mm.

C) Solenoid Switch

Disconnect the solenoid, and the motor will be in a power-off state.

D) Speedometer

For instructions and operations, please refer to "speedometer indication and function description".

E) E-lock

Control the power-on and power-off of the e-dirtbike.

F) Front brake master cylinder

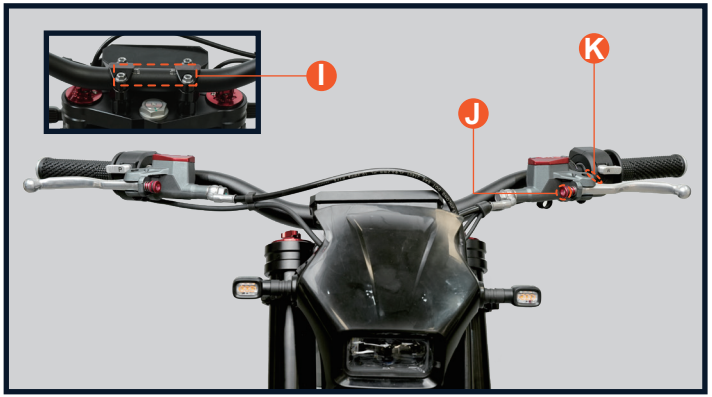
Free travel:10mm-20mm.

G) Right combination switch

For instructions and operations, please refer to "combination switch function description".

H) Handlebar

Turn the handlebar to control the driving speed of the e-dirtbike.



I) Handlebar index marks

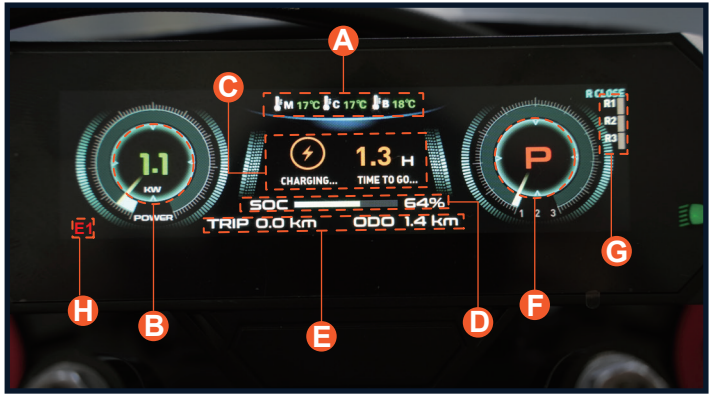
Loosen the clamp screws on the handlebar, then adjust the handlebar height forward or backward with reference to the index marks.

J) Disc brake lever adjustment screw(large)

Adjustment screw function: Set the span between brake lever and handlebar. Max span adjustment: Counterclockwise = Increase; Clockwise = Decrease.

K) Disc brake lever adjustment screw(small)

Adjustment screw function: Adjust distance between brake screw and disc brake cylinder; Regulate brake lever feel – Counter-clockwise = Firmer; Clockwise = Softer.



A. Real-time temperatures of

M (Motor), C (Controller), B (Battery)

B. Real-time power display, including

charging, output and regenerative charging

C. Real-time speed and charging time display area

D. Battery SOC (State of Charge)

E. Trip mileage and total mileage display

F. Gear (1/2/3), driving mode, P/R mode display

G. Regenerative charging gear display

H. Fault code display

Enter the settings interface

Long press the SET button on the combination switch for 3s to enter the speedometer settings interface. SET on the combination switch is for selection, and SEL is for confirmation.

Metric/Imperial Switching Setting

Motorbike Settings→System Unit

Language Setting

Motorbike Settings→Language

Brightness Setting

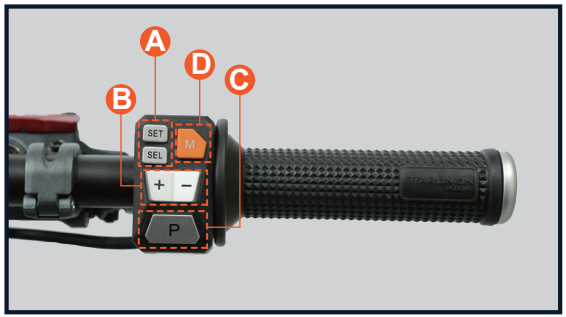
Motorbike Settings→Brightness

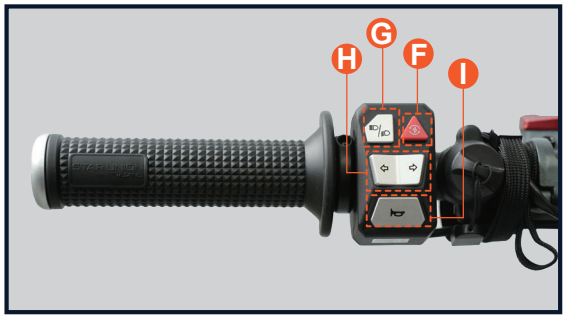
I is the min, IIIII is the max.

Motobike Information

Riding Information

Combination Switch Function Description





Switch Type	No.	Name	Function Description
Right Combination Switch	A		Speedometer settings. Long press the SET button for 3 s to enter the settings interface. SEL is the confirmation button, and SET is the selection button.
	B		Mode selection. Shift modes via the '+' and '-' buttons. Long press the ' -' button for 3s to enter CRAWL mode, and the speedometer displays CRAWL. Long press for 3s to exit CRAWL mode.
	C		Deactivate P mode via the P button, then enter riding mode. Long press for 1s to enter HOLD mode.
	D		Driving mode switch. Press the M button to switch and select ECO/Comfort/Sport/TURBO modes.
	E		The P button on the back serves as a spare button, with the same function as the 'c'.
Left Combination Switch	F		Regenerative gear selection, cycling through off, 1, 2, 3 gears.
	G		Press this switch to control the switching between high and low beams.
	H		Press " ➔ " corresponding front turn signal flashes + speedometer icon flashes simultaneously. Press again " ➔ ➔ " to turn off.
	I		Press to sound, release to stop.
	J		Press and hold the R button to enter reverse mode; twist the throttle grip to reverse the e-dirtbike.

Pre-Driving Inspection

Before driving, the following inspections should be carried out to ensure the user's safe driving and smooth travel.

1) Battery
Check if the battery has sufficient power.

2) Brake Oil
Check if the brake oil is deteriorated and if the capacity is below the lower scale line.

3) Brake Lever
Check if the free travel is within the specified value.

4) Suspension
Check if the suspension works normally.

5) Throttle Grip
Check the flexibility of the throttle grip.

6) Steering Mechanism
Check the flexibility and stability of the steering mechanism.

7) Tire/Wheel
Check tire pressure and wear condition.

8) Lighting/Signal Indicator Light
Check if the lighting lights/signal lights/indicator lights work normally.

9) Brake
Check the wear condition of the brake pads and if the braking performance is good.

REMARKS

According to the driving mileage and working conditions, conduct regular 3-level maintenance on the e-dirtbike:

a. 1000km～3000km, mainly including inspection and fastening.

b. 3000km～6000km, need to check the motor gearbox oil level, mainly including inspection, adjustment and fastening.

c. 6000km～10000km, mainly including overall disassembly, inspection and adjustment, lubrication and fastening, replacement of worn parts, and elimination of potential hazards.

It is recommended to carry out regular C level maintenance at the company's authorized maintenance service station.

10) Kickstand
Check if the kickstand is smooth.

11) Key Fasteners
Check if the locking bolts of the handlebar, front and rear wheels, front and rear suspensions and rear swingarm are loose or missing.

Front Suspension Adjustment

1) Rebound Damping (REB)

- *Adjust the rebound damping by rotating the knobs on the top of the left and right front suspension.*
- *Rotate the adjustment knob clockwise to increase the rebound damping, and the rebound speed will slow down.*
- *Rotate the adjustment knob counterclockwise to decrease the rebound damping, and the rebound speed will speed up.*

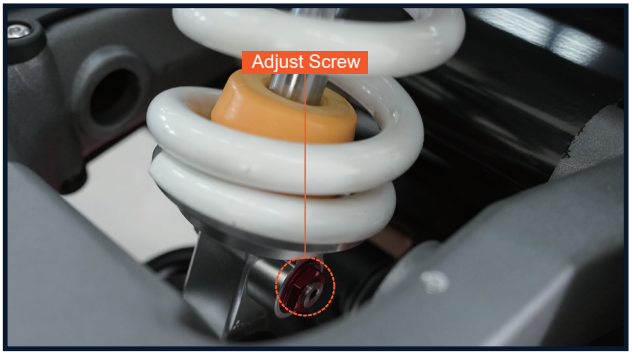
2) Compression Damping (COMP)

- *Adjust the compression damping by rotating the screws at the bottom of the left and right suspension with a 2mm hexagon wrench.*
- *Rotate the adjustment screw clockwise to increase the compression damping. Rotate the adjustment screw counterclockwise to decrease the compression damping.*

Rear Suspension Adjustment

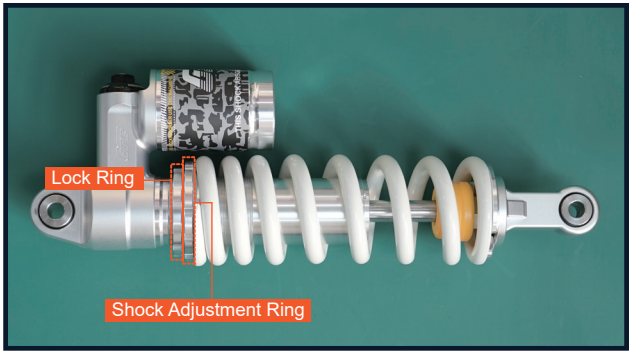
1) Compression Damping (COMP)

- *Adjust the compression damping by rotating the adjustment screw on the top of the rear suspension with a 4mm hexagon wrench.*
- *Rotate the adjustment screw clockwise to increase the compression damping.*
- *Rotate the adjustment screw counterclockwise to decrease the compression damping.*



2) Rebound Damping (REB)

- *Adjust the rebound damping by rotating the adjustment screw at the bottom of the rear suspension with a 3mm hexagon wrench.*
- *Rotate the adjustment knob clockwise to increase the rebound damping, and the rebound speed will slow down.*
- *Rotate the adjustment knob counterclockwise to decrease the rebound damping, and the rebound speed will speed up.*



NOTE

The appearance of the shock suspension may vary in different states. Please refer to the actual product. The damping and spring preload should be reasonably adjusted according to the road conditions and the rider's weight, and avoid adjusting the damping to the maximum limit, otherwise the shock suspension may malfunction and even cause a fall.

3) Rear Suspension Preload Adjustment

- *Loosen the locking ring on the spring with an adjustment wrench.*
- *Rotate the adjustment ring with an adjustment wrench.*
- *Rotate the adjustment ring counterclockwise to decrease the preload on the spring.*
- *Rotate the adjustment ring clockwise to increase the preload on the spring.*
- *After adjustment, lock the locking ring on the spring with an adjustment wrench.*

Electric DirtBike Driving Operations

1) Before the first power-on and start of the e-dirtbike, confirm that the battery discharge wire and battery charging wire are firmly connected to the battery and confirm that the battery switch is in the on state.

2) Turn the e-lock clockwise to turn on the power, and the e-dirtbike will be powered on.

3) After the vehicle power is turned on, the e-dirtbike will default to P mode. Press the P button on the combination switch to enter the riding mode, and then it can be ridden normally.

4) When the e-dirtbike needs to turn, please turn on the turn signal light to remind pedestrians and vehicles.

5) Release the front and rear brake levers, slightly twist the right throttle to make the e- dirtbike move slowly, and then put both feet on the footrests.

NOTE

- The e-dirtbike must be parked in a safe place and the key must be taken away to prevent the e-dirtbike from being stolen.
- To ensure driving safety, do not twist the throttle grip too much when starting to avoid falling.
- Braking is related to personal safety. It must be regularly adjusted and maintained correctly to achieve the purpose of safe driving.
- Before driving, the rider should wear protective equipment (such as helmet, protective gloves, protective glasses, protective clothing, etc.).
- When using the e-dirtbike for the first time, it is recommended to slowly twist the throttle grip to start the vehicle slowly, and ride at high speed after being familiar with the vehicle performance.

Inspection and Adjustment After Running-In Period

After purchasing LEAP ANTELOPE, the user should pay attention to the running-in of the new LEAP ANTELOPE(the initial 500~1000km is the running-in period, based on the speedometer display). The quality of the new e-dirtbike running-in directly affects the service life of the e-dirtbike. The so-called "running-in period" refers to the running-in process in which the various parts of the newly purchased e-dirtbike fit more closely, consistently and flexibly after driving for a period of time.

After the running-in period, a comprehensive adjustment should be carried out to ensure the normal operation of the e-dirt-bike in the future. And also to make the e-dirtbike drive faster and more durable. The adjustment items are as follows:

1) Bearing adjustment

After the running-in period, under the operation of load, the raceway surfaces between the steel balls and the bearing cups and bearing cones become smoother and more consistent, but the clearance needs to be properly adjusted.

2) Brake system adjustment

After a period of use, the coordination of various parts of the brake system becomes more perfect, especially the front and rear brake pads and the brake disc surface fit more closely after running-in. For driving safety, the free travel of the brake system and the wear degree of the brake pads should be checked regularly.

3) Fastener adjustment

After driving during the running-in period, the bolts or nuts may loosen due to the vibration. Therefore, they must be checked and tightened in time to ensure the normal driving.

Maintenance Cycle

Maintenance Item	Mileage (km)				Remarks
	1000km	5000km	10000km	15000km	
★ Controller	/	Inspect			● ★ This item can only be maintained by the company's after-sales personnel. ● When driving in extremely humid or dusty areas, the regular maintenance cycle should be appropriately shortened. ● After the vehicle has traveled 500 km, the motor gearbox requires new lubricating oil replacement; subsequent replacements should be performed every 5000 km.
★ Battery	Charge according to driving mileage				
★ Brake Pads	Inspect	Inspect	Replace	Replace	
★ Brake Disc	/	/	Inspect	Inspect	
Brake/Disc Brake Fluid	Inspect	Inspect	Inspect	Adjust	
Lights	Inspect	Inspect	Inspect	Inspect	
★ Suspension	Inspect	Inspect Lubricat	Inspect Add Grease	Inspect Add Grease	
Fasteners	Tighten				
Front and Rear Inner/Outer Tires	Inspect	Inspect	Inspect	Inspect Replace	
Steering Mechanism Bearings	Inspect	Inspect Preload	Inspect Preload	Inspect Lubricate Preload	
Front and Rear Wheel Bearings/Oil Seals	Inspect / Lubricate				
Kickstand	Inspect	Inspect / Lubricate			
★ Motor Gearbox	Inspect	Inspect/Add Lubricating Oil			

NOTE

During the driving process of the e-dirtbike, various parts will have different degrees of loosening and mechanical wear. The e-dirtbike must be properly maintained regularly to extend the service life, reduce maintenance costs, and achieve the purpose of safe driving.

1. *Keep the e-dirtbike's appearance clean, sufficient power, easy to start, good acceleration performance and power performance, and no abnormal noise.*

2. *Ensure that the operating tools and transmission system are flexible, the e-dirtbike is firmly connected without loosening, and all lubrication points are fully lubricated.*

3. *Ensure that the front and rear brake levers are easy and flexible to operate, the braking effect meets the requirements, the brake pads can automatically reset when the brake is released, there is no friction noise, and the e-dirtbike has good sliding performance.*

4. *The front and rear suspensions work stably and reliably, the tire pressure is normal, and all power supply parts, electrical parts and control parts are normal.*

5. *The battery connection is not loose, fixed reliably, the spare parts are complete, and there is no wear or corrosion.*

WARNING

When the e-dirtbike is not used for a long time, the battery power connection wire must be disconnected to ensure good driving range and extend the service life.

Torque of Key Fasteners

No.	Parts Name	Torque	Screw Spec
A	Front Wheel Axle	45N.m	176.5*M18
B	Front Brake Disc Screws	12N.m	Hexagon Socket Head Cap Screw with Flange M6*20
C	Front Disc Brake Caliper Screws	25N.m	Hexagon Socket Head Cap Screw with Flange M8*50
D	Front Suspension Lower Fastening Screws	12N.m	Hexagon Socket Head Cap Screw with Flange M8*25
E	Upper Triple Clamp Lock Nut	35N.m	M22*1
F	Rear Suspension Upper and Lower Screws and Nuts	50N.m	Hexagon Socket Head Cap Screw with Flange M10*55
G	Footrest Bracket Fastening Screws	25N.m	Hexagon Socket Head Cap Screw with Flange M8*25
I	Swingarm Axle and Nut	75N.m	250*M14*1.5
H	Rear Wheel Axle and Nut	80N.m	M16*1.5*234φ17
J	Rear Sprocket Fastening Screws and Nuts	25N.m	Sprocket-Specific Screws M8 and M8 Hexagon Lock Nuts with Non-Metallic Insert
K	Front Suspension Upper Fastening Screws	15N.m	Hexagon Socket Head Cap Screw with Flange M8*25
L	Steering Column Lock Nut	20N.m	M25*1
M	Controller Upper and Lower Fastening Screws	12N.m	Low Cylinder Head Hexagon Socket Screws and Special Step Screws 6*16
N	Handlebar Lower Clamp Screws	40N.m	Hexagon Socket Head Cap Screw M10*25
O	Motor Fixed Axle	50N.m	M10*1.25*220 and M10*1.25*205
P	Rear Suspension Rocker Arm Fastening Screws	50N.m	Hexagon Socket Head Cap Screw with Flange M10*110/M10*75/M10*70
Q	Sub-Frame Fastening Screws	25N.m	Hexagon Socket Head Cap Screw with Flange M8*25
R	Rear Disc Brake Caliper Screws	25N.m	Hexagon Socket Head Cap Screw with Flange M8*20

Recommended Tools

A set of Torx wrenches

A set of hexagon wrenches

Torque wrench and 19, 22, 30mm bits

10, 12, 14mm open-end wrenches

How to adjust Steering Column Nut :

1) *Place the e-dirtbike on a repair stand to lift the front wheel off the ground.*

2) *Loosen the steering column locking screws and front suspension mounting screws on the front suspension upper connecting plate.*

3) *Tighten the steering column adjustment nut to 20N.m with a torque wrench and special bit.*

4) *First lock the steering column lock nut of the front suspension upper triple clamp, then lock the front suspension fastening screws.*

5) *Check if the handlebar rotation is abnormal; if necessary, repeat the above operations.*

Brake System

1) Brake Fluid Inspection

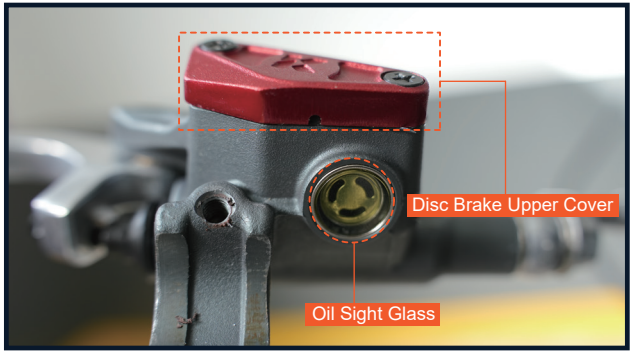
- *The brake fluid level can be observed through the sight glass. If the liquid level is below 1/3 of the sight glass, the brake fluid must be replenished. Before opening the reservoir, clean all dust or debris on the disc brake master cylinder cover to avoid contaminating the brake fluid.*
- *A low liquid level may indicate brake pad wear or hydraulic system leakage. Please check if the brake pads are worn and if the hydraulic system is leaking.*

2) Brake Fluid Adding Steps

- *Unscrew the two screws on the reservoir cover, remove the disc brake master cylinder cover and reservoir gasket.*
- *Add new DOT4 or higher grade brake fluid.*
- *Check the cover seal to ensure there is no wear or damage and it is in the correct position.*
- *Install the reservoir cover screws (torque 2N.m).*

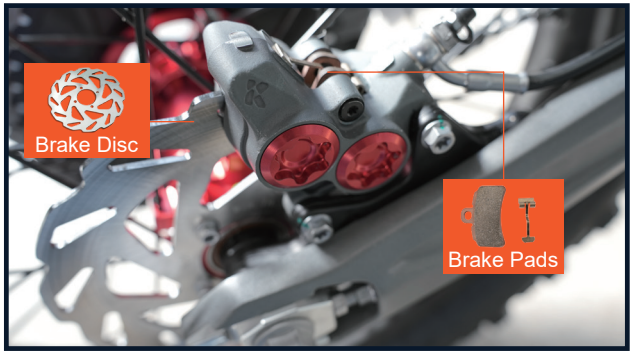
NOTE

Before checking the liquid level, the LEAP ANTELOPE should be placed in an upright position on a flat ground and the handlebar should be centered to ensure the reservoir is in a horizontal position. If brake fluid overflows when adding new brake fluid, it should be cleaned up immediately to prevent contamination of other parts. Do not splash brake fluid on painted surfaces as it may damage the paint. Brake fluid spilling on plastic parts will cause corrosion. Before removing the cover, be sure to place an oil-absorbing towel under the master cylinder reservoir.



Master Cylinder Assembly

Master Cylinder Assembly



Slave Cylinder Assembly

3) Brake Disc and Brake Pad Inspection

- *The thickness of the brake disc should be checked regularly. The mini thickness of brake disc is 2.5mm. Ensure the brake pads are inspected according to the specified cycle in the maintenance cycle table. If the thickness of the brake pad is less than 4.2mm, please replace the brake pad. If the brake pad is damaged, replace both brake pads immediately regardless of the degree.*

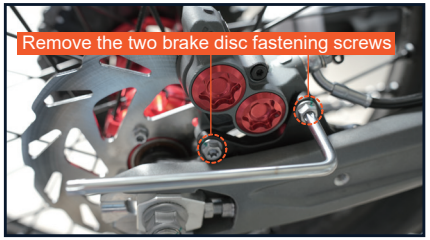
- *The remaining amount of the brake pad can be checked by looking horizontally from the side of the brake caliper.*

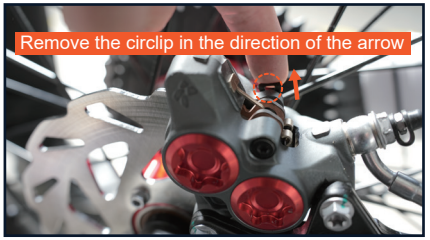
4) Brake Pad Replacement

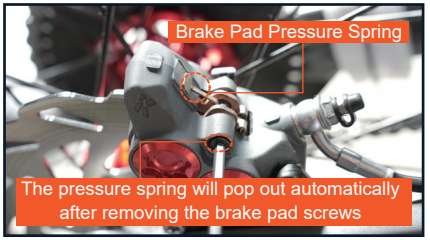
It is recommended to check and break-in after replacing new brake pads or brake disc to proper break-in can improve the brake feel and reduce or eliminate brake noise.

Replacement Steps:

- *Remove the 2 disc brake caliper screws with a T40 Torx wrench.*
- *Remove the brake pad screw circlip.*
- *Remove the brake pad fixing screw with a T20 Torx wrench and take out the rear brake pad.*
- *Replace with new brake pads according to the disassembly steps.*







NOTE

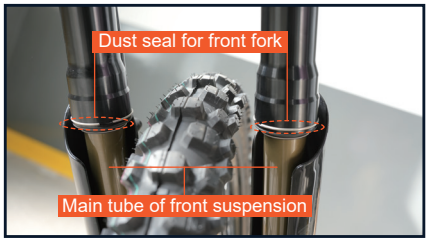
When using a new brake system or new brake pads, the initial braking force may be small. Please break-in the brake pads and brake disc at low speed and in a safe condition to ensure the brake system provides normal braking force.

Front and Rear Shock Suspension

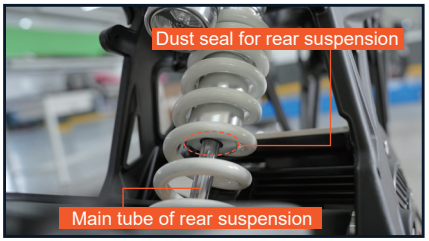
1) *It is recommended to clean the surface of the suspension immediately after each ride, especially the sand and mud attached to the surface of the main tube. When cleaning with high-pressure water, it is strictly prohibited to rinse upward directly at the lip of the front suspension dust seal and rear suspension dust seal, as sand and mud will rush into the lip of the dust seal and cause wear and oil leakage.*

2) *Do not use soluble or corrosive solvents for cleaning, otherwise it will damage the dust seal. For cleaning, it is recommended to use a neutral detergent and a soft cotton cloth.*

3) *After cleaning, it is recommended to apply a layer of lubricating grease on the surface of the main tube to fully lubricate the surface of the main tube.*



Front suspension assembly



Rear suspension

WARNING

- The suspension contains high-pressure gas or liquid, do not attempt to modify or disassemble the suspension. Avoid impact, high temperature or flames on the gas cylinder. During e-dirtbike operation, the rear suspension and gas cylinder may be in a high-temperature state, please avoid scalding.
- Improper operation of the suspension may cause damage to the suspension and even explosion, resulting in serious personal injury.

Wheel and Tire

Check the wheels for the following conditions:

1) Rim deformation or damage

2) Impact marks on the rim

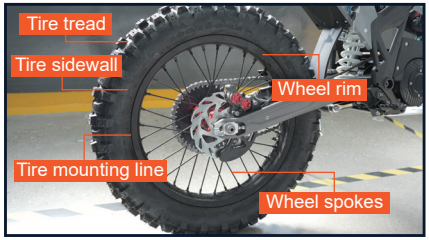
3) Loose or deformed spokes

4) Cuts, cracks, splits or missing tread blocks in the tread or sidewall area

5) Tire bulges

6) Uneven tire tread wear

7) Uneven tire bead height



Wheel and tire assembly

* If any of the above phenomena are found, replace the wheel or tire immediately.

Standard Tire Pressure		
Condition	Front Wheel	Rear Wheel
Off-Road Tire	225kPa	280kPa
All-Terrain Tire	225kPa	280kPa

* For off-road tires used in venues and forest roads, the recommended tire pressure range is 100～150kPa.

WARNING

Unreasonable tire pressure is a common factor in tire failures, which may lead to serious tire blowouts, tread separation or vehicle loss of control, resulting in serious personal injury. Please check the tire pressure regularly.

Chain Maintenance and Adjustment

For chain inspection and maintenance, refer to the maintenance cycle table.

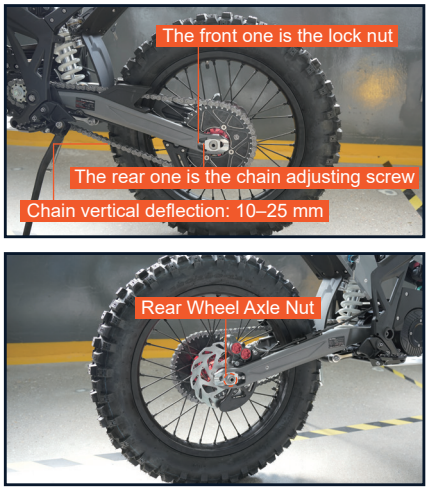
1) Keep the chain and sprocket clean.

2) Check the chain wear, tightness and lubrication

- *Prop up the vehicle with a repair stand to lift the rear wheel off the ground, and manually toggle the chain up and down to check if the vertical movement is within the recommended range: 10-25mm.*
- *When adjusting, first loosen the rear wheel axle nut, then adjust the left and right adjustment bolts to make the chain tightness within the recommended range.*
- *Apply an appropriate amount of chain oil to the chain.*

3) Chain Adjustment

- *Turn off the e-lock, take out the key, and prop up the e-dirtbike with a lift to lift the rear wheel off the ground.*
- *Loosen the rear wheel axle nut.*
- *Loosen the lock nuts of the left and right adjustment bolts.*
- *Adjust the left and right adjustment bolts equidistantly until the chain is adjusted to the specified range.*
- *Tighten the rear wheel axle nut.*
- *Tighten the left and right lock nuts to fix the position of the adjustment bolts.*
- *Test ride the e-dirtbike.*
- *After the test ride, please recheck if the chain is correctly adjusted and readjust if necessary.*



Chain adjustment assembly

Charger Precautions

This charger has a trickle charging function. The charging time at one time should generally not exceed 6 hours, otherwise the service life of the charger will be affected. The charger should be placed in a dry and ventilated environment during charging. No items should be covered on the charger to avoid fire. Fire sources should be avoided near the storage battery during charging.

When charging, first connect the output plug of the charger to the socket on the battery properly, then insert the charger plug into the power socket. After charging, first cut off the power supply of the charger, then pull out the output plug from the battery box socket.

WARNING

- To prevent electric shock hazards, the charger must be protected from water and moisture, used or stored in a dry environment, and shall not be dropped or subjected to heavy impact.
- Due to high-voltage current inside the charger, to prevent electric shock and fatal injuries, touching or opening the charger during charging is strictly prohibited.
- During charging, the charger may generate heat. It should be used in a well-ventilated area and shall not be operated near flammable or explosive materials such as carpets and wooden floors to prevent fire or explosion hazards.
- During charging, the voltage and current of the battery must be consistent with the specifications of the charger, and the polarity of the charger output plug should be consistent with the polarity of the battery pack output plug, otherwise the charger and battery will be damaged.
- When the charger malfunctions, it must be repaired and handled by professional personnel.

Battery Precautions

1) The battery requires occasional charging. When not in use for an extended period, charge the battery pack to approximately 60%~80% capacity for storage. Additionally, check the remaining power monthly and recharge it if the capacity drops below 30%, to prevent the battery from entering over-discharge protection mode, which may impair performance and cause damage.

2) The battery should be kept away from overheated environments.Do not store it in a high-temperature environment or direct sunlight. If not used for a long time, store the battery pack in an ambient temperature of 10℃~30℃.

3) Dispose of the battery in accordance with local laws in your area. Waste batteries should be handed over to professional recycling institutions for recycling and shall not be discarded randomly.

NOTE

- Do not place the LEAP ANTELOPE or its battery pack in an environment higher than 41℃ or direct sunlight for a long time, as this may accelerate the attenuation of battery performance.
- Using the LEAP ANTELOPE in cold weather will not have a permanent impact on its battery pack. However, due to the impact of low temperature on the energy that the battery pack can release, the rider may find that the driving range and power are reduced. Compared with use at 25℃, LEAP ANTELOPE may experience a temporary reduction of approximately 30% in range when operated below 0℃. In extremely cold weather, the LEAP ANTELOPE may also temporarily reduce power and fail to reach the maximum speed. Storage temperature below -20℃ may cause permanent attenuation of battery pack performance.

WARNING

Only professionally trained technicians can provide maintenance services for the battery pack. Please note that unauthorized handling of internal components of the battery pack may be dangerous. Do not disassemble!

Battery Removal Steps

1) Turn off the power and unlock the vehicle

2) Open the seat lock and remove the seat cushion

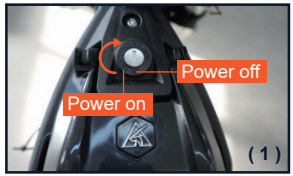
3) Open the front cover and loosen the battery retaining plate set screws with a 3mm hexagon wrench

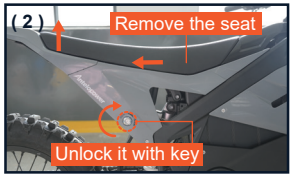
4) Loosen the battery retaining plate bolts and remove the battery retaining plate

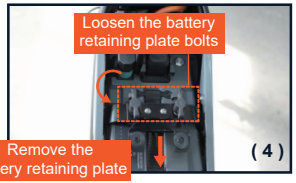
5) Unplug the discharge wire and charging wire on the battery

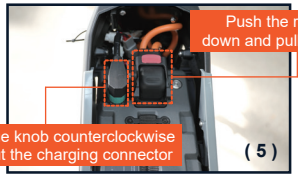
6) Take out the battery

⚠ When disassembling and assembling the battery, be sure to turn off the e-lock and battery switch.









Power System:Motor and Controller

WARNING

- Unauthorized disassembly of the motor by the user is strictly prohibited. Otherwise, it may cause displacement of the position sensor, damage the corresponding sealing devices and measures, leading to motor runaway and damage.
- The controller is a precision high-voltage electronic component. Incorrect wiring will cause damage to the controller.
- It is strictly prohibited to disassemble the controller and cables without authorization. Otherwise it will cause serious consequences such as electric shock and burns.
- The power system used by the LEAP ANTELOPE must be repaired and replaced by technicians authorized by the manufacturer or professionally trained.
- It is strictly prohibited for users to disassemble and modify the power system of the LEAP ANTELOPE without authorization.
- The power cable carries a large current during operation. Therefore, ensure that the cable connection is reliable. It is strictly prohibited to disassemble the power cable without authorization.
- During maintenance, ensure that the torque and sealing of the cable fastening bolts meet the requirements; also ensure that the cable insulation meets the requirements.

Plastic Parts and Lamps

When the plastic parts, front headlight, turn lights and rear lights are damaged, please contact the authorized dealer for overall replacement.

NOTE

Do not use any irritating chemical products on plastic parts. Avoid using strong corrosive cleaners, solvents or thinners, fuels (gasoline), rust removers or inhibitors, brake fluid, antifreeze or cloths or sponges that have been in contact with electrolytes.

Cleaning and Storage

1) Electric Dirtbike Cleaning

- *Clean the vehicle gently using ample clean water. Do not allow internal electronic parts or wiring to become soaked, as this may lead to serious safety risks.*
- *After cleaning, dry the surface of the e-dirtbike with a clean cotton cloth or towel.*
- *Be extra careful when cleaning the speedometer, as it is easier to scratch than other parts of the vehicle.*
- *Avoid using strong acid wheel cleaners when cleaning wheels and tires. If such products are used to clean stubborn dirt, clean them as soon as possible and dry them immediately.*

NOTE

Improper cleaning will damage components. Do not flush bearings, seals, electrical components and plugs with high-pressure water. To extend the service life of the LEAP ANTELOPE, it should be cleaned and maintained regularly. It is recommended to dry it as soon as possible.

2) Electric Dirtbike Storage

- *For long-term storage (more than 60 days), it is recommended to clean it thoroughly before storage.*
- *Remove and store the battery after it is fully charged. Storing the battery in a low-charge state for an extended period will affect its service life. It is recommended to recharge it every 3 months. Store the battery in a dry, dark, and indoor environment. Do not store the battery in excessively hot or humid conditions.*
- *Inflate the tire pressure to the specified value, and pad the tires with wooden blocks so that the tires do not contact the ground.*
- *After the e-dirtbike is sealed, it should be stored in a well-ventilated, dry, clean, rainproof and sun-protective environment, away from flammable materials, chemical corrosives and other harmful substances.*
- *When using after storage, it should be thoroughly cleaned and inspected once, turn on the e-lock, check the working condition of the e-dirtbike circuit, and charge the battery at a slow speed.*
- *Its not allowed to wade deeply. Its recommended that the wading depth should not exceed 30cm.*

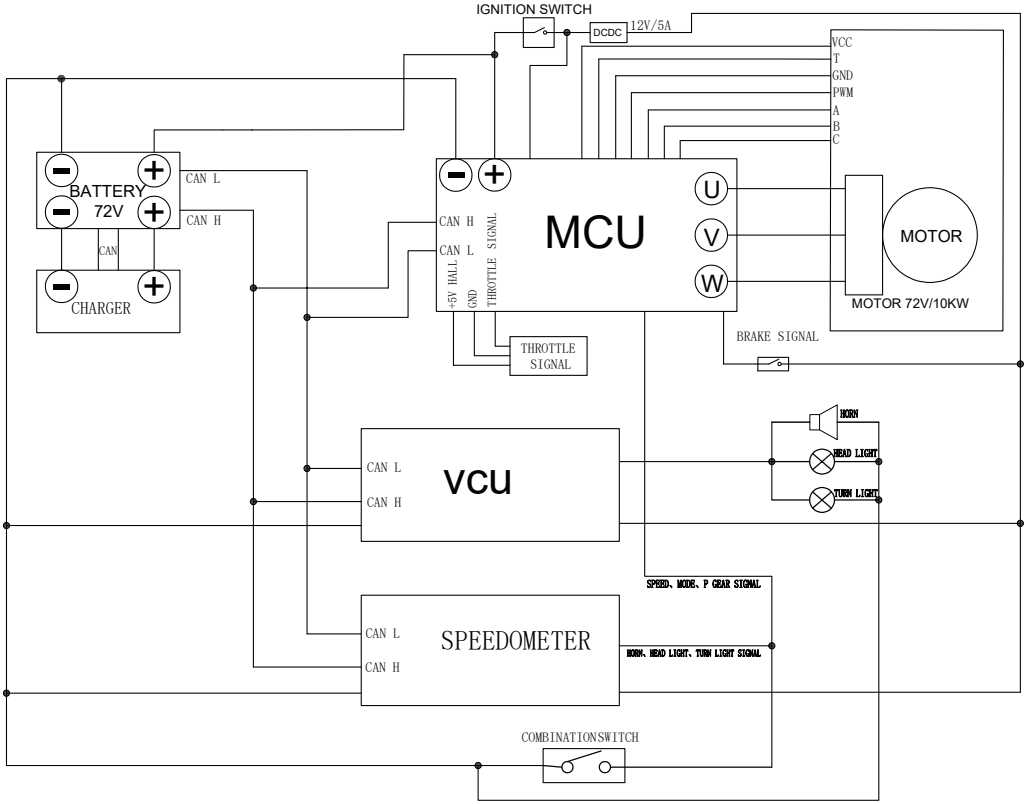
NOTE

Do not store the LEAP ANTELOPE with a power level below 30%. Long-term discharge of the battery below 30% may reduce the battery life or even damage the battery. Battery damage caused by over-discharge or long-term extremely low power is not covered by the warranty.

WARNING

Only professionally trained technicians can provide maintenance services for the battery. Please note that unauthorized handling of internal components of the battery may be dangerous. Do not disassemble!

Electrical Schematic Diagram



Controller

No.	Speedometer Fault Code	Controller Fault Name	Fault Handling Plan
1	C01	Controller software overcurrent	If restarting the key is ineffective, contact the dealer or manufacturer
2	C02	Motor overspeed	Contact the authorized dealer or manufacturer for assistance
3	C03	Battery overvoltage	Contact the authorized dealer or manufacturer for assistance
4	C04	KEY power supply abnormality	Contact the authorized dealer or manufacturer for assistance
5	C05	12V power supply abnormality	Contact the authorized dealer or manufacturer for assistance
6	C06	5V power supply abnormality	Contact the authorized dealer or manufacturer for assistance
7	C07	Angle sensor disconnection	Check the contact problem between the motor and the controller's angle sensor. If the contact is normal and the fault cannot be eliminated, contact the dealer or manufacturer
8	C08	Motor hardware overcurrent	Contact the authorized dealer or manufacturer for assistance
9	C09	Motor phase wire damage or controller failure	Contact the authorized dealer or manufacturer for assistance

No.	Speedometer Fault Code	Controller Fault Name	Fault Handling Plan
10	C10	Battery undervoltage	Stop and charge the battery. If the fault is still reported after full charge, contact the dealer or manufacturer
11	C11	Controller overheating	Continue riding after the controller temperature drops. If the fault is continuously reported, contact the dealer or manufacturer
12	C12	Motor overheating	Continue riding after the motor temperature drops. If the fault is continuously reported, contact the dealer or manufacturer
13	C13	Current sensor abnormality	Contact the authorized dealer or manufacturer for assistance
14	C14	Angle signal interference	Contact the authorized dealer or manufacturer for assistance
15	C15	Throttle grip signal overlimit	Contact the authorized dealer or manufacturer for assistance
16	C16	Throttle grip not reset	Contact the authorized dealer or manufacturer for assistance
17	C17	Motor locked rotor	Contact the authorized dealer or manufacturer for assistance
18	C18	Communication fault with BMS	Contact the authorized dealer or manufacturer for assistance

Battery

No.	Speedometer Fault Code	Battery Fault Name	Fault Handling Plan
1	C01	Cell detection wire open circuit	Damaged.Contact the authorized dealer or manufacturer for assistance
2	C02	Temperature sensor detection line open circuit	Damaged.Contact the authorized dealer or manufacturer for assistance
3	C03	MOS high temperature	Let it stand and wait for the temperature to drop
4	C04	Charging MOS fault	Damaged.Contact the authorized dealer or manufacturer for assistance
5	C05	Discharging MOS fault	Damaged.Contact the authorized dealer or manufacturer for assistance
6	C06	Severe overheating alarm during cell pack charging	Stop charging and continue charging after the temperature drops
7	C07	Severe overheating alarm during cell pack charging	The fault will be automatically eliminated after the battery temperature rises, and discharging can continue
8	C08	Severe undertemperature alarm during pack discharging	Stop and contact the authorized dealer or manufacturer for assistance
9	C09	Severe overcurrent alarm during pack discharging	Stop and contact the authorized dealer or manufacturer for assistance
10	C10	Pack discharging short circuit	Stop and charge the battery pack
11	C11	Severe undervoltage alarm during pack	Stop discharging and continue discharging after the battery temperature drops

Charger

No.	Charger Indicator	Fault Type	Indicator flashing frequency	Fault Handling Plan
1	No-Load Indication	/	Red and green lights flash alternately	/
2	Power Indication	/	Charging: red light flashes Fully charged: Green light stays on	/
3	Fault Indication ("-" indicates a 1s pause)	Output overvoltage and overcurrent	Red Green Red---	Contact the dealer or manufacturer
4		Open loop fault	RedGreen----	Contact the dealer or manufacturer
5		Bias fault	Red-Green-Red-Green-Red-Green-	Contact the dealer or manufacturer
6		Reference voltage fault	Green-Red-Green-Red-Green-Red-	Contact the dealer or manufacturer
7		Input AC fault	Red-Green-Red-Green-Red-	The grid input voltage is higher or lower than the allowable voltage range of the charger. Check the input grid voltage; if it is within the normal range (110-240V), contact the dealer or manufacturer

No.	Charger Indicator	Fault Type	Indicator flashing frequency	Fault Handling Plan
8	Fault Indication ("-" indicates a 1s pause)	Internal temperature fault	Green-Red----	Contact the dealer or manufacturer
9		Relay fault	Green-Red-Green---	Contact the dealer or manufacturer
10		Zero current fault	Green-Red-Green-Red-Green-	Contact the dealer or manufacturer
11		Communication fault	Red-Green-Red-Green-Red-Green-Red-	Contact the dealer or manufacturer
12		Self-check fault	Green-Red-Green-Red--	Contact the dealer or manufacturer
13	Fully charged shutdown indication	/	Green light stays on	/

Electrical Schematic Diagram

NOTE

The LEAP ANTELOPE is equipped with high-voltage components. Please take appropriate precautions when using it. The high voltage used by these components is dangerous and may cause burns, electric shock and even serious personal injury. For safety, please always follow the precautions on the labels affixed to the vehicle components. Do not touch, attempt to remove or replace any high-voltage components, cables or connectors. If the LEAP ANTELOPE is involved in an accident, do not touch any high-voltage cable terminals or components connected to the cables. If the LEAP ANTELOPE catches fire, use a Class D fire extinguisher to extinguish the fire if it is safe to do so. After the flame is extinguished, use a large amount of water or a water-based fire extinguisher to cool down.

Warranty Coverage

1) Warranty Coverage

- *The company warrants that all vehicles sold meet quality standards in terms of manufacturing materials and craftsmanship. Within the scope of this warranty, if any part is found to have quality defects during the specified warranty period, we will provide free repair or replacement services.*

- **For Off-Road Trail Use**
  Period: 6 months from the date of purchase.
  Limitation: This warranty is non-transferable and applies only to the original owner.

WARNING

The e-dirtbike is prohibited from being used in any form of competitive racing activities. If participation in such activities is verified, the company will no longer provide any warranty services. The user shall bear full responsibility for all consequences, including mechanical failures and personal injuries, arising from unauthorized racing use.

Warranty Limitations

This warranty does not cover failures or damages caused by any of the following circumstances:

1) Failure to operate the vehicle in accordance with the vehicle manual, or lack of proper maintenance and upkeep.

2) Installation, replacement, or use of non-genuine parts, or new/used parts not officially approved by the company.

3) Damage resulting from accidents, collisions, intentional vandalism, improper operation, abuse, negligence, participation in competitive racing, or other high-intensity riding activities.

4) Unauthorized modification, replacement, or repair of the motor, motor controller, or battery pack.

5) Continued use of the vehicle after it has displayed a fault code, leading to subsequent damage or performance issues.

6) Use of non-compliant chemicals.

7) Installation or use of electrical equipment not sold or approved by the company, resulting in damage or performance problems.

NOTE

This warranty is limited to end-user use and does not apply to purchases made for resale purposes. If the purchase is verified to be for resale, the company reserves the right to refuse or cancel the corresponding order and will not provide any warranty services.

Paid Replacement or Repair

All parts and labor costs associated with routine maintenance or part replacement resulting from use or aging are subject to payment, including but not limited to the following components: all vehicle plastic parts, tires, brake pads, brake discs, chains, handlebar grips, skid plates, all sprockets, all bearings, all seals, rubber pads, buffer pads, footpegs, and seat.

Maintenance Record

Date	Mileage	Vin	Motor Num	Fault Condition	Service Result	Sign