

**acibest**

# INSTRUCTION MANUAL

ELECTRIC BICYCLE



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# Table of Contents

1. SERVICE
2. IMPORTANT SAFETY GUIDELINES
3. POWER SUPPLY PRECAUTIONS
4. PRECAUTIONS FOR INSTALLATION
5. PACKAGE LIST
6. PRODUCT STRUCTURE
7. ASSEMBLY
8. OPERATION
9. TROUBLESHOOTING

# SERVICE

## IMPORTANT: FOR ACTBEST ONLY

For damaged or defective product, questions, replacement parts or any other service support, please contact our customer service department by the below methods:

[service@actbest.net](mailto:service@actbest.net)

Response Time: 24-48 hours Please email us with the order number so we can offer more help and reply as soon as possible during peak business hours.

**PLEASE DO NOT RETURN THIS PRODUCT WITHOUT ASKING OUR CUSTOMER SERVICE.**



# IMPORTANT SAFETY WARNING

- This manual include important safety performance information and service information. Please make sure you have read the following warning content before the first time you use our product.
- If you borrow your electric bicycle to other people, please let the user read this manual, it could help to decrease the risk of accident
- Please wear a suitable and safe helmet before riding, please wear the clothes with fluorescent and reflective stripes when you ride at night. Don't exceed speed limit, it is a main reason of traffic accident, we should abide by the traffic rule.
- Don't use metal or touch the charging hole on the bike, otherwise, the accident will be caused by the transient short circuit of the current.
- Zero starting, braking frequent, driving against the wind, carrying people or anything , insufficient air pressure on the tires . All of these will use much electric energy, and then reduce the endurance mileage. If you want the best endurance mileage, please do something as follows:
  1. Please use assist mode.
  2. On the premise of safety, don't brake frequently or use zero starting
  3. Don't overload.
  4. Before riding, please check the pressure of the tire and supply enough pressure.
- Our E-bike should avoid prolonged exposure to the sun or rain , avoid storage in places with high temperature or corrosive gas, a to void electroplating parts and paint surface by chemical corrosion and electrical parts damage, resulting in operational failure and accidents.
- When charging the electric bicycle, please make sure that there is no foreign matter in the charging port. Connect the charger to the bicycle first, then connect the AC power to prevent sparking.

- When the electric bicycle is not used for a long time, please turn off the main switch in time and charge it on time. Store the battery fully charged, don't store it in case of power loss, so as to avoid serious power loss of battery.

- Please be sure to abide by the traffic rules. At the same time, in an emergency, brake the rear wheel first, then brake the front wheel. When riding too fast, there is a danger of tipping over if you brake the front wheel suddenly, please ride carefully.

### ***One-handed riding is prohibited!***

#### **Disclaimer:**

After riding, please store the bike in a place without sunlight and rain, not in residential buildings; always check the motor and brake; check the screws and the places that need to be fastened regularly, and tighten them regularly.

The front and rear wheels of the vehicle should be located in the center of the front fork or frame;

Always check the tire for scratches, cracks or excessive wear. The inner tube and the valve should be perpendicular to the wheel hub. Damaged or excessively worn tires need to be replaced immediately. Please find a professional technician to replace your tire. If your tire accidentally punctures and leaks, please contact a professional technician for repair or replacement.

#### ***Maintenance and care:***

For the product model, specifications or related information mentioned in this User Manual, the company reserves the right of modification and final interpretation; the functions of the specific model mentioned in this User Manual are only applicable to that specific model;

The product models, specifications, or related information mentioned in the User Manual may be changed without notice; without prior written permission of the company, the User Manual may not be copied, modified, reproduced, transmitted, or published in any form. Please read the Manual carefully before using the product, and operate in accordance with the Manual, otherwise the company will not be liable for product damage or personal or property damage caused by improper use or error.



## **SAFETY CHECKLIST**

Before first ride, it is important to carry out the following safety checks:

### 1. Brakes

Ensure front and rear brakes work properly.

Ensure brake shoe pads are not over worn and are correctly positioned in relation to the rims.

Ensure brake control cables are lubricated, correctly adjusted and display no obvious wear.

Ensure brake control levers are lubricated and tightly secured to the handlebar.



### 2. Wheels and tires

Ensure tires are inflated to within the recommended limit as displayed on the tire sidewalk.

Ensure tires have tread and have no bulges or excessive wear.

Ensure rims run true and have no obvious wobbles or kinks.

Ensure all wheel spokes are tight and not broken.

Check that axle nuts are tight. If your bicycle is fitted with quick release axles, make sure locking levers are correctly tensioned and in the closed position.



### 3. Steering

Ensure handlebar and stem are correctly adjusted and tightened, and allow proper steering.

Ensure that the handlebars are set correctly in relation to the forks and the direction of travel

Check that the headset locking mechanism is properly adjusted and tightened.

If the bicycle is fitted with handlebar end extensions, ensure they are properly positioned and tightened.





#### 4. Chain

Ensure chain is oiled, clean and runs smoothly.  
Extra care is required in wet or dusty conditions.

#### 5. Bearings

Ensure all bearings are lubricated, run freely and display no excess movement, grinding or rattling.  
Check headset, wheel bearings, pedal bearings and bottom bracket bearings.



#### 6. Cranks and Pedals

Ensure pedals are securely tightened to the cranks.  
Ensure cranks are securely tightened to the axle and are not bent.

#### 7. Derailleurs

Check that the front and rear mechanisms are adjusted and function properly.  
Ensure shift and brake levers are attached to the handlebar, shift and brake.  
Ensure derailleurs, shift levers and shift and brake cables are properly lubricated.



#### 8. Frame and Fork

Check that the frame and fork are not bent or broken either. If bent or broken, they should be replaced.

## 9. Accessories

Ensure that all reflectors are properly fitted and not obscured.

Ensure all other fittings on the bike are properly and securely fastened, and functioning.



## 10. Motor Drive Assemble and Throttle

Ensure all motor drive components are correctly mounted and functioning properly.

## 11. Battery Pack

Ensure the batteries are in good operation condition and kept fully charged.



# POWER SUPPLY PRECAUTIONS

	Parameter	standard Edition
<b>Dimensions</b>	Main Material	Aluminum alloy
	Size	56.5*11*27.1 inches
	Pedal Distance from the Ground	4 inches
	Tire Size	20"X3.0" inches
	Package Size	66.9*41.3*44.4 inches
<b>performance parameter</b>	Net Weight	69.4lb
	Maximum Load	330lb
	Best Riding Speed	20MPH
	Maximum Speed	25MPH
	Range	30-40 Miles (throttle mode) 40-60 Miles (pedal assist)

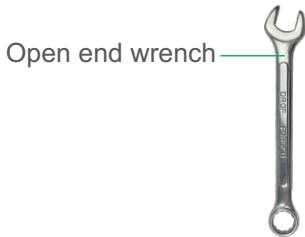
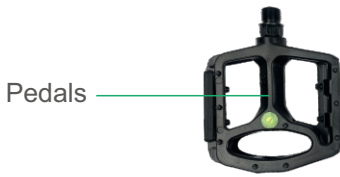
	Parameter	standard Edition
<b>performance parameter</b>	Maximum Climbing Angle	30 degrees
	Operating Temperature	-10 ~ 45 degrees
	Waterproof Level	Ip54
<b>Electrical specifications</b>	Battery Type	lithium-ion power battery
	Battery Capacity	15AH
	Rated Battery Voltage	48V
	Motor Line Type	Power
	Motor Rated Voltage	48V
	Motor Rated Power	750W
	Charging Voltage	DC48V/3A
	Input Voltage	AC110V
Charging Time	5~6 hours	
<b>Features</b>	Display	Multi-function LCD Screen
	Front Light	Yes
	Braking Method	Front and Rear disc brakes
	Speed Transmission	SHIMANO 7 SPEEDS

**Remarks:** Electricity, load, tire pressure, road environment, chain and wheel axle lubrication, etc. will affect the maximum speed; the range refers to the data obtained from continuous testing from fully charged to completely exhausted with a riding speed of 15-25MPH and a load of 60kg on a flat hardened road; driving habits, temperature, load, tire pressure, road environment and other factors will affect the range.

# PRECAUTIONS FOR INSTALLATION

**▲ Important Reminder:** Before installation, please confirm that all product components and assembly parts are present and accounted for. Please check the product structure and make sure there are no missing parts or components before assembly. (Check the following PACKAGE LIST & PRODUCT STRUCTURE)

## PACKAGE LIST



*Accessories list, as shown above*

# PRODUCT STRUCTURE



- |                   |                   |                            |
|-------------------|-------------------|----------------------------|
| 1 Handle          | 7 Brake disc      | 13 Seat tube               |
| 2 Display         | 8 Folding system  | 14 Seat post quick release |
| 3 Folding system  | 9 Frame           | 15 Rearrack                |
| 4 Headlight       | 10 Shock absorber | 16 Brake disc              |
| 5 Suspension fork | 11 Saddle         | 17 Motor                   |
| 6 Front brake     | 12 Charge port    | 18 Rear derailleur         |

# ASSEMBLY

Take out the bike from the package box and place it slightly on the floor.

Lift up the stem and lock the lower quick-release clamp to fix it in place.



- Open the clamp on the top of the stem and place the handlebar into the clamp. (Please make sure the handlebar is straight in line.)
- Adjust the handlebar to a comfortable angle and close the clamp.



Insert the quick-release pin to the clamp to fix the handlebar.



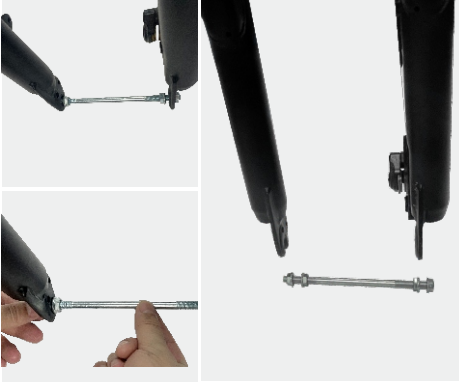
Take out the front fender and headlight, and install them together as below.

Use the allen wrenches to fix and screw the bolt in order and make sure the headlight and fender are in place.





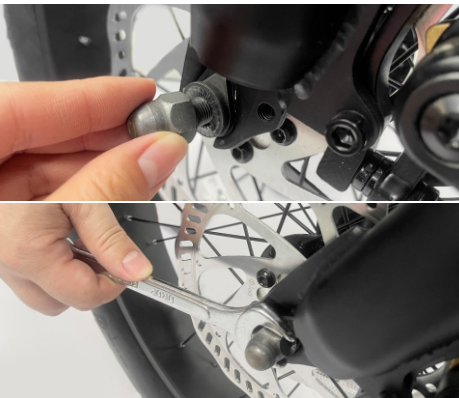
Remove the protective screw pole from the front fork.



- Remove the plastic protective cap from the front wheel.
- Attach the front wheel to the front fork.



Place the screw nuts in order and use the wrench to tighten them.



Put down the kickstand to make the bike stable.

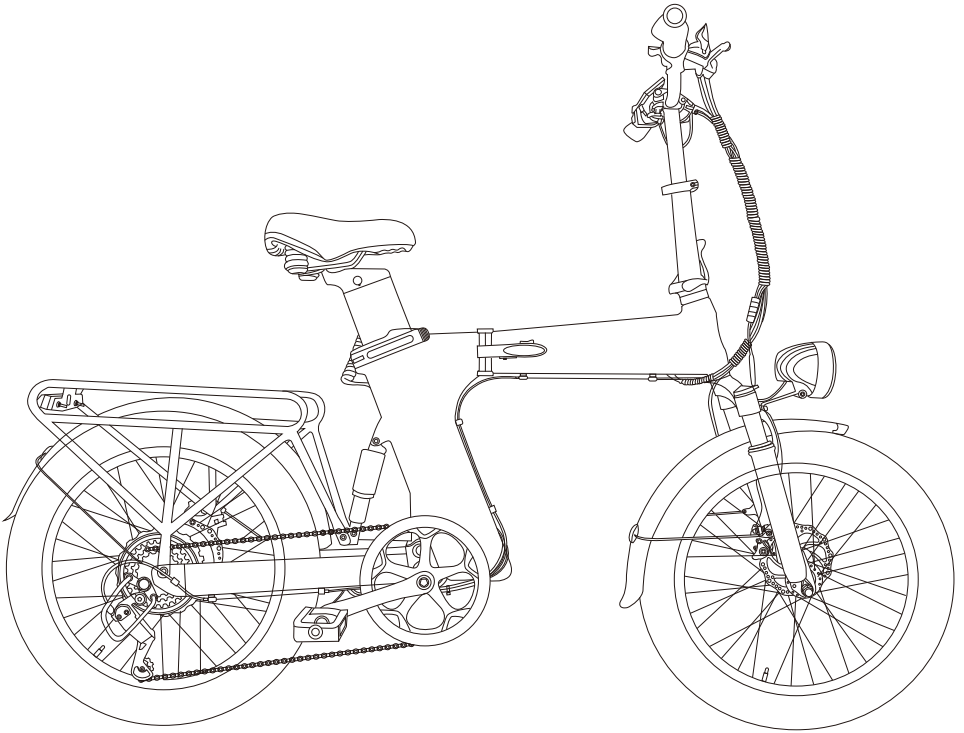


- Tighten the right pedal clockwise.
- Tighten the left pedal counterclockwise.(Use a wrench to rotate the pedal if possible.)



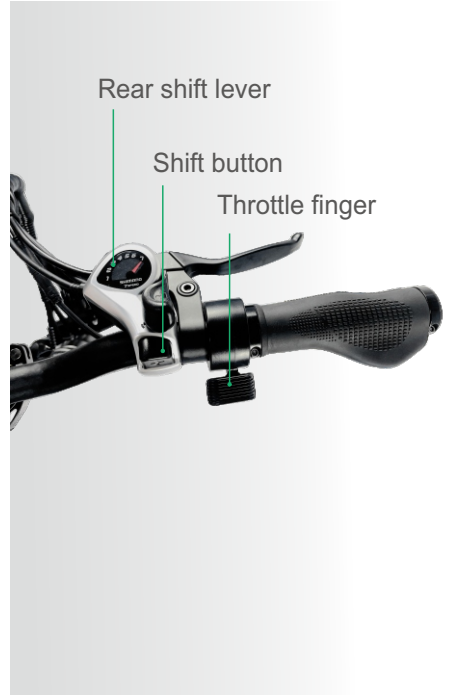
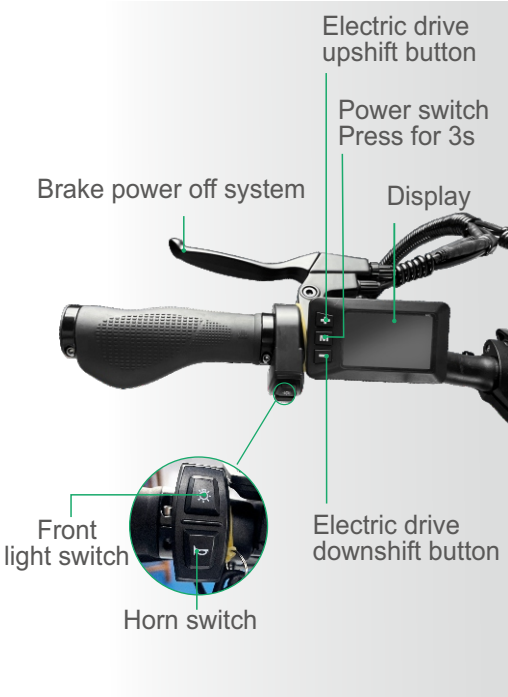
- Insert the seat tube battery to the frame and fix it by locking the quick-release clamp.
- Connect the power cable to the charging port on the seat tube battery.



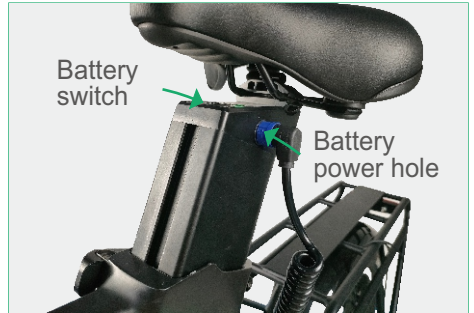
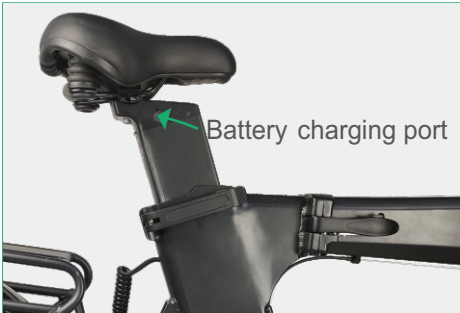


The state of the bicycle after the installation is completed, as shown in the figure above.

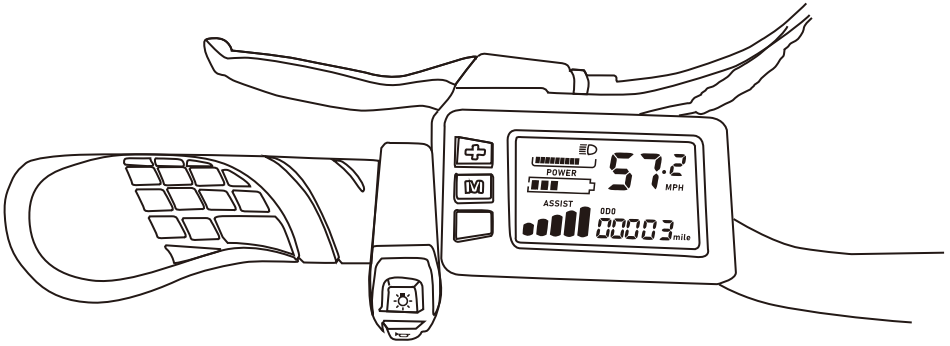
# OPERATION



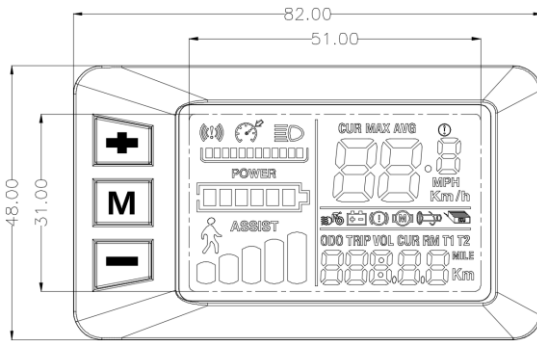
## Handlebar Area



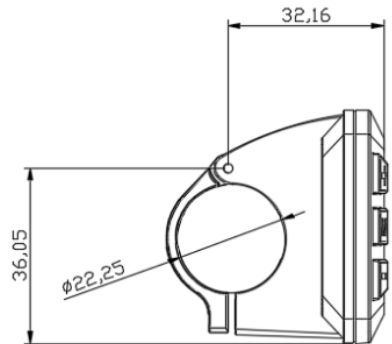
## Display user instructions



LCD Size and Material



Size



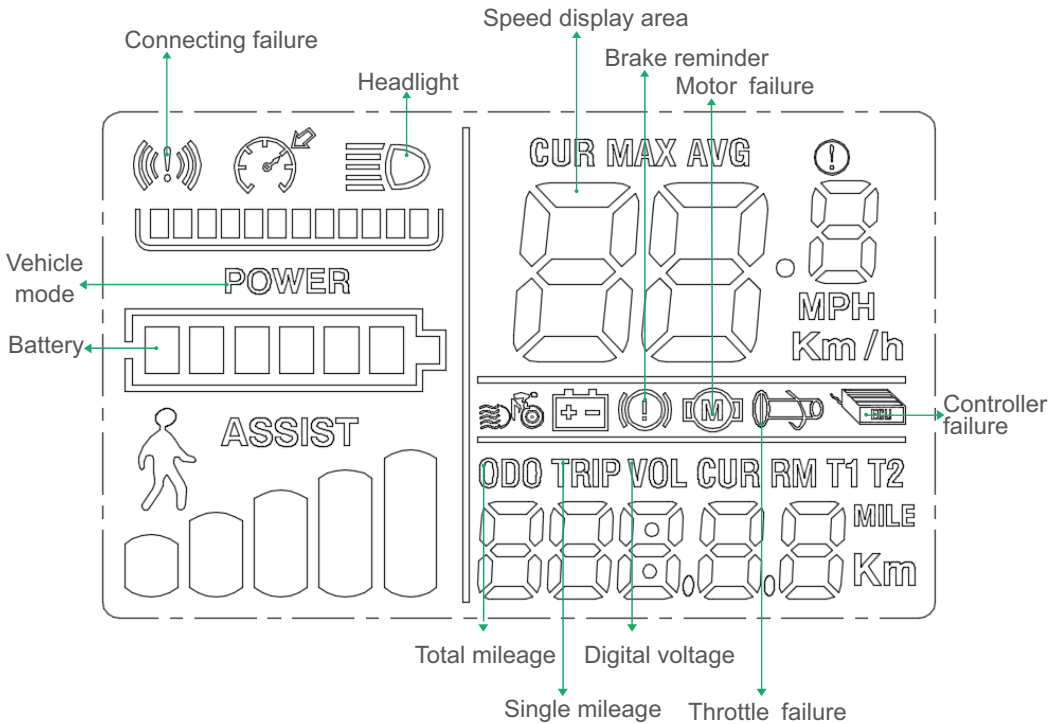
Size

The product shell is ABS, and the liquid crystal transparent window is imported high-hardness acrylic, and the hardness value is equivalent to tempered glass.

<b>M</b>	Power Button	<ol style="list-style-type: none"> <li>1. Power on and off</li> <li>2. Function view</li> </ol>
<b>+</b>	<b>[+]</b> Button	<ol style="list-style-type: none"> <li>1. Parameter adjustment</li> <li>2. Turn on and off the lights</li> <li>3. Menu operation</li> </ol>
<b>-</b>	<b>[-]</b> Button	<ol style="list-style-type: none"> <li>1. Parameter adjustment</li> <li>2. Turn on/off the boost function</li> <li>3. Menu operation</li> </ol>

## Function Description:

### Display Information



**All contents of the display**

### ***Error code of the display***

<b>Error code (hexadecimal)</b>	<b>Status</b>	<b>Solution</b>
E06	Battery undervoltage	it's time to charge the battery
E07	Motor failure	Replace the motor
E08	Throttle failure	Replace the throttle
E09	Controller failure	Replace the controller
E10	Communication reception failure	replace instrument
E11	Communication sending failure	Replace the controller

## ***Removable battery with two charging methods***

Two charging methods are available:

1. Charging directly through the charging port on the bike,
2. charging the battery externally by unlocking it with a key and removing it from the seat.

***Warning: Stick to the IMPORTANT SAFETY(P02)***



Removing the battery: Insert the key, twist it to the right and pull the battery out .  
After the battery is removed, it can be charged alone with the charger.



# TROUBLESHOOTING

Problem	Possible Cause	Remedy
<b>Gear shifts not working properly</b>	-Derailleur cables sticking/stretched/damaged	-Lubricate/tighten/replace cables
	-Front or rear derailleur not adjusted properly	-Adjust derailleurs
	-Indexed shifting not adjusted properly	-Adjust indexing
<b>Slipping chain</b>	-Excessively worn/chipped chainring or freewheel sprocket teeth	-Replace chainring, sprockets and chain
	-Chain worn/stretched	-Replace chain
	-Stiff link in chain	-Lubricate or replace link
	-Non-compatible chain/chainring/freewheel	-Seek advice at a bicycle shop
<b>Chain jumping off freewheel sprocket or chainring</b>	-Chainring out of true	-Re-true if possible, or replace
	-Chainring loose	-Tighten mounting bolts
	-Chainring teeth bent or broken	-Repair or replace chainring/set
	-Rear or front derailleur side-to-side travel out of adjustment	-Adjust derailleur travel
<b>Constant clicking noises when pedaling</b>	-Stiff chain link	-Lubricate chain/Adjust chain link
	-Loose pedal axle/bearings	-Adjust bearings/axle nut
	-Loose bottom bracket axle/bearings	-Adjust bottom bracket
	-Bent bottom bracket or pedal axle	-Replace bottom bracket axle or pedals
	-Loose crankset	-Tighten crank bolts

<p><b>Grinding noise when pedaling</b></p>	<ul style="list-style-type: none"> <li>-Pedal bearings too tight</li> <li>-Bottom bracket bearings too tight</li> <li>-Chain fouling derailleurs</li> <li>-Derailleur jockey wheels dirty/binding</li> </ul>	<ul style="list-style-type: none"> <li>-Adjust bearings</li> <li>-Adjust bearings</li> <li>-Adjust chain line</li> <li>-Clean and lubricate jockey wheels</li> </ul>
<p><b>Freewheel does not rotate</b></p>	<ul style="list-style-type: none"> <li>-Freewheel internal pawl pins are jammed</li> </ul>	<ul style="list-style-type: none"> <li>-Lubricate. If problem persists. replace freewheel</li> </ul>
<p><b>Brakes not working effectively</b></p>	<ul style="list-style-type: none"> <li>-Brake blocks worn down</li> <li>-Brake blocks/rim greasy, wet or dirty</li> <li>-Brake cables are binding/ stretched/damaged</li> <li>-Brake levers are binding</li> <li>-Brakes out of adjustment</li> </ul>	<ul style="list-style-type: none"> <li>-Replace brake blocks</li> <li>-Clean blocks and rim</li> <li>-Clean/adjust/replace cables</li> <li>-Adjust brake levers</li> <li>-Center brakes</li> </ul>
<p><b>When applying the brakes they squeal/squeak</b></p>	<ul style="list-style-type: none"> <li>-Brake blocks worn down</li> <li>-Brake block toe-in incorrect</li> <li>-Brake blocks/rim dirty or wet</li> <li>-Brake arms loose</li> </ul>	<ul style="list-style-type: none"> <li>-Replace blocks</li> <li>-Correct block toe-in</li> <li>-Clean blocks and rim</li> <li>-Tighten mounting bolts</li> </ul>
<p><b>Knocking or shuddering when applying brakes</b></p>	<ul style="list-style-type: none"> <li>-Bulge in the rim or rim out of true</li> <li>-Brake mounting bolts loose</li> <li>-Brakes out of adjustment</li> <li>-Fork loose in head tube</li> </ul>	<ul style="list-style-type: none"> <li>-True wheel or take to a bike shop for repair</li> <li>-Tighten bolts</li> <li>-Center brakes and/or adjust brake block toe-in</li> <li>-Tighten headset</li> </ul>

<b>Wobbling wheel</b>	<ul style="list-style-type: none"> <li>-Axle broken</li> <li>-Wheel out of true</li> <li>-Hub comes loose</li> <li>-Headset binding</li> <li>-Hub bearings collapsed</li> <li>-QR mechanism loose</li> </ul>	<ul style="list-style-type: none"> <li>-Replace axle</li> <li>-True wheel</li> <li>-Adjust hub bearings</li> <li>-Adjust headset</li> <li>-Replace bearings</li> <li>-Adjust QR mechanism</li> </ul>
<b>Steering not accurate</b>	<ul style="list-style-type: none"> <li>-Wheels not aligned in frame</li> <li>-Headset loose or binding</li> <li>-Front forks or frame bent</li> </ul>	<ul style="list-style-type: none"> <li>-Align wheels correctly</li> <li>-Adjust/tighten headset</li> <li>-Take bike to a bike shop for possible frame realignment</li> </ul>
<b>Frequent punctures</b>	<ul style="list-style-type: none"> <li>-Inner tube old or faulty</li> <li>-Tire Tread/casing worn</li> <li>-Tire unsuited to rim</li> <li>-Tire not checked after previous puncture</li> <li>-Tire pressure too low</li> <li>-Spoke protruding into rim</li> </ul>	<ul style="list-style-type: none"> <li>-Replace Inner tube</li> <li>-Replace tire</li> <li>-Replace with correct tire</li> <li>-Remove sharp object embedded in tire</li> <li>-Correct tire pressure</li> <li>-File down spoke</li> </ul>

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