# HAVELE CO.

# **E-BIKE OWNER'S MANUAL**

THIS MANUAL CONTAINS IMPORTANT SAFETY INFORMATION. PLEASE READ AND KEEP FOR FUTURE REFERENCE.



# HAVE N BICYCLE CO.

Motorized bicycles are new to most riders so in the interest of safe cycling make sure you read, understand, and follow the instructions in this manual.

This manual contains important safety, signal words such as DANGER, WARNING, CAUTION, IMPORTANT, and NOTE or NOTICE. These are important signal words telling you to pay special attention to that text as rider safety is involved.

### f A This symbol will appear in areas of critical rider safety.

**A DANGER** and **WARNING**: Pay special attention to these since failure to do so could result in serious injury or death to the rider or others.

**CAUTION:** If not followed these instructions could result in injury or mechanical failure or damage to the bicycle.

**NOTE** or **NOTICE** or **IMPORTANT:** These specify something that is of special interest. Read and pay close attention as your safety and that of your bicycle are involved.

**IMPORTANT:** Read the **BEFORE RIDING** section and check that all parts are installed and working as per this manual. If you understand how the bicycle operates, you will get the best performance. When you read this manual, compare the illustrations to the bicycle. Learn the location of all the controls and parts as well as how they work. **KEEP THIS BOOK FOR FUTURE REFERENCE.** 

**CAUTION** Before you ride the bicycle, check the brakes and other parts of the bike. Make sure all parts are assembled correctly, securely tightened and working properly. Take your first ride in a large, open, level area away from traffic. If you have a problem, consult your dealer.





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# HAVE EN BICYCLE CO.

## PREFACE

WARNING: Electric bikes are fun to ride but can be dangerous to use. The user or consumer assumes all risk of personal injuries, damage, or failure of the bicycle or system and all other losses or damages to themselves and others and to any property arising as a result of using the bicycle.

### DO NOT DISASSEMBLE, MODIFY OR REPLACE ELECTRICAL PARTS. If you need to change any parts, please buy our standard parts from your local dealer or contact us if parts are not available to you.

NOTE: YOUR INSURANCE POLICIES MAY NOT PROVIDE COVERAGE FOR ACCIDENTS INVOLVING THE USE OF THIS BICYCLE. TO DETERMINE IF COVERAGE IS PROVIDED YOU SHOULD CONTACT YOUR INSURANCE COMPANY OR AGENT.

Your bike has been delivered to you fully assembled. If parts of your bike have not been installed, please consult your dealer. This manual contains important safety, performance and service information. The purpose of this Owner's Manual is to help you use your bike safely in the manner it is intended and allow you to enjoy the benefits it offers for many years to come. Please read it before you take the first ride on your new bicycle, and keep it for reference.

Additional safety, performance and service information for specific components such as suspension or pedals on your bicycle, or for accessories such as helmets or lights that you purchase, may also be available. Make sure that your dealer has given you all the manufacturers' literature that was included with your bicycle or accessories.

If you have any questions or do not understand something, take responsibility for your safety and consult with your dealer or the bicycle's manufacturer.

IMPORTANT: This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please see your dealer for all service, repairs or maintenance. Your dealer may also be able to refer you to classes, clinics or books on bicycle use, service, repair or maintenance.



ALWAYS WEAR A PROPERLY FITTED HELMET WHEN YOU RIDE YOUR BICYCLE. DO NOT RIDE AT NIGHT. AVOID RIDING IN WET CONDITIONS.

NOTE: Max weight of rider+luggage+bike = 265lbs/120kg





# PREFACE

### **RESPONSIBILITY OF THE OWNER!**

**IMPORTANT:** Reading and following the information and instructions in this manual are essential to the ability of the owner or any other persons allowed to use this bicycle in order to ride safely.

- 1. It is the responsibility of the owner or in the case of a younger rider the parents of the rider to be certain all assembly instructions have been followed, even if the bike has been assembled by the seller or a professional assembly company.
- 2. Brakes are essential to safety. Be sure they are checked and working properly before each use. Remember that any mechanical system changes condition during use and must be maintained and checked before each use.
- 3. Rules for bicycle use (bicycle laws) vary from location to location so be certain the rider knows and understands the rules that apply to bicycle usage in all areas where the bicycle will be used. Wearing a helmet, light or reflective clothing, using lights and reflectors are examples of rules which may exist and which make sense as rider safety precautions at all times.
- 4. Know how to operate the bicycle and all equipment on it before first use and be certain anyone allowed to use the bike knows how to properly and safely use the bike as well.
- 5. There are many different types of bicycles and often these types are designed for different uses. Make sure you know what type unit you have and do not exceed its service limitations. Be sure you check and understand the bicycle classifications set in this manual, including size of the unit that is proper for the rider to insure good control during use. Riders who are too small or large may have control problems. Do not overload a unit with a rider that is too heavy or too large, and do not attempt to carry extra passengers, packages or loads on the bicycle. Do not use street bikes for off road riding.
- 6. Your electric bike is water-resistant, but must be properly maintained to preserve this condition. Please do not submerge the bicycle or any electric components in water. Water entering electric components can cause a short circuit and damage the electric components with possible injury to the rider and others.
- 7. The battery's performance can be effected by its environment. Generally speaking, battery's discharge performance is better in a higher temperature. Electric power will drop by more than 1/3 when the temperature is below 32°F (0°C). Thus, this e-bike's riding distance per charge will become shorter in winter or cold areas. It returns to normal / optimal when the temperature is higher than 68°F (20°C).
- 8. Do not put any metal objects in charge hole or battery circuit, it may cause a short circuit, start a fire, or cause an explosion with personal injury or property damage.



# HAVE EN

# PREFACE

**CAUTION:** For your safety you must carefully read this manual and follow its instructions. Your bicycle may come with additional instruction sheets that cover features unique to your bike. Please ensure that you read and become familiar with their contents and retain them with this manual for future reference. Remember bicycles, in most areas, are subject to the same laws, rules, and regulations as motor vehicles.

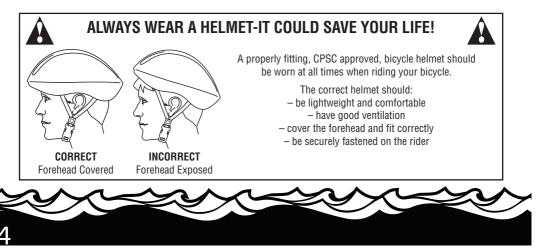
Always wear a CPSC approved helmet when riding your bike.

Learn and follow local and state traffic use laws.

Any major service or adjustments on your bike not covered in this manual should be carried out by your bicycle dealer. If you wish to make adjustments yourself, this manual contains important tips on how to do it.

**CAUTION:** Any adjustments you make are entirely at your own risk. Do **NOT** use your bike for freestyle and stunt riding, jumping or competitive events. Even if you are riding a mountain bike, you should know that off-road use or any similar activities can be dangerous, and you assume the risk for personal injury, damages or losses incurred from such use. Do not ride your bike when any part is damaged or not working properly. **You must, for your safety and the safety of other users, consult your bicycle dealer for any questions on repairs or maintenance.** 

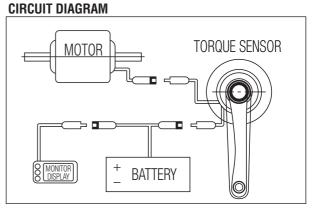
WARNING: As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components react to wear or stress fatigue in different ways. As your bicycle ages, you should inspect it more frequently to look for deformed, cracked, bent, or loose components. Such conditions may lead to sudden failure. This may possibly cause injuries to the rider. If something is cracked or broken - take the bicycle to your dealer.





# PARTS IDENTIFICATION

- 1. Handlebar
- 2. Handlebar Stem
- 3. Monitor Display
- 4. Headset
- 5. Front Brake
- 6. Fork
- 7. Pedal
- 8. Pedal Crank Arm
- 9. Torque Sensor
- 10. Chain
- 11. Rear Derailleur
- 12. Motor
- 13. Wheel
- 14. Tire
- 15. Rear Brake
- 16. Saddle
- 17. Frame
- 18. Battery (inside frame)
- 19. Charging Port





1. **WARNING - ON AND OFF ROAD CONDITIONS:** The condition of the riding surface is very important to your safety. If the surface is wet, or has sand, leaves, small rocks or other loose debris on the surface where you plan to ride, carefully decrease the speed of the bicycle and ride with extra caution. It will take a longer time and more distance to stop. Apply the brakes sooner and with less force. Always apply the rear brake first allowing time and distance for it to take effect. Then follow by cautiously applying the front brake, in order to maintain control of the bicycle. Rapid front brake application first may cause a front pitch over or fall. Learn to use your brakes properly under controlled conditions until you learn proper braking under all road conditions.

**2. NOTICE:** State and federal regulations require a full set of reflectors. Some state and local laws may require that your bike be equipped with a warning device, such as a horn or bell and most states require a light. The manufacturer and many legal authorities **DO NOT** approve or encourage riding at night. Vision is quite limited at dawn, dusk and at night for bike riders, motorists and by-standers. If you must ride at night, take extra precautions, use front and rear lights, wear flashers on your arms, wear light-colored clothing, and plan your route to ride in well lighted areas avoiding heavy traffic areas.

**3. NOTE:** Always wear shoes when riding a bicycle and avoid loose fitting clothes. Wear a cuff band or trouser clip to keep pants or other loose clothing from getting caught in the chain wheel. Long sleeves, long pants, gloves, eye protection, a CPSC approved helmet, elbow and knee pads are recommended.

A Helmet use is required by law in many states and is always a good idea for your safety.

**4. CAUTION: WET WEATHER WARNING:** Check your brakes frequently. The ability to stop is critical to your safety. Roads are slippery in wet weather so avoid sharp turns and allow more distance for stopping. Brakes become less efficient when wet. Leaves, loose gravel and other debris on the road can also lengthen stopping distance. If at all possible, do not ride in wet weather. Vision and control are impaired, creating a greater risk of accidents and injury.

**5. CAUTION:** A bicycle rider's best defense against accidents is to be alert to road conditions and traffic in the area. Do not wear anything that restricts your vision or your hearing.

6. When riding, ALWAYS WEAR A CPSC APPROVED BIKE HELMET. It may save your life.

**7.** Obey all traffic regulations. Most traffic regulations apply to bike riders as well as automobile operators. Observe all state and local traffic regulations, signs and signals. Check with your local police station on bicycle licensing and inspection, and where it is legal to ride your bike.



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**8.** Keep to the **RIGHT SIDE** of the road. Follow the traffic flow in a straight line close to the curb. Watch out for opening car doors and cars moving in and out of traffic. Use caution at intersections.

**9.** Never carry passengers. This is dangerous and it makes the bicycle harder to control. Never carry anything that can inhibit your ability to control the bicycle or see the road.

**10.** When riding in pairs or in larger groups, form a single line along the right side of the road. Set up a sensible distance between riders. Don't follow too closely.

**11.** Always be alert. Animals or people may dart in front of you. Give pedestrians the rightof-way. Don't ride too close to pedestrians, and don't park your bicycle where it can get in the way of foot/vehicle traffic.

12. Be careful at all intersections. Slow down and look both ways before crossing.

**13.** Use hand signals. Always let other drivers and pedestrians know what you are going to do. Signal 100 ft. before turning unless your hand is needed to control the bike.

**14. WARNING: NIGHT TIME OPERATION:** We do **NOT** recommend riding your bike at night. If you have an emergency that requires you to ride at night you must have proper lights and reflectors. NEVER ride at night without a helmet, taillight, a white front reflector, a red rear reflector, pedal reflectors and white wheel reflectors. You must be able to clearly see the surface where you are riding and be seen by others.

**15.** Never hitch rides. Never hold onto moving vehicles while riding. Never stunt ride or jump on your bike.

**16. ON AND OFF ROAD OPERATION:** Avoid the following road hazards: drain grates, pot holes, ruts, soft road edges, gravel, leaves (especially when they are wet), uneven pavement, railroad crossings, manhole covers, curbs, speed bumps, puddles, and debris as all have an effect on your riding and may result in loss of control. Adjust your speed and the way you use your brakes if you must ride in such areas.

**17.** If any components becomes loose while riding, **(STOP!!)** immediately and tighten, or bring to a mechanic for repair.



IAVEN

Just a minute spent before each ride can significantly improve your safety and the enjoyment of your ride. So, **EACH TIME** before you ride make a habit of performing the following safety checks:

- Stand in front of the bicycle facing rearward and hold the front wheel securely between your legs. Try to twist the handlebar and verify that they do not move. Then pull the handlebars up, trying to lift the bike. There should be no movement.
- Try to push the front wheel from side to side and confirm that it feels tight and will not wobble. Lift the front wheel up by the handlebars and strike the wheel downward with the heel of your hand to confirm that it is securely attached to the wheel. Spin the front wheel and confirm that it does not wobble or contact the fork or brake pads.
- Try to lift/push down on and twist the seat to confirm it is tight.
- Look at the connection of the pedals to the crank arm. You should not see pedal screw threads and the pedal should feel firm and be parallel to the ground.
- Apply your brake(s) and make sure they feel firm to the touch, and then spin the wheel(s). Apply the brakes. The brakes should stop the wheel(s).
- Check to be sure that the fenders and accessories (if equipped) are firmly attached and will not contact any moving parts. Make sure all reflectors are in position and not broken.

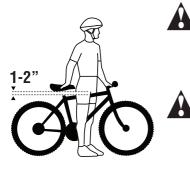
Now, put on your **BICYCLE SAFETY HELMET** and enjoy your ride. Your safety is well worth *just a minute*. Also, be sure to read and follow the warnings and instructions in this manual.





### **CORRECT FRAME SIZING:**

When selecting a new bicycle, the correct choice of frame size is a very important safety consideration. The ideal clearance will vary between types of bicycles and rider preference. This makes straddling the frame when off the saddle easier and safer in situations such as sudden traffic stops. Women can use a man's bicycle to determine the correct size women's model.



THERE SHOULD BE A CLEARANCE OF NO LESS THAN 1-2 INCHES BETWEEN THE GROIN AREA OF THE INTENDED RIDER AND THE TOP TUBE OF THE BICYCLE, WHILE THE RIDER STRADDLES THE BICYCLE WITH BOTH FEET FLAT ON THE GROUND.

THE SEAT POST "MINIMUM INSERTION" / "MAXIMUM HEIGHT" MARK SHOULD NOT BE VISIBLE WHEN THE SEAT POST IS INSERTED INTO THE SEAT MAST OF THE BIKE. DO NOT RAISE THE SEAT POST BEYOND THIS MARK. THE SEAT POST OR FRAME MAY BREAK CAUSING YOU TO LOSE CONTROL AND FALL. ALWAYS CHECK TO MAKE SURE THE SEAT POST ADJUSTING MECHANISM IS TIGHTENED SECURELY BEFORE RIDING.



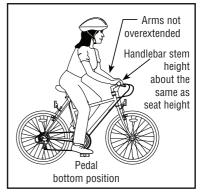
# HAVE END.

## BEFORE RIDING

### **RIDING POSITION:**

### SADDLE HEIGHT

In order to obtain the most comfortable riding position and offer the best possible pedaling, correct saddle height should not allow leg strain from overextension, and the hips should not rock from side to side when pedaling. While sitting on the bicycle with one pedal at it's lowest point, place the ball of your foot on the pedal. The correct saddle height will allow the knee to be slightly bent in this position.



### REACH

To obtain maximum comfort, the rider should not over extend his or her reach when riding. There should be a slight bend in the rider's elbows. Refer to the section regarding seat and seat posts to learn how to adjust the seat post height.





# OPERATING PROCEDURES

### **START YOUR E-BIKE:**

Turn on the battery using the on/off switch. The switch is located on the left side of the frame - opposite the charging port.

Then press the ON/OFF BUTTON on the monitor display for 3 seconds. The monitor display will turn on.

Once the bike and monitor display are ON, verify that the Battery Charge Meter shows sufficient charge for your ride. If the battery does not have sufficient charge for your ride, please refer to instructions on how to charge the battery.

Be sure to turn the battery power off when not in use or while recharging.

### **START YOUR RIDE:**

Once you begin riding, you can choose the appropriate assistance level using the INCREASE MOTOR ASSIST  $[\blacktriangle]$  or DECREASE MOTOR ASSIST  $[\blacktriangledown]$  buttons on your display. The motor will assist you once you start pedaling. There are 6 levels of assistance on the display.

### **NOTES DURING RIDING:**

Frequent braking and again accelerating will deplete the battery faster. The motor will stop assisting once you stop pedaling. Your e-bikes rated maximum load is 265lbs (120kg) including the rider, do not overload.



WARNING: When stopped, turn off the battery in case the crank arm keeps turning while you push the bike. The motor would start suddenly which may lead to an accident.

FOR YOUR SAFETY, PLEASE MAINTAIN AND CLEAN YOUR E-BIKE REGULARLY.

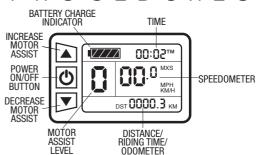




# OPERATING

### **MONITOR DISPLAY:**

Your e-bike is equipped with an LCD meter that monitors motor assist, speed, odometer, trip distance, riding time, and battery energy level. To turn the meter on, make sure the battery is charged in the e-bike and the on/off switch is in the on position.



PROCEDURES

Press the power on/off button on the button selector located near the left grip on the handlebars to turn the meter on. You can adjust the motor assist power level to have more power by hitting the INCREASE MOTOR ASSIST  $[\blacktriangle]$  button and can move to a lower level power by hitting the DECREASE MOTOR ASSIST  $[\checkmark]$  button.

When first riding your e-bike, you will notice that when the motor assist function is activated, the motor will supply power when you turn the pedals forward.

In motor assist level 1, you will get assistance at around 20% of the maximum power from the motor. In level 5, you will get 100% assistance from the motor. Motor assist level 0 will operate without assistance. Experiment with the different levels of motor assist to become familiar with how much power you want. You will need different levels of assist for different riding conditions.

The bars of the battery charge indicator display the amount of power remaining in the battery. The more bars that are displayed, the more battery power available.

After 5 minutes of inactivity, the LCD Meter will automatically turn off to conserve power. When not riding the bike, you can turn off the meter by holding down the ON/OFF BUTTON for several seconds.

### FUNCTIONS OF THE MONITOR DISPLAY:

- · Battery charge indicator
- Choosing motor assistance level from 0 5
- Speedometer / Odometer
- On/Off Button
- · Backlight function
- Cruise Control





# OPERATING PROCEDURES

### HOW TO CHARGE THE BATTERY:

Park the e-bike where an electric socket is available. With the battery off, insert the round charging plug of the charger into the charging hole on your e-bike frame, and then plug the other end into a standard 100-240 volt AC outlet. When the light on charger turns red, the battery is charging. When the charging light turns green, the charging is finished and the battery is fully charged.

It takes about 3-5 hours to fully charge an empty battery. When the charging is finished, unplug the electrical plug first, then unplug the charging plug connected to the e-bike, in that sequence.

This is a lithium battery, it has no memory effect, so you can charge or discharge anytime. In normal circumstances, the battery can be used for more than 2 years.

### **NOTES FOR CHARGING:**

- Make sure to charge your bike before rides. Do not attempt to ride with too little power available.
- PLEASE CHARGE THE BATTERY IN A DRY, WELL VENTILATED AREA WITH ADEQUATE POWER SUPPLY.
- To protect the battery, only use the original charger. Please do not use this charger to charge other e-bike batteries.
- The charger contains high-voltage circuit. Do not dismantle it.
- Only charge the battery while it is switched off.
- Please avoid any liquid or foreign substance from entering the charger. Please protect the charger from impact. Never let it drop or drop objects onto it.
- Do not cover the charger when it is charging.
- Please keep and use our charger in a dry and ventilated area.
- During charging, if the charger emits any smell or it becomes excessively hot, please stop charging and send it to your dealer for inspection and repair.





# OPERATING PROCEDURES

### SHIFTING GEARS:

Your bike is equipped with 7 speeds. The first gear is for easier and uphill pedaling, and the last gear is for maximum speed on level or downhill terrain. Change gears only while pedaling. The rear wheel contains seven chain sprockets. When the chain is around the largest sprocket, you are in 1st gear, or the lowest gear. The high gear will have the derailleur positioned so that the chain is directed around the smallest gear. Every position on the gear selector should cause a gear change. Adjustments require fine tuning and should only be made by a qualified technician.

**NOTE:** Avoid changing gears very rapidly from first gear to the last gear or vice versa. If you change multiple gears too quickly, you could have the chain come off the front sprocket.



WARNING: ONLY SHIFT GEARS WHILE PEDALING! Shifting gears while using only the motor assist can cause the chain to become loose or come off the bike.





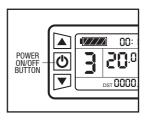
Your new Univega e-bike is equipped with an LCD Monitor Display. This monitor display is powered by the bike's battery. The bike must be powered on for the monitor display to function.

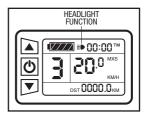
### TURNING THE MONITOR DISPLAY ON:

To power on the monitor display, press and hold the ON/OFF BUTTON. To turn the monitor display off, press and hold the ON/OFF BUTTON. **PLEASE NOTE: When the bike is not used for 5 consecutive minutes, the monitor display and the power supply will automatically shut off.** 

# TURNING ON THE MONITOR DISPLAY'S BACKLIGHT AND BIKE'S HEAD/TAIL LIGHTS (IF EQUIPPED):

To turn on the display's backlight function as well as the bike's head/ tail lights (if equipped), press and hold the INCREASE MOTOR ASSIST [ $\blacktriangle$ ] button. The monitor display should show the headlight function icon ( $\equiv \phi$ ). Press and hold the INCREASE MOTOR ASSIST [ $\blacktriangle$ ] button to turn the lights off.







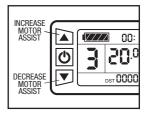


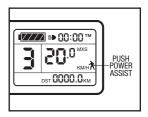
### ENGAGING THE MOTOR ASSIST FUNCTION:

To engage and select the motor assist function, press the INCREASE MOTOR ASSIST [ $\blacktriangle$ ] or DECREASE MOTOR ASSIST [ $\blacktriangledown$ ] and choose your level of assistance. Motor assistance is available in 5 different levels (1-5). Level 1 is minimum assistance. Level 5 is maximum assistance. Level 0 is no assistance. The assistance level will reset to 0 when the bike and monitor are powered off.

### **PUSH POWER ASSISTANCE:**

Press and hold the DECREASE MOTOR ASSIST  $[\bullet]$  button to engage the push power assistance. When engaged, the  $\bigstar$ symbol will show. The bicycle will not drive more than 3.75mph (6km/h) when push power assistance is active. To disengage, release the DECREASE MOTOR ASSIST  $[\bullet]$  button.





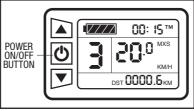




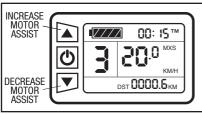
### SETTING MAXIMUM RIDING SPEED:

In order to program the maximum riding speed allowed, follow the steps below:

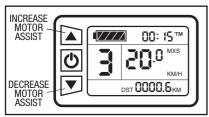




1. Power on the bike. Then, power on the monitor display. The monitor display should show the details of your last trip.



2. Press the increase motor assist [▲] and decrease motor assist [▼] at the same time for approximately 3 seconds. The speed selection will start flashing.



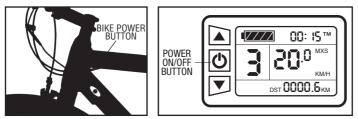
3. Use the increase motor assist [▲] and decrease motor assist [▼] to select the desired maximum riding speed (default 15.5mph / 25km/h). Press and hold ON/OFF BUTTON to save selection.



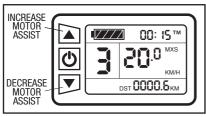


### WHEEL DIAMETER SELECTION:

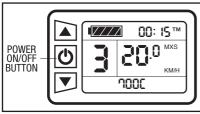
In order to calculate the correct speed and distance, your monitor display will need to be programmed to the correct specifications of your bike. To program your bike, please follow these steps:



1. Power on the bike. Then, power on the monitor display. The monitor display should show the details of your last trip.



2. Press the increase motor assist [▲] and decrease motor assist [▼] at the same time for approximately 3 seconds. The speed selection will start flashing.

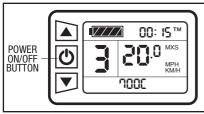


Available Wheel Diameter Selections: 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 700C, 28 and 29

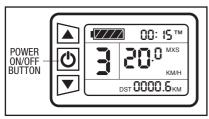
3. Press the POWER ON/OFF BUTTON in order to select the correct wheel diameter. Use the increase motor assist [▲] and decrease motor assist [▼] buttons to scroll through the available selections. Press the ON/OFF BUTTON again to make your selection.







4. Press the POWER ON/OFF BUTTON once more and use the increase motor assist [▲] and decrease motor assist [▼] in order to select KM/H or MPH.



5. Once you have made your selections, press and hold the POWER ON/OFF BUTTON for a few seconds to exit the programming mode and place the monitor in operation mode.





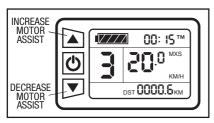
### **RESETTING TIME AND DISTANCE:**

To reset the ride time and distance traveled, follow the steps below:

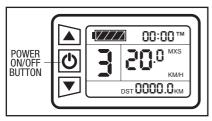




1. Power on the bike. Then, power on the monitor display. The monitor display should show the details of your last trip.



2. Press the increase motor assist [▲] and decrease motor assist [▼] at the same time for approximately 3 seconds. The time and distance should both be flashing.



3. Press the POWER ON/OFF BUTTON once to clear the measurements.





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### SETTING CRUISE CONTROL:

While riding with a speed greater than 4.5mph (7km/h), press and hold the decrease motor assist [▼] to start cruise control. The CRUISE indicator will be lit and a large C in place of the Motor Assist Level. Brake or press any button to cancel cruise control.

### **MONITOR DISPLAY FAULT CODES:**

Below are a list of fault codes that may occur and their meanings:

- 01 THROTTLE ABNORMALITY
- 03 MOTOR SIGNAL ABNORMALITY
- 04 TORQUE SENSOR ABNORMALITY
- 05 AXIS SPEED SENSOR ABNORMALITY only applied to torque sensor
- 06 MOTOR OR MONITOR DISPLAY SHORT CIRCUIT ABNORMALITY

Electronic control system failure will cause the fault code to display and flash. Once the failure has been resolved the fault code will automatically be removed and regular interface will resume.

### **PROGRAMMING NOTES:**

Press and hold the POWER ON/OFF BUTTON for a few seconds to save the set values and exit from the setting environment. This will return the monitor display to its regular operation mode.

Under each interface, failure to save values within 1 minute elapsed time will result in automatically returning to last saved value.

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Below are the icons that will be used for the monitor display along with their meanings.

ICON	FUNCTION	ICON	FUNCTION
	INCREASE MOTOR ASSIST	Ŕ	PUSH POWER ASSIST
Ċ	POWER ON/OFF BUTTON	KM/H	RIDING SPEED (METRIC)
	DECREASE MOTOR ASSIST	MPH	RIDING SPEED (IMPERIAL)
ASSIST	POWER ASSISTANCE LEVEL	MXS	MAX SPEED
	BATTERY CHARGE INDICATOR	AVS	AVERAGE SPEED
	BACKLIGHT AND HEADLIGHTS	KM	DISTANCE (METRIC)
CRUISE	CRUISE FUNCTION	MIL	DISTANCE (IMPERIAL)
PAS	POWER-ASSISTED FUNCTION	DST	TRIP DISTANCE
ТМ	SINGLE TRIP TIME	ODO	TOTAL DISTANCE
TTM	TOTAL TRIP TIME	VOL	BATTERY VOLTAGE
THROTTLE	THROTTLE DISPLAY	Ň	BRAKE DISPLAY





# Correct routine maintenance of your new bike will ensure a longer life for your bike and a safer ride for you.

Every time you ride your bike, its condition changes. The more you ride, the more frequently maintenance will be required. We recommend you spend a little time on regular maintenance tasks. The following schedules will assist you in knowing what tasks need to be performed and how often. If you have any doubts about your abilities to accomplish these tasks, we recommend you take your bike to a professional bicycle mechanic periodically to have them done.

Frequency	Component	Lubricant	How to Lubricate
Weekly	chain	chain lube or light oil	brush on or squirt
	derailleur wheels	chain lube or light oil	brush on or squirt
Monthly	derailleurs	oil	oil can
	brake calipers	oil	3 drops from oil can
	brake levers	oil	2 drops from oil can
	shift levers	lithium based grease	disassemble
Every Six Months	freewheel brake cables	oil lithium based grease	2 drops from oil can disassemble
Yearly	Bottom braket	lithium based grease	Bicycle Mechanic
	pedals	lithium based grease	disassemble
	derailleur cables	lithium based grease	disassemble
	wheel bearings	lithium based grease	Bicycle Mechanic
	headset	lithium based grease	Bicycle Mechanic
	seat pillar	lithium based grease	disassemble

### **Schedule 1 - Lubrication**

Note: The frequency of maintenance should increase with use in wet or dusty conditions. Do not over lubricate - remove excess lubricant to prevent dirt build up. Never use a degreaser to lubricate your chain (WD-40<sup>™</sup>)





### SERVICE CHECKLIST:

Frequency	Task		
Before every ride	Check wheel and pedal tightness		
	Check tire pressure		
	Check brake operation		
	Check wheels for loose spokes, loose axle nuts or quick release		
	Make sure all fasteners are tightened securely		
After every ride	Quick wipe down with damp cloth		
Weekly	Lubrication as per schedule 1		
Monthly	Lubrication as per schedule 1		
5	Check derailleur adjustment		
	Check brake adjustment		
	Check brake and gear cable adjustment		
	Check tire wear and pressure		
	Check wheels are true and spokes tight		
	Check hub, head set and crank bearings for looseness		
	Check pedals are tight		
	Check handlebars are tight		
	Check seat and seat post are tight and comfortably adjusted		
	Check frame and fork for trueness		
	Check all nuts and bolts are tight		
Every six months	Lubrication as per schedule 1		
-	Check all points as per monthly service		
	Check and replace brake pads, if required		
	Check chain for excess play or wear		
Yearly	Lubrication as per schedule 1		

CAUTION: CONSULT YOUR BICYCLE DEALER FOR ANY QUESTIONS ON REPAIRS OR MAINTENANCE.



### **TOOLS REQUIRED FOR MAINTENANCE:**

- 1. Open ended wrench or box wrenches: 8mm, 9mm, 10mm, 12mm, 13mm, 14mm, 15mm
- 2. Open end or pedal wrench 15mm
- 3. Allen key wrenches: 4mm, 5mm, 6mm, 8mm
- 4. Adjustable wrench
- 6. Standard Phillips head screwdriver
- 7. Standard slip joint pliers
- 8. Tire pump
- 9. Tube repair kit
- 10. Tire levers

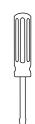
### TRAVEL TOOLS:

We suggest you take the following items with you when going on a long bike ride. Tools should be fully secured in a sturdy bag or container attached to the seat or frame of the unit during travel:

- 1. Spare tube
- 2. Patch kit
- 3. Pump
- 4. Tire levers
- 5. Multi-tool
- 6. Cell phone or change for a pay phone











### WHEEL INSPECTION:

It is most important that wheels are kept in top condition. Properly maintaining your bicycle's wheels will help braking performance and stability when riding. Be aware of the following potential problems:

### • Dirty or greasy rims:

**Caution:** These can render your brakes ineffective. Do not clean them with oily or greasy materials. When cleaning, use a clean rag or wash with soapy water, rinse and air dry. Don't ride while they're wet. When lubricating your bicycle, don't get oil on the rim braking surfaces.

### • Wheels not straight:

Lift each wheel off the ground and spin them to see if they are crooked or out of true. If wheels are not straight, they will need to be adjusted. This is quite difficult and is best left to a professional bicycle mechanic.

### • Broken or loose spokes:

Check that all spokes are tight and that none are missing or damaged. Caution: Such damage can result in severe instability and possibly an accident if not corrected. Again, spoke repairs are best handled by a mechanic.

### • Loose hub bearings:

Lift each wheel off the ground and try to move the wheel from side to side. Caution: If there is movement between the axle and the hub, do not ride the bicycle. Adjustment is required.

• Axle nuts:

Check that these are tight before each ride.





### TIRE INSPECTION:

Tires must be maintained properly to ensure road holding and stability. Check the following areas:

### • Inflation:

Ensure tires are inflated to the pressure indicated on the sidewall of the tire. Improper inflation is the biggest cause of tire failure. Due to the slightly porous nature of bicycle inner tubes, it is normal for your tires to lose pressure over time. For this reason, it is critically important to maintain the proper tire inflation on your bike. **Caution: Use a hand or foot pump to inflate tires. NEVER inflate tires with an air compressor at a gas station. This can cause the tubes to over inflate and blowout.** 

### • Bead Seating:

When inflating or refitting the tire, make sure that the bead is properly seated in the rim.

### • Tread:

Check that the tread shows no signs of excessive wear or flat spots, and that there are no cuts or other damage.

CAUTION: Excessively worn or damaged tires should be replaced.

• Valves:

Make sure valve caps are fitted and that valves are free from dirt. A slow leak caused by the entry of dirt can lead to a flat tire and possibly a dangerous situation.

### **RECOMMENDED TIRE PRESSURES:**

The recommended pressure is molded on the sidewall of your bicycle tires.





### HOW TO FIX A FLAT TIRE: If you need to repair a tire, follow these steps:

- 1. Remove the wheel from the bicycle.
- 2. Deflate the tire completely via the valve. Loosen the tire bead by pushing it inward all the way around.
- 3. Press one side of the tire bead up over the edge of the rim. Note: Use tire levers, not a screwdriver, otherwise you may damage the rim.
- 4. Remove the tube, leaving the tire on the rim.
- 5. Locate the leaks and patch using a tube repair kit or replace the tube. Note: Ensure that the replacement tube size matches the size stated on the tire sidewall and that the valve is the correct type for your bicycle.
- 6. Match the position of the leak in the tube with the tire to locate the possible cause and mark the location on the tire.
- 7. Remove the tire completely and inspect for a nail, glass, etc. and remove if located. Also inspect the inside of the rim to ensure there are no protruding spokes, rust or other potential causes. Replace the rim tape which covers the spoke ends.
- 8. Remount one side of the tire onto the rim.
- 9. Using a hand pump, inflate the tube just enough to give it some shape.
- 10. Place the valve stem through the hole in the rim and work the tube into the tire. NOTE: Do not let it twist.
- 11. Using your hands only, remount the other side of the tire by pushing the edge toward the center of the rim. Start on either side of the valve and work around the rim.
- 12. Before the tire is completely mounted, push the valve up into the rim to make sure the tire can sit squarely in position.
- 13. Fit the rest of the tire, rolling the last, most difficult part on using your thumbs. NOTE: Avoid using tire levers as these can easily puncture the tube or damage the tire.
- 14. Check that the tube is not caught between the rim and the tire bead at any point.
- 15. **Using a hand pump,** inflate the tube until the tire begins to take shape. Check that the tire bead is evenly seated all the way around the rim. When properly seated, fully inflate the tire to the pressure marked on the sidewall.
- 16. Replace the wheel into the frame checking that all gears, brakes and quick release levers are properly adjusted.



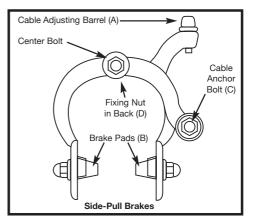


### SIDEPULL CALIPERS - ADJUSTMENT:

Minor brake adjustment can be made via the cable adjusting barrel (A), usually located at the upper cable arm.

### Caution: The brake cable adjusting barrels are for minor adjustments only. For major adjustments please consult your bicycle dealer.

To adjust, squeeze the brake pads against the rim, loosen the locknut and turn the adjuster. Brake pad clearance should be a maximum 2mm from the rim. When correct, retighten the lock nut. If the pads cannot be set close enough to the rim in this manner, you may



have to adjust the cable length. Screw the barrel adjuster 3/4 of the way in, squeeze the pads (B) against the rim, undo the cable anchor bolt and pull the cable through with pliers. Retighten the cable anchor bolt (C) and apply full force to the brake lever to test, then fine tune using the barrel adjuster. If one pad is closer to the rim than the other, loosen the fixing nut (D) at the back of the brake, apply the brake to hold it centered, and retighten the fixing nut (D).

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### WARNING! ENSURE THE BRAKE FIXING NUT IS SECURED TIGHTLY. FAILURE TO DO THIS MAY ALLOW THE BRAKE ASSEMBLY TO DISLODGE FROM THE FORK/FRAME.





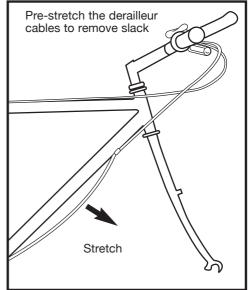


### **DERAILLEUR SYSTEMS:**

The derailleur system consists of the rear derailleur, the shift lever, and the derailleur control cables, all of which must function correctly for smooth gear shifting to occur. There are several different types of derailleur systems but all operate using similar principles. Your new bicycle is fitted with an "index" system (e.g. SIS) which links each different gear position to a positive click mechanism in the shifter, and makes shifting simple and precise.

### **INSPECTION:**

The operation of the derailleur system should be checked at the start of each ride and thoroughly checcked at least every month.



Check the operation of the derailleur first. The rear derailleur should shift the chain cleanly from one cog to the next without hesitation. Each notched position in the shifter equates to a new gear position. After shifting, the rear derailleur should not rub on the chain. The derailleur should never cause the chain to fall off the inner or outer freewheel cogs. Derailleur control cables are a critical component that must be well maintained for accurate shifting performance. Check them for any sign of rust, fraying, kinks, broken strands, and any damage to the cable housing. If you find any problems, the cables or other involved components should be evaluated as it may need replacing before you ride.

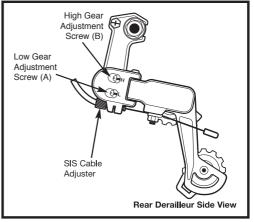




### **REAR DERAILLEUR ADJUSTMENT:**

The Low Gear Adjustment Screw (A) determines how far the rear derailleur will travel toward the wheel of the bicycle, while the High Gear Adjustment Screw (B) determines how far the cage will travel toward the frame.

 Shift the rear shifter to the largest number indicated, disconnect the rear derailleur cable from the cable anchor bolt and place the chain on the smallest sprocket.



2. Adjust the High Gear Adjustment

Screw (B) so the chain and the smallest sprocket are lined up vertically. Remove any slack in the cable by pulling it taut, then re-connect the cable and tighten the cable anchor bolt securely.

- 3. Some derailleurs have an adjusting barrel. Use the adjusting barrel and turn clockwise to move the derailleur outboard away from the wheel while turning it counter-clockwise will direct the chain inboard towards the wheel.
- 4. Shift the chain onto the largest sprocket; adjust the Low Gear Adjustment Screw (A) so the chain and the largest cog are lined up vertically. If you are unable to get the chain to the largest cog, turning the Low Gear Adjustment Screw (A) counter-clockwise will enable the chain to move towards the wheel.
- 5. Shift through the gears ensuring each gear is achieved quietly and without hesitation.

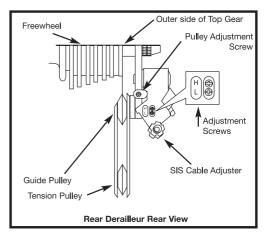
**NOTE:** It may take several adjustments to achieve the desired positioning. Please refer to the troubleshooting section for more assistance. Check to be sure how the components on your bike function.





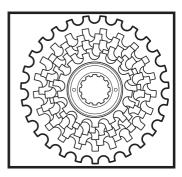
### **DERAILLEUR LUBRICATION:**

All the pivoting points of the derailleur should be lubricated with light oil at least every month. Be sure to wipe off any excess oil to prevent attraction of dirt into the mechanisms. The shifting cables should be cleaned and re-coated with a thin layer of grease every six months, or whenever new cables are being installed.



### FREEWHEEL INSPECTION:

Like the chain, the freewheel must be kept clean and well lubricated using light oil in small quantities. If the chain has become worn and needs replacing, then it is likely that the freewheel will also have become worn and should be carefully checked and also be replaced. Take the chain off the freewheel and rotate it with your hand. If you hear a grinding noise or the freewheel stops suddenly after spinning it, it may need adjustment or replacement. Such action is beyond the scope of this manual and you should consult your bicycle dealer.







**PEDAL INSPECTION:** Pedals should be inspected every month, taking note of the following areas:

- Check that the pedals are tightened securely against the crank arm. If pedals are allowed to become loose, they will not only be dangerous to the rider but will also cause irreparable damage to the mating threads of the cranks.
- Check that pedal bearings are properly functioning. Move the pedals up and down, and right to left, and also rotate them by hand. If you detect any looseness or roughness in the pedal bearings then lubrication or replacement is required. Check your pedals to see if adjustment is possible to correct the looseness.
- Ensure that the front and rear pedal reflectors on each pedal are clean, not cracked, and securely fitted.

WARNING! Never ride with loose pedals. Improperly installed or tightened pedals can work loose, damaging the bicycle and causing possible serious injurty or death to the rider.

Always wear solid, well-constructed shoes while riding.





**PEDAL LUBRICATION AND ADJUSTMENT:** Many pedals cannot be disassembled to allow access to the internal bearings and axle. However, it is usually possible to inject a little oil onto the inside bearings, and this should be done every six months. If the pedal is the type that can be fully disassembled, then the bearings should be removed, cleaned and greased every six to twelve months. Because of the wide variety of pedal types and their internal complexity, disassembly procedures are beyond the scope of this manual and further assistance should be sought from a professional bicycle mechanic.

**PEDAL ATTACHMENT - Note:** The right and left pedals of a bicycle each have a different thread and are not interchangeable. Never force a pedal into the incorrect crank arm. Check for the right (R) and left (L) letters on each pedal bolt end. Not all crank arms are marked but the right pedal crank arm is on the right side of the bike with a rider in normal riding position and the left crank arm is located on the left side of the bike. Match the appropriate pedal to each crank (right to right and left to left) for assembly. Insert the correct pedal into the crank arm and begin to turn the thread with your fingers only. When the axle is screwed in substantially all the way then securely tighten using a 15mm narrow open-ended wrench so that the shoulder of the pedal spindle is securely tightened against the crank arm. If removing a pedal, remember that the right pedal axle must be turned counter clockwise, i.e. the reverse of when fitting.

If replacing the original pedals with a new set, make sure the size and the axle thread is compatible with the cranks on your bicycle.

**NOTE:** Never try and force a pedal with the wrong thread size into a bicycle crank. If the pedal is too loose or too tight, it is the wrong pedal and might come loose in use.

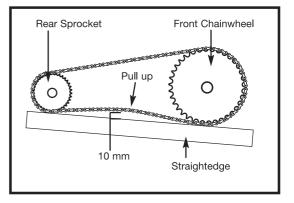




# MAINTENANCE/REPAIR

### **CHAIN INSPECTION:**

The chain on your bicycle must be kept clean, rust free and frequently lubricated in order to have the best possible performance when riding and extend its life as long as possible. It will require replacement if it stretches, wears, breaks, or causes inefficient gear shifting due to excessive dirt or debris embedded in the chain. Make sure that there are no stiff links; they must all move freely to seat and shift properly.



#### **CHAIN LUBRICATION:**

The chain should be lubricated with light oil at least every month, or after use in wet, muddy, or dusty conditions. Take care to clean the chain of debris before lubrication. After lubrication, wipe off excess oil. **NOTE:** Do not get oil on the tires or rim braking surfaces.

#### CHAIN ADJUSTMENT AND REPLACEMENT:

On derailleur geared bicycles, the rear derailleur automatically tensions the chain. To adjust the chain:

- 1. Loosen the rear axle nuts (and coaster brake arm clip if fitted) and move the wheel forward to loosen, or backward to tighten the chain, in the frame.
- 2. When correctly adjusted, the chain should have approximately 10mm of vertical movement when checked in the center between the chainwheel and rear sprocket.

Chains require a special tool to fit and remove damaged chain links, or to change the length. We recommend that you go to your bicycle dealer to replace or change the length of your chain. They will have the special tools required to perform the repairs correctly.

CAUTION: CONSULT YOUR BICYCLE DEALER FOR ANY QUESTIONS ON REPAIRS OR MAINTENANCE.



# MAINTENANCE/REPAIR

### **BATTERY AND CHARGER CARE:**

The charger will charge a fully depleted battery in 3-5 hours. The indicator light on the charger will be red / orange when the discharged battery is charging. The indicator light will turn green when the battery is fully charged. Avoid subjecting the battery to high temperatures, such as direct sun, for prolonged periods of time.

Recharge the battery before it becomes completely discharged. Completely discharging will reduce the numbers of recharging cycles during the battery's life and limit the capacity. Never store the battery in a discharged state.

After much use, your battery's charge-holding capacity will decrease. If you find that your battery does not hold a sufficient charge, you should contact your local dealer to order a replacement.

Some owners find it convenient to have 2 batteries to avoid being out of service for 3-5 hours. If the battery will not be used for an extended period of time, charge it fully and recharge it every 3-6 months. Store it in a cool, dry place. Your battery is engineered with precision for high capacity and a long, useful life. If you experience unusual sounds or odors coming from the charger or the battery, unplug the charger and battery immediately and contact your dealer.

Clean visible oxidation from the plugs and metallic parts. Change to a different outlet if the plug becomes hot during charging. Over-heating from a battery's ability to hold a full charge may lead to a short circuit and damage your charger, battery, and unit.



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# MAINTENANCE/REPAIR

### CHARGER:

Included with your new e-bike is a lithium ion battery, along with a charger, which plugs into a standard household electric receptacle.

A lithium ion battery requires specially designed chargers. You should never charge your battery with a substitute charger that is not designed for this use. Use of an unsuitable charger to charge a lithium ion battery could result in over-heating, fire or even explosion.

- Recharge battery after every use.
- Do not disassemble or alter the battery or battery charger.
- Do not place the battery near fire or corrosive substances.
- Do not allow any liquids on or inside the battery/charger.
- Do not expose the battery/charger to extreme weather conditions.
- Do not operate the battery/charger if damaged.
- Recharge the battery only with a charger specified by the manufacturer.
- Do not use the battery/charger for any use other than its intended purpose.
- Only use the battery/charger on approved products.





## MAINTENANCE/REPAIR

### **APPEARANCE CARE:**

Periodically clean your electric bike with a damp cloth. Avoid spraying the e-bike with a water hose to avoid electrical issues. Store your e-bike in a dry shelter area away from direct sunlight and wet or damp environment. It is also recommended to apply chain lube to the drive-train of your e-bike when you clean it or wipe it down to keep it in good running condition.

#### NOTE:

- Washing your e-bike with a hose or high pressure hose is not possible, because it will cause failure or even accidents caused by damage of electronic components and circuits. Do not rinse the electrical parts of your e-bike, use a moist cloth only.
- Please use natural detergents and use a rag to clean its surface gently, finally clean the bike with a dry cloth.





Possible Cause	Remedy
<ul> <li>Derailleur cables sticking/ stretched/damaged</li> <li>Rear derailleur not adjusted properly</li> <li>Indexed shifting not adjusted properly</li> </ul>	<ul> <li>Lubricate/tighten/clean replace cables</li> <li>Adjust derailleur</li> <li>Adjust indexing</li> <li>Seek advice from your dealer</li> </ul>
<ul> <li>Excessively worn/chipped chain- ring or freewheel sprocket teeth</li> <li>Chain worn/stretched</li> <li>Stiff link in chain</li> <li>Non compatible chain/chainring/ freewheel</li> </ul>	<ul> <li>Replace chainring and sprockets</li> <li>Replace chain</li> <li>Lubricate or replace master link</li> <li>Seek advice from your dealer</li> </ul>
<ul> <li>Chainring out of true</li> <li>Chainring loose</li> <li>Chainring teeth bent or broken</li> <li>Rear derailleur side-to-side travel out of adjustment</li> </ul>	<ul> <li>Re-true if possible, or replace</li> <li>Tighten mounting bolts</li> <li>Repair or replace chainring/set</li> <li>Adjust derailleur travel</li> </ul>
<ul> <li>Stiff chain link</li> <li>Loose pedal axle/bearings</li> <li>Loose bottom bracket axle/ bearings</li> <li>Bent bottom bracket or pedal axle</li> <li>Loose crankset</li> </ul>	<ul> <li>Lubricate chain / Adjust chain link</li> <li>Adjust bearings/axle nut</li> <li>Adjust bottom bracket</li> <li>Replace bottom bracket axle or pedals</li> <li>Tighten crank bolts</li> </ul>
<ul> <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> <li>Adjust bearings</li> <li>Adjust bearings</li> <li>Adjust chain line</li> <li>Clean and lubricate jockey wheels</li> </ul>
	<ul> <li>Derailleur cables sticking/ stretched/damaged</li> <li>Rear derailleur not adjusted properly</li> <li>Indexed shifting not adjusted properly</li> <li>Excessively worn/chipped chain- ring or freewheel sprocket teeth</li> <li>Chain worn/stretched</li> <li>Stiff link in chain</li> <li>Non compatible chain/chainring/ freewheel</li> <li>Chainring out of true</li> <li>Chainring loose</li> <li>Chainring teeth bent or broken</li> <li>Rear derailleur side-to-side travel out of adjustment</li> <li>Stiff chain link</li> <li>Loose pedal axle/bearings</li> <li>Loose bottom bracket axle/ bearings</li> <li>Bent bottom bracket or pedal axle</li> <li>Loose crankset</li> <li>Pedal bearings too tight</li> <li>Bottom bracket bearings too tight</li> <li>Chain fouling derailleurs</li> <li>Derailleur jockey wheels</li> </ul>



Problem	Possible Cause	Remedy
Freewheel does not rotate	- Freewheel internal pawl pins are jammed	- Lubricate. If problem persists,replace freewheel
Brakes not working effectively	<ul> <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> <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>
When applying the brakes they squeal/ squeak	<ul> <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> <li>Replace blocks</li> <li>Correct block toe-in</li> <li>Clean blocks and rim</li> <li>Tighten mounting bolts</li> </ul>
Knocking or shuddering when applying brakes	<ul> <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> <li>True wheel or take to a bike shop for repair</li> <li>Tighten bolts</li> <li>Center brakes and/or adjust brakeblock toe-in</li> <li>Tighten headset</li> </ul>
Wobbling Wheel	<ul> <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> <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>





Problem	Possible Cause	Remedy
Steering not accurate	<ul> <li>Wheels not aligned in frame</li> <li>Headset loose or binding</li> <li>Front forks or frame bent</li> <li>Stem wedge bolt not tight</li> </ul>	<ul> <li>Align wheels correctly</li> <li>Adjust/tighten headset</li> <li>Take bike to a bike shop for possible frame realignment</li> <li>Tighten stem bolt</li> </ul>
Frequent punctures	<ul> <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> <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>





Problem	Possible Cause	Remedy
Motor is not working	<ul><li>Run out of battery</li><li>Controller is broken</li><li>Motor was too hot</li></ul>	<ul> <li>Charge the battery</li> <li>Repair or replace motor or battery</li> <li>Wait a few minutes</li> </ul>
Motor works intermittently	<ul> <li>The connector of motor is loose</li> <li>Voltage of the battery is too low, the controller starts low- voltage protection</li> </ul>	<ul> <li>Reconnect the motor</li> <li>Charge the battery or replace the battery</li> </ul>
Motor is powerless	<ul> <li>Line resistance is too huge</li> <li>Voltage of the battery is too low</li> <li>Motor is damaged</li> </ul>	<ul> <li>Check and repair the circuit</li> <li>Charge the battery or replace with a new one</li> <li>Replace the motor</li> </ul>





Problem	Possible Cause	Remedy
Short time of charge and discharge of battery	- Decline of battery capacity	- Replace the battery
The light on charger is not working	<ul> <li>Fuse for input in charger is broken</li> <li>Loose power supply at the socket</li> <li>The connector of indicator light is loose</li> <li>The indicator light is broken</li> </ul>	<ul> <li>Change fuse</li> <li>Check the outlet, make sure power is there</li> <li>Reconnect</li> <li>Replace indicator light</li> </ul>
The green light is not lit after 5 hours of charging	<ul> <li>The charging voltage is too high</li> <li>Battery is damaged</li> <li>The indicator light is broken</li> </ul>	<ul> <li>Replace the charger</li> <li>Replace the battery</li> <li>Replace indicator light</li> </ul>
Red and green lights go off quickly when electricity is connected	<ul><li>Charger coil is shorted</li><li>Rectifier tube is broken</li></ul>	<ul> <li>Check the value of resistance</li> <li>Replace or repair</li> </ul>

CAUTION: CONSULT YOUR BICYCLE DEALER FOR ANY QUESTIONS ON REPAIRS OR MAINTENANCE.



# ELECTRIC BIKE FAQS

### Q. How long does it take to fully charge the battery?

A. Depends on the state of discharge but around 5-6 hours if completely discharged.

### Q. What are the running costs for an electric bike?

A. You will have no worries about rising fuel prices at the pumps. All our electrically powered vehicles use household electricity. The average cost per full charge is about 10 cents per charge. If you charge the battery every single day for a year, it would cost you about \$35 per year.

## Q. Can I ride up hills and against strong headwinds on my electric bike?

A. Yes. One of the main advantages of cycling on an electric bicycle is that it literally flattens hills and increases your average speed when tackling inclines and headwinds. If you provide a reasonable amount of effort, you should be able to tackle anything from a 1 in 10 (10%) gradient up to a 1 in 7 (14%) gradient. You will be amazed at the relative ease that your new electric bike can tackle some of the most arduous journeys.

### Q. Do I need a driver's license, insurance or registration?

A. No, you don't. According to Federal law, electric bikes that are under 750 watts are classified as bicycles. For all intents and purposes, it's simply a bicycle that requires very little pedaling to travel 20 MPH (32 Km/H), saving you time and hassle. The law does require the use of helmet and riders to be at least 16 years old. Check your local state laws for requirements. It is required that the owner/user follow all applicable traffic rules and regulations.

## Q. Do I need to pedal an electric bike?

A. No, but it helps to prolong battery life. The motor on our bikes is both throttle and pedal assist controlled, allowing you to decide how much power you desire. Have you ever tried to cycle when speeding downhill on your normal bicycle? It's just like that. The motor is propelling you faster than you're cycling so there is pretty much no resistance, it's merely a formality!

### Q. What happens when I use the brakes under powered assistance?

A. All our bikes are equipped with brake levers that have a built-in safety switch that automatically cuts off the motor power under normal braking conditions. This not only ensures a safe non-powered stopping feature, but also protects the motor under braking conditions so that it isn't working against the brakes.





# ELECTRIC BIKE FAQS

### Q. How far will an electric bike take me?

A. This all depends on a few factors. Cycling with pedal assist along a straight road under normal conditions, the standard battery should last about 15-30 miles (24 - 48 kilometers). Cycling up steep hills will obviously take more energy out of the battery and factors such as road surface, wind resistance, weight of the rider and tire pressure will affect your range. Longer range battery is also available.

### Q. What happens if I get a flat tire?

A. The tires on our bikes are the same as conventional bicycles. Simply replace the tube with a tube of the right size and inflate it. No special tires or parts will be needed.

#### Q. How do I know when the battery is low?

A. The bicycles have easily visible indicators located on the meters that show the amount of power remaining. If it is getting low and you don't think you will make it to your destination, you can switch off your motor and keep it just for the difficult bits while still pedalling manually.

#### Q. Do I have to wait for the battery to empty before I charge it?

A. No. The batteries we use are Lithium-ion batteries which do not suffer from 'memory effect'. This means that there is no need to discharge a battery completely before you recharge it again. You can partially recharge the battery at any time without reducing its voltage or lifespan. We recommend recharging the battery after every use, regardless of how far you rode.

### Q. Can I put a child's trailer on an electric bike?

A. Yes. We suggest using one that hooks onto the frame rather than the axle. **NOTE:** Be careful when pulling a trailer as weight increases and balance may cause changes.

### Q. Can I put an electric bike on a bike rack?

A. Yes, just make sure that the bike rack can hold the weight of your bike.



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# LIMITED WARRANTY

This Limited Warranty extends only to the original retail purchaser, who must produce proof of purchase in order to validate any claim. This warranty is not transferable to anyone else.

#### What does this Limited Warranty cover?

This warranty covers all parts of the bicycle to be free of defects in workmanship and materials. It does not cover abuse, misuse, or alterations.

#### What must you do to keep the Limited Warranty in effect?

This warranty is effective only if:

- The bicycle is completely and correctly assembled and maintained.
- The bicycle is used under normal conditions for its intended purpose, by a person that properly fits and is capable of controlling the bicycle.
- The bicycle receives all necessary service maintenance and adjustments.

#### What is not covered by this Limited Warranty?

This warranty does not include labor and transportation charges. The bicycle is designed for general transportation and recreational use only. This warranty does not cover normal wear and tear, paint, rust, normal maintenance items, personal injury, or any damage, failure, or loss that is caused by accident, improper assembly, maintenance, adjustment, storage, or use of the bicycle.

### This Limited Warranty will be VOID if the bicycle is ever:

- Used in any competitive sport.
- Used for stunt riding, jumping, aerobatics or similar activity.
- Installed with a non-standard motor or modified in any other way.
- Ridden by more than one person at a time.
- Rented or used for commercial purposes.
- Used in a manner contrary to the instructions in this Owner's Manual. Haven Bicycles Co. will not be liable for incidental or consequential loss or damage, due directly or indirectly from use of this product.





## LIMITED WARRANTY

#### For how long does this Limited Warranty last?

The frame is warranted for the usable life of the bicycle. Haven Bikes will replace the frame at no charge, should it fail in any weld point when the cycle has been used in a normal manner, and determined by our inspection Haven Bikes will also replace the bicycle fork if it should fail at any weld point.

You must receive prior authorization from Haven Bicycle Company's Customer Service, before returning any product or parts. All components are warranted against defects for six months from the date of purchase when properly assembled and used in a normal manner.

#### What will Haven Bicycles do?

We will replace, without charge to you, any frame, fork, or component found to be defective by Haven Bicycle Company. CONSUMER MUST PAY ALL LABOR AND TRANSPORTATION CHARGES CONNECTED WITH THE REPAIR OR WARRANTY WORK.

#### How do you get service?

If any part of your bicycle should fail to meet your expectations, first contact an authorized Haven Bicycle retailer or distributor to initiate a warranty claim. All warranty claims must be submitted by contacting the Haven Bicycle Company Customer Service Department at 1-973-543-2599 or info@havenbikes.com.

#### What rights do you have?

This limited warranty gives you specific legal rights. You may also have other rights which vary from State to State.





# IMPORTANT INFORMATION

- The battery's performance can be effected by its environment. Generally speaking, battery's discharge performance is better in a higher temperature. Electric power will drop by more than 1/3 when the temperature is below 32°F (0°C). Thus, the e-bike's riding distance per charge will become shorter in winter or cold areas. It returns to normal or optimal distance per charge when the temperature is higher than 68°F (20°C).
- 2. Do not put any metal objects in charge hole or battery circuit, it may cause short circuit or start a fire.
- 3. Do not dismantle or change any parts without authorization of the manufacturer. Any loss caused by inappropriate use, misuse or dismantling can cause dangers to the rider where manufacturer or dealer cannot be liable for. Be reminded e-bikes warranty can be affected, too. In general, if you think there might be any problem with your e-bike, please contact your local dealer.
- 3. Speeding especially on downhill roads can be dangerous. Slamming brakes at high speed might cause the bike to skid and lead to a road accident. Do not use the front brake to hard, it can cause you to fall forward over the handlebars and can severely hurt you.
- 4. Oil in the brake pad's or rim's surface can or will put brakes out of order. This can cause danger and accident. Beware of this.
- 5. Do not hang anything on the handlebar while riding. Verify the monitor display and any accessories are securely attached to avoid failure or loss during operation.
- 6. This e-bike is fit to be ridden by one person only, do not carry a passenger.
- 7. To protect your battery and avoid danger, do not connect battery's positive and negative side with one another or any conductor.
- 8. Adjust the brake caliper position each month, change the brake pad each half year or one year to keep the brake function in good condition.
- 9. The front wheel is fixed with the fork by quick-release lever. Make sure the handle can be pressed tight. If not tight, unscrew the nut then press it again until the handle is tight after lock. Please regularly check the rims of bike, especially for the caliper brake, that avoid the regularly using brakes causing the rim edge thinning and affect the strength of the rim, resulting the tries blowout and result the user's injury.
- 10. Do not ride while intoxicated. Do not ride when taking medicine or when you are not feeling well.







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