



Thank you for purchasing the X-Class from Ariel Rider Ebikes™.

We take pride in bringing you a quality product that will offer years of enjoyment. Please read and understand this manual fully before assembling and riding your bike.

If you have questions after reading this manual, please reference the Ariel Rider Ebikes Help Center, contact us by email, and/or give us a call on the phone.

We are here to help!

Ariel Rider Ebikes Help Center:

info@arielrider.com

Using This Manual

This manual contains details of the product, its equipment, and information on operation, maintenance, and other helpful tips for owners. Read it carefully and familiarize yourself with the X-Class before using it to ensure safe use and prevent accidents.

Be sure to retain this manual as your convenient X-Class information source.

This manual contains many warnings and cautions concerning the safe operation and consequences if proper setup, operation, and maintenance are not performed. All information in this manual should be carefully reviewed and if you have any questions you should contact Ariel Rider E-bikes immediately. The notes, warnings, and cautions contained within the manual and marked by the triangular Caution Symbol at the right of this page should also be given special care. Users should also pay special attention to information marked in this manual beginning with **NOTICE**.



Because it is impossible to anticipate every situation or condition which can occur while

riding, this manual makes no representations about the safe use of bikes under all conditions. There are risks associated with the use of any bike which cannot be predicted or avoided, and which are the sole responsibility of the rider. You should keep this manual, along with any other documents that were included with your bike, for future reference, however all content in this manual is subject to change or withdrawal without notice. Ariel Rider E-bikes makes every effort to ensure accuracy of its documentation and assumes no responsibility of liability if any errors or inaccuracies appear within. Assembly and first adjustment of your bike from Ariel Rider E-bikes requires special tools and skills and it is recommended that this should be done by a certified, reputable bike mechanic if possible.

In no event shall Ariel Rider be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, including but not limited to physical injury, mental injury, loss of income, monetary damages, and injury to a third party, whatsoever arising out of or connected with the use or misuse of Ariel Rider products. No claims, representations, or warranties, whether express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose, of title, or of noninfringement of third party rights, are made by Ariel Rider as to the safety, reliability, durability and performance of any of Ariel Rider's products. This includes any third party

contracting You may do related to the use, repair, or unauthorized modification of Ariel Rider products. Furthermore, Ariel Rider accepts no liability whatsoever for the safety, reliability, durability and performance of any of Ariel Rider's products. By buying, using, or allowing the use of Ariel Rider products, You represent and warrant that electronic bicycles can be associated with a high level of risk and YOU EXPRESSLY AND VOLUNTARILY ASSUME THE RISK OF DEATH OR OTHER PERSONAL INJURY SUSTAINED WHILE USING ARIEL RIDER PRODUCTS, WHETHER OR NOT CAUSED BY THE NEGLIGENCE OR OTHER FAULT OF ARIEL RIDER AS DETERMINED BY A COURT OF COMPETENT JURISDICTION. Your use of the product is entirely at Your own risk and you have no recourse whatsoever against Ariel Rider.

Table of Contents

| | |
|--|-----------|
| Using this Manual | 1 |
| General Info..... | 3 |
| Assembly Instructions | 7 |
| Battery Charging..... | 15 |
| Operation | 19 |
| Maintenance..... | 32 |
| Troubleshooting | 37 |
| Warnings and Safety | 39 |
| Warranty..... | 44 |
| Links to Assembly Video and Online Resources..... | 46 |

General Info

Assembly and Fit

Correct assembly and fit are essential elements of ensuring your bicycling safety, performance, and comfort. Even if you have the experience, skill, and tools to complete these essential steps before your first ride, Ariel Rider E-bikes recommends having a certified, reputable bike mechanic check your work.

NOTICE: If you do not have the experience, skill, and tools to complete assembly and fit, Ariel Rider E-bikes highly recommends having a certified, reputable bike mechanic complete these procedures as well as any future adjustments or tuning.

NOTICE: A critical aspect of assembling your bike from Ariel Rider E-bikes is securing the front wheel and checking the tightness of the rear wheel axle nuts. Both wheels need to be properly secured before operating your bike, and these nuts are to be checked every 45-50 miles.

Mandatory Equipment and Use Locations

Before all rides, ensure you have all required and recommended safety equipment and are following all laws pertaining to using an electric bike in your region. For example, these laws may specify the need for mandatory equipment, use of hand signals, and where you can ride.

Changing Components or Attaching Accessories

The use of non-original components or spare parts can jeopardize the safety of your X-Class, void your warranty and, in some cases, cause your X-Class to not conform with laws pertaining to your bike.



The replacement of original components or installation of third-party accessories or accessories from Ariel Rider E-bikes not explicitly recommended for your bike model, is at your own risk. Using aftermarket accessories or components that have not been tested by Ariel Rider E-bikes for safety and compatibility may void your warranty, create an unsafe riding condition, damage your bike by Ariel Rider E-bikes, or result in serious injury and/or death. Ariel Rider shall not be responsible for any and all injuries or damages resulting from the use of non-original components or spare parts.

Safety Check Before Each Ride

Always check the condition of your bike before you ride in addition to having regular maintenance performed. If you are unsure of how to conduct a complete check of the condition of your bike before every ride, you should consult a certified, reputable bike mechanic for assistance. See the Pre-Ride Safety Checklist for more information.

Electrical System

The electrical system on your X-Class offers various levels of power assistance and lighting for different operating conditions and user preferences. It is critical that you familiarize yourself with all aspects of your X-Class's electrical system and check to see that it is working correctly before every ride. The front and rear brake levers contain safety power cutoff switches, which disable the hub motor's assistance when applied, and both levers should be checked for correct operation. The throttle should provide smooth acceleration when gradually applied. If the throttle, brake lever cutoff switches, pedal assistance, or lighting is not functioning normally, intermittent, or not working, please discontinue using your X-Class immediately and contact the Ariel Rider E-bikes Technical Support team for assistance.

Brakes

Ensure brakes are working correctly, all braking system components are free from damage, and properly secured. When you fully squeeze the brake levers, ensure neither the front or rear brake levers touch the handlebar. Take your bike to a certified, reputable bike mechanic to have the brakes repaired if you find a problem.

Tires and Wheels

Your wheels should always spin straight and must be repaired or replaced if they wobble side to side or up and down when spinning. If your wheels become untrue or spokes loosen, do not attempt to true or tighten unless you have adequate knowledge, tools and experience. It is recommended that a certified, reputable bike mechanic performs all wheel tuning and truing operations on your bike from Ariel Rider E-bikes. Ensure your tires and inner tubes are in good working condition without any visual damage and have the correct amount of air pressure. Always replace tires and inner tubes with punctures, cuts or damage before you ride. Tires without the correct amount of air pressure can reduce performance, increase tire and component wear, and make riding your bike unsafe.

Accessories, Straps, and Hardware

Ensure all hardware is secured and all approved accessories are properly attached per the specific component manufacturer's instructions. It is good practice to look over all hardware, straps, and accessories before each ride and if you do discover something is wrong or find something you are not sure about, please have it checked by a certified, reputable bike mechanic.

Suspension, Handlebar, Grips, and Seat Adjustments

The suspension fork on your X-Class will affect the handling of the bike so you **MUST** understand how it works before use. Check to ensure the handlebar, handlebar stem, and seat post are properly fastened, aligned, and fitted to the user. Ensure all hardware securing the handlebar and seat are properly tightened including all quick release levers. Loose, worn, or damaged handlebar grips should be replaced before you ride.

Battery Charged, Secured, and Unplugged

Ensure the battery is fully charged and operating properly. The battery gauge on the LCD Display and battery mounted charge status indicator should read similarly. The battery **MUST** be locked onto the frame battery mount properly before use. Ensure the battery charger is unplugged from the battery, outlet, and stored in a safe location before you ride.



Assembly Instructions

NOTICE: The following assembly steps are only a general guide to assist in the assembly of your bike from Ariel Rider E-bikes and is not a complete or comprehensive manual of all aspects of assembly, maintenance, and repair. We recommend you consult a certified, reputable bike mechanic to assist in the assembly, repair, and maintenance of your bike.

Step 1: Unpack bike from the carton and carefully set out all contents of the box. Remove packaging material protecting the bike frame and components. Please recycle packaging materials especially cardboard and foam (all #6 EPS foam). Ensure you have received the correct frame size before assembling the bike and that all pieces are included in the package including:

- X-Class bike,
- Front wheel,
- Front Fender,
- Warranty Registration Card,
- Charger,
- Headlight,
- Assembly toolkit,

- Pedals,
- Keys

If there are any missing parts, please contact Ariel Rider E-bikes.

Step 2: Install handlebar onto stem. Be sure to center the handlebar and ensure hardware is properly secured. Before fully securing the handlebar to the stem, adjust the stem angle using the Allen bolts on the side of the stem. Install the handlebar so the grips are approximately parallel to the ground and secure them to the recommended torque value (22-29 Nm).

Step 3: Install the front wheel components. Ensure front wheel is properly secured before moving on to the next step. When properly installed, the front wheel should be fully seated in the dropouts of the front fork, and the washers and nuts should be on the outside of the fork, please make sure everything is fully and properly secured.



Step 4: Install the pedals. Locate the pedal marked with an “L” at the pedal axle end and notches on the outside of the pedal axle (1, at right). The pedal marked “L” with notches goes on the crank on the left side of the bike (which is the same as a rider’s left side when riding). **The left pedal is reverse threaded and tightens counterclockwise.** Carefully thread the pedals by hand slowly. Do not cross thread or damage the threads. **Tighten securely using a pedal wrench to avoid damage caused by wider wrenches,** as shown in assembly video.



The right pedal is threaded so that it is tightened by turning clockwise, has an “R” stamped

into the pedal axle end, and a smooth exterior on the outside of the pedal axle (2, above). Carefully thread the right pedal onto the crank on the right side of the bike (the side with the drivetrain gears) slowly and by hand. Do not cross thread or damage the threads. **Tighten securely using a pedal wrench to avoid damage caused by wider wrenches.**

Step 5: Inflate tires to desired PSI. Recommended tire pressure is indicated on the tire sidewall. Do not overinflate or underinflate tires.



Step 6: Always check that the battery is locked to the frame of the X-Class before riding. The Start-Up Procedure section of this manual has more information on the key positions of the battery; on and locked to the frame, off and locked to the frame, and off and unlocked (ready for removal from the frame).

Step 7: Review the remainder of the manual. Once the bike has been assembled per the above instructions and the assembly video available from website read, understand, and follow the procedures outlined in the remainder of the manual before operating the bike.

NOTICE: If you have any questions regarding the assembly of your bike, contact Ariel Rider E-bikes. If you are not able to ensure all the assembly steps in the assembly video are performed properly, or you are unable to view the assembly video, please consult a certified, reputable local bike mechanic for assistance in addition to contacting Ariel Rider E-bikes for help.

NOTICE: Ensure all hardware is tightened properly following Recommended Torque Values and all safety checks in this manual are performed before the first use of the bike.



Do not extend any components including the stem or seat post beyond the minimum insertion markings on the seat post or maximum angle markings on the stem which are etched into the components. Ensure that all hardware is properly tightened (to the recommended torque values included in this manual) and components are secured before moving on to next step otherwise damage to the bike, property, serious injury, or death could occur. Ariel Rider shall not be responsible for any and all injuries or damages resulting from hardware not being tightened correctly or components that are not properly assembled.

| Hardware Location | Hardware | Torque Required (Nm) |
|-------------------------------|--|-----------------------------|
| Handlebar Area | Handlebar Stem Clamp Bolts | 10 |
| Handlebar Area | Stem Faceplate Bolts | 6 |
| Handlebar Area | Brake Lever Clamp Bolt | 6 |
| Handlebar Area | Shifter Clamp Screw | 6 |
| Handlebar Area | Stem Angle Adjust | 18 |
| Brakes | Caliper Adapter to Frame | 6-8 |
| Brakes | Caliper to Adapter | 6-8 |
| Brakes | Brake Cable to Caliper Clamp | 6-8 |
| Brakes | Disc Brake Rotor to Hub | 7 |
| Seat Post Area | Seat Adjustment Bolt | 20 |
| Seat Post Area | Seat Post Clamp | 7 |
| Front Dropout Area | Front Axle Nuts | 40-50 |
| Rear Dropout Area | Rear Axle Nuts | 40 |
| Rear Dropout Area | Rear Torque Arm Bolt | 5 |
| Rear Dropout Area | Derailleur Hanger Mounting Bolt | 6 |
| Rear Dropout Area | Derailleur Mounting Bolt | 10 |
| Rear Dropout Area | Derailleur Cable Pinch Bolt | 6-8 |
| Rear Dropout Area | Kickstand Mounting Bolts | 8 |
| Bottom Bracket and Crank Area | Bottom Bracket and Lockring | 60 |
| Bottom Bracket and Crank | Crank Arm Bolt into Bottom Bracket Spindle | 35 |

| | | |
|-------------------------------|--|----|
| Area | | |
| Bottom Bracket and Crank Area | Pedal into Crank Arm | 35 |
| Bottom Bracket and Crank Area | Chainring Bolts | 10 |
| Bottom Bracket and Crank Area | Controller Mounting Bolts | 6 |
| Fenders | All Fender Mounting Bolts and Hardware | 6 |



Before using the bike, always check to ensure all latches, levers, and quick releases are properly secured and undamaged. Check that they are correctly secured before every ride and after every time the bike is left unsupervised, even for a short time. Otherwise, the handlebar stem and/or seat post may come loose and can result in loss of control, damage to the bike, property, serious injury, and/or death. Ariel Rider shall not be responsible for any and all damages resulting from any latches, levers, and quick releases not being properly secured or that are damaged.

The Suspension Fork

The X-Class comes equipped with an front suspension fork, These suspension forks can move up and down up to certain degree to cushion bumps in the riding surface, which can make riding on a rough road or trail smoother and more comfortable.



Rider Comfort

To obtain maximum comfort, riders should not overextend their arms' reach when riding. To obtain the most comfortable riding position and offer the best possible pedaling efficiency, the seat height should be set correctly in relation to the rider's leg length as briefly described above. The correct seat height should not allow leg strain from over extension and the hips should not rock from side to side when pedaling. While sitting on the bike with one pedal at its lowest point, place the ball of the foot on

that pedal. Since the X-class doesn't have an adjustable seat, in order to find your ideal riding position is positioning yourself towards the front end or the rear end of the banana seat.

Battery Charging

Charging Procedure

Follow these steps for charging your bike from Ariel Rider E-bikes:

1. **Turn the bike off from the screen.**
2. **Remove the rubber cover on the charging port** (other side of battery) on the opposite side of the battery from the key switch.
3. With the battery on or off the bike, place the charger in a flat, secure place, and connect the DC output plug from the charger (round barrel connector) to the charging port on the side of the battery.
4. **Plug the charger into the outlet, then the charging port.** Connect the charger input plug (110/220-volt plug) to the power outlet. Charging should initiate and will be indicated by the LED charge status light on the charger turning red.
5. **Unplug the charger from the outlet, then the charging port.** Once fully charged, indicated by the charging indicator light turning green, unplug the charger from the wall outlet first and proceed to remove the charger output plug from the battery charging port.



Always charge your battery in temperatures between 50 °F – 77 °F (10 °C - 25 °C) and ensure the battery and charger are not damaged before initiating charge. If you notice anything unusual while charging, please discontinue charging and use of the bike and contact Ariel Rider E-bikes for help.

Battery Charging Information

- Check the charger cables, charger, and battery for damage before beginning each charge.
- Always charge in dry, indoor locations away from direct sunlight, dirt, or debris.
- Charge in a clear area away from potential to trip on the charging cords or for damage to occur to the bike, battery, or charging equipment while parked and/or charging.
- The battery can be recharged on or off the bike.
- To remove the battery, turn the key to unlocked position and then carefully pull the battery to the side while you're keeping the key in unlock position.
- The battery should be recharged after each use, so it is ready to go the full range per charge next ride. There is no memory effect, so charging the battery after short rides will not cause damage.
- The charge indicator lights on the charger will stay red while the battery charges and one will turn green when charge is complete. Ensure the lights face upwards when using the charger.
- The charger will automatically stop charging when the battery is full.
- Charging the battery fully normally takes 3-7 hours. In rare cases, it may take longer to allow the battery management system to balance the battery,

particularly when the bike is new or after long periods of storage.

- Do not charge the battery for more than 12 hours at a time or leave a charging battery unattended.



Do not cover up the charger when plugged in or charging. It air cools and needs to be on a hard, flat surface in an open space. Use the charger with the indicator light facing upwards. Do not use with the charger inverted, which can inhibit cooling and reduce charger lifespan.



If the battery is physically damaged, non-functional, performing abnormally, or was dropped or involved in a crash, with or without obvious signs of damage, please discontinue use and charging and contact Ariel Rider E-bikes immediately. Ariel Rider shall not be responsible for any and all damages or injuries resulting from physically damaged, non-functional, abnormally performing, or otherwise damaged batteries.



Do not open the battery housing, which will void the warranty and can result in damage to the battery, property, serious injury, and/or death. Ariel Rider shall not be responsible for any and all damages or injuries resulting from opening the battery housing.

When the Battery Is Removed

- Ensure the screen is turned off whenever it is being removed or off the bike.
- Do not touch the “+” and “-” terminal contacts on the bottom of the battery when the battery is removed from the bike.
- Be careful not to drop or damage the battery when loose from the bike.
- Be careful to avoid damaging the exposed connector terminals and keep them clear of debris.



Use caution to avoid damage to battery connector terminals, which are exposed when the battery is unlocked and removed from the frame of the bike. In the case of damage to the terminals or battery mounts, please discontinue use and contact Ariel Rider E-bikes Technical Support immediately. Ariel Rider shall not be responsible for any and all injuries or damage resulting from damaged batteries.

When Installing the Battery onto the Bike

- Do not force the battery onto the receptacle; slowly align and push the battery down into the receptacle.
- Ensure the battery has been properly secured to the bike before each use by

carefully pulling upwards on the battery with both hands to test the security of the attachment of the battery to the mount.

Charging Time

When the input and output plugs of the charger are connected properly, and the battery is not fully charged, the red charging indicator light should illuminate, indicating the battery is charging. The time the charger takes to fully charge the battery is dependent on various factors including distance traveled, riding characteristics, terrain, payload, and battery age. The following table provides an estimate of charge time based on most common distances traveled in regular operation:

| Distance Traveled | Estimated Time to Fully Recharge |
|--------------------------|---|
| 5 mi (8 km) | 1 hour |
| 10 mi (16 km) | 1.5 hours |
| 15 mi (24 km) | 2.5 hours |
| 20 mi (32 km) | 3.5 hours |
| 25 mi (40 km) | 4.5 hours |
| 20 mi (48 km) | 5.5 hours |
| 45 mi (72 km) | 7 hours |

Notice: The battery may take longer to charge when fully depleted, when very new, and after 3-5 years of regular use. If your battery does not seem to be charging normally, taking longer to charge than expected, or you are experiencing substantial reduction in range, please discontinue use and contact Ariel Rider E-bikes immediately.

Charger Safety Information

- The charger should only be used indoors in a dry, ventilated area, on a flat, stable, hard surface.
- Avoid charger contact with liquids, dirt, debris, or metal objects. Do not cover the charger while in use.
- Store and use the charger in a safe place away from children and where it cannot suffer damage from falls or impact.
- Fully charge the battery before each use to ensure it is ready to go the full range per charge, to extend the life of the battery, and help reduce the chance of over-discharging the battery pack.
- Charge the battery with the charger originally supplied with the bike from Ariel Rider E-bikes, or a charger purchased directly from Ariel Rider E-bikes, designed for use with your specific bike serial number, as approved by Ariel Rider E-bikes. Never charge the battery with a different charger, which could cause damage to the battery, bike, property, injury, and/or death. Ariel Rider

shall not be responsible for any and all damages or injuries resulting from the battery being charged from a different charger.

- The charger works on 110/220 V 50/60 Hz standard home AC power outlets and the charger automatically detects and accounts for incoming voltage. Do not open the charger or modify voltage input.
- Do not yank or pull on the cables of the charger. When unplugging, carefully remove both the AC and DC cables by pulling on the plastic plugs directly, not by pulling on the cables.
- The charger will get hot when operating as designed. If the charger gets too hot to touch, you notice a strange smell, or any other indicator of overheating, discontinue charger use immediately and contact Ariel Rider E-bikes Technical Support.



Please take special care in charging your bike from Ariel Rider E-bikes in accordance with the procedures and safety information detailed in this manual. Failure to follow proper charging procedures can result in damage to your bike from Ariel Rider E-bikes, the battery, the charger, personal property, and/or serious injury or death. Ariel Rider shall not be responsible for any and all damages or injuries resulting from improper charging.

Long-Term Battery Storage

If storing your bike from Ariel Rider E-bikes for longer than two weeks at a time, follow the instructions below to maintain the health and longevity of your battery.

- Charge (or discharge) the battery to approximately 75% charged.
- Store the battery in a dry, climate controlled, indoor location between 50 °F – 77 °F (10 °C - 25°C).
- Check the battery every month, and if necessary, use the charger from Ariel Rider E-bikes to charge the battery to 75% charged.



Please follow the above instructions for storing your bike and battery from Ariel Rider E-bikes. Failure to follow proper battery storage procedures can result in a non-functional battery and replacement will not be covered under warranty. Ariel Rider shall not be responsible for any and all damages or injuries resulting from improper battery storage procedures.

Operation

NOTICE: Do not perform any of the steps in the Operation section of this manual until you have read this entire manual, since there are important details in the following sections related to safety.



Users must become accustomed to the bike's power control system before operating. The throttle mechanism allows full power to be activated from a stop and inexperienced users should take extra care when first applying the throttle. The pedal assistance feature is also a powerful option and users should fully research and understand how to operate it before first use. Not taking care to familiarize yourself and practice the operation of the power system on your bike from Ariel Rider E-bikes can lead to death or serious injury, please heed this warning. Ariel Rider shall not be responsible for any and all injuries or damages resulting from your improper use of an Ariel Rider E-bike.



Users must follow the instructions and warnings contained in this manual for safety. Do not attempt to operate your bike from Ariel Rider E-bikes until you have adequate knowledge of its control and operation. Damage caused by failing to follow instructions is not covered under warranty and could result in personal injury to you and others, and damage to property and/or your bike from Ariel Rider E-bikes. Contact Ariel Rider E-bikes if you have any questions about assembly or operation. Ariel Rider shall not be responsible for any and all damages or injuries resulting from your misuse of the e-bikes or for engaging in activities that go against the instructions set forth in this manual.

Start-Up Procedure

After the bike has been properly assembled following the assembly video, all components are secured correctly, and you have read this entire manual, you may turn the bike on and select a power level following the steps outlined below:

1. **Familiarize yourself with the key port and key positions.**



2. **Test the battery lock security.** Ensure key port is aligned with the circle containing an "X," in the "Locked" position indicating locked onto the frame mount. If needed, insert the key and align with the "Locked" icon. Remove the key and carefully use both hands to pull up on the battery to test that the lock is secure.

3. **Turn the bike on.** Once the battery lock has been verified, hold down the power button at the bottom of your screen for approximately 2 seconds until power is delivered to the LCD display.
4. **Select your desired level of pedal assistance (PAS)** between level 0 through 5 using the up and down arrows on the display remote. Level 1 corresponds to the lowest level of pedal assistance, and level 5 corresponds to the highest level of pedal assistance. Level 0 indicates pedal assistance is inactive. Start in PAS level 0 or 1 and adjust from there.
5. **To turn on the headlight,** once the LCD Display is on, hold down the top (plus button) located on the LCD Display Remote for approximately 2-3 seconds until the light illuminates.
6. **Begin riding carefully.** With the proper safety gear, rider knowledge, and understanding you may now proceed to operate your bike from Ariel Rider E-bikes. You can begin by pedaling the bike in the appropriate drivetrain gear with pedal assist level 0 or 1. You may also use the throttle to accelerate and maintain your desired speed.
7. **The throttle** is used by carefully rotating the throttle backwards towards the

rider. Do not use the throttle unless you are on the bike.

NOTICE: Even if you are an experienced bike user, please take the time to read and implement the guidelines described in the owner's manual accompanying your X-Class, and the manuals included with each subcomponent.



Users must become accustomed to the bike's power control system before operating. The throttle mechanism allows full power to be activated from a stop and inexperienced users should take extra care when first applying the throttle. The pedal assistance feature is also a powerful option and users should fully research and understand how to operate it before first use. Not taking care to familiarize yourself and practice the operation of the power system on your bike from Ariel Rider E-bikes can lead to death or serious injury, please heed this warning.

Handlebar Features

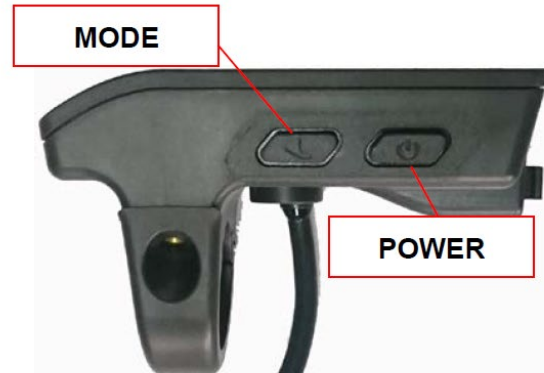
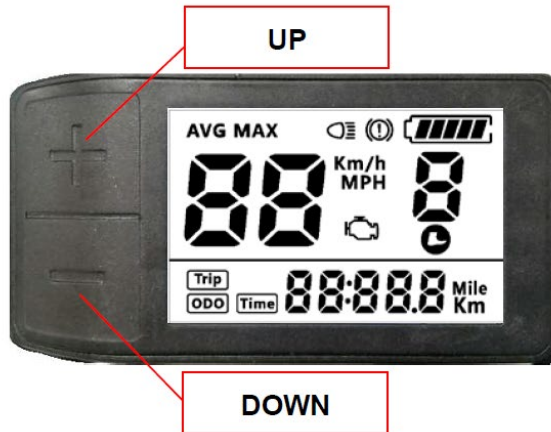
| Location on Handlebar | Component |
|------------------------------|------------------|
| 1 | LCD Display |
| 3 | Shifter |
| 4 | Thumb Throttle |

LCD Display Controls

The display is controlled using the 3-button LCD Display Remote mounted on the left side of the handlebar (depicted at right). The top button shows an arrow pointing UP (1), the middle button is labeled "MODE" (2), and the bottom button shows an arrow pointing DOWN (3). Reference the LCD Display Operations table in this manual for instructions on how to perform various operations using these buttons and, when applicable, other components of the bike.



LCD Functional Description



Power On/Off

Press and hold Power button for 1 second can turn on/off the display. The Display can automatically shut down when the bike isn't being used (X could be 0~9).

Assist Levels

Short press UP/DOWN button can change the assist level.



Speed & Mileage Mode Switch

Short press POWER button can change the speed and mileage mode, AVG SPEED→MAX SPEED→TRIP→ODO→TIME.

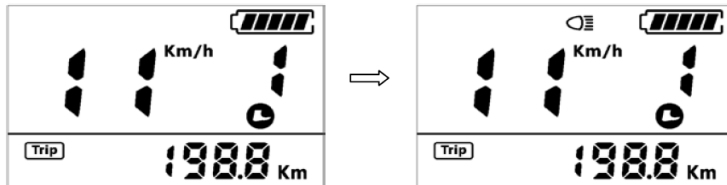


**If there is no operation for 5 seconds, display will return Speed (Real-Time) display automatically.

Headlight & Backlight Turn On/Off

Press and hold UP/+ button for 2 seconds to turn on/off the headlight.

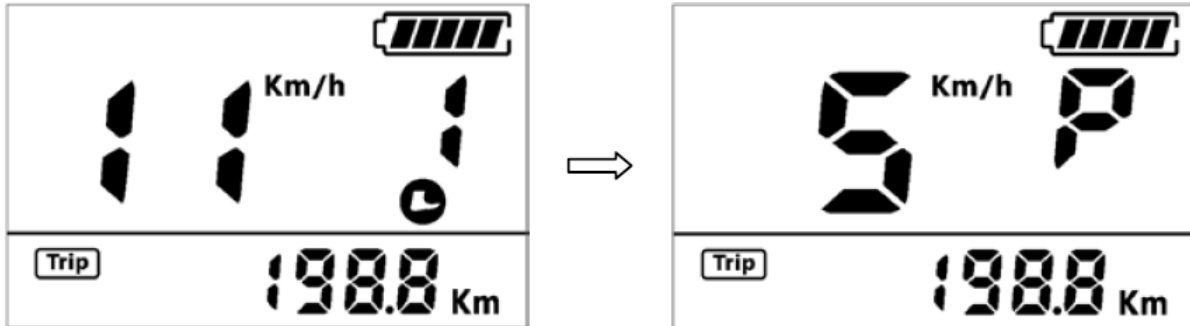
*The motor does not work when the battery voltage is low, Display still can keep the headlight on for a while when E-bike is



in riding.

Walking Mode (3 mph)

Press and hold DOWN button to activate walking mode.



Parameter Settings.

Press MODE button (press no less than 2 seconds) to get into setting menus, press UP/DOWN buttons to change the parameter setting, and press MODE button can switch

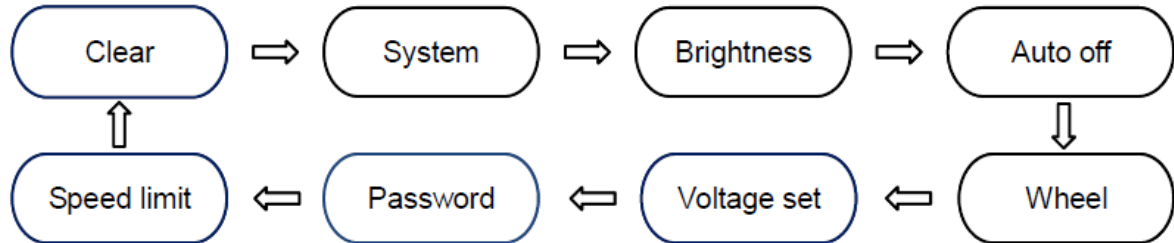
to next item. Press MODE (press no less than 2 seconds) button in order to exit from menu.

* Display will automatically quit menu when there is no operation for 10 seconds.

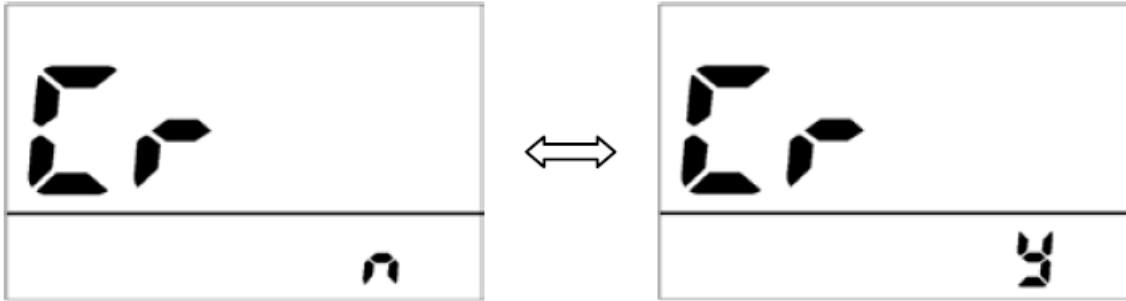
* For safety reasons, display can't get into MENU when riding.

* Display will quit MENU when start riding.

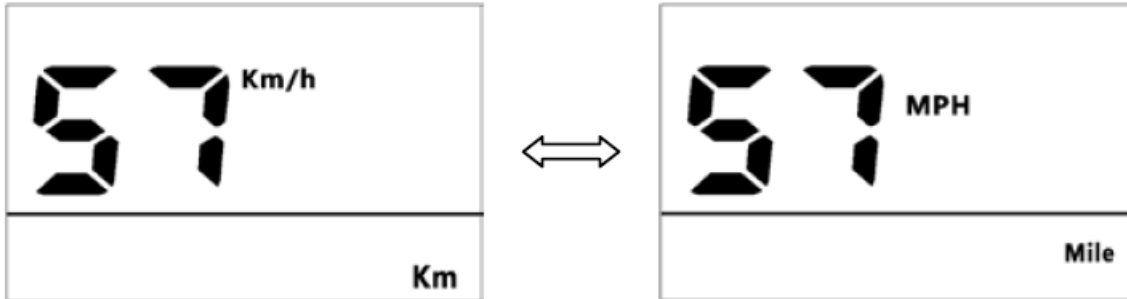
The order of parameters is as follows:



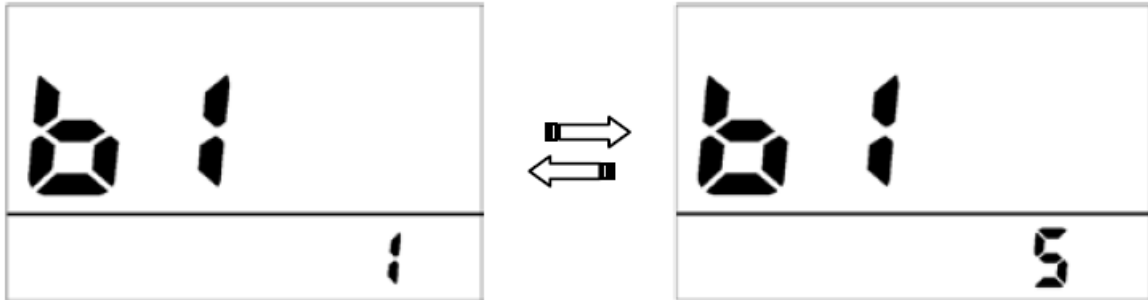
Clear(Cr): Press Up / Down button to change yes can reset several temporary data, temporary data include **AVG Speed / MAX Speed / Trip / Time.**



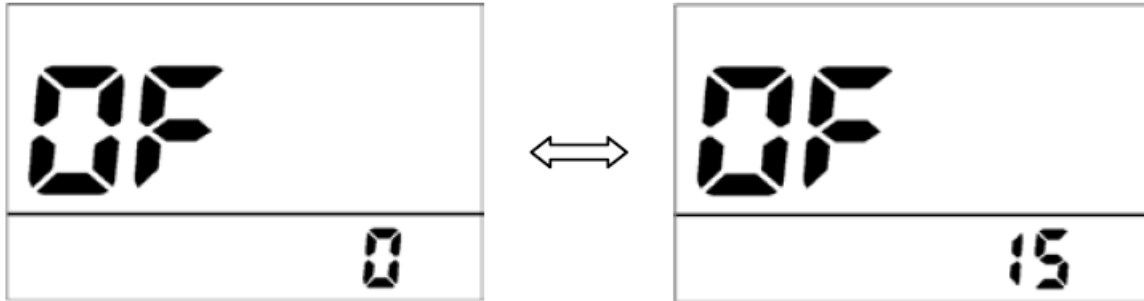
System (S7): Press Up / Down button to switch between Metric / Imperial.



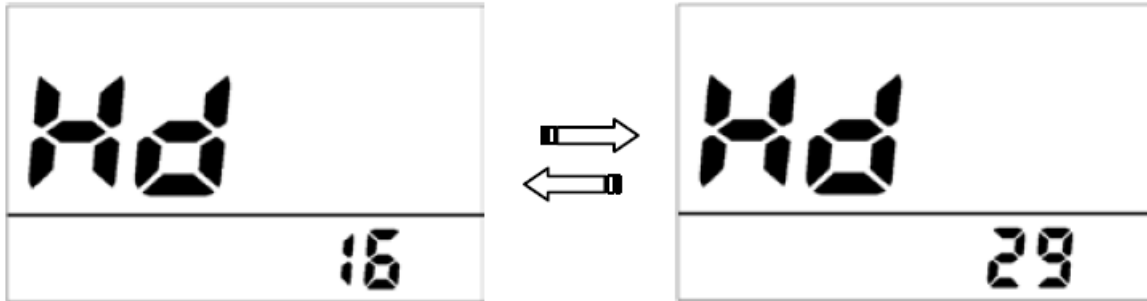
Brightness (b1): Press Up / Down button to change the brightness of the backlight, 1 is darkness 5 is brightness.



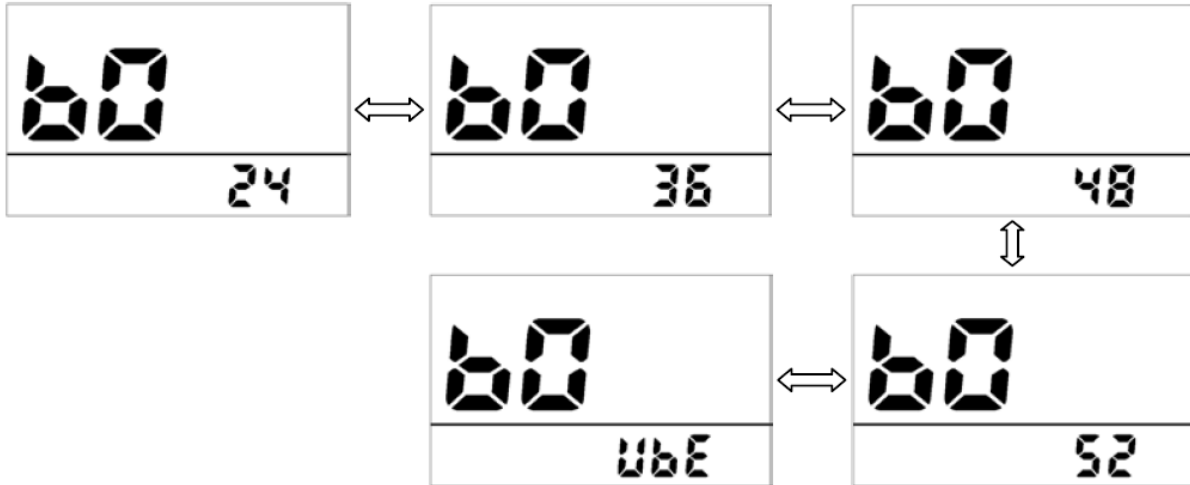
Auto off (OF): Press UP/DOWN button to change the auto power off time, from 0~15, the number represent time (minutes) to shutdown, OFF means disable auto off function, default value is 5 minutes.



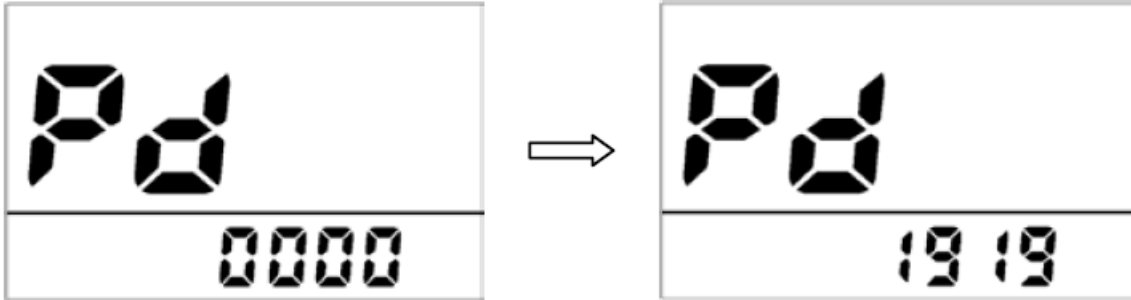
Wheel (Hd): Press UP/DOWN can change the wheel setting, optional wheel diameter is 16~29 inch. Please keep X-Class wheel diameter at 24 inches in order to get correct speed readings on the screen.



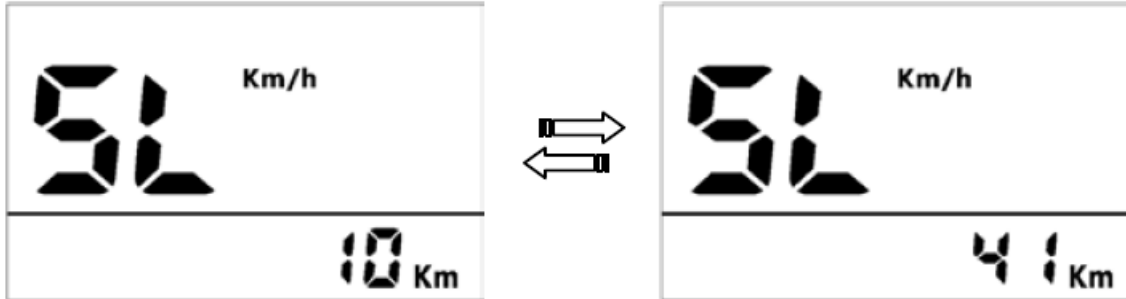
Voltage set(b0) : Press UP/DOWN button rotate display the symbol **24V/36V/48V/52V/UbE**, **UbE** means user-defined voltage setting, this parameter can be set through computer. Please do not change this value.




Password (Pd): Press MODE button can get into the advance setting menu, default password is '1919'.



Speed limit (SL): Press UP/DOWN will change speed limit, range 10km/h~41km/h. Default value is 25km/h.



Error Codes

X-class can show warning message,  icon shows on the screen, and show error code at the bottom of the screen, error code is from 01 E~0nE, and the definition see the table below.

| Error Code | Error description | Handle |
|------------|-------------------------|---|
| 0x21 | Current protection | Check controller. |
| 0x22 | Throttle error | Check turn to connect. |
| 0x23 | three-phase power error | Check three-phase power line connection |
| 0x24 | Hall error | Check the hall connection |
| 0x25 | Brake error | Check the brake connection. |
| 0x26~99 | Reserved | Please contact the manufacturer for error definitions |
| 0x30 | Communication Error | Check the cable connection |



Best Practices for Extending Range and Battery Life

Notice: It is recommended that users pay close attention and ride within the following limitations to ensure the hub motor does not overheat or become damaged from excessive loading.

- To ensure adequate airflow to cool the electric components, keep the bike moving over 10 mph, or under 500 watts.
- Pedal to assist the motor when accelerating from a stop and climbing hills.
- Do not climb hills steeper than 15% in grade.
- Avoid sudden starts and stops.
- Accelerate slowly.

Driving Range

The range of your bike from Ariel Rider E-bikes is the distance the bike will travel on a single full charge of the onboard battery pack. The range values in this manual are estimates based on Ariel Rider E-bikes expected usage characteristics. Some of the factors which effect range include changes in elevation, speed, payload, acceleration, number of starts and stops, and ambient air temperatures. Tire pressure and terrain are also important variables to consider.

We suggest that you select a lower assistance level when you first get your bike from Ariel Rider E-bikes to get to know your bike and travel routes. Once you become familiar with the range requirements of your travel routes and the capabilities of your bike from Ariel Rider E-bikes, you can then adjust your riding characteristics if you so desire.

The following table provides general estimates and outlines various factors effecting range and their combined estimated effects on range. This table is meant to help owners understand the factors that can contribute to decreased range, but Ariel Rider E-bikes makes no claims to the range that individual users might experience in a particular use case, conditions, or riding characteristics.

| Expected Range | Operating Condition(s) |
|-----------------------|---|
| 20 mi (32 km) | <ul style="list-style-type: none"> ○ Hilly Terrain ○ Heavy Payload ○ Windy ○ High Pedal Assist Level/ High Throttle Use ○ Light Pedaling |
| 30 mi (48 km) | <ul style="list-style-type: none"> ○ Flat Terrain ○ Normal Payload ○ Not Windy ○ Medium Pedal Assist Level/ Moderate Throttle Use ○ Light Pedaling |
| 40 mi (64 km) | <ul style="list-style-type: none"> ○ Flat Terrain ○ Normal Payload ○ Not Windy ○ Low Pedal Assist Level/ Minimal Throttle Use ○ Moderate to Heavy Pedaling |

Carrying Loads

MAXIMUM PAYLOAD CAPACITY FOR X-CLASS

The total maximum weight limit, or payload capacity, of the x-Class (320 lbs) includes the weight of the rider as well as clothing, riding gear, cargo, accessories, a passenger, etc.



You MUST hold onto the bike whenever loading cargo and/or a passenger. The kickstand is not designed to be used for loading cargo. Do not assume the bike is stable and balanced when using the kickstand. Always hold onto the bike when cargo is being loaded, in place, or attached to the bike by Ariel Rider E-bikes. Ariel Rider shall not be responsible for any and all injuries or damages resulting from cargo being loaded, in place, or attached to an Ariel Rider E-bike.

Carrying Cargo

Carrying a cargo load involves additional risks, which require special attention and care to mitigate and manage. Braking, acceleration, and balancing are all significantly affected by the addition of cargo loaded on the X-Class. You must become accustomed to the braking, steering, and operational adjustments required to safely operate the X-Class with cargo. Users should practice riding on a flat and open area with light cargo before attempting to carry heavier loads.

Ariel Rider shall not be responsible for any and all injuries or damages resulting from carrying cargo on an Ariel Rider E-Bike, regardless of whether or not the cargo is properly attached, placed, or loaded onto the bike, carrying cargo is a high-risk activity in any scenario and therefore you assume the risk of all potential injuries or damages that may occur and absolve Ariel Rider of all liability associated with that risk.

Notice: The following bulleted list provides important tips for the safe operation of the X-Class when used for carrying cargo.

- Cargo should be loaded as low as possible to lower the center of gravity and improve stability, but cargo should not interfere with any moving components or the ground.
- Ensure your loads are properly secured and periodically check that nothing loosens, risks interfering with any moving components, or could risk touching or dragging on the ground.
- Plan your route accordingly since a rider's hill climbing ability, steering, and braking are all impacted when cargo is loaded on the X-Class. Hills that are normally easy to climb and descend without cargo can become challenging and dangerous once cargo is loaded onto the bike.
- Become proficient at controlling the X-Class with the cargo load in a flat and open area before riding on roads or hills.



Do not use the front brake by itself. Use both brakes for all braking operations. Braking with only the front brake can cause excessive stress on components, damage to the bike and parts, and/or loss of control. Ariel Rider shall not be responsible for any and all damages or injuries resulting from using the front brake by itself or for any excessive stress that is placed on the components, damages occurring to the bike or parts, and/or damages or injuries that occur from loss of control.



The kickstand is not designed to be used for loading cargo or child seats. You MUST hold onto the bike whenever loading cargo, especially when loading precious cargo and children. Do not assume the bike is stable and balanced when using the kickstand, always hold onto the bike when cargo is being loaded or in place.

Parking, Storage, and Transport

Please follow these basic parking, storage, and transport tips to ensure your bike is well cared for on and off the road.

Ariel Rider shall not be responsible for any and all injuries or damages resulting from improper parking, storage, and/or transport.

- When pushing or carrying the bike manually, turn off the power to avoid accidental acceleration from the motor.
- Switch the power and any lights off to conserve battery. Remove the key from the bike and ensure the battery is locked to the or use the key to remove the battery and bring it with you for security.
- It is recommended to park indoors. If you must park outdoors in rain or wet conditions, you should only leave your bike from Ariel Rider E-bikes outside for a few hours and proceed to park the bike in a dry location afterwards to allow all the systems to dry out. Much like a regular bike, use in wet conditions mandates a more regular maintenance schedule to ensure your bike does not become rusty, corroded, and to ensure all systems are always working safely.
- In public places, your bike from Ariel Rider E-bikes must be parked in accordance

with local rules and regulations.

- Locking up your bike is recommended to ensure your bike is secure and the chance of theft is reduced. Ariel Rider E-bikes makes no claims or recommendations on the proper lock hardware or procedures to secure your bike, but we do recommend you take the appropriate precautions to keep your bike from Ariel Rider E-bikes safe from theft.
- Do not park, store, or transport your bike from Ariel Rider E-bikes on a rack not designed for the bike's size and weight.
- Use a rack compatible with the width of tires used on your bike. Some racks may not accommodate all tire widths.
- When storing your bike or carrying your bike on a rack for transport, remove the battery pack to reduce the weight of the bike, make lifting and loading easier, and to protect the battery by transporting in the cab of a vehicle.
- Avoid transporting Ariel Rider E-bikes on a vehicle rack during rain, as this may cause water damage to the electrical components. Contact Ariel Rider E-bikes Technical Support if you have questions about preventative measures.

Maintenance

Basic Bike Care

To ensure safe riding conditions you must properly maintain your bike from Ariel Rider E-bikes. Follow these basic guidelines and see a certified, reputable bike mechanic at regular intervals to ensure your bike is safe for use and fun to ride. See the Pre- Ride Safety Checklist and Recommended Service Intervals sections below for more detailed information.

1. Properly maintain batteries by keeping them fully charged when between uses of up to two weeks apart. See Long- Term Battery Storage section of this manual for information on storing the battery for longer than two weeks between rides.
2. Never immerse or submerge the bike or any components in water or liquid as the electrical system may be damaged.
3. Periodically check wiring and connectors to ensure there is no damage and the connectors are secure.
4. To clean, wipe the frame with a damp cloth. If needed, apply a mild non-corrosive detergent mixture to the damp cloth and wipe the frame. Dry by wiping with a clean, dry cloth.
5. Store under shelter; avoid leaving the bike in the rain or exposed to corrosive

- materials. If exposed to rain, dry your bike afterwards and apply anti-rust treatment to chain and other unpainted steel surfaces.
6. Riding on the beach or in coastal areas exposes your bike to salt, which is very corrosive. Wipe down your bike frequently and wipe or spray all unpainted parts with anti-rust treatment. Damage from corrosion is not covered under warranty so special care should be given to extend the life of your bike when used in coastal areas or areas with salty air or water.
 7. If the hub and bottom bracket bearings have been submerged in water or liquid, they should be taken out and re-greased. This will prevent accelerated bearing deterioration.
 8. If the paint has become scratched or chipped in the metal, use touch up paint to prevent rust. Clear nail polish can also be used as a preventative measure.
 9. Regularly clean and lubricate all moving parts, tighten components, and adjust as required.
 10. The X-Class comes equipped with a fender set, which should be inspected to ensure mounting hardware is properly secured and these parts are in good working condition.

Tire Inflation and Replacement

The X-Class employs 20" x 4" rubber tires with inner tubes. The tubes use Schrader valves to adding/reducing air pressure. The tires are designed for durability and safety for regular cycling activities and the tires need to be checked before each use for proper inflation and condition. Proper inflation, care, and timely replacement will help to ensure that your bike's operational characteristics will be maintained, and unsafe conditions avoided.



It is critically important that proper air pressure is always maintained in pneumatic tires. Do not underinflate or overinflate your tires. Low pressure may result in loss of control, and overinflated tires may burst. Failure to always maintain the air pressure rating indicated on pneumatic tires may result in tire and/or wheel failure. Arie Rider shall not be responsible for any and all damages or injuries resulting from underinflating or overinflating tires.



Inflate your tires from a regulated air source with an available pressure gauge. Inflating your tires from an unregulated air source could overinflate them, resulting in a burst tire.



When changing a tire or tube, ensure that all air pressure has been removed from the inner tube prior to removing tire from the rim. Failure to remove all air pressure from the inner tube could result in serious injury. Ariel Rider shall not be responsible for any and all damages or injuries resulting from not removing all air pressure from the inner tube or from incorrectly changing the tire or tube.



Using aftermarket tires or inner tubes, not provided by Ariel Rider E-bikes may void your warranty, create an unsafe riding condition, or damage to your bike from Ariel Rider E-bikes. If required by law, ensure replacement aftermarket tires have sufficient reflective sidewall striping.

Pre-Ride Safety Checklist

| Safety Check | Basic Steps |
|---------------------|---|
| 1. Brakes | <ul style="list-style-type: none"> ○ Ensure front and rear brakes work properly. ○ Check brake pads for wear and ensure they are not over-worn. ○ Ensure brake pads 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. ○ Test brake levers are firm and that brake, motor cutoff functions, and brake light is functioning properly. |
| 2. Wheels and Tires | <ul style="list-style-type: none"> ○ Ensure tires are inflated to within the recommended limits displayed on the tire sidewalls and holding air. ○ Ensure tires have good tread, have no bulges or excessive wear, and are free from any other damage. ○ Ensure rims run true and have no obvious wobbles, dents, or kinks. ○ Ensure all wheel spokes are tight and not broken. ○ Check axle nuts and front wheel quick release to ensure they are tight. Ensure the locking lever on the quick release skewer (if any) is correctly tensioned, fully closed, and secure position. |
| 3. Steering | <ul style="list-style-type: none"> ○ Ensure handlebar and stem are correctly adjusted and tightened and allow proper steering. ○ Ensure the handlebar is set correctly in relation to the forks and the direction of travel. |

| | |
|----------------------|---|
| 4. Chain | <ul style="list-style-type: none"> ○ Ensure the chain is oiled, clean, and runs smoothly. ○ Extra care is required in wet, salty/otherwise corrosive, or dusty conditions |
| 5. Bearings | <ul style="list-style-type: none"> ○ 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 | <ul style="list-style-type: none"> ○ Ensure pedals are securely tightened to the cranks. ○ Ensure the cranks are securely tightened and are not bent. |

Notice: Before each ride, and after every 25-45 miles, we advise following the pre-ride safety checklist in the table below.

| | |
|--------------------------------------|--|
| 7. Derailleurs | <ul style="list-style-type: none"> ○ Check that the derailleur is adjusted and functioning properly. ○ Ensure shifter and brake levers are attached to the handlebar securely. ○ Ensure all brake and shift cables are properly lubricated. |
| 8. Frame, Fork, and Seat | <ul style="list-style-type: none"> ○ Check that the frame and fork are not bent or broken. ○ If either frame or fork are bent or broken, they should be replaced. ○ Check that the seat is adjusted properly, and seat post quick release lever is securely tightened. |
| 9. Motor Drive Assembly and Throttle | <ul style="list-style-type: none"> ○ Ensure hub motor is spinning smoothly and motor bearings are in good working order. ○ Ensure all power cables running to hub motor are secured and undamaged. ○ Make sure the hub motor axle bolts are secured and all torque arms and torque washers are in place. |
| 10. Battery Pack | <ul style="list-style-type: none"> ○ Ensure battery is charged before use. ○ Ensure there is no damage to battery pack. ○ Lock battery to frame and check to see that it is secured. ○ Charge and store bike and battery in a dry location, between 50-80 degrees Fahrenheit. Let bike dry completely for using again. |
| 11. Electrical Cables | <ul style="list-style-type: none"> ○ Look over connectors to make sure they are fully seated, free from debris or moisture. ○ Check cables and cable housing for obvious signs of damage. ○ Ensure headlight, taillight, and brake light are functioning, adjusted properly, and unobstructed. |

12. Accessories

- Ensure all reflectors are properly fitted and not obscured.
- Ensure all other fittings on bike are properly secured and functioning.
- Inspect helmet and other safety gear for signs of damage.
- Ensure rider is wearing helmet and other required riding safety gear.
- Ensure mounting hardware is properly secured if fitted with rear rack.
- Ensure taillight and taillight power wire are properly secured if fitted with rear rack.
- Ensure fender mounting hardware is properly secured if fitted with fenders.
- Ensure there are no cracks or holes in fenders if fitted with fenders.



Your cables, spokes, and chain will stretch after an initial break-in period of 50-100 mi (80-160 km), and bolted connections can loosen. Always have a certified, reputable bike mechanic perform a tune-up on your X-Class after your initial break-in period of 50-100 mi (80-160 km) (depending on riding conditions such as total weight, riding characteristics, and terrain).

Regular inspections and tune-ups are particularly important for ensuring that your bike remains safe and fun to ride.

Recommended Service Intervals

| Interval | Inspect | Service | Replace |
|----------------------------|--|--|--|
| Weekly , 100-200 miles | <ul style="list-style-type: none"> - Check hardware for proper torque: See Recommended Torque Values chart. - Check drivetrain for proper alignment and function (including the chain, freewheel, chainring, and derailleur). - Check wheel trueness and for quiet wheel operation (without spoke noise). - Check condition of frame for any damage. | <ul style="list-style-type: none"> - Clean frame by wiping frame down with damp cloth. - Use barrel adjuster(s) to tension derailleur/brake cables if needed. | <ul style="list-style-type: none"> - Any components confirmed by Ariel Rider E-bikes Technical Support or a certified, reputable bike mechanic to be damaged beyond repair or broken. |
| Monthly , 250-750 miles | <ul style="list-style-type: none"> - Check brake pad alignment, brake cable tension. - Check bike is shifting properly, proper derailleur cable tension. - Check chain stretch. - Check brake and shifter cables for corrosion or fraying. - Check spoke tension. - Check accessory mounting (rack mounting | <ul style="list-style-type: none"> - Clean and lubricate drivetrain. - Check crankset and pedal torque. - Clean and optionally lubricate brake and shift cables. - True and tension wheels if any loose spokes are discovered. | <ul style="list-style-type: none"> - Replace brake and shift cables if necessary. - Replace brake pads if necessary. |

| | | | |
|---|---|--|---|
| | bolts, fender hardware, and alignment). | | |
| Every 6 Months, 750- 1250 miles | <ul style="list-style-type: none"> - Inspect drivetrain (chain, chainring, freewheel, and derailleur). - Inspect all cables and housings. | <ul style="list-style-type: none"> - Standard tune-up by certified, reputable bike mechanic is recommended. - Grease bottom bracket. | <ul style="list-style-type: none"> - Replace brake pads. - Replace tires if necessary. - Replace cables and housings if necessary. |

Regular inspection and maintenance are key to ensure bikes from Ariel Rider E-bikes function as intended, and to reduce wear and tear on their systems. Recommended service intervals are meant to be used as guidelines. Real world wear and tear, and the need for service, will vary with conditions of use. We generally recommend inspections, service, and necessary replacements be performed at the time or mileage interval that comes first in the following table.

Troubleshooting

Basic Troubleshooting

| | Symptoms | Possible Causes | Most Common Solutions |
|---|--|--|---|
| 1 | It doesn't work | <ol style="list-style-type: none">1. Insufficient battery power2. Faulty connections3. Battery not fully seated in tray4. Improper turn on sequence5. Brakes are applied | <ol style="list-style-type: none">1. Charge the battery pack2. Clean and repair connectors3. Install battery correctly4. Turn on bike with proper sequence5. Disengage brakes |
| 2 | Irregular acceleration and/or reduced top speed | <ol style="list-style-type: none">1. Insufficient battery power2. Loose or damaged throttle | <ol style="list-style-type: none">1. Charge or replace battery2. Replace throttle |
| 3 | When powered on the motor does not respond | <ol style="list-style-type: none">1. Loose wiring2. Loose or damaged throttle3. Loose or damaged motor plug wire4. Damaged motor | <ol style="list-style-type: none">1. Repair and or reconnect2. Tighten or replace3. Secure or replace4. Repair or replace |

| | | | |
|---|--|--|--|
| 4 | Reduced range | <ol style="list-style-type: none"> 1. Low tire pressure 2. Low or faulty battery 3. Driving with too many hills, headwind, braking, and/or excessive load 4. Battery discharged for long period of time without regular charges (aged or damaged) 5. Brakes rubbing | <ol style="list-style-type: none"> 1. Adjust tire pressure 2. Check connections or charge battery 3. Assist with pedals or adjust route 4. Replace the battery 5. Adjust the brakes |
| 5 | The battery won't charge | <ol style="list-style-type: none"> 1. Charger not well connected 2. Charger damaged 3. Battery damaged 4. Wiring damaged | <ol style="list-style-type: none"> 1. Adjust the connections 2. Replace 3. Replace 4. Repair or replace |
| 6 | Wheel or motor makes strange noises | <ol style="list-style-type: none"> 1. Damaged motor bearings 2. Damaged wheel spokes or rim 3. Damaged motor wiring | <ol style="list-style-type: none"> 1. Replace 2. Repair or replace 3. Repair or replace motor. |

Warnings and Safety

General Operating Rules

Notice: It is recommended that users pay special attention to all the general operating rules below before operating their bike from Ariel Rider E-bikes. Ariel Rider shall not be responsible for any and all injuries or damages resulting from failing to adhere to all general operating guidelines before, during, and/or after operating your Ariel Rider E-Bike.

- When riding, obey the same road laws as all other road vehicles as applicable by law in your area.
- For additional information regarding traffic/vehicles laws, contact the road traffic authority in your area.
- Ride predictably, in a straight line, and with the flow of traffic. Never ride against traffic.
- Use correct hand signals to indicate turning.
- Ride defensively; to other road users you may be hard to see.
- Concentrate on the path ahead. Avoid potholes, gravel, wet or oily roads, wet leaves, curbs, train tracks, speed bumps, drain gates, thorns, broken glass, and other obstacles, hazards, and puncture flat risks.
- Cross train tracks at a 90-degree angle or walk your bike across.
- Expect the unexpected such as opening car doors or cars backing out of

driveways.

- Be careful at intersections and when preparing to pass other vehicles or other cyclists.
- Familiarize yourself with all the features and operations of the bike by Ariel Rider E-bikes. Practice and become proficient at shifting gears, applying the brakes, using the power assist system, and using the throttle in a controlled setting before riding in riskier conditions.
- Wear proper riding clothes including closed-toe shoes. If you are wearing loose pants, secure the bottom using leg clips or elastic bands to prevent them from being caught in the chain or gears. Do not use items that may restrict your hearing.
- Check your local rules and regulations before carrying cargo.
- When braking, apply the rear brake first, then the front brake. If brakes are not correctly applied, they may lock up, you may lose control, and you could fall.
- Maintain a comfortable stopping distance from all other objects, riders, and vehicles. Safe braking distances are based on forces such as road surface and light conditions among other variables.

Safety Notes



The following safety notes provide additional information on the safe operation of your bike from Ariel Rider E-bikes and should be closely reviewed. Failure to review these notes can lead to serious injury or death. Ariel Rider shall not be responsible for any and all damages or injuries resulting from your misuse of Ariel Rider E-bikes, including but not limited to the examples of misuse set forth below.

- All users must read and understand this manual before their first use of the bike from Ariel Rider E-bikes. Additional manuals for components used on the bike may also be provided and should be read before use in addition to this manual.
- Ensure that you comprehend all instruction and safety notes/warnings.
- Ensure the bike fits you properly before your first use. You may lose control or fall if your bike is too big or too small.
- Always wear an approved bicycle helmet whenever using this product and ensure that all helmet manufacturer instructions are used for fit and care of your helmet. Failure to wear a helmet when riding may result in serious injury or death.
- Ensure correct setup and tightening is performed on your bike before first using it and check the setup, tightening, and condition regularly.

- It is your responsibility to familiarize yourself with the laws and requirements of operating this product in the area(s) where you ride.
- Ensure the handlebar grips are undamaged and properly installed. Loose or damaged grips can cause you to lose control and fall.
- Do not use this product with standard bike trailers, stands, vehicle racks, or accessories that Ariel Rider E-bikes has not tested for safety and compatibility and have verified as safe and compatible with the bike. Contact Ariel Rider E-bikes to check if your equipment will work with the bike.
- Off-roading on Ariel Rider E-bikes is absolutely prohibited and Ariel Rider shall not be responsible for any and all injuries or damages resulting from off-roading.
- Engaging in extreme riding is extremely dangerous and should be avoided. Although many articles/advertisements/catalogs depict extreme riding, this is not recommended nor permitted, and you can be seriously injured or killed if you perform extreme riding. Ariel Rider shall not be responsible for any and all injuries or damages resulting from extreme riding.

- Bikes and bike parts have strength and integrity limitations and extreme riding should not be performed as it can damage bike components and/or cause or lead to dangerous riding situations in which you may be seriously injured or killed.
- Failure to perform and confirm proper installation, compatibility, proper operation, or maintenance of any component or accessory can result in serious injury or death.
- After any incident, you must consider your bike unsafe to ride until you consult with a certified, reputable bike mechanic for a comprehensive inspection of all components, functions, and operations of the bike.
- Failure to properly charge, store, or use your battery will void the warranty and may cause a hazardous situation.
- You should check the operation of the brake motor cutoff switches before each ride. The brake system is equipped with an inhibitor which cuts off power to the electric motor whenever the brakes are engaged. Check proper operation of brake motor cutoff switches before riding.
- Extreme care should be taken when using the pedal assistance sensor and throttle on this product. Ensure you understand and are prepared for the power assistance to engage as soon as pedaling is underway.

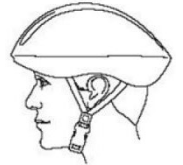
- Users must understand the operation of the twist throttle and pedal assistance sensors before using the bike and take ample care in their usage in respect to traveling at speeds appropriate for the usage area, riding conditions, and user experience level. Always use the lowest assist level until you are comfortable with the bike and feel confident in controlling the power.
- Any aftermarket changes to your bike from Ariel Rider E-bikes not expressly approved by Ariel Rider E-bikes could void the warranty and create an unsafe riding experience. Ariel Rider shall not be responsible for any and all damages or injuries resulting from aftermarket changes to your e-bike.
- Because electric bikes are heavier and faster than normal bikes, they require extra caution and care while riding.
- Take extra care while riding in wet conditions. Feet or hands can slip in wet conditions and lead to serious injury from a fall or death.
- Do not remove any reflectors or the bell.

Helmets

It is REQUIRED that all riders wear a properly fitting ANSI or SNELL approved bicycle safety helmet when riding your bike.



Always wear a properly fitted helmet which covers the forehead when riding a bike. Many locations require specific safety devices. It is your responsibility to familiarize yourself with the local laws, rules and regulations where you ride and to comply with all applicable laws, including properly equipping yourself and your bike as the law requires. Ariel Rider shall not be responsible for any and all injuries or damages resulting from not wearing a helmet. You are REQUIRED to wear a helmet and you assume the risk of all injuries or damages resulting from refusing to protect yourself from head or neck injuries caused from not wearing a helmet.



General Warnings



Read and understand all sections of this entire manual before operating the bike for the first time. There are important safety warnings throughout the whole manual that must be followed to prevent dangerous situations, accidents, and possible injury and/or death. Ariel Rider shall not be responsible for any and all damages or injuries resulting from your use of the Ariel Rider E-bikes.



Like any sport, bicycling involves risk of damage, injury, and death. By choosing to ride a bike, you assume the responsibility for that risk, so you need to know, and practice, the rules of safe and responsible riding and the proper use and maintenance of this bike. Proper use and maintenance of your bike reduces risk of damage, injury, and death.



Biking and controlled substances do not mix. Never operate a bike while under the influence of alcohol, drugs, or any substance or condition that could impair motor functions, judgement, or the ability to safely operate a bike/vehicle.



The X-Class is designed for use by persons 18 years old and older. Riders must have the physical condition, reaction time, and mental capability to ride safely and manage traffic, road conditions, sudden situations, and respect the laws governing electric bike use where they ride, regardless of age. If you have an impairment or disability such as a visual impairment, hearing impairment, physical impairment, cognitive/language impairment, or a seizure disorder, consult your physician before riding any bike.

Wet Weather



It is recommended to not ride in wet weather if avoidable. Ride in wet weather only if necessary.

This electric bike is not meant for use in puddles, heavy rain, or streams. Never immerse or submerge this product in water or liquid as the electrical system may be damaged.

- In wet weather you need to take extra care when operating this bike.
- Decrease riding speed to help you control the bike in slippery conditions.
- Brake earlier since it will take longer to slow than when operated in dry conditions.
- Take care to be more visible to others on the road. Wear reflective clothing and use approved safety lights.
- Road hazards are more difficult to see when wet; proceed with caution.

Night Riding



It is recommended to not ride at night if avoidable. Ride at night only if necessary.

- Wear reflective and light-colored clothing.
- Slow down and use familiar roads with street lighting, if possible.
- Ensure tire wall, pedal, and other reflectors are installed and unobstructed.
- Ensure head light and taillight/brake light are functioning correctly and use them.

A Note for Parents and Guardians

As a parent/guardian, you are responsible for the activities and safety of your child. The X-Class is not designed for use by children. If you are carrying a passenger in a child safety seat, they must also be wearing a helmet. Additional safety information regarding helmets is in the Helmet section of this manual.

Consumer Misuse

Ariel Rider waives any and all liability for injuries resulting from consumer misuse of an Ariel Rider Electric Bicycle (“bike”). The subsequent information provides consumer use requirements pursuant to e-bike state laws, however the stated requirements are not exhaustive and merely serves as a reference for misuse which Ariel Rider shall accept no liability for.

For those residing in the state of **Washington**, you must comply with [RCW 46](#), which provides that:

- a. You must ride the Bike on sidewalks unless there is no alternative way to travel;
- b. You shall not operate the Bike on fully controlled limited access highways;
- c. You shall not tamper with or modify the Bike so as to change its speed capability;
- d. You shall not operate a Class C Bike if You are under 16 years old;

- e. You shall not operate a Class 3 Bike on a shared-use path, except where local jurisdictions may allow the use of Class 3 electric-assisted bicycles;
- f. You shall not operate the Bike where motorized vehicles are prohibited;
- g. You shall not ride the Bike on a trail that is specifically designated as nonmotorized and that has a natural surface tread that is made by clearing and grading the native soil with no added surfacing materials.

Moreover, pursuant to [RCW 7.72](#) and applying to those residing in **Washington**, Ariel Rider shall not be liable for injuries resulting from the fault of the manufacturer in any scenario, including but not limited to (1) if there is no solvent manufacturer subject to service of process under the laws of the claimant's domicile or the state of Washington, (2) if the court determines that it is highly probable that the claimant would be unable to enforce a judgment against any manufacturer, (3) if Ariel Rider provides plans or specifications for the manufacture or preparation of the product and such plans or specifications were a proximate cause of the defect in the product, or (4) if the Bikes are marketed under a trade or brand name of Ariel Rider.

For those residing in the state of **Texas**, You must comply with [Texas Transportation Code Sec. 551](#), which provides that:

- a. You shall not ride the Bike only on or astride a permanent and regular seat attached to the Bike;
- b. You shall not use the Bike to carry more persons than the Bike is designed or equipped to carry;
- c. You shall not use the Bike to carry an object that prevents the person from operating the Bike with at least one hand on the handlebars of the bicycle;
- d. You shall not attach either the person or the Bike to a streetcar or vehicle on a roadway;
- e. You shall not impede the normal and reasonable flow of traffic on the roadway when You and someone else are riding next to each other;
- f. You shall not operate the Bike nighttime unless the bicycle is equipped with the safety equipment designated in Sec. 551.104(b)(1)-(2);
- g. You shall not operate the Bike unless the electric motor disengages or ceases to function either (1) when You stop pedaling or (2) when the brakes are applied;
- h. You shall not operate a Class 3 Bike unless You are at least 15 years of age;

- i. If You are operating the Bike on a roadway and are moving slower than the other traffic on the roadway, You shall ride as near as practicable to the right curb or edge of the roadway, unless the exceptions in Sec. 551.103(a)(1)-(4) apply.

Moreover, pursuant to [TX CIV PRAC & REM §82.003](#) and applying to those residing in Texas, Ariel Rider shall not be liable for any product liability action due to the fact that electronic bicycles are products known to be unsafe by the ordinary consumer who consumes the product with the ordinary knowledge common to the community.

For those residing in the state of **California**, You must comply with [AB-1096](#), which provides that:

- a. You shall not operate the Bike on a bicycle path or trail, bikeway, bicycle lane, equestrian trail, or hiking or recreational trail, unless it is within or adjacent to a roadway or unless the local authority or the governing body of a public agency having jurisdiction over the path or trail permits, by ordinance, that operation;
- b. You shall not operate a Class 3 Bike if You are under 16 years of age;
- c. You shall not operate a Class 3 Bike or ride as a passenger unless wearing a properly

fitted and fastened bicycle helmet that meets the requirements set forth in AB 1096 Section 21213;

- d. You shall not tamper with or modify the Bike so as to change the speed capability of the Bike, unless You appropriately replace the label indicating the Classification required in subdivision (c) of Section 312.5.

For those residing in the state of **Colorado**, You must comply with [C.R.S. 42-4](#), which provides that:

- a. You shall not use the Bike to carry more persons at one time than the number for which it is designed or equipped;
- b. You shall not attach Yourself to any motor vehicle upon a roadway;
- c. You shall not ride next to another electronic bike operator except on paths or parts of roadways set aside exclusively for bicycles;
- d. You shall not ride a Class 3 Bike upon any street, highway, or bike or pedestrian path if You are under 16 years of age, unless You are a passenger;
- e. You shall ride in the right-hand lane when operating on a roadway at less than the normal speed of traffic, subject to the conditions in Section 42-4-1412(5)(a);

- f. You shall keep at least one hand on the handlebars at all time;
- g. You shall comply with the parking requirements of Section 42-4-1412(11);
- h. You shall wear a bicycle helmet if You are under 18 years of age, and
 - a. That helmet shall must conform to the specifications in Section 42-4-1412(15)(b)(II)
 - b. That helmet must be secured properly on Your head with a chin strap while the Class 3 Bike is in motion.

Moreover, pursuant to [CO Rev. Stat. §13-21-402.5](#) and applying to those residing in Colorado, Ariel Rider shall not be liable for injury, death, or property damage that occurs as a result of use in a manner or for a purpose other than that which was intended and which could not reasonably have been expected, with such misuse as the cause of the injury, death, or property damage.

For those residing in the state of Illinois, You must comply with [SB 0396 Sec. 11](#), which provides that:

- a. You must operate a Class 2 Bike in a manner so that the electric

motor is disengaged or ceases to function when the brakes are applied;

- b. You must operate a Class 1 and Class 3 Bike in a manner so that the electric motor is disengaged or ceases to function when You stop pedaling;
- c. You shall not operate a low-speed Bike on a sidewalk;
- d. You shall not operate a Class 3 Bike if You are under 16 years of age; however, You may ride as a passenger.

Moreover, pursuant to [IL ST CH 735 §5/13-213](#) and applying to those residing in Illinois, Ariel Rider shall not be liable for injury or damages claimed to have resulted from an alteration, modification, or change of the Bike, when that injury or damage is claimed to have resulted from said alteration, modification, or change of the Bike.

For those residing in the state of New Jersey, You must comply with [N.J.S. §39:4-14.16](#), which provides that:

- a. You shall not tamper with or modify a low-speed Bike so as to change the motor-powered speed capability or engagement of a low-speed electric bicycle, unless You appropriately replace the label indicating the Classification required in subsection b. of N.J.S. §39:4-14.16;
- b. You shall not operate the Bike on a trail designated for non-motorized traffic if such trail has a natural surface tread made by clearing and grading the soil and no surfacing materials have been added;
- c. You may not park the Bike on the sidewalk so as to impede the normal movement of pedestrian or other traffic upon the sidewalk.

Moreover, pursuant to [NJ Rev Stat §2a:58C-3](#) and applying to those residing in New Jersey, Ariel Rider shall not be liable for avoidably or unavoidably unsafe aspects of the Bike, regardless of whether or not Ariel Rider provides adequate warning or instruction. Ariel Rider shall not be responsible for injuries resulting from unsafe aspects of the Bikes, regardless of whether or not such unsafe aspects are an inherent characteristic of the product or are

such that an ordinary person who uses the Bike with the ordinary knowledge common to the Class of persons for whom the product is intended is aware of such aspects.

For those residing in the state of Michigan, You must comply with [Michigan Vehicle Code Chapter 257](#), which provides that:

- a. You shall not tamper with or modify the Bike so as to change the manufactured motor-powered speed capability or motor engagement of the Bike without replacing the label required under subsection (2) with an appropriate label printed in Arial font and in at least 9-point type;
- b. You shall not operate a Class 3 Bike if You are under 14 years of age; however, You may ride as a passenger;
- c. You must wear a properly fitted and fastened bicycle helmet that meets federal standards established by the United States Consumer Product Safety Commission or the American Society for Testing and Materials if You are under 18 years of age;

- d. You shall not operate the Bike on a trail that is designated as nonmotorized and that has a natural surface tread that is made by clearing and grading the native soil with no added surfacing materials;
- e. You shall only operate a Class 2 or Class 3 electric bicycle on a linear trail that has an asphalt, crushed limestone, or similar surface, or a rail trail if authorized by the local authority or agency of this state having jurisdiction over the trail.

Moreover, pursuant to the [Revised Judicature Act of 1961 – §600.2946](#) and applying to those residing in Michigan, Ariel Rider shall not be responsible for failure to warn of a material risk that is or should be obvious to a reasonably prudent Bike user or a material risk that is a matter of common knowledge to those in the same or similar position as the person upon whose injury a claim is premised on. Ariel Rider shall not be liable for injuries resulting from product defects that could have prevented harm through the use of practical and technically feasible alternative production practices. Ariel Rider shall not be liable in a product liability claim for harm caused by misuse, alteration, or

change of the Bike, regardless of whether or not the misuse was reasonably foreseeable.

For those residing in the state of Florida, You must comply with [CS/SB 1148\(4\)](#), which provides that:

- a. You shall not tamper with or modify the Bike so as to change the motor-powered speed capability or engagement of the Bike, unless the label indicating the Classification number required in subsection (3) of CS/SB 1148 is replaced after such modification.

For those residing in the state of Oregon, You must comply with [ORS 814](#), which provides that:

- a. You shall not operate the Bike on any portion of a roadway that is not a bicycle lane or bicycle path when a bicycle lane or bicycle path is adjacent to or near the roadway;
- b. You shall not operate the Bike and carry more persons on the Bike

- than the number for which it is designed or safely equipped;
- c. You shall not operate the Bike and carry a package, bundle or article which prevents You from keeping at least one hand upon the handlebar and having full control at all times;
 - d. You shall not operate the Bike if You are under 16 years of age;
 - e. You shall not operate the Bike on a highway or on premises open to the public without wearing protective headgear of the type approved by ORS 815.052 if You are under 16 years of age;
 - f. You shall not commit the offense of unsafe operation of the Bike on a sidewalk, which includes but is not limited to:
 - a. Operating the Bike so as to suddenly leave a curb or other place of safety and moving into the path of a vehicle that is so close as to constitute an immediate hazard;
 - b. Not giving an audible warning before overtaking and passing a pedestrian, and not yielding the right of way to all pedestrians on the sidewalk;
 - c. Operating the Bike in a careless manner that endangers or would be likely to endanger any person or property;

- d. Operating the Bike on a sidewalk;
- e. Operating the Bike at a speed greater than an ordinary walk when approaching or entering a crosswalk, approaching or crossing a driveway or crossing a curb cut or pedestrian ramp and a motor vehicle is approaching the crosswalk, driveway, curb cut or pedestrian ramp (note this does not require reduced speeds for the Bike at places on sidewalks or other pedestrian ways other than places where the path for pedestrians or bicycle traffic approaches or crosses that for motor vehicle traffic).

Moreover, pursuant to [ORS 30.915](#) and applying to those residing in Oregon, Ariel Rider shall not be responsible for foreseeable and unforeseeable modifications, alterations, and/or changes to the Bike, regardless of whether or not Ariel Rider provided warning associated with modifications, alterations, or changes to the Bike.

For those residing in the state of Massachusetts, You must comply with

[Massachusetts Code, Ch. 85, Sec. 11B](#), which provides that:

- a. You shall not ride a Class 3 Bike on a bike path or shared-use path unless permitted by the municipality, local authority or state agency having jurisdiction over that path;
- b. You shall not tamper with or modify the Bike so as to change the motor-powered speed capability or engagement of the Bike, unless You appropriately replace the label required by subsection (3) of Massachusetts Code, Ch. 85., Sec 11B;
- c. You shall not operate a Class 3 Bike if You are under 16 years of age; however, You may ride as a passenger;
- d. You must wear a properly fitted and fastened bicycle helmet that meets the standards provided by either the United States Consumer Product Safety Commission or the American Society for Testing and Materials, or standards subsequently established by those entities, if You are operating or riding a Class 3 Bike, regardless of Your age and whether or not You are an operator or passenger;

- e. You must ensure that the municipality or local authority having jurisdiction over the streets, roads, or ways You are operating a Class 3 Bike on allow the operation of Class 3 Bikes on those streets, roads, or ways.

Notwithstanding, even if You reside in a state that does not explicitly make any of the following activities illegal, You represent and warrant that:

- a. You shall not tamper with or modify the Bike so as to change the motor-powered speed capability or engagement of the Bike;
- b. You shall wear a properly fitted and fastened bicycle helmet that meets the standards provided by either the United States Consumer Product Safety Commission or the American Society for Testing and Materials, or standards subsequently established by those entities, regardless of Your age and whether or not You are an operator or passenger;
- c. You shall not operate the Bike in a careless manner that endangers or would be likely to endanger any person or property;

- d. You shall not operate the Bike and carry a package, bundle or article which prevents You from keeping at least one hand upon the handlebar and having full control at all times;
- e. You shall not operate the Bike and carry more persons on the Bike than the number for which it is designed or safely equipped;
- f. You shall keep at least one hand on the handlebars at all time;
- g. You shall not operate the Bike on fully controlled limited access highways;
- h. You shall not operate the Bike where motorized vehicles are prohibited.

Moreover, You represent and warrant that You must not operate the Bike with recklessness, carelessness, or disregard for the safety of Yourself or others, including but not limited to wheelies, burnouts, stoppies, rolling stoppies, donuts, hand drags, duanes, cartoon stoppies, tail drags, heel clicks, knee draggins, stand ups, left leg crossovers, stand up wheelies, sit down wheelies, rear peg wheelies, fender grabs, sidesaddle wheelies, high chair wheelies, flamingos, rolling burnouts, crossup burnouts, switchbacks, arches, tank headstands, rolling endos, droppies, christ's, reverse christ's, leap of faiths,

leap of deaths, and any other stunt or activity, known now or in the future, that puts You at risk for injury.

Limited Warranty

Warranty Info

Every bike by Ariel Rider E-bikes is covered under a manufacturer's one-year all-inclusive warranty for the original owner against all manufacturing defects. Warranty details below are subject to change at any time; for the most current warranty version, visit <https://arielrider.com/pages/warranty>. Ariel Rider E-bikes warrants this product, including all individual components against defects in material or workmanship as follows:

Ariel Rider E-bikes' bike components including frame, forks, stem, handlebar, headset, seat post, seat saddle, brakes, lights, bottom bracket, crank set, pedals, rims, wheel hub, freewheel, cassette, derailleur, shifter, motor, throttle, controller, wiring harness, LCD display, kickstand, reflectors, and hardware are warranted to be free from manufacturing defects in materials and/or workmanship for a 1-year period from the date of original purchase.

Ariel Rider E-bikes' lithium ion batteries are warranted to be free from manufacturing defects in materials and/or workmanship for a 1-year period from the date of original purchase. The battery warranty does not include damage from power surges, use of improper charger, improper maintenance or other such misuse, disassembly, normal

wear, or water damage.

Warranty Exclusions

- Liability for material defects does not cover normal wear and tear, which occurs from the manufacturers' intended use of the product. Components such as the battery pack, motor system, braking system, drivetrain system, seat, grips and pedals are all subject to intended use-related wear and are not covered under the warranty from normal wear.
- Damage arising from the use of the bike in a competition or other applications outside of normal intended use.
- Damage arising from improper tools, improper assembly, or improper maintenance performed on the bike.
- Damage resulting from adding non-standard equipment, parts, or modifications.

Additional Warranty Terms

This warranty does not cover any damage or defects resulting from failure to follow instructions in the owner's manual, acts of God, accident, misuse, neglect, abuse, commercial use, alterations, modification, improper assembly, wear and tear, installation of parts or accessories not originally intended or compatible with the bike as sold, operator error, water damage, extreme riding, stunt riding, or improper follow-up maintenance. This warranty does not include normal wear and tear or consumable parts designed to wear down over time, including tires, tubes, brake pads, cables and housing, spokes, and handlebar grips.

Ariel Rider E-bikes will not be liable and/or responsible for any damage, failure, or loss caused by any unauthorized service or use of unauthorized parts. In no event shall Ariel Rider E-bikes be responsible for any direct, indirect, or consequential damages, including without limitation, damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, or product liability in connection with their products. All claims to this warranty must be made through Ariel Rider E-bikes. Proof of purchase is required with any warranty request.

Information on Component Wear

Components of the X-Class are subject to higher wear when compared to bikes without

power assistance. This is because the X-Class can travel at higher average speeds than regular cycles and has a greater weight. Higher wear is not a defect in the product and is not subject to warranty. Typical components affected are the tires, brake pads and rotors, suspension forks, spokes, wheels, and the battery pack.



When the useful life of a component is surpassed it can cause unexpected loss of function. This can result in serious injuries or even death. Therefore, pay attention to wear characteristics such as cracks, scratches, or changes in the color or operation of components which could indicate useful life has been exceeded. Worn components should be replaced immediately. If you are unfamiliar with regular maintenance, a certified, reputable bike mechanic should be consulted. Ariel Rider shall not be responsible for any and all damages or injuries resulting from use of an Ariel Rider E-bike past its useful life.

We are here to help!

If you have questions, please:

Access Ariel Rider E-bikes Help Center

(www.arielrider.com/help), Contact us

directly by email to

info@arielrider.com