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# OWNER'S MANUAL

Read Instructions Before Using Your New **E-bike**

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***Dirt Hawk 20***



***Navigator SF26***



***Navigator SM26***



***Outback 26***



***Xplorer XF26***



***Xplorer XM26***



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## **NOTICE!**

**Before using your new E-bike the first time,  
Charge 6 hours for Li-ion batteries and 8 hours for SLA (Sealed Lead Acid) batteries**

**Always recharge the battery before the power indicator shows no power.**

**Failure to follow these instructions voids any warranty, whether stated or implied.**

### **Before operating your E-bike**



This product does not conform to Federal Motor Vehicles Standards and is not intended for operation on public streets, roads or highways. Serious injury can result from the unsafe operations of this vehicle.

This product is not designed to be jumped. If jumped, even from the curb, The E-bike Frame could break causing serious injury or death.  
If jumped, the warranty is void.

Do not operate this product in traffic, on wet, frozen, oily or Unpaved surfaces or under the influence of drugs and/or alcohol. Avoid uneven surfaces, potholes, surface cracks and obstacles.

It is recommended that the rider wear leather gloves, kneepads And leather boots. Always wear a DOT approved helmet.

Never carry passengers on your E-bike.

Check your state and local laws governing the use of motorized vehicles in your area.

Yukon Trail, Inc. is not responsible for your Failure to comply with state and local ordinances Relating to the use of the E-bike.

Failure to follow these operation instructions can result in serious injury or death.



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## Before You Ride

### About this Manual

It is important for you to understand your new bicycle. By reading this manual before you go out on your first ride, you will know how to get better performance, comfort, and enjoyment from your new bicycle.

It is also important that your first ride on your new bicycle is taken in a controlled environment, away from cars, obstacles, and other cyclists.

### General Warning

Bicycles can be hazardous activity even under the best of circumstances. Proper maintenance of your cycles is your responsibility as it helps reduce the risk of injury. This manual contains many “Warnings” and “Cautions” concerning the consequences of failure to maintain or inspect your bicycle. Many of the warning and cautions say “you may lose control and fall.” Because any fall can result in serious injury or even death, we do not repeat the warning of possible injury or death whenever the risk of falling is mentioned.

### A Special Note for Parents

It is a tragic fact that most bicycle accidents involve children. As a parent or guardian, you bear the responsibility for the activities and safety of your minor child. Among these responsibility are to make sure that the bicycle which your child is riding is properly fitted to the child; that is in good repair and safe operating condition; that you and your child have learned, understand and obey not only the local motor vehicle, bicycle, and traffic laws, but also the common sense rules of safe and responsible bicycling , As a parent, you should read this manual before letting your child ride the bicycle. Please make sure that your child always wears and ANSI, ASTM, SNELL approved helmet when riding.



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## Safety Checklist

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



### 1. Brakes

Ensure front and rear brakes work properly

Ensure brake shoe pads are not over worn and are correctly position in relation o the rims.

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

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



### 2. Wheel and Tires

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

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

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

Ensure all wheels spokes are tight and not broken.

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



### 3. Steering

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

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

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

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



#### 4. Chain

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



#### 5. Bearing

Ensure pedals are securely tightened to the cranks.  
Check headset, wheel bearings, pedals bearing and bottom bracket bearings.



#### 6. Cranks and Pedals

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



#### 7. Derailleurs

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



#### 8. Frame and Fork

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



## 9. Accessories

Ensure that all reflectors are properly fitted and not obscured.  
Ensure all other fittings on the bike are properly and securely fastened, and functioning.  
Ensure the rider is wearing a helmet.



## 10. Motor Drive Assembly and Throttle

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



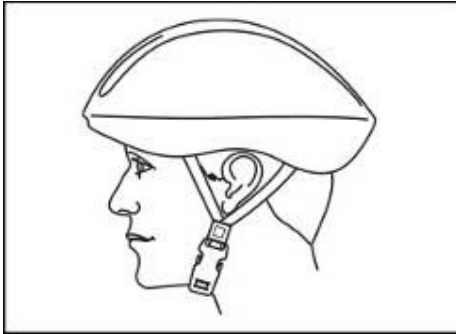
## 11. Battery Pack

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



## Helmets

It is strongly advised that a properly fitting, ANSL or SNELL approved, bicycle safety helmet be worn at all times when riding your bicycle. In addition, if you are carrying a passenger on a child safety seat, they must also be wearing a helmet.



The correct helmet should:

- be comfortable
- be lightweight
- have good ventilation
- fit correctly
- cover forehead



**Always wear a properly fitted helmet which covers the forehead when riding a bicycle. Many states require specific safety devices. It is your responsibility to familiarize yourself with the law of the state where you ride and to comply with all applicable laws, including properly equipping yourself and your bikes as the law requires. Reflectors are important safety devices which are designed as an integral part of your bicycle. Federal regulations require every bicycle to be equipped with front, rear, wheel, and pedal reflectors. These reflectors are designed to pick up and reflect street lights and car lights in a way that helps you to be seen and recognized as a moving bicyclist. Check reflectors and their mounting brackets regularly to make sure they are clean, straight, unbroken and securely mounted, Have your dealer replace damaged reflectors and straighten or tighten and that are bent or broken.**



Component List  
***Dirt Hawk 20***



***Navigator SF26***







## **Navigator SM26**



## **Outback 26**





## Xplorer XF26



## Xplorer XM26





## Battery Gauge

When the throttle or sensor is engaged (Powering the motor) and the bicycle is in motion, the LED's on the battery gauge (on the throttle or separate unit) indicate instantaneous line voltage as measured at the battery terminals- and not the available energy in the battery pack.

The line voltage will fluctuate depending on the instantaneous load that the motor is under. For example ,when starting out from a dead stop, or going up a steep hill, the motor will be under a high load and may show a reduced number of LED's or show the “Yellow” or even “Red” LED.

When the throttle is disengaged (i.e. no power to the motor due to the bicycle being stationary or coasting) the LED's on the throttle will indicate the voltage of the battery pack. The voltage of the battery pack will rise when no load is on the motor. The best indication of how much battery life is remaining is to check the throttle LED's, after reaching cruising speed, on a flat straight road as this will allow the battery voltage to stabilize and give a much more accurate reading.

The LED's 790 type with 3 speed you can also choose on the LED's 790, MODE (LOW, MED ,HIGH).



**TAG Throttle with Battery Gauge for SLA battery E-bike**



**TAG Throttle and Individual Battery Gauge for Li-ion battery E-bike**



## Throttles

Throttles, are equipped on some models of electric bicycles. Throttles operate by rotating the throttle much like a motorcycle. They generally are the inner half of the right side handlebar grip and may also contain a battery gauge. The more you twist the throttle, the faster the motor system will propel bicycle.



TAG Throttle

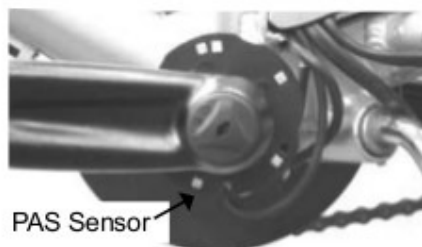
## TAG (Twist and Go)

Before you begin riding, turn the main power switch on, then start riding as you would ride a regular, non-motor assisted bicycle. After you have begun to ride, slowly twist the throttle (on equipped models) towards you. The more you twist the throttle, the more motor power will be applied to the wheels. You may feel the pedals get a “lighter” feel than riding without the motor assisting you. Once you have twisted the throttle all the way, the motor will accelerate you to its full speed of about 15mph (24km/h).

## PAS (Pedal Activated System)

Electric bicycles with this system have a throttle that is only active when the pedals are in forward motion. A sensor ring on the bottom bracket spindle rotates and a sensor reads this rotation.

Begin by first riding as if you are on a normal non-electric bicycle, then while the pedal are in motion slowly twist the throttle towards you the activate the motor power.





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## Taking Care of Your Batteries

Proper maintenance of the batteries will maximize their lifespan and available ride time.

- We use SLA (Sealed Lead Acid) or Li-Ion (Lithium Ion) batteries in all of our electric bicycles. These are very user friendly types of batteries when cared for properly.
- Batteries should be fully charged immediately when they are received for the recommended charge times. **FULLY CHARGE BATTERIES BEFORE FIRST USE.**

Below are the recommended charge times for each type of the batteries.

- Li-Ion(Lithium Ion) batteries 4-6 hours
- SLA(Sealed Lead Acid) 6-8 hours
- Charge batteries at least every 90 days for Li-ion and every 30 days for SLA until normal use is resumed.
- Always store bicycle with fully charged batteries.
- Never charge the batteries for more than 24 hours
- Always disconnect the charger from the wall outlet and bicycle when charging is complete (as indicated by the status on the charger) before storing the bicycle.
- **Do not store the batteries below 50° Fahrenheit and never allow batteries to freeze (Below 32° Fahrenheit)**
- Bikes are equipped with a 5 minute sleep mode .If no activity is detected after 5 minutes the bike will go into sleep mode to conserve the batteries. To Restart, cycle the power switch Off then On. **Bikes are not to be stored in the 5 minutes sleep mode .Be sure to turn the power switch “OFF” when the bike is not in use.**
- Always be sure to turn the bike “OFF” after each use via the ON/OFF power switch. If you have left the power switch on or your product has not been charged for a long period of time, the batteries may reach a stage at which it will no longer hold charge.
- Be friendly to the environment! Be sure to recycle your old batteries at a local battery recycling center. Do not throw them in the garbage.
- Frequent “stops and starts” will drain a battery more quickly than sustained long term use.
- Even with proper care, rechargeable batteries do not last forever. Average battery life depends on use and conditions.



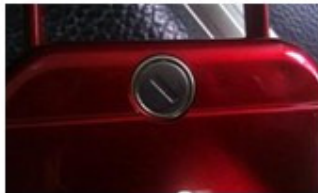
Li-Ion rear lights On/Off



Battery power On/Off



Li-Ion battery charger connector



SLA Switch Key



SLA Charger connector and Fuse

- The Li-Ion battery rear lights power is directly on the rear of battery .
- The Battery power switch is the Red Button under the rear battery (beneath LED Light).
- The Li-Ion battery charger connector is covered by a rubber cover when you lift the battery handle.
- The SLA Switch for On/Off is the key, rotate clockwise to turn on the battery power.
- SLA charger connector and Fuse on opposite side.



## ATTENTION

- Be sure to charge battery pack at least every 90 days even if not used. Doing so will help to maximize the life of your battery pack.
- Always be sure to turn the bike "OFF" after each use via the On/Off power switch.



## SLA Battery Packs (Sealed Lead Acid battery)

SLA battery packs: 24V 10Ah Sealed Lead Acid Battery,  
First time charging time: 8 hours,  
Recharging time: 6-8 hours,  
Do not charge longer than 24 hours!  
Last about 350 recharge cycles.

1. Turn the key to unlock the battery box.



2. Lift up Seat via lever, Pull out the battery box along the rail & remove, the battery can now be charged separately.



3. Push the battery box into the compartment along the rail, turn the key to lock the box.





## Li-Ion Battery Packs (Lithium-ion battery)

Li-ion battery packs: 36V 10Ah Lithium Battery,  
First time charging time: 6 hours,  
Recharging time: 4-6 hours,  
Do not charge longer than 24 hours!  
Last over 1000 recharge cycles.

1. Turn the key to unlock the battery box.



2. Pull out the battery box along the rail & remove, the battery can now be charged separately.



3. Push the battery box into the compartment along the rail, turn the key to lock the box .







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## Charger

The electric bike comes with its own “Smart Charger” that connects with an easy-access charger port for recharging the batteries. This charger has lights which show the battery charge status.

Batteries work best when they have a full charge, so always be sure to recharge them fully after each ride. If you leave them in a run-down condition, without recharging them, it will shorten their life expectancy.

Li-Ion (Lithium ion ) batteries -charge for 4-6 hours

SLA (Sealed Lead Acid) batteries-charge for 6-8 hours

The charger may get warm to the touch, so make sure you charge them in an open area and do not lay anything on the charger unit while charging. Although you cannot over-charge the batteries using the “Smart Charger”, We recommend that you do not leave the charger plugged in for more than 24 hours.

If your charger shows a solid green light after charging for a short period of time, your battery may have been only partially discharged (Short ride), or this may be the sign of a partially worn out battery reduced charge capacity. Continue charging for the full time, to cover all the bases. If the battery still has not charged, you may need to replace it.

Even with Proper care, a rechargeable battery does not last forever. Average battery life depends on use and conditions.



**The charger and charger port should be regularly inspected for damage (Cord, plug, enclosure, etc.). If damage is found stop using until the damage part can be repaired or replaced.**



## How to use the SLA Chargers (Standard)

### CAUTION

CHARGE ONLY LEAD ACID TYPE RECHARGEABLE BATTERY. RISK OF ELECTRIC SHOCK, DRY LOCATION USE ONLY. SEE INSTRUCTION MANUAL FOR USE.



1. Red light means charging
  2. Green light means charge-full
  3. Input: AC 100-240V~, 1.5A (Max) 47/63Hz
  4. Output: DC 29.2V-2.0A
  5. Plug the charger into the outlet. The indicator light on the top of the charger will illuminate when the charger is working properly. Refer to the sticker on the charger for actual status light indication.
  6. Insert the Plug into the charger port on the bike being sure the charger plug is fully seated in the charger port. The light should be solid red or blinking green to indicate charging however you will need to refer to the sticker on the charger for actual status light indication.
  7. Once the battery reaches full charge, the lights will return the solid green however you will need to refer to the sticker on the charger for actual status light indication.
  8. When charging is complete, unplug the charger from the wall before removing it from the charger port.
- Charge, for the full time. If the battery still has not charged, you may need to replace it.



Use only Yukon Trail Authorized SLA battery chargers with bicycles equipped with SLA batteries.  
Using any other charger will damage the batteries and void your warranty.



## How to use the Li-ion battery charger

### CAUTION

RISK OF ELECTRIC SHOCK, DRY LOCATION USE ONLY. SEE INSTRUCTION MANUAL FOR USE.



1. Red light means charging
  2. Green light means charge-full
  3. Input: AC100-240V~, 1.6A (Max) 50/60Hz
  4. Output: 42.00V-2.0A
  5. Plug the charger into the outlet and turn the charger “ON” via the switch on the black side. The red power light on the front of the charger will illuminate when the charger is working properly.
  6. Insert the XLR plug into the charger port on the bike being sure the charger plug is fully seated in the charger port. The second light will start to flash orange for several seconds while the charger is “seeking” the battery.
  7. Once the charger has “found” the battery the blinking orange light will stop flashing and turn solid orange and cooling fan will start. At this point the charger process has begun.
  8. Once the battery reaches full charge, the orange light will turn solid green.
  9. When charging is complete, unplug the charger from the wall before removing it from the charger port.
- Charge for the full time. If the battery still has not charged, you may need to replace it.



Use only Yukon Trail Authorized Li-Ion chargers with bicycles equipped with Li-Ion batteries.  
Using any other charger will damage the batteries and void your warranty.



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## Battery Care

### Battery Storage

#### **How to store your battery for a extended time?**

Charge the battery every 3 months to avoid capacity loss. Batteries slowly self-discharge when left unused for a long time; if battery cells are allowed to reach a critically low voltage, their lifespan and capacity will be permanently reduced.

Always disconnect your charger from the wall outlet and battery before storing the battery.

Avoid storing your battery in extreme temperatures, whether hot or cold.

Batteries are best kept in a cool, dry place. Do not allow batteries to accumulate condensation, as this could cause shorting and corrosion.

The recommended storage temperature for both SLA and Li-ion batteries is between 32-77° F.

Avoid exposing the battery to extreme heat (104° F or higher) for long time.

### Battery FAQ'

Q; Do I need to charge the batteries before using them?

A; Yes, You should charge the batteries fully before first using them.

Q: Do I need to “break-in” my batteries?

A: Yes, the batteries will need to have a “break-in” cycle consisting of-three discharge/charge cycles before then will reach optimum performance. This involves three complete discharges and three complete recharges. After this initial “break-in” cycle batteries will have maximum possible performance and less line voltage fluctuations under load.

Q: How long will the batteries hold their charge?

A: All batteries will self-discharge when not in use. The self-discharge rate depends on the temperature at which they are stored. Excessively cold or hot storage temperature will drain the batteries faster than normal. Ideally the batteries should be stored at room temperature.

Q: Why should I recharge my batteries at least 90 days (Li-ion) and every 30 days (SLA) when I am not using them?

A: Batteries naturally loose their charge over time. To keep batteries in optimal condition and extend their life, it is recommended that a top-off



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recharge be performed at least every 90 days for Li-ion batteries and at 30 days for SLA batteries.

Q: Will I get more performance for my bike if I leave the batteries to charge longer?

A: No, once the batteries are fully charged ( as indicated by the light on the charger) it is best to unplug them from the charger, leaving the batteries charging longer than necessary is called “overcharging” and will not increase performance. Our bikes supplied chargers are designed to avoid over-charging a battery. Still we recommended that you always unplug a charger after the units is fully charged to avoid the possibility of unanticipated circumstances such as an unexpected power surge from a lightning strike(or other power line anomaly) potentially causing damage. Only use YUKON TRAIL supply chargers.

Q; Is it normal that the batteries get warm when recharging?

A: Yes, it is normal that the batteries will become warm to the touch during the recharging process. This is because the increase of internal resistance and less energy conversion efficiency from electric energy to chemical energy.

Q; How long will my batteries last before needing replacement?

A; Average battery life depends on use and conditions. Even with proper care, recharge batteries does not last forever.

## BATTERY DISPOSAL

Please recycle your old batteries

- The SLA battery pack is included 2x12V sealed lead acid batteries. They must be recycled or disposed of in an environmentally safe and legal manner.
- The batteries used in the SLA battery packs are chemically identical to common automotive starter batteries and can be returned to any site that accepts automotive lead acid batteries for recycling. Examples include automotive service stores, automotive service center, battery recyclers, etc.



- When recycling lead batteries do not mix them with non-lead batteries. Non-lead batteries pose a fire/explosion hazard if brought to a lead battery recycling facility. Lead batteries (example: sealed lead acid batteries, etc.) and non-lead batteries (example: lithium ion, nickel metal hydride, etc.) are recycled at different facilities.
- Do not dispose of batteries in a fire due to risk of explosion.
- In the event of disposal, dispose only in accordance with federal, state and local regulations.

**! ATTENTION**

In the unlikely event that you suspect fluid is leaking from your SLA battery follow the precautions below.

- Internal exposure: If battery acid is ingested give water, milk of magnesia or egg whites immediately. Never give emetics or induce vomiting. Contact a physician immediately.
- External exposure: If battery acid comes in contact with skin or eyes flush immediately with cool water for 15 minutes. Contact a physician immediately.

If the battery develops a leak avoid contact with the fluid (battery acid). Place leaking battery into a plastic bag and dispose of safely and properly.

**DO NOT DISPOSAL BATTERY**


## Seat Adjustment

Use the 13mm wrench to adjust the angle of the seat which is comfortable for you.  
(SLA or Li-ion battery same)



Use the quick release to adjust the height of the seat post. (Navigator & Dirt Hawk Models)





Quick release to adjust the height of the seat which is comfortable for you. (Xplorer & Outback Models).



The Navigator & Dirt Hawk seat, you can lift the seat and take out of the battery to recharge separately.

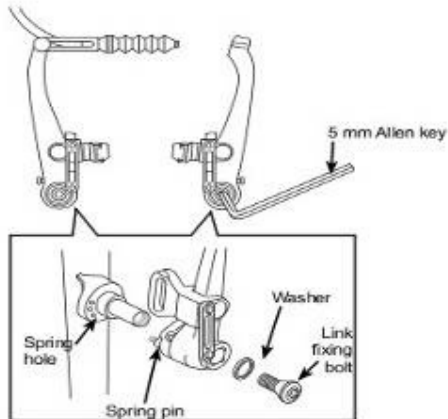




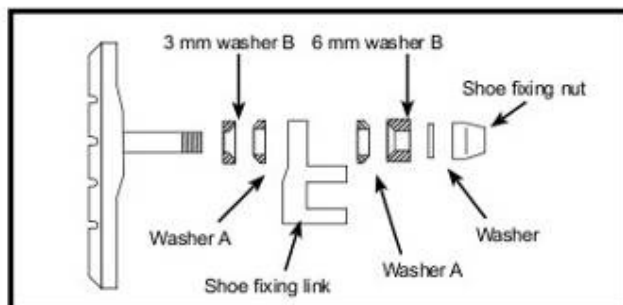
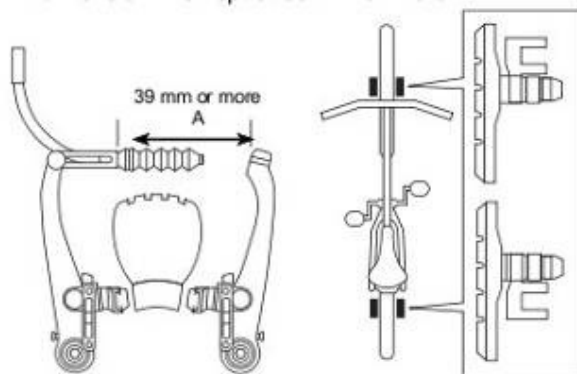
## Braking Adjustment

### V-Brake

1. If fitted with V-brakes, insert the brake body into the center spring hole in the frame mounting boss, and then secure the brake body to the frame with the link fixing bolt.



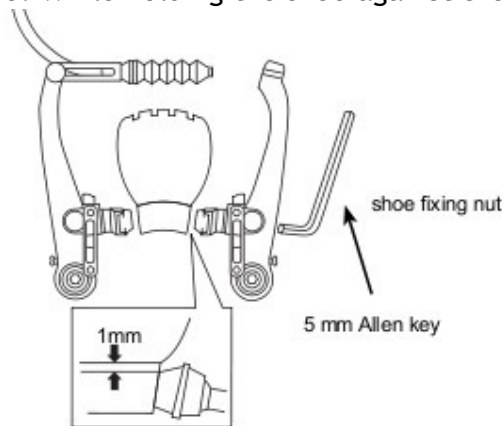
2. While holding the shoe against the rim, adjust the amount of shoe protrusion by interchanging the position of the B washers (i.e 6mm and 3mm) so that dimension A is kept at 39mm or more.



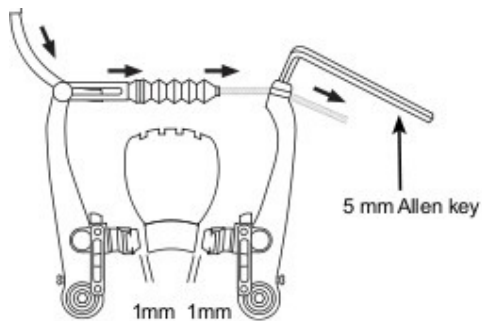




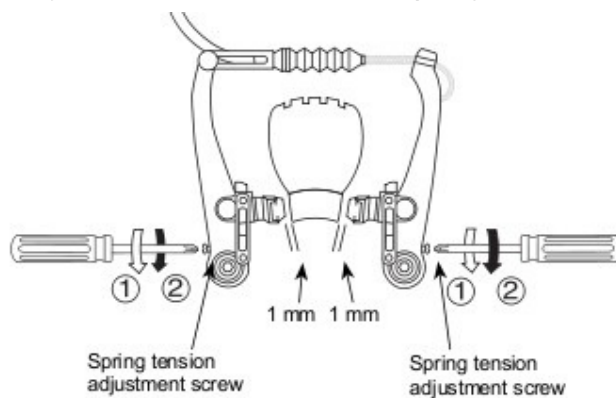
3. While holding the shoe against the rim, tighten the shoe fixing nut.



4. Pass the inner cable through the inner cable lead. Set the cable with a clearance of 1mm between each brake pad and the rim, tighten the cable fixing bolt.

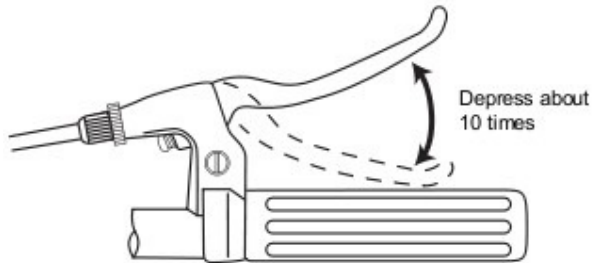


5. Adjust the balance with the spring tension adjustment screws





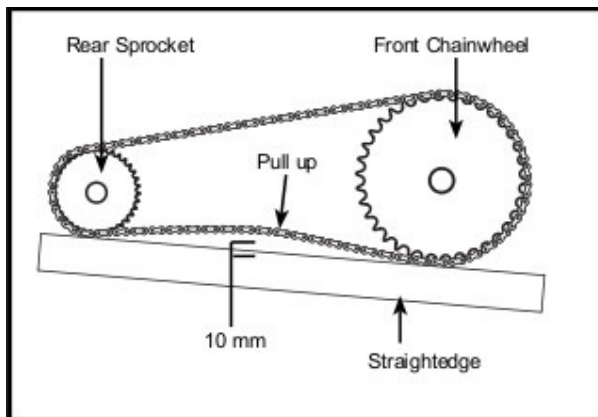
6. Depress the brake lever about 10 times as far as the grip to check that everything is operating correctly and that the shoe clearance is corrected before riding the bike.



## Chain Adjustment

### Inspection

The chain must be kept clean, rust free and frequently lubricated in order to extend its life as long as possible. It requires replacement if it stretches, breaks, or causes inefficient gear shifting. Make sure that there are no stiff links, they must all move freely.



### Lubrication

The chain should be lubricated with light oil at least every month, or more often in wet, muddy, or dusty conditions. Take care to wipe off excess oil, and not to get oil on the tires or rim braking surfaces.

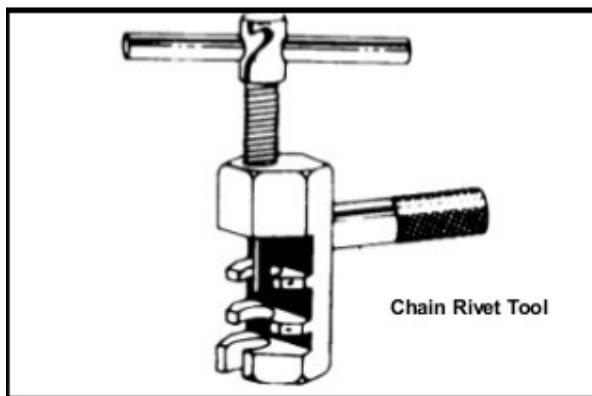


## Adjustment and Replacement

On derailleur geared bicycles the rear derailleur automatically tensions the chain. To adjust the chain on single speed freewheel, coaster hub braked or 3 speed hub geared bicycles:

1. Loosen the rear axle nuts ( and coaster brake arm clip ) and move the wheel forward to loosen , or backward to tighten, in the frame.
2. When correctly adjusted, the chain should have approximately 10mm(3/8") of vertical movement when checked in the center between the chain wheel and rear sprocket. Center the wheel in the frame and re-tighten the axle nuts after any adjustment. Bicycles which have a single speed freewheel, coaster brake or 3- speed hub, generally use a wider type chain than derailleur geared bicycles. These chains can be disconnected by way of a special U-shaped joining link, that can be pried off of the master link with a screwdriver. To replace, feed the chain around the chain wheel and rear sprocket, fit the master link into the rollers into each end of the chain, position the master link side plate, and slip on the U-shaped snap-on plate. Make sure the open end of the U-shaped plate is trailing as the link approaches the chain wheel when pedaling forward.

Derailleur geared bicycle use narrower chains and require a special tool to fit and remove chain links, or to change the length. To remove, fit the rivet tool so that punch pin is centered over any one of the chain rivets. Push the rivet almost all the way out, then back out the punch and remove the tool. Holding the chain on both sides of the punched rivet, bend it slightly to release link form the rivet. To install, feed chain around chain wheel, rear sprocket and derailleur cage with rivet facing away from the bicycle. Bring the two ends together within the special tool and punch the rivet into place. Be sure not to push rivet too far through side plate.



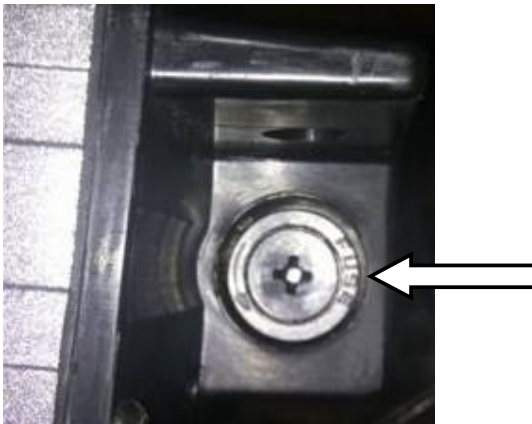


## Fuse

All Yukon Trail electric bicycles are equipped with fuse. The fuse may be located, depending on the model of the bike, in the following locations:  
SLA fuse (40A glass type fuse) on the battery pack, externally accessible.



li-Ion, 30A blade type fuse & 5A blade type fuse- inside the bottom end of the down tube, remove down tube cap to access.



In the event of an overload the fuse will pop and need to be replaced. In this instance replace only approved part from Yukon Trail.



Risk of fire. Do not bypass fuse.



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## Tools Bag



1. 2pcs Open ended wrench: 8mm/10mm, 13mm/15mm
2. 2pcs Allen key wrenches: 2.5mm/3.5mm/4mm, 5mm/6mm/8mm
3. 1pc Standard flat head screwdriver





## Troubleshooting

Failure symptoms	Cause of Problem	Solution
The battery indicator light on the meter is off, and the motor does not work	Battery voltage is too low	Immediately charge
	Battery is not providing proper power	Replace the battery
	The battery lock does not work, preventing battery from being properly secured	Replace of the battery lock
Motor is operating when battery lock is unlocked	The throttle handle is connected incorrectly to the controller	Reconnect per wiring diagram
	Controller is damaged	Replace the controller
The motor stops intermittently	Poor or loose battery connection	Adjust or clean contacts
	Battery moving due to vibration	Check or replace Battery lock
Reduced Ride Time	Battery is unable to hold charge properly	Replace of the battery
	Battery supplying lower voltage	Battery maintenance or replacement
Battery is not fully charging	Battery has gone bad	Replace the battery
	The charger has no output	Check connections or Replace the charger
	Poor contact between the charger plug and the charger socket	Clean or Replace charger socket
Headlights doesn't work	Switch of the headlights doesn't work or connection	Replacing of the switch, check connection
Controller does not function	short-circuit in the controller	Replacing of the controller

## Wiring Diagram



(Diagram is for representational purpose only. Your bicycles' wiring system may differ)

