

# Bowhead Design Corporation

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## Rogue Adventure-E Bike



**BOSCH**





## DISCLAIMER

Read this manual carefully as it contains important safety and maintenance information.



### WARNING

Copyright 2023 Bowhead Design Corp. All information contained within this publication is based on the latest product information at the time of publication. Due to constant improvements in the design and quality of production components, some minor discrepancies may result between the actual Bike and the information presented in this publication. Depictions and/or procedures in this publication are intended for reference use only. Bowhead makes every effort to ensure the accuracy of its documentation and assumes no responsibility or liability if any errors or inaccuracies appear within. Any reprinting or reuse of the depictions and/or procedures contained within, whether whole or in part, is expressly prohibited. The original instructions for this Bike are in English.

## OPERATING WITHOUT INSTRUCTION

Operating this bike without proper instruction increased the risk on an accident. The operator must understand how to operate the bike properly in different situations and on different types of terrain. All operators must read and understand the owner's manual and all warnings and instruction labels before operating the bike.

## EQUIPMENT MODIFICATIONS

Your Bowhead Rogue is designed to provide safe operation when used as directed. Modifications to your bike may negatively impact stability and safety. Failure of critical machine components may result from operation with any modifications. This vehicle may become less stable at speeds higher than those for which it is designed. Loss of control may occur at higher speeds. Do not install any non-Bowhead approved accessories. Any modifications or installation of non-Bowhead-approved accessories could create a substantial safety hazard and increase the risk of bodily injury. The Bowhead limited warranty on your bike will be terminated if any non-Bowhead approved equipment and/or modifications have been added to the bike. Use only Bowhead-approved accessories & components and familiarize yourself with their function and effect on the Rogue.

Bowhead Design Corp  
6919 32 Ave NW, Suite 103B  
Calgary, AB, Canada  
[www.bowheadcorp.com](http://www.bowheadcorp.com)



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## 1 PREFACE

### 1.1 Welcome to team bowhead

Thank you for purchasing your Rogue Adventure-E Bike from Bowhead!

We take pride in bringing you a quality product that will offer years of enjoyment. Although your Rogue comes pre-assembled in a crate, it has travelled a great distance to reach you and needs a bit of extra attention prior to riding. Please read and understand this manual fully before riding your Rogue and check out our “how to” videos on our YouTube channel (<https://www.youtube.com/channel/UCqZii12qtvKGZOnqSHkXGQg>)

For Instructions on unboxing your Rogue, see page 12.

Be sure to check all hardware for correct torque (see “Torque specifications for the Bowhead Rogue” on page 30). Before each ride, follow the recommendations in the “Pre- ride safety check” on page 27. And finally, take care of your new Rogue by following the guidelines in “How to identify and solve problems” on page 45. If you are not sure you have the skills, experience, and special tools required for assembly and maintenance, get help from a local, certified, and reputable bike mechanic, or contact Bowhead at [service@bowheadcorp.com](mailto:service@bowheadcorp.com)

### 1.2 Explanation of safety warnings



**DANGER**

Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury



**WARNING**

Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.





## CAUTION

Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

## Notice

NOTICE Indicates information considered important, but not hazard-related. May lead to material damage if ignored.

### 1.3 Retaining instructions

Read and understand this manual and its safety instructions before using this product. Failure to do so can result in serious injury or death.

Follow all the instructions. This will avoid fire, explosions, electric shocks or other hazards that may result in damage to property and/or severe or fatal injuries.

Keep all safety information and instructions for future reference and pass them on to subsequent users of the product.

### 1.4 Obtaining documentation and information

The latest version of the documentation is available at the following address:

<http://www.bowheadcorp.com>

Bowhead has created many resources and videos to help you learn about maintenance and riding tips, which can be found at <https://www.youtube.com/c/Bowhead/videos> We continue to add resources to our channels, so please subscribe in order to stay up to date on all product launches, maintenance videos, and how-to videos.

For further instructions on all OEM components (including Bosch, SRAM, Rohloff, Magura, RockShox and FOX), visit our website to access the complete manuals.

For service-related inquiries, please contact our service department at [service@bowheadcorp.com](mailto:service@bowheadcorp.com)



## 2 Description of the product

### 2.1 Purpose of the product

The Bowhead Rogue is designed to increase users' ability to access the outdoors and places that may have been previously out of reach by the user. The Rogue is an entry level off-road handcycle that features full suspension and also sports the Bosch Performance CX eMTB motor. This model will grow with you which makes it great for a range of riders from kids (8+) to adults.

Traversing rough terrain is a breeze, and the Rogue provides endless opportunities for access and exploration whether you're hammering down a paved road, navigating a gravel track, flowing cross-country, or riding single-track trails. The Rogue features the Bosch Performance Line CX motor and electronics system that provides seamless torque-sensing assistance, amplifying the power of arms by up to 3.5 times, and the electronic shifting SRAM Eagle 12-speed drivetrain.

### 2.2 Improper Use

Failure to adhere to the proper use poses a risk of personal injury and material damage. The Bowhead is not suitable for the following uses:

- When the electrical drive has been manipulated
- Riding with a damaged or incomplete Bowhead
- Riding with excessive baggage
- Carrying or towing other people
- Riding through deep water
- Improper repair
- Lending bike to untrained riders
- Improper servicing
- Riding under the influence of alcohol and drugs

## 2.3 Technical data

### Performance Line CX Motor

Parameter	Unit
Continuous power rating	350 W
Voltage	36 V DC
Max. torque	75 Nm
Operating temperature	-5 'C - +40 'C
Storage temperature	-10 'C - +50 'C

Table 1\_ Performance Line CX Motor Technical Data

## 2.4 Product Compliance

The Bowhead Rogue and each OEM component complies with the Machinery Directive and Low Voltage requirements. See last page in this user manual for Declaration of Conformity

## 3 Instructions / use

### 3.1 Electrical component instructions

#### 3.1.1 Charging the battery

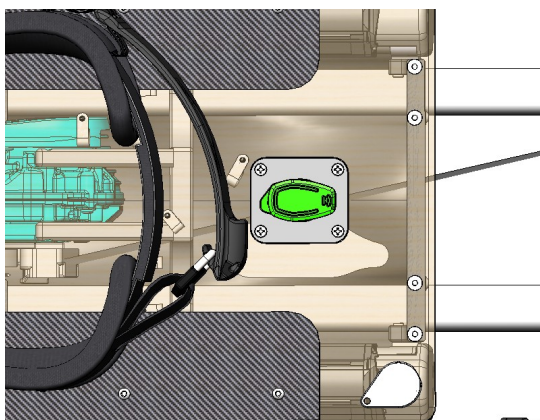


To charge the battery individually, remove the battery from your Rogue and connect the charging cable to the batteries charging port. The battery level indicator shows the charge level during charging.

**NOTE:** If the battery is outside its charging temperature range, three LEDs will flash on the battery level indicator as shown below.



### 3.1.2 Charging the battery while installed on bike



- The Bowhead Rogue can accommodate up to two batteries, which can be charged simultaneously via the charge port located on the seat pan.
- When the drive system is switched on, the display screen shows the charging process.
- The two batteries are discharged alternately during use.

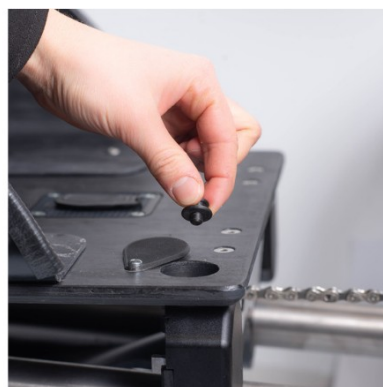
**NOTE:** If you are using one battery and one Bosch Dummy battery, always install the true battery on the left side of the bike.

### 3.1.3 Battery installation and removal

To install:



Left side plug



Right side plug

To insert and remove the batteries, you will need to locate the keyhole locations and remove the plugs as shown above.



Step 1.



Step 2.



Step 3.



Step 4.

Step 1: Carefully align the battery with the pins.

Step 2: Once the pins are properly contacting the battery, gently slot the battery into its location under the Rogue seat base.

Step 3: The keys are needed for both installation and removal. Turn the key and ensure you hear one “click”.

Step 4: Push the battery in and ensure you hear a second “click”.

Step 5: Remove the key from the keyhole and store in a safe place.

### **To remove:**

Gently turn the key until the battery clicks out of its lock. Place a finger on the tab shown in Step 3 above and pull the battery out of its slot.

### **3.1.4 Waking the battery**

The battery switches to sleep mode to protect itself when not used for a longer period. The LEDs on the operating status and battery level indicator do not light up.

- Press the On-Off button (battery)
- The battery’s operating status and battery level indicator shows the battery level.

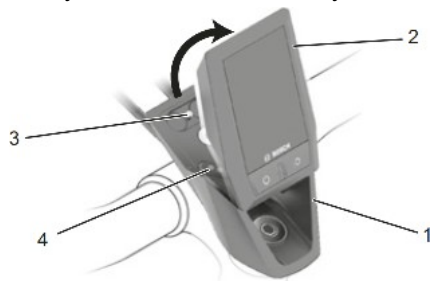
### **3.1.5 Charging the KIOX**

- The Bosch KIOX will drip charge while in the cradle.
- Occasionally, (esp. on a new bike) drip charging is insufficient for the KIOX display. In this case, the KIOX can be removed from the cradle and charged via USB cable.
- The KIOX will only charge in the cradle when it is turned on.

### **3.1.6 Removing the display**

- Take hold of the display at its top end.

- Pull the display forwards away from the contacts to the drive unit until it has released from its magnetic mount.
- The system is switched off by removing the display.



Pull the display (2) out of its mount (1) away from the contacts with the display blocking screw (3).

### 3.1.7 Using the USB port

#### Notice

A USB connection is not a waterproof plug connection. Any moisture which enters through the USB port may trigger a short circuit in the display.

- Never connect an external device when cycling in the rain
- Always close the protective flap on the USB port when cycling in the rain.

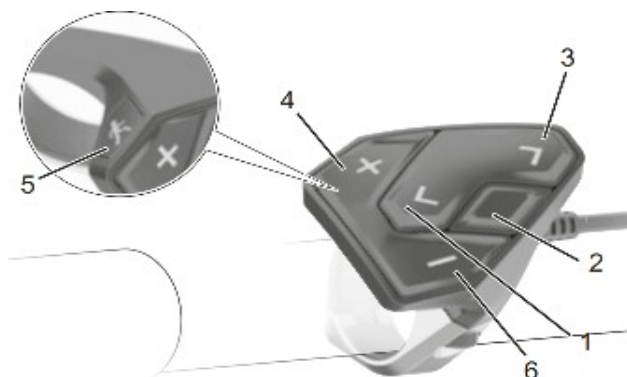
Regularly check the position of the rubber cover on the USB port and adjust as necessary.

### 3.1.8 Selecting level of assistance

You can adjust how strongly the electric drive should assist you on the control panel when pedaling.

### 3.1.9 Operating the display

The display is operated using five buttons on the control panel.



	Symbol	Designation
1	<	Browse back button
2		Select button
3	>	Browse forwards button
4	+	Plus button
5		Push assist button
6	-	Minus button

*Table 2 Overview of the control panel*



## 4 Preparation

### 4.1 Unboxing your Bowhead Rogue

#### 4.1.1 Removal of the transport and packaging restraints

Your bike is here, and you are excited to ride! Follow the simple steps below to safely remove your bike from the crate it was shipped in.

Opening the crate:

1. Using a drill with the appropriate Robertson style drill bit, open the top of the crate to check the orientation of your bike.
2. Remove the side panel that is directly in front of the bike.
3. Remove 2pcs of wood blocking the wheels in place.
4. Slowly roll the bike out of the crate forwards.



#### **WARNING**

Do not roll the bike out backwards. This may cause the brake cables to get wrapped around the crank arms and lead to brake hose damage.

#### 4.1.2 Unpacking the Bowhead Rogue

Now that you have successfully rolled your bike out of the crate, it is time to finish unpacking the bike, including all accessories and additional components.

1. Remove any additional components or parts from inside the crate.
2. Carefully cut or unwrap the SRAM & battery boxes from the seat area.
3. Remove all additional bubble, foam, or protective wrap from the bike and accessories.

#### **Notice**

If you are located outside of North America, your Rogue will be shipped without batteries and a charger. You will be responsible for purchasing the required Bosch batteries and charger from a reputable Bosch dealer in your area.





#### 4.1.3 Packaging contents

Every bike that leaves the shop is packaged with extreme care and attention to detail. Please ensure all the items listed below are included with your Bowhead Rogue and contact Bowhead immediately if anything is missing.

Crate content list:



- A. KIOX Display
  - B. Derailleur setup tool
  - C. SRAM folding multi-tool
  - D. Battery keys
  - E. SRAM AXS shifter charger and storage blocks.
  - F. Bosch charger + cable (\*North American customers only)
  - G. Bosch power tube 500 1pc or 2pcs (\*North American customers only)
- Additional: Bowhead Hauler, Seat cushion, other accessories (\*Only if ordered)
- If anything is missing, please contact Bowhead immediately.

#### 4.1.4 Further unboxing notes:

1. Please ensure to open your Rogue's crate from the front of the bike so that you can roll the bike forward out of the crate. Do not roll backwards out of crate. If you must remove the bike backwards from the crate, please be sure to get some assistance if needed and lift the front wheel while you pull the bike backwards out of the crate.
2. The Power Tubes (batteries) are shipped in their original boxes to ensure electrical



- connections aren't jeopardized during shipment. These boxes can be kept and used for travel or any repairs that may need to happen down the road.
3. The battery keys are shipped in the SRAM box. The battery key slots are plugged with plastic plugs and once you have removed those, installed your battery or batteries please be sure to re install the plugs to help keep the key slots free from any dirt mud and corrosion.
  4. If you are using one battery and one dummy battery, please be sure to install the real battery on the left-hand side of the bike since the left side is communicating with the motor.
  5. Your SRAM shifter battery charger is in the SRAM box as well. Be sure to refer to the SRAM PDF for charging and maintenance procedures.
  6. We have adjusted your front and rear suspension based off of your body weight, but please don't hesitate to make any further adjustments based on your riding style.
  7. The shifter is located on your right crank pedal just above your brake lever, we do recommend it stay in this location to avoid the potential for pinch points.

## 4.2 How to transport and store the product



### CAUTION

#### Crash caused by unintentional activation

There is a risk of injury if the drive system is activated unintentionally. Remove the battery before your bike is transported.

#### 4.2.1 Weight of Bowhead Rogue for transport

The total weight of the base model Rogue with two batteries is approximately 96lbs. This weight will fluctuate depending on accessories and upgrades. For example, the Titanium frame rails save approximately 6lbs. The weight of two Bosch 500 Power Tubes is 13lbs, so the Rogue will weigh approximately 82lbs if transporting without batteries.

#### 4.2.2 Lifting, handling, and transporting the product

##### 4.2.2.1 To lift the product safely

1. Do not lift your Rogue from the accessories mount or other non-load bearing components. Flagging tape exemplifies this when shipped.
2. The bike should not be lifted by one person without support.
3. Remove the batteries to decrease the weight prior to lifting.



#### **4.2.2.2** *To transport the product safely*

1. Ensure product is properly secured prior to transporting.
2. Use load bearing components, such as frame rails, to fasten bike securely.
3. Do not rely on the brakes for securing Rogue during transport. Engaging the brake lever firmly for extended periods of time can damage the brakes.
4. Remove the KIOX display, batteries, and accessories prior to transporting.
5. If transporting on the back of a vehicle, you must use a suitable bike rack or Bowhead approved system.

#### **4.2.2.3** *Shipping the battery*

The battery is considered a hazardous good and only trained persons may pack and ship a battery. If you are planning a trip, you will need to plan and ship your batteries to your destination as you cannot fly with them.

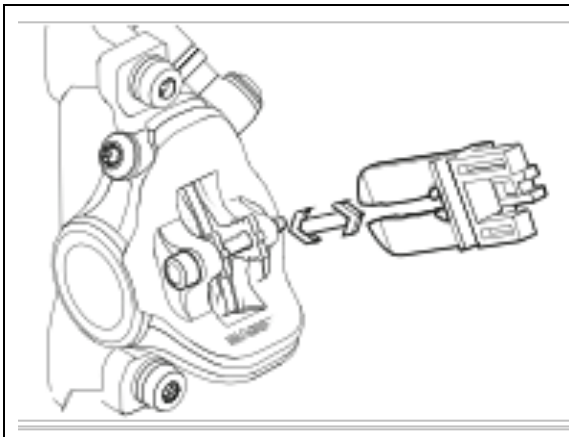
#### **4.2.2.4** *Transporting the battery*

Batteries are subject to hazardous goods regulations. Undamaged batteries may be transported by private persons in road traffic.

Commercial transport requires compliance with regulations concerning packaging, labeling, and the transportation of hazardous goods. Open contacts must be covered, and the battery securely packaged.

#### **4.2.2.5** *Using the brake transport securing system*

##### **Using the brake transport securing system**



Insert the transport securing devices between the brake pads. The transport securing device is squeezed between the two calipers as seen in the image below.



### 4.2.3 Storing your Bowhead Rogue



#### **Risk of fire and explosion due to high temperatures**

Temperatures over 60°C can also cause liquid to leak from the battery and the battery will become damaged. Batteries may self-ignite and explode.

- Protect batteries against heat
- Never store in proximity to hot or flammable objects
- Never expose batteries to continuous direct sunlight and never store near heaters.

Please refer to the Bosch manuals found on our website for more information for storage of all electrical components.

#### **Notice**

The battery discharges when not in use. This can cause irreparable damage to the battery.

- The battery must be recharged every 6 months.

The battery may become damaged if it is permanently connected to a charger

- Never connect the battery to a charger permanently.

The KIOX display battery discharges when it is not in use. This can cause it to be irreparably damaged.

- Recharge the display battery for at least one hour every 3 months.

To store the product safely:

- The optimal storage temperature for batteries is 22°C – 26°C.

If your Rogue is to be removed from service for longer than four weeks, for the winter, for example, you need to prepare it for a break in operation.

### 4.2.4 Preparing a break in operation

1. Remove battery from your Rogue
2. Charge battery to around 30% - 60%
3. Your bike needs to be cleaned with a damp cloth and preserved with a wax spray. Never wax the brake pad and rotor surfaces.
4. For longer periods of your bike being out of service, it is recommended that you do a deep clean of your bike and ensure you follow the recommended battery maintenance guides.



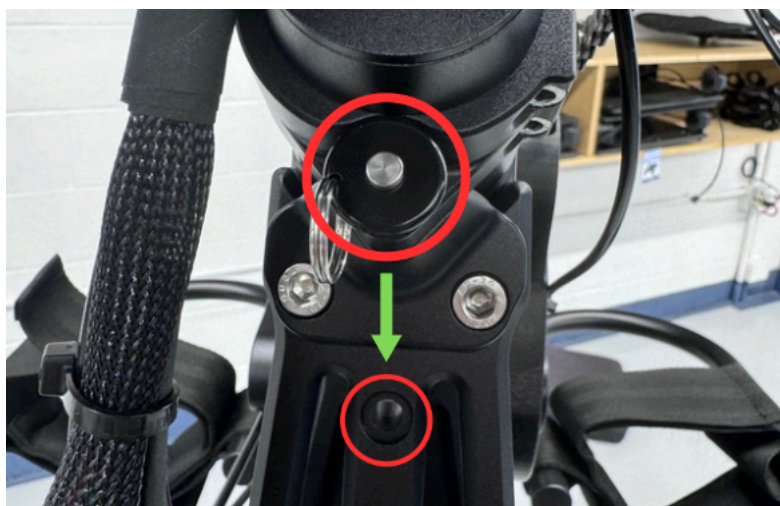
#### 4.2.5 Taking out of operation

- Store your Rogue, battery, and charger in a dry, clean environment. We recommend storing them in uninhabited rooms with smoke alarms. Dry locations with an ambient temperature of about 20° C are ideal.
- Recharge the display for at least 1 hour every 3 months
- Check the battery level after 6 months. If only one LED on the battery level indicator lights up, recharge the battery to around 30% - 60%.

#### 4.2.6 Conditions for assembling

The Bowhead Rogue comes fully assembled so you are only a few short steps from your very first ride!

#### 4.2.7 Using the steering lock-out pin



The Rogue comes with a pin that is used to prevent the steering from moving when the bike is not being ridden. The pin should be installed while the bike is in storage, being transported, or while the rider is transferring in and out of the bike. The pin should be removed while riding and stored in the insert shown above.

#### 4.2.8 Adjusting the seat position

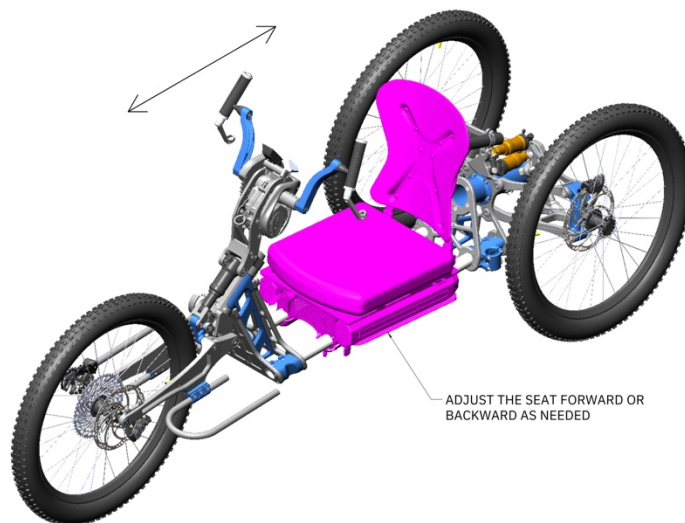
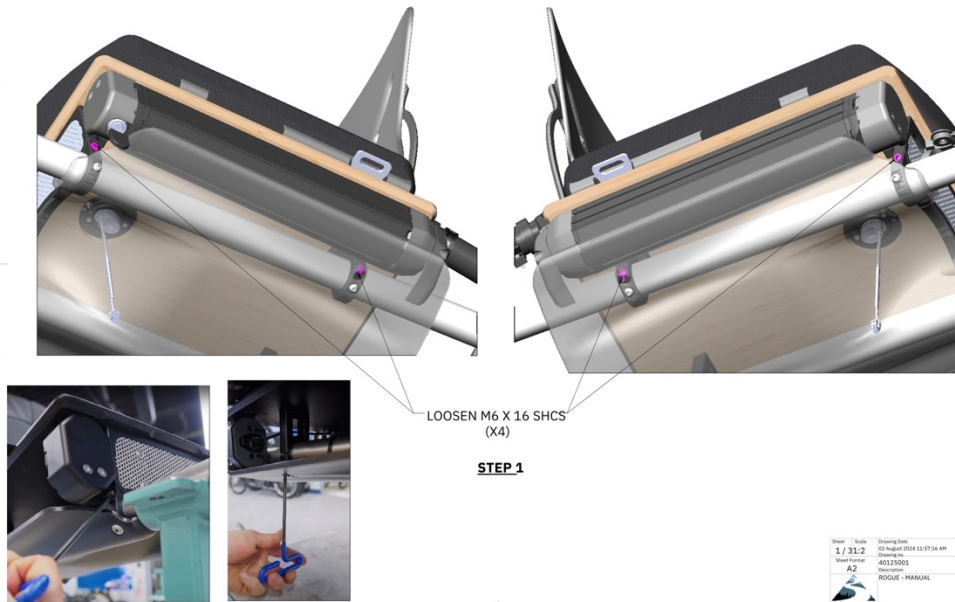
The seat of your Rogue can be adjusted forward and back. To do so, you need to loosen the 4 clamping bolts that secure the assembly to the frame rails as described below.

##### Tips:

- You may need to use a rubber mallet to gently tap the seat assembly forward or backward into the desired riding position.

- Test the seating position and ensure you have achieved the optimal position. You should have a slight bend in your elbows throughout the crank rotation.
- Once the riding position has been confirmed, tighten the bolts to 10Nm.

#### SEAT POSITION ADJUSTMENT

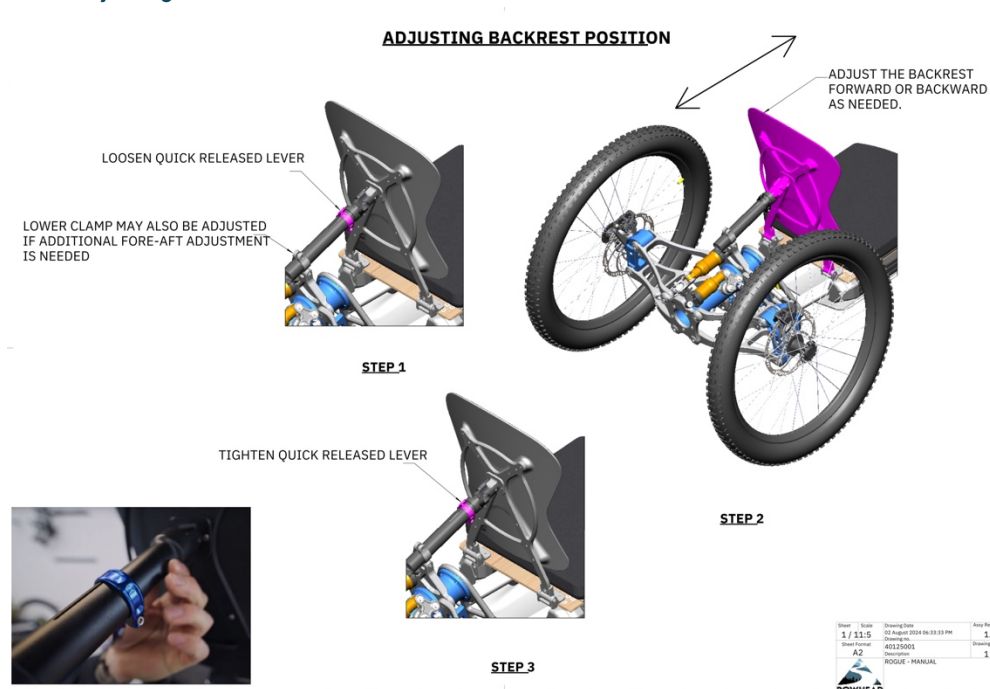


#### STEP 2

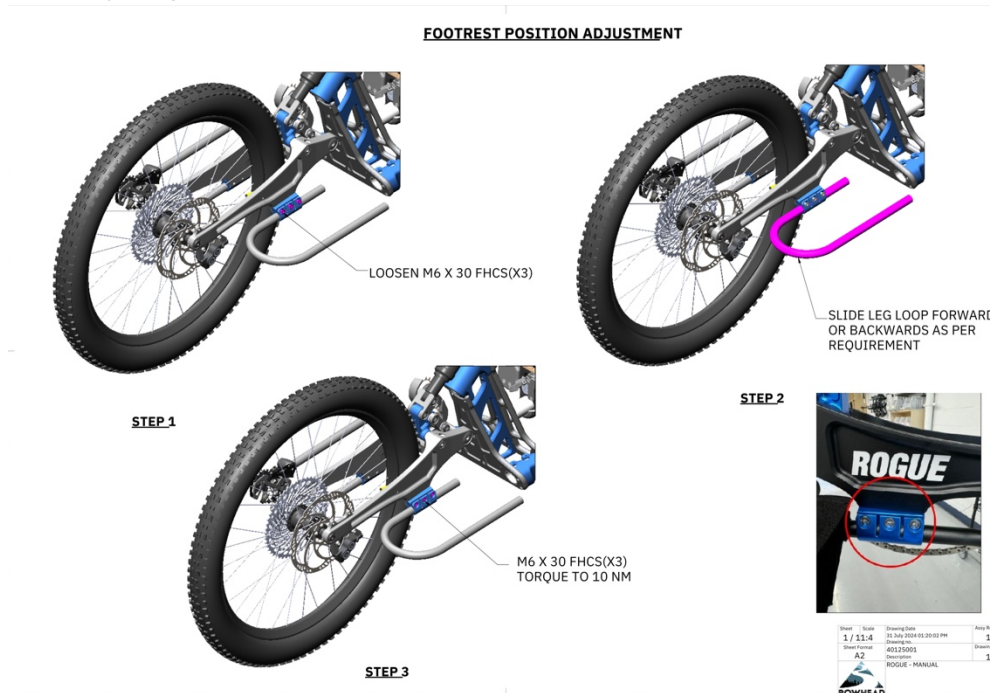
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BOWHEAD - MANUAL			



## 4.2.9 Adjusting the backrest

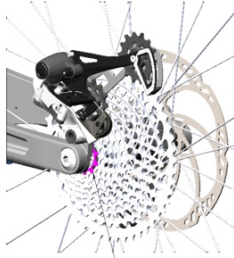


## 4.2.10 Adjusting the footrest



## 4.3 Front wheel installation and removal

### FRONT WHEEL REMOVAL AND INSTALLATION

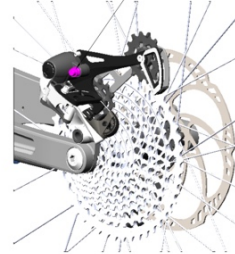
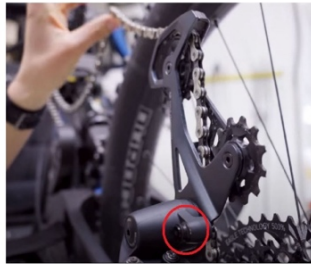


MAKE SURE GEAR SHOULD BE IN THE SMALLEST COG

#### STEP 1



LOCKING OUT THE DERAILLEUR TO RELIEVE CHAIN TENSION



#### STEP 2

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REMOVE AXLE

#### STEP 3



REMOVE FRONT WHEEL SEE NOTE 1

#### STEP 4

NOTE:

CAREFULLY LIFT THE WHEEL OUT OF THE CALIPER TO GET THE CHAIN OFF THE COG.

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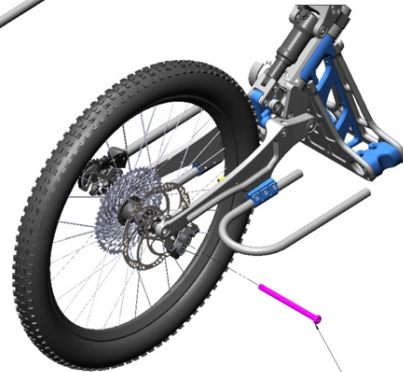




INSTALL FRONT  
WHEEL SEE NOTE 1



**STEP 5**



**STEP 6**

INSTALL AXLE  
TORQUE TO  
12 NM

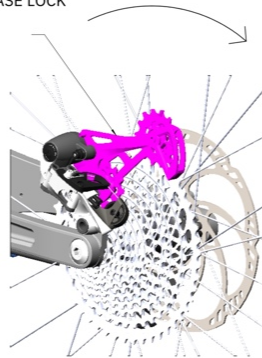
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BOWHEAD

NOTE:

1. ALIGN THE ROTOR CAREFULLY BETWEEN THE PADS TO AVOID DAMAGE

CAREFULLY PIVOT DERAILLEUR TOWARDS  
THE BACK OF THE BIKE TO RELEASE LOCK  
MECHANISM



**STEP 7**

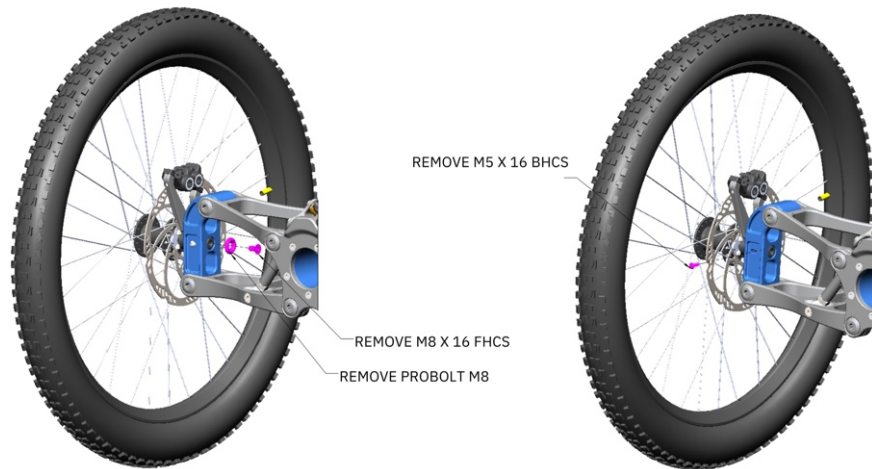


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BOWHEAD

## 4.4 Rear wheel installation and removal

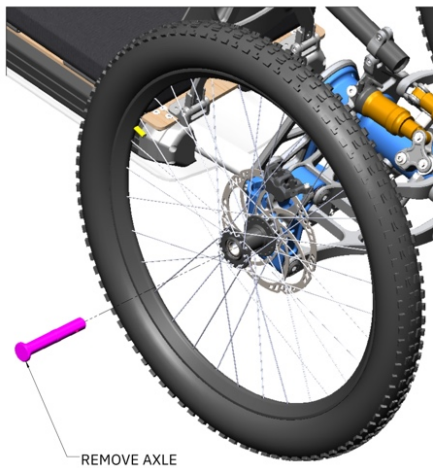
### REAR WHEEL REMOVAL AND INSTALLATION



**STEP 1**

**STEP 2**

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**STEP 3**



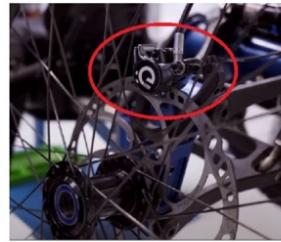
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A2		40125001	1
		Description	
		ROGUE - MANUAL	



INSTALL REAR  
WHEEL SEE  
NOTE 1

**STEP 5**



INSTALL  
AXLE SEE  
NOTE 2



**STEP 6**



**NOTE:**

- 1.ALIGN THE ROTOR CAREFULLY BETWEEN THE PADS TO AVOID DAMAGE
- 2.ALIGN AXLE HOLE WITH LINKAGE SLOT.

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INSTALL M8 X 16  
FHCS LOOSELY  
TIGHTEN

INSTALL PROBOLT M8  
(ADD SMALL AMOUNT OF BLUE LOCTITE  
TO THREADS)

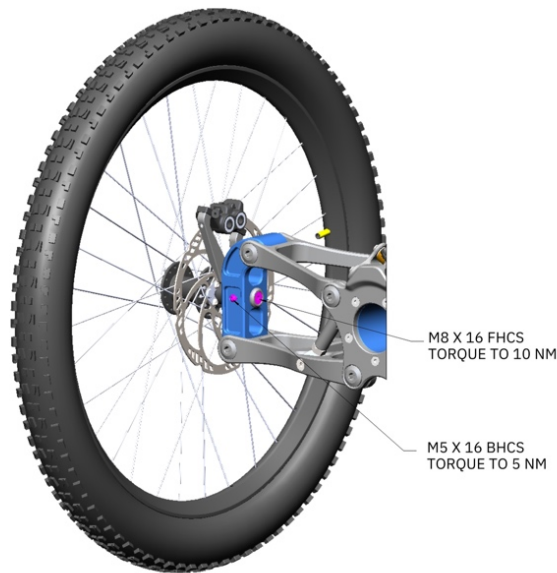
**STEP 7**

INSTALL M5 X 16  
BHCS LOOSELY  
TIGHTEN



**STEP 8**

Sheet	4 / 51:3	Drawing Date	09 August 2024 11:42:47 AM	Assy Rev	1.5
Sheet Format	A2	Drawing No.	40125001	Drawing Rev	1
Description					
ROGUE - MANUAL					
					



**STEP 7**

Sheet	Scale	Drawing Date	Rev
9 / 52:5		09 August 2018 13:42:47 AM	1.5
Sheet Format		Drawing No.	
A2		40135001	
		Description	
		ROGUE - MANUAL	1

## 4.5 Adjusting the brake lever



### **WARNING**

#### **Brake failure due to incorrect setting**

If the pressure point is set with brakes where the brake linings and brake disc have reached their wear limit, the brakes may fail and cause an accident with injury. Before you set the pressure point, ensure the brake linings, and brake disc have not reached their wear limit.

The pressure point setting is adjusted using the twist knob:

- Turn the twist knob towards the plus (+) symbol
- The *brake lever* moves closer to the handlebar grip. Re-adjust the grip distance as necessary.
- The lever pressure point activates sooner.



## 4.6 Commissioning

### CAUTION

#### Risk of fire and explosion due to incorrect charger

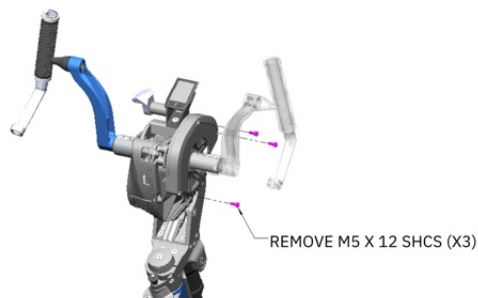
Batteries which are recharged with an unsuitable charger may become damaged internally. This may result in fire or explosion.

- Only ever use the battery with the supplied charger. For international orders where chargers and batteries must be sourced locally, only use products recommended by Bowhead.
- Mark the charger clearly to prevent mix-ups – with the Bowhead Universal Bike Code (UBC) for example.

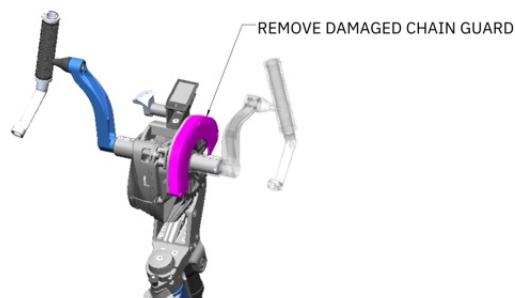
Only trained specialist staff and Bowhead builders may perform initial commissioning. Bowhead bikes will be delivered fully assembled, unless shipping to a trained technician who is capable of safe assembly.

## 4.7 Replacing 3D parts

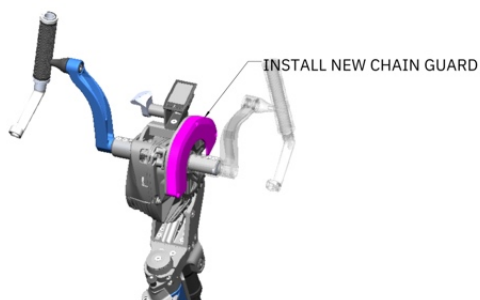
### REPLACING DAMAGED 3D PRINTED / PLASTIC COMPONENTS



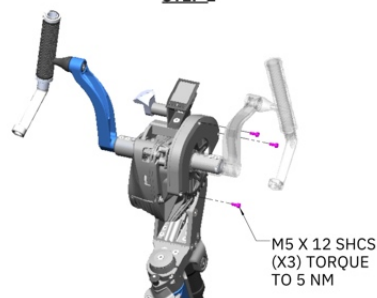
**STEP 1**



**STEP 2**



**STEP 3**

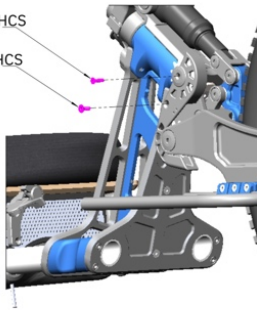


**STEP 4**

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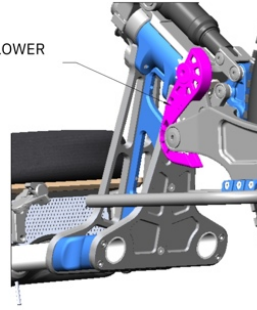


REMOVE M5 X 20 FHCS  
REMOVE M6 X 16 FHCS



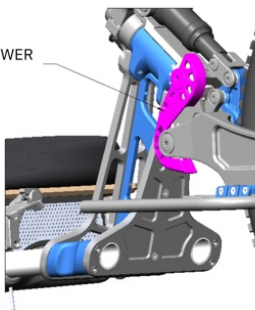
**STEP 5**

REMOVE DAMAGED LOWER  
CHAINGUIDE



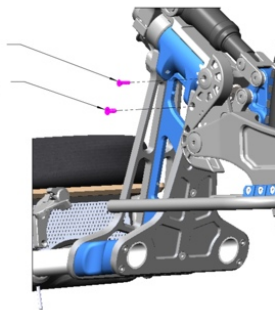
**STEP 6**

INSTALL NEW LOWER  
CHAINGUIDE



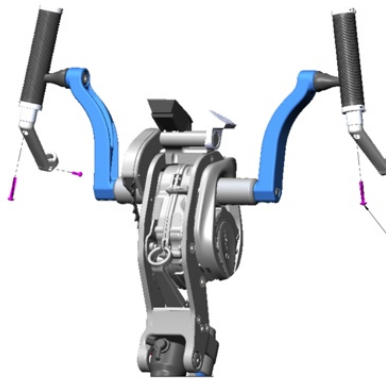
**STEP 7**

M5 X 20 FHCS  
TORQUE TO  
10 NM  
M6 X 16 FHCS  
TORQUE TO  
10 NM



**STEP 8**

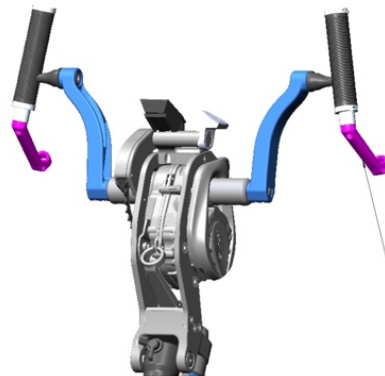
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2 / 41:3		03 August 2024 11:19:30 AM	1.5
Sheet Format		Drawing No.	Drawing Rev
A2		40121001	1
		Description	
		ROGUE - MANUAL	



**STEP 9**

REMOVE ST M4 X 30 PH (X2)

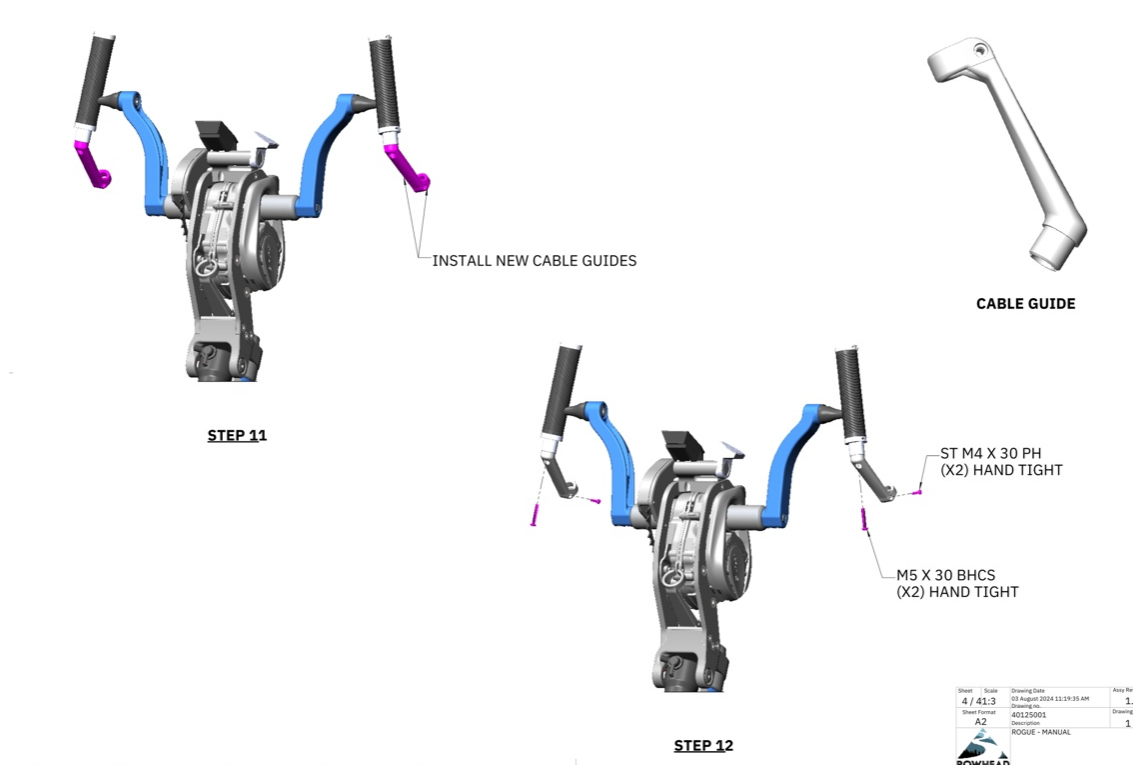
REMOVE M5 X 30 BHCS (X2)



**STEP 10**

REMOVE DAMAGED CABLE  
GUIDES

Sheet	Scale	Drawing Date	Assy Rev
3 / 41:3		03 August 2024 11:19:30 AM	1.5
Sheet Format		Drawing No.	Drawing Rev
A2		40121001	1
		Description	
		ROGUE - MANUAL	



## 5 Operation/Use

### 5.1 How to use the product

#### 5.1.1 Pre-Ride Safety Check

To ensure rider safety and to prevent damage to the bike, it is important to ensure your bike is in good working order prior to each ride. Complete the following checklist to prevent injury or damage:

Component	Action	Frequency
<b>Bolts</b>	Visually examine each bolt on the Rogue to ensure they are not backing out.	Every ride
	Re-torque wheels axle bolts	After the first few rides initially, and then every 3 months or post-crash
<b>Brakes</b>	Squeeze brakes and attempt to roll the Rogue. The bike should be unable to roll while the brakes are engaged.	Every ride



<b>Drivetrain</b>	Cycle through all gears and ensure they are shifting smoothly.	Every 2-3 rides
<b>Wheels</b>	Check that the wheels are securely attached.	Every ride
<b>Rims / spokes</b>	Check the rims for wear. Ensure all spokes are tight and properly installed.	Every few rides
<b>Tires</b>	Check the tires for wear. Pay close attention to the side walls.	Every few rides
<b>Steering assembly</b>	Check chain tension and ensure its set to the recommended tension.	Every few rides
	Check stem bolts and ensure stem and cranks are aligned.	
	Check cranks, grips, shifter and mounts to ensure they are mounted correctly.	
<b>Cockpit</b>	Check all 3D printed component integrity. Check for hairline fractures,	Every few rides

### 5.1.2 Operational Environment

Please refer to the Bosch manuals on our website for the specified operating temperatures of our electrical systems.

#### Notice

Heat or direct sunlight can cause the tire pressure to increase above the permitted maximum pressure. This can damage and destroy the tires.

- Never park your Bowhead Rogue in the sun.
- On hot days, regularly check the tire pressure and adjust as necessary.

When riding downhill, high speeds may be reached.

- The Bowhead Rogue is only designed to reach 32km/hour (Class 1) for short periods. The tires can fail if exposed to a continuous load.
- Decelerate the Rogue using your brakes if you reach speeds greater than 32 KM/h or 20 mph.





### 5.1.3 Tips for Greater Range

How far can your Bowhead Rogue actually travel? There is no simple answer to this question as range depends on many influencing factors. A single battery charge may last fewer than 20 kms but more than 80 is also possible.

#### Cadence

Pedaling frequencies higher than 50 revolutions per minute optimize drive unit efficiency. However, very slow pedaling uses up a great deal of energy.

#### Weight

Weight should be minimized. The total weight of the Rogue and cargo should not be unnecessarily high.

#### Terrain

Terrain plays a large role in the expected range from your Bowhead Rogue. If you are planning a large ride with bumpy trails and significant elevation, then you can expect your average range to decrease.

#### Gear shift

Shifting gears correctly also makes your Rogue more efficient. It is best to set off and ride up hills using a lower gear and switch up a gear depending on the speed and terrain. It is recommended to shift at the top of your rotation, where there is the least amount of power going into your cranks. Avoid shifter under load as this can damage the gears.

#### Battery & temperature

Battery performance is reduced as the temperature drops since this increase's electrical resistance. As a result, you should expect the range to be shorter than normal on colder days and in the winter.

### 5.1.4 Starting/Stopping the Product's Operation



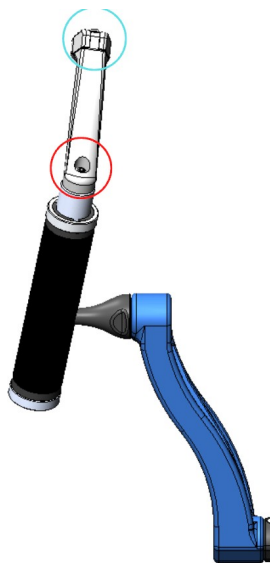


1. You can turn on the Bowhead Rogue by pressing the power button on the KIOX computer.
2. Use the UP and DOWN arrows on the remote to change the assist levels.
3. Use the LEFT and RIGHT arrows to view the various data screens.

## 6 Maintenance and torque specifications

### 6.1 Replacing brake cable guide arms

To replace the brake cable guide arms, complete the following steps



Removal:

1. Remove the bolt circled in red.
2. Note: use caution when removing bolt circled in red. Do not fully remove from guide not to avoid losing part.
3. Remove the bolt circled in blue.
4. Dispose of damaged components.

Installation:

1. Attach the new arm to the handle and reinstall bolt circled in red.
2. Fit the brake hose into the guide end, and reinstall the bolt circled in blue.

### 6.2 Removing the grip from your pedal

You may want to replace your grips over time and use as these are a wearable component. You may also wish to switch grips for improved ergonomics and efficiency in cranking. Please follow the steps below to remove grips:



1.



2.



3.



4.



5.



6.

1. Prepare the tools required (adjustable wrench and T25 Torx).
2. Remove the bolt securing the brake cable guide arm.
3. Remove the brake cable guide arm.
4. Remove the brake lever.
5. Use a soft cloth and adjustable flat edge pliers to hold onto the pedal axle as shown on the left. Grab the pedal with your other hand and twist the handle counterclockwise to loosen. Spin the pedal until it comes free of the set screw.
6. Loosen the grip locking screws and pull the grip off the pedal.

### 6.3 Installing new grips



**To reinstall the grips, complete the following steps.**

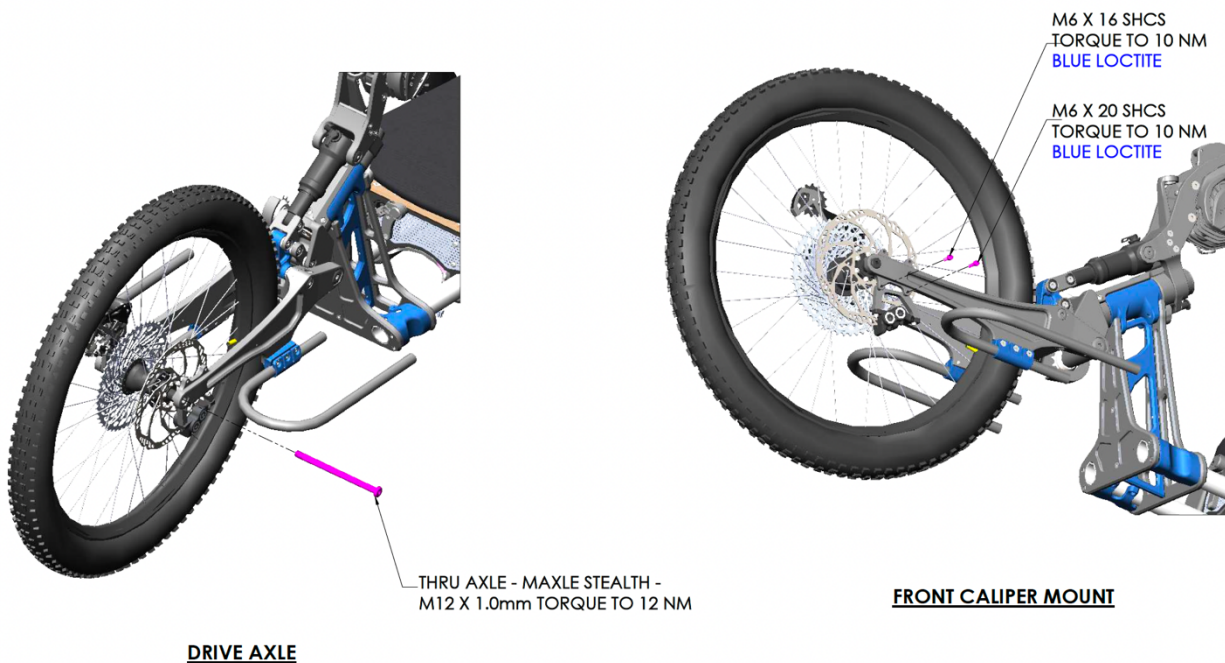
1. Slide the grip over the pedal, taking care to align the hole in the grip with the set screw location.
2. Tighten the grip locking screws.
3. Re-apply Red Loctite on set screw and carefully spin the pedal back onto the pedal axle. Please note that your pedals and threads are at an angle. Do not cross thread pedal.
4. Once the pedal is hand tight, use a 10Nm torque wrench as shown in the image on the left, and twist the pedal until you hear the wrench click.
5. Reinstall the brake lever. Torque 5-6Nm.
6. Reinstall brake cable guide arm. Hand tight such that the guide cannot rotate.



**NOTE:** New grips can be ordered directly from Bowhead. If you are modifying your own grips for install, be sure to align the holes properly.

## 6.4 Torque Specifications for the Bowhead Rogue

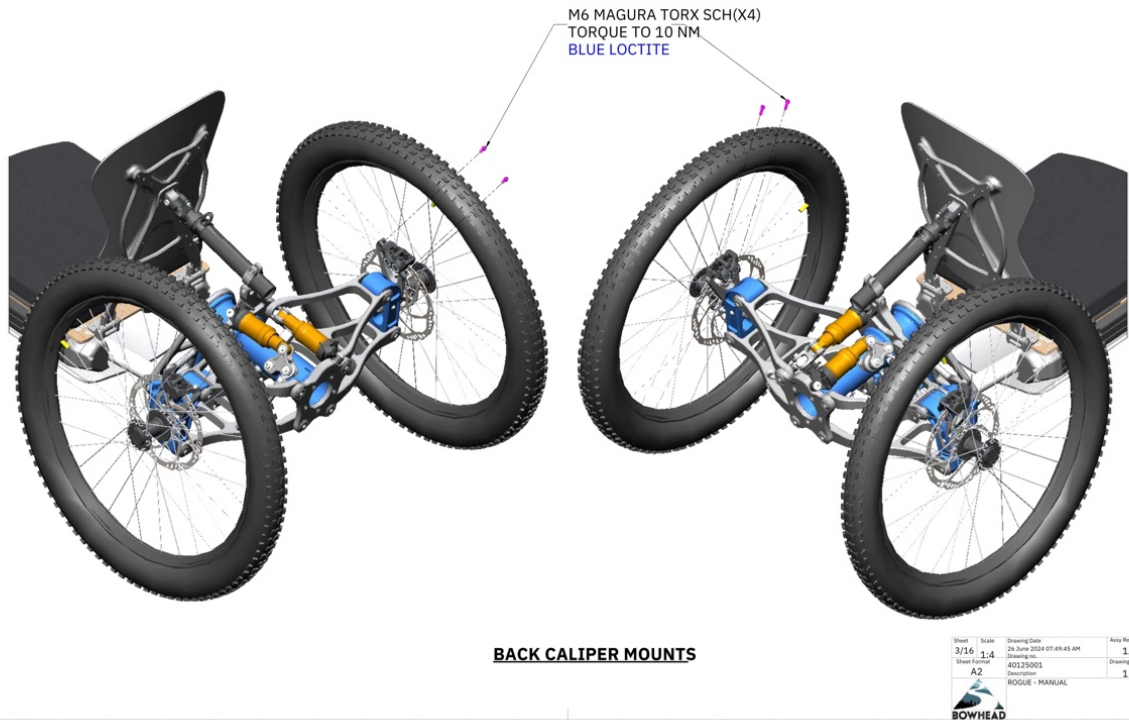
### 6.4.1 Axle & front caliper mounts



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2/16	1:4	26 June 2024 07:40:45 AM	1.5
Sheet Format		Drawing no.	Drawing Rev
A2		40125001	1
Description			
ROGUE - MANUAL			



## 6.4.2 Rear caliper mounts

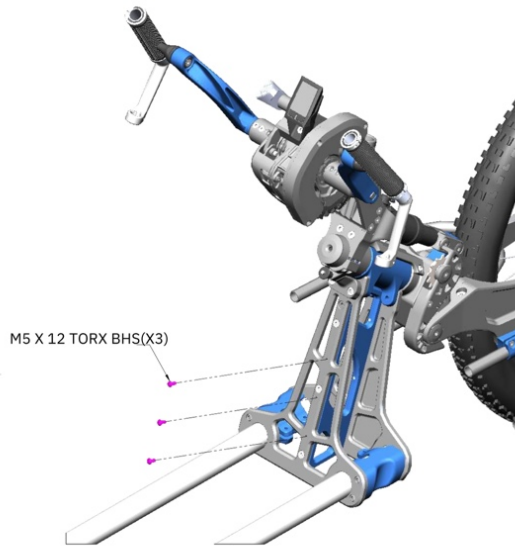


## 6.4.3 Footrest clamps

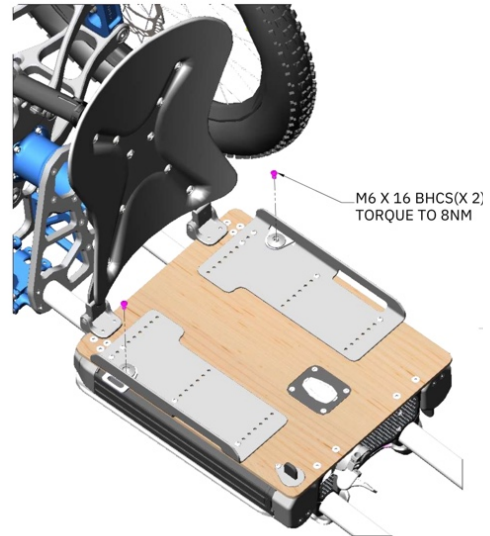




#### 6.4.4 Water bottle mount bolts



**WATER BOTTLE MOUNT BOLTS**



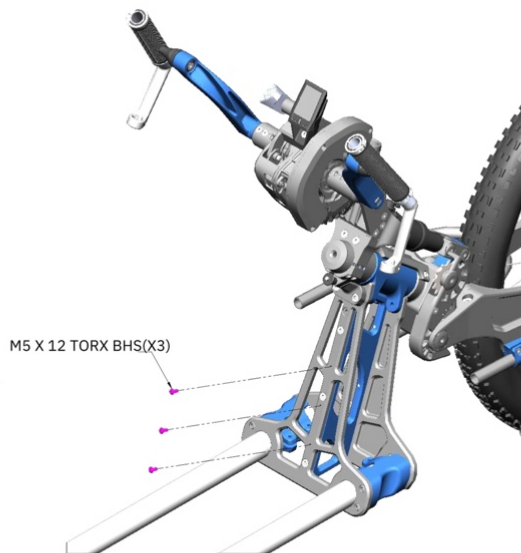
(REMOVE CUSHION TO ACCESS SEAT BELT INSTALLATION FASTENERS)

#### **SEAT BELT INSTALLATION**

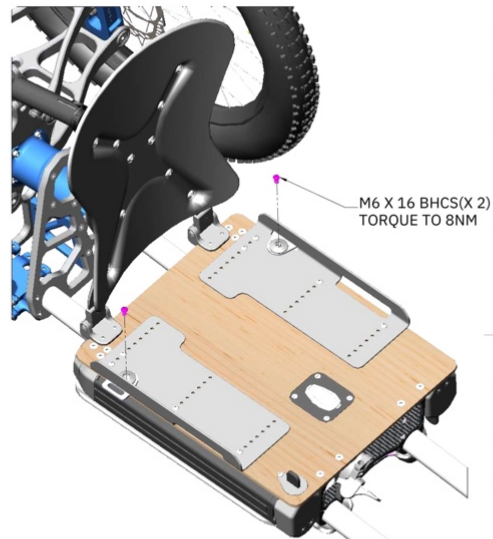
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5/16	15	Rev	1.5
Sheet	15	Rev	1
A2			
40125001			
ROGUE - MANUAL			

BOWHEAD

#### 6.4.5 Seat belt installation



**WATER BOTTLE MOUNT BOLTS**



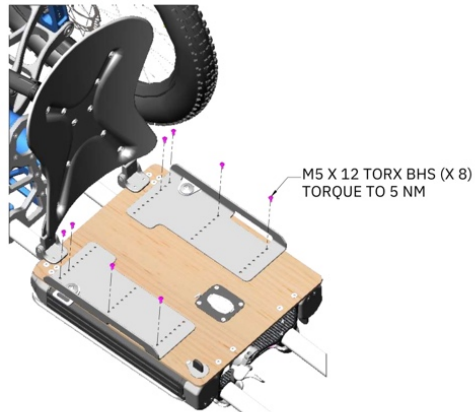
(REMOVE CUSHION TO ACCESS SEAT BELT INSTALLATION FASTENERS)

#### **SEAT BELT INSTALLATION**

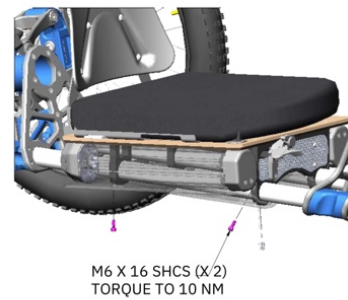
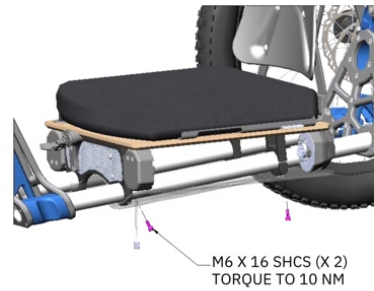
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5/16	15	Rev	1.5
Sheet	15	Rev	1
A2			
40125001			
ROGUE - MANUAL			

BOWHEAD

## 6.4.6 Fasteners for adjusting seat width



(REMOVE SEAT TO ACCESS SEAT WIDTH ADJUSTING FASTENERS)  
**FASTENERS FOR ADJUSTING SEAT WIDTH**

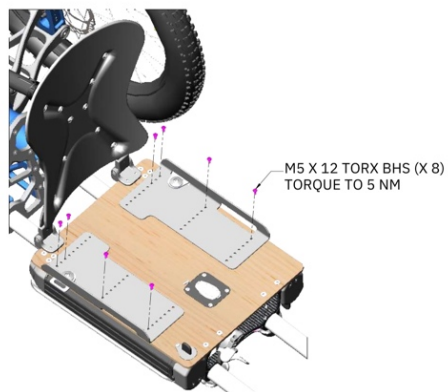


**SEAT ASSEMBLY ADJUSTMENT BOLTS**

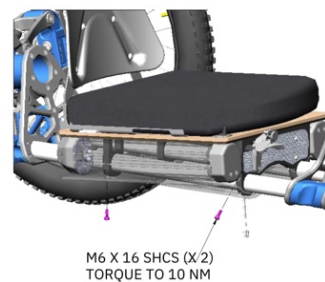
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A2		40125001	1
ROGUE - MANUAL			



## 6.4.7 Seat assembly adjustment bolts



(REMOVE SEAT TO ACCESS SEAT WIDTH ADJUSTING FASTENERS)  
**FASTENERS FOR ADJUSTING SEAT WIDTH**

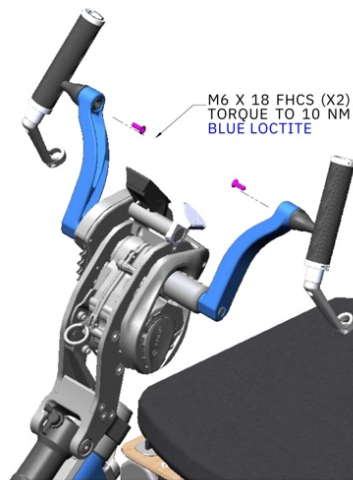


**SEAT ASSEMBLY ADJUSTMENT BOLTS**

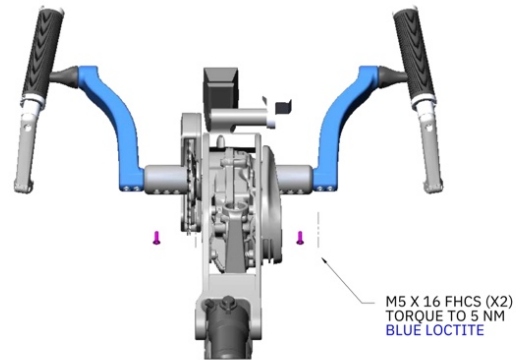
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A2		40125001	1
ROGUE - MANUAL			



## 6.4.8 Pedal and crank arm bolts



**PEDAL BOLTS**

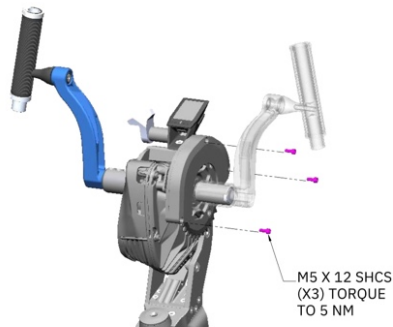


**CRANK ARM BOLTS**

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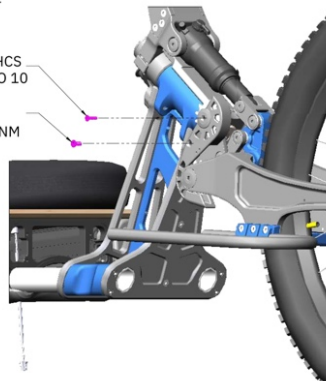


## 6.4.9 Bolts for replacing chain guards and KIOX mount bolts

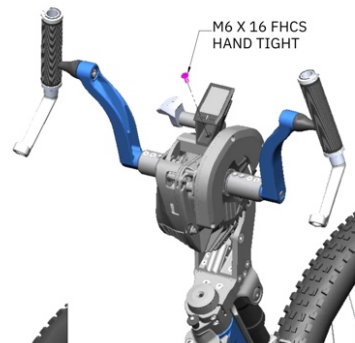


**BOLTS FOR REPLACING CHAIN GUARD**

M5 X 20 FHCS  
TORQUE TO 10  
NM  
M6 X 16 FHCS  
TORQUE TO 10 NM



**BOLTS FOR REPLACING CHAINGUIDE LOWER**



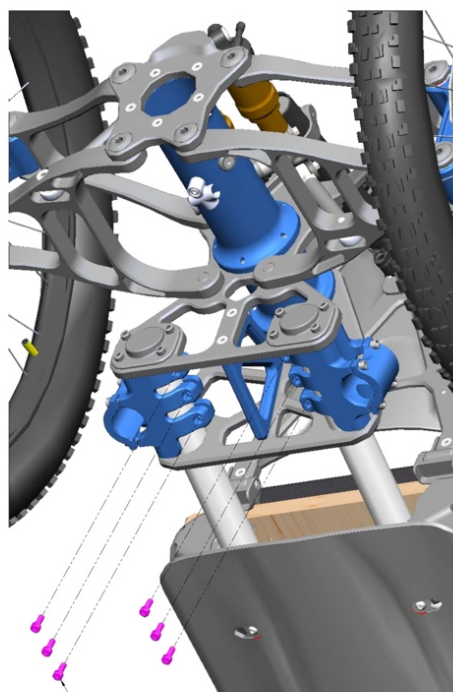
**KIOX MOUNT BOLT**

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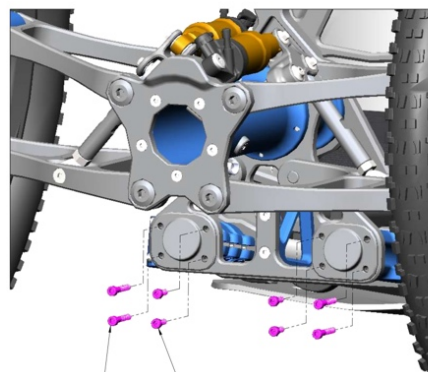




#### 6.4.10 Rear suspension assembly



M6 X 16 SHCS (X 6)  
TORQUE TO 10 NM



M6 X 35 SHCS (X4)  
TORQUE TO 10 NM  
RED LOCTITE

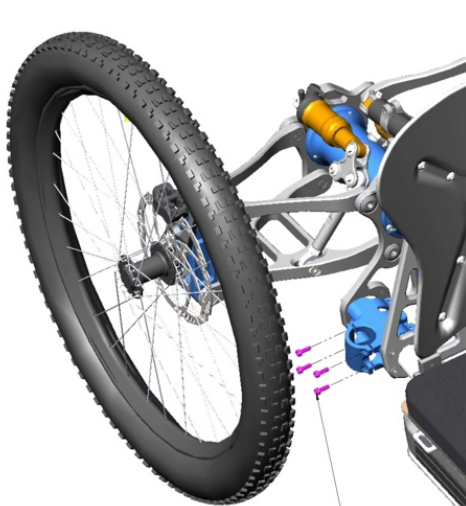
M6 X 16 SHCS (X4)  
TORQUE TO 10 NM  
RED LOCTITE

#### **BOLTS REQUIRED FOR ADJUSTING REAR SUSPENSION ASSEMBLY**

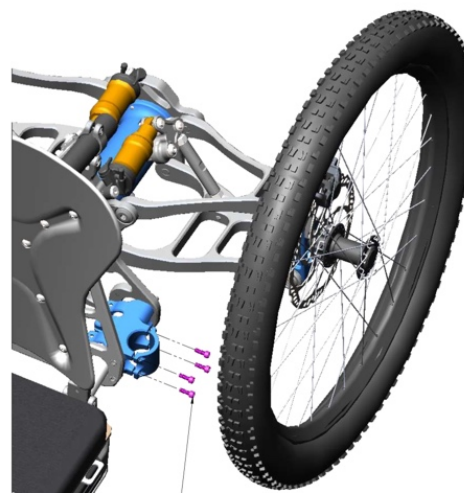
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Sheet Label		40125001	Drawing Rev
A2		ROGUE - MANUAL	1



#### 6.4.11 Roll bar post clamps



M6 X 16 SHCS (X 4)  
TORQUE TO 10 NM



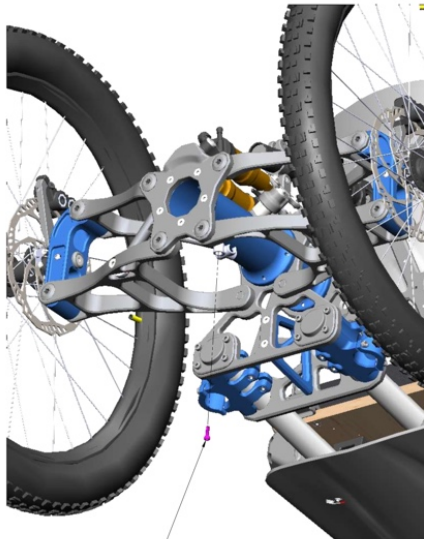
M6 X 16 SHCS (X 4)  
TORQUE TO 10 NM

#### **BOLTS REQUIRED FOR ADJUSTING ROLL BAR POST CLAMPS**

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A2		ROGUE - MANUAL	1

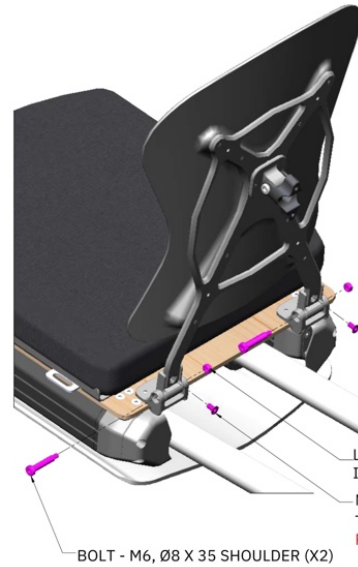


#### 6.4.12 Seat back



M5 X 16 SHCS  
HAND TIGHT

**SPLITTER BOLT FOR BRAKE SERVICING**



LOCK NUT - M6 - NYLON-  
INSERT (X2)

M6 X 12 FHCS (X2)  
TORQUE TO 10 NM  
RED LOCTITE

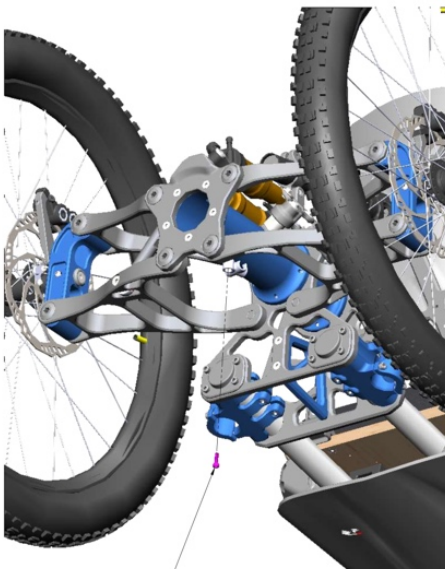
BOLT - M6, Ø8 X 35 SHOULDER (X2)

**BOLTS FOR SEAT BACK**  
(MAY NEED TO BE REMOVED TO INSTALL KIDS SEAT  
SPACERS)

Sheet	Scale	Drawing Date	Assy Rev
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Sheet Number	Drawing No.	Drawing Rev	
A2	40125001		1
Description ROGUE - MANUAL			

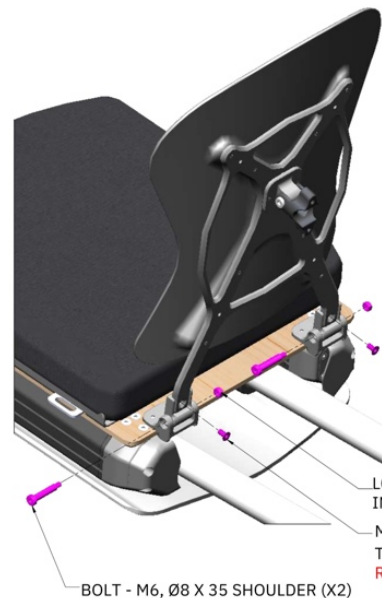
BOWHEAD

#### 6.4.13 Brake splitter holder



M5 X 16 SHCS  
HAND TIGHT

**SPLITTER BOLT FOR BRAKE SERVICING**



LOCK NUT - M6 - NYLON-  
INSERT (X2)

M6 X 12 FHCS (X2)  
TORQUE TO 10 NM  
RED LOCTITE

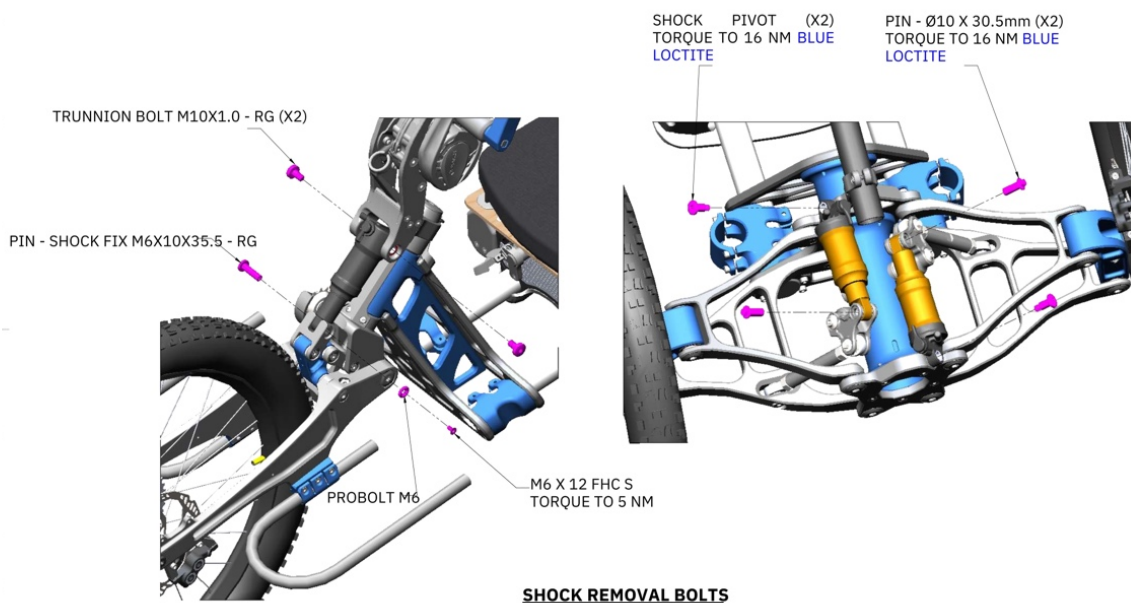
BOLT - M6, Ø8 X 35 SHOULDER (X2)

**BOLTS FOR SEAT BACK**  
(MAY NEED TO BE REMOVED TO INSTALL KIDS SEAT  
SPACERS)

Sheet	Scale	Drawing Date	Assy Rev
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Sheet Number	Drawing No.	Drawing Rev	
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Description ROGUE - MANUAL			

BOWHEAD

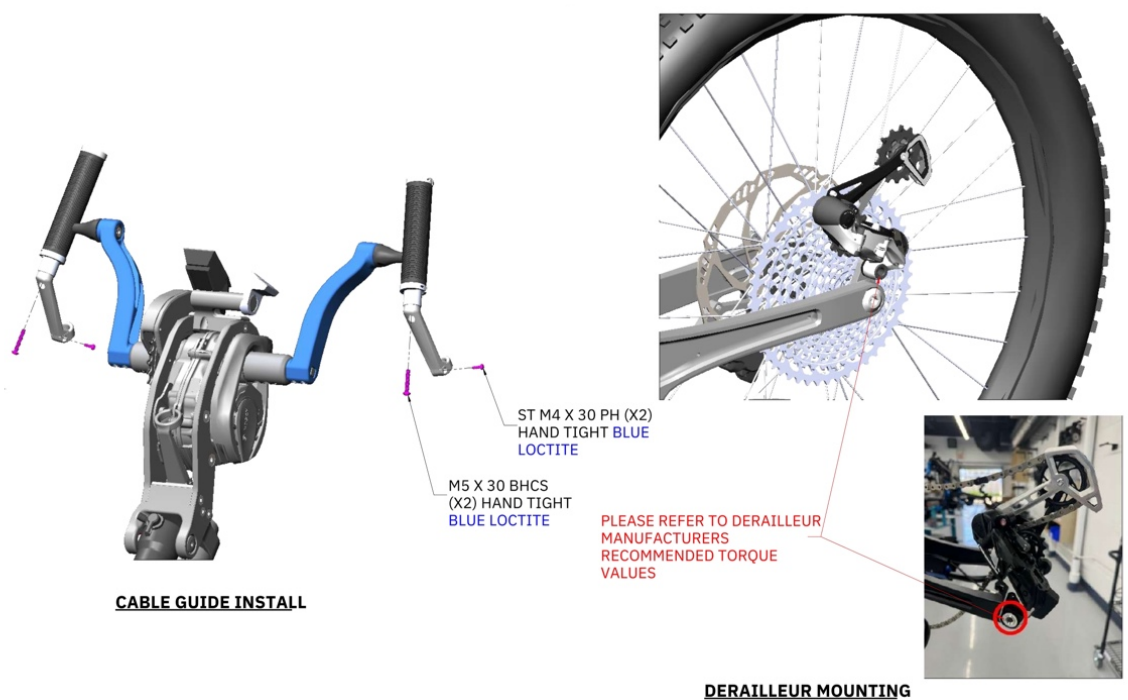
## 6.4.14 Front and rear shock hardware



Sheet	Scale	Drawing Date	Rev
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BOWHEAD

## 6.4.15 Cable guide install

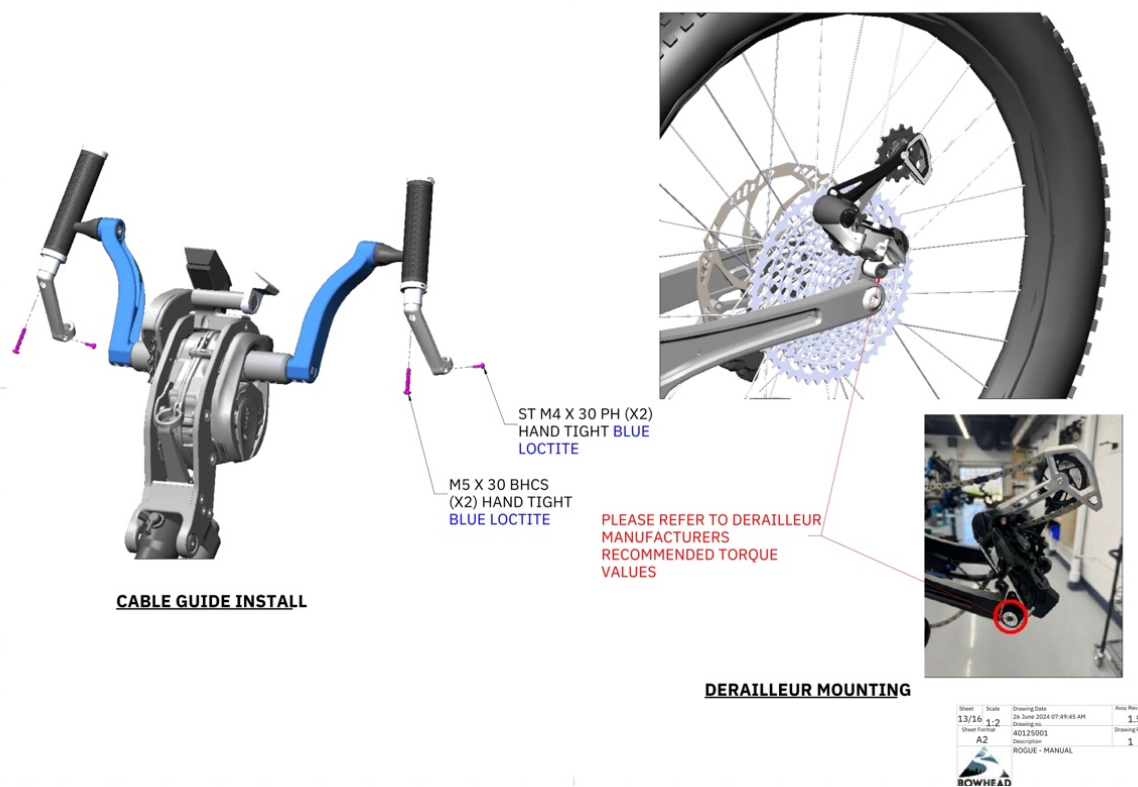


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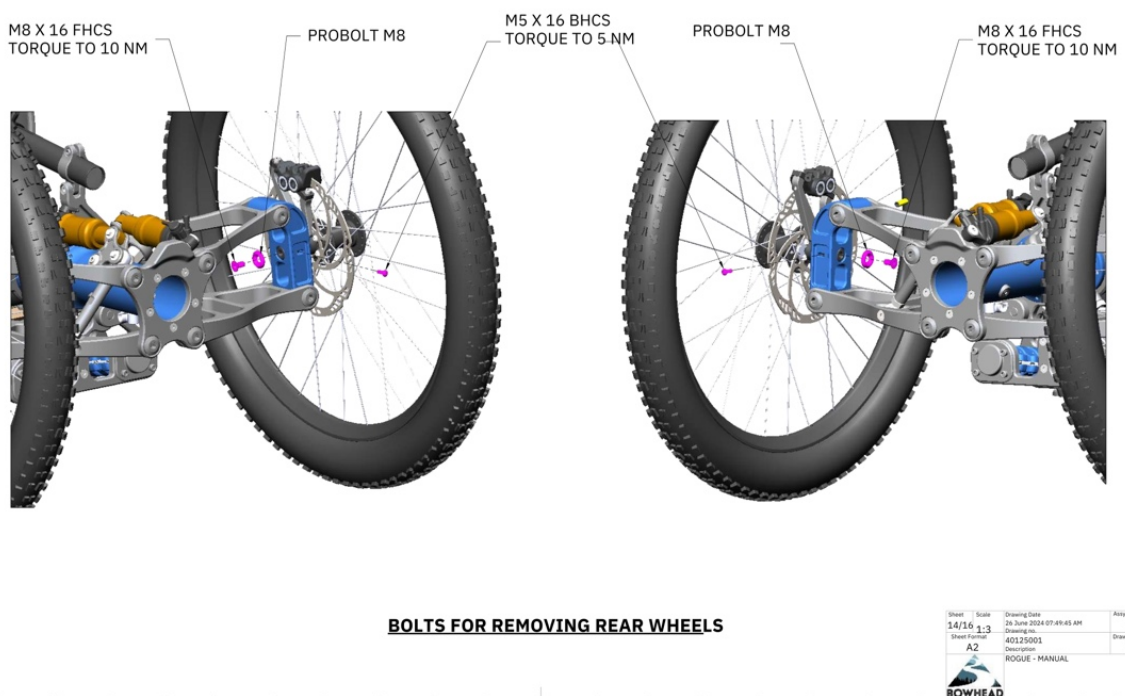
BOWHEAD



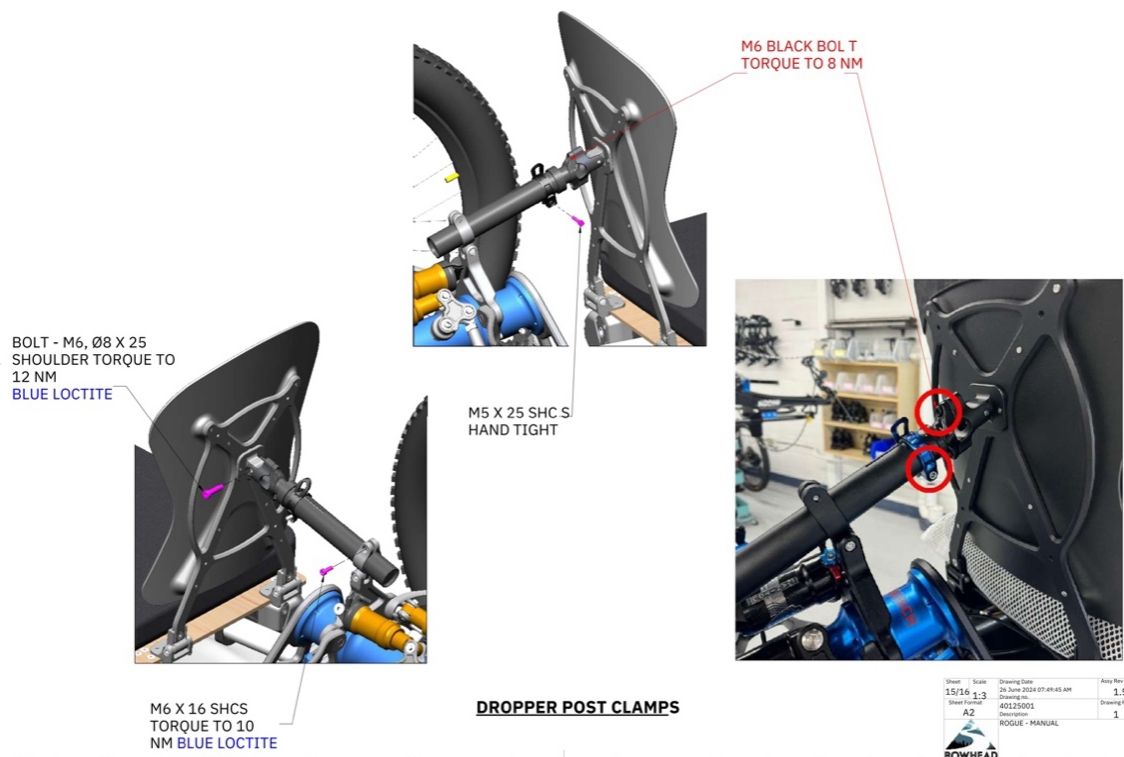
#### 6.4.16 Derailleur mounting



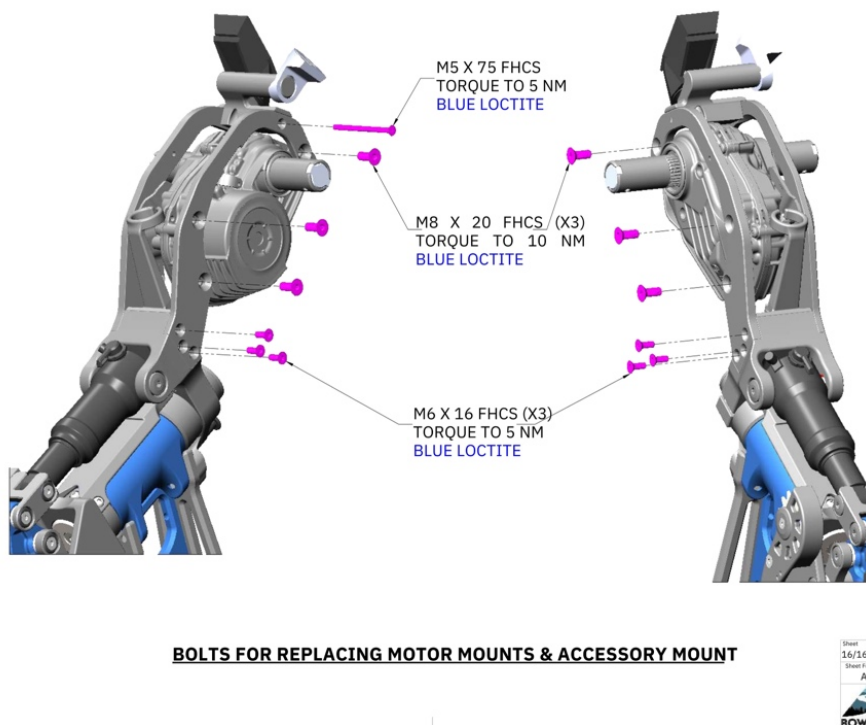
#### 6.4.17 Rear wheel torque specs



#### 6.4.18 Dropper post clamps



#### 6.4.19 Bolts for replacing motor mounts and accessory mount



## 7 Cleaning & Scheduled Maintenance

### 7.1 Cleaning checklist

Task	Frequency
Clean the cranks and grips	After each ride
Clean the shocks	After each ride
Clean the batteries	Once a month
Basic cleaning and preservation of all components	At least every six months
Clean the charger	At least every six months
Clean the seat assembly and harness	Once a month or after a wet ride
Clean under skid plate	At least every six months
Clean chain & drive train	After every ride if wet or muddy
Clean frame	After each ride

NOTE: Failure to keep bike clean will lead to increased service and maintenance as parts may wear faster.

### 7.2 Planned Maintenance

Maintenance tasks shall be done according to the following plan:

Task	Frequency
Replacing the battery	When needed
Check tire for wear	Once a week
Check rims for wear	Once a week
Check tire pressure	Once a week
Check brakes for wear	Every 2-3 weeks or after a long ride
Check electrical cables	Once a month
Check chain tensions	Once a month
Check spoke tension	Every 2 months or post-crash
Check gear shifting settings	Every three months or when shifting is off
Check shocks for wear and ensure functional	Every 3 months

Check brake pads	Once a month
Check disc rotors	Every 4-6 months

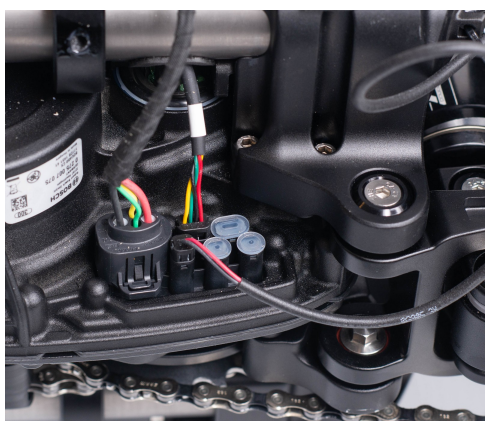
## 7.3 Electrical components

Cleaning the Plugs and motor connections



**CAUTION**

Do not remove plugs when your Rogue is below room temperature. The plastic becomes brittle and may break. Use extreme care as these plugs are small and delicate.



Required tools and cleaning agents:

- Small flat head screwdriver or small pick
- Soft cloth: microfiber or otherwise
- Small brush

Cleaning the plug/connection

1. Remove the skid plate.
2. Use a small pick to gently depress the locking latch on each plug.
3. While keeping the latch depressed, slowly and gently wiggle the plug straight out.
4. Use cloth and brush to gently wipe away debris.
5. Plug all connections back with care.





## 7.4 How to clean the product

Required tools and cleaning agents:

- Cloth
- Brush
- Water
- Dish liquid or bike-wash
- Bucket

Cleaning the frame and wheels

1. Remove all excess dirt and mud
2. Apply soap and water
3. Scrub with a soft, non-abrasive brush
4. Rinse well and ensure all soap has been removed

### Notice

Water may enter the inside of the bearings if you use a pressure washer. This dilutes the lubricant inside, the friction increases and, as a result, the bearings are permanently damaged in the long term. Do not use a pressure washer on your Bowhead Rogue.

Cleaning the drive elements

1. Spray the cassette, the chain wheels and the front derailleur with a degreasing agent.
2. Clean coarse dirt with a brush after soaking for a short time.
3. Wash down all parts with dish-washing detergent and a toothbrush.
4. Service the drive elements after cleaning.

Cleaning the Electronic Components

1. Remove components from the Rogue (including KIOX, batteries, and remote)
2. Clean electrical components by wiping them down with a dry cloth or brush
3. Use extreme caution when cleaning and handling electrical components



## 8 Troubleshooting & Repair

**WARNING:** Once a problem is identified, do not ride your Bowhead bike until the necessary steps have been taken and has been repaired to factory standards.

**NOTICE:** Contact Bowhead for additional support on troubleshooting errors and solutions. If any issues persist beyond the below solutions contact Bowhead immediately.

### 8.1 How to identify and solve problems

Error	Cause	Solution
Product does not start, or display does not show up	Battery not installed or not charged.	Check that battery is installed correctly according to instructions on page 18. Check that the LEDs on the battery level indicator light up. All 5 bars should be lit for a fully charged battery.
	Battery contacts/connections are dirty.	Remove battery and clean all contacts with a soft cloth. Reinstall the battery.
	Display not connected.	Remove KIOX from the mount, clean all contacts with a soft cloth, and reinstall on bike.
	Wiring not connected.	Remove skid plate and ensure 3 distinct cables are plugged into the motor.
Speed not displaying on KIOX	Bosch speedo cable disconnected from motor.	See motor connections. Check speedo connector and ensure this is plugged into the motor. Info on page 32.
	Batteries are installed incorrectly.	Check which side of the bike the batteries are installed



Charging port not operating	Damage to wiring/cables.	<i>Check wiring for any damage or disconnected plugs. Refer to wiring</i>
		<i>diagram on page 32, and contact Bowhead if issue persists.</i>
Chain rub under seat	Chain interferes with skid plate in low gears	<i>Adjust your shock sag. This should be set with the rider in the bike at 25% sag. Also ensure all seat wiring as per image 32 is free and clear of chain motion.</i>
Cranks do not freewheel backwards	Freewheel is broken	<i>Contact Bowhead for remedy.</i>
Chain noise in steering column	Chain tension too loose.	<i>Please refer to the steps outlined on page 50 for instructions on adjusting top chain tension.</i>
Unable to remove or install battery	Dirt in the keyhole, can't engage key for lock.	<i>Clean key holes. Use vacuum or air to blow debris from the socket. Try key again.</i>
	Battery jammed.	<i>Contact bowhead for remedy.</i>
Shifter not functioning (i.e.: not changing gears)	Blue tooth connection failed.	<i>Press &amp; hold the button on the derailleur until flashing green. Then press and hold the button on the thumb shifter until the light flashes quicker, release. You are now connected.</i>
	Battery not charged.	<i>Disconnect battery from bike and plug in to USB to charge. Wait for light to turn Blue and reinstall in bike.</i>
	Chain is dirty.	<i>Clean chain.</i>

Drivetrain skipping gears, not operating smoothly.	Chain is old & worn out.	<i>Measure chain stretch, Replace chain.</i>
	Deraillleur hanger is bent.	<i>Take bike to reputable mechanic to service. Please</i>
Reduced range		<i>contact Bowhead if you wish to perform this service yourself as it requires a specific tool.</i>
	Low tire pressure	<i>Inflate tires to recommended PSI.</i>
	Low battery	<i>Charge battery.</i>
	Brakes rubbing	<i>Adjust the brakes according to the instructions on page 32</i>

## 8.2 Checking the battery



### WARNING

#### Risk of fire and explosion due to faulty battery

The safety electronics may fail if the battery damaged or faulty. The residual voltage can cause a short circuit. The battery may self-ignite and explode.

- Never charge a faulty battery.
- Do not leave battery unattended while charging.
- Keep batteries away from liquid, especially while charging.
- Remove batteries with external damage from service immediately and never charge them.
- Only operate the battery and accessories if they are in perfect condition.
- Only use batteries which are approved for use on your Bowhead.
- Do not use a battery with connecting cable or defective contacts.
- If the battery becomes deformed or begins to smoke, keep at a safe distance, disconnect the power supply at the socket, and notify the fire service immediately.
- Never extinguish a damaged battery with water or allow it to encounter water.
- If a battery is dropped or struck but shows no signs of external damage, remove it from service and observe it for at least 24 hours.



- Faulty batteries are hazardous goods. Dispose of faulty batteries properly and as quickly as possible.
- Store in a dry place until disposal. Never store in the vicinity of flammable substances.
- Never open or repair the battery.
- Charge the battery before each use. Only use the charger included in the scope of delivery.
- Avoid wide temperate fluctuations.

## 9 Recycling & Disposal

### 9.1 How to dispose of components

To dispose of the batteries:

1. Never dismantle the charger, batteries, or other components for disposal.
2. Refer to Bosch manuals found on our website for battery disposal information.

### 9.2 Disposal of electrical components

To dispose of electrical components

Comply with your local garbage, recycling, and waste disposal guidelines.  
Always dispose of components in an environmentally responsible way.

### 9.3 Disposal of packaging waste

To dispose of packaging waste

1. Recycle all cardboard if aligned with your local recycling guidelines.
2. Place all non-recyclable packaging in the garbage



## 10 Declaration of Conformity

### EC Declaration of Conformity 2024 CE

**Manufacturer:** Bowhead Design Corporation  
6919 32<sup>nd</sup> Avenue NW  
Unit B103  
Calgary, AB T3B 0K6  
Canada  
+1 517 889 2424

Hereby declares that the following products:

<b>Product description:</b>	Bosch Performance Line CX – motor, batteries, charger, Kiox
<b>Model description:</b>	Bowhead Rogue Adventure-E bike
<b>Product description:</b>	SRAM Eagle AXS - wireless drivetrain system, including derailleur, shifter, and cassette.
<b>Model description:</b>	Bowhead Rogue Adventure-E bike
<b>Product description:</b>	Rohloff SpeedHub 500/14 – Cycle transmission.
<b>Model description:</b>	Bowhead Rogue Adventure-E bike
<b>Product description:</b>	Gustav Magenwirth GMBH & Co. KG - Magura brakes
	Shimano Inc. - Brakes
<b>Model description:</b>	Bowhead Rogue Adventure-E bike
<b>Product description:</b>	SRAM - RockShox shock absorbers
	Fox Factory, Inc. - Fox shock absorbers
<b>Model description:</b>	Bowhead Rogue Adventure-E bike
<b>Year of manufacture:</b>	2024

as listed stand-alone, and in aggregate and integrated into the Bowhead Rogue Adventure-E bike, satisfy all the relevant requirements of the EC Declarations (2006/42/EC), and any and all EN standards used to determine such conformity.

The machine also satisfies all requirements of the Electromagnetic Compatibility Directives (2014/35/EU, 2014/30/EU), of IT Directives (2011/65/EU), of Radio Equipment (2014/53/EU), and of the Machinery Directives (2006/42/EU).

Dean E. Miller  
President and CEO  
January 1, 2024  
Bowhead Design Corporation  
6919 32<sup>nd</sup> Avenue, Unit B103, Calgary, AB T3B 0K6 Canada



