



**e-MTB HardTail Range**

**e-504: 27.5" eMTB Hardtail**

**e-505: 29" eMTB Hardtail**

**e-506: 27.5" eSUV**

**Supplementary Service Manual 2021 Edition 1**

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## **1.0: INTRODUCTION**

Thanks for choosing to purchase this Whyte product. We hope you will enjoy all the benefits its advanced design and engineering will bring to your riding experience.

This manual will guide you through the set-up, safety and maintenance procedures that are specific to your Whyte bike. For other more general information, we strongly advise that you also read thoroughly the General Instruction Manual that is also supplied with your new bike. It is also available to download at **[www.whyte.bike](http://www.whyte.bike)**

Also, please note that the specification of all the components that are fitted to your bike as standard may be obtained from the Whyte Bikes website **[www.whyte.bike](http://www.whyte.bike)**

Please remember, if you are in any doubt about your ability to safely service or repair your Whyte bike, do not ride it and instead arrange for a professional bicycle mechanic at your local Whyte dealer to do the job correctly.

Bundled with this manual, are the respective manufacturers instructions and manuals for the branded parts that are fitted to your Whyte bike. Please take time to study all the relevant instruction manuals to ensure you have a continually safe and well set-up bike before every ride, and to help you build up a relationship of knowledge between you and your Whyte Dealer.

Happy and safe riding,

*Whyte design team.*

## **2.0: GEOMETRY**

The geometry of the Whyte Bikes e505, e504 and e506 is available from the Whyte Bikes website **[www.whyte.bike](http://www.whyte.bike)**

## **3.0: PREPARATIONS FOR RIDING**

### **3.1: MAKING ADJUSTMENTS**

Please refer to the specific component manufacturers manual or published technical information about adjusting the components on your Whyte bike. Instructions may be downloaded from the relevant manufacturer's internet site, as shown in the table below. In addition, make sure you download and read and understand the recommendations contained in the Whyte Bikes General Instructions Manual, available to Download at [www.whyte.bike](http://www.whyte.bike)



**CAUTION!** If you are uncertain in any way, about making adjustments to any components on you Whyte bike, then **DO NOT RIDE YOUR BIKE.**

Contact your Whyte dealer who will be able to advise you on how to go about setting up you Whyte bike for riding, and or making adjustments to the components fitted to your Whyte bike.

Bosch eBike Systems	<b><a href="http://www.bosch-ebike.biz">www.bosch-ebike.biz</a></b>
DT Swiss	<b><a href="http://www.dtswiss.com">www.dtswiss.com</a></b>
Easton	<b><a href="http://www.eastonbike.com">www.eastonbike.com</a></b>
Formula	<b><a href="http://www.formulahubs.com">www.formulahubs.com</a></b>
Fox	<b><a href="http://www.foxracingshox.com">www.foxracingshox.com</a></b>
Joytech	<b><a href="http://www.joytech.co.tw">www.joytech.co.tw</a></b>
Maxxis	<b><a href="http://www.maxxis.com">www.maxxis.com</a></b>
Race Face	<b><a href="http://www.raceface.com">www.raceface.com</a></b>
Schwalbe	<b><a href="http://www.schwalbe.com">www.schwalbe.com</a></b>
Shimano	<b><a href="http://www.shimano.com">www.shimano.com</a></b>
SR Suntour	<b><a href="http://www.srsuntour-cycling.com">www.srsuntour-cycling.com</a></b>
SRAM	<b><a href="http://www.sram.com">www.sram.com</a></b>
Tektro	<b><a href="http://www.tekro.com">www.tekro.com</a></b>
WTB	<b><a href="http://www.wtb.com">www.wtb.com</a></b>

### 3.2: SEAT CLAMP ADJUSTMENT & SERVICE



**CAUTION! Avoid over-tightening the seat clamp.**

*In particular "dropper" seat-posts may not work correctly if the seat clamp is over tightened.*



**CAUTION!** When adjusting the saddle height you **MUST** obey the Minimum insertion depth requirement marked on the Seat Post. Also consult the relevant seat-pin manufacturers instructions in conjunction with these notes.



**IMPORTANT SAFETY** Always stop riding when making adjustments of any kind to the bicycle!

### 3.3: SET UP OF FORK

*Tools Required:      Good Quality Shock Pump for Air Spring Suspension Fork  
                                 Small Ruler*

**IMPORTANT SAFETY NOTE:** Always stop riding when making adjustments of any kind to the bicycle!

The front suspension fork fitted to your Whyte bike will be pre-set with the standard settings. Before riding, you may need to adjust these setting. First is the Sag setting on the fork. This is to ensure the forks are set-up correctly for your own body weight, so the fork will perform as intended.

To set Sag on the front fork, you need to measure the amount the fork compresses when you sit on the bike in the normal riding position. See the table on the right for our recommendation of front fork sag on your Whyte bike. To achieve this you will need to adjust the air spring pressure inside the fork.

Refer to the specification tables in this manual, and then to the relevant fork manufacturers set up instructions to find how to adjust the air spring pressure in the fork. Using a shock pump, either add or remove air until Sag is correctly set.

Please note that for the detailed instructions for servicing and all matters relating to the forks fitted to your Whyte bike, please refer to the manufacturers instructions.

Rebound Damping adjustment:

This adjustment fine-tunes the speed at which the wheel returns to its normal ride height after hitting a bump. Refer to the relevant manufacturers instructions to find out how to adjust the rebound damping. To demonstrate the effect of this function, turn the adjuster to its slowest setting. Press down on the handlebars to compress the forks, then release the load. The suspension recovers very slowly to its original position.

Repeat the above with the adjuster turned to the fastest setting and the difference will be seen immediately the load is released. We recommend the optimum setting is to adjust the re-bound damping to be as slow as possible, but not so slow that the normal ride height is not recovered. On very rough terrain, if the bike becomes progressively lower as more bumps are hit then the re-bound damping is set too slow. On the other hand if the bike feels choppy and not plush then the re-bound damping is too fast. A bit of trial and error is needed to get the exact setting.

## **4.0: SAFETY**

**IMPORTANT:** The following are intended to be advisory notes on the safe use of your Whyte bike. You should also read thoroughly the General Instruction Manual also supplied with your new bike. If at any stage you are uncertain about the safety or safe operation of the bike as a whole, or any specific component, then **DO NOT RIDE YOUR WHYTE** and instead please consult the specific component manufacturers instruction manual or your Whyte Dealer for advice.

**Maximum Weight Limit for Whyte e-Bikes:** 19.5st. / 125kg (including the rider and the rider's equipment)



**WARNING:** As is the case with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components may react to wear and stress fatigue in different ways. If the design life of a component has been exceeded, it may fail suddenly causing possible injury to the rider. Any form of crack, scratches and decolouring in highly stressed areas are showing that the component has exhausted its life time and has to be replaced. If you are in any doubt about one or more components on your Whyte **DO NOT RIDE YOUR BIKE**. Consult the specific component manufacturers literature, or take your bike to your local Whyte Dealer.

### **Designed for the following use:**

#### **e-504 and e-505:**

Whyte e-504 and e-505 Hardtail bicycles have been designed, tested and comply with EN-15194:2017 Safety Standards, for typical 'Trail' mountain biking use.

#### **e-506:**

Whyte e-506 Hardtail bicycles have been designed, tested and comply with EN-15194:2017 Safety Standards, for typical Urban and Commuter Riding.

## **5.0: LUBRICATION**

Please refer to the Whyte General Instruction Manual for guidance about lubricating many of the components on your Whyte bicycle.

For the range of bicycles contained in this Supplementary Service Manual, there is also the following specific guidance:

### **5.1: GENERAL WHYTE LUBRICATION**


For the correct lubrication regime and maintenance of all parts on a Whyte bicycle, please refer to the specific component manufacturers detailed instructions bundled with this manual or for further information visit the specific manufacturers website.

## 6.0 Servicing the Whyte Modular Dropout Systems:

### 6.1: USING THE 12mm WHYTE QR SHAFT.

Referencing Figure 19 and 20. The rear wheel is attached to the frame by a lever-actuated mechanism that allows you to install and remove the wheel without tools.

To undo and remove the axle from the bicycle, turn the lever anti-clockwise until the axle is disengaged from the threads in the RH dropout, then pull the axle out of the hub and through the LH dropout to remove it from the frame. Note. If you have placed the bike in a work-stand take care to support the rear wheel as you remove the axle, to prevent the rear wheel falling out of the frame and potentially damaging any components in the process. If you are in the habit of turning your bicycle upside-down to remove the wheels, please take care not to damage the saddle or any of the controls on the handlebars when doing so.


To re-assemble the axle, ensure the wheel is placed correctly into the frame and the hub is aligned with the dropouts. Insert the Axle into the LH dropout and push it through the dropout, hub and into the RH dropout. Turn the lever clockwise.  After inserting the axle through the dropout of the frame and wheel hub, it will be necessary to turn the lever several times to fully engage the axle into the threads in the RH dropout before the axle tightens. The required minimum hand-force is 15 Nm.

**WARNING: If you are unsure about how tight the axle needs to be done up to, DO NOT ride your bike and instead consult your Whyte Dealer who will be able to advise and demonstrate the correct closing force.**

Ensure that the lever is back to its normal position after every adjustment is made. To do this, pull the spring-loaded lever arm away from the bike (Fig. 19 Arrow No.1) until the lever arm dis-engages from the axle (Figure 20) Whilst the lever is dis-engaged from the axle, rotate the lever (Fig.19 Arrow No.2) around to a '9'0'clock' position as shown in Fig. 20. Next release the spring-loaded Lever arm to re-engage the Lever Arm with the axle (Fig.19 Arrow No.3).

Under no circumstances should the 4mm Allen Screw in the centre of the Axle Lever arm be loosened. Do not loosen the screw for opening or closing of the Axle System.

#### Always check for safety before riding

 Before every ride check your thru axle System is in the Locked (CLOSED) position. Make sure that the wheels are correctly installed on the bicycle frame or fork, and the lever does not contact any part of the bicycle. If the lever contacts anything, it might not be closed; replace the thru axle or consult your dealer for safety. Ensure that the tightening force of the thru axle lever is minimum 15 Nm.

**WARNING:** A thru axle that is not correctly adjusted and closed to a minimum hand force of 15Nm, may allow the wheel to work or become loose or become detached from the bike unexpectedly. This could cause the rider to lose control and fall and may result in serious injury or death. Always make sure the thru axle is adjusted and closed correctly before every ride as part of your Pre-ride checks.

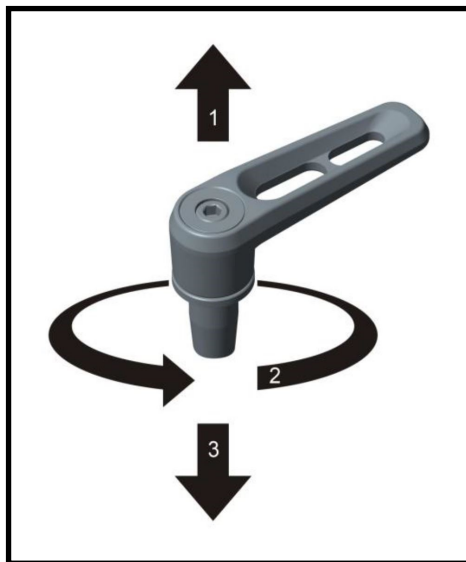


Figure 1: 12mm QR Axle



Figure 2: 12mm QR Axle  
Re-Positioning Lever Arm

## 7.0: Removal of the Bosch PowerTube 500 Battery:

The Whyte e-Hardtails, use a standard Bosch PowerTube assembly which is housed inside the DownTube of the Frame.

### 7.1: DownTube Plastic Battery Cover Removal and Installation:

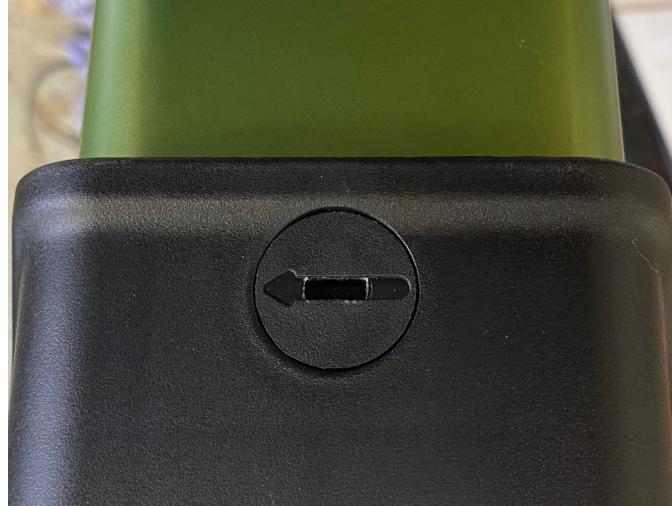
The Bosch PowerTube Battery is accessed by opening and removing the Plastic DownTube battery cover from the DownTube of the frame. The location of the Plastic Cover is shown in Fig. 3b. To remove the Plastic Cover, using a flat bladed screw driver, insert the screw driver into the slot shown in Fig.5. Rotate the slot 90° to the position shown in Fig.4 to release the Plastic Cover and then remove from the Down Tube of the frame. You can then access the standard Bosch PowerTube Locker which is located on the side of the DownTube of the e-bike frame as shown in Fig. 3a. Peel back and remove the Whyte covering bung, taking care not to loose it. The Bosch PowerTube Locker key is then revealed. Follow the Instruction provided by Bosch to remove and reinstall the Bosch PowerTube battery. To refit the Plastic Cover, is the reverse of the removal process. Make sure the Plastic Cover is correctly located into the DT and the Slot is pre-set in the position as shown in Fig.4. With the Plastic Cover correctly located, Rotate the slot 90° to secure the Plastic Cover to the DownTube.

**WARNING:** Always consult the relevant Bosch User Manual and assembly instructions that relate to the Bosch PowerTube 400/500/625 battery assembly and operational instructions when removing and re-installing the Bosch PowerTube Battery in your e-bike frame.



**Figure 3a: Location of PowerTube Battery Key Locker.**

**Figure 3b: Location of PowerTube 500 Plastic Cover fixing point.**



**Figure 4: Position of the slot indicating the Cover can be removed.**



**Figure 5: Position of the slot indicating the Cover can not be removed.**

### 7.2: Location of the Bosch PowerTube On/Off button.

The location of the Bosch PowerTube On/Off button is located under the DownTube Cover. Refer to Bosch PowerTube instructions for the function of this aspect of the Bosch PowerTube.



**Figure 6: Bosch Battery:**  
**Location of Bosch Power-**  
**Tube On/Off Button with**  
**Battery Fitted into Down**  
**Tube and Down Tube Bat-**  
**teryCover removed.**



**Figure 7: Closed Position**



**Figure 8: Open Position**

### 7.3: Location Of Bosch Battery Charge Port.

**⚠ IMPORTANT:** At all times follow closely all recommendations from Bosch contained in the relevant Bosch Customer User Manual documentation material bundled with your bike (or consult the on-line Bosch resources) to fully understand how to re-charge, handle and store your Bosch Battery. Failure to comply with all Bosch recommendations could lead to failure of the battery function, and risk of fire leading to serious injury and death.

The position of the remote charge port for the Bosch Battery has been integrated into the side of the Motor Mount as can be seen in Fig.7 and Fig.8. To access the charge port, peel back the sealed cover of the Charge Port marked "Whyte Energy" to reveal the charge port. Follow the instructions contained in the Bosch Battery Instruction Manual to Charge the Battery. When Charging has finished, re-fit the Remote Charge Port Cover and press firmly to seal the Cover over the Charge port to prevent ingress of mud and water and other contaminants. Failure to correctly secure the sealed cover can lead to corrosion and failure of the charge port component.



## 8.0: TORQUE SETTINGS

*Torque explained: If no suitable Torque Wrench is available a Torque of 5 lbf.ft can be obtained by applying a force of 5lb, with a Spring Balance, to the end of a spanner, 1 Foot in length.*

**IMPORTANT:** For all other torque settings, refer to the specific manufacturers information bundled with this manual, or alternatively, refer to the specific manufacturers website for further information.

Seat Post Clamp		
M6 Cap Screw	12 (Min) - 14 (Max)	8.9 (Min) - 10.3 (Max)

## 9.0: OWNER'S NOTES

[www.whyte.bike](http://www.whyte.bike)

