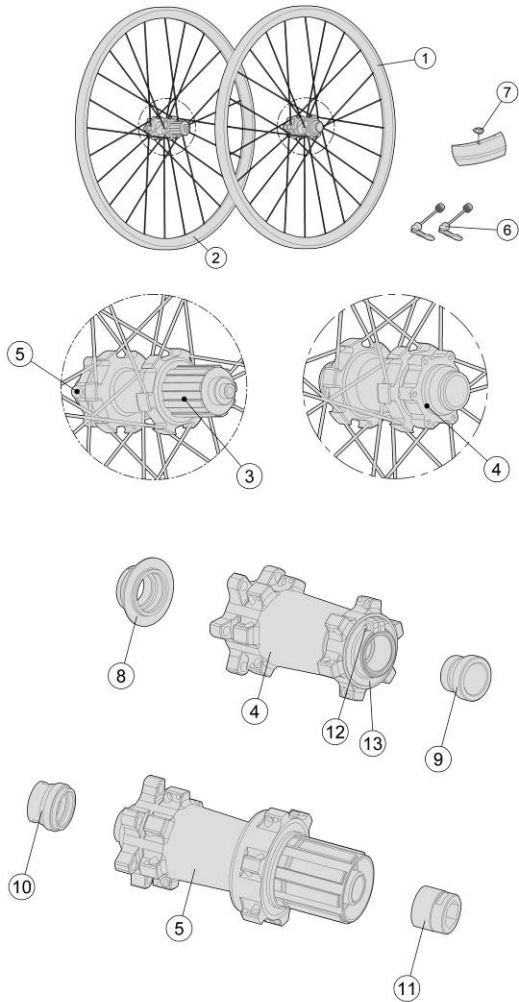




# MTB Wheelset Installation Instructions

Published – Oct, 2015. ZS175.v1 © Full Speed Ahead



## Introduction

Congratulations on your Full Speed Ahead product. Please read these instructions and follow them for correct use. Failure to follow the warnings and instructions could result in damage to product not covered under warranty, damage to bicycle; or cause an accident resulting in injury or death. Since specific tools and experience are necessary for proper installation, it is recommended that the product be installed by a qualified bicycle technician. FSA assumes no responsibility for damages or injury related to improperly installed components.

## Warranty

Full Speed Ahead (FSA) warrants all FSA, Gravity, Vision, Metropolis and RPM products to be free from defects in materials or workmanship for a period of two years after original purchase unless otherwise stated in the full warranty policy. The warranty is non-transferable and valid to the original purchaser of the product only. Any attempt to modify the product in any way such as drilling, grinding, and painting will void the warranty. For more information on warranty policy and instructions for completing a warranty claim, check out the Full Warranty Policy found at our website: <http://www.fullspeedahead.com/techdoc>

## Specification

Item Number / Model Name	Model No.	Model Name	Front spoke tension (kgf)		Rear Spoke tension (kgf)	
			Non-drive (w/disc brake)	Drive side (w/o disc brake)	Drive side (w/o disc brake)	Non-drive (w/disc brake)
	WH-TX-910	K-Force Light MTB 27.5"/650b	100 – 120	100 – 120	110 – 130	80 – 100
	WH-TX-920	K-Force Light MTB 29"/700c	100 – 120	100 – 120	110 – 130	80 – 100
	WH-TX-905	SL-K MTB 27.5"/650b	100 – 120	100 – 120	110 – 130	80 – 100
	WH-TX-915	SL-K MTB 29"/700c	100 – 120	100 – 120	110 – 130	80 – 100
	WH-TX-908	Afterburner MTB 27.5"/650b	100 – 120	100 – 120	110 – 130	80 – 100
	WH-TX-918	Afterburner MTB 29"/700c	100 – 120	100 – 120	110 – 130	80 – 100

**▲ WARNING** Use a spoke tension measuring device to follow the tension specification as in the above chart. Maximum spoke tension must not exceed the tension specification. Using tension above max recommended tension will void warranty. If tension above maximum is necessary to true the wheel, the rim may be damaged and should be replaced. Rim failures can cause serious accidents.

## Components

Follow the assembly order in the illustration:

- ① Front Wheel
- ② Rear Wheel
- ③ Freehub Body
- ④ Front Hub
- ⑤ Rear Hub
- ⑥ Quick Release (QR)
- ⑦ Valve adapter
- ⑧ MW399 Conversion Cap Hub Front (Non-drive side)
- ⑨ MW398 Conversion Cap Hub Front (Drive side)
- ⑩ MW404 Conversion Cap Hub Rear (Non-drive side)
- ⑪ MW403 Conversion Cap Hub Rear (Drive side)
- ⑫ PRA adjust collar set screw
- ⑬ PRA adjustment collar

## Installation

1. Install a clincher tire onto the Front ① and Rear Disc Wheel ② following the tire manufacturer's instructions. If the tire fit is tight and difficult, spray soapy water on tire bead.
  2. Once tire and tube are installed, place the Valve adapter ⑦ onto the valve and tighten with the valve nut.
- Note: K-Force light wheel models are packaged with Stan's® No Tube Kit. To convert wheels to tubeless, follow the manufacturer's instructions. [http://www.notubes.com/detailed\\_kit\\_instruction.aspx](http://www.notubes.com/detailed_kit_instruction.aspx)
3. Lightly grease the Freehub Body ③ and install cassette as instructed by cassette manufacturer. Wheels equipped with a Shimano Freehub Body are compatible with Shimano 9, 10 and 11 speed and other compatible cassettes. Use the supplied cassette spacer with 9 or 10 speed systems and Shimano MTB 11 speed systems.
  4. Install disc brake rotor as instructed by manufacturer and tighten to manufacturer's recommended torque. **▲ WARNING** Periodically check disc rotor screws for correct torque. Improper tightening or loose rotor screws can cause the rider to lose control of the bike and may result in injury or death.
  5. Install the front wheel ④ and rear wheel ⑤ into the fork or frame drop-outs. Insert the QR ⑥ from the left side of the wheel and thread the nut on to the skewer. The lever end of the QR may require substantial effort to close. Tighten the QR bolt to a 20 kgf.cm / 2 Nm / 18 in.lbs. If it closes with only moderate hand pressure, the QR must be readjusted by turning the nut opposite of the release lever clockwise. Consult the advice of an experienced mechanic to help determine the proper QR lever adjustment before riding the bicycle. The QR lever should point upward in order to avoid hitting it on passing objects while riding. Note: Regularly check the QR adjustment. The QR must be periodically lubricated at the pivot points so it can exert maximum sideways force.

Note: If your bicycle uses a Through Axle system, install wheels into front or rear drop-outs following manufacturer's instructions.

**▲ WARNING** Check QR or through axle for tightness before every ride.

## PRA Bearing Adjust

1. Unscrew the PRA adjust collar set screw ⑫ in the PRA adjustment collar ⑬ using a 2.5mm Allen Key.
2. Tighten the PRA adjustment collar by-hand until it stops, then loosen slightly, but no more than 1/8th turn.
3. Screw in PRA adjust collar set screw to 2Nm with Allen Key.
4. Install the wheel in the bike and ensure that there is no lateral (side-to-side) movement and that the wheel rotates freely.
5. If lateral play is present, do not remove wheel from frame. Loosen the PRA adjust collar set screw with a 2.5mm Allen Key and re-adjust the PRA adjustment collar clockwise until lateral play is eliminated and wheel rotates freely. Re-tighten the PRA adjust collar set screw to 2Nm.
6. Remove the wheel from the frame and check that the PRA adjustment collar has not been overtightened. Repeat process if it is overtightened.

## Axle End Cap Removal & Installation

1. Choose the correct axle configuration for the type of axle used. see Table 1.
2. Loosen PRA set screw ⑫ and loosen PRA Adjustment collar ⑬. The left side axle cap ⑧ / ⑩ is press fit and will pop out of the axle.
3. Slide axle out of hub.
4. Holding axle and right side axle end cap ⑨ / ⑪ with cone wrenches, turn the axle end cap counter clockwise to loosen and remove.
5. Install required end cap on to right side of axle and tighten using cone wrenches.
6. Slide axle through hub and reinstall PRA collar ⑬.
7. Press in required left side axle end cap and follow instructions for PRA bearing adjust above.

Table 1. Axle End Cap Selection	Front	Rear
QR	EL236 (MW401, MW400)	EL235 (MW406, MW405)
Thru Axle	EL210 (MW399, MW398)	EL211 (MW404, MW403)



## Contact

If you have questions, please visit our web site technical section: <http://www.fullspeedahead.com/contact> or contact:

Full Speed Ahead, USA  
12212 Cyrus Way Mukilteo, WA 98275-5702  
Tel: 1\_425\_488\_8653 Fax: 1\_425\_489\_1082

Full Speed Ahead, Europe  
Via Del Lavoro, 56 20874 Busnago, Milan, Italy  
Tel: +39\_039\_688\_5265 Fax: +39\_039\_682\_3336

TH INDUSTRIES / FSA Asia  
NO.6, Wu-gong 8th Rd., Wufeng Dist., Taichung City 41353, Taiwan (R.O.C.)  
Tel: +886\_4\_2331\_9134 Fax: +886\_4\_2331\_9314

Notes: Specifications of product may be changed or improved for performance. Please refer to website periodically for technical updates and revised instructions. Printed in Taiwan.

