# Metron RS Wheelset Installation Instructions

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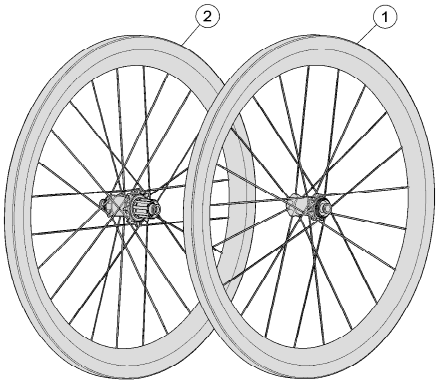



## Introduction

Congratulations on the purchase of this superior Vision 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 your 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. Full Speed Ahead & Vision assumes no responsibility for damages or injury related to improperly installed components.

## Warranty

Full Speed Ahead (FSA) warrants all FSA and Vision 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:
https://www.visiontechusa.com/en/support/warranty-policy

## Specification

Model Name **All Metron RS DB Centerlock Wheelsets**

## Components

Follow the assembly order in the illustration:

① Front Wheel
② Rear Wheel
③ Freehub body
④ Tubeless Valve
⑤ Spoke Protector

**⚠ WARNING** For repairs, always use original Vision parts. Using improper spokes will cause damage to the wheelset, leading to accidents and injuries.

## Wheelset Installation

**NOTICE** Ensure tire is correct type for wheel model. Install tire on rim as instructed by tire manufacturer.

1. Vision Metron RS includes Tubeless components follow instructions as below.
2. Check if the tubeless rim tape and Tubeless Valve ④ are applied.
3. Lightly grease the Freehub Body ③ and install cassette as instructed by cassette manufacturer.
4. Wheels equipped with Shimano HG freehub or Microspline Freehub Body is compatible with Shimano HG or Microspline cassettes.
5. Wheels equipped with Sram XDR Freehub Body are compatible with Sram XDR cassettes.
6. Install disc brake rotor as instructed by manufacturer and tighten to manufacturer's recommended torque.

**⚠ WARNING** Periodically check disc rotor lock ring for correct torque. Improper tightening or loose rotor lock ring can cause the rider to lose control of the bike and may result in injury or death.

7. Install the front wheel ① and rear wheel ② into the fork or frame drop-outs by using a Thru Axle system on your bicycle following manufacturer's instructions.

**⚠ WARNING** Check Thru Axle for tightness before every ride.

8. Vision Spoke Protector ⑤ is intended to prevent the chain from falling down in the spokes. Please install it on the rear wheel before riding.

**⚠ CAUTION** Periodically inspect the wheels for damage. Wheels should be serviced by a qualified bicycle mechanic.

**⚠ WARNING** Metron RS wheels use internal nipples. To adjust spoke tension, access is required from inside the rim.

| Model name | Model No | Tire width (mm) | Front spoke tension (kfg) | | Rear Spoke tension (kgf) | |
|---|---|---|---|---|---|---|
| | | | Drive side | Non-drive | Drive side | Non-drive |
| Metron 60RS i23 DB Centerlock | WH-VT-860RS/CHTL/DB-CL | 28~65 | 105~125 | 90~110 | 100~120 | 100~120 |
| Metron 45RS i23 DB Centerlock | WH-VT-845RS/CHTL/DB-CL | 28~65 | 105~125 | 90~110 | 100~120 | 100~120 |
| Metron 37RS i21 DB Centerlock | WH-VT-837RS/CHTL/DB-CL | 25~65 | 105~125 | 90~110 | 100~120 | 100~120 |

**⚠ 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.

**Keys Are Recommended**

1. Park Tool SW-15 (3-way) or SW-18 (single size) for the internal nipple
2. Park Tool SW-2 or SW-45 3.45mm square nipple wrench as rotation holder

SW-15

SW-18

SW-2

**Spoke Tensioning Instructions**

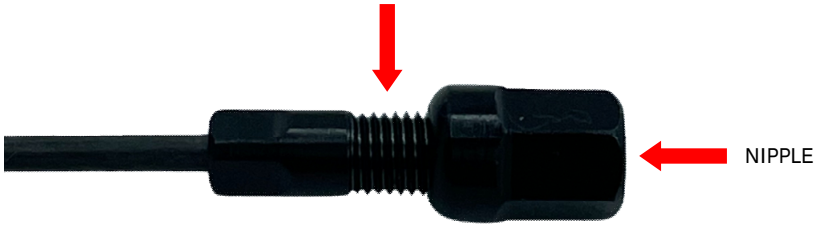
1. Remove the tire and rim tape.
2. Adjust the tension through the internal nipple located into the hole of the inner channel of the tire bed by using the 5.5mm hexagon tool.
3. Hold the external spoke head firmly close to the rim with 3.45mm square key.
4. Tighten the nipple clockwise using the 5.5mm hexagon tool and check the wheel trueness.

⚠ WARNING Do not attempt to turn the squared spoke head close to the rim, the spoke might become damaged leading to failure.

⚠ CAUTION We always recommend referring to y our local bike shop or a qualified bike mechanic for wheel repair and spoke tensioning.

**CARBON SPOKE CLOSE-UP**

THREADED SPOKE HEAD



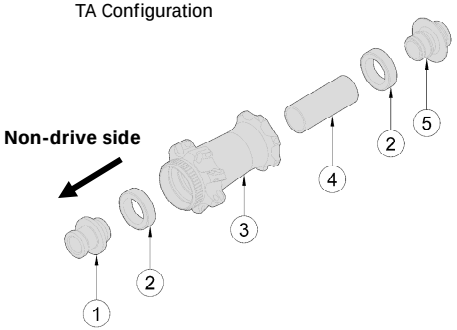
⚠ WARNING

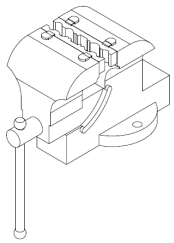
**Please use both tools at the same time to prevent spoke failure**

## Super Spline PRS Hub maintenance

### Front Hub (CenterLock)

TA Configuration



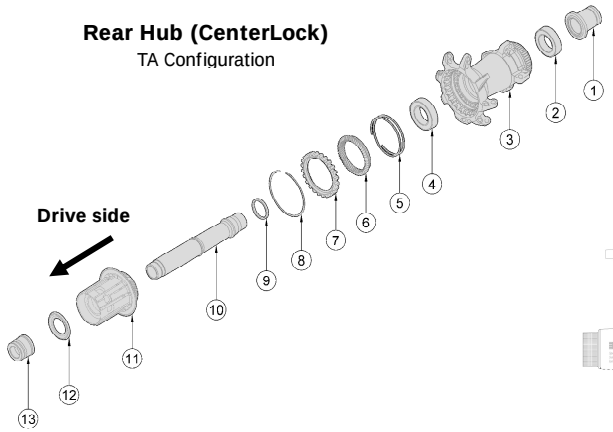



Axle and Spindle
Vise Inserts & Clamp

Slide Hammer

### Rear Hub (CenterLock)

TA Configuration



ME459A

ME459B

### Tools required

- Axle and Spindle Vise Inserts (Park Tool AV5) & Clamp
- Slide Hammer

### Components Front Hub

① End Cap (NDS) x1
② Bearings x2
③ Hub Shell x1
④ Hub sleeve x1
⑤ End Cap (DS) x1

### Components Rear Hub

① End Cap (NDS) x1
② Bearing x1
③ Hub Shell x1
④ Bearing x1
⑤ Spring x1
⑥ Helical Clutch Ratchet Inner Ring x1
⑦ Helical Clutch Ratchet Outer Ring x1
⑧ Retaining rings - C type x1
⑨ Seal x1
⑩ Axle x1
⑪ Freehub Shell x1
⑫ Seal x1
⑬ End Cap (DS) x1

### Disassemble Front Hub

1. Use Park Tool AV-5 with proper diameter to remove End caps ①, ⑤.
2. Use Slide hammer to remove bearings ②.

### Assemble Front Hub

1. Use Hub Bearing Press Set (Park Tool HBP-1) select diameter 17mm parts (2264-2 Bushing 2273-2 Pilot), place the replace bearings into hub shell and assemble hub shell, bearings, bushing, pilots and removed bearings (insert to 2273-2 Pilot)
2. Install End Caps ①, ⑤.

### Disassemble Rear Hub

1. Use Park Tool AV-5 with proper diameter to remove End caps ①, ⑬ and remove Seal ⑫ Freehub Shell ⑪.
2. For service remove Retaining rings - C type ⑧ to clean Helical Clutch Ratchet Inner Ring ⑥ and Outer Ring ⑦.

**NOTICE** The PRS grease (ME459A/B) is recommended for hub maintenance.

- For general use：one year.
- For use in extreme environments (rainy, sand and dust)：three months.

3. Use a rubber hammer to tap the Axle ⑩ on NDS side to remove the Axle ⑩ and bearing ④.
4. Use slide hammer to remove bearing ②.

### Assemble Rear Hub

1. Use Hub Bearing Press Set (Park Tool HBP-1) select diameter 17mm parts ( FSA 2264-2 & 2273-2), place the replaced bearing to FSA parts 2273-2 and place replace bearing ② into hub shell and assemble hub shell ③, bearing ②.
2. Install the Axle ⑩ and bearing ④ by using Hub Bearing Press Set and 17mm parts (FSA 2264-2 & 2273-2).
3. Install Seal ⑨, Spring ⑤, Ratchet inner ring ⑥ and Outer ring ⑦ and Retaining rings - C type ⑧ in order.
4. Install Freehub shell ⑪ to Hub Shell ③.
5. Place Seal ⑫ to Freehub shell ⑪, install End caps ①, ⑬.



### Contact

If you have questions, please visit our web site technical section: https://www.visiontechusa.com/en/support or contact:

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