MTB Rear Disc 225: 12mm Thru Axle Retrofit

Making Your MTB Rear Disc Hub 12mm x 135mm Thru-Axle Compatible.

- 12mm x 135mm Thru-Axle Kit, is compatible with the Disc 225 17mm axle hub only. Please make sure you are working with a 17mm Disc 225 hub before attempting retrofit. See manual: “Rear Cassette Hub: Which Do I Have?” at www.amclassic.com

- **Tools Needed:** Two 19mm cone wrenches, needle nose pliers, axle vise or smooth clamp. Synthetic waterproof grease such as Pedro’s SynGrease. **While disassembling the hub, keep all loose parts organized on a clean rag or paper towel. Do NOT modify or bend the cassette body loop spring in any way. Proper re-assembly is important to rider safety.**

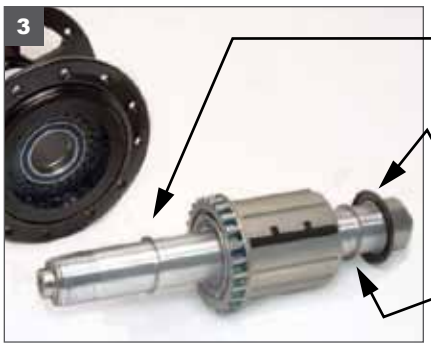
1. Using two 19mm cone wrenches, loosen the lock and adjusting nut.

2. Remove lock nut.

A. Some hubs have a 1.5mm axle spacer.

B. Remove adjuster nut.

C. Remove spacer with attached dust seal.



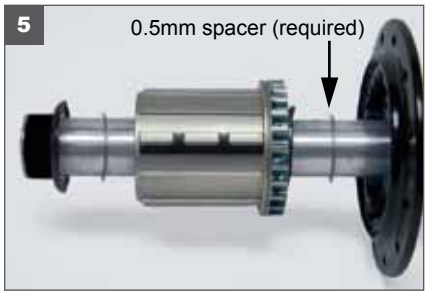
3. Separate cassette body and axle from the hub shell by grabbing the body and pulling out from the drive side.

Very Important!
Locate the 0.5mm axle spacer, which is either stuck to the drive side hub shell bearing or the inner bearing on the cassette body. This spacer is critical to maintaining the correct engagement, do not lose!

Reuse the dust seal.

Spacer is used for 10 speed cassettes.

4. Remove large black pawl seal.



Shimano/SRAM Axle Assembly.

With a thin layer of clean grease coating the pawls, join the axle, cassette body and spacers with the hub shell.

Order: Spacer with Dust seal > 0.5mm spacer (if using 10 speed cassette) > Shimano cassette body > 0.5mm spacer (required) > Hub shell.

Very Important:
6. The large black Pawl Seal **MUST** be installed after the cassette body and axle have been joined with the hub shell.

With the axle pushed completely into the hub shell and pawls engaged with the cassette body, install the large black pawl seal.

NOTE: After completing Step 6, be sure the seal is securely in the groove on the cassette body and you can rotate the body freely without the seal moving.

A bit of Tri-Flow® or similar lubricant will help with friction between the groove in the body and this seal.

All repairs should be performed by a professional bicycle mechanic.

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Final Hub Assembly:

7. Grease the threads and install the spacer with dust seal. (A) Finger tighten the adjusting nut with the shoulder side facing the hub shell (B) Install the lock nut and finger tighten. (C) Using two 19mm cone wrenches, remove all play on adjusting nut, then back off one half rotation, 180 degrees.

Final Bearing Adjustment In Frame:

The purpose of adjustability is to extend the life of your bearings, reduce friction and rolling resistance to boost performance. The desired adjustment for American Classic hubs is described as “slightly more than no play” as to not overload the bearings. Some play will be removed with the clamping action of your quick release. Be sure the two outer dust seals on each end of the axle are covering the bearings completely. This adjustment is the same for road and mountain wheel sets.

8. Place the wheel in the frame and clamp down quick release. Hold the adjusting nut in place with a 19mm cone wrench, still one half rotation loose from Step 7, tighten the lock nut against the adjusting nut. Once the lock nut is tight, check for the desired adjustment by wiggling the tire at the rim to feel for “slightly more than no play.” If the adjustment is not correct continue to Step 9.

15. Hold the adjusting nut in place and loosen the lock nut. Slightly tighten or loosen the adjusting nut and hold in place. With the adjusting nut in place, tighten down the lock nut. Wiggle rim. Repeat Step 9 until the desired adjustment is acheived. Make sure the lock nut is tightened down when finished.

Proper re-assembly is important to rider safety.
All repairs should be performed by a professional bicycle mechanic.
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