INSTALLATION INSTRUCTIONS FOR

SPYRE MECHANICAL DISC BRAKE

SAFETY WARNINGS & INFORMATION

A) Safety Precautions And Considerations

WARNING - This braking system was designed for use on a single rider bicycle. Use of this system on any other vehicle or apparatus will void the warranty, possibly causing you great personal harm and injury.

WARNING - Disc Brakes, calipers, and rotors get VERY HOT during regular use. DO NOT touch or attempt to service the rotor, caliper, assembly until you've allowed for sufficient cooling to occur.

WARNING - These disc brakes offer a significant increase in performance over traditional cable actuated systems. Follow the break-in recommendations listed in this manual, allow yourself to learn and become accustomed to the braking characteristics.

WARNING - If your bike is involved in a fall or crash, stop and fully check the brake function, including: lever, caliper, and rotor are securely attached to the bike, pads are correctly installed and functioning, the cable is operating smoothly and the lever feels firm when actuating the brake. Always have a qualified mechanic check the brakes if you have any doubts.

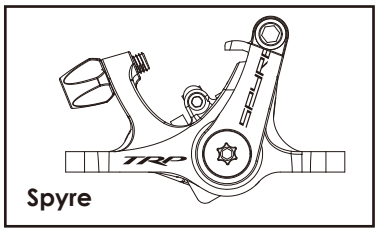
WARNING - Pad thickness must be at least 0.8 mm. Confirm this before each ride. Keep pads clean and free of oil or hydraulic fluid. If pads become contaminated discard and replace.

WARNING - Ensure that cable housing is always secured to the frame and/or fork prior to every ride. Do not ride a bike on which the cable housing can come into contact with the tires!

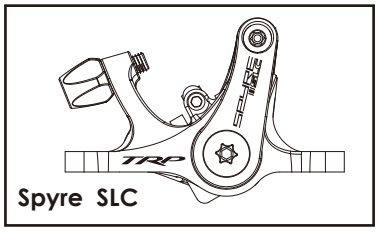
CAUTION - Read this manual completely before attempting to install or work on your TRP Brakes. If you are unfamiliar with any element of assembly or maintenance of this braking system please consult a qualified mechanic for assistance.

B) Emergency Information

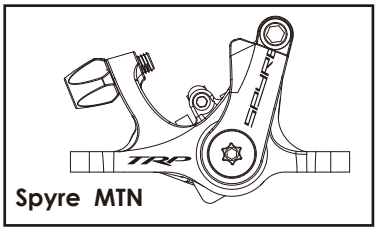
CAUTION - Please keep out of reach of children.



Spyre



Spyre SLC



Spyre MTN

INSTALLATION

TOOLS NEEDED FOR ASSEMBLY AND MAINTENANCE

- 5mm Allen Wrench (Spyre & Spyre Mtn)
- 3mm Allen Wrench (Spyre & Spyre Mtn)
- T25 Torx® wrench

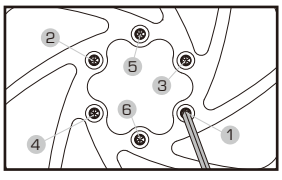
A) MOUNTING THE ROTOR

- Remove wheel from bike.
- Clean the disc and hub-mounting surface with isopropyl alcohol (**DO NOT use disc brake cleaner**).
- Using a TORX T25 driver, attach the rotor to the hub using supplied bolts and tighten to 6 – 8 Nm (53 – 71 in-lbs).
- Use a star-pattern sequence to tighten the disc screws. DO NOT simply tighten them clock-wise or counter clock-wise. **[Fig. A-1]**

NOTE: Be sure the rotation arrows point in the same direction as the rotation of the wheel.

- Replace the wheel per the manufacture specifications.
- Check and re-torque disc screws after a few hours, and after the first ride or two.

WARNING : DO NOT TOUCH THE DISC IMMEDIATELY AFTER USE – IT WILL BE HOT!

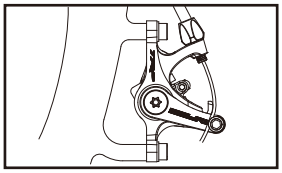


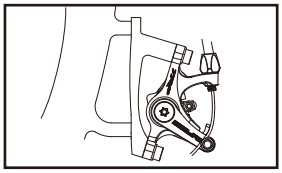
A-1. Rotor torquing sequence

B) MOUNTING THE CALIPER

- For IS or PM adapters, hold the adapter so that the stamped "F" or "R" is facing you – away from the bike, rotor and wheel. For post mount, proceed directly to next step.
- Align caliper with frame/fork mounting holes. **[Fig. B-1]**
- Attach the caliper to the fork or frame using two mounting bolts, but do not fully tighten at this time. **[Fig. B-2)**

CAUTION - Cleanliness is a very important part of any maintenance of a TRP disc brake. If the pads or rotor become contaminated with oil, or if the system becomes contaminated with impurities, braking performance will be greatly impaired.


B-1. Post mount installation


B-2. PM Adapter installation

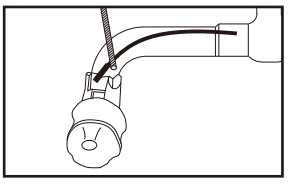
C) Cable Installation

· Compression-less housing, (linear strand) is recommended for SPYRE Mechanical Disc Brakes to yield the best performance. Sealed ferrules or other sealing systems are not recommended as they may create excess friction and affect the brake lever return performance. Route housing to minimize tight bends and acute angles.

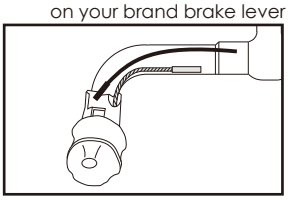
· Install a small section of spiral wound housing that inserts into the brake lever body and runs inside or outside the first bend in the bar as shown. (Not all brake lever bodies need a ferrule installed - check with your brake lever manufacturer's technical documents to determine if a ferrule is needed) The ends should be filed flat and the liner should be open to eliminate friction. Install a double-ended ferrule. **[Fig. C-1 & C-2]**

· Spiral wound housing can be cut to accomodate bar widths and preferences, such as hiding the double ended ferule under bar wrap. Allow spiral wound housing to extend at least 25mm, (1 inch) beyond the handle-bar bend. **[Fig. C-3]**

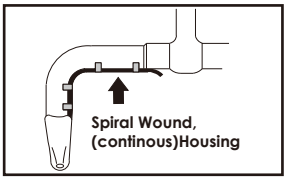
· Install the compression-less housing on the remainder of the frame or fork. Cut accurately to minimize tight bends and acute angles to optimize the brake lever feel.



C-1. Check if ferrule is needed on your brand brake lever



C-2. Install spiral wound housing for handlebar bend



C-3. Housing min. length

D) Connecting the Brake

· Turn barrel adjuster so that it is fully threaded in. Install ferrule on end of compression-less housing to fit in barrel adjuster.

· Run cable through and attach to SPYRE actuation arm. The arm should be slightly preloaded to create cable tension. **[Fig. D-1]**

Spyre & Spyre Mtn: Tighten bolt with a 5mm Allen wrench and tighten to 4-6Nm (35 - 53 in-lb.)

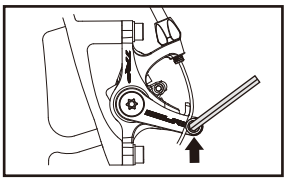
Spyre SLC - Tighten 3mm cable screw to 2.5-3.0 Nm (22 - 27in-lb.)

· To align the caliper, reattach the wheel, pull the brake lever firmly to self-align the caliper on the rotor and tighten the caliper mounting bolts to 6 – 8 Nm (53 – 71 in lbs).

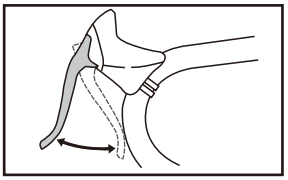
· Release the lever and check that the pads are aligned equally and that the wheel spins freely. The barrel adjuster may be used to fine tune brake lever feel.

· Pull brake lever 10 times to strech cable and seat housing. Push back on the actuation arm - if it is not returning fully, this indicates there is too much friction that will need to be corrected for best performance. **[Fig. D-2 & D-3]**

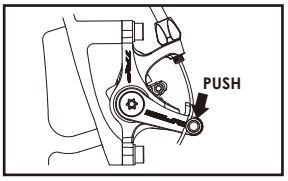
· New cable will stretch after initial installation. Repeat cable tightening process to maintain proper performance.



D-1. Preload arm and tighten



D-2. Squeeze lever 10 times



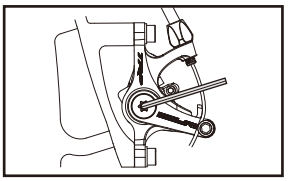
D-3. Check arm return

E) Fine-tuning

There are two ways to fine-tune the caliper to improve lever feel: the barrel adjuster and the pad adjuster.

· Thread the barrel adjuster out to take up cable slack or compensate for pad wear.

· Using a 3mm allen wrench, turn the pad adjustement screw clockwise (located in the outboard piston) to compensate for pad wear or imrpove lever feel. You may need to re-align the caliper. **[Fig. E-1]**



E-1. Pad adjustment screw

INSTALLING AND REMOVING BRAKE PADS

A) Changing Brake Pads

· Remove wheel from bike.

· Pull the cotter pin from the brake pad retaining bolt – be careful not to lose this piece – and loosen the bolt with a 3mm allen key. Set the bolt and cotter pin aside. **[Fig. F-1]**

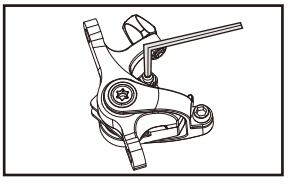
· Slowly pull the bolt out of its sleeve while placing your palm over the rotor end of the brake pads to catch them when they are released. Be careful to save the spring assembly for later use.

· Remove the pads from the bottom end of the caliper.

· Install new pads and spring assembly into the calipers. **[Fig. F-2]**

· Reinsert brake pad retainer bolt into the caliper and re-attach the cotter pin. Tighten the brake pad assembly bolt. Be sure that the small tabs on the ends of the pads are properly aligned and seated in the notch on the top of the caliper.

· Repeat for other caliper and adjust cable or pad alignment if necessary.



F-1. Unscrew pad retainer bolt

BREAK-IN PERIOD

A) Break In Period

Disc brakes have a 30-40 cycle break-in period to achieve optimal pad seating and performance. Exercise caution for the first 30-40 cycles each time you replace the brake pads.

SAFETY CHECK

Before Every Ride:

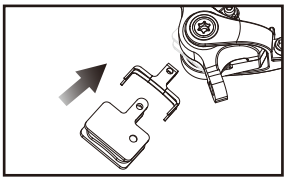
· Spin Wheel to be sure rotor is undamaged and aligned

· Check brake pad thickness, if pads are less than 0.8mm replace

· Check bolt tension, re-torque if necessary

· Check cable and housing for fraying, excessive friction or damage.

· Ensure that all cables are secured to frame and/or fork and can not contact tires!



F-2. Replace pads and holder

For questions about setup, usage or general inquiries, please contact TRP by e-mail at info@trpbrakes.com or by phone toll free in US, 877-807-4162 or outside US 1-801-648-7079.