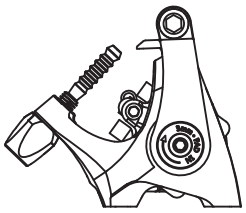
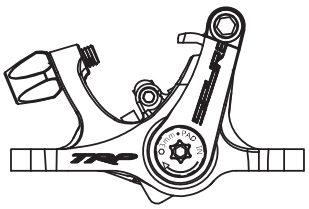
INSTALLATION INSTRUCTIONS FOR

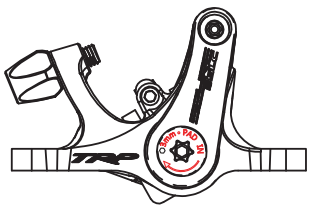
SPYRE MECHANICAL DISC BRAKE



Spyre FlatMount



Spyre



Spyre SLC

TOOLS NEEDED FOR ASSEMBLY AND MAINTENANCE

- 5mm hex wrench
- 4mm hex wrench
- 3mm hex wrench
- T25 Torx® wrench
- Cable housing cutters
- Cable cutters

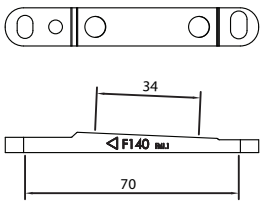
SAFETY WARNINGS & INFORMATION

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 or 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 fully check the brake function including: the 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.
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.

Adaptors and Hardware

Spyre FlatMount Adaptors Orientations

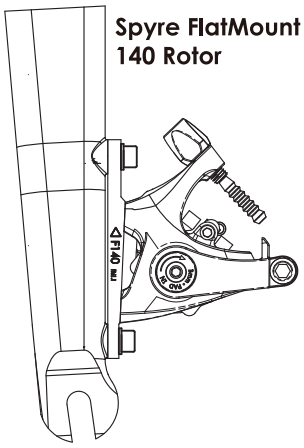
FM1.1 F140/F160 Adapter



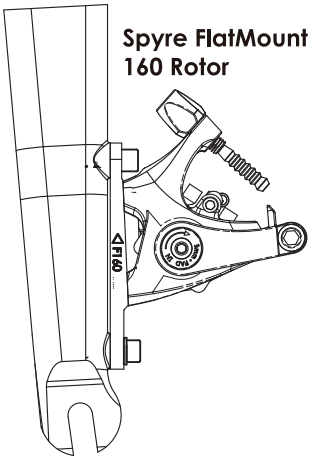
M5 x 13, 2pcs

M5 x 14, 2pcs

Spyre FlatMount 140 Rotor



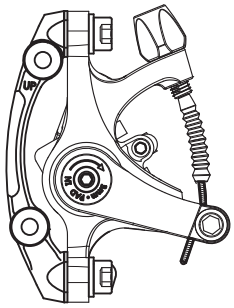
Spyre FlatMount 160 Rotor



Torque spec:
FlatMount bolts: 5-7 Nm (44-62 in-lb)
Disc Rotor bolts: 4-6 Nm (35-53 in-lb)

Spyre IS Mount Adaptors

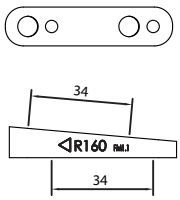
For IS or PM adaptors, hold the adaptor so that the stamped "UP" is oriented upwards, or furthest from the hub axle.



Torque spec:
Mounting bolts: 6-8 Nm (53-71 in-lb)
Disc Rotor bolts: 4-6 Nm (35-53 in-lb)

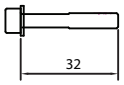
Spyre FlatMount Rear Adaptor & Bolt Lengths

FM1.1 R160 Adapter



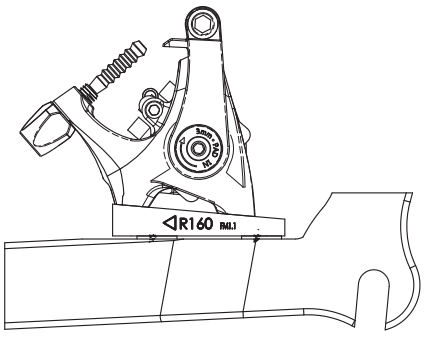
M5 x 13, 2pcs

M5x32, 2pcs



also available
M5x17
M5x22
M5x27
M5x37
M5x42

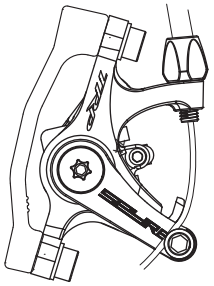
Torque spec:
FlatMount bolts: 5-7 Nm (44-62 in-lb)
Disc Rotor bolts: 4-6 Nm (35-53 in-lb)



Spyre FlatMount Rear 160 Rotor

Spyre Post Mount Adaptors

For Post Mount adaptors, hold the adaptor so that the stamped "UP" is oriented upwards, or furthest from the hub axle.



Torque spec:
Mounting bolts: 6-8 Nm (53-71 in-lb)
Disc Rotor bolts: 4-6 Nm (35-53 in-lb)

BRAKE SET-UP

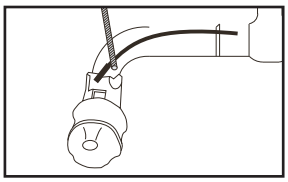
Cable Installation

· 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.

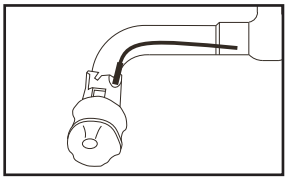
· Install a small section of spiral wound housing that inserts into the brake lever body and runs inside or outside the first bend in the bar as shown. *(Not all brake lever bodies need a ferrule installed - check with your brake lever manufacturer's technical documents to determine if a ferrule is needed.)*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

· Note: 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 handlebar bend. **(See 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

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.

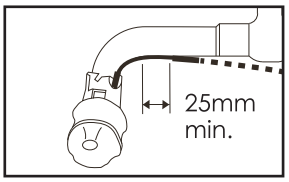
· Run cable through and attach to SPYRE actuation arm. Pull cable tightly, but do not preload. **(See D-1)**
Spyre: Tighten bolt with a 5mm hex wrench and tighten to 6-8 Nm (53 - 71 in-lbs)
Spyre SLC: Tighten T25 cable screw to 2.5-3.0 Nm (22 - 27in-lb.)

· 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).

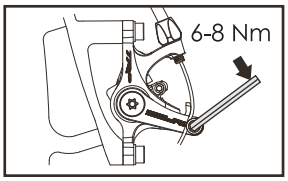
· Release the lever and check that the pads are aligned equally and that the wheel spins freely. The barrel adjuster may be used to take out cable slack.

· 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.
(See D-2 & D-3)

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



C-3 Housing min. length



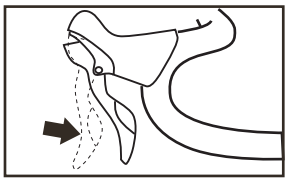
D-1 Pull cable and tighten.

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 hex wrench, turn the pad adjustement screw clockwise to compensate for pad wear or improve lever feel. There is a pad adjust screw on both located on both pistons. **(See E-1.)**



D-2 Squeeze lever 10 times

INSTALLING AND REMOVING BRAKE PADS

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 hex wrench. Set the bolt and cotter pin aside. **(See F-1)**

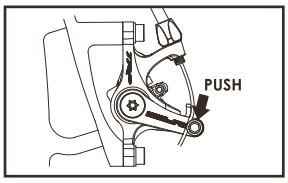
· Slowly pull the bolt out of its sleeve while placing your palm over the rotor end of the brake pads to catch them when they are released. Be careful to save the spring assembly for later use.

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

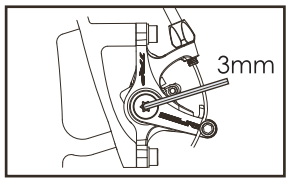
· Install new pads and spring assembly into the calipers. **(See F-2)**

· Reinsert brake pad retainer bolt into the caliper and re-attach the cotter pin. Tighten the brake pad assembly bolt.

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



D-3 Check arm return

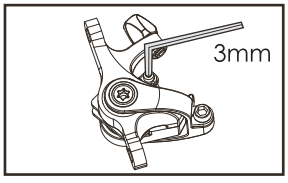


E-1. Pad adjustment screw

BREAK-IN PERIOD

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.



F-1. Unscrew pad retainer bolt

SAFETY CHECK

Before Every Ride:

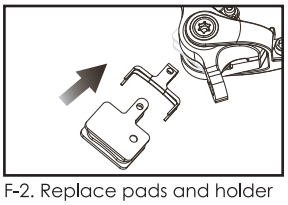
· Spin Wheel to be sure rotor is undamaged and aligned.

· 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.