

Cleat Key™ Protocol: Written Instructions

Wait! Don't read this! You're way better off watching our short instructional [video](#). You can even play it at 2x speed and it should make sense! If you still really, really want detailed written instructions on how to set up your cleats, well, read on...

We have a robust protocol to help you set your road bike cleats properly. The Cleat Key Protocol explains everything you need to help you get your *cleats set right, each and every time*.

Using the **Cleat Key** tool also means you have a repeatable, quantifiable number for the rotation angle, so you can make later changes and tweaks if needed, knowing exactly what your starting position was. You can also use the **Cleat Key** to set the same cleat position on different shoes.

SETTING UP THE CLEATS

1. Get to know your cleats.

The Cleat Key is designed to install Look Keo or Shimano SPD-SL road cleats on road shoes with a 3-hole bolt pattern.

There are **two** distinct adjustments that need to be made to set up a bike cleat:

- Cleat **Fore-Aft** (longitudinal)
- Cleat **Rotation Angle**

The Cleat Key is primarily used to set up the most tricky one, the cleat rotation angle, but we're going to show you how to do both.

2. Note the Pedal Spindle Index.

Both Look and Shimano road cleats have index marks on the side of each cleat to show you where the pedal spindle would be when clipped into the pedal.



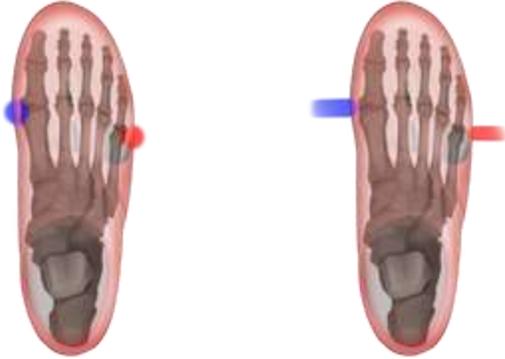
It may help to draw a line between the markers to show exactly where the spindle will be relative to the cleat. Like this:



3. Get to know your body

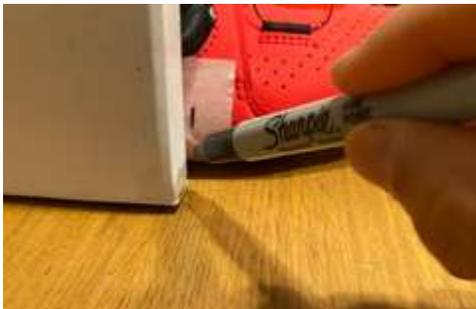
3.A. Determine the Fore-Aft position:

3.A.1. Pick a foot. With your shoes off, feel around the inside of your foot to find the 1st and 5th metatarsal heads. The 1st metatarsal head is a bump on the inside of your foot behind the big toe. The 5th metatarsal head is a bump on the outside of your foot just behind your little toe.



3.A.2. Put your shoe on and mark the location of the 1st metatarsal and 5th metatarsal heads on both sides of your shoe. Use a piece of tape on your shoe if you don't want scribble marks on it.

3.A.3. Put your shoe on a flat table (but do NOT install the cleat yet). Using a straight edge (like the box your Cleat Key was shipped in), mark the sole of the shoe by extending the 1st and 5th metatarsal markings you made on the side of the shoe, to the bottom of the shoe.

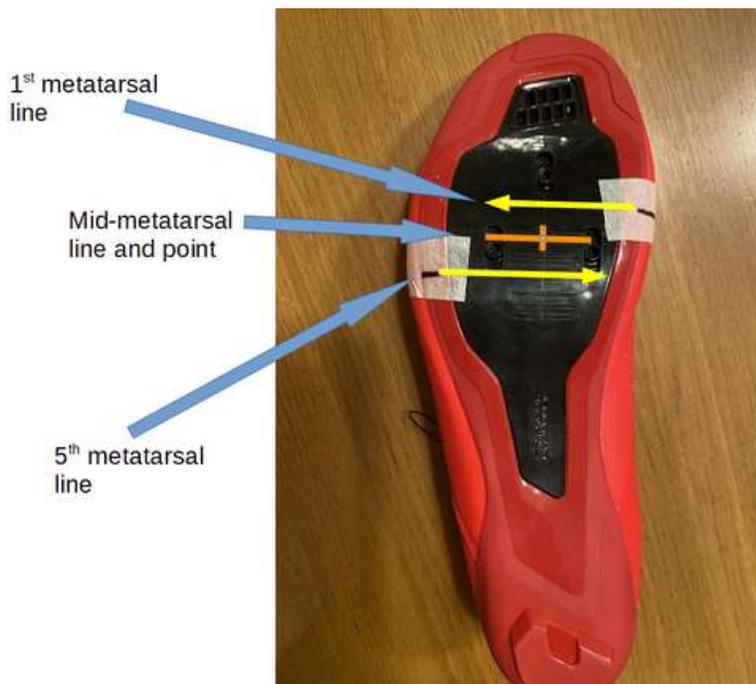




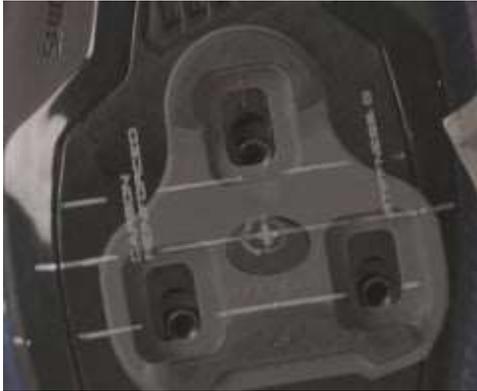
3.A.4. Extend the 1st and 5th metatarsal markings across the sole, making two lines parallel to the two lower cleat holes (you may also be able to refer to lateral markings already on the shoe).

3.A.5. Draw a mid-metatarsal line between the two metatarsal lines.

3.A.6. Draw a mid-metatarsal point in the middle of the shoe on the mid-metatarsal line.



3.A.7. Most people will want to set the middle of the cleat spindle line on the cleat over the **mid-metatarsal** line on the shoe.



Other options for Fore-Aft:

- **Triathletes and time trial specialists:** may want to set the cleat as far back as the cleat will go. There is some evidence of a biomechanical advantage in using a more aft-mounted cleat when riding in steady-state events.
- **Sprinters:** may want to set the pedal spindle more forward, parallel to the 1st metatarsal line.

Refer to FAQ for more specific details, fine-tuning tips, and tweaks, on establishing the Fore-Aft position.

3.B. Determine the Cleat Rotation Angle

This is a two-step process:

- First: determine the rotation angle of your foot; then,
- Second: determine the **Cleat Rotation Angle** (which is simply the foot rotation angle divided by 3).

3.B.1. Jump test:

- Draw a straight line on the floor (or use a piece of tape to make a straight line, or instead, don't even draw, just use a straight length of tile or hardwood);
- Straddle that line with your upper body perpendicular to it, and jump up and down softly, landing to roll very gently onto your heels.



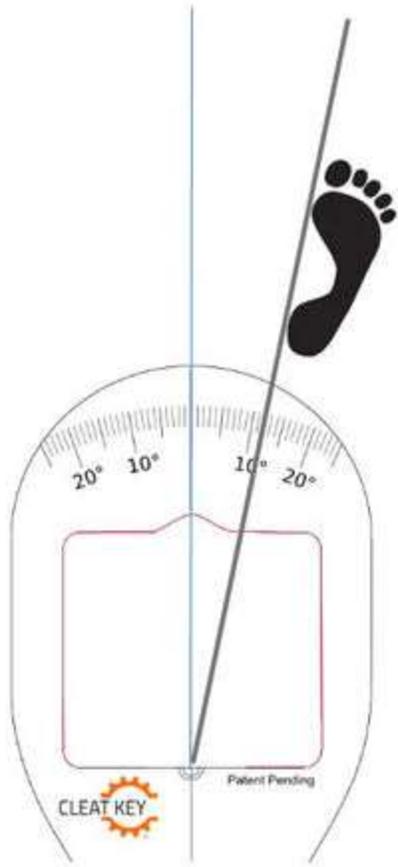
3.B.2. Draw your toe-out line.

Place a straight edge like the Cleat Key box, or a plain ruler, against the inside of your foot. Draw a line on the inside of the ruler that intersects the line on the floor.



3.B.3. Measure your Toe-out Angle (foot splay).

Use the protractor at the **top** of the Cleat Key to measure the toe-out angle; that is, the angle between the straight line and the foot line.



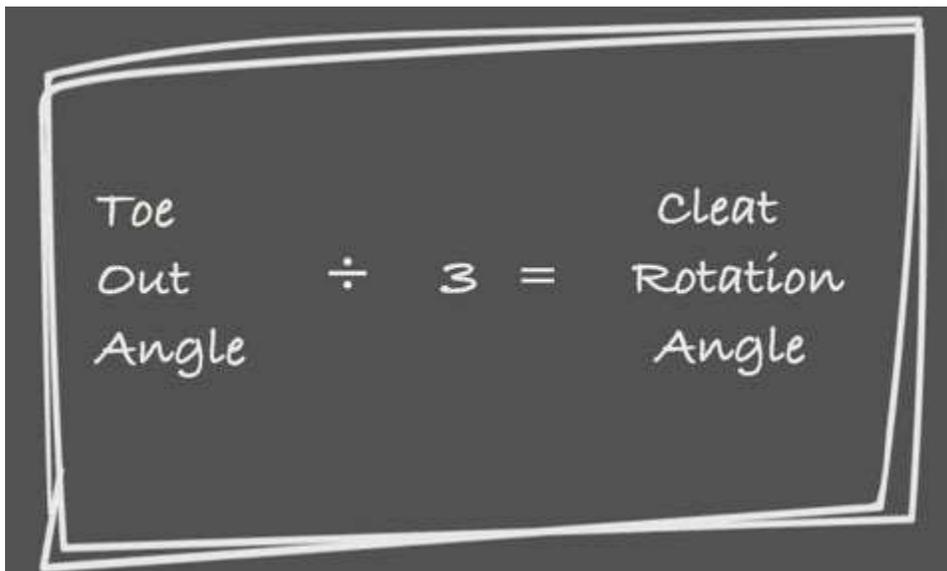


Note: it's a good idea to repeat the steps above (3.B.1 to 3.B.2) two or three times and calculate an **average** Toe-out Angle.

3.B.4. Cleat Rotation Angle.

To determine the **Cleat Rotation Angle**, simply divide the **Toe-out Angle** by **three**. For example, if the toe-out angle is 12 degrees (as shown above), then divide 12 by 3 = 4 degrees; that is your cleat rotation angle.

For nearly everyone, this will be a heel-in angle (most people are duck-footed). For more specific details on determining and tweaking the cleat rotation angle, or if your toes point in (pigeon-toed), please see our FAQs.



The Toe-out Angle (foot splay) is the the angle you measured at the **top** of the Cleat Key. Use the bottom (the tail) of the Cleat Key to set the Cleat Rotation Angle on your shoe. **Don't forget to divide by 3!!**

4. Install the the Cleat

Now that you've established both the toe-in and the fore-aft settings, you can put the cleat in the right position.

4.1. Mark the heel.

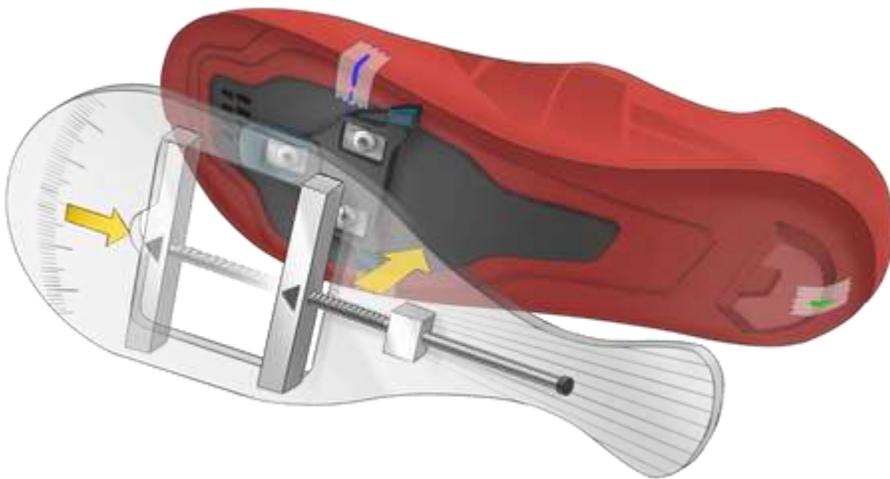
Draw a point mark on the shoe (or on a piece of tape on the shoe) right at the back of the shoe. Some shoes already have a marker on the heel, so in this case you don't need to do this, it's already there! This pointer mark will be used to set the angle of the cleat on the shoe.



4.1. Loosely attach the cleat to the shoe.



4.2. Clamp the Cleat Key on to the cleat.



4.3. Adjust the cleat Fore-Aft.

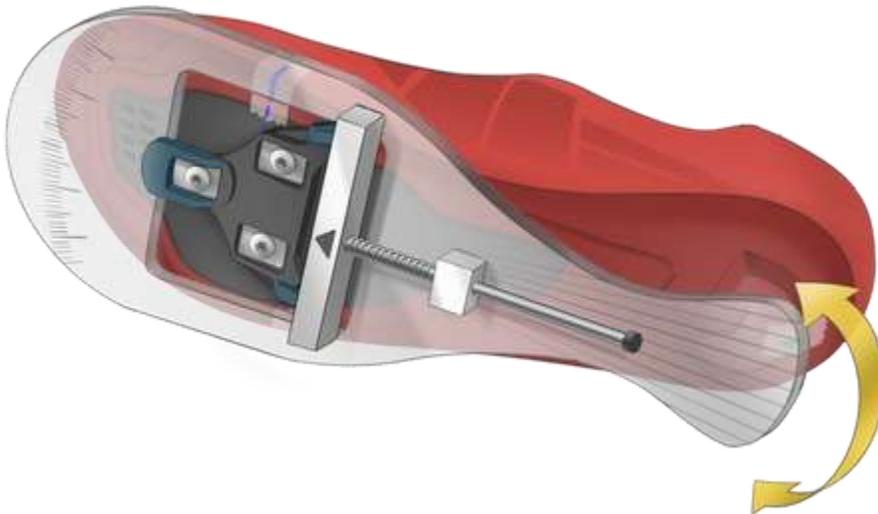
Referring to the lines you put on the shoe in step 3.A, move the cleat Fore-Aft to line up the cleat with the shoe as desired. Most people will want to put the middle of the cleat spindle line right on top of the middle of the mid-metatarsal line.

Most people will also want to simply centre the cleat laterally (Left-Right). For more on Left-Right setting, please see the FAQ.

4.4. Set the Cleat Rotation.

Think of your shoe having an inside (the part closest to the middle of your body), and an outside (the part of the shoe that faces the outside of your body).

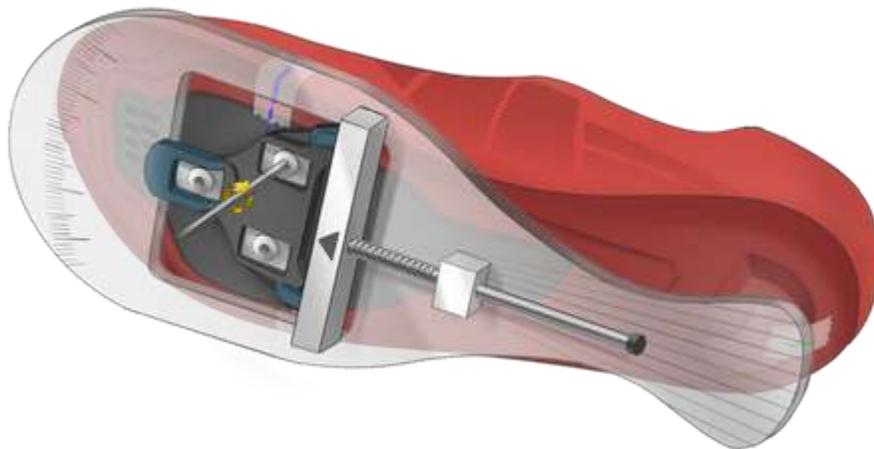
The **Cleat Rotation Angle** is the angle of the cleat relative to the shoe. Assuming from step 3.B. that you had a heel-in angle (duck-footed), rotate the tail of Cleat Key to the outside of the shoe, (heel goes **in**, tail of tool goes **out**). You want that cleat rotated so the heel is in relative to the cleat and tool. Now set the pointer on the back of the sole so it is lined up with your **Cleat Rotation Angle** (this example shows 4 degrees).





4.5. Tighten the cleat on the shoe.

Once you have the proper rotation angle set, tighten the cleat bolts to the torque recommended by the cleat manufacturer (typically 4-6 nm).





Repeat this procedure for the other foot. And then...

You're done! Your cleats are set up. Now it's time to go for a ride!