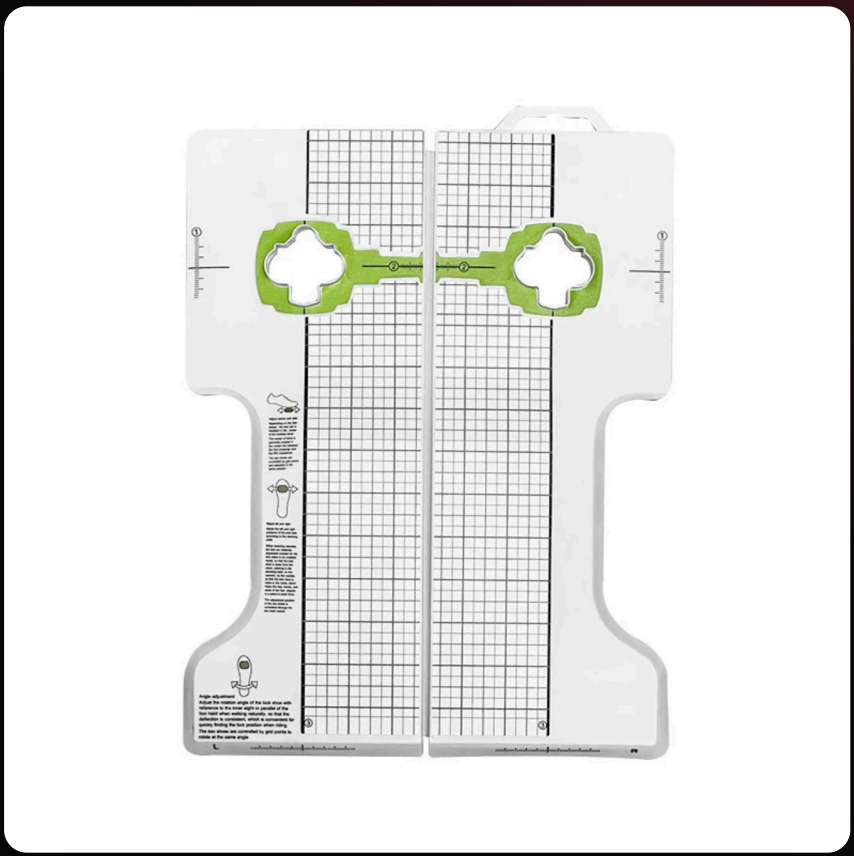
VELKYNE

USER MANUAL

SPD CLEAT POSITIONING TOOL

Two graduated plates with an SPD recess: the small two-bolt cleat sits in it, the shoe is read on the scales. Setback, lateral offset and angle become values, identical on both sides and repeatable at the next cleat change.

SHIMANO SPD (MTB) CLEATS · 110 × 290 MM, 138 G · POLYPROPYLENE, ENGRAVED MARKS



01 · BEFORE YOU START

CONTENTS AND COMPATIBILITY

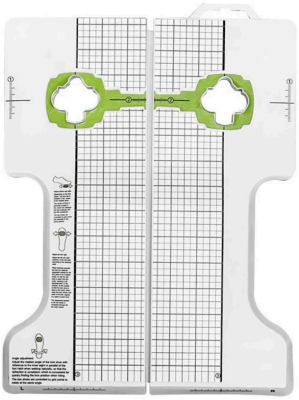
ITEM	QTY	DETAILS
Positioning plates	**2**	One left (L), one right (R), SPD cleat recess, engraved grid and scales
Material, size		Polypropylene, 110 × 290 mm, about 138 g

What this tool does

The SPD cleat, loosely bolted under the shoe, drops into the plate's **recess**: it is now fixed, in line with the grid. The shoe is what moves around the cleat. Its edges and heel are read against the scales: **setback**, **lateral offset** and **angle** become values you write down, copy exactly onto the other shoe and find again at the next cleat change. An SPD cleat is small, but its position matters as much as a road cleat's: on a mountain, gravel or city bike, it is what places the foot over the pedal axle and sets the rotation of the knee.

Compatibility

- **Shimano SPD** two-bolt cleats (SH51, SH56 and compatible), on any mountain bike, gravel or city shoe with a two-hole sole.
- For Shimano SPD-SL and Look KEO road cleats, Velkyne offers a dedicated tool for each cleat shape: the SPD recess does not take them.



Left and right plates side by side: SPD recess at the top, grid and angle scale towards the heel.

THE RULE

- **Symmetry** matters more than the absolute value: two shoes set the same way, on the same marks.
- Changes are made **in small steps** (1 mm, one angle mark), with a test ride in between.
- Knee pain that persists despite a symmetrical setting is a job for a bike-fit specialist, not for one more millimetre.

You will also need

- 4 mm hex key for the cleat bolts
- Torque wrench
- Tape or a marker to mark the shoe
- A drop of grease for the bolts
- Something to write the values on

02 · GETTING READY

READING THE GRID, LOCATING THE FOOT

Reading the grid

Centre line	Longitudinal axis of the cleat, from the centre of the recess to the heel.
Cross line	Runs through the centre of the recess: this is where the **pedal axle** sits under the foot.
Scale 1	Lateral scale, on the plate edges level with the cleat: position of the shoe's edge, hence left / right offset.
Scale 2	Scale on the cross line, between the two plates: offset reading on the inner side.
Scale 3	Scale at the heel: angle of the shoe relative to the centre line.

1. **Put the shoe on and find the big toe joint:** the bony bump on the inside, at the base of the big toe (first metatarsal head). Mark it on the side of the shoe with a piece of tape.
2. **Find the little toe joint the same way,** on the outside (fifth metatarsal head). The foot's centre of pressure lies on the line joining these two marks, slightly behind the first.
3. **Look at your natural stance:** standing relaxed, do your feet point straight, outwards or inwards? The cleat will reproduce that orientation.
4. **Prepare the cleat.** Greased bolts, backing plate in place inside the shoe if it has one, cleat in the middle of the sole slot, bolts snug enough to hold the cleat but still allow it to slide by hand.
5. **Choose a starting point.** For most riders, the pedal axle sits directly under the first joint. Off-road and over long distances, a few millimetres further back adds stability and eases the calf.



Right plate (R): SPD recess, scale 2 on the cross line, scale 3 at the heel.

BEFORE CHANGING ANYTHING

If your current cleats suit you, set each shoe on the tool **before** removing them and write down the three readings: you will get the same position back with the new cleats.

SOLE AND CLEAT

Clean the mud and stones packed around the cleat before setting the shoe on the plate: the cleat must seat flat in the recess. A worn cleat (rounded lugs, vague release) must be replaced: its setting is no longer reliable.

03 · PROCEDURE

SET ONE SHOE, THEN THE OTHER

1. **Lay the plate flat** on a table, the left one (L) for the left shoe, the right one (R) for the right.
2. **Seat the cleat in the recess,** shoe sole down. The sole's tread surrounds the cleat: check that it does not lift it and that the cleat sits flat, without play. It is now fixed relative to the grid.
3. **Set the setback.** Slide the shoe forwards and backwards over the cleat until your joint mark sits on the **cross line**, or just ahead of it for a rearward setting.
4. **Set the lateral offset.** Move the shoe inwards or outwards and read the shoe's edge on scale 1. Shifting the cleat outwards brings the foot closer to the crank, and the reverse.
5. **Set the angle.** Pivot the shoe around the cleat: the heel is read on scale 3. Feet straight when walking: heel on the centre line. Feet pointing out: heel one mark inwards. Feet pointing in: one mark outwards.
6. **Write down the three readings** (1, 2 and 3), then lift the shoe without moving the cleat.
7. **Tighten both bolts to the cleat manufacturer's torque,** alternately, in passes (usual reference: 5 to 6 Nm). Put the shoe back on the tool and check that nothing has moved.
8. **Do the second shoe to the same readings,** on the other plate. Same setback, same offset, same angle, mirrored.

WATCH OUT

- Never ride with cleat bolts merely hand-tight: a cleat that turns on a technical descent is a crash.
- Over-tightened bolts or dry threads: torn backing plate or seized bolt. Grease, tighten to torque, no further.
- First ride on an easy trail: clip out several times at a standstill before setting off.

TEST, THEN ADJUST

An hour's ride is enough to feel what is off. Adjust one millimetre or one mark at a time, one shoe and then the other, and write the final value on the cleat packaging.

RELEASE

An SPD cleat releases by twisting the heel. An angle set far from your natural stance brings the foot closer to the release point: unintended release on one side, trapped foot on the other. The angle read on scale 3 serves that purpose too.

04 · BUILT TO LAST

TROUBLESHOOTING, CARE, VIDEOS

What your body is telling you

SENSATION	ADJUSTMENT TO TRY
Pain on the inside of the knee	Angle: heel too far out, or foot too close to the crank. One mark, then test.
Pain on the outside of the knee	Angle: heel too far in, or foot too far from the crank.
Burning forefoot, numb toes	Cleat too far forward: move it back 2 to 3 mm. Check the shoe closure too.
Tight calf, sore Achilles tendon	Cleat too far forward, or saddle too high.
Unintended unclipping	Angle at odds with your natural stance, pedal tension too low, or worn cleat.
Foot hard to release	Angle too far from your natural stance, tension too high, or mud packed around the cleat.
Shoe touching the crank	Shift the cleat towards the inside of the sole (the foot moves outwards).

Going further, on video

Independent tutorials on fitting and setting SPD cleats, scan to watch.

Shimano SPD (Mountain Bike) Cleat Installation
Podium Physio · English

How-To Install Cleats on Cycling Shoes The Right Way
Jamesthebikeguy · English

Need help?

velkyne.com/contact
Our team answers your questions about use and compatibility.

A position is read, not guessed.
Three marks, two identical shoes, one value written down: the next cleat change will take ten minutes.

Caring for the tool

- Wipe the plates after use; no solvent on the engraved marks.
- Store them flat, away from heat: a warped plate gives false readings.
- Keep your readings with your spare cleats.

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