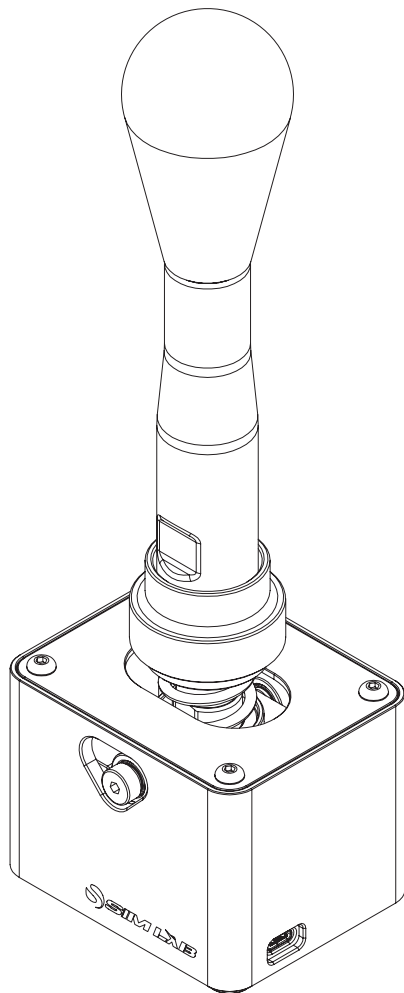


SIM LAB

INSTRUCTION MANUAL



SQ1 SEQUENTIAL SHIFTER

VERSION 1.02

Last updated: 31-03-2025

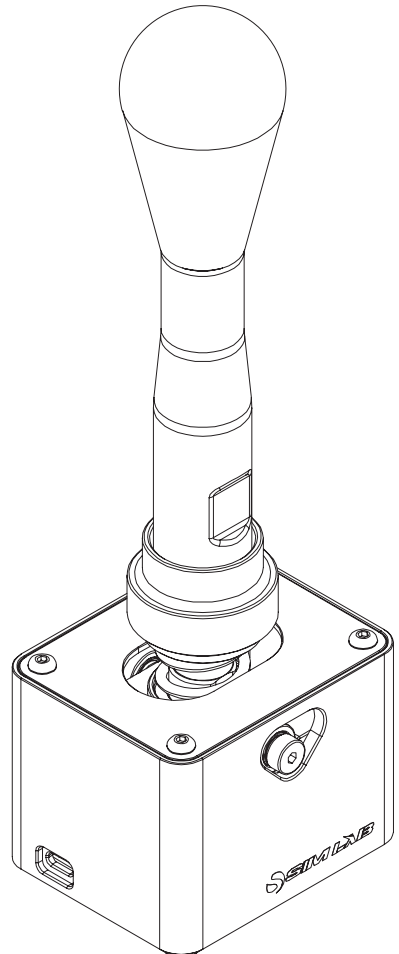
BEFORE YOU START:

Thank you for your purchase. In this manual we will provide you with the means to get started using your new shifter!

SQ1 SEQUENTIAL SHIFTER

Features:

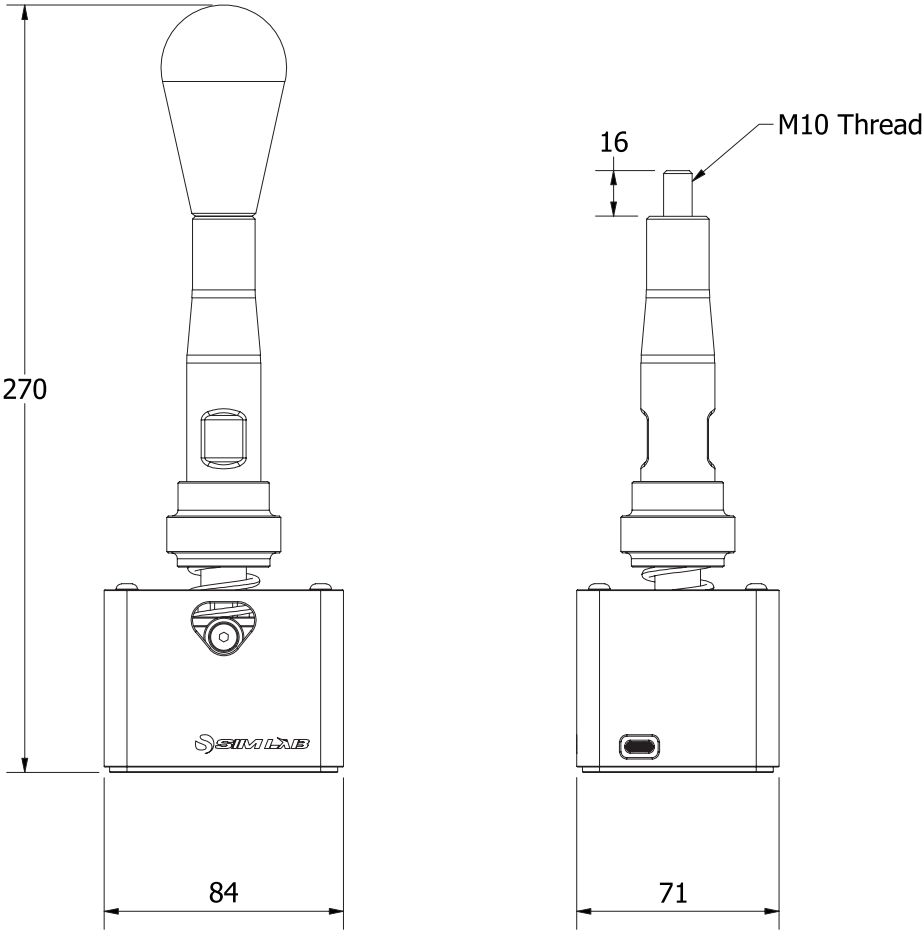
- Aluminium construction
- Ball bearings on moving parts
- Easy to adjust tension
- Supports aftermarket knobs
- USB-C connectivity



Dimensions

We tried to fit our shifting mechanism into a small package. Keeping it relatively simple on a mechanical level, the footprint reflects this compact design.

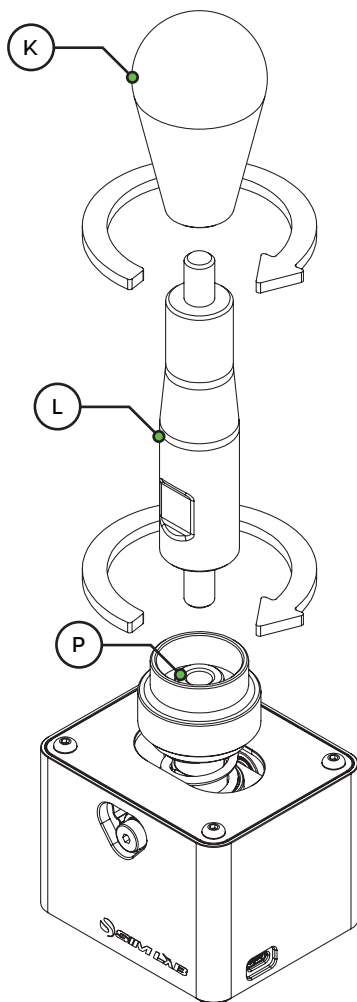
Also, we appreciate you want to experiment adding your own knobs. We chose a thread size which makes it possible to install just about every aftermarket shifter knob you can find.



Preparation

Out of the box, the SQ1 Sequential Shifter is almost ready to go. Simply thread the lever (L) and knob (K) onto the receiving pivot (P) thread.

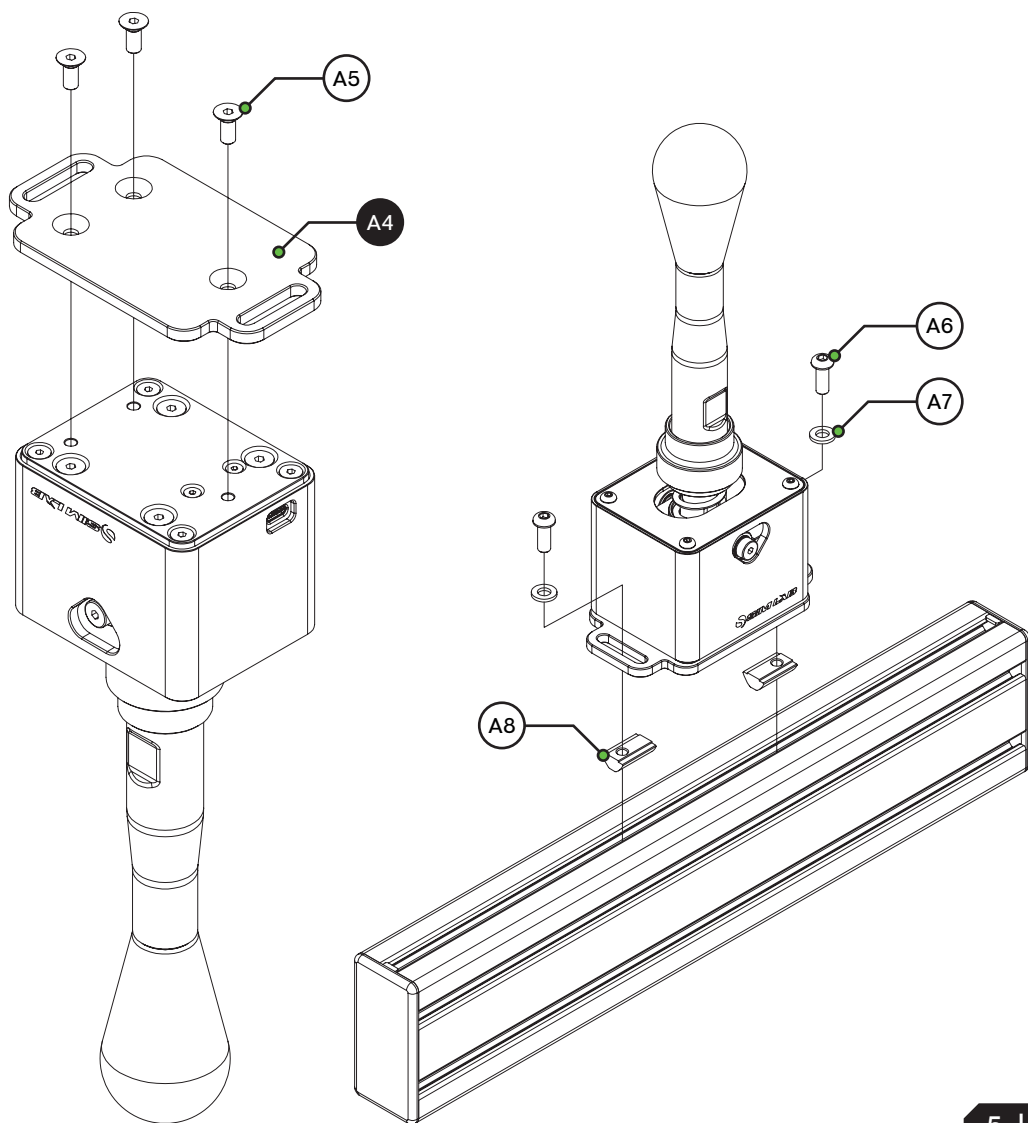
Note: please make sure the lever is threaded all the way down and secure before use! If you are using the shifter with the lever only partially threaded into the pivot, you risk damage to your shifter.



Installation

The SQ1 Sequential Shifter can be mounted directly onto your side mount. Due to the slots on both ends of the mounting plate, you can rotate the shifter to your preference.

Take the mounting plate and use the three countersunk bolts (A5) supplied to attach this to the base of the shifter. All that is left to do now is to attach this assembly to your side mount.



Calibration

The SQ1 Sequential Shifter is auto calibrating. When powering up the shifter or system, always leave the shifter in its neutral position. Auto calibration will occur during the first couple of shifts after startup. It does this every time you reboot or reconnect the device, to ensure you always have the correct calibration each time.

The shifts are detected using a HALL sensor, therefore there are no mechanical switches and manually calibrating is also not required.

The only time you need to make sure the shifter is going to recalibrate, is after switching roller profiles.

Adjustments

As far as options, one could say, it's a one knob solution. Following our color coded system, the blue adjustment knob allows to adjust the tension on the system.

Turning the blue adjustment knob clockwise, increases the force needed to complete a shift. Turning the blue adjustment knob counter clockwise reduces the force needed to complete a shift. However, the adjustment knob only takes you so far.

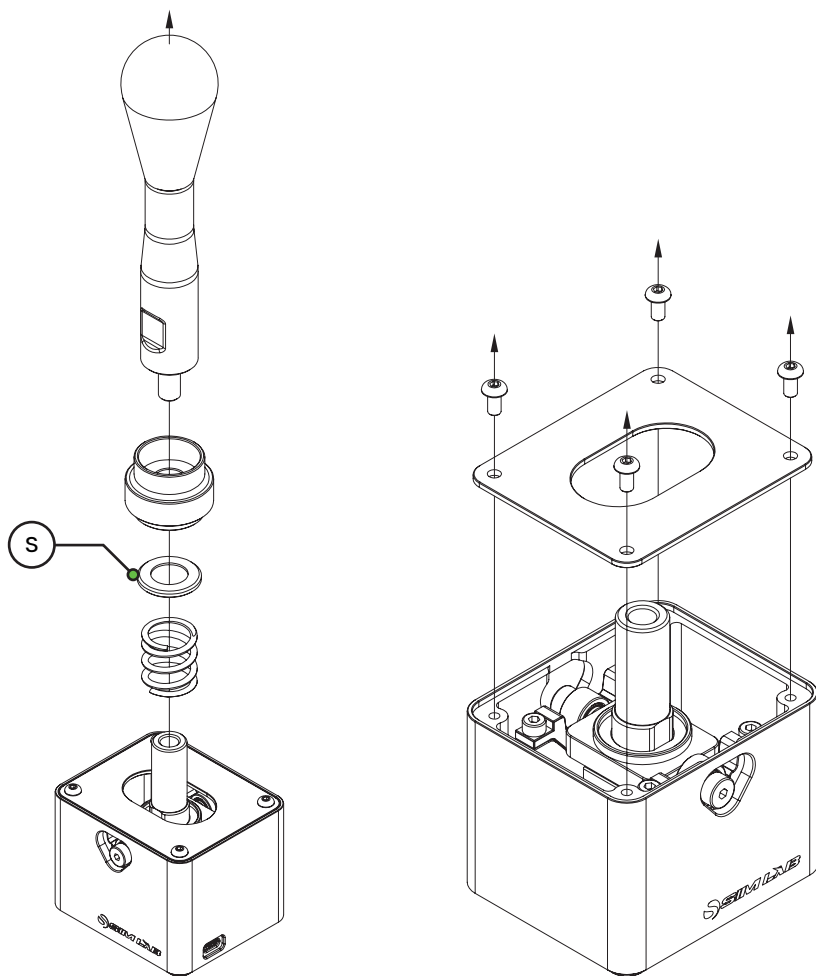
To really change the way how a shift feels significantly, we offer a flexible future proof method. Please see the next page for more information.

Customisation

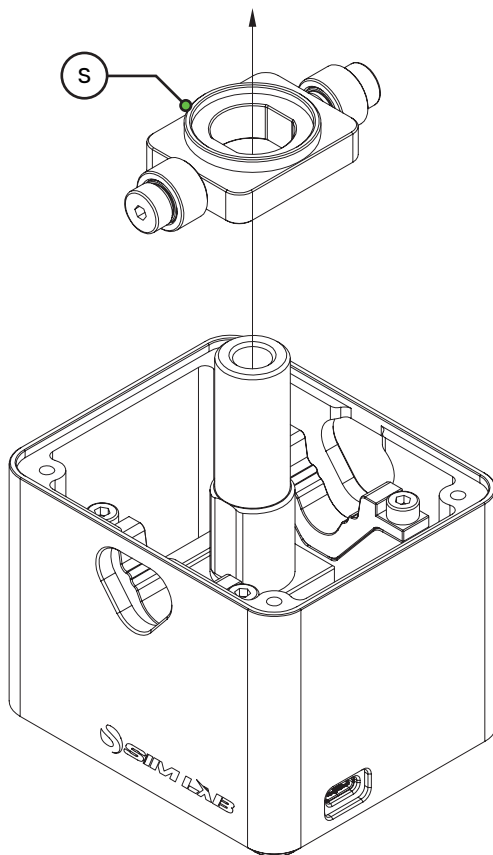
Since we wanted to keep our shifter simple, we had to reduce adjustment options. To counter this, we provide small replacement roller profiles, which give you a different shift feel. We offer a couple of options, based on customer feedback. There should be something for everybody to enjoy. The advantage here is, in case we forgot anything, we can simply add new roller profiles later if the demand is there.

Please follow along to swap profiles.

Remove the parts as depicted below. These prevent other parts from being removed, so they have to go for now. Please take note of their orientation and position/order when you re assemble them.



Next part to remove is the roller platform. This is a very important assembled part, so please take care of it. Simply pull free of the main pivot to remove it. This is a close fitting part, which contributes greatly to the precise feel of the shifter.



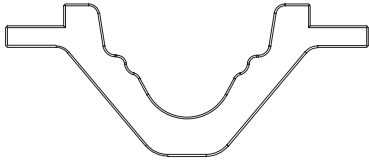
If you have trouble re installing the roller platform onto the main pivot, maybe rotate it 180 degrees. This is normal, the system is designed to have as little play as possible to work and feel as intended. Please make sure, the black nylon part is pointing upwards when installed. This is the seat (S) for the spring.

There is another spring seat, to prevent grinding when adjusting tension. This part (S) is highlighted on the previous page. The flat face needs to point towards the adjustment knob, the 'cup' side needs to point towards the spring.

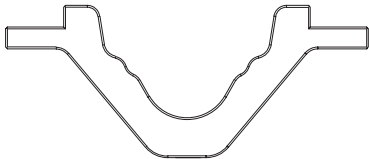
All left to do now, is to carefully remove the two roller profiles. This only takes 4 bolts. When reinstalling different profiles, make sure all bolts are tight before closing the housing back up. Also, it might not hurt to apply lubrication in the form of lithium grease.

To summarise, here are the profiles we include:

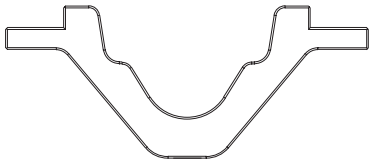
A - Tactile hard (aggressive)



B - Tactile soft



C - Comfort (simple transition)



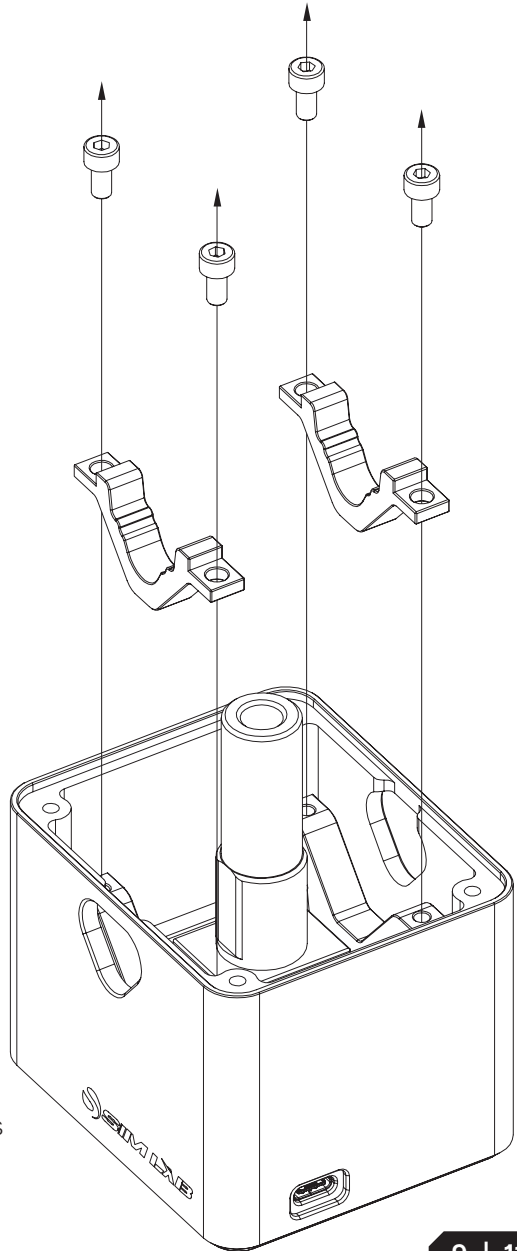
X - Variation on B/C (default)



We tried giving you a nice range of options for none, a little or a lot of tactile feel. Some simply want comfort, some want to really get that positive feedback.

Please give the default profile a go, but do experiment if you feel like it! All roller profiles are clearly marked and packaged per set.

NOTE: DO NOT MIX ROLLER PROFILES

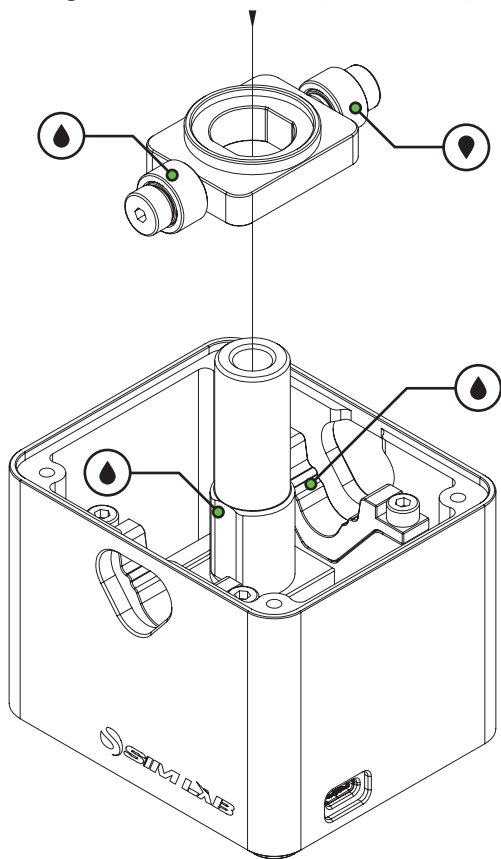


Maintenance

Although the rollers have roller bearings in them on the inside, we do recommend to add some grease to the outside rolling surfaces. We would expect to mostly do this when changing profiles, or once a year with regular use.

We do recommend a grease instead of a spray for this product. A small dab of lithium grease will do the trick. Although spray works too, you may have to apply it a bit more regularly.

Take the same steps as described on page 6. Make sure to coat the outside of the rollers, and the sides of the profiles too. Before reinstalling the roller platform, make sure to lightly apply some grease to the smooth parts of the pivot



This doesn't take much time and effort at all but goes a long way into enjoying your shifter for many hours on the virtual track to come.

Bill of materials

IN THE BOX			
#	Part	QTY	Note
A1	SQ1 Sequential Shifter	1	
A2	USB-C cable	1	
A3	Profile sets	3	Change the shift feel, 2 sets of 2.
A4	Mounting plate	1	
A5	Bolt M6 X 12 DIN 7991	3	To install the mounting plate.
A6	Bolt M6 X 16 DIN 7380	2	
A7	Washer M6 DIN 125-A	2	
A8	Slot-Nut M6	2	

More information

If you still have some questions regarding assembly of this product or about the manual itself, please refer to our support department. They can be reached at:

support@sim-lab.eu

Alternatively, we now have Discord servers where you can hang out or ask for help.

www.sim-lab.eu/discord

[Product page on the
Sim-Lab website:](#)

