

Owner's Assembly Guide



Congratulations on the purchase of your new Virsilas bicycle and welcome to the family of Virsilas bicycle owners!

Your bicycle has been carefully constructed, factory assembled and adjusted so that its safety and performance meet the highest standards. With proper care and maintenance, your new Virsilas will give you riding pleasure for years to come.

Your bicycle is 90% factory assembled which means that you'll have to finish the assembly. But don't worry, since most of the assembly is already done by our factory you'll only need to install the handlebar, the front wheel, the saddle, the pedals, put some air in your tires and you're ready to go. The rest is just a tune up and adjustments according to your personal preferences which may or may not be needed. So if you're confident enough in your mechanical skills, then you will be able to finish the assembly yourself.

Before you begin to assemble your bike, please make sure that you remove all packaging from the bike. You can use scissors or a cutter to do it. Also make sure you have all the tools that you may need: the hex key set, Phillips or a flat head screwdriver, 15mm or adjustable wrench to tighten the pedals.

1. HANDLEBAR

You'll need a hex wrench to install your handlebar. Remove faceplate from the stem by first removing the four clamp bolts with a hex wrench. Clean the surface area of the stem, apply a small amount of grease to the threads of the bolts. Mount the handlebar to the stem. Center and adjust handlebar to your desired position, use your hex wrench to slightly tighten the stem faceplate down. Once you're completely happy with the placement and position of the handlebar, go ahead and fully tighten down the bolts to secure it. Make sure that you tighten all four bolts evenly!



2. FRONT WHEEL

No tools are necessary for the front wheel installation. Each bike is supplied with a quick release skewer. Quick release skewer has a lever, nut and two springs. Narrow spring part ends always have to point to the hub.



Remove the nut and one spring from the quick release skewer. Now from the disc side insert the skewer and from the other side attach one spring followed by the nut. The springs are there just simply to help you to align the skewer so that it sits easily in the dropouts.

Check the wheel's position and make sure that disc rotor is on the same side with brake caliper. Once you've aligned the wheel properly, let the front wheel disc rotor enter the brake caliper. The quick release skewer ends will find their slots in the fork automatically. The disc brake has to slide in nicely and smoothly, no pressure or force needed. Sometimes a gentle wiggle and pull on the top of the wheel is needed to get everything seated and centered.

Tighten the nut until the lever becomes firm enough to close, and then close the quick release lever. Make sure it's tight but at the same time make sure that you do not overtighten. Lever should leave an imprint in your palm after you close it and cannot be too hard for you to open.

3. SADDLE¹

Begin your installation by identifying your seat clamp (remember every seat has a clamp and every seat post has a seat post clamp - they are not the same, they are two different things). You can find the seat clamp at the very top of the seat post.



Loosen the large, vertical bolt on the seat clamp with a hex wrench. This loosens a clamp that secures the seat rails. Loosen it until you can spin the top of the clamp. Spin it 90 degrees and you'll be able to insert the seat. Now insert the rails of your seat into the grooves on the bottom of the seat clamp. Adjust the top of the clamp onto the rails and tighten the bolt slightly so that the hardware is in place.

Now it's time to set your seat position. This is accomplished by sliding the seat rails closer or farther from the front of the bike to provide a comfortable seating position. If you're not sure about the exact correct position, it's easy to go back and adjust it.

¹Read more how to install and adjust saddle/seat here:

<https://www.virsilas.com/single-post/2017/12/05/HOW-TO-INSTALL-AND-ADJUST-YOUR-SEAT>

Here is a quick tip for you! If you ride the bike and feel pressure forward, the nose of the seat is too high. If you're sliding forward, the nose is too low. Stop the bike, adjust the seat by angling it up or down, tighten the bolt and try it again.

4. PEDALS²

Begin your installation by identifying the right and left pedal. Look for "L" and "R" on pedals. Use "R" pedal for the right side and "L" pedal for the left side.

Some pedals don't have marking "R" and "L" so you'll have to look at the thread and identify each pedal. Left threaded pedals (threads sloping upward to the left) go to left crank. Right threaded pedals (threads sloping upward to the right) go to right crank.

Now heavily grease threads of both pedals for the first time, and using fingers on wrench flats, thread right side pedal into right crank and left side pedal into left crank. Make sure you thread both pedals into the crank arms as far as you can by hand, tighten them enough so the thread goes all the way in, and then add another gentle push with a wrench to make sure they're secure.

If you trying to thread pedal into the crank arm and it won't start, don't force it! Double check the pedal! You're probably trying to install the left pedal on the right side or vice versa.

²Read more how to install pedals here:

<https://www.virsilas.com/single-post/2017/10/27/HOW-TO-INSTALL-AND-REMOVE-YOUR-PEDALS>

5. BRAKES³

You'll need a hex wrench to adjust your brakes. Adjusting mechanical disc brakes is pretty straightforward.

Release the tension by loosening the bolt that holds the brake cable in place on the brake caliper/pad mechanism using hex wrench.

Now push the brakes activating arm upward a bit until it stops moving, and back off about 1/2 to 3/4 inch of cable length and tighten the cable down.

Test the tension on the brake cable by holding your handlebars normally and pulling the brake levers. Your brakes should engage firmly near the middle of their range. If necessary loosen the same bolt that holds the brake cable in place on the brake caliper/pad mechanism again and push the brakes activating arm upward one more time. Repeat it until the braking feels smooth, strong and consistent.

The same technique works for both front and rear disc brakes.

6. SHIFTING

You can skip this step if you are satisfied with your gear shifting. However, if your bicycle has shifting issues and your derailleurs are out of adjustment here is how to solve it. You'll need a Philips or a flat head screw driver, basic mechanical skills, good eye and a common sense to perform this task.

With practice and patience, you too can become a smooth-shifting pro. Remember that most of time shifting problems are just a simple fix and can easily be solved by simply properly adjusting the cable tension and limit screws.

Let's start by trying to shift into a larger ring on the back and see what happens. So if we go to shift into a larger ring on the back and the derailleur is disobedient then that means you need to add tension to the cable.

³Read more about braking and shifting here:

<https://www.virsilas.com/single-post/2017/10/26/HOW-TO-MAKE-SIMPLE-ADJUSTMENTS-SHIFTING-BRAKING-CHAIN-SKIPPING>

You can do this by twisting a barrel adjuster counter clockwise. Don't go turning the adjuster all the way, try a quarter turn first and see if that improves the shifting, if not, try another quarter turn and continue until the chain eagerly jumps up to the larger cog.

If you go too far you will notice that the derailleur no longer shifts down to a smaller ring properly which means that your cable has too much tension.

To remedy this just turn the barrel adjuster the opposite way in small increments until the chain moves quickly and smoothly up and down.

Keep in mind that all cables are wear and tear parts which means all cables wear out and stretch over the time which means that you sooner or later will have to deal with it and adjust the tension to your cables so it is always good to know how to do it.

Derailleurs are fitted with limit screws that stop the derailleur from moving too far inward or too far outward. If you look closely as the derailleur moves, you can see the limit screws stopping the derailleur at each end of its travel.

So limit screws are a set of derailleur stroke adjustment screws that restrict the movement of the derailleur so it can move the chain into a position where there is the cog. Limit screws adjust the two limits of the derailleur: the high limit (smallest cog) and the low limit (largest cog) consequently there are two screws for this task marked with an L and H respectively.

The simple explanation is that the upper pulley wheel should align with the largest and smallest cogs and no further. Usually if the chain is not shifting or is over shifting in your biggest and smallest cogs they are out of adjustment.

If the L limit is too open when you go to shift into your big ring, your chain hops off your cassette. If your H is too open then the chain can come off and wedge itself between the dropout and your cassette or may just continue to jump off the small cog.

To fix this you'll need a small Phillips or flat head screwdriver. Shift into either the lowest or highest gear on your rear cassette and adjust the L or H screw by turning them clockwise until the upper pulley wheel aligns with that cog.

If your chain won't shift up into the largest cog or down into the smallest cog and your cable tension is correct then you will need to open the limits. Using either your small Phillips or flat head screwdriver, open the limit by turning the screw counter clockwise, work in small increments until you can get the chain into the correct gear. Once your chain is cooperating, adjust the limit so that top pulley aligns with the cog.

