



CRUZBIKE *Silvio* Assembly

CRUZBIKE <i>Silvio</i> Assembly	1
General notes on assembly	1
Frame Assembly	1
Un-box and evaluate the frame and major parts.....	1
Preparation	1
Group [1 and 8]: Fit the cushions and protective strip	2
Group [2 and 3]: Prepare the Seat Stay assembly.....	3
Group [2-3 and 1]: Fit the Rear Triangle	4
Group [4]: Prepare the Pivot Clamp assembly	5
Group [1, 6 and 4] Fit the Fork.....	6
Group [5]: Prepare the Boom Assembly	7
Group [7 and 5] Fit the Front Triangle	8
Fitting and Adjustment	8
Proper Installation of your Front Derailleur on your Silvio	8
Suspension Adjustment	9
Riding instructions.....	9

Congratulations on purchasing a Cruzbike Silvio! Our support specialists are always available to assist you should you have questions about assembling, adjusting or riding the Silvio. Use sales@crubike.com.

General notes on assembly

The general order of assembly for Silvio is indicated in the contents table.

This instruction set describes assembly of the Silvio 451 and Silvio 559 Cruzbikes. Although the bikes have minor differences in specification, assembly is the same.



WARNING

If you are unsure about adjusting brakes or gearing on a bicycle, you should take your Silvio to a professional bicycle mechanic for adjustment. Improperly adjusted brakes or drivetrain components could cause severe injury or death.

Frame Assembly

Assembling the Silvio can be easier if you have a bike workstand, but these instructions assume you don't have one. The best place to clamp the frame is across the bottle cage braze-ons under the seat pan. Be sure to tighten the clamp sufficiently that the frame won't rotate out of the clamp. To properly adjust the rear brakes, you may need to remove the bike from the workstand to free up the rear brake cable.

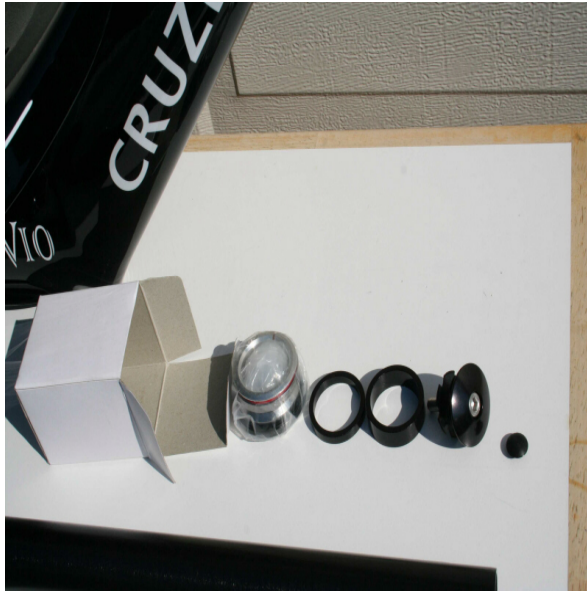
Un-box and evaluate the frame and major parts

The Silvio Frameset comes mostly unassembled. Please take the following approach to completing the assembly. These instructions make reference to the Silvio Parts Diagram.

Preparation

Unpack the items and unwrap them, except for tube protection which may be retained until the bike is ready to be ridden.

Identify the headset bearings, do not unpack them. If the details of aheadsets are new to you, two of many useful links explaining them are [Sheldon Brown's authoritative glossary](#) and this [general description with diagrams that describe the Integrated Headset](#) as found on Silvio.



Identify there are 8 Chainstay boltsets used for attaching the chainstays. Each chainstay has two boltsets at each end.



Lay all the items out on a large work area, in the same arrangement as shown on the exploded views of the Silvio [Parts Diagram](#) that is included with your frameset and verify that you have the parts as they appear.

Once you have all the parts laid out, begin the assembly.

In the parts numbering, the following abbreviations are used:

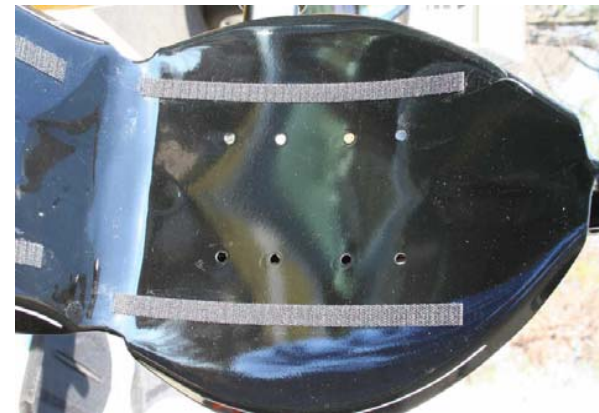
Silvio SV;

Chainstay Dropout CSDO; Front F; Rear R; Left L; Right R. Hence, CSDORL is Chainstay Dropout Rear Left;

Front Derailleur FD; Rear Derailleur RD.

Group [1 and 8]: Fit the cushions and protective strip

Fit the velcro strips to the Seat Back and Seat Pan and apply the Seat Cushions.



Fit the protective rubber strips to the flange of the seat. One continuous piece around the seat back and two pieces, left and right for the seat pan. Do this first to protect the flange paintwork while the frame is being assembled.



Group [2 and 3]: Prepare the Seat Stay assembly

Bolt the titanium leaf spring SV29E between the top of the Seat Stay SV30 and the mounting place SV29G with four bolts. SV29G is square, but with rounded corners.



Bolt the Rear Carboyoke Chainstay to the seat stay with 2 Chainstay bolts, with the raised areas of the Chainstay facing up.



Group [2-3 and 1]: Fit the Rear Triangle

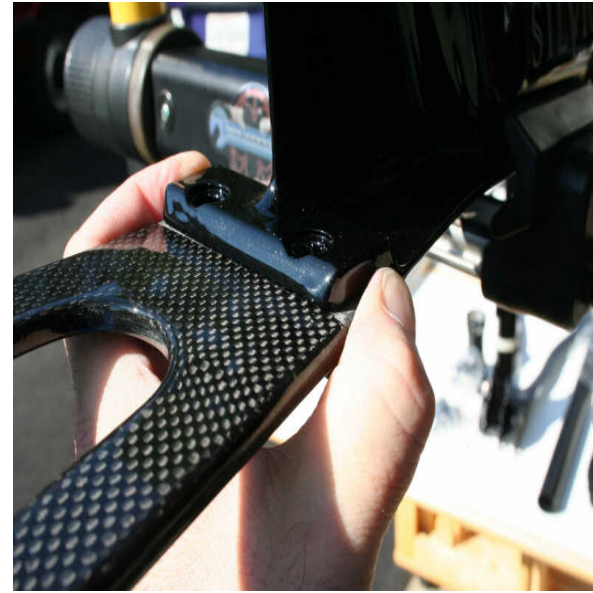
Check the rubber boot SV29P is in place on the Main Frame.



Slide the head of the Rear Chainstay into the mounting slot SV28L on the Main Frame, checking that the titanium spring aligns with part SV28N on the Main Frame,



then fit 2 Chainstay bolts;



then fit the titanium spring to the Main Frame using SV29F and four bolts.



Group [4]: Prepare the Pivot Clamp assembly

Place the bushings into the Pivot Clamp FC20S,



then take the Stem Sleeve and connect it to the Pivot Clamp with the stainless steel pin and bolts.





Group [1, 6 and 4] Fit the Fork

Unwrap the headset and take care to keep the many parts in their original sequence and orientation!!!! Divide the set of parts between the two bearing sets to separate them into the lower and upper bearing sets. Set aside the cap and bolt from the upper bearing set.



Now build the stack: slide the lower bearing set over the fork neck (with the bearing upper most), note the lower tapered compression ring is silver and the upper one is gold:



1. Upper dust cap
2. Thin washer
3. Upper gold compression ring
4. Upper sealed bearing unit
5. Lower sealed bearing unit
6. Lower silver compression ring
7. shoulder of fork

The lower silver compression ring will be a tight fit over the shoulder of the fork.

slide the fork neck through the mainframe: slide the upper bearing set over the fork neck (with the bearing lower most);

slide a spacer on,



slide the Pivot Clamp on, finish with the cap and loosely fit the bolt into the star nut which is inside the fork neck.



Gradually tighten the bearing stack before tightening the two Pivot Clamp bolts.

Group [5]: Prepare the Boom Assembly

Fit the BB Ring Clamps around the Bottom Bracket. Place SV33L on the left and SV33R on the right. This means the Ring Clamp bolts will not be visible from the top, but will be easily accessible from below. Press them together till the castellated surfaces mate.



Position the head of the Front Chainstay on the Ring clamps with holes aligned and with the raised areas of the Chainstay facing up, then place the plate SV33P underneath and fit and tighten the two chainstay bolts. Do not fit the cable roller yet, this is better done while the front derailleur cable is being fitted.



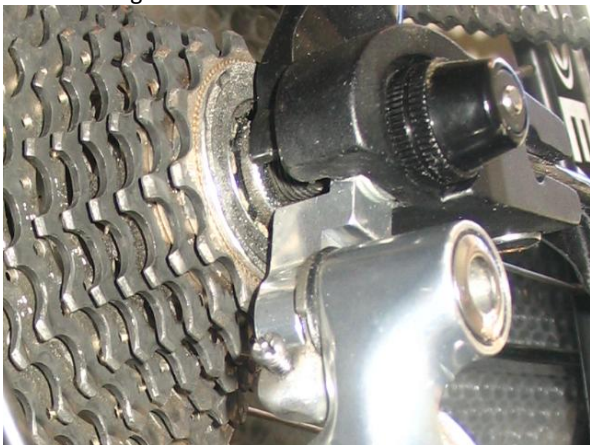
Identify the chainstay dropouts as follows. Both have a small groove on the top inside edge. Place them together with the small groove adjacent. Then place them over the Fork dropouts and notice how they fit, yet can rotate. Now, identify that the right chainstay dropout CSDOFR has a secondary recess underneath where it fits over the Fork dropout. This recess takes the Rear Derailleur hanger SVRD, which is sandwiched in place. Take SVRD and fit it inside CSDOFR, with the lower section disposed to the inside, then place over the right hand Fork dropout to identify how the parts assemble when the front wheel is later fitted.

Now with the raised areas of the chainstay on top fit the chainstay dropouts to the ends of the chainstay arms using the two remaining chainstay bolts, and tighten.

Group [7 and 5] Fit the Front Triangle

Pass the Long Stem through the Stem Sleeve and into the Main Boom. Lightly tighten both 34.9mm clamps. The Long Stem is also referred to as the Slider.

Insert the Rear Derailleur Hanger, fit the Chainstay Dropouts around the fork and pass the long skewer through.



Note placement of derailleur hanger as follows:

- 1) the skewer passes through the mounting eye of the derailleur hanger
- 2) the eye of the hanger is sandwiched between the outer ChainStay DropOut (CSDOR) and the Fork DropOut.
- 3) the body of the hanger is offset to the inside, towards the cassette

The dropouts and derailleur hanger will tighten up when a wheel is in place. Once this is done, tighten the setscrew on the rear surface of the CSDOR to pinch the derailleur hanger and keep it in place.

Fitting and Adjustment

Component Assembly

All components should be assembled according to their manufacturer's instructions. The front derailleur cable should loop around the FD Cable Roller. If using a stand, place the clamp around the Long Stem, between the Stem Sleeve and Main Boom, with the front of the bike up so that the back of the bike hangs down and does not swing.

Stem Sleeve

For most riders the Stem Sleeve should point up from its pivot, for very tall riders, it may face down.

Long Stem (Slider)

For most riders, the Long Stem will allow suitable handlebar reach adjustment. For short riders, where the BB and handlebars are close together, the Long Stem may not plunge far enough into the Main Boom. In this case, reduce the length of the Long Stem by up to 2"/30mm.

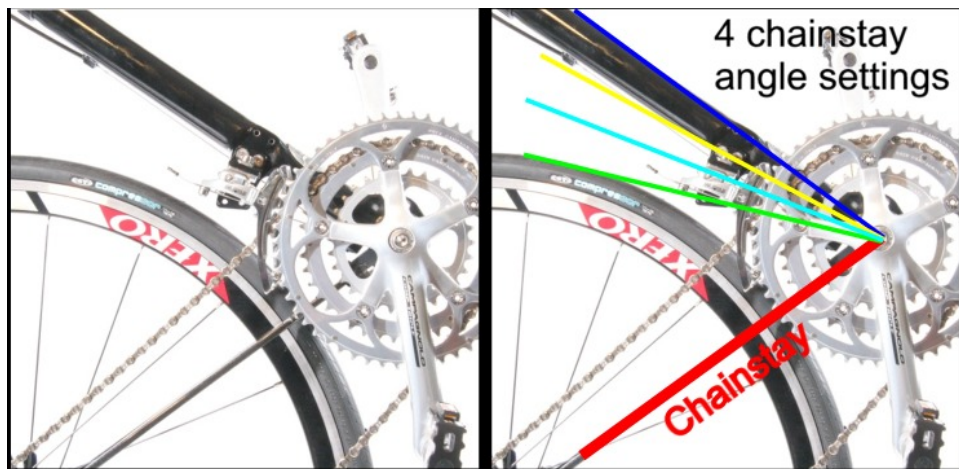
Arm and Leg Adjustments

Once assembled, please note the following critical procedure for adjusting the leg length or arm reach on your new Silvio:

- 1) loosen the BB ring clamps SV33R and SV33L around the bottom bracket.
- 2) release the quick release front axle skewer.
- 3) loosen the Main Boom 34.9 clamp for leg adjustment and or the Stem Sleeve 34.9 clamp for leg and arm reach adjustment.
- 4) adjust as required
- 5) re-tighten the 34.9 clamps.
- 6) re-tighten the BB ring clamps.
- 7) secure the quick release front axle skewer
- 8) sight along the Front Chainstay SV31 to verify that it is straight, not held in a curved position.

Proper Installation of your Front Derailleur on your Silvio

The purpose of the multiple mounting points for the front derailleur (FD) is to allow optimum function of your FD across a range of rider x-seams (leg lengths). Understanding chainstay angle is important. The chainstay angle is the angle formed by the chainstay and the mounting axis of the front derailleur (see photo).



The chainstay angle determines the relationship between the upper chain run and the front derailleur. On diamond-frame bikes, this is a fixed angle determined by frame geometry, and most derailleurs are designed for this to be in the range of **63 to 66 degrees**.

Cruzbikes have adjustable booms to allow for different leg lengths. One of the consequences of this is that on a Cruzbike, the chainstay angle varies with boom adjustment length. If you have shorter legs, this can cause the chainstay angle to be very open (larger), and this causes the rear "bridge" of the derailleur cage to drag the chain when the smallest chainring is being used.

To compensate, we allow for several different FD attachment points to restore the chainstay angle to as close to 66 degrees as possible, thus putting the FD in the configuration for which it was designed.

When you set up your bike, you should use the highest FD attachment point that will allow your FD to clear the chain in the lowest gear, and the chainstay angle should be close to 66 degrees. We suggest you try the following settings first:

- X-seam less than 40 inches → use 4th (bottom) row
- X-seam 40 to 42 inches → use 3rd row
- X-seam 42 to 44 inches → use 2rd row
- X-seam greater than 44 inches → use 1st (top) row

Whenever any adjustments are made to the leg length, whether directly by the Main Boom 34.9 clamp or indirectly by the Stem Sleeve 34.9 clamp, repeat step 8 to ensure the chainstay is in a straight 'relaxed' position. Failure to do so may result in damage to the Front Chainstay.

Suspension Adjustment

The Silvio is equipped with an airhead suspension fork and comes with a high pressure suspension pump that can supply high pressures in very small volumes in increments of about 5psi. To adjust the pressure, connect the hose to the valve using the barrel nut at the end. Once the pressure is right, first unscrew the HOSE out of this barrel nut about 5mm, it won't detach but will release the pump side pressure while allowing the valve to close without a drop in pressure in the airhead unit. Then, disconnect the barrel nut from the valve. The working range for the air head is 50 to 200 psi. Travel is 40mm (just over 1.5"). Adjust the air pressure so that the sag is about 20% of travel, or about 8mm, (about 5/16"). Start at about 150 psi. While sitting on the bike with the brakes on, rock back and forth a little to set the sag. At this setting, the rubber cover should be just slightly deformed. Monitor the air regularly, just as you do a tire.

Checks before riding, especially after leg or arm reach adjustments have been made

- 1) All Chainstay bolts are tight
- 2) Front Chainstay is straight, not held in a curved position
- 2) Ring Clamp bolts are tight
- 3) Other checks as usual for a road bike

Riding instructions

It is imperative that you consult the cruzbike owners manual for instructions on how to learn to ride. Contact us immediately if you do not have this manual.

You are now ready for your first ride. Enjoy!