



INSTRUCTION MANUAL OF THE STRINGWAY CROSS STRINGING TOOLS.

1. PERSONAL ADVISE:

The Stringway cross stringing tools are designed to do a rather smart job. They are designed to be very user-friendly and maximum utility for most racquets in the market. The tools are “equipped” with a number of features. To make maximum use of these features we advise you to study this manual thoroughly before using of the tools

2. DESCRIPTION OF THE CROSS STRINGING TOOLS:

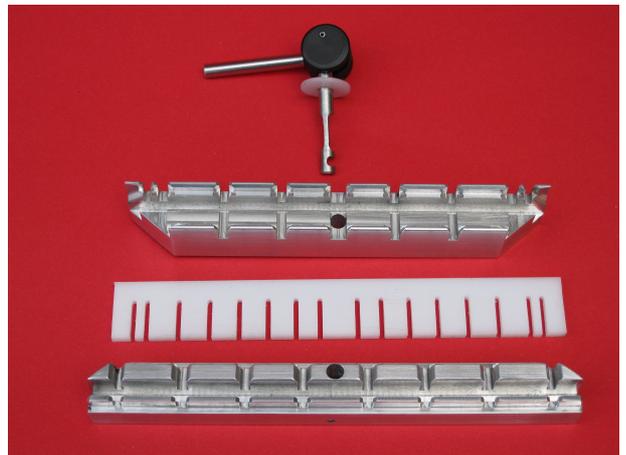
2.1. HD and LD tool:

There are 2 tools available, one for string patterns with high density (HD) and one for low density patterns (LD). Which one to use for which racquet is described in chapter 3.1.



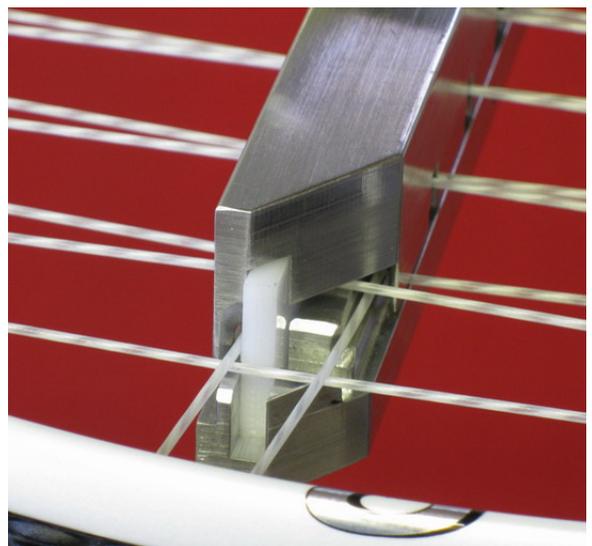
2.2. The tools exist of 4 parts:

- * The comb makes sure that the strings in the racquet are placed in the right position for the cross stringer.
- * The upper and lower beam which push the main strings apart.
- * The eccentric system connects the upper and lower beam and generates the forces to push the main strings apart.



2.3. The features:

- * The cross stringer stays in the racquet from the first cross string, until the last cross is woven.
- * By closing the tool in 2 different positions, the cross strings are woven alternatively
- * The combs have 16 slots to accommodate 14 main strings. The 2 outside slots can be used for the outside strings (the 7th from the middle).
- * The tool has 2 channels, a short one and a long one.
 - The short channel is used to enter the first few (shorter) cross strings. But the stringer can also choose to use the short channel to enter all crosses.
 - The long channel is used to enter the cross strings that pass 14 and more mains. After the shorter crosses have been strung, the tool can be turned around to use the longer channel



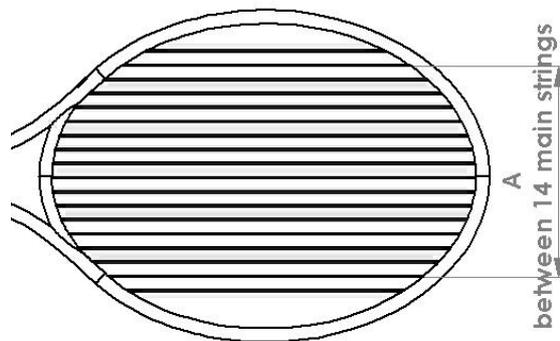
3. USING THE TOOLS:

3.1. Choosing the right tool for a racquet:

In general counts:

Use the HD version when the distance between 14 main strings is smaller than 156 mm and the LD version when this distance is bigger than 156 mm.

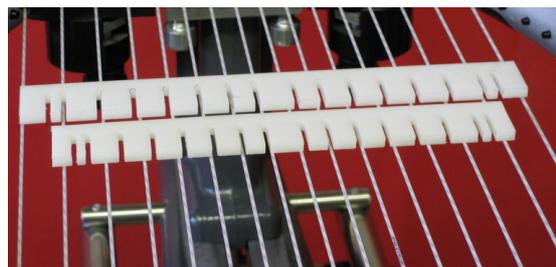
When the distance between 14 mains is smaller than 144 mm the HD unit can be used with the 14 slot cam which is available as an extra.



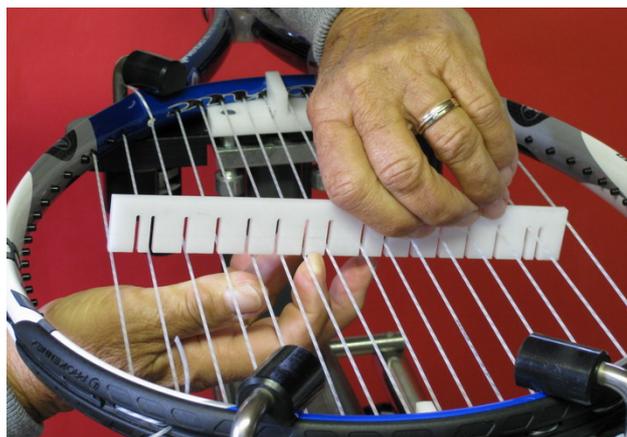
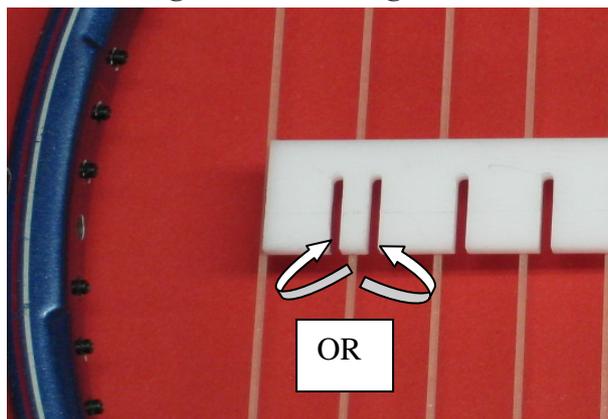
HD VERSION: A = UP TO 156 MM
LD VERSION: A = 156 AND BIGGER

Choosing the most suitable tool is very easy. Place both combs on the string and see which one fits best.

The tools are always used with 14 main strings in the comb, so in a racquet with 16 mains there are 2 free main strings and with 18 there are 4 free mains, 2 at each side.



3.2. Entering the main strings into the comb.

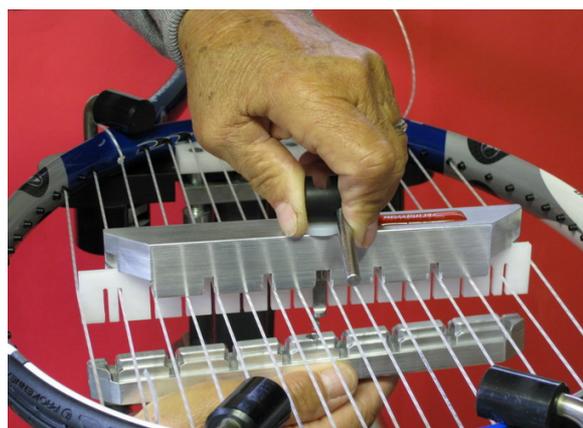


Put the comb on the main strings and decide which slot is closer to the 7th string from the middle, the 7th or the 8th slot from the middle.

TAKE CARE: When the outer slot is used for the 7th main string, the main string is pushed down in one position but is not lifted in the other position. So you have to watch if the cross string passes this main string in the right way.

Hold the comb at an angle and enter one string after the other into the slots of the cam.

3.3. Mounting the tool over the comb.



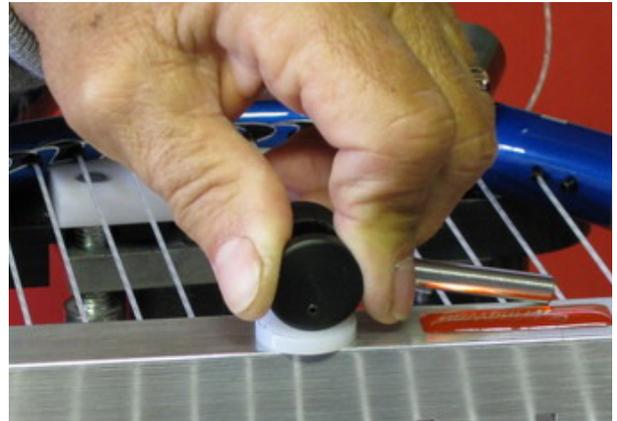
* The tool stays in the racquet from the first cross string until the last one is woven.

Enter the tool with the short side on the side where you start the cross strings.

- Put the pull rod in the lower position by switching the lever.
- Position the upper beam over the cam with the pull rod between the middle main strings.
- Rotate the lever towards the short side of the tool parallel with the main strings.

- Push the eccentric system downwards and move the lower beam upwards so that the comb goes into the slot. Make sure that the pull rod enters the hole until it hits the cross pin in the lower beam.

- Rotate the lever 90 degrees anti clockwise (seen from above) to lock the pull rod in the bottom beam.

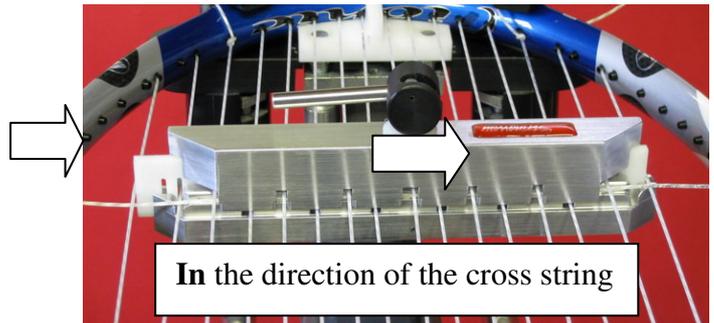
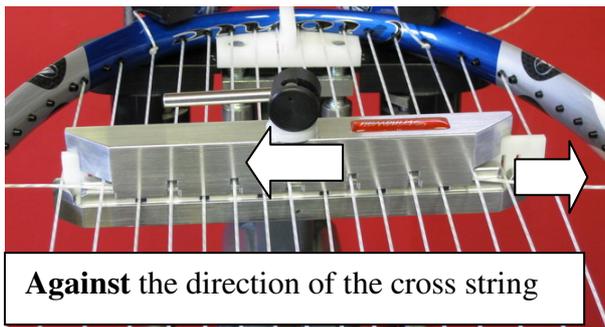


3.4. The principle of the weaving function:

* The weaving function works as follows:

- The tool can be closed in 2 positions. By moving the tool from one position to the other, before it is closed, the main strings are lifted alternately.
- The relation between the direction of moving the tool and the direction of entering the cross string is the same for each string job;

The tool is either moved in the same direction of weaving or against it.



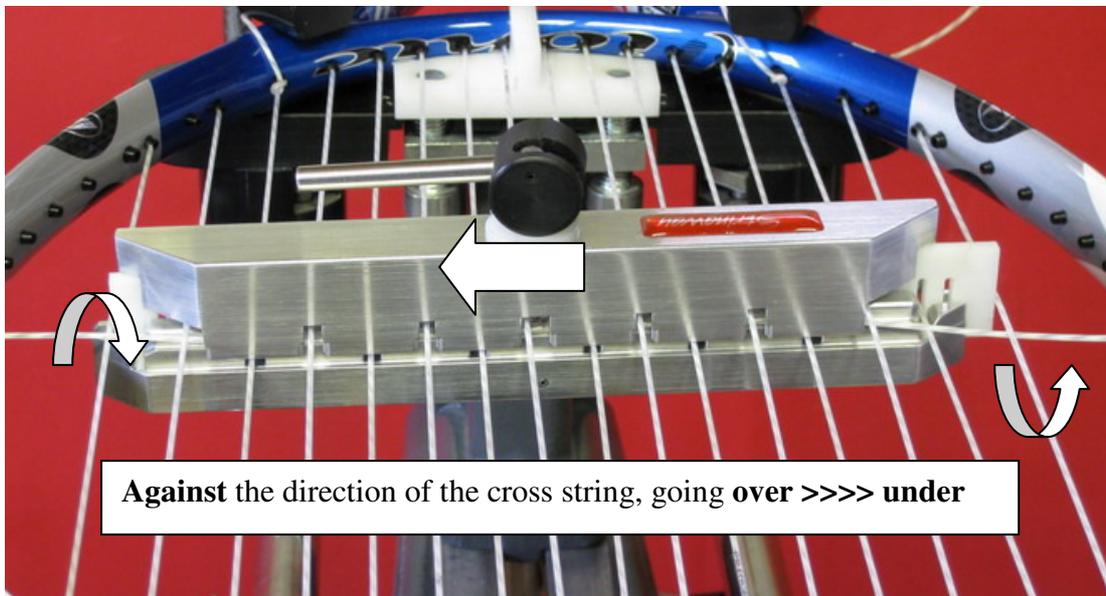
3.5. Test the weaving-principle of the system:

Test the feeling of how the tool works: Move the tool in both directions as far as you can and close it. You will see that the strings that are lifted in one position are pushed down in the other position.

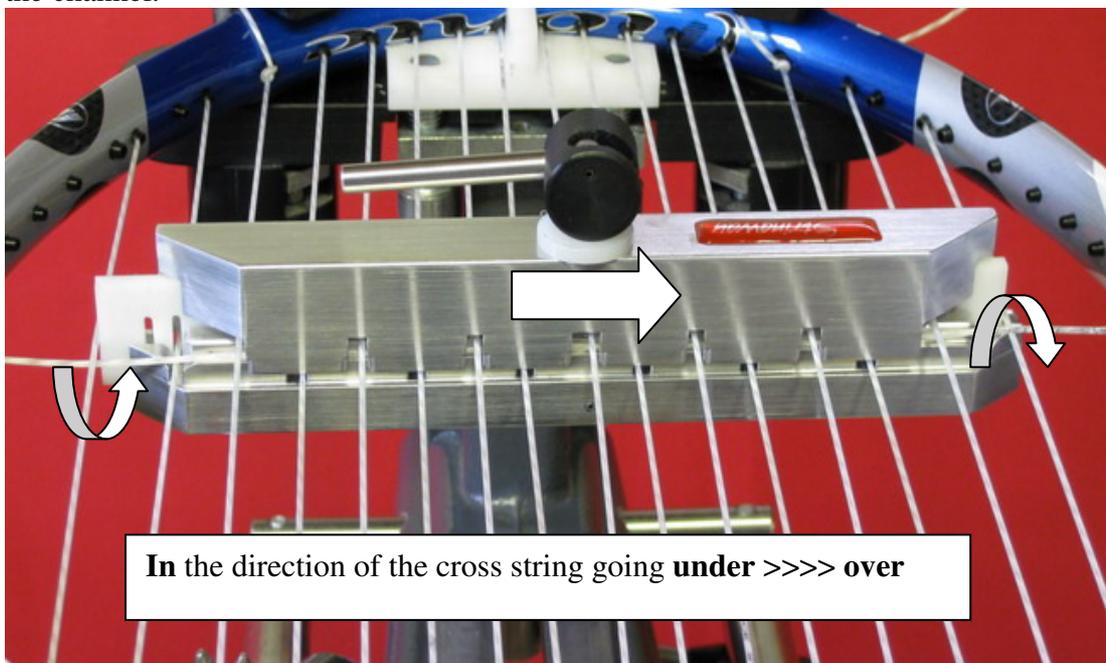
3.6. Passing the free main strings:

The way you pass the free main strings depends upon the direction of moving the tool in relation to the direction of entering the cross string:

- 1) When you move the tool **against the direction** that the cross string is going, the cross string goes **over** the first free main string into the channel and goes **under the last free main strings** when coming out of the channel.



2) When you move the tool **in the same direction** that the cross string is going, the cross string **goes under** the free main string into the channel and goes **over the last free main string** coming out of the channel.



OUR ADVISE: We advise you to move the tool against the direction that the cross string is going because entering the string over the first string into the channel is easier.

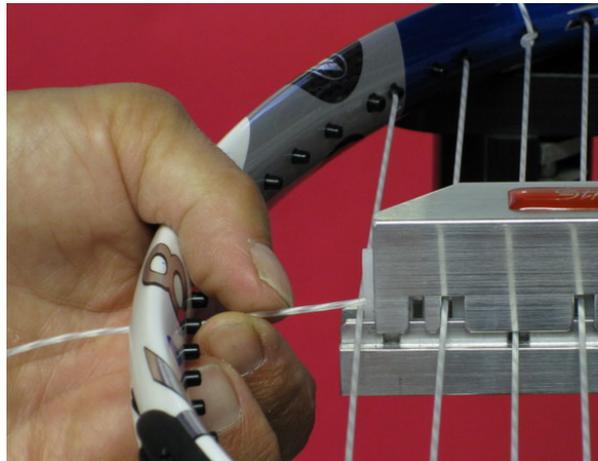
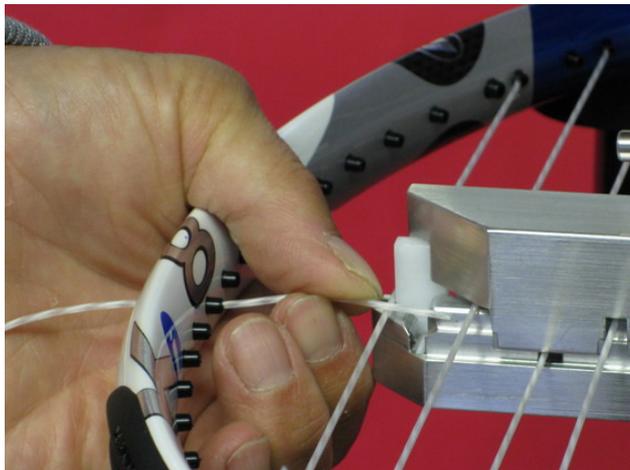
3.7. 16 or 18 main strings:

There are always 14 main strings running through the tool. In a racquet with 18 main strings, the tool is used with 2 free main strings on each side. In a racquet with 16 main strings there is one main string on each side.

3.8. Guiding the cross string into and out of the channel:

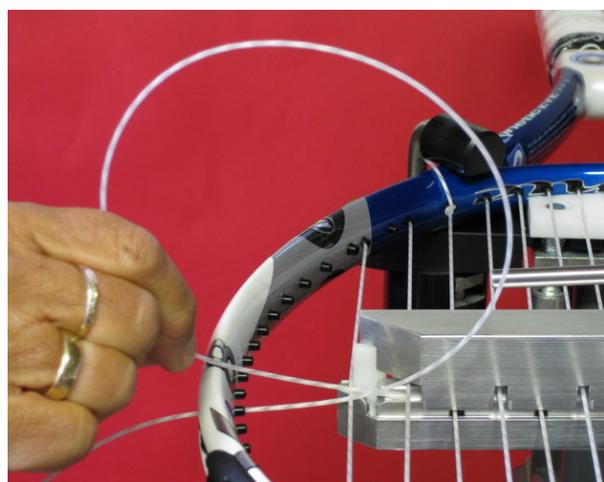
There are 2 ways to guide the cross strings into, through and out of the channel. Which one to use depends on the situation and your preference.

1) Push the string through the grommet in the racquet and grab it between your thumb and index finger and guide it into the channel. Push the string through the channel and then through the correct grommet.



2) Push the string through the grommet in the racquet and pull a loop. Push the string through the channel and then through the correct grommet on the other side of the racquet.

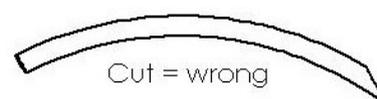
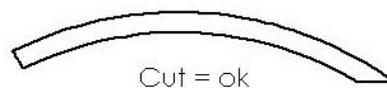
TAKE CARE to correctly weave the string over or under the free main strings.



3.9 Preparing the string.

The string passes the channel in the easiest way when the end of the string is cut at an angle.

Take care to cut the angle contrary to the bending of the string.



4. THE WAY OF STRINGING THE CROSS STRINGS WITH THE TOOLS.

4.1. Two methods to use the cross stringing tool:

There are different ways to string the cross strings with the cross stringing tools:

- 1) Enter all cross strings with the cross stringer and tension these strings afterwards. Leave a loop at the start of the first cross string so you are able to pull tension.
- 2) Enter a cross string and tension it directly after weaving it in. Then continue weaving, tensioning and clamping each string one at a time, until all the cross strings are completed.

We advise to use method 2:

- There is a lot of friction when you pull the “tension-loop through.
- The loss of tension will be higher.

4.2. Entering the shorter cross strings:

The shorter channel can be used to enter the cross strings that pass less than 14 main strings. There is no need to put the channel of the cross stringer in line with the holes in the racquet. Put the tool in the middle of the string bed with the shorter side towards the side from where the cross strings are entered. Open the tool after weaving the string through and pull it straight.



4.3. Entering the longer cross strings:

To use the tool for the cross strings that pass 14 or more main strings the tool can be used in 2 ways:

- 1) The short channel can be used for all cross strings. This has the advantage that the tool does not have to be turned around, but the drawback that it can not be moved as far to the end for the last cross strings.
- 2) Use the longer channel for the longer cross strings: Turn the upper and lower beam around after entering the shorter cross strings. While doing this, the comb can stay in the racquet.

5. Demo video:

A demonstration video of the Stringway Cross Stringing Tool in action can be seen on Youtube:

<http://www.youtube.com/watch?v=UoktPQE4C0>
