

#### How to install your new slings.

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This page is designed to instruct and encourage our customers regarding how we produce and install custom made slings. Below you will see the steps we take from the measurements you give to us via our online store when ordering new replacement patio furniture slings and then we will illustrate how they are installed. We trust this information will help many of you who are unsure of how this sling replacement will work for you.

#### To install your new slings, you will need the following types of tools:

- \* A spreader bar tool available in our online store if you wish to purchase this with a sling order.
- \* Liquid soap mixed with water
- \* The specific bolt tool needed for your furniture
- \* If your bolts are stripped, corroded, or broken, the most common stainless steel bolt types used on Winston, Woodard, Tropitone, Mallin, Innova, Brown Jordan, Carter Grandle, and others may be found in our online store as well.



Other tools may be helpful, but these are the most commonly needed. Sling installation also takes some muscle and some patience.

**The example given below** is just one specific type of sling frame. Many sling frames have one or two curved back bar(s) for support like this example. Some other sling furniture frames have a straight support bar which is installed differently. At the bottom of this page there is an example of the straight bar sling installation. You may email us with questions regarding any other type of sling installation not seen on our websites.

**After installing the splines** into the new sling (if you chose new spline they will come pre-installed in most cases). Splines are installed down into the loops on the sides of the new sling as was on the original sling.

You may remove the old sling as illustrated in the Woodard sling example further down on this document.

**Install the sling into the rails** by removing the frame bolts and support bar(s) and sliding each side in the correct way for your fabric choice also considering whether the sling is angled (wider at the bottom). Using a little soapy water at the curve may help the sling install easier:



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When it is completely in on both sides stretch the length of the sling out to reach the ends of the rails.



**Alternating between the bolts**, begin to screw them into the frame a little at a time so that the bolts will catch and have a good grip at every point of connection. Using some lubricant like WD-40 will help prevent the bolts from stripping and will also make the tightening easier. If you have trouble stretching the fabric to start the bolts you may use the spreader tool between the rails to help pre-stretch far enough to get a good start with the bolt threads. You should not tighten one side in all the way before starting the other side or this could damage your frame connections or bolts. After you have a good grip on both sides you may continue to tighten the bolts (alternating on them) until they are in all the way:



**There are some exceptions** to this as in the sling rails manufactured with a weld on one side and a long bolt on the other. Mallin, Tropitone and Carter Grandle have sling some furniture with a weld on one side and in this case you would install the sling on the welded rail first then pull the other detached rail up the other side of the sling.

**NOTE:** Be careful to be sure you have good quality frames before attempting this sling replacement as some manufacturers did not build frames as well as others and they may not handle the stress of replacement slings. Generally names like Winston, Woodard, Tropitone, Mallin, Innova, Carter Grandle, Brown Jordan, Agio, and Telescope are among the better built frames. It is not suggested that you try to replace a sling on a low quality frame, though it is possible to succeed with this as well.

Also, keep in mind that when you are working with used patio furniture, even the best of them could have some structural damage which may have occurred through use over time and this may cause some trouble during installation. Bent bolts from too much pressure placed on the frame at some point is an example. If you have bent bolts, be sure to replace them with stainless steel replacements available at your local hardware store or in our online store. If you try to use the bent bolts you will potentially damage your frame or the rivnut (hidden nut in the frame). In most cases repairs can be made if this damage occurs and you may email us with any questions regarding the details of such a problem and how to remedy it.

If you need to replace your bolts, a common size bolt for patio furniture slings is the 1/4" dia. X 20 thread and the length can vary. Telescope frames may have a larger bolts with wider threads and some other manufacturers may have larger bolts as well. Be sure to get the right stainless steel bolt size by taking your old one in to a nearby hardware store which may carry these or you may find them in our online store.

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**After your bolts are completely in place** you will need to replace the support bar(s). This Key West chair example has 2 support bars, one in the back and one under the seat. If you are very careful about it you can pre-bend the bars slightly before installing if they are open too much to put back into place. But if you have a very good spreader bar tool and some muscle you may not need to do this. The spreader bar tool in the pictures was purchased at a Lowe's store and is the best we have found yet for this job:



**Be careful not to over expand** the spreader bar tool but spread the rails just enough to help you replace the curved support bars in the proper holes. Keep good control of the bars as you replace them so that you do not damage the frame or the sling.

**After you have installed the sling**, you may clip the excess spline insert off the ends (if necessary) and install the end caps. Patio Furniture Rehab does supply new end caps for many top quality patio furniture slings:



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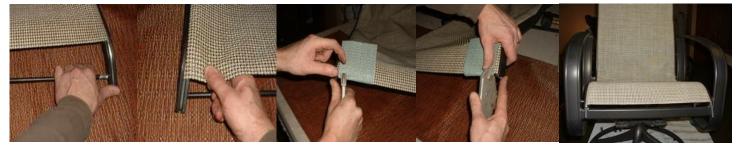
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### Example of a straight support bar on a Woodard High-Back Sling installation

First cut the old sling off and remove the end caps and support bar:



After installing the splines, slide the sling on the rails from the bottom up to about 4 to 6 inches from the top. It helps to use soapy water on the rails where the sling goes in to help make this easier. You should be able to replace the support bar at this time and begin to pull the sling the rest of the way on with your hands alternating sides as you go. It may help to have another person guide the sling in so that the fabric does not catch on the edge of the end of the rail. If you have trouble with pulling this to the end you may use vice grips (or pliers if you are careful) with a strong piece of cloth to protect the new sling as you pull it on to the end. Be careful not to put too little or too much pressure on the vice grips (or pliers) or you could damage the new sling. Too much pressure may scar or tear the sling and too little pressure may cause the tool to slide off as you pull it and then scar the fabric. This is why we would rather use vice grips because you can set the tension you need before pulling. Another thing to avoid is pulling the fabric past the end because you may need to take the bar and sling back out and start from the other side again as the fabric could catch and make reversing difficult:



If you have any questions about how to install slings please email us.

Thank you and we hope we have encouraged you in your Patio Furniture Rehab!



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