

*Floyd Rose*®



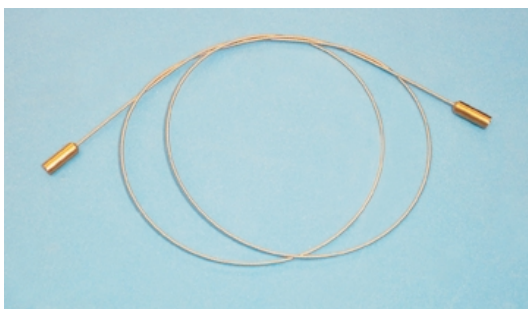
**SPEEDLOADER BRIDGE SYSTEM**

425.861.7089  
FLOYDROSE.COM

## WHY WERE THE SPEEDLOADER BRIDGES AND STRINGS DEVELOPED?

In 1991, I started developing what eventually evolved into SpeedLoader bridges and SpeedLoader strings. My goal was to eliminate the need for the use of Allen-wrenches and wire-cutters to change strings on my Original and Pro Tremolo bridges and design a fixed bridge with similar advantages. The SpeedLoader bridges and strings have accomplished this goal.

The first thing I'd like to show you are the SpeedLoader strings, because the magic of this tuning system is in the strings.



SpeedLoader strings are made with one bullet applied to each end. SpeedLoader strings are made to within .002 of one inch in length, and every string has its own precision length. This precision allows you to change a string and return to perfect tune in seconds.

Some of you might ask... "What about the string stretching?" so I'd like to take a moment and clear up some things about string stretching.

There are two reasons string stretching is necessary on guitars. First, the strings must be deformed or bent around the tuning key to follow the curvature of the tuning key post. The second reason for string stretching is to deform the string to bend over the bridge and nut. The more string you wind around the tuning key post the more "stretching" the string requires to make the string wrap tightly around its post. The amount of deformation at the bridge depends on the type of bridge you have on your guitar.

Guitars with SpeedLoader bridges don't need tuning keys, so the aggressive pulling or stretching is unnecessary. In fact, if you pull too hard on the strings you may actually damage them. I'll try to explain why.

A steel string has an elastic range like a rubber band. This means that it can be stretched like a rubber band, and, like a rubber band, it becomes thinner as it is stretched. When released the string, or rubber band, returns to its original width, unless it has been stretched too far. If a rubber band is stretched too far, it breaks. However, if a steel string is over-stretched, it becomes permanently thinner somewhere along its length, and thus the string is a little bit longer, and therefore lower in pitch, than it was before it was over-stretched. Having thinner places along the string length can cause the string to vibrate erratically and sound out of tune.

The point I'm trying to make is, when you change strings, don't stretch them aggressively. I recommend that you press down on the strings just in front of the bridge saddles and just in front of the nut. Then give each string one or two medium hard pulls and just play the guitar from there. That's all the seating the strings need.

## REMOVING STRINGS



Please note: SpeedLoader strings are offered in two scale lengths, 25.5 in. and 24.75 in. If you're not sure what scale length your guitar is, consult the guitar manufacturer or the store where you purchased the guitar.

Make sure you have purchased the correct scale length strings for your guitar. The string scale length appears in the lower left corner of the string package.

To purchase strings go to: [www.floydrose.com](http://www.floydrose.com) or ask for them at your local dealer.



**1**

To replace a string, push down on the back of the saddle of one of the strings.



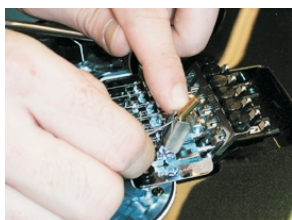
**2**

Then, pull back on the sliding latch by placing the first finger of your free hand on the black knob protruding out the back of the saddle. Then place your thumb on the fin sticking up just behind the fine tuner screw and pull the latch back with a pinching action between the thumb and first finger.



**3**

Once you have pulled back on the sliding latch, release the saddle and allow it to rotate forward.



**4**

Now remove the bullet from the saddle.



## 5

I should point out here that if you're replacing a broken string, when you unlatch the pivoting saddle there will be no tension on the string to pull the pivoting saddle forward. You'll have to pivot the saddle forward with your finger.

You can now remove the bullet on the other end of the string from the nut by simply sliding it out the back of the nut.



## 6

If you try to release a saddle and pull back on the sliding latch and it doesn't budge, release everything and start over making certain that you don't turn the sliding latch sideways. If the sliding latch turns on its shaft, the safety catch portion of the sliding latch will not line up properly with the safety catch portion of the pivoting saddle and will cause binding.

The safety catch is there to prevent the string from accidentally releasing while playing or changing strings. This is what the safety catch looks like up close. This all sounds tricky, but it's not. You'll have it down after replacing a couple of strings. Now, let's put on a replacement string.

## LOADING STRINGS



## 1

To put on the new string, simply slide one of the bullets into the nut, then place the other bullet into the appropriate saddle and push down on the back of the saddle until you hear, or feel, a snap.





## 2

This sound is the spring-loaded sliding latch snapping into place. If you don't hear or feel the snap, push the sliding latch toward the saddle until it catches. Making sure the sliding latch is all the way forward to its locked position is important because if it isn't, two things will happen:

- 1) The replaced string will be held sharp, and
- 2) The safety catch will not be engaged, so the string could suddenly and unexpectedly be released and fly across the room.



## 3

Now that the new string has been properly installed you should seat it. To seat the new string, press down firmly on the string just in front of the saddle and just in front of the nut.



## 4

Then do a couple of stretching pulls on the string.



## 5

The string is now seated and no more stretching is necessary; just play. In fact, if you stretch the string too vigorously, you will damage the string. Just play the string in for a bit and re-adjust your tuning with the fine-tuning screw as needed.

If the string you're replacing was tuned to your desired pitch, the new string you install should be able to be tuned to that pitch with the fine tuner screw. If the fine tuners do not have enough range to tune the new string to the previous pitch you will need to adjust the range tuner setscrew as described below. See: "Setting the fine tuner range on the SpeedLoader Tremolo."

## SETTING UP THE SPEEDLOADER TREMOLO BRIDGE BASE PLATE

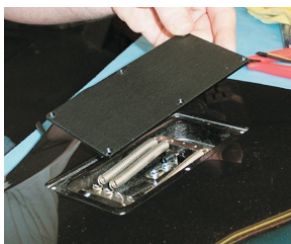


The proper set-up of the SpeedLoader Tremolo Bridge looks exactly like a properly set-up Original Floyd Rose Tremolo Bridge. By the way, the SpeedLoader Tremolo will retrofit an Original Floyd quite easily.

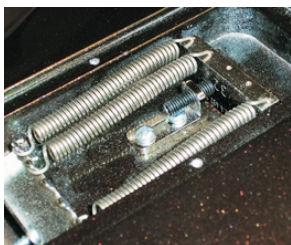
The first thing you'll want to do is check to see if the top surface of the base plate of the bridge is sitting parallel to the top surface of the guitar.



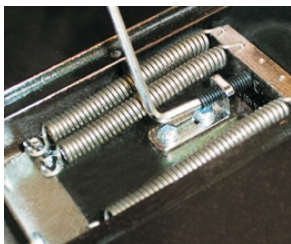
If the base plate appears to be tilted forward away from the top surface of the guitar or tilted back closer to the top of the guitar, then an adjustment should be made.



**1**  
To level the base plate, first take the spring cover plate off the back of the guitar.



**2**  
Inside the spring cavity you should find a tremolo stop.



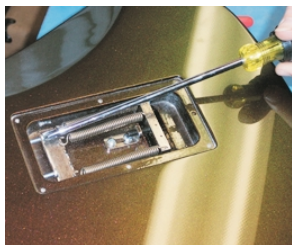
**3**  
If this part is missing, stop right here and get one installed by a qualified guitar repairman. You can get this part from our website at [www.floydrose.com](http://www.floydrose.com).

Depending on the guitar you purchased, the tremolo stop may or may not be engaged with the spring block.

We will assume it is not engaged and show you how to engage it.

Take the 3mm Allen wrench and turn the set screw until the set screw touches the spring block.





**4**

Now, tighten the springs with the spring claw screws so the spring block is pulled tightly against the set screw.



**5**

Another way to pull the spring block against the tremolo stop set screw is to add another spring to the spring block and claw. Using this method is preferred because it will be easier to re-float the tremolo after setting up the bridge.



**6**

Now check the base plate position. If it is not parallel to the face of the guitar body, turn the set screw until the base plate is parallel.



**7**

After you get the base plate parallel, check your string action. If your strings are too high or too low for you, adjust the action with the two rocker screws, using a 3mm Allen wrench until the action is where you like it.

When you get the base plate parallel with the face of the guitar, the action properly adjusted, and the tremolo stop firmly engaged with the spring block, you are ready to set the fine tuner range or intonate the guitar.

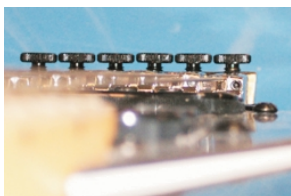
These procedures follow...

## SETTING THE FINE TUNER RANGE ON THE SPEEDLOADER TREMOLO

Like the Original Floyd Rose, there are several situations that will cause the SpeedLoader fine tuners to run out of range. If this happens don't panic, the fine tuner range can be reset.

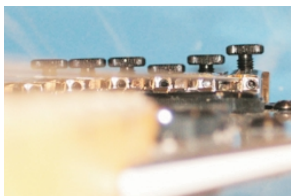
To reset the fine-tuner range, first engage the tremolo stop and set the bridge position as described in the "Setting up the SpeedLoader Tremolo Bridge base plate" section above.

With the base plate set properly and the tremolo stop properly engaged, you're ready to set your fine tuner range. If only one or two of the fine tuners are out of range you may want to try adjusting them without engaging the tremolo stop.



**1**

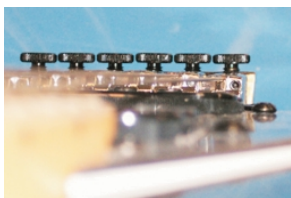
The first thing you do to reset the range of all the fine tuners is to position all the fine tuner screws to the middle of their possible movement.



**2**

One way to do this is to turn the low "low E" string fine tuner screw all the way up, then turn the "D" string fine tuner screw all the way down.

Now, position the "A" string fine tuner screw half-way between the "E" and the "D" fine tuner screw positions.



**3**

Now, leaving the "A" string fine tuner where you set it, reposition all the other fine tuner screws to match the height of the "A" string fine-tuner screw.

You should now have all of the fine-tuner screws set to the middle of their range. Ignore the fact that your guitar is now completely out of tune; we're going to fix that next.

At this point you're ready to tune your guitar using what I call the range tuner set screw. You can set your guitar up for standard pitch, any open tuning, or any drop tuning using the range-tuner set screw. Remember: do not use the fine tuner screws to tune the guitar at this point.

**4**

A range tuner set screw is located in the nose of each pivoting saddle.





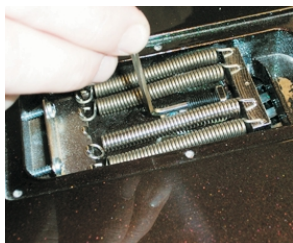


## 5

Using a 1.5mm Allen wrench and the range tuner set screw, tune your guitar to any tuning you desire. You can increase the pitch of a given string by turning the set screw clockwise, and decrease the pitch of the string by turning the set screw counter-clockwise. (Remember not to use the fine tuner screws for this tuning.)

Now that you have tuned your guitar to the tuning you want, the bridge should be properly set-up, and the fine tuners should be set to the middle of their range.

The way your guitar is set up now is what is called a “blocked” setup. This means that the tremolo can be used for dive effects but you can’t pull up on the arm for up-bends. You can leave your guitar the way it is, or you can disengage the tremolo stop to return the tremolo to what is called a “floating” setup. However, before you return the bridge to a floating condition, you might want to check your intonation. If your intonation needs adjusting, go to the “Setting your intonation” section below.



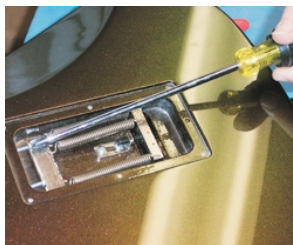
## 6

If you’re ready to float the tremolo, check your tuning one last time and make any needed adjustments using the range-tuner set screw. Then, back the tremolo stop set screw away from the spring block. This will cause the bridge to tilt back toward the body of the guitar and all the strings will go sharp. This is normal.



## 7

You must now retune the guitar, this time using a Phillips screwdriver to turn the spring-claw screws counter-clockwise to loosen the spring tension. (If you added an extra spring to pull the spring block against the tremolo stop screw, you should remove it first.)



## 8

The good news is that you only have to retune one string. Pluck the string you want to tune (I usually tune the “A” string for this procedure) and then, while watching the tuner, loosen first one claw screw then the other claw screw the same amount.

Check the tuning and repeat until the string is in tune. When you get the string you chose in tune, the other strings will be in tune. This assumes that all the strings were in tune before you released the tremolo stop.

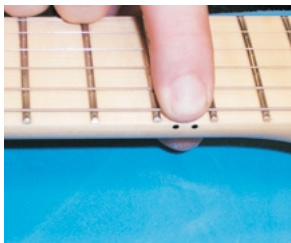
## SETTING YOUR INTONATION ON THE SPEEDLOADER TREMOLO



When your intonation needs adjusting, first engage the tremolo stop by following the instruction above, under: "Setting the fine-tuner range on the SpeedLoader Tremolo."

### 1

Once the tremolo stop is engaged, tune your guitar to an electronic tuner. Now, check the intonation of one of the strings to see if the intonation is sharp or flat by chiming the string over the 12th fret.



### 2

Now fret the string on the 12th fret to see if the pitch of the chimed note matches the pitch of the fretted note.

If the fretted note pitch is lower than the tuned pitch of the chimed note, this means the intonation is flat. If the fretted note pitch is higher than the tuned pitch of the chimed note, this means the intonation is sharp.



### 3

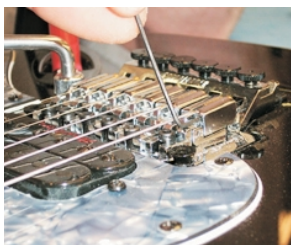
To adjust the intonation, first remove the string tension by unlatching its quick release saddle as if you were going to remove the string. [Complete instructions above.]



### 4

Then, using a 2.5mm Allen-wrench loosen the saddle hold-down screw while holding the saddle in place.

Be careful not to let the saddle move when you release the hold-down screw. Now carefully move the saddle in the desired direction. Move the saddle toward the pickups if your intonation was flat or away from the pickups if the intonation was sharp.



### 5

Carefully re-tighten the saddle hold down screw. Re-latch the string and tune the string back to the previous pitch using the range-tuner set screw, not the fine tuners (see: "Setting the fine tuner range on the SpeedLoader tremolo"), then check the intonation and repeat the above procedure on all the strings as needed.

After you have set the intonation, you can re-float the bridge following the instructions above, under: "Setting the fine tuner range on the SpeedLoader Tremolo."

*If you still have questions about any of the procedures above, please contact us at:*  
**info@floydrose.com, or call us at 425-861-7089**