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# Fret City Music

## Licensed Floyd Rose Bridge Owners Manual

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*Please note the Bridge Supplied with J&D Guitars is a licensed Floyd Rose Bridge.*

## **STRING CHANGING INSTRUCTIONS**

### **Step 1:**

Unlock the three clamps at the nut with the Allen wrench provided with the guitar.

### **Step 2:**

Set the fine-tuners on the bridge to the middle of their tuning range.

### **Step 3:**

Change one string at a time (starting at either E string) by first loosening the string and unclamping it at the saddle with the Allen wrench.

### **Step 4:**

Cut the ball end off the replacement string with a pair of wire cutters.

### **Step 5:**

Place the freshly cut string end into the center of the saddle and tighten the clamping screw until it is difficult to turn.

### **Step 6:**

Thread the other end of the string under its nut clamp and under the string hold down bar, then to the tuning key and tune the string. [Pull on the string until it is tight around the tuning key and retune.]

### **Step 7:**

Repeat 2 through 5 until all strings are replaced.

### **Step 8:**

Check your tuning on all strings once again.

### **Step 9:**

Re-clamp the three nut clamps.

### **Step 10:**

Check your tuning once again making any adjustments this time with your fine-tuners only.

## **STRING TUNING INSTRUCTIONS**

Tuning your Licensed Floyd Rose bridge is certainly a tricky business when the bridge is floating. This is because the total tension of the strings must balance the total tension of the tremolo springs with the base plate of the bridge parallel to the face of the guitar and with the strings tuned to the desired pitch. So, follow these steps and it will start to make sense.

### **Step 1:**

Loosen the three string clamps at the nut

### **Step 2:**

Set your fine tuner screws on the bridge to the middle of their adjustment range.

### **Step 3:**

Tune the strings to your desired pitch (this can be drop tuning, open tuning, or standard pitch, the procedure is the same for any tuning) with an electronic tuner starting with the low 'E'.

### **Step 4:**

When you have finished tuning all of the strings, check the tuning on the low 'E' again. If the low 'E' is now flat, re-tune the strings starting again with the low 'E' but this time tune the E, A, D, G, and B strings a little bit sharp, then the high 'E' to pitch. If the low 'E' is sharp, re-tune as just described only tuning the first five strings a little flat. You must tune the strings a little sharp or flat to get to your tuning because every time you change the tension (or pitch) of one string, the other strings change pitch in the opposite direction.

### **Step 5:**

Repeat step 4 until all the strings are at the desired pitch.

### **Step 6:**

When the strings are at the desired pitch, check to see if the bridge base plate is sitting parallel with the top surface of the guitar. If the base plate is tilted forward away from the body, you must tighten the tremolo

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springs tension by turning the spring claw screws clockwise and repeat step 4. If the base plate is tilted back toward the body, you must loosen the tremolo springs tension by turning the spring claw screws counterclockwise and repeat step 4. [Step 6 only needs to be done on initial setup of the bridge or if you change to another gauge of strings or change to a different tuning.]

Note the spring tension screws are accessed by removing the back plate and these are the Phillips-head screws that hold the tremolo spring bracket in place. By tightening or loosening these screws you can increase or decrease the tremolo tension and base plate tilt.

#### **Step 7:**

When the bridge is sitting parallel to the face of the guitar and the strings are tuned to the desired pitch, re-clamp the three nut clamps and re-tune (if necessary) once again using only the fine tuners.

#### **Step 8:**

When tuning is complete, check the action of the strings off the neck. If your action is too high or too low, adjust the action with the two rocker screws (bridge pivot screws). These screws are on each side of the bridge and are regular slotted head screws. This adjustment will slightly change your tuning. If your fine tuners run out of range you must repeat steps 1 through 7.

You may find this You-Tube video covering tuning helpful :  
<http://www.youtube.com/watch?v=gRuilVpMlwM>

## **INTONATING YOUR BRIDGE**

*[note - before intonating your bridge you must tune your guitar using the tuning instructions above]*

### **Check the intonation:**

#### **Step 1:**

Tune all the strings on your guitar to an

electronic tuner with all the nut clamps released.

#### **Step 2:**

Determine if the intonation of the string you wish to change is sharp or flat by chiming the string directly over the 12th and checking the tuning. Then, carefully press the string down to the 12th fret and check the tuning again with the string fretted. If the fretted note is flat when compared to the chimed note, then the saddle must be moved toward the nut until the chimed note and the fretted note match. If the fretted note is sharp when compared to the chimed note the saddle must be moved away from the nut until the chimed and fretted notes match.

### **To move the saddle:**

#### **Step 1:**

Once you have determined which direction (toward or away from the nut) to move the saddle, loosen the string until it is limp.

#### **Step 2:**

Loosen the attachment screw holding the saddle to the bridge plate while holding the saddle in place. Move the saddle in the desired direction a small amount (about 1/16in on the first adjustment and your best guess on subsequent adjustments) and re-tighten the screw. [Note: If the saddle will not move forward because it is resting against the attachment screw, you can move the screw to the next hole forward on the bridge plate. This will give you more adjustment range. Also, if you need to move the saddle away from the nut to a position where the attachment screw can no longer clamp the saddle firmly, you can move the screw to the next hole back on the bridge plate.]

#### **Step 3:**

Re-tune the string and check the intonation again using the procedure outlined above (check the intonation).

#### **Step 4:**

Repeat this cycle until each string is properly intonated.

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When you're finished with the intonation procedure re-tighten the nut clamps. This will not change your intonation setting.

## **CHANGING TO A DIFFERENT GAUGE STRING SET**

To change to a heavier gauge of strings you need to tighten the springs, reset the intonation, and possibly adjust the truss rod tension. If your not accustomed to working on guitars you may want to take your guitar to a qualified guitar repairman who is familiar with Licensed Floyd Rose systems.

But if you want to try it, here's what you do...

### **To change to a heavier gauge of strings:**

#### **Step 1:**

Replace all your strings with the heavier gauge strings and tune the guitar to an electronic tuner (leave the nut clamps un-clamped).

#### **Step 2:**

Check to see if the base plate is parallel with the body.

#### **Step 3:**

If the base plate seems to be tilting up away from the body, increase the spring tension and re-tune.

If the base plate seems to be tilting down closer to the body, decrease the spring tension and retune.

Note the spring tension screws are accessed by removing the back plate and these are the Phillips-head screws that hold the tremolo spring bracket in place. By tightening or loosening these screws you can increase or decrease the tremolo tension and base plate tilt.

#### **Step 4:**

Repeat steps 2 and 3 until the base plate is sitting parallel to the body.

### **To intonate a Licensed Floyd Rose Bridge:**

### **Check the intonation:**

#### **Step 1:**

Tune all the strings on your guitar to an electronic tuner with all the nut clamps released.

#### **Step 2:**

Determine if the intonation of the string you wish to change is sharp or flat by chiming the string directly over the 12th and checking the tuning. Then, carefully press the string down to the 12th fret and check the tuning again with the string fretted. If the fretted note is flat when compared to the chimed note, then the saddle must be moved toward the nut until the chimed note and the fretted note match. If the fretted note is sharp when compared to the chimed note the saddle must be moved away from the nut until the chimed and fretted notes match.

### **To move the saddle:**

#### **Step 1:**

Once you have determined which direction (toward or away from the nut) to move the saddle, loosen the string until it is limp.

#### **Step 2:**

Loosen the attachment screw holding the saddle to the bridge plate while holding the saddle in place. Move the saddle in the desired direction a small amount (about 1/16in on the first adjustment and your best guess on subsequent adjustments) and re-tighten the screw.

*[Note: If the saddle will not move forward because it is resting against the attachment screw, you can move the screw to the next hole forward on the bridge plate. This will give you more adjustment range. Also, if you need to move the saddle away from the nut to a position where the attachment screw can no longer clamp the saddle firmly, you can move the screw to the next hole back on the bridge plate.]*

#### **Step 3:**

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Re-tune the string and check the intonation again using the procedure outlined above (check the intonation).

**Step 4:**

Repeat this cycle until each string is properly intonated.

When you're finished with the intonation procedure re-tighten the nut clamps and re-tune the guitar with the fine tuner screws. This will not change your intonation setting.

Since you are changing to a heavier gauge set of strings you should check the curve of the neck. A perfectly set up guitar will have a slight forward bow in the neck. If your neck has more than a slight forward bow you should tighten the truss rod until the bow is slightly forward. If your neck is perfectly straight or back bowed, you should loosen the truss rod until you get a slight forward bow.

If you make a neck adjustment you may have to re-tune the guitar

## **TROUBLESHOOTING TIPS**

Trouble Shooting the Licensed Floyd Rose Tremolo:

Your Bridge should function perfectly if properly installed and properly setup. Here are some things you can check that may be adjusted incorrectly or might be damaged.

**Step 1:**

Check to see if the base plate is sitting parallel with the top surface of the guitar. If it seems to be tilted forward, toward the pickups, then you need to tighten the springs and retune the guitar and check the tilt again. If it is tilted back toward the body of the guitar loosen the springs and retune the guitar. Repeat this procedure until the bridge sits level. NOTE : The spring tension is adjusted by tightening or loosening the big Philips head screws in the tremolo cavity accessed through the back panel.

**Step 2:**

Make sure the nut is attached securely by tightening the nut attachment screws. This is critical for tuning stability.

**Step 3:**

Make sure the string clamps at the nut and bridge are very tight.

**Step 4:**

Make sure the saddle intonation screws are tight.