

How To Install Tune-O-Matic Bridge Posts

Important: Before starting to install the [tune-o-matic](#) bridge posts (or bushings) make sure the neck and fretboard are in their final positions. The position of the bridge on the body is highly dependent on the fretboard and the nut. Since the strings vibrate between the nut and the bridge (the scale length) and since the position of the nut is fixed, the exact position of the bridge will determine the correct scale length.



Step 1: Alignment. Place a long ruler along the side of the fingerboard and extend the ruler onto the guitar body. Then draw a line on the body. Do the same on the other side. You should end up with two lines that are extensions of the fingerboard (see image). The two lines will **not** be exactly parallel to each other since the fretboard is tapered (narrower at the nut and wider at the body).

(Note that in this case the body has not been finish-sanded yet so I'm not worried about pencil marks. If your guitar body is sanded to receive its finish, then I suggest placing making tape on the body and drawing the lines on the tape.) Draw two lines that extend from the fingerboard (line was made bolder in Photoshop)



The two lines extending from the fingerboard (lines were bolded in Photoshop)

Step 2: Find the bridge position. By knowing the scale length, you can now calculate the exact location of the bridge saddles. Place a long ruler on the fretboard and align it with the center line. The scale length on this guitar is 25", so the 25" mark is placed at the location of the strings over the eventual nut.

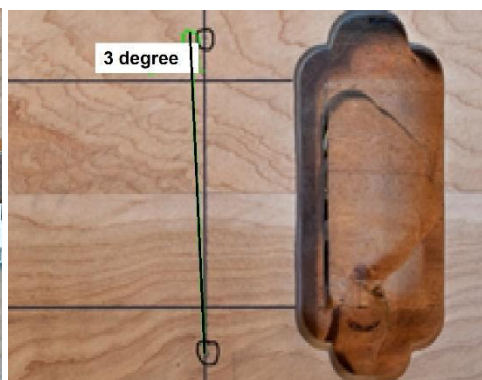


Place a ruler on the fretboard

A scale length of 25" means that the 12th fret will be at 12.5" from the nut and 12.5" from the bridge, meaning the half-way point.

Check the distance at the 12th fret. It should be half of the scale length

The exact position of the bridge saddles can now be located. Before placing the bridge under the ruler and in order to allow for intonation compensation (later during tuning), **bring all the saddles at their most forward positions (as shown in the image below) and align them under the ruler.**



The bridge must now be aligned between the two fretboard lines; you can easily do this by eye, use a ruler or better yet, place a string along the treble E and bass E paths and align the bridge that way.

Once the bridge is aligned for scale length and between the fingerboard lines, then mark the locations of the bridge posts using a pencil.



Identification of the exact location of the saddles according to scale length
On some bridge models, there may not be enough “saddle-room” for correct intonation at the bass-end of the bridge. In that case, it is common practice to shift the bass-end of the bridge a few mm away from the pickups. You can do this by rotating the bridge by **3 degrees** around the treble post (see the green line in next figure). This is optional but popular. Mark the positions of the posts (lines and circles bolded in Photoshop)

Close up view of post positions

NOTE: the line draws on the body is not the scale length but rather it marks the position of the bridge posts.

Step 3: Drill the holes. Before starting to drill any holes, determine the depth of the holes. Use one of the bridge posts to estimate the depth and place masking tape to identify the depth. Hint: it's better to drill a slightly deeper hole rather than a slightly shallower hole.



Mark the depth of the hole on the drill bit with tape

Before drilling, make sure the body is extremely-well clamped-down and will not move during drilling. A drilling mistake at this stage of the build can be disastrous for the guitar body and the guitar builder's mind!

Note: check your measurements one more time... make sure the saddles will align with the scale length!



Drill the bridge post holes



Step 4: Verify. At this stage it is wise to check the depth of the holes and also the final alignment. Check the depth

Compare the depth of bridge post holes with posts

Final alignment verification... everything fits well. Do not install the posts yet if the body is not ready for assembly because removing the posts will be nearly impossible and will damage the holes.



Check the fit of the bridge onto the posts
The tailpiece is usually 2" behind the bridge.



https://youtu.be/Zabgw_RBC-I

<https://youtu.be/36aeJI-H9lY>