

Assembly Instructions	
Virzi Tone Producer	
Rev: 11/1/07	Pt# 390

**CAUTION:** The Tone Producer is delicate and can be easily cracked. Leave it banded to the installer plate until you are ready to install it. When using the installer plate to hold the feet in place, store the Tone Producer in a safe place away from your workbench.

- Do NOT DISCARD the installer plate that comes with the Tone Producer until the installation is completed.
- On F5 and A5 mandolins, the forward support of the Tone Producer fits between the tone bars. This forces the Tone Producer to be positioned off center, toward the bass side of the instrument. On the F4 mandolin, the Tone Producer is likewise positioned toward the bass side of the instrument but because this model does not have longitudinal tone bars, disregard any references to fitting the supports to the tone bars. (See instructions for installing in F4, reverse side.)
- Correct positioning of the Tone Producer's feet, especially the distance back from the bridge's centerline, is very important in order for the Tone Producer and mandolin to perform properly. Carefully follow these instructions.
- The original version of the Virzi Tone Producer had a small pin inserted through the soundboard and into the rear foot of the Tone Producer. We do not feel this is necessary when using contemporary glues.

•If you are planning to tap-tune this instrument (F5/A5 only), adding the Tone Producer will lower the frequency of the soundboard by a whole tone. This typically results in the bass bar becoming a G<sub>b</sub> and the treble bar becoming a G<sub>#</sub> after the Tone Producer is installed. It is best to not compensate for this by tuning the tone bars higher as it will result in the soundboard being too stiff. Re-check the tuning after the Tone Producer is added to compensate for any minor inconsistencies (any cents sharp or flat). You can try to alter the tone bars after the Tone Producer is installed, but it is difficult to access the tone bars with the Tone Producer in place. The lower tuning will add "warmth."

**Installing the supports:**

The support "B" has two feet and goes toward the peghead end of the instrument.

Draw a pencil line across the inside of the soundboard from the inside center point of one *f*-hole to the inside center point of the other *f*-hole. (This is the centerline on which the bridge should rest.) Next, draw another line across the soundboard, between the two tone bars that is 1/2" (12.5mm) back (toward

the tailpiece) from the centerline you just drew for the bridge. This second line is the centerline on which the forward support will be centered, and it will be referred to here as line "X" (see Fig. 3, other side).

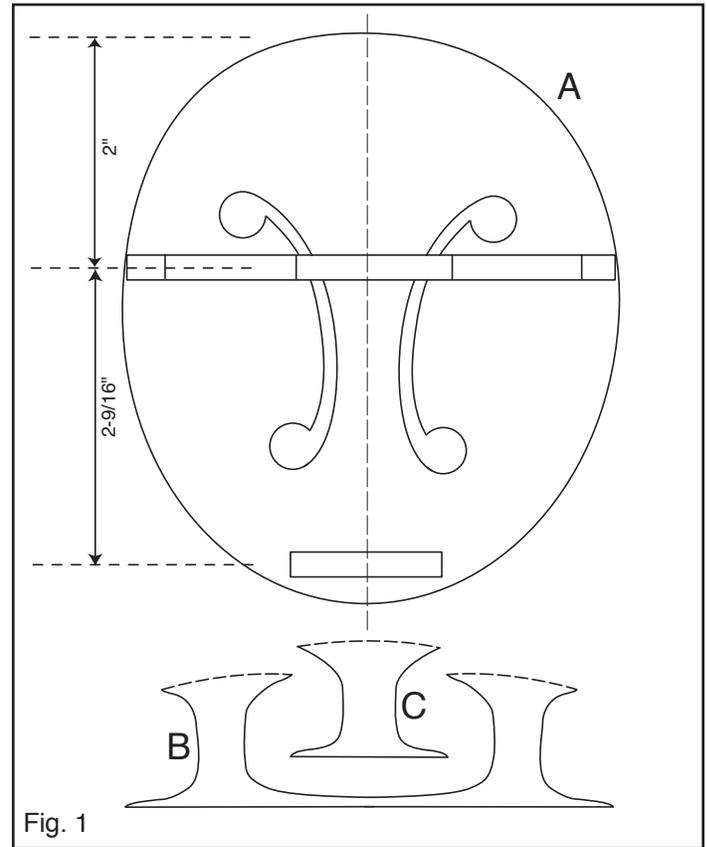


Fig. 1

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Fit the support "B" to the inside of the soundboard by carefully sanding the curved portion of the feet until they match perfectly to the inside of the soundboard. Note that the soundboard is curved both side to side and front to back here. Ensure that the support's feet are centered on line "X" and that the support stands vertical once the feet are sanded. The tips of the feet might have to be shortened slightly to fit up to, and between the tone bars. Mark the support to indicate which side faces toward the peghead.

Now find the center of line "X" and measure its distance to the center seam of the soundboard. We will call this center point "Y." (This distance should be about 7/16" [11.1mm] but the exact distance will vary according to the thickness of your tone bars and exactly where you glued them to the soundboard.) Mark another spot on the soundboard near the tailpiece that is the same distance you just marked, and draw a straight line from "Y" to this point. You will now have a line that is parallel to the center seam of the soundboard. Now mark a point on this line that is 2-9/16" (65mm) from line "X." This is the center point for the rear support "C."

Fit support “C” to the inside of the soundboard by carefully sanding the curved portion of the foot until it matches perfectly to the inside of the soundboard. Ensure that the foot is centered on its point and that the foot is standing vertical. Mark the support to indicate which side faces toward the peghead.

With the instrument face down, place both feet on the soundboard and lay the installer card on the bottom of the supports to check that the Tone Producer will be level across and down the length of the instrument. If not, make adjustments to the feet that contact the soundboard (not the flat bottom of the support) until the axis of the installer plate is aligned to the axis of the rib assembly, soundboard, etc. The plate should hang horizontally, in both axis. You can check the square of both feet by placing the Installer Plate on one foot and raising it slightly above the other foot to see how they are both aligned (Fig. 2).

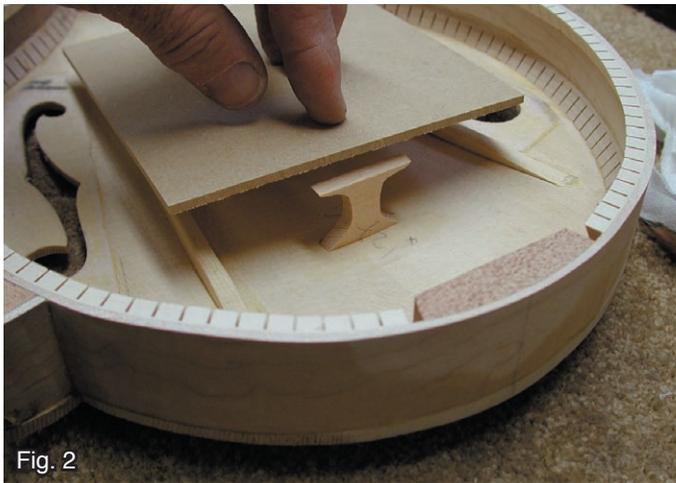


Fig. 2

**Attaching the feet:**

Place a thin bead of Franklin Titebond Cement® (do not use Crazy Glue® or similar glue) on the feet.

Place the feet on their centerlines on the soundboard. Place the Installer Plate on the supports and add a moderate weight (for example, the weight of a can of soda) on top of the installer plate to apply pressure to the glued surfaces. Ensure that the feet have not moved or are leaning. Leave the assembly to dry for at least 24 hours (do not try to move it).

**Attaching the plate:**

With the supports glued in place, position the Tone Producer on top of the supports so that the names “VIRZI Tone Producer” are facing the soundboard and are toward the peghead. As shown in Fig. 1, the leading edge of the Tone Producer extends 2” (50mm) beyond the centerline of the forward support.

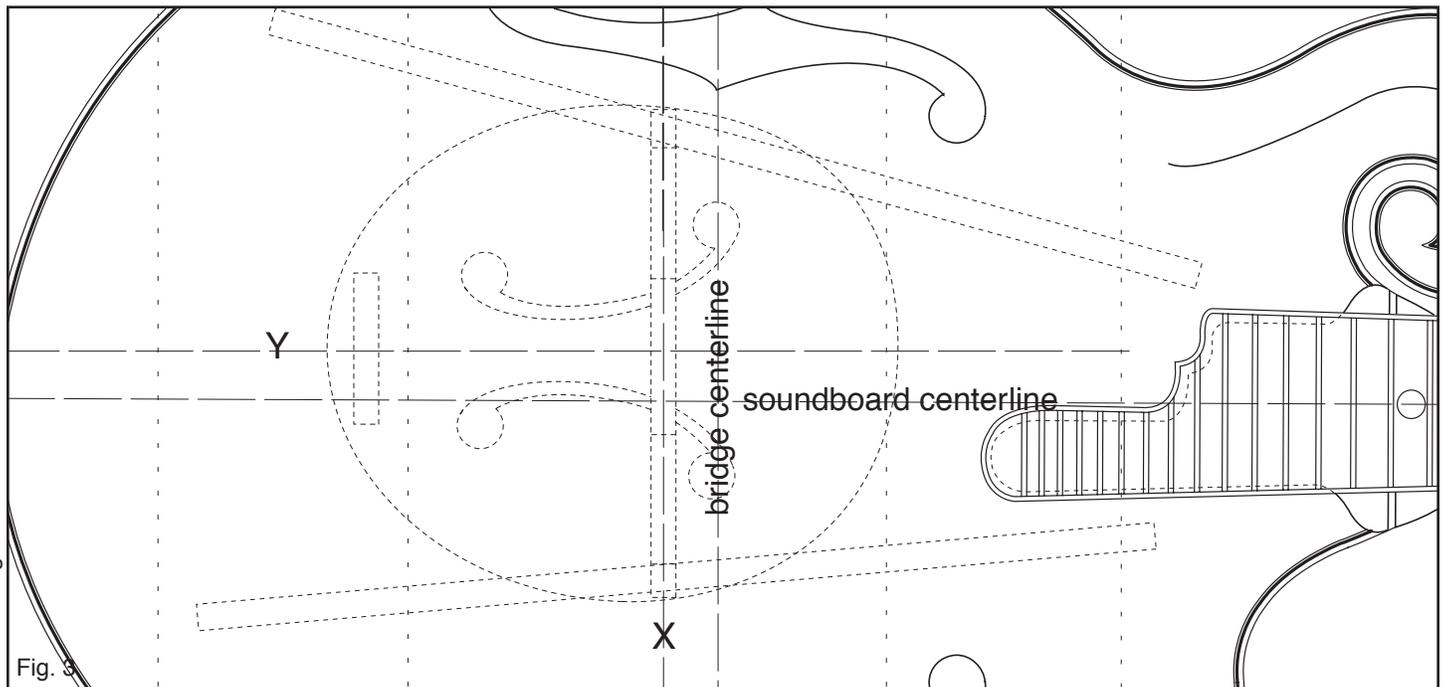
Check that the Tone Producer will fit properly to the supports. Carefully sand the bottom of the supports to make them square to each other. Place a thin bead of Titebond Cement on the bottom of the support, place the Tone Producer on the supports, and gently press it in place to ensure it does not slide later. Put the installer plate on top of the Tone Producer being very careful that the Tone Producer does not slide around. Place the weight you used previously on the installer plate. Leave the assembly to dry for at least 24 hours (do not try to move it).

**Installing on F4 mandolins:**

On F4 mandolins, line “X” is drawn 4-3/4” (120.6mm) from the butt heel of the outside of the rim (where the tailpiece attaches). All other measurements are the same.

**Installing the label:**

The Virzi label gets glued to the backboard, inside the treble f-hole on F5/A5 mandolins and inside the oval soundhole, to the left, on F4 mandolins.



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Fig. 3