

## JLS Flute Scale Story Stick (#242053)

Subtle differences in the position of keyholes have a great effect on intonation, responsiveness and overall performance of an instrument. The Flute Scale Story Stick is a simple two-piece tool that allows technicians to accurately locate, measure and analyze the exact positioning of tone holes along the entire length of the flute body.

*Fig. 1:*

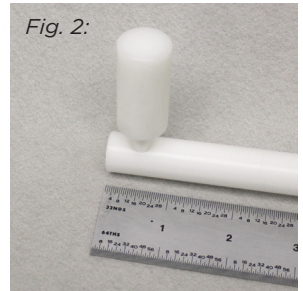


### Instructions:

The Flute Scale Story Stick consists of two essential parts: the Story Stick Rod and the Tone Hole Center Finder.

1. Detach the Tone Hole Center Finder from the Story Stick Rod. Note that the Tone Hole Center Finder is convex and fits into the concave thread hole located .5 inches from the end of the Story Stick Rod (Fig. 2).
2. Before inserting the Story Stick Rod into the flute body you can align it to the tone hole you intend to measure using your thumb as a depth guide (Fig. 3-4).
3. Gently insert the Story Stick Rod into the flute body from the footjoint end.
4. Match the concave thread hole to the center of the tone hole being measured (Fig. 5).

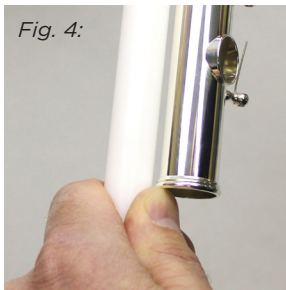
*Fig. 2:*



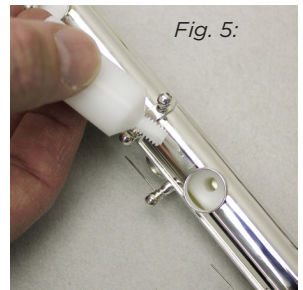
*Fig. 3:*



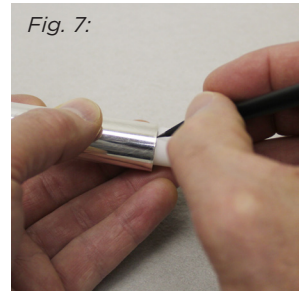
*Fig. 4:*



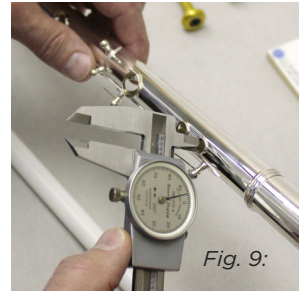
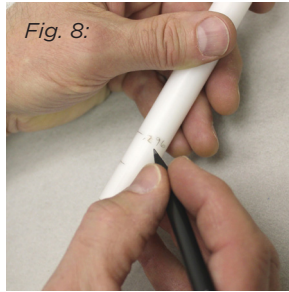
*Fig. 5:*



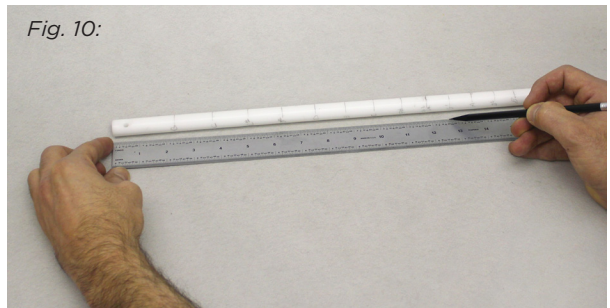
5. Gently thread the Tone Hole Center Finder into the Story Stick Rod until it fits snugly against the tone hole (Fig. 6). (Do not overtighten.)



6. Use a fine pencil to mark the distance on the Story Stick Rod at the end of the footjoint (Fig. 7-8). You may also want to record the name of the key and inside diameter of the tone hole on the Story Stick. Use a dial caliper to measure the i.d. of the tone hole (Fig 9). (Pencil marks are easily cleaned off afterward using a mild citrus-based cleaner.)



7. Once tone hole positions are marked, a mechanical ruler can be used to measure the exact distances from the precise end of the Story Stick and calculated by subtracting .5" (Fig. 10). (.5" represents the distance from the end of the rod to the center of the threaded hole.)



8. You can measure and record the distances or put them in a spreadsheet file for safekeeping.

	A	B	C
1	<b>Flute Scale Analysis:</b>		
2			
3			<i>Model Y</i>
4	<b>Location</b>	<b>Hole diam. (in)</b>	<b>Location (mm)</b>
5	trill 1	0.295	17.23
6	trill 2	0.295	16.64
7	LH C	0.295	15.85
8	Thumb	0.532	14.67
9	Bb	0.532	13.90
10	A	0.532	13.01
11	G1	0.532	12.15
12	G2	0.532	11.30
13	G#	0.532	11.30
14	F#	0.558	10.34
15	F	0.558	9.25
16	E	0.558	8.21
17	D	0.558	7.06
18	D#	0.615	5.84
19	C#	0.615	4.52
20	C	0.615	3.24
21	B	0.615	1.80
22			