

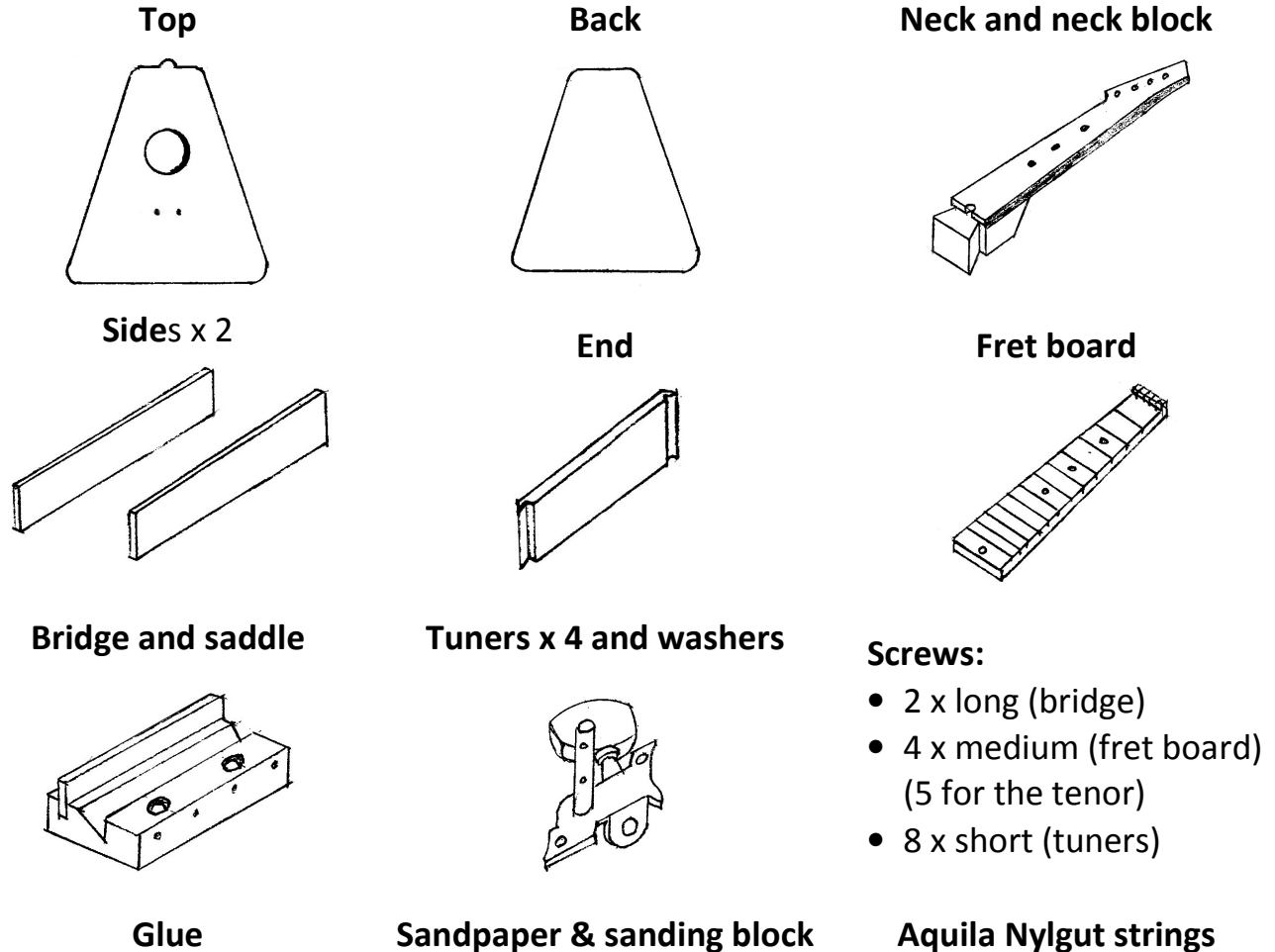
# Wolfelele Ukulele Kit

## Assembly Instructions



Build! Learn! Play! Smile!

### Kit Components:



### You will need:

- #1 (small) Phillips head screw driver
- Flat, hard work surface (e.g. table or kitchen bench)
- Scissors
- Sharp pencil
- Damp rag
- Plastic film – use the bag from the kit.

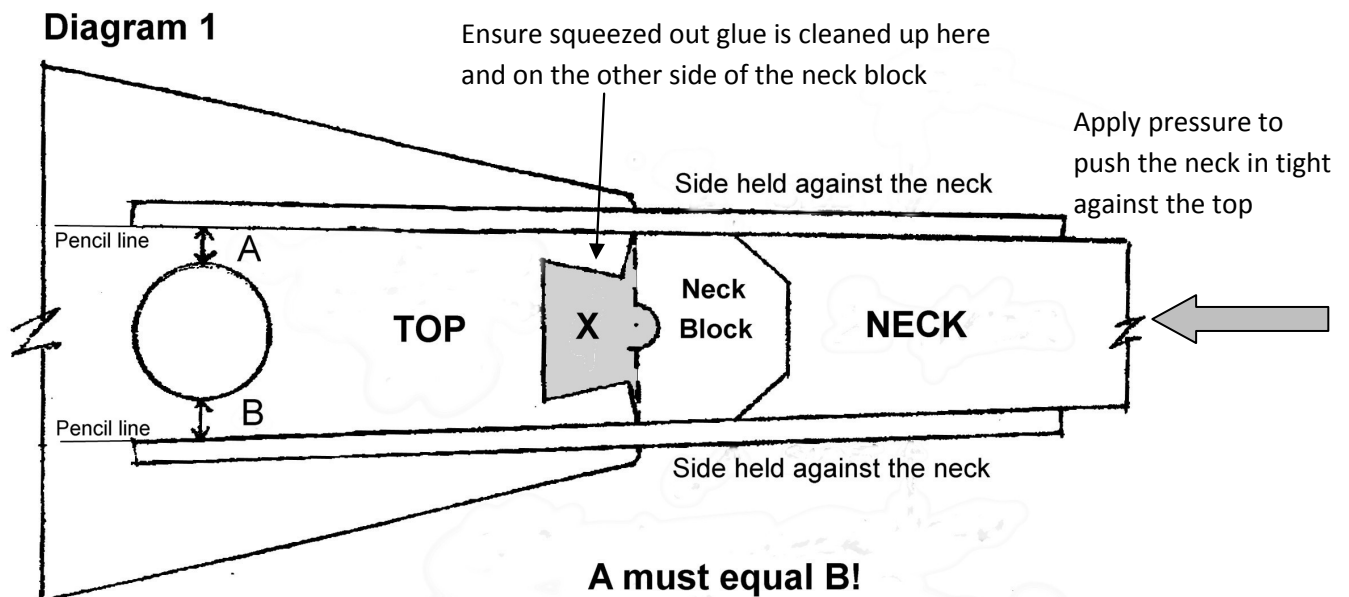
### Glue - Important Points!

1. The glue supplied with the kit is Franklin Titebond Original, used by professionals to build stringed instruments.
2. Don't apply too much glue! A thin layer is all that is needed. A little glue squeeze out of the joints is OK.
3. Glue can be spread with a tool such as the blade of a knife, or a matchstick.
4. Titebond starts to set about 5 minutes after it is applied. Make all adjustments in this time.
5. Before it sets, the glue is soluble in water and can be cleaned up with a damp rag.
6. Apply firm and steady pressure to joints as the glue sets. Too much pressure can cause parts to move out of alignment.

A pictorial guide to assembly can be found at [www.scorpex.net/Uke/Wolfpics.pdf](http://www.scorpex.net/Uke/Wolfpics.pdf)

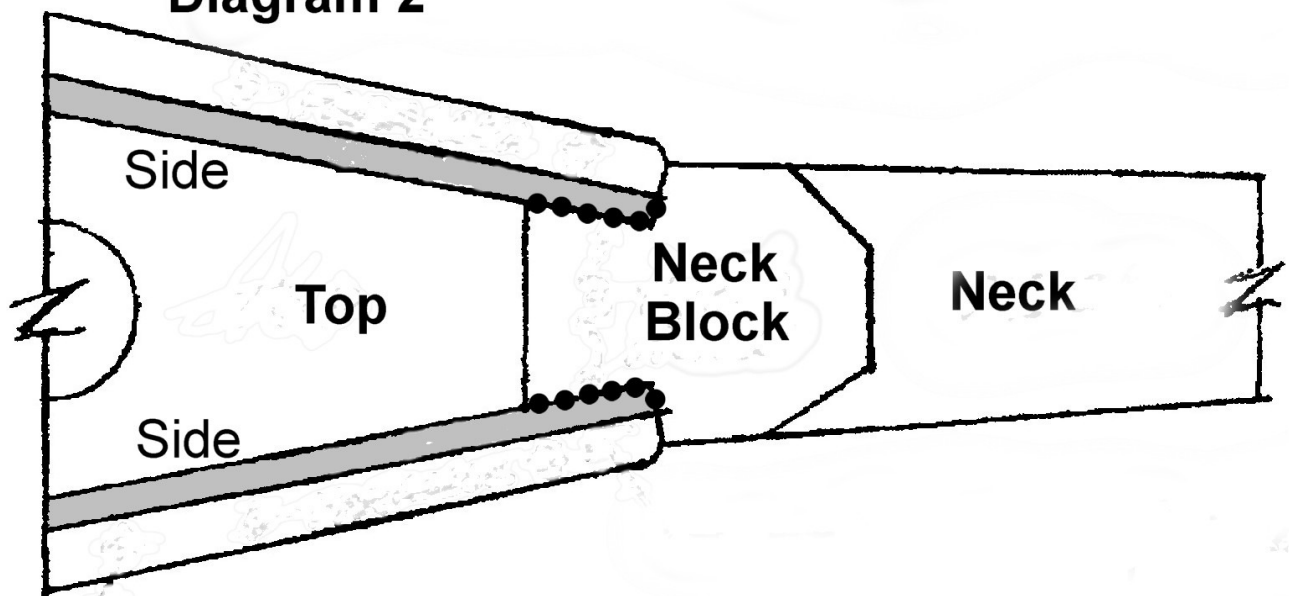
## Making Your Wolfelele

1.	<b>Prepare work surface</b>	<p>a. Place plastic film on the work surface. Make sure that the plastic film is flat.</p> <p>b. This film will stop the <b>Wolfelele</b> sticking to the work surface when gluing is carried out.</p>
2.	<b>Glue TOP to the NECK</b>  Refer to diagram 1	<p>a. Take the <b>NECK</b> and <b>TOP</b> and check how they fit together. The small bump on the narrow end of the <b>TOP</b> fits into a recess in the <b>NECK</b>, like two pieces of a jigsaw puzzle. The <b>NECK BLOCK</b> is already attached to the <b>NECK</b>.</p> <p>b. Get the two <b>SIDES</b> ready – you won't be gluing them yet, but they are used as important tools while gluing the <b>TOP</b> to the <b>NECK</b>.</p> <p>c. One side of the <b>TOP</b> has pencil marks and a piece of wood on it. Place the <b>TOP</b> on the work surface so that the pencil marks and piece of wood face upwards and the bump is over the centre of the plastic film on your work surface.</p> <p>d. Place the <b>NECK</b> in position on the <b>TOP</b> without glue.</p> <p>e. Mark the outline of the <b>NECK BLOCK</b> on the <b>TOP</b> with a pencil where the two parts overlap.</p> <p>f. Place a thin layer of glue on the <b>TOP</b> where it overlaps with the <b>NECK BLOCK</b> (inside the pencil mark made in the step above, corresponding to the shaded area marked <b>X</b> in diagram 1).</p> <p>g. Place the <b>NECK</b> in position on the <b>TOP</b>, over the glued area.</p> <p>h. Hold the <b>SIDES</b> against the <b>NECK</b> as shown in diagram 1 and align the inner edge of the <b>SIDES</b> with the pencil marks on the <b>TOP</b>. The distances at <b>A</b> and <b>B</b> from the sound hole to the <b>SIDES</b> must be the same. Make sure that the sides do not become glued to the neck or top!</p> <p>i. Making sure that the alignment is maintained and the <b>NECK</b> and <b>TOP</b> are flat on the work surface, apply firm pressure on the top of the <b>NECK BLOCK</b> for at least five minutes. Make sure that the <b>NECK</b> is pushed in tight against the <b>TOP</b>.</p> <p>j. Clean up any squeezed out glue with the damp rag, especially at the sides of the <b>NECK BLOCK</b>.</p>



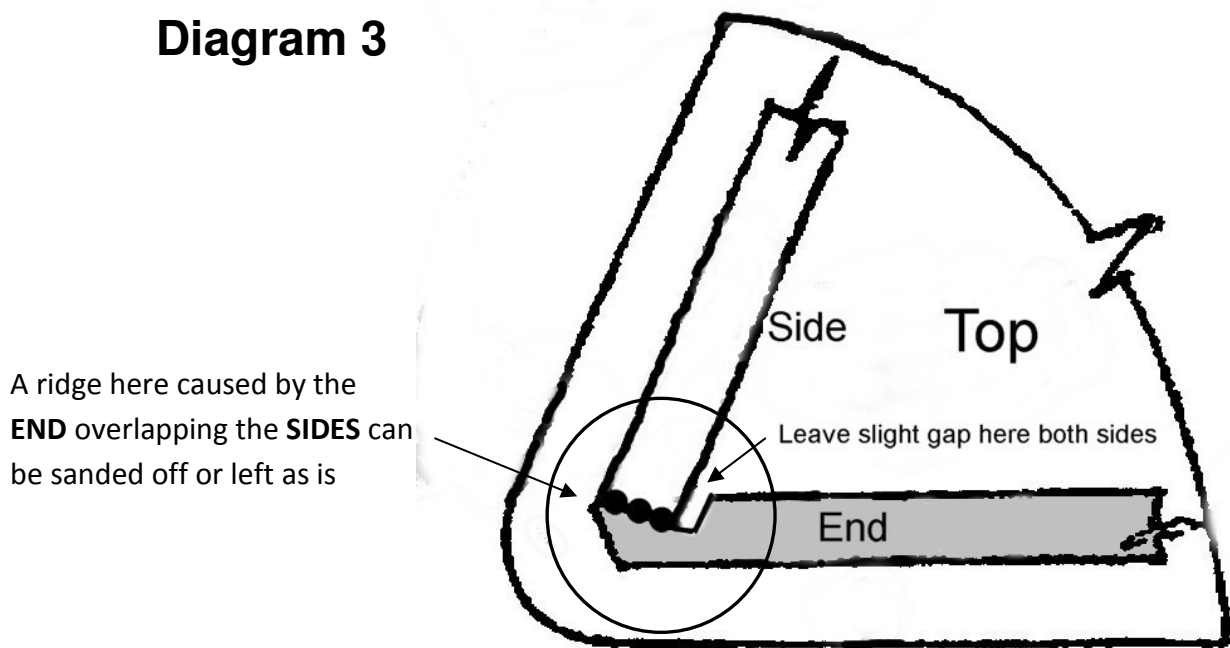
<p>3.</p>	<p><b>Glue SIDES to TOP and NECK</b></p> <p>Refer to diagram 2</p>	<ol style="list-style-type: none"> <li>a. Without using glue, place the <b>SIDES</b> on the <b>TOP</b> as shown in <b>diagram 2</b>. You will see that the <b>SIDES</b> fit neatly in recesses cut in the <b>NECK BLOCK</b>.</li> <li>b. Note the recessed sections of the <b>END</b> designed to cover the ends of the <b>SIDES</b>. The recessed sections of the <b>END</b> must face towards the <b>NECK</b>.</li> <li>c. Now place the <b>END</b> across the two <b>SIDES</b>, without glue. Note – it is best to have a slight gap between the recesses in the <b>END</b> and each <b>SIDE</b> (see diagram 3).</li> <li>d. Make sure that there is an even space between the edge of the <b>TOP</b> and the <b>SIDES</b> all around and that the <b>END</b> sits evenly on the <b>SIDES</b>.</li> <li>e. Mark the outline of the inside of the <b>SIDES</b> in pencil on the <b>TOP</b>.</li> <li>f. Take the <b>SIDES</b> and <b>END</b> off the <b>TOP</b>.</li> <li>g. Make sure that there is no dried glue in the recessed parts of the <b>NECK BLOCK</b>. If glue is present, scrape it out with a sharp knife (refer to diagram 1).</li> <li>h. Apply a thin layer of glue to one of the recessed sides of the <b>NECK BLOCK</b> (dotted line in diagram 2) and a thin, continuous bead of glue to one of the long edges of one of the <b>SIDES</b>.</li> <li>i. Place the <b>SIDE</b> in position with the glued edge down, aligned with the pencil mark made in step 3 e.</li> <li>j. Apply firm pressure on the <b>SIDE</b> against the <b>NECK BLOCK</b> and down onto the <b>TOP</b> for at least 5 minutes.</li> <li>k. Clean up any squeezed out glue on the outside of the <b>Wolfelele</b> with the damp rag.</li> <li>l. Repeat steps 3 g to k with the other <b>SIDE</b>. Make sure that the <b>END</b> will fit between the <b>SIDES</b> before placing the second <b>SIDE</b> in its final position.</li> </ol>
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**Diagram 2**



4.	<b>Glue END to SIDES and TOP</b>  Refer to diagram 3	a. Apply a thin layer of glue to the ends of both <b>SIDES</b> (dotted positions in diagram 3) and a thin, continuous bead of glue to one long edge of the <b>END</b> piece. b. Place the <b>END</b> in position so that the recessed sections face towards the <b>NECK</b> and the glued edge is down. c. Apply firm pressure downwards on the <b>END</b> and onto the <b>SIDES</b> for at least 5 minutes. d. Clean up any squeezed out glue on the outside of the Wolfelele with the damp rag.
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**Diagram 3**



5.	<b>Level off joints</b>	a. Continue working with the <b>Wolfelele</b> upside down, with the <b>TOP</b> and <b>NECK</b> flat on the work surface. b. Using the sandpaper and sanding block provided in the kit, sand the upper edges of the joints of the <b>SIDES</b> to the <b>NECK BLOCK</b> and <b>SIDES</b> to the <b>END</b> to make a flat surface for gluing on the <b>BACK</b> . c. Sand the <b>SIDES</b> to <b>NECK BLOCK</b> joints first as the glue in these joints has had longer to set. Use a small circular or back and forth motion with the sanding block. d. Sand the joints between the <b>END</b> and the <b>SIDES</b> (circled in diagram 3). Again, use a small circular or back and forth motion. Avid stressing the joins if the glue is fresh. e. Ridges at each end of the <b>END</b> if it overlaps the <b>SIDES</b> can be sanded off now or after the <b>BACK</b> is glued on.....or left as is (refer to diagram 3). f. Remove sanding dust from inside the uke and the top edges of the <b>SIDES</b> , <b>NECK BLOCK</b> and <b>END</b> with the damp rag.
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6.	<b>Glue BACK to the SIDES, NECK and END</b>	<p>a. Place a thin, continuous bead of glue on the top edge of the <b>SIDES</b> and <b>END</b>. Also place a thin layer of glue on the <b>NECK BLOCK</b> where it will be covered by the <b>BACK</b> (do not place glue on the <b>NECK BLOCK</b> any further towards the <b>NECK</b> than the ends of the <b>SIDES</b>)</p> <p>b. Note that one side of the <b>BACK</b> is stamped with the <b>Wolfelele</b> logo. This side faces down during the building process.....it will be inside the uke when it is finished.</p> <p>c. Carefully place the <b>BACK</b> on the <b>SIDES, NECK BLOCK</b> and <b>END</b> so that it is aligned with the <b>TOP</b>. Alignment is best carried out by looking straight down on the uke from above. The narrow end of the <b>BACK</b> (nearest the <b>NECK</b>) should be placed level with the ends of the <b>SIDES</b> in the <b>NECK BLOCK</b>.</p> <p>d. Maintain firm even downwards pressure on the <b>BACK</b> for at least 5 minutes, with most pressure at the <b>NECK BLOCK</b> and the corners where the <b>SIDES</b> and <b>END</b> meet.</p> <p>e. Pick the <b>Wolfelele</b> up and check for any gaps. Apply more pressure to particular areas as necessary to close up gaps. Wipe off any excess glue with the damp rag.</p> <p>f. Small gaps can be filled by squeezing in more glue.</p>
<p><b>Congratulations! You have finished building the body of your uke! You may like to decorate your Wolfelele now. See the separate pages on decoration.</b></p>		
7.	<b>Install TUNERS</b>	<p>a. Place the <b>Wolfelele</b> so that the headstock (the end of the <b>NECK</b> away from the body – it has holes drilled in it) sticks out over the edge of your work surface. The plastic on the work surface can now be discarded.</p> <p>b. Place a <b>TUNER</b> post through the hole in the headstock closest to the body. Align the holes in the <b>TUNER</b> base plate with the screw holes in the headstock.</p> <p>c. Fasten the <b>TUNER</b> to the headstock with two small screws, using your Phillips head screwdriver. Support the headstock with your free hand while doing this.</p> <p>d. Install the remaining three <b>TUNERS</b>, using the same steps.</p>
8.	<b>Install FRET BOARD</b>	<p>a. Turn the <b>Wolfelele</b> over so that the <b>TOP</b> is facing upwards.</p> <p>b. If necessary, sand the join between the <b>NECK</b> and <b>TOP</b> with the sandpaper and sanding block provided in the kit to get a flat surface. Use small back and forth movements parallel with the neck.</p> <p>c. The <b>FRET BOARD</b> has a small piece of wood across it at one end that has four slots cut in it. This piece of wood is called the nut. Remove the protective plastic sleeve from the nut.</p> <p>d. Place the <b>FRET BOARD</b> on the <b>NECK</b> with the nut closest to the headstock.</p> <p>e. Align the screw holes in the <b>NECK</b> and <b>FRET BOARD</b> and ensure that the edges of the parts are aligned.</p> <p>f. Insert and tighten the middle screw that holds the <b>FRET BOARD</b> to the <b>NECK</b> (second from the headstock on the tenor). Insert and tighten the other screws that go into the <b>NECK</b>. Do not use glue to attach the <b>FRET BOARD</b>.</p> <p>g. Insert the last screw in the hole in the <b>FRET BOARD</b> furthest from the headstock and screw it into the <b>TOP</b>. This screw will be harder to turn. Make sure that the <b>WOLFELELE</b> is flat on its <b>BACK</b> when this screw is tightened.</p>

9.	Install <b>BRIDGE</b> and <b>SADDLE</b>	<p>a. Align the two screw holes in the <b>BRIDGE</b> with the two holes in the <b>TOP</b>. The small holes through which the strings are tied must be on the side of the <b>BRIDGE</b> that is further from the <b>NECK</b>.</p> <p>b. Using the two long screws, attach the <b>BRIDGE</b> to the <b>TOP</b>. Make sure that the <b>BRIDGE</b> sits flat on the <b>TOP</b>. Do not use glue to attach the <b>BRIDGE</b> to the <b>TOP</b>.</p> <p>c. The <b>SADDLE</b> fits neatly in the slot in the <b>BRIDGE</b>. Do not glue the <b>SADDLE</b> to the <b>BRIDGE</b>.</p>
10.	Install <b>STRINGS</b>	<p>a. The <b>STRINGS</b> are already attached to the <b>BRIDGE</b>. <b>NOTE</b> – If the <b>Wolfelele</b> is to be played left handed, the <b>STRINGS</b> must be removed from the <b>BRIDGE</b> and replaced in reverse order.</p> <p>b. Place a white washer over each of the <b>TUNER</b> posts on the top of the headstock.</p> <p>c. Place the <b>Wolfelele</b> on the work surface with the <b>TOP</b> up, the headstock on your left and the body on your right. Unwind the strings and remove the string tag.</p> <p>d. Turn the knob of the <b>TUNER</b> closest to the nut until the hole in the post runs across the headstock, parallel with the nut.</p> <p>e. Take the free end of the <b>STRING</b> closest to you on the <b>BRIDGE</b> and thread it into the hole opening in the <b>TUNER</b> post that is furthest away from the <b>TUNER</b> knob.</p> <p>f. Pull the <b>STRING</b> towards you through the hole until the <b>STRING</b> between the nut and the <b>BRIDGE</b> is just taut but not stretched tight.</p> <p>g. Take the excess <b>STRING</b> and wind it clockwise half a turn around the <b>TUNER</b> post. Thread the end of the <b>STRING</b> through the hole the same way as you did in step 10 e and pull the excess through the hole. This stops the <b>STRING</b> slipping on the post and will help keep your <b>Wolfelele</b> in tune.</p> <p>h. Repeat steps 10 d to g for the other <b>STRINGS</b>, making sure that each <b>STRING</b> passes through its slot in the nut.</p> <p>i. Leave the <b>Wolfelele</b> for 12 hours prior to tuning the <b>STRINGS</b> to pitch. With the headstock on your left, the <b>STRING</b> closest to you is tuned to G, the next <b>STRING</b> to C, the next to E and the <b>STRING</b> furthest from you to A.</p> <p>j. To tune a <b>STRING</b>, wind the <b>TUNER</b> knob so that the post turns anticlockwise. Make sure that the <b>STRING</b> winds <u>down</u> the <b>TUNER</b> post.</p> <p>k. When tuning is completed, trim any excess <b>STRING</b> with your scissors.</p> <p>l. The <b>STRINGS</b> will stretch after they are tuned for the first time and some retuning will be needed until the <b>STRINGS</b> settle down.</p>

## Decorating Your Wolfelele

Decoration of your **Wolfelele** can be carried out between steps 6 (Gluing the Back) and 7 (Installing the Tuners).

If you decide to decorate the **Wolfelele** after you have completely finished construction, it is best to undo the strings and remove the bridge, fret board and tuners first. Decorate the **Wolfelele** and then put it all back together again by repeating steps 7, 8, 9 and 10.

Prior to applying a finish, the **Wolfelele** can be rubbed down with sandpaper and/or steel wool. Be sure to remove any glue residues – these can be carefully chipped off with a knife if required. Place newspaper in the sound hole while staining and painting to prevent splashing onto the inside of the **Wolfelele**.

### Ideas for decoration:

- The wood can be stained prior to finishing. Watty! Craftsman stains work well and dry quickly
  - A quick drying spray finish such as Mirotone Spraylac Satin can be applied over the stain to get a natural look.
  - Go crazy with paint or stickers!
  - Contact paper can be applied to the outside of the back, top, sides and end before or after assembly for a special look.....
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### Adjustments and Refinements:

#### 1. Action (gap between the frets and the strings).

- a. To lower the action, loosen the strings and remove the saddle from the slot in the bridge. Sand or shave some wood off the bottom of the saddle and then replace it in the bridge. Tune the strings to pitch.
- b. To raise the action, remove the saddle as described above and insert a thin strip of dense material in the bridge slot. Replace the saddle and tune the strings to pitch.

2. **Neck Thickness.** Some players may like to reduce the neck thickness. This can be carried out by working on the neck prior to assembly, after step 6 or after completion of construction. If the uke is finished, first remove the strings, tuners, fret board and bridge. If working on the neck after step 6 or after complete assembly, ensure that the glue has cured for 12 hours before neck thickness is reduced. To reduce the neck thickness, remove some wood from the back of the neck using a rasp or similar woodworking tool with the uke face down on a flat surface. Fill any voids or gaps and sand the neck smooth to the desired profile prior to finishing. Do not reduce the neck thickness to less than 10 mm as the ends of the fretboard screws may protrude from the back of the neck.

3. **String Alignment.** If the neck of your **Wolfelele** is not correctly aligned with the body, you will see that the strings are not centred on the sound hole. To remedy this, carry out the following steps:
  - a. Loosen the strings and undo the bridge screws.
  - b. Move the bridge sideways to the point where the strings are centred on the sound hole.
  - c. Mark the top through the bridge screw holes.
  - d. Drill new holes of an appropriate size for the bridge screws. Make absolutely certain that the new holes are the same distance from the neck as the old ones.
  - e. Reattach the bridge using the same screws into the new holes in the top and tune the strings.
4. **Left handed playing.** As discussed in the instructions, the strings must be removed from the bridge and tuners and reversed if the **Wolfelele** is to be played left handed.
5. **Strap.** The end of the Wolfelele is thick enough to take a strap pin screw. Another strap pin can be placed in the back of the neck block. Alternatively, straps can be attached to the uke with a lace around the headstock between the nut and the first tuner.
6. **Pickup.** Pickups can be fitted to Wolfeleles during construction. A hole must be drilled through the bridge to fit a piezo pickup under the saddle.

**Thank you for choosing to build a Wolfelele Ukulele Kit.**

**We hope that it has been a rewarding experience.**

**Please send any feedback to [ukulele@scorpex.net](mailto:ukulele@scorpex.net)**

**The lyrics and ukulele chords for many songs can be found at**

**[www.scorpex.net/Uke](http://www.scorpex.net/Uke)**

**HAVE FUN!!**

*Wolf Kater and family*

*Richard G*