



## Tenayo TK-UK-1, 2, 3 und 4

# Ukulele: Facts, Manual & Introduction

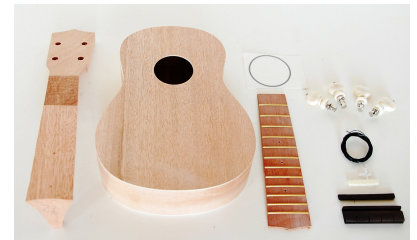
Text und photos by Michael Koch

The Ukulele was invented and brought to Hawaii until the end of the 19. Century by a Portuguese named João Fernandez. But the name Ukulele („jumping flea“) the 4-, 6- or 8-stringed instrument still got there. The native people meant the fingers were jumping while playing the small instrument. In Northern America the Ukulele got more and more popular while the 50's. It was used most of the time by playing „Skiffle Music“ – which has its roots in the American Folk, Country and also the Blues or Jazz-Music. In Germany the Ukulele was actually used by the very famous entertainer Stefan Raab who increased the popularity a lot. **Tenayo** presents currently four different kits with a very high quality standard. They vary in because of several woods, the assembling level and for sure the price in relationship to that.



The **TK-UK-1** is an easy KIT for nonprofessional instrument builders. The already finished body of the instrument consists of laminated lime (in relationship to the production line it could be also mahogany), the fretboard (all frets are still assembled) is made of rosewood and the neck with the headstock consist of mahogany too. All woods are pretreated and must be only sanded a little before the instrument will be finished completely.

**TK-UK-2** KIT has an already finished body too but this one is made of massive mahogany. The fretboard (all frets are still assembled) is made of rosewood and the neck (including the headstock) consist of mahogany. Both KITS can be oiled after the assembling has finished – if you prefer that way. And both KITS include the well composed body, a fretboard (with still assembled frets), four tuners, four strings, nut and tail-bridge, a binding (water sticker) for the soundhole and screws for fixing the tail-bridge. All colors can differ in relationship to the production line.



In complement the **TK-UK-3** KIT consists of an already assembled body including the neck which was still glued onto it. Body and neck are made of basswood. All woods are pretreated and must be only sanded a little before the instrument will be finished completely. The KIT includes body and neck, four tuners, four strings, nut and tail-bridge, a binding for the soundhole and screws for fixing the tail-bridge. All colors can differ in relationship to the production line.

The **TK-UK-4** is a KIT for the more experienced hobby instrument builders and has to be framed of using many different parts which are included. Although the body is nearly already finished the soundhole binding must be added and the bindings of the ribs - which connect to the top - too. All wooden parts are made of massive mahogany – except the fretboard which consists of rosewood. Beside the dot markers the frets have to be set into the fretboard too. The KIT includes body, neck, fretboard, frets, bindings, four tuners, four strings, dots, nut, bridge and screws for fixing the bridge.



M A R K E T I N G

## Tools and materials, which are well needed for assembling the *Tenayo* Ukulele KITS...

- Rasp, file and sandpapers with different granulations for the sanding of stick out wood parts and for smooth grinding
- 1 wooden block for sanding
- High quality wood-glue for all the wooden parts
- Wood-Cement (for repairings)
- Rubber straps to fix the glued parts
- Some screw clamps and a jaw vise
- Some wooden gores (to prevent damage on any part while fixing)
- 1 small (rubber)hammer or similar
- Sidecutter, flat pliers, a metal file
- Instant glue (for fixing the bridge)
- 1 tape measure or a ruler
- Packthread (for marking)
- 1 pencil and a eraser
- Seersucker adhesive tape
- 1 very sharp cutter
- 1 wood drill
- Optional 2 or 3 wood screws and dowels
- Oil (if the instrument shall be finished with this)
- Wood lacquer and colors (if the instrument shall be finished with that)
- Adhesive tape to prevent the fretboard while lacquering the ukulele



### First steps...



#### Initially body and neck got to be connected.

While doing this you got to care exactly about the placement of the neck in the middle of the body. So it's recommended using the tape measure for help to find out the right point and marking it with the pencil (photo on the left side). Also the surface of the neck got to fit very closely to the top – so that the fretboard can be glued on it without any gap later. Further you should keep attention on the neck is sitting absolutely straight. And please don't save glue!! Later you can eliminate hangers with sand papers. To stabilize the neck construction you can use additional wood dowels (photo on the right side below). But please drill the holes in front of doing that. ((-:

For better fixing while the glue is drying the rubber straps can be used or screw clamps - together with wooden gores so that the body and neck will be not damaged. After drying (min. 24 hours) stick out wooden part should be removed with the cutter, rasp, file and different sandpapers so that the all surfaces and descents get maximum smooth.



M A R K E T I N G

## Mounting the fretboard and hewing the neck...



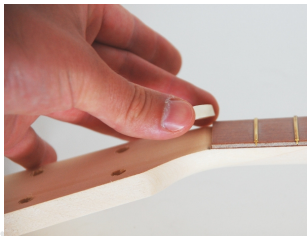
Also here you got to count on that everything has to be placed exactly straight and in the middle – and don't be miserly with the glue too!! It's really helpful taking the pencil and the ruler to bring on some marks which are needed. At the descent from the headstock to the neck there must be about 3 to 5mm distance to glue the nut in at the same place later (photos on the right side). After gluing the fretboard onto the neck you should fix it with the screw clamps and some wooden gores (preventing damages on the wooden parts and the frets) on about three or four points. Drying is about 24 hours. After this time you can remove them. Now you can remove carefully stick out wood parts of the neck on each side of the fretboard with the rasp, file and the different sandpapers. While doing this you should always take care on keeping the shape of the neck organic and round. The neck should also feel very smooth and comfortable after that.



### Assembling the frets on the **TK-UK-4 KIT**

*On this KIT the frets must be fretted into the fingerboard. This should be done before gluing the fretboard onto the neck surface. All the fret wires which are included in this KIT shall be cut off to their right length with the sidecutter - in relationship to their position on each slit in fretboard. After that they can be hammered with the rubber hammer into the slits on the fretboard. If you use another hammer you should place some rubber or plastic between the frets and your preferred tool so that the surface of the frets will not be damaged. The fret wires have barbed hooks on their underside. Take care: If they are engulfed for the first time in the fretboard you cannot change their position again without damaging the wood. If you want to fix the frets eternally you can add a little instant glue before hammering them into the fretboard. It is also very important that you care for both of the ends of the frets – they should not stick out or build sharp edges. So it is recommended to handle them carefully at each end with a small metal file. If you like to ask a professional guitar constructor about that – this will be also helpful...*

## Mounting the nut and the bridge...



Assembling the nut, this is the small piece at the headstock on which the strings run over later, is very easy. It will be glued onto the place on the headstock close to the edge of the fretboard (photo on the left). The round side of the nut shows to the end of the headstock. After that the bridge has to be mounted on the top of the body. To fix it you can use the instant glue. The **TK-UK-3** KIT does also include two wood screws for fixing the bridge onto the top.

**Attention:** The distance between the nut and the saddle (which takes place on the bridge) has to be exactly the double like the distance between the inside edge of the nut and the inside edge of the 12. fret (2. Photo on the left side)!!! The bridge itself must also take place in the middle of the top so that the

strings don't run out aside the fretboard later (photo on the right). Before fixing anything you should take your ruler and a pencil to mark all the exact positions.



M A R K E T I N G



### Last works, fine sanding and the finish...

On the most of our KITS you got to assemble the dots (the fret markers) onto the fretboard. Often it's enough to put them into the pre drilled holes with your thumb, a finger or a hard object. Only within an emergency situation you shall use a hammer. ((-: If you like to fix these dots for eternal please use the instant glue again. If there are still sharp edges you can use some sandpaper to flatten the dots. After that the whole instrument has to be handled with different sandpapers until it feels smooth to your contentment or like a genuine little baby bot. ((-:

*Around the soundhole of the **TK-UK-4** KIT the binding has to be assembled. These are the black and white stripes included in this KIT. These stripes have to be glued in the slit around the soundhole. You will need some skills to work in the binding. In which way you like to combine the different stripes you only need your fantasy. It is also helpful to take a look at the binding of other instruments. Like with the dots sharp edges and stick out part shall be handled with different sandpapers until the surface gets smooth.*



Included in all the other KITS there are water stickers with the image of a soundhole binding. Fixing them is very easy. You only got to put them into soft warm water. Later the binding can be covered with lacquer (photo on the left).

If in the end all sandpaper work has finished all wooden parts can be oiled or finished with color and lacquer. Oiling can be done with a standard natural plant or olive oil or special oil only for woods. For this you will only need a cotton rag. But you should repeat that whole thing a few times within the term of a week (every time after drying) until it feels very smooth for your

contentment or has an effect you like the most. Before lacquering your Ukulele you should ask any professional who is experienced with colors and finishes. And don't forget covering all parts which shall not be stained with color or lacquer (especially the fretboard and the bridge) with seersucker adhesive tape.

### Mounting the tuners...

If all works like the finish or oiling have done and everything has dried the tuners can now be assembled at the headstock of our instrument. How this has to go on you can see very good on the following four photos. Important is that the outer sleeve (photo 2) is engulfed without any space between its rim and the surface of the headstock top. After that step the rather tuner vertebras have to be put on and fixed with ring nut (photo 3).



Please care on that you don't have to fix screw of the tuners (photo 4) too much perhaps rotating them will be too heavy or is not possible anymore.

M A R K E T I N G

## Put on the strings. Possible tunings...

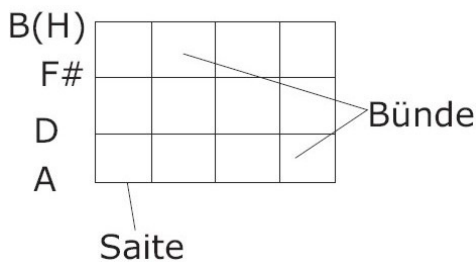


If all works have really finished our Ukulele should now come to life. Now the four nylon strings can be put on the instrument. First fasten the end of each string with knots - two or three times. Now each string should be hooked in with its knot end into the bridge (photo on the left) and shall be lead to the complying tuner at the headstock (following photo on the right side). From which side the strings should be winded up on each tuner can be seen also on this photo. The string end at the headstock can be lead through the holes in the tuner. If the string gets a hold you can rotate each tuner at the backside of the headstock forward or backward (second photo on the right). If your hearing is not perfect you should use a standard chromatic tuner which also reacts on acoustic signals to find out the right frequency of each note.



**One possible tuning for our Ukulele** is an open tuning: A, D, F#, B (H). But there are a lot of

other tunings you can use for your contentment. The open tuning above is good because it is very easy to play some chords with it. Also it reflects the typical sound behavior of the Ukulele.



# MUSIC

## M A R K E T I N G



## Some chords for the Ukulele

The chords sequel below begins with C-Major and will be proceeding logically with G-Major, F-Major and G-Major. As long as you will get back to our first basis chord (in our case: C-Major). This combination which results of a basis chord, 5<sup>th</sup> and a 4<sup>th</sup> chord is the substructure for thousands of popular songs in Rock-, Pop-, Folk-, Blues- and Country-Music. Both – the 5<sup>th</sup> and 4<sup>th</sup> chord – can be changed in order like shown at Variation 2: C-Major, F-Major und G-Major, F-Major and back...

Motto: "3 easy chords – 100.000 different songs..."

### Variation 1:

<b>C-Dur</b>	<b>G-Dur</b>	<b>F-Dur</b>
Leersaitenstimmung	Leersaitenstimmung	Leersaitenstimmung
H (B) ●	H (B)	H (B) ●
F# ●	F# ●	F#
D ●	D	D ●
A ●	A ●	A ●
1. Bund 2. Bund 3. Bund	1. Bund 2. Bund 3. Bund 4. Bund	1. Bund 2. Bund 3. Bund 4. Bund
<b>G-Dur</b>	<b>G-Dur</b>	
Leersaitenstimmung	Leersaitenstimmung	
H (B)	H (B)	
F# ●	F# ●	
D ●	D	
A ●	A ●	
1. Bund 2. Bund 3. Bund 4. Bund	1. Bund 2. Bund 3. Bund 4. Bund	

### Variation 2:

<b>C-Dur</b>	<b>F-Dur</b>	<b>G-Dur</b>
Leersaitenstimmung	Leersaitenstimmung	Leersaitenstimmung
H (B) ●	H (B) ●	H (B)
F# ●	F#	F# ●
D ●	D	D ●
A ●	A ●	A ●
1. Bund 2. Bund 3. Bund	1. Bund 2. Bund 3. Bund 4. Bund	1. Bund 2. Bund 3. Bund 4. Bund
<b>F-Dur</b>	<b>G-Dur</b>	
Leersaitenstimmung	Leersaitenstimmung	
H (B) ●	H (B)	
F#	F# ●	
D ●	D	
A ●	A ●	
1. Bund 2. Bund 3. Bund 4. Bund	1. Bund 2. Bund 3. Bund 4. Bund	

**Surely both Variations can be played in each combination. So please have a lot of fun with your first self constructed *Tenayo* Ukulele!!! (:-)**

M A R K E T I N G