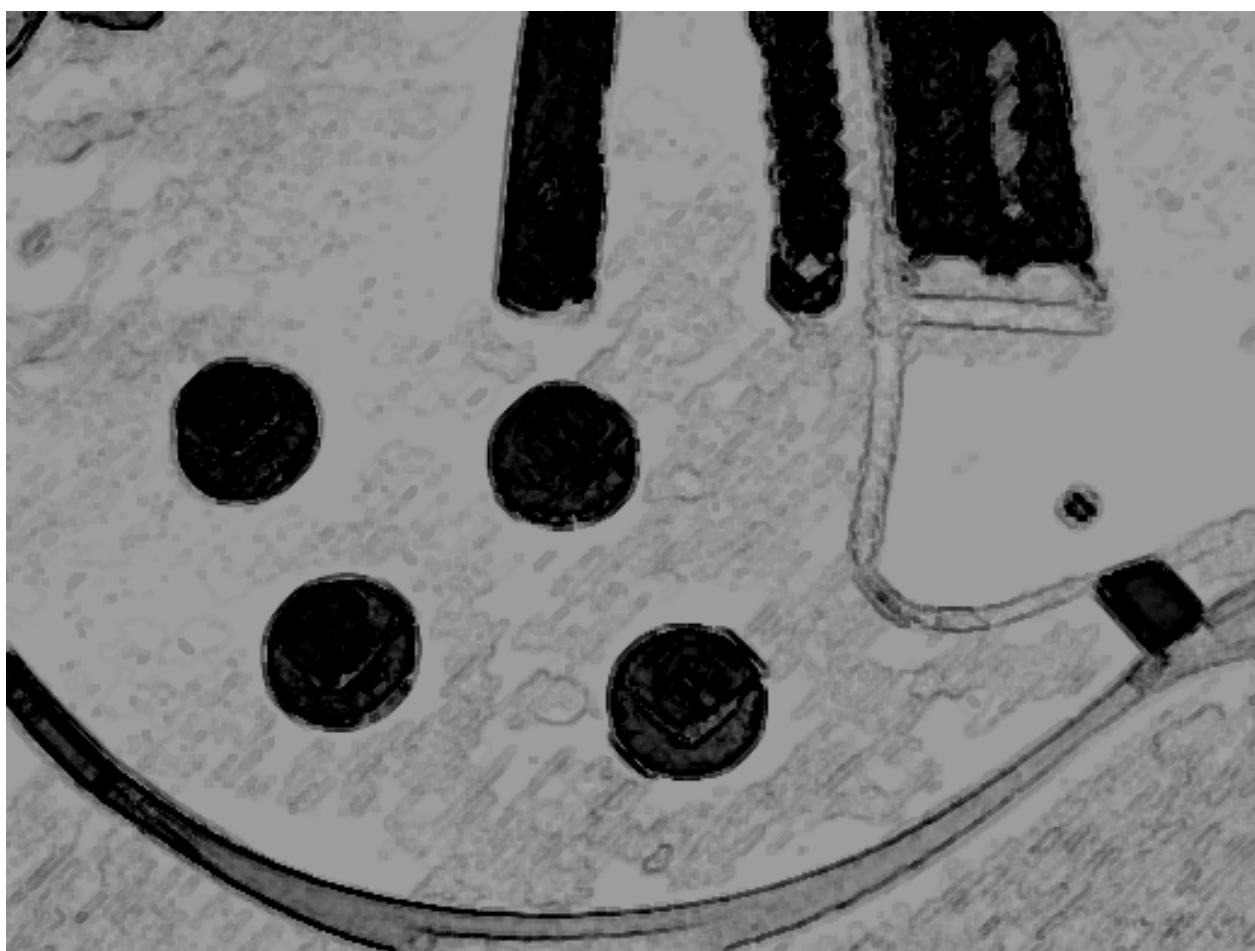


OWNER'S MANUAL

E-GUITAR KIT LP-STYLE



Harley Benton

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Introduction

Thank you for buying the guitar kit. All the wood, hardware and electrical components of the guitar are contained in this package. Please read the following instructions for assembly and finishing.



Body finish

The first consideration to be made before assembling is to choose the preferred finish of the guitar body.

The basswood body of the guitar is sealed and prepared for various types of lacquer coating. A wide variety of finishes can be procured from DIY, timber and automotive outlets in aerosol cans making finishing straightforward without requiring specialist skills. The use of a dust mask is essential when spraying.

The first step is to check the fit of the body to the neck joint. The bass guitar is machined from high-grade tone-woods to ensure optimum alignment. But all woods have a natural propensity to change the shape very slightly over time. If the fit is too tight, a gentle adjustment using a sharp chisel or sandpaper may be required. Please remember that the coating of lacquer will make the neck fit a little more tightly into the cutout.

Before coating the body, ensure that all surfaces are clean and free of dirt and dust. Conduct all coating processes in a well-aired, dust-free environment. Slow and patient progress is the key to a good quality of the body finish and it is recommended to test the colour and technique on a spare piece of wood first.

A hole is drilled in the neck cutout so that it can be suspended by a hook for spraying and drying or alternatively, a spare length of wood can be screwed in place of the neck in the cutout as a handle.

Spray on the edges of the body first and allow the coat to become touch dry. Once the edges are dry, continue on the rear and then on the front of the body. Gradual and smooth passes will ensure an even coat. If there are any imperfections, allow for to become fully dry and then sand out with fine grade (e.g. 800+grit) before re-spraying. Apply three or more coats for full coverage.

Neck finish

The neck of the guitar is supplied sealed with a light coat of matte lacquer and is ready to use. If preferred, the neck can be finished with a colour or gloss lacquer. If so, do the following.

The rosewood fingerboard does not need coating with lacquer, so it is important to mask off the exposed rosewood and frets prior to spraying. Ensure all parts to be sprayed are free from dirt and dust and that the environment is dust-free and well-aired. The use of a dust mask is essential when spraying.

Choose a good quality, clear or lightly tinted wood lacquer aerosol for the neck and begin at the front and sides of the headstock. Start with a gradual, even pass to apply a thin coat, allow drying (to be touchable) and repeat this two or three times. Take care not to apply too much, which may cause runs. If this happens, sand down the area and re-apply evenly.

After the headstock has become dry, turn the neck over and lay it down on its fingerboard. Repeat the above process for the rest of the exposed maple.

Allow two to three days for the lacquer to fully harden and then, if desired, polish the lacquered surfaces to get a suitable shine.

Assembling of tuners

Before attaching the neck to the body, fit the tuning machine-heads to the headstock by inserting the thread through the pre-drilled holes and setting a washer and bush over it. Screw down the bush onto the thread until it fits tightly to the touch and then adjust the rear of the machine-head so that the tuning button sits vertically above the top edge of the headstock.



Tighten the nut on the front face of the tuner until it is firm by using a spanner of the correct size. Repeat this for the remaining five tuners.



Neck

With the body placed face up on a protective surface, position the neck into the neck cutout until it is fully inserted.

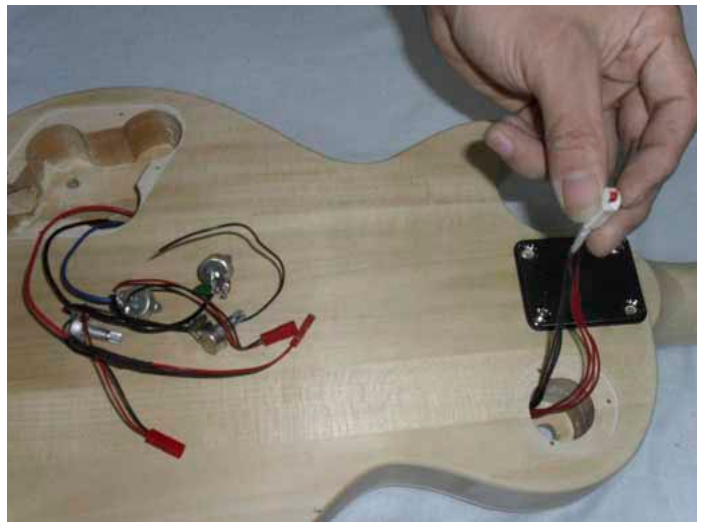
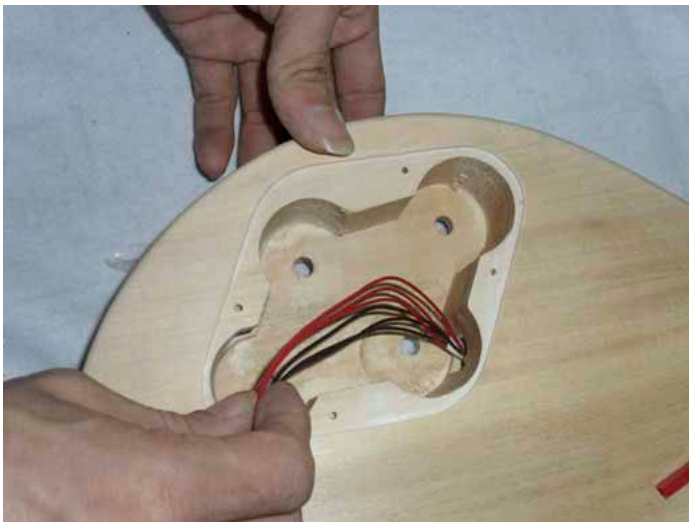


Turn the assembly over and position the neck plate (with its black protective seal) over the four bolt holes at the rear of the body and drive in the four long screws through the neck plate, body and pilot holes in the neck until all fits tightly.

Wiring

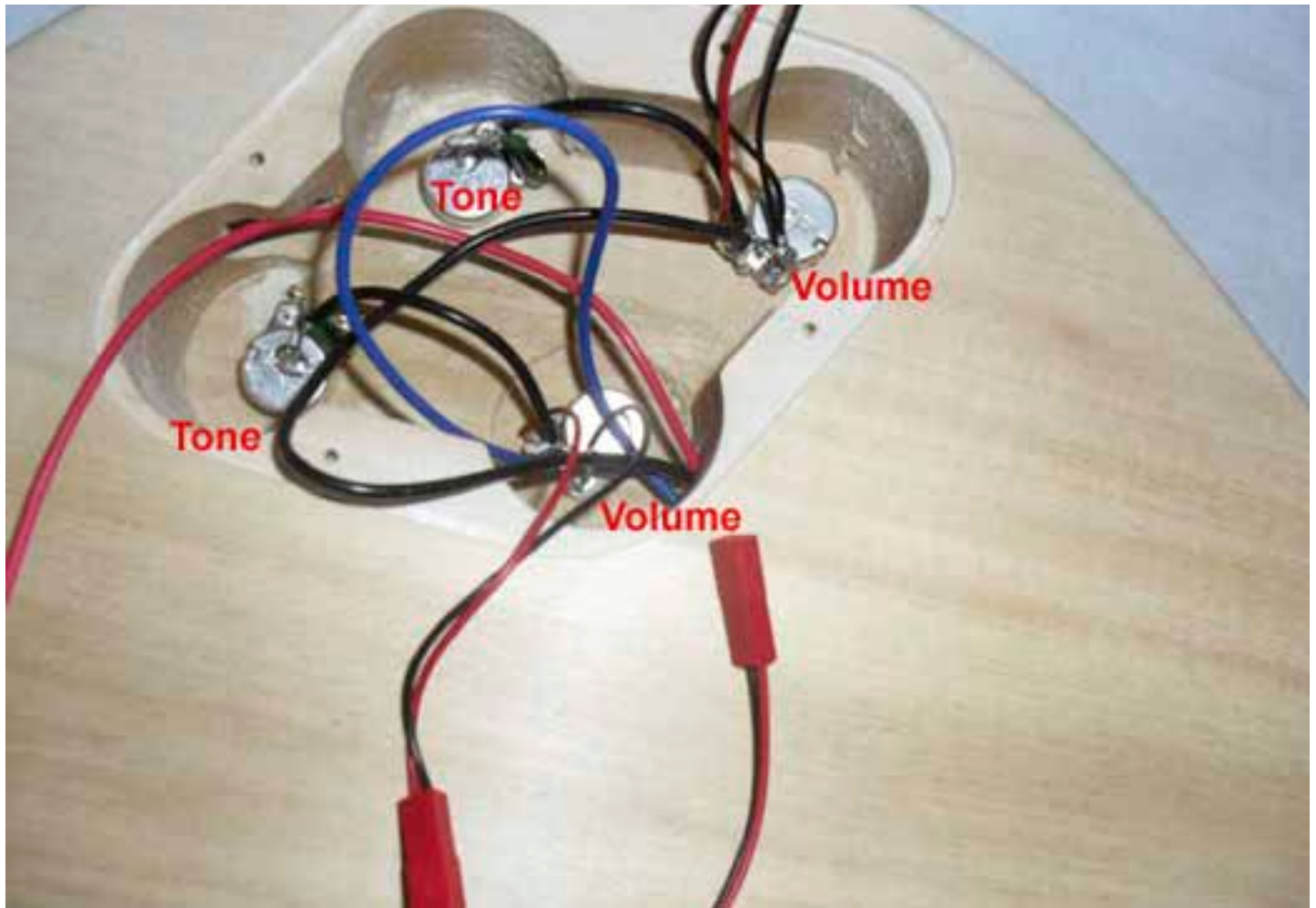
Wiring is implemented as plug-in modules, soldering is not required.

First take out the cables that are to be connected connected to the potentiometers. Put the end with the three connectors into the channel from the control cavity side until they reach the switch cavity.



Wiring

Then put the potentiometers on the right positions as shown in the following picture. The Tone and Volume potentiometers on the downside should be connected to the neck pickup. The Tone and Volume potentiometer on the upper side should be connected to the bridge pickup.

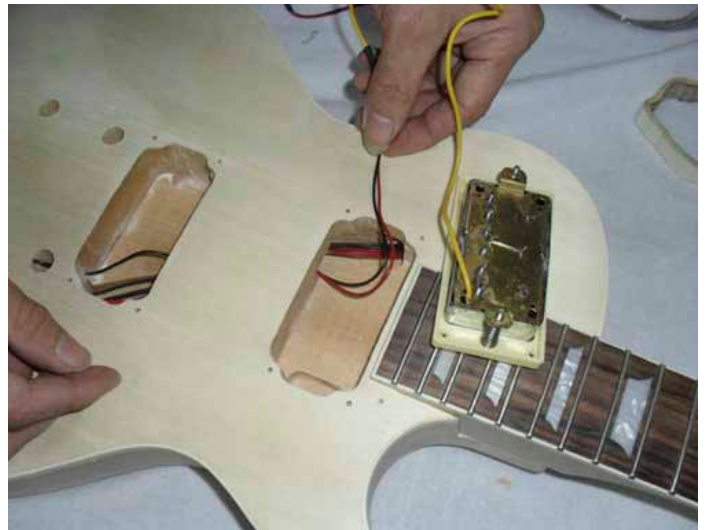
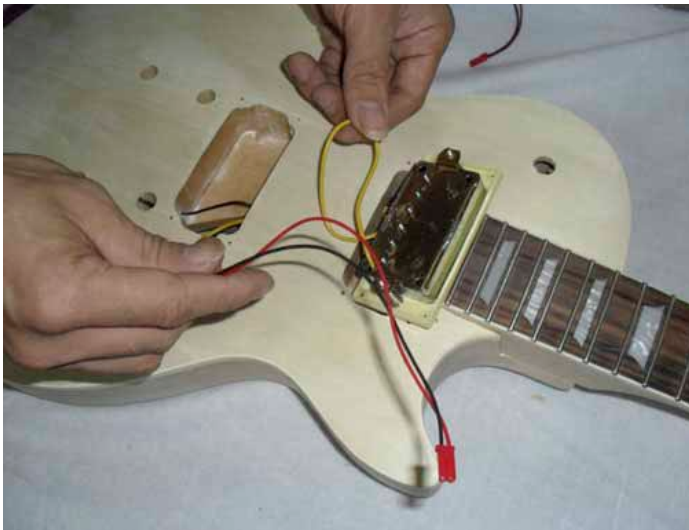


Wiring

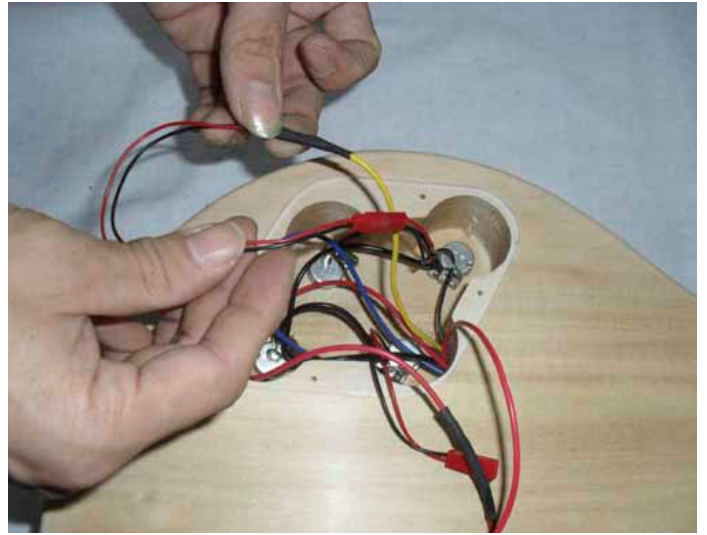
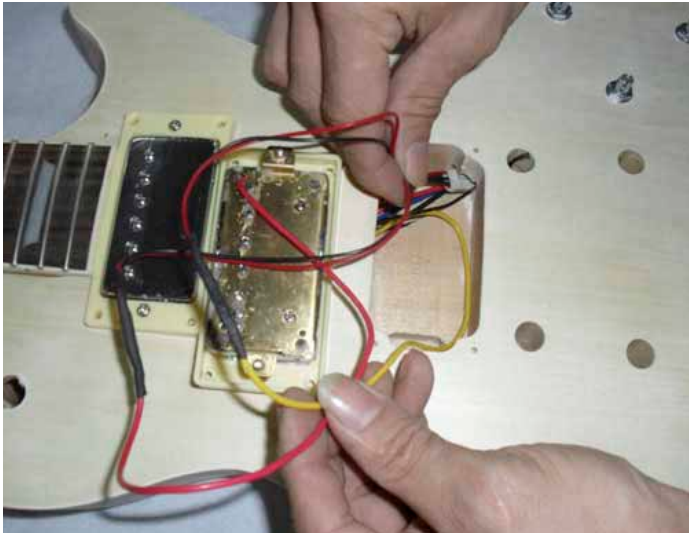
Take out the cable without connector (string grounding cable) and insert it into the pre-drilled bridge hole through the channel. Just leave it in the bridge hole. It will connect to earth when the boots of the bridge are pressed on it. String grounding reduces noise (hum).



Lead the cables of the pickups from the pickup cavity through the channel to the control cavity and connect them to the potentiometers accordingly.

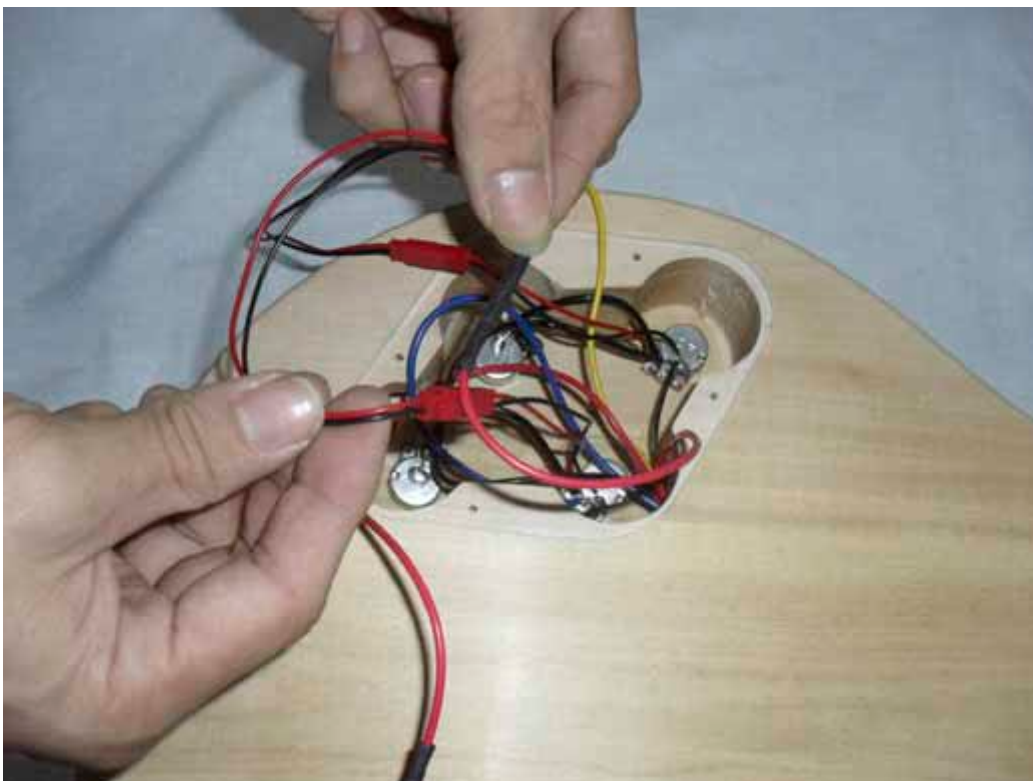


Wiring

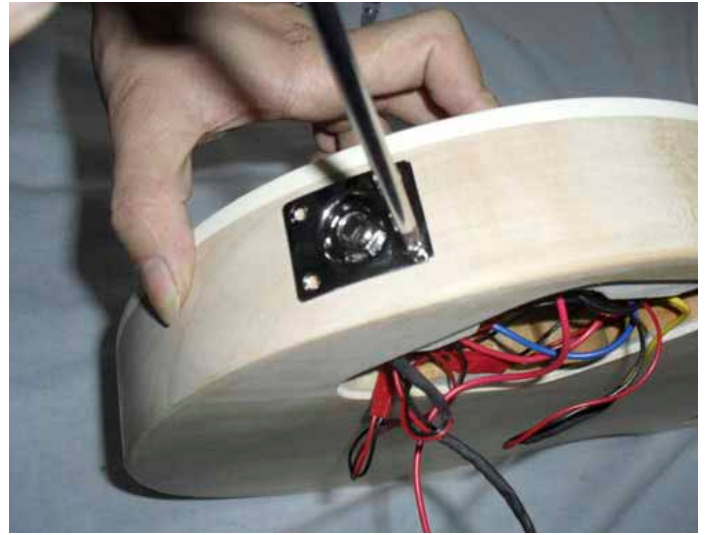
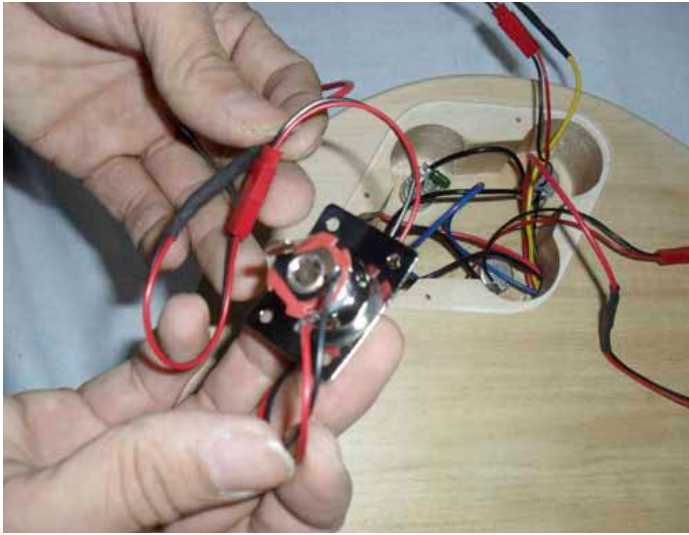


Secure the frames with dome-head screws into the pre-drilled holes.

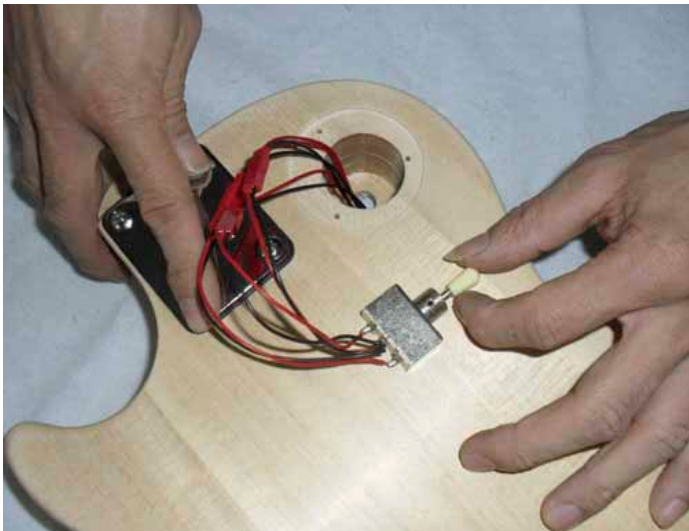
Take out the cable that does not connect to the potentiometers and connect it on the jack plate through the jack hole. Screw the jack plate on the pre-drilled holes.



Wiring



Connect the switch with the three cables coming from the control cavity according to the marking numbers located on the connectors. Put the switch on the right position and fix it from the front side.



The rear body plastic plates now can be fitted to cover the control and switch cavity. Secure the plates with dome-head screws into the pre-drilled holes.



Wiring

Now you can fix the pickguard. This is very simple, just do it according to the following pictures.



Bridge assembly

Use a hammer to knock the threads of the bridge and tailpiece into the pre-drilled holes accordingly, and fix the bridge and tailpiece on the screws.



Put the knob on the shaft of each potentiometer.

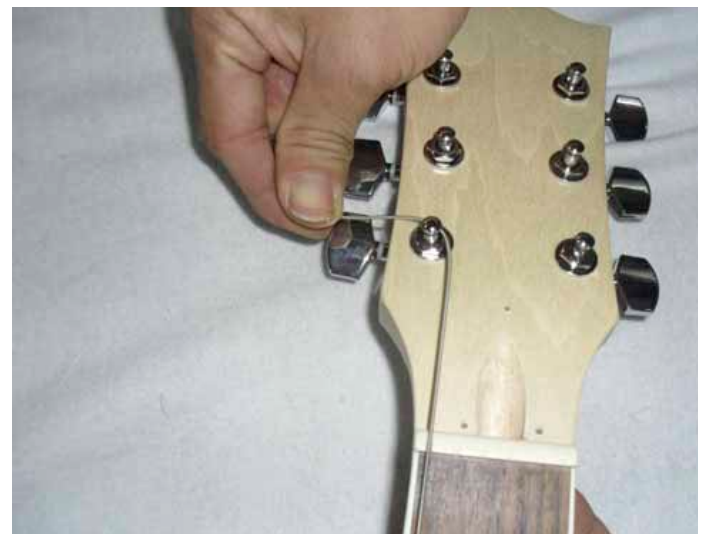
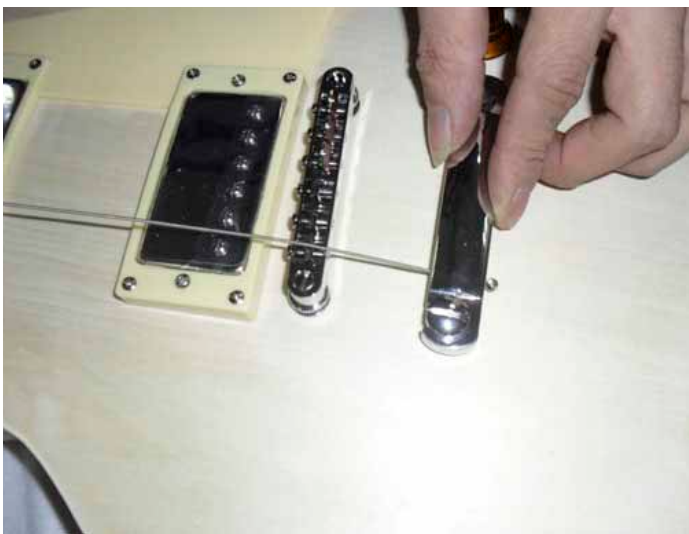
Strap buttons



Screw the strap buttons into the pre-drilled holes at the bottom edge of the body and at the top next to the switch.

Setting up

Fitting strings to the guitar is achieved by threading from the tailpiece to the bridge, emerging through the relevant saddle on the bridge. Start with the thickest string bottom E in the uppermost position on the bridge.



Ensure that the string sits smoothly on its saddle and keep taut whilst winding a couple of turns on the relevant tuner. Thread through the string post and bend the string back on itself to anchor it in place. Apply a little tension from the tuner and move on to the next string. Repeat the above process for all six strings.

Bringing all the strings up to pitch gradually is better achieved with a digital guitar tuner or pitch pipes as a reference. Please be aware that the tension of the strings may take some time to settle and re-tuning a few times might be necessary. Stretching each string gently after reaching the pitch will help to take up slack.

Setting up



The neck is fitted with a truss rod which may need adjusting. When the strings are tuned up, they will try to pull away from the neck, which may mean that the action becomes too high. If this happens, use the larger of the two hex keys provided to gradually tighten the truss rod – a half turn is usually enough and may not take effect immediately – allow the adjustments to settle each time – do not be tempted to over-tighten the truss rod. Sighting along the neck should show a very slight concave tendency which is called “relief” and too straight a neck may lead to “fret buzzing”. Some strings may need to be raised or lowered individually to give the correct action and this can be adjusted using the smaller of the two hex keys provided. For the last step screw the truss-rod cover.



Once the desired action is achieved, all that remains is to set the intonation. After tuning up all the strings, you just have to gently touch a string, right above the twelfth fret and then pick the string. The resulting chime-like sound is a harmonic (12th fret harmonic). This harmonic should have the same pitch as when the string is pressed at the twelfth fret. If the pitch of the two notes differs, adjust the saddle for this string back or forth on the bridge. Listen carefully and adjust gently until the two notes match, to achieve correct intonation. Repeat this procedure on all strings until the harmonics and the fretted notes sound the same.

Please also remember that over time, slight adjustments may need to be made and different gauges of strings will need compensating for in the setup.

The pickup height can now be adjusted for best performance and can be balanced by adjusting the screws at the top and bottom of each pickup. As a general rule, hold down the strings at the 22nd fret and adjust so that the strings are at least 2 mm clear of the pickup. Any pickups that are noticeably louder than others can be made quieter by adjusting them further away from the strings.

For future adjustments, keep these instructions as a reference and enjoy your custom made guitar.

