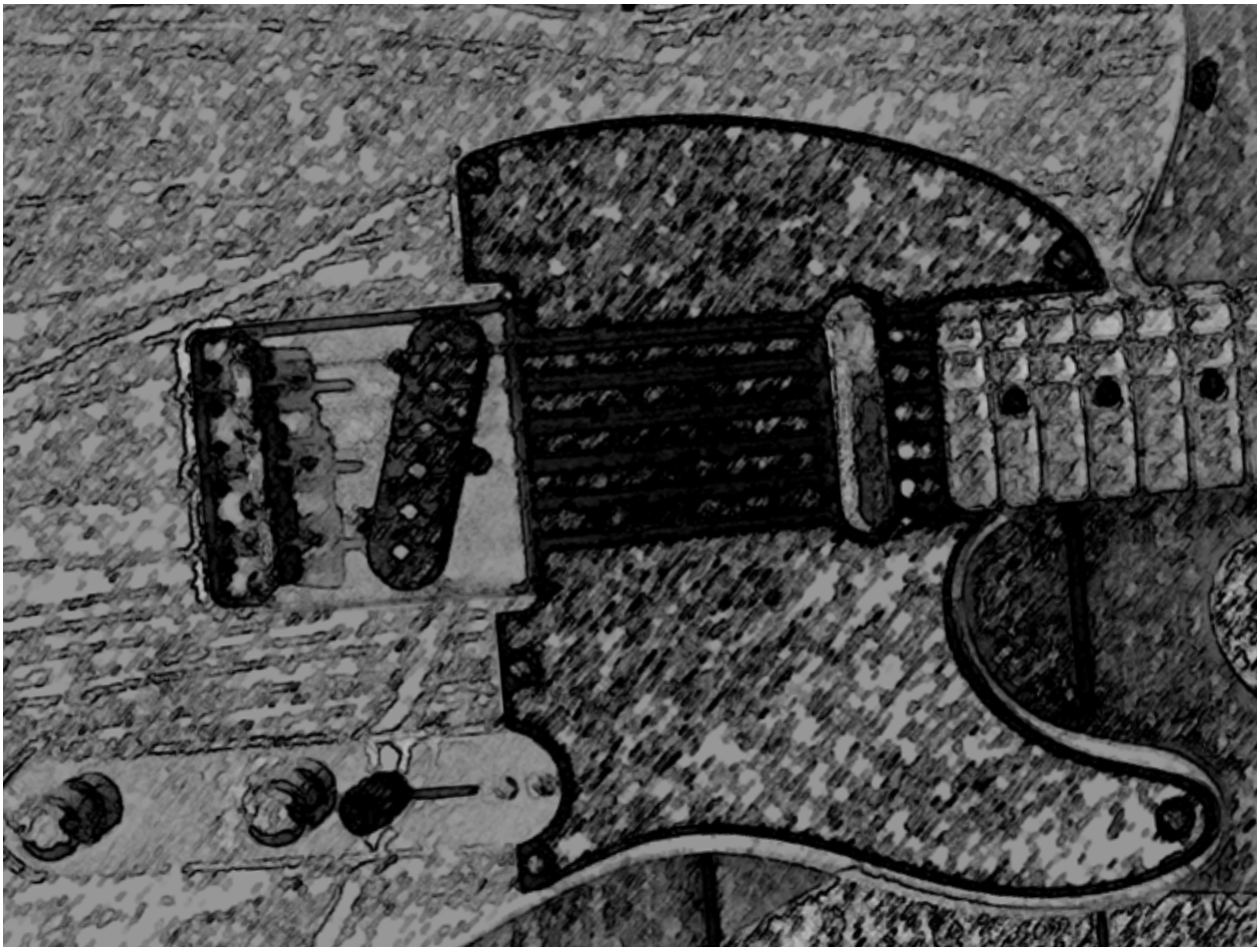
Owner's Manual

E-Guitar Kit T-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 guitar is machined from high-grade tonewoods 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.

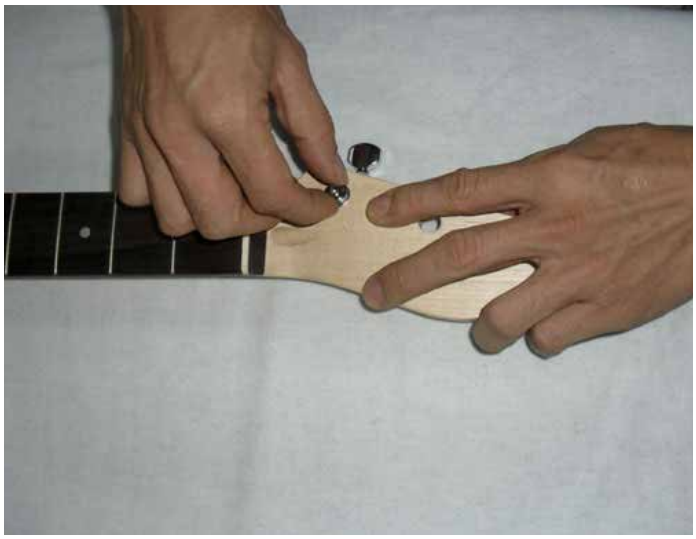
Choose a good quality, clear or lightly tinted wood lacquer aerosol for the neck and begin at the front and sides of the headstock. Start with a gradual, even pass to apply a thin coat, allow drying (to be touchable) and repeat this two or three times. Take care not to apply too much, which may cause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

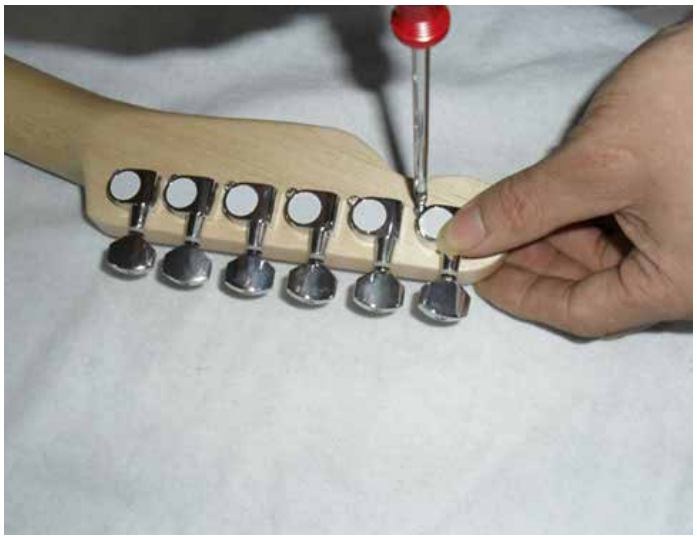
After the headstock has become dry, turn the neck over and lay it down on its fingerboard. Repeat the above process for the rest of the exposed maple.

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

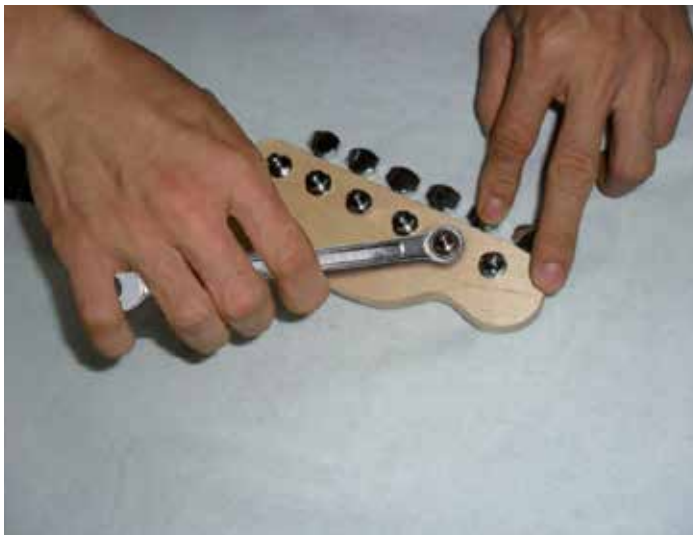
Assembling of tuners

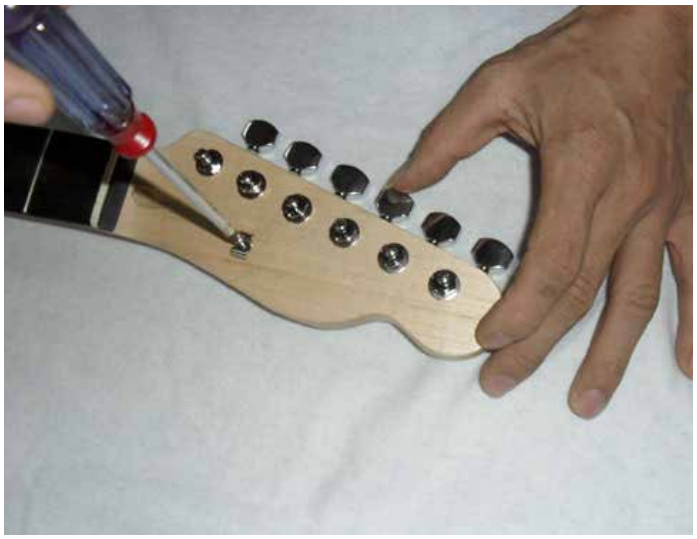
Before attaching the neck to the body, fit the tuning machine-heads to the headstock by inserting the thread through the pre-drilled holes and setting a washer and bush over it. Screw down the bush onto the thread until it fits tightly to the touch and then adjust the rear of the machine-head so that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





Fix the retaining screw through the loop on the rear of the gear housing into the pilot hole to hold the tuner in position. Then 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 and then fit the string tree.





Neck

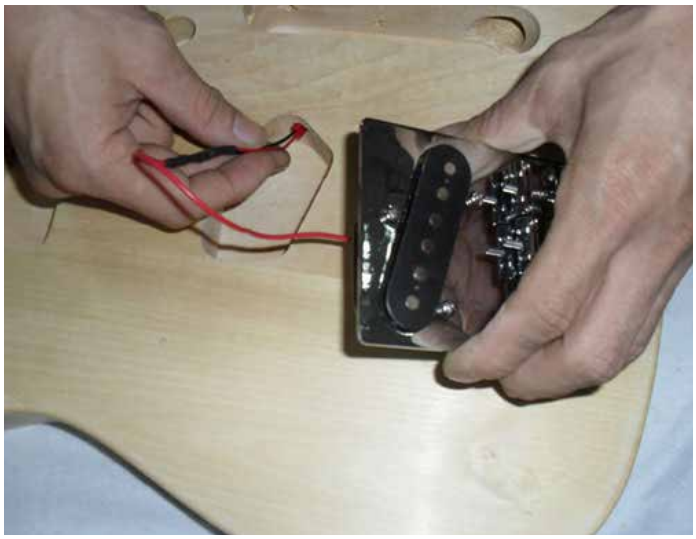
With the body placed face up on a protective surface, position the neck into the neck cutout until it is fully inserted.

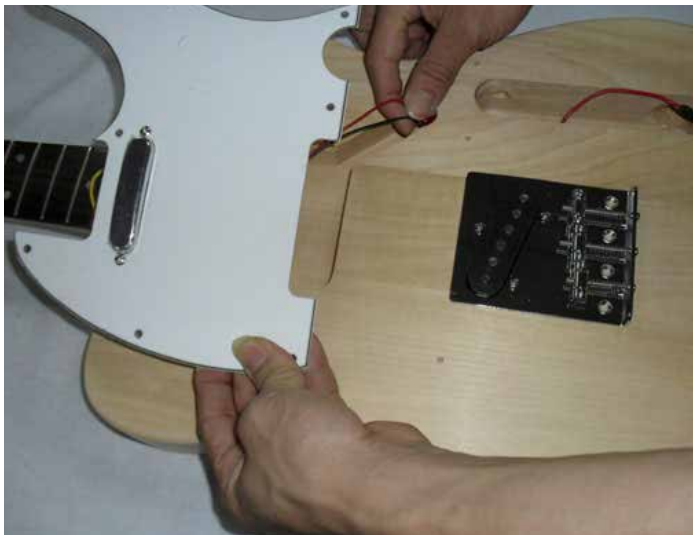
Turn the assembly over and position the neck plate (with its black protective seal) over the four bolt holes at the rear of the body and drive in the four long screws through the neck plate, body and pilot holes in the neck until all fits tightly.

Wiring

The pickups and controls are pre-assembled on the pickguard and simply need to be connected to the output jack socket and earth. Wiring is implemented as plug-in modules, soldering is not required.

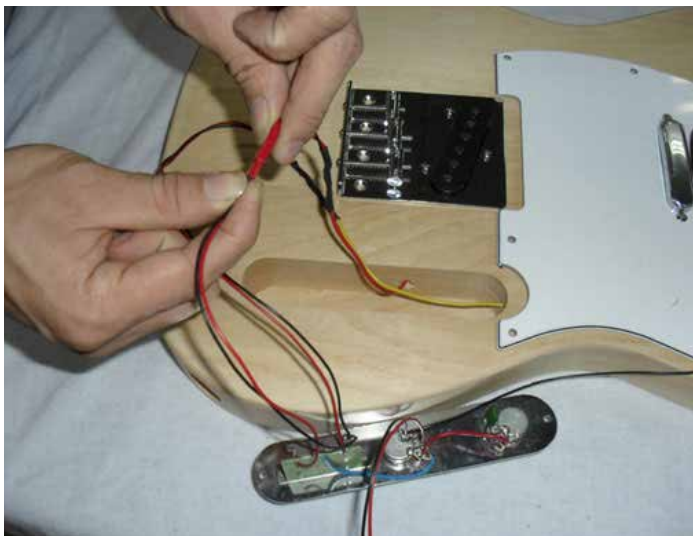
The neck pickup is pre-assembled on the pickguard, however, the bridge pickup is pre-assembled on the bridge. Each pickup has one loose cable. Insert the cable with connector into the small hole in each pickup cavity until it runs through and reaches the cavity of the control panel.

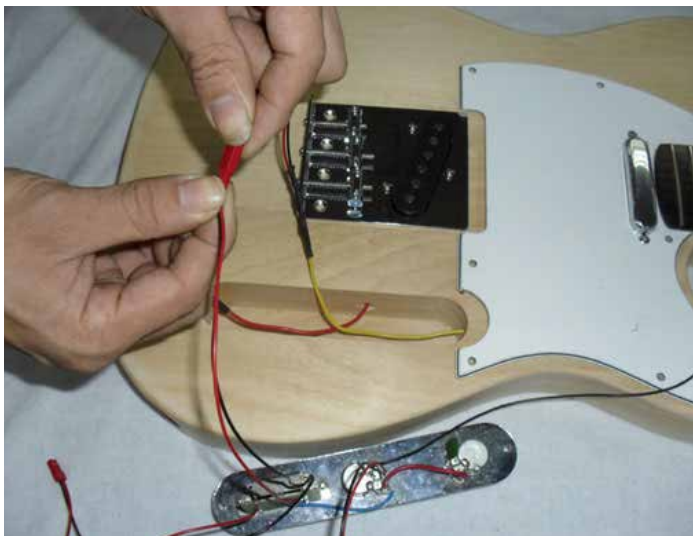




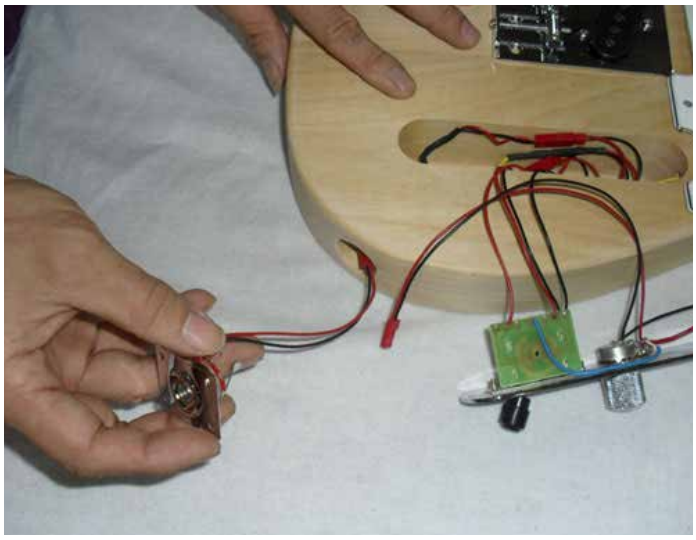
Wiring

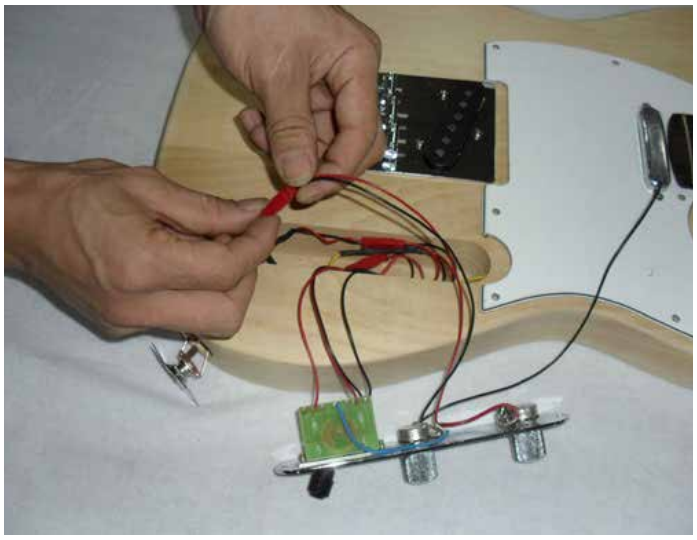
There are four loose cables in the wiring assembly. Three of them have connectors and the other one (the string grounding cable) has no connector. Insert the string grounding cable into the hole leading to the bridge pickup cavity and press it under the bridge. String grounding reduces noise (hum).





Connect the cables of the pickups to the cables which are on the switch.





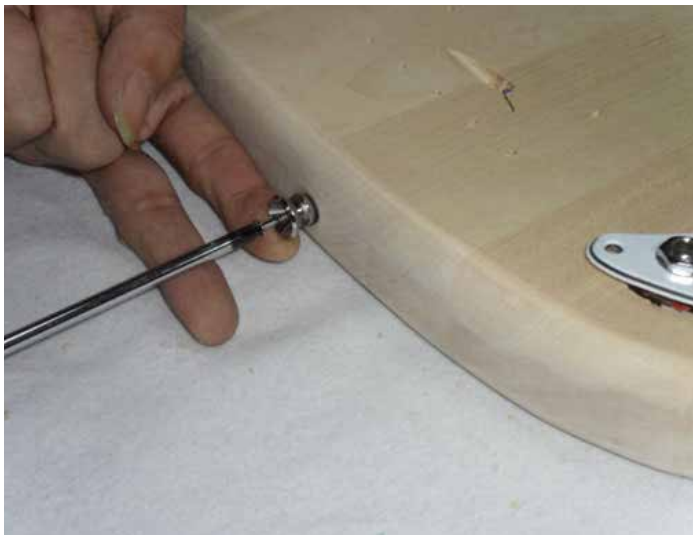
Gently thread the cable on the potentiometers lead through the hole behind the tone control cavity to the separate routing for the jack socket. Connect the connector wire to the connector on the jack socket (they only fit one way round), then fit the jack socket plate and secure it with dome-head screws.

Wiring

Now position the pickguard, bridge, and control panel on the front of the body in a way that the pickups and all the wiring sit neatly in the routed cavities. Ensure that the edge of the pickguard sits snugly at the end of the neck and straight to the bridge assembly. Secure the pickguard with the small dome-head screws provided into the pre-drilled pilot holes.

Strap buttons

Screw the strap buttons into the pre-drilled holes at the bottom edge of the body and at the tip of the upper horn of the body.



Setting up

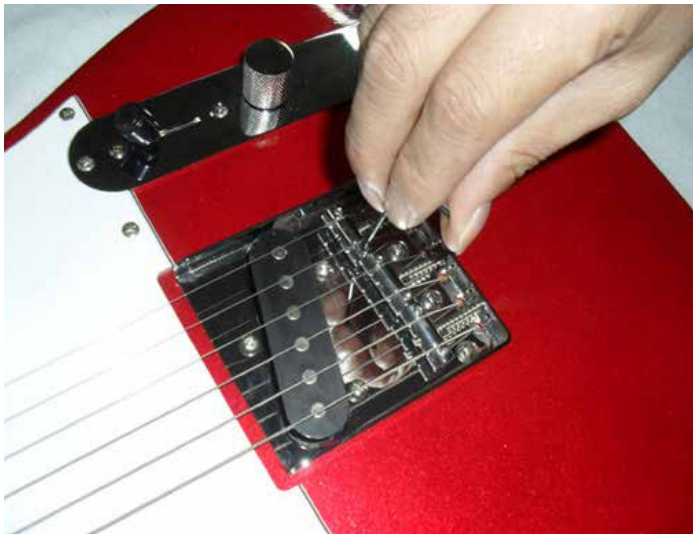
Fitting strings to the guitar is achieved by threading from the bridge, emerging through the relevant saddle on the bridge. Start with the thickest string bottom E in the uppermost position on the bridge.

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 in 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.

Notes