

KIT-LP-10 ELECTRIC GUITAR KIT

Please read these instructions carefully before beginning in order to have a complete overview of the project. There are five steps that you will follow to complete your Electric Guitar Kit.

1. Check and Identify Parts
2. Finishing the Body and Neck
3. Shaping the Headstock
4. Assembling the Guitar
5. Setup

Following is the list of parts that are included with your kit. If parts are lost or run through the stump shredder during assembly you may order replacements from your local music shop or directly from us

	Quantity	Description
A	1	Body
B	1	Neck
C	1	Output Jack & Plate
D	1 Set	500 Ohm Tone Pot 500 Ohm Volume Pot
E	1	3 Way Pickup Switch
F	1	Black Plate
G	1	Neck Position Pickup
H	1	Bridge Position Pickup
I	1	Stop Tailpiece
J	1	Tune-o-Matic Bridge
K	Set of 6	Tuning Machines
L	1	Neck Plate
M	Set of 6	Strings
N	1	Cord
O	2	Strap Buttons
P	1	Truss Rod Cover
Q	4	Knobs
R	1	Pickup Selector Ring
T	1	Selector Switch Plate

FINISHING THE BODY AND NECK

Although the overall tone and playing characteristics of the instrument will not be affected, a high quality finish is a real source of pride to the builder.

Both the neck and body of your Electric Guitar Kit have been sealed, sanded and are ready for final finishing.

FINISHING THE BODY

First you will need to decide whether you would like a natural finish or a colored finish on the body. For a natural finish go directly to "Clear Coat".

COLOR COAT

For the color coat your first stop is a shop that specializes in automotive products. The acrylic lacquer made by the automotive industry is particularly well suited to your needs. In addition to providing a full range of color choices, acrylic lacquer is extremely durable and resistant to cracking.

Choose your color from the many available shades (including metallic options) used for automobile touch up work. A spray can will make your job much easier and will produce fine results.

Hang the body as shown in Figure 1. Begin each spray stroke in the air on one side of the body and continue until you reach the air on the other side. Overlap each stroke by one half, and every other stroke spray crosswise, then length wise. This technique will provide an even color distribution.

Although lacquer dries quickly, and successive coats may be sprayed in a short period of time, attempts to spray too much in one coat can result in runs or bubbles in the finish. Spraying should not be attempted on excessively humid or rainy days.

One or two coats of color should be enough. It should not be necessary to sand between coats unless there are drips, runs or bug feet (!) to be leveled. All exposed surfaces should be dead level and have a nice satin gloss.

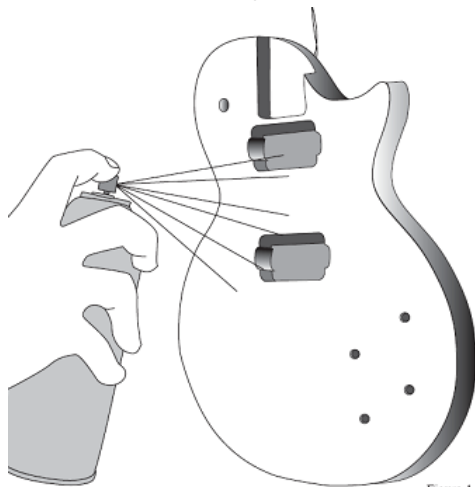


Figure 1

CLEAR COAT

The clear lacquer topcoat is also available at most auto parts store. If you have applied a color coat, it is advisable to select the same brand of clear lacquer to assure compatibility.

The clear coat is applied to the body using the same technique as described for the color coat. Two or three coats of clear should be adequate.

For best results the body finish should be allowed to harden for one week before the final rub out and polish.

Note: The Bindery on the guitar body must be taped off to prevent overspray from the finish. To avoid runs and drips, hold can 6-10 inches from surface. From best results follow directions on spray can.

Caution:

Remember that spray paint is extremely flammable. Do not spray near open flames, heat or sparks. The area where you spray must be well ventilated while spraying and until all vapor is gone. Do not smoke! Do not breathe the vapor and keep doors and windows open during application and drying.

SHAPING THE HEADSTOCK

The peghead of the KIT-LP-10 has been left extra long and here is a chance to express your individuality and make a guitar that is truly your own.

First, decide on the shape of the headstock that you would like to use and draw the outline on the top of the peghead.

Using a bandsaw or simple coping saw, cut out the shape of your headstock (see Figure 2). A half round file should be used to level the top edge of the peghead. Finally, the edge should be sanded smooth with fine #400 sandpaper.

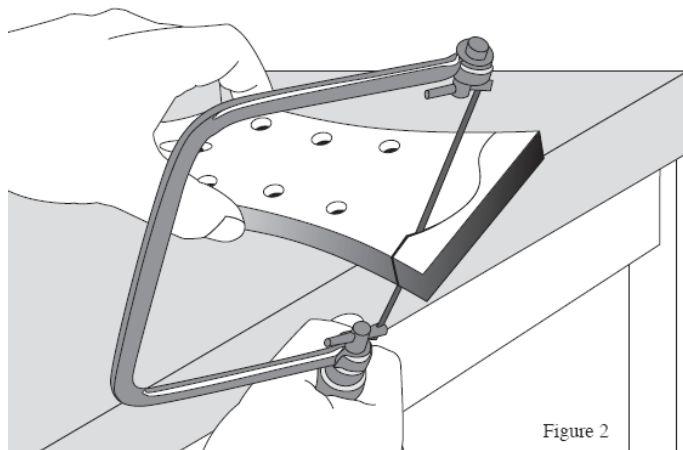


Figure 2

Note: Some headstock shapes are protected by trademark restrictions and we do not recommend that you use them.

NECK

Before application of finish, the fingerboard should be masked off to prevent finish from adhering to the fretted surface (see Figure 3). A screw can be inserted temporarily in one of the four holes at the heel which will later be used for attaching the neck to the body. Secure a wire or cord to that screw so that the neck can be hung during spraying.

Spray all exposed surfaces evenly. The neck of your Guitar has been sealed so it should not be necessary to sand between coats unless runs, orange peel or drips appear. Use the same procedure that you followed on the body – again, two or three coats should do the job. The face of the headstock is traditionally finished black. Final rub out and polishing takes place about one week later when the lacquer has cured.

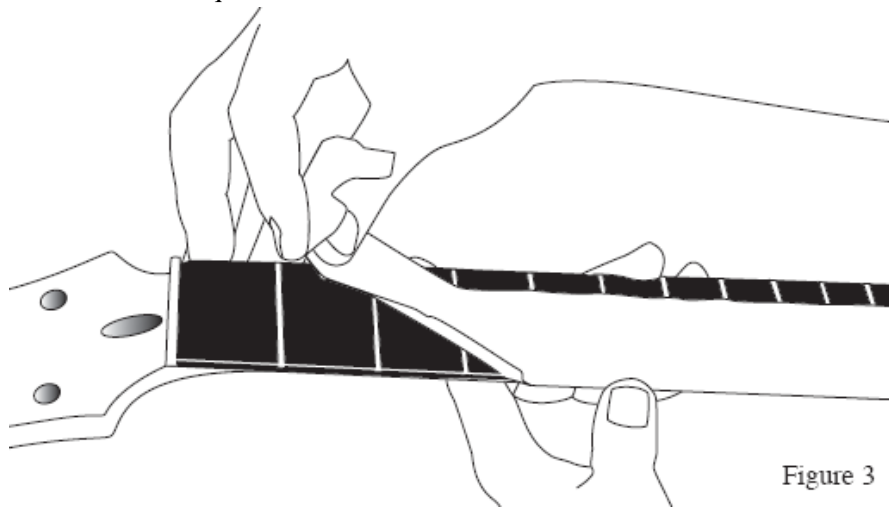


Figure 3

FINAL RUBBING AND POLISHING

After allowing the clear, lacquered surfaces to dry and harden for at least one week, sand lightly with non-loading #400 sandpaper. During sanding be sure to place firm material behind the sandpaper. A large rubber eraser works fine. The eraser is flexible enough to sand the gradual curves but is stiff enough to prevent the sharper edges (of the headstock, for example) from being rounded off. Be sure to sand with the grain of the wood.

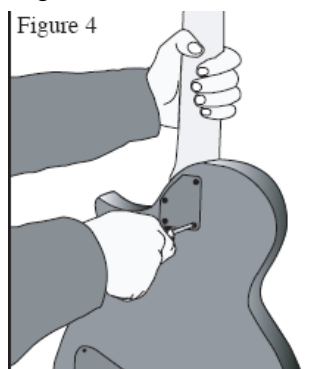
All sanded surfaces should now be a bit dull, indicating that the finish is flat and level. Now repeat the sanding process with very fine #600 sandpaper using water and a small amount of dishwashing detergent as a lubricant. This will remove any sanding marks left by the previous step and leave all surfaces a dull gloss.

The finish may now be rubbed out using a medium grade automotive rubbing compound (Dupont White Polishing Compound is a fine choice). The compound should be used sparingly with fairly good pressure at first — as a high gloss develops, pressure should be diminished. An extra fine grade of polishing compound (such as Mirror Glaze H-7) may be used to get that final bit of gloss. If instructions have been followed you should now have a professional quality finish. You can protect your work with a light wax — Martin Guitar Polish is a good choice.

ASSEMBLING THE GUITAR

1. NECK/BODY ATTACHMENT

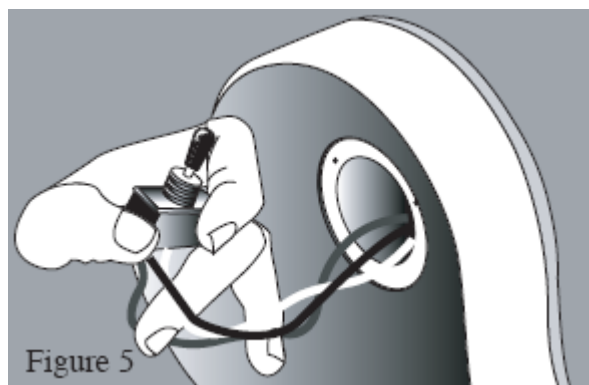
Attach the neck to the body using the four large screws provided. The neck plate (Part M) acts as a large washer and covers the locator holes on the back of the body. (See figure 4)



2. THREE WAY PICKUP SWITCH (PART F)

Push the threaded shaft through the 1/2" hole on the upper left side of the guitar top. Turn the body over and slip on the selector switchplate (Part T). Now slip the washer on the protruding shaft and loosely screw on the nut. Look at the switch mechanism inside the cavity. All of the attached wires should be facing the bottom of the guitar. If the switch is positioned incorrectly it will be like that light switch in your garage, where you have to turn the lights "off" in order to turn them on!

Run the wires from the switch through the hole between the selector switch cavity and neck position pickup cavity. Then, run the same wires through the hole from the neck pickup cavity to the bridge pickup cavity and on to the control cavity. (See figure 5)



3. NECK POSITION PICKUP (PART G)

The cavity for the neck position humbucking pickup is located on the upper part of the body closest to the neck pocket. As you look into the cavity you will notice that a hole has been drilled that connects the cavity for the neck position pickup to the cavity that will house the bridge position pickup. Notice also that the Neck Position Pickup has a thinner mounting ring than the Bridge Position Pickup. Run the Black wire attached to the neck position pickup into the hole from the neck cavity to the bridge pickup cavity. This is same hole that the wires coming from the selector switch have been run through. Use the four 5/8" screws to attach the neck position pickup to the body.

4. BRIDGE POSITION PICKUP (PART H)

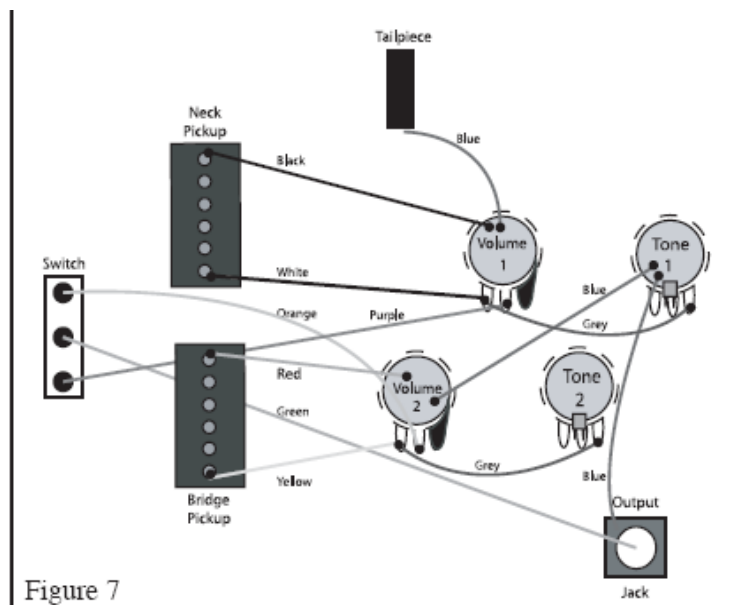
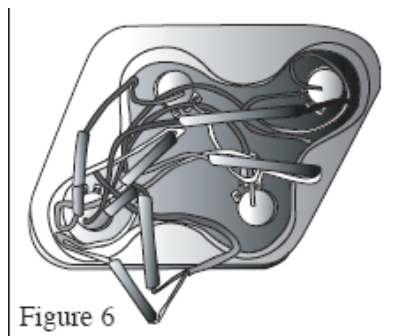
There is a hole connecting the bridge position cavity to the control cavity. The black wire from the neck position pickup should run through that hole into the control cavity. The red wire that is attached to the bridge position pickup is now pushed through that same hole emerging into the control cavity also. Attach the bridge position humbucking pickup to the body with four 5/8" screws.

5. VOLUME AND TONE CONTROLS (PARTS D & Q)

There are 2 sets of volume and tone controls for this guitar. Each set of 1 volume and 1 tone potentiometers are assigned to a separate pickup. As you play the guitar, the volume and tone pots sit next to each other. The volume is on the left side and the tone control is on the right side. The top 2 controls are for the neck pickup. The second row of controls are for the bridge pickup. Install the volume and tone controls in the first row of 3/8" holes, then install the volume and tone controls in the bottom row of 3/8" holes.

6. CONNECTING CIRCUITS

The cavity for the controls on the back of the body should now resemble a spaghetti factory (See Figure 6 & 7). The wiring is color coded to simplify connections. Take the wiring harness and slide a piece of shrink tubing on each wire and connect black to black, white to white, red to red, yellow to yellow etc. Carefully slide the shrink tube over the connection and heat the tubing with a match to insulate the connections.



7. THE TAILPIECE (PART J)

Take a look at the bridge and tailpiece hardware and distinguish the difference between the bridge studs and the tailpiece studs. The tailpiece studs have a much larger set screw.

Let's install the tailpiece first. Separate the tailpiece mounting parts from the threaded bushings. These bushings must be driven in place in the two holes closest to the rear of the guitar body. It will be necessary to ground the electronic circuitry to the tailpiece. The control cavity is at the

back of the guitar body. On the inside wall of this cavity you will see a small 1/8" hole. Run the stripped end of the blue ground wire (attached to the neck pickup volume control) through this hole until it emerges in the hole drilled for the tailpiece bushing. Form the naked wire into a loop, wrap it around the bushing and tap the bushing tightly into the hole. This will ground the circuit. Installing the tailpiece bushings may be done with a plastic headed mallet or place a small piece of wood on top of the bushing to prevent damage and tap the bushing in place with an ordinary hammer. Now screw the tailpiece mounting screws back into the bushings.

8. THE BRIDGE (PART J)

Now tap the bridge bushings into place and screw in the bridge mounting studs. Attach the bridge.

9. OUTPUT JACK (PART C)

The output jack is attached to the neck pickup tone control pot by a blue grounding wire. Find the green wire running from the pickup selector switch and attach it to the green wire on the output jack. Push the output jack and its wire through the 7/8" hole that has been drilled between the control cavity and the edge of the body.

Attach the output jack plate (Part C) to the output jack (See figure 6) using the washer and nut provided. Screw the output jack plate to the body with the two 3/8" screws provided.

10. BACK PLATE (PART F)

Carefully stuff all of the "spaghetti" into the control cavity and attach the back plate using the three screws provided.

11. TUNERS (PART K)

Attach the six tuning machines to the peghead of the guitar putting a washer beneath each threaded bushing. A small set screw is put in place to prevent the tuner from rotating.

SET UP

Put on the strings and tune to pitch.

1. TRUSS ROD ADJUSTMENT

The adjustable truss rod in the neck of your Guitar has been shop adjusted and should not require any change. If the neck should develop a dip or hollow spot over time it can be removed by tightening the truss rod adjustment nut that protrudes from the base of the headstock just above the nut.

A "back bow" or "hog-back" can be removed by loosening the nut. Great care should be taken with truss rod adjustments where as little as 1/4 of a turn can vastly alter the shape of a neck. A broken truss rod of course means a costly replacement.

2. STRING ACTION

The string "action" refers to the height of the strings above the frets. If the action is too low, the strings will buzz on the frets. If it is too high the guitar will be difficult to play.

3. ACTION AT THE NUT

Setting the string action that is right for you starts at the string nut. The slots at the string nut should already be close to per-fection but you might want to make some adjustment. Here's how to do it!

Push the sixth string down between second and third fret. The space between the top of the first fret and the bottom of the string should be about .006" or just about the thickness of the paper that these instructions are printed on. If the gap is wider than .006" you should deepen the slot with a small needle file until it is correct. DO NOT FILE TOO DEEP! If the slot is too deep you can fill the slots with a mixture of white plastic sanding dust and crazy glue and then re-shape the slot.

Repeat this same procedure for the other five strings. The action at the nut is either right or wrong; it is not a matter of personal preference.

Now let's adjust the height of the strings over the 12th fret. Adjustments to the string action are made by raising or lowering the Tune-o-matic Bridge with the thumbwheel height adjusters. Following is a chart to assist you. This action adjust-ment is a matter of personal preference. There should be a gradual increase in height from the first to the sixth string.

String Height at the 12 th fret		
	First String	Sixth String
Low Action	1/32 "	1/16 "
Medium Action	1/16 "	3/32 "
High Action	3/32 "	1/8 "

Action can also be adjusted by changing the angle of the neck. This can be done by inserting small shims between the neck and the body to increase or decrease the neck angle.

4. INTONATION

The saddles on the bridge can be adjusted to compensate for the pitch modification that occurs when the string is stretched as it is fretted. This adjustment is made by tightening or loosening the set screws at the rear of the bridge (see Figure 7).

Start by tuning your guitar and sounding a harmonic chime directly above the twelfth fret on the sixth string. Now fret the sixth string at the twelfth fret and compare that pitch to the harmonic. If the fretted note is higher than the harmonic pitch tighten the set screw to lengthen the string. If the fretted note is lower than the harmonic, loosen the set screw to shorten the string length. When the harmonic and the fretted note sound the same note, the saddle is at the correct position. Repeat this procedure for the other five strings.

5. PICKUP HEIGHT

Each humbucking pickup is adjustable on the bass and treble sides. Finding the best combination of tone and volume will require some experimentation. A good place to start is to adjust the pickup height so that the first string is about 1/8" over the pickup pole and the sixth string is about 3/16" over its pole.

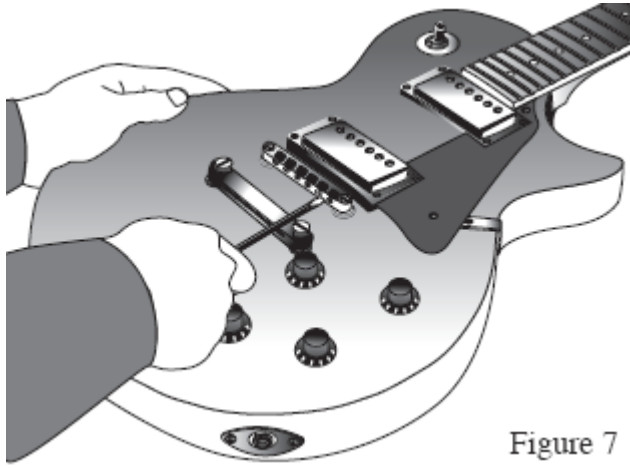


Figure 7