



# HOLLOW BODY 335

## DIY GUITAR KIT

Joint: Set-in  
Body: Basswood  
Neck: Maple  
Fingerboard: Rosewood  
Tuning Machines: Gold Die-cast Grover Style  
Scale Length: 628mm/24.75"  
Fret: 22  
Control: 2V, 2T, 3-Way Toggle  
Pickups: H-H  
Hardware: Gold  
Bridge: Trapeze Tailpieces  
Pickguard: 3-Ply Black Pickguard



## ***CHECK AND IDENTIFY PARTS***

### ***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 sanded and are ready for your final sanding and finishing.

### ***FINISHING THE BODY***

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

### ***COLOR COAT***

For the colour coat your first stop is a shop that specializes in automotive products or any shop that sells acrylic paints (e.g. your local hardware store). The acrylic lacquer made by the automotive industry is particularly well suited to your needs. In addition to providing a full range of colour choices, acrylic lacquer is extremely durable and resistant to cracking. Choose your colour from the many available shades (including metallic options) used for automobile touch up work. A spray can will make your job much easier and produce fine results.

Hang the body . 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 colour 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 colour should be enough. It should not be necessary to sand between coats unless there are drips, runs or bug feet (!) to be levelled. All exposed surfaces should be dead level and have a nice satin gloss.

### ***CLEAR COAT***

The clear lacquer topcoat is also available at most auto parts store. If you have applied a colour 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 colour 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: To avoid runs and drips, hold can 6-10 inches from surface. For 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 vapour is gone. Do not smoke! Do not breathe the vapour and keep doors and windows open during application and drying.

## **NECK (PART B)**

Before application of the finish to the back of your neck, the fingerboard should be masked off to prevent finish from adhering to the fretted surface. 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. The neck is traditionally finished clear and the clear lacquer that you used for the body is recommended. Spray all exposed surfaces including the face of the headstock evenly. The neck of your guitar has not been sealed so it may be necessary to sand between coats. You will need to sand if 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. Final rub out and polishing takes place about one week later when the lacquer has cured.

## **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 grit sandpaper. During sanding be sure to place a firm material behind the sandpaper (a sanding block for example). 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 grit 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 for example). 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 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 (Guitar Polish for example).

## **Installing The Neck**

We will now attach the neck to the body with Glue. Clamp the neck in position ensuring to protect the new finish. First do this without glue to make sure everything fits and lines up. You may need to scrape or file the neck in order to achieve a snug fit – do not apply excessive pressure.

Run a straight edge along the surface of the fingerboard to ensure that the angle of the neck roughly aligns with the bridge – remember the bridge is height adjustable, fine tuning only.

Dry fit the neck pickup so that you can ensure the correct length positioning of the neck.

## **Installing Bridge**

Using a straight edge along the sides of the neck mark 2 reference points in order to align the bridge (L & R). Then from the inside of the nut, measure 628mm/24.75" to get the scale length.

Using the bridge to mark the hole positions, drill 2 holes for the ferrules to fit snugly.

## **Tuners**

Push the six bushing into the washers then into the holes in the face of the headstock then attach the 6 tuners using the 6 screws provided.

## **SET UP**

### **STRINGS**

Put on the strings and tune to pitch.

### **Bridge adjustmemnt**

Ensure the bridge is adjusted so that the string height is desirable – fine tuning can be done later.

### **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 14 of a turn can vastly alter the shape of a neck. A broken truss rod of course means a costly replacement.

### **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.

### **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 perfection 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 written 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 super glue and then re-shape the slot.

Repeat this same procedure for the other 5 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. Minor adjustments in the string action can be made by raising or lowering the individual saddles on the tremolo bridge with the small hex key that has been provided with your Guitar Kit. Following is a chart to assist you. This action adjustment 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<sup>TH</sup> FRET**

First String Sixth String

Low Action  $\frac{1}{32}$ \_  $\frac{1}{16}$ \_

Medium Action  $\frac{1}{16}$ \_  $\frac{3}{32}$ \_

High Action  $\frac{3}{32}$ \_  $\frac{1}{8}$ \_

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.

### **5. INTONATION**

The saddles on the tremolo 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 tremolo 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.

### **6. PICKUP HEIGHT**

Each humbucker 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 18 over the pickup pole and the sixth string is about 316 over its pole.

Electric Guitar setup is an art in itself. For more detailed discussion we highly recommend that you go onto the internet and search on "electric guitar setups".