

PHILCO*Cabinet Refinishing Bulletin*
**SERVICE BULLETIN No. 299 for members of
RADIO MANUFACTURERS SERVICE**
A PHILCO Service Plan

CABINET REFINISH AND TOUCH-UP

These Cabinet Touch-up Instructions have been prepared for the dealer and serviceman for use in repairing the various finish injuries encountered on radio cabinets and other wood surfaces. For refinishing and touching up, a Cabinet Touch-up Kit, such as Philco Part No. 45-1326 is recommended. This Touch-up Kit contains the necessary materials required for repairing practically all types of cabinet finish injuries.

The first requirement in cabinet finishing is understanding the nature and purposes of the various materials required in doing the work. In order to acquire skill before attempting repairs, it is suggested that experimental work be done on old or unused furniture.

In the following procedure, a description of the various materials used in the touch-up work and the methods for applying them is given. The various finish defects will be found listed under separate headings. Under each heading is listed the materials required and the method for applying them in order to repair that particular finish defect.

Types of Finishes

There are three general types of walnut finishes. These finishes are "light," "dark" and "platinum."

The walnut stains included in this Kit will take care of all "light" and "dark" walnut finishes.

The platinum finish, such as is used on the Philco Models 38-7T; 38-15T; 38-17T requires different touch-up materials. These materials are not included in the Kit. It is suggested that you consult your distributor as to the method of application and materials necessary for platinum finishes.

Renovating Dull Finishes

In order to remove handling marks, slight packing marks and other surface imperfections due to objects being placed on surfaces, proceed as follows:

1. Rub finish with the grain using rubbing compound, Part No. 45-1281, on a clean, soft cloth. However, do

not rub the edges of the cabinet too briskly, as it is easy to remove the finish from these points, which will require retouching. Rub the surface until a smooth finish is obtained, then wipe all traces of compound off the surface.

2. Apply Philco Polish, Part No. 45-1175, rubbing vigorously with a clean cloth to obtain a high polish.

Refinishing Entire Top, Front or Side Section of a Cabinet

Use the following procedure to refinish an entire surface of the cabinet, such as a top, front or side section when the wood is either mahogany or walnut. In finishing gumwoods see section "Finishing Gumwoods."

1. Wash off old finish with lacquer thinner, Part No. 45-1333. The thinner should be carefully applied using Brush, Part No. 45-1035. After old finish has become thoroughly soft, remove by scraping with the grain. Sand down to the white wood with sandpaper. After obtaining a smooth finish, dust off with a clean cloth.

2. Apply a uniform coat of light or dark walnut stain, as may be required.

3. Allow stain to dry for not less than one-half hour and then steel wool surface lightly to obtain a smooth surface.

4. Apply Part No. 45-1331 Filler in the case of refinishing light walnut finishes and Part No. 45-1330 Filler in refinishing dark walnut finishes.

Filler should be applied with brush and rubbed well into the grain. When filler has set and begins to show a dry flat appearance, rub it into the wood with a pad, always rubbing across the grain of the wood.

5. Wipe surface clean of filler, picking out any filler that remains in the corners and crevices.

6. Dry the cabinet for not less than 4 hours.

7. Apply by spray or brush a coat of lacquer sealer, Part No. 45-1335.

NOTE: *At this point, when finishing gumwoods, a coat of shading lacquer should be used. See section on "Finishing Gumwoods."*

8. Dry sealer for 3 hours.

9. Sand sealer with sandpaper, Part No. 45-1336, to a smooth surface.

10. Apply two coats of brushing lacquer, Part No. 45-1332, allowing two hours' drying time between coats.

11. After drying second coat of lacquer for not less than 24 hours, rub with Part No. 45-1281 rubbing compound and felt block, Part No. 45-1342, to a smooth surface. Wipe clean with a soft cloth.

12. Polish surface with Philco Polish, Part No. 45-1175, to a high lustre.

Finishing Gumwoods

Gumwood is generally used in table model radio cabinets around the sides and front panel sections.

In finishing gumwoods, a coat of shading lacquer should be applied to the surface after the coat of lacquer sealer. The application of "shading lacquer" is necessary, because gumwoods have hard and soft spots and the first coats of stains do not cover the surface of the wood uniformly. It is, therefore, necessary to use a shading lacquer, such as Philco Part No. 45-1334, in order to obtain a uniform finish.

When applying the shading lacquer, a spray gun must be used. Allow the shading lacquer to dry for at least one hour. The final coats of brushing lacquer as described in "Finishing Top, Side and Front" can then be applied and rubbed down with rubbing compound, Part No. 45-1281.

Repairing Open Seams or Joints

1. Insert thin wood wedge with an application of glue into open seams. For small open seams, plastic wood can be used. This is to fill up seams before applying finishing coats.

2. Smooth wedge down even with surface of other sections. Use a sharp chisel or sandpaper to obtain a perfectly smooth surface.

3. Apply light or dark walnut stain as required, Part No. 45-1328 or 45-1329.

4. Apply two coats of lacquer sealer, Part No. 45-1335, allowing about 3 hours between applications.

5. Sand sealer with sandpaper, Part No. 45-1336, to a smooth surface.

6. Apply one coat of brushing lacquer, Part No. 45-1332. Allow to dry for not less than 12 hours.

7. Rub lacquered surface smooth with rubbing compound, Part No. 45-1281, then polish with Part No. 45-1175 Philco Polish.

Scaled or Peeling Finishes

This type of finish trouble is generally found on the edge of panels and bases of cabinets. To repair such damages, proceed as follows:

1. Sandpaper old finish off and wipe dust from surface with a clean cloth.

2. Stain surface with walnut stain (Part No. 45-1328, light walnut or 45-1329, dark walnut) using stain required.

3. Apply one coat of sealer, Part No. 45-1335. Dry sealer for 3 hours.

4. Sand surface down with sandpaper, Part No. 45-1336.

5. Now apply two coats of lacquer, Part No. 45-1332, allowing 2 hours' drying time between the first and second coat, and 24 hours' drying time for the second coat.

6. Rub down with rubbing compound, Part No. 45-1281, and felt block, Part No. 45-1342.

7. Wipe surface clean and polish with Part No. 45-1175, using a soft cloth.

Scratched Surfaces

Scratched finishes will be divided into two classes, *i.e.*, "Deep" and "Surface" Scratches. The procedure for repairing such damages differs as will be noted in the following sections "A" and "B."

A. Deep Scratches

This type of scratch is one which goes through to the wood.

To repair this type of damaged surface:

1. Fill up scratch with burn-in wax, using proper color or shade in Philco wax kit, Part No. 45-1338. The procedure for using burn-in wax and knife is given on page 3.

2. After wax surface is smoothed with the hot knife, place some Philco rubbing compound on the filled section and rub down with sandpaper, Part No. 45-1336, until even.

CAUTION: *When rubbing with sandpaper, it is advisable to wrap the paper around a block of wood or felt in order to rub evenly.*

3. Wipe repaired surface clean and polish with 45-1175. In the event that the scratch is very wide and deep, apply about two coats of lacquer, Part No. 45-1332. Allow two hours' drying time between the first and second coat and 24 hours' drying time for the second coat.

4. Rub whole cabinet or part lacquered with rubbing compound, Part No. 45-1281, and felt block, Part No. 45-1342, until smooth; then wipe clean.

5. Apply polish, Part No. 45-1175, and rub until a high lustre is obtained.

B. Surface Scratches

This type of scratch is one in which the surface of the finish is not damaged deeply. To refinish this type of surface, proceed as follows:

1. Rub surface with Philco rubbing compound, Part No. 45-1281, until scratches on the damaged surface are removed.
2. Apply polish, Part No. 45-1175, and rub until a high lustre is obtained.

Checked or Cracked Lacquer

This type of finish trouble may be described as one in which small cracks appear in the lacquer along the grain of the wood, or seams of the matched veneer sections. This trouble may be repaired as follows:

1. Sand down the entire panel with No. 320 dry sandpaper. This is equivalent to Seven Naught grade. Always sand with the general grain of the wood. Sand until a smooth even base is obtained for new lacquer coats. Be careful not to sand through to the filler.
2. Wipe off the surface of the panel thoroughly with a clean dry cloth.
3. Apply a coat of Philco Brushing Lacquer. This is supplied in $\frac{1}{4}$ pints under Part No. 45-1332 (Order Part No. 80233 for one gallon). This lacquer should be applied to the entire panel on which the checking has developed.
4. Allow the lacquer to dry for one hour, and then again sand down lightly with dry sandpaper as in No. 1 above.
5. Again carefully wipe cabinet clean and apply a second coat of brushing lacquer.
6. Allow the second coat of lacquer to dry for 48 hours before sanding and rubbing. Saturate a clean cloth with Philco Safety Solvent, Part No. 80274 and thoroughly wet the surface of lacquer to be sanded. Sand lacquer with No. 320 sandpaper, which is wrapped around felt block, Part No. 45-1342. Lacquer should be lightly sanded in the direction of the grain of the wood, the surface being kept wet by wiping with Philco Safety Solvent.

CAUTION: When sanding the cabinet, extreme care should be taken to have the finish sanded evenly. Sometimes low spots in the wood will cause the lacquer to sink to a lower level. These spots will appear pitted and shiny when the surface is wiped clean and dry. These areas should be sanded until the shiny spots are removed. When sanding the cabinet, always sand in the direction of the grain of the wood.

7. After sanding the cabinet, wipe the surfaces with a clean cloth, then apply Philco Rubbing Compound, Part No. 45-1281 and rub down with felt block, Part No. 45-1342, until a smooth high lustre is obtained.

8. When the surface is smooth, use a clean cloth to remove the remaining rubbing compound. Polish with Philco polish, Part No. 45-1175.

Touching Up Bare Edges

To touch up edges of the cabinet that have become worn through, mix some "bismark brown," Part No. 45-1351, with "nigrosine black," Part No. 45-1340, in a little white shellac to obtain a dark brown shade, or use "nigrosine black" with the shellac for black edges. Thin the mixture with shellac, Part No. 45-1350, to obtain a working consistency. Apply to edges with the pencil brush. See "Mixing Powder Stains" to obtain color combinations.

Lacquer Shrinkage

Lacquer shrinkage is due to the lacquer sinking into the pores of the wood. This type of finish trouble can be identified by the pitted appearance of the finish. The lacquer, however, on a surface of this type does not break and should not be confused with a "checked" or cracked finish surface. In a "checked" or cracked finish surface, small breaks occur in lacquer, whereas lacquer shrinkage merely sinks into the pores of the wood without breaking.

To refinish a lacquer shrinkage surface, proceed as follows:

1. Spread a small quantity of rubbing compound, Part No. 45-1281, on the finish and rub the surface evenly with the grain of the wood, using Philco felt rubbing block, Part No. 45-1342, moistened with Philco polish. This rubbing procedure should be continued until the finish appears smooth when compound is wiped off.
2. Wipe surface clean of the compound and then apply Philco polish, Part No. 45-1175. Rub the polish briskly to obtain a high lustre.

Method for Using Burn-In Wax and Knife

Materials required: Assorted shades of burn-in wax; burn-in knife; alcohol torch, such as Philco Part No. 45-1020; Sterno heater or an Electric Hot Plate.

The first step in filling holes, scratches and dents is to select the shade of burn-in wax that matches as closely as possible the color of the finish to be repaired. Do not select a stick of burn-in wax that is darker in color than the finish to be repaired. Always use a lighter wax, as it can be stained to match the finish.

To burn-in any injury, proceed as follows:

1. Heat the burn-in knife on the alcohol torch. At the same time, hold the stick of shellac near the flame in order to warm it up, as it will then flow more freely when the knife is applied.
2. When the knife is hot, apply it to the stick wax and remove a small quantity of wax.

3. Fill the spot to be repaired with the wax pressing it in well and then smooth it out evenly. Care should be taken that the knife does not become too hot, as it will blister the finish around the spot being repaired and also blister the wax.

4. After filling the section with wax and smoothing it as much as is possible with the hot knife, the surface should be rubbed down with sandpaper and Philco rubbing compound until smooth.

5. After filling a spot, it may be found that the wax will have to be grained in order to match the grain of the wood.

To put a grain in the wax, mix a little bismark brown with the chrome orange powder, using a little lacquer for mixing. These colors can be mixed to get the proper shade of brown to match the finish. A grain can then be put on the wax with a pencil brush. See heading, "Mixing Powder Stains," to obtain color combinations.

Mixing Powder Stains

The majority of radio cabinets are finished in either brown mahogany or walnut. Any shade of these two fin-

ishes can be produced by mixing spirit powders, such as nigrosine black, Philco Part No. 45-1340, bismark brown, Philco Part No. 45-1351, and chrome orange, Philco Part No. 45-1339 in the proper proportions. These stains can be mixed in white shellac. The stains are generally used to match the finish around sections of the cabinet that have been worn through to the wood, matching the burn-in wax of filled in sections, and touching up small and inconspicuous injuries to the finish.

To produce any shade of brown walnut, place a small pinch of "chrome orange" powder on a piece of paper. Now, wet the pencil brush in the shellac, and dip it in the bismark brown powder. Then mix this color with the chrome orange powder on the paper until the desired shade is obtained. The small quantity that adheres to the brush when dipped in the powder should be sufficient for mixing. When mixing any of these powders, use very small quantities.

To obtain a mahogany finish, the "nigrosine black" powder should be mixed with a "chrome orange" powder. The mixture of these colors will produce all shades for touching up mahogany furniture.

PHILCO's *New, Portable* CABINET REFINISHING KIT

A Practical Necessity for Every Dealer

To be in a position to render a complete service to radio owners you should be equipped to refinish or make minor repairs on radio cabinets. This new Philco outfit was designed to enable the average dealer to handle practically any job he would ordinarily meet in the line of cabinet repair or refinish work.

Everything necessary for this type work is included in this compact, handy, attractive, portable kit. Twenty-four distinct items — stain, filler, lacquer, polish, wax, powders, thinner, and all essential tools and equipment will be found among the contents. Full and specific instructions are also included. Get the kit and be prepared for a better and more thorough customer service at all times.



Part No.
45-1326

YOUR DISTRIBUTOR WILL TELL YOU HOW TO GET ONE

PHILCO RADIO AND TELEVISION CORPORATION
Parts and Service Division
Philadelphia, Pa.