

BELL SYSTEM PRACTICES  
Teletypewriter Stations

SECTION P30.303  
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AT&T Co Standard

# WRINKLE-FINISHED AND MULTICOLORED-LACQUER-FINISHED SURFACES

## RETOUCHING AND REFINISHING

### 1. GENERAL

1.01 This section describes the methods and the materials suitable for use in touching up small scratches and blemishes on metal and wooden teletypewriter equipment where it is not practicable to return the equipment to the shop for refinishing. It also includes the procedures recommended for completely refinishing wrinkle-finished metal teletypewriter equipment to a dark brown or gray-green finish in certain major installations, such as switching centers, where 24-hour service requirements make on-the-job refinishing desirable.

1.02 The section is reissued to include a method for touching up multicolored-lacquer-finished equipment and completely refinishing wrinkle-finished metal equipment to a dark brown or gray-green finish. Since this is a general revision, the arrows ordinarily used to indicate changes have been omitted.

### 2. TOOLS AND MATERIALS

2.01 The tools and materials recommended for use are listed in Tables A to D.

**Table A:** Touch-up of Multicolored-lacquer-finished Equipment

**Table B:** Touch-up of Wrinkle-finished Equipment by Means of Special Lacquers

**Table C:** Touch-up of Wrinkle-finished Metal Equipment by Means of Teletype Corporation Paints

**Table D:** Complete Refinishing of Wrinkle-finished Equipment to a Dark Brown or Gray-Green Finish

P30.303

Page 1

WRINKLE-FINISHED  
AND MULTICOLORED-  
LACQUER-FINISHED  
SURFACES—RETOUCHING  
AND REFINISHING

**TABLE A—Tools and Materials for Use in Retouching Multicolored-lacquer-finished Equipment**

Tool or Material	Code No. or Description	Supplier
Mild Soap or Cleaning Emulsion	Ivory Soap (or equiv)	—
	KS-14427	Adam Cook's Sons, Inc., Linden, N. J. (or equiv)
Cloths	Clean, dry	—
Brush	1 inch wide, bristle	H. Behlen and Bro. (or equiv)
Beige-Gray Multicolored Lacquers (OS-10724)	WGF-741A Gamora Beige-Gray Plextone	Maas and Waldstein Co., Newark, N. J.
	No. 100-711 Beige-Gray Poly Hue	American Lacquers and Solvents Co., Phoenixville, Pa.
Dark Brown Multicolored Lacquers (OS-10722)	WGF-934A Bison Brown Plextone	Maas and Waldstein Co., Newark, N. J.
	No. 100-712 Dark Brown Poly Hue	American Lacquers and Solvents Co., Phoenixville, Pa.
Gray Multicolored Lacquers (OS-10725)	WGF-241B Gandora Gray Plextone	Maas and Waldstein Co., Newark, N. J.
	No. 100-714 Gray Poly Hue	American Lacquers and Solvents Co., Phoenixville, Pa.
Gray-Green Multicolored Lacquers (OS-10723)	WGF-224B Gabat Green Plextone	Maas and Waldstein Co., Newark, N. J.
	No. 100-713 Gray-Green Poly Hue	American Lacquers and Solvents Co., Phoenixville, Pa.
Walnut Multicolored Lacquers (OS-10726)	WGFN-990C Afosan Brown Plextone	Maas and Waldstein Co., Newark, N. J.
	No. 100-710 Walnut Poly Hue	American Lacquers and Solvents Co., Phoenixville, Pa.

**Note:** The multicolored lacquers listed above with their respective suppliers match the color of the associated Observational Standard and are considered equally satisfactory. The observational Standards (OS) can be ordered from the Western Electric Company.

**TABLE B—Tools and Materials for Use in Retouching Wrinkle-finished Equipment by Means of Special Lacquers**

Tool or Material	Code No. or Description	Supplier
Mild Soap or Cleaning Emulsion	Ivory Soap (or equiv)	—
	KS-14427	Adam Cook's Sons, Inc., Linden, N. J. (or equiv)
Cloths	Clean, dry	—
Brush	Soft, pencil brush	—
Lacquer-type Primer	No. 569 Finish	Western Electric Company
	30-302 Black Co-loidal-ac	American Lacquers and Solvents Co., Phoenixville, Pa.
	F-10059 Red Lacquer	Interchemical Corp., Newark, N. J. .
	3942-A Red Oxide Primer	Clinton Company
Lacquer Thinner	No. 3500 (or equiv)	Western Electric Company
Dark Brown Lacquer (OS-10080)	No. 419-13B Dark Brown Lacquer	Interchemical Corp., Newark, N. J.
Gray-Green Lacquer (OS-10509)	No. 421-3A Gray-Green Lacquer	
Light Brown Lacquer (OS-10081)	No. 419-13B Dark Brown Lacquer mixed with approx 5 per cent of No. 1347 Ivory Lacquer or of No. 246-0097 White Duco Tinting Color to match OS-10081 standard for the Light Brown Lacquer	No. 419-13B Dark Brown Lacquer: Interchemical Corp., Newark, N. J.
		No. 1347 Ivory Lacquer: Newark Varnish Works, Newark, N. J.
		No. 246-0097 White Duco Tinting Color: du Pont dealers

**Note:** The lacquer primers listed above with their respective suppliers are considered equally satisfactory. The Observational Standards (OS) can be ordered from the Western Electric Company.

WRINKLE-FINISHED  
 AND MULTICOLORED-  
 LACQUER-FINISHED  
 SURFACES—RETOUCHING  
 AND REFINISHING

**TABLE C—Tools and Materials for Use in Retouching Wrinkle-finished Metal Equipment by Means of Teletype Corporation Paints**

Tool or Material	Code No. or Description	Supplier
Aloxite	400A	Western Electric Company
Petroleum Spirits	KS-7860	Western Electric Company
Cloths	Clean, dry	—
Brush	Small	—
Goose-neck Lamp	With 75-watt or 100-watt bulb and reflector	—
Black Wrinkle Paint	TP120820 Wrinkle Paint	Teletype Corp., Chicago, Ill.
Dark Brown Wrinkle Paint	TP120823 Wrinkle Paint	
Gray-Green Wrinkle Paint	TP120821 Wrinkle Paint	
Light Brown Wrinkle Paint	TP120822 Wrinkle Paint	

Page 4

**TABLE D—Tools and Materials for Use in Refinishing Wrinkle-finished Equipment to a Dark Brown or Gray-Green Finish**

Tool or Material	Code No. or Description	Supplier
Aloxite	400A	Western Electric Company
Petroleum Spirits	KS-7860	Western Electric Company
Cloths	Clean, dry	—
Brushes	Bristle (as reqd)	—
Dark Brown Paint	No. 4NL Custom Color Paint thinned with an equal volume of Solvesso 150	No. 4NL Custom Color Paint: Martin-Senour Paint Company distributors
		Solvesso 150: Standard Oil Company distributors
Gray-Green Paint	One tube (1 oz.) each of No. 123 and 127 Custom Tinting Colors added to 9-1/2 fluid ounces of No. 292 Custom Color Odorless Semigloss Alkyd Enamel Deep Base thinned with an equal volume of Solvesso 150	No. 123 and No. 127 Custom Tinting Colors: du Pont dealers
		No. 292 Custom Color Odorless Semigloss Alkyd Enamel Deep Base: du Pont dealers
		Solvesso 150: Standard Oil Company distributors

WRINKLE-FINISHED  
AND MULTICOLORED-  
LACQUER-FINISHED  
SURFACES—RETOUCHING  
AND REFINISHING

### **3. PREPARATION OF SURFACES**

3.01 Surfaces to be retouched or refinished should be thoroughly clean, dry, and free from foreign matter, oil and wax, abrasions, and other irregularities that might impair the application of the finish. In addition, metal surfaces should be free from loose scale and rust.

3.02 Rust spots, loose scale, and gouges and pile-ups of the existing finish should be removed by rubbing only the marred-surface portion with Aloxite.

3.03 The surface should then be cleaned in accordance with the appropriate method in 3.04 or 3.05.

#### **Multicolored-lacquer-finished Surfaces**

3.04 Multicolored-lacquer-finished surfaces should be wiped with a clean cloth moistened with a solution of warm water and a mild soap, or KS-14427 cleaning emulsion, wiped with a clean cloth moistened with warm water, and then rubbed with clean, dry cloths and allowed to dry.

#### **Wrinkle-finished Surfaces**

3.05 Wrinkle-finished surfaces should be wiped with a clean cloth saturated with petroleum spirits and then wiped with clean, dry cloths and allowed to dry.

**Note:** Care should be taken to keep the petroleum spirits from coming into contact with rubber or plastic parts.

### **4. APPLICATION**

#### **Multicolored-lacquer-finished Surfaces**

##### **A. Touch-up**

4.01 To obtain the most satisfactory results, multicolored lacquers should be not more than 6 months old. They should not be kept or carried in metal containers, as the water content in the lacquers might cause the formation of rust in a metal container and affect the quality of the lacquer.

4.02 The lacquers are mixed by the suppliers and should not require additional mixing before application. However, since the lacquers have a tendency to settle upon standing, the container in which a lacquer is kept should be well shaken in every instance before the lacquer is used. If it is desired to thin a multicolored lacquer slightly, a small amount of water, not more than 10 per cent by volume, should be added; then the container should be well shaken. (The lacquer should not be stirred, as this will cause the differently colored particles to run together.)

4.03 After the blemished area has been prepared in accordance with Part 3, a small amount of the appropriate lacquer should be **stippled or daubed** on the surface, using a clean, reasonably stiff brush. Normal brushing will smear the differently colored particles together and should be avoided.

4.04 The retouched area should be allowed to dry for at least 2 hours without being disturbed.

**Note:** As multicolored lacquers are not soluble in petroleum spirits, brushes which have been used to apply these lacquers should be cleaned by flushing them with water. A small amount of stabilized trichloroethylene can then be used to remove any remaining lacquer.

### **Wrinkle-finished Surfaces**

#### **A. Touch-up with Special Lacquers**

4.05 The special lacquers are primarily intended for retouching small cuts and scratches that expose no more than about 1/16 of an inch in width of base metal. If it is desired to use the lacquers in touching up larger areas of exposed metal, however, a coat of primer should be applied prior to the application of the lacquer.

4.06 After the marred area has been prepared in accordance with Part 3, the primer, if required, should be brushed on the area and allowed to dry for at least one hour.

4.07 One coat of the appropriate special lacquer thinned to proper application consistency should be applied by means of a soft, pencil brush.

4.08 The retouched area should be allowed to dry for at least one hour before being handled.

#### **B. Touch-up with Teletype Corporation Paints**

4.09 The Teletype Corporation paints are intended for touching up small scratches and blemishes on wooden and metal teletypewriter apparatus.

4.10 A small amount of the appropriate paint should be applied with a clean brush, taking care that the paint does not extend appreciably beyond the edges of the scratch or blemish.

4.11 It will help in producing wrinkles that compare favorably to those in the original wrinkle finish to apply heat to the retouched area immediately after it has been touched up, if this is practical. A simple arrangement is the use of the bulb and lamp with reflector arrangement listed in Table C.

The reflector should be positioned approximately 2 to 3 inches from the retouched surface for at least one hour.

4.12 The touched-up area should lose its stickiness overnight, but approximately one week is required for the finish to dry completely. It is possible to cut the drying time to approximately 3 hours, however, by the use of the lamp in accordance with 4.11.

4.13 Surface gloss can be reduced by lightly rubbing the retouched area with Aloxite after the paint has completely dried.

### **C. Complete Refinishing of Wrinkle-finished Teletypewriter Equipment**

4.14 To obtain the best results in refinishing wrinkle-finished equipment, the equipment should be sprayed with the appropriate finish and then baked in an oven. Since this is not feasible on the subscriber's premises, the equipment should be sent to the repair shops for refinishing wherever possible.

4.15 If on-the-job refinishing of wrinkle-finished equipment is required, however, the equipment can be refinished in either a dark brown or gray-green finish by the use of the brush-on paints recommended in Table D. Since these are smooth paints, however, they will tend to fill in some of the wrinkles in the original finish. Therefore, although the following procedures will produce as satisfactory a result as can be obtained by field methods, the quality and size of the wrinkles will not be comparable to those produced by shop methods.

4.16 In refinishing equipment, care should be taken that the finishes are not applied to areas where their application might interfere with the operation of the unit. Steel screws, nuts, etc., used for assembling or fastening parts should be finished to match the surrounding surface. The finish of plated surfaces should, in general, be left as is.

#### **Dark Brown Finish**

4.17 After the surfaces have been prepared in accordance with Part 3, a coat of Martin-Senour No. 4NL custom color paint (see note in 4.18) thinned with an equal amount of Solvesso 150 should be brushed on the equipment.

4.18 Where necessary, a second coat of thinned paint can be applied after the first coat has dried for at least 16 hours.

**Note:** The Martin-Senour Paint Company has developed a system whereby any color in a Color Harmony Manual that they supply can be obtained from their distributors. It is felt that the color designated 4NL is a suitable match to the color of the Observational Standard dark brown wrinkle. Any other color can, of course, be used to meet special requirements.

### **Gray-Green Finish**

4.19 After the surfaces have been prepared in accordance with Part 3, one coat of paint prepared as follows should be brushed on the equipment. One tube (1 oz) each of du Pont No. 123 and No. 127 custom tinting colors should be added to 9-1/2 fluid ounces of du Pont No. 292 custom color, odorless, semigloss alkyd enamel deep base and thinned with an equal amount of Solvesso 150.

4.20 Where necessary, a second coat of thinned paint can be applied after the first coat has dried for at least 16 hours.

## **5. ASSOCIATED BELL SYSTEM PRACTICE**

5.01 The following Bell System Practice contains information supplementing this section.

<u>Subject</u>	<u>Section</u>
Teletypewriter Tools and Maintenance Supplies	P30.301

**P30.303**

Page 9  
9 Pages

**WRINKLE-FINISHED  
AND MULTICOLORED-  
LACQUER-FINISHED  
SURFACES—RETOUCHING  
AND REFINISHING**