

## FINISHES FOR EQUIPMENT PURPOSES GENERAL EQUIPMENT REQUIREMENTS

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uniformity while at the same time restricting the total number of finishes used for equipment purposes to a minimum.

1.02 Changes in requirements made with this issue are covered at the end of the section under Reasons for Reissue.

1.03 The requirements covered in this section shall be followed, except as modified by applicable specifications and drawings containing special design information. When not positively directed herein, or where the characteristics of the finish for specific equipment is not covered in the design information for the equipment or well established by usage, this section may be considered a guide. In new systems, or in important changes in existing systems, it is the responsibility of the Bell Telephone Laboratories engineer to determine the type of finish to be used.

1.04 *The finishes commonly used* for equipment metal parts are enamels, lacquers, and paint organic finishes; dissimilar metals deposited by electroplating and hot dipping; chemically deposited films, such as the passivating, phosphate, and anodizing treatments; and subtractive treatments, such as abrading, burnishing, and acid or alkali etching. Nonmetallic equipment parts are usually finished with varnishes, lacquers, enamels, oil stains, or shellacs.

1.05 *Air-dry or baked enamel* may be used for finishing equipment parts, the baked finish being preferred for panels, casings, covers, and cabinet-type end guards.

(a) Where the parts, other than base steel parts, receive little wear or handling, a single coat or a coat thickness of 0.0004 inch of baked enamel shall be specified.

(b) Base steel parts and parts where considerable wear or handling occurs shall be given two coats or a coat thickness of 0.0008 inch of baked enamel.

(c) Air-dry finishes of a single coat thickness of 0.0004 inch shall be used on equipment frame structures, cable racks, auxiliary fram-

ing bars, and other large structures whose size exceeds the capacity of the available baking facilities.

(d) Baked vinyl finishes may be used when a finish affording both good appearance and high durability is required, generally applied as a standard single coat thickness of 0.005 inch. However, the thickness information shall not be given when specifying finishes of this type.

1.06 *Medium gloss is preferred for finishes* used for equipment purposes. High-gloss finishes that mar easily and matte finishes that soil readily are not generally used.

## 2. REQUIREMENTS

### General

2.01 *Finish is required on all equipment parts* except where the natural finish of the material, such as aluminum, copper, brass, and fiber, is satisfactory for the use and appearance of the part. Where no particular finish is specified, the parts shall have the regular commercial finish which shall be clean and in good condition.

2.02 *Equipment parts supplied by the installer* shall be finished, where practicable, to match the associated equipment.

2.03 *Surfaces to be finished* shall be thoroughly dry, clean, and free from loose material, foreign matter, scratches, abrasions, and other surface irregularities that might impair the finish. The surfaces of steel parts to be finished shall be free from loose scale and rust. See list of surface preparations in 3.27.

2.04 *Woodwork surfaces that have been finished* shall be free from excess finish materials such as powdered pumice and oil.

## 3. SPECIFIC EQUIPMENT APPLICATIONS OF FINISHES

3.01 *Battery Rooms and Equipment:* Refer to Section 802-007-180, Painting of Battery Rooms and Equipment.

**3.02 Cement grouting** under frames and racks and cement filling between cable hole sheathing angles and adjacent floor angles, walls, columns, or other cable holes shall be given a priming coat of du Pont No. 389-187 white sealer coater, or equivalent and a finishing coat of KS-8662 gray enamel applied after the priming coat is thoroughly dry.

**Note:** Du Pont No. 389-187 sealer is a water-emulsion which may not wet certain asphaltum-type surfaces well, unless such surfaces are wiped with a cloth moistened with denatured alcohol or washed with a detergent just prior to applying the sealer.

### 3.03 Central Office Equipment

(a) **Equipment Rooms:** The No. 525 gray enamel finish or the No. 715 gray textured vinyl finish shall be used for all "inside" items such as panels, frame uprights, and equipment mounted on the framework. Where these finishes are not suitable for certain applications due to the products or materials involved or to the specific service conditions, the following finishes having the same color as that of the No. 525 gray enamel finish shall be used.

#### FOR METALS

No. 395 Gray enamel, air dried  
 No. 470 Gray insulating lacquer  
 No. 472 Gray lacquer  
 No. 483 Gray insulating enamel  
 No. 484 Acid resistant gray enamel, baked  
 No. 604 Finish for etched aluminum  
 No. 618 Acid resistant gray enamel, air dried  
 No. 713 Gray insulating epoxy coating  
 No. 714 Gray insulating vinyl

#### FOR NONMETALS

No. 118AS Acid resistant gray enamel  
 No. 122E Gray lacquer, one coat  
 No. 122F Gray lacquer, two coats  
 No. 395 Gray enamel, air dried  
 No. 759 Gray lacquer for ebony asbestos

When a color other than gray is to be provided for the frame "wrap around" items such as end guards, base, top facing, and cable rack, the No. 728 gray-blue textured vinyl finish shall be used.

(b) **Operating Rooms:** Equipment located within central office operating rooms, such as traffic service positions, operating room desks, miscellaneous cabinets, and associated equipment shall be finished in accordance with the colors specified above for central office equipment rooms, unless otherwise requested by the telephone company.

(c) **Test Equipment:** Panels of rack-mounted and portable test equipment used in central offices shall be given a finish having the same color as that of the No. 525 gray enamel finish. Characters and markings appearing on the panel shall be black. The No. 604 finish for etched aluminum, procedure 5 or 6, may be specified for aluminum panels when raised black characters on a gray background are desired. Cases of portable test equipment shall be given the No. 728 gray-blue textured vinyl finish. Cases of rack-mounted test equipment which are exposed to view shall be given a gray finish corresponding in color and texture to those of the central office equipment.

**3.04 Conduit, rigid or flexible, conduit fittings, and armored cable** specified per KS-5351 and KS-5497-01 need not be refinished, unless specifically requested by the telephone company, in which case KS-8662 gray enamel shall be used. The finish of the conduit and fittings, furnished in accordance with these specifications, will approximately match in color or will harmonize with the gray finish of the surrounding equipment. Black or other conduit or fittings not harmonizing in color with the surrounding gray equipment or conduit finishes that have been badly marred shall be given the KS-8662 gray enamel finish.

(a) The 1-inch junctioning galvanized pipe used as a ground and as support between duct-type frames need not be refinished unless specifically requested by the telephone company.

**3.05 Customer premises equipment** (other than teletypewriter equipment) such as data set cabinets, station-equipment, PBX equipment, and associated power equipment shall be given a light olive-gray finish. Finishes recommended for this application are as follows.

Γ **FOR METALS**

- No. 693 Light olive-gray textured vinyl
- No. 701 Light olive-gray lacquer
- No. 702 Light olive-gray enamel
- No. 703 Light olive-gray wrinkle enamel
- No. 708 Light olive-gray epoxy enamel
- No. 716 Light olive-gray vinyl

**FOR NONMETALS**

- No. 122BC Light olive-gray lacquer

When a color other than light olive-gray is to be provided for a two-tone effect, either the No. 696 dark covert gray enamel finish or the No. 700 dark covert gray textured vinyl finish shall be used.

- (a) *Customer Premises Equipment used in Central Offices*, with the exception of teletypewriter equipment, shall be finished in accordance with 3.03 covering colors and finishes for central office equipment.

**3.06 Floors Under Switchboards, Desks, and Cabinets**

- (a) Where this equipment is placed directly on a cement floor, the floor under the enclosed portion of the switchboard, desk, or cabinet shall be finished with two coats of KS-8662 gray enamel finish applied over a suitable priming coat, such as the du Pont No. 389-187 white sealer coater or equivalent. See note in 3.02.
- (b) Where this equipment is placed on an unfinished wooden floor, the floor under the enclosed portion of the switchboard, desk, or cabinet shall be given two coats of white or orange shellac.
- (c) Where the switchboard, desk, or cabinet is completely closed in at the bottom by a flooring which rests on or is immediately above the floor, the floor need not be painted or shellacked.

**3.07 Gasoline Engines and Associated Piping:**  
Refer to Section 802-006-180, Installation of Gasoline Engines and Associated Piping.

- Γ **3.08 Power, radio, and carrier transmission equipment** shall be finished in accordance with 3.03 covering colors and finishes for cen-

tral office equipment. Power equipment associated with customer premises products shall be finished in accordance with 3.05 covering colors and finishes for customer premises equipment.

- 3.09 Waveguides** will not ordinarily require a finish. However, the No. 525 gray enamel finish (0.0004) may be specified where appearance is of primary importance and cost is not a consideration.

**Metalwork**

Γ **3.10 General:** The gray enamel finishes specified in 3.11, 3.12, and 3.14 covering metalwork are recommended for all general use applications, with the exception of metalwork associated with customer premises equipment. When these finishes are not suitable due to the materials or service conditions involved, other finishes of the same gray color as specified in 3.03(a) shall be used. For metalwork associated with customer premises equipment, finishes having a light olive-gray color as specified in 3.05 shall be used.

- (a) Where a 0.0004 thick enamel finish is to be applied on bare ferrous metal surfaces, the No. 564 phosphate finish (surface preparation suffix code letter "F") shall be applied prior to the enamel finish to assure the required minimum corrosion protection.

- (b) Where a vinyl finish is to be applied on bare ferrous metal surfaces, the drawings of the individual parts shall specify that such surfaces shall be given either the No. 564 phosphate finish (surface preparation suffix code letter "F") or the No. 638 wash primer finish at the option of the manufacturer prior to applying the vinyl finish. Aluminum surfaces shall be given the No. 638 wash primer finish before the vinyl finish is applied.

**3.11 Frameworks** may be finished with either the No. 395 gray enamel, air dried finish (0.0004) or the No. 525 gray enamel, baked finish (0.0004).

- (a) *Framework parts*, whether piece parts or details, that are to be fastened to other framework parts by bolting shall be given either the No. 395 gray enamel, air dried finish or the No. 525 gray enamel, baked finish prior to assembly, unless otherwise specified. Steel

framework parts, such as screws, nuts, and washers, used in assembling framework parts have a passivated zinc-plate finish and do not require any further protection.

### 3.12 Mounting Panels and Covers

(a) **Aluminum Panels:** All surfaces except lapped seams or joints shall be given the No. 596 alkali-etch finish. Lapped seams or joints would entrap the alkali; therefore, they shall be finished as shown in the note in 3.12(b). These panels will not ordinarily require the gray organic finish, although the No. 525 gray enamel finish (0.0004, see 1.05) may be specified for those surfaces where appearance is of primary importance.

(b) **Aluminum Covers:** Aluminum covers shall be vapor degreased or solvent cleaned in all cases and given the No. 525 gray enamel finish (0.0008) on only those outer surfaces where appearance and wear are important.

**Note:** The aluminum components of assemblies to be spot-welded shall be deoxidized in accordance with Manufacturing Process Specification 51606, Section III, prior to assembly. Parts of riveted or bolted assemblies shall be given the No. 596 alkali-etch finish before assembly. This treatment shall not be applied to the complete assembly, since the caustic could be entrapped in the joints.

(c) **Aluminum rear bay removable covers** that have ordinary handling require only the No. 524 red zinc chromate primer under the No. 525 gray enamel finish (0.0004). Covers or panels that get a considerable amount of handling shall be given a No. 552 chromic acid anodized aluminum finish on the assembly or a No. 492 anodized aluminum finish on the component parts prior to applying the No. 524 red zinc chromate primer and the No. 525 gray enamel finish (0.0008).

(d) **Steel Panels:** All surfaces shall be given a protective finish. Any of the following finishes may be selected depending upon the use of the panel.

(1) Where grounding of apparatus for circuit reasons is not required, the entire panel shall be given a No. 525 gray enamel finish (0.0008).

(2) Where grounding of apparatus for circuit reasons is required and appearance is a factor, the entire panel shall be given a No. 584 zinc plate finish (0.0002) followed by a No. 564 phosphate finish, procedure 3 (or a No. 289 zinc plate finish followed by a No. 638 wash primer finish as a shop option), and a No. 525 gray enamel finish (0.0008) applied on the front and edge surfaces only. Where grounding areas are required on surfaces which are to receive the enamel finish, the drawings of the individual panels shall specify that such surfaces shall be masked before the wash primer and enamel finishes are applied.

(3) Where grounding of apparatus for circuit reasons is required and appearance is not of prime importance, the entire panel shall be given a No. 289 zinc plate finish (0.0002) only.

(4) Refer to Section 800-614-154 for protective ground contact surfaces.

(e) **Steel Covers:** Steel covers shall be given the No. 525 gray enamel finish (0.0008) on the outside and the No. 525 gray enamel finish (0.0004) on the inside surfaces.

**3.13 Cold-rolled steel parts** shall, unless otherwise specified, be finished with the No. 289 zinc plate (passivated) finish.

(a) The No. 289 zinc plate finish consists of an electroplated zinc on metal surfaces plus a supplementary passivating treatment. The passivating treatment, which consists of a coating of the chromate type, gives added resistance to finger-printing and to the formation of white corrosion products on zinc or cadmium surfaces. Where the light gray color of electroplated zinc is desired for appearance or other reasons, or where supplementary treatments other than the passivating treatment are required, the No. 584 zinc plate finish shall be used instead of the No. 289 finish.

**Note:** The No. 584 zinc plate finish tends to tarnish with handling and age. When this is objectionable, a clear passivation such as Allied Research Products, Inc Iridite 11-P may be applied to increase the tarnish resistance of the finish.

**3.14 Hot-rolled steel parts** shall, unless otherwise specified, be finished with the No. 395 gray enamel finish (0.0004) or the No. 525 gray baked enamel finish (0.0004).

**3.15 Steel screws, bolts, nuts, washers, etc.**, used for assembling framework parts which have been finished prior to assembly and for fastening apparatus to framework or panels shall normally have a plated finish.

#### Woodwork

**3.16 Exposed surfaces** on the fronts, sides, and tops of desks, cabinets, and similar equipment shall be finished as specified. Exposed surfaces on the rear or on other portions which are made of a different kind of wood from that used for the front, shall be finished to match, as nearly as practicable, the finish of the woodwork on the front.

**3.17 Unexposed surfaces** of desks, cabinets, and similar equipment, including the wooden parts inside of them such as cleats and cable shoes and parts associated with wiring, such as connecting racks, fanning strips, and apparatus mounting panels, shall be finished with two coats of orange shellac, varnish, or flat lacquer (No. 118-BH finish), unless otherwise specified.

**Note:** White shellac shall not be used where insulation is involved.

**3.18 Fitted end surfaces**, such as exposed end surfaces of desk and cabinet woodwork, shall be finished with one coat of boiled linseed oil, stained just sufficiently to somewhat resemble the adjacent finishes. A heavy film-forming material such as shellac or lacquer shall not be used, as this would interfere with the proper fit of the surfaces. Where such woodwork is fiber faced, the end surfaces shall be finished in accordance with the requirements in 3.23 for finishing fiber-faced panels.

**3.19 Wooden parts associated with metal framework**, other than inside of desks and cabinets, such as wood blocks used as spacers or shims, distributing frame designation boards, cable shoes, and wood spacers on cable racks, shall be finished to match the associated framework. Either the KS-8662 gray enamel, the

No. 395 gray enamel, the No. 122E gray lacquer, or, for better wear and appearance, the No. 122F gray lacquer finish may be used for this purpose. Where these parts are to be used with frameworks associated with customer premises equipment, the No. 122BC light olive-gray lacquer finish shall be used.

#### 3.20 Woodwork Finishes

(a) **Birch:** Where a finish to match the No. 105AE medium mahogany finish is required, the No. 104BC birch-medium mahogany finish shall be used. Where a finish to match the No. 105AA mahogany-walnut finish is required, the No. 104AY birch-walnut finish shall be used.

(b) **Mahogany:** The No. 105AB flat-lacquered medium mahogany finish shall be used, unless otherwise specified. Where a finish to match light walnut is required, the No. 105AA flat-lacquered mahogany-walnut finish shall be used.

(c) **Oak:** The No. 102AK flat-lacquered medium oak finish for white oak shall be used, unless otherwise specified.

**3.21 Woodwork hardware**, such as exposed handles, hooks, brackets, and similar parts, shall have a finish having good wear-resisting qualities consistent with the use to which the particular part is subject. The No. 480 black enamel finish (0.0008) may be used for this purpose. Exposed screws, bolts, or other devices used in mounting hardware shall be finished to match the associated hardware.

(a) Unexposed hardware, associated with woodwork, need not be given a finish, unless required for protective purposes.

#### Rubber

**3.22** Grades 1022, 1028, and 1029 per Material Specification 58388 shall be given the No. 112A dull rubber finish, unless otherwise specified.

#### Fiber

**3.23 Fiber-Faced Panels or Woodwork:** Unless otherwise specified, fiber used for facing panels or other woodwork shall have a gray finish. Unexposed surfaces of fiber used

for facing woodwork need not be finished, unless otherwise specified.

| KIND OF FIBER | FINISH USED                                      |  |
|---------------|--|--|
|               | COLOR  | CODE   |
| All fiber     | Gray (to harmonize with gray-finished framework) | 122E<br>Except, use 122F if fiber is to be steel stamped |

When a black finish is required on a fiber-faced part, the finish shall be specified as follows.

| KIND OF FIBER                       | FINISH USED |      |
|-------------------------------------|-------------|------|
|                                     | COLOR       | CODE |
| Black phenol fiber                  | Black       | 116E |
| Black fiber other than phenol fiber | Black       | 116A |

(a) Edges and ends of fiber-faced woodwork normally exposed to view shall be finished to match the face of the panel. For unexposed edges and ends of black-faced panels, use No. 118-O black stain finish. (Edges and ends of relay rack-mounted panels and keyshelves are regarded as not normally exposed to view.)

(b) Walls of holes in fiber-faced woodwork, such as holes for double plug-ended cords, shall be finished to match the face of the panel when specified on the associated equipment drawings. For exposed holes in black-faced panels, use No. 118-O black stain finish. Walls of holes not exposed to view need not be finished.

**3.24 Fiber used for purposes other than facing woodwork** shall be finished as specified for the particular parts.

**Asbestos Composition**

**3.25 Asbestos Composition Panels:** Fuse panels, power board panels, and generator control bay panels of impregnated asbestos composition shall be given the No. 759 gray lacquer for ebony asbestos finish on the front, rear, and edges, including exposed beveled edges.

(a) Black finish is available for impregnated asbestos fuse panels and power board panels where gray would detract from overall good appearance with respect to its surround-

ing equipment. The No. 612 black lacquer finish shall be used on the front and edges, including exposed beveled edges, of the panels requiring the black finish.

(1) Where gray panels are furnished for use on existing power boards having a dull black finish, the gray panels may be refinished to match the black panels using J. L. Armitage Co No. 18652 black lacquer or Pittsburgh Plate Glass Co No. 54-198 flat black paint.

**3.26 Asbestos lumber** used for covers of cable slots or cable holes in floors, shafts, or walls shall be given the KS-8662 or No. 395 gray enamel finish applied over a suitable priming coat, such as du Pont No. 389-187 white sealer-coater or equivalent.

**Surface Preparation**

**3.27** Where surface preparation is listed for a finish, the particular preparation required shall be specified by a suffix code letter in accordance with the following.

| SUFFIX CODE LETTER | METHOD   | REFER TO SECTION OF WEC SPEC NO. 51606 |
|--------------------|--|--|
| A                  | Cleaned, otherwise unprepared  | III                                    |
| B                  | Scratch brushed  | IV                                     |
| C                  | Sandpapered  | V                                      |
| D                  | Sandblasted or steel grit blasted  | VI                                     |
| E                  | Polished and sandblasted or polished and steel grit blasted  | X                                      |
| F                  | Phosphate (iron base metals only)  | X                                      |
| G                  | Sherardize, 50 msi   | X                                      |
| H                  | Zinc plate 0.0005 inch   | X                                      |
| J                  | Zinc plate 0.0002 inch   | X                                      |
| K                  | Polished and buffed before plating, color buffed after plating, or polished and buffed before bright plating | VII and/or IX                          |

| SUFFIX CODE LETTER | METHOD   | REFER TO SECTION OF WECO SPEC NO. 51606 | SUFFIX CODE LETTER | METHOD   | REFER TO SECTION OF WECO SPEC NO. 51606 |
|--------------------|--|---|--------------------|--|---|
| L                  | Bright acid dipped   | VIII                                    | T                  | Burnished                                      | IX                                      |
| M                  | Polished and glazed  | VII and/or IX                           | U                  | Zinc plate (passivated) 289 finish 0.0002 inch | X                                       |
| N                  | Grained  | VII                                     |                    |  |   |
| P                  | Buffed before and after plating, or buffed before bright plating | VII or IX                               |                    |  |   |
| R                  | Phosphate, zinc and cadmium surfaces only                        | X                                       |                    |  |   |
| S                  | Sherardize, 30 msi   | X                                       |                    |  |   |

**Equipment Finishes**

**3.28** Tables A and B cover, in numerical order, the code numbers of the finishes commonly used for equipment purposes. They also include the descriptive name, WECO manufacturing specification number, WL or LRM specification number where issued, and a representative use of each of the standard finishes.

**TABLE A — FINISHES FOR METALS**

| CODE NO. | SPEC NO. | FINISH   | REPRESENTATIVE USE AND REMARKS   |
|----------|----------|--|--|
| 7        | WL-2157  | Solder dip   | Tinning on terminal lugs and punchings for soldering   |
| 31       | WL-2250  | Nickel plate — 0.0002 on ferrous metals, aluminum, and zinc — 0.0001 on other metals — also available 0.0005 and 0.001*†                                   | General use — corrosive protection — replaces the canceled No. 561 finish                    |
| 275      | WL-2017  | Black lacquer, air dried — 0.0004 or 0.0008*   | General use — metal parts  |
| 289      | WL-2250  | Zinc plate (passivated) 0.0002 for general use—0.0005 for moisture-proofing outside continental U.S.A. — also available 0.001 or 0.002*†                   | General use — replaces the canceled No. 3, 526, and 563 finishes                             |
| 395      | WL-2092  | Gray enamel, air dried — 0.0004 or 0.0008*   | General use — equipment framework except customer premises equipment                         |
| 409      | WL-2250  | Chromium plate — 0.0002 on adjusting screws (exposed) — 0.00001 on ferrous and brass screws and tools — also available 0.00002, 0.0001, 0.0005, or 0.001*† | Radio equipment — wear-resistant finish  |
| 417      | WL-2081  | Transparent lacquer, air dried — 0.0004 or 0.0008*   | Corrosion-resistant finish for base metals, such as brass, copper, bronze, nickel and silver |

\* The desired thickness of the finish shall be specified in all cases.

† Other weights or thicknesses may be specified with the approval of the Finish Development Group.



TABLE A — FINISHES FOR METALS (cont)

| CODE NO. | SPEC NO. | FINISH  | REPRESENTATIVE USE AND REMARKS  |
|----------|----------|---|---|
| 470      | WL-2041  | Gray insulating lacquer, air dried  | General use except customer premises equipment  |
| 472      | WL-2043  | Gray lacquer, air dried — 0.0004 or 0.0008*   | General use except customer premises equipment  |
| 475      | WL-2250  | Silver plate — 0.0002 on brass for electrical contact — 0.0005 on brass for wear — also available 0.0001 or 0.001*† | Radio equipment — where a surface of high electrical conductivity and low contact resistance is desired   |
| 480      | WL-2052  | Black enamel, baked — 0.0004 or 0.0008*   | General use — stile casings, rear surface   |
| 483      | WL-2051  | Gray insulating enamel, baked   | Cable brackets and fanning rings  |
| 484      | WL-2085  | Acid-resistant gray enamel, baked   | Metal battery stands and other battery room equipment   |
| 492      | WL-2253  | Anodized aluminum   | General use — base for subsequently applied organic coatings  |
| 523      | WL-2089  | Black zinc chromate primer, baked   | Corrosion inhibiting undercoat for finish system which may be subjected to outdoor, humid, aviation, or marine service conditions   |
| 524      | WL-2094  | Red zinc chromate primer, baked   | Corrosion inhibiting undercoat for finish systems which may be subjected to tropical, climatic, or marine service conditions  |
| 525      | WL-2103  | Gray enamel, baked — 0.0004 or 0.0008*  | General use except customer premises equipment  |
| 552      | WL-2253  | Chromic acid anodized aluminum  | Corrosion-resistant coating—may be used for spot-welded or riveted constructions utilizing lapped joints  |
| 560      | WL-2250  | Copper plate — 0.0002 on ferrous metals — 0.0001 on nonferrous metals — also available 0.0005 or 0.001*†            | Corrosion protection, improved surface conductivity, and to facilitate soldering on ferrous and nonferrous surfaces — steel parts on power boards such as screws and nuts — replaces the canceled No. 51 finish |
| 562      | WL-2250  | Tin plate for soldering purposes‡ — 0.0001 or 0.0002*†  | General use — corrosion protection and to facilitate soldering  |

\* The desired thickness of the finish shall be specified in all cases.

† Other weights or thicknesses may be specified with the approval of the Finish Development Group.

‡ When used on brass or steel, an undercoat of copper plate (No. 560 finish) 0.0002 inch thick is required.

TABLE A — FINISHES FOR METALS (cont)

| CODE NO. | SPEC NO. | FINISH   | REPRESENTATIVE USE AND REMARKS   |
|----------|----------|--|--|
| 564      | WL-2145  | Phosphate — <i>Procedure 1</i> : dip method for zinc and cadmium surfaces. <i>Procedure 3</i> : predip or pre-spray method prior to dip method (procedure 1) for zinc or cadmium surfaces. <i>Procedure 4</i> : dip or spray method for ferrous parts. | General use — base for subsequently applied organic coatings   |
| 569      | WL-2152  | Lacquer primer, air dried — 0.0004*  | General use — corrosion inhibiting undercoat for lacquer finishes  |
| 570      | WL-2153  | Air-dry primer, a coating of red iron oxide primer — 0.0004*   | General use — protective undercoat   |
| 571      | WL-2156  | Chemically oxidized aluminum   | Radio equipment — on aluminum and aluminum alloys as a preparation for painting  |
| 575      | WL-2162  | Gray-green wrinkle enamel, baked — one coat. If necessary to match color, one coat of gray-green lacquer, air dried, may be added  | Matching color for FAA equipment   |
| 584      | WL-2250  | Zinc plate (not passivated) — 0.0002 or 0.0005 — also available 0.001 or 0.002*†   | Not intended for general use. May be used as a corrosion protection of ferrous parts only when appearance or other special conditions are controlling (see note in 3.13) |
| 596      | WL-2188  | Alkali etch  | General use — on aluminum surfaces   |
| 604      | WL-2196  | Finish for etched aluminum   | Aluminum nameplates and panels   |
| 609      | WL-2198  | Gray-green enamel, baked—0.0004 or 0.0008*   | Interior of power equipment cabinets   |
| 618      | WL-2221  | Acid resistant gray enamel, air dried — 0.0012*  | Battery room equipment   |
| 634      | WL-2229  | Bell System standard green enamel, air dried—0.0004 or 0.0008*   | Cabinets for emergency equipment   |
| 635      | WL-2229  | Bell System standard green enamel, baked — 0.0004 or 0.0008*   | Cabinets for emergency equipment   |
| 638      | WL-2232  | Wash primer, air dried — 0.0004*   | Corrosion inhibiting undercoat   |
| 639      | WL-2235  | Flat clear lacquer, air dried — 0.0004 or 0.0008*  | General use  |

\* The desired thickness of the finish shall be specified in all cases.

† Other weights or thicknesses may be specified with the approval of the Finish Development Group.

TABLE A — FINISHES FOR METALS (cont)

| CODE NO. | SPEC NO. | FINISH   | REPRESENTATIVE USE AND REMARKS   |
|----------|----------|--|--|
| 655      | WL-2249  | Immersion zinc   | To facilitate subsequent plating on aluminum and aluminum alloys   |
| 660      | WL-2250  | Cadmium plate (passivated) — available in the following thicknesses — 0.0001, 0.0002, 0.0005 and 0.001*†                                       | Corrosion protection on metal parts particularly those made of copper or copper alloys on which zinc plate finish cannot be used |
| 662      | WL-2254  | Passivation (for stainless steel)  | To remove imbedded foreign metallic material from stainless steel  |
| 693      | WL-2285  | Light olive-gray textured vinyl, baked, applied over an air-dried or baked primer  | Customer premises equipment ←  |
| 696      | WL-2277  | Dark covert gray enamel, baked — 0.0004 or 0.0008*   | Customer premises equipment ←  |
| 698      | WL-2288  | Warm gray metallic enamel, baked — 0.0004 or 0.0008*   | General use — where a stain-resistant, nonmarring finish having an aluminum appearance is required                               |
| 700      | WL-2290  | Dark covert gray textured vinyl, baked, applied over an air-dried or baked primer  | Customer premises equipment ←  |
| 701      | WL-2292  | Light olive-gray lacquer, air dried — 0.0004 or 0.0008*  | Customer premises equipment ←  |
| 702      | WL-2291  | Light olive-gray enamel, baked — 0.0004 or 0.0008*   | Customer premises equipment ←  |
| 703      | WL-2294  | Light olive-gray wrinkle enamel, baked — one coat. If necessary to match color, one coat of light olive-gray lacquer, air dried, may be added. | Customer premises equipment ←  |
| 708      | WL-2239  | Light olive-gray enamel, baked (epoxy) — 0.0004 or 0.0008*   | Customer premises equipment ↗  |
| 713      | WL-2302  | Gray insulating epoxy coating  | General use except customer premises equipment ↘   |
| 714      | WL-2300  | Gray insulating vinyl, baked, applied over an air-dried, or baked primer   | Fanning rings and mounting plates for number network frames  |

\* The desired thickness of the finish shall be specified in all cases.

† Other weights or thicknesses may be specified with the approval of the Finish Development Group.

TABLE A — FINISHES FOR METALS (cont)

| CODE NO. | SPEC NO. | FINISH   | REPRESENTATIVE USE AND REMARKS  |
|----------|----------|--|---|
| 715      | WL-2301  | Gray textured vinyl, baked applied over an air-dried or baked primer       | General use except customer premises equipment—replaces the canceled No. 732 finish |
| 716      | WL-2303  | Light olive-gray vinyl, baked, applied over an air-dried or baked primer   | Customer premises equipment   |
| 728      | WL-2305  | Gray-blue textured vinyl, baked, applied over an air-dried or baked primer | General use except customer premises equipment—replaces the canceled No. 731 finish |

TABLE B — FINISHES FOR WOOD, RUBBER, FIBER, AND ASBESTOS COMPOSITION

| CODE NO. | SPEC NO.               | FINISH  | REPRESENTATIVE USE AND REMARKS   |
|----------|------------------------|---|--|
| 102AK    | WEC0-55595<br>LRM-2154 | Flat-lacquered oak, medium — filler stained and either 3 coats of flat lacquer or 1 coat of lacquer sealer plus 2 coats of lacquer                  | Exposed wood surfaces — harmonizes with No. 102S (canceled) and 102AJ finishes   |
| 104AY    | WEC0-55611<br>LRM-2165 | Flat-lacquered birch, walnut — stained, toned and either 3 coats of flat lacquer or 1 coat of lacquer sealer plus 2 coats of flat lacquer           | Walnut finish to match No. 105V and 105AA mahogany finish — harmonizes with No. 101K (canceled), 104AP, 104AR, and 122V finishes   |
| 104BC    | WEC0-55615<br>LRM-2206 | Flat-lacquered birch, medium mahogany — stained, toned, and either 3 coats of flat lacquer or 1 coat of lacquer sealer plus 2 coats of flat lacquer | Exposed wood surfaces — birch finish to match No. 105AE mahogany finish — replaces the canceled No. 104E finish  |
| 105AA    | WEC0-55596<br>LRM-2155 | Flat-lacquered mahogany, walnut — stained, toned and either 3 coats of flat lacquer or 1 coat of lacquer sealer plus 2 coats of flat lacquer        | Exposed wood surfaces — harmonizes with No. 101K (canceled), 104AP, 104AR, 104AY, 105T (canceled), 105V (canceled), and 122V finishes and No. 460 (canceled), and 512 metal finishes |
| 105AB    | WEC0-55616<br>LRM-2168 | Flat-lacquered mahogany, medium — stained, toned, and either 3 coats of flat lacquer or 1 coat of lacquer sealer plus 2 coats of flat lacquer       | Exposed wood surfaces — harmonizes with No. 105A (canceled) and 105W finishes  |

TABLE B — FINISHES FOR WOOD, RUBBER, FIBER, AND ASBESTOS COMPOSITION (cont)

| CODE NO. | SPEC NO.               | FINISH  | REPRESENTATIVE USE AND REMARKS  |
|----------|------------------------|---|---|
| 105AE    | WEC0-55627             | Flat-lacquered mahogany, medium — filler stained, toned, 1 coat of lacquer sealer, and 2 coats of flat lacquer                                    | Exposed wood surfaces ←   |
| 109V     | WEC0-55584             | Flat-varnished basswood, medium mahogany — filler stained and 2 coats of flat varnish   | Exposed wood surfaces ←   |
| 109W     | WEC0-55619<br>LRM-2209 | Flat-lacquered basswood, medium mahogany — filler stained, and either 3 coats of flat lacquer or 1 coat of lacquer sealer plus 2 coats of lacquer | Exposed wood surfaces — replaces the canceled No. 109B and 109K finishes ←  |
| 112A     | WEC0-50487             | Dull rubber, rubbed dull and oiled  | Jack boxes, plugs, and lamp shelves, keytops  |
| 116A     | WEC0-50512             | Dull fiber, 2 coats of black shellac, rubbed dull   | Exposed surfaces of fiber other than phenol fiber   |
| 116E     | WEC0-50516<br>LRM-2111 | Dull phenol fiber, black—rubbed or ground dull and stained  | Exposed surfaces of phenol fiber  |
| 118D     | WEC0-50530<br>LRM-2160 | White shellac, varnish, or lacquer, 2 coats   | To exclude moisture from unexposed woodwork. Not to be used where wood serves as an insulator or comes into contact with wiring or electrically functional metallic details |
| 118-O    | WEC0-50884             | Black stain, one coat of shellac stain  | End surfaces and walls of holes in wood, fiber, or rubber-faced panels and on unexposed parts   |
| 118AP    | WEC0-55533             | Dull-varnished wood, ebonized — 1 coat of black shellac stain, 2 coats of black shellac, and 1 coat of black varnish or black enamel, rubbed dull | General use   |
| 118AS    | WL-2084                | Acid resistant gray enamel, air dried, 3 coats  | Miscellaneous details in battery rooms—harmonizes with No. 484 metal finish ←   |
| 118BB    | WEC0-55621<br>LRM-2207 | Clear penetrating wood coating, 2 coats   | Rolling ladders   |
| 118BH    | WEC0-55645<br>LRM-2226 | Orange shellac, varnish, or lacquer, 2 coats  | To exclude moisture from unexposed woodwork, may be used where wood serves as an insulator or comes in contact with wiring or electrically functional metallic details      |

TABLE B — FINISHES FOR WOOD, RUBBER, FIBER, AND ASBESTOS COMPOSITION (cont)

| CODE NO. | SPEC NO. | FINISH   | REPRESENTATIVE USE AND REMARKS   |
|----------|----------|--|--|
| → 122E   | WL-2044  | Gray lacquer, one coat   | General use — exposed surfaces of wood or phenol fiber not associated with customer premises equipment |
| → 122F   | WL-2304  | Gray lacquer, 2 coats  | General use — exposed surfaces of wood or phenol fiber not associated with customer premises equipment |
| ↖ 122BC  | WL-2296  | Light olive-gray lacquer — one coat of lacquer sealer and one coat of light olive-gray lacquer                                 | Wood surfaces associated with customer premises equipment  |
| ↙ 395    | WL-2092  | Gray enamel, air dried — one coat of orange shellac plus one coat of gray enamel   | General use — wooden parts associated with metal framework other than customer premises equipment      |
| → 612    | WL-2212  | Dull black lacquer — filled if required, plus 1 or 2 coats of dull black lacquer, air dried                                    | Ebony asbestos fuse panels   |
| ↖ 759    | WL-2325  | Gray lacquer for ebony asbestos — filled if required, plus 1 coat of du Pont white sealer coater and two coats of gray lacquer | Ebony asbestos fuse panels and powerboards   |

#### 4. CLEANING, RETOUCHING, AND REFINISHING

##### General

4.01 *Finishes that are damaged beyond economical repair* shall be refinished as required.

4.02 *Refinishing in Central Offices:* Finishes containing highly flammable volatile vehicles such as amyl acetate, ethyl acetate, acetone, benzine, and similar low-flash solvents shall not be used for refinishing in central offices.

↖ 4.03 *Retouching in Central Offices:* When used in small quantities, lacquers are permissible in central offices for retouching scratches, ↙ chips, or other minor surface imperfections.

##### Requirements for Metal Finishes

4.04 *Finishes that are soiled*, but not otherwise marred, shall be cleaned as necessary with soap and water. Flammable fluids such as turpentine or fluids of low flash point such as gasoline, benzine, naphtha, or alcohol shall not be used for cleaning finishes in central offices.

(a) Soiled aluminum finishes shall be cleaned with a mixture of boiled linseed oil and KS-7860 mineral spirits, in the proportion of 1 pint of linseed oil to 1 gallon of mineral spirits (one part of eight by volume). The cleaning cloth shall be well saturated with the mixture and the whole surface shall be well rubbed. Excess cleaner shall be absorbed with the saturated cloth, but no attempt shall be made to wipe the surface dry.

(b) Soiled textured vinyl finishes shall be cleaned using S. C. Johnson and Son, Inc. No. 7700 Cleaning and Polishing Wax Emulsion, also available packaged in smaller quantities under the retail trade name of Johnson's "Jubilee" cleaner wax. Cleaners containing chlorinated hydrocarbons shall be avoided since their use will result in the softening and degrading of the vinyl finish.

*Note:* Bell System Standard Furniture Polish or other cleaners containing methyl silicone shall not be used for cleaning equipment surfaces, as methyl silicone is capable of migrating for long distances along wire insulation, eventually reaching and contaminating circuit contact surfaces of components such as keys and relays.

**4.05 Finishes that are marred**, including those on commercial parts but not damaged beyond repair, shall be retouched to approximate the original condition by the use of approved abrasives and finishing materials, as required.

(a) The use of abrasives shall be kept to a minimum. They shall be used only where the finish is gouged and piled up. When this condition exists, smooth off with a 2-0 emery cloth.

(b) Clean spots or surfaces to be touched up with soap and water or mineral spirits, making certain that spots or surfaces are thoroughly dry before applying touch-up finish.

(c) Use a good quality brush. The consistency of KS-8662 enamel used for retouching differs markedly from that of trade sales enamels in that it was designed primarily as a retouching enamel for small areas. Use a small amount of paint on brush for touching up small spots. Use care and do not rush the job. Apply paint, flowing on with strokes in one direction and finish with strokes in the opposite direction. Completely refinish small areas as work proceeds. This applies to touching up of spots or refinishing of whole areas or parts of areas.

(d) Scratches on metal surfaces not through to base metal shall be cleaned but need not be refinished unless so many scratches are

present as to make the area unsightly. Scratches on the front or top of switchboards or desks shall be touched up in all cases.

#### Requirements for Wood Finishes

**4.06 Wood surfaces having mahogany or walnut finishes that are soiled (finger marked)** or that have slight scratches may be cleaned and polished with scratch cover polish. Wood surfaces having lighter finishes, such as the oak finishes, may be cleaned and polished with cream wax polish.

**4.07 Wood finishes that have deep scratches or that have been gouged** shall be filled with water base putty and, when dry, smoothed off with sandpaper. Fillers and stains to match the surrounding surface as near as possible shall then be applied, after which the repaired surface shall be touched up with Pratt and Lambert No. 410 flat varnish. Shellac sticks (shellac cement) of a matching color may be used in place of the water base putty for filling the scratches or holes. Painted wood finishes which do not require staining may be filled with either plastic wood putty or water base putty prior to applying the retouch finish.

#### Refinishing Frameworks and Framing

**4.08 Where required to refinish frameworks having a black asphaltum paint finish to match the former No. 55 aluminum enamel finish**, the framework shall be given a priming coat, such as the du Pont No. 389-187 white sealer coater or equivalent (see note in 3.02). One coat of aluminum enamel, in accordance with note 1 of Table C, shall be applied after the priming coat has thoroughly dried.

**4.09 Where required to refinish frameworks having a black asphaltum paint finish to match the No. 395 gray enamel finish**, the framework shall be given a priming coat, such as the du Pont No. 389-187 white sealer coater or equivalent (see note in 3.02), followed by one coat of KS-8662 gray enamel after the priming coat has thoroughly dried.

**4.10 When the galvanizing or original paint of fuel tanks** has been scratched or chipped, the tanks shall be touched up with zinc rich paint before being buried.

**4.11 Refinish of Cut Auxiliary Framing, Racks, etc:** Auxiliary framing bars or channels, cable racks, and ladder tracks that have been cut by the installer shall have the cut ends refinished with KS-8662 gray enamel. Hanger rods, having the passivated finish shall have cut ends refinished with No. 1438A tan chromate enamel

obtained from the Vita Var Company, 1471 Jersey Ave., North Brunswick, N.J. If not available, KS-8662 gray enamel shall be used.

#### Retouching Finishes

**4.12** The finishes shown in Table C are recommended for retouching.

**TABLE C — RETOUCH FINISHES**

| ORIGINAL FINISH |   | RETOUCH FINISH   |
|-----------------|---|--|
| CODE NO.        | DESCRIPTION                               | DESCRIPTION  |
| 3               | Electroplated zinc (canceled)             | See note 1   |
| 55              | Aluminum enamel (canceled)                | See note 1   |
| 67              | Mahogany enamel                           | No. XA-6707 mahogany enamel — Armstrong Paint & Varnish Works, Chicago, Illinois                                   |
| 102AK           | Flat lacquered oak — medium               | No. 102AJ flat varnished oak — medium  |
| 104AY           | Flat lacquered birch — walnut             | No. 104AP flat varnished birch — walnut  |
| 104BC           | Flat Lacquered birch—medium mahogany      | No. 104AS flat varnished birch — medium mahogany   |
| 105AA           | Flat lacquered mahogany — walnut          | WGFN-990C Afosan brown plectone multicolored lacquer   |
| 105AB           | Flat lacquered mahogany — medium          | No. 105W flat varnished mahogany — medium  |
| 109W            | Flat lacquered basswood — medium mahogany | No. 109V flat varnished basswood — medium mahogany   |
| 118AS           | Acid resistant gray enamel                | WL-58751 acid resistant gray enamel  |
| 122D            | Dull black lacquer (canceled)             | J. L. Armitage Co No. 18652 black lacquer, or Pittsburgh Plate Glass Co No. 54-198 flat black paint — see note 3   |
| 122Z            | Federal gray lacquer                      | WL-58724 federal gray enamel   |
| 122AB           | Beige-gray lacquer                        | Vita Var Co, No. 1744 beige-gray lacquer or Pittsburgh Plate Glass Co. No. NL-28365A beige-gray lacquer—see note 3 |
| 122AZ           | Gray-beige lacquer                        | J. L. Armitage Co No. 15167 flexible gray-beige wood lacquer — see note 3  |
| 122BA           | Beige-gray lacquer                        | J. L. Armitage Co No. 15165 flexible beige-gray wood lacquer — see note 3  |



TABLE C — RETOUCH FINISHES (Cont)

| ORIGINAL FINISH |   | RETOUCH FINISH  |
|-----------------|---|---|
| CODE NO.        | DESCRIPTION   | DESCRIPTION   |
| 122BB           | Medium gray lacquer   | J. L. Armitage Co No. 15166 flexible medium gray wood lacquer — see note 3                        |
| 122BC           | Light olive-gray lacquer  | WL-58769 light olive-gray lacquer   |
| 241             | Sherardized zinc  | Aluminum enamel (see note 1) or KS-8662 gray enamel   |
| 275             | Black lacquer   | Pittsburgh Plate Glass Co No. UC-10736 black Lavax or du Pont Dulux No. 83-005 black enamel       |
| 289             | Zinc plate (passivated)   | Vita Var Co, No. 1438A tan chromate enamel  |
| 345             | Bower-Barff — light deposit (canceled—replaced by No. 523 and 480 finish) | Valspar gray 4-hour enamel for Bower-Barff — for retouch of black, see retouch for No. 480 finish |
| 361             | Hot galvanize   | Aluminum enamel — see note 1  |
| 395             | Gray enamel, air dried  | KS-8662 gray enamel   |
| 401             | Aluminum enamel, baked (canceled)   | Aluminum enamel — see note 1  |
| 402             | Aluminum enamel, baked (canceled)   | Aluminum enamel — see note 1  |
| 404             | Black wrinkle enamel, baked   | Pittsburgh Plate Glass Co No. UC-10736 black Lavax or du Pont Dulux No. 83-005 black enamel       |
| 405             | Gray enamel, baked (obsolete)   | KS-8662 gray enamel   |
| 450             | Olive-green lacquer   | Du Pont Dulux No. RP88033 olive-green enamel or Keystone No. 8410 olive-green enamel — see note 4 |
| 470             | Gray insulating lacquer   | KS-8662 gray enamel   |
| 472             | Gray lacquer  | KS-8662 gray enamel   |
| 473             | Light gray lacquer (obsolete)   | KS-8662 gray enamel   |
| 474             | Gray insulating enamel (canceled)   | KS-8662 gray enamel   |
| 476             | Aluminum gray lacquer   | KS-8245 aluminum gray enamel  |
| 480             | Black enamel, baked   | Pittsburgh Plate Glass Co No. UC-10736 black Lavax or du Pont Dulux No. 83-005 black enamel       |
| 481             | Black enamel, baked (obsolete — replaced by No. 480 finish)               | Pittsburgh Plate Glass Co No. UC-10736 black Lavax or du Pont Dulux No. 83-005 black enamel       |

TABLE C — RETOUCH FINISHES (Cont)

| ORIGINAL FINISH |   | RETOUCH FINISH  |
|-----------------|---|---|
| CODE NO.        | DESCRIPTION   | DESCRIPTION   |
| 483             | Gray insulating enamel, baked   | KS-8662 gray enamel   |
| 484             | Acid resistant gray enamel  | WL-58751 acid resistant gray enamel   |
| 488             | Olive-green enamel, baked   | Du Pont Dulux No. RP88033 olive-green enamel or Keystone No. 8410 olive-green enamel — see note 4               |
| 511             | Mahogany enamel, baked  | Vita Var Co, No. 1576 air-drying enamel   |
| 512             | Walnut enamel, baked  | Vita Var Co, No. 1581 air-drying enamel   |
| 513             | Oak enamel, baked (canceled)  | Vita Var Co, No. 1580 air-drying enamel   |
| 525             | Gray enamel, baked  | KS-8662 gray enamel   |
| 533             | Light gray wrinkle enamel   | KS-8662 gray enamel   |
| 560             | Copper plate (power equipment details)                                | Vita Var Co, No. 1498A tan chromate enamel or KS-8662 gray enamel   |
| 572             | Light aluminum gray lacquer   | KS-13643 light aluminum gray enamel   |
| 575             | Gray-green wrinkle enamel   | See note 2  |
| 576             | Light brown wrinkle enamel  | Martin Senour Paint Co, Chicago, Illinois, No. 10876 satin gloss enamel   |
| 578             | Light aluminum gray enamel, baked (canceled)                          | KS-13643 light aluminum gray enamel   |
| 579             | Aluminum gray enamel, baked (canceled)                                | KS-8245 aluminum gray enamel  |
| 584             | Zinc plate (not passivated). For passivating zinc, see No. 289 finish | KS-8662 gray enamel — see note 1  |
| 586             | Federal gray enamel, baked  | WL-58724 federal gray enamel  |
| 605             | ASA-33 gray enamel, baked   | Vita Var Co, No. 1848 gray lacquer—see note 3   |
| 606             | Beige-gray wrinkle enamel, baked                                      | No. 10635 satin gloss enamel — Martin Senour Paint Co, Chicago, Illinois  |
| 612             | Dull black lacquer  | J. L. Armitage Co No. 18652 black lacquer or Pittsburgh Plate Glass Co No. 54-198 flat black paint — see note 3 |
| 613             | Semigloss federal gray enamel, baked                                  | WL-58717 semigloss federal gray enamel  |

TABLE C — RETOUCH FINISHES (Cont)

| ORIGINAL FINISH |  | RETOUCH FINISH   |
|-----------------|--|--|
| CODE NO.        | DESCRIPTION                            | DESCRIPTION  |
| 618             | Acid-resistant gray enamel, air dried  | WL-58751 acid-resistant gray enamel  |
| 659             | ASA-33 gray wrinkle enamel, baked      | Vita Var Co. No. 1872 (ASA-33) gray lacquer or Maas and Waldstein No. PEF 248 (ASA-33) gray lacquer — see note 3 |
| 670             | ASA-33 gray textured vinyl, baked      | J. L. Armitage Co No. VL-15051 ASA-33 gray vinyl lacquer — see note 3  |
| 671             | Dull gray-green textured vinyl, baked  | J. L. Armitage Co No. VL-15052A gray-green vinyl lacquer — see note 3  |
| 675             | Light gray-beige textured vinyl, baked | J. L. Armitage Co No. VL-15094 light gray-beige vinyl lacquer — see note 3                                       |
| 676             | Beige-gray textured vinyl, baked       | J. L. Armitage Co No. VL-15095 beige-gray vinyl lacquer — see note 3   |
| 677             | Medium gray textured vinyl, baked      | J. L. Armitage Co No. VL-15096 medium gray vinyl lacquer — see note 3  |
| 678             | Light gray-beige enamel, baked         | Maas and Waldstein Catalyst FC-147 mixed one part to nine parts of Durachem 13469, the original finish material. |
| 688             | Federal gray textured vinyl, baked     | J. L. Armitage Co No. VL-15183 federal gray vinyl lacquer — see note 3   |
| 693             | Light olive-gray textured vinyl, baked | J. L. Armitage Co No. VL-16273 light olive-gray vinyl lacquer — see note 3                                       |
| 696             | Dark covert gray enamel, baked         | WL-58771 dark covert gray enamel   |
| 698             | Warm gray metallic enamel, baked       | Maas and Waldstein No. 37313 Codure warm gray Metallustre enamel   |
| 699             | Light beige textured vinyl, baked      | J. L. Armitage Co No. VL-16192 light beige vinyl lacquer — see note 3  |
| 700             | Dark covert gray textured vinyl, baked | J. L. Armitage Co No. VL-16225 dark covert gray vinyl lacquer — see note 3                                       |
| 701             | Light olive-gray lacquer, air dried    | WL-58769 light olive-gray lacquer — see note 3   |
| 702             | Light olive-gray enamel, baked         | WL-58768 light olive-gray enamel   |
| 703             | Light olive-gray wrinkle enamel, baked | Duralac Chemical Co No. 21N-L4645 light olive-gray enamel  |
| 704             | Light gray enamel, baked               | WL-58770 light gray enamel   |
| 708             | Light olive-gray enamel, baked (epoxy) | WL-58768 light olive-gray enamel   |

TABLE C — RETOUCH FINISHES (Cont)

| ORIGINAL FINISH |  | RETOUCH FINISH   |
|-----------------|--|--|
| CODE NO.        | DESCRIPTION                                | DESCRIPTION  |
| 711             | Light gray textured vinyl, baked           | J. L. Armitage Co No. VL-16272 light gray vinyl lacquer — see note 3       |
| 712             | Light gray wrinkle enamel, baked           | Duralac Chemical Co No. L4652 light gray enamel                            |
| 713             | Gray insulating epoxy coating              | KS-8662 gray enamel  |
| 714             | Gray insulating vinyl, baked               | J. L. Armitage Co No. VL-16284 gray vinyl lacquer — see note 3             |
| 715             | Gray textured vinyl, baked                 | J. L. Armitage Co No. VL-16284 gray vinyl lacquer — see note 3             |
| 716             | Light olive-gray vinyl, baked              | J. L. Armitage Co No. VL-16283 light olive-gray vinyl lacquer — see note 3 |
| 728             | Gray-blue textured vinyl, baked            | J. L. Armitage Co No. VL-16251 gray-blue vinyl lacquer — see note 3        |
| 729             | Pale green textured vinyl, baked           | J. L. Armitage Co No. VL-16345 pale green vinyl lacquer — see note 3       |
| 731             | Gray-blue grained vinyl, baked (canceled)  | J. L. Armitage Co No. VL-16251 gray-blue vinyl lacquer — see note 3        |
| 732             | Light gray grained vinyl, baked (canceled) | J. L. Armitage Co No. VL-16284 gray vinyl lacquer — see note 3             |
| 737             | Charcoal textured vinyl, baked             | J. L. Armitage Co No. VL-16443 charcoal vinyl lacquer — see note 3         |
| 738             | Light gray-beige smooth vinyl, baked       | J. L. Armitage Co No. VL-15094 light gray-beige vinyl lacquer — see note 3 |
| 759             | Gray lacquer for ebony asbestos            | Du Pont No. 389-187 white sealer coater plus KS-8662 gray enamel           |
| 772             | Dark covert gray smooth vinyl, baked       | J.L. Armitage Co No. VL-16959 dark covert gray vinyl lacquer — see note 3. |
| 773             | Off-white smooth vinyl, baked              | J.L. Armitage Co No. VL-16958 off-white vinyl lacquer — see note 3         |

**Notes**

1. Du Pont Dulux aluminum enamel No. 165-5642, Pittsburgh Plate Glass Lavax aluminum No. UC-31770, and Valentine aluminum enamel No. 550222 may be used but are not recommended for retouching parts where insulating bushings, insulators, terminals, or wiring are likely to be coated by the retouching finish. Such parts should be retouched with KS-8662 gray enamel.
2. For retouching No. 575 gray-green wrinkle enamel finish, mixing one tube (1 ounce) each of No. 123 and 127 du Pont custom tinting colors added to 9-1/2 fluid ounces of No. 292 du Pont custom color odorless semigloss alkyd enamel deep base thinned with an equal volume of Standard Oil Co Solvesso 150 will give an approximate match. Some adjustments of the proportions of these colors may have to be made to obtain an exact match.

3. Lacquers shall not be used for refinishing within the central office, however, the use of lacquers in small quantities for retouching purposes is permissible in central offices.
4. Keystone No. 8410 olive-green enamel is for Distributing House Shop use.

**REASONS FOR REISSUE**

1. To broaden the scope of this section regarding selection of colors and types of finishes (1.01).
2. To cover the use of this section as a guide, and to include information regarding engineer responsibility (1.03).
3. To include reference to baking facilities [1.05(c)].
4. To add a paragraph covering baked vinyl finishes [1.05(d)].
5. To delete the former 1.06 covering preferred colors for equipment steel frameworks and switchboard woodwork.
6. To delete the former 2.03 covering finish of coded apparatus and power apparatus furnished by outside suppliers.
7. To specify No. 389-187 instead of No. 389-011 white sealer coater (3.02, 3.06, 3.26, 4.08, and 4.09).
8. To add a paragraph covering colors and finishes for central office equipment and associated test equipment (3.03).
9. To add a paragraph covering colors and finishes for customer premises equipment (3.05).
10. To add a paragraph covering finishes for power, radio, and carrier transmission equipment (3.08).
11. To delete the former 3.10 covering finishes for keyshelf aprons and key pans.
12. To add a paragraph covering general application of gray organic finishes and surface primers for enamel and vinyl finishes (3.10).
13. To delete reference to the No. 586 federal gray enamel finish [3.11 and 3.12(d)].
14. To delete reference to the canceled No. 653 sulfochromate finish and to specify Manufacturing Process Specification 51606, Section III [note in 3.12(b)].
15. To specify the use of the No. 289 and No. 638 finishes as a shop option [3.12(d) (2)].
16. To delete reference to switchboards (3.16, 3.17, 3.18, and 3.19)
17. To add reference to the No. 122BC light olive-gray lacquer finish (3.19).
18. To specify Material Specification 58388 (3.22).
19. To specify the use of a gray finish in preference to black (3.23).
20. To delete reference to rubber-faced woodwork [3.23(a) and (b)].
21. To specify the No. 759 gray lacquer finish instead of the No. 122Z federal gray lacquer finish and to specify the use of a gray finish in preference to black (3.25).
22. To revise Table A as follows:
  - (a) To specify exception of customer premises equipment as a representative use for the No. 395, 470, 472, 525, and 715 finishes.
  - (b) To specify general use instead of radio equipment as a representative use for the No. 492 finish.
  - (c) To specify spray method in procedure 4 and to delete procedure 6 for the No. 564 finish.
  - (d) To delete the canceled No. 578, 653, 731, and 732 finishes.
  - (e) To specify customer premises equipment as a representative use for the No. 693, 700, 701, 702, 703, and 716 finishes.
  - (f) To add the No. 696, 708, 713, and 728 finishes.
  - (g) To delete the No. 67, 404, 450, 466, 476, 488, 511, 512, 533, 572, 586, 600, 605, 606, 613, 657, 659, 670, 671, 675, 676, 677, 678, 688, 699, 704, 711, 712, and 729 finishes which are no longer recommended as standard colors for new equipment applications.
23. To revise Table B as follows:
  - (a) To refer to WL specifications instead of LRM and WECO specifications and to specify gray instead of light gray for the No. 118AS, 122E, and 122F finishes.

- (b) To specify exposed wood surfaces instead of switchboards as a representative use for the No. 102AK, 104BC, 105AA, 105AB, 105AE, 109V, and 109W finishes.
  - (c) To delete switchboards as a representative use for the No. 104AY finish.
  - (d) To specify exception of customer premises equipment as a representative use for the 122E, 122F, and 395 finishes.
  - (e) To add the No. 122BC and 759 finishes.
  - (f) To delete the No. 104AL, 104AM, 104AR, 116L, 118AK, 122P, 122V, 122Y, 122Z, 122AB, 122AV, 122AZ, 122BA, 122BB, and 611 finishes which are no longer recommended as standard colors for new equipment applications.
- 24. To add 4.03 covering retouching of equipment in central offices.
  - 25. To add 4.04(b) and note covering cleaning of soiled textured vinyl finishes.
  - 26. To revise 4.07 to specify water base putty instead of plastic wood putty for stained wood surfaces, and to add putty information covering painted wood surfaces.
  - 27. To revise 4.10 to specify zinc rich paint instead of red lead.
  - 28. To revise 4.11 to specify Vita Var Company instead of Newark Varnish Works.
  - 29. To revise Table C as follows:
    - (a) To specify canceled for the No. 3, 55, 122D, 345, 401, 402, 578, and 579 finishes.
    - (b) To specify obsolete for the No. 405, 473, and 481 finishes.
    - (c) To specify gray instead of light gray for the No. 118AS and 484 finishes.
    - (d) To specify Vita Var Company instead of Newark Varnish Works for the No. 122AB, 289, 511, 512, 513, 560, 605, and 659 retouch finishes.
    - (e) To specify KS-8662 gray enamel as an alternate for the No. 560 retouch finish.
    - (f) To add the No. 122BC, 696, 708, 713, 728, 731, 732, 737, 738, and 759 retouch finishes.
    - (g) To clarify note 3 covering the use of lacquers within central offices.