

**BELL SYSTEM PRACTICES**  
**Outside Plant Construction**  
**and Maintenance**

**SECTION G61.170.1**  
**Issue 1, February, 1958**  
**AT&TCo Standard**

## **MARKING MAIN FRAMES**

### **GENERAL**

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#### **1. GENERAL**

- 1.01 This section outlines the procedures to be followed in marking pair and cable numbers on main frames.
- 1.02 Plastic number plates are available for use in marking all pair and cable numbers on main frames. Special circuits, quads, headboards, etc., should be painted and stenciled.

#### **2. TOOLS AND MATERIALS**

2.01 **Plastic Number Plates:** Plastic number plates are available with black numerals on white for pair marking and red numerals on white for cable designations. The plates are available in various sizes to accommodate the different protector spring widths. Ordering information is covered in Bell System Practices G61.170.2 (Main Frame Protectors) and G61.170.4 (444 Type Jacks) covering the type of main frame protector involved.

2.02 Adhesive tape strips are available for marking 198A and B Terminal Strips. Ordering information is covered in section G61.170.5.

2.03 The tools and materials required for painting and stencilling are listed below:

**Tools**

Brush, KS-14162

For applying Paints.

Knife, Putty, R-1060\* (Blade approximately 1 inch wide)  
For spreading ink on inking plate.

Plate, Inking, R-1373\*

For holding ink while applying it to rubber stamps.

**Stamps**

R-1378,\* 3/16 in. Rubber Stamp Numerals 0 to 9

R-1382,\* 3/4 in. Rubber Stamp Numerals 0 to 9

R-80991,\* 3/4 in. Rubber Stamp Letters A to Z

R-1383,\* 1 in. Rubber Stamp Numerals 0 to 9

R-82040,\* 1 in. Rubber Stamp Letters A to Z

R-1376,\* 1-1/2 in. Rubber Stamp Numerals 0 to 9

individually mounted rubber stamps for applying numerals and letter designations.

\*These numbers indicate Western Electric Company code designations.

**Materials**

Trichloroethylene, KS-8372

For cleaning rubber stamps, paint brushes and surfaces upon which marking is placed.

Enamel, Aluminum, 4 oz. can

For painting designation boards and framework.

Ink, Stamping, Black, R2880

Ink, Stamping, Vermillion, R2883

Ink, Stamping, White, R2881

Ink, Stamping, Yellow, R2882

Paint, Black, Flat

Paint, Marking, Multiple, Green, KS-8287

Paint, Marking, Multiple, Orange

Made by mixing equal parts of red and yellow paints

Paint, Marking, Multiple, Red, KS-8286

Paint, Marking, Multiple, White, KS-7433

Paint, Marking, Multiple, Yellow, KS-7432

Sandpaper, No. 1

### 3. EVEN AND ODD PAIR COUNT

3.01 **Even Pair Count** is the system of marking in which the cable pairs are numbered in even hundreds as 1-100, 101-200 etc., the extra pairs, if any, being designated by X numbers.

3.02 **Odd Pair Count** is the system of marking in which the cable pairs including any odd pairs, are numbered consecutively, as 1-101, 102-202, etc.

### 4. MARKING PAIRS

#### Protectors and 444 Type Jacks

4.01 In both the even and odd count methods of marking, the following pairs shall be numbered on each vertical.

(a) The first and last pairs terminated on each vertical. On frames equipped with a mezzanine platform the first and last pairs terminated on the upper and lower half of each vertical shall be marked.

(b) The first and last pair of each cable or cable complement.

(c) All pair numbers ending in 0 and 5.

4.02 **Even Pair Count:** The first and last pair of each 100-pair group, as 1,100, 101,200, etc., and all X pairs.

4.03 **Odd Pair Count:** The first and last pair of each 101-pair group, as 1,101, 102,202, etc.

#### 198 A and B Terminal Strips

4.04 The method of marking 198 Type Terminal Strips is covered in Section G61.170.5.

### 5. MARKING CABLES

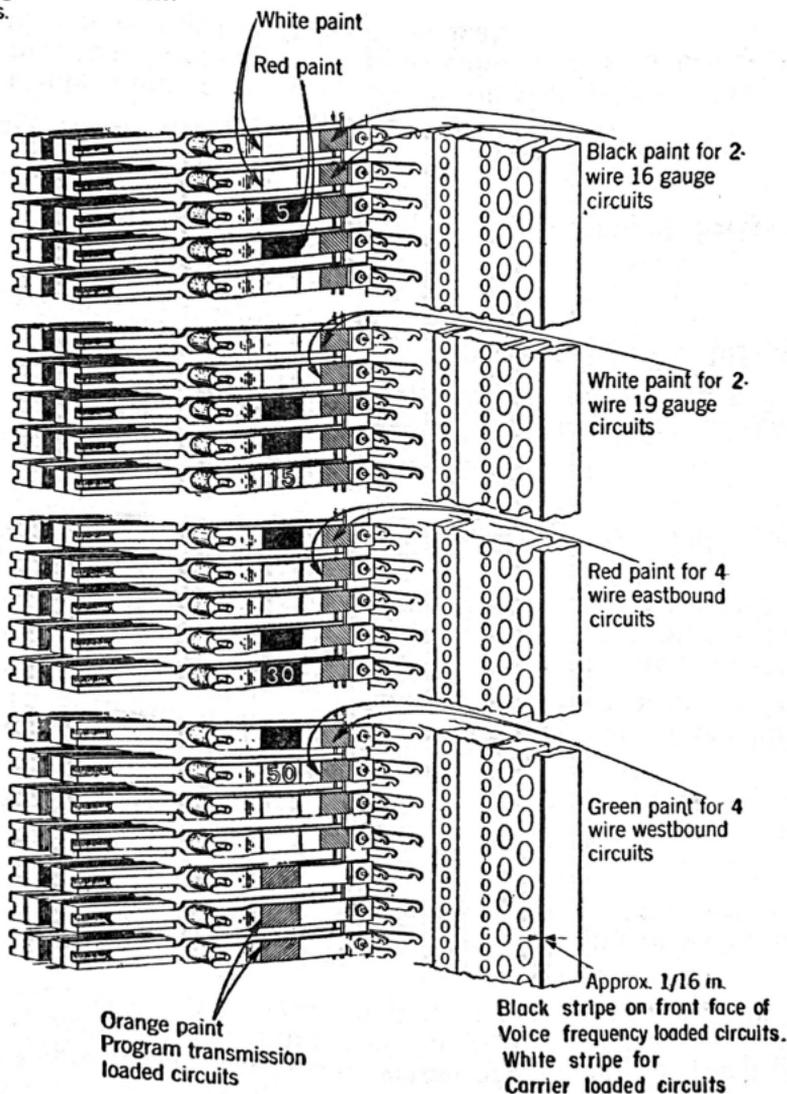
5.01 Cable numbers shall be placed on the spring below the first numbered pair of each cable and also below the numbered pair at the top of each vertical.

### 6. MARKING SPECIAL CIRCUITS

6.01 Quads need not be designated on the protector springs unless called for in the cable plans. When specified, the quadded circuits should be indicated by painting the springs. Program pairs shall be designated in all cases by painting the springs with orange paint. The method of marking is illustrated in Paragraph 6.02.

**6.02 Circuit Designation:** Where toll circuit groups are designated, the 2-wire and 4-wire groups should be shown on the protector springs as follows: black for 2-wire 16 gauge circuits, white for 2-wire 19 gauge circuits, red for 4-wire east-bound circuits and green for 4-wire west-bound circuits. The group designations are illustrated below.

Quads designated by alternate red and white markings on the Protector springs.

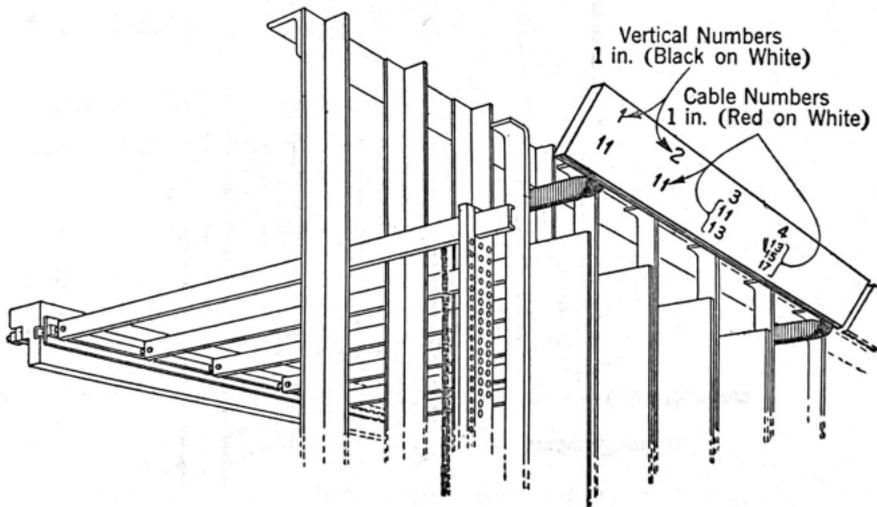


## 7. MARKING DESIGNATION BOARDS

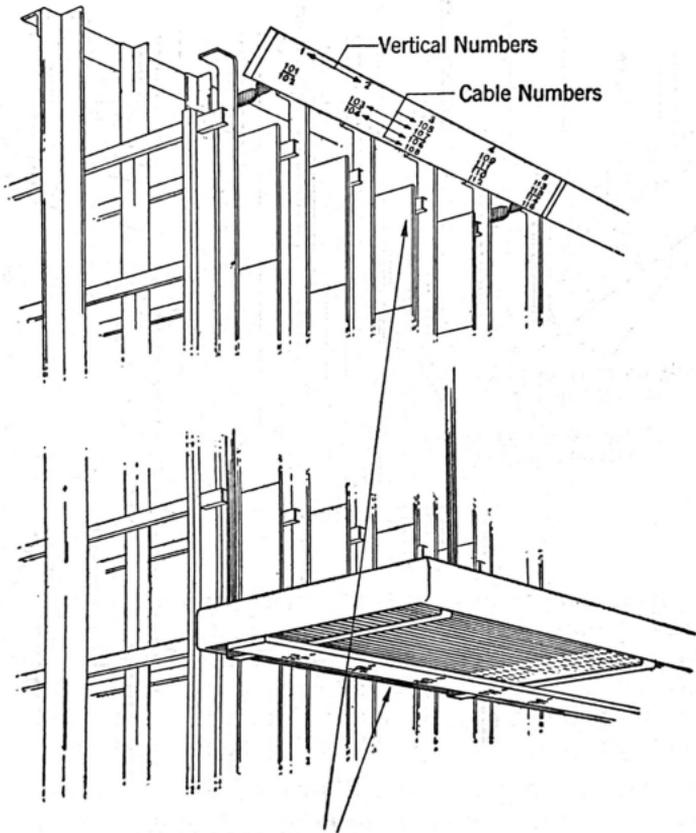
7.01 Cable numbers (or names of toll and trunk cables when this method of designation is used) and vertical numbers shall be indicated by black numerals or letters on aluminum finished designation boards and by white characters on black finished boards. Abbreviate names when necessary.

7.02 The main frame verticals shall be numbered consecutively beginning with "1". The verticals on double-sided protector frames shall also be numbered consecutively except that the letter "A" or "B" shall be added. The letter "A" shall be used to designate the verticals on the side of the protector frame away from the main distributing frame and the letter "B" to indicate the verticals on the side of the protector frame adjacent to the main distributing frame.

7.03 The following sketch shows the method of marking designation boards on frames without mezzanine platforms and also on frames with mezzanine platforms where the figures on the board above the frame apply to the cables on the upper half of the frame and those on the board attached to the underside of the platform apply to the cables terminated on the lower half.

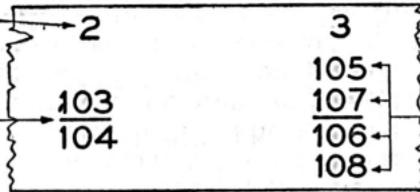


7.04 On main frames or double-sided protector frames with mezzanine platforms where the numbers of the cables terminated above and below the platform appear on each board, the marking shall be as shown in the following figure.



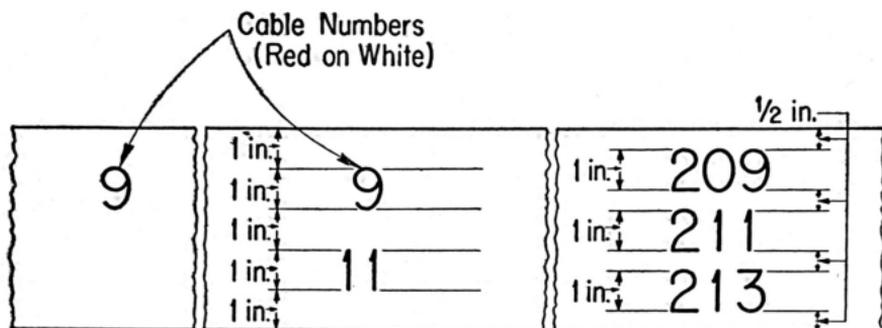
1 in. Vertical Numbers  
(Black on White)

1/16 in. stripe to  
separate the numbers  
of cables located above  
and below mezzanine  
platforms.



1 in. Cable  
Numbers  
(Red on White)

7.05 In offices where the vertical numbers are marked on the steelwork of the frame, the markings on the verticals and designation boards shall conform to the existing numbering plan unless directed otherwise by the supervisor. The following illustration shows the marking of a designation board where the vertical numbers are placed on the steelwork.



One Cable Terminated on Vertical or Top Portion of Vertical

Two Cables Terminated on Vertical

Three Cables Terminated on Vertical

## 8. MARKING FRAMEWORK ON HORIZONTAL SIDE OF FRAME

8.01 For convenience in locating the required underground cable and pair from the horizontal side of the main distributing frame when making cross-connections, markings may also be placed on the vertical steelwork, as covered in the following paragraphs.

8.02 In offices where designations have already been marked on the steelwork of the frame, the markings for additional cables shall conform to the existing numbering plan, as to size, location, etc., except that, in all cases where designations for two or more cables appear on one vertical upright, the markings shall be placed in the order that the cables appear on the frame.

8.03 On new frames, (except combination distributing frames) the following plan shall apply:

- (a) Vertical, cable, and cable pair designations shall be placed on the steel upright for each vertical, between the fifth and sixth horizontal shelves and between the ninth

and tenth shelves. In some cases, it may be advisable on account of space limitations to mark the vertical numbers between the sixth and seventh and between the tenth and eleventh shelves.

(b) Vertical numbers shall be stamped with 1 inch numerals, cable numbers with 1-inch numerals and cable pair numbers with 3/4-inch numerals.

(c) If the entire vertical is occupied by one cable, stamp the vertical and cable numbers and the first and last pair numbers on that vertical at each of the locations specified in (a). The order of marking the numbers shall be in accordance with established practice as shown in Part 4.

(d) If there are two cables terminated on one vertical, stamp the vertical number at the top of each designation space. Then stamp the cable number and the first and last pair numbers of the upper cable in the upper half of each available space on the upright and, similarly, place the numbers for the lower cable in the lower half of the space.