# SPECIFIC REQUIREMENTS FOR <br> EQUIPMENT CODE NUMBERS, SD DRAWING NUMBERS, AND SINGLE OR MULTIPLE SETS OF CIRCUIT APPARATUS FOR EQUIPMENT MOUNTED ON OTHER THAN DUCT-TYPE FRAMEWORK NUMBERING AND LETTERING GENERAL EQUIPMENT REQUIREMENTS 

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## 1. GENERAL

1.01 This section covers specific requirements for numbering and lettering.
(a) Groups of equipments and assemblies, usually without wiring, which are identified by a drawing code.
(b) Unit assemblies, usually wired equipment not intended for use on duct-type framework, which constitute less than a complete bay and are identified by a specification code.

This section supplements Section 800-613-150 covering common requirements and is supplemented by Section 800-613-156 covering toll transmission equipment on duct-type frames.
1.02 This section is reissued to make changes which are listed under reasons for reissue at the end of this section.
1.03 All dimensions shown in this section for locating designations shall be considered approximate unless otherwise indicated by tolerances.

## 2. EQUIPMENT CODE NUMBERS

A. General
2.01 The designation " $J$ ", " H ", or "ED" is the prefix to a number which identifies a particular unit in an equipment specification or on an equipment drawing. The equipment code number shall be stamped with $3 / 16$-inch characters $\rightarrow$ on the basic equipment to which it applies. It $\rightarrow$ should also be stamped on any supplementary equipment under the same code when such equipment is not mounted adjacent to the basic equipment.
2.02 J specification code designations shall include the manufacturing suffix number, for example, J00000A-2. See Fig. 1.
(a) List numbers shall not be stamped unless specified on the associated specification drawing, for example, J00000A-2 L2.
2.03 ED specification code designations shall be stamped on each equipment unit manufactured per an ED specification drawing, for example, ED-00000-31.
(a) Group numbers shall be stamped only when specified on the ED equipment drawing. In such cases, all groups ordered, including lettered groups, shall be stamped. See Fig. 2 and 3.
2.04 On box or cabinet assemblies provided with nameplates or faceplates bearing the equipment code number, the manufacturing suffix is not shown on these plates. In such cases, the complete equipment code number, including the manufacturing suffix, shall be stamped on the inside of the box or cabinet. See Fig. 3.

## B. Location of Code Numbers

2.05 Panel-mounted equipments, such as amplifiers and telephone repeaters, should be designated as shown in Fig. 1.
2.06 On panel or single-plate equipment units, stamp equipment code number so that it is not covered up when the unit is mounted and, if possible, is visible without removing a cover. It shall preferably be stamped vertically, reading from bottom up. The following order of preference for location shall be followed.
(a) Stamp on left front of panel or plate, if possible. See Fig. 4 to 12, 28, 30, and 31.
(1) On plates or panels with more than one mounting screw at its ends but with no mounting screw spacing $2-1 / 4$ inches or greater, stamp to right of mounting screws and center vertically on plate.
(2) On panels with mounting screw spacing 2-1/4 inches or greater, stamp between mounting screws and center vertically on panel, if possible.
2.07 On multiplate equipment units, stamp on plate or unit framework in upper lefthand corner of the unit, if possible.
(a) Where stamping on front is impracticable, locate on left rear sufficiently far from edge to clear frame upright when unit is mounted.
2.08 On casing enclosed equipment units, stamp the equipment code number with $3 / 16$-inch characters on the inside of the left-hand casing door near the hinge. See Fig. 13.
2.09 For J-code designations of cabinetmounted powe: equipment, see Section 800-613-160.
2.10 For J-code designations on bay equipments, see Section 800-613-157.

## 3. SETS OF COMPONENT APPARATUS OF A CIRCUIT MOUNTED HORIZONTALLY

## General

3.01 In designating relay equipment, the physical limits of each group or subgroup must be established and the associated circuit numbers indicated. To do this it is necessary, in general, to stamp both the apparatus and terminal sides of each group of equipment. However, when a group of equipment contains apparatus maintained from the terminal side only, the functional designations for these components are not required to be stamped on the apparatus side.
(a) Apparatus is considered as requiring apparatus side maintenance when it is adjusted, operated, tested, or wired on the apparatus side of the equipment arrangement, or when access to screws, nuts, or other mounting devices is gained from the apparatus side.
(b) When apparatus, such as sender units, is enclosed in casings, the usual designations shall be omitted from the terminal side and shown on a chart mounted on the inside of the rear casing door. The chart also shows reference numbers assigned consecutively (one up from right to left on the terminal side) to all drilled positions (except those for apparatus, such as insulators, not requiring circuit identification) on each plate. The first, last, and each intermediate fifth such position shall be stamped with $3 / 16$-inch characters on the $\leftarrow$ terminal side of the equipment in the location
normally used for the numerical designation for the specific type of apparatus for which the position is drilled. Identifying designations, such as $A, B$, and $C$, shown on the chart for the respective mounting plates, shall be stamped on the mounting framework adjacent to the mounting plates in accordance with Sec-tion 800-613-157. ED-92203-01 shows a typical↔ apparatus designation chart for equipment in relay casings.

## A. Group Designations

3.02 Panel - Apparatus Side: Stamp group designation on the panel, preferably in the lower left-hand corner; otherwise on a suitable piece of apparatus or in a clear space elsewhere on the panel. When a partial cover is used, locate these designations so as to be visible when cover is in place. When this is impracticable or when complete cover is used, stamp group designation on the cover, preferably centered. See Fig. 1.
3.03 Panel - Terminal Side: The group designation shown on the front of the panel should be duplicated in $3 / 16$-inch characters on the face of the terminal strip on the rear of the panel. When space is not available on the face of the terminal strip, stamp the group designation on the panel adjacent to the terminal strip in a location such that it will not be obscured by the local or switchboard cable. When a rear cover is used which obscures these designations, stamp also on the cover, preferably centered.

### 3.04 Group designations on repetitively

 mounted units shall be stamped on each unit, or on only the top and bottom units of a sequence not broken by a different coded unit, mounting plate or panel different from the units, depending on which method is more economical for the shop. See Fig. 15 through 21.(a) Certain equipment units are so designed that the only space available for group designation stamping is on the surface of the mounting plate. Projecting apparatus components immediately above and below the stamping may make these designations difficult to see from the normal seeing position when the units are consecutively mounted with top and bottom stamping only. When a sequence of such units is mounted with the lowest numbered unit at the bottom of the frame and
extends above normal eye level, stamp, in addition to the top and bottom units, a unit approximately 5 ft 6 in . from the floor.
(b) When the continuity of repetitively mounted coded units is broken by a miscellaneous noncoded unit or a jack panel, top and bottom stamping will be sufficient. See Fig. 14.
(c) When the continuity of repetitively mounted coded units is broken by a different coded unit, stamp on top and bottom unit, located below the different coded unit and on the top and bottom unit located above the different coded unit as shown in Fig. 15.
$\Gamma$ (d) When two dissimilar coded units are mounted alternately and repetitively and the sequence is not broken by a different coded unit, top and bottom stamping will be suffi-
L cient. See Fig. 19.

### 3.05 Single Plate - Apparatus Side

(a) Full Length Common Cover, One or More Groups: Stamp group designation on the cover in line with the middle of the group as shown in Fig. 22 and 23.
(b) Partial Length Cover, One Group: Where a plate mounts a partial length common cover and individual covers, the group designation applying to the entire plate shall be stamped in the middle of the common cover as shown in Fig. 7.
(c) Individual Covers or No Covers, One Group: Stamp the group designation in the space available in the following order of preference.
(1) On plate or panel in available space as shown in Fig. 12.
(2) On a large piece of apparatus (over $1-3 / 4$ inches wide) as near the middle of the plate as possible, as shown in Fig. 10.
(3) On a small piece of apparatus (less than $1-3 / 4$ inches wide) as near the middle of the plate as possible, as shown in Fig. 24.
$\Gamma \quad$ When space does not permit the preferred horizontal location, the designation shall be rotated 90 degrees counterclockwise reading L from bottom up.
(d) Units in Crossbar Systems, Other Than the No. 1 Crossbar: Group designation of units shall be stamped in accordance with Fig. 25 on the apparatus side of the unit. On the terminal side of the unit, the group designation shall be stamped with $3 / 16$-inch characters in any convenient, available space.
(e) Individual Covers or No Covers, Two or More Groups: When numerical (and functional) designations indicate the extent of the group, stamp the group designation near the middle of the group in question. Otherwise, stamp at both ends of the group as in Fig. 26 for front-maintained apparatus only.
(f) Line and Cutoff Relays: The group designations for subscriber line and cutoff relays shall be stamped as follows.
(1) No. 1 Manual Offices: Stamp the switchboard panel number on each common cover and on the front of the first and last mounting plate of the group to the right of the cover as shown in Fig. 27.
(2) Other Manual Offices: Stamp line hundreds numbers on the common covers at the top and bottom of each group and on the front of the first and last mounting plate of the group to the right of the cover as shown in Fig. 28.
(3) No. 701A, 711A, and 740E PBX Systems: Stamp line hundreds numbers on cover of middle plate of each group and on the front of mounting plate to the right of the cover as shown in Fig. 28 and 31.
(4) No. 701B and 711B PBX Systems: Stamp line hundreds number on the plate for circuits 01-00. See Fig. 30.
(5) No. 1, 350A, and 355A Step-by-Step Offices: Group designation shall be stamped as shown in Fig. 28 and 29.
$\Gamma_{3.06}$ Single Plate - Terminal Side: On 1-3/4 inch and 2 inch plates, stamp the group designation once, preferably near center of group (horizontally if possible, otherwise rotate the designation $90^{\circ}$ counterclockwise) and as close as possible to the top edge of the mounting plate as shown in Fig. 24 and 32. When surface wiring is provided at top and bottom of plate, stamp Lthe group designation, centered vertically. in
$\Gamma_{\text {the largest space available between top and bot- }}$ tom wiring paths. When a terminal strip is provided, stamp the group designation on the face of the terminal strip if space permits, otherwise near the terminal strip as shown in Fig. 34. In the case of 224 and D type terminal strips, stamp the designation on the largest space available preferably near the center of the group. Also, if there are two or more groups on the plate, use brackets at first and last piece of apparatus of each group to indicate the extent of the respective groups, as shown in Fig. 23 and 26, unless numerical (and functional) designations indicate the extent of the group. Where lack of space for stamping prevents following the general procedure above, the procedure be$L^{\text {low may be followed. }}$
(a) Group Designations: Stamp, at each end of the plate, the group designation applicable to apparatus at that end as in Fig. 33. When applicable to entire plate, stamp at right end only. The group designation for a group in the middle of the plate may be stamped in the space normally reserved for the numerical designation for a specific piece of apparatus.
(b) Group limits, normally established, when required, by a bracket at the end piece of apparatus of each group, may be indicated by use of the $3 / 8$-inch letter "I" between the groups.

### 3.07 Two or More Plates - Apparatus Side

(a) On J-coded equipment units or when numerical designations establish the top and bottom limits of the group, stamp the group designation once in the approximate center of the group.
(1) Where a mounting plate or panel having a common cover is available approximately in the center of the group, place the group designation on that cover in preference to locating it on an individual piece of apparatus or on a mounting plate. See Fig. 35 and 36.
(2) Where two common covers are approximately equidistant above and below the center, give preference to the upper one.
(3) If there are no common covers near the middle, select a plate near the middle which has apparatus or a clear space suitable for stamping.

### 3.08 Two or More Plates - Terminal Side:

 The presence of interplate wiring (surface wiring or local cable) within the set of equipment and absence of it between sets will be considered as establishing the limits, and a single group designation near the center of the group will suffice. For other arrangements (for example, when wiring between plates of the set of equipment is run in the same fanning rings or cable as the bay wiring) top and bottom plate stamping will be necessary. If a single group designation is used, stamp on the face of the $\Gamma_{\text {terminal strip if space permits; otherwise, and }}$ in the case of 224 and D type terminal strips, stamp on the largest space available preferably $L^{n}$ near the center of the group.
### 3.09 Two or More Groups, Casing Enclosed -

 Apparatus Side: Group designations shall be stamped at the left end of the first and last mounting plate in each group. If apparatus for two groups is mounted on one plate, the designation for each group shall be stamped at the respective end of the plate, on both apparatus and terminal side, except as in (a) and (b) below.(a) When space is not available for stamping the group designation at the end of the plate, when the limits of each of the two groups are not apparent, or when three or more groups occur on the same plate, stamp the group designation on the first and last spoolhead of each group in the location normally reserved for the numerical designation. For example, in the case of the trouble indicator in the No. A4A toll switching system, which has two groups of relays (all bearing the basic functional designation ML) identified by group designations IT (intertoll), and TC (toll completing), the spoolhead designations are arranged as follows.

(b) When charts are furnished, group designations shall not be stamped on the terminal side.
-3.10 Two or More Groups, Casing Enclosed Terminal Side: Group designations shall be stamped at the right end (left end if local cable obscures the right) of the first and last mounting plate in each group.

## B. Subgroup Designations

3.11 Where a subgroup designation is required, such as the annunciator lamp designation on alarm relays, as shown in Fig. 26, it shall be stamped with $3 / 16$-inch characters and located in accordance with the general rules for group designations as covered in 3.02 through 3.10. Subgroup designations when stamped on the same individual cover, apparatus, etc, as the group designation, shall be placed below the group designation. On common covers, stamp subgroup designation under SD number.

「3.12 Identical subgroup designations associated with repetitive mounted units shall be stamped on common covers in accordance with the frequency for stamping group designations. See 3.04. When more than one subgroup designation identifies different circuit groups on the unit, the subgroup designation shall be shown approximately centered on the common cover with respect to the specific circuit group. See Fig. 20.

## C. Functional Designations

3.13 Single- and 2-Circuit Arrangements on Single Plates: Except as otherwise covered in 3.14 through 3.17 , stamp the complete functional designation (in one line if possible; otherwise in two lines) for each piece of apparatus.
(a) Stamp on common cover in the approximate center of each group except as covered in 3.20.
$\rightarrow 3.14$ Expanded functional designations of cer$\rightarrow \quad$ tain sets of relays (and associated apparatus) may be identified by functional designations (expanded) where the first (basic) part is the same for each relay in the set and the second (suffix) part identifies the individual pieces.
(a) When two or more relays in the same circuit have the same basic designation, stamp the basic portion in one horizontal or vertical line and the suffix portion immediately below it. When a set of such relays, all with or all without individual covers, are mounted adjacent in a row, stamp the complete functional designation on only the first and last of the set. On intermediate relays, stamp only the suffix portion, in line with the suffix portion of
$\rightarrow$ the first and last relays of the set as shown $\rightarrow \quad$ in Fig. 37. Other typical examples:
Same Basic Designations - Suffix Designations Have Noticeable Degree of Progression

RELAY AND INDIVIDUAL COVER STAMPING

| S |  |  | S |  | L |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| A | B | C |  | A | B | D | F |  |  |
| S |  |  |  |  |  |  |  |  | S |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

GB GB
$\begin{array}{lllll}0 & 1 & 2 & 4 & 7\end{array}$

| F |  |  | F | F |  |  | F |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| C | L | C $^{\prime}$ | L' $^{\prime}$ | 1 | 2 | 4 | 5 |

COMMON COVER STAMPING


S0-S9
GB0-GB7, if missing designations $\begin{gathered}\text { GB } \\ 3, \\ 3,\end{gathered}, \begin{gathered}\text { and } \\ 6\end{gathered}$ are not used elsewhere in circuit

$$
\text { GB } \quad \text { GB otherwise }
$$

$\begin{array}{llll}0 & 1 & 2\end{array}$

| F |  |  | F | F1-F5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| C | L | C $^{\prime}$ | $L^{\prime}$ |  |

Two or More Sets, Different Basic Designations, Each Set With Same Series of Suffix Designations
reLay and individual cover stamping


COMMON COVER STAMPING


Same Basic Designation, Suffix Designations Involve Even and Odd Subdivisions and Left and Right Sub-Subdivisions

RELAY AND COVER STAMPING

| PR |  |  | $P R$ |
| :--- | :--- | :--- | ---: |
| $E$ | $O$ | $E$ | $O$ |
| $L$ | $L$ | $R$ | $R$ |


| P |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| E | O | E | O | E | O | E | O |
| L0 | L0 | R1 | R1 | L2 | L2 | R3 | R3 |

(b) On common covers, as indicated in (a) above, stamp complete functional designation in one line, for each relay except when sets with spans of numerical suffixes are involved, in which case, stamp the designations of the first and last relays of the set separated by a hyphen. For example, stamp S0-S9 for relays $\mathrm{S} 0, \mathrm{~S} 1$ through S 9 , or GB0-GB7 for relays GB0, GB1, GB2, GB4, and GB7. When missing designations in the span are used for relays located elsewhere, stamp individual designations and not the span on the cover.
(c) Sets of Stud-Mounted Capacitors or Networks: When functional designations similar to those in (a) are applicable to sets of adjacently mounted capacitors or networks, stamp (on terminal side only) the complete functional designation, in one line, for the first and last elements in the set. For intermediate elements, stamp only the suffix portion, in line with suffix portion for first or last element. Furthermore, when the set has consecutive numerical suffixes; for example, $\mathrm{S} 0-\mathrm{S} 9$, only the first and last pieces of apparatus shall be
designated. If single-element apparatus is used, the first and last shall be designated S0 and S 9 , respectively. If 2 -element apparatus is used, the elements of the first and last pieces shall be designated $\mathrm{S} 0,1$ and $8, \mathrm{~S} 9$, respectively.
(d) Sets of Relays With Associated StudMounted Networks Between Each Pair of Relays: When functional designations similar to those in (a) apply to sets of relays and associated networks, the rules set forth in (a) and (c) shall be applied for the relays and networks, respectively.
(e) Sets of 18-or 19-Type Resistors: When functional designations similar to those in (a) apply to sets of resistors, stamp the complete functional designations for only the first and last resistors of the set, placing the basic portion in space normally used for the functional designation and the suffix portion in that used for the numerical. For intermediate resistors, stamp only the suffix portion, in line with the suffix portion of the first and last resistors, for example:

$$
\begin{array}{ccccccc}
S & & & & & S \\
1 & 2 & 4 & 6 & 7 & 9
\end{array}
$$

When the set consists of ten or fewer resistors with consecutive numerical suffixes, stamp only the first and last pieces of apparatus, for example:

| $S$ | $S$ |
| :--- | :--- |
| 0 | 9 |

When the set consists of more than ten resistors with consecutive numerical suffixes, stamp complete functional designation on the first and last resistors of the set and only the suffix portion for each intermediate resistor whose suffix number is a multiple of 5 , for example:

| S |  |  |  | S |
| :--- | :--- | :--- | :--- | ---: |
| 0 | 5 | 10 | 15 | 16 |

- When the sets are made up of groups of resistors, stamp the basic portion of the functional designation of each resistor in the group on the first and last sets, and the suffix portion of the functional designation on the $ل \downarrow$
$\Gamma$ first and last resistors of the group in each group of the sets, for example:

ABC ABC
$\begin{array}{lllllllllll}0 & 01 & 12 & 23 & 34 & 45 & 56 & 67 & 78 & 89 & 9\end{array}$
3.15 Sets of 18- or 19-Type Resistors not having functional designations as described Lin 3.14 (terminal side only) shall be stamped in accordance with the general requirements for relay equipment as covered in Parts 3 and 4 of this section with the following exceptions.
(a) Numerical designations shall, in general, be stamped only once for each circuit numbered and, when two or more circuits each with three or more resistors are located in the same row, brackets shall be used to indicate the extent of each circuit. See Fig. 38.
(b) When functional designations interfere with the stamping of brackets (as in the case of 19-type resistors) omit brackets and, when numerical designations are also required, stamp for the first and last pieces of apparatus of the circuit.
(c) When the space between circuits makes the limits of each circuit apparent, brackets may be omitted.

### 3.16 Sets of Apparatus Required to Make Up the Value of a Circuit Element: When

 two or more pieces of apparatus required to make up the value of a circuit element are mounted adjacent in the same row, stamp designations for the first and last pieces of apparatus only. For example, where designations TR.1, TR.2, and TR. 3 apply to three capacitors, stamp TR. 1 and TR. 3 .3.17 Line and Cutoff Relays: Functional designations for subscriber line and cutoff relays shall be stamped as follows.
(a) No. 1 Manual Offices: Functional designations are not stamped.
(b) Other Manual, No. 1, 350A, and 355A Step-by-Step Offices, and No. 701, 711, and 740E PBX Systems: Stamp on center set of relays on each plate as shown in Fig. 28 through 31.
3.18 Multicircuit Arrangements: Where equipment for three or more like circuits is arranged in a row of consecutively numbered,
consecutive even, or consecutive odd pieces (or sets) of apparatus, proceed as follows.
(a) Where there is no other apparatus (terminal strips excluded) in the same row with the multicircuit group, stamp functional designations on only the center circuit or a circuit near the center of the group. This shall be the second in a 3 - or 4 -circuit group, the third in a 5 - or 6 -circuit group, etc. It shall be the fifth in a 10 -circuit group. See Fig. 40 and 41.
(b) Where there is other apparatus of a different functional designation in the same row with the multicircuit group, stamp functional designations on the first and last circuits of each group. See Fig. 33.
(c) Where the apparatus for all circuits of the multicircuit group does not follow the same pattern (functional designations not in the same order), stamp functional designations on each piece of apparatus of each circuit.
3.19 Apparatus on subpanels should be designated only on the accessible side of the subpanel in cases where the subpanel is mounted so that one side is inaccessible, as for example, parallel to and close to the main panel.

### 3.20 Omission of Functional Designations From

 Common Cover on Single-Plate and Multiplate Units: Functional designations may be omitted from common covers on all single-plate $\rightarrow$ units except line and cutoff relay designations $\rightarrow$ as shown in Fig. 29, 30, and 31. These designations also may be omitted from common covers of multiplate units provided all the relays for the numerical circuit involved are mounted on the same plate. In either case, relays mounted on the plate but not enclosed by the common cover shall be designated in accordance with normal practices. See Fig. 34 and 35.(a) Fig. 36 illustrates a condition where functional designations are required on the common cover since all relays are not mounted on the same plate.

## D. Numerical Designations

3.21 When equipment for two or more like circuits is provided (or anticipated) in an office, numerical designations are required on the
apparatus side, terminal side, or both, of the equipment, depending upon whether the apparatus is maintained from one or both sides of the equipment arrangement in question. They shall be located on the front (on and under covers), rear, or side of the apparatus, or on suitable stamping surface in proximity thereto for some or all circuits of the equipment arrangement as set forth in this series of practices for specific kinds of apparatus and equipment arrangements.

### 3.22 Panel - Apparatus Side: Stamp numer-

 ical designation on the panel preferably in the lower left-hand corner; otherwise on a suitable piece of apparatus or in a clear space elsewhere on the panel. When a partial cover is used, locate this designation so as to be visible when the cover is in place. When this is impracticable, or when the complete cover is used, the numerical designation should also be stamped on the cover, preferably centered. See Fig. 1.3.23 Panel-Terminal Side: The numerical designation shown on the front of the panel should be duplicated in $3 / 16$-inch characters on the face of the terminal strip on the rear of the panel. When space is not available on the face of the terminal strip, stamp the numerical ${ }^{+}$ designation on the panel, adjacent to the terminal strip in a location such that it will not be obscured by the local or switchboard cable. When a rear cover is used which obscures this designation, stamp also on the cover, preferably centered.
3.24 One Circuit per Mounting Plate: Stamp once for each circuit, except when consecutively numbered like circuits are mounted on adjacent plates. In that case, stamp the numerical designation on the top, bottom, and each intermediate circuit whose number is a multiple of five. Numerical designations shall be located as follows on circuits requiring them. See Fig. 15.
(a) Apparatus Side: Stamp once in the middle of the common cover (when furnished) and on the middle piece of apparatus under the cover; otherwise on a piece of apparatus or in an unequipped space, preferably near the middle of the plate. See Fig. 22.
(b) Terminal Side: When one terminal strip 7 is provided, stamp once on, or near as possible to the terminal strip. When two ter-」
minal strips are provided, stamp in proximity ${ }^{\dagger}$ to the group designation preferably centered below same; otherwise near the middle of the plate.
3.25 Single Circuit on Two or More Plates: Stamp in proximity to group designation on apparatus and terminal sides, and, when mounted consecutively in a bay, provide numerical designations for each unit. When stamped on a removable cover, it shall also be placed on the middle piece of apparatus under the cover. See Fig. 35 and 36.

### 3.26 One Circuit per Horizontal Row on a Mul-๘

 tirow Mounting Panel: Stamp the numer-ical designation once for each circuit except when consecutively numbered like circuits are mounted in adjacent rows. In that case, stamp the numerical designation on the top, bottom, and each intermediate circuit whose number is a multiple of five. Numerical designations shall be located as follows for circuits requiring them.(a) Apparatus Side: Stamp once on a piece of apparatus or in an unequipped space, preferably near the middle of the row.
(b) Terminal Side: Stamp once on the plate near the middle of the row.
3.27 Two or More Circuits in a Row: When apparatus for two or more like circuits is arranged in rows for consecutively numbered, consecutive even, or consecutive odd circuits, stamp the numbers for the first and last circuits of each row and, when the row contains more than ten circuits consecutively numbered, also stamp the number of each intermediate circuit whose number is a multiple of five, as for example, $1,5,10,15$, etc, or $0,5,10,15$, etc. In all other cases, stamp numbers for all circuits. If each circuit contains two or more pieces of apparatus in a row, the following considerations affect the location of the designations for numbered circuits.
(a) Apparatus Side: Stamp the first and last pieces of apparatus requiring maintenance on apparatus side (such as relays) of each set numbered, except as follows.
(1) At plates carrying 4-corner numbering for relay rack equipment units, see 4.02 (b).
(b) Terminal Side: Stamp the first and last pieces of apparatus of each set numbered.
$\Gamma$ (1) A group of three or more consecutively mounted 18 - or 19 -type resistors with expanded functional designations shall be considered as a single component for purposes of identifying circuit groups. When the resistors in the group are the first or last components of a circuit on a multicircuit unit, the numerical designation shall be stamped in line with and centered between the basic part of the functional designation stamped for the first and last resistor in the group. See Fig. 39.
(2) At plates carrying 4-corner numbering for relay rack equipment units, see $4.02(b)$.
3.28 One Piece of Apparatus Serving Two or More Circuits: Stamp numerical designations as follows.
(a) Where the piece of apparatus consists of two or more circuit elements (two or more networks or capacitors in the same can), and each element is associated with a single circuit, stamp, in addition to the numbers of the first, last, and intermediate fifth circuits (when required), the circuit number of the first and last element of each piece of apparatus so stamped. For example, for 2-element apparatus serving a series of circuits, stamp 1 and 2 at elements of the first piece of apparatus, and 5 and 6,9 and 10,15 and 16 , etc, at the respective elements of other pieces of apparatus requiring numivering in the series.
(b) Where the piece of apparatus (or element) is common to two or more circuits, stamp the span of circuit numbers at the first, third, fifth, seventh, etc, and last piece of apparatus (or element). For example, 1-2, 5-6, 9-10, etc; 1-3, 7-9, 13-15, etc ; or 1-4, 9-12, 17-20, etc ; for apparatus associated with two, three, and four circuits, respectively. In the case of apparatus containing two or more circuit elements, stamp, at the first and last pieces of apparatus in the row, the applicable circuit numbers for each element thereof. As an example, when five pieces of 2 -element apparatus serve 20 circuits, the elements of the first piece of apparatus shall be designated $1-2$ and $3-4$, respectively, and those of the last piece desig-
nated 17-18 and 19-20. Intermediate elements serving circuits $5-6,9-10$, and $13-14$ shall also be designated as indicated above.
(c) Where the piece of apparatus is common to all the circuits of a multicircuit arrangement and is mounted with the multicircuit arrangement, the applicable span of circuit numbers need not be stamped.
3.29 Apparatus Mounted Back to Back: Stamp numerical designations for apparatus (such as 94 -type repeating coils) mounted in each row on the front and on the rear of the unit in accordance with 3.27 . See Fig. 48 through 50.
3.30 Location on Common Cover: Stamp on cover in the middle of the row for singlecircuit arrangements, as in Fig. 14, and at the right and left ends of the row for multicircuit arrangements, as in Fig. 33.

### 3.31 Line and Cutoff Relays: Circuit numbers

 for subscriber line and cutoff relays shall be stamped as follows.(a) No. 1 Manual Offices: Stamp as shown in Fig. 27.
(b) Other Manual, No. 1, 350A, and 355A Step-by-Step Offices and No. 701, 711, and 740E PBX Systems: Stamp as shown in Fig. 28 through 31.
3.32 Line auxiliary signal relays associated with equipment in different panels and located on strip mounting plates in the switchboard or desk positions which they serve shall be designated as follows.
(a) Where the panels are numbered, each relay is stamped in the space assigned to the numerical designation with the number of the panel with which it is associated. In the case of switchboards or desks having multiple answering jacks, each relay is stamped with the numbers of all associated panels.
(b) Where the panels are not numbered, each relay is stamped in the space assigned to the numerical designation with the designation "LT", "MID", or "RT" to indicate with which panel in the position it is associated.
3.33 In No. 1 crossbar relay equipments, trunk and junctor relay groups are numbered from 0 to 9 on each frame and these numbers are used for the forward and backward tracing of connections. The circuits in these groups are numbered from 0 to 9 in each group, the numbers being stamped on the front of the relay mounting plates at the left-hand end and on the rear at the right-hand end with $3 / 8$-inch characters. Functional designations for these relays shall be stamped in the usual location for the particular codes of relays involved.

### 3.34 Numerical Designations on Partially Equipped Muliicircuit Arrangements

(a) Apparatus Side: Designate in accordance with the following.
(1) Designations on common covers (when used) shall be stamped for the ultimate equipment as in Fig. 42.
(2) Designations normally stamped on mounting plates, strips, or panels (in proximity to the apparatus instead of on it) shall be stamped for the ultimate equipment. (This usually applies to jacks, lamps, and relays of the $209,215,255$, and similar types.)
(3) Designations normally stamped on the
front of the apparatus, on relay spoolheads, individual covers, etc, shall in general be stamped only for the apparatus furnished, as in Fig. 42 through 44. [See (4), (5), and (6) as follows.]
(4) Designations, in general, are placed on first, last, middle, and intermediate circuits whose numbers are a multiple of five, as covered in 3.27. Initial apparatus for these circuits, insofar as possible, shall have their respective designations stamped in those positions which would normally carry these designations in the ultimate. See Fig. 43 and 44.
(5) When first or last (or both) ultimate circuits are not initially equipped, the numerical designations normally provided for these circuits shall be stamped on the first and last circuits of the partial equipment (using the appropriate numerical designation for the circuit involved). See Fig. 43 and 44.
(6) When the middle ultimate circuit is not equipped, place any designations normally located thereon on the equipped circuit nearest the middle ultimate circuit. See Fig. 44.
(b) Terminal Side: Designate as required for the ultimate equipment except where omission of a mounting plate, apparatus, etc, makes this impossible. See Fig. 42 through 44.
(c) Ultimate Equipment: Those designations which are required on a partial equipment, but which are not required on the ultimate equipment, need not be removed when the ultimate equipment is installed unless this is requested by the customer.

## 4. SETS OF COMPONENT APPARATUS OF A CIRCUIT MOUNTED VERTICALLY (4-CORNER NUMBERING)

## A. Group and Functional Designations

4.01 Relay rack units, and similar equipments, in which the apparatus for each of two or more like circuits is arranged vertically on several plates, and the circuits number regularly across the unit, shall have group designations provided in accordance with $3.07,3.08$, and functional designations in accordance with 3.18. The considerations covered in 4.02 determine which plates shall carry numerical designations.

## \$. Numerical Designations

4.02 Numerical designations, in general, are placed only on the four corners of multiplate relay rack units containing two to ten circuits (4-corner numbering). That is, only the first and last circuit numbers of the group are stamped for the sets of apparatus on the top and bottom mounting plates. See Fig. 45 through 50. If the equipment contains more than ten circuits, numerical designations shall also be stamped for those circuits whose numbers are a multiple of five on the first, last, and any intervening plates carrying stamping for first and last circuits. This shall apply on the spoolheads only. Common covers shall be stamped with first and last circuits only. If the unit contains more than 17 plates, numerical designations shall also be placed on an intervening plate or plates so that
in no case will there be more than 15 adjacent plates without numerical designations.

Exceptions are as follows.
(a) If terminal strips on the terminal side of the top mounting plate interfere with the placing of numerical designations on the plate, stamp them on the face of the first and last terminal strip, where possible. Otherwise, stamp them on the next adjacent mounting plate.
(1) When 224-type terminal strips are used, stamp numerical designations for the terminal strips (on both apparatus and terminal sides) in addition to providing 4-corner numbering for the associated apparatus, as shown in Fig. 45 through 47.
(b) At the plates carrying the 4 -corner num-
bering, the numerical designations on the apparatus side (as well as on the terminal side) shall establish the extent of the entire set of apparatus for each set numbered. It may therefore be necessary to provide numerical designations on the apparatus side of capacitors, networks, coils, or other apparatus which would not otherwise be stamped on the apparatus side, when such apparatus is the first or last piece in the set.
(c) Where the top or bottom (or both) plates contain apparatus which cannot be stamped on the apparatus side (such as 18- or 19-type resistors), place the 4 -corner numbering for the apparatus side on the nearest intervening plate suitable for apparatus side stamping.
(d) On any plates requiring designations where the first or last pieces of each set are resistors which cannot be stamped on the apparatus side, place the numerical designations on the piece or pieces which can be stamped.
(e) For intermediate plates having sets of more than one piece of apparatus per circuit, stamp the first and last circuits (sets) on the plates as well as circuits whose numbers are multiples of five if there are more than ten circuits. Stamp on apparatus side for apparatus normally designated on apparatus side (such as relays) and on terminal side for all
apparatus except resistors which are covered in 3.15 , except where:
(1) A plate above carries numerical designations and has similar arrangement of apparatus (same number of pieces per circuit and each piece vertically aligned with corresponding piece on plate in question) and there are no intervening plates having dissimilar arrangement.
(2) The plate immediately below is the bottom plate establishing 4-corner numbering and has similar arrangement of apparatus (same number of pieces per circuit and each piece vertically aligned with corresponding piece on plate in question).
(3) On terminal side only, omit if vertical cable arms clearly define the apparatus limits of each circuit.
(f) If the circuits of a unit are divided into two groups, each group shall be treated as a unit by itself and the numerical designations placed at its four corners as shown in Fig. 51 and 52 .
(g) When the arrangement of circuits on the various plates of a unit does not consistently follow the same numbering pattern, 4 -corner numbering, if applicable, may be provided for a portion of the equipment. Plates of equipment (within the limits of this 4 -corner numbering pattern, above or below it) which do not conform to the general arrangement carrying 4 -corner numbering, shall be provided with numerical designations per 3.27 . See Fig. 48 through 50.

## 5. SD DRAWING NUMBERS

5.01 The $S D$ drawing or drawings for a particular unit are those circuits which apply (in whole or in part) to the equipment mounted on that unit. The base and suffix number shall be stamped with $3 / 16$-inch characters (example, SD-32008-01) on the apparatus side only. Figure numbers shall be omitted.

## A. Equipment Coded Panels and Units Not Encased

5.02 When the $S D$ number is shown with the group designation and the group designation is omitted on repetitively mounted equipment, the SD number may also be omitted.
5.03 Where Space Will Permit Stamping in Proximity to Group Designation
(a) On panels and relay mounting plate units, stamp in proximity to the group designation wherever possible. The order of preference for locating the SD number is as follows.
(1) Immediately below and horizontally centered with group designation, if possible. See Fig. 5, 8, 11, and 12. This, in general, will apply on:

Common can covers
Undrilled portions of mounting plates and panels
Large pieces of apparatus having a flat surface
(2) To right of and, if possible, in line with group designation (vertically placed and reading from bottom up, where necessary). See Fig. 9. This, in general, will apply on units without common covers, suitable undrilled space on plate or panel, or large pieces of apparatus. In these cases, the group designation and $S D$ number are stamped on several pieces of small apparatus such as relay covers, capacitors, and coils having suitable stamping surfaces.
5.04 Where space will not permit stamping in proximity to group designation, stamp on plate, panel, or unit framework. The following order of preference shall be followed.

Horizontally placed, preferably on right side.

Vertically placed, preferably on right side.
Vertically placed on left side where this places SD number closer to group designation. See Fig. 4.
B. Equipment Coded Panels and Units Partially or Completely Encased
5.05 On units partially or completely enclosed in casing and not occupying the entire
frame, stamp as follows. See Fig. 13.
(a) When all units mounted together on a frame do not have the same SD numbers, stamp applicable SD numbers with $3 / 16$-inch characters in the lower left-hand corner of the left-hand door of each unit.
(b) When all units on a frame have the same SD numbers, if the frame has angle guardrails, stamp SD numbers with $3 / 16$-inch characters in the lower left-hand corner of the left-hand door of the bottom unit only. If the frame has a sheet-metal base and the casing is 10 inches or more above the base, stamp SD numbers with $3 / 8$-inch characters on the base. If the casing is less than 10 inches above a sheet-metal base, stamp on the door of the bottom unit as above for frame with angle guardrails.
(c) On units in the crossbar systems, other than the No. 1 crossbar, stamp the SD drawing number in accordance with Fig. 25.

## C. Bay Equipments

5.06 For SD numbers on bay equipment, see Section 800-613-157.

## D. Power Cabinet Mounted Equipment

5.07 For SD numbers on power cabinet mounted equipment, see Section 800-613-160.

## E. Test Set Equipment

5.08 When stamping of SD drawing numbers is required on portable and bay-mounted test set equipment, the SD drawing number shall be stamped with $3 / 16$-inch characters located as specified on the respective drawings.
6. 275-, 276-, AND SIMILAR-TYPE RELAYS MOUNTED ON NO. 215A, 216A, AND 230A MOUNTING PLATES
6.01 The frequency of stamping and location of designations for 275-, 276-, and similartype relays shall be as follows.
(a) When mounted on No. 216A mounting plates, stamp in accordance with Fig. 53.
(b) When mounted on No. 215A and 230 A mounting plates, stamp in accordance with Fig. 54.

## - 7. 293-TYPE RELAYS

7.01 Stamp designations for 293-type relays mounted repetitively in accordance with
Fig. 55.

## 8. REPEATER AND RINGER PANELS

8.01 Designate in accordance with requirements for designating apparatus panels.
See 2.05.

## 9. RESISTANCE LAMPS AND BALLAST LAMPS

9.01 The frequency of stamping and location of designations for sets of resistance lamps and ballast lamps shall conform to the general requirements for relay equipment as covered in this section (see Fig. 56 and 57). Exceptions to these general rules are as follows.
(a) On fuse bay with supplementary record for fuses and lamps, the lamp row number shall be stamped at the end (left on apparatus side and rignt on terminal side) of the mounting plate opposite each row of lamps. Numerical designations applying to the first, last, and each intermediate lamp whose number is a multiple of five, shall be stamped for the respective lamps in the bottom row on each panel. Stamping on both sides of the panel shall be provided for 11-, 13-, and similar-type resistance lamps as well as for those mounting in sockets. See Fig. 58 and 59.
(b) On panels containing consecutively numbered lamps, applicable group and functional (when required) designations applying to entire panel shall be stamped at the end (left on apparatus side and right on terminal side) of the panel. On each row of lamps, stamp on front and rear of the panel, the
numbers of the first, last, and each intermediate lamp whose number is a multiple of five. See Fig. 60.
(1) When a part of relay rack unit equipment, such panels mounting 11-, 13-, and similar-type resistance lamps shall not be designated on the apparatus side. See Fig. 61.
9.02 The codes of resistance lamps and ballast lamps which mount in sockets, shall be stamped on the apparatus side only, in accordance with the following.
(a) Where applicable to all of the lamps on the panel, the code shall be stamped at the left end of the center line of the panel, as shown in Fig. 56, 59, and 60. Where applicable to all of the lamps in a row but not all lamps on the panel, it shall be stamped at the left and on center line of the row of lamps to which it applies. Code designations for lamps mounted with other apparatus, such as capacitors, shall be stamped in the same manner as for complete rows of lamps.
(b) Where applicable to two or more, but not all of the lamps in a row, the code shall be stamped in the center of the group to which it applies and brackets used to indicate the extent of the group as shown in Fig. 57 and 62.
(c) Where applicable to one lamp only, the code shall be stamped adjacent to the socket to which it apphes as shown in Fig. 57 and 62.


Fig. 2 - Switch Mounting Plates -Step-by-Step System

Fig. 1 - Equipment Panel on Relay Racks


Fig. 3 - Equipment Code on Box or Cabinet Assemblies Provided With Nameplates


Fig. 4 - Multiplate Relay Rack Unit


Fig. 5 - Multiplate Relay Rack Unit


Fig. 6 - Single Circuit - Multiplate Relay Rack Unit


Fig. 7 - Single Circuit - Single-Plate Relay Rack Unit


Fig. 8 - Multiplate - Multicircuit Relay Rack Unit


Fig. 9 - Multiplate - Multicircuit Relay Rack Unit


APPARATUS SIDE

Fig. 10-Relay Equipment - One Single-Circuit Group on Plate Individual Covers


Fig. 11 - Miscellaneous Multiplate Relay Rack Unit


Fig. 12 - Panel-Mounted Relay Rack Unit


Fig. 13 - Casing Enclosed Equipment Units (angle-type frame shown) - Single Bay or Left Bay of 2-Bay Frame


Fig. 14 - Frequency of Stamping Group, Numerical and Functional Designations, and SD Numbers on Multiplate, Single-Circuit Units Mounted Repetitively in a Bay (one circuit per unitl


Fig. 15 - Frequency of Stamping Group and Numerical Designations and SD Numbers on Identical Single-Circuit, Single-Plate Units Mounted Repetitively in a Bay in Decades (no functional designations required on common cover)


Fig. 16 - Frequency of Stamping Group, Numerical, and Functional Designations, and SD Numbers on Multiplate, Multicircuit Units Mounted Repetitively in a Bay (two circuits per unit) - Circuits Divided in Middle of Unit


Fig. 17 - Frequency of Stamping Group, Numerical and Functional Designations, and SD Numbers on Multiplate, Multicircuit Units Mounted Repetitively in a Bay (two circuits per unit - half of each circuit on middle plate)


Fig. 18 - Frequency of Stamping Group and Numerical Designations and SD Numbers on Identical Single-Circuit, Single-Plate Units Mounted Repetitively in a Bay (no functional designations required on common cover)


Fig. 19 - Frequency of Stamping Group and Numerical Designations and SD Numbers on Two Dissimilar Coded Units Mounted Alternately and Repetitively in a Bay


Fig. 20-Frequency of Stamping Identical Group and Subgroup Designations on Repetitively Mounted Single-Plate Units


Fig. 21 - Frequency of Stamping Group, Numerical, and Functional Designations, and SD Numbers on Single-Circuit, Single-Plate Units Mounted Repetitively in a Bay (functional designations on relays not under common cover)


Fig. 22 - Relays - One Single-Circuit Group on 1-3/4 Inch Plate Common Cover

apparatus side - cover in place


Fig. 23 - Relays - Two or More Single-Circuit Groups on 1-3/4 Inch Plate Common Cover


Fig. 24 - Relays - One Multicircuit Group on 1-3/4 Inch Plate - One Relay per Circuit - Individual Covers


STAMPING WHEN MTG. PLT. IS EQUIPPED WITH $227 A$ TERMINAL STRIP


STAMPING WHEN MTG. PLT. IS NOT EQUIPPED WITH 2274 T.S.
Fig. 25 - Location of Group Designations and SD Numbers for Crossbar Systems Other Than No. 1 Crossbar

unctional designation
apparatus side-covers in place
( $\frac{1}{8}$ )

apparatus side-covers removed


Fig. 26 - Relays - Two or More Single-Circuit Groups on 1-3/4 Inch Plate Individual Covers


Fig. 27 - Relays - Subscriber Line and Cutoff in No. 1 Manual Offices


APPARATUS SIDE - COVER IN PLACE


FUNC TIONAL
APPARATUS SIDE-COVER REMOVED


Fig. 28 - Relays - Subscriber Line and Cutoff in No. 1 and 350A Step-by-Step, on 1-3/4 Inch Mounting Plates Other Than Those 21-3/8 Inches Long (A\&M Only), No. 701A and 711A PBX (A\&M Only), and Manual Offices Other Than the No. 1 Manual

apparatus side - cover in place


Fig. 29 - Relays - Subscriber Line and Cutoff on 1-3/4 Inch Mounting Plates 21-3/8 Inches Long in No. 1, 350A, and 355A Step-by-Step Offices


Fig. 30 - Relays - Subscriber Line and Cutoff in No. 701 B and 711 B PBX Offices


Fig. 31 - Relays - Station Line and Cutoff Mounted on 189-Type Mounting Plates - No. 740 EBX


Fig. 32 - Relays - One 2-Circuit Group on 1-3/4 Inch Plate - Two or More Relays per Circuit - Common Cover


Fig. 33 - Relays - Switchboard Rear Equipment - Two or More Multicircuit Groups on 1-3/4 Inch Plate - One Relay per Circuit - Common Cover - Terminal Side - Group Designations at Ends of Plate


APPARATUS SIDE -COVER IN PLACE


APPARATUS SIDE - COVER REMOVED


Fig. 34 - Relays - Multicircuit - Single 2-Inch Plate Relay Rack Unit -
Common Cover Over Part of Plate


APPARATUS SIDE - COVER REMOVED


TERMINAL SIDE

Fig. 35 - Relays - Single Circuit - Multiplate Relay Rack Unit -2-Inch Plates - All Relays of a Circuit Included on One Mounting Plate

apparatus side - cover removed


TERMINAL SIDE

Fig. 36 - Relays - Single Circuit - Multiplate Relay Rack Unit -2-Inch Plates - All Relays of a Circuit Not Included on One Mounting Plate


Fig. 37 - Relays - AK Type with Expanded Functional Designations - Multicircuit Arrangement With Numerical Designations


19 TYPE RESISTORS - THREE PER TWO CIRCUITS - TERMINAL SIDE


Fig. 38 - Resistors - 18 and 19 Types


Fig. 39 - Resistors - 18 and 19 Type With Expanded Functional Designations - Multicircuit


Fig. 40-Relays - One Multicircuit Groūp on 1-3/4 Inch Plate - One Relay per Circuit - Common Cover


Fig. 41 - Relays - One Multicircuit Group on 1-3/4 Inch Plate - Two or More Relays per Circuit - Common Cover


Fig. 42 - Partial Equipment - Wired for Ultimate - Strip-Mounted on 1-3/4 Inch Plate With Common Cover


Fig. 43 - Partial Equipment - Wired for Ultimate - Strip-Mounted on 1-3/4 Inch Plate With Individual Covers


Fig. 44 - Partial Equipment - Wired for Ultimate - Strip-Mounted on 1-3/4 Inch Plate With Individual Covers


APPARATUS SIDE-COVERS IN PLACE
Fig. 45 - Relay Rcck Mounted Equipment - Multicircuit - Apparatus Arranged Vertically in Each Circuit - Apparatus Side With Covers in Place


APPARATUS SIDE - COVERS REMOVED
Fig. 46 - Relay Rack Mounted Equipment - Multicircuit - Apparatus Arranged Vertically in Each Circuit - Apparatus Side With Covers Removed


TERMINAL SIOE

Fig. 47 - Relay Rack Mounted Equipment - Multicircuit - Apparatus Arranged Vertically in Each Circuit - Terminal Side

apparatus side - covers in place

Fig. 48 - Relay Rack Mounted Equipment - Multicircuit - Apparatus Arranged Vertically in Each Circuit - Apparatus Side With Covers in Place


APPARATUS SIDE - COVERS REMOVED

Fig. 49 - Relay Rack Mounted Equipment - Multicircuit - Apparatus Arranged Vertically in Each Circuit - Apparatus Side With Covers Removed


Fig. 50 - Relay Rack Mounted Equipment - Multicircuit - Apparatus Arranged Vertically in Each Circuit - Terminal Side


Fig. 51-Relays - Two or More Multicircuit Groups on 1-3/4 Inch Plate One Relay per Circuit - Common Cover - Group Designations in Middle of Groups


Fig. 52 - Relays - Two or More Multicircuit Groups on 1-3/4 Inch Plate Two or More Relays per Circuit - Common Cover


Fig. 53 - Relays - 275, 276, and Similar Types Mounted on No. 216A Mounting Plates


Fig. 54 - Relays - 275, 276, and Similar Types Mounted on No. 215A and 230A Mounting Plates


Fig. 55 - Relays - 293 Type


Fig. 56 - Resistance or Ballast Lamps on Mounting Plates - Without Supplementary Fuse and Lamp Records - One Group of Circuits per Plate -12-Type Resistance Lamps Shown


Fig. 57 - Resistance or Ballast Lamps on Mounting Plates - Without Supplementary Fuse and Lamp Record - More Than One Group of Circuits per Plate - 12-Type Resistance Lamps Shown


Fig. 58 - Resistance Lamps on Panels - With Supplementary Fuse and Lamp Record - 13-Type Resistance Lamps Shown


Fig. 59 - Resistance or Ballast Lamps on Mounting Plates or Panels - With Supplementary Fuse and Lamp Record - 12-Type Resistance Lamps Shown


Fig. 60 - Resistance or Ballast Lamps on Panels - One Group of Circuits per Panel


Fig. 61 - Resistance Lamps With Relay Rack Unit - Consecutive Odd Numbering - 11-Type Resistance Lamps Shown


Fig. 62 - Resistance or Ballast Lamps and Edison Base Resistance on Panels Without Supplementary Fuse and Lamp Record - More Than One Group of Circuits per Panel - 12-Type Resistance Lamps Shown

## REASONS FOR REISSUE

1. 2.01 was revised to remove reference to "common" equipment.
2. 3.01 was revised to clarify intent.
3. 3.01 (b) was revised to add character size for reference numbers of drilled positions and BSP reference.
4. 3.03 and 3.23 were revised to remove nomenclature "clamping strip" to agree with Section 800-613-155.
5. 3.04 (d) was added.
6. 3.05 (c) (3) was revised to specify vertical designations when space does not permit preferred arrangement.
7. 3.06 and 3.08 were revised to clarify intent.
8. 3.12 was added.
9. 3.14 was revised to clarify intent.
10. 3.14 (a) was revised to add figure reference.
11. $3.14(\mathrm{e})$ was revised to include additional stamping conditions.
12. 3.15 was revised to remove "in other than common control equipments."
13. 3.20 was revised to add exception to specific relays in systems specified in 3.17 .
14. 3.24 (b) was added.
15. 3.26 was revised to specify a multirow mounting panel.
16. 3.27 (b) (1) was added.
17. $3.34(\mathrm{a})(1)$ was revised to remove "unless ultimate wiring is not provided."
18. 5.08 and associated heading were added.
19. Fig. 19, 20, 37, and 39 were added.
20. Fig. 30, terminal side, was revised to show line circuit number on left-hand side of mounting plate.
21. Fig. 32 was revised to rotate 3 -character functional designations to agree with Section 800-613-154.
