# SPECIFIC REQUIREMENTS FOR <br> APPARATUS AND EQUIPMENT - F TO I <br> (FILTERS TO INTERRUPTERS, EXCEPT FRAMES AND RACKS) <br> NUMBERING AND LETTERING GENERAL EQUIPMENT REQUIREMENTS 

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1. GENERAL
1.01 This section covers the specific requirements for numbering and lettering apparatus and equipment classified alphabetically -from $F$ to $I$, exclusive of frames and racks (Section 800-613-157) and of apparatus used only in power plants (Section 800-613-160). It supplements the common requirements covered in Section 800-613-150.
1.02 This section is reissued to make changes which are listed under Reasons for Reissue at the end of this section.

## 2. SPECIFIC REQUIREMENTS FOR APPARATUS AND EQUIPMENT - F TO I (EXCEPT FRAMES AND RACKS)

A. Filters
2.01 Designate on terminal side of filter in all cases. Large filters, such as the 108 type, having widely separated groups of terminals, shall have the functional and numerical designations stamped on the rear of the mounting panel adjacent to each group of terminals. The 126 and similar types shall be stamped front and rear. See Fig. 1 for typical examples of designations on filters.

## B. Fuse Panels

## General Requirements

2.02 Designations, except capacity and code designations, for fuses on fuse panels shall be stamped on the front and rear. Fig. 2 through 31 show commonly used dial frame, PBX, and fuse bay fuse panels with typical designations. The locations of designations shown thereon shall be followed as closely as possible for panels of similar design except:
(a) Where the fanning strip is mounted on $\rightarrow \quad$ the bottom of the fuse panel furnished $\rightarrow$ with 35 -type fuses and the local cable is brought in from below, the top row fuse post designations on the rear of the panel shall be stamped directly above the fuse posts.

## Voltage Designation or Type of Supply

2.03 The voltage designation (48V, 24V TALK, 130 V PLT, etc) or type of supply (SUP + BR2, CC + , etc) shall be stamped with $3 / 8$-inch characters, where space permits, on the front and rear of all fuse panels, except dial frame or shelf fuse panels which supply only 48 volts (no other voltage or type of supply), in which case voltage designations are not required. When more than one voltage or type of supply is fused, the respective designations shall be associated with the groups of fuses to which they apply.
$r$ (a) Where fuse panels equipped with individually mounted fuses are fed by split load power feeders, stamp the feeder designation both front and rear, as shown in Fig. 10 and 20 for panels with one feeder designation and Fig. 6 and 19 for panels with two or more feeder designations.
(b) Where 22- or 23-type fuse blocks are fed by split load power feeders, stamp the feeder designation on the rear only as shown in Fig. 28.
2.04 On PBX fuse panels, the voltage designation shall be stamped regardless of value. See Fig. 22, 23, and 30.

## Voltage or Split Load Separation Stripe

2.05 When more than one voltage or split load power feeder is supplied to a fuse panel equipped with 22 - or 23 -type fuse blocks, and space between the fuse blocks to indicate a separation of voltage or split load power is lacking, a separation stripe shall be stamped front and rear. See Fig. 27 for stamping voltage separation stripe and Fig. 28 for stamping split load power separation stripe.

## Capacity Designations

2.06 70-type fuses mounted in 22 - or 23-type fuse blocks require no capacity designa$L^{\text {tion }}$ stamping.
$\rightarrow \mathbf{2 . 0 7}$ The capacity for fuses, other than 70-type
$\rightarrow \quad$ fuses mounted in 22 - or 23 -type fuse blocks, shall be stamped in amperes on the apparatus side only (with AMP when space permits, otherwise A).
(a) In cases where fused plugs are employed, such as the Elmenco fused plug with Bussman type Fusetrons, the capacity shall be stamped with $3 / 16$-inch characters once on each side of the plug below the finger grip.
2.08 Fuses in a row on a panel requiring capacity designations shall be stamped as follows.
(a) When fuses are of the same capacity, stamp the capacity (and code when required) once for each row.
(b) When fuses are of different capacities, associate the capacity (and code when required) with the respective groups of fuses to which they apply.
(1) 35-type fuses of different capacities,mounted on the same common bus bar, shall be separated by a $1 / 8$-inch wide stripe ( $3 / 4$-inch letter I) stamped on the bus bar. In so doing, the screw of the unequipped fuse position, usually provided between different capacities, shall be removed before and replaced after stamping. If an unequipped position is not provided between different capacities, stamp between screws of adjacent fuse positions and, at the fusepost end of fuses, indicate the span of the respective capacities by means of $3 / 16$-inch brackets. On double-row fuse panels where the change in capacity occurs in the same relative location in both rows, the stripe shall extend all the way across the bus bar; otherwise, it shall extend only halfway across the bus bar. See Fig. 3.
(2) Individually mounted 35-type fuses of different capacities in the same row, when separated by an unequipped fuse position, require no bracket to indicate the separation; however, when an unequipped position is not provided between different capacities, indicate the span of the respective capacities by means of $3 / 16$-inch brackets. See Fig. 3.
(3) Where fuse panels consist of 18- or 21and 20-type fuse blocks, the separation stripe required between fuses of different capacities shall be stamped on the appara-7 tus side using the $3 / 8$-inch letter I. See Fig. 15. When fuses of different capacities are separated by an unequipped fuse position, a separation stripe is not required. See Fig. 16 and 17.
(4) On modular type fuse blocks, a capacity separation stripe shall be stamped between adjacent fuses in the same row when the fuses are of different type. See Fig. $29 . ل$
2.09 The designation $F N$ shall be stamped following the capacity or below the capacity designation where N.E.C. multiple element (time delay) fuses are used. Use the same size characters as for capacity (see Fig. 35).
(a) Where the capacity values of multiple element fuses are of odd values, such as $2-2 / 10,3-6 / 10$, etc, they shall be stamped using the decimal equivalent (example, 2.2 AMP or 3.6 AMP). However, values comprised of whole numbers and common fractions shall be stamped 1 1/3 AMP, 1 3/4 AMP, 2 1/2 AMP, etc.

## Code Designations

2.10 Alarm fuses used in circuits 90 volts and+ higher such as $35 \mathrm{~J}, 35 \mathrm{~K}$, and similar are resisting types shall have the code of the fuse stamped immediately following or below the capacity designation. See Fig. 2 and 4.

### 2.11 Codes of slow-acting fuses, such as 70 K

 and 70 P fuses, shall be stamped as follows.(a) When mounted in 18- or 21-type fuse blocks, the code shall be stamped in the lower left corner of the fuse block as shown in Fig. 17 and 25.
(b) When mounted in 22 - or 23 -type fuse 7 blocks, the code shall be stamped adjacent
to the fuse as shown in Fig. 27.
(c) When mounted in KS-14169 fuse blocks, the code shall be stamped as shown in Fig. 32.

## Designations of Individually Mounted Fuses Other Than Capacity, Code, and Voltage

2.12 On fuse bay fuse panels, stamp group, subgroup, functional, and numerical designations as required to identify the circuits (when possible to arrange such designations in comparatively simple pattern) ; otherwise, such information is furnished in a fuse record book and the panels stamped as described in 2.18. (See Fig. 2, 3, and 4.)

### 2.13 On dial frame and switchboard, other

 than PBX fuse panels, stamp in accordance with the following, except as modified in the typical illustrations shown in Fig. 5 through 21.(a) Group and subgroup designations on the front of the panel shall be stamped with $3 / 16$-inch characters for a double row of designations and with $1 / 8$-inch characters for three rows of designations.
(b) Group and subgroup designations on the rear shall be stamped with $3 / 16$-inch characters when space permits.
(c) Functional and numerical designations on the front of the panel shall be stamped with $3 / 16$-inch characters for a single row of ${ }^{-}$ designations and with $1 / 8$-inch characters for a double row of designations.
(d) Functional and numerical designations on the rear of the panel shall be stamped with $1 / 8$-inch characters.
(e) When it is necessary due to space limitations to reduce the size of a functional or numerical designation to $1 / 8$ inch, all other functional or numerical designations shall be 1/8 inch. (See Fig. 6.)
$\Gamma_{2.14}$ On PBX fuse panels, stamp designations in accordance with the following.
(a) When group, subgroup, functional, and numerical designations are required, stamp in accordance with Fig. 22 and 23.
(b) Fuses identified by mounting plate number designations shall be stamped with $1 / 8$-inch characters on the front and rear. Designations on the front shall be located in the upper right area of the fuse blocks. Designations on the rear shall be stamped adjacent to the fuse position cutout in the upper left area for fuses in the top row and stamped in the lower left area for fuses in the bottom row.
(1) When a functional designation is assigned to two or more fuses with the same mounting plate number designation, the functional designation shall be stamped immediately following the mounting plate number designation, such as $3 \mathrm{~A}, 3 \mathrm{~B}, 3 \mathrm{C}$.
(c) When a fuse record book is furnished, fuses which protect circuits external to the bay shall be stamped with the functional designation and the fuse assignment shown in L the fuse record book.
2.15 A group (or subgroup) designation shall be stamped at the middle of the group of fuses to which it applies and, when applicable to two or more fuses but not an entire row, brackets used to indicate the extent of the group. Where the extent of the group is otherwise plainly indi-
cated by unequipped positions, numerical designations, or separate bus bars, the brackets may be omitted.
2.16 Functional designations, when required, shall be stamped for each fuse, except under the following conditions.
(a) For repeated appearance of fuses for like circuits, the functional designations shall be stamped for only the first and last circuits in each row.
(b) For a series of fuses having functional designations with consecutive numerical suffixes, functional designations shall be stamped for first, last, and each intermediate fuse having a suffix which is a multiple of five. For example, stamp A0, A5, A10, etc.

### 2.17 Numerical designations shall be provided

 for each fuse (or set of fuses), stamping in the middle of the set and using brackets to indicate the extent of the set when there are three or more fuses in the set, except under the following conditions.(a) When fuses or sets of fuses for three or more consecutively numbered, consecutiveeven, or consecutive-odd like circuits are arranged in a row, stamp the numerical designation for the first, last, and each intermediate circuit whose number is a multiple of five.
(b) When fuses, each of which serves more than one circuit, are mounted in a row, stamp the span of circuit numbers at the first, third, fifth, seventh, etc, and last fuse. For example, stamp 1-2, 5-6, 9-10, etc, 1-3, 7-9, 13-15, etc, or 1-4, 9-12, 17-20, etc, for fuses serving two, three, or four circuits, respectively.
2.18 Fuse row and position designations shall be stamped front and rear when detailed fuse information is shown in a fuse record book.
(a) Stamp the row number adjacent to each row starting with one for the bottom fuserow location and numbering up for each equipped and unequipped row. (See Fig. 2, 3 , and 11.)
(b) In each row when there is a continuous bus bar, stamp the number of the first, last, and intermediate fuse position whose
number is a multiple of five. (See Fig. 3 and 4.)
(1) Stamp only the first and last fuse position of each bus bar section where fuse panels have split bus bars with less than ten fuses per row in each section. (See Fig. 11.) Fuse position numbers shall read 1-8, 9-16, 17-24, etc, across the panel when used with fuse record book.

Designations of Fuses in 22- or 23-Type Fuse Blocks (modular type) Other Than Capacity, Code, and Voltage Designation
2.19 Fuse bay fase panels, where a fuse record book is furnished, shall be stamped in accordance with Fig. 26.
(a) Fuse position numbers shall be stamped on the front and rear. For the top row, stamp the second (with suffix " T "), last, and intermediate positions whose number is a multiple of five. For the bottom row, stamp the first (with suffix "B"), last, and intermediate positions whose number is a multiple of five. The fuse alarm lamp in position 1T shall be stamped in accordance with 2.37 .
(b) The fuse panel number shall be stamped on the front and rear.
2.20 Fuse bay fuse panels, where a fuse record book is not furnished, shall be stamped in accordance with Fig. 27 and 28.
2.21 Group (or subgroup) designations shall be stamped on the front and rear in accordance with Fig. 27 and 29. Fig. 27 illustrates the location of group designations for the following arrangements.
(a) Individual fuse.
(b) Fuses located in both top and bottom rows.
(c) Fuses located in top row only or bottom row only.
(d) Fuses located at panel cutouts (rear stamping).
2.22 Brackets shall be used to indicate the extent of each group except as follows.
(a) When all fuses on the panel are included in the group.
(b) When the extent of the group is plainly 7 indicated by sufficient space between fuse blocks.
2.23 Functional designations, when required, shall be stamped for each fuse except under the following conditions.
(a) For repeated appearance of fuses for like circuits, the functional designations shall be stamped for only the first and last circuits in each row. (See Fig. 27 and 28.)
(b) For a series of fuses in a single row having functional designations with consecutive numerical suffixes, functional designations shall be stamped for the first, last, and each intermediate fuse having a suffix which is a multiple of five. For example, stamp A0, A5, A10, etc. (See Fig. 29.)
(c) For a series of fuses in a double row having functional designations with consecutive numbered suffixes and the designations alternate consecutively with respect to the top and bottom rows of fuses, stamp the functional designations for the first and last vertical pair of fuses and only the suffix designations for every other intermediate vertical pair. (See Fig. 27.)
2.24 Numerical designations, when required, shall be provided for each fuse (or set of fuses), stamping in the middle of the set and using brackets to indicate the extent of the set when there are three or more fuses in the set, except under the following conditions.
(a) When fuses or sets of fuses for three or more consecutively numbered, consecu-tively-even, or consecutively-odd like circuits are arranged in a row, stamp the numerical designation for the first, last, and each intermediate circuit whose number is a multiple of five. (See Fig. 28.)
(b) When fuses, each of which serves more than one circuit, are mounted in a row, stamp the span of circuit numbers at the first, third, fifth, seventh, etc, and last fuse. For example, stamp 1-2, 5-6-, 9-10, etc, 1-3, $7-9,13-15$, etc, or $1-4,9-12,17-20$, etc, for fuses serving two, three, or four circuits respectively. (See Fig. 28.)
$r$ (c) When a series of fuses, each of which serves more than one circuit, are consecutively numbered and mount alternately with respect to top and bottom rows, stamp the numerical designation span for the first and last vertical sets of fuses and for every. other intermediate vertical set of fuses. (See Fig. 28.)
2.25 Fuses identified by mounting plate designations shall be stamped in accordance $L^{\text {with Fig. }} 30$.

## Vertically Mounted Fuse Panels

2.26 Fuse panels mounted vertically shall be stamped in the same general manner as outlined herein for horizontally mounted panels. (See Fig. 12 and 13.)

## Ground Strips

2.27 Ground strips on fuse panels employing 35-type fuses shall be stamped in accord-
$r$ ance with Fig. 24. For fuse panels equipped with 22 - or 23 -type fuse blocks, stamp in accordance with Fig. 27.

## 70-Type Fuses Individually Mounted on Mounting Plates or Panels

2.28 Where 70-type fuses are mounted individually, the fuse blocks and mounting plate or panel shall be stamped as shown in the typical view per Fig. 25.

## C. KS-14169 and KS-14170 Fuse Blocks Mounting 70-Type Alarm and Indicating Fuses

## KS-14169 Fuse Blocks

2.29 The sizes and locations of designations for an individual fuse block are shown in Fig. 32. Fig. 32 includes a typical panel equipped with KS-14169 fuse blocks. Fuse-capacity designations shall be stamped on the front only and other designations, as required, shall be stamped front and rear (where space will permit) in accordance with the following.
(a) For code stamping, see 2.11 (c).
(b) A voltage or type of supply designation applicable to an entire panel shall be centered on the panel above the fuse blocks. When one of these designations applies to a row or part of a row, it shall be stamped on
the front of the panel or top designation strip. On the rear of the panel, these designations shall be stamped below the middle of the group of blocks to which they apply. When two or more voltages are required for the same row, use brackets to indicate the extent of each voltage. Use $3 / 16$-inch characters for stamping on the panel (front and rear) and $1 / 8$ inch on the designation strips.
(c) Fuse-capacity designations (1/2A, etc) shall be stamped for each row or part thereof with $1 / 8$-inch characters on the lower designation strip in the middle of the group of fuses to which each applies and, when two or more capacities are required for the same row, brackets are used to indicate the extent of each capacity.
(d) A group designation shall be stamped for each row or part thereof with $1 / 8$-inch characters above the middle of the group to which it applies and, if applicable to more than two fuses (one block) but less than an entire row, brackets are used to indicate the extent of the group.
(e) Functional designations shall be stamped with $1 / 8$-inch characters below the respective fuses. For repeated appearances of fuses for like circuits, stamp functional designations for the first and last appearance in each group.
(f) Stamp numerical designations with $1 / 8$ inch characters below the fuses for each repeated appearance of fuses for like circuits. Where there are two or more fuses for a circuit, stamp the numerical designation for the first and last fuse of each circuit.

## KS-14170 Fuse Blocks

2.30 KS-14170 fuse blocks shall be designated as shown in Fig. 34.
D. Fuses Mounted on Fuse Adapters, Blocks, Protectors, or Mountings
2.31 Where fuse adapters are used to mount cartridge-type fuses on alarm-type fuse panels, the fuses shall be designated as shown in Fig. 35. It is desirable that the associated pilot fuse be located adjacent to the cartridge-type fuse so that both fuses can be included in brackets with a common numerical or functional designation. The pilot fuse shall be designated

PF in $1 / 8$-inch characters. The fuse capacities shall be stamped in $1 / 8$-inch characters adjacent to these fuses adding FN to capacity designations when multiple element (time-delay) car-tridge-type fuses are used. When used in the middle of a row of alarm-type fuses, provide capacity stamping for fuses at each side of the cartridge-type fuse and associated pilot fuse even when all alarm-type fuses in the row are of the same capacity.
2.32 12-, 15-, and similar-type fuse blocks shall be designated as shown in Fig. 33.
2.33 Fuses mounted on 606-type mounting plates shall be designated as shown in Fig. 36.
2.34 Fuse mountings per KS-5780 shall have the fuse capacity stamped on the front of the panel as shown in Fig. 37.
2.35 Fuse mountings per KS-5556 shall be designated as shown in Fig. 7, 8, and 9. Where these fuse mountings are not associated with a fuse panel, the capacity designation shall be stamped with $3 / 16$-inch characters on the space directly below the mounting.

### 2.36 Designations for fuses on individual protectors, such as the 62 type, shall be

 stamped on the mounting board adjacent to the protector as shown in Fig. 38.
## E. Fuse Alarm Lamps

2.37 Where there is more than one fuse alarm 7 lamp on a panel, stamp the functional designation for each lamp to indicate association with the respective groups of 35 -type fuses or with the supply fuses. (See Fig. 2 and 9.) A functional designation is not required when only one fuse alarm lamp appears on a panel except as follows.
(a) On PBX fuse panels, stamp the fuse alarm lamp designation on the front and rear.
(b) On other than PBX fuse panels, fuse alarm lamps mounted in 22- or 23-type fuse blocks shall be stamped on the rear only.

When required, functional designations of fuse alarm lamps mounted in fuse blocks shall be stamped similarly to 70 -type fuses.

## F. Fuse Record Books and Holders

2.38 Fuse record books are used in connection with fuse panels where stamping space on the fuse panel is inadequate to accommodate the required designations. Information to be added ${ }^{7}$ on preprinted front covers of fuse record books shall be stamped with $1 / 8$-inch characters except that fuse bay numbers shall be $3 / 16$-inch characters. When plain covers are furnished, stamp FUSE RECORD on the front cover of each fuse record book together with the identification of the associated fuse bay, frame, or relay rack as shown in Fig. 39.
2.39 For fuse record book holders mounted on a wall or column, stamp information identical to that provided on the associated fuse record book as shown in Fig. 40.

## G. Spare Fuse Holders

### 2.40 The designations for spare main line and

 frame fuses mounted in end guards shall be stamped as shown in Fig. 41.
## H. Heat Coils

2.41 74-type heat coils mounted on panels or mounting plates shall be designated in the same general manner as 35 -type fuses, except that the heat coil code number is stamped in place of the fuse capacity designation.

## I. Induction Coils

2.42 Stamp induction coil designations as shown in Fig. 42.

## J. Inductors

2.43 Inductors such as the 47, 85, 274, 307, and similar types where mounted on strip mounting plates are designated on the terminal side only, except when isolated from the other apparatus in the associated circuit; then designate on both the apparatus and terminal sides. Group or numerical designations, where required to indicate the limits of the group, may be stamped on the apparatus side of inductors. The frequency of stamping and location of designations for sets of inductors shall conform to the requirements covered in Section 800-613-159.
(a) The various types of inductors shall be stamped in accordance with the respective figures listed in Table A.
table a - figure reference for various inductors

| code | FIG. No. | CODE | FIG. NO. | CODE | fig. No. | code | FIG. NO. | code | Fig. No. | CODE | fig. No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 48 | 182 | 44 | 273 | 44 | 322 | 44 | 1016 | 52 |  |  |
| 12 | 48 | 184 | 44 | 274 | 47 | 323 | 53 | 1017 | 56 |  |  |
| 47 | 49 | 199 | 44 | 275 | 45 | 324 | 44 | 1021 | 56 |  |  |
| 59 | 46 | 200 | 50 | 276 | 53 | 327 | 53 | 1022 | 52 |  |  |
| 64 | 46 |  |  | 277 | 44 | 328 | 53 | 1023 | 55 |  |  |
| 67 | 50 | 206 | 52 | 278 | 47 | 329 | 53 | 1026 | 44 |  |  |
| 71 | 43 | 209 | 44 | 279 | 44 | 330 | 44 | 1027 | 44 |  |  |
| 85 | 47 | 213 | 44 | 281 | 45 | 331 | 44 | 1028 | 44 |  |  |
| 91 | 43 | 215 | 53 | 282 | 44 | 332 | 44 | 1029 | 44 |  |  |
| 92 | 43 |  |  | 284 | 44 | 333 | 47 | 1030 | 56 |  |  |
| 100 | 52 | 220 | 45 | 285 | 53 | 335 | 44 | 1031 | 44 |  |  |
| 109 | 43 | 225 | 50 | 287 | 45 | 336 | 53 | 1033 | 52 |  |  |
| 111 | 47 | 231 | 44 | 289 | 53 | 341 | 45 |  |  |  |  |
| 113 | 52 | 232 | 44 | 290 | 45 | 343 | 45 |  |  |  |  |
| 114 | 47 | 234 | 45 | 291 | 45 | 344 | 47 |  |  |  |  |
| 116 | 50 | 235 | 50 | 292 | 45 | 345 | 44 | 1500 | 50 |  |  |
| 123 | 43 | 240 | 45 | 293 | 44 | 346 | 44 | 1507 | 50 |  |  |
| 132 | 49 | 241 | 45 | 294 | 50 | 347 | 44 | 1555 | 44 |  |  |
| 133 | 49 | 243 | 45 | 295 | 45 | 350 | 47 | 1573 | 50 |  |  |
| 135 | 47 | 246 | 53 | 296 | 50 | 351 | 44 | 1585 | 47 |  |  |
| 146 | 52 | 247 | 44 | 297 | 55 | 354 | 44 | 1587 | 49 |  |  |
| 148 | 43 | 248 | 44 | 298 | 55 | 1000 | 56 | 1589 | 49 |  |  |
| 149 | 44 | 251 | 44 | 300 | 44 | 1001 | 56 | 1590 | 47 |  |  |
| 152 | 53 | 254 | 44 | 301 | 45 | 1002 | 44 | 1591 | 47 |  |  |
| 153 | 50 | 255 | 45 |  |  | 1003 | 56 | 1592 | 49 |  |  |
| 155 | 43 | 257 | 44 |  |  | 1005 | 52 | 1593 | 54 |  |  |
| 156 | 44 | 258 | 44 | 304 | 54 | 1006 | 44 | 1594 | 50 |  |  |
| 157 | 43 | 261 | 53 | 305 | 53 | 1008 | 56 | 1595 | 50 |  |  |
| 158 | 44 | 263 | 53 | 306 | 44 | 1009 | 56 | 1596 | 50 |  |  |
| 159 | 51 | 264 | 48 | 307 | 47 | 1010 | 44 |  |  |  |  |
| 161 | 50 | 266 | 48 | 312 | 47 | 1011 | 44 | 1608 | 44 |  |  |
| 167 | 44 | 268 | 44 | 317 | 54 | 1012 | 44 | 1611 | 49 |  |  |
| 176 | 45 | 269 | 51 | 318 | 45 | 1013 | 44 | 1622 | 49 |  |  |
| 181 | 45. | 271 | 47 | 321 | 44 | 1014 | 44 | 1628 | 49 |  |  |
|  |  | 272 | 45 |  |  | 1015 | 44 |  |  |  |  |
| CAA | 50 | CAF | 50 | CP | 50 | CU | 50 | F1D11 | 50 |  |  |
| CAB | 50 | CD | 50 | CR | 50 | E1C | 51 | G1H1 | 44 |  |  |
| CAE | 54 | CH | 50 | CS | 50 | F1A222 | 50 |  |  |  |  |

## K. Interrupters

2.44 169- and similar-type interrupters shall be designated as shown in Fig. 57. The code of the interrupter also shall be stamped on the apparatus side of the panel to be visible with the apparatus in place.
2.45 165-, 166-, 167-, and Similar-Type Interrupters
(a) The frame position letters, $A, B, C$, etc, shall be stamped on the front of the reciprocating bar and on the rear of the interrupter frame as shown in Fig. 58.
(b) Spring positions on each interrupter using interrupter record books are assigned consecutive numbers from one up at the left of the top row and from 16 up at the left of the bottom row. The applicable number shall be stamped front and rear on the TABS of the
first, last, and each intermediate spring position whose number is a multiple of five in each row as shown in Fig. 58.
(c) For interrupters where no record book is provided, the spring position numbers on the TABS shall be stamped on both front and rear. Group designations, however, shall be stamped on the front of the interrupter only (see Fig. 59).
L. Interrupter Record Books and Holders
2.46 The covers of the interrupter record books shall be stamped as shown in Fig. 60.
2.47 For interrupter record book holders mounted on a wall or column, stamp information identical to that provided on the associated interrupter record book as shown in Fig. 60.


126 AND SIMILAR TYPES
Fig. 1 - Filters - 42, 108, 109A and 109B, 126, 206, 208, and Similar Types


Fig. 2 - Fuse Bay Fuse Panel - Single Row Individually Mounted With Fuse Record Book


Fig. 3 - Fuse Bay Fuse Panel - Double-Row Common Bus Bar With Fuse Record Book


Fig. 4 - Fuse Bay Fuse Panel - Double-Row Common Bus Bar Without Fuse Record Book


Fig. 5 - Dial Frame Fuse Panel - Single Row With Common Bus Bar No Feeder Fuse


Fig. 6 - Dial Frame Fuse Panel - Double Row With Two Common Bus Bars Two Feeders With Cartridge Fuses


Fig. 7 - Dial Frame Fuse Panel - Double-Row Common Bus Bar One Fuse Mounting


Fig. 8 - Dial Frame Fuse Panel - Double Row With Two Common Bus Bars Two Fuse Mountings


Fig. 9 - Dial Frame Fuse Panel - Double Row With Three Common Bus Bars Three Fuse Mountings


Fig. 10 - Dial Frame Fuse Panel - Double Row With Common Bus Bar One Feeder and Cartridge Fuse


Fig. 11 - Dial Frame Fuse Panel-Less Than Ten Fuses Per Row in Each Section With Fuse Record Book


Fig. 12 - Dial Shelf Fuse Panel - Double Row With Common Bus Bar Mounted Vertically


Fig. 13 - Dial Frame Fuse Panel - Double Row With Common Bus Bar Mounted Vertically


Fig. 14 - Switchboard Fuse Panel I3CL switchboard shown)

( $\frac{1}{\text { fic }}$ functional


Fig. 15 - Dial Frame Fuse Panel - Two Mounting Plates - Two Feeders -
Four Groups - Using 70-Type Fuses With 18-Type Fuse Blocks and Bussman Type AGS Fuses With 20-Type Fuse Blocks


Fig. 16 - Dial Frame Fuse Panel - Two Feeders - Four Subgroups - Using 70-Type Fuses With 18-Type Fuse Blocks and Bussman Type AGS Fuses With 20-Type Fuse Blocks

Fig. 17 - Dial Frame Fuse Panel - One Feeder - Two Voltages - Using
70-Type Fuses With 18- or 21-Type Fuse Blocks (21-type shown) and Bussman Type AGS Fuses With 20-Type Fuse Blocks


Fig. 18 - Dial Frame Fuse Panel - One Feeder - Using 70-Type Fuses With 18-Type Fuse Blocks and Bussman Type AGS Fuses With 20-Type
Fuse Blocks


Fig. 19 - Dial Frame Fuse Panel - Three Feeders - Three Groups - Using 70-Type Fuses With 18-Type Fuse Blocks and Bussman Type AGS Fuses With 20-Type Fuse Blocks


Fig. 20 - Dial Frame Fuse Panel - One Feeder - More Than Three Groups Using 70-Type Fuses With 18-Type Fuse Blocks and a Bussman Type AGS Fuse With a 20 -Type Fuse Block


Fig. 21 - Dial Frame Fuse Panel - One Voltage - Using 70-Type Fuses (21-łype fuse blocks shown)


Fig. 22 - PBX Fuse Panel - One Voltage - Using 35-Type Fuses


Fig. 23 - PBX Fuse Panel — One Voltage — Using 70-Type Fuses (21-type
fuse blocks shown)


Fig. 24 - Method of Stamping Ground Terminals on Fuse Panels Using 35-Type Fuses


Fig. 25-70-Type Fuses Individually Mounted on Mounting Plate or Panel (21-type fuse block shown)


REAR VIEW


Fig. 26 - Fuse Bay Fuse Panel - Typical Stamping of 22- or 23-Type Fuse Blocks When Fuse Record Book Is Provided - $\mathbf{7 0}$-Type Fuses
(


$$
\begin{aligned}
& \text { ALL I/8" CHARACTERS } \\
& \text { UNLESS OTHERWISE SPECIFIED }
\end{aligned}
$$

(without TERMINAL bar)


FRONT VIEW
Fig. 27 - Fuse Bay Fuse Panel Without Fuse Record Book or Dial Frame Fuse Panel - Typical Designations on 22- or 23-Type Fuse Blocks -70-Type, Fuses - Two Voltages
O



Fig. 28 - Fuse Bay Fuse Panel Without Fuse Record Book or Dial Frame Fuse
Panel - Typical Designations on 22- or 23-Type Fuse Blocks -
70-Type Fuses - One Voltage (48V)


Fig. 29 - Dial Frame Fuse Panel-22- or 23-Type Fuse Blecks Mounted on 245C and Similar Type Mounting Pietes With Intermediate Cutouts One Voltage


Fig. 31 - Dial Frame Fuse Panel - 20-Ampere Fuse and 70-Type Pilot Fuse in 22- or 23-Type Fuse Block - Resistors and Lamp Associated With Fuse Alarm Circuit


Fig. 32 - Panel Equipped With KS-14169 Fuse Blocks


15 AND SIMILAR TYPE FUSE BLOCKS


REAR VIEW


FRONT VIEW
VERTICALLY MOUNTED
HORIZONTALLY MOUNTED

I2 AND SIMILAR TYPE FUSE BLOCKS INDIVIOUALLY MOUNTED


REAR VIEW


FRONT VIEW
12 AND SIMILAR TYPE FUSE BLOCKS

Fig. 33-12-, 15-, and Similar-Type Fuse Blocks


Fig. 34 - KS-14170 Fuse Block


Fig. 35 - Cartridge-Type Fuse and Pilot Fuse Mounted on Fuse Panel


Fig. 36 - Fuses on 606-Type Mounting Plates


Fig. 37 - KS-5780 Fuse Mounting


Fig. 38-62-Type Individual Protectors


Fig. 39 - Fuse Record Book - Plain Cover


Fig. 40 - Record Book Holder


Fig. 41 - Designations for Spare Main Line and Frame Fuses
 62,63 AND SIMILAR TYPES

Fig. 42 - Induction Coils - 62, 63, 75A, 178, and Similar Types


Fig. 43 - Inductors - 71 and Similar Types


Fig. 44 - Inductors - 149 and Similar Types

wiring side
APPARATUS SIDE

Fig. 45 - Inductors - 176 and Similar Types

mounted with top of shells visible
Fig. 46 - Inductors - 59, 64, and Similar Types

Fig. 47 - Inductors - 85 and Similar Types


Fig. 48 - Inductors - 12 and Similar Types


Fig. 49 - Inductors - 47 and Similar Types


Fig. 50 - Inductors - 67 and Similar Types


Fig. 52 - Inductors - $109,113,183$, and Similar Types


Fig. 53 - Inductors - $\mathbf{3 2 7}$ and Similar Types


FRONT

Fig. 54 - Inductors - CAE and Similar Types


Fig. 55 - Inductors - 297 and Similar Types


Fig. 56 - Inductors - 1009 and Similar Types


Fig. 57-169-Type Interrupters


Fig. 58 - 165-, 166-, and 167-Type Interrupters Using Record Book


Fig. 59 - 165-, 166-, and 167-Type Interrupters Not Using Record Book


Fig. 60 - Interrupter Record Book Covers

## REASONS FOR REISSUE

1. 2.02 (a) was revised to include type of fuse furnished.
2. 2.03 was revised to add, except in a special case, rear stamping of voltage designations when one type of supply is fused.
3. 2.03 (a) was expanded to specify stamping split load feeder designations for individually mounted fuses.
4. $2.03(\mathrm{~b})$ was added.
5. $2.04,2.05$, and 2.06 were added.
6. 2.07 was revised to exclude 70 -type fuses mounted in 22- or 23-type fuse blocks.
7. $2.08[b(1)$ and (2)] were revised to specify type of fuse.
8. 2.08 (b) (3) was revised to specify condition for omission of capacity separation stripe.
9. 2.08 (b) (4) was added.
10. 2.10 was revised to specify circuits of 90 volts or higher.
11. 2.11 (b) was added.
12. 2.14 and associated minor heading were added.
13. 2.19 through 2.25 and associated minor heading were added.
14. 2.27 was revised to add information for stamping ground strips on modular-type fuse blocks.
15. 2.37(a) and (b) and information for stamping functional designations were added.
16. 2.38 was revised to add stamping information for preprinted covers of fuse record books.
17. Table A was brought up to date.
18. Fig. 11 was revised to add type of supply designations on rear view.
19. Fig. 15 was revised to show conventional type brackets.
20. Fig. 19 was revised to remove capacity separation stripes from rear view.
21. Fig. 20 was revised to add feeder designation and remove capacity separation stripe from rear view.
22. Fig. 21 was revised to add ground punching information and to change information for location of functional and numerical designations.
23. Fig. 22 and 23 were revised to add voltage designation on rear view.
24. Fig. 26 through 31 were added.
25. Fig. 32 was revised to add fuse-capacity designation for fuses in KS-14169 fuse block when mounted vertically on rear of panel and to change size of voltage designation to agree with text.
26. Fig. 34 was revised to relocate group, voltage, and numerical and functional designations on rear view.
27. Fig. 55 and 56 were added.
