

**FLOOR ALARM FRAME  
FOR USE IN OFFICES WITH  
NO. 301C POWER PLANTS  
EQUIPMENT DESIGN REQUIREMENTS  
NO. 1 CROSSBAR SYSTEM**

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework, equipment, and circuits to be used in the engineering, manufacture, and installation of the floor alarm frame for use in No. 1 Crossbar offices with No. 301C power plants. The equipment design requirements for the framework, equipment, and circuits to be used in the engineering, manufacture, and installation of the floor alarm cabinet, and alarm bell panel associated with the alarm system are also covered herein.

1.02 This section is reissued to incorporate previous appendix changes.

Capacity

1.03 The floor alarm frame provides alarm relay equipment for a variable number of aisles of crossbar frames divided over a maximum of four floors. It also provides alarm equipment for the power and ringing power plants and equipment for the operating room fuse alarms.

1.04 The floor alarm cabinet has a capacity of 70 alarm signal lamps or keys. A cabinet of 40 lamps or keys is available for the smaller jobs.

1.05 The alarm bell panel has a capacity of one tone bar signal, one bell, and three subsets.

Description

1.06 The floor alarm frame is a single-sided, single-bay steel structure 11 feet 6 inches high and 2 feet 0-5/8 inch wide. The frame is arranged to mount the alarm relay equipment for an average crossbar office or group of offices extending over not more than four floors and served by No. 301C power plants. The typical equipment layout for the floor alarm frame shows 56 plates of relay equipment. Two rows of terminal strips are provided at the top of the frame for terminating the frame local cable and to provide strapping facilities for the association of alarm equipment in accordance with job requirements. In

general, the switchboard cable leads from connecting circuits terminate directly on apparatus contacts, except in the case of leads to panel office floor alarm boards which, for purposes of flexibility, are terminated on a terminal strip.

1.07 The floor alarm equipment is divided into two classifications, namely, visual and audible. The visual signals indicate the general nature and location of the trouble by the use of differently colored lamps. Red lamps are used to indicate fuse alarms, green and white for time alarms, amber for test frame alarms, and yellow for other floor and exit pilot alarms. These lamps are divided into three classifications as regards their location. One set of lamps, red, green, white, and amber, is located at the main aisle end of each frame aisle and functions to indicate the type of trouble occurring when one of the frames or circuits in that particular aisle is in trouble. Arrangements are provided for mounting one of each of these four lamps in the frame end guard, but only those actually required for the frames in the particular aisle are furnished. Supplementary to the frame aisle pilot lamps, two sets of lamps are located, one at each end of main aisles containing frame aisle pilots. These lamps, red, green, white, and amber, are arranged to function in such a manner that when a frame aisle lamp is lighted a correspondingly colored lamp is lighted at each end of the associated main aisle. These two sets of lamps, frame aisle and main aisle, by their location direct the maintenance man to the main aisle and finally to the frame aisle in which the circuit in trouble is located. The actual frame in trouble is located by means of a small pilot lamp mounted thereon which remains lighted until the trouble is corrected. In addition to the red, green, white, and amber lamps furnished at each end of main aisles, a yellow lamp is provided. This lamp known as an "other floor" pilot serves to indicate the occurrence of a case of trouble on another floor which may be unattended. In this case an alarm switching key is operated which transfers the audible alarms and brings in the yellow lamp on the preceding or succeeding floor. Finally a third group of lamps, yellow, known as "exit pilot" lamps are located on the wall convenient to each exit normally used by the maintenance force in going from floor to floor in a building. The number furnished

in each switchroom location is one less than the number of floors served by the alarm system, there being no lamp furnished on a particular floor for the alarms on that floor. The lamps for a particular floor light on all floors simultaneously to indicate the presence of a case of trouble on that floor. No action is taken on floors other than on the one on which the trouble occurs unless the "other floor" pilot is lighted indicating that the floor in trouble is unattended. If the "other floor" pilot is lighted, the maintenance man determines by means of the "exit pilot" on which floor the trouble is located and proceeds there, where, by means of main aisle and frame aisle pilots, the trouble is located.

1.08 The audible signals consisting of a tone bar signal, two subsets, and a vibrating bell are mounted on an alarm bell panel which is centrally located on each floor. These signals, by means of their distinctive tones, differentiate between major and minor circuit alarm, alarm system battery supply failures, and power failures. Major circuit alarms are classified as those affecting and rendering inoperative large groups of equipment or equipment which if out of service would reflect in serious service reaction. Minor circuit alarms are those covering inoperative conditions on small groups of equipment which when rendered temporarily inoperative do not directly affect service. The operation of the alarm battery supply alarm indicates the failure of a fuse supplying battery to the audible and visual signal relays. Power failure alarms are those caused by the blowing of a main discharge fuse or the failure of some portion of the essential power supply equipment. The power failure and alarm battery supply alarms, because of their relative importance, come in simultaneously on all floors when trouble occurs. The other alarms, major and minor, normally come in only on the floor on which the trouble occurs. However, as covered in 1.07, these alarms may be transferred from one floor to a preceding or succeeding floor by means of an alarm switching key in the event that a floor is to be temporarily unattended; or the alarm indications may be transferred by means of the facilities referred to in 1.14.

1.09 Supplementing the major audible alarm described above is a feature for introducing coded signals to distinguish between different switching systems, tandem, No. 1 crossbar, panel, toll; within a building, or between different offices or floors associated with the same system. This feature, which is limited to four codes, uses a bell to sound one, two, three, or four strokes in between the operations of the major audible alarm tone bar. The latter normally operates on half-second intervals but when arranged for distinctive alarms the interval is extended to 1, 1-1/2,

2, or 2-1/2 seconds to provide for one, two, three, or four taps on the supplementary bell. The code and rotation relays and the code auxiliary signal relays are furnished for each floor and located on the relay rack, on a job basis. The supplementary single stroke bell is furnished and located on the alarm bell panel.

1.10 An audible signal is provided for use in operating rooms, local test desk rooms, and other rooms as required. Facilities are provided for transferring audible signals from terminal rooms to these other rooms when the terminal rooms are unattended. The alarm cutoff key associated with this feature is mounted in the cable turning section of the "A" switchboard, or as specified by the telephone company. The tone bar signal, designated A, is mounted on a wall or column as specified by the telephone company.

1.11 Floor alarm cabinets having a capacity of 40 or 70 alarm signal lamps or keys are provided as required, at least one per floor. These cabinets are mounted on a wall or column approximately 6 feet 0 inch from the floor in a location specified by the telephone company so as to be plainly visible to the attendants who will have most frequent occasion to supervise the alarm system. The lamps mounted in this cabinet are for the most part guard lamps associated with various frames in the office and which, when lighted, indicate a case of trouble on a frame which has not been corrected, but the audible signal for which has been retired by the operation of an alarm key located on the frame. The alarm switching and alarm transfer keys and lamps also are normally mounted in this cabinet.

1.12 A power alarm cabinet is required only in offices having manually operated power plants. In offices with No. 301C power plants, the alarm signal lamps and keys are furnished as a part of the power equipment and are mounted on the power board.

1.13 In order to facilitate the association of alarm relay equipment with particular frames and aisles of frames, the frame and aisle designations are stamped on the end guards of the rows of frames to indicate the number and type of frames in the line as well as the aisle number. Corresponding designations are stamped on the relay mounting plates on the alarm unit.

1.14 Facilities are available whereby various alarm indications occurring in the dial equipment can be transferred to another location during periods when maintenance attention is not required. This location may be in a distant building or in the same building. The alarm indications are transmitted over two conductors to the

distant point by means of an alarm sending circuit in the office to be unattended. Included in this circuit are a transfer key and lamp and a reset key located in the floor alarm cabinet. Also located in the office to be unattended is an alarm transfer circuit, which serves to disconnect the audible alarms and connect the various alarm indications to the alarm sending circuit. An alarm receiving circuit is located at the point where the alarm indications are to be supervised. The equipment unit for the No. 1 crossbar alarm transfer circuit is covered in J23052 and mounts on the relay rack. The sending and receiving units also are mounted on the relay rack and are covered in J98304.

2. SUPPLEMENTARY INFORMATION

816-000-000 - No. 1 Crossbar System Index

3. DRAWINGS

WEco J drawings listed should be ordered by referring to the prefix and base number and requesting the highest suffix dash (-) number.

Key Sheet

SD-25000-01 - Crossbar System No. 1

Framework

- ED-25021-53 - Jack, Key, and Lamp Panels
- ED-25269-50 - Supports for DPTS, Aisle Pilot and Main Aisle Pilot Mountings, and Safety Cabinet When End Guards are Not Available
- ED-25350-10 - Frame Assembly
- ED-90527-70 - Floor Alarm Cabinet - Assembly
- ED-91192-31 - Alarm Bell Panel and Alarm Transfer Lamps and Keys - Assenbly
- ED-91423-71 - Assembly of End Guards
- ED-96188-01 - Aisle Pilot Lamp Mountings

Equipment

- ED-25266-01 - Typical Aisle Pilot Locations and Aisle Numbering
- ED-25448-01 - Floor Alarm Cabinet
- ED-91192-31 - Alarm Bell Panel and Alarm Transfer Lamps and Keys - Equipment
- J28351E-( ) - Floor Alarm Frame - For Offices With No. 301C Power Plants - Equipment

Wiring and Cabling

- ED-25180-10 - Switchboard Cabling Details
- ED-25346-14 - Method of Running Battery  
15 Feeders  
16
- ED-25447-10 - Frame Local Cable

4. EQUIPMENT

- ED-90527-70 - Lamp Signal Cabinet Assembly
- Group 1 - Floor alarm cabinet, 40-lamp capacity.
- Group 2 - Floor alarm cabinet, 70-lamp capacity.

ED-91192-31 - Alarm Bell Panel and Alarm Transfer Lamp and Key Cabinet

Group 26 - Cabinet for four alarm transfer lamps and one switching.

Group 34 - Alarm bell panel.

J28351E (AT&TCo Std) - Floor Alarm Frame - For Use in Offices with No. 301C Power Plants

Equipment - J28351E-( )  
Local Cable - ED-25447-10

List 2 - Framework, assembly, wiring, and equipment for one floor alarm frame for use in offices with No. 301C power plants. (See 5.01.)

	Wire	Equip	Notes
Framework, ED-25350-10, G3		1	
Jk Panel Mtg, P-171232		1	
Jk, Key, and Lamp Panel, ED-25021-53, G13		1	
Fuse and Time Alm Ckt, SD-25046-01:			
Fig. 1 or 49	55	0	
Fig. 2, 4, 19, & 28	7	0	
Fig. 3	8	0	
Fig. 7, 15, 17, 21, & 34		2	F
Fig. 8 & 25	6	0	
Fig. 9	56	0	
Fig. 10 & 36	10	0	
Fig. 11, 22, 23, 39, & 41	4	0	
Fig. 13, 16, 29, 30, 32, 33, 35, 37, 38, 44, 45, & 47	1	0	A
Fig. 18	40	0	
Fig. 26	21	0	
Fig. 27	18	0	

	Wire	Equip	See Notes
Misc and Aux Alm Ckt, SD-25047-01:			
Fig. 4	3	0	
Fig. 5 & 7	2	0	A
Fig. 6, 9, 18, 24, 26, 30, 32, 33, 35, 37, 39, 42, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, & 56	1	0	A,F, 5.19
Fig. 10	6	4	A,5.09
Fig. 14	4	0	
Fig. 15, 16, 17, & 19	6	0	
Fig. 20	24	0	
Fig. 27		0	E
Fig. 28, 31, & 47	1	1	5.09
Aisle Pilot Ckt, SD-25087-01:			
Fig. 1 or 36, 3, 5, 6, 11, 12, 20, 21, 24, & 34 or 38, 40	4	0	B,C, D,F
Fig. 17	28	0	
Fig. 22 or 37, 23, 25, 29, 35, & 41	1	0	
Fig. 30	3	0	5.18
Fig. 42	2	0	
Fig. 43 or 44	4	0	B
Power Alm Rel Ckt, Universally Wired for SD-25298-01, Fig. 1, 2, 4, 5, 6, 7, & 8, and SD-25309-01, Fig. 1 & 2		0	E

Notes

- A. The fuses used for the relays shown on SD-25047-01, Fig. 6, 7, 9, 10, 27, 32, 35, and 45, and SD-25046-01, Fig. 32 and 35 shall be the same as those used for the associated lamps mounted in the floor alarm cabinet.
- B. The 48-volt alarm battery supply for the F, EP, and E relays of SD-25087-01, Fig. 11, 24, and 43 or 44 for the same floor shall be obtained from the same 1-1/3-ampere fuse on the fuse bay. In offices where panel units are already installed and where crossbar units are added, the crossbar alarm circuits which require a common fuse with existing panel alarm circuits shall be fused on the panel office fuseboard. In offices where panel and crossbar units are installed at the same time, the fusing may be done on either the panel fuseboard or crossbar office fuse bay depending on the cabling effort involved.
- C. In combined panel and crossbar offices, the relays per SD-25087-01, Fig. 8 shall be fused with the same 1-1/3-ampere fuse as the associated AB relays per SD-21819-01 and SD-21820-01 which are mounted on the panel floor alarm board and power alarm unit, respectively. This fusing shall be done on the panel fuseboard or crossbar fuse bay in accordance with note B.
- D. In combined panel and crossbar offices,

the F, OF, and PF relays of SD-25087-01, Fig. 11, 12, and 20 shall be fused with the same 1-1/3-ampere fuse as the associated relays in SD-21819-01 and SD-21820-01. This fusing shall be done on the panel fuseboard or crossbar fuse bay in accordance with note B.

- E. Where the power alarm relay circuit is required, the frame shall be universally wired for SD-25298-01, and SD-25309-01. In offices arranged for ac-dc ringing, the alarm frame shall be equipped per SD-25298-01 and SD-25047-01, Fig. 27. In offices arranged for superimposed ringing, the frame shall be equipped per SD-25309-01.
- F. Universal wiring shall be provided as follows for:

SD-25087-01 - Fig. 1, 22, and 37 for circuit 0.  
Fig. 3 and 23 for circuit 0.  
Fig. 6 and 25 for circuit 0.  
Fig. 1 and 36 for circuits 0-3.  
Fig. 34 and 38 for circuits 0-3.

SD-25047-01 - Fig. 24 and 45 for circuit 0.

SD-25046-01 - Fig. 15 and 43 and circuits 0, 1.

- G. Provide SD-25046-01, "ZK" option, in tandem offices equipped with SD-27049-01 (miscellaneous circuit, trouble recorder frame).

5. GENERAL NOTESEquipment

5.01 The floor alarm frame provides relay mounting space and wiring for the quantities of alarm equipment listed in the J code. The frame is arranged to serve a variable amount of crossbar equipment divided over from one to four floors in a building and comprising one or more central office units. The alarm relays shall be furnished in accordance with job requirements.

5.02 Where the capacity of the floor alarm frame is exceeded, as in buildings with large floor areas and having more aisles than are provided for on the standard frame, one of two plans may be followed. If the additional equipment to be provided is small, the floor alarm frame may be modified by placing the additional equipment in spare space not required in the ultimate. If, however, there is a considerable amount of equipment to be provided for, it is generally preferable, all things considered, to furnish a second or supplementary frame for the

overflow apparatus. The telephone company shall determine which of these two plans is used.

5.03 One floor alarm cabinet at least shall be furnished for each floor, and shall be equipped with lamps and keys in accordance with job requirements and the typical equipment drawing listed herein. In general, the cabinet contains only the lamps associated with equipment on the particular floor.

5.04 The guard lamps per SD-25046-01, Fig. 6 shall be furnished, one per type of frame, as covered on the circuit drawing and wired in accordance with the cross-connecting information thereon.

5.05 The AS lamp of SD-25046-01, Fig. 32 shall be located in the cabinet on the floor nearest the operating room. The PU lamp of SD-25047-01, Fig. 27 shall be provided only in offices having 4-party ringing and shall be located in the cabinet on the floor nearest the power room.

5.06 The SW alarm switching pilot lamps SD-25087-01, Fig. 33 may be grouped in a single-floor alarm cabinet or they may be located with their associated keys in the cabinets serving the respective floors, depending on job requirements. Where the capacity of the floor alarm cabinet is exceeded or for other reasons, the telephone company may specify their location in a separate cabinet having a capacity of four lamps and one key as shown on ED-91192-01.

5.07 Equipment per SD-25046-01, Fig. 33 and 35, and SD-25047-01, Fig. 30 shall be furnished only in offices served by a central "A" switchboard.

5.08 The frame and main cross aisle pilot lamps for the office interrupter frames, announcement trunk alarms, special service trunks, "A" coin control, and DSA board fuse alarm shall be those nearest the floor alarm cabinet, since pilot lamps for these alarms are located in the cabinet.

5.09 Supplementing Fig. 10 are Fig. 28, 50, and 53 on SD-25047-01 for transferring the interrupter leads serving the regular major audible alarms, the civil air raid warning system, and the code major alarm system. These figures connect to the Fig. 10 associated with the interrupter frame on which these particular interrupter leads are located. SD-25047-01, Fig. 54 is an auxiliary relay which is furnished when the office has code major audible alarms plus Fig. 50 or 53. If the office has code major alarms without Fig. 50 or 53, or has regular major alarms with or without Fig. 50 or 53, the auxiliary relay per Fig. 54 is not needed. The battery supply for Fig. 28, 50, 53, and 54 is the same as for the associated Fig. 10.

5.10 At least one alarm bell panel shall be furnished for each switchroom. In large rooms where the bells are not distinctly audible throughout the room, an extension alarm bell panel may be specified. The location of the panel or panels shall be specified by the telephone company.

5.11 The D tone bar signal, the PF bell, and the A and AB subsets, on SD-25087-01, Fig. 2, 7, 9, and 3 or 23 are located on the alarm bell panel. The D relay of Fig. 21 is provided when more than one Fig. 2 per floor is required and shall be fused with the same 1-1/3-ampere fuse as the associated Fig. 1, 22, 36, and 37. The AE subset of SD-25087-01, Fig. 4 shall be furnished as required and located on an extension audible alarm panel. The AE subset of SD-25046-01, Fig. 37, when required, shall be located as specified by the telephone company. This applies also to the supplementary bell required with the code signal major alarm feature.

5.12 An audible signal, consisting of a tone bar signal designated A shown on SD-25087-01, Fig. 28 shall be furnished when specified by the telephone company and located on a wall or column in the operating room, local test desk room, or as the telephone company specifies. The audible alarm cutoff key, designated SW and shown on SD-25087-01, Fig. 26, shall be located in a cable turning section in the operating room, in the local test desk in the test desk room, or as specified by the telephone company.

5.13 The location of the frame aisle pilot lamps shall be in accordance with the typical location drawing listed herein. In general, frame aisle pilots are not located at the ends of frame aisles next to walls. When specified by the telephone company, one multiple appearance of the frame aisle pilots may be provided. Main cross aisle pilots shall be located at the ends of each main cross aisle in which frame aisle pilots appear. The frame aisle pilot lamps shall be mounted on the bracket in the following order from the bottom up, red, green, white, and amber. The main cross aisle pilots shall be mounted in the same order with the addition of a yellow "other floor" lamp in the top mounting position. The aisle pilots shall be mounted by means of details shown on ED-96188-01.

5.14 Exit pilot lamps shall be furnished for each floor on the basis of one per other floor and, when specified, for each operating room. These lamps are mounted by means of details shown on ED-96188-01 and provided at floor exits as specified by the telephone company.

5.15 In buildings having different types of offices, each alarm system should be considered independently with respect to

exit pilots. For example, the panel alarm system is arranged to locate each exit pilot relay on the floor with the associated floor pilot lamp. This is done because a floor alarm board is located on each floor in panel offices. In crossbar offices, there is only one floor alarm frame and all exit pilot relays associated with crossbar are located on this frame and connected to pilot lamps on all other floors. In buildings having both panel and crossbar offices, exit pilot relays for the panel floor or floors would also be located on the crossbar floor alarm frame and connect to the pilot lamps on the panel floors.

5.16 The power alarm signal lamps and power guard keys and lamps are mounted on the power board in offices equipped with No. 301C automatic power plants and no power alarm cabinet is required.

5.17 In offices where the ringing equipment is located in a switchroom away from the rest of the power equipment, a power alarm cabinet shall be furnished on the same floor and shall contain the ringing machine alarm lamps and keys.

5.18 The AP relay SD-25087-01, Fig. 30 shall be provided when any circuit requiring alarms is not arranged to connect to "MG," "MW," "MR," or "MA" leads of SD-25087-01, Fig. 17.

5.19 SD-25047-01, Fig. 45 shall be provided in place of Fig. 24 where the alarm cutoff feature is required.

5.20 When a new No. 1 crossbar office is installed in an area that is now using an interrupted tone instead of a variable pitch tone for the disconnect tone, it will be satisfactory to provide the interrupted tone for the crossbar office. In this case, SD-25046-01, Fig. 15 and 16, and SD-96444-01, Fig. 6, together with interrupter frame circuit SD-25062-01, Fig. 22, and sender make-busy frame circuit SD-25076-01, Fig. 6 shall be furnished.

#### Wiring

5.21 The frame local cable shall provide for the circuits listed in J28351E, List 2. This cable shall contain only those leads from the various alarm relays which are required to permit the association of alarm equipment by aisles, main aisles, audible signals, and floors. To facilitate this association, the frame cable is terminated on terminal strips at the top of the frame where cross-connecting facilities are provided to cover a variety of job conditions with respect to the number of aisles and main aisles of various types of crossbar equipment which may be distributed over from one to four floors in a building. Only those leads which are definitely and finally associated with a particular group of

crossbar equipment are run in switchboard cable directly to the associated alarm relay contacts. For the purpose of illustration, consider the operation of the P relay shown on SD-25047-01, Fig. 15. This relay functions to bring in an audible and visual alarm to indicate a permanent signal overflow condition on district link frames. The "P" lead which is definitely associated with the district link circuit is wired in switchboard cable from the DPTS for district link frames directly to the 5T contact of the P relay. The "W" and "MW" leads which operate a white aisle pilot lamp and a main cross aisle pilot relay, respectively, are wired in frame local cable to the terminal strip where they are associated with "MW" and "W" leads from other circuits which utilize the same frame aisle and main cross aisle pilot lamps as visual alarm signals. The "F" lead is likewise wired to the terminal strip where it may be associated with other "F" leads for circuits on the same floor to operate the audible signal for that floor. In cases where, due to additions, the local cable capacity of the alarm frame is exceeded, the necessary additional alarm equipment shall be mounted in available space on the alarm frame and wired by the installer. The additional leads shall be applied on the frame local cable and spare punchings on the frame terminal strips utilized as required.

5.22 In general, No. 24 type "C" wire is used for all frame local cable wiring except battery and ground leads which shall be No. 22 type "C" wire or No. 20 type "AM" wire as required.

5.23 Where strapping is required, it is indicated on the circuit cross-connection diagrams.

5.24 For frame aisles having two or more types of frames requiring the same color aisle pilot lamp, the contacts of the relays on the floor alarm frame which are associated with the same aisle pilot lamp shall be strapped and one switchboard cable lead per color lamp shall be run from the alarm frame to the associated frame aisle DPTS.

5.25 A No. 6 bare-tinned copper wire for grounding the circuits on the floor alarm frame shall be run down the left-hand rear upright and supported by clips per P-401965, spaced approximately 1 foot 6 inches apart. These clips shall be located so that the ground wire may be run on the side of the cable brackets nearest the relay equipment. This lead shall be connected to the ground bar at the top of the frame as shown on ED-91210-01.

5.26 The incoming switchboard cables shall be butted at the top of the frame and run down the side of the frame as a sewed form, supported by the cable brackets on

the frame. The major portion of the incoming cable leads shall be terminated directly on apparatus terminals. In some cases as indicated on the various cross-connecting diagrams, incoming cables are terminated on terminal strips at the top of the frame to provide flexibility in wiring where panel floor alarm boards are involved in the alarm system. The switchboard cable leads to apparatus terminals shall be superimposed on the local cable arms serving the respective mounting plates.

5.27 The leads to the floor alarm cabinet shall be run in switchboard cables as covered on the cabling detail drawing and terminated directly on apparatus in the cabinet. Where these cables leave the cable rack and are extended along the ceiling, wall, or column, they shall be enclosed in rigid conduit. Cabling for the ultimate capacity of the cabinet shall be furnished initially so as to eliminate the need for running a number of smaller cables at a later time and pulling them through conduit.

5.28 The leads from the floor alarm frame to the exit pilot lamps shall be run in switchboard cable. This cable shall be run along the cable rack when possible, but from the point where it leaves the rack the leads shall be run in conduit along the wall, ceiling, or column to a location, adjacent to the pilot lamp mounting.

5.29 The leads from the floor alarm frame to the alarm bell panel, extension alarm bell panel, or operating room audible signal when required, shall be run in switchboard cable. Requirements for running the cabling shall be the same as covered in 5.27 and 5.28.

5.30 The cabling from the floor alarm frame to miscellaneous frames and relay racks varies with job conditions and, therefore, no cable codes have been assigned for these leads. Where possible, one cable shall be run from a relay rack bay or miscellaneous frame and shall contain all of the wiring from that frame to the alarm frame.

5.31 One or more cables as required shall be run from the floor alarm frame to the nearest fuse bay to provide battery for the frame.

5.32 Aisle pilot and main cross aisle pilot lamps shall be cabled to the nearest frame DPTS as shown on the cross-connection diagrams. A 1400-type cable shall be used except where the pilot lamps are mounted on the same end guard as the DPTS in which case No. 20 type "AM" wire shall be used. The multiple wiring between the lamps at each end of a frame or main cross aisle shall be run in switchboard cable.

5.33 For frames having no switchboard power cables, such as test frames, the "F" or "FA" leads shall be multiplied together with type "AM" wire or switchboard cable, the extended to the "F" or "FA" punching on the nearest frame in the aisle served by a DPTS. If the aisle includes no frame having a DPTS, the "F" or "FA" leads are cabled direct to the floor alarm frame.

5.34 In combined panel and crossbar offices, the panel floors shall be considered to be a part of the alarm system and interconnection between the panel floor alarm board and the crossbar floor alarm frame shall be made as covered on the circuit cross-connection diagrams. The panel office floor alarm board equipment shall be modified in accordance with the circuits listed in the crossbar key sheet. In offices where panel and crossbar equipment is located on the same floor, each area shall be considered as a separate floor, and connection between the panel floor alarm board and crossbar floor alarm frame shall be made as outlined above.

List of "A&M Only" and "Mfr. Disc." Equipment

The following equipment has been replaced as indicated where "A&M Only" items appear, the issue numbers shown are those of the issue in which the rating was first applied.

<u>Equipment</u>	<u>Rating</u>	<u>Details Last Shown in Issue</u>	<u>Replacing Equipment</u>
J28351A	Mfr.Disc.	8	J28351E,L2
J28351B	Mfr.Disc.	8	J28351E,L2
J28351C	Mfr.Disc.	8	J38351E,L2
J28351D	Mfr.Disc.	8	J38351E,L2
J28351E,L1	Mfr.Disc.	8	J38351E,L2

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