

ALARM EQUIPMENT UNITS

EQUIPMENT DESIGN REQUIREMENTS

NO. 5 CROSSBAR SYSTEM

1. GENERAL

SCOPE

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements to be used in the engineering, manufacture, and installation of the alarm equipment.

1.02 This specification is reissued:

- (a) To include information shown for addendum Issue 2.
- (b) To add list 4 and Note C to J28353A in accordance with SD-25671-01, Issue 26B.

DESCRIPTION

1.03 The alarm equipment described herein is the equipment which notifies maintenance forces of the existence of troubles (blown fuses, no voltage, etc) and also notifies them whether the trouble is of a major or minor nature, according to a predetermined classification. It provides five classes of alarms: major switching, minor switching, major power, minor power, and alarm on alarms (for alarm-battery supply fuse failure). These alarms are transmitted to the maintenance forces by simultaneous visual and audible signals comprising five different colored lamps and four different sounding audible signals.

1.04 This signaling equipment is spread throughout the building according to the office layout. It guides maintenance forces to the floor, main aisle, particular cross aisle (of a main aisle), and finally to the particular frame aisle of a cross aisle in which the frame in trouble is located. It is supplemented by visual signals, such as fuse alarm lamps, which are provided in the base of all frames which have fuse panels, and by other alarm lamps which are provided on some frame units. These

signals are the final direction to the equipment in trouble.

1.05 The alarm equipment for a No. 5 crossbar offices comprises main aisle, frame aisle, and exit pilot units, audible alarm, and relay control units as listed in Table A. Alarm equipment, in addition to that listed in Table A, is provided as required. This consists of the following units: auxiliary alarm, emergency alarm, alarm sending, alarm receiving, extension alarm, and distinctive tone units.

1.06 Two equipment arrangements are provided for the alarm frame as described in 1.09. The quantities of units required on the frame vary with the size of the office and the building layout. The type and number of units is not dependent upon the type of circuits requiring alarms.

1.07 Details of Units

(a) **Main aisle and "other floor" pilot lamp unit** consists of a lamp mounting with four lamps: two lamps (red and white) for indicating major and minor alarms on the floor on which the unit is mounted, and two lamps (yellow and green) for indicating that a major or minor alarm exists on some other floor. This unit also includes mounting devices for fastening to a superstructure bar or to a stringer of a cable rack. This unit requires wiring, which is not included to connect it to the unit terminal strip of the nearest frame aisle pilot unit.

(b) **Frame aisle pilot unit** is a metal box-type assembly arranged for mounting on an end guard. It contains two lamp sockets, two control relays, and a unit terminal strip, all surface wired, and two lamps which protrude from the front face to indicate major and minor alarms. The box comprises of a chassis and two covers with the apparatus mounted on the chassis. One cover encloses the upper and lower ends of the chassis, the right side, and the front. It is

TABLE A

ITEM	FUNCTION	VISUAL OR AUDIBLE SIGNAL	CLASS OF ALARM INDICATED		LOCATION OF EQUIPMENT	QUANTITY REQUIRED PER FLOOR
			MAJOR	MINOR		
Main Aisle Pilot Lamps	Indicate particular cross aisle in which frame aisle is located	Red Lamp White Lamp	Switching	Switching	Intersection of main aisles and cross aisles hung from cable rack of superstructure	1 unit per cross aisle and per each end of main aisle
"Other Floor" Pilot Lamps	Indicate that trouble is on floor other than the one on which such lamps light	Yellow Lamp Green Lamp	Switching and Power	Switching and Power		
Aisle Pilot Lamps (and control relays)	Intersection of frame aisles and cross aisles (mounted on end guard)	Red Lamp White Lamp	Switching	Switching	Intersection of frame aisles and cross aisles (mounted on end guard)	1 unit per frame aisle
Exit Pilot Lamps	Indicate particular "other floor" on which trouble has occurred	Amber Lamp	Switching and Power	Switching and Power	Near exits (on wall or column)	1 unit per exit (see Note 1)
Alarm Grouping Key and Lamp Unit	Operates the alarm grouping relay and lights lamp to indicate alarms have been grouped	—	—	—		1 unit per exit
Audible Alarm Panel	Gives audible alarms	Tone Bar Signal	Switching	Switching and Power	Per job specification (on wall or column) — (not used in operating room)	Max. of five per floor (see Note 3)
		Subset Gongs (57A)				
		Vibrating Bell	Power			
		Subset Gongs (56A)	Alarm Battery Supply Failure			
		Bell	Switching and Power	—		(See Note 4)

TABLE A (Cont)

ITEM	FUNCTION	VISUAL OR AUDIBLE SIGNAL	CLASS OF ALARM INDICATED		LOCATION OF EQUIPMENT	QUANTITY REQUIRED PER FLOOR
			MAJOR	MINOR		
Alarm sending unit for use with operator office trunks and alarm checking facilities.	Sends alarm signal to operator when certain alarm conditions occur in an unattended office	Tones	Switching and Power Alarm Battery Supply Failure	Switching and Power	Misc relay rack	(See Note 2)
Control Relay Units:	Control operation of visual and audible alarm units				Alarm frame	
1. Power, ABS Fuse, and Floor Alarm Control		—	—	—		(See Note 2)
2. Floor Alarm Control		—	—	—		1 unit (see Note 3)
3. Auxiliary Power Alarm Control		—	—	—	Alarm or RR frame per job req	(See Note 8)
4. Alarm Grouping Relay Unit	Group alarms of unattended floors to floor attended by maintenance personnel	—	—	—	Alarm frame	1 unit per 2 floors (see Note 5)
5. Alarm and Transfer Unit for N1 Carrier Equipment	Transfers alarms from N1 carrier Equipment to No. 5 Crossbar Alarm System	—	—	—	Alarm frame	
6. Exit Pilot Lamp Control Unit	Provides separate conductors for the exit pilot lamps of each floor, each "other floor," and each power room	—	—	—	Alarm frame	As required (see Note 6)

TABLE A (Cont)

ITEM	FUNCTION	VISUAL OR AUDIBLE SIGNAL	CLASS OF ALARM INDICATED		LOCATION OF EQUIPMENT	QUANTITY REQUIRED PER FLOOR
			MAJOR	MINOR		
7. Alarm Transfer Unit	Provides alarm transfer for Line Concentrator and/or Announcement Systems which require alarm sending	—	—	—	Alarm frame	(See Note 7)
8. Alarm and Transfer Unit for Carrier Equipment	Transfers alarms from carrier Equipment to No. 5 Crossbar Alarm System	—	—		Alarm frame	One per aisle as required
9. Alarm Relay Resistance Battery Unit	Provides 800-ohm resistance battery for circuits providing loop closure on alarm requests	—	—	—		One per connecting circuit

Notes

1. Number of lamp sockets in unit will always equal the number of floors plus one for each power room. One lamp required to represent each floor other than the floor on which unit is mounted. One lamp required to represent each power room. Lamp is omitted from socket for floor on which unit is mounted.
2. One unit required per office. See also 1.07(g) or 1.07(k).
3. Except power room and first floor requiring floor alarm control.
4. Required for code signaling on major alarms when alarm grouping is provided.
5. Required when alarm grouping is provided.
6. One unit will provide for seven switching floors and one power room, or for eight floors.
7. One list 1 for 12 aisles having line concentrators. One list 2 per building.
8. One per aisle as required.

securable to and removable from the chassis by passing the slotted upper and lower sides under screws in the chassis. The front face has two holes through which the pilot lamps can be screwed into or out of their sockets. This cover is intended for removal only to permit access to the entire unit. Another cover encloses the left side of the chassis and is securable and removable by snap-in indentations. This cover permits easy access to the control relays for maintenance. The chassis is arranged for bolting to an end guard through knockouts provided in each end guard for removal when required. Chassis includes a hole with insulated grommet which fits within a larger knockout hole in the end guard. These holes permit wiring from the unit to be run to the terminal strip at top of the frame on which the end guard is mounted. This unit is arranged for mounting to the end guards on which it is required before they are fastened to the frames at the ends of the aisles. For any office, the total number of aisle pilot units required is always equal to the number of frame aisles.

(c) **Exit pilot lamp unit** is a lamp mounting with a capacity of four S-type lamps. This unit will provide for three switching floors and one power room, or for four switching floors. The operating room shall be treated as a separate floor when exit pilot lamps are required for the operating room. One lamp represents a power room and the other lamps represent each of the other floors. For multifloor buildings, it may be necessary to provide additional units. A lighted lamp indicates that a trouble exists at the location represented by the lamp. The unit includes lamp mounting, sockets, lamps (amber colored), and devices for mounting unit on wall or column. The unit is stamped with floor designations representing standard job requirements. The unit requires wiring, which is not included, to connect it to the alarm control equipment as shown by switchboard cabling details drawing ED-25980-().

(d) **The alarm grouping key and lamp unit** consists of a key and associated lamp, enclosed in a metal box, which is arranged for fastening to a wall or column. It is intended to be mounted by the installation force according to instructions from the telephone company. This key and lamp are associated with an alarm grouping relay (SW) which provides for grouping the alarms of unattended floors with those of an attended

floor. Only one lamp per unit is required, and it is equipped in the position corresponding to the succeeding floor number. The lamp is lighted when the key is operated and indicates that the alarms for that floor have been grouped. One unit per floor, except last and power room, is required when facilities for alarm grouping are provided.

(e) **Audible alarm panel** consists of an alarm bell panel per ED-91192-31, equipped with tone bar signals, subsets, and signal bell. The panel is also arranged to accommodate a subset (SA) to provide for toll service alarms, and a signal bell (B) to provide code signaling on major alarms when alarm grouping is provided. The apparatus on the panel shall be interconnected by the installation force and wired into the alarm system as shown on switchboard cabling details drawing ED-25980-(). A maximum of five of these panels may be provided for each floor.

(f) **Power, ABS fuse, and floor alarm control unit** is a 3-mounting-plate surface-wired unit with terminal strips to terminate external connections. This unit consists of the equipment for:

- (1) Controlling the power fuse alarms for one or two power rooms.
- (2) Controlling the ABS fuse alarm and alarm lamp which is located on the unit.
- (3) Controlling the alarm equipment for power equipment in the switchroom for a maximum of two aisles.
- (4) The interrupter for the tone bars of the office.
- (5) Controlling the main aisle pilots, "other floor" pilots, exit pilots, and audible floor alarms for the first floor.

(g) **Floor alarm control unit** is a single-mounting-plate surface-wired unit with terminal strips for external connections. This unit contains equipment for controlling the main aisle pilots, "other floor" pilots, exit pilots, and audible floor alarms, for one floor other than first, requiring these alarms.

(h) **Alarm grouping unit** is a one-mounting-plate, surface-wired unit with unit terminal strips for external connections and arranged for equipment for two floors. It provides means for code signaling on major alarms when the alarms of various offices in the same building are arranged to be grouped.

(i) **Alarm and transfer unit for N1 carrier equipment** is a one-mounting-plate, surface-wired unit with a unit terminal strip for external connections and arranged for equipment for two aisles and two floors. It is provided for connection of N1 carrier circuit alarms to the No. 5 Crossbar Alarm System and arranged for transfer of these carrier alarms to the alarm sending circuit on a distinctive tone basis.

(j) **Exit pilot lamp control unit** is a one-mounting-plate surface-wired unit with terminal strips for external connections, and arranged for eight sets of equipment. One set of equipment is required for one floor or one power room.

(k) Alarm sending unit for use with operator office trunks and alarm checking facilities is a 4-mounting-plate, surface-wired unit, relay rack mounted, and furnished one per unattended office.

(l) Alarm and transfer unit for carrier equipment is a one-mounting-plate surface-wired unit with a unit terminal strip for external connections and arranged for equipment for three aisles. It is designed for connecting carrier circuit alarms to the No. 5 Crossbar Alarm System and arranged for transfer of these carrier alarms to the alarm sending circuit.

(m) Alarm relay resistance battery unit is a one-mounting-plate installer-wired unit drilled for forty 19-type resistors. It is designed to provide resistance battery for circuits which furnish loop closure on alarm request.

(n) Auxiliary power alarm control unit is a single-mounting-plate surface-wired unit with a unit terminal strip for external connections. This unit consists of additional equipment for controlling the alarm equipment or power equipment in the switchroom one per aisle as required (maximum of five).

1.08 When No. 5 crossbar equipment is located on the same floor with equipment of other

systems, the No. 5 equipment shall be alarmed in accordance with this specification, and from an alarm standpoint the area assigned to this equipment shall be treated as a separate floor. If any cross aisle within this area contains frame aisle pilots for both the No. 5 and some other Alarm System, separate main aisle pilots shall be provided for each system. These pilots shall be mounted in different locations in the main aisle so that their locations can be used to indicate the alarm systems with which they are associated. Where No. 5 and Common Systems equipment requiring alarms are located in the same frame aisle, frame aisle pilots for only one of these systems shall be provided and auxiliary aisle pilot relay units per J99232 shall be furnished as required to tie together the alarm leads of both systems.

1.09 The alarm frame is a standard sheet-metal single-bay frame with common equipment consisting of a frame jack panel, a miscellaneous terminal strip, and one fuse panel with 70-type ABS fuses for one floor and one power room. There are two different equipment arrangements for this frame; one covers alarm equipment for buildings with a maximum of six floors (Fig. 1), and one covers alarm equipment for buildings of ten floors (Fig. 2). The units equipped on these frames are those listed in Table A as being located on the alarm frame, and also the following alarm units which are provided in accordance with job requirements.

- (a) Auxiliary alarm units, J99232.
- (b) Emergency alarm unit, J28350.
- (c) Alarm sending unit, J98304.
- (d) Alarm receiving unit, J98304.
- (e) Distinctive tone unit, J98304.

The principal difference between the two arrangements (Fig. 1 and 2) is in the treatment of the emergency alarm unit when the J28350A or J28350B unit is required for an installation with the alarm frame arranged for ten floors (Fig. 2). In this case the emergency alarm unit is mounted on a relay rack frame. Since the available space on the frame is insufficient to accommodate either of these two units. Any extension alarm units per J98304F, when required, are always mounted on a relay rack frame.

SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX

WE J drawings should be ordered by referring to the prefix and base number and requesting the current dash (—) number.

EQUIPMENT CODE	RATING OF UNIT	TITLE	CIRCUIT DRAWING	EQUIPMENT DRAWING	CKTS PER UNIT	MTG PLTS PER UNIT
ED-26116-01	AT&TCo Std	Miscellaneous Visual and Audible Alarm Units for Main Aisles and Floors	SD-25671-01, Fig. 4, 5, 6, 7, 18	ED-26116-01	—	—
ED-91192-31	AT&TCo Std	Alarm Bell Panel and Alarm Grouping Key	SD-25671-01, Fig. 3 & 4	ED-91192-31	—	—
J28353A	AT&TCo Std	Aisle Pilot Unit	SD-25671-01, Fig. 1	J28353A-()	1	—
J28353D	AT&TCo Std	Power, ABS Fuse, and Floor Alarm Control Unit	SD-25671-01, Fig. 10, 11, 12, 14, 27, 28	J28353D-()	1	3
J28353E	AT&TCo Std	Floor Alarm Control Unit	SD-25671-01, Fig. 12	J28353E-()	1	1
J28353F	AT&TCo Std	Alarm Frame Equipment	SD-25671-01	J28353F-()	—	—
J28353G	AT&TCo Std	Alarm Grouping Unit	SD-25671-01, Fig. 15, 17, 19	J28353G-()	2	1
J28353H	AT&TCo Std	Alarm and Transfer Unit for N1 Carrier Equipment	SD-25671-01, Fig. 21, 22	J28353H-()	2	1
J28353J	AT&TCo Std	Exit Pilot Lamp Control Unit	SD-25671-01, Fig. 23	J28353J-()	8	1
J28353K	AT&TCo Std	Alarm Transfer Unit	SD-25671-01, Fig. 24 & 25	J28353K-()	1	1
J28353L	AT&TCo Std	Alarm Sending Unit for Use With Operator Office Trunks and Alarm Checking Facilities	SD-27594-01	J28353L-()	1	4
J28353M	AT&TCo Std	Alarm Relay Resistance Battery Unit	SD-25671-01, Fig. 22, ZG Option	J28353M-()	40	1
J28353N	AT&TCo Std	Alarm and Transfer Unit for Carrier Equipment	SD-25671-01, Fig. 22, 26 and ZG Option	J28353N-()	3	1
J28353P	AT&TCo Std	Auxiliary Power Alarm Control Unit	SD-25671-01, Fig. 10	J28353P-()	5	1

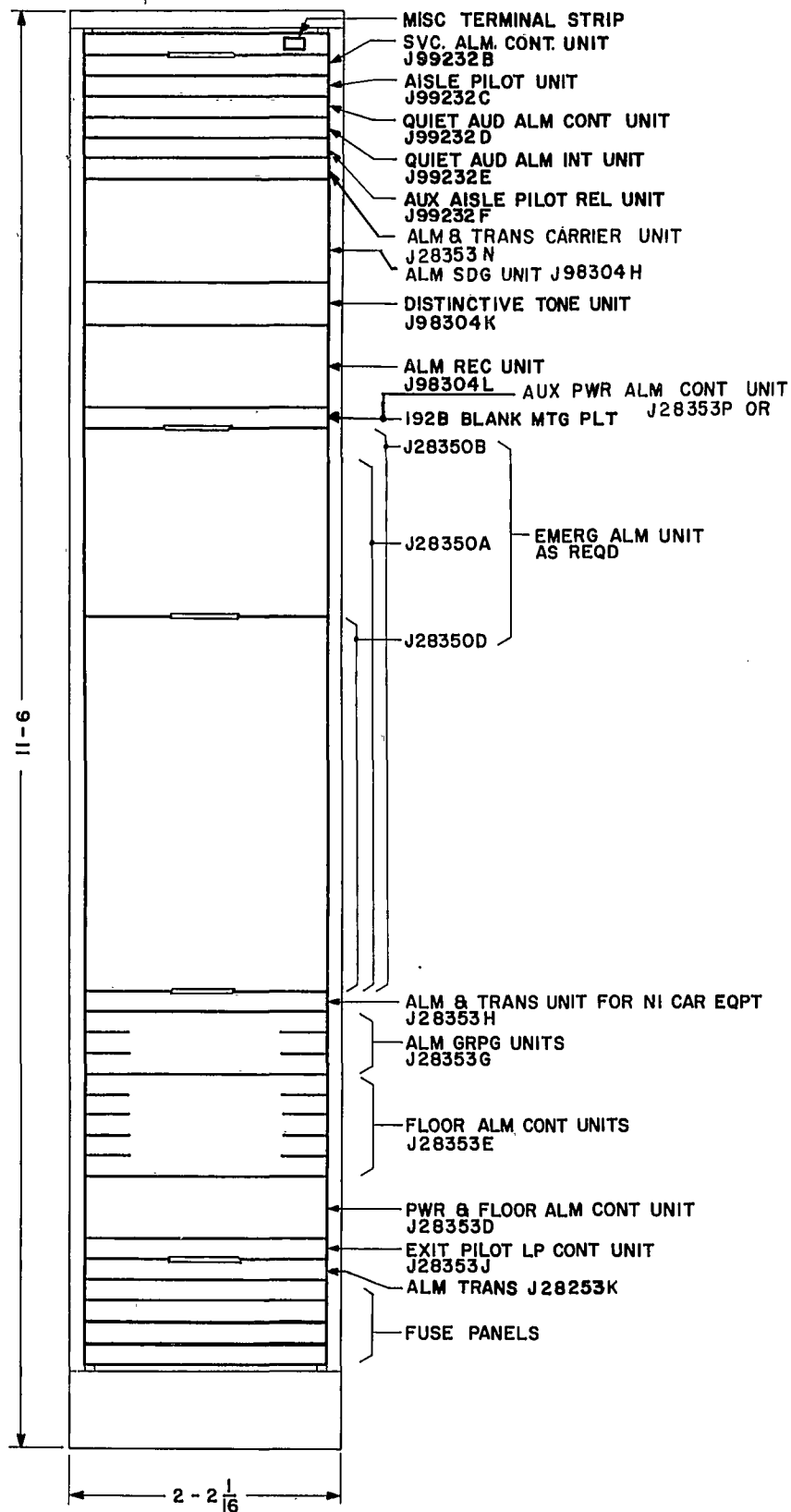


Fig. 1—Alarm Frame—Typical Equipment for Maximum Six Floors

NOTE:
WHEN EMERGENCY ALARM UNIT PER
J28350A OR B IS REQUIRED, UNIT IS
MOUNTED ON A MISC RELAY RACK
PREFERABLY NEAR THE ALARM FRAME.

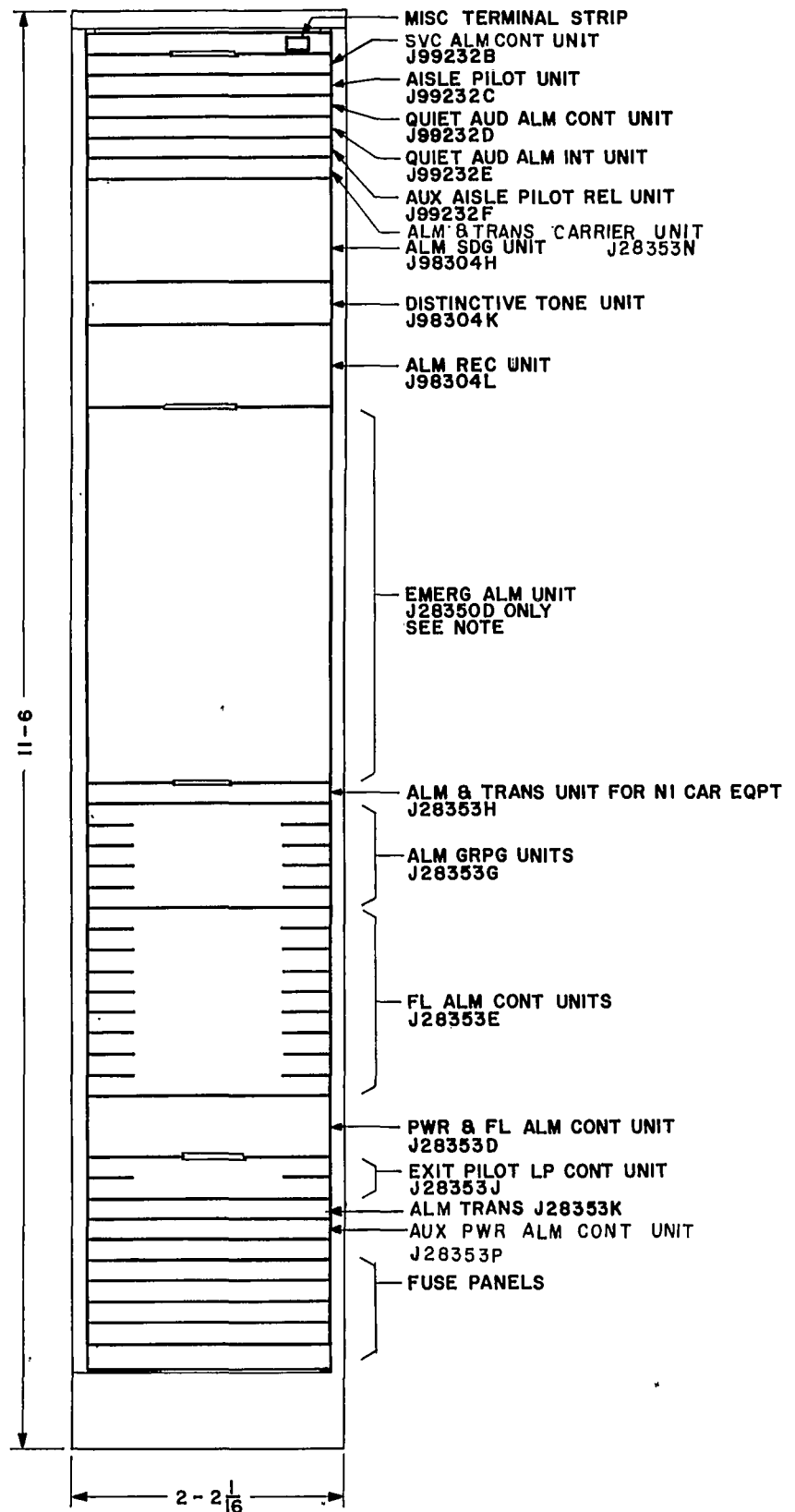


Fig. 2—Alarm Frame—Typical Equipment for Maximum Ten Floors

2. SUPPLEMENTARY INFORMATION

819-000-000—No. 5 Crossbar System Index
 800-600-000—List of General Equipment Requirements
 Section
 J28350—Emergency Alarm Systems With or Without
 Code Signaling Including Automatic Fire
 Detection Feature
 J29259—819-005-150—General Outline—No. 5 Crossbar
 System
 J98304—819-751-150—Alarm Transfer Equipment
 J99232—812-752-150—Interrelation of Common
 Systems and No. 5 Alarm Equipment
 Floor Plan Data—Section 11.1 Sheet 4
 Section 11.3 Sheet 5

3. DRAWINGS

For additional drawings forming a part of this specification, see listings under Subdivisions of Equipment and Detailed Index.

ED-26589-01—Switchboard Cabling Details
 ED-91192-31—Alarm Bell Panel
 SD-25574-01—Miscellaneous Circuit For All Frames
 SD-25671-01—Alarm Circuits
 SD-25760-01—No. 5 Crossbar System Keysheet
 SD-95417-01—Alarm Sending Circuit
 SD-96446-01—Auxiliary Alarm Circuit

4. EQUIPMENT***ED-26116-01—Miscellaneous Visual and Audible Alarm Units for Main Aisles and Floors***

- Group 1**—Main aisle and "other floor" pilot lamp unit (including devices for mounting unit from superstructure or cable rack).
Group 2—Exit pilot lamp unit (including devices for mounting unit on wall or column).
Group 6—Main aisle and "other floor" pilot lamp unit with toll service alarm pilot lamp (including devices for mounting unit from superstructure or cable rack).
Group 9—Toll service alarm grouping key (including devices for mounting on desk or wall).
Group 10—Alarm grouping key and lamp unit (including devices for mounting on column or wall).
Group 11—Audible alarm panel unit arranged for alarm grouping (including devices for mounting on column or wall, and fittings for conduit wiring).

Group 12—Audible alarm panel unit with toll service alarm and arranged for alarm grouping (including devices for mounting on column or wall, and fittings for conduit wiring).

Group 13—Audible alarm panel unit (including devices for mounting on column or wall, and fittings for conduit wiring).

Group 14—Audible alarm panel unit with toll service alarm (including devices for mounting on column or wall, and fittings for conduit wiring).

ED-91192-31—Alarm Bell Panel and Alarm Grouping Key

Group 26—Lamp and key cabinet per Fig. 4.

Group 36—Alarm bell panel per Fig. 3.

J28353A—AT&T Co Std—Aisle Pilot Unit

Assembly and Equipment—J28353A-()

List 1—Framework, assembly, wiring, and equipment per SD-25671-01, Fig. 1, for one aisle pilot circuit comprising MJ and MN lamps and control relays. (See Note A.)

List 3—A&M Only—Wiring and equipment required in addition to list 1 to provide an alarm for a falsely grounded fuse alarm bar in accordance with SD-25671-01, ZO option. (See Note B.)

List 4—A&M Only—Wiring and equipment required in addition to list 3 to provide normal frame alarm lamp brilliance and to prevent false release of fuse alarm relays in common control equipment per SD-25671-01, ZS option. (See Note C.)

Notes

- A. Unit is surface wired.
- B. Option ZO provides an alarm for a falsely grounded fuse alarm and should be provided when Fig. 1 is connected to any frame equipped with fuse panels having individual fuse blocks [ED-26981-()].
- C. Option ZS provides normal frame alarm lamp brilliance for all frames in an aisle having operated fuses, and prevents false release of the fuse alarm relays in common control equipment such as markers and transverters

when more than one frame in an aisle has an operated fuse. Option ZS should be provided when option ZO is provided.

J29353D—AT&TCo Std—Power, ABS Fuse, and Floor Alarm Control Unit

Equipment—J28353D-()

List 2—Wiring and equipment per SD-25671-01, Fig. 14 for second power alarm control circuit required in offices with two power rooms. (See Note B.)

List 3—Wiring and equipment, per SD-25671-01, Fig. 13, for one alarm transfer control relay circuit required in offices equipped with alarm sending unit. (See Note E.)

List 7—Wiring and equipment for one power alarm for power equipment in one switchroom per SD-25671-01, Fig. 10. (See Note D.)

List 9—Wiring and equipment for one power, ABS fuse, and floor alarm control unit. (See Notes C and E.)

WIRE EQUIP NOTES

Alm Ckt, SD-25671-01:

Power Alm Cont Ckt, Fig. 14	1	1
ABS Fuse Alm Cont Ckt, Fig. 27, With Z and ZJ		
Wiring	1	1
Interrupter Ckt, Fig. 11	1	1
Floor Alm Cont Ckt, Fig. 12, With W and Z Wiring	1	1
Alm Battery Alm Interconnection and Cont Ckt, Fig. 28	1	1

List 10—Wiring and apparatus required in addition to list 9 when connection to a No. 1 ESS and/or No. 1 TSPS and/or AIS office alarm is provided, per SD-25671-01, ZF option.

List 11—Wiring and apparatus required in addition to list 9 when connection to a No. 1 TSPS and/or AIS office alarm is provided, per SD-25671-01, ZP option.

Notes

A. In addition, there are options involving wiring only as follows.

1. Wiring required in addition to list 9 per SD-25671-01, ZI option when power audible alarm circuit is not provided, omit ZJ option.

B. Installation force shall cut Z wiring when office is equipped with alarm sending unit.

C. This unit is arranged for one list 2, one list 3, and for two lists 7. Options P and R are always furnished with each list 7.

D. When more than two Fig. 10's are required see J28353P unit.

E. Unit is surface wired.

J28353E—AT&TCo Std—Floor Alarm Control Unit

Equipment—J28353E-()

List 1—A&M only—Wiring and Equipment per SD-25671-01, FIG. 12, W and Z wiring, for one floor alarm control unit. (See Notes A and B.)

List 2—Wiring and equipment per SD-25671-01, Fig. 12, with W and Z wiring, for one floor alarm control unit. (See Notes A and B.)

List 3—Wiring and apparatus required in addition to list 2 when connection to a No. 1 ESS and/or No. 1 TSPS office alarm is provided per SD-25671-01, ZF option.

Notes

A. In addition, there are options involving wiring and apparatus as follows:

1. Units are surface wired. The difference between list 1 and list 2 is: list 1 is E/W 227A terminal strips, and list 2 is E/W D4A terminal strips.

B. Installation force shall cut Z wiring when office is equipped with alarm sending unit.

J28353F—AT&TCo Std—Alarm Frame Equipment

Equipment—J28353F-()

List 1—Framework, assembly, wiring, and common equipment for one alarm frame. (See Note A.)

	WIRE	EQUIP	NOTES
Framework, ED-26524-01:			
G2	0	1	
Misc Ckt, SD-25574-01:			
Grd Feeder, Fig. 10	1	1	D
Spare Jack, Fig. 16	1	1	
Frame Line Tel Jks, Fig. 17	1	1	
Remote-control Jk, Fig. 19	1	1	
Fuse Panel per ED-26981-01,			
G21	1	1	C

List 2—One fuse panel per ED-26981-01, Group 21 is required in addition to list 1 to provide ABS fuses for each additional two floors. (See Note C.)

Notes

A. Reserved.

B. List 1 provides framework equipped with fuse panel for ABS fuses for one floor and one power room, frame jack panel, miscellaneous terminal strip, appliance outlets, front covers, front and rear baffles and ground feeder. Rear covers shall be ordered separately in accordance with ED-26564-01.

C. One to five fuse panels for 48-volt ABS fuses are provided per list 2 according to the number of floors for which alarms are required. One fuse panel provides fuses for one floor and one power room or for two floors. The 48-volt SIG battery fuses for the Audible Alarm Control Unit J99232D, for the J98304H alarm sending, and extension alarm units as required, are located on the power, ringing, and tone distributing frame.

D. All ringing potential, tone and ± 130 volt battery fuses, and all resistance lamps associated with panels or units mounted on this frame shall be located on the power, ringing, and tone distributing frame.

E. Miscellaneous circuit wiring and all interunit wiring shall be run loose directly on the frame.

J28353G—AT&TCo Std—Alarm Grouping Unit

Equipment—J28353G-()

List 1—Common equipment for one alarm grouping unit arranged for two floors.

List 2—Wiring and equipment required in addition to list 1 for each floor except last per SD-25671-01, Fig. 17.

List 3—Wiring and equipment required in addition to list 1 for each floor when major audible alarm circuit is provided per SD-25671-01, Fig. 15.

List 4—Wiring and equipment required in addition to list 1 for each floor except power room when major audible alarm circuit is provided per SD-25671-01, Fig. 19.

Notes

A. Reserved.

B. Unit is surface wired.

C. Lists 1 and 2 are required for alarm grouping without major audible alarm circuit. Lists 1, 2, 3, and 4 are required for alarm grouping with major audible alarm circuit.

J29353H—AT&TCo Std—Alarm and Transfer Unit for N1 Carrier Equipment

Equipment—J28353H-()

List 1—Common equipment for one N1 carrier alarm and transfer unit arranged but not equipped for N1 carrier equipment in two aisles.

List 2—Wiring and equipment required in addition to list 1 for each aisle in which N1 carrier equipment is located per SD-25671-01, Fig. 21.

List 3—Wiring and equipment required in addition to list 1 for each two lists 2 per SD-25671-01, Fig. 22 and ZH option.

Notes

A. Reserved.

B. This unit is surface wired and is required when the alarms for N1 carrier equipment are to be connected to a No. 5 Crossbar Alarm System arranged for alarm sending.

J28353J—AT&TCo Std—Exit Pilot Lamp Control Unit

Equipment—J28353J-()

List 1—Assembly, wiring, and equipment for one exit pilot lamp control unit arranged for eight and equipped for two Fig. 23 per SD-25671-01.**List 2**—Wiring and equipment required in addition to list 1 for two additional Fig. 23 and associated terminal strip.**Notes**

- A. This unit is surface wired.
- B. One list 1 is required for controlling the exit pilot lamps on one floor and one power room, or on two floors. Each list 2 provides for two additional floors.
- C. The operating room shall be treated as a separate floor when exit pilot lamps are required for the operating room.

J28353K—AT&TCo Std—Alarm Transfer Unit

Equipment—J28353K-()

List 1—Equipment and wiring for one alarm transfer unit for line concentrators which require alarm sending per SD-25671-01, Fig. 25. (See Note B.)**List 2**—Equipment and wiring for one alarm transfer unit for Announcement System alarm per SD-25671-01, Fig. 24. (See Note C.)**Notes**

- A. Reserved.
- B. One list 1 will serve 12 aisles having line concentrators.
- C. One list 2 will serve one building.

J28353L—AT&TCo Std—Alarm Sending Unit for Use With Operator Office Trunks and Alarm Checking Facilities

Equipment—J28353L-()

List 2—Wiring and equipment required in addition to list 1 or 5 for each 12 aisles requiring LK or LK1 leads per SD-27594-01, Fig. 2.**List 3**—Wiring and equipment required in addition to list 1 or 5 for alarm release for Announcement System circuits per SD-27594-01, Fig. 3.**List 5**—Assembly, wiring, and equipment for one alarm sending unit per SD-27598-01, Fig. 1 and 6.**List 6**—Wiring and equipment required in addition to list 5 when MJ Mobile Radio Telephone System test panel circuit is served per SD-27594-01, Fig. 5.**Note**

- A. This is a relay rack mounted unit.

J28353M—AT&TCo Std—Alarm Relay Resistance Battery Unit

Equipment—J28353M-()

List 1—Mounting plate (one) arranged for but not equipped with forty 19-type resistors.**List 2**—Wiring and equipment in addition to list 1 per SD-25671-01, Fig. 22, ZG option, one per each circuit requiring 800-ohm resistance battery to provide loop closure on alarm request.**Note**

- A. This unit should be mounted on the alarm frame, space permitting.

J28353N—AT&TCo Std—Alarm and Transfer Unit for Carrier Equipment

Equipment—J28353N-()

List 1—Common equipment for one carrier alarm and transfer unit arranged but not equipped for carrier equipment in three aisles.**List 2**—Wiring and equipment required in addition to list 1 for each aisle in which transfer of carrier circuit alarms in office arranged for alarm sending is required per SD-25671-01, Fig. 22 with ZG option and Fig. 26.

J28353P—AT&T Co Std—Auxiliary Power Alarm Control Unit

Equipment—J28353P-()

List 1—Assembly and common equipment for one auxiliary alarm control unit arranged for power equipment in five aisles in the switchroom.

List 2—Wiring and equipment required in addition to list 1 for one auxiliary power alarm control circuit for power equipment in one aisle in the switchroom per SD-25671-01, Fig. 10 (maximum of five).

Notes

- A. Unit is surface wired.
- B. Options P and R are always furnished with each lists 1 and 2.
- C. If insufficient space is available on the alarm frame this unit may be mounted on a relay rack frame equipped with covers.

5. GENERAL NOTES**Wiring**

5.01 For gauge and insulation of wire to be used in the manufacture of the alarm frame and units, and for switchboard cable, see ED-27042-01.

5.02 The MJ and MN leads from frames requiring major and minor alarms are included in a multiple cable which runs between the miscellaneous terminal strip at the top of each frame in a frame aisle as shown by cross-connections for the miscellaneous circuit, and by switchboard cabling details drawing ED-26589-11. This multiple shall be connected to the aisle pilot lamp unit at the end of the frame aisle.

List of A&M Only and Mfr Disc. Equipment

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
ED-26116-01, G3, G4, & G5	Mfr Disc.	3	—
G7, & G8	Mfr Disc.	4	—
J28353A,L3,L4	A&M Only	6	—
L2	Mfr Disc.	6	—
J28353B	Mfr Disc.	1	J28353E
J28353C	Mfr Disc.	1	J28353D
J28353D,L1	Mfr Disc.	3	J28353D,L8
L4, L5, & L6	Mfr Disc.	3	J28353D,L7
J28353D,L8	Mfr Disc.	5	J28353D,L9
J28353E,L1	A&M Only	4	J28353E,L2
J28353L,L1	Mfr Disc.	5	J28353L,L5
L4	Mfr Disc.	5	J28353L,L6

The above 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.

Bell Telephone Laboratories, Incorporated

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