OUTGOING SENDER FRAMES AND AUTOMATIC INTERCEPT SERVICE FRAME 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 wire spring relay outgoing multifrequency sender frame and the wire spring relay outgoing dial pulse sender frame used in the No. 1 Crossbar System.

1.02 This specification is reissued:

(a) To provide for operation with a terminating marker group that serves two offices with each office having its own incoming link and line link frames in accordance with SD-27961-01, Issue 6AC.

(b) To provide for operation with the alarm transfer feature in accordance with SD-27965-01, Issue 6AC.

1.03 The capacity of the senders is as shown below:

DESCRIPTION

1.04 The ***Outgoing Multifrequency Sender*** (Fig. 1) is used in completing intercept calls via line link pulsing (LLP) facilities to the automatic intercept center or to other offices or equipment arranged to receive information by multifrequency pulsing over a line or trunk appearing locally on the line link frame. In general, this arrangement is used when intercept traffic is terminated to lines or trunks connected to audio response units. The sender is arranged to outpulse a maximum of 7 digits plus an additional class-of-call digit. It is arranged to recognize a wink start-dial signal only.

1.05 The ***Outgoing Dial Pulse Sender*** (Fig. 2) is used in completing calls via line link pulsing (LLP) facilities to PBXs or to other offices or equipment arranged to receive information on a dial pulse basis over a line or trunk appearing locally on the line link frame. It is arranged to outpulse a maximum of 5 digits on a loop or battery-ground basis at 10 or 20 pulses per second. Calls can be completed via one- or 2-way line or trunk circuits. It is also arranged to recognize wink start-dial or on-hook delay start-dial or on-hook delay start-dial signals.

1.06 The ***Automatic Intercept Service Frame*** (Fig. 3) is used in completing calls, without using line link pulsing facilities, to the Automatic Intercept Center. The frame incorporates the required outgoing sender, control, connector, marker, line, and test circuits.

General Equipment Arrangement on Frames

1.07 The multifrequency and dial pulse sender frames are single bay bulb-angle frames, 11 feet 6 inches high and 2 feet 0-5/8 inches wide. Each of these frames serves six senders as shown in Fig. 1 and 2. At the top of the frame are the fuse panel, ground bar, and fuse alarm lamp assembly. A sender test jack panel comprised of test posts and jacks of the miscellaneous circuit is mounted between the third and fourth senders. At the top of the frame above the senders are two assemblies of multicontact relays and terminal strips. These comprise the sender part of the outgoing sender connector.

1.08 A frame designation card, located in a card holder on the left upright, is provided with each frame. This card contains maintenance information showing the association of each sender with its outgoing sender connector frame and connector with its outgoing sender link frame switch.

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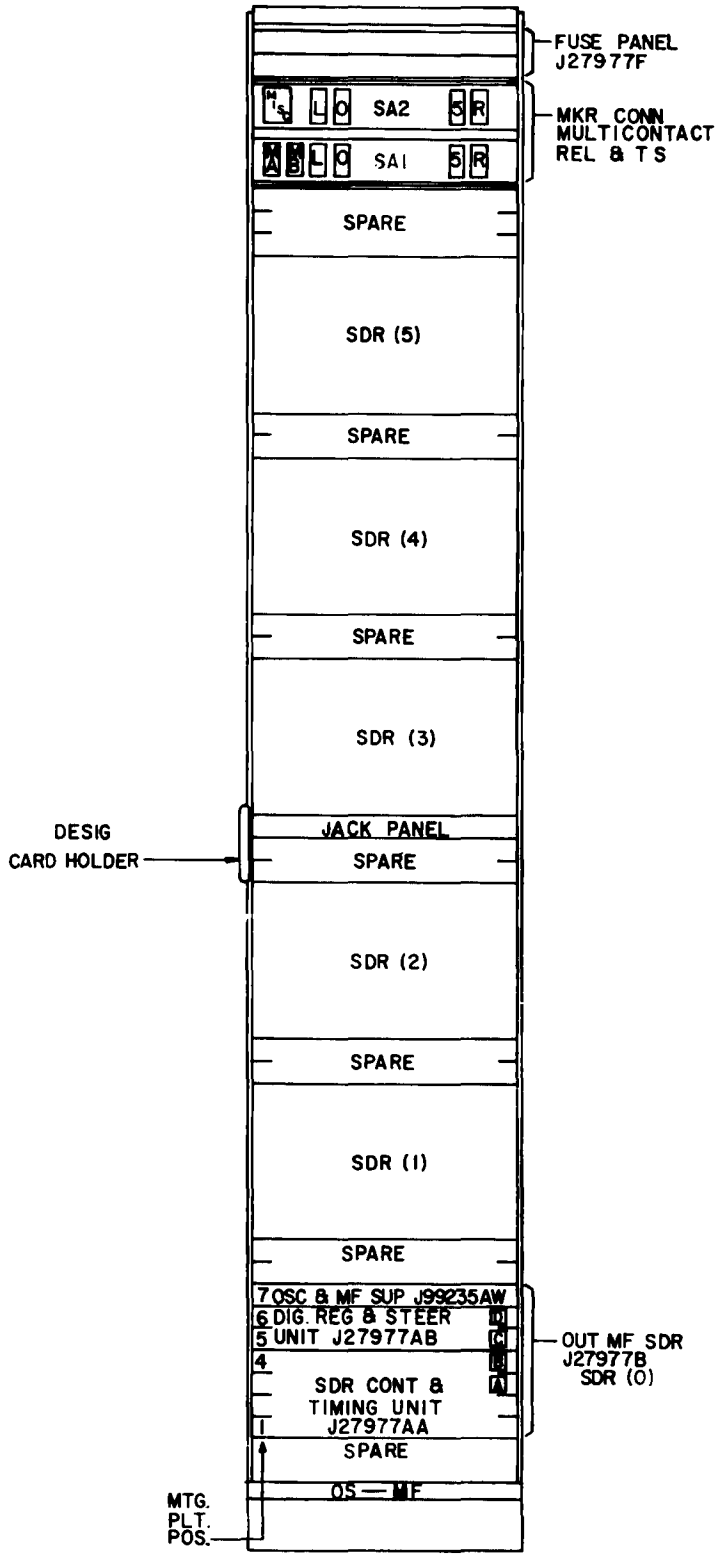

Fig. 1—Outgoing Multifrequency Sender Frame J27977A

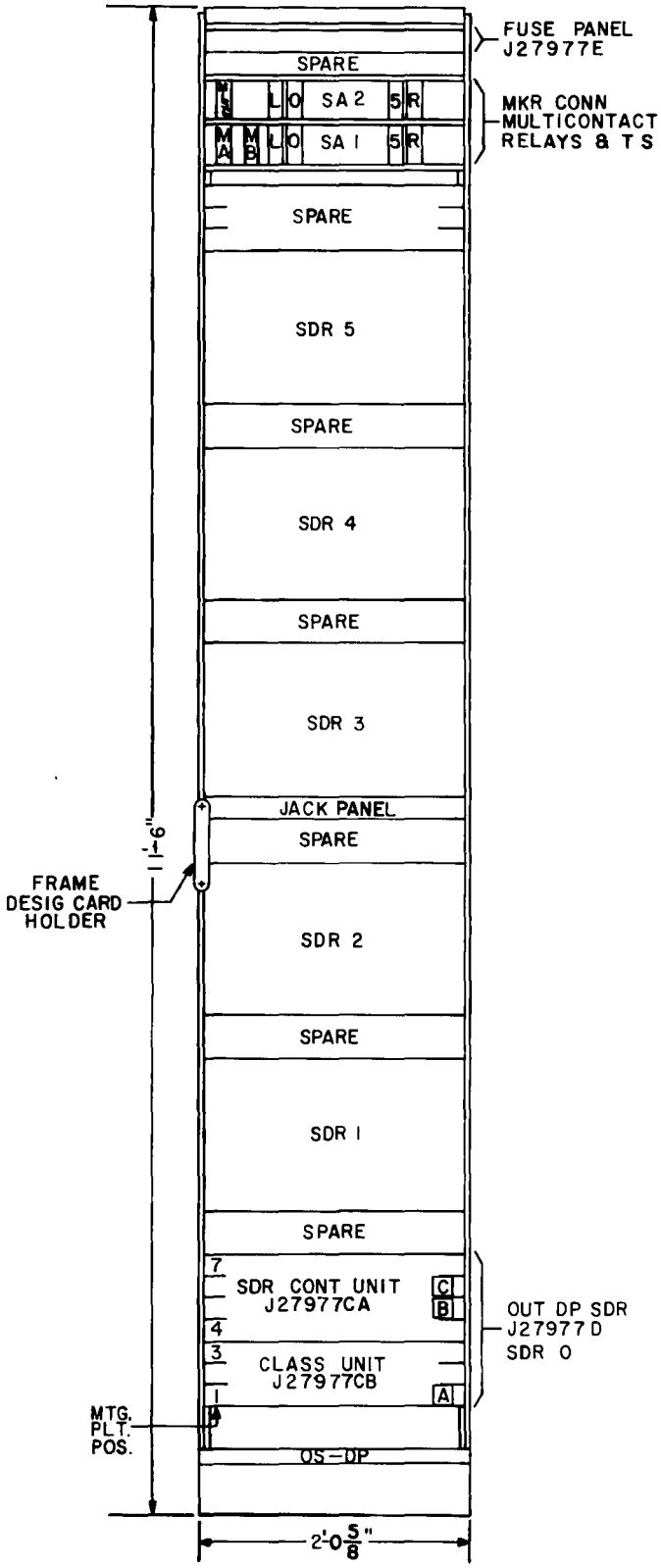

Fig. 2—Outgoing Dial Pulse Sender J27977C

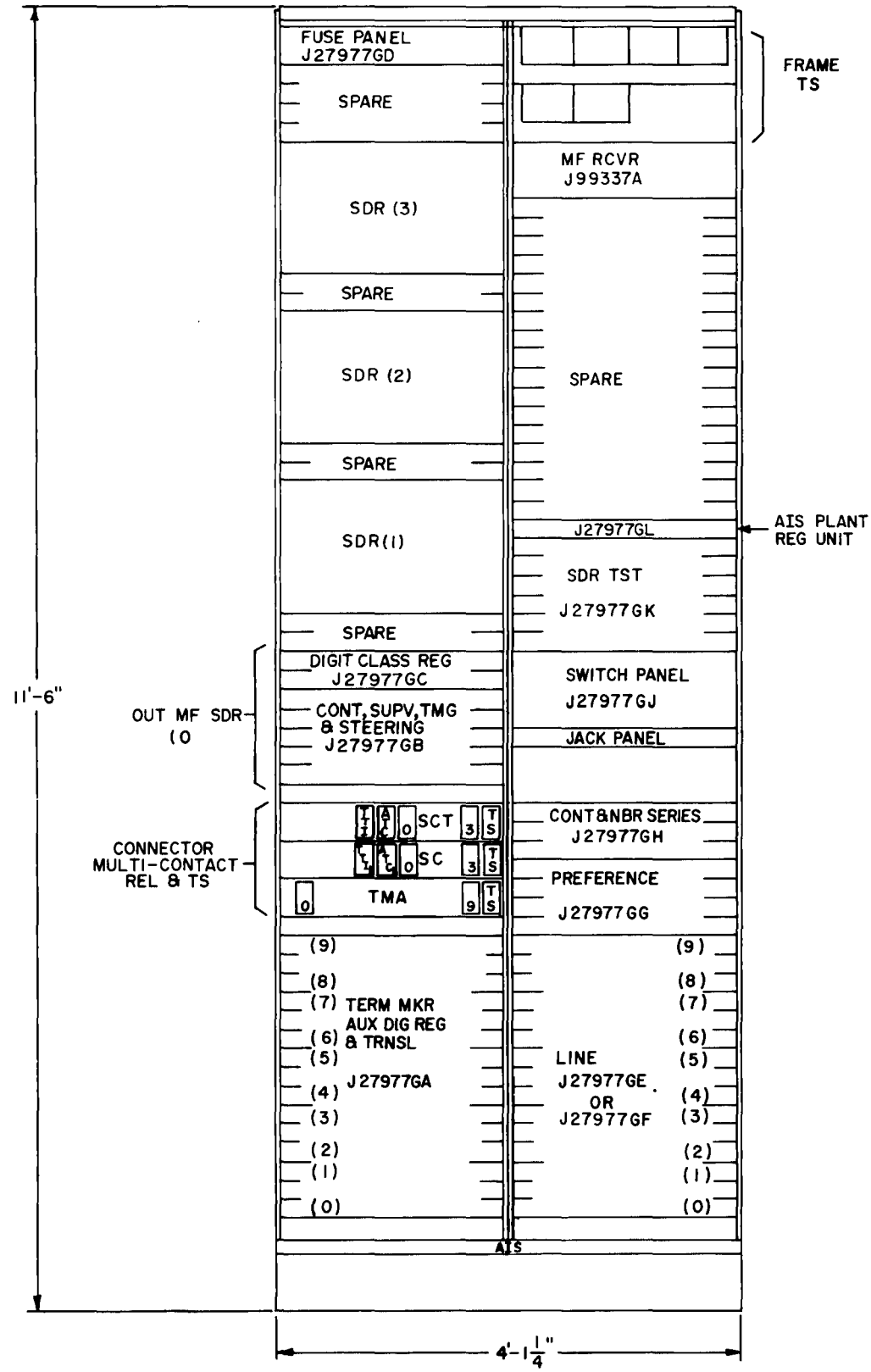

Fig. 3—Automatic Intercept Service Frame J27977G

FRAME DESIG	SENDERS PER FRAME	MET PLT SPACE PER SENDER OUTGOING SENDER	CONNECTORS PER FRAME	NUMBER OF DIGITS
OSMF	6	9*	1 or 2	7
OSDP	6	9*	1 or 2	5

* Includes two spare mounting plates.

1.09 The automatic intercept service frame is a double bay bulb-angle frame, 11 feet 6 inches high and 4 feet 1-1/4 inches wide. A frame fuse panel is located at the top of the left bay, followed by four outgoing MF pulsing senders, three rows of multicontact relays that make up the connector circuit, and ten terminating marker auxiliary digit registration and translation circuits. Two rows of frame terminal strips are located at the top of the right bay, followed by an MF receiver, the sender test circuit with its associated test panel; a jack, key, and lamp panel; the control and preference circuit, and ten line circuits.

Equipment Arrangement

1.10 The senders are J-coded units made up of 2 or 3 J-coded, surface-wired units which are interconnected by loose wire. These units are as follows:

	OSMF	OSDP
Sender Control and Timing	1	0
Digit Register and Steering	1	0
MF Signal Generator	1	0
Sender Control	0	1
Class	0	1

1.11 A frame local cable connects the unit terminal strips to other equipment on the same frame. Switchboard cables are run behind the right frame upright, formed through the throat of the D-type terminal strips, and connected on the front.

1.12 A maximum of ten senders constitutes a sender group. The senders of one group are assigned to the horizontals of an outsender link switch. Each group is made up of two subgroups, A and B. The senders in A subgroup are assigned to the lower five horizontals of the outsender link switch, and those in B subgroup are assigned to the upper five horizontals.

1.13 The automatic intercept service frame is made up of J-coded, surface-wired units which are interconnected by a frame local cable.

Association of Outgoing Senders With Outgoing Sender Connectors

1.14 Two multicontact relays, SA1 and SA2, are provided per sender on each frame. Six of each of these relays, representing six senders, are mounted adjacent to each other between two terminal strips and interconnected with strap wire multiple.

1.15 If the six senders on one frame are assigned to the same connector, the strap wire multiples are not cut. When this is not the case, the strap wire multiples are cut to separte the relays according to the sender association with its connector.

1.16 To improve marker access to senders and to safeguard service, the senders of A subgroup are assigned to a different outgoing sender connector than the senders of B subgroup, but both connectors must be on the same outgoing sender connector frame. A or B subgroups of other outgoing sender groups may be assigned to these same connectors.

Sender Position Number in a Connector

1.17 The terminating trouble indicator frame identifies senders by an arbitrary position number in the associated sender connector, not by a unit number on a specific frame. Thus, all senders are arbitrarily assigned position numbers from zero up in the connector serving the senders. The terminating trouble indicator indicates, for example, sender position 8 in sender connector 2 on outgoing sender connector frame 1.

1.18 The assignment of senders to sender connectors is specified in the telephone company order, since it depends on traffic considerations.

2. SUPPLEMENTARY INFORMATION

800-600-000—Checking List—General Equipment Requirements
816-000-000—Numerical Index—Crossbar System
J99235—Equipment Units R. R. Mounted, Common Systems
J20150—816-015-150— Switchboard Power Cabling
J25551—816-040-150—End Guards, Aisle Pilot Lamp and DPTS Supports, Fuse Record Book and Holder, and Spare Fuse Mountings
Floor Plan Data—Section 9.1, Sheet 84-Sdr Fr
Section 9.1, Sheet 93-AIS Fr

3. DRAWINGS

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

Keysheet

SD-25000-01—No. 1 Crossbar System

Framework

ED-25278-30—Jack Panel
ED-91710-74—Frame Assembly—Sender Frame
ED-91710-80—Frame Assembly—AIS Frame
ED-92744-01—Frame Details

Circuits

SD-27758-01—Outgoing Sender Connector Circuit (Sender Part)
SD-27761-01—Outgoing Sender Circuit, MF Pulsing
SD-27762-01—Outgoing Sender Circuit, Dial Pulsing
SD-27767-01—Miscellaneous Circuit for Outgoing Sender Frames
SD-27960-01—Terminating Marker Auxiliary Digit Registration and Translation Circuit
SD-27961-01—Control and Connector Circuit for Automatic Intercept Service
SD-27962-01—Outgoing Sender MF Pulsing for Automatic Intercept Service
SD-27963-01—Line Circuit
SD-27964-01—Line Circuit
SD-27965-01—Automatic Intercept Sender Test Circuit
SD-27966-01—Miscellaneous Circuit for Automatic Intercept Service Frame
SD-94820-01—Time Delay Control Circuit
SD-95867-01—Multifrequency Signal Generator Circuit
SD-99493-01—Signaling Receiving Circuit MF Pulsing
SD-25076-01—Miscellaneous Circuit for Sender Make-Busy Frame

Wiring and Cabling

ED-25346-14-16—Method of Running Power Feeders
ED-27114-01—Table of Wire Gauges and Type of Insulation
Outgoing MF Sender Frame Local Cable
Outgoing DP Sender Frame Local Cable
ED-27687-10—Switchboard Cable Details Outgoing MF Sender Frame
ED-27688-01—Switchboard Cable Details Outgoing DP Sender Frame
ED-27786-10—Switchboard Cable Details Automatic Intercept Service Frame

4. EQUIPMENT

J27977A—AT&TCo Std—Outgoing Multifrequency Sender Frame

List 1—Framework, assembly, wiring, and common equipment for one outgoing multifrequency sender frame, arranged but not equipped for six MF outgoing senders.

	WIRE	EQUIP	NOTES
Outgoing Sdr Conn Ckt (Sdr Part),SD-27758-01:			
Fig. 1. (SA1 &SA2 Rel)	6	6	E,D
Strap Wire Mult, CAD 1	2	0	
Misc Ckt for Outsdr Frs SD-27767-01:			
Fig. 1 Test Bat., Fr Line, and Sp Jacks	1	1	
Fuse Alarm, Fig. 3	1	0	
Ckt Fuse, Fig. 3	2	0	
20 Amp & Pilot Fuse and Supp Diode, Fig. 4	2	0	

Notes

A. In addition, wiring options involve only

1. Wiring required in addition to list 1 per SD-27758-01, option Z when automatic intercept service (AIS) is required.

2. Wiring required in addition to list 1 per SD-27758-01, option Y when direct indialing (DID) is required.

B. This frame is arranged to hold a maximum of six outgoing multifrequency pulsing senders, J27997B. These senders shall be mounted on the frame from the bottom up on positions 0 to 5.

C. The outgoing sender connector utilizes twelve 30 contact multicontact (SD-27758-01, Fig. 1). These relays are assembled at the top of the sender frame with terminal strips, in two groups, in order TS-6 rel-TS. Strapping is continuous across each group of two terminal strips and six relays. Each relay of a group is associated with one sender on the sender frame. Strapping may be cut between any two relays of a group if the associated senders are to work with different sender connection circuits.

D. The frame local cable shall include the wiring specified in list 1 and battery and ground leads for the frame.

J27977B—AT&TCo Std—Outgoing Multifrequency Pulsing Sender

List 1—Assembly, wiring, and equipment for one outgoing MF pulsing sender. (See Table A and Notes B and C.)

Notes

A. Reserved.

B. All individual units of a sender are surface wired. The wiring required between the individual units making up a sender shall be loose, except for battery and ground leads as indicated on CAD drawings of SD-27761-01. Loose wire shall be from apparatus to apparatus through retaining clips at the rear of equipment units.

C. Leads connecting the senders and the MF signal generator shall be provided in the frame local cable as indicated on CAD drawing SD-95867-01.

J27977C—AT&TCo Std—Outgoing Dial Pulse Sender Frame

List 1—Framework, assembly, wiring, and common equipment for one outgoing dial pulse sender frame, arranged but not equipped for six dial pulse outgoing senders.

	WIRE	EQUIP	NOTES
Outgoing Sdr Conn Ckt (Sdr Part SD-27758-01:			
Fig. 1 (SA1 & SA2 Rel)	6	6	C
Strap Wire Mult CAD 1	2	0	
Misc Ckt for Outgoing Sdr Frs. SD-27767-01:			
Fig. 1, 5 Test Bat., Fr Line, Remote Cont Sdr Tst and SP Jacks	1	1	
Fuse Alm. Fig. 2	1	0	
Ckt Fuse Fig. 3	1	0	
Amp & Pilot Fuse and Supp Diode Fig. 4, 20	1	0	

Notes

A. In addition, wiring options involve only

1. Wiring required in addition to list 1 per SD-27758-01, option Z, when automatic intercept service (AIS) is required.

2. Wiring required in addition to list 1 per SD-27758-01, option Y when direct indialing (DID) is required.

B. This frame is arranged to mount a maximum of six outgoing dial pulsing senders, J27977D. These senders shall be mounted on the frame from the bottom up on positions 0 to 5.

C. The outgoing sender connector utilizes twelve 30 contact multicontact relays (SD-27758-01, Fig. 1). These relays are assembled at the top of the sender frame with terminal strips, in two groups, in order TS-6 rel-TS. Strapping is continuous across each group of two terminal strips and six relays. Each relay of a group is associated with one sender on the sender frame. Strapping may be cut between any two relays of a group if the associated senders are to work with different sender connection circuits.

D. The frame local cable shall include the wiring specified in list 1 and battery and ground leads for the frame.

J27977D—AT&TCo Std—Outgoing Dial Pulse Sender

List 1—Assembly, wiring, and equipment for one outgoing dial pulsing sender. (See Table B and Notes B and C.)

J27977E—AT&TCo Std—Outgoing Dial Pulse Sender Frame Fuse Panel Unit

List 1—Assembly and equipment for one outgoing dial pulse sender frame fuse panel unit per SD-27767-01, Fig. 2, 3, and 4.

J27977F—AT&TCo Std—Outgoing Multifrequency Sender Frame Fuse and Unit

List 1—Assembly and equipment for one outgoing multifrequency sender frame fuse panel unit per SD-27767-01, Fig. 2, 3, and two Fig. 4.

J27977G—AT&TCo Std—Automatic Intercept Service Frame

List 1—Framework, assembly, wiring, and common equipment for one automatic intercept service frame.

Notes

A. Reserved.

B. The individual units of a sender are surface wired. All wiring between units of the same sender shall be run loose wire on the rear through retaining clips on the rear of the units.

C. Cross-connections shall be made on the front of the unit terminal strips.

	WIRE	EQUIP	NOTES
Term. Mkr Aux Digit Reg & Translation Ckt, SD-27960-01, Fig. 1, 2	10	0	B,D
Control & Conn Ckt, SD-27961-01, Fig. 1, 2 & option Z,	1	0	B
Fig. 3	1	1	
Outgoing MF Plsg Sdr Ckt, SD-27962-01, Fig. 1, 2, 3, 4	4	0	B
Line Ckt, SD-27963-01 or SD-27964-01, Fig. 1	10	0	B,C
AIS Sdr Tst Ckt, SD-27965-01, Fig. 1, 2, 4	1	0	B
Misc Ckt, SD-27966-01, Fig. 1, 4	1	0	B
Fig. 2, 3	1	1	
Sig Rcvg Ckt SD-99493, Fig. 1	1	0	B

Notes

A. Reserved.

B. Schematic figures are equipped in accordance with the various subunits.

C. The frame local cable contains universal wiring for either line circuit.

D. A minimum of four terminating marker auxiliary digit registration and translation circuits, two outgoing MF sender circuits and four line circuits are required.

E. SD-27965-01, Fig. 3 is mounted on the terminating sender test frame.

F. One MF receiver per J99337A is always required.

J27977AA—AT&TCo Std—Sender Control and Timing Unit

List 1—Assembly, wiring, and equipment for one sender control and timing unit per SD-27761-01, Fig. 1 and 2.

List 2—Equipment and wiring required in addition to list 1 when the maximum number of stuck senders that can simultaneously occur is one, per SD-27761-01, Fig. 4.

Note

A. Wiring required in addition to list 1 per SD-27761-01, option Z when list 2 is not provided.

J27977AB—AT&TCo Std—Digit Register and Steering Unit

List 1—Assembly, wiring, and equipment for one digit register and steering unit per SD-27761-01, Fig. 3.

J27977CA—AT&TCo Std—Sender Control Unit

List 1—Assembly, equipment, and wiring for one sender control unit per SD-27762-01, Fig. 2; SD-94820-01, Fig. 2.

J27977CB—AT&TCo Std—Class Unit

List 1—Assembly, equipment, and wiring for one class unit per SD-27762-01, Fig. 1.

J27977GA—AT&TCo Std—Terminating Marker Auxiliary Digit Registration and Translation Unit

List 1—Assembly, wiring, and equipment for one terminating marker auxiliary digit registration and translation unit equipped with two circuits per SD-27960-01, Fig. 1, (minimum of two units always required).

J27977GB—AT&TCo Std—Outgoing Sender Multifrequency Control, Supervision, Timing, and Steering Unit

List 1—Assembly, wiring, and equipment for one outgoing sender MF control, supervision, timing, and steering unit per SD-27962-01, Fig. 1, 2, and two SD-94820-01, Fig. 4, (minimum of two units always required).

List 2—Wiring and equipment required in addition to list 1 when the maximum number of stuck senders that can simultaneously occur is one per SD-27962-01, Fig. 4.

J27977GC—AT&TCo Std—Outgoing Sender Multifrequency Digit and Class Registration Unit

List 1—Assembly, wiring, and equipment for one outgoing sender multifrequency digit and class registration unit per SD-27962-01, Fig. 3, (minimum of two units always required).

J27977GD—AT&TCo Std—Automatic Intercept Service—Frame Fuse Panel Unit

List 1—Assembly, wiring, and equipment for one fuse panel unit per SD-27966-01, Fig. 1, 4.

Note

A. This fuse panel unit requires two separate power supplies from two separate aisle feeders.

J27977GE—AT&TCo Std—Automatic Intercept Service Line Unit Arranged for High-Low Loop Supervision

List 1—Assembly, wiring, and equipment for one automatic intercept service line unit arranged for high-low supervision per SD-27963-01, two Fig. 1.

J27977GF—AT&TCo Std—Automatic Intercept Service Line Unit Arranged for E and M Lead Supervision

List 1—Assembly, wiring, and equipment for one automatic intercept service line unit arranged for E and M lead supervision per SD-27964-01, two Fig. 1.

J27977GG—AT&TCo Std—Automatic Intercept Service Preference Unit

List 1—Assembly, wiring, and equipment for one automatic intercept service preference unit per SD-27961-01, Fig. 2.

List 2—Wiring and equipment per SD-27961-01, Fig. 4, required in addition to list 1 when the associated terminating marker group serves two offices each of which having its own incoming link and line link frames.

J27977GH—AT&TCo Std—Automatic Intercept Service Control and Number Series Unit

List 1—Assembly, wiring, and equipment for one automatic intercept service control and number series unit per SD-27961-01, Fig. 1.

List 2—Wiring and equipment required in addition to list 1 when direct inward dialing office codes are required in the terminating marker group per SD-27961-01, option Z.

J27977GJ—AT&TCo Std—Automatic Intercept Service Sender Test Switch Panel Unit

List 1—Assembly, wiring, and equipment for one automatic intercept service sender test switch panel unit per SD-27965-01, Fig. 2 and SD-27960-01, ten Fig. 2.

J27977GK—AT&TCo Std—Automatic Intercept Service Sender Test Unit

List 1—Assembly, wiring, and equipment for one automatic intercept service sender test unit per SD-27965-01, Fig. 1.

List 2—Wiring and equipment required in addition to list 1 on the first frame associated with a

particular outgoing trunk test frame per SD-27965-01, Fig. 4.

List 3—Wiring and equipment per SD-27965-01, Fig. 5 required in addition to list 1 when office is equipped for the alarm transfer feature.

J27977GL—AT&TCo Std—Automatic Intercept Service Plant Register Unit

List 1—Wiring and equipment per SD-25076-01, Fig. 51 and [2] Fig. 52 required when plant registers are required in offices without the service results plan. (Do not specify in offices with service results plan.)

5. GENERAL NOTES AND INDEXES

Wiring and Cabling

5.01 The wire gauge and type of insulation to be used in the manufacture and installation of the frames and associated units described in this specification shall be as follows:

USE	GAUGE	TYPE
Surface	24	SW
Loose Wire	24	BU
Cross-Conn	24	BU
Local Cable	24	BU
Swbd Cable	24	BU

TABLE A

OUTGOING MULTIFREQUENCY SENDERS COMPONENT EQUIPMENT UNITS SHALL BE EQUIPPED AS FOLLOWS:					
UNIT			QUANTITY TO BE PROVIDED		TITLE OF UNIT AND DESCRIPTION OF FEATURE OR OPTION
MTG PLT POS	J CODE	LIST	ALWAYS	FOR OPTION INDICATED	
1-4	J27977AA	1	1		Sender Control and Timing Unit
		2		1	When Maximum Number of Stuck Senders is One
5-6	J27977AB	1	1		Digit Register and Steering Unit
7	J99235AW	1		1	Multifrequency Signal Generator Unit Required When MFCS Frame Is Not Provided
		2	1		To provide An Output of −6 dBm

TABLE B

OUTGOING DIAL PULSE SENDER COMPONENT EQUIPMENT UNITS SHALL BE EQUIPPED AS FOLLOWS:				
UNIT		QUANTITY TO BE PROVIDED		DESCRIPTION DESCRIPTION
J CODE	LIST	ALWAYS	FOR OPTION INDICATED	
J27977CA	1	1		Sender Control Unit
J27977CB	1	1		Class Unit

TABLE C

AUTOMATIC INTERCEPT SERVICE FRAME J27977G EQUIPMENT				
UNIT		QUANTITY TO BE PROVIDED		DESCRIPTION OF FEATURE OR OPTION
J CODE	LIST	ALWAYS	FOR OPTION INDICATED	
J27977GA	1	2		Aux Digit Reg & Trnsl
	1		1	Per Each Two Term. Mkr Over
J27977GB	1	2		Control, Supv, Tmg & Steering
	1		1	Each Add'l Sender Over 2
	2		1	Per Sender When No. of Sdrs that Can Occur Simultaneously is One
J27977GC	1	2		Digit & Class Reg
	1		1	Each Add'l Sender Over 2
J27977GD	1	1		Fuse Panel
J27977GE	1	See Note	1	Line High-Low Loop Supv
J27977GF	1	1	1	Line—E&M Lead Supv
J27977GG	1	1		Preference
	2		1	Term Mkr Grp Serves Two Offices Each Having Its Own Inc Lk And Line Lk Frs
J27977GH	1	1		Control
	2		1	No. Series
J27977GJ	1		1	Switch Panel
J27977GK	1	1		Sdr Tst
	2		1	First Frame Associate With a Particular Outgoing Trunk Test Frame Only
	3		1	Alarm Transfer
J27977GL	1		1	Plant Registers Required In Offices Without Service Results Plan
J99337A	1,2	1		MF Revr

Note 1. Provide a minimum of four line circuits (either high-low loop supervision or E&M lead supervision).

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	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J27977A	Std	Outgoing Multifrequency Sender Frame	J27977A-( )	SD-27761-01 SD-27758-01 SD-27767-01
J27977B	Std	Outgoing Multifrequency Pulsing Sender	J27977B-( )	SD-27761-01
J27977C	Std	Outgoing Dial Sender Frame	J27977C-( )	SD-27762-01 SD-27758-01 SD-27767-01
J27977D	Std	Outgoing Dial Pulse Sender	J27977D-( )	SD-27762-01
J27977E	Std	Outgoing Dial Pulse Sender Frame Fuse Panel Multi-frequency Unit	J27977E-( )	SD-27767-01
J27977F	Std	Outgoing Multifrequency Sender Frame Fuse and Unit	J27977F-( )	SD-27767-01
J27977G	Std	Automatic Intercept Service Frame	J27977G-( )	SD-27960-01 SD-27961-01 SD-27962-01 SD-27963-01 SD-27964-01 SD-27965-01 SD-27966-01
J27977AA	Std	Sender Control and Timing Unit	J27977AA-( )	SD-27761-01
J27977AB	Std	Digit Register and Steering Unit		
J27977CA	Std	Sender Control Unit	J27977CA-( )	SD-27762-01
J27977CB	Std	Class Unit	J27977CB-( )	SD-27762-01
J27977GA	Std	Terminating Marker Auxiliary Digit Registration and Translation Unit	J27977GA-( )	SD-27960-01
J27977GB	Std	Outgoing Sender Multifrequency Control Supervision, Timing, and Steering Unit	J27977GB-( )	SD-27962-01 SD-94820-01

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J27977GC	Std	Outgoing Sender Multifrequency Digit and Class Registration Unit	J27977GC-( )	SD-27962-01
J27977GD	Std	Automatic Intercept Service Frame Fuse Panel Unit	J27977GD-( )	SD-27966-01
J27977GE	Std	Automatic Intercept Service Line Unit Arranged for High-Low Loop Supervision	J27977GE-( )	SD-27963-01
J27977GF	Std	Automatic Intercept Service Line Unit Arranged for E and M Lead Supervision	J27977GF-( )	SD-27964-01
J27977GG	Std	Automatic Intercept Service Preference Unit	J27977GG-( )	SD-27961-01
J27977GH	Std	Automatic Intercept Service Control and Number Series Unit	J27977GH-( )	SD-27961-01
J27977GJ	Std	Automatic Intercept Service Sender Test Switch Panel Unit	J27977GJ-( )	SD-27965-01
J27977GK	Std	Automatic Intercept Service Sender Tst Unit	J27977GK-( )	SD-27965-01
J27977GL	Std	Automatic Intercept Service Plant Register Unit	J27977GL-( )	SD-25076-01
J99235AW	Std	Multifrequency Signal Generator Unit	J99235AW-3( )	SD-95867-01
J99337A	Std	Multifrequency Receiver Unit	J99337A-( )	SD-99493-01

Circuit Schematic Index

CIRCUIT DRAWING	J27977 EQPT CODE	CIRCUIT DRAWING	J27977 EQPT CODE
SD-25076-01	GL	SD-27962-01	G,GB,GC
SD-27758-01	A,C	SD-27963-01	G,GE
SD-27761-01	A,B,AA,AB	SD-27964-01	G,GF
SD-27762-01	C,D,CA,CB	SD-27965-01	G,GJ,GK
SD-27767-01	A,C,E,F	SD-27966-01	G,GD
SD-27960-01	G,GA	SD-95867-01	J99253AW
SD-27961-01	G,GG,GH	SD-99493-01	J99337A

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