

ANNOUNCEMENT FRAME
NO. 5A ANNOUNCEMENT SYSTEM
EQUIPMENT DESIGN REQUIREMENTS
CROSSBAR TANDEM AND
NO. 4-TYPE TOLL SWITCHING SYSTEMS

1. GENERAL

Scope

1.01 This specification, together with 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 announcement frame of the No. 5 Announcement System.

1.02 This specification is being reissued:

- (a) To add reference to the 619B telephone set,
- (b) To list the frame switchboard cable drawing,
- (c) To add Note 5.03.

Capacity

1.03 The announcement frame provides two No. 5A Announcement Systems. Each system provides six channels that are arranged to give an announcement automatically to a maximum of 100 calls in No. 4-type toll offices and 80 calls in crossbar tandem offices.

Description

1.04 The function of the equipment in this frame is to provide recorded announcements in No. 4-type and crossbar tandem switching systems by means of magnetic tape recordings.

1.05 The heart of each system is a recorder-reproducer which consists of a motor-driven drum surrounded by a magnetic band with six pairs of heads arranged to form six separate paths around the band. One of each

pair of heads is arranged to record or to reproduce and the other to erase a message on the particular channel.

1.06 Each system has six amplifiers, one for each channel, associated with the recorder-reproducer. The amplifiers include means for providing the necessary voice amplification for recording or for reproducing, the high-frequency power for bias or for erasing, and a voice failure alarm signal. A relay circuit is also mounted on this panel for switching the various portions of the amplifier to perform its functions.

1.07 An announcement trunk circuit is provided with each No. 5A Announcement System to provide means for distributing the recorded announcements to announcement connecting trunks (see 1.08). It also provides means to record, check, and erase announcements from a 619B telephone set.

1.08 A limiting amplifier is provided for each announcement trunk circuit to insure that recordings made from the telephone set have a constant amplitude.

1.09 In No. 4-type Toll Switching Systems, the output end of the announcement trunk is cabled to jacks at the traffic supervisory rack where each channel is patched to groups of announcement connecting trunks. In toll type crossbar tandem offices, the announcement trunk is cabled to a traffic supervisory cabinet where each channel is switched to groups of announcement connecting trunks.

1.10 The recorder-reproducer drum revolves at about 4-3/4 rpm with a resulting announcement cycle of approximately 12.6 seconds.

A cam and micro switch arrangement, mounted behind the drum, generates a pulse per cycle. This pulse lights and extinguishes the record lamp on the telephone set to indicate when to start and stop an announcement. During automatic operation, the pulse is used to cut through the announcement connecting trunk when the delayed cut-through feature is provided.

Equipment

1.11 The announcement frame is an 11-foot 6-inch high, 2-foot 0-5/8 inch wide single bay frame arranged to mount 2- by 23-inch mounting plates. Two Announcement Systems are mounted on the frame and physically separated as shown in Fig. 1. Two frame local cables are provided, each interconnecting the units of one Announcement System. The recorder-reproducers are mounted with adapters that also mount a limiting amplifier for each Announcement System. One surface-wired announcement trunk unit, consisting of five 2- by 23-inch mounting plates, is provided for each Announcement System and mounted as shown in Fig. 1.

1.12 Two armored cables provide 115-volt power to the recorder-reproducers. Each armored cable terminates at an outlet box that is arranged to receive a flexible power cord from the recorder-reproducer.

Floor Plan Arrangement

1.13 The announcement frame should be located in line with the trunks or miscellaneous relay racks. The 619B telephone set should be located in the traffic area.

2. SUPPLEMENTARY INFORMATION

817-000-000 — Crossbar Tandem System Index
819-000-000 — No. 4 Type Toll Switching Systems Index
BSP — Gen Equip. Req — Wiring and Cabling
BSP — Gen Equip. Req — Numbering and Lettering Crossbar Equipment
BSP — Gen Equip. Req — Auxiliary Framing
J20156 (817-036-150) — Limiting Conductor Lengths — Crossbar Tandem Office

J25551 (817-060-150) (818-080-150) — End Guards, Aisle Pilot Lamp and DPTS Supports, and Fuse Record Book and Holder

J25552 (817-037-150) — Frame Lighting and Appliance Outlets

J29253 (817-010-100) — General Outline — Crossbar Tandem Office

J60103 (818-031-150) — Limiting Conductor Lengths — No. 4A and 4M Toll Switching Systems

J69202 (818-005-150) — General — No. 4A Toll Switching System

J95501 (AA388.025) — Frame Lighting and Appliance Outlet

951-112-100 — 5A Announcement System — General Description

Floor Plan Data — Section 7.1 Sheet 108

3. DRAWINGS

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

Keysheets

SD-25435-01 — Crossbar Tandem

SD-68400-01 — No. 4A Toll Switching System

SD-68470-01 — No. 4M Toll Switching System

Circuits

SD-94803-01 — Supervisory and Control Circuit For Use With 619A or 619B Telephone Set.

Equipment

J99324A-() — Announcement Frame — No. 5A Announcement System

J99324AA-() — Announcement Trunk Unit

J99324AB-() — Miscellaneous Units

Cabling

ED-27127-01 — Wire Gauges and Types of Insulation — Crossbar Tandem

ED-68870-01 — Wire Gauges and Types of Insulation — No. 4A and 4M Toll Switching Systems

ED-94890-10 — Switchboard Cabling Details — No. 5A Announcement System Frame

4. EQUIPMENT

J99324A (AT&T Co Std) — Announcement Frame — No. 5A Announcement System

Equipment — J99324A-()

List 1 — Framework, assembly, wiring, and equipment for one announcement frame equipped with one No. 5A Announcement System.

	WIRE	EQUIP	SEE NOTES
Announcement Trk Ckt, SD-94804-01, Fig. 2, 4, 5, & 6	1	0	
Announcement Trk Ckt, SD-94804-01, Fig. 1	1	0	
Multichannel Announcement Machine Ckt, SD-95208, Fig. 2	1	1	
KS-19219, L1 Amplifier Ckt, SD-99723-01, Fig. 1 & 2 with M, N, Q, S, T, V, X, and Y Wiring	6	6	A,B
KS-16754, L3 Amplifier Ckt, SD-95281-01, Fig. 3 with T, V, and Z Wiring	1	1	C
Transmission Measuring Test Power Supply Jack Ckt, SD-95101-01, Fig. 22	1	0	D
Announcement Trunk Unit, J99324AA, L1	0	1	
Miscellaneous Unit J99324AB, L1 and L2	0	1	

List 2 — Assembly, wiring, and equipment required in addition to list 1 for a second No. 5A Announcement System.

	WIRE	EQUIP	SEE NOTES
Announcement Trk Ckt, SD-94804-01, Fig. 2	1	0	
Announcement Trk Ckt, SD-94804-01, Fig. 1	1	0	
Multichannel Announcement Machine Ckt, SD-95208-01, Fig. 2	1	1	

KS-19219, L1 Amplifier Ckt, SD-99723-01, Fig. 1 & 2 with M, N, Q, S, T, V, X, and Y Wiring 6 6 A,B

KS-16754, L3 Amplifier Ckt, SD-95281-01, Fig. 3 with T, V, and Z Wiring 1 1 C

Announcement Trk Unit J99324AA, L1 0 1

Miscellaneous Unit J99324AB, L1 0 1

List 3 — Equipment per J99324AA, List 2 required in addition to list 1 or 2 to arrange one Announcement System to operate with a telephone set at a remote location having an external lead resistance of 0 to 49 ohms.

List 4 — Equipment per J99324AA, List 3 required in addition to list 1 or 2 to arrange one Announcement System to operate with a telephone set at a remote location having an external lead resistance of 50 to 149 ohms.

List 5 — Equipment per J99324AA, List 4 required in addition to list 1 or 2 to arrange one Announcement System to operate with a telephone set at a remote location having an external lead resistance of 150 to 249 ohms.

List 6 — Equipment per J99324AA, List 5 required in addition to list 1 or 2 to arrange one Announcement System to operate with a telephone set at a remote location having an external lead resistance of 250 to 349 ohms.

List 7 — Equipment per J99324AA, List 6 required in addition to list 1 or 2 to arrange one Announcement System to operate with a telephone set at a remote location having an external lead resistance of 350 to 450 ohms.

Notes

- A. N, R, S, T, V, X, and Z wiring per SD-99723-01 are furnished as part of KS-19219, list 1 amplifier.
- B. Disconnect R and Z wiring per SD-99723-01 from KS-19219, list 1 amplifier.
- C. T, V, and Z wiring per SD-95281-01 are furnished as part of KS-16754, list 3 amplifier.
- D. A 10-decibel pad is required to supply the desired power level at the -10 DBM jack. This pad is supplied per ED-95101-31, Group 7 and mounted per ED-95101-31, Group 1 on a miscellaneous relay rack.

J99324AA (AT&TCo Std) — Announcement Trunk Unit

Equipment — J99324AA-()

List 1 — Framework, assembly, surface wiring, and equipment per SD-94804-01, Fig. 1 for one announcement trunk unit.

List 2 — Apparatus and surface wiring per SD-94804-01, Fig. 3 and T option required in addition to list 1 to arrange the announcement trunk to operate with a telephone set at a remote location having an external lead resistance of 0 to 49 ohms.

List 3 — Apparatus and surface wiring per SD-94804-01, Fig. 3 and V option required in addition to list 1 to arrange the announcement trunk to operate with a telephone set at a remote location having an external lead resistance of 50 to 149 ohms.

List 4 — Apparatus and surface wiring per SD-94804-01, Fig. 3 and W option required in addition to list 1 to arrange the announcement trunk to operate with a telephone set to a remote location having an external lead resistance of 150 to 249 ohms.

List 5 — Apparatus and surface wiring per SD-94804-01, Fig. 3 and Z option required in addition to list 1 to arrange the announcement trunk to operate with a telephone set at a remote location having an external lead resistance of 250 to 349 ohms.

List 6 — Apparatus and surface wiring per SD-94804-01, Fig. 3 and Y option required in addition to list 1 to arrange the announcement trunk to operate with a telephone set at a remote location having an external lead resistance of 350 to 450 ohms.

J99324AB (AT&TCo Std) — Miscellaneous Unit

Equipment — J99324AB-()

List 1 — Framework, assembly, wiring, and equipment per SD-94804-01, Fig. 2 for one miscellaneous unit.

List 2 — Apparatus and wiring per SD-94804-01, Fig. 4, 5, and 6 and SD-95101-01, Fig. 16 and 22 required in addition to list 1 for one miscellaneous unit associated with Announcement System 0.

5. GENERAL

5.01 The 619B telephone set shall be installed by the telephone company in accordance with station systems practices with the A100D cord connected to suitable connecting blocks provided by the telephone company and located preferably in the switchroom.

5.02 Codes J99324B through J99324Y are unassigned.

5.03 When announcement frame J99324A replaces an announcement frame per J67455B or J67455D, the recorder reproducer may be salvaged for use on the new frame.

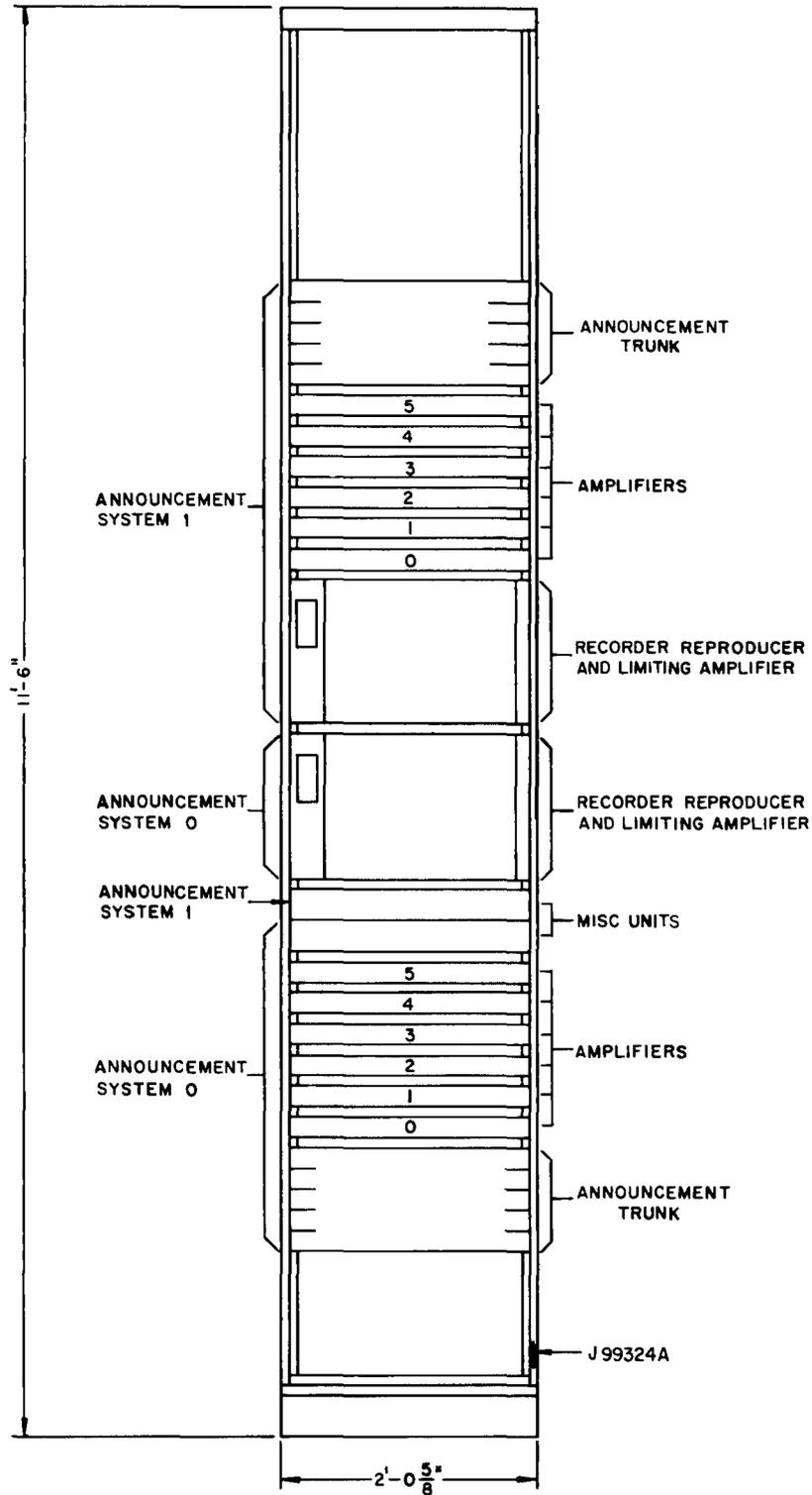


Fig. 1 — Announcement Frame — 5A Announcement System

Bell Telephone Laboratories, Incorporated

Dept 5622