RECORDED ANNOUNCEMENT FRAME NO. 1 ELECTRONIC SWITCHING SYSTEM ARRANGED WITH 2-WIRE AND 4-WIRE FEATURES OR NO. 2 ELECTRONIC SWITCHING SYSTEM ARRANGED WITH 2-WIRE FEATURES EQUIPMENT DESIGN REQUIREMENTS

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, covers the framework, equipment, and circuits to be used in the engineering, manufacturing, and installation of the recorded announcement frame.

1.02 This specification is reissued:

(a) To revise the title and to add Plant Series Section numbers.

(b) To specify the proper cord (3P12H or equivalent) for use with the 23A transmission measuring set.

(c) To generally bring this B.S.P. up-to-date.

Capacity

1.03 The recorded announcement frame is a single bay frame 2 feet 2 inches wide. Six announcements channels are provided on the magnetic drum. Each basic announcement channel unit, through distributing resistors, will serve twenty announcement trunks. If more than twenty announcement trunks for each channel is required, a supplementary unit described below can be added. (See Fig. 1)

1.04 Associated with each channel is a record-reproduce amplifier. It is used to record the desired announcement on the drum and then on play-back to amplify the message for distribution to the trunks.

1.05 The distributing resistors and associated switching relays are furnished on a 4-inch by 25-inch panel, in two sets of twenty to serve two announcement channels. The panel for the first two channels, 0 and 1, is provided as a part of the code for the frame, since this unit contains circuitry common to the frame. Additional channel resistors and associated switching relays are obtained, two channels at a time, by ordering a supplementary list, a quantity of two lists being the maximum as these two lists would equip channels 2 and 3, and 4 and 5. The 4-inch panels are equipped with terminal strips for connecting between the resistors and the switchboard cabling to the trunks and also to the supervisory control circuit. When more than twenty circuits are needed for any channel, a two-inch unit J1A058AF can be added to obtain 32 additional output circuits. A maximum of three units can be added to any one channel to provide 116 circuits, counting the initial 20. There are fifteen, two-inch mounting plate spaces on the frame available for mounting the supplementary distribution units.

1.06 The supervisory control unit is a 624-A10 telephone set. This set can be remotely located. The twelve keys of the set are used to select channels for recording and monitoring, one key for each channel which enables the set to handle two recording announcement frames. Each key has an associated ANN lamp which lights when the recording drum is ready to accept the announcement, at which time the operator depresses the RCD key. At the end of the announcement the RLS key is depressed, and this action frees the channel for use. The cord furnished as an integral part of the 624-A10 telephone set terminates in two

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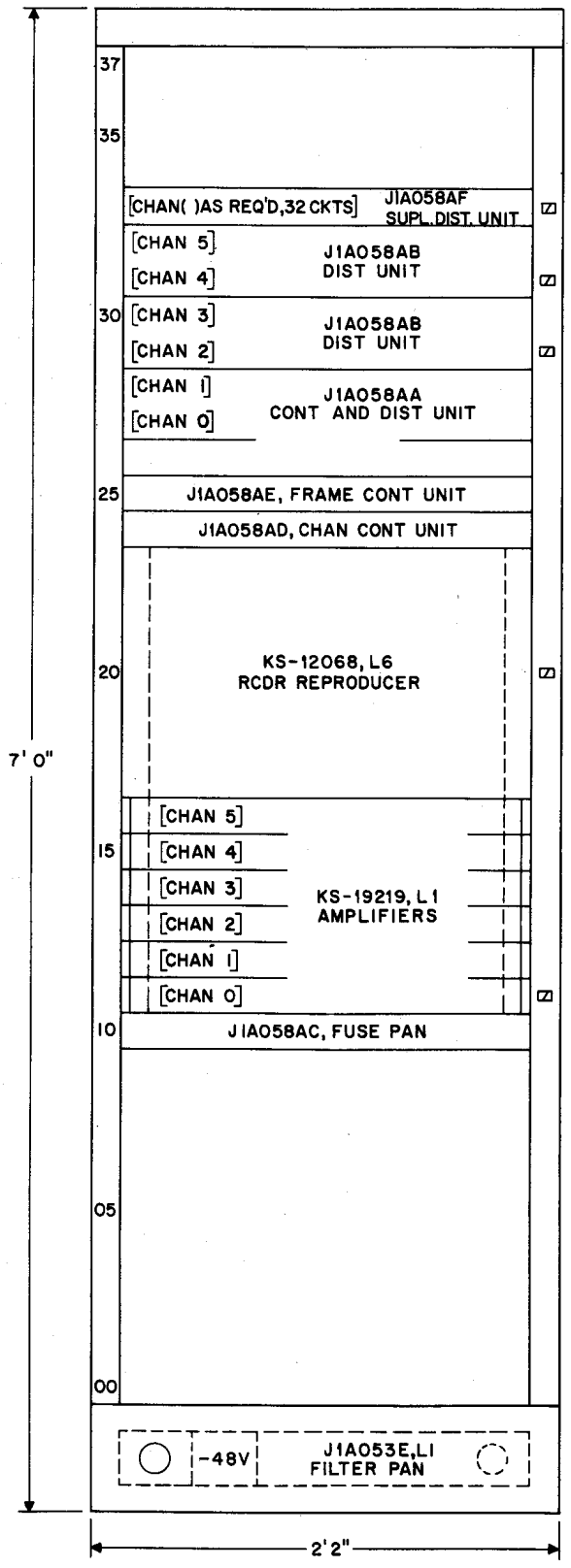

Fig. 1 — Recorded Announcement Frame

KS-16689, L4 plugs, six channels to each plug, or one plug is associated with a recorded announcement frame. The mating connector per KS-16690 is furnished as part of a single ended A type connector cable which is coded as A-25-G connector cable and can be ordered in any length.

1.07 Two control panels are furnished. The first panel provides the frame line jacks, spare jack, −48 volt test jack, high-low ground jacks, and power removal keys. The power removal keys are provided one for each channel. The second control panel has a monitor jack, channel test keys, a record tone key, voice alarm key, and recorded reproducer power key. By means of the keys on the second control panel the output level of the amplifiers can be monitored and adjusted before they are used for announcements. The low level voice detecting circuit can have its levels set by means of a potentiometer in the amplifiers and key controlled pads mounted in the second control panel.

1.08 A −48 volt battery and ground supply feeder is run to the top of the frame from the power distributing frame. Special connectors mate the feeder to cables which run from the top to the bottom of the frame through the hollow section of the upright. The feeder terminates at a filter. From the filter the supply runs to the fuse panel.

1.09 The motor of the recorder reproducer requires 120 volts ac. This feeder is fused at the miscellaneous frame.

1.10 A 23A transmission measuring test set (J94023A) should be used to set the gain levels. A 3P12H cord or equivalent will be required for use with the 23A transmission measuring test set.

Floor Plan Arrangements

1.11 The only restriction on location of this frame is the 150-ohm maximum loop resistance between the frame and the 624-A10 telephone set used to record the announcements on the drum. The outputs of the frames are connected to the trunk units, J1A032DB, mounted on the universal trunk frame. The cabling distance should be held to a minimum.

SUBDIVISION OF EQUIPMENT AND DETAILED INDEX

WECo 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	EQUIPMENT DRAWING	CIRCUIT DRAWING	CKT PER UNIT	2-INCH MTG SPACES PER UNIT
J1A058A	AT&TCo Std	Recorded Announcement Frame	J1A058A-( )	SD-1A129-01 SD-1A139-01	Frame	
J1A058AA	AT&TCo Std	Control and Distributing Unit	J1A058AA-( )	SD-1A129-01 SD-1A139-01	1 2	3
J1A058AB	AT&TCo Std	Distribution Unit	J1A058AB-( )	SD-1A139-01	2	2
J1A058AC	AT&TCo Std	Fuse Panel	J1A058AC-( )	SD-1A129-01 SD-1A139-01	1 1	1
J1A058AD	AT&TCo Std	Channel Control Unit	J1A058AD-( )	SD-1A129-01	1	1
J1A058AE	AT&TCo Std	Frame Control Unit	J1A058AE-( )	SD-1A129-01 SD-1A139-01	1 1	1
J1A058AF	AT&TCo Std	Supplementary Distribution Unit	J1A058AF-( )	SD-1A139-01	As Req	1

Circuit Schematic Index

CIRCUIT DRAWING	J1A058 EQUIP. CODE
SD-1A112-01	624-A10 Telephone Set (See 5.03)
SD-1A129-01	A,AA,AC AD,AE
SD-1A139-01	A,AA,AB AC,AE,AF

2. SUPPLEMENTARY INFORMATION

800-000-000 – General Equipment Requirements Installation and Manufacturing Index
820-000-000 – No. 1 and No. 2 Electronic Switching System Index
966-100-100 – General Description – No. 1 Electronic Switching System
J1A044 (AA251.002) – Main, Intermediate and Trunk Distributing Frames
J1A050 (AA251.001) – Protector Frame
J1A052 (820-050-150) – End Guards, Aisle Pilot Lamps, and Alarm Sending Units
J1A053 (820-053-150) – Frame Filter Panels
J1A054 – Cable Racks
J1A055 (820-001-150) – Central Office Equipment – General
J1A056 (820-009-150) – Limiting Conductor Conditions
J1A057 (820-007-150) – Index of Cross Connection
J94023 (AA387.051) – Transmission Measuring Set
ED-1A183-10, ED-1A183-11 – Specific Requirements for Numbering and Lettering
SD-1A101-01 – No. 1 ESS Current Drain Data
E8056 – Questionaire
Floor Plan Data – Section 12.1

3. DRAWINGS

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

Keysheet

SD-1A100-01 – No. 1 Electronic Switching System – 2-Wire
SD-2H100-01 – No. 2 Electronic Switching System – 2-Wire

Framework

ED-1A150-70 – Frame Assembly – Single Bay

Cabling

ED-1A153-01 – Wire Gauges and Types of Insulation
ED-1A159-10 – Method of Terminating Battery and Ground Feeders
ED-1A182-10, ED-1A182-11, ED-1A182-13 – Specific Requirements for Wiring and Cabling
ED-1A200-01 – Method of Running Power Feeders
ED-1A201-01 – Mounting of Modular Type Fuse Blocks
ED-1A219-10 – Switchboard Cabling Details
ED-1A227-10 – Method of Running Switchboard Cables

4. EQUIPMENT

J1A058A (AT&TCo Std) – Recorded Announcement Frame

Equipment – J1A058A-( )

List 1 – Framework, assembly, wiring, and common equipment for one single bay recorded announcement frame arranged to provide six announcements, each announcement distributed to twenty trunks (see Note A).

	WIRE	EQUIP	SEE NOTES
Miscellaneous Circuit, SD-1A129-01, Fig. 2, 4, 6 75, 76, 77, 79, & 80	1	0	B
SD-1A139-01, Fig. 1A, 1B, 1C, 2, 3, 4, & 5	1	0	B
SD-1A129-01, Fig. 7	1	1	B

List 2—Equipment required in addition to list 1 to provide channels 2 and 3 or 4 and 5.

	WIRE	EQUIP
SD-1A139-01, Fig. 1	2	0
KS-19219,L1 Amplifiers	0	2
J1A058AB Dist Unit	0	2

List 3—Equipment required in addition to list 1 or 2 to provide 32 additional outputs, see 1.05.

	WIRE	EQUIP
SD-1A139-01, Fig. 7	1	0
J1A058AF	0	1

Notes

A. Component units shall be furnished in accordance with Table A.

B. This wiring is required to interconnect the frame units together, ie, those units ordered in Table A.

C. The wiring between the KS-12068, L6 recorder-reproducer the KS-19219, L1 amplifiers, and the transfer relays should be KS-14961, L1, 22 AWG solid paired wire, shielded and jacket per X-17135.

D. The KS-12068, L6 recorder-reproducer should be shipped separately from the frame.

J1A058AA (AT&TCo Std)—Control and Distributing Unit

Equipment—J1A058AA—( )

List 1—Assembly, surface wiring, and equipment for one control and distribution unit, providing distribution to two sets of 20 trunks, the first set for channel 0 and the other for channel 1.

	WIRE	EQUIP
Miscellaneous Circuit, SD-1A129-01, Fig. 77	1	1
Recorded-Announcement Circuit, SD-1A139-01, Fig. 1C, 2	2	2

J1A058AB (AT&TCo Std)—Distribution Unit

Equipment—J1A058AB-( )

List 1—Assembly, surface wiring, and equipment for one distribution unit providing distribution to two sets of 20 trunks, the first set for channel 2 or 4 and the other set for channel 3 or 5.

	WIRE	EQUIP
Recorded-Announcement Circuit, SD-1A139-01, Fig. 1A and 1B	1	1

J1A058AC (AT&TCo Std)—Fuse Panel

Equipment—J1A058AC-( )

List 1—Assembly, surface wiring, and equipment for one fuse panel.

	WIRE	EQUIP
Miscellaneous Circuit SD-1A129-01, Fig. 76	1	1
Recorded-Announcement Circuit, SD-1A139-01, Fig. 4	1	1

J1A058AD (AT&TCo Std)—Channel Control Unit

Equipment—J1A058AD-( )

List 1—Assembly, surface wiring, and equipment for one channel control unit.

	WIRE	EQUIP
Miscellaneous Circuit, SD-1A129-01, Fig. 2, 4, 6, 79	1	1

J1A058AE (AT&TCo Std)—Frame Control Unit

Equipment—J1A058AE-( )

List 1—Assembly, surface wiring, and equipment for one frame control unit.

	WIRE	EQUIP
Miscellaneous Circuit, SD-1A129-01, Fig. 80	1	1
Recorded-Announcement Circuit, SD-1A139-01, Fig. 3	1	1

J1A058AF (AT&TCo Std)—Supplementary Distribution Unit (See Note 5.04)

Equipment—J1A058AF-( )

List 1—Assembly, surface wiring, and equipment for one supplementary distribution unit providing 32 circuits which can be associated with any one channel.

	WIRE	EQUIP
Recorded-Announcement Circuit, SD-1A139-01, Fig. 7	1	1

Note

A. Three of these units is the maximum number that may be connected to the channel amplifier output.

5. GENERAL NOTES

5.01 The gauge and type of wire furnished for the recorded announcement frame shall conform to the requirements of ED-1A153-01.

5.02 Switchboard cables shall be arranged in the cable racks compartments as follows:

SHIELD NO.	CONDUCTORS
2	Master Scanner
3	RA, RAM, T, and R
4	Power

Special conditions applying to these leads are listed in J1A056, Limiting Conductor Conditions.

5.03 A 624-A10 telephone set is required by the system. One set will serve two announcement frames. In order to mate the frame to the telephone set, a KS-16690 connector is required. (See 1.06.) An A-25-G connector cable provides the KS-16690 connector wired to a 25-pair gray jacketed cable. The A-25-G can be ordered in any length.

5.04 A 23A transmission measuring test set, J94023A, is needed to set the levels of the amplifiers. A 3P12H cord or equivalent is required for use with the 23A transmission measuring test set.

5.05 The recorded announcement frame should be mounted at least 2 feet 2 inches away from the ringing and tone frame J86815A or J86816A.

5.06 When the frame is fully equipped with distributor resistor panels per J1A058AF, the ground lead from the filter to the fuse panel should be run up through the frame upright and connected to the frame ground strip at the top of the bay. The battery lead should run through the snap bushing in front of the bottom mounting plate and up in front of the mounting plates to the fuse panel at its lower edge.

5.07 The following codes are unassigned:
J1A058B through J1A058Y
J1A058AG through J1A058AY.

TABLE A

RECORDED ANNOUNCEMENT FRAME J1A058A

COMPONENT EQUIPMENT UNITS SHALL BE EQUIPPED AS FOLLOWS:				
UNIT		QUANTITY TO BE PROVIDED		TITLE OF UNIT
J CODE	LIST OR GROUP NO.	ALWAYS	FOR OPTION INDICATED	
J1A058AA	1	1		Control and Distribution Unit
J1A058AB	1		See Note	Distribution Unit
J1A058AC	1	1		Fuse Panel
J1A058AD	1	1		Channel Control Unit
J1A058AE	1	1		Frame Control Unit
J1A058AF	1		As Required	Supplemental Distribution Unit
J1A053E	1	1		Filter
KS-12068	6	1		Recorder-Reproducer
KS-19219	1	2	See Note	Amplifier

Note: For channels 2 and 3 or 4 and 5, furnish a J1A058AB unit and two KS-19219, L1 amplifiers, see list 2 of J1A058A.

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