

2B ANNOUNCEMENT SYSTEM
FOR SUBSCRIBER OPERATED ANNOUNCEMENT SERVICE
EQUIPMENT DESIGN REQUIREMENTS

COMMON SYSTEMS

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, covers the framework, equipment, and circuit design requirements for the manufacture and installation of equipment for the 2B subscriber operated announcement systems in which all the line and announcing equipment is located on the subscriber premises. With the 2B system, announcements are made over line circuits by a machine furnished by the customer. For emergency purposes 101 key equipment may be provided to permit an attendant to make the announcements over one line at a time should the machine fail. The transfer is made by a common key.

1.02 This specification is reissued to remove reference to the 2C announcement system which is now rated Mfr Disc., and to rate the 2B system A&M Only.

Capacity

1.03 The capacity of the 2B system is not limited to a set number of circuits and may be installed as required by the subscriber. The line circuit is furnished on a 2-circuit basis.

Description

1.04 The equipment for the 2B system consists of line circuits for connecting the subscriber announcement machine equipment to central office lines and manually operated announcement equipment. This is for use in the event that the subscriber announcement machines fail to operate due to power failure or other causes. Fig. 1 shows a schematic arrangement of this system.

1.05 When an incoming call is received on one of the line circuits associated with the announcement machine, the line circuit starts the announcement machine which, when ready, cuts the line circuit through and makes the announcement. At the completion of the announcement the machine restores the line circuits to normal. A number of lines may be cut through to the announcement machine at the same time. However, a call originating in the middle of an announcement will not be cut through until the machine is ready to start a new announcement. When desired, a message register may be associated with each line to record the number of calls on that particular line. A protecting device is provided in each line circuit to limit the energy level that may be placed on the subscriber line from the announcement machine amplifier.

1.06 When operated on a manual emergency basis, the line circuits are switched from the machine announcement equipment to the 101 key equipment by operating a common key. When a subscriber now makes a call, the line circuit lights a line lamp in the key cabinet. The announcement is then made by an attendant by means of a transmitter and subset which is connected to one line at a time by operating a key associated with the line to be answered. At the completion of a call the line key is restored to normal. Each line circuit is fused separately and should a fuse blow, a common alarm lamp and buzzer will operate to indicate this condition. A key is furnished to cut off the buzzer.

1.07 The line circuit is arranged as a 2-circuit unit on a 19- by 3-1/2 inch mounting plate. These circuits are surface wired to separate terminal strips located on the rear of the plate. These units may be housed in metal apparatus cabinets having capacities for ten or 18 circuits. They are assembled on a gate which may be opened 180 degrees giving access to both the

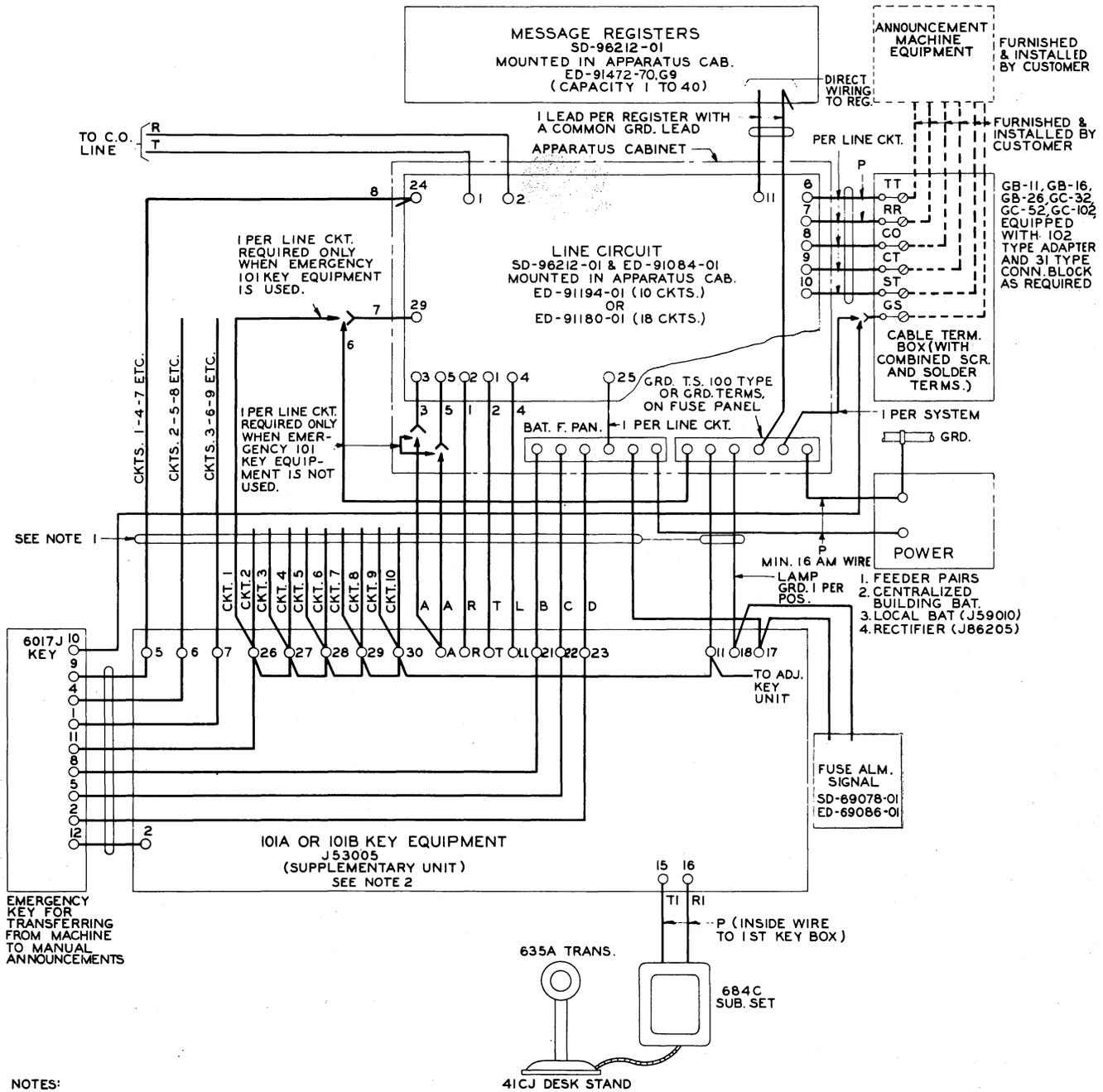


Fig. 1 – Equipment and Cabling Schematic for 2B Announcement System

equipment and wiring. The cabinets may be mounted on the floor or wall as desired. When mounted on the floor a wooden base is available for insulating purposes. A fuse panel having a capacity for twenty-five 35-type fuses has been provided and will be mounted in the rear of either the 11-plate or 18-plate cabinets.

1.08 The line message registers are mounted on standard 1-3/4 by 19-inch mounting plates (10 per plate) and wired directly by the installer to the line units. These registers are assembled in a small metal apparatus cabinet having a capacity of 40 registers. The registers are mounted on a hinged gate giving access to both the equipment and wiring. The cover has a transparent front made of Plexiglas to permit reading the registers. There are four holes in the rear of the cabinet for mounting it on the wall. A wooden back board is available for insulating this cabinet when desired or for mounting on wall surfaces that are not smooth.

1.09 The equipment for emergency manual operation consists of either the 101A or 101B key equipment and in addition a 6017 type key, a subset, and a transmitter.

1.10 The wiring from the line units to the announcement machine shall terminate on the solder lugs of the combined solder and screw terminals mounted in the cable terminal box. This will permit the customer to connect the leads from the announcement machine to screw terminals for connection to the line circuits thus eliminating the necessity of using a soldering iron.

Power

1.11 The equipment for the 2B system operates on a range of 14 to 26 volts. This battery may be obtained as follows.

- (a) Over feeder pairs from a central office.
- (b) From a centralized building battery or nearby PBX battery.
- (c) An individual storage battery charged over cable pairs from a central office or from a local rectifier. When charged over cable pairs charge control equipment is mounted in the battery cabinet. For local charging a 1/2 ampere, 17- to 20-volt copper oxide rectifier is used. This

rectifier is enclosed in a gray-green wrinkle enamel finished metal case and can be conveniently mounted on the wall or on a shelf.

2. SUPPLEMENTARY INFORMATION

- 800-600-000 — List of General Equipment Requirement Sections
- 801-000-000 — Equipment Design and General Equipment Requirements and Engineering Information — Common Systems
- J53005—812-107-150 — 101A and 101B Key Equipment
- J59010—Mfr Disc. — Power Plants
- J86205—802-414-150 — Rectifiers
- J99219—801-009-151 — Steel Apparatus Cabinets

3. DRAWINGS

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

- ED-91088-01 — Station Equipment and Cabling Schematic for 2B System.
- J95410A-() — Line Unit for Subscriber Operated Announcement Service — Two Circuits — 3-1/2 by 19-Inch Mounting Plate — Surface Wired
- SD-96208-01 — Station Circuit for 2B System
- SD-96212-01 — 2B and 2C Announcement Line Circuit

4. EQUIPMENT

J95410A—A&M Only — Line Unit for Subscriber Operated Announcement Service — Two Circuits 3-1/2 by 19-Inch Mounting Plate — Surface Wired

Equipment — J95410A-()

List 1 — Framework, assembly, wiring, and equipment for one unit of two line circuits per SD-96212-01, Fig. 1.

List 2 — Equipment and wiring per SD-96212-01, Fig. 3, required in addition to list 1 when the line unit is used with an announcement machine.

Miscellaneous Equipment

Note

A. The following paragraphs cover items of additional miscellaneous apparatus required for these systems. These items are to be provided separately in quantities to suit the particular installation. They are mounted and wired by the installer on the job.

4.01 Attendant Announcement Equipment:

This equipment consists of a No. 635A transmitter, a No. 41CJ desk stand, a No. 684C subset, 2 T1A cords, and a D3P9 cord. It shall be connected in accordance with SD-96208-01, Fig. 5.

4.02 Cable Terminal Boxes for Connections Between Line Units and Announcement Machines:

It is desirable to terminate the leads from the line units which are to connect with the announcement machines on the solder terminals of combined solder and screw terminals, leaving the screw terminals for connecting the leads from the machines. There are a number of different sizes of cable terminal boxes that may be equipped with adapters and connecting blocks in accordance with the number of terminals required for a particular job. This equipment consists of the following.

CABLE TERMINAL BOX	ADAPTER	CONNECTING BLOCK PER SPEC AT-6274	NO. OF TERM.
GB-11	1, 102B	31B	22
GB-16	1, 102C	31C	32
GB-26	1, 102D	31D	52
GC-32	(2, 102B or	31B or	44 or
	(2, 102C	31C	64
GC-52	(2, 102C or	31C or	64 or
	(2, 102D	31D	104

4.03 Fuse Alarm: The fuse alarm equipment consists of a lamp, key, and buzzer mounted in a small metal box suitable for mounting on the side or kneewell of a desk or on other suitable locations. This equipment shall be furnished per ED-69086-01, G1 and shall be connected per SD-69078-01, Fig. 4, and SD-96208-01, Fig. 4.

4.04 Transfer Key: A No. 6017J key shall be furnished to transfer from the regular

announcement equipment to the emergency announcement equipment as desired. This key shall be equipped with a No. 7A guard to prevent the key from being operated accidentally. The No. 6017J key is designed to mount in the kneewell or on the side of a desk or on other suitable locations. It shall be connected per SD-96208-01, Fig. 6.

4.05 Message Registers: In order to record the number of calls on each line, when desired a No. 14LP message register shall be furnished for each line. These registers shall be mounted ten per plate on a No. 600A mounting plate drilled on 1-3/4 inch centers. These plates shall be mounted in the small apparatus cabinet, four plates per cabinet, per ED-91472-70, G9. These registers shall be connected per SD-96208-01, Fig. 2 or SD-96212-01, Fig. 2.

5. GENERAL NOTES

5.01 Inside wiring cable, per specification AT-7201, or its equivalent shall be used between the apparatus cabinet and the announcement equipment.

5.02 The circuit schematic and wiring drawings shall be placed in the P-426573, envelope furnished with the apparatus cabinet. Space is furnished in the cabinet for storing this envelope. The drawing numbers, figure numbers, etc, should be listed on the drawing record form which is pasted on this envelope and to the rear of the cabinet. The apparatus cabinet when required shall be grounded per SD-69179-01, Fig. 15. The 11- and 18-plate apparatus cabinets are arranged to accommodate 100-type terminal strips on which the incoming leads may be terminated and connections made from them to the line units by means of jumper wire, or the incoming leads may run direct to the line units.

LIST OF A&M ONLY AND MFR DISC. EQUIPMENT

EQUIPMENT	RATING	DETAILS	
		LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J95410A	A&M Only	2	—
J95410B	Mfr Disc.	2	—
J95410C	Mfr Disc.	2	—

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.

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