

## STATION RINGER TEST EQUIPMENT EQUIPMENT DESIGN REQUIREMENTS PANEL SYSTEMS

### 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 station ringer test circuit equipment in panel offices.

1.02 This specification is reissued to incorporate previous appendix changes.

#### Capacity

1.03 The capacity of the various units is as follows:

TOUCH-TONE auxiliary circuits per unit	3
Ringer ground test circuits per unit	1

#### Description

1.04 The ringer test circuit equipment provides for testing dials and subscriber set ringers automatically from the subscriber station. In addition, the ringer test circuit equipment provides a connecting link to the TOUCH-TONE frequency test circuit, which provides for the testing of TOUCH-TONE subscriber sets. These ringer test circuits are arranged for testing individual, 2-party, 4-party semiselective, and 4-party selective ringers.

1.05 The ringer test circuit equipment covered by this specification is for use with subscriber senders that are provided with E- or L-type pulsing relays only. Equipment covered by J93006K, J93006L, and J93006N should be used in offices where senders are provided with 239- or 280-type pulsing relays.

### 2. SUPPLEMENTARY INFORMATION

- 815-000-000 — Panel Systems Index
- AA128.006 — List of General Equipment Requirements Sections
- J93001 (AA381.309) — Relay Rack Unit Framework and Local Cables
- J95002 (AA382.511) — Local Test Desk No. 14

### 3. DRAWINGS

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

#### Keysheets — Panel Systems

- SD-21680-01 — Ground on the Cutoff Relay Offices
- SD-21300-01 — Battery on the Cutoff Relay Offices

#### Framework

- ED-90929-01 — Assemblies for Steel Panels
- ED-91000-01 — Assembly for Universal Dry Battery Shelf for Relay Rack Mounting
- ED-90880-01 — Assembly for Battery Guard

#### Equipment

- ED-20104-01 — Equipment for Battery Shelf
- J25002D-( ) — TOUCH-TONE Auxiliary Unit for Ringer Test Circuit Equipment
- J25002E-( ) — Ringer Ground Test Unit for Ringer Test Circuit Equipment

### 4. EQUIPMENT

**J25002D (A&M Only) — TOUCH-TONE Auxiliary Unit For Use with Station Ringer Test Unit**

Equipment — J25002D-( )

**List 1** — Framework, assembly, wiring, and equipment for one TOUCH-TONE auxiliary unit, wired for three and

equipped for one circuit, arranged for individual and 2-party ringing.

	WIRE	EQUIP	SEE NOTES
Station Ringer Test Circuit, SD-21094-01, Fig. D	3	1	A,B

**List 2** — Equipment per SD-21094-01, Fig. D, required in addition to list 1 to equip unit for each additional circuit.

**List 3** — Framework, assembly, wiring, and equipment for one TOUCH-TONE auxiliary unit, wired for three and equipped for one circuit arranged for 4-party semiselective ringing.

	WIRE	EQUIP	SEE NOTES
Station Ringer Test Circuit SD-21094-02, Fig. D	3	1	A,B

**List 4** — Equipment per SD-21094-02, Fig. D, required in addition to list 3 to equip unit for each additional circuit.

**List 5** — Framework, assembly, wiring, and equipment for one TOUCH-TONE auxiliary unit, wired for three and equipped for one circuit arranged for 4-party full selective ringing.

	WIRE	EQUIP	SEE NOTES
Station Ringer Test Circuit, SD-21096-01, Fig. D	3	1	A,B,C

**List 6** — Equipment per SD-21096-01, Fig. D, required in addition to list 5 to equip unit for each additional circuit. (See note C.)

**List 7** — Apparatus and wiring per SD-21096-01, Fig. D, option "ZY" only required in addition to list 5 or list 6 in offices having low central office ringing voltages.

#### Notes

- A. This unit is required in addition to ringer test unit, J25002B, to provide for testing the ringer of a TOUCH-TONE set and to provide for connecting to a TOUCH-TONE frequency test circuit when testing TOUCH-TONE sets is required.
- B. The TOUCH-TONE auxiliary unit shall be universally wired for SD-21094-01, SD-21094-02, and SD-21096-01, and wiring

connected and equipment furnished in accordance with the applicable lists.

- C. Furnish ZX wiring when list 5 or list 6 is furnished without list 7.

#### J25002E (A&M Only) — Ringer Ground Test Unit for Use with Station Ringer Test Unit

Equipment — J25002E

**List 1** — Framework, assembly, wiring, and equipment for one ringer ground test unit per SD-21094-01, Fig. 6, SD-21094-02, Fig. 5 or SD-21096-01, Fig. 5. (See note A.)

**List 2** — Equipment and wiring per SD-21094-01, Fig. 7, SD-21094-02, Fig. 6 or SD-21096-01, Fig. 6, less dry cell batteries, required in addition to list 1 when a positive 24-volt battery is not available. One list 2 is required per maximum of three list 1. (See note B.)

#### Notes

- A. This unit is required in addition to the ringer test unit to provide a 2-party test of subscriber lines, to identify the station ringer, and to test for removal of station ground with the receiver on the hook.
- B. List 2 does not include the dry cell batteries shown in SD-21094-01, Fig. 7, SD-21094-02, Fig. 6, or SD-21096-01, Fig. 6. For each list 2 provided, six KS-14367 dry cell batteries are required. Batteries are to be mounted on a shelf, per ED-91000-01, G4, and retained by a guard assembly per ED-90880-01. Battery shelf and guard are to be mounted on a panel per ED-90929-01, detail 104. The battery shelf should be mounted directly below the first ringer ground test unit and near the bottom of the relay rack to facilitate battery replacement.

#### 5. GENERAL NOTES

**5.01** When the total number of LTD positions and ringer test circuits exceeds the capacity of the switch (22), it will be necessary to subgroup the equipment. Unless otherwise specified or required, the odd LTD positions shall be in one subgroup and the even LTD positions in another subgroup, with the ringer test circuit common to both.

5.02 Unless otherwise specified and where the equipment does not exceed the capacity of the bay, the dial tester and ringer test circuit units and the common equipment associated therewith shall be mounted in the same bay or relay rack in order to facilitate interconnections.

issue numbers shown are those of the issue in which the rating was first applied.

**List of "A&M Only" and "Mfr Disc." Equipment**

The following equipment has been replaced as indicated. Where "A&M Only" items appear, the

EQUIPMENT	RATING	DETAILS		REPLACING EQUIPMENT
		LAST SHOWN IN	ISSUE	
J25002A	Mfr Disc.	4		—
J25002B	Mfr Disc.	4		—
J25002C	Mfr Disc.	4		—
J25002D	A&M Only	3		—
J25002E	A&M Only	3		—

Bell Telephone Laboratories, Incorporated

Dept 6261