

## CENTRAL OFFICE FIRE DRILL EQUIPMENT EQUIPMENT DESIGN REQUIREMENTS COMMON 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 manufacture and installation of central office fire drill equipment. Equipment included in this specification may be ordered by specifying the code and list numbers covered in part 4.

1.02 This specification is reissued to incorporate previous appendix changes.

#### Description

1.03 Equipment for central office fire drill equipment consists of a system of bells

located in various parts of a single or multioffice building. These bells are controlled through relay equipment which is operated by keys located in the front of cable turning sections of the various switchboards and desks throughout the building. Two keys are ordinarily located in each fire drill key mounting. One of these, designated LOCAL, usually controls the bells associated with one central office in a building. However, in offices having more than one operating room, it is preferable to have each LOCAL key control only the bells associated with one operating room. The other key in the key mounting is designated BLDG. Operation of this key at any key unit rings all bells in the building.

1.04 The relay equipment for the fire drill circuit is contained on a relay rack unit in a metal casing to protect it from damage. This unit



Fig. 1 — Key Unit — Front View

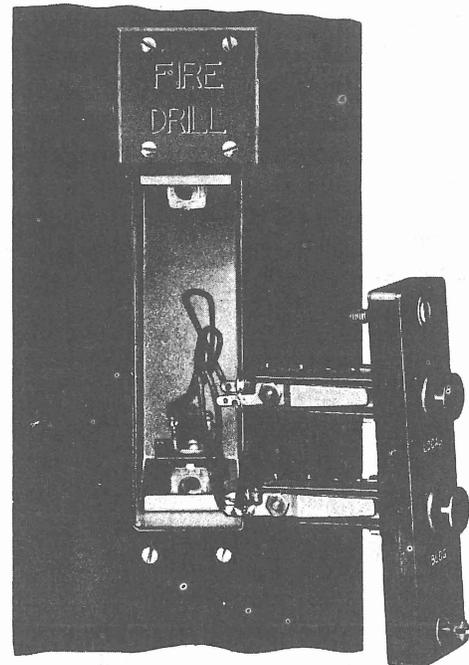


Fig. 2 — Key Unit — Key Panel Removed for Maintenance

occupies the space of seven 1-3/4" mounting plates and is arranged to mount on a 19-1/2" relay rack directly, but may be mounted on 23-1/2" bays by using adapters. The unit will provide for a maximum of 12 bells divided into a maximum of four groups.

**1.05** This system contemplates a total of two units serving not more than 24 bells for any one central office. All wiring to bells and keys is protected either by conduit or armored cable. The key units are protected from fire or mechanical damage by a metal casing in the rear. In order to maintain the keys, provision is made for withdrawing them from the front of the key unit. Illustrations included herein show this feature, and also show a front view of the mounting in a cable turning section panel.

#### Subdivisions of Equipment

J99202A — AT&TCo Std — Fire Drill Relay Rack Unit

J99202B — AT&TCo Std — Fire Drill Key Unit

## 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

## 3. DRAWINGS

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

#### Circuits

SD-90086-01 — Fire Drill Circuit

#### Equipment

J99202A-( ) — Fire Drill Relay Rack Unit

## 4. EQUIPMENT

**J99202A — AT&TCo Std — Fire Drill Relay Rack Unit — 19" Mounting Plates (See Note A)**

Equipment — J99202A-( )

**List 1** — Framework, assembly, wiring, and common equipment for one fire drill unit.

	WIRE	EQUIP	NOTES
Fire Drill Ckt, SD-90086-01:			
Bell Ckt, Fig. 3	12	0	
Control Ckt, Fig. 4	4	0	

**List 2** — Equipment per SD-90086-01, Fig. 3, less bell, required in addition to list 1 for one protection circuit for two bells. (See Note B.)

**List 3** — Equipment per SD-90086-01, Fig. 4, required in addition to list 1 for one control circuit for a group of three bells.

#### Notes

A. This unit may be mounted on a 23" relay rack, when required, by specifying adapter details per ED-90273-01, Group 27.

B. The bells are not included as part of this unit and shall be ordered separately to meet the job conditions specified. A mounting board is required where the bells are located on wall surfaces such as plaster, brick, etc. The board shall be plywood, or white pine, approximately 3/4" by 8" by 14", with a 395 or equivalent finish. The board shall be procured locally by the installer.

**J99202B — AT&TCo Std — Fire Drill Key Unit**

Equipment — ED-90912-01

**List 1** — Framework, assembly, wiring, and common equipment for one fire drill key unit arranged for one LOCAL and one BLDG key. (See Note A.)

	WIRE	EQUIP	NOTES
Framework ED-90912-01, G1		1	
BLDG Key Ckt, SD-90086-01, Fig. 5, "X" and "Y" Wiring	1	0	
LOCAL Key Ckt, SD-90086-01, Fig. 6	1	0	

**List 2** — Equipment per SD-90086-01, Fig. 5, required in addition to list 1 for one BLDG key circuit.

**List 3** — Equipment per SD-90086-01, Fig. 6, required in addition to list 1 for one LOCAL key circuit.

**Note**

A. One 40B apparatus blank is provided with list 1 and located as required. When lists 2 and 3 are both provided, this apparatus blank shall be omitted.

**5. GENERAL NOTES**

**5.01** The relay rack unit shall be located at the top of the bay above all other apparatus. When two units are required, they shall be located in adjacent bays to facilitate running the connecting conduit.

**5.02** No. 16 AM wire shall be used for the local cable. Wiring outside the unit shall be No. 14 BRC and shall be terminated on the connecting rack furnished as part of the relay unit.

**5.03** Each installation of one relay unit shall have a power supply circuit per SD-90086-01, Fig. 1. When two relay units are furnished as part of the same installation, an additional power supply circuit per SD-90086-01, Fig. 2 shall be furnished. The power supply shall be taken directly from the battery fuse panel in manual offices and from the battery control board in dial offices.

**5.04** The bells shall be located in various parts of the central office building as specified by the Telephone Company. When more than one central office is located in the building, all offices may be served by one or two relay units, or each office may have its own relay units. In either case, the VK1 leads for all BLDG keys in the building shall be spliced together so that operation of any BLDG key will operate all bells in the building. A common ground lead shall be furnished for each 12 bells, the leads to the individual bells being spliced to a common ground lead as required.

**5.05** Key units shall be furnished, one for each operating room, and located in the cable turning section in the center of the panel nearest

the switchboard at a height of between 4'-0" and 4'-6" above the floor. This is a preferred location, but if not available for any reason, the installer shall mount the key unit as directed by the Telephone Company.

**5.06** All wiring from the relay unit to the bells, keys, and to the battery fuse panels or battery control panel and between bells and key units, shall be run in conduit or BX armored cable of a type approved by the National Board of Fire Underwriters, in accordance with the specification covering the installation of BX, conduits, and conduit fittings listed herein. Wiring for other circuits shall not be run in the same conduit or BX cable with the wiring for the fire drill circuits.

**5.07** Wires serving a group of bells will ordinarily be run in conduit or BX cable to a point central to all the bells and will there terminate in a terminal box. From this box, the wires will run in single-conduit or BX cable to each individual bell. When apparatus for an ultimate of ten bells is furnished in one unit, one 2" conduit will be large enough to carry the wiring from the unit to the terminal box. When more than ten bells are required, an additional 1" conduit must be furnished. The ultimate conduit equipment shall be provided initially.

**5.08** Conduit carrying wires to the key units shall be terminated in a terminal box 4" above the floor inside the cable turning section. From this point, a length of 3-conductor, 14 gauge armored cable shall be used to carry the wiring to the key unit. The armored cable shall be connected to the terminal box by means of an approved connector such as the C-H Companys CGK-295 connector and Chase nipple.

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

EQUIPMENT	RATING	COVERED IN ISS.	REPLACING EQUIPMENT
ED-90267-01,G1	Mfr Disc.	3	J99202B
ED-90469-01,G1	Mfr Disc.	3	J99202B
ED-90469-01,G2	Mfr Disc.	3	J99202B

The above equipment has been replaced as indicated.

Bell Telephone Laboratories, Inc.