



CONSTRUCTION AND
MAINTENANCE PRACTICES
OUTSIDE PLANT

SECTION 23
PART 810

EXTENSION RINGING RELAY UNIT

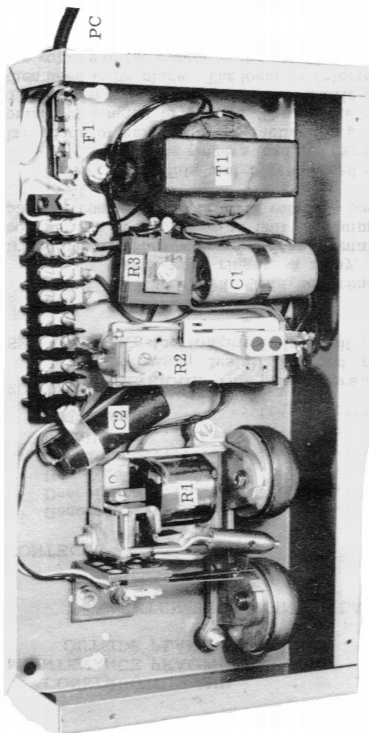
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810.1 **GENERAL:** This part covers the description, use, operation, installation and maintenance of the SED 4003 Extension Ringing Relay Unit.

810.2 **DESCRIPTION:** This unit consists primarily of a traffic-type ringer, a relay, and a 1:1 isolation transformer. These components are contained in a grey metal box 12" x 6" x 2-1/2". The unit is equipped with a cord and plug for connection to 110-117 volt ac. See FIG. 1.

810.3 **USE:** This unit may be used when there is a need for more ringers than are permitted for a particular grade of service by replacing the primary (or one of the primary) ringing bridge(s). The bridge so replaced must be disconnected from the line. The traffic ringer in the unit is then used in its place. The location selected must be such that the volume of the ringer in the ringing relay unit will approximate that of the replaced ringer.

810.3-a It may also be used to operate a 110 volt ac signal, (bells, gong or horn) the power requirements of which do not exceed 35 watts.



C1 - 30mf Condenser
C2 - .5mf Condenser
F1 - .5 ampere Glass Fuse
PC - Power Cord

T1 - 1:1 Isolation Transformer
R1 - USI Traffic Ringer
R2 - Slow Release Relay
R3 - Rectifier

Fig. 1

810.3-b Not more than four ringers may be connected to one unit, however, a second unit may be installed in lieu of one extension ringer to operate an additional four ringers.

810.3-c This unit may be used with all classes of service.

810.4 **OPERATION:** The traffic ringer responds to ringing current of the proper frequency from the central office. This ringer serves two purposes; it acts as a ringer and also operates a slow release relay which controls the extension ringers. The extension ringers shall be the same frequency as that of the commercial power supply. Ringers of any other frequency shall not be used. (Commercial power supply is usually 60-cycle.)

810.4-a Rectified ac from the commercial power source is passed through a resistor, to the contact points of the traffic ringer and a relay. The contacts of the relay are connected to one side of the secondary of an isolation transformer and in series with the extension ringers to the other side of the secondary of the transformer. All ringers are connected in multiple.

810.5 **INSTALLATION:** The ringing relay unit shall be placed in a dry, accessible location within 4 feet of a 110-117 volt ac outlet (to be furnished by the subscriber). It shall be mounted so that the clapper and gongs are at the bottom of the unit. FIG. 2 shows the wiring and connections.

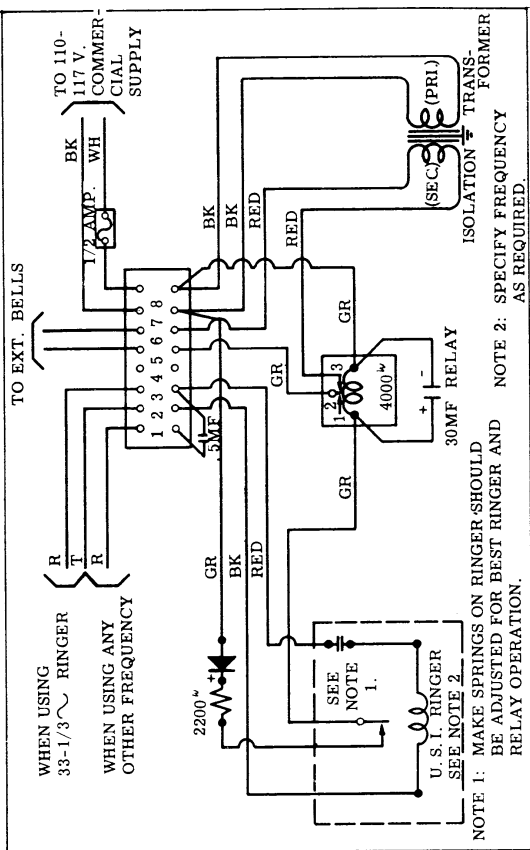


Fig. 2

810.5-a When the set is to be fastened to a wood surface, no backboard is required. When it is to be fastened to masonry, plaster, etc., a backboard shall be used. A 165A backboard (or equivalent) mounted horizontally may be used. Four approved fasteners shall be used to secure the backboard. The unit shall, in all cases, be secured with two 3/4" x 10 R. H. blue wood screws through the two keyhole-type holes provided.

810.5-b If local electrical regulations require that this unit be of a portable nature the two mounting screws shall be screwed down nearly tight but left so that the unit may be easily removed from the surface by grasping the outside of the case and lifting in an upward and outward direction.

810.5-c If local regulations require a case ground, the two-conductor power cord and plug furnished with the unit shall be replaced with a three-conductor cord and 10-ampere three-conductor plug. The green (grounding) conductor shall be fastened to the base of the unit. The subscriber shall be required to furnish a 10-ampere three-conductor receptacle.

810.5-d Wiring from the unit to extension ringers located within the same building shall be duplex inside wire or drop wire, as appropriate. See Section 12 of these practices.

810.5-e Wiring to outside locations shall be parallel drop wire and shall be placed in conformance with Section 12 of these practices.

810.5-f All extension ringers shall be located on the subscribers' same continuous property.

810.6 **MAINTENANCE:** CAUTION - Before working on this unit it must be disconnected from the commercial power supply as dangerous voltages are present. No attempt shall be made by field forces to replace parts of this unit.

810.6-a Should the traffic ringer or relay contacts require cleaning, a 265B or similar burnishing tool shall be used.

810.6-b The contact assembly of the traffic ringer may be adjusted to obtain the best audible sound and relay operation.

810.6-c Should the extension ringers fail to operate, a check should first be made of the commercial power.

810.6-d Should the 1/2 ampere fuse in the unit be found operated, it shall be replaced. Should this new fuse operate, the entire unit shall be replaced and returned to the storeroom.