

PUBLIC EMERGENCY REPORTING SYSTEMS IDENTIFICATION, INSTALLATION, CONNECTIONS, AND MAINTENANCE

1. GENERAL

1.01 This section covers the description, installation, operation, connections, and maintenance of two types of Public Emergency Reporting Systems used in step-by-step SD-95873-01 (SD-95661-01 MD) and crossbar offices SD-26164-01.

1.02 This section is reissued to:

- Omit reference to the KS-7340 (MD), and the KS-16626,L1 (MD) relay sets which are replaced by the KS-16626,L8 relay set
- Omit reference to the 687B subscriber set and KS-16626,L7 (MD) relay set which are replaced by the KS-16626,L14 relay set
- Add information for sounding the public alarm for a preset time interval
- Add information pertaining to the operation of called station sets
- Update Fig. 3 and 4.

Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 This issue of the section is based on the following drawings:

SD-26164-01, Issue 6D

SD-95873-01, Issue 9A.

If this section is to be used with equipment or apparatus reflecting later issue(s) of the drawing(s), reference should be made to the SDs and CDs to determine the extent of the changes and the manner in which the section may be affected.

2. DESCRIPTION

2.01 Public Emergency Reporting Systems provide a means for several community representatives to receive emergency calls and any one representative to actuate the public alarm over the same line when necessary. These systems are generally used in small communities without continuous coverage at a main answering point.

2.02 Public Emergency Reporting Systems consist of station equipment, central office auxiliary equipment, and relay apparatus at the alarm location. A block diagram of the Public Emergency Reporting System is shown in Fig. 1.

2.03 The station equipment at each location consists of a manual telephone set equipped with a lift-to-talk plunger and a 6017M key.

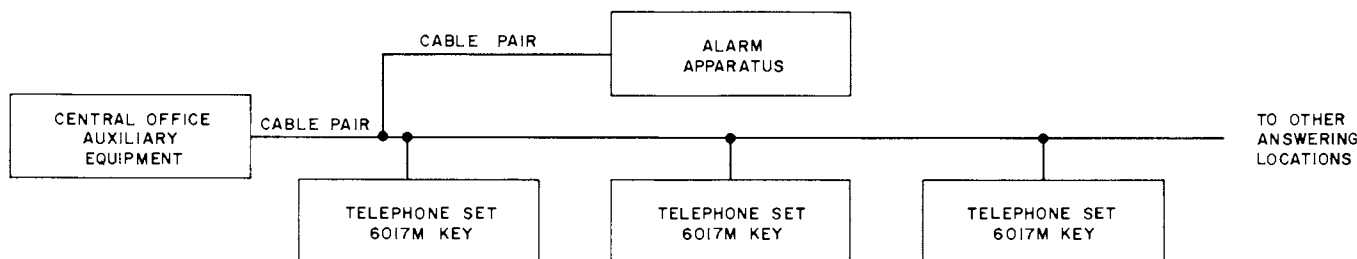


Fig. 1—Block Diagram, Public Emergency Reporting System

2.04 These systems are arranged for incoming calls only. An incoming call signals all stations connected to the line by interrupted ringing. Any station on the line may monitor a call by removing the handset. To talk to the calling party, the line switch plunger is raised which connects the transmitter to the line and trips ringing. Before raising the line switch plunger, all persons should first monitor the line to make sure the call has not been answered. The community representative, if it is deemed necessary, can actuate the public alarm by operating the 6017M key at the station.

3. INSTALLATION

3.01 Install telephone set and 6017M key in a readily accessible location. Locate key within arm's length of telephone set. All sets are connected for ring party service.

3.02 Install relay apparatus used at the alarm location in accordance with the sections covering installation of auxiliary signals and power relay sets. Use of a nonlocking relay permits the use of an alarm on a code basis.



To prevent false alarms, do not attempt to test the circuit without permission of the community official in charge.

3.03 The KS-16626,L8 and L14 relay sets may be installed indoors or outdoors.

4. OPERATION OF STATION CIRCUITS USED WITH SD-26164-01 AND SD-95873-01

4.01 To report an emergency, any subscriber can place a call to the emergency station(s) using the specific number assigned. The called station(s) is signaled by interrupted ringing over the ring side of the line at a 60 ipm rate. This type of ringing provides a distinct signal from that used to ring a subscriber station.

4.02 The call is answered by lifting the handset and listening to see if the call has already been answered by another station. If not, the line switch plunger is raised which connects the transmitter to the circuit. Raising the plunger trips ringing on the silent interval at all called emergency stations. The circuit is now in the talking condition. Additional calls placed to the emergency station(s) are connected to the circuit without ringing.

4.03 All stations answering the line after the first station has answered must leave the sets in the monitoring condition (plunger not raised), since more than one set in the talking condition will prevent operation of the alarm. The alarm may only be operated from the set which is in the talking condition (plunger raised).

4.04 When the answering station deems it necessary to sound the public alarm, the representative operates the nonlocking 6017M alarm control key. Operation of the alarm control key opens the tip side of the line and applies ground through the telephone circuit and out on the ring lead to the central office. This causes negative ringing current to be sent from the central office on the tip of the line to operate the alarm relay(s). Applying ground in this manner prevents accidental sounding of the alarm should the alarm control key be operated without the set in the talking condition.



Alarm will not sound if another set on the line has the line switch plunger operated.

4.05 The alarm(s) will continue to sound as long as the alarm control key at the representative station remains operated. An optional feature is provided to sound the alarm(s) automatically for a preset time interval after the alarm control key has been released. The alarm control key must be held operated (approximately 3 seconds) until the alarm(s) has begun to sound. The preset time interval can vary from 30 seconds to 5 minutes. The alarm then resets itself for future use. This allows the representative to actuate the alarm(s) and then leave the premises. Refer to SD-26164-01 or SD-95873-01 for information on the optional time extension feature.

5. CONNECTION INFORMATION

5.01 The Public Emergency Reporting Systems use the 500ER manual tubeless, 500FR dial-equipped tubeless, or the 501FR dial and tube-equipped telephone set. Connections for these sets are shown in Fig. 3 and 4. Dial-equipped telephone sets must be converted to manual by using the 95C apparatus blank. If other type telephone sets are used, they must be locally engineered.

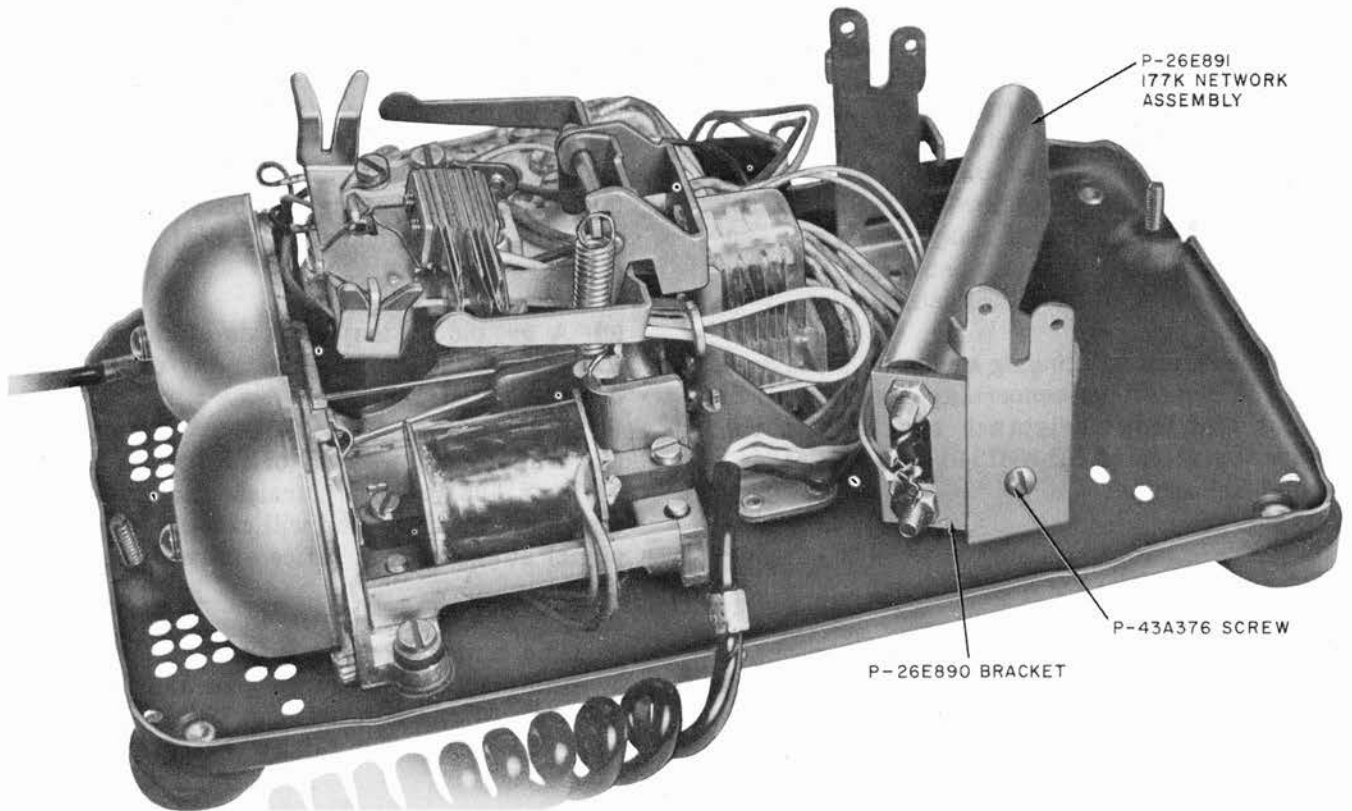


Fig. 2—Meunting D-179973 Kit of Parts in 501-Type Telephone Set

5.02 The station telephone sets are connected for ring party service and are called by applying ringing from the central office to ground over the ring of the line.

5.03 The number of called and calling stations to be connected is limited by transmission considerations. A D-179973 kit of parts must be added to the telephone set when the limit of allowable number of stations is exceeded. This kit, which must be ordered separately, consists of a bracket, a 177K network, and mounting screws. See Fig. 2. A table is provided in the information notes of SD-26164-01 and SD-95873-01 which indicates the number of stations which may be used with and without modification.

Note: Consult local engineering when transmission or ringing problems are anticipated or encountered.

5.04 The KS-16626, L8 alarm relay set is used on systems with telephone sets not equipped with tube-type ringers (Fig. 3). Where more than

one called station is connected to the same cable pair as the KS-16626,L8 relay set, the number of stations is limited by the conductor loop to the relay set. This avoids false operation of the relay set when ringing emergency station sets. A table is provided in the information notes of SD-26164-01 indicating the number of called stations limited by the minimum conductor loop to the relay set. When there are more than six called stations, connect the relay set from lead A to ground instead of across the tip and ring. The KS-7340 relay set found in SD-26164-01 has been replaced by the KS-16626,L8 relay set. Connections are the same for both relay sets.

5.05 The KS-16626,L14 alarm relay set is used on systems with telephone sets equipped with tube-type ringers (Fig. 4). The use of telephone sets equipped with tube-type ringers and relay sets such as the KS-16626,L14 are preferred since this arrangement makes the line less susceptible to noise. A maximum of four alarm relays of this type may be connected to the T lead. When more than four alarm relays are

required, up to four additional relay sets may be connected to the A lead. The maximum number of relay sets used on either connection may be reduced by the conductor resistance. A table of conditions and allowable number of sets is provided in the information notes in SD-95873-01 and SD-26164-01. A table is also provided in SD-95873-01 which shows the number of relay sets which may be connected to the T lead when more than one cable pair is required from the central office.

5.06 Where auxiliary ringing equipment is required, the limitations concerning the number of ringers and loop resistance specified in the information notes of SD-95873-01 and SD-26164-01 should be observed.

6. MAINTENANCE

6.01 Follow the same maintenance procedure as given in the section on particular apparatus

used. Possible troubles and the causes are as follows:

- (a) If alarm fails to operate when key is operated, a tip ground is indicated.
- (b) A short on the line will busy the line and bring in a permanent signal at the central office.
- (c) A ground on the ring side of the line will operate the alarm without any of the keys being operated.
- (d) When Fig. 1 with ZE or ZF options or Fig. 9 (SD-95873-01) is furnished, a ground on the ring side of the line will cause a permanent signal at the central office and will make the line busy.

6.02 The contacts of the KS-16626, L8 and L14 relay sets will carry a load of 5 amperes at 115 volts 60 cycles.

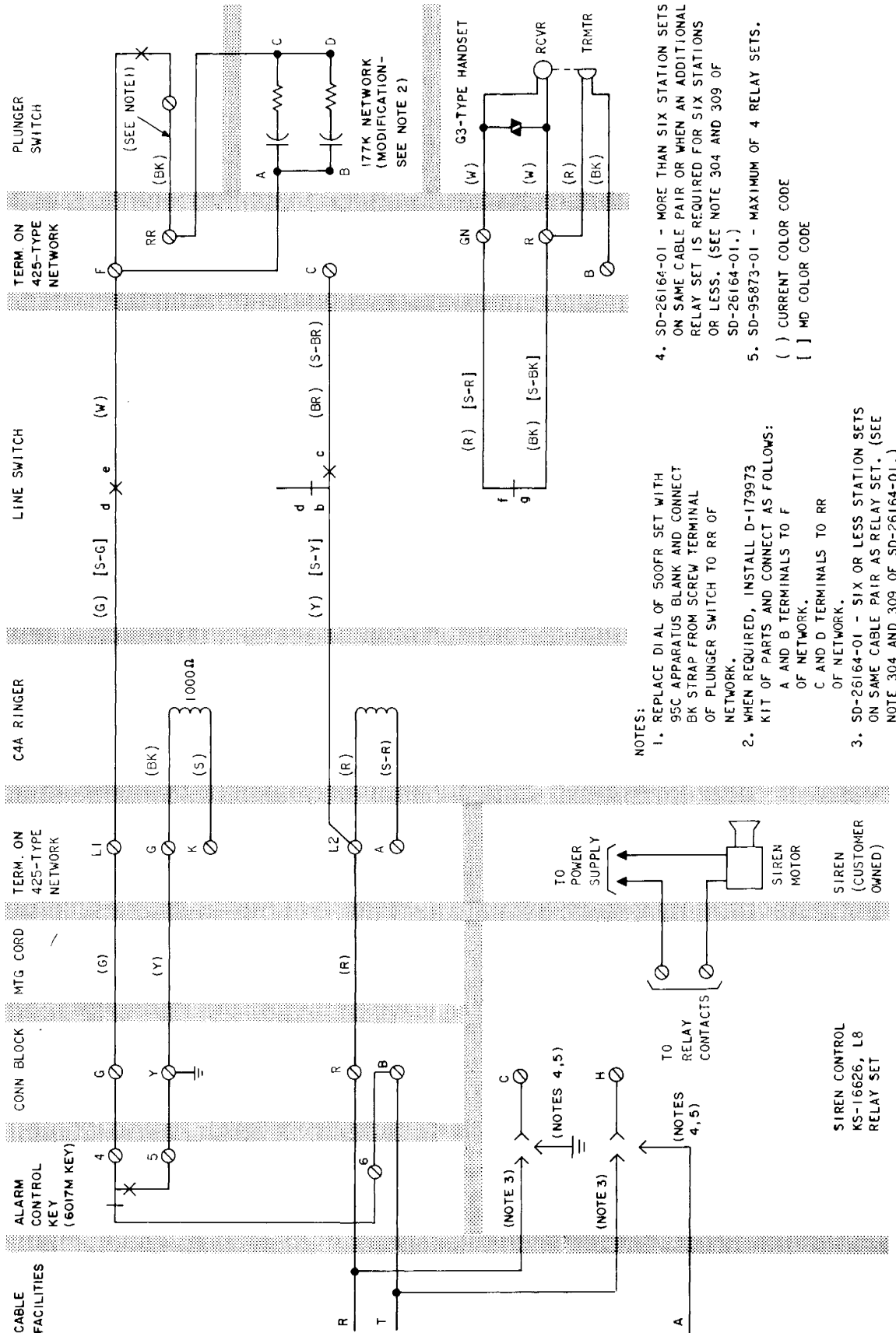


Fig. 3—500ER/FR Telephone Set Connections for Use With Public Emergency Reporting Systems

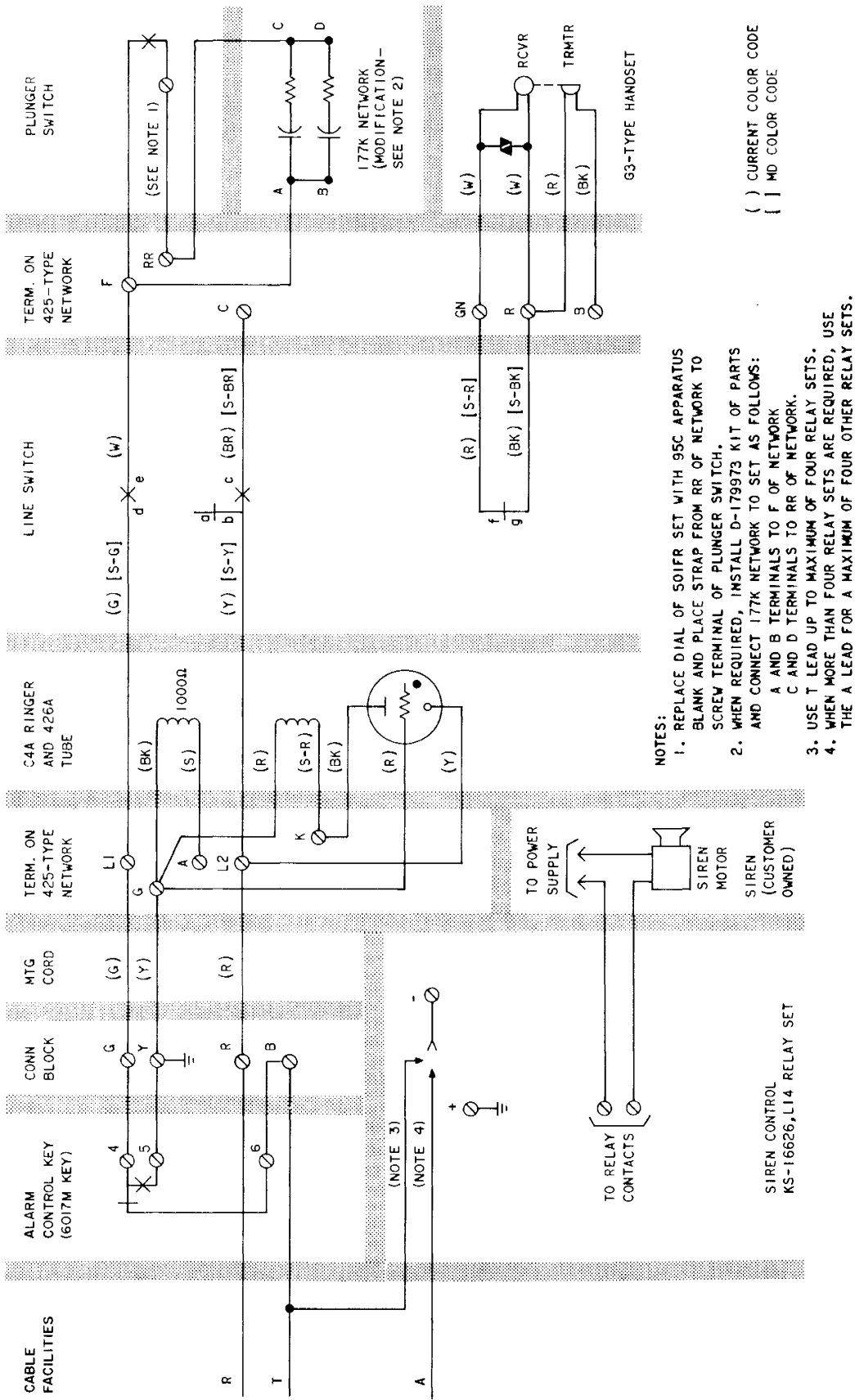


Fig. 4—501FR Telephone Set Connections for Use With Public Emergency Reporting System