

GROUP ALERTING SYSTEM

STATION APPARATUS

IDENTIFICATION

1. GENERAL

1.01 This section contains a general description of the group alerting system and identification of station apparatus used with this system.

1.02 Reasons for reissue:

- To include the use of the 53B control unit.
- To add information on the over-all operation of the system.

1.03 The group alerting system is designed to alert such groups of people as volunteer firemen and civil defense groups over their regular telephone lines. One or more groups may be signaled simultaneously and oral or recorded announcements transmitted.

2. DESCRIPTION OF SYSTEM

2.01 A system may be arranged for single group operation which signals all stations on each alert or for multigroup operation which permits up to eight groups to be selected.

2.02 An alert is initiated from the control station by means of dial pulses. A single digit is assigned to each group. One or more may be dialed for each alert.

2.03 The central office equipment, upon receiving the code pulses from the control station, selects the particular group or groups, makes a busy test on the lines to be alerted, and rings those lines found idle. The lines found busy will be camped on and receive about 14 seconds of group alerting tone. This is to inform the customer that an alert is in progress and that by

hanging up, he will receive the alert. If for some reason the customer does not hang up before the tone times out, the line will continue to be camped on and will be connected to the alert when it becomes idle provided that the alert has not been terminated.

2.04 The alerted lines that are idle (or when they become idle) are transferred from regular telephone service to the group alerting system equipment. A distinctive ringing signal of 0.5 second on and 1.5 seconds off can be applied to those lines found busy if this feature is required.

2.05 When the alerted telephone is answered and the announcement received, an on-hook restores its line to the regular telephone network. Termination of the alert restores any line not answered to the regular telephone network. The alert may be terminated manually by the control station dialing zero or it will terminate automatically at the end of the timing interval set in the central office control equipment (3 to 8 minutes). An alert period may be extended by re-dialing from the control station prior to the automatic time-out.

2.06 All transmission is one-way from the control station to the alerted stations. It is not possible for the alerted stations to communicate with each other or the control station.

2.07 In addition to the alerting codes, a digit is assigned to check the system. This allows the control station to simulate an alert and monitor the announcement but does not transfer or ring the stations. The control station monitor line is the only line signaled.

2.08 A maximum of 480 lines may be connected to one system. These lines may be individual, full selective, or 8-party semiselective, with a restriction of one alert station per party line.

2.09 The central office serving an alert line may be No. 1 or No. 5 crossbar, panel, or step-by-step. Alert lines associated with one system may appear in one or more distant central offices where the loop resistance between offices does not exceed 1500 ohms. Carrier channels are not suitable for links between central offices.

2.10 A maximum of three control stations may be connected to a system. When any one control station is in use, the remaining ones are locked out and receive only a busy signal.

2.11 Each control station may have an alternate control line to the central office as a back-up in case the regular line should fail.

2.12 A monitoring line is provided to each control station so that alerting (and checking) signals and announcements may be monitored.

2.13 Additional features:

- Alerted stations' telephone numbers are made busy during time line is transferred to alerting equipment.
- The initial alert announcement is recorded at the same time it is being transmitted live.
- Regular and alternate control lines are continuously monitored (for continuity) by central office equipment.
- The station equipment holds a termination across idle control lines for the continuity check.
- Failure of a control line flashes the CHECK lamp at control station and initiates central office alarm.
- In case of a commercial power failure at customers' location, alert can be sent, but lamps and recording feature will be inoperative.

2.14 Digit codes are assigned locally as required. Generally, 0 terminates an alert and 2 is used for a system check.

3. STATION APPARATUS — CONTROL STATIONS

3.01 Line and station equipment arrangements will generally consist of one of the following:

(1) One control line terminated in a modified 500DR telephone set:

- Announcements repeated orally.
- Monitoring accomplished over a regular telephone located near control station.

(2) One control line and a monitoring line, a modified 565GBR key telephone set, and one of the following arrangements:

- (a) 53A control unit and 2AB telephone answering set.
- (b) 53A control unit and KS-16765, List 1 announcement set.
- (c) 53B control unit and KS-16765, List 1 announcement set.

Note: The 53B control unit is not compatible with the 2AB telephone answering set.

(3) Two control lines (regular and alternate), a monitoring line, a modified 565GBR telephone set, and one of the combinations under (2) for a typical system. (See Fig. 1.)

3.02 Modifications of the telephone sets are shown in the connections section of this practice. Functions of the keys and lamps in the 565GBR telephone set are described in the installation section of this practice.

3.03 Information on the 2AB telephone answering set and the KS-16765, List 1 announcement set is covered in separate sections.

3.04 Spare leads from normally open and normally closed contacts of the *PF* (power failure) relay are terminated on *TB-1* of the 53-type control units. Use per local instructions.

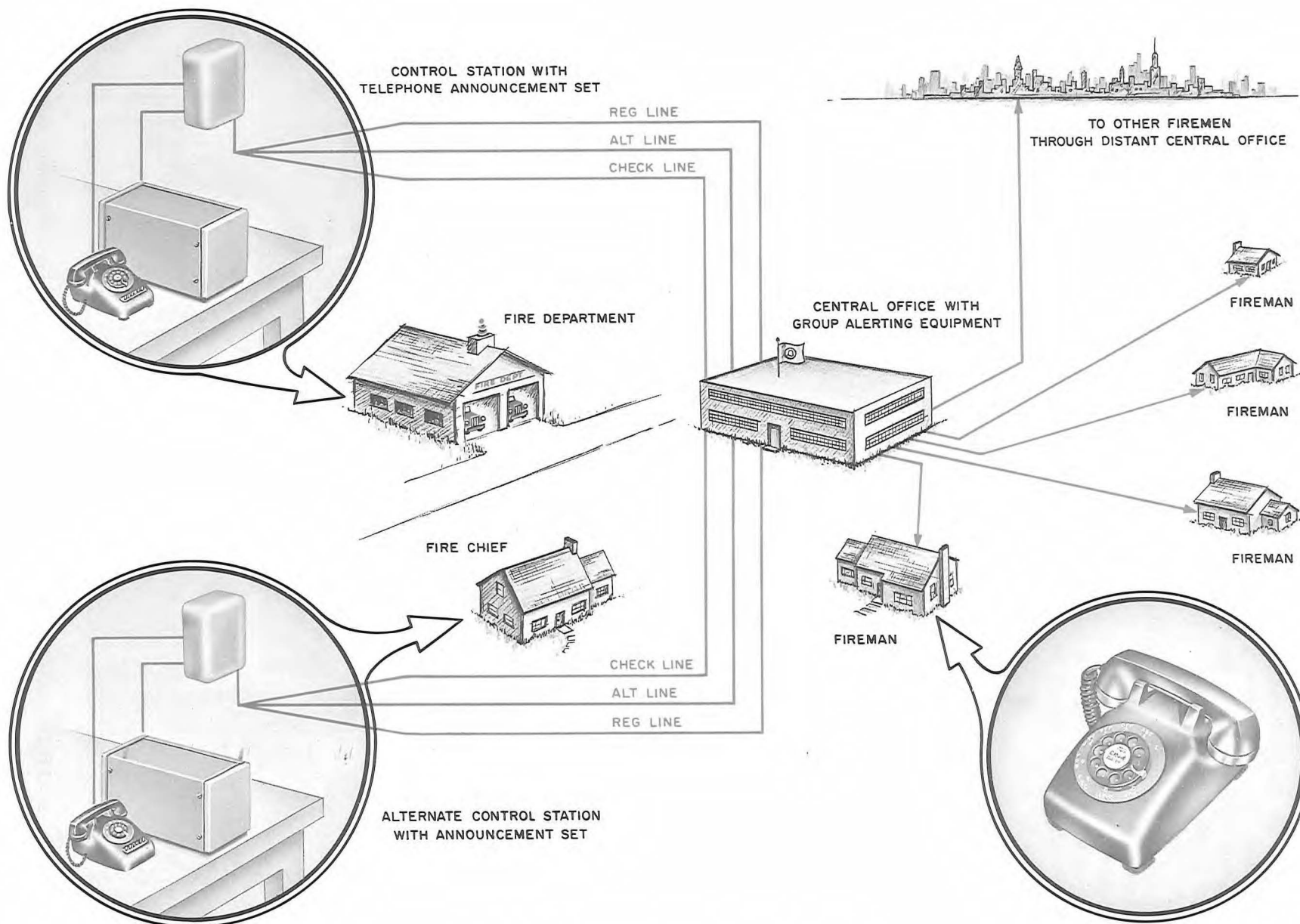


Fig. 1 – Typical Group Alerting System
TCI Library: www.telephonecollectors.info

3.05 A 53-type control unit measures 7-9/16 by 11-9/16 by 5-15/16 inches. The 53A and 53B are similar in appearance. The 53B control unit has two additional relays, the *PE1* and *PE2*. (See Fig. 2 and 3.)

3.06 When using the 53A control unit, it is necessary to allow the previously recorded announcement to be erased before recording a new announcement. The 53B control unit allows an announcement to be erased at the end of an

alert by momentarily operating the exclusion key of the 6-button set.

4. OPERATING INSTRUCTIONS

4.01 It is suggested that each control station be furnished with printed instructions stating detailed procedures for usage and digits to dial for groups or actions desired. Fig. 4 shows a sample instruction card.

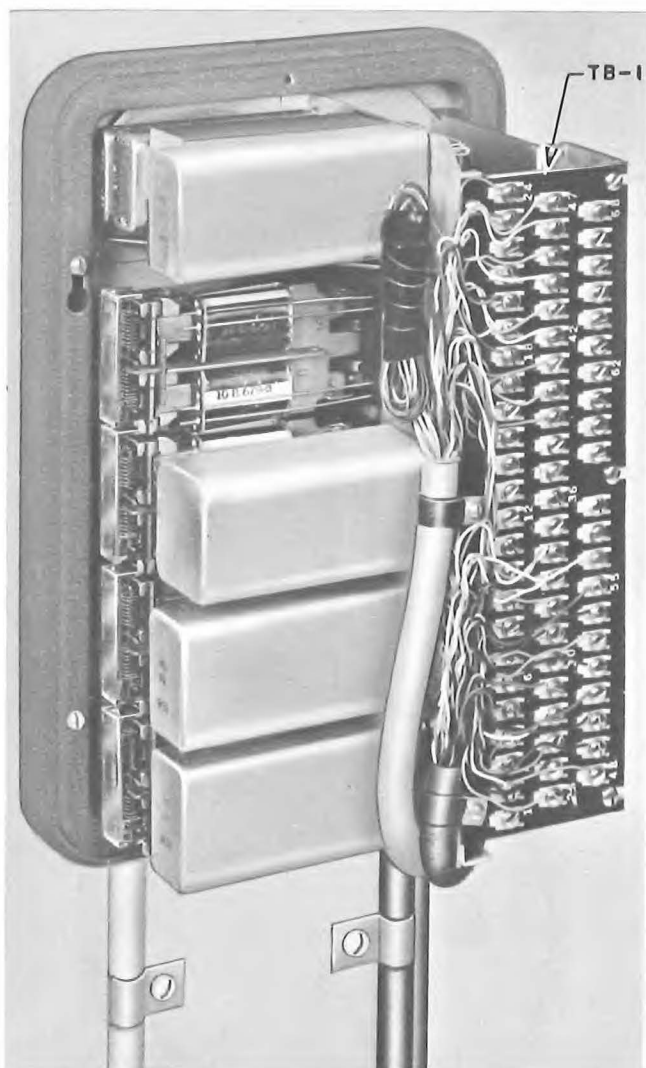


Fig. 2 — 53A Control Unit

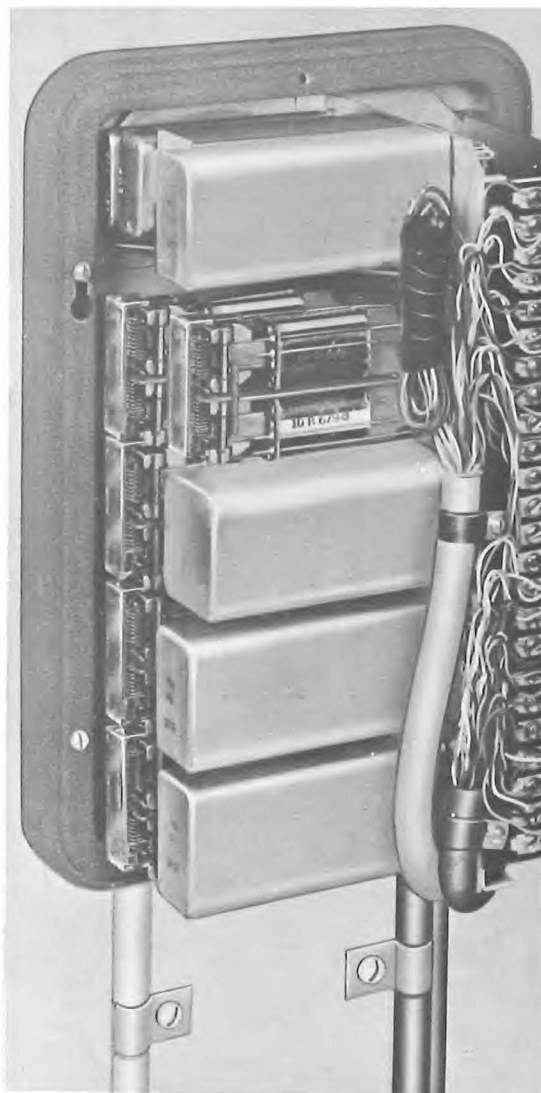


Fig. 3 — 53B Control Unit

SENDING ALERT

1. Press DIAL button (REGULAR OR ALTERNATE).
2. Lift telephone handset. DIAL button should light.
3. Dial digit or digits necessary to get desired group or groups. Flashing CHECK button shows alarm going out.

You can now make the alarm announcement. For automatic repetition of announcement, proceed as follows:

AUTOMATIC ANNOUNCING

4. Press and hold RECORD button down.
5. When RECORD button lights, dictate announcement. (Continue to hold RECORD button down.)
6. Release RECORD button and press AUTO ANN button. AUTO ANN button should light.

CHECKING ANNOUNCEMENT

7. Press CHECK button and listen to announcement.

ENDING ALARM

8. Alarm will end automatically after preset interval,
but
you may end it sooner by pressing DIAL button and dialing ZERO,
or
you may extend it by pressing DIAL button and again dialing assigned codes. Make sure that AUTO ANN button on telephone is then pressed. (This keeps announcement on line.)

PRE-ERASING RECORDED ANNOUNCEMENT

- 9.* To erase message, momentarily operate the exclusion key before replacing handset. (This erases message just sent and leaves recorder ready to record next alert message.)

*53B control units only.

CHECKING SYSTEM

Proceed as in Steps 1 through 8 *except* in Step 3. Dial *only* the digit assigned to check system.



Fig. 4 — Sample Operating Instructions, Group Alerting System