

CIVIL DEFENSE WARNING SYSTEM (CDW) STATION EQUIPMENT-IDENTIFICATION

1. GENERAL

1.01 The Bell and Lights is a Civil Defense Warning (CDW) System which is used to rapidly disseminate attack warning and peace-time emergency signals. The signals are transmitted by dialing on private line signaling networks, and are indicated by bells and lights at the warning stations or by the operation of sirens.

1.02 This section is reissued to add information on instructions based upon the March 1, 1967 change in the meaning of nationwide civil defense warning signals. Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 In large communities where 8-line or 50- to 200-line capacity units are employed at the central office, superimposed coded ringing is transmitted to the line on a 4-party full selective basis. This transmission activates both the station bell and the cold cathode tubes throughout a given warning period. The station bell rings and an associated lamp is lighted according to a distinctive code for each signal.

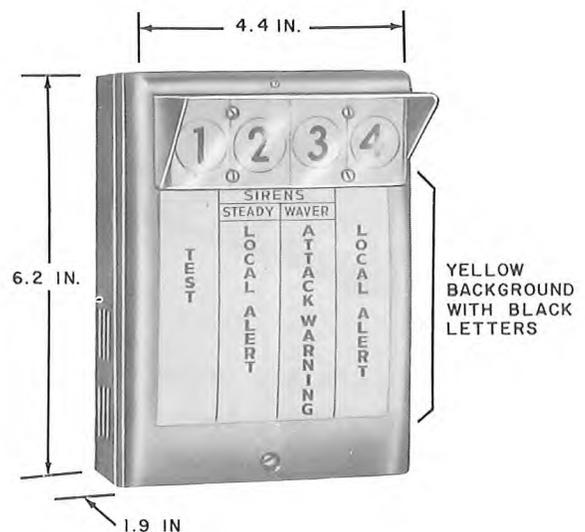
1.04 In small communities where warning stations are connected to single line or 5-line capacity units at the central office, the audible-only signal should not be used since only steady (noncoded) ringing is supplied. Steady ringing in such cases would convey no useful information.

1.05 At certain locations, public audible signals (sirens) are installed by the customer and are controlled at the central office by a public signal control unit.

1.06 Vital stations may be associated with central office equipment for automatic self-test of individual lines.

2. ORDERING GUIDE

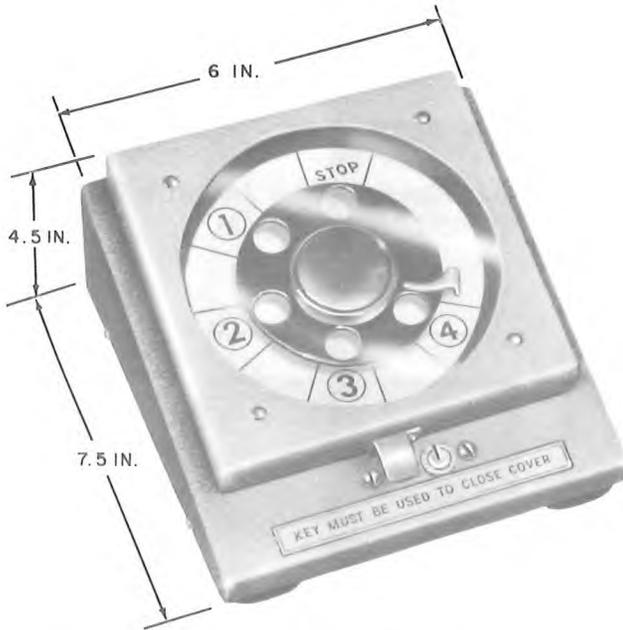
Indicator, Signal, Station J-99237D, List 1 Set per ED-69231-01 (see Fig. 1)



- **INSTALLED AT:**
CONTROL POINTS
RECEIVING STATIONS
- **PROVIDES:**
CODED VISUAL SIGNALS
CODED OR NONCODED AUDIBLE SIGNALS
- **MODIFIED 53IA SUBSCRIBER SET EQUIPPED WITH 4 539A COLD CATHODE TUBES AND BIAL RINGER EQUIPPED WITH 2 4IB GONGS AND 10IA GONG ATTACHMENTS**
- **FIG. 3 IS SUGGESTED RECEIVING STATION INSTRUCTION CARD**
- **LOCAL ALERT (2) FOR GENERAL PUBLIC ALSO**
- **LOCAL ALERT (4) LIMITED TO BELL AND LIGHTS SUBSCRIBERS (OPTIONAL)**

Fig. 1—CDW Receiving Station Indicator Showing Suggested Decal (J99237D, List 1)

ED-69245-01, Group 1, Station Dial Assembly (desk mounted) (see Fig. 2)



- INSTALLED AT CONTROL POINTS
- DIAL COVER DESIGNED TO BE FORCED OPEN
- FIG. 4 IS SUGGESTED INSTRUCTIONS FOR POSTING AT DIAL CONTROL POINTS
- FIG. 5 IS SUGGESTED FORMAT FOR SENDING STATION (TESTS)
- 7F-3 DIAL
- GRAY-GREEN WRINKLE-FINISH METAL HOUSING

Fig. 2—CDW Dial with Cover Closed (ED-69245-01, Group 1)

ED-69245-01, Group 1 and 2, Station Dial Assembly (wall mounted)

(a) **Replaceable Components**

- Tube, Electron, 359A (for station signal indicator)
- Ringer, B1AL (for station signal indicator, internal)
- P-37A556 Shield (for station signal indicator).

(b) **Replaceable Optional Components**

- Ringer, L1A-49
- Set, Subscriber, 687A-49
- Key, 6017C
- Relay, Power, KS-16626, List 13 (for siren locations)
- Decals and Instruction Cards (Figures 1, 3, 4 and 5; printed locally).

3. **DESIGN FEATURES**

- (a) Reception of selective visual and coded audible signals at vital warning stations in Civil Defense Warning systems.
- (b) Reception of coded audible signals only.
- (c) Silencing of audible signals under control of a nonlocking ringer turnoff key.
- (d) Reception of visual and audible signals on either 2- or 4-wire lines.
- (e) Connection of one signal indicator extension station, or connection of one or two extension ringers.

4. **OPERATING FEATURES**

4.01 Central office equipment activates both the station bell and the cold cathode tube throughout a warning period. The bell rings and the associated lamp is lighted according to a distinctive code for each signal.

- (a) ① — TEST: Two short rings (1/2 second each); pause (2-1/2 seconds); repeat.
- (b) ② — LOCAL ALERT: Three short rings (1/2 second each); pause (1-1/2 seconds); repeat.
- (c) ③ — ATTACK WARNING: Continuous short rings (1/2 second each).
- (d) ④ — LOCAL ALERT: Steady ring (16 seconds).

BELL AND LIGHTS WARNING SYSTEM

RECEIVING STATION INFORMATION

SIGNAL NUMBERS

	1	2	3	4
DESIGNATIONS	Test	Local Alert	Attack Warning	Local Alert
CODES—BELL RINGS AND LAMP LIGHTS	Two Short Signals—Repeated	Three Short Signals—Repeated	Continuous Short Signals	Alternating 16-Second Signal and 16-Second Pause

ACTUAL WARNING SIGNALS

	1 Minute	* ___ Minutes	* ___ Minutes	3 Minutes
DURATION OF SIGNALS	NONE	STEADY BLAST	WAVERING TONE	NONE
PUBLIC SIREN OPERATION				
MEANING OF SIGNALS	Test of Capability of Extending Warnings	Imminent Local Emergency	Actual Attack Has Been Detected	Imminent Local Emergency
ACTION	Extend Test As Planned	Tune Radio or TV to Local Station	Take Protective Action Immediately	Proceed According to Local Instructions

TESTS

DAILY TEST: _____ <small>time</small> EXCEPT SAT. & SUN.	About 10 Seconds	NOT OPERATED	About 16 Seconds
MONTHLY TEST: _____ <small>day time</small>	Not Operated	1 Minute ← Interval → 1 Min. Between	Not Operated
SPECIAL TEST OR EXERCISE	1 Minute	NOT OPERATED	

*Either 3 or 5 minutes as appropriate.

This is Receiving Station No. _____ Report trouble or failure to receive scheduled test to Southern Bell Telephone and Telegraph Co. Telephone No. _____

BLACK LETTERING

RED LETTERING

BLACK LETTERING

SUBSTITUTE NAME OF APPROPRIATE COMPANY

10-7/8 IN.

8-1/2 IN.

Fig. 3—Suggested Format for Receiving Stations Instruction Card

RED LETTERING

RED LETTERING

RED LETTERING

SUBSTITUTE NAME OF APPROPRIATE COMPANY

**BELL AND LIGHTS WARNING SYSTEM
OPERATING INSTRUCTIONS
TO SEND ACTUAL WARNING**

INFORMATION

Warning will be received from: _____

Message will be as follows:
 "This is an ATTACK WARNING; repeat, this is an ATTACK WARNING."
 (Any other information in message should be noted.)

INSTRUCTIONS

When warning is received, immediately dial signal on Bell and Lights control instrument as follows:

DIAL "3-3", WAIT* ___ minutes, then dial "STOP"
 (Public sirens will sound)

Immediately after dialing "3-3", notify local civil defense.
 (Also notify civil defense of any other messages received.)

NOTE

EXCEPT FOR DAILY AND MONTHLY TESTS, NO OTHER SIGNAL OTHER THAN ACTUAL
 WARNING WILL BE SENT WITHOUT AUTHORIZATION FROM CIVIL DEFENSE.

Signal 2, if ordered, will be dialed "2-2", wait * ___ minutes, dial "STOP".
 Signal 4, if ordered, will be dialed "4-4", wait 3 minutes, dial "STOP".

Watch monitor instrument to verify signal dialed. If improper signal appears, dialing
 error has occurred; if no signal appears, call the Telephone Company for assistance.

IN CASE OF DIALING ERROR see instructions for DIALING ERROR on Test Procedures card.

Do not force or retard dial. Use key to open or close cover, but cover may be forced open in emergency.

This is control Station No. _____ Report trouble to Southern Bell Telephone and Telegraph Company _____
 (Telephone Number)

*3 or 5 to be posted in this space to conform with local regulations.

8-1/2 IN.

10-7/8 IN.

Fig. 4—Suggested Instruction Card to be Posted at Dial Control Points

BELL AND LIGHTS WARNING SYSTEM TEST PROCEDURES

DAILY TEST

BELL AND LIGHTS STATIONS ONLY

SEND THIS TEST AT _____^{time} EVERY DAY, EXCEPT SATURDAY AND SUNDAY

SINCE SIRENS SHOULD NOT BE SOUNDED, NEVER DIAL "2-2" or "3-3" ON THIS TEST AND BE SURE TO DIAL IN THE FOLLOWING ORDER:

1. DIAL "1-1", after 10 seconds dial "STOP" once.
2. DIAL "4-4", after 30 seconds dial "STOP" once.

MONTHLY TEST

SIRENS AND BELL AND LIGHTS STATIONS

SEND THIS TEST ON THE _____^{day} _____^{time} — DIAL IN THE FOLLOWING ORDER:

1. DIAL "2-2", after one minute dial "STOP" once.
2. Wait one minute.
3. DIAL "3-3", after one minute dial "STOP" once.

SPECIAL TEST OR EXERCISE

THIS SIGNAL WILL BE SENT ONLY UPON ORDERS OF THE LOCAL CIVIL DEFENSE DIRECTOR

1. DIAL "1-1".
2. Wait one minute, then dial "STOP" once.

IN CASE OF DIALING ERROR DURING TEST

1. DIAL "STOP" once, then resume test procedure.
2. If error has caused sirens to operate for 30 seconds or more, notify broadcast stations and request public announcement of erroneous warning.

BROADCAST STATIONS _____

TELEPHONE NUMBERS _____

8-1/2 IN.

10-7/8 IN.

Fig. 5—Suggested Format for Sending Stations (Tests)

SECTION 480-210-100

4.02 All signals must be dialed twice to operate associated central office equipment. STOP requires only one dialing. In the event of incorrect dialing, dial STOP to release the central office equipment, then redial.

4.03 Each dialed signal will last for approximately 3 minutes, unless a different signal is dialed before the 3-minute period expires.

5. ASSOCIATED APPARATUS

5.01 Associated apparatus is shown in Figures 6, 7, 8, and 9.



- USE FOR:
AUDIBLE-ONLY SIGNALS AT WARNING STATIONS
EXTERNAL RINGER
EXTENSION RINGER(S)

Fig. 6—L1A Ringer



- USE FOR:
AUDIBLE-ONLY SIGNALS AT WARNING STATIONS
EXTERNAL RINGER
EXTENSION RINGER(S)

Fig. 7—687A Subscriber Set

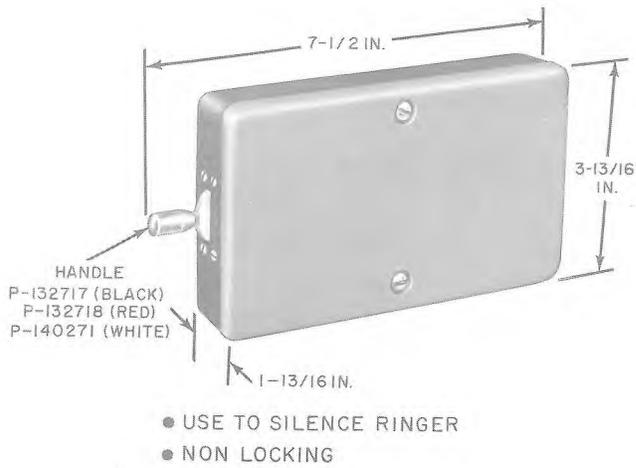


Fig. 8—6017C Key



- USE TO APPLY POWER TO PUBLIC SIREN WITH 90 VOLTS 20 HZ RINGING CURRENT.
- CONTAINS 526A CAPACITOR FOR HIGH VOLTAGE AND TEMPERATURE TO PREVENT FALSE OPERATION.

Fig. 9—KS-16626, List 13 Power Relay