FEATURE DOCUMENT
EMERGENCY LINE SERVICES
NO. 2 ELECTRONIC SWITCHING SYSTEM

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FEATURE DEFINITION AND DESCRIPTION

1. DEFINITION/INTRODUCTION

1.01 All of the features described in this feature document are manual hardware features and no program is involved. The following is a list of the features described in this document and the SD numbers of the hardware required to implement the features.

(a) Group Alerting Service

SD-95883: Control Circuit Group Alerting System

SD-95884: Auxiliary or Monitor and Test Line Circuit Alerting System

(b) Emergency Manual Line Service

SD-1A156: Emergency Manual Line Circuit

(c) Public Emergency Reporting Service

SD-26164: Outgoing Auxiliary Line Circuit for Public Emergency Reporting Service

(d) Emergency Line Service

SD-26128: Emergency Line Circuit to Distant or DSA Switchboard E&M Lead Supervision

Group Alerting Service

1.02 The group alerting circuit provides means, independent of the switching network, to alert a group or several groups of subscribers for the purpose of disseminating an alert message. The group alerting circuit may be activated from up to three remote control points.

Emergency Manual Line Service

1.03 The emergency manual line service feature provides temporary manual service to selected critical customers when a service affecting equipment failure exists in a No. 2 Electronic Switching System (ESS) office. When this feature is manually activated by the telephone company, critical lines are transferred from their switched appearances to distant switchboards for manual service.

Public Emergency Reporting Service

1.04 The public emergency reporting service circuit is used to terminate up to ten simultaneous calls to a public emergency line (fire department, etc.) and ring the station or stations on this line. The answering station, after determining the emergency, operates a key which causes the circuit to sound a siren.

Emergency Line Service

1.05 The emergency line circuit is used to allow operators to complete direct emergency calls (independent of the switching machine) to police, fire, or other emergency lines. It also allows operators to bridge across existing calls to these lines. Emergency line service is used when a No. 2 ESS customer or a customer in a distant office requests operator assistance to complete a call to an emergency line.

1.06 The emergency line services described in this feature document are hardware features and are independent of any program action. They can be implemented in any No. 2 ESS office with any generic program.

2. USER PERSPECTIVE

CUSTOMER

Group Alerting Service

2.01 The group alerting service is used for quick and simultaneous alerting of a group, or several groups, of subscribers for the purpose of dissiminating an oral or recorded alert message. The service is used by volunteer fire departments, civil defense groups, etc. During nonalert periods, subscriber telephones are connected to normal service lines at the No. 2 ESS office.

2.02 The group alerting circuit can be activated from any of the control stations. A maximum of three control stations can be provided. A control station may consist of only a modified telephone set connected to the control circuits at the No. 2 ESS office. No other service is connected to this set. Announcements are repeated orally during the alert period.

2.03 Using an expanded alert system, an oral announcement is made initially from a

telephone at the control station and then the announcement is automatically repeated from an announcement set during the alert period.

Emergency Manual Line Service

2.04 The emergency manual line service provides for manual completion of both originating and terminating calls for selected critical customers when the switching machine is inoperative. During normal office conditions, both originating and terminating services for these lines are provided in the normal manner by the No. 2 ESS. When emergency manual line service is in effect, both originating and terminating calls for lines arranged with this service are routed to a telephone company switchboard operator for completion.

Public Emergency Reporting Service

2.05 The public emergency reporting service is used to complete calls to public emergency lines such as fire departments, civil defense representatives, etc. Ten calls can be terminated to the public emergency line at the same time. This permits a community representative to discuss a public emergency with ten calling parties at the same time. The emergency station also provides means for the community representative to activate a public alarm.

Emergency Line Service

2.06 The emergency line service permits a No. 2 ESS subscriber, or a subscriber in a distant central office to complete an operator assisted emergency call to a No. 2 ESS emergency line even if the emergency line is busy. The emergency line is a fire, police, hospital, etc., line.

TELEPHONE COMPANY

Group Alerting Service

2.07 The group alerting service is a hardware feature that is completely independent of the No. 2 ESS switching system.

Emergency Manual Line Service

2.08 Emergency manual line service is in effect only when manually originated by the telephone company. Operation of the emergency manual line control (EMLC) key transfers critical lines from their switched appearances to distant switchboards for manual service.

Public Emergency Reporting Service

2.09 The public emergency reporting circuit can have ten line link appearances in a No. 2 ESS office, permitting ten connections to this line at the same time.

Emergency Line Service

2.10 The emergency line circuit allows operators to complete emergency calls (independent of the No. 2 ESS switching machine) to police, fire, or other emergency lines even if the emergency line is busy.

3. SYSTEM PERSPECTIVE

3.01 All of the emergency line services described in this document are hardware features and no program is involved. Refer to Part 10 for hardware ordering information.

Group Alerting Service

3.02 The group alerting service includes facilities, independent of the switching network, for simultaneously signaling a group or several groups of subscribers for the purpose of disseminating an alert message. The subscribers may be local No. 2 ESS subscribers or subscribers of a distant central office.

3.03 The alerting system is provided for use by such groups as volunteer firemen, civil defense groups, or others requiring quick and simultaneous dispatch of oral or recorded messages. Refer to Figures 1 and 2.

3.04 During nonalert periods, subscriber telephones are connected to normal service lines at the No. 2 ESS central office.

3.05 During alert periods, one-way voice transmission is provided from a control station or alternate control station to a selected group of telephone subscribers mutually connected to the group alerting system through one or more central offices.

3.06 A maximum of three control stations can be provided to permit activation of the group alerting circuit from up to three remote

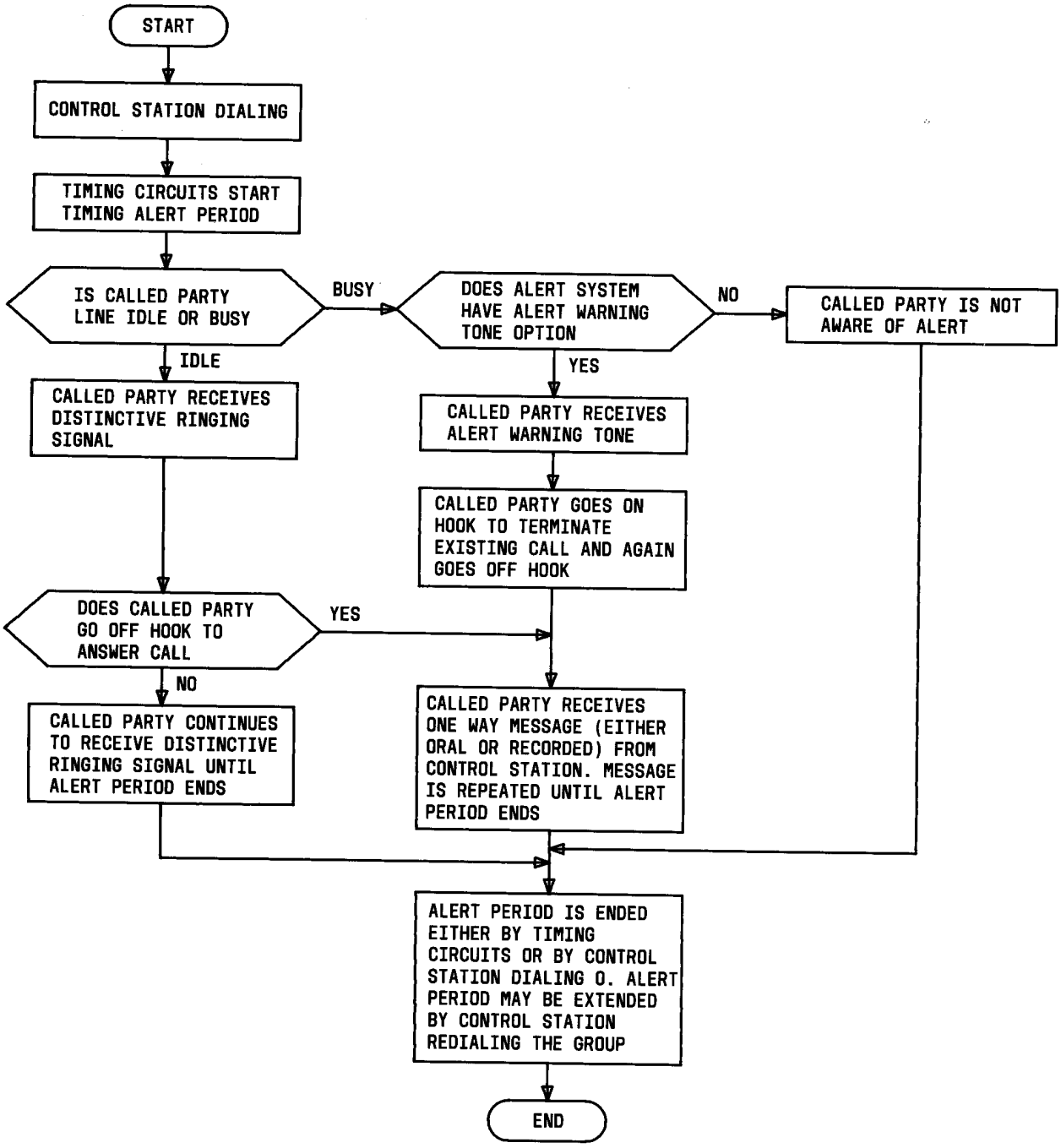

Fig. 1—Group Alerting System—Feature Flow Diagram

control points. An alert may be initiated at a control station by dialing a single digit from the control telephone. Group alerting hardware at the No. 2 ESS central office will select, connect, and ring the proper group of subscribers. Additional groups may be alerted by dialing additional digits corresponding to the selected groups. One digit may be reserved for an all-groups alert.

3.07 Using the basic alert system, oral announcements are made during the alert period from a telephone at the control station.

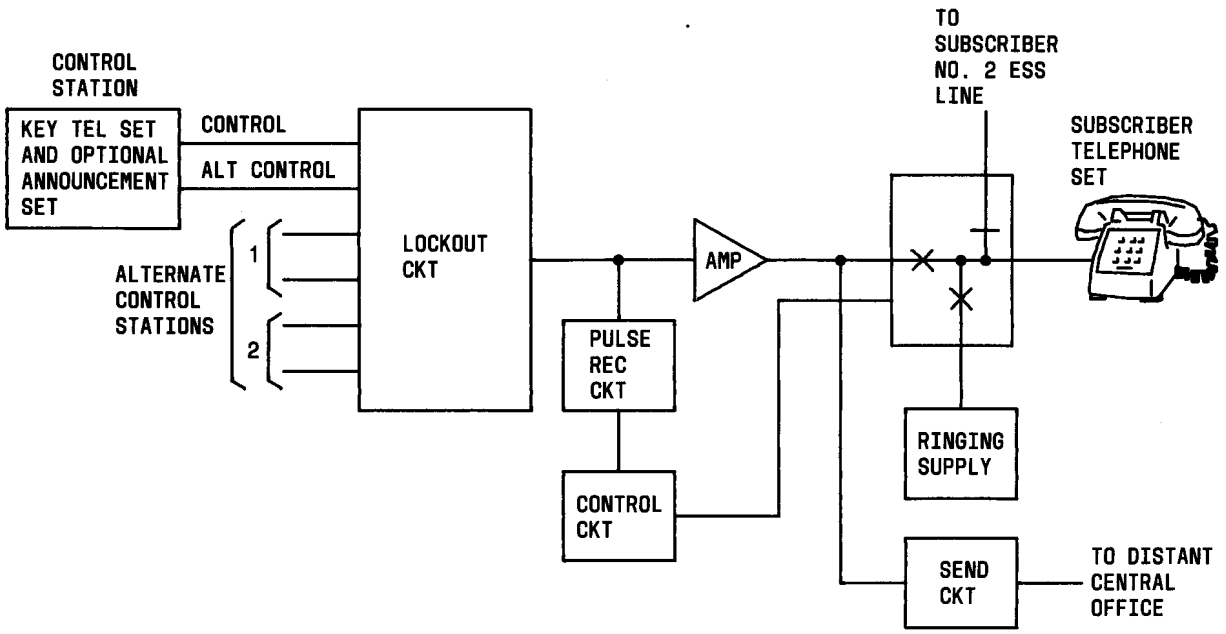

Fig. 2—Group Alerting Service—Block Diagram

3.08 Using an expanded alert system, an oral announcement is made initially from a telephone at the control station and then, by operation of controls at the telephone set, the announcement is automatically repeated from an announcement set during the alert period. An alternate control line may be provided to ensure service if the regular line fails. All the control stations must be served by the same central office. A test and monitor line from the central office to each control station may be provided.

3.09 Subscriber telephones receive a distinctive ringing signal which informs the subscriber that an alert condition exists. An alert warning tone may be provided optionally, which informs the subscriber on a busy line that an alert condition exists and that, by terminating the existing call and again raising the receiver, the subscriber receives the alert message (if done during the alert period).

3.10 Alert announcements and connections are automatically terminated by timing circuits in three, five, or eight minutes, as determined by wiring options, unless otherwise terminated or extended from a control station. An alert may be terminated before being automatically timed out by dialing the digit 0 from a control telephone. An alert may be extended by redialing the previously dialed digit(s) from a control telephone before the alert is automatically timed out.

3.11 When an alert condition is initiated from one control telephone, any additional control telephones are locked out at the lockout circuit and receive a busy tone to indicate the lockout conditions.

Emergency Manual Line Service

3.12 During normal office conditions, both originating and terminating services for lines with the emergency manual line service feature are handled in the normal manner. Emergency manual line service is in effect only when manually originated by the telephone company.

3.13 The emergency manual line service feature is activated by manually operating the emergency manual line control (EMLC) key at the Emergency Action Panel or the System Status Panel. When emergency manual line service is in effect, all calls from a line arranged with the service are routed to a telephone company switchboard operator for completion. When an incoming call is routed through the operator, the operator obtains the necessary information, manually seizes the appropriate

trunk, and completes the call to the desired emergency manual line.

3.14 When the emergency manual line service feature is manually activated by the telephone company, this bypasses the switching network of the No. 2 ESS system and allows lines with emergency manual line service to be routed directly to designated switchboard operators for call completion. Refer to Figures 3 and 4. This feature is not software dependent and allows customers with emergency manual line service to make or receive calls even if the No. 2 ESS system is inoperative. After the emergency, when the No. 2 ESS is restored to normal operation, the telephone company manually deactivates emergency manual line service by releasing the EMLC key.

3.15 Emergency manual line service must not be deactivated until all in-progress calls through the switchboard are finished. If the emergency manual line circuit is deactivated before these in-progress calls finish, the calls are interrupted. During the period of time when the No. 2 ESS is operating and the emergency manual line service is still in effect, the No. 2 ESS may attempt to connect calls to lines or trunks that are actually open circuits, since these lines or trunks do not appear busy to No. 2 ESS.

Public Emergency Reporting Service

3.16 The public emergency reporting feature is used for completing calls in No. 2 ESS to the public emergency line. It also provides means for the community representatives to actuate the public emergency alarm. For example, this feature can be used for fire reporting and sounding of the fire alarm.

3.17 The public emergency reporting circuit can serve up to ten line link appearances, permitting ten connections to this line at the same time.

3.18 A call terminating to the emergency station causes ringing current (interrupted at 60 ipm) to be applied to the emergency station if the emergency station is idle. Refer to Figures 5 and 6. Subsequent connections are then added to the talking circuit as they arrive, but the public emergency reporting hardware prevents ringing current from being applied to the established connection. When the community representative is satisfied with the details of the reported emergency, the public alarm can be sounded by operating the key located at the emergency station. Sounding and automatic timing of the public alarm is all performed via autonomous hardware and not No. 2 ESS software.

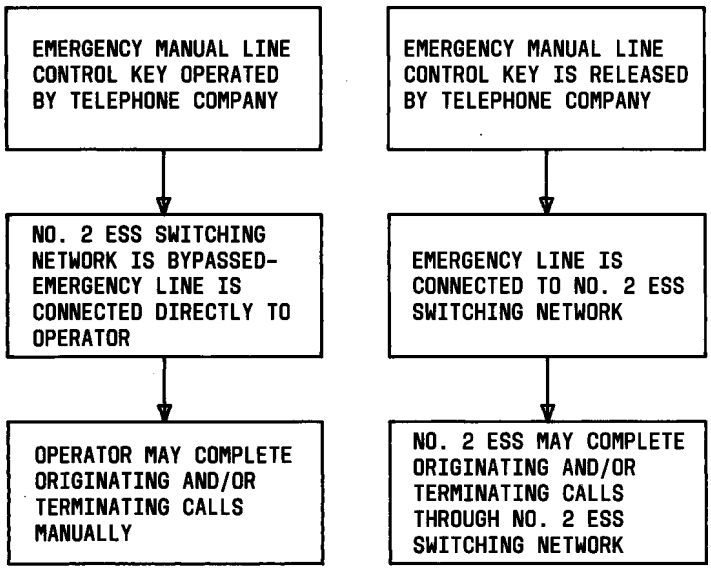

Fig. 3—Emergency Manual Line Service—Feature Flow Diagram

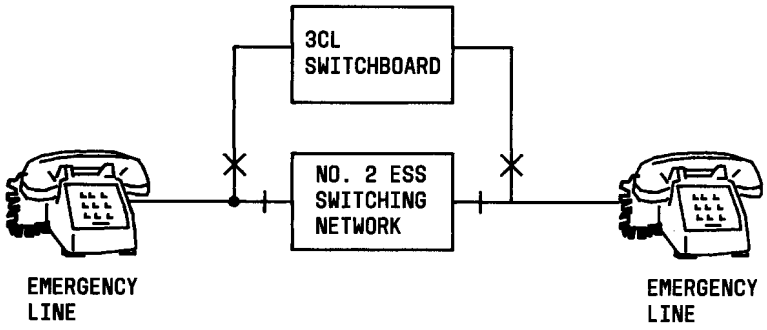

Fig. 4—Emergency Manual Line Service—Block Diagram

3.19 Two methods are available to sound the public alarm from the emergency station. The standard arrangement permits the alarms to sound as long as the key at the emergency station remains operated. An optional arrangement permits the alarms to sound automatically for a preset timed interval after the key at the emergency station has been operated and released. This permits the community representative to actuate the alarms and then leave the premises.

Emergency Line Service

3.20 The emergency line service is used when a No. 2 ESS customer, or a customer from another office requests operator assistance to complete an emergency call to a No. 2 ESS emergency line. The emergency line is a fire, police, hospital, etc., line. The emergency line service is normally used by a traffic service position system (TSPS) operator, but it can be used by other types of operators if the operator's switchboard is connected to the emergency line service network.

3.21 On a request to complete an emergency call, when the operator plugs in to the trunk to the emergency line circuit, this closes the interoffice loop, operating relay SL. Refer to Figures 7 and 8. The operation of relay SL causes the transformer to be bridged across the tip and ring leads of the emergency line.

A. Idle Line

3.22 If the emergency called line is idle, it is automatically disconnected from the No. 2 ESS switching equipment (relay CO operates) and a busy condition is maintained on the line. The operator determines by monitoring that the emergency line is idle. The distant operator operates the ringing key causing the ringing supply to be connected to the emergency called line for signaling (relay R operates). When the emergency called line goes off-hook to answer the call, reverse battery is given to the distant office (relay RV operates) to give dark lamp supervision as an indication to the operator to cease ringing.

B. Busy Line

3.23 If the emergency called line is busy when the distant operator plugs in, the distant operator can monitor the existing conversation (relay SL is operated). The emergency line circuit assures that inadvertent operation of the ringing key by the distant operator at this time does not supply ringing current or do any harm (relay R is not operated). If conditions warrant, the operator operates the cutoff key. This causes the existing call to be disconnected (relay CO operates) and applies a busy condition to the remote master scanner applique circuit in the No. 2 ESS office. Reverse battery is given to the distant operator (relay RV operates), the operator releases the cutoff key, and the call connections are complete. The calling party is now connected to the emergency line.

C. Disconnect

3.24 At the end of the call, the operator pulls out the cord which restores the emergency called line to normal (relays SL, CO, and R release) and removes the busy condition from the No. 2 ESS remote master scanner applique.

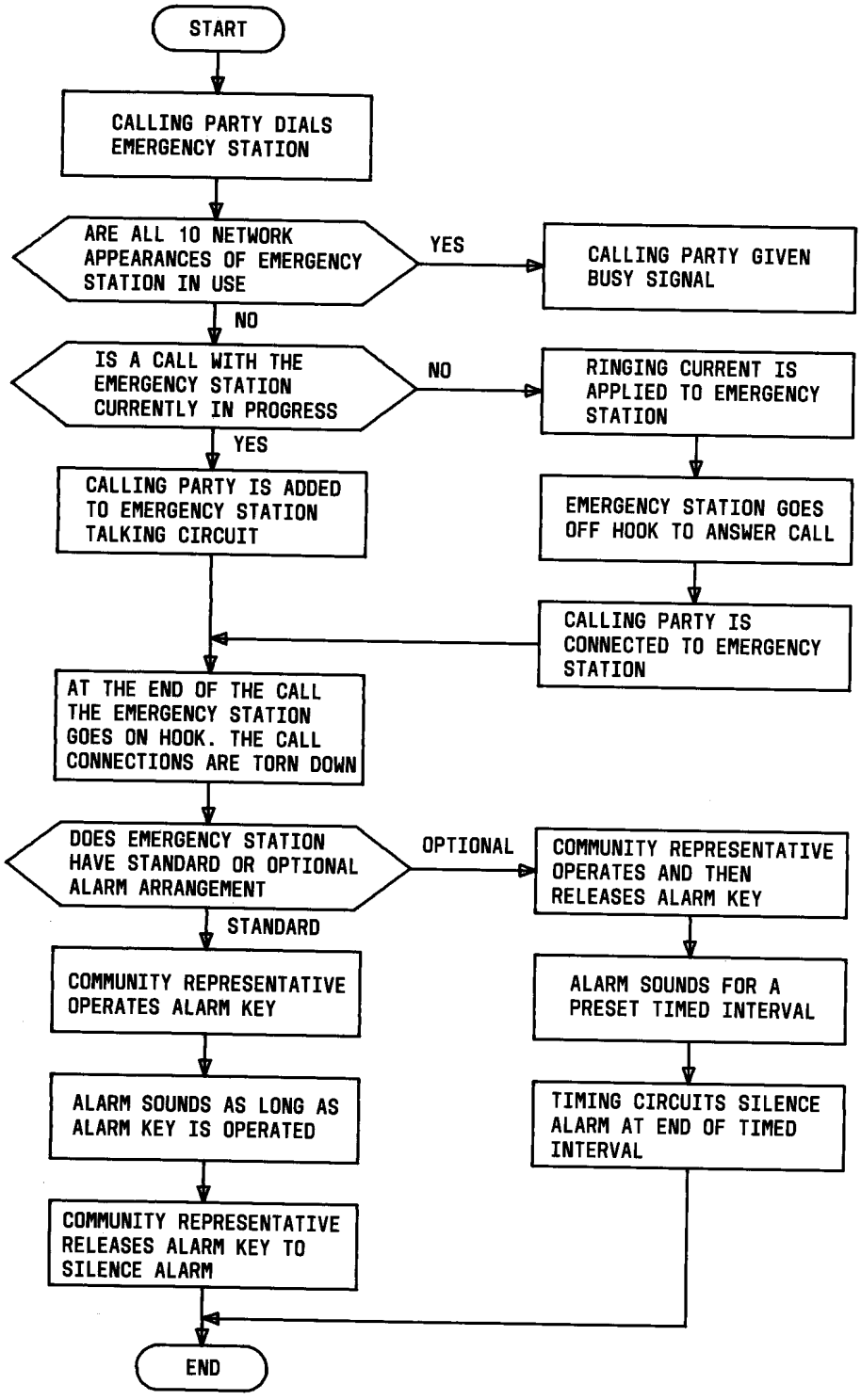

Fig. 5—Public Emergency Reporting Service—Feature Flow Diagram

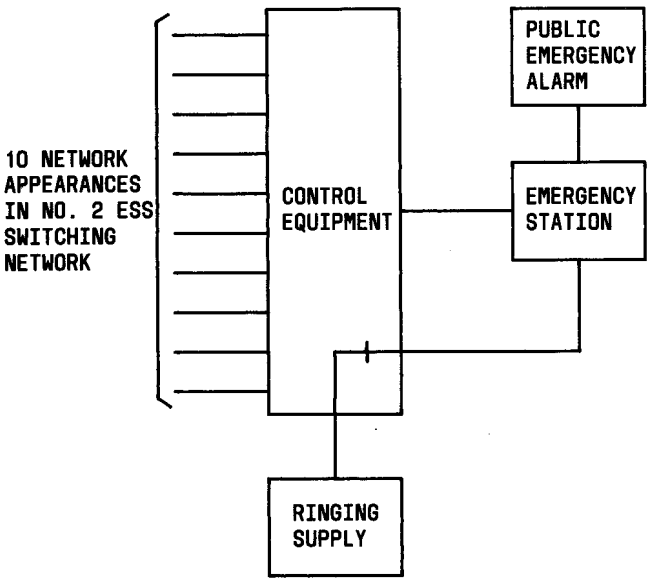

Fig. 6—Public Emergency Reporting Switch—Block Diagram

FEATURES ATTRIBUTES

4. APPLICABILITY

Group Alerting Service

4.01 The group alerting service is typically used by volunteer fire departments to alert volunteer firemen over regular message telephone lines.

Emergency Manual Line Service

4.02 The emergency manual line service is used to provide manual service to certain customers when a service affecting equipment failure exists in No. 2 ESS.

Public Emergency Reporting Service

4.03 The public emergency reporting service is typically used for fire reporting and sounding of the fire alarm.

Emergency Line Service

4.04 The emergency line service allows operators to complete direct emergency calls (independent of the switching machine) to police, fire, or other emergency lines. It also allows operators to bridge across existing calls to these lines.

5. LIMITATIONS AND RESTRICTIONS

Group Alerting Service

5.01 Each group alerting circuit can alert a maximum of 25 customers.

Emergency Manual Line Service

5.02 A No. 2 ESS office can have a maximum of 120 emergency manual line circuits.

5.03 The emergency manual line service is completely manual. The service must be manually activated or deactivated by the telephone company and, while in use, all calls are routed to a telephone company switchboard operator for completion.

Public Emergency Reporting Service

5.04 The public emergency reporting circuit can serve up to ten network appearances, permitting ten connections to this line at the same time.

Emergency Line Service

5.05 No warning devices are provided to warn the operator when the emergency line circuit is out of service. The operator at the distant end of the line should be notified before taking the emergency line circuit out of service for maintenance.

6. COMPATIBILITY AND INTERACTIONS

6.01 Lines serving DATA-PHONE® subscribers should be excluded from the group alerting system.

7. COST FACTORS

7.01 Not applicable.

8. AVAILABILITY

8.01 The features described in this feature document are available for any No. 2 ESS office with any generic program.

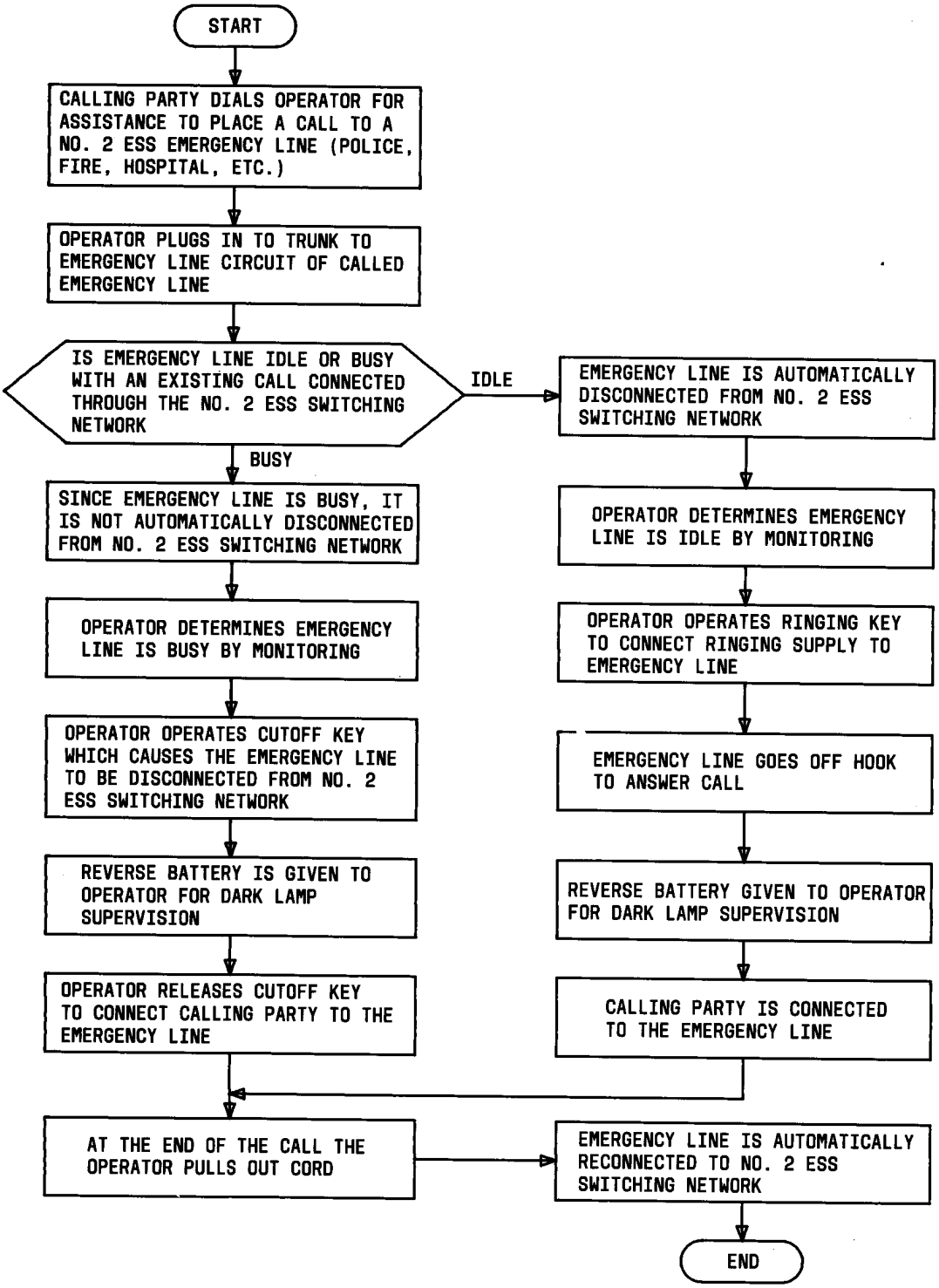

Fig. 7—Emergency Line Service—Feature Flow Diagram

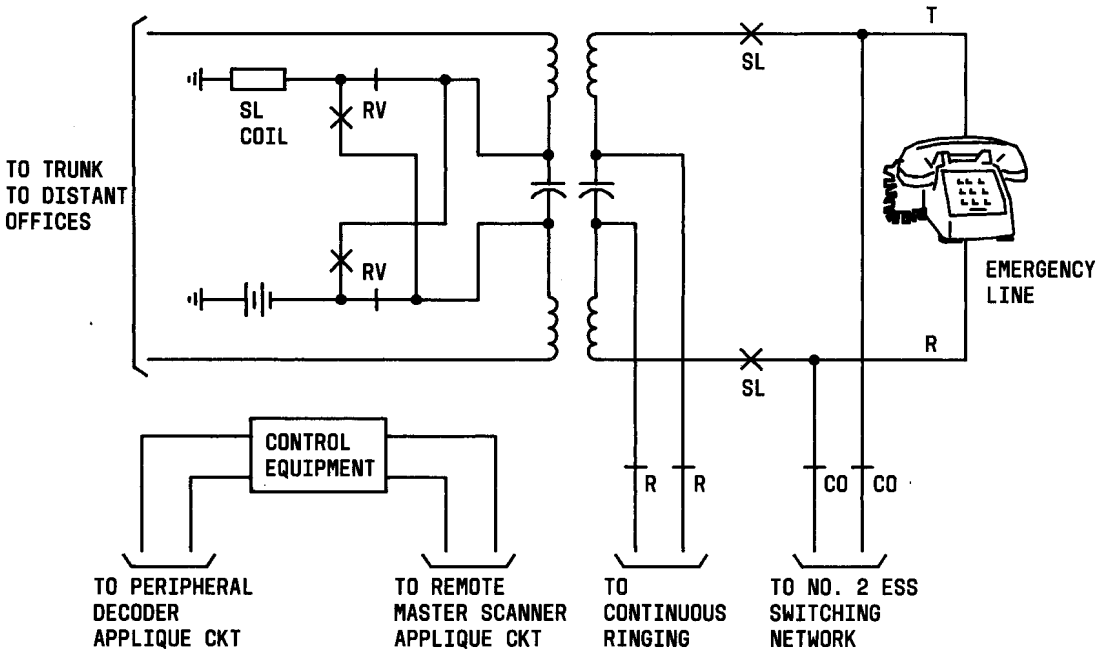

Fig. 8—Emergency Line Service—Block Diagram

CONSIDERATIONS FOR INCORPORATION OF FEATURE INTO SYSTEM

9. PLANNING

9.01 Not applicable.

10. HARDWARE

10.01 Table A shows hardware ordering information for the emergency line service features described in this document.

TABLE A

ORDERING INFORMATION FOR EMERGENCY LINE SERVICES HARDWARE

DESCRIPTION	ORDER CODE	SD NUMBER	J-SPEC NUMBER	NO. OF 1-INCH MTG PLT SPACES PER UNIT
GROUP ALERTING SERVICE — CONTROL CIRCUIT	NA	95883	J95421	1
GROUP ALERTING SERVICE — AUX OR MONITOR AND TEST LINE CKT	NA	95884	J95421	1
EMERGENCY MANUAL LINE CIRCUIT (E&M SUPERVISION)	76131 76132 76133 76134	1A156	J1A048AK1	3
EMERGENCY MANUAL LINE CIRCUIT (REVERSE BATTERY SUPERVISION)	76135 76136	1A156	J1A048AK1	3
PUBLIC EMERGENCY REPORTING SERVICE — OUTGOING AUX LINE CIRCUIT	NA	26164	J23056	2
PUBLIC EMERGENCY REPORTING SERVICE OR EMERGENCY LINE SERVICE — PERIPHERAL DECODER APPLIQUE CIRCUITS	71300	2H117-01	J2H018FA-1	1
PUBLIC EMERGENCY REPORTING SERVICE OR EMERGENCY LINE SERVICE — REMOTE MASTER SCANNER APPLIQUE CIRCUITS	74300	1A210-01	J1A033	1
EMERGENCY LINE SERVICE — CIRCUIT TO DISTANT OR DSA SWITCHBOARD E&M LEAD SUPERVISION	NA	26128	J23056	2

11. DETERMINATION OF QUANTITIES

11.01 Refer to Traffic Facilities Practices, Division D, Section 12-d.

12. ASSIGNMENTS AND RECORDS

12.01 Not applicable.

13. NEW INSTALLATION AND GROWTH

13.01 Not applicable.

14. TESTING

14.01 Test calls should be made on lines having these emergency line services in order to verify that the features are working properly.

15. MEASUREMENTS

15.01 Not applicable.

16. CHARGING

16.01 Not applicable.

SUPPLEMENTARY INFORMATION

17. GLOSSARY

17.01 This section defines terms used to describe the emergency line service features.

EMLC—Emergency Manual Line Control

IPM—Interruptions per minute

18. REASONS FOR REISSUE

18.01 This is the initial issue of this document.

19. REFERENCES

A. Schematic Drawings and Circuit Descriptions

(1) SD & CD-1A156-01—Emergency Manual Line Circuit

(2) SD & CD-26128-01—Emergency Line Circuit to Distant Toll or DSA Switchboard E&M Leads Supervision

(3) SD & CD-26164-01—Outgoing Auxiliary Line Circuit for Public Emergency Reporting Service

(4) SD & CD-95883-01—Control Circuit Group Alerting System

(5) SD & CD-95884-01—Auxiliary or Monitor and Test Line Circuit Alerting System

(6) SD & CD-96469-01—Emergency Line Circuit for Completion of Call to Police, Fire, and Ambulance Lines

B. Bell System Practices

Section 232-114-501—Emergency Manual Line Circuit Tests

Section 310-530-100—Group Alerting System Description