EROU-C
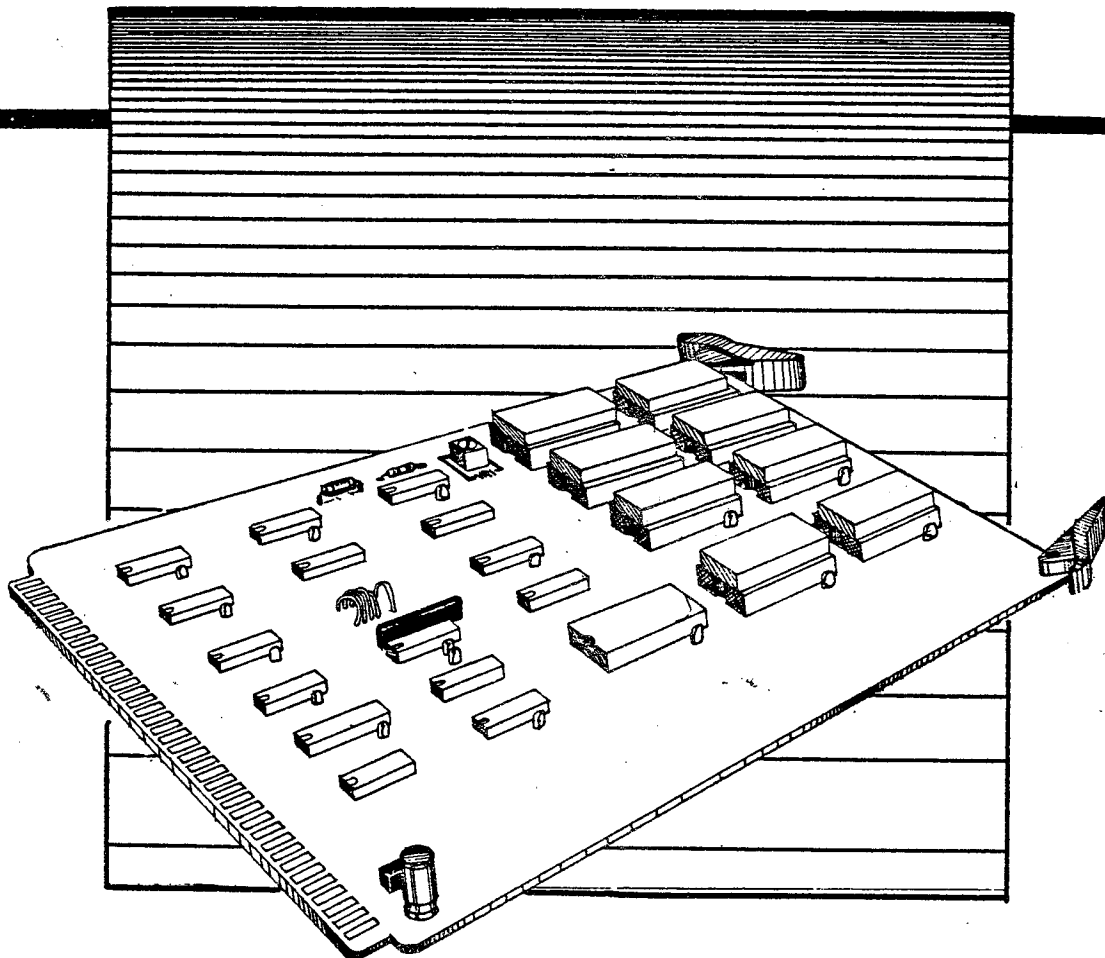# PRINTED CIRCUIT BOARD

INSTALLATION MANUAL

EROU-C PCB
TABLE OF CONTENTS

EROU-C PCB

GENERAL DESCRIPTION

CONTENTS   PAGE

1. INTRODUCTION

1.01 The GENERAL DESCRIPTION section provides a basic introduction to the EROU-C Printed Circuit Board (PCB).

1.02 The reissue of this section contains new information about features provided by the EROU-C PCB since its initial release. This section also represents a reformatting of the material included in the original version of the EROU-C documentation.

RELATED SECTIONS

1.03 Related sections on the EROU-C include:

SECTION 2 --- FEATURES
SECTION 3 --- SYSTEM CONFIGURATION
SECTION 4 --- PROGRAM RECORD FORM
              PREPARATION
SECTION 5 --- INSTALLATION
SECTION 6 --- PROGRAMMING

2. PCB DESCRIPTION

2.01 The EROU-C (Refer to Figure 1-1) is an optional PCB that enhances and increases the features of an EK-820, EK-1236, or EK-2260 key telephone system. The following additional features are available in an EK-820, EK-1236, EK-2260, system equipped with an EROU-C. An asterisks (*) indicates programmable features provided by the EROU-C.

DSS Display, with freeze
Exclusive Hold Transfer
ICM Callback
Improved Diagnostics
Intercom Timeout
PBX Call Ringing
*Day/Night Ring Assignment
*Enhanced OPS Operation
*Executive Call Transfer in DND mode
*I-Hold Reminder
*Non-Excluded Stations
*Non-paging Stations
*Queuing on CO Lines
*Restricted Queue Groups
*Single Button Operation
*Station Class of Service 0 (Zero)
*Toll Restriction Update

EROU-C PCB
FEATURES

CONTENTS   PAGE

1. INTRODUCTION

1.01   The FEATURES section provides a description of the new and enhanced features provided by the EROU-C Printed Circuit Board (PCB).

1.02   This reissue of this section includes new information about features provided by the EROU-C PCB. The information is presented in a new format.

RELATED SECTIONS

1.03   Related sections on the EROU-C include:

SECTION 1 --- GENERAL DESCRIPTION
SECTION 3 --- SYSTEM CONFIGURATION
SECTION 4 --- PROGRAM RECORD FORM
              PREPARATION
SECTION 5 --- INSTALLATION
SECTION 6 --- PROGRAMMING

2. TYPES OF FEATURES

2.01 The EROU-C PCB features are divided into two types:

1) Permanent enhanced/new features.
2) Programmable enhanced/new features.

DEFINITIONS

2.02 Permanent enhanced/new features are inherent to the EROU-C software and cannot be altered by programming.

2.03 Programmable enhanced/new features can be allowed, disallowed, or altered according to codes selected during system programming.

3. PERMANENT ENHANCED / NEW FEATURES

3.01 The EROU-C PCB provides the following features and feature enhancements when installed in an EK-820, EK-1236, EK-2260 key telephone system.

DSS DISPLAY, with freeze

3.02 The DIRECT STATION SELECTION (DSS) DISPLAY, with freeze is an enhanced permanent feature provided by the EROU-C PCB.

Description: The DSS console digital display shows the CO lines extended by the DSS attendant, or returned to the attendant by Exclusive Hold Transfer sequentially. Calls placed on hold by stations (I-hold) or by the other DSS, if equipped, are not displayed. When the attendant seizes a recalling line the display freezes and shows only the seized line number and the number of the station involved. Rotation of the display resumes when the line is released.

Station Equipment: DSS Console.

Operation: Automatic with EROU-C.

EXCLUSIVE HOLD TRANSFER

3.03 EXCLUSIVE HOLD TRANSFER is an enhanced permanent feature provided with the EROU-C.

Description: A line left on Exclusive Hold after a programmed period of time will signal at the station that placed the call on hold. If, at the end of 20 seconds, the call is not answered, it will transfer to the attendant.

Station Equipment: Key Telephones.

Operation: Automatic with EROU-C.

ICM CALLBACK

3.04   CALLBACK   is   a   new   permanent
        feature   provided   by   the   EROU-C
PCB.

Description: When an intercom call is
placed to a busy station, the calling
party, if at a key telephone, can leave a
CALLBACK request.   When the called
station goes on-hook, the system signals
the   party   originating   the   CALLBACK
request with an audible tone. No visual
signal is given.   If the originating
party does not respond to the signal
within 20 seconds, the CALLBACK is
canceled.   When the originating party
lifts the handset, the called station is
resignaled with an intercom ring tone and
a flashing intercom key. To respond, the
called party presses the ICM key and
lifts the handset.   A CALLBACK request
will not be accepted when the called
station is on-hook, in the DND mode, or
if   the   called   station   has   already
accepted a CALLBACK request.   Each
station can accept only one CALLBACK
request at a time.

NOTE: Off-premise stations are not
able to initiate a CALLBACK request.

Station Equipment: Key Telephones.

Operation: (Key Telephone).

    . Called station busy.
    . Press * button.

NOTE: ICM Dial tone heard for about 5
seconds if the request is accepted, no
change in signal is heard when request is
denied.

To cancel a CALLBACK request:

    . Lift handset at originating
      station.
    . Press * button.
    . Dial previously called station.
    . Press * button.
    . Hang up handset.

NOTE: Do not press ICM key.

IMPROVED DIAGNOSTICS

3.05   Improved   diagnostics   is   an
        enhanced   permanent   feature
provided by the EROU-C PCB.

Description With the EROU-C installed,
the LED's on the series 4 and higher
ECPU-B PCBs may be used for additional
diagnostics.   The upper LED (Refer to
figure 2-1) will flash at about 60 IPM
indicating EDTU/ECPU data communications
is functional. The lower LED flashes at
about 300 IPM indicating the ECPU
microprocessor is functional. Note the
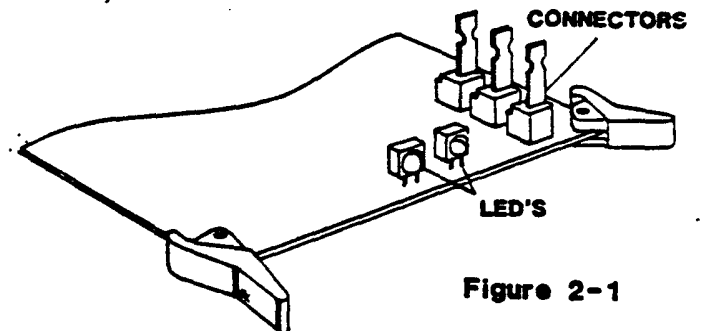upper LED will not flash while the system
is in programming mode.

Figure 2-1

Also, the LED on the ECMU PCB will light
and the ALM key LED on the DSS console
will flash when the battery or fuse on
the BTB-A PCB are defective.

INTERCOM TIMEOUT

3.06 INTERCOM TIMEOUT is a new permanent feature provided by the EROU-C PCB.

Description: The EROU-C provides a timeout (forced release) of stations that seize an intercom link and fail to dial a digit within 5 seconds. This prevents an intercom link from accidentally being tied up (i.e. handset improperly hung-up).

Station Equipment: Key Telephones.

Operation: Automatic with EROU-C.

PBX CALL RINGING

3.07 PBX CALL RINGING is a new permanent feature when the EROU-C PCB is installed.

Description: PBX Call Ringing permits an attendant to release a call and have it ring at the desired station. The signaled station receives CO audible tone and the CO line key for the extended line will flutter. The line is answered at the signaled station in the normal manner. The call is on Exclusive Hold and cannot be answered at another station. If, after 20 seconds, the call is not answered, it is returned to the attendant's station. At this time the call can be picked up at any telephone. The SC key is used for PBX call ringing only. Signal calling is now accomplished from the DSS telephone as with other stations.

Station Equipment: DSS Console and DSS Station.

Operation: (DSS Station).

- Lift handset.
- Press CO line key.
- Press appropriate DSS Console key.
- Press SC key.
- Hang up/Answer another line.

4. PROGRAMMABLE ENHANCED/NEW FEATURE.

4.01 The EROU-C PCB provides the following programmable features and feature enhancements when installed in an EK-820, EK-1236, EK-2260 key telephone systems.

DAY/NIGHT RINGING ASSINGMENT

4.02 DAY/NIGHT RINGING ASSIGNMENT is an enhanced programmable feature provided with the EROU-C PCB.

Description: With the EROU-C installed, a station can be programmed into a Line Ring Group and also into the Night Signaling Group. Thus, a department can have stations ring on some lines during the day but ring on all lines when NIGHT TRANSFER is activated by the attendant.

Station Equipment: All Telephones.

Operation: Automatic with programming.

ENHANCED OPS OPERATION

4.03 OFF-PREMISE STATIONS (OPS) have enhanced feature operation when the EROU-C PCB is installed. To obtain these features the OPS CN 1-4 connectors must be strapped 1-2, and the station should NOT be programmed for DND.

OFF– PREMISE STATION NUMBERING PLAN			
1st Digit	2nd Digit	3rd Digit	Call Destination
1			Not used.
2	X	Y	Intercom calls. XY represents the station number.
3 3 3 3	1 2 3 4	1* 2* 3* 4*	Access to queue group 1. Access to queue group 2. Access to queue group 3. Access to queue group 4. * Dial 3rd digit only if lines are busy and you desire to join the queue.
4			Not used.
5			Not used.
6			Not used.
7			Not used.
8 8 8 8 8 8 8	0 1 2 3 4 5 6		Access to All-Call page. Access to internal page zone 1. Access to internal page zone 2. Access to internal page zone 3. Access to internal page zone 4. Access to external page zone 1. Access to external page zone 2.
9	None		To reach attendant #2.
0	None		To reach attendant #1.

Table 2-1

ACCESSING CO LINES

(A)   Off-Premise Station CO Line Access
       is enhanced with the EROU-C.

Description: Off-Premise   stations
(OPS) can obtain a Central Office (CO)
line by dialing an access code (Refer to
Table 2-1). The EOPU-A/B PCB's are not
designed to interface directly with a
system having tone senders. See EOPU-A/B
installation manual. When lines in a
group are busy, no indication is given to
the user.

Station Equipment: Single-Line
                    Telephones.

Operation: (Single-line Telephones).

. Lift handset, dial tone audible.
. Dial OPS CO line access code (3),
  ICM dial tone audible.
. Dial CO line queue group number.
. Dial tone audible, dial desired
  number.
. No dial tone audible, dial 3rd digit
  (Refer to Table 2-1).

NOTE: ICM dial tone is heard for about
5 seconds if the request is accepted, ICM
busy signal is heard when request is
denied.

MAKING ICM CALLS

(B)   Off-Premise   Station   Intercom
       access is enhanced with the EROU-C
       PCB.

Description: OP stations can obtain
ICM link by dialing the ICM access code
(2) and then dial the station.

Station Equipment: Single-line
                    telephones.

Operation: (Single-Line Telephones).

. Lift handset, dial tone audible.
. Dial ICM access code (2), ICM dial
  tone audible.
. Dial station number.

CONFERENCE CALLS AND TRANSFERRING CALLS

(C)   The EROU-C enhances Off-Premise
       Station conference Calls and Call
       Transfers.

Description: A conference call can be
established between an outside call and
another inside call. For a transfer, the
station initiating the conference hangs
up leaving the other two parties in a
private conversation.

Station Equipment: Single-Line
                    Telephones.

Operation: (Single-Line Telephones).

. Establish outside call.
. Press and release hookswitch, ICM
  dial tone audible.
. Dial inside station number, do not
  use access code.
. Called station lifts handset.
. Press and release hookswitch.

To Transfer Call:

. Hang up.

DIRECT OPS ANSWER OF CO LINES

(D)   Direct OPS Answer of CO Lines is
       an enhanced feature provided by
       the EROU-C PCB.

Description: The OPS can be programmed for a regular (day) ring group or a night ring group. By programming the CO lines into ring and queue groups, the OPS user can answer a CO call directly by lifting the handset when the phone is ringing.

Station Equipment: Single-line
                   telephones.

Operation: (Single-line telephones).

. Lift handset.

EXECUTIVE CALL TRANSFER

4.04 EXECUTIVE CALL TRANSFER is an enhanced   programmable   feature provided by the EROU-C.

Description: Four pairs of stations can be programmed so that calls to one station (the executive's station) of a pair will automatically be transferred to the secretary's telephone when the executive's station is in DND mode. The executive station must be programmed for the DND feature. When this station is in do-not-disturb mode, other stations (including the secretary's) cannot reach it.   Furthermore, calls going to the executive will ring at the secretary's desk.   Therefore, a HOTLINE should be established between the secretary and executive to allow the secretary to reach the executive during an emergency.

Calls that will be transferred are:

        ICM calls.
        Calls extended by an attendant.
        Calls coming in on the executive's
        private line.
A hotline call to the executive's station will not be transferred.

Station Equipment: Key Telephones.

Operation: (Key Telephones).

. Press the DND key.

When the executive's DND feature is activated, the Private Line, if provided, appears on the last common CO line key at the   secretary's   station.   If   the secretary is using this line key, the call in progress is not dropped. When the call is terminated, the CO line key LED is extinguished and any incoming private line calls are received at the secretary's station.

I-HOLD REMINDER

4.05 I-HOLD   REMINDER   is   a   new programmable feature provided with the EROU-C PCB.

Description: An I-HOLD REMINDER can be programmed to provide a timed reminder signal for calls left on HOLD by a station (I-Hold.)   Two bursts of CO audible tone are given at programmed timed intervals as a reminder that a call is on hold. These intervals are set in increments of 16 seconds up to 128 seconds. No reminder (0 time) can also be set.

Station Equipment: Key Telephones.

Operation: Automatic with
            programming.

NON-EXCLUDED STATIONS

4.06 NON-EXCLUDED STATIONS is a new programmable feature provided with the EROU-C PCB.

Description: Non-Excluded Stations, also called executive override or executive barge-in, permits any number of stations to be programmed to override the Exclusion (Privacy) feature of system on any common CO line call in progress without the normal alert tone. NON-EXCLUDED STATIONS cannot enter a line on EXCLUSIVE HOLD, in the add-on conference process, or private lines assigned to other stations.

NOTE: If three stations are connected to a line, then a NON-EXCLUDED STATION cannot enter the call.

CAUTION: The NON-EXCLUDED STATION feature should be used with discretion; when used in conjunction with the line monitor feature, the station user can eavesdrop on a line undetected.

Station Equipment: Key Telephones.

Operation: (Key Telephones).

. Lift handset.
. Press CO Line Key for line to be entered.

NON-PAGING STATION

4.07   NON-PAGING STATION is an enhanced programmable feature provided with the EROU-C PCB.

Description: With an EROU-C installed, only stations assigned to one of the four internal paging zones receive an ALL CALL page. Stations can be programmed not to receive any paging annoucements.

Station Equipment: All telephones.

Operation Automatic with programming.

QUEUING ON CO LINES

4.08   QUEUING ON CO LINES is a programmable feature provided by the EROU-C PCB.

Description: Queuing on CO lines permits a station user to join a queue for an outside line when all lines in that QUEUE GROUP are busy. When a line in the group becomes available, the next station on queue receives ring tone and the line key flutters. The line is kept busy to other stations in the system. If the line is not accessed within 20 seconds, then the CO line is made available to the next station in the queue. Queuing can be used to force outside calls to be made on specific lines (i.e. WATS, Fx, etc.). Each CO line can be assigned to one of six Groups. Four groups allow for general access to queuing; the two remaining groups deny queuing. Each queue can accommodate up to eight stations. Each station can queue every Group concurrently and only once per group. The first two queue positions are exclusively for attendant use. A station cannot join a queue that consists of six other stations. However, two attendants, if equipped, can join a queue on a priority basis. The line is offered according to the order each station joined the queue. If the next station in queue is busy, then the line is offered to the next station in the queue. The bypassed station does not lose its place; when the bypassed station becomes idle, the line is offered again.

Station Equipment: All Telephones.

Operation: (Key Telephone).

. Lift the handset.
. Press ICM key.
. Press * button.
. Dial Queue Group number (1 to 4).

NOTE: ICM Dial tone indicates station is queued; ICM busy indicates queue is full.

. Hang up.

To seize an offered line:

. Lift handset.
. Press the fluttering line key.

RESTRICTED QUEUE GROUPS

4.09   RESTRICTED QUEUE GROUPS is an enhanced programmable feature with the EROU-C PCB.

Description: This feature allows stations to be dial restricted on outgoing CO lines in up to three queue groups.

SINGLE BUTTON AUTOMATIC HOLD

4.10   AUTOMATIC HOLD is a new programmable feature with the EROU-C PCB.

Description: This feature provides automatic hold of a seized CO line when the intercom key is pressed.

Station Equipment: Key Telephones.

Operation: (Key Telephones).

. Press ICM Key.

STATION CLASS OF SERVICE O

4.11   STATION CLASS OF SERVICE O is an enhanced programmable feature.

Description: Stations with Class of Service O; can dial without restrictions on all calls.

Station Equipment: All telephones.

Operation: Automatic with programming.

TOLL RESTRICTION UPDATE

4.12   TOLL RESTRICTION UPDATE is an enhanced programmable feature with the EROU-C.

Description: Toll Restriction Update allows or disallows calls when the second digit dialed is a 0 or a 1. Some Central Office codes may have a "0" or "1" as the second digit. With an EROU-C installed (and with appropriate programming), numbers containing 0 or 1 as the second digit can be dialed.

Station Equipment: All telephones.

Operation: Automatic with programming.

EROU-C PCB
SYSTEM CONFIGURATION

CONTENTS   PAGE

1. INTRODUCTION

1.01   The SYSTEM CONFIGURATION section is not applicable to the EROU-C. Therefore, refer to the Installation manual for the system.

RELATED SECTIONS

1.02   Related sections on the EROU-C include:

SECTION 1 --- GENERAL DESCRIPTION
SECTION 2 --- FEATURES
SECTION 4 --- PROGRAM RECORD FORM
                         PREPARATION
SECTION 5 --- INSTALLATION
SECTION 6 --- PROGRAMMING

EROU-C PCB
PROGRAM RECORD FORM
PREPARATION

SECTION 1 --- GENERAL DESCRIPTION
SECTION 2 --- FEATURES
SECTION 3 --- SYSTEM CONFIGURATION
SECTION 5 --- INSTALLATION
SECTION 6 --- PROGRAMMING

1. INTRODUCTION

1.01   The   PROGRAM   RECORD   FORM
       PREPARATION section provides the
necessary information to complete the
Program Record Form found at the back of
this section.

1.02   This   reissue   of   this   section
       provides an extensive amount of
new information about features provided
on the EROU-C PCB since its initial
release. This section also represents a
reformatting of the material included jn
the   original   version   of   the   EROU-C
documentation.

RELATED SECTIONS

1.03   Related   sections   on   the   EROU-C
       include:

2. PROGRAM RECORD FORM

2.01   The   following   paragraphs   cover
       preparation of the Program Record
Form (Refer to figure 4-1). Detailed
information is provided on each program
to allow for proper entry of codes. Due
to the extensive feature enhancements,
much of the system programming has been
changed   from   the   basic   system.
Therefore,   when   establishing   system
programming   codes   use   the   following
instructions not those in the system
installation manual.

PROGRAM 20, GROUP RINGING

2.02   Program 20 allows CO lines to be
       organized into a maximum of 4 Ring
Groups. The four groups are assigned in
Programs 21, 22, and 23. If separate
Ring Groups are required, then enter 1 in
the D box for program 20. If separate
Ring Groups are not required, enter 0 in
the D box.

PROGRAMS 21-23, LINE RING GROUPS

2.03 When separate Line Ring Groups are required, entries in programs 21-23 assign the lines to each Ring Group. When determining the entry codes for Programs 21-23, the following conditions must be satisfied:

(a) A Private Line cannot be assigned to a Ring Group.

(b) Entries cannot exceed the maximum number of Common (non-private) Lines in the system.

(c) A CO line can be assigned to only one Ring Group.

(d) If 1 was entered in Program 20, at least one line must be entered in Program 21.

PROGRAM 21, LINE RING GROUP 1

2.04 Line Ring Group 1 contains the lowest numbered lines in the system. Any number of CO lines, up to the maximum number of common CO lines in the system, can be assigned to Line Ring Group 1. Write the last CO line number in the CO boxes for Program 21 Line Ring Group 1. Example: if lines 1, 2, and 3 are in Ring Group 1, write 03 in the CO boxes for Line Ring Group 1.

PROGRAM 22, LINE RING GROUP 2

2.05 Line Ring Group 2 lines immediately follow those lines assigned to Line Ring Group 1. Any number of lines not assigned to Ring Group 1, up to the maximum number of common lines, may be assigned to Line Ring Group 2. Write the last line number in the CO boxes for Program 22 Line Ring Group 2. Example: if lines 4, 5, and 6 are in this group, write 06 in the CO boxes.

PROGRAM 23, LINE RING GROUP 3

2.06 Line Ring Group 3 lines immediately follow those lines assigned to Line Ring Group 2. Any number of lines not assigned to Ring Groups 1 and 2, up to the maximum number of common lines, may be assigned to Line Ring Group 3. Write the last line number in the CO boxes for Program 23. Example: if lines 7, 8, and 9 are in this group, write 09 in the CO boxes.

LINE RING GROUP 4

2.07 Line Ring Group 4 lines immediately follow Line Ring Group 3 and by default contain all remaining common lines in the system. Example: if the system is an EK-1236 system without private lines, and the last line in Line Ring Group 3 was 9, Line Ring Group 4 consists of lines 10 through 12 inclusive.

PROGRAMS 24-27, RING GROUP STATIONS

2.08 Stations assigned to a Ring Group will receive incoming audible for the lines assigned in the Ring Group. Example: if lines 1, 2 and 3 are in Line Ring Group 1, and station 25 is assigned as a Group 1 station, station 25 will receive CO audible from lines 1, 2 and 3.

2.09 When codes are being determined to assign stations to Ring Groups, the following conditions must be satisfied:

(a) A station cannot be assigned to more than one of the four Ring Groups.

(b) A station assigned to a Ring Group cannot also be assigned to the Common Audible Group. However, it can be assigned to the Night Transfer Group.

(c) Station numbers assigned to any Ring Group must be valid numbers.

PROGRAM 24, RING GROUP 1 STATIONS

2.10 Up to a maximum of ten stations can receive CO audible from the

lines in Ring Group 1. Write the station numbers in the CD boxes for Program 24. If less than 10 stations are in the group, write 00 as the last station.

PROGRAM 25, RING GROUP 2 STATIONS

2.11   Up to a maximum of ten stations can receive CO audible from the lines in Ring Group 2. Write the station numbers in the CD boxes for Program 25. If less than 10 stations are in the group, write 00 as the last station.

PROGRAM 26, RING GROUP 3 STATIONS

2.12   Up to a maximum of ten stations can receive CO audible from the lines in Ring Group 3. Write the station numbers in the CD boxes for Program 26. If less than 10 stations are in the group, write 00 as the last station.

PROGRAM 27, RING GROUP 4 STATIONS

2.13   Up to a maximum of ten stations can receive CO audible from the lines in Ring Group 4. Write the station numbers in the CD boxes for Program 27. If less than 10 stations are in the group, write 00 as the last station.

PROGRAM 28, COMMON AUDIBLE STATIONS

2.14   Common audible is CO audible from all CO lines that are not private lines. Up to a maximum of 10 stations can be Common Audible Stations. Common Audible Stations cannot be in any other Ring Group.

2.15   The initialization program assigns the primary attendant's telephone as the first station and the secondary attendant's telephone as the second station in the common audible group. However, this assignment can be changed.

2.16   With this program, Common Audible Stations are assigned under the following conditions:

(a)   If a station is assigned to the Common Audible Group, it cannot at the same time be assigned to a Line Ring Group or to the NT group.

(b)   Station numbers programmed must be valid numbers.

2.17   Enter the station numbers in the CD boxes of Program 28 for all Common Audible Stations. If less than ten stations are in the group, write 00 as the last station.

PROGRAM 29, OFF-HOOK SIGNALING

2.18   If the system is programmed for off-hook signaling, all stations will receive CO and ICM audible signals when the telephone is either on-hook or off-hook. If the system is programmed for no off-hook signaling, telephones will only receive CO or ICM audible when on-hook. This is not an individual station feature. If off-hook signaling is required, write 1 in the D box of Program 29. Write 0 if it is not required.

PROGRAM 30, DSS OVERRIDE

2.19   If the system is programmed for DSS override, the DSS attendant can override the do-not-disturb (DND) feature or the monitor to announce calls. If DSS override is required, write 1 in the D box of Program 30. Write 0 if it is not required.

PROGRAM 31, DND & NON-EXCLUDED STATIONS

2.20   Program 31 is used to program stations for both DND and the non-excluded station feature.

2.21   With the DND feature, the station user can block_all incoming calls including ICM call-back. However, the DSS attendant will have override capability if the DSS Override feature is programmed.

2.22 The Non-Excluded Station feature permits individual station users to override the exclusion (privacy) feature of the system. All stations may be programmed for this feature; however, the system allows only three stations to be connected to a line at one time.

2.23 Enter in the D boxes for Program 31 on the Program Record Form the digit corresponding to the requirement for each station.

    0 Stations with neither DND or Non-Excluded Station.

    1 Stations with DND only.

    2 Stations with Non-Exclusion feature only.

    3 Stations with both DND and Non-Exclusion.

PROGRAM 32, RECALL TIMING

2.24 When a line is placed on exclusive hold at any station (including the DSS attendant's station), the recall timing feature will be activated. The recall time also applies to calls forwarded by the DSS console when the SC key is not used. The timing period is programmable in increments of 16 seconds. Write in the D box of Program 32 the codes corresponding to the desired amount of time to recall, as follows:

    For no recall,   enter 0
    For 16 seconds, enter 1
    For 32 seconds, enter 2
    For 48 seconds, enter 3
    For 64 seconds, enter 4
    For 80 seconds, enter 5
    For 96 seconds, enter 6
    For 112 seconds, enter 7
    For 128 seconds, enter 8

PROGRAM 33, CO LINE SIGNALING

2.25 If the CO lines require DTMF signaling, write 0 in the D box of Program 33. If dial pulsing is required, write 1.

PROGRAM 34, I-HOLD REMINDER

2.26 Based on this program, the system will give two bursts of audible as a reminder to the station user when a call is left on hold. The time interval between tone bursts is determined by Program 34, I-Hold Reminder.

2.27 The timing period is programmed in increments of 16 seconds. Numbers 0 through 8 can be entered here to provide timed intervals of up to 128 seconds for the reminder signal.

2.28 Enter in the D box for Program 34 on the Program Record Form, the digit corresponding to the requirement for the system based on the following time intervals.

    For no reminder enter 0.
    For 16 seconds enter 1.
    For 32 seconds enter 2.
    For 48 seconds enter 3.
    For 64 seconds enter 4.
    For 80 seconds enter 5.
    For 96 seconds enter 6.
    For 112 seconds enter 7.
    For 128 seconds enter 8.

PROGRAM 35, FLASH KEY

2.29 If flash keys are required at each telephone, flashing must be programmed. If no flash key operation is required, write 0 in the D box of Program 35. If ground transfer is required, write 1. If open loop flashing is required, enter 2. Flash key operation will supply an approximate 550 millisecond signal when behind a PBX and an approximate 2 second signal when not behind a PBX.

PROGRAM 36, MEET-ME-PAGE/SINGLE BUTTON OPERATION

2.30 Both Meet-Me-Page and Single Button Operation are programmed on a system basis.

2.31 Meet-Me-Paging allows a handset to handset call to be established after a page.

2.32 Single Button Operation allows a CO line call to be placed on hold by simply pressing the ICM key.

2.33 Enter in the D box for Program 36 on the Program Record Form, the digits corresponding to the appropriate feature combination as follows:

0 System has neither Meet Me Page nor Single Button Operation.

1 System has Meet Me Page only.

2 System has Single Button Operation only.

3 System has both Meet Me Page and Single Button Operation.

PROGRAM 37, QUEUE GROUP RESTRICTIONS

NOTE: Before establishing Programs 37, 38, and 39, complete the procedures for Program 40. If not done in this order, the programming steps in 40 can cause undesired modifications to occur to Programs 37, 38, and 39.

2.34 Program 37, Queue Group Restrictions, will not allow stations which are dial restricted in Program 38, Station Dial Restrictions, to dial on an outgoing line within an assigned queue group. (Refer to Figure 4-2).

2.35 By default, Program 39, Station Class of Service, will be invoked on lines in all queue groups not assigned in Program 37, Queue Group Restrictions.

2.36 Enter the queue groups numbers (1 to 4) on which dial restriction is to apply in the D boxes under Program 37. Up to three queue groups may be assigned.
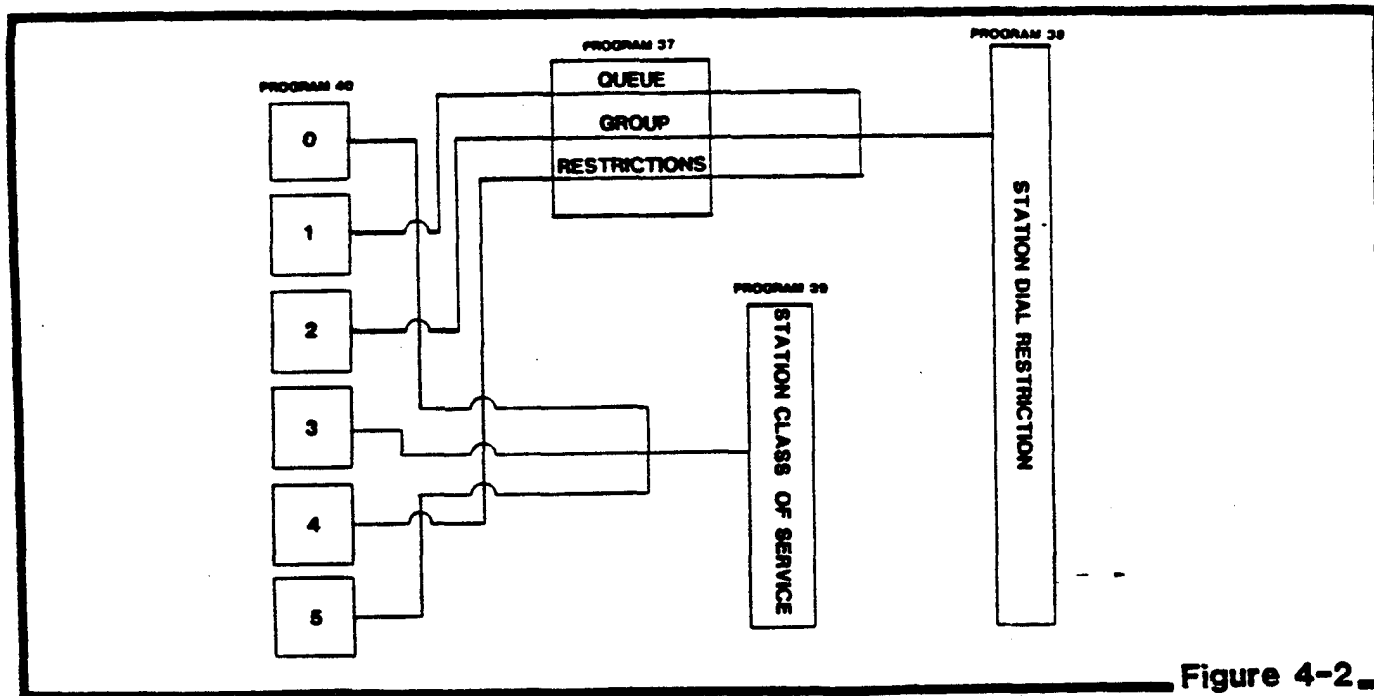

Figure 4-2

PROGRAM 38, STATION DIAL RESTRICTIONS

2.37 Program 38, Station Dial Restrictions determines which stations will be allowed or denied dialing on lines in queue groups assigned in Program 37. Enter 1 in the D box of Program 38 for a dial restricted station or 0 for a non-restricted station.

PROGRAM 39, STATION CLASS OF SERVICE

2.38 Up to nine station classes of service can be programmed. On the basis of a station's class of service, toll restrictions will be applied to it when calling out on a line in a Queue Group NOT assigned in Program 37. Classes of Service have the following characteristics:

(a) Class 0 & 1 service - No toll restrictions. Enter 0 in the D boxes for class 0; 1 for class 1.

(b) Class 2 service - Can only dial permitted codes or common unrestricted codes. Enter 2 in the D boxes.

(c) Class 3 service - Can only dial permitted codes, local 7-digit numbers, and common unrestricted codes. Enter 3 in the D boxes. ·

(d) Class 4 service - Can dial permitted codes, 7-digit local numbers, 1+7 toll numbers and common unrestricted codes. Enter 4 in the D boxes.

(e) Class 5 service - Can dial 7-digit local numbers, 1+7 toll numbers, and common unrestricted codes. Enter 5 in the D boxes.

(f) Class 6 service - Can dial 7-digit local numbers, and common unrestricted codes. Enter 6 in the D boxes.

(g) Class 7 service - Can dial only common unrestricted codes. Enter 7 in the D boxes.

(h) Class 8 service - Dial restricted. Can dial on ICM lines only. Enter 8 in the D boxes.

2.39 Rules:

(a) Toll restriction will not be effective on CO lines assigned in Program 37.

(b) There is no toll restriction on private lines, except class 8 service.

(c) Behind a PBX, toll restriction will be applied only after the PBX access code digits have been dialed.

(d) Only classes 0 and 1 station users can dial 0 or 1 as the 1st or 2nd digit except for permitted codes. These station users can dial at all times. Note that Program 43 may be used to override the second digit restriction.

2.40 For a ready reference of the results of the entries in programs 37, 38, and 39, see Table 4-1 and Figure 4-2.

PROGRAM 40, QUEUE GROUPS

2.41 Program 40 is used to assign CO lines to Queue Groups. It has the capacity to store codes for 26 lines and up to six Queue Groups. A code should be entered for each line so that the CPU "knows" which lines are equipped and to which group each belongs.

2.42 Six codes are used. These codes and the resulting line characteristics are as follows:

DIAL RESTRICTIONS AND

STATION CLASS OF SERVICE

Program 38 DIAL RESTRICTIONS	Program 37 RESTRICTED QUEUE GROUPS	DIALING CAPABILITIES
00	YES	NO STATION DIAL RESTRICTIONS
01	YES	DIAL RESTRICTED STATION *

Program 39 CLASS OF SERVICE		
0	NO	NO STATION DIAL RESTRICTIONS
1	NO	NO STATION DIAL RESTRICTIONS
2	NO	PERMITTED & UNRESTRICTED CODES ONLY
3	NO	LOCAL 7-DIGIT NUMBERS, PERMITTED & UNRESTRICTED CODES ONLY
4	NO	LOCAL 7-DIGIT & "1" + 7-DIGIT NUMBERS & PERMITTED & UNRESTRICTED CODES ONLY
5	NO	LOCAL 7-DIGIT & "1" + 7-DIGIT NUMBERS & UNRESTRICTED CODES ONLY
6	NO	LOCAL 7-DIGIT NUMBERS & UNRESTRICTED CODES ONLY
7	NO	UNRESTRICTED CODES ONLY
8	NO	DIAL RESTRICTED STATION *

Table 4-1

*NOTE: Dial Restricted Stations may be restricted
from access to CO lines for outgoing calls.

Code	Function

0† No queuing or OPX access will be allowed for any line assigned to this group. This code should be entered for unequipped lines. These lines cannot be extended to an Op station from the attendant by use of the SC key on the console. This group cannot be assigned in Program 37.

1 Queue Group #1

2 Queue Group #2

3 Queue Group #3

4 Queue Group #4

5 No queuing or OPX dial access will be allowed on a line assigned to this group. This code should be entered for private and hotlines. This group cannot be assigned in Program 37.

† In the initialization program, the code 0 is entered for all lines.

2.43 Programming requirements:

(a) In a system not configured to receive the maximum capacity of lines, all unused line positions must be programmed with 0. The initialization program will do this.

(b) One queue group (usually group #1) should be used for local lines. The other groups could be used for WATS lines in different WATS bands, FX lines, tie lines, etc.

2.44   In the D box for program 40 on the Program Record Form, write the appropriate code for each CO line.

PROGRAMS 41-46

2.45   Programs 41-46 apply only to toll restricted lines in accordance with the staton class of service.

PROGRAM 41, PERMITTED CODES

2.46   This program is used to establish eight 8-digit codes which can be dialed by stations having service classes 2, 3 or 4.

2.47 Rules:

(a) Digits not entered in this program can be dialed. That is, if 1-800 is entered as a permitted code, any digits can be dialed after 1-800 has been dialed. However, the total number of digits that can be dialed is determined by the data entered in Program 42 (Permitted Code Digits).

(b) Use the DC key to program a digit as a "don't care" digit. For example, if 1-DC-DC-DC-5-5-5 is entered as a permitted code, users will be able to reach the information operator (555-1212) in any area code.

(c) Do not enter 0 or DC as the first digit of a permitted code, as this will allow the user to access a toll operator.

2.48   Uses of Permitted Codes.
        Permitted codes will allow users to make calls:

(a) to a division of their business located in a specific exchange and area code;

(b) to nearby areas _having different area codes where business is normally conducted;

(c) using in-WATS (800) service.

2.49 When permitted codes are to be programmed, also use Program 42 to enter the maximum number of digits that may be dialed.

2.50 Enter each digit of each permitted code in the D boxes of Program 41. Up to eight digits for each of the eight codes may be entered.

PROGRAM 42, PERMITTED CODE DIGITS

2.51 This program can allow the user to dial a specific maximum number of digits when a permitted code is dialed.

2.52 Rules:

(a) If 0 is entered, there is no maximum number of digits that are permitted to be dialed.

(b) Do not enter DC (don't care) as data in this program.

2.53 Write the code for this program in the CD boxes on the Program Record Form.

PROGRAM 43, "0" OR "1" IN 2nd DIGIT

2.54 This program allows or disallows calls to be made when the second digit dialed is 0 or 1.

2.55 In areas such as New York and Los Angeles, local central office codes may have a 0 or 1 as a second digit. In such cases restriction is not desirable. By entering the proper code in Program 43, calls with the 2nd digit being 0 or 1 can be allowed.

2.56 Programming requirement:
This program will only apply to station classes 3, 4, 5, or 6.

2.57 On the Program Record Form, in the D box of Program 43 write 0 to prevent dialing 0 or 1 as the second digit. For no restrictions, write 1.

PROGRAM 44, PBX ACCESS CODES

2.58 With Program 44, access codes can be entered, allowing users to seize CO lines when the system has been installed behind a PBX. This program must be used to obtain proper flash key timing and class of service operation.

2.59 Rules:

(a) A maximum of four CO Line Access Codes may be entered.

(b) Access codes may consist of one or two digits.

(c) When entering a one-digit access code, do not enter any second digit.

(d) When entering a two-digit access code, DC can be entered as the 2nd digit only.

2.60 If the PBX provides universal night answering or call pickup using dial access codes, these codes should be programmed as CO line access codes. With this strategy, the user will be prevented from using "loop around" to defeat the toll restriction program.

2.61 Using the above rules as a guide, determine the customer's PBX access codes and write them in the D boxes of Program 44 on the Program Record Form.

PROGRAM 45, COMMON UNRESTRICTED CODES

2.62 Stations having classes of service 2-7 can dial common unrestricted codes. Codes usually entered in this category are:

(a) Emergency-assistance numbers such as 911.

(b) Local or home-area directory assistance (411 or 1411).

(c) Telephone repair service (611).

2.63 Rules:

(a) Up to four common unrestricted codes of four digits each may be entered.

(b) The user will be prevented from adding digits to the common unrestricted code. That is, if 611 is one of these codes, the user will be allowed to dial 611 but will be prevented from dialing 611-wxyz (wxyz = other digits).

(c) Do not enter 0 or DC as the first digit of an unrestricted code, as this will allow the user to access a toll operator.

2.64   Using the above rules as a guide, determine the customer's common unrestricted codes and write each digit of each code in the D boxes of Program 45 on the Program Record Form.

PROGRAM 46, DIGIT ABSORBING

2.65   The system can be programmed to absorb (ignore) the first digit dialed. When an absorb digit is dialed, the system will ignore that digit each time it is dialed as the first digit and will not advance the digit counter. Therefore, the digit will be absorbed as often as it is consecutively dialed.

2.66   In certain central offices, specific digits (when dialed as the first digit) are absorbed. This action, common in the step-by-step type of central office and in areas where the number of "local call" exchanges is small, reduces the amount of switching equipment required for handling local traffic.

2.67 Rules:

(a) A maximum of four digits may be entered as absorb digits.

(b) Do not enter 0 or 1 as an absorb digit, as this will allow the user to access a toll operator.

(c) When toll restriction is provided, it is imperative that the restriction circuits be able to determine when the CO will recognize a digit as the first digit that will be switched for call routing purposes. This can be determined (generally) by the installer using the following procedure:

. Write down the first digit of each exchange listed from the local telephone directory. In most cases, vacant levels 4 & 6 are not listed and will return a tone signal or an announcement. However, 411 and 611 are sometimes used for local information and telephone repair, respectively; and a tone signal or an announcement will not be received until after the second or third digit has been dialed.

. Dial the 1st digit of a local exchange. Then dial 0. If the call is routed to an operator (for toll completion), the 1st digit was probably absorbed. Repeat the procedure two or three times for verification.

NOTE: The toll restriction circuits may not permit a zero to be dialed as a second digit. (Refer to Program 43).

. If the action taken above proves that the first digit is absorbed, the installer must determine if the digit will be absorbed more than one time.

. Dial the absorbed digit twice. If the operator can be reached when 0 is dialed as the third digit, the absorbed digit should be entered in Program 46.

2.68   Using the above rules as a guide, determine the customer's absorb digits and write them in the D boxes of Program 46 on the Program Record Form.

PROGRAMS 47-50, EXECUTIVE CALL TRANSFER

2.69   Programs 47, 48, 49, and 50 are used to set up four pairs of stations so that calls to one of the stations in a pair will automatically be transferred to the other station in the same pair. A pair of stations consists of an executive's station and a secretary's station.   Calls that are transferred are ICM calls, calls extended by the attendant, and calls coming in on the executive's private line.   This feature is activated at the executive's telephone by pressing the DND key.

2.70 Programming requirements:

(a) The executive's station must be programmed to have the DND feature. (See programming for Program 31.)

(b) The secretary's station cannot be assigned a private line.

(c) A station number may only appear once in Programs 47 - 50.

PROGRAM 47, EXECUTIVE PAIR #1

2.71   On the Program Record Form, write the numbers of the stations that are to be programmed as the 1st pair of stations. Write the executive's station number in the AB boxes and the secretary's station number in the CD boxes.

PROGRAM 48, EXECUTIVE PAIR #2

2.72   On the Program Record Form, write the numbers of the stations that are to be programmed as the 2nd pair of stations. Write the executive's station number in the AB boxes and the secretary's station number in the CD boxes.

PROGRAM 49, EXECUTIVE PAIR #3

2.73   On the Program Record Form, write the numbers of the stations that are to be programmed as the 3rd pair of stations. Write the executive's station number in the AB boxes and the secretary's station number in the CD boxes.

PROGRAM 50, EXECUTIVE PAIR #4

2.74   On the Program Record Form, write the numbers of the stations that are to be programmed as the 4th pair of stations. Write the executive's station number in the AB boxes and the secretary's station number in the CD boxes.

PROGRAMS 51-56, PRIVATE LINE/HOTLINE ASSIGNMENTS

2.75   With the EROU-C card installed, the system determines whether a line is a hotline or a private line by the way the line is programmed. If the first two digits entered are 00 (AB boxes), and the next two digits (CD boxes) represent a station number, the line will be "recognized" as a private line. If two station numbers are entered (AB & CD boxes), the line will be recognized as a hotline.

2.76   A station can have up to 1 private
        line and 1 hotline assigned.

2.77   ECOU circuits are assigned for use
        as private lines or hotlines in
each system as follows:

Pro-gram	Line to be programmed		
	820	1236	2260
51	11	11	21
52	12	12	22
53	NA	13	23
54	NA	14	24
55	NA	NA	25
56	NA	NA	26

PROGRAM 51, PRIVATE LINE/HOTLINE #1

2.78   Program 51, Private Line/Hotline
        #1 allows circuit 11 or circuit 21
of the ECOU cards to be assigned as a
private line or a hotline.

2.79   For hotlines, write the station
        number of the first station in the
AB boxes and the number of the other
station in the CD boxes. If the line is
private, enter 00 in the AB boxes and the
station number in the CD boxes.

PROGRAM 52, PRIVATE LINE/HOTLINE #2

2.80   Program 52, Private Line/Hotline
        #2 allows circuit 12 or circuit 22
of the ECOU cards to be assigned as a
private line or a hotline.

2.81   For hotlines, write the station
        number of the first station in the
AB boxes and the number of the other
station in the CD boxes. If the line is
private, enter 00 in the AB boxes and the
station number in the CD boxes.

PROGRAM 53, PRIVATE LINE/HOTLINE #3

2.82   Program 53, Private Line/Hotline
        #3 allows circuit 13 or circuit 23
of the ECOU cards to be assigned as a
private line or a hotline.

2.83   For hotlines, write the station
        number of the first station in the
AB boxes and the number of the other
station in the CD boxes. If the line is
private, enter 00 in the AB boxes and the
station number in the CD boxes.

PROGRAM 54, PRIVATE LINE/HOTLINE #4

2.84   Program 54, Private Line/Hotline
        #4 allows circuit 14 or circuit 24
of the ECOU cards to be assigned as a
private line or a hotline.

2.85   For hotlines, write the station
        number of the first station in the
AB boxes and the number of the other
station in the CD boxes. If the line is
private, enter 00 in the AB boxes and the
station number in the CD boxes.

PROGRAM 55, PRIVATE LINE/HOTLINE #5

2.86   Program 55, Private Line/Hotline
        #5 allows circuit 25 of the ECOU
cards to be assigned as a private line or
a hotline.

2.87   For hotlines, write the station
        number of the first station in the
AB boxes and the number of the other
station in the CD boxes. If the line is
private, enter 00 in the AB boxes and the
station number in the CD boxes.

PROGRAM 56, PRIVATE LINE/HOTLINE #6

2.88   Program 56, Private Line/Hotline
        #6 allows circuit 26 of the ECOU
cards to be assigned as a private line or
a hotline.

2.89   For hotlines, write the station
        number of the first station in the
AB boxes and the number of the other
station in the CD boxes. If the line is
private, enter 00 in the AB boxes and the
station number in the CD boxes.

PROGRAM ALM, ALARM

2.90   If alarm signals from a customer-provided security system are to be transmitted to telephones within the system, the system must be programmed for either an "open" or "closed" circuit indication which will activate the alarm.

2.91   Make a record of options for this program as follows:

(a) If no alarm detection is required or if alarm detection is for a "closed" circuit indication (normally open contacts), write 0 in the D box of Program ALM.

(b) If the detection is to be provided by an "open" circuit (normally closed contacts), write 1 in the D box.

PROGRAMS EZ1-EZ2, EXTERNAL PAGING ZONES

2.92   The system can be equipped with two external paging zones. Depending on the codes entered in the B and D boxes, a zone can programmed to supply or not to supply background music (BGM) and CO audible signaling.

2.93   Programming options for BGM in each external zone are as follows. In the B box, write:

(a) 0 to supply no BGM.

(b) 1 to supply BGM.

2.94   Programming options for CO audible signaling in each external zone are as follows. In the D boxes, write:

(a) 0 to supply no CO audible in the zone.

(b) 1 to supply CO audible for lines assigned to Ring Group 1.

(c) 2 to supply CO audible for lines assigned to Ring Group 2.

(d) 3 to supply CO audible for lines assigned to Ring Group 3.

(e) 4 to supply CO audible for lines assigned to Ring Group 4.

(f) 5 to supply CO audible for lines assigned as Common CO lines.

(g) 6 to supply CO audible when the NT (night transfer) feature is activated.

PROGRAMS IZ1-IZ4, INTERNAL PAGING ZONES

2.95   Programs IZ1, IZ2, IZ3, and IZ4 (internal zone) are used to assign stations to internal paging zones. In internal paging, the built-in telephone loudspeakers are used.

2.96   The following rules must be applied when assigning stations to internal paging zones:

(a) All stations in an internal paging zone must be consecutively numbered.

(b) Programs must be entered consecutively. That is, enter the lowest stations into Program IZ1, then IZ2, then IZ3, then IZ4.

(c) A station can be assigned to only one zone.

(d) All stations can be assigned to only one internal paging zone. However, these stations must be assigned to IZ1.

(e) Enter the lowest station number in the AB boxes and the highest station number in the CD boxes for each zone on the program record form.

NOTE: If only one station is to be assigned to an internal paging zone, write that station number in the AB and in the CD boxes.

PROGRAM NT, NIGHT TRANSFER

2.97   NT (night transfer) stations are
        telephones which will require CO
audible signals when the system is placed
in NT mode by the attendant.

NOTE: A station that is assigned to
the NT group cannot be assigned to the
Common Audible Group.

2.98   For each station to be assigned as
        an NT station, write its station
number in the CD boxes for Program NT.

NOTE: If less than 20 stations (the
maximum allowed) are assigned in the
group, write 00 as the last station.

3. NOTES ON TOLL RESTRICTION & PBX OPERATION

TOLL RESTRICTION COMPATIBILITY WITH PBX

3.01   While engineering efforts have
        been made to make the toll
restriction program compatible with the
majority of PBXs, before installing this
feature in systems behind a PBX, make
sure that PBX signaling arrangements
(particularly the transfer function) and
the toll restriction arrangements of this
system are compatible with the PBX.

WARNING: CHECK COMPATABILITY WITH
          THE PBX.

3.02   TIE's EK-820, EK-1236, EK-2260
        electronic key telephone systems
equipped with the EROU-C card are able to
recognize trunk access codes. The toll
restriction program is not started until
such a code is recognized. Using Program
44, up to 4 different 1- or 2-digit codes
may be programmed as trunk access codes.

3.03   Stations assigned to Classes of
        Service 0 through 7 are permitted

to dial any PBX number, even those con-
taining 0's and 1's, without encountering
restriction.

3.04   Class of Service 8 is intended for
        use in systems behind a PBX where
the user is not permitted to dial on PBX
lines, but may dial all intercom calls.

INCOMING VS OUTGOING PBX CALLS

3.05   The system has the ability to rec-
        ognize the difference between an
incoming call and an outgoing call.
Only stations with class of service 0 are
permitted dialing on incoming calls.
Stations with class of service 1 are
permitted dialing on incoming calls for
lines not in a restricted queue group
(Program 37). The system has no way of
determining whether the call is from
another PBX station or from an outside
line. If dialing were permitted under
this condition, toll restriction could be
defeated.

PBX FLASHING

3.06   In many PBX systems, the flash key
        is used for transferring incoming
calls. The EK-820, EK-1236, EK-2260
systems have been designed to function
with PBX systems having transfer
operation.

CAUTION: If the PBX does NOT require
flashing for transfer, do not program the
system for flash key operation.

3.07   The effect of flash key operation
        on the toll restriction program
will vary, depending on the station class
of service (Program 39) and whether the
station is involved in an outgoing or an
incoming call, as follows:

(a)   Outgoing Call.   Operation of the
       flash   key   transmits   a   550
       millisecond open pulse or ground
       pulse to the PBX trunk circuit for

transfer and, at the same time, activates the toll restriction program.

(b) Incoming Call. On an incoming call, dialing is blocked until the flash key is operated except for classes 0 and 1, where dialing may be allowed. The first operation of the flash key (and subsequent odd numbered flashes) will permit dialing into the PBX. The second operation of the flash key (and subsequent even numbered flashes) will again restrict dialing.

DIAL AND CLASS ARRANGEMENTS FOR PBX OPERATION

3.08 Most PBX systems today utilize toll restriction programs that are more comprehensive than those used in key systems (primarily for economical reasons). The toll restriction programs utilize the fact that the system "knows" which stations are using which lines and can operate on the restriction parameters programmed into the system. When the stations are separated from the PBX by a key system (which is really a concentrator), the association between station and line is no longer available to the PBX. Thus, the key system must provide more flexible restriction arrangements.

3.09 Recommendation:
The following method can be used to provide the flexibility required:

(a) Program the PBX non-restricted lines so that station dial restrictions (Program 38) apply i.e. assign these lines in Program 37, and program station dial restrictions as required.

(b) Assign all stations that are to be subject to PBX toll restriction to Class of Service 0 or 1.

(c) Assign stations permitted to make only PBX calls to Class of Service 7 and make sure that the trunk access codes are written in Program 44.

(d) Assign stations permitted to make only key system calls to Class of Service 8.

(e) Assign stations that are to be assigned key system toll restrictions to the appropriate class of service: 2 through 6.

PROGRAM RECORD FORM

Figure 4-1

EK-820, EK-1236 & EK-2260

Systems with EROU-C

EROU-C PCB
INSTALLATION

1. INTRODUCTION

1.01   The INSTALLATION section provides details for installing the EROU-C PCB.

1.02   The reissue of this section contains new information about features provided by the EROU-C PCB since its initial release. This section also represents a reformatting of the material included in the original version of the EROU-C documentation.

RELATED SECTIONS

1.03   Related sections on the EROU-C include:

SECTION 1 --- GENERAL DESCRIPTION
SECTION 2 --- FEATURES
SECTION 3 --- SYSTEM CONFIGURATION
SECTION 4 --- PROGRAM RECORD FORM
              PREPARATION
SECTION 6 --- PROGRAMMING

2. INSTALLATION PROCEDURE

2.01   Following is a detailed installation procedure for the EROU-C equipment. Before proceeding with the installation, check that the EROU-C program record form has been completed. If the form has not been completed, refer to Section 4, PROGRAM RECORD FORM PREPARATION in this manual for instructions.

2.02   The EROU-C contains static sensitive components. Always wear a wrist strap while handling the PCB.

CAUTION: Before proceeding with the installation, turn OFF the system power.

2.03   Remove the ECPU-A/B PCB and strap as shown in Figure 5-1. Reinstall the ECPU-A/B. A soldering iron may be required to change the strapping wires.

2.04   If required, remove any EOPU-A/B circuit cards and place straps in the CN connector in the 1/2 position (Refer to Figure 5-2). This will allow OPS direct dial access to CO lines.

2.05   Insert the EROU-C PCB in the Miscellaneous (Misc-1) slot in the KSU. (Refer to Figure 5-3).

2.06   Turn switch SW1 on the ECMU to the OFF position and turn ON the system power to initialize the system.

2.07   After the system is initialized (approx. 8 sec.) turn SW1 to the ON position. The system can now be programmed as outlined in Section 6, PROGRAMMING.

FIGURE 5-1

CONNECTOR'S

LED'S

FIGURE 5-2

MISC
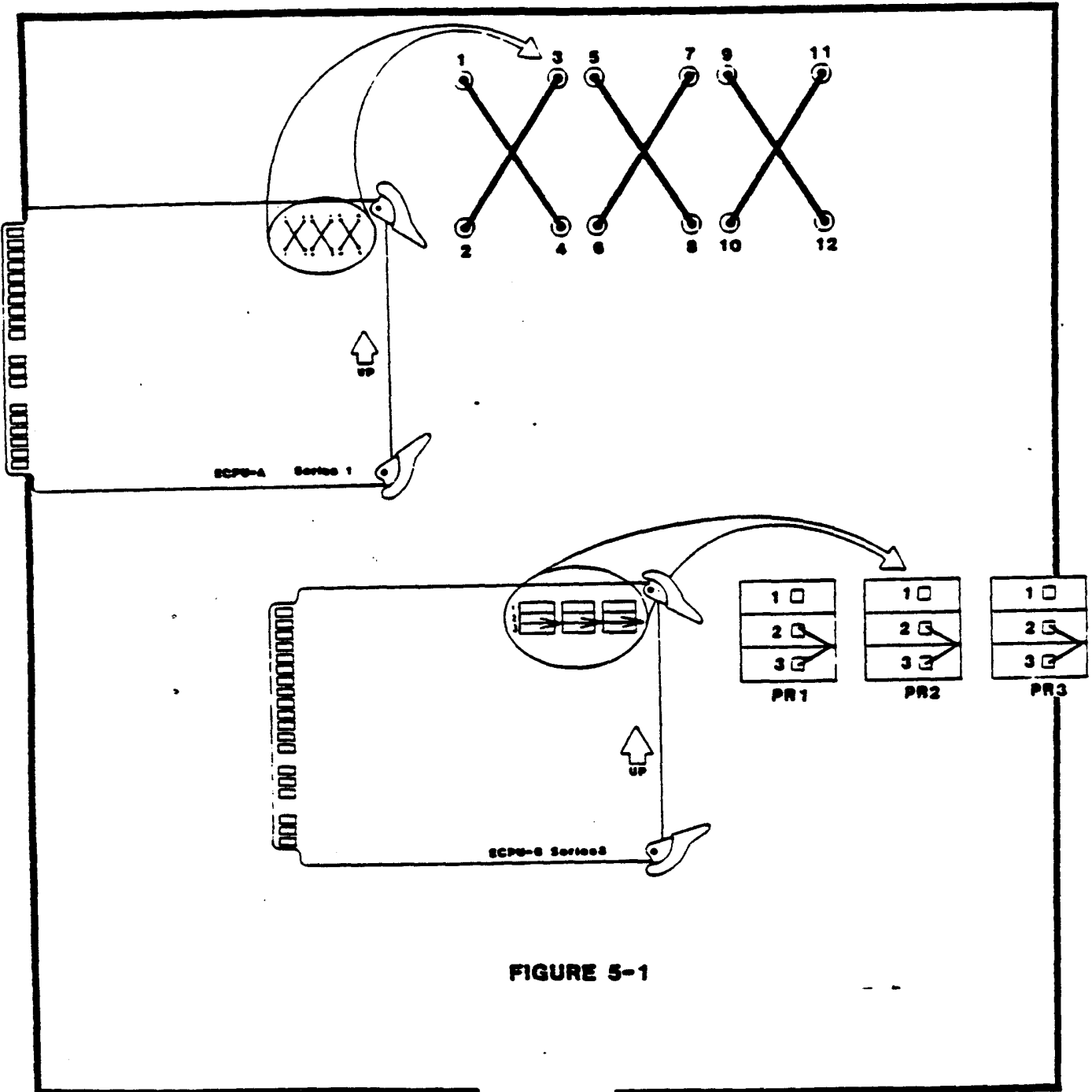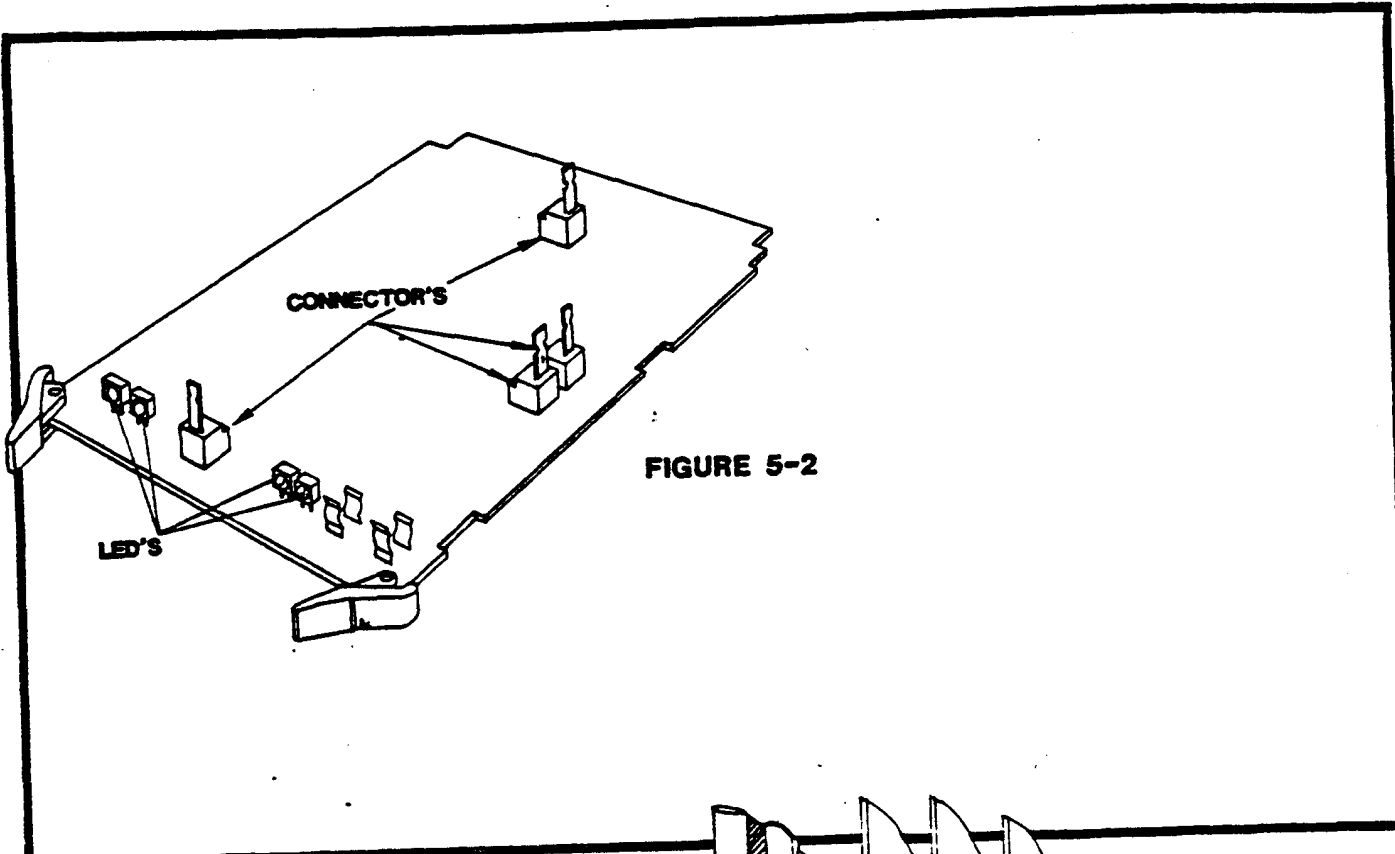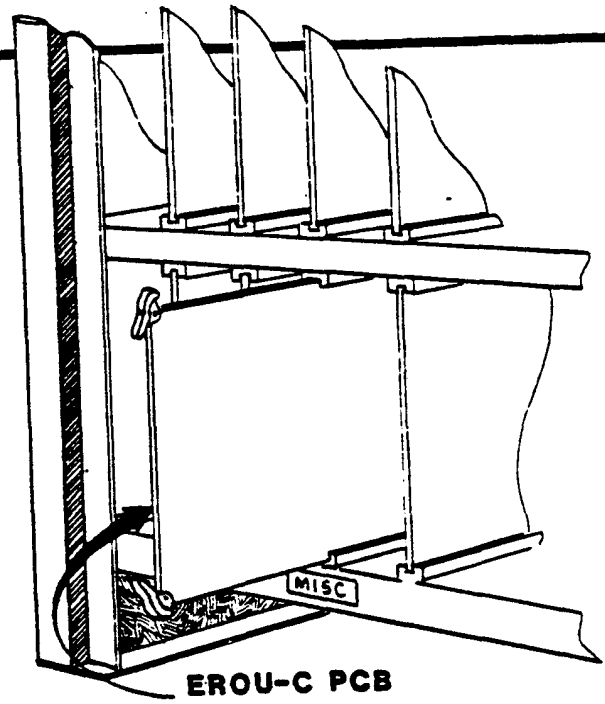
EROU-C PCB

FIGURE 5-3

EROU-C PCB
PROGRAMMING

1. INSTALLATION

1.01 The PROGRAMMING section provides the information required for programming the system and station features when an EROU-C is installed. When the EROU-C PCB is installed use the following instructions for program reading (paragraph 2) and programming (paragraph 3).   Do NOT use the instructions of the system manual.

1.02 This reissue of this section provides an extensive amount of new information about features provided on the EROU-C PCB since its initial release. This section also represents a reformatting of the material included in the original version of the EROU-C documentation.

RELATED SECTIONS

1.03 Related sections on the EROU-C include:

SECTION 1 --- GENERAL DESCRIPTION
SECTION 2 --- FEATURES
SECTION 3 --- SYSTEM CONFIGURATION
SECTION 4 --- PROGRAM RECORD FORM
              PREPARATION
SECTION 5 --- INSTALLATION

2. PROGRAM READING

2.01   The initialization program is a permanent program stored in Read Only Memory (ROM), that cannot be changed. The programming, or option codes, entered are temporarily stored in Random Access Memory (RAM), that can be changed. Once the system is programmed, the factory installed program cannot be read without reinitializing the system. Only the current program can be read from the DSS console.

2.02   Reading data for Programs 20-23, 29-30, 32-36, 47-56, ALM, IZ1-IZ4 and EZ1-EZ2.

(a) Place primary DSS station handset on-hook.

(b) Press DATA ENTRY key, MW key is illuminated and the system stops processing calls.

(c) Press the DSS console key for desired program. The DSS key is illuminated and data appears in the DSS console display.

(d) Dial # to leave program.

(e) Press another DSS key to read another program or press the DATA ENTRY key to resume call processing, MW key is extinguished.

2.03   Reading Data for Programs 24-28 and NT:

(a) Place primary DSS station handset on-hook.

(b) Press DATA ENTRY key, MW key is illuminated and the system stops processing calls.

(c) Press the DSS console key for desired program. The DSS key is illuminated and data appears in the DSS console display.

(d) To read the data entered for the next entry, dial * once.

(e) To read the data for the next entry, dial *; or to leave this program, dial #.

(f) Press the DATA ENTRY key to resume call processing, MW key is extinguished.

2.04   Reading Data For Programs 37 and 40.

(a) Take primary DSS station handset off-hook.

(b) Press DATA ENTRY key. MW key is illuminated and the system stops processing calls.

(c) Press the DSS console key for the desired program. The DSS key is illuminated and 0000 appears in the DSS console display.

(d) 1. For program 40, enter the line number for desired readout. The line number appears in the AB boxes of the display.

     2. For program 37, enter 1, 2 or 3 for desired readout. The entry number appears in the B box of the display.

(e) Dial * once, data for the entry appears in the CD boxes of the display.

(f) Dial * once to clear the display.

(g) Repeat steps (d) through (f) to obtain information about another line or queue group, or dial # once to leave program.

(h) Press the DATA ENTRY key to resume call processing, MW key is extinguished.

2.05 Reading Data For Programs 31, and 38-39.

(a) Take primary DSS station handset off-hook.

(b) Press DATA ENTRY key, MW key is illuminated and the system stops processing calls.

(c) Press the DSS console key for desired program. The DSS key is illuminated.

(d) Dial the station number for which data is desired.

(e) Dial * once, data for station number dialed appears in the D box of the display.

(f) Dial * once to clear the display.

(g) Repeat steps (d) through (f) to obtain information about another station; or dial # once to leave this program.

(h) Press the DATA ENTRY key to resume call processing, MW key is extinguished.

2.06 Reading Data For Programs 41 through 46.

(a) Place primary DSS station handset on-hook.

(b) Press DATA ENTRY key, MW key is illuminated and the system stops processing calls.

(c) Press the ALL CALL (AC) button.

CAUTION: When reading toll restriction data, the AC key must be pressed first.

(d) Press the DSS key for the desired program, the DSS key is illuminated and the data shown in the CD boxes consists of digits entered for the data shown in the AB boxes, or the AC key LED is extinguished indicating no data was entered for the program.

(e) Dial * repeatedly to obtain readouts of all digits of each code.

(f) Dial # to advance to the next code or, to end the program, dial # repeatedly until the display shows 0000.

(g) Press the DATA ENTRY key to resume call processing, MW key is extinguished.

3. PROGRAMMING PROCEDURE

PROGRAM 20, GROUP RINGING

3.01 If a CO line is in the ringing mode, assignments to ring groups cannot be changed.

3.02 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 20.

Display = ☐ 0 0 0 0 ☐

(e) Dial digit 1 to set up group ringing, or dial 0 if group ringing is not required (See Program Record Form).

Display = ☐ 0 0 0 x ☐

(x represents input code.)

(f) Dial * once.

        Display = $\boxed{0\;0\;0\;0}$

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

3.03   If digit 1 was entered in step (e), then a code must be entered in Program 21.

PROGRAM 21, LINE RING GROUP 1

3.04   If a CO line is in the ringing mode, assignments to ring groups cannot be changed.

3.05   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily, and the system stops processing calls.

(d) Press DSS console key 21.

        Display = $\boxed{0\;0\;0\;0}$

(e) Dial number for last CO line to be assigned to this ring group (see Program Record Form).

        Display = $\boxed{0\;0\;x\;x}$

        (xx represents input code).

(f) Dial * once.

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 22, LINE RING GROUP 2

3.06   If a CO line is in the ringing mode, assignments to ring groups cannot be changed.

3.07   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily, and the system stops processing calls.

(d) Press DSS console key 22.

        Display = $\boxed{0\;0\;0\;0}$

(e) Dial number for last CO line to be assigned to this ring group (see Program Record Form).

        Display = $\boxed{0\;0\;x\;x}$

        (xx represents input code).

(f) Dial * once.

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 23, LINE RING GROUP 3

3.08   If a CO line is in the ringing
        mode, assignments to ring groups
cannot be changed.

3.09   To enter data in this program,
        perform the following steps:

(a)   Verify that switch SW1 on the ECMU
      PCB is in the ON position.

(b)   At the primary DSS attendant's
      station, take the handset off-hook.

(c)   Press the DATA ENTRY key on the DSS
      console. MW key illuminates stead-
      ily, and the system stops processing
      calls.

(d)   Press DSS console key 23.

        Display = | 0 | 0 | 0 | 0 | .

(e)   Dial number for last CO line to be
      assigned to this ring group (see
      Program Record Form).

        Display = | 0 | 0 | x | x |

        (xx represents input code).

(f)   Dial * once.

(g)   Dial # once to leave program.

(h)   If entering data in another program,
      begin with step (d) of that program;
      or press the DATA ENTRY key to
      resume call processing.

PROGRAM 24, RING GROUP 1 STATIONS

3.10   To enter data in this program,
        perform the following steps:

(a)   Verify that switch SW1 on the ECMU
      PCB is in the ON position.

(b)   At the primary DSS attendant's
      station, take the handset off-hook.

(c)   Press the DATA ENTRY key on the DSS
      console. MW key illuminates stead-
      ily, and the system stops processing
      calls.

(d)   Press DSS console key 24.

        Display = | 0 | 1 | 0 | 0 |

        (01 indicates first station
        entry).

(e)   Enter code as shown on the Program
      Record Form.

        Display = | 0 | 1 | x | x |

        (xx represents input code).

'f)   Dial * once.

        Display = | 0 | 2 | 0 | 0 |

(g)   Repeat procedure for each entry code
      up to 10. If less than 10 are
      entered, then enter 00 as the last
      code.

(h)   Dial # once to leave program.

(i)   If entering data in another program,
      begin with step (d) of that program;
      or press the DATA ENTRY key to
      resume call processing.

PROGRAM 25, RING GROUP 2 STATIONS

3.11   To enter data in this program,
        perform the following steps:

(a)   Verify that switch SW1 on the ECMU
      PCB is in the ON position.

(b)   At the primary DSS attendant's
      station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily, and the system stops processing calls.

(d) Press DSS console key 25.

Display = 0 1 0 0

(01 indicates first station entry).

(e) Enter code as shown on the Program Record Form.

Display = 0 1 x x

(xx represents input code).

(f) Dial * once.

Display = 0 2 0 0

(g) Repeat procedure for each entry code up to 10. If less than 10 are entered, then enter 00 as the last code.

(h) Dial # once to leave program.

(i) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 26, RING GROUP 3 STATIONS

3.12 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

PROGRAM 27, RING GROUP 4 STATIONS

3.13 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily, and the system stops processing calls.

(d) Press DSS console key 27.

Display = | 0 | 1 | 0 | 0 |

(01 indicates first station entry).

(e) Enter code as shown on the Program Record Form.

Display = | 0 | 1 | x | x |

(xx represents input code).

(f) Dial * once.

Display = | 0 | 2 | 0 | 0 |

(g) Repeat procedure for each entry code up to 10. If less than 10 are entered, then enter 00 as the last code.

(h) Dial # once to leave program.

(i) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 28, COMMON AUDIBLE STATIONS

3.14 If a CO line is in the ringing mode, assignments to ring groups cannot be changed.

3.15 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily, and the system stops processing calls.

(d) Press DSS console key 28.

Display = | 0 | 1 | x | x |

(xx represents primary DSS attendant's station number)

(e) Dial code as shown on the Program Record Form.

Display = | 0 | 1 | x | x |

(xx represents input code).

(f) Dial * once.

Display = | 0 | 2 | x | x |

(xx represents second DSS attendant's station number)

(g) Repeat procedure for each entry code up to 10. If less than 10 are entered, than enter 00 as the last code.

(h) Dial # once to leave program.

(i) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 29, OFF-HOOK SIGNALING

3.16 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 29.

Display = ☐☐☐☐

(e) Dial the code written for this program on the Program Record Form.

Display = ☐☐☐x

(x represents input code.)

(f) Dial * once.

Display = ☐☐☐☐

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 30, DSS OVERRIDE

3.17 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 30.

Display = ☐☐☐I

(e) Dial the code written for this program on the Program Record Form.

Display = ☐☐☐x

(x represents input code)

(f) Dial * once.

Display = ☐☐☐☐

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press DATA ENTRY key to resume call processing.

PROGRAM 31, DND AND NON-EXCLUDED STATIONS

3.18 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 31.

Display = ☐☐☐☐

(e) Dial first station number whose code is not 00.

Display = xx☐☐

(xx represents station number dialed.)

(f) Dial * once.

(g) Dial a digit to assign the desired feature(s), as shown on the program record form.

Display = | x | x | 0 | y |

(y represents input code).

(h) Dial * once.

(i) Repeat steps (e) through (h) for the remaining stations.

(j) Dial # once to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 32, RECALL TIMING

3.19 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 32.

Display = | 0 | 0 | 0 | 0 |

(e) Dial the code written for this program on the Program Record Form

Display = | 0 | 0 | 0 | x |

(x represents input code.)

(f) Dial * once.

Display = | 0 | 0 | 0 | 0 |

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 33, CO LINE SIGNALING

3.20 A code cannot be entered or changed in this program if a CO line is in use.

3.21 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 33.

Display = | 0 | 0 | 0 | 0 |

(e) Dial the code written for this program on the Program Record Form.

Display = | 0 | 0 | 0 | x |

(x represents input code.)

(f) Dial * once.

Display = | 0 | 0 | 0 | 0 |

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 34, I-HOLD REMINDER

3.22 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 34.

   Display = [0][0][0][0]

(e) Dial the code written on the program record form.

   Display = [0][0][0][x]

   (x represents input code.)

(f) Dial * once.

   Display = [0][0][0][0]

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 35, FLASH KEY

3.23 A code cannot be entered or changed in this program if any CO lines are in use.

3.24 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 35.

   Display = [0][0][0][0]

(e) Dial the code written for this program on the Program Record Form.

   Display = [0][0][0][x]

   (x represents input code.)

(f) Dial * once.

   Display = [0][0][0][0]

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 36, MEET-ME-PAGE/SINGLE BUTTON OPERATION

3.25 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 36.

   Display = [0][0][0][0]

(e) Dial the code written on the program record form.

Display = ⬚⬚⬚⬚ `0 0 0 x`

(x represents input code.)

(f) Dial * once.

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 37, QUEUE GROUP RESTRICTIONS

3.26 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 37.

Display = `0 0 0 0`

(e) Dial entry code number, begin with first entry.

Display = `0 x 0 0`

(x represents input code).

(f) Dial * once.

Display = `0 x 0 0`

(g) Dial the number of the first code for this program, as shown on the program record form .

Display = `0 x 0 y`

(y represents input code)

(h) Dial * once.

Display = `0 0 0 0`

(i) Repeat steps (e) through (h) for second and third entry as required.

(j) Dial # once to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 38, STATION DIAL RESTRICTIONS

3.27 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 38.

Display = `0 0 0 0`

(e) Dial the number of a station listed for this program on the Program Record Form.

Display = `x x 0 0`

(station number represented by xx.)

(f) Dial * once.

(g) Dial the code written for the station number dialed in step (e).

Display = ⊠⊠0y

(Digit of code entered is represented by y.)

(h) Dial * once.

(i) Repeat steps (e) through (h) until codes have been entered for all stations.

(j) Dial # once to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 39, STATION CLASS OF SERVICE

3.28 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 39.

Display = 0000

(e) Dial the number of a station listed for this program on the Program Record Form.

Display = ⊠⊠00

(Digits of dialed station number are represented by xx.)

(f) Dial * once.

(g) Dial the code corresponding to the station number dialed in step (e).

Display = ⊠⊠0y

(Digit for station class of service represented by y.)

(h) Dial * once.

Display = 0000

(i) Repeat steps (e) through (h) for the remaining stations listed on the Program Record Form.

(j) Dial # once to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 40, QUEUE GROUPS

3.29 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 40.

Display = 0000

(e) Dial number of a CO line listed for this program on the Program Record Form.

Display = ⊠⊠00

(xx represents line number.)

(f) Dial * once.

(g) Dial the code written for the CO line number dialed in step (e).

Display = | x | x | 0 | y |

(option code represented by y.)

(h) Dial * once.

Display = | 0 | 0 | 0 | 0 |

(i) Repeat steps (e) through (h) until codes have been entered for all CO lines.

(j) Dial # once to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 41, PERMITTED CODES

3.30   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 41.

Display = | 0 | 1 | b | b |

(b represents blank)

CAUTION: When entering new codes or replacing existing codes, use the # button to bypass codes that are to be saved.

(e) Dial first digit of the permitted code.

Display = | 0 | 1 | b | x |

(x represents first digit.)

(f) Dial the second digit of the permitted code.

Display = | 0 | 2 | b | x |

(x represents second digit.)

(g) Enter remaining digits of the permitted code.

Display = | y | y | b | x |

(y increases as each code digit is entered.)

(h) Dial * once.

Display = | 0 | 2 | b | b |

(i) Repeat steps (e) through (h) until all permitted codes have been entered.

(j) Dial # repeatedly until display shows 0000 to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 42, PERMITTED CODE DIGITS

3.31   Use this program only if permitted codes have been programmed.

3.32   To enter data into this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 42.

Display = [0|0|0|0]

(e) Dial the code written for this program on the Program Record Form.

Display = [0|0|x|x]

(xx represents code.)

(f) Dial * once.

Display = [0|0|0|0]

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 43, 0 OR 1 IN 2ND DIGIT

3.33 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 43.

Display = [0|0|0|0]

(e) Dial the code written for this program on the Program Record Form.

Display = [0|0|0|x]

(x represents input code)

(f) Dial * once.

Display = [0|0|0|0]

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 44, PBX ACCESS CODES

3.34 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 44.

Display = [0|1|b|b]

(b represents blank)

CAUTION: When new codes are to be added, or previously memorized codes replaced, use the # button to bypass codes that are to be saved.

(e) Enter first digit of first code.

Display = [0|1|0|x]

(x represents first digit.)

(f) Enter second digit of first code. If first code is a single digit access code, dial * once.

Display = ⌈0⌉⌈2⌉⌈b⌉⌈x⌉

(x represents second digit.)

(g) Dial * once.

Display = ⌈0⌉⌈2⌉⌈b⌉⌈b⌉

(h) Repeat steps (e) through (g) until all access codes have been entered.

(i) Dial # repeatedly until the display shows 0000 to leave program.

(j) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 45, COMMON UNRESTRICTED CODES

3.35   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 45.

Display = ⌈0⌉⌈1⌉⌈b⌉⌈b⌉

(b represents blank)

CAUTION: When new codes are added, or when previously memorized codes are replaced, use the # button to bypass codes that are to be saved.

(e) Enter first digit of first code.

Display = ⌈0⌉⌈1⌉⌈b⌉⌈x⌉

(x represents first digit.)

(f) Enter second digit of first code.

Display = ⌈0⌉⌈2⌉⌈b⌉⌈x⌉

(x represents second digit.)

(g) Repeat step (f) for all digits of first code.

(h) Dial * once.

Display = ⌈0⌉⌈2⌉⌈b⌉⌈b⌉

(02 represents second code.)

(i) Repeat steps (e) through (h) until all codes have been entered.

(j) Dial # repeatedly until the display shows 0000 to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM 46, DIGIT ABSORBING

3.36   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 46.

Display = $\boxed{0\ 1\ b\ b}$

(b represents blank)

(e) Dial first digit for this program on the Program Record Form.

Display = $\boxed{0\ 1\ b\ x}$

(x represents dialed digit.)

(f) Dial * once.

Display = $\boxed{0\ 2\ b\ b}$

(g) Dial the next digit.

Display = $\boxed{0\ 1\ b\ x}$

(h) Dial * once.

Display = $\boxed{0\ 3\ b\ b}$

(i) Repeat steps (g) and (h) until all digits have been entered.

(j) Dial # repeatedly until the display shows 0000 to leave program.

(k) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAMS 47-50, EXECUTIVE CALL TRANSFER

3.37 Data cannot be entered or changed in this program if the private line is in use or the station is in the DND mode.

3.38 To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 47, 48, 49 or 50.

Display = $\boxed{0\ 0\ 0\ 0}$

(e) Dial the code written in the AB boxes for this program on the Program Record Form.

Display = $\boxed{x\ x\ 0\ 0}$

(Digits of executive's station number are represented by xx.)

(f) Dial * once.

(g) Dial the code written in the CD boxes for this program on the Program Record Form.

Display = $\boxed{x\ x\ y\ y}$

(Digits of secretary's station number are represented by yy.)

(h) Dial * once.

(i) Dial # once to leave program.

(j) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAMS 51-56, PRIVATE LINES AND HOTLINES

3.39 Data cannot be entered or changed in this program if the CO line circuit is in use.

3.40   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key 51, 52, 53, 54, 55 or 56.

    Display = | 0 | 0 | 0 | 0 |

(e) Dial code for AB boxes as shown on the Program Record Form. Note, if 00 is shown on the Program Record Form it must be entered.

    Display = | x | x | 0 | 0 |

    (xx represents code entered.)

(f) Dial * once.

    Display = | x | x | 0 | 0 |

(g) Dial the code for the CD boxes as shown on the Program Record Form.

    Display = | x | x | y | y |

    (The digits corresponding to the station number are represented by yy).

(h) Dial * once.

    Display = | 0 | 0 | 0 | 0 |

(i) Dial # once to leave program.

(j) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM ALM, ALARM

3.41   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key ALM.

    Display = | 0 | 0 | 0 | 0 |

(e) Dial the code for this program on the Program Record Form.

    Display = | 0 | 0 | 0 | x |

    (x represents code entered)

(f) Dial * once.

    Display = | 0 | 0 | 0 | 0 |

(g) Dial # once to leave program.

(h) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM EZ1/EZ2, EXTERNAL PAGING ZONES

3.42   External paging zone assignments cannot be entered while paging is in progress.

3.43   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(c) Press the DATA ENTRY key on the DSS console. MW key illuminates steadily and the system stops processing calls.

(d) Press DSS console key EZ1 or EZ2.

    Display = ⬚⬚⬚⬚ `0 0 0 0`

(e) Dial the code written in the B box for this program on the Program Record Form.

    Display = `0 x 0 0`

    (Digits of BGM code is represented by x.)

(f) Dial * once.

(g) Dial the code written in the D boxes for this program on the Program Record Form.

    Display = `0 x 0 y`

    (Digits of CO audible code is represented by y)

(h) Dial * once.

    Display = `0 0 0 0`

(i) Dial # once to leave program.

(j) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM IZ1/IZ4, INTERNAL PAGING ZONES

3.44   Data cannot be entered or changed in this program while paging is in progress.

3.45   To enter data in this program, perform the following steps:

(a) Verify that switch SW1 on the ECMU PCB is in the ON position.

(b) At the primary DSS attendant's station, take the handset off-hook.

(d) Press DSS console key IZ1, IZ2, IZ3, or IZ4.

    Display = `2 0 2 4`   Zone 1.

    Display = `2 5 2 9`   Zone 2.

    Display = `3 0 3 4`   Zone 3.

    Display = `3 5 3 9`   Zone 4.

(Above represents factory program).

(e) Dial the station number written in the AB boxes for this program on the Program Record Form.

    Display = `x x 0 0`

    (Digits of first station in zone are represented by xx).

(f) Dial * once.

(g) Dial the station number written in the CD boxes for this program on the Program Record Form.

    Display = `x x y y`

    (Digits of last station in zone are represented by yy.)

(h) Dial * once.

    Display = `0 0 0 0`

(i) Dial # once to leave program.

(j) If entering data in another program, begin with step (d) of that program; or press the DATA ENTRY key to resume call processing.

PROGRAM NT, NIGHT TRANSFER

3.46   If a CO line is in the ringing
        mode, assignments to NT group can-
not be changed.

3.47   To enter data in this program,
        perform the following steps:

(a)   Verify that switch SW1 on the ECMU
       PCB is in the ON position.

(b)   At the primary DSS attendant's sta-
       tion, take the handset off-hook.

(c)   Press the DATA ENTRY key on the DSS
       console. MW key illuminates stead-
       ily and the system stops processing
       calls.

(d)   Press DSS console key NT.

       Display = | 0 | 1 | 0 | 0 |

(e)   Dial the number of the first station
       to be assigned to the NT group.

       Display = | 0 | 1 | y | y |

       (dialed station number is
       represented by yy.)

(f)   Dial * once.

       Display = | 0 | 2 | 0 | 0 |

(g)   Dial the number of the next station
       to be assigned to the NT group.

       Display = | 0 | 2 | y | y |

       (dialed station number is
       represented by yy.)

(h)   Dial * once.

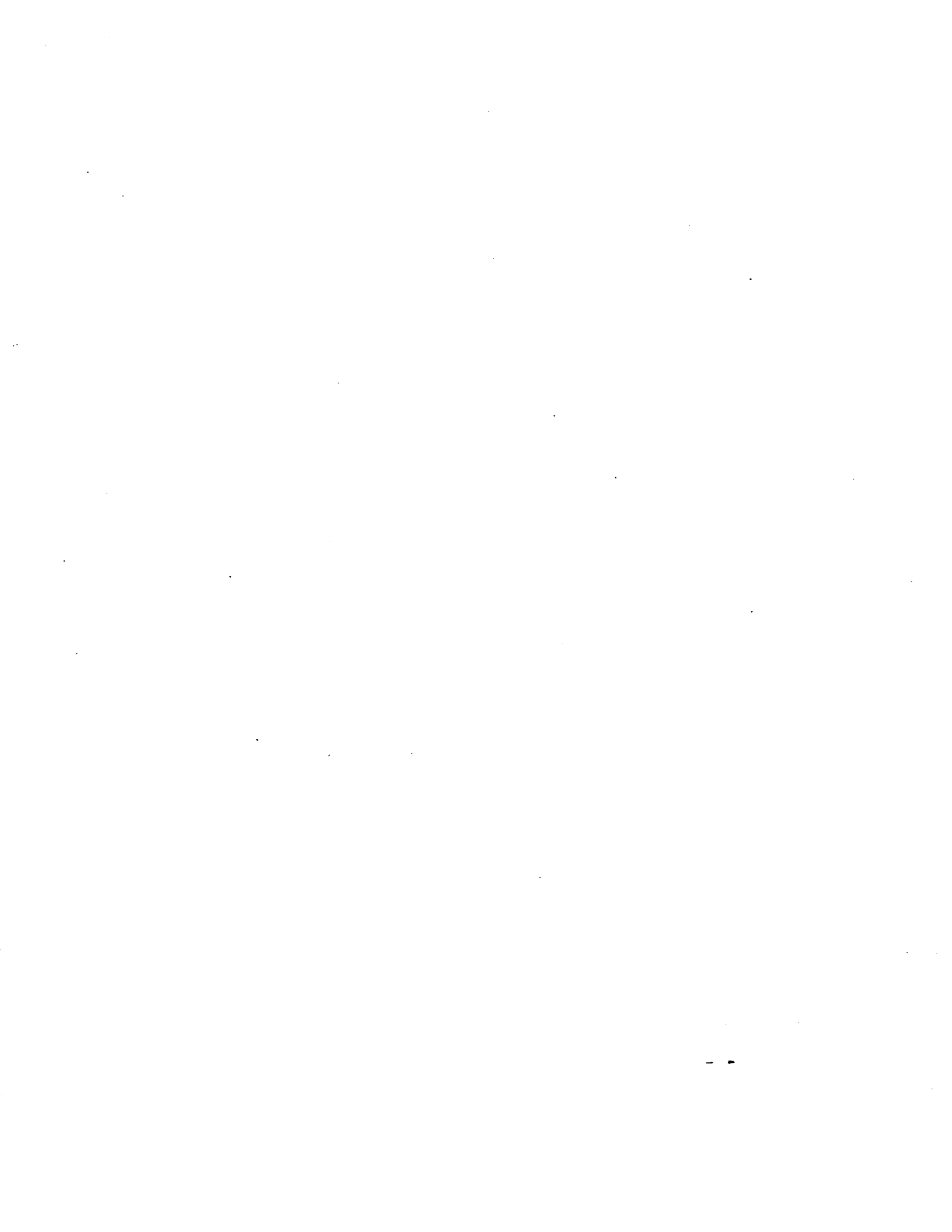   Display = | 0 | 3 | 0 | 0 |

(i)   Repeat procedures for each station
       in the group up to 20 stations. If
       less than 20 stations are entered,
       then enter 00 as the last station.

(j)   Dial # once to leave program.

(k)   If entering data in another program,
       begin with step (d) of that program;
       or press the DATA ENTRY key to re-
       sume call processing.

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