

MOD KEY

32

SOFTWARE MANUAL

MOD KEY 32

Software Manual

Software Release 1

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This manual has been developed by TIE/communications, Inc. It is intended for the use of its customers and service personnel, and should be read in its entirety before attempting to install or program the system. Any comments or suggestions for improving this manual would be appreciated. Forward your remarks to:

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CONTENTS**Preface****ABOUT THIS MANUAL**

The preface states the general focus of the manual and lists other related MOD KEY 32 system documents.

Section 1**STANDARD FEATURES**

This section describes the telephone features that do not require system programming. Each Standard Feature includes telephone operating instructions.

Section 2**PROGRAMMABLE FEATURES**

This section describes the programs (software) and their related system and/or features. Each program includes instructions on how to select an entry code for a program option, how to fill in the entry code on the Program Record Form, and then how to enter the codes into memory. Each telephone feature includes operating instructions.

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Manual Focus

The MOD KEY 32 Software Manual describes all the features and programs included in the MOD KEY Y3 Software.

System Related Documents

The MOD KEY 32 Software Manual is a companion to the following MOD KEY 32 system documents:

MOD KEY 32 Hardware Manual, Part Number 01420HWG01

This manual provides installation instructions for basic and optional equipment. It also provides a system overview and guidelines for ordering equipment.

MOD KEY 32 Program Record Form, Part Number 01420PRF01

This form (optional) is used to record the program options selected in Section 2 of the MOD KEY 32 Software Manual. The Program Record Form also includes step-by-step instructions on how to enter the recorded option codes into system memory.

MOD KEY 32 Telephone Feature Handbook, Part Number 01420MBG01

The telephone handbook provides a short description of each telephone feature and step-by-step operating instructions. A Quick Reference card is also included. This handbook can be used for all models of the MOD KEY phones.

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HOW THIS SECTION IS ORGANIZED

The Standard Features are presented alphabetically, one feature per page. Since feature operating instructions depend on whether the phone has the Handsfree or Monitor feature, it is a good idea to read those features first.

A Sample Standard Feature

LAST NUMBER REDIAL

Feature Description

The last outside number manually dialed at an extension is automatically stored in the memory of that extension. Up to 25 digits are stored. Last Number Redial (LNR) lets a user redial the last stored number in a single step, making it very easy to re-try busy or unanswered numbers.

► Conditions

- LNR does not store Speed Dial, Save, or Intercom numbers.
- LNR does not store a Flash or a pause that a user makes while dialing a call (for example, while waiting for a confirmation tone from a service such as MCI or SPRINT).
- An LNR call dials out on the same line used for the original call unless it is busy. When the original line is busy, the system selects another line in the same Line Group (see Program 8 for information on Line Groups). If all lines in the Line Group are busy, the user hears immediate busy tone and can manually select an idle line from another group (if one is available) before placing the call.
- When an LNR number that contains a PBX access code is redialed, the system inserts a pause after the PBX access code dials out. The duration of the pause is set in Program 9—Routine 4.

General feature definition — includes qualifying information and limitations.

Feature Operation

To use LNR:

- Press LNR key, if available.

OR

Dial *. The call dials out. Once the call finishes dialing, a confirmation beep sounds.

- At a Monitor phone, lift the handset to talk.

To manually select a line before using LNR:

- Press a Line key. Listen for dial tone over the speaker.
- Press MEM key.
- Press LNR key, if available.

OR

Dial *. The call dials out. Once the call finishes dialing, a confirmation beep sounds.

- At a Monitor phone, lift the handset to talk.

How to operate the feature from a MOD KEY phone.

Feature Description

Background Music (BGM), from a customer-provided music source such as a radio, can be broadcast over the speaker of any idle extension. The music source also provides music to outside callers on Hold—Music On Hold (MOH).

► Conditions

- a. A user must activate BGM but not MOH; MOH is automatic once a user puts a call on Hold.
- b. BGM is interrupted when the phone is used (e.g., when a call comes in) and automatically resumes when the phone returns to an idle state.

For installation information, see the Hardware Manual:
Installing The Optional Equipment—Installing a Music Source.

Feature Operation

To turn BGM on or off while the phone is idle:

- Do not lift handset.
1. Dial 9. The volume of BGM can be controlled using the dial located on the face or front edge of the phone.

CALL WAITING, INTERNAL

Feature Description

When an extension user makes an Intercom call and receives busy tone, Internal Call Waiting lets the user send a signal (beep) to the busy extension and then wait for a reply.

- ▶ **Conditions**
None

Feature Operation

To send a signal to a busy extension:

1. Place Intercom call; receive busy tone.
2. Press MEM key. A beep is sent and busy tone stops.
3. Wait for a reply.

To answer an Internal Call Waiting beep:

1. Put an outside call on Hold, then hold down the hookswitch if on a handset call.

OR

- Terminate the call in progress by holding down the hookswitch or pressing HF/SPK.
2. Wait for the phone to ring. MEM flashes.
 3. Release the hookswitch or press HF to be connected to the waiting call.

**Feature
Description**

Add-On Conference allows a three-way telephone conversation among two extension users and one outside party. An extension user first establishes an outside call, then adds another extension user to the conversation. Add-On Conference makes it easy to get a "second opinion" while on a call—a phone meeting in a few easy steps. (Also see Privacy Release in Section 2.)

Caution: When an Add-On Conference is established, the quality of audio reception and transmission may be degraded.

► **Conditions**
None

**Feature
Operation**

To establish an Add-On Conference:

1. Establish outside call.
2. Press HOLD key twice.
3. Dial extension number of invited inside party.
If you announce the Conference by pressing MEM after dialing, the invited party must lift the handset to answer.
4. After the invited party answers, press MEM.
5. Press HOLD. All three parties are connected. When one inside party hangs up, the other remains connected to the outside party.

To join an Add-On Conference when invited:

1. Lift handset.
2. Wait on the line to be connected to the others.

Feature Description

Multi-Line Conference allows a three-way telephone conversation among an extension user and two outside parties. This type of Conference lets an extension user hold a phone meeting with, for example, co-workers in two different branch offices.

Caution: When a Multi-Conference is established, the quality of audio reception and transmission may be degraded.

► **Conditions**

- a. When a Multi-Line Conference stays on Hold longer than the Hold Recall interval, it recalls (rings) the extension for 15 seconds, then stays on Hold for 15 more seconds (without recalling). If the conference is not re-established within that 30-second interval, it rings all extensions that normally receive ringing for the Conference lines. A user cannot re-establish a Conference when it recalls all extensions.

Feature Operation

To establish a Multi-Line Conference:

1. Establish first outside call.
2. Press HOLD key twice.
3. Establish second outside call.
4. Press MEM.
5. Press HOLD. All three parties are connected. When the inside party hangs up, the Conference is terminated. If one outside party hangs up, the extension user remains connected to the other outside party (if dial tone is heard through this conversation, the user should put the call on Hold, then pick it up by pressing the flashing Line key).

To put a Multi-Line Conference on Hold:

1. Press HOLD.
 - If using the handset, hang up.

To return to the Multi-Line Conference on Hold:

1. Press MEM.
2. Press HOLD.
 - At a Monitor phone, lift the handset to talk.

To remain connected to just one of the outside parties in a Multi-Line Conference:

1. Press the Line key of the call you wish to continue. The other call is automatically disconnected.

DIRECT STATION SELECTION KEYS (For Executive Phone Only)

Feature Description

The ten Direct Station Selection (DSS) keys above the dial provide one-button access to extensions 01-10, respectively. The lamp (LED) beside a DSS key displays the status of the corresponding extension: steadily lit means busy, and flashing means Do Not Disturb.

The DSS keys also represent Extension Speed Dial storage codes (01-10). After an Extension Speed Dial number is stored under a code in the usual way, it can be called by using the corresponding DSS key.

► Conditions

- a. An Executive phone user can, in effect, have more DSS keys by programming a function key to call another extension. See *User Programmable Features*, p. 2-6.

Feature Operation

To call an extension using a DSS key on an Executive Phone:

1. Press DSS key for desired extension.
 - Just speak toward the phone (Handsfree) or lift the handset to talk.

To call a Speed Dial number using a DSS key on an Executive Phone:

1. Press Line key. Listen for dial tone over the speaker.
2. Press DSS key that represents the desired code. The number dials out.
 - Just speak toward the phone (Handsfree) or lift the handset to talk.

DO NOT DISTURB (For Executive and 12-Line Phones Only)

Feature Description

While an extension is idle, a user can activate Do Not Disturb (DND) to block ringing from outside calls, Intercom calls and paged announcements. A user can still place calls and make pages while the phone is in DND.

► Conditions

- a. Since only incoming ringing is blocked for an outside call, the call can still be answered by pressing the flashing Line key.

Feature Operation

To activate DND:

- Do not lift handset.

 1. Press DND. Key lights.

To cancel DND:

- Do not lift handset.

 1. Press DND. Key extinguishes.

**Feature
Description**

Handsfree/Speakerphone lets a user place and answer calls without lifting the handset, making it very easy to work while on a call. Once a Handsfree call is established, a user just speaks toward the phone to converse; the phone's microphone will pick up the user's voice.

► Conditions

- a. A phone must be specially equipped for Handsfree. If it is not, refer to the Monitor feature.

**Feature
Operation**

To place an Intercom call using Handsfree:

- Do not lift handset.
1. Dial the extension number. The call goes through.

To answer a ringing Intercom call (MEM flashes) using Handsfree:

1. Press HF or SPK.

Note: On some phones, the Handsfree key is labeled HF/MIC.

To place an outside call using Handsfree:

- Do not lift handset.
1. Press a Line key. Listen for dial tone over the speaker.
 2. Dial telephone number.

To answer an outside call using Handsfree:

- Do not lift handset.
1. Press flashing Line key.

To hang up a Handsfree call:

1. Press HF or SPK.

To change to Handsfree during a handset call:

1. Press HF or SPK.
2. Hang up handset.

To change to the handset during a Handsfree call:

1. Lift handset.

LAST NUMBER REDIAL

Feature Description

The last outside number manually dialed at an extension is automatically stored in the memory of that extension. Up to 25 digits are stored. Last Number Redial (LNR) lets a user redial the last stored number in a single step, making it very easy to re-try busy or unanswered numbers.

► Conditions

- a. LNR does not store Speed Dial, Save, or Intercom numbers.
- b. LNR does not store a Flash or a pause that a user makes while dialing a call (for example, while waiting for a confirmation tone from a service such as MCI or SPRINT).
- c. An LNR call dials out on the same line used for the original call unless it is busy. When the original line is busy, the system selects another line in the same Line Group (see Program 8 for information on Line Groups). If all lines in the Line Group are busy, the user hears immediate busy tone and can manually select an idle line from another group (if one is available) before placing the call.
- d. When an LNR number that contains a PBX access code is redialed, the system inserts a pause after the PBX access code dials out. The duration of the pause is set in Program 9—Routine 4.

Feature Operation

To use LNR:

1. Press LNR key, if available.

OR

Dial *. The call dials out. Once the call finishes dialing, a confirmation beep sounds.

- At a Monitor phone, lift the handset to talk.

To manually select a line before using LNR:

1. Press a Line key. Listen for dial tone over the speaker.
2. Press MEM key.
3. Press LNR key, if available.

OR

Dial *. The call dials out. Once the call finishes dialing, a confirmation beep sounds.

- At a Monitor phone, lift the handset to talk.

MICROPHONE MUTE (For Executive and 12-Line Phones Only)

Feature Description

While on a Handsfree or handset call, a user can turn off the microphone. The user still hears the party on the line, but that party cannot hear the user. Turning off the microphone lets a user carry on a private conversation with someone in the office while on a call. The user must turn on the microphone to resume the telephone conversation.

► Conditions

- a. A call cannot be dialed while the microphone is off.

Feature Operation

To turn the microphone off while on a call:

1. Press MIC on an Executive Phone.

OR

Press DND on a 12-Line Phone. MIC/DND key lights.

To turn the microphone back on:

1. Press MIC on an Executive Phone.

OR

Press DND on a 12-Line Phone. MIC/DND key extinguishes.

MONITOR

Feature Description

Monitor lets a user dial a call without lifting the handset. When the call goes through, the user must lift the handset to talk. Monitor also lets a user replace the handset while on Hold and listen to the call over the speaker. When the party on the line returns, the user must lift handset to talk.

► **Conditions**

- a. If the phone is equipped with Handsfree, read the Handsfree feature instead.

Feature Operation

To place an Intercom call using Monitor:

- Do not lift handset.
1. Dial the extension number. The call goes through.
 2. When someone answers, lift the handset to talk.

To place an outside call using Monitor:

- Do not lift handset.
1. Press a Line key. Listen for a dial tone over the speaker.
 2. Dial telephone number.
 3. When someone answers, lift handset to talk.

To hang up a call during Monitor (i.e., the handset is already on-hook):

1. Press MON/MIC or SPK.

To change to Monitor during a handset call:

1. Press MON/MIC or SPK.
2. Hang up handset.

To change to the handset while using Monitor:

1. Lift handset.

Feature Description

External Zone Paging allows the installation of customer-provided paging speakers in large, noisy zones (such as a warehouse or factory). Extension users can make paged announcements to these zones from their phones. The system accommodates two external page zones.

For installation information, see the Hardware Manual: Installing The Optional Equipment—Installing External Paging Equipment.

► **Conditions**

None

Feature Operation

To page an external zone:
(Also see User Programmable Features, p. 2-6.)

1. Lift handset.
2. For external zone 1, dial 51.
OR
For external zone 2, dial 52.
3. Make announcement.
4. Hang up.

PULSE TO TONE CONVERSION

Feature Description

Pulse to Tone Conversion lets a user manually convert the dialing mode of a line from pulse to tone while dialing an outside call. An extension user can then use a pulse line to access computer services (such as MCI, SPRINT, automatic banking). When the user hangs up the call, the line automatically reverts to pulse.

► **Conditions**

- a. A pulse line automatically converts to tone after 25 digits have been manually dialed (i.e., digits 26, 27, etc., are tone dialed).

Feature Operation

To convert from pulse to tone while dialing an outside call:

1. Dial #. No signal is heard on the line. Digits dialed after # are dialed as tones.

Feature Description

After manually dialing an outside call, a user can "Save" (store) the number in memory (up to 25 digits) for easy dialing at a later time. Once a number is Saved, a user can place and answer other calls without affecting it: the Saved number stays in memory until a new one is Saved in its place.

► Conditions

- a. The Save feature does not store a pause that a user makes while dialing a call (for example, while waiting for a confirmation tone from a special service such as MCI or SPRINT).
- b. When a user calls a Saved number, the number dials out on the same line used for the original call unless it is busy. When the original line is busy, the system selects an available line in the assigned Line Group (see Program 8 for more information on Line Groups). If all lines in the Line Group are busy, the user hears immediate busy tone and can manually select an idle line from another group (if one is available) before placing the call.
- c. When a user calls a Saved number that contains a PBX access code, the system automatically inserts a pause after the PBX access code dials out. The duration of the pause is determined in Program 9—Routine 4.

Feature Operation

To store a number for Save:

1. Dial an outside call.
2. Press MEM anytime before hanging up.

OR

Dial # 0 after hanging up, but before dialing the next call.

To call a Saved number:

(Also see User Programmable Features, p. 2-6.)

1. Press MEM.
2. Dial 00. The call dials out. Once the call finishes dialing, a confirmation beep sounds.
 - At a Monitor phone, lift the handset to talk.

To manually select a line before calling a Saved number:

1. Press a Line key. Listen for dial tone over the speaker.
2. Press MEM.
3. Dial 00. The call dials out. Once the call finishes dialing, a confirmation beep sounds.
 - At a Monitor phone, lift the handset to talk.

SPEED DIAL, EXTENSION

Feature Description

Extension Speed Dial lets each user store up to 10 telephone numbers in memory for easy dialing at a later time. A user stores a number by assigning a code (01-10) to it, then calls the number by dialing the code. Each code stores up to 17 digits.

Three Special Entries

A Pause, Flash, or Pulse To Tone Conversion can be stored with a number. Each entry counts as a digit. A pause is frequently needed when storing a number to a special service (such as MCI, SPRINT). The duration of the pause is set in Program 9—Routine 4. For more information on the other entries, see Flash Type and Pulse To Tone Conversion.

► Conditions

- a. To store a number, an extension must have access to a line.
- b. Numbers longer than 17 digits must be stored under two codes. To call such a number, a user must manually link the codes.
- c. When a user stores exactly 17 digits, a long completion beep sounds. If the user attempts to store more, an error tone sounds.
- d. When linked Speed Dial numbers dial out on a pulse line, the first stored number dials out pulse, the second as tones.
- e. Extension Speed Dial numbers can be linked to manually dialed, Save, LNR, or System Speed Dial numbers.
- f. A pause does not have to be stored after a PBX access code.

Feature Operation

To store an Extension Speed Dial number:

(Also see Speed Dial Shortcuts, p. 1-18.)

1. Dial #. HF/MON/SPK key lights.
2. Press MEM.
3. Dial code (01-10). Listen for a beep. Line keys flash.
4. Press a flashing Line key to store a line. All keys then light steadily (except key 3 if the stored line is tone).
5. Dial number to be stored, including special entries:
 - For a Pause, press key 1 (press again to store another).
 - For a Flash, press key 2 (press again to store another).
 - For a Pulse to Tone Conversion (only one), press key 3.
 - * To erase an existing number, press only key 1 in this step.
6. Press HF/MON/SPK. Key extinguishes.

To call an Extension Speed Dial number:

(Also see User Programmable Features [p. 2-6] and DSS Keys [p. 1-7].)

1. Press MEM. HF/MON/SPK lights.
2. Dial code (01-10). Immediate busy tone means the call cannot dial out because the stored line and all lines in the assigned group are busy (see Line Groups, Program 8). To have the call dial out, select an idle line from another group before steps 1 and 2. To link Speed Dial codes, wait until the first stored number dials out, then repeat 1 & 2.
 - At a Monitor phone, lift the handset to talk.

Feature Description

System Speed Dial lets the system manager store 89 telephone numbers in memory for use by everyone in the system. The system manager stores a number by assigning a code (11-99) to it from extension 01. This allows any user to quickly call the number by dialing its associated code. Each code stores up to 17 digits.

Three Special Entries

A Pause, Flash, or Pulse To Tone Conversion can be stored with a number. Each entry counts as a digit. A pause is frequently needed when storing a number to a special service (such as MCI, SPRINT). The pause duration is set in Program 9—Routine 4. For more information on the other entries, see Flash Type and Pulse To Tone Conversion.

► Conditions

- Numbers longer than 17 digits must be stored under two codes. To call such a number, a user must manually link the codes.
- When a user stores exactly 17 digits, a long completion beep sounds. If the user attempts to store more, an error tone sounds.
- When linked Speed Dial numbers dial out on a pulse line, the first stored number dials out pulse, the second as tones.
- System Speed Dial numbers can be linked to manually dialed, Save, LNR or Extension Speed Dial numbers.
- An extension's Toll Restriction is applied to System Speed Dial numbers.
- A pause does not need to be stored after a PBX access code.

Feature Operation

To store a System Speed Dial number from extension 01:

(Also see Speed Dial Shortcuts, p. 1-18.)

- Dial #. HF/MON/SPK key lights.
- Press MEM, then dial code (11-99). Keys 1-12 flash and represent lines 1-12.
- Press a flashing key to store a line. To store lines 7-12 when using a 6-button phone, first press MEM to display lines 7-12 on keys 1-6. After a line is stored, the keys light steadily (except key 3 if the stored line is tone).
- Dial number to be stored, including special entries:
 - For a Pause, press key 1 (press again to store another).
 - For a Flash, press key 2 (press again to store another).
 - For a Pulse to Tone Conversion (only one), press key 3.
 - * To erase an existing number, press only key 1 in this step.
- Press HF/MON/SPK. Key extinguishes.

To call a System Speed Dial number from any extension:

(Also see User Programmable Features, p. 2-6.)

- Press MEM. HF/MON/SPK lights.
- Dial code (11-99). Immediate busy tone means the call cannot dial out (the stored line/group [see Program 8] is busy OR the extension does not have access to the stored line/group). To have the call dial out, manually select an idle line from another group (if one is available) before step 1. To link Speed Dial codes, wait until the first number dials out, then repeat 1 & 2.
 - At a Monitor phone, lift the handset to talk.

SPEED DIAL SHORTCUTS

Feature Description

Speed Dial Shortcuts facilitates the storing of Speed Dial numbers. The general Speed Dial storing procedure is shown below. The shortcuts are listed under Feature Operation.

To store a Speed Dial number:

1. Dial #.
2. Press MEM.
3. Dial storage code.
4. Press a flashing Line key to store a line.
5. Dial number to be stored, including special entries.
6. Press HF/MON/SPK.

- Conditions
None

Feature Operation

When a mistake is made in storing the digits (step 5):

1. Press key 4.
2. Start over from step 4 above.

To store numbers under consecutive codes without having to dial the codes:

1. After storing digits in step 5, press key 5 to access the next highest consecutive code.
2. To store the new number, repeat steps 4-5 above.

To store numbers under non-consecutive codes without having to start over from step 1:

1. After storing digits in step 5, press key 6.
2. To store the new number, repeat steps 3-5 above.

Feature Description

Transfer lets an extension user send an established outside call to another extension (even if it's busy). A user can first announce the call to the receiving extension before completing the transfer. Or, a user can transfer a call directly (without announcing it).

► Conditions

- To receive a Transfer, an extension must have access to the transferred line or a Transfer Receive key (see User Programmable Features, p. 2-6).
- When a busy extension receives a Transfer, the busy user hears a beep. To help the busy user distinguish the transferred line, any busy keys extinguish and the phone displays only the flashing key of the transferred call for 6-10 seconds, then returns the normal display.
- If a direct transfer is not answered within the programmed Hold Recall interval (Program 9—Routine 6), it recalls (rings) the transferring extension while continuing to ring at the receiving extension. If the call is not picked up (at either extension) within 15 seconds, the call stops ringing at the transferring extension but continues to ring at the receiving extension. Now, if the call is not picked up within 15 seconds, the call rings all extensions that normally receive ringing for that line.
- When a call is transferred, only the sending and receiving extensions have access to the call (until it recalls all phones as described in c).
- Intercom calls cannot be transferred.

Feature Operation

To Transfer a call:

- Press HOLD. Line key flashes.
- Dial the extension number to receive the call.
If busy tone is heard, there are two choices:
 - Return to the call as described below.
 - Perform steps 4-5 to send a (Call Waiting) beep to the busy extension to indicate that a call is waiting to be answered.
- Announce the call, if desired.
- Dial #.
- Hang up.

To return to the call when a Transfer is not accepted:

- Press flashing Line key.

To receive a Transfer (a Line/Transfer Receive key flashes):

- Press flashing key.
 - At a Monitor phone, lift the handset to talk.

VOLUME CONTROL

Feature Description

The Volume Control dial on the phone controls the volume of ringing, Background Music, and voice levels over the speaker. The control is either a thumbwheel on the front edge of the phone or a dial on the face of the phone.

► **Conditions**

None

Feature Operation

To increase the volume of ringing, Background Music or voice levels:

1. Turn the thumbwheel counterclockwise.

OR

Turn the face dial toward HI.

To decrease the volume of ringing, Background Music or voice levels:

1. Turn the thumbwheel clockwise.

OR

Turn the face dial away from HI.

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HOW THIS SECTION IS ORGANIZED

The MOD KEY 32 programs are presented in numerical order on the right-hand pages. Across from each program, on the facing left-hand page, is a description of the related MOD KEY 32 system and/or telephone feature(s). In other words, this section pairs a program with its related feature(s).

Approaching it from the other direction, a MOD KEY 32 programmable feature is described across from its basic required program. For example, Internal Paging is described across from Program 3 (see the sample below and on the next page). Any other programs that Internal Paging requires are listed under the subheading: Related Programmable Features. Always read the feature page first. For an alphabetical listing of features, see the Index.

PAGING, INTERNAL Internal Page Zones

A Sample Feature

General feature definition — includes qualifying information and limitations.

Other Programmable Features that must be considered for proper operation of the feature under discussion.

How to operate the feature from a MOD KEY phone. System features do not have operating instructions (shown as N/A).

Feature Description

Internal Paging lets an extension user make a paged announcement over the speaker of the other telephones in the system. There are two types of Internal Paging:

Internal Zone Paging lets a user page a group of extensions, or a "zone." All extensions that are programmed into the zone receive the page over their speakers. There are eight internal page zones in the system.

All Call Paging lets a user page all internal page zones simultaneously.

► Conditions

- Only one internal page can occur at a time. When attempting to make a page while one is already in progress, a user hears busy tone.
- An extension will not receive a page while it is busy or in Do Not Disturb.

► Related Programmable Features

Program 1–R3 provides one-button Paging.

Feature Operation

To make an internal page:

- Lift handset.
- Dial page zone code:
 - 41 to 48 for internal zones 1-8, respectively
 - 40 for All Call Paging
- Make announcement.
- Hang up.

A Sample Program

General description of software options — includes qualifying information and limitations.

Program Options

This program assigns an extension to an internal page zone. There are eight internal page zones. An extension can be a member of any, all, or no zones. An extension receives a page that is made to its assigned zone(s).

Conditions
None

Program number

Program 3

How to select an option code and enter it into the correct box (A, B, C, . . .) on the Program Record Form (PRF).

Option Codes

An extension is assigned an eight digit code:

A: 0—not in zone 8
1—in zone 8
B: 0—not in zone 7
1—in zone 7
C: 0—not in zone 6
1—in zone 6
D: 0—not in zone 5
1—in zone 5
E: 0—not in zone 4
1—in zone 4
F: 0—not in zone 3
1—in zone 3
G: 0—not in zone 2
1—in zone 2
H: 0—not in zone 1
1—in zone 1

Preset Value for all extensions:

A: 0
B: 0
C: 0
D: 0
E: 0
F: 0
G: 0
H: 0

Factory-installed value for the option

A sample selection and the corresponding entry on the PRF.

Example

Extension 12 is in zones 3 and 8.

	A	B	C	D	E	F	G	H
EXT. 12	1	0	0	0	0	1	0	0

How to enter the codes into memory using the telephone dialpad.

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial X.
3. Dial extension number to be programmed.
4. Enter ABCDEFGH data. Listen for a confirmation beep.

- To enter ABCDEFGH data for another extension, repeat steps 3-4.
- To exit the program, press HF/MON/SPK.

PROGRAMMING PREPARATION

System Initialization

When the system is first installed, run the System Initialization procedure below (if it has not been run already).

Caution: The System Initialization procedure sets all program options to their Preset Values with one exception: SMDR Time and Date are not changed. The System Initialization procedure also erases all Speed Dial numbers.

To initialize the system from extension 01:

1. Dial #.
2. Dial *.
3. Press HOLD key twice. Keys 1-5 should light momentarily, without flashing. When key 5 lights, this signifies that a cold start is in progress: the system is being successfully initialized. If any keys are flashing, see the Hardware Manual for a diagnosis (p. 2-16).

Dial Mode Initialization

The Dial Mode Initialization procedures set all lines to Dial Pulse (DP) or Dual Tone Multifrequency (DTMF). Upon System Initialization (above), all lines are DTMF.

Caution: The Dial Mode Initialization procedures set the options in Programs 1, 4, 8, 9 to their Preset Values. All other programs are not affected and Speed Dial numbers are not erased.

To initialize the system with DTMF or DP lines:

1. Dial # *.
2. For DTMF, dial 91
OR
For DP, dial 92.
3. Press HF/MON/SPK.

Note: Program 8 sets the Dial Mode for individual lines.

Using the Program Record Form

To aid in maintenance and trouble-shooting, record the customer-preferred program options on the Program Record Form (PRF). To do this, read a MOD KEY 32 Program, ask the customer which is the preferred option, then record the option code in the PRF boxes. (The program options begin on page 2-7).

For easy reference, a feature description for each program option is located across from the option (see example on pages 2-2 and 2-3). This makes it easy to answer any questions you or the customer might have about an option.

Data Entry

The program options are entered into system memory using the extension 01 telephone. Any MOD KEY telephone can be used. All codes are entered using the telephone dialpad: they are actually "dialed into memory." All entry instructions assume that the handset is on-hook. The entry procedure for Program 9—Routine 6 is shown below:

From extension 01:

1. Dial #. This produces a steady tone over the speaker.
2. Dial 9 6. These are the program and routine numbers. The program number is always dialed in step 2. Depending on the program, the routine number is dialed either in step 2 or later in the procedure.
3. Enter ABCDEFGH data. That is, "Dial the codes that are in PRF boxes ABCDEFGH." You should always listen for a confirmation beep.
4. Press HF/MON/SPK. This exits the program. HF/MON/SPK is shorthand for the following keys: HF, HF/MIC, MON/MIC, SPK (the speaker key).

Note: Entry instructions are at the bottom of each program page and on the PRF.

Errors

When you make an error in entering data, a fast busy tone sounds. Press HF/MON/SPK and start over.

Copy Routines

Copy routines are available for Programs 1,2,3,4,5, 7 and 8. After you make an entry and receive a confirmation beep, you can copy the same data to other extensions or lines.

To copy data to non-consecutive extensions or lines after receiving a confirmation beep:

1. Dial *, then an extension or line number.
For example: To copy data to line 02, dial * 02.

To copy data to a consecutive block of extensions or lines after receiving a confirmation beep:

1. Dial *, *, then the first and last extension/line number in block.
For example: To copy data to extensions 12-17, dial * * 12 17.

Note: You can use a copy routine from the idle state:

1. Dial #.
2. Dial program number.
3. Dial extension or line number to be copied from.
4. Use the preferred copy routine above. When copying Program 1 data, be careful not to copy the data for a 12-button phone to a 6-button phone.

USER PROGRAMMABLE FEATURES

Clear/Transfer Receive, Direct Station Selection (DSS), Speed Dial/Save, Paging

Feature Description

The User Programmable Features let an extension user assign a feature to a Function key (1-12). There are four feature choices for a key (see below). However, a user can make these assignments only after the system programmer assigns these features to the keys using the instructions on the next page. Then, a user can reassign those feature keys using the routine (R) numbers, feature (F) codes, and instructions below.

R0: Clear/Transfer Receive F: None

This routine clears a feature key (i.e., a DSS, Speed Dial/Save or Paging key). A cleared key can receive Transfers on lines not normally available to the extension. (Also see Transfer.)

R1: Direct Station Selection (DSS) F: Extension (01-32, 00/attendant)

This routine assigns an extension number to a key so that a user can call that extension by pressing the key. A DSS key lights when the assigned extension is busy and flashes when in Do Not Disturb. (Also see Intercom Calls.)

R2: Speed Dial/Save F: Storage code (01-99/00)

This routine assigns a Speed Dial/Save code to a key so that a user can make a Speed Dial/Save call by pressing the key. (Also see Speed Dial/Save.)

R3: Paging F: Internal Zones (40-48), External Zones (51-52)

This routine assigns a page zone to a key so that a user can page that zone by pressing the key. A page key lights when a zone is busy. (See Paging.)

► **Conditions**

- When a few keys are for Transfer Receive, a Transfer comes in on the highest numbered key, and if busy, on the next highest, etc.
- A Speed Dial/Save number must be stored under a code as usual.
- The system lets only one user at a time reassign keys.

► **Related Programmable Features**

Program 1—R4 assigns lines to Function keys

Feature Operation

To use a feature key:

- Press the key. If busy tone is heard before a Speed Dial/Save call dials out, the call can still dial out as follows: press an idle Line key, then MEM, then the Speed Dial/Save key.

To reassign a feature key, a user must:

- Dial #. A steady tone sounds over the speaker.
- Dial 1. Busy tone means someone else is reassigning keys. Press HF/MON/SPK and try again later.
- Dial his/her own extension number. Flashing keys are lines and cannot be reassigned. Unlit keys → R0; steadily-lit keys → R(1-3).
- Press desired feature key.
- Dial routine number, then feature code. Listen for a beep.
 - To reassign another key, repeat 4-5. To stop, press HF/MON/SPK.

Program Options

Each routine assigns a feature to a Function key (1-12). The system programmer uses these routines from extension 01 to make Function key assignments for all extensions:

- Routine 1—Direct Station Selection Routine 3—Paging
 Routine 2—Speed Dial/Save

Note: Routine 0 (pg. 2-6) clears a feature key, not a Line key. Since all Function keys are initially Line keys, the system programmer cannot use Routine 0 to clear those keys for Transfer Receive. To clear a Line key for Transfer Receive, the system programmer must use Program 1—Routine 4 or H (from extension 01).

► **Conditions**

- a. After the programmer assigns features to the Function keys, the users can change the feature assignments to meet their needs (pg. 2-6).

Option Codes

Each routine (R) has a code. Write the R number in the top half of the Key box, and the code in the bottom half.

- R1: Extension no. (00-32)
 R2: Speed Dial/Save code (00-99)
 R3: Page zone code (40-48, 51-52)

Preset Value for all Function keys:

- Lines 01-06 on keys 1-6, or
 Lines 01-12 on keys 1-12. If no 12-line phone is installed, keys 7-12 display on keys 1-6 at extension 05.

► **Example**

Extension 12 has Function key 1 for page zone 42, Function key 3 for extension 22, and Function key 5 for Speed Dial code 09. (Leave a Key box blank if no feature is assigned.)

Keys→	1	2	3	4	5	6	7	8	9	10	11
EXT. 12	3 42	/	1 22	/	2 09	/	/	/	/	/	/

Entering Codes Into Memory

From extension 01:

- Dial #.
- Dial 1.
- Dial extension number to be programmed. Key assignments display. Flashing keys are lines. Steadily-lit keys are R(1-3). Unlit keys are Transfer Receive. When using a 6-button phone to program a 12-button phone, press MEM to display keys 7-12 on keys 1-6 (MEM lights).
- Press desired key. Key lights; other Function keys extinguish.
- Dial routine number (1-3).
- Enter option code. Listen for confirmation beep. If MEM was pressed in step 3, it extinguishes and the phone shows the status of keys 1-6.
 - To enter data for another key at same extension, repeat steps 4-6.
 - To enter data for another extension, repeat steps 3-6.
 - To exit the program, press HF/MON/SPK.

LINE ACCESS AND RINGING

Placing and Answering Outside Calls

Feature Description

Line Access and Ringing lets the system programmer assign CO/PBX/Centrex lines to the Function keys (1-12) so that the users can place and/or answer outside calls. Once a line is assigned to a key, the programmer turns ringing on or off for the line. This feature also lets the programmer clear a line from a Function key.

► **Conditions**

None

► **Related Programmable Features**

Program 1—R1 to 3	assigns features to keys
Program 1—RH	clears all Function keys at an extension
Program 2	provides an alternate ringing mode; alerts a busy extension of an incoming call
Program 4	restricts outgoing calls
Program 7	assigns PBX/Centrex access codes to lines
Program 8	assigns pulse/tone dialing to lines
Program 9—R1	delays dial tone (INT'L USE ONLY)
Program 9—R8	releases the privacy on lines

Feature Operation

To place a call on a CO line:

1. Press Line key. Listen for dial tone over the speaker.
 2. Dial telephone number. When more than 25 digits are dialed on pulse line, the 26th, 27th, etc. automatically dial out in tones.
- At a Monitor phone, lift the handset to talk.

To place a call on a PBX/Centrex line:

1. Press Line key. Listen for dial tone over the speaker.
 2. Dial PBX access code. Listen for new dial tone.
 3. Dial telephone number. When more than 25 digits are dialed on pulse line, the 26th, 27th, etc. automatically dial out in tones.
- At a Monitor phone, lift the handset to talk.

To answer a call (Line key flashes):

1. Press a flashing Line key.
- At a Monitor phone, lift the handset to talk.

Program Options

This routine assigns a line to a Function key (1-12). A line can be two-way (incoming and outgoing) or one-way (incoming only). Incoming lines can be programmed to ring or not ring. Routine 4 also clears a line from a Function key. When a line is cleared, the key automatically assumes the Transfer Receive function (p. 2-6).

► Conditions

- A line cannot be assigned to more than one key at a phone.
- When a 12-button phone replaces a 6-button phone, Function keys 7-12 initialize as Transfer Receive keys.
- When a 6-button phone replaces a 12-button phone, keys 7-12 must be cleared.

Option Codes

A four-digit code is assigned to a key:

- AB: Line number (01-12)
[00 clears a line]
- C: 0—incoming only
1—incoming/outgoing
- D: 0—no ring
1—ring

Preset Value for all keys at all extensions:

- AB: Line 01-06 on keys 1-6; lines 01-12 on keys 1-12. If no 12-line phone is installed, lines 7-12 display on keys 1-6 at extension 05.
- C: 1
- D: 1

► Example

Ext. 12 has: Line 03—On key 1, incoming only, with ringing
Line 04—On key 6, incoming/outgoing, no ringing
(Put the routine number in the top half of the box.)

Keys→	1	2	3	4	5	6	7	8	9	10	11
EXT. 12	4 0301	/	/	/	/	4 0410	/	/	/	/	/

Entering Codes into Memory

From extension 01 only:

- Dial #.
- Dial 1.
- Dial extension number to be programmed. Key assignments display. Flashing keys are lines. Steadily-lit keys represent feature routines 1-3. Unlit keys are Transfer Receive. When using a 6-button phone to program a 12-button phone, press MEM to display keys 7-12 on keys 1-6 (MEM lights).
- Press desired key. Key lights; other Function keys go out.
- Dial 4.
- Enter ABCD code OR enter 00 to clear a key. Listen for a confirmation beep. If MEM was pressed in step 3, it extinguishes and the phone shows the status of keys 1-6.

- To enter data for another key at same extension, repeat steps 4-6.
- To enter data for another extension, repeat steps 3-6.
- To exit the program, press HF/MON/SPK.

CLEAR ALL FUNCTION KEYS

Feature Description

Clear All Function Keys is a single procedure which lets the system programmer clear all Function key assignments at an extension. The system programmer saves time using this procedure instead of Program 1—Routine 4. When the keys are cleared, they automatically assume the Transfer Receive function (p. 2-6).

► **Conditions**

None

► **Related Programmable Features**

Program 1—R1 to 3 assigns features to Function keys

Program 1—R4 assigns outside lines to Function keys

Feature Operation

N/A

Program Options This routine activates the feature, Clear All Function Keys.

► **Conditions**
None

Option Codes N/A

Entering Codes into Memory From extension 01 only:

1. Dial #.
2. Dial 1.
3. Dial extension number to be cleared. Key assignments display. Flashing keys are lines. Steadily-lit keys are features (Program 1—R [1-3]). Unlit keys are Transfer Receive. When using a 6-button phone to program a 12-button phone, press MEM to display keys 7-12 on keys 1-6 (MEM lights).
4. Press HOLD key twice. Listen for confirmation beep. If MEM was pressed in step 3, it extinguishes, and the phone shows the status of keys 1-6.
 - To clear the keys at another extension, repeat steps 3-4.
 - To assign features/lines to the extension that was just cleared, perform steps 3-6 from Program 1—Routines 1-3.
 - To exit the program, press HF/MON/SPK.

Feature Description

Night Ringing provides an alternate ringing assignment for an extension. An extension that is programmed for Night Ringing receives ringing capability on all its lines when the attendant enables the Night Mode. The attendant usually enables the Night Mode after business hours. This way, lines that normally ring only at the attendant phone during the day can ring at other extensions after business hours. When the attendant disables the Night Mode, the system returns the normal (day) ringing assignments to the programmed extensions.

Door Chime Recipients designates the extensions to receive chime tones from a Door Chime Box. An extension can receive chime tones from one, both, or no boxes.

External Call Waiting sends a signal (beep) to a busy extension when an incoming outside or transferred call is waiting to be answered. In addition, the Line key for the waiting call flashes. This way, an extension user who is busy on a call won't miss a new call.

- ▶ **Conditions**
 - a. The Night Mode can be enabled from extension 01 or 06 only.
 - b. Extensions that are not programmed for Night Ringing maintain their normal ringing assignments when the attendant enables the Night Mode.
 - c. An extension receives External Call Waiting beeps only on lines that are programmed for (day) ringing.

- ▶ **Related Programmable Features**
 - Program 9—R* installs a Door Chime Box and shows how to use it
 - Program 1—R4 assigns (day) ringing to lines

Feature Operation

Night Mode

To enable or disable the Night Mode (from extension 01 or 06):

1. Dial #. HF/MON/SPK lights.
2. Dial 9 9.
3. To activate, dial 1

OR

To disable, dial 0. HF/MON/SPK key extinguishes.

External Call Waiting

To answer an External Call Waiting beep:

1. (Optional) Put an outside call on Hold. If on an Intercom call, skip to step 2; Intercom calls cannot be put on Hold.
2. Press the flashing Line key.

Note: When a transfer comes into a busy extension, any busy key at that extension momentarily extinguishes. The phone shows only the flashing Line key of the transferred call for about six to ten seconds (or until the call is answered).

Program Options

This program determines whether an extension receives:

- Night Ringing
- Chime tones from Door Chime Box 31
- Chime tones from Door Chime Box 32
- External Call Waiting (CW) beeps

► **Conditions**

- a. This program enables or disables External CW beeps for incoming calls, but cannot disable External Call Waiting beeps for transferred calls.

Option Codes

An extension is assigned a four-digit code:

Preset Value for all extensions:

A: 0—disable Night Ringing 1—enable Night Ringing	A: 0
B: 0—disable Door 31 chimes 1—enable Door 31 chimes	B: 0
C: 0—disable Door 32 chimes 1—enable Door 32 chimes	C: 0
D: 0—disable CW beeps 1—enable CW beeps	D: 0

► **Example**

Night Ringing and External CW beeps are enabled for extension 12.

	A	B	C	D
EXT. 12	1	0	0	1

Entering Codes into Memory

From extension 01:

1. Dial #.
 2. Dial 2.
 3. Dial extension number to be programmed.
 4. Enter ABCD data. Listen for a confirmation beep.
- To enter ABCD data for another same extension, repeat steps 3-4.
 - To exit the program, press HF/MON/SPK.

**Feature
Description**

Internal Paging lets an extension user make a paged announcement over the speaker of the other telephones in the system. There are two types of Internal Paging:

Internal Zone Paging lets a user page a group of extensions, or a "zone." All extensions that are programmed into the zone receive the page over their speakers. There are eight internal page zones in the system.

All Call Paging lets a user page all internal page zones simultaneously.

- ▶ **Conditions**
 - a. Only one internal page can occur at a time. When attempting to make a page while one is already in progress, a user hears busy tone.
 - b. An extension will not receive a page while it is busy or in Do Not Disturb.
- ▶ **Related Programmable Features**
Program 1—R3 provides one-button Paging

**Feature
Operation**

To make an internal page:

1. Lift handset.
2. Dial page zone code:
 - 41 to 48 for internal zones 1-8, respectively
 - 40 for All Call Paging
3. Make announcement.
4. Hang up.

Program Options

This program assigns an extension to an internal page zone. There are eight internal page zones. An extension can be a member of any, all, or no zones. An extension receives a page that is made to its assigned zone(s).

► Conditions

None

Option Codes

An extension is assigned an eight digit code:

- A: 0—not in zone 8
1—in zone 8
- B: 0—not in zone 7
1—in zone 7
- C: 0—not in zone 6
1—in zone 6
- D: 0—not in zone 5
1—in zone 5
- E: 0—not in zone 4
1—in zone 4
- F: 0—not in zone 3
1—in zone 3
- G: 0—not in zone 2
1—in zone 2
- H: 0—not in zone 1
1—in zone 1

Preset Value for all extensions:

- A: 0
- B: 0
- C: 0
- D: 0
- E: 0
- F: 0
- G: 0
- H: 0

► Example

Extension 12 is in zones 3 and 8.

	A	B	C	D	E	F	G	H
EXT. 12	1	0	0	0	0	1	0	0

Entering Codes into Memory

From extension 01:

1. Dial #.
 2. Dial 3.
 3. Dial extension number to be programmed.
 4. Enter ABCDEFGH data. Listen for a confirmation beep.
- To enter ABCDEFGH data for another extension, repeat steps 3-4.
 - To exit the program, press HF/MON/SPK.

TOLL RESTRICTION (For "Leading 1" Areas Only)

Feature Description

Toll Restriction helps control communication costs by restricting the types of outside calls that can be placed from an extension. The four components of Toll Restriction described below are for "leading 1" areas (that is, areas where a "1" is required before a toll or long distance call). For information on "non-leading 1" areas, see page 2-18.

"Leading 0" Restriction

This component determines whether or not an extension can dial a call with a "leading 0" (i.e., "0" as the first digit).

"Leading 1" Restriction

This component determines whether or not an extension can dial a call with a "leading 1" (i.e., "1" as the first digit). When an extension is prevented from dialing a "leading 1," the user cannot dial a toll or long distance call unless the next two components are enabled.

"Allow Exceptions" Flag

When an extension is restricted from dialing a "leading 1" (above), this component allows "exceptions to the rule." If exceptions are desired, then they must be selected in the next component.

Exception Definition

This component determines the type of calls that a restricted extension can dial. There are two categories of allowed calls:

- Local calls, toll calls within the local area code, and, *if desired*, calls to specific area codes (i.e., 1 + 10-digit calls.) The allowed area codes must be entered in Program 5 as Exception Codes.

OR

- Only calls to specific area or exchange codes (but not both). The allowed area/exchange codes must be entered in Program 5 as Exception Codes.

► Conditions

- a. When an extension is restricted, the Digit Counter in Program 5 goes into effect.
- b. A restricted extension can be assigned a Nonrestricted Line. Restrictions are ignored on this line.
- c. Restrictions are applied after a PBX/Centrex code is dialed.
- d. A restricted extension can always dial 911, 611 and 1-800 + 7 digits; however, 411 must be entered as an Exception Code.

► Related Programmable Features

Program 1—R4	provides an extension with outgoing access to a line
Program 5	limits the number of digits that can be dialed and allows up to 10 Exception Codes
Program 8	sets up a Nonrestricted Line

Feature Operation

N/A

Program Options This program assigns Toll Restriction to an extension.

► **Conditions**

- a. When A = 0, B has no effect. When A =1, B is active.
- b. When an extension must dial local calls and toll calls, some of which contain conflict codes (an exchange code with 0 or 1 as the second digit), use the following configuration: ABCD = 10X1 (X = 0 or 1). The conflict codes do not have to be entered as Exception Codes.

Option Codes

<p>An extension is assigned a four-digit code:</p> <p>C: 0—allow "leading 0" 1—restrict "leading 0"</p> <p>D: 0—allow "leading 1" 1—restrict "leading 1"</p> <p>A: 0—no exceptions allowed 1—exceptions allowed</p> <p>B: 0—allow local calls, toll calls, and Exception Codes 1—allow only Exception Codes</p>	<p>Preset Value for all extensions:</p> <p>C: 0</p> <p>D: 0</p> <p>A: 0 (Unrestricted)</p> <p>B: 0</p>
---	--

Note: Be careful to insert the option codes into the correct boxes (e.g., the "leading 0" option goes in the C [third] box).

► **Examples**

1. Extension 14 can dial only local calls.

	A	B	C	D	
EXT. 14	0	0	1	1	(In Program 5: Enter 07.)

2. Extension 26 can only call area codes 617 and 506.

	A	B	C	D	
EXT. 26	1	1	1	1	(In Program 5: Enter 10, 617, 506.)

3. Extension 31 can dial local calls, toll calls, area code 718 and "leading 0."

	A	B	C	D	
EXT. 31	1	0	0	1	(In Program 5: Enter 10, 718.)

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 4.
3. Dial extension number to be programmed.
4. Enter ABCD data. Listen for a confirmation beep.

- To enter ABCD data for another extension, repeat steps 3-4.
- To exit the program, press HF/MON/SPK.

TOLL RESTRICTION (For "Non-Leading 1" Areas Only)

Feature Description

Toll Restriction helps control communication costs by restricting the types of outside calls that can be placed from an extension. The four components of Toll Restriction described below are for "non-leading 1" areas (that is, areas where a "1" is not required before a long distance [10-digit] call). For information on "leading 1" areas, see page 2-16.

"Leading 0" Restriction

This component determines whether or not an extension can dial a call with a "leading 0" (i.e., "0" as the first digit).

"Leading 1" Option

This component determines whether or not an extension can dial a call with a "leading 1" (i.e., "1" as the first digit). In "non-leading 1" areas, an extension should always be allowed to dial a "leading 1" unless the extension must be able to dial conflict codes (see condition b on the next page).

Restrict Extensions By Area/Exchange Codes

This component determines whether or not an extension is restricted to calling the area and exchange codes defined in the next component.

Area and Exchange Code Restrictions

This component selects the type of calls that an extension can dial. There are two categories of allowed calls:

- Local calls, toll calls within the local area code, and, *if desired*, calls to specific area codes (i.e., 10-digit calls.) The allowed area codes must be entered in Program 5 as Exception Codes.

OR

- Only calls to specific area or exchange codes (but not both). The allowed area/exchange codes must be entered in Program 5 as Exception Codes.

► Conditions

- a. When an extension is restricted, the Digit Counter in Program 5 goes into effect.
- b. A restricted extension can be assigned a Nonrestricted Line. Restrictions are ignored on this line.
- c. Restrictions are applied after a PBX/Centrex code is dialed.
- d. A restricted extension can always dial 911, 611 and 800 + 7 digits; however, 411 must be entered as an Exception Code.

► Related Programmable Features

- | | |
|--------------|--|
| Program 1—R4 | provides an extension with outgoing access to a line |
| Program 5 | limits the number of digits that can be dialed and allows up to 10 Exception Codes |
| Program 8 | sets up a Nonrestricted Line |

Feature Operation

N/A

Program Options

This program assigns Toll Restriction to an extension.

► Conditions

- a. When A = 0, B has no effect. When A = 1, B is active.
- b. When an extension must dial local calls and toll calls, some of which contain conflict codes (an exchange code with 0 or 1 as the second digit), use the following configuration: ABCD = 10X1 (X = 0 or 1). The conflict codes do not have to be entered as Exception Codes.

Option Codes

An extension is assigned a four-digit code:	Preset Value for all extensions:
C: 0—allow "leading 0" 1—restrict "leading 0"	C: 0
D: 0—allow "leading 1" 1—restrict "leading 1"	D: 0
A: 0—restrictions are not defined by component B 1—restrictions are defined by component B	A: 0 (Unrestricted)
B: 0—allow local calls, toll calls, and Exception Codes 1—allow only Exception Codes	B: 0

Note: Be careful to insert the option codes into the correct boxes (e.g., the "leading 0" option goes in the C [third] box).

► Examples

1. Extension 14 can dial only local calls.

	A B C D					
EXT. 14	<table border="1" style="display: inline-table; text-align: center;"> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">1</td> <td style="width: 20px;">1</td> <td style="width: 20px;">0</td> </tr> </table>	1	1	1	0	(In Program 5: Enter 07, then up to 10 local exchange codes.)
1	1	1	0			

2. Extension 26 can only call area codes 617 and 506.

	A B C D					
EXT. 26	<table border="1" style="display: inline-table; text-align: center;"> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">1</td> <td style="width: 20px;">1</td> <td style="width: 20px;">0</td> </tr> </table>	1	1	1	0	(In Program 5: Enter 10, 617, 506.)
1	1	1	0			

3. Extension 31 can dial local calls, toll calls, area code 718 and "leading 0."

	A B C D					
EXT. 31	<table border="1" style="display: inline-table; text-align: center;"> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">0</td> <td style="width: 20px;">0</td> <td style="width: 20px;">0</td> </tr> </table>	1	0	0	0	(In Program 5: Enter 10, 718.)
1	0	0	0			

Entering Codes into Memory

From extension 01:

1. Dial #.
 2. Dial 4.
 3. Dial extension number to be programmed.
 4. Enter ABCD data. Listen for a confirmation beep.
- To enter ABCD data for another extension, repeat steps 3-4.
 - To exit the program, press HF/MON/SPK.

Feature Description

Digit Counter and Exceptions Codes are related to Toll Restriction. They are only used for restricted extensions.

Digit Counter sets a maximum on the number of digits that can be dialed on an outside call.

Setting a maximum on dialed digits prevents an extension user from bypassing Toll Restriction. A bypass can occur when an extension user has made an outside call and the outside party hangs up first, giving the user dial tone to place a second call. A call that is placed using this dial tone bypasses Toll Restriction because the Line key was not pressed to get the dial tone. However, when a maximum is set, the user will not be able to dial another call because the maximum number of digits was dialed (or nearly dialed) on the first outgoing call.

Exception Codes are the particular area codes or exchange codes that can be dialed from a restricted extension.

► Conditions

- a. The Digit Counter does not count a "leading 1". So, to allow 10-digit calls or 1 + 10-digit calls, enter 10 for the Digit Counter. To allow 7-digit or 1 + 7-digit calls, enter 07.
- b. The Digit Counter does not count a PBX access code.
- c. When B = 0 in Program 4, the Exception Codes can only be area codes. When B = 1 in Program 4, the Exception Codes can be area codes or exchange codes but not both.
- d. There is no need to enter 611, 911, or 800 as Exception Codes; they can always be dialed regardless of restrictions.
- e. A restricted extension can dial exactly 7 digits after dialing an 800 number regardless of the entry in the Digit Counter.
- f. When an extension is unrestricted, any number of digits can be dialed from that extension regardless of the entry made for the Digit Counter.

► Related Programmable Features

Program 4 assigns a Toll Restriction to an extension

Feature Operation

N/A

Program Options

This program sets the Digit Counter and assigns the Exception Codes for an extension. The Digit Counter can be set from 03 to 99. Up to ten Exception Codes may be assigned to an extension. Each code is three digits (area code or exchange code).

► Conditions

- When 00 is entered for the Digit Counter, all Exception Codes are cleared and the Digit Counter is automatically set to the Preset Value, 25.
- When the first Exception Code is entered, any existing Exception Codes are cleared. To clear all Exception Codes, enter the desired Digit Counter in step 4 (below), then enter any single-digit number in step 5 and press HF/MON/SPK.

Option Codes

An extension is assigned a two-digit code (AB), then a series of three-digit codes (CDE):

AB: Maximum number of digits dialed (03-99)
CDE: Exception Code

Preset Value for all extensions:

AB: 25

CDE: Unassigned

► Example

Extension 14 can dial a maximum of 10 digits on an outside line. It can dial the following exchange codes: 377, 378 and 375.

	AB	CDE	CDE	CDE	CDE	CDE	CDE	CDE	CDE	CDE
EXT. 14	10	377	378	375						

Entering Codes into Memory

- Dial #.
 - Dial 5.
 - Dial extension number to be programmed.
 - Enter AB data. Listen for a confirmation beep.
 - Enter each set of CDE data. Listen for a short confirmation beep after each set.
- If entering less than 10 sets of CDE data for an extension, repeat steps 1-5 to enter AB and CDE data for another extension.
 - If entering exactly 10 sets of CDE data for an extension, you'll hear a long completion beep and can enter AB and CDE data for another extension starting from step 3.
 - To exit the program, press HF/MON/SPK.

SMDR TIME and DATE

Feature Description

The system has a real time clock and calendar for SMDR (Station Message Detail Recording). The time is set in hours, minutes, and seconds. The date is set for the year, month, and day.

- ▶ **Conditions**
 - a. If MOD KEY 32 system power is off for an extended period of time (for example, due to a power failure), the time and date may have to be reset.
 - b. The time and date must be entered in order for SMDR to operate properly.
- ▶ **Related Programmable Features**

Program 6—R4 selects the type of calls printed for SMDR

Feature Operation

N/A

Program Options

Routine 1 sets the time for SMDR. Routine 2 sets the date for SMDR.

- **Conditions**
None

Option Codes

A six-digit code is entered for each Routine:

Routine 1

AB: Hour (00-23)
CD: Minutes (00-59)
EF: Seconds (00-59)

Routine 2

AB: Year (Last two digits)
CD: Month (01-12)
EF: Day (01-31)

Preset Value**Routine 1**

AB: Unassigned
CD: Unassigned
EF: Unassigned

Routine 2

AB: Unassigned
CD: Unassigned
EF: Unassigned

- **Example**

The clock is set for 1:30 PM and 10 seconds. The date is set for June 10, 1987.

Routine 1

A	B	C	D	E	F
1	3	3	0	1	0

Routine 2

A	B	C	D	E	F
8	7	0	6	1	0

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 6, then the routine number (1 or 2).
3. Enter ABCDEF data. Listen for confirmation beep.

- To enter ABCDEF data for the other routine, repeat steps 1-3.
- To exit the program, press HF/MON/SPK.

SMDR PRINT OPTIONS

Feature Description

The SMDR Print Options determine which type of outgoing calls are recorded for SMDR.

► **Conditions**

None

► **Related Programmable Features**

Program 6—R1 sets the clock for SMDR

Program 6—R2 sets the date for SMDR

Feature Operation

N/A

Program Options

This routine selects the type of outgoing calls recorded on SMDR according to number of digits dialed and the duration of the call.

Number of Dialed Digits

The system can print outgoing calls that contain any number of digits OR only calls that contain 10 or more digits.

Duration

The system can print outgoing calls of any duration OR only calls that last more than one minute.

- ▶ **Conditions**
 - a. The system prints all incoming calls, regardless of duration.

Option Codes

A two-digit code is assigned:

Preset Value

A: 0—records any number of dialed digits

A: 0

1—records calls that are 10 digits or more

B: 0—records calls of any duration

B: 0

1—records calls that last more than one minute

- ▶ **Example**
SMDR prints outgoing calls that contain 10 or more digits and last more than one minute.

A B

1	1
---	---

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 6 4.
3. Enter AB data. Listen for confirmation beep.
4. Press HF/MON/SPK.

LOUD EXTENSION BELLS

Feature Description

A loud ringer (bell) can be connected to the KSU so that whenever a call comes into a designated extension, the bell rings. This is useful when an extension is located in a noisy area, such as a car service garage, and the mechanic needs loud notification of an incoming call (intercom, outside or transferred).

For installation information, see the Hardware Manual: Installing The Optional Equipment—Installing Loud Extension Bells.

- ▶ **Conditions**
None
- ▶ **Related Programmable Features**
None

Feature Operation

N/A

Program Options

This routine selects the extension to be associated with each Loud Extension Bell. The system accommodates two Loud Extension Bells.

- **Conditions**
None

Option Codes

A two-digit extension number is assigned to a bell:

CD: Extension number (01-32)

Preset Value for both bells:

CD: 00 (Unassigned)

- **Example**

Two Loud Extension Bells are connected to the system. When a call reaches extensions 14 or 15, a bell rings.

	C	D
LOUD BELL A	1	4
LOUD BELL B	1	5

Entering Codes into Memory

From extension 01:

1. Dial #.
 2. Dial 6 5.
 3. Enter CD data. Listen for a confirmation beep.
- To enter CD data for Loud Bell B, repeat step 3.
 - To exit the program, press HF/MON/SPK.

PBX/CENTREX COMPATIBILITY

PBX/Centrex Access Codes

Feature Description

The MOD KEY 32 system can be installed behind a PBX or Centrex. When it is, a user must dial a code to access a telco line for an outgoing call. The PBX/Centrex access codes must be entered in programming so that the system knows to insert a pause after the access code is auto-dialed by the Last Number Redial, Save and Speed Dial features. Another reason for entering the codes is so that the system knows when to start applying Toll Restriction on the line (restrictions are applied after the code is dialed).

► **Conditions**

None

► **Related Programmable Features**

Program 1—R4 assigns a line to a Function key

Program 4 assigns Toll Restriction to an extension

Program 8 provides a Flash which is used to access PBX/Centrex features

Program 9—R4 determines the duration of the pause inserted after a PBX/Centrex code is auto-dialed

Feature Operation

N/A

Program Options

This program assigns up to two PBX/Centrex access codes per installed line. Each code can contain up to three digits.

► Conditions

- Although only a one- or two-digit PBX access code may be necessary, this program requires a three-digit entry. To compensate, enter # in the unused positions. For example, if PBX access code 78 is required, enter 7 8 #.
- An asterisk (*) is a "wild card" character which represents any digit. For example, if all numbers between 50 and 59 are PBX access codes, enter 5 * #.
- The first digit of the code must be between 0 and 9. The second and third digits can be 0-9, *, or #.
- The # character cannot be followed by a digit (0-9) in a PBX access code.

Option Codes

A line is assigned one or two three-digit codes:

ABC: PBX access code 1

DEF: PBX access code 2

Preset Value for all lines:

ABC: Unassigned

DEF: Unassigned

► Example

Line 02 has two PBX access codes: 9 and 345.

Line 03 has all numbers between 30 and 39 as PBX access codes.

	A	B	C	D	E	F
LINE 02	9	#	#	3	4	5
LINE 03	3	*	#			

Entering Codes into Memory

From extension 01:

- Dial #.
- Dial 7.
- Dial line number to be programmed.
- Enter ABC data or press the HOLD key twice to clear a code. Listen for a confirmation beep.

- To enter DEF data, dial DEF data. Listen for a long completion beep. To enter ABC data for another line, repeat steps 3-4.
- To skip over DEF data and enter ABC data for another line, repeat steps 1-4.
- To exit the program, press HF/MON/SPK.

Feature Description

Flash provides a momentary interruption (open) on a line in use for the purpose of signaling. Flash lets a user access PBX or Centrex features while on a call (provided that these features are available). The Flash type (open loop or ground start) must be selected in programming.

Nonrestricted Line allows an outside line to be specially programmed so that an extension's Toll Restriction is not applied to any call made on that line. An outbound WATS line is a common choice for a Nonrestricted Line.

Dial Mode assigns a dialing mode—Dial Pulse (DP) or Dual Tone Multifrequency (DTMF)—to a line. These dialing modes are commonly known as pulse or tone.

The **Line Groups** feature places lines into groups for the Speed Dial, Last Number Redial, and Save features. These three features automatically seize a line and dial a call for the user. If the line designated for the call is busy, the system then looks for an available line in the same Line Group (as the designated line) so that the call can still dial out.

► Conditions

- a. A ground start Flash is for international use only.
- b. A system-wide Dial mode Initialization procedure is available (see page 2-4).
- c. Pulse To Tone Conversion lets a user temporarily convert a pulse line to tone dialing (see Section 1).
- d. The * character cannot be dialed on a pulse line. If it is, the user hears an error tone, but can continue dialing.

► Related Programmable Features

- | | |
|-----------------|---|
| Program 7 | assigns PBX/Centrex access codes to lines |
| Program 9—R 2&3 | sets Make/Break times for pulse lines |
| Program 9—R5 | sets the duration of the Flash |

Feature Operation

- To use Flash while on a call:
1. Press the Line key of the call.

Program Options

This program assigns four characteristics to each line:

- a Flash type—open loop or ground start
- the Nonrestricted Line capability
- a Dial Mode—pulse or tone
- a Line Group (a line can be in one of eight Line Groups)

► Conditions

- a. The Flash type and Dial Mode must conform to the requirements of the PBX or Central Office.
- b. A ground start Flash is for international use only.

Option Codes

A line is assigned a six-digit code:

- A: 0—open loop Flash
1—ground Flash
- B: 0—restricted line
1—Nonrestricted Line
- C: 0—pulse dialing
1—tone dialing
- DEF: 000—in Line Group 0
001—in Line Group 1
010—in Line Group 2
011—in Line Group 3
100—in Line Group 4
101—in Line Group 5
110—in Line Group 6
111—in Line Group 7

Preset Value for all lines:

- A: 0
- B: 0
- C: 1
- DEF: 001

► Example

Line 04 is assigned open loop Flash. It is a Nonrestricted Line, has pulse dialing, and is in Line Group 5.

	A	B	C	D	E	F
LINE 04	0	1	0	1	0	1

Entering Codes into Memory

From extension 01:

1. Dial #.
 2. Dial 8.
 3. Dial line number to be programmed.
 4. Enter ABCDEF data. Listen for a confirmation beep.
- To enter ABCDEF data for another line, repeat steps 3-4.
 - To exit program, press HF/MON/SPK.

DIAL DELAY TIMER (For International Use Only)

Feature Description

When a Line key is pressed in some countries, there is a short delay before the Central Office (CO) provides dial tone on the line. The Dial Delay Timer lets the system be adjusted to recognize such a delay.

- ▶ **Conditions**
None
- ▶ **Related Programmable Features**
Program 1—R4 assigns a line to a Function key

Feature Operation

N/A

Program Options This routine sets the Dial Delay Timer. This timer can be set for 0 to 10 seconds.

► **Conditions**

- a. The interval selected must exceed the amount of time it takes for the CO to provide dial tone; otherwise, a user may be able to defeat Toll Restriction.

Option Codes

An eight-digit entry is (ABCDEFGH) required:

00000000	—0.00	seconds
00000111	—0.56	seconds
00001101	—1.04	seconds
00010011	—1.52	seconds
00011001	—2.00	seconds
00011111	—2.48	seconds
00100110	—3.04	seconds
00101100	—3.52	seconds
00110010	—4.00	seconds
00111000	—4.48	seconds
00111111	—5.04	seconds
01000101	—5.52	seconds
01001011	—6.00	seconds
01010001	—6.48	seconds
01011000	—7.04	seconds
01011110	—7.52	seconds
01100100	—8.00	seconds
01101010	—8.48	seconds
01110001	—9.04	seconds
01110111	—9.52	seconds
01111101	—10.0	seconds

Preset Value:

00000000 (No delay)

► **Example**

The Dial Delay Timer is set for approximately 5 seconds.

A	B	C	D	E	F	G	H
0	0	1	1	1	1	1	1

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 9 1.
3. Enter ABCDEFGH data. Listen for a confirmation beep.
4. Press HF/MON/SPK.

MAKE/BREAK TIMERS

Feature Description

The Make/Break Timers set the close/open times for the relays used on pulse lines (and the speed at which the pulses are sent).

- ▶ **Conditions**
 - a. Make/Break Timers only apply to pulse lines.
- ▶ **Related Programmable Features**
Program 8 assigns pulse dialing to individual lines

Feature Operation

N/A

Program Options

Routine 2 sets the Make Timer. Routine 3 sets the Break Timer.

► Conditions

- The Make/Break times conform to the requirements of the Central Office.
- Some common Make/Break times and their codes:
40/60 at 10 pulses per second 0111/1100
32/68 at 10 pulses per second 0110/1101
40/60 at 20 pulses per second 0100/0110

Option Codes

A four-digit entry (ABCD) is required for both Make and Break:

0011	—15.75	milliseconds
0100	—21.00	milliseconds
0101	—26.25	milliseconds
0110	—31.50	milliseconds
0111	—36.75	milliseconds
1000	—42.00	milliseconds
1001	—47.25	milliseconds
1010	—52.50	milliseconds
1011	—57.75	milliseconds
1100	—63.00	milliseconds
1101	—68.25	milliseconds
1110	—73.50	milliseconds
1111	—78.75	milliseconds

Preset Value:

Make: 0111
Break: 1100
(40/60 at 10 pps)

► Example

The Make/Break Timers are 21 and 79 milliseconds, respectively.

Routine 2—Make Timer

A	B	C	D
0	1	0	0

Routine 3—Break Timer

A	B	C	D
1	1	1	1

Entering Codes into Memory

From extension 01:

- Dial #.
 - Dial 9.
 - Dial routine number (2 or 3).
 - Enter ABCD data. Listen for a confirmation beep.
- To enter ABCD data for the other timer, repeat steps 3-4.
 - To exit the program, press HF/MON/SPK.

Feature Description

The Pause Timer sets one duration for three different pauses in the system:

- the pause that a user can manually store with a Speed Dial number
- the pause that the system inserts before a Speed Dial, Last Number Redial, or Save call dials out. This pause gives the telco time to establish dial tone on the line before the call dials out.
- the pause that the system inserts after a PBX access code is auto-dialed by the Speed Dial, Last Number Redial or Save features.

► **Conditions**

None

► **Related Programmable Features**

Program 7 assigns PBX/Centrex access codes

Feature Operation

N/A

Program Options

This routine sets the Pause Timer. The timer can be set for approximately .5 to 10 seconds.

► Conditions

- a. Per telco regulations, the system automatically inserts a 1.52 second pause before a Speed Dial, LNR, or Save call dials out and after a PBX access code is auto-dialed via these features. These two pause durations are not affected by the timer setting in this program unless the timer is set for more than 1.52 seconds. For example, if the timer is set for 1.04 seconds, only the manual pause that can be stored with a Speed Dial number changes to 1.04 seconds. The duration of the other two pauses remains 1.52.

Option Codes

An eight-digit entry (ABCDEFGH) is required:

00001110—0.48 seconds
00001101—1.04 seconds
00010011—1.52 seconds
00011001—2.00 seconds
00100110—3.04 seconds
00110010—4.00 seconds
00111111—5.04 seconds
01001011—6.00 seconds
01011000—7.04 seconds
01100100—8.00 seconds
01110001—9.04 seconds
01111101—10.0 seconds

Preset Value:

00010011—1.52 seconds

► Example

The Pause Timer is set for approximately 3 seconds.

A	B	C	D	E	F	G	H
0	0	1	0	0	1	1	0

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 9 4.
3. Enter ABCDEFGH data. Listen for a confirmation beep.
4. Press HF/MON/SPK.

FLASH TIMER

Feature Description

Flash Timer determines the duration of the Flash.

► **Conditions**

None

► **Related Programmable Features**

Program 8 selects a Flash type and shows how to use Flash

Feature Operation

N/A

Program Options

This routine sets the Flash Timer. The timer can be set for approximately .25 to 4 seconds.

► **Conditions**

- a. The Flash Timer must conform to the requirements of the PBX or Central Office.

Option Codes

An eight-digit entry (ABCDEFGH) is required:

Preset Value:

00000111—	.240 seconds	00000111—	.560 seconds
00000101—	.400 seconds		
00000111—	.560 seconds		
00001001—	.720 seconds		
00001010—	.800 seconds		
00001101—	1.04 seconds		
00010000—	1.28 seconds		
00010011—	1.52 seconds		
00011001—	2.00 seconds		
00011111—	2.48 seconds		
00100110—	3.04 seconds		
00101100—	3.52 seconds		
00110010—	4.00 seconds		

► **Example**

The Flash Timer is set for 4.00 seconds.

A	B	C	D	E	F	G	H
0	0	1	1	0	0	1	0

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 9 5.
3. Enter ABCDEFGH data. Listen for a confirmation beep.
4. Press HF/MON/SPK.

HOLD

Hold Recall Timer

Feature Description

Hold places an outside call in a temporary waiting state at an extension. There are two types of Hold:

System Hold places a call on Hold so that it can be picked up from any extension that has access to the line.

Exclusive Hold places a call on Hold so that it can be picked up only from the extension that placed it on Hold.

If a call on Hold is not picked up within the programmed Hold Recall interval, the call recalls (rings) the extension that placed it on Hold.

► **Conditions**

- a. If the Hold Recall signal is not answered within 15 seconds, the signal stops and the call remains on Hold for another 15 seconds. If the call is still not picked up, it rings all extensions that normally receive ringing for that line.
- b. Intercom calls cannot be placed on Hold.

► **Related Programmable Features**

Program 9—R8 releases a line when an outside party on Hold hangs up

Feature Operation

To place a call on System Hold:

1. Press HOLD. The Line key flashes fast at this extension and slowly at others that have access to the line.
 - If using the handset, hang up.

To place a call on Exclusive Hold:

1. Press HOLD key twice (you must make the second press within 6 seconds of the first). The Line key flashes fast at this extension. It lights steadily at others, signifying "busy."
 - If using the handset, hang up.

To pick up a call on either type of Hold:

1. Press the flashing Line key.
 - At a Monitor phone, lift the handset to talk.

Program Options

This routine determines the interval of time that a call stays on System or Exclusive Hold before it recalls (rings) the extension that placed it on Hold. The timer can be set for 0 to 10 minutes.

- **Conditions**
 - a. An entry of 00000000 disables the Hold Recall signal.

Option Codes

<p>An eight-digit entry (ABCDEFGH) is required:</p> <p>00000000—No recall</p> <p>00000110—30 seconds</p> <p>00001100—1 minute</p> <p>00010010—1 min. 30 sec.</p> <p>00011000—2 minutes</p> <p>00011110—2 min. 30 sec.</p> <p>00100100—3 minutes</p> <p>00101010—3 min. 30 sec.</p> <p>00110000—4 minutes</p> <p>00110110—4 min. 30 sec.</p> <p>00111100—5 minutes</p> <p>01001000—6 minutes</p> <p>01010100—7 minutes</p> <p>01100000—8 minutes</p> <p>01101100—9 minutes</p> <p>01111000—10 minutes</p>	<p>Preset Value:</p> <p>00001100—1 minute</p>
--	---

- **Example**
A call stays on Hold for 2 minutes before recalling the extension that placed it on Hold.

A	B	C	D	E	F	G	H
0	0	0	1	1	0	0	0

Entering Codes into Memory

- From extension 01:
1. Dial #.
 2. Dial 9 6.
 3. Enter ABCDEFGH data. Listen for a confirmation beep.
 4. Press HF/MON/SPK.

INTERDIGIT WAIT TIMER

Feature Description

The Interdigit Wait Timer determines the amount of elapsed time between dialed digits when a Speed Dial, Last Number Redial, or Save number dials out.

- ▶ **Conditions**
 - a. The Interdigit Wait Timer applies only to dialed digits on pulse lines. (The amount of elapsed time between dialed digits on DTMF lines is always 80 milliseconds.)
- ▶ **Related Programmable Features**

None

Feature Operation

N/A

Program Options

This routine sets the Interdigit Wait Timer. The timer can be set for approximately 15 to 80 milliseconds.

► Conditions

- a. The timer must conform to the requirements of the Central Office. (The Preset Value usually suffices.)

Option Codes

An eight-digit entry

(ABCDEFGH) is required:

00000011	—15.75	milliseconds
00000100	—21.00	milliseconds
00000101	—26.25	milliseconds
00000110	—31.50	milliseconds
00000111	—36.75	milliseconds
00001000	—42.00	milliseconds
00001001	—47.25	milliseconds
00001010	—52.50	milliseconds
00001011	—57.75	milliseconds
00001100	—63.00	milliseconds
00001101	—68.25	milliseconds
00001110	—73.50	milliseconds
00001111	—78.75	milliseconds

Preset Value:

00001011—57.75 milliseconds

► Example

The Interdigit Wait Timer is set for approximately 63 milliseconds.

A	B	C	D	E	F	G	H
0	0	0	0	1	1	0	0

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 9 7.
3. Enter ABCDEFGH data. Listen for a confirmation beep.
4. Press HF/MON/SPK.

**Feature
Description**

Release of Abandoned Calls on Hold automatically releases a line when an outside party on Hold hangs up: that is, when the system detects a drop in Central Office line current. The system disconnects the line only when the duration of the current drop exceeds a programmed trip value.

Intercom allows extension-to-extension calling. When someone places an Intercom call, the called extension rings. However, the system can be programmed so that when someone calls a Handsfree phone, a beep sounds, and the caller can announce a message over the speaker of the called extension (voice-announced calls). Regardless of the way the system is programmed, a user can always convert a ringing Intercom call into a voice-announced one.

Privacy Release removes the privacy on all lines so that an extension user can enter (break into) another user's outside call to deliver an urgent message. More than one user can enter the same call; the transmission quality will, however, be degraded.

Caution: Unauthorized monitoring of calls using the Privacy Release feature can be interpreted as an invasion of privacy.

- ▶ **Conditions**
 - a. Privacy Release does not allow a user to enter into an outside call that is part of an Add-On or Multi-Line Conference.
- ▶ **Related Programmable Features**

Program 1—R1 provides one-button Intercom calls

**Feature
Operation**

Intercom Calls

To place an Intercom call:

(For an Executive Phone, also see DSS Keys in Section 1.)

1. Dial extension number (00-32; 00/06 is the attendant).
 - At Monitor phones, lift the handset to talk.

To change a ringing Intercom call into a voice announcement:

1. Place the call as described above. Listen for ringing.
2. Press and hold MEM, listen for a beep, then speak.
3. Release MEM to listen. To continue, repeat 2-3 (no beep sounds).

To answer a ringing Intercom call (MEM key flashes):

1. Lift handset OR press HF/SPK at a Handsfree phone.

To answer an Intercom call that comes over the speaker:

1. When MEM lights, speak toward the phone. Or, lift handset.

Privacy Release

To enter into someone else's outside call:

1. Press the busy Line key for the call.

Program Options

This routine selects options for three different features:

- It enables or disables Release of Abandoned Calls on Hold. When enabled, this program then selects how long a drop in Central Office (CO) line current must be before the system disconnects an abandoned line: 50ms or 500ms.
- It selects ringing Intercom calls system-wide OR it allows voice-announced calls for Handsfree phones only.
- It enables or disables privacy for all outside lines.

► Conditions

- a. The current drop selected must match CO requirements.
- b. Code A below has no effect unless Code B is enabled.
- c. When voice-announced Intercom calls are programmed for Handsfree phones, Monitor phones still ring unless the caller manually converts the ringing into a voice announcement.

Option Codes

A four-digit entry is required:

Preset Value:

A: 0—80 ms drop	A: 0
1—500 ms drop	
B: 0—disable Release of Aband. Calls on Hold	B: 0
1—enable Release of Aband. Calls on Hold	
C: 0—ringing Intercom calls system-wide	C: 0
1—voice-announced calls for Handsfree phones	
D: 0—disable privacy	D: 1
1—enable privacy	

► Example

Release of Abandoned Calls on Hold is enabled: a line is disconnected after the system detects a 500 ms drop in line current. Intercom calls are voice-announced for Handsfree phones. Privacy is disabled on all lines.

A	B	C	D
1	1	1	0

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 9 8.
3. Enter ABCD data. Listen for a confirmation beep.
4. Press HF/MON/SPK.

Feature Description

A Door Chime Box is a combination door bell/Intercom. It is usually placed next to an entrance door. When someone presses the button on the Box, chime tones are sent to designated extensions. Once an extension user answers the chime, a two-way conversation is possible with the person at the door. The system accommodates two Door Chime Boxes.

For installation information, see the Hardware Manual:
Installing The Optional Equipment—Installing the Door Chime Boxes.

- ▶ **Conditions**
 - a. Door Chime Box 31 sends a double chime. Door Chime Box 32 sends two double chimes.
 - b. If chimes are sent from both Boxes simultaneously, the chimes from Box 32 are not heard until the Box 31 chimes are answered.
 - c. The chimes are not heard at busy extensions.
 - d. An extension user can also call a Door Chime Box and monitor (listen to) the activities at the door.
 - e. If someone presses the button on a Box and line 1 locks up, this means that the box was not properly installed in programming. Re-make the entry. To clear (unlock) the line, shut off system power, then turn it on.

- ▶ **Related Programmable Features**

Program 2 designates the extensions to receive the chime tones

Feature Operation

To use the Door Chime Box:

1. Press the button on the Box.
2. When someone answers, speak toward the Box.

To answer the chime tone:

1. Lift handset.
2. Dial the number assigned to the Box (31 or 32).
Before speaking in step 3, you can monitor the door.
3. Press MEM to speak; release to listen.

To call the Door Chime Box and monitor the door:

1. For Box 31, dial 31.
OR
For Box 32, dial 32. Contact is made with the Box. The door can be monitored through the handset or over the speaker.

Program Options

This routine tells the system whether or not a Door Chime Box is installed. The Door Chime Boxes (two, maximum) occupy extension positions 31 and 32.

- ▶ **Conditions**
 - a. Before an entry is made in this program, an entry must be made in Program 2 (Door Chime Recipients).

Option Codes

A two-digit entry is required:

Preset Value:

A: 0—Box 31 is not installed
 1—Box 31 is installed
 B: 0—Box 32 is not installed
 1—Box 32 is installed

A: 0
 B: 0

- ▶ **Example**
 Door Chime Box 31 is not installed. Door Chime Box 32 is installed.

A	B
0	1

Entering Codes into Memory

From extension 01:

1. Dial #.
2. Dial 9 *.
3. Enter AB data. Listen for a confirmation beep.
4. Press HF/MON/SPK.

References in brackets are Program (P) and Routine (R) numbers.

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Product Literature	(203) 926-2215
Product Availability/Pricing	(203) 926-2215

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