

Telecenter[®] V Operations



Rauland-Borg Corporation

Issued: 06/25/98

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1

Introduction

Scope of this Manual



This manual covers both interconnected and non-interconnected Telecenter V systems. It provides complete operating information for each station type.



Key Operations:

Pay close attention to the next two subsections, on entering hook-flashes and banging up. Misdialing here is the most common error made by users of telephone systems, and causes unexpected and unwanted connections.

Entering a Hook-Flash

This is used for a variety of operations, especially for transferring calls and establishing conference calls.

If your phone has a *Tap* button, use it; otherwise, depress the hook switch for less than a second (but long enough to break dial tone).



Warning:

If there is a *Tap* button, depressing the hook-switch is the same as hanging up.

If dial tone is not received, the system may be busy: wait a couple of seconds and try again. (Soft hold is confirmed by a series of interruptions in dial tone [stutter tone].)

Hanging up Properly

Whenever you finish using a dialing telephone, **always hang up for at least three seconds** before dialing a number or a function. The system may interpret a shorter hang-up time as a hook-flash, which is used for establishing conference calls.

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Administrative Telephones

Answering a Telephone Call

The type of ring indicates the source of the call:

- ✓ Single Ring: A call from within the system.
- ✓ Double Ring: A call from outside the system.

When your telephone rings

1. Pick up the handset and talk.
2. When finished, hang up.

When an unattended nearby phone rings

1. Dial the ringing phone's number
2. While receiving a busy signal, dial *.
 - You will be connected with the Caller.

If the ringing phone is a member of the call pickup group...

1. Dial #33.
 - You will be connected to with the caller.

When paged for an outside call on hold

1. Dial #4 and the number of the line specified (e.g.: if line 3 is specified, dial #43).

When the Night-Answer tone sounds

1. Dial #30 to answer the incoming call.

Placing a Call

The procedures depend upon how the system is installed and programmed. If you are calling outside the system, you may have to dial a special number to access a

PBX (private branch exchange—an in-house telephone system) or a central-office (telephone-company) line. In some systems, you may have to access the PBX first and then dial another special number to access the PBX's central-office lines.

1. To call a station inside the system, skip to Step 2. To call outside the system, choose the appropriate numbers from the checked items below (if an item is not checked, it is either unavailable or no special number is needed to access it):
 - Dial _____ to obtain PBX dial tone.
 - After accessing the PBX, dial _____ to access a central-office line connected to the PBX.
 - Dial _____ to access a central-office line connected to the Telecenter system.
- ✓ Dial the number desired as you normally would from your home phone. Respond to the signal in the receiver:
- ✓ Ringing: A buzz about every four seconds. Wait for an answer.
- ✓ Room Noise: You are connected to a speaker that is not in the privacy mode. Talk to switch the intercom amplifier so you can be heard; stop talking to switch the amplifier back so you can listen.
- ✓ Quiet Line: Either the intercom line is busy or the speaker is in the privacy mode (you can be heard but cannot listen). Request the person in the room to take the speaker out of the privacy mode, or wait for the system to automatically connect you when the intercom line is available.
- ✓ Busy Signal: The non-intercom line is busy. If the call is important, you may be able to break into the conversation by pressing
- ✓ Reorder (Disallow) Tone [fast busy signal]: The number dialed is invalid or is not allowed for your extension. Try again or use another extension.

Transferring and Conferencing Calls

“Transfer” means connecting the other party to a different line. “Conference” means adding a third party to your current connection, e.g., for a three-way conversation.

For convenience, we will use the following terms In practice, either party in a conversation can do the transferring, provided that the extension can obtain Telecenter dial tone and is authorized to access the desired line. The other two lines may be outside the system.

- ✓ Dialing The Telecenter telephone that will dial the transfer or conference call.
- ✓ Caller: The line originally connected to the Dialer; it may be inside or outside the system. It will be transferred or included in the conference.
- ✓ Target: The station to which the Caller will be transferred or that will be added to form a three-way conference call.

Hook-flash to simultaneously obtain dial tone and place the Caller on soft hold. If your phone has a *Tap* or *Transfer* button, use it; otherwise, depress the hook-switch for less than a second.

If dial tone is not received, the system may be busy: wait a couple of seconds and try again. (Soft hold is confirmed by a series of interruptions in dial tone (stutter tone].)

A. An Outside Caller with an Inside Station

1. Hook-flash.
2. Dial the Target number.
3. When the Target answers, request permission to complete the transfer or conference. You can talk privately while the Caller remains on soft hold.

If the Target refuses the transfer or conference, wait for three seconds after the Target hangs up, then hook-flash to get the Caller back.

If the Target accepts:

- ✓ Transferring: Hang up to automatically connect the Caller to the Target.
- ✓ Conferencing: Repeat the hook-flash to get the Caller onto the same line with you and the Target.

If the Target fails to answer, repeat the hook-flash to stop the ringing and get the Caller back from soft hold for further call-handling.

If the Target is busy, you will receive a busy signal. Hook-flash to return to the Caller.

4. If further call-handling is required, transfer the caller to the Attendant, who can page the Target to pick up the call and then conference with you if required.
5. Each station must hang up for at least three seconds before attempting another call.

B. An Outside Caller with an Outside Target

Is this feature available? Yes No

1. Hook-flash.
2. Press to replace the Telecenter dial tone with dial tone from the remote system, then dial the Target's number.
3. When the Target answers, request permission to complete the transfer or conference. The remote system normally allow you to talk privately while the cal remains on soft hold. Your next step depends upon target's response:

- ✓ If the Target refuses the transfer or conference, wait for three seconds after the Target hangs up, then hook-flash for dial tone and press * to get the Caller back.
- ✓ If the Target accepts the transfer, hang up and the caller will automatically be connected to the Target.
- ✓ If the Target accepts the conference, repeat the hook-flash-dial-tone— sequence to get the Caller back from soft hold and onto the same line.
- ✓ If the Target is busy or fails to answer, repeat the hook-flash-dial-tone sequence to get the Caller back from soft hold.

C. An Inside Caller with an Outside Line

1. If a PBX must be used to place outside calls, do “a” and “b” below; otherwise, do “c”:
 - a. Dial _____ to replace Telecenter dial tone with dial tone from the PBX.
 - b. Dial _____ to replace PBX dial tone with dial tone from the public telephone system.
 - c. Dial _____ to replace Telecenter dial tone with dial tone from the public telephone system.
2. Complete the transfer or conference using whichever of the following methods is appropriate:
 - ✓ Transfer If the caller can dial and your station has “full access,” hang up. The caller will be connected to the outside dial tone and can then dial the desired number.
 - ✓ Transfer or Conference: If your station has any prefix restrictions or the caller cannot dial, dial the Target number and then hang up to transfer or hook-flash to conference. The caller will be connected to the calling line and hear the ring or busy signal supplied by the telephone company.
3. The Caller and the Dialer must hang up for three seconds before attempting another call in each of the following situations:
 - ✓ The call is completed.
 - ✓ The Target is busy or fails to answer.
 - ✓ The call cannot be completed for any other reason

D. An Inside Caller with Another System



Important:

If possible, have the Caller hang up; then, call the Target and transfer or conference that line to the Caller using procedure “C,” above.

1. Dial _____ to replace Telecenter dial tone with dial tone from the PBX
2. Complete the transfer or conference using whichever of the following methods is appropriate:
 - ✓ Transfer: If the Caller can dial, hang up: the Caller will be connected to the PBX dial tone and can then dial the desired number.
 - ✓ Transfer or Conference: If the Caller cannot dial, dial the Target number and then hang up to transfer or hook-flash to conference. The Caller will be connected to the calling line and hear the ring or busy signal supplied by the PBX.
3. The Caller and Dialer must hang up for three seconds before attempting another call in each of the following situations:
 - ✓ When the call is completed.
 - ✓ If the Target is busy or fails to answer.

- ✓ If you cannot complete the call for any other reason.

Call-Forwarding

You can have calls to your extension forwarded to another number that you specify. Your extension and that to which the calls are rerouted must be inside the Telecenter system, but the callers may be outside the system. Any numbers forwarded to your extension will also be forwarded to the line you specify here.



Important:

You can forward calls only to dialing telephones inside the system (except a Student Phone, which can only make brief outside calls). The system will *not* forward calls to a media line (an optional line that lets you control a video player from your telephone), a speaker, a trunk, etc.

There are three types of forwarding:

- ✓ **Call-Forward—NO Answer (#61)**
After ringing your extension a certain number of times, the system will forward the call.
- ✓ **Call-Forward-Busy (#62)**
While your phone is in use, the system will forward all calls.
- ✓ **Call-Forward—Always (#63)**
Automatically forward all calls without trying to ring your extension.



Notes on Call-Forwarding:

- ✓ Calls may only be forwarded to other phones. The system will disallow attempts to forward calls to speakers, trunk (outside) lines, media lines, etc.
- ✓ The “Busy” and “No Answer” types of call-forwarding can be used singly or together. The “Always” form of call-forwarding will override the other two types.
- ✓ Upon picking up an extension with “Always” call-forwarding, you will hear an interrupted form of dial tone (stutter tone).
- ✓ Each midnight, the system automatically clears all Call-Forward—Always entries.

Entering Call-Forwarding

The three forms of call-forwarding use the same procedure except for their code numbers:

1. Dial **#6X**.
 - This will silence the dial tone.

2. Dial the number of the line where you want the calls forwarded.
 - You will hear dial tone.
3. Hang up.

Canceling Call-Forwarding

This procedure lets you cancel one form of call-forwarding and leave another form in place. The three forms of call-forwarding use the same procedure except for their code numbers:

1. Dial **#6X**.
 - This will silence the dial tone.
2. Hang up.

Canceling All Call-Forwarding

This procedure will cancel all forms of call-forwarding at your telephone:

1. Dial **#60**.
 - This will silence the dial tone.
2. Hang up.

Automatic Call-Back—Busy

The system offers two forms of automatic Call-Back:

Call-Back—Busy Extension

If you dial another phone in the system and receive a busy signal, you can have the system ring your phone when that line is free. When you pick up your receiver, the system will ring the line for you.

Trunk Queuing

If you dial an outside number and all the trunks are busy, you can have the system call you back when a trunk is available. When you pick up your handset, the system will redial the outside number for you.



Important:

The Call-Back—Busy feature works only on Telecenter busy signals. This feature does not apply to busy signals from another system or the telephone company.

Entering Call-Back—Busy Extension


1. If you hear a busy signal after dialing an extension, dial _____.

- The system will give you dial tone again, indicating that it has activated the Call-Back feature.
2. Hang up or dial another number.
3. When the system rings you back, pick up the handset. The system will begin ringing the other phone.

Entering Trunk Queuing

1. If you hear a busy signal after dialing a number that is outside the system, dial _____
 - The system will give you dial tone again, indicating that it has activated the Call-Back feature. If it does not give dial tone, the busy signal may be from the outside system.
2. Hang up or dial another number.
3. When the system rings you back, pick up the handset. The system will redial the outside number.

Notes on Call-Back:

- 
- ✓ You can use your phone after entering a call-back request. The system will wait until both your extension and the desired line are free before ringing your phone.
 - ✓ If the desired line becomes busy again by the time the system rings it back for you, you will have to redial the single-digit code to re-establish your callback request.
 - ✓ The system will cancel your call-back request if you do not answer when it calls you back.
 - ✓ The system will process only one call-back at a time for any extension. Entering a second call-back request before an earlier one has been carried out will cancel the earlier one.

Using PIN Codes

A “Personal Identification Number” lets you temporarily give any dialing phone in the system (except a Student Phone) all the capabilities of your own extension. For example, an administrator whose phone can page, send emergency tones, and make unrestricted outside calls could perform these functions on a room phone ordinarily restricted from these features.

Establishing a PIN

In order to use a PIN, you must first establish it at your own extension. This can only be done from your extension.



Important:

When first establishing a PIN or subsequently changing it you must dial it twice. The system requires this to make sure you have correctly dialed the number you want. *Be sure to record this number for yourself* If you forget it, you will need a technician to change it.

1. Dial **#51**.
 - You will hear a double beep.
2. Dial **#51** again.
 - You will hear two double beeps.
3. Dial the desired PIN: it must have 3 □ or 4 □ digits.
 - You will hear a single beep.
4. Dial the desired PIN again.
 - You will hear dial tone.
5. Hang up.

Changing a PIN

To establish a different PIN, you must know the current one. You must do this procedure from your phone:

1. Dial **#51**.
 - You will hear a double beep.
2. Dial your current PIN.
 - You will hear two double beeps.
3. Dial the new PIN: it must have 3 □ or 4 □ digits. You will hear a single beep.
4. Dial the desired new PIN again.
 - You will hear dial tone.

To erase your PIN (have no PIN), use the procedure at the left but dial zeroes as the “new PIN.”

5. Hang up.

Using the PIN

This can be done at any dialing phone except a Student Phone (because that does not provide system dial tone). Note that entering a PIN authorizes only one call or function; to make a second call, re-enter the PIN.

1. Dial **#50**.
 - You should hear a single beep.
2. Dial your PIN.
 - You should hear the system dial tone.

3. Dial your call or function.

Controlling Student Phones

A Student Phone can only make brief outside calls in the local area. The system may be set up to automatically turn all these phones on and off at specified times. A display phone can manually turn the Student Phones on or off at any time, and this setting will remain in effect until it is changed by a display phone or the next automatic change by the system.



Important:

The system will allow any calls in progress to be completed before turning off those individual phones.

1. Dial **#53**.
 - The display will read *Student—On* or *Student—Off* depending upon the current status.
2. Press * to toggle between the two settings.
 - The display will alternate between the “On” and “Off” settings.
3. When the display shows the desired setting, hang up.

Controlling Message Waiting Lamps

The Message Waiting feature allows an Administrative Phone (designated as the central control point) to turn on and off or flash the Message Waiting Lamp.

(Often, the message waiting lamp is used by an associated voice mail system to indicate if messages are waiting; however, the message waiting lamp could also be used, for example, by the front office to inform a teacher to call the front office.)



Important:

When staff members message waiting lamp is on they are to call a specific number:

There are separate # functions to control the Message Waiting Indication. The first function, **#56**, requires a digit for the required state. The remaining three functions do not—as the message state is implicit to the **#XX** function.

To change the state message waiting lamp using a digit

1. Dial **#56**.
2. Enter an architectural number followed by a digit to change the state of its message waiting lamp:
 - 1—turns the lamp on
 - 2—flashes the lamp
 - 0—turns the lamp off

To turn the message waiting lamp off using #XX function

1. Dial **#57**.
2. Enter an architectural number to turn its message waiting lamp off.

To turn the message waiting lamp on using #XX function

1. Dial **#58**.
2. Enter an architectural number to turn on its message waiting lamp.

To flash the message waiting lamp using #XX function

1. Dial **#59**.
2. Enter an architectural number to flash its message waiting lamp.

Receiving and Answering Intercom Call-ins

Displays can be set to show only certain call-ins. The asterisk method of answering applies only to call-ins shown on your display.

You can always answer by dialing the station that placed the call-in or by dialing the asterisk (*) key. The asterisk method is normally used for sequentially handling call-ins

in the order they are displayed, and the dialing method is for handling call-ins out of sequence. When dialing stations hang up before answering another call-in.

Pressing * simultaneously disconnects the current call-in and answers the next one. There are three ways of using this method, depending upon how the system has been programmed. The first method can always be used. The second and third methods are used less frequently because they tie up a valuable system resource (a DTMF receiver, which gives dial tone and allows a phone to dial a number). The installer should check the second or third box if it is applicable.

- Press * to answer a call-in, and hang up before using it again.
- Press * to answer a call-in. When you are finished, do not hang up but simply press * again to disconnect your current party and automatically answer the next call-in in the queue. To use the * to automatically disconnect from your current call-in and advance to the next one, you must press it within _____ seconds. Otherwise, you will have to hang up before using it again.
- (This is essentially like the preceding method, except that there is no time

limit.) Press * to answer a call-in. When you are finished, do not hang up but simply press * again to disconnect your current party and automatically answer the next call-in in the queue.



Important:

Regardless of the which method is programmed, pressing * will have no effect if **you** dialed the party to whom you are currently connected.

Canceling All Call-ins

This affects all call-ins, Normal and Emergency, including any that are not shown on your display. This can be one from any Administrative phone.

1. Lift the handset and dial #21.

Previewing Call-ins

1. Lift the handset and dial #22.
 - The display will show the next set of call-ins.
2. Continually press * to go deeper into the call-in memory, which can contain 60 call-ins.
 - The display will continue to move down the list. A blank display indicates there are no more call-ins to show.
3. Hang up or hook-flash when finished.
 - Dial tone and full operational ability will return.

Making Paging Announcements and Sending Tones

Only authorized phones can perform paging functions and send tone signals. There are three types of voice paging:



Important:

Some speakers may be programmed not to receive pages or tone signals. The system may also turn off any speaker associated with the phone from which a page is being made, to prevent acoustic feedback.

Except for the numbers used when dialing, the procedure for placing each of the three types of page is essentially the same.

1. Refer to the next four subsections and determine the type of page (All-Page, Zone-Page, Special Page, Tones) you wish to perform.
2. Lift the handset and dial the required code.
3. If you are paging, wait for a tone in the handset before making the announcement.

All-Page (#00)

This announcement will go to all speakers, even those not programmed for a zone, except for speakers that have been programmed not to receive pages.



Important:

The quickest and easiest way to make an announcement over all speakers in the Telecenter system is to use an optional audio control panel: simply press its red *Emergency* switch while you speak into the microphone.

Zone Page (#0[1-8])

This announcement will be sent to any one of the eight potential groups of speakers in the system. Each speaker may be in from 1 to 8 zones or in no zone at all.

Examples: To page Zone 1, dial **#01**; to page Zone 3, dial **#03**.

Special Page

Dial the 3- or 4-digit number of the group you wish to page.

Tones (#1[1-4])

- ✓ **#11** (Chime).
- ✓ **#12** (Westminster Chime).
- ✓ **#13** (Siren).
- ✓ **#14** (Pulsating Tones)
- ✓ **#15** (Steady)

3

Classroom Telephones and Speakers

Answering a Telephone Call

The type of ring indicates the source of the call:

- ✓ Single Ring: A call from within the system.
- ✓ Double Ring: A call from outside the system.

When your telephone rings

1. Pick up the handset and talk.
 - When finished, hang up.

When paged for an outside call on hold

1. Dial **#4** and the number of the line specified (e.g.: if line 3 is specified, dial **#43**).

When the Night-Answer tone sounds

1. Dial **#30** to answer the incoming call.

Placing a Call

The procedures depend upon how the system is installed and programmed. If you are calling outside the system, you may have to dial a special number to access a PBX (private branch exchange—an in-house telephone system) or a central-office (telephone-company) line. In some systems, you may have to access the PBX first and then dial another special number to access the PBX's central-office lines.

1. To call a station inside the system, skip to Step 2. To call outside the system, choose the appropriate numbers from the checked items below (if an item is not checked, it is either unavailable or no special number is needed to access it):
 - Dial _____ to obtain PBX dial tone.

- After accessing the PBX, dial _____ to access a central-office line connected to the PBX.
 - Dial _____ to access a central-office line connected to the Telecenter system.
2. Dial the number desired as you normally would for your home phone. Respond to the signal you hear in the receiver:
- ✓ *Ring*: A buzz about every four seconds. Wait for an answer.
 - ✓ *Room Noise*: You are connected to a speaker that is not in the privacy mode. Talk to switch the intercom amplifier so you can be heard; stop talking to switch the amplifier back so you can listen.
 - ✓ *Quiet Line*: Either the intercom line is busy or the speaker is in the privacy mode (you can be heard but cannot listen). Request the person in the room to take the speaker out of the privacy mode, or wait for the system to automatically connect you when the intercom line is available.
 - ✓ *Busy Signal*: The non-intercom line is busy. If the call is important, you may be able to break into the conversation by pressing.
 - ✓ *Reorder (Disallow) Tone (fast busy signal)*. You dialed a number that is invalid or is not allowed for your phone. Try again or use a different extension.

Transferring and Conferencing Calls

“Transfer” Means connecting the other party to a different line. “Conference” means adding a third party to your current connection, e.g., for a three-way conversation.

For convenience, we will use the following terms In practice, either party in a conversation can do the transferring, provided that the extension can obtain Telecenter dial tone and is authorized to access the desired line. The other two lines may be outside the system.

- ✓ **Dialer**: The Telecenter telephone that will dial the transfer or conference call.
- ✓ **Caller**: The line originally connected to the Dialer; it may be inside or outside the system. It will be transferred or included in the conference.
- ✓ **Target**: The station to which the Caller will be transferred or that will be added to form a three-way conference call.

Hook-flash the system to simultaneously obtain dial tone and place the Caller on soft hold. If your phone has a *Tap* or *Transfer* button, use it; otherwise, depress the hook switch for less than a second.

If dial tone is not received, the system may be busy: wait a couple of seconds and try again. (Soft hold is confirmed by a series of interruptions in dial tone [stutter tone].)

A. An Outside Caller with an Inside Station

1. Hook-flash
2. Dial the Target number.

3. When the Target answers, request permission to complete the transfer or conference. The system will allow you to talk privately while the Caller remains on soft hold.

If the Target refuses the transfer or conference, wait for three seconds after the Target hangs up, then hook-flash to get the Caller back.

If the Target accepts:

- ✓ Transferring: Hang up to automatically connect the Caller to the Target.
- ✓ Conferencing: Repeat the hook-flash to get the Caller onto the same line with you and the Target.

If the Target fails to answer, repeat the hook-flash to stop the ringing and get the Caller back from soft hold for further call-handling.

If the Target is busy, you will receive a busy signal. Hook-flash to return to the Caller.

4. If further call-handling is required, transfer the Caller to the Attendant, who can page the Target to pick up the call and then conference with you if required.
5. Each station must hang up for at least three seconds before attempting another call.

B. An Outside Caller with an Outside Target

Is this feature available? Yes No

1. Hook-flash.
2. Press * to replace the Telecenter dial tone with dial tone from the remote system, then dial the Target's number
3. When the target answers, request permission to complete the transfer or conference. The remote system will normally allow you to talk privately while the Caller remains on soft hold. Your next step depends upon the Target's response:
 - ✓ *If the Target refuses the transfer or conference wait for three seconds after the Target hangs up, then, hook-flash for dial tone and press to get the Caller back.*
 - ✓ *If the Target accepts the transfer, hang up and the Caller will automatically be connected to the Target.*
 - ✓ *If the Target accepts the conference, repeat the hook-flash—dial-tone—sequence to get the Caller onto the same line.*
 - ✓ *If the Target is busy or fails to answer, repeat the hook-flash—dial-tone—sequence to get the Caller back from soft hold.*

C. An Inside Caller with an Outside Line

1. If a PBX must be used to place outside calls do "a" and "b" below; otherwise, do "c":
 - a. Dial _____ to replace Telecenter dial tone with dial tone from the PBX.

- b. Dial _____ to replace PBX dial tone with dial tone from the public telephone system.
 - c. Dial _____ to replace Telecenter dial tone with dial tone from the public telephone system.
2. Complete the Transfer or Conference using whichever of the following methods is appropriate:
 - ✓ Transfer: If the Caller can dial and your station has “full access,” hang up. The Caller will be connected to the outside dial tone and can then dial the desired number.
 - ✓ Transfer or Conference: If your station has any prefix restrictions or the Caller cannot dial, dial the Target number and then hang up to transfer or hook-flash to conference. The Caller will be connected to the calling line and hear the ring or busy signal supplied by the telephone company.
 3. The Caller and the Dialer must hang up for three seconds before attempting another call in each of the following situations:
 - ✓ When the call is completed.
 - ✓ If the Target is busy or fails to answer.
 - ✓ If the call cannot be completed for any other reason.

D. An Inside Caller with Another System



Important:

If possible, have the Caller hang up; then call the target and transfer the call, or conference it to the Caller using the “C” procedure, above.

1. Dial _____ to replace Telecenter dial tone with dial tone from the PBX.
2. Complete the Transfer or Conference using whichever of the following methods is appropriate:
 - ✓ Transfer: If the Caller can dial, hang up: the Caller will be connected to the PBX dial tone and can then dial the desired number.
 - ✓ Transfer or Conference: If the Caller cannot dial, dial the Target number and then hang up to transfer or hook-flash to conference. The Caller will be connected to the calling line and hear the ring or busy signal supplied by the PBX.
3. The Caller and the Dialer must hang up for three seconds before attempting another call in each of the following situations:
 - ✓ When the call is completed.
 - ✓ If the Target is busy or fails to answer.
 - ✓ If the call cannot be completed for any other reason.

Call-Forwarding

You can have calls to your extension forwarded to another number that you specify. Your extension and that to which the calls are rerouted must be inside the Telecenter system, but the callers may be outside the system. Any numbers forwarded to your extension will also be forwarded to the line you specify here.



Important:

You can forward calls to any dialing telephones inside the system (except a Student Phone, which can only make brief outside calls). The system will *not* forward calls to a media line (an optional line that lets you control a video player from your telephone), a speaker, an outside trunk, etc.

There are three types of forwarding:

✓ **Call-Forward-No Answer (#61)**

After ringing your extension a certain number of times, the system will forward the call.

✓ **Call-Forward—Busy (#62)**

While your phone is in use, the system will forward all calls.

✓ **Call Forward—Always (#63)**

Automatically forward all calls without trying to ring your extension.

Notes on Call-Forwarding:



- ✓ Calls may only be forwarded to other phones inside the Telecenter system. The system will disallow attempts to forward calls to speakers, trunk lines, media lines, etc.
- ✓ The “Busy” and “No Answer” types of call-forwarding can be used singly or together. The “Always” form of call-forwarding will override the other two types.
- ✓ Upon picking up an extension with “Always” call-forwarding, you will hear an interrupted form of dial tone (stutter tone).
- ✓ Each midnight, the system automatically clears all Call-Forward—Always entries.

Entering Call-Forwarding

The three forms of call-forwarding use the same procedure except for their code numbers:

1. Dial #6.

- This will silence the dial tone.
2. Dial the number of the line where you want the calls forwarded.
 - You will hear dial tone.
3. Hang up

Canceling Call-Forwarding

This procedure lets you cancel one form of call-forwarding and leave another form in place. The three forms of call-forwarding use the same procedure except for their code numbers:

1. Dial **#6X**.
 - This will silence the dial tone.
2. Hang up.

Canceling All Call-Forwarding

This procedure will cancel all forms of call-forwarding at your telephone:

1. Dial **#60**.
 - This will silence the dial tone.
2. Hang up.

Automatic Call-Back—Busy

The system offers two forms of automatic Call-Back:

Call-Back—Busy Extension:

If you dial another phone in the system and receive a busy signal, you can have the system ring your phone when that line is free. When you pick up your receiver, the system will ring the line for you.

Trunk Queuing:

If you dial an outside number and all the trunks are busy, you can have the system call you back when a trunk is available. When you pick up your handset, the system will redial the outside number for you.



Important:

The Call-Back—Busy feature works only on Telecenter busy signals. This feature does not apply to busy signals from another system or the telephone company.

Entering Call-Back—Busy Extension

1. If you hear a busy signal after dialing an extension, dial _____

- The system will give you dial tone again, indicating that it has activated the Call-Back feature.
2. Hang up or dial another number.
3. When the system rings you back, pick up the handset. The system will begin ringing the other phone.

Entering Trunk Queuing

1. If you hear a busy signal after dialing a number that is outside the system, dial _____
 - The system will give you dial tone again, indicating that it has activated the Call-Back feature. If it does not give dial tone, the busy signal may be from the outside system.
2. Hang up or dial another number.
3. When the system rings you back, pick up the handset.
 - The system will redial the outside number.

Notes on Call-Back:



- ✓ You can use your phone after entering a call-back request. The system will wait until both your extension and the desired line are free before ringing your phone.
- ✓ If the desired line becomes busy again by the time the system rings it back for you, you will have to redial the single-digit code to re-establish your call-back request.
- ✓ The system will cancel your call-back request if you do not answer when it calls you back.
- ✓ The system will process only one call-back at a time for any extension. Entering a second call-back request before an earlier one has been carried out will cancel the earlier one.

Making Paging Announcements

Staff phones may be authorized to perform all three types of voice paging; however, only Administrative phones can send tone signals.



Important:

Some speakers may be programmed not to receive pages. The system may also turn off any speaker associated with the phone from which a page is being made, to prevent acoustic feedback.

Follow the same procedure for each type of paging except for the number you dial

1. Refer to the descriptions of the three types of paging at the right and determine which one (All-Page, Zone-Page, Special Page) you wish to perform.
2. Lift the handset and dial the required code.
3. If you are paging, wait for a tone in the handset before making the announcement.

All-Page (#00)

This announcement will go to all speakers, even those not programmed for a zone, except for speakers that have been programmed not to receive pages.

Zone Page (#0 [1-8])

This announcement will be sent to any one of the eight potential groups of speakers in the system. Each speaker may be in from 1 to 8 zones or in no zone at all.

Examples To page Zone 1, dial #01; to page Zone 3, dial #03.

Special Page

Dial the 3- or 4-digit number of the group you wish to page.

Answering Calls to the Speaker

1. If there is a *Privacy* Switch, make sure it is off.
2. Wait until the caller pauses before talking. (Speakers cannot “talk” and “listen” at the same time; when the caller stops speaking into the handset, the intercom amplifier automatically switches to let you talk.)



Important:

If there is an associated phone, you can pick up its receiver at any time to transfer the conversation there.

Placing Intercom Call—ins

There are three basic methods for placing call-ins to the Attendant, depending upon the type of station being used to place the call and how the station is programmed.

Calling in with a Non-dialing Phone

1. Pick up the handset and wait for an answer, or place the handset back on-hook within four seconds and wait for the attendant to respond (see ‘Answering Calls’). If your phone is programmed for remote canceling, replacing the handset after four seconds will cancel your call-in.

Calling in with a Dialing Staff Phone

Pressing * is equivalent to pressing a regular Call switch. Pressing ** twice within about one second is equivalent to pressing an Emergency call-in switch.

Canceling: If the remote-canceling feature is enabled, you can cancel the call-in by picking up the phone again and hanging up without dialing anything.

Associated Switch: The phone can also have an associated switch for calling in from another part of the room. Through programming, the phone and the switch can make different types of call-ins, which could go to different display phones.

Placing Call-ins with a Switch

Normal and Emergency Call-ins may go to different display phones or to the same ones. The display shows the number of each station that has called in: emergency call-ins first. Within each priority (emergency and normal), the call-ins are shown in the order they were placed.

To place a normal call-in, depress the *Call* push button. To place an emergency call-in, depress the *Emergency* (or *Priority*) push button.

1. The call-in will be announced at the office by an audible beep, and its number will be displayed until it is answered or canceled.

Canceling a Call-in

When a display phone answers a call-in and then hangs up, this automatically clears the call-in.



Important:

If the *Call* or *Emergency* push button locks in the depressed position, release it. Otherwise, the call-in will continually renew itself right after it is canceled.

You may be able to cancel your call-in by pressing the call-in switch for at least five seconds and then releasing it (or by releasing a locked switch after four seconds).

4

Media Retrieval

Media-Related Operation

Most of the functions described here pertain to the user who calls an MR100, MRC7600, or MRC7611 Telemedia Controller and uses the telephone key pad to control the video player.

Controlling a Player

This section gives detailed instructions on controlling a video player from a telephone. The two illustrations at the back of this manual summarize these functions.

Establishing and Relinquishing Control of a Player



Important:

All Administrative Phones can control media lines. If your Dialing Staff Phone is not programmed to access a media line directly, call the Media Center to have the desired line assigned to your phone.

Optional Single-Digit Dialing

Telecenter systems can provide single-digit access to a media line already assigned to your phone. To gain control of a media line, dial its full number or have the Media Center assign it to your phone. Thereafter, until you release the media line, you can simply dial a single digit (e.g., 7) to have the system connect you to the assigned line.

1. Tune the television monitor to the channel assigned to the desired video player.
2. Dial the number of the desired player.
 - The system will send a short beep when it has given you control of the player, and will continue to beep at one-second intervals.

(If someone else already has control, the system will send you a busy signal. If your phone is not authorized to call a Media Retrieval line, the system will send you a reorder signal; in this case, call the Media Center to have the line assigned to your phone, then repeat Step 2.)

3. After gaining control, use your telephone's key pad to operate the player (see the next subsection).
4. To operate the key pad, keep the receiver off-hook. Once the player is running the program and you do not need to send any more control signals for a while, you can hang up.
 - The player will continue running, and its media line will remain assigned to you, which means no one else can access it (unless the Media-Center Phone intervenes with the #24 function). Hanging up frees a Telecenter link for other functions and lets you receive or make other calls.
5. To resume sending control signals, call that media line back from the same phone, as in Step 2, or dial the assigned single digit.
6. If you need to contact the Media Center while you are connected to the media line (e.g., because you need a different program or there is a malfunction), simply hook-flash (press *Tap* or *Transfer* or quickly press and release the hook-switch).
 - You will be temporarily disconnected from the media line and will ring the Media-Center line (or be connected to its associated speaker).



Important:

If your system does not use this function, hang up in Step 4, then call the Media Center; you will retain control of the player and be able to dial it back.

7. To end the connection with the Media-Center telephone and return to the player, hook-flash.
8. To relinquish control of a player, dial 0 and hang up.

Operating a Player

The illustrations at the end of this manual identify the functions of the key pads. This section explains those that are not self-evident and gives examples of typical operations.

In general, the keypad commands parallel the layout of a typical remote control.

VCR (Video Cassette Recorder) Commands

This mode uses the first six keys and "0." Some keys can work in combination with others. For example, *Fast Forward* (3) and *Fast Reverse* (1) by themselves advance

or rewind the tape rapidly without displaying a picture. Pushing either one while the tape is playing runs the picture rapidly on the screen in a search function.



Important:

The VCR model may affect some operational details; look for an instruction sheet from the Media Center or experiment with the keypad commands.

Laser-Disk Player Commands

There are two laser-disk command sets. The numeric mode, discussed in the next paragraph, is for entering chapter and frame numbers, which are typically found on educational disks; other disks, like those containing motion pictures, may not have this numbering. The function mode is illustrated on page 27.



Which Laser-Disk Mode?

With a laser player, a picture indicates the function mode. The numerical mode always displays a blue screen; if the “Show Numbers” key has been selected, it will display numbers. However, the “Pause, Blank Screen” key (5) in the play mode also shows a blue screen. Pressing the “2” key should start the disk playing if the “freeze” function is engaged, but will have no visible effect if you are in the numerical mode.

Laser Numeric Mode

On educational disks, each motion sequence has 30 frames per second of viewing time, and each frame can be shown as a still picture or selected as a starting or stopping point. Some disks have “slides”—individual pictures recorded as a series of single frames on the disk. These have to be stepped through, one by one; pressing *Play* would result in a rapid, confusing succession of images, like a run-away slide projector.

To Select a Chapter

In the function mode, dial 0-(*Chapter Number*)-'. For example, to select Chapter 11, dial 011*:

0 Go to the numeric mode and interpret the key-pad entries as a chapter number.

11 Chapter 11.

***** Put the first frame of the chapter on the screen and return to the function mode.

➤ The first frame will appear frozen on the screen pressing 2 (*Play*) will cause the laser-disk player to begin running the program from that frame.

To Select a Frame

In the function mode, dial 8-[Frame Number]-'. For example, to select Frame 41222, dial 841222*:

8 Go to the numeric mode and interpret the key pad entries as a frame number.

41222 Frame 41222.

***** Put that frame on the screen and return to the function mode.

- The first frame will appear frozen on the screen; pressing 2 (*Play*) will cause the laser-disk player to begin running the program from that frame.

To Select a Stopping Point

The above two procedures select a starting point. To select a point at which the program will automatically halt, use the above formulae but enter # instead of * as the final keystroke. You can select the stopping point either before or after selecting the starting point.

- The keypad will return to the function mode, and the last frame that was on the screen will reappear.

Important:



Some disks have built-in stop marks between chapters. These could stop the program before it hits the stop mark you set in the numeric mode. Pressing *Play* again will cause the disk to run again until it hits your stop mark (or another intervening stop mark on the disk).

Selecting Audio Channels

Some stereo disks are bilingual, using the left audio channel for a narrator in one language (e.g., English) and the right audio channel for a speaker in a second language (e.g., French). Since the Pioneer player's default audio mode is stereo, the result would be hearing the two narrators simultaneously.

Selecting just Channel 1 (7) or just Channel 2 (*) is done with a single keystroke in the function mode. Selecting the combined Channels 1 and 2 is done by pressing "0-#.) Once you have selected an audio function, it will remain in effect until you change it.

Operating a CDI (Interactive CD)

The MRC7600 and MRC7611 Media Retrieval Controllers both support CDI players (CDI players support user interaction via functional cursor and on-screen choices). Support requires using the MRH7700 Hand Held Remote, which features the following directional and cursor movement functions:

Function	MRH7700 Key
Left	⇐
Up	↑
Right	⇒
Down	↓
Action 1	Stop (typically)
Action 2	Run (typically)
Release	Quit

Cursor Operation

The cursor automatically scrolls at three speeds. The longer you depress the appropriate arrow key, the faster the cursor moves in that direction.

Action Keys

The function of both Action keys is controlled by the CDI program in use. These keys may support the same **or** different actions. Consult CDI program documentation and/or experiment.

5

Media-Center Telephone

#24 Media-Center Control Function

This function allows a display phone to review and, if necessary terminate a user's control of a media line. Dialing #24 will display the first video player's status in the following manner:

VCR 717 = 105

or

VCR 718 = Free

“VCR” indicates the player's line, which may be either a video-tape or a laser-disk player. The first display shows that the player on Media Line 717 is currently assigned to phone line 105. The second display indicates that player 718 is currently available.

To Pre-assign a Player

Enter the Architectural (dialing) Number of the station to which you are assigning the player. The display will then list the new station owner. Unless the Media-Center telephone intervenes, only that owner can call this player, and the player will receive the initializing tones when it is called.

To Terminate a Connection

Press the asterisk (*) key on your dial pad. The display will show that the line is “Free.” Pressing * when the player is already “Free” will send the ending tones to it.



Important:

This method works whether or not a user is connected to a Media Line.

To View the Next Player Extension

Press the #. When you have gone through the entire list of player lines, the words *End List* will appear in the display, and the system will ignore any subsequent key entries. To end the review at any point, hang up.

6

Student Phone

This phone performs only one function: making brief outside calls (30 seconds to three minutes, depending upon the system setting). Upon picking up the receiver, you should receive outside dial tone. Use it like an ordinary phone. The system will send a warning beep ten seconds before ending the connection.

911 Emergency Calls: For “911” emergency calls, Student Phone timing restrictions are suspended. Note that such calls can only be made when the Student Phones are turned on.

Other Restrictions

- ✓ The phone can call only certain local exchanges.
- ✓ Once you connect with the number you dialed, you cannot redial it from any Student Phone for a programmed period of time (one minute to one hour).
- ✓ The system can be programmed to automatically turn off all Student Phones during specified times. In addition, a display phone can manually turn the Student Phones on or off at any time.



Other Operations

Built-in Night Answer (#30 and #31)

The built-in Night-Answer function allows any Administrative or Dialing Staff phone to pick up outside calls received on lines that are not private. This function can be wired to signal such calls with the Night-Answer Tone.

Some organizations may choose to use this function during the day as an alternative method of remote answer-answering. When this is done, the special tone may not be used for Night-Answer. Thus, Night-Answer calls would have to be answered by someone within hearing range of a ringing attendant phone.

Private (DIL) lines are not included in the built-in Night-Answer function. This allows these stations to be reached directly after hours. If a private line is busy, the outside caller may call the main number.

Turning Night Answer On and Off

1. Dial **#31** using any phone with a display (built-in or wall-mounted).
 - The display will read Night Answer Off or Night Answer On.
2. To toggle this function on and off, press any key.
3. When the desired status is displayed, hang up.

Picking Up a Night-Answer Call

1. Pick up an Administrative or Dialing Staff phone.
2. Press **#30** and talk.

View or Set the Current System Block (#32)

To view which set of programming the system is currently using, or to change the current programming block, you must:

1. Dial **#32**.

- The display will show: **Block? X (1-X)**, where **X** is the currently active block and **Y** is the largest number system block configured in the system.
- 2. Dial a digit between **1** and **X**.
 - The display will show **New Block is X**.
- 3. Hang up.
 - The new system block will take effect.

Controlling Student Phone™ Lines (#53)



Important:

The system will allow any calls in progress to be completed before turning off those individual phones.

Typically, a Student Phone is configured to allow only brief outside calls within the local area. The system may be set up to automatically turn these phones off at designated times. You can, however, use an administrative phone to manually turn them on or off at any time. (Manual settings remain in effect until subsequent automatic system changes.)

To Manually Control Student Phone Lines

1. Dial **#53**.
 - If you have a display, it will show current Student Phone line status—either “Student—On” or “Student—Off”.
2. Press ***** to toggle between the On/Off settings.
3. When done, hang up.

View Menu of All Available #XX Functions (#90)

To view all available #XX functions

1. Dial **#90**.
 - The first **#XX** function, **#00 All Page**, will display.
2. Press **#** to step to the next function or dial any keypad digit to move to the first function that begins with that digit (press **3**, for instance, to get to the first available function in the “thirty” range—**#30** through **#39**).
3. When done, dial ***** to restore dial tone.

Custom Night Set-up

This option reconfigures the system to the requirements of night-time operation and helps prevent abuse of telephones in unmonitored areas. The custom night set-up may change authorizations and abilities at certain stations.

Obtain information on the night-time system set-up from the system installer, including any of the following:

- ✓ Changes in incoming call-routing (e.g., typically all outside lines are reconfigured as private lines, calls to the organization's main number are routed to the operator's Console or an answering machine, and the remaining lines are routed to various departments (Music, Physical Education, Security, etc.).
- ✓ Changes in outside calling authority for the system or specified stations (e.g., toll calls may not be allowed or may be restricted to certain stations).
- ✓ Changes in station types or calling authorizations (e.g., some day-time Administrative stations may be reconfigured as staff stations at night, and some day-time staff stations (with key pads) may be reconfigured as Administrative stations at night).
- ✓ Changes in call-in handling (e.g., call-ins may go to the Security Station at night).

Resetting a Display

Each time power is applied to the system or it is reset, the system processor automatically initializes the displays. If a phone with a display is connected after this or if a wall display loses power, it may need to be reset manually.

Display Initialization

A display shows the activities of all display phones that share the same display number. If a display reads *Telecenter* there has been no activity on its associated lines since the system was turned on or reset.

Use the station and verify that the display shows the current activity (i.e., call-ins and the last number dialed). If the display is blank, half blank, or will not respond as expected, use the following procedure at any time to restore the most recently displayed message:

1. **Dial #20** and verify that the display shows either of the following:
 - ✓ All current activity on the associated lines.
 - ✓ Only a colon (:) if there is no activity on the associated lines.

Determining the System Software Version

Certain operations may be affected by the version of software installed. When calling for technical support, the support person may need to know which version of software you are using. You can determine this by doing the following procedure at a display phone:

1. Dial **#70** and note the number following the “V” in the display (e.g.: V.1(X) or V.102).



Important:

- ✓ It may take 5 to 10 seconds for the software version to display.
- ✓ Ignore the other displayed information unless asked for the version checksum data, which is used for trouble-shooting purposes only.

Changing Paging Zones

Each speaker station in the system can be assigned to from 0 to 8 zones for paging. Regardless of its zone programming, all stations can be contacted by the All-Page function. The Zone Page is used to contact a specific set of stations. Zone programming is normally done during initial system programming, but it can be changed at any time using an authorized Administrative Display Phone.

The following example demonstrates how to change the zone programming. This procedure should be tried on only one station and tested. If you do not receive the displays shown below, you are probably not at the correct display phone. If the change does not work, notify the distributor: a technician must move the programming jumper on the central processing unit’s printed circuit board before any programming changes can be made.

Display Meanings	P:	Physical Number
	N:	Architectural Number
	Z:	Zone (e.g.: Z:1_23____8= Zones 1, 3, 4, and 8
	ARCH?	Input Architectural Number (i.e.: the station number).
Action Meanings	#	Advance the display to the next Architectural Number entry in memory.
	*	Provide the display prompt (Arch?) to allow selection of a new Architectural Number.

Example: Zone Programming Changes

Present State	P:006	N:106	Z: _2
	P:007	N:107	Z: _2
	P:008	N:108	Z: _2
	P056	N:156	Z. ____4
Desired State	P006	N:106	Z: ____4
	P:007	N:107	Z: ____5
	P:008	N:108	Z: 1
	P:056	N156	Z_ _34

Action	Comments	Display
Lift Handset	Dial Tone	
#97	Enter Zone-Change function	ARCH?
106	Go to Architectural Number 106	106Z:_2
2	Turn off Z:2	106Z
4	Turn on Z:4	106Z:___4
#	Advance to next entry	107Z:_2
2	Turn off Z:2	107Z:
5	Turn on Z:5	107Z:___5
	Advance to next entry	108Z_2
2	Turn off Z:2	108Z:
1	Turn on Z:1	108Z:1
*	Jump to new entry	ARCH?
156	Go to Architectural Number 156	156Z:___4
3	Turn on Z:3	156Z:___34
Hang up	End edit session	

In the above example, pressing # caused the display to advance sequentially through the Architectural Numbers because they were associated with sequential Physical Numbers. This is not always the case. Remember to use the asterisk 0 whenever you wish to change the zone programming of a station that is not the next sequential entry.

Setting the Time and Date

All Telecenter displays show the time and date. A small battery on the CPU maintains them while the system is off. The time can be synchronized by an associated master clock.



Important:

Use a corresponding keypad number when attempting to enter “letters.” For example, to enter “A,” use the “2” key; to enter “Y,” use the “9.”

- Dial #55.
 - The display will read hour.
- To change the hour, use the dial pad to type the new one. Always use a two-digit number (e.g., 09 for 9 o clock).

- The hour digits will show the new setting.
3. When the setting is satisfactory, press #.
 - The display will read minute.
4. If necessary, enter a new value. When the desired one is shown, press #.
 - The display will read am.
5. Type **A** (AM), **P** (PM), or **M** (24-hour Military time).
 - The display will show the hour, minute, and AM, PM, or Mil.
6. If the setting is not satisfactory, type **N** to return the display shown in Step 1. If the setting is satisfactory, type **Y**.
 - The new time will be stored and the display will read month.
7. If necessary, type in a different two-digit number for the month (e.g., **06** for June). When the desired number appears, type #.
 - The display will read day.
8. If necessary, type in a different two-digit date. When the desired number appears, type #.
 - The display will read year.
9. If necessary, type in a different two-digit number (e.g., **92** for 1992). When the desired year appears, press #.
 - The display will read **[xx-xx]**
10. If the date is not satisfactory, press **N** to bring back the display shown in Step 6. When it is satisfactory, press **Y**.
 - The new date will be stored and the display will read end.
11. Hang up to clear this message
 - If there are call-ins waiting, they will appear on the display. Otherwise, the display will show the time and date.

Paging to Have a Call Picked Up

This function allows Attendants with key phones or Call Control Consoles to transfer outside calls within the system when they cannot reach the Target directly.

1. Place an outside call on hold, noting the number of the key used (count from left to right).
2. Use the appropriate paging function to direct the desired party to pick up the held line (e.g., “John Smith, pick up line 3”).
3. After for an appropriate period of time, verify that the call has been picked up:

On a Call Control Console, the hold will automatically clear when the Target picks up the call.

At a Key Phone, check the line manually. If the call has been picked up, the line will be silent and hanging up for three seconds will re-enable the line. If the call has not been picked up, the Caller will still be present.



Glossary

The following is a short glossary of terms for the Operations Manual.

Hook-Flash: The hook-flash consists of depressing the telephone hook-switch or *Tap* or *Transfer* button for about one-half second (i.e., press it firmly and then release it). If a *Tap* button is present, you must use it to produce a hook-flash, because depressing the hook-switch will cut off (hang up on) the call in progress.

A hook-flash can:

- ✓ Place a caller on standby (soft hold) while you dial another number to perform a transfer or create a conference call.
- ✓ Regain contact with a Caller who has been placed on standby (soft hold).

Hook-switch: This is the switch connected to the lever or buttons on which the phone is placed when it is hung up. The action of the hook-switch depends upon whether or not the phone has a *Tap* button.

- ✓ If there is a *Tap* button, depressing the hook switch is always the same as hanging up.
- ✓ If there is no *Tap* button, depressing the hook-switch for one-half second will produce a hook-flash. Depressing it for over three-quarters of a second is the same as hanging up.

Soft Hold: This is the standby state into which a Caller is placed when waiting to be transferred to another number or to be included in a conference call. When in soft hold (standby), the Caller can hear only a dead line. In strict technical language, “soft hold” indicates that the Caller is placed on hold through software rather than hardware. “Standby” indicates the Caller is waiting to talk to someone.

Tap Button: This is an additional button present on many phones. It may be labeled with a variety of names (e.g., *Flash* and *Link*). If there is a *Tap* button, it is the only means of producing a hook-flash.

Audible Signals

In a Telephone Handset

These signals can only be heard with the phone off-hook and held in a normal manner for telephone conversation.

Busy Signal: A tone that sounds a half-second on and a half-second off. The number dialed is busy. Hang up and try again later.

Buzzes: The number dialed is ringing. The buzzes occur approximately every four seconds.

Interrupted Dial Tone: Rapid interruptions are the “stutter tone”; slower interruptions are the “Reorder” (“Disallow”) tone.

Reorder (Disallow): A steady series of fast, repeating tones, a quarter-second on and a quarter-second off. You have attempted a call or function that is disallowed for one of the following reasons.

- ✓ The number hasn't been programmed into the system.
- ✓ The prefix or area code dialed is not authorized for your phone.
- ✓ The function attempted is not authorized for your phone.

Room Noise: You have contacted a speaker that is not set to privacy. The speaker is emitting a monitor beep every twenty seconds. If you speak, your voice will transmit over the speaker. You must be silent to receive sound from the room.

Silence: There is no activity on the line: no tones, no voices, no noise. This state occurs in each of the following situations:

- ✓ You are on standby (soft hold), waiting to be transferred to another number or to be included in a conference call.
- ✓ You are connected to a speaker that is in the privacy mode.
- ✓ You dialed a speaker and have been placed in a queue because the intercom channel is busy.
- ✓ Your phone was left off-hook beyond the busy-signal or dial-tone time limit. Hang up for three seconds to clear the condition.

Single Beep: You have dialed a paging function and may now proceed with the page.

Stutter Tone: A short series of quick interruptions in dial tone, followed by steady dial tone, which occurs when you place a station on soft hold.

Telephone “Ring” Signals

Double Ring: The call is coming from outside the system.

Quick Beeps: An Emergency call-in has been placed from a staff station. This signal will only be sounded on displays (telephone or wall-mounted). The display will read *Emer*, followed by the number of the station that placed the call-in (e.g., *Emer 208*).

Single Ring: The normal telephone ring, indicating that a call is coming from within the system.

Slow Beeps: A normal call-in has been placed by a staff station. This signal will only be sounded on telephone or wall-mounted displays. The number of the station that placed the call-in will be shown in the leftmost position of the display.

Signals from Speakers

Alarm and General-Purpose Tones: Your organization can designate four tones as signals (e.g., for warnings, class changes). At the time of installation, the organization can choose four of these tones.

- ✓ European Warble
- ✓ Electronic Chimes
- ✓ Pulsating Tone
- ✓ Westminster
- ✓ Steady Tone

Night-Answer Tone: This may be any of the above tones and occurs only when the Night-Answer function is turned on by dialing **#31**. When this tone sounds, an outside call may be picked-up by dialing **#30** from any Administrative phone.

Pre-announce Tone: This single beep indicates that someone is calling the speaker or is attempting to monitor audible activity in the room. The caller can hear any noise or conversation within the speaker's range. However, if the speaker is in the privacy mode, the caller will not be able to hear anything.

After the pre-announce beep, if the calling party does not speak (stays in the listen mode), a monitor beep will occur every 20 seconds. The monitor beeps will not be sent to a speaker that is in the privacy mode, since the room cannot be listened to.

Commonly Asked Questions

Questions about Answering Calls

What will happen if I hang-up for less than three seconds after completing a call?

The system will interpret this as a hook-flash and, thus, the call will not be properly terminated. If the phone isn't hung up for this period, the trunk or extension you were connected to may be placed on soft hold and be unavailable for other calls.

The system will provide a "stutter tone" (three short interruptions of dial tone) whenever a hook-flash causes a trunk to be placed on soft hold. If this happens, hang up and wait for your phone to ring. Answering the phone will reconnect the original trunk, and hanging up for three seconds will then clear the condition. If the call is not answered within two or three rings, the outside call will be dropped.



Important:

Although you can place a speaker on soft hold, it will be dropped if you hang up.

What if no one can answer a call?

If the call is to a speaker, the caller will hear room noises: ask for a response, and failing to get one, hang up.

If the call is to a telephone, the phone will ring until answered or the caller hangs up.

If an outside call is to a private (DIL) line, and the owner of the trunk line is busy with an inside call, a couple of things can happen, depending upon how the line is programmed:

- ✓ The caller will hear the line ring, but no indication can be given the owner of the line who is busy with another call. The ringing will continue until the owner of the private (DIL) line hangs up, is rung, and answers, or until the outside caller hangs up.

or

- ✓ The caller will automatically be transferred to the system Attendant (this is a programmable option).

What is the purpose of the *Privacy Switch*?

The Privacy Switch prevents monitoring of rooms with speakers. When the switch is set to “Privacy,” the speaker will still provide a pre-announce beep when it is first called, but the caller cannot hear anything until the privacy switch is turned off.

Questions about Placing Calls

What happens if I try to place another call without hanging up for three seconds?

Hanging up for too short a period may be interpreted by the system as a hook-flash and cause a trunk to be incorrectly held and made unavailable for use.

How can I contact a busy station?

If you are using an authorized Administrative station and the call is important, simply press * while you are receiving a busy signal. This will allow you to break into the ongoing conversation. When this is done, all three parties can communicate in the conference mode, and any party can hang up without affecting those remaining (this is a programmable option).

Does having a key pad mean I can directly dial another station?

Not necessarily. You can only dial another station directly if your phone has a key pad and receives dial tone when taken off-hook. For example, a phone with a key pad may receive dial tone during the day and not at night. Therefore, calls could be dialed directly during the day but taking the phone off-hook at night would send a call-in.

Questions about Using the Paging Functions

When should I use All-Page?

Use All-Page when a direct call or a Zone Page will not achieve the desired objective. For example, when an announcement must be heard by everyone in the organization or there is an important message for a particular individual whose whereabouts is unknown.

When should I use Zone Page?

Use Zone Page whenever you have an announcement that applies to a group of individuals in an identified zone. For example, zones may be established by floor, building, or department. Using Zone Page allows the announcement to go only to the individuals who need to hear the announcement, without interrupting the rest of the organization.

When should I use Special Page?

The use of this function depends entirely upon the system’s configuration. It may be used for paging a particular group of stations or for operating some external system (security-system video cameras, or electronically actuated door locks). Programming controls access to this optional feature, which may require additional equipment.

When should I generate each type of tone?

The specific use of each tone is determined by the policies and procedures of the organization. Typically, they are used to notify personnel of emergency situations (flood, tornado, fire, etc.). They may also be used as attention markers prior to announcements or to provide unprogrammed time-of-day reminders.

Priorities of Tones and Pages	
Priority	Function
1	Fire Alarm
2	Emergency announcement (from a control panel)
3	Time tone
4	All-Page
5	Send tones
6	Zone Page
7	Speaker intercom

Will my All-Page announcement interfere with timed (e.g., class-change) signals?

No. It works the other way around: clock-activated signals have a higher priority and will interrupt any type of paging announcement. When the signal occurs, it will be heard in your handset. When it ends, you will be returned to the paging channel and notified with a beep. Then you may resume your announcement.

Questions about Answering and Canceling

What if an answered call-in returns to the display?

If the telephone at the call-in station is left off-hook or the locking switch is not released, the call-in will not clear from the display when you hang up or press The situation must be corrected by someone at the station. Call the station again and

have someone there take care of the problem, or send someone to the station to do so.

Why is my time limited for using the * method of answering call-ins?

The * (asterisk) method of answering call-ins requires the dedicated use of a critical system component (a tone generator and receiver). The system waits for the programmed period of time in case the Single-Button-Dialing feature is needed to rapidly answer a series of call-ins. It is canceled after this time to release the system hardware required for normal call-processing.

When would I want to cancel all call-ins?

Whenever there is a problem with unnecessary (accidental or intentional) pressing of call-in switches. Generally, you may want to do this if many call-ins occur simultaneously during times of excessive activity or without any apparent reason. This can be a problem in schools during class changes, especially if switches are located near exits.

Question about Transferring and Conferencing

If the Target at a speaker refuses a transfer, how can I return to the Caller?

Hang up and the trunk on soft hold will ring you back. Answer immediately to re-establish communication.



Appendix B: #XX Summary

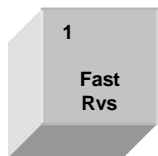
Code	Function
#00	All-Call
#01–#08	Zone Page (1–8)
#11–#15	Tone selection
#20	Initialize display
#21	Cancel all call-ins
#22	Review call-ins
#23	Data Entry
#24	Media Assignments
#30	Night Answer
#31	Control Student Phone™ line
#32	View/Switch System Blocks
#33	Group Call Pickup
#4X	Pick Up outside call on hold
#50	PIN Access Code
#51	Assign PIN Code
#53	Control Student Phone™ line
#55	Change time and date
#56	Control Message Waiting Lamps
#57	Turn off Message Waiting Lamps
#58	Turn on Message Waiting Lamps
#59	Flash Message Waiting Lamps
#60	Cancel Call-Forward
#61	Call-Forward–No Answer
#62	Call-Forward–Busy
#63	Call-Forward–Always
#70	Firmware version and checksum
#71	EEPROM checksum
#72	Physical No. Look-up
#73	Diagnostic
#74	RP2 Adjustment
#90	Menu of all #XX functions
#96	Change restrictions on local calls prefixes
#97	Change paging/time zones
#98	Location Code Editor
#99	Architectural and COS Editor



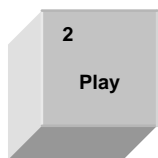
C

Appendix C: Media-Retrieval Operating Guides

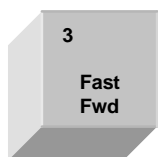
Laser Disk Function Mode



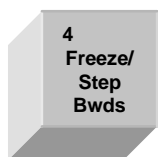
Fast Reverse (1): Quickly pressing and releasing this causes the player to rapidly scan back about 300 frames (about ten seconds of viewing time). Holding it down causes the player to continuously scan backwards. The player will continue to scan for a short time after the key is released.



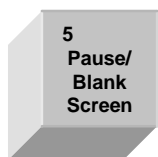
Play (2): Begins playing from the frame currently on the screen (if you previously pressed “Freeze, Blank Screen”, pressing “Play” will bring back the picture and begin playing from the point where the program had been “frozen”).



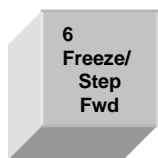
Fast Forward (3): Quickly pressing and releasing this causes the player to rapidly scan ahead about 300 frames (about ten seconds of viewing time). Holding it down causes the player to continuously scan even for a short time after the key is released.



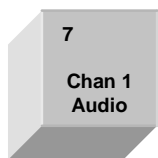
Freeze/Step Backwards (4): This stops any motion and holds a frame on the screen. Pressing it when a frame is already “frozen” on the screen brings the previous frame onto the screen.



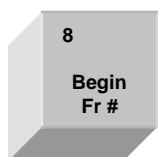
Pause/Blank Screen (5): This “freezes” a frame but displays a blank blue screen. This is helpful when a presenter wants to halt a presentation to talk about what has just been seen without the audience being distracted by the screen. Pressing “Play” or any of the other first keys causes the player to start from the frame it had frozen.



Freeze/Step Forward (6): This stops any motion and holds a frame on the screen. Pressing it when a frame is already “frozen” on the screen brings the next frame onto the screen.



Channel 1 Audio (7): Pressing this selects the audio from the left channel only. Use “0 – #” to restore mixed audio.



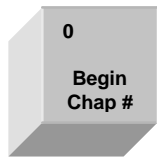
Begin Frame Number (8): this takes you to the numeric mode, where the digits you enter will be used to select a frame.



Show Frame and Chapter Number (9): This instructs the player to display the numbers on the upper left part of the screen. This feature only works for disks encoded with these numbers.



Channel 2 Audio (*): Pressing this selects the audio from the right channel only. Use “0 – #” to restore mixed audio.



Begin Chapter Number (0): This takes you to the numeric mode, where the digits you enter will be used to select a chapter.



Hide Frame and Chapter Numbers (#): this prevents the numbers from being displayed on the upper left part of the television screen.

Selecting Laser – Disk Frames and Chapters

1. In the function mode, press “8” to select a frame number or “0” to select a chapter number.
 - The player will halt, the screen will be a blue blank, and the system will be interpreting your keystrokes under the numeric code.
2. Type the chapter or frame number.
3. (a) *To go to the selected chapter or frame:* Press “*”.
 - The frame or chapter will “freeze” on screen, and the keypad will be in the function mode.
- (b) *To make the selected chapter or frame the “end mark” (stopping point):* Press “#”.
 - The currently selected frame or chapter will appear “frozen” on the screen, and the end mark will be in the system’s memory.

Notes:

- You cannot select the current frame as an end mark (because the player has already stopped there).
- Pressing “#” in the numeric mode selects both audio channels. If only one channel is desired, press “7” (channel 1) or “*” (channel 2) before pressing play.

Classroom Operating Guide

Accessing and Releasing

1. Tune the television set to the desired channel.
2. Dial the number of the desired player.
3. Wait for a “beep.”
4. Use the phone keypad to control the player.

To hang up the without releasing a player,

make sure you are in the function mode, then hang up.

To resume contact with a player,

Call its number again and wait for a “beep.”

5. *To release a player,* press “0” and hang up.

Special Laser Commands

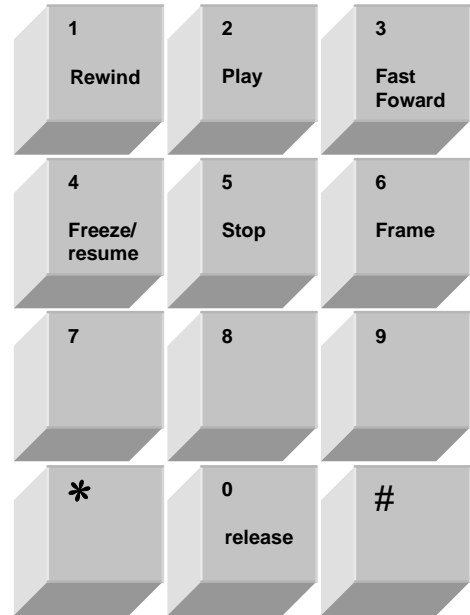
To select a laser-disk frame:

8 – [frame no.].

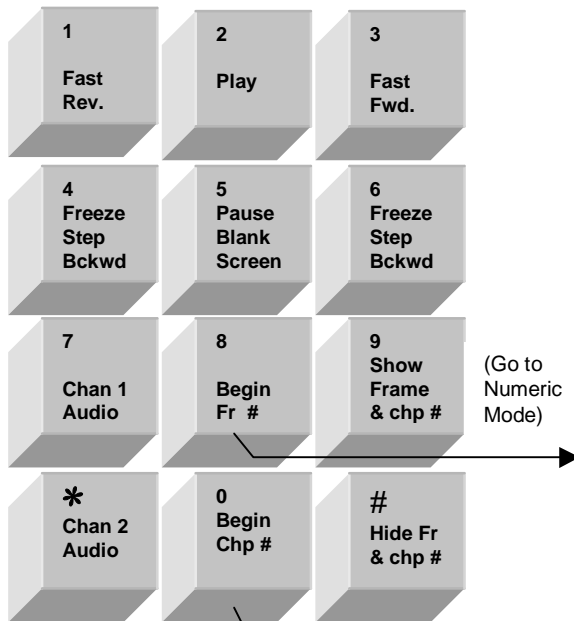
To select a laser-disk chapter:

0 – [chpt. no.].

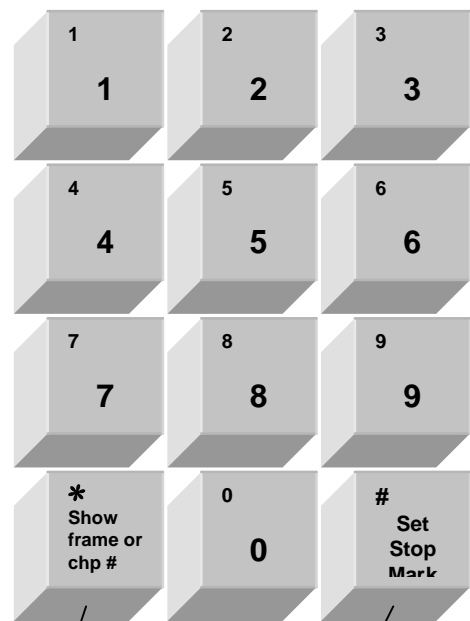
VCR Functions



Laser Function Mode



Laser Numeric Mode



(Go to Numeric Mode)

(Go to Play Mode)