

User's Guide

For Use with Ordinary Telephones

Revision 4

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Welcome to Your Telephone System

Introduction

This User's Guide provides easy-to-follow instructions for the many useful and flexible features built into your PBX Phone System.

The instructions assume that you are using a standard telephone, on a system equipped with up to four outside lines and up to 16 extensions. If you are using a "key" phone with separate buttons for each extension and outside line, the use of certain features will be even easier. (Refer to *Key Phone User's Guide*)

One person in your office should be designated as the "System Manager." This should be the person who set up and programmed your system, and who is in possession of the System Guide. Some pages in this guide refer you to the System Manager for more information.

Some features discussed may duplicate features built into your phone (auto redial, speed dial numbers, etc.). If so, use whichever set of features you prefer.

Suggestions for Users

Take 20 minutes to read through the whole guide. Try out each of the features discussed. Practice using common features such as "Hold" and "Transfer." This will help you to feel comfortable using the features and to understand the many features available to you. It also will help you understand the signals that your phone gives to indicate that someone else has "parked" a call for you, etc.

We also suggest keeping a "Dialing Code Sequence" by your phone; this shows the numbers for each feature at a glance (See page 32).

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How To Switch-hook

The “switch-hook” (sometimes called a “flash”) is a basic technique used to access phone system features.



To perform a switch-hook, simply depress the switch-hook button for about half a second. (This is the button in the phone cradle that is also used to disconnect the line.) If this is done during an outside conversation, a triple-beep will sound indicating that the switch-hook has registered.

If your phone has a “Flash” button, you can press it instead to perform a switch-hook.

Extension Types

The IPS 308 / 416 system extensions can be configured with Standard Phones, Key Phones, Door Phones or Fax Machines. This User's Guide describes the features to be used with a Standard Phone with the system set at Default.

With Default settings, you would go off-hook to get Intercom dial tone. Intercom calls could be placed, System Features (Call Forwarding, Call Pick Up, etc.) can be used or a Central Office (CO) line may be accessed by dialing “9” to make an outside call.

It is possible for the system to be configured by the System Manager so that you are connected to an outside line and receive CO dial tone when you go off-hook. In this case you must perform a switch-hook to receive an Intercom dial tone before dialing any digits to place intercom calls or access system features.

Before going through the features of this User's Guide, lift your handset and see if your phone receives the Intercom dial tone or if it is automatically connected to an outside line. This will show which off-hook condition applies to your extension and will help in learning the use of the system features that are offered.

Intercom Calls

To make an Intercom call:



1. Lift your handset and dial the desired 3 digit extension number.



2. If you hear a busy tone, hang up and try again later or select the “Camp On” feature below.

When making an intercom call to a Key-phone which is busy, a special ringback tone is heard consisting of one long beep followed by two short beeps.

Camp On - Extension

If you receive a busy tone after trying to call a certain extension, you may use this feature to be connected to that extension as soon as it becomes available.

To Camp On a busy extension:



1. Switch-hook.
You will hear a triple-beep.



2. Press “2”.
You will hear another triple-beep. Hang up.
When the called extension becomes free, your phone will double ring. Pick up your handset to be connected to that extension.

Call Pick Up - Intercom

To pick up an Intercom call ringing at another extension:



1. Lift your handset, press “3,” then answer as usual.

Extension Hunt Groups

Four separate Hunt Groups will allow you to dial a 3 digit group number and be connected to the first available extension in that group as set by the System Manager.



1. Lift your handset and dial.
“122” = Hunt Group #2
“133” = Hunt Group #3
“144” = Hunt Group #4
“155” = Hunt Group #5

You may also forward your calls from your extension to a Hunt Group by entering the group number instead of an extension number. (See page 17, Call Forwarding)

If your extension is part of a Hunt Group, you may desire to temporarily stop receiving calls directed to you. If so, you should invoke the Do Not Disturb mode (See page 24), or forward your calls to another extension which is not in your Hunt Group.

Outside Calls

To make an outside call:



1. Lift your handset and press “9” or “0” (as set by the System Manager) to get an outside line.

2. After you hear a dial tone, make your call.



3. If you hear a busy tone: All outside lines are in use. Hang up and try again later or set the “camp on” feature on page 9.

Switch-hook to the Central Office

Some Central Office Exchanges have features (Call Waiting, Call Transfer) which are accessed by giving a switch-hook.

From a Standard Phone:



1. While on line, switch-hook, then press “3”.

This Switch-hook, or Flash, command will send a switch-hook to the Central Office. The System Manager may also disable this feature.

Camp On - CO Line

If there are no available outside lines, you may “camp on” to the next outside line that opens up:



- 1.** Switch-hook. You will hear a triple-beep.



- 2.** Press “2.” You will hear another triple-beep. Hang up.

When an outside line becomes free, your phone will double-ring. Pick up the handset. You will have an outside line.

Making an Outside Call on a Specific CO Line

Your system may be set up so that specific lines are assigned to your long-distance carriers. To access a specific line:



- 1.** Lift your handset and press “6.”



- 2.** Press the number of the desired outside line.

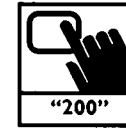
(1-4) / 416

(1-3) / 308

Proceed with making your call.

Auto Redial

To redial the last number called:



- 1.** Lift your handset and dial “200.”

Do not select an outside line before using this feature, the system will select one for you.

Call Pick Up - Outside Line

To pick up an outside call ringing at another extension:



- 1.** Lift your handset, press “3”, then answer as usual.

Call Holding

To put a call on hold:

Outside calls can be put on hold, intercom calls cannot.



1. While on the line, switch-hook.
You will hear a triple-beep.



2. Press "8."
You will hear another triple-beep. The call is now on hold.

While a call is on hold, you have full use of your phone. You can place another outside call, or call someone at another extension. You also can hang up without losing the call.

You may also simply hang up after the switch-hook to put the call on hold.

Reminder Feature

Your phone will ring you back after a caller has been on hold for the amount of time set by the system manager. If you do not return to the caller on hold within 20 seconds, the call will forward to the Operator or to a VoiceMail unit.

Retrieving a Call on Hold

To retrieve a call that was placed on hold by your extension:



1. Lift your handset and press "8".
If your extension has only placed one outside line on hold, then you will be connected to that line.

Retrieving Multiple Calls on Hold

If your extension has placed more than one call on hold:



1. Lift your handset and press "8".
You will hear a triple-beep.



2. Press the digit that represents the order in which the incoming or outgoing call accessed the system.

"1" = Least time in the system.

"2" = |

"3" = 89

"4" = Longest time in the system.

This order is independent of when the call was put on hold.

To Retrieve a Call Placed on Hold by Another Extension



- 1.** Lift your handset and dial “48” to be connected to the outside call.

If Other Extensions have Multiple Calls on Hold



- 1.** After dialing “48”, you will hear a triple-beep.



- 2.** Press the digit that represents the order in which the incoming or outgoing call accessed the system.

“1” = Least time in the system.

“2” = |

“3” = 89

“4” = Longest time in the system.

This order is independent of when the call was put on hold.

Call Transferring

To Transfer an outside call:



- 1.** While on line, switch-hook.
You will hear a triple-beep.



- 2.** Dial the desired 3 digit extension number.

You will hear 1 of 3 tones:

1. Ringback Tone

This indicates that the called extension is available.
(See Call Transferring to an Available Extension, Page 12)

2. Busy Tone

This indicates that the called extension is either on an Outside or Intercom Call.
(See Call Transferring to a Busy Extension, Page 13)

3. Error Tone

This indicates an attempt to call a non-existent extension or an extension that is in the Do Not Disturb mode.
(See Call Transferring to an Unavailable Extension, Page 14)

Call Transferring to an Available Extension

Blind Transferring a call to an available extension after the Ringback Tone:



1. You may hang up and the called extension will automatically be connected to the outside caller when the called extension goes off hook.

If the extension does not answer within 20 seconds, the call will forward to the Operator or to a Voice Mail unit.

Call transferring may be disabled by the System Manager.

Voice Announce a call to an available extension after the Ringback Tone:



1. Wait for the called extension to answer and then announce the outside caller that is holding for them.



2. Hang up to transfer the call to the called extension or the called extension can hang up and you will be reconnected to the outside caller.

If desired, you can transfer the caller to the Operator or your Voice Mail unit.

Call Transferring to a Busy Extension

When transferring a call to a busy Key-phone, a special ring tone is heard consisting of one long beep followed by two short beeps.

If transferring a call to a busy extension, you have 4 options:

“Reconnect” to the outside caller.



1. Switch-hook, wait for a triple-beep, then perform another switch-hook.

“Transfer” to a different extension.



1. Switch-hook, wait for a triple-beep, then dial the desired 3 digit extension number.

If desired, you can transfer the caller to the Operator or your Voice Mail unit.

“Call Park”.



1. Hang up, after hearing the busy signal.

The person at the busy extension will hear a quadruple-beep, indicating that a call is parked for them. When they hang up, their line will ring.

“Call Break In”.



1. Switch-hook, you will hear a triple-beep.



2. Press “5”.

You are now interrupting that extension's conversation. The person that they are speaking with can hear you. Only certain extensions should be programmed by the System Manager to have the “Call Break In” privilege.

Call Transferring to an Unavailable Extension

This will be indicated by an Error Tone. This will apply to an attempt to call a non-existent extension or an extension that is in the Do Not Disturb mode.

“Reconnect” with the outside caller.



1. Switch-hook, wait for a triple-beep, then perform another switch-hook.

“Transfer” to a different extension.



1. Switch-hook, wait for a triple-beep, then dial the desired 3 digit extension number.

If desired, you can transfer the caller to the Operator or your Voice Mail unit.

Conference Calling

These features can be used while on an outside call.

1 Outside Line, 2 Extensions

To “conference in” another extension:



1. While on the line, switch-hook.
You will hear a triple-beep.



2. Enter the desired 3 digit extension number.
When the person answers, you have the opportunity to announce the conference call without the outside line hearing.



3. Switch-hook.
You are now in conference mode. All three parties can speak together.

2 Outside Lines, 1 Extension

To “conference in” someone outside your office:



1. While on the line, switch-hook.
You will hear a triple-beep.



2. Press “8.”
This puts the first call on hold. You will hear a dial tone.



3. Dial “9” to get an outside line (“0” if set by the System Manager), then dial the desired phone number.

When the party answers, you have the opportunity to announce the call and speak without the first outside line hearing.



4. Switch-hook.
You will hear a triple-beep.



5. Press “7.” You are now in conference mode.
All three parties can speak together.

Special Features

Call Forwarding

You can forward your calls so that they will ring at another extension.

To set from your extension:



1. Lift your handset and enter “42.”



2. Enter the 3 digit extension number to which you are forwarding your calls.

You will hear a triple-beep.

The phone will emit a short ring as a reminder for you that the “call forwarding” mode is still enabled if someone tries to intercom your extension.

To cancel call forwarding:



1. At your extension, lift your handset and enter “44.”

You will hear a triple-beep.

Call Follow Me

To forward your calls from another extension:



1. Lift the handset and dial "43".



2. Dial your 3 digit extension number.
You will hear a triple-beep.

To remove forwarding your calls from another extension:



1. Lift the handset and dial "53".



2. Dial your 3 digit extension number.
You will hear a triple-beep.
The ability to set "Call Follow Me" from another extension may have been disabled by the System Manager.

Special Features

Call Barring Override System

If you are allowed to make unrestricted calls, you may go to any extension that is restricted and make an outgoing call by entering a password (if provided by the System Manager). The Call Barring Override feature temporarily deactivates call barring for as long as the phone remains off-hook.



1. Lift the handset and enter "40."



2. Enter the password.
You will hear an error tone if the password is entered incorrectly.
Pause for a triple-beep, then access a CO line.
3. Proceed with making your call.

Outside Call Restriction (Extension)

Sometimes it is desirable to prevent others from using your phone to make long distance calls. This may be desirable when you leave the office for lunch or weekends.

A person at any extension may force any outgoing call to use a restricted calling list as defined by the System Manager. Additionally, the System Manager can cause all extensions to use the restricted calling list when the unit goes into the Night Mode.

Outside Call Restriction:



- 1.** Lift your handset and dial "59".
You will hear a triple-beep.

Restore extension to original setting:



- 1.** Lift your handset and dial "50".



- 2.** Enter your 6 digit password.
You will hear a triple-beep.
If the password is not entered correctly, an Error Tone is heard and the extension will remain in the restricted mode.

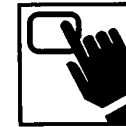
Special Features

Outside Call Restriction Password (Extension)

To enter your password:



- 1.** Lift your handset and dial "255".



- 2.** Enter your 6 digit password. Hang up.

The password may only be entered while the extension is not in the restricted mode or the Error Tone will be heard. The default value of the password is "111111".

Paging

There is a Paging Output at the system which the System Manager may optionally connect to an external amplifier and speaker.

Additionally, it is possible for any extension to send an external page or an internal page to any or all Key-phones and Door Phones.

The System Manager will make the assignment of Key-phones or Door Phones into the Paging Groups #1 and #2.

To access these features from your extension:

External Paging.



1. Lift your handset and dial "410", then voice announce.

External Paging and Page Group #1.



1. Lift your handset and dial "411", then voice announce.

Page Group #2.



1. Lift your handset and dial "412", then voice announce.

Special Features

Message Light / Command

Any extension may Turn On or Turn Off the message light of any Key-phone extension.

A Turn On or Turn Off message command may also be directed to an extension that is connected to a Standard Phone. In this case, the user at the Standard Phone will hear a 3 second Stutter Tone the next time the handset is lifted. This will indicate that a message is pending.

This will typically be done by the Voice Mail, but a manual messaging system may be implemented.

To Turn On the Message Light / Command:



1. Lift your handset and dial "54".



2. Enter the desired 3 digit extension number.
You will hear a triple-beep.

To Turn Off the Message Light / Command:



1. Lift your handset and dial "55".



2. Enter the desired 3 digit extension number.
You will hear a triple-beep.

Do Not Disturb

This feature prevents incoming calls and Intercom calls from ringing at your extension. This is useful when holding a meeting in your office. The caller will get an Error Tone.

To activate:



- 1.** Lift your handset and enter “51.”
You will hear a triple-beep.



- 2.** Hang up.

To deactivate:



- 1.** Lift your handset and enter “52.”
You will hear a triple-beep.



- 2.** Hang up.

Special Features

Alarm Clock

This feature programs your phone to serve as a reminder alarm clock. At the time set, your phone will produce a short double-ring. When you pick up, you will hear a repeated long tone + double short tone.

To set an alarm for a specific time:



- 1.** Lift your handset and enter “45.”



- 2.** Enter two digits for the hour. Use a 24-hour clock.

*i.e. 2 a.m. = “02” 2 p.m. = “14”
midnight = “00” noon = “12”*



- 3.** Enter two digits for the minutes.
You will hear a triple-beep.



- 4.** Hang up.

To cancel a pending alarm:



- 1.** Lift your handset and enter “46.”
You will hear a triple-beep.

Emergency Alarm

This feature is for emergency use only. When it is activated, every extension rings repeatedly, every 10 to 20 seconds. Anyone who picks up their phone will hear repeated quadruple-beeps.

To activate:



1. Lift your handset and enter "49."

The emergency alarm tone will immediately begin. Leave phone off the hook.

To deactivate:



1. Hang up.

The emergency alarm feature may have been disabled by the System Manager for certain extensions.

Speed-Dial Numbers

Speed-dial numbers / system

Your System Manager may have preset up to 45 "speed-dial" numbers. These are two-digit codes for frequently called numbers. (Ask for a list if necessary.) To place a call using the speed dial number:



1. Lift your handset and press "2."



2. Enter the desired 2 digit speed-dial code.

Do not select an outside line before using this feature, the system will select one for you.

Speed-dial numbers / personal

In addition, each extension can store up to four personal speed-dial numbers. Codes from 01 to 04 are available for this purpose.

To set personal speed-dial numbers:

Fill in the chart at right to indicate assignments for your personal speed-dial numbers. Then:



1. Lift your handset and press "2." For each speed-dial number, enter the corresponding 2 digit programming code.



2. Enter the phone number you want to store. Hang up. Repeat steps for other codes.

You may insert a two second pause by performing a switch-hook.

Up to 20 digits can be entered.

To use personal speed-dial numbers:



1. Lift your handset and press “2.”



2. Enter the desired 2 digit speed dial code.

Do not select an outside line before using this feature. The system will select one for you.

Codes for personal speed-dial numbers:

Speed Dial Code	Number/Person Assigned	Programming Code
01	_____	51
02	_____	52
03	_____	53
04	_____	54

Tip: Photocopy the above chart and keep it by your phone for reference.

Distinctive Ringing

This feature allows you to change the pattern of your phone’s ring. This is useful for distinguishing the sound of your phone from that of another that rings close by.

Your phone is already preset with two different ring patterns to allow you to distinguish internal calls from outside calls. You may change one or both patterns. Four ring patterns are available.

To program a distinctive ring:



1. Lift your handset and enter “47.”



2. Intercom calls: Enter code from chart below for ring pattern desired.

A long ring is the preset default.



3. Outside calls: Enter code from chart below for ring pattern desired.

A short ring plus a long ring is the preset default.

To test your programming, ask someone to call you from another extension for Intercom calls. Then have them transfer a call to you from another extension for outside calls.

Ring Pattern	Programming Code
Long ring	1
Short ring + long ring	2
Long ring + short ring	3
Three short rings	4

Guide to Ring Patterns

<i>Ring Patterns</i>	<i>Meaning</i>
Double ring	An outside line/internal extension is free. (Heard only when Camp On feature is set.)
Short ring	A call has been forwarded to another phone.
Long ring	Internal call (default setting)
Short ring + long ring	External call (default setting)
Long ring + short ring	See "Distinctive Ringing"
Three short rings	See "Distinctive Ringing"

Guide to Tone Patterns

The following table shows the different tone patterns that a caller may hear as a result of different actions.

<i>Tone Type</i>	<i>Description</i>
Busy Tone	The Busy tone is on for 400 ms, off for 400 ms. This tone is generated when (1) accessing a CO line which is in use, or (2) dialing a busy ordinary (non key-) phone in either the intercom mode or in trying to transfer a CO call.
Key Phone Busy Tone	The Key Phone Busy tone is on for 400 ms, off for 280 ms, on for 120ms, off for 120 ms, on for 120 ms, then off for 2.016 seconds. This tone is generated when dialing a busy key phone in either the intercom mode or in trying to transfer a CO call.
Ring Tone	The Ringing tone is on for 320 ms, off for 280 ms, on for 320 ms, then off for 2.016 seconds. This tone is generated when (1) calling another extension in the intercom mode or (2) when trying to transfer a CO call to an available extension.
Flash Tone	The Flash tone is on for 56 ms, off for 32 ms, on for 56 ms, off for 32 ms, then on for 56 ms. This tone is generated when after a phone flashes during a CO call. It is also generated as a confirmation tone for any programming.
Error Tone	The Error tone is on for 160 ms, off for 160 ms. This tone is generated when in many places when a phone dials an incorrect digit or tries to access an invalid extension or other resource. It is also present during a CO call when the extension dials a number which is barred according to the Call Barring tables.
Clear Forwarding Tone	The Clear Forwarding tone is on for 1 second, off for 160 ms, on for 80 ms, off for 160 ms, on for 80 ms, then off for 160 ms, then switching to the system dial tone. This tone is generated when the PBX detects, through the clear forwarding detection or polarity reversal detection, that the far end caller has hung up.
Wait Tone	The Wait tone is on for 64 ms, the off for 240 ms for as long as a resource is unavailable. This tone is generated when an extension is waiting for an unavailable system resource.
Alarm Tone	The Alarm tone is on for 400 ms, off for 160 ms, on for 80 ms, off for 160 ms, on for 80 ms, then off for 824 ms. This tone is generated when an extension answers the phone after an alarm clock ring.
Stutter Tone	The Stutter tone is on for 80 ms and off for 80 ms, lasting for about 3 seconds. This tone is generated when a non-key phone extension picks up the phone while its "Message Lamp" is lit. This informs the non-key phone extension that someone has left it a message.

Dialing Code Sequences

The following table shows the dialing codes for accessing the special features.

<i>Pg#</i>	<i>Sequence</i>	<i>Description</i>
3	1 nn	Place an Intercom Call to extension #'nn' or to one of the Hunt Groups.
27	2 nn	Place an outside call using one of the speed dial numbers.
4, 7	3	Pick up a call ringing at another extension.
22	410	Connect to pager output.
22	411	Connect to the key phones and door phones in Pager Group #1 and to the pager output.
22	412	Connect to the key phones and door phones in Pager Group #2.
17	42 1nn	Forward all calls from this extension to extension #'nn'
18	43 1nn	Forward all calls from extension #'nn' to this extension (Follow Me).
17	44	Cancel the forwarding of calls from this extension.
25	45 hh mm	Set the alarm clock for 'hh' hours (0..23) and 'mm' minutes (0..59).
25	46	Cancel the alarm clock setting.
29	47 IC	Set the distinctive ring cadence for ordinary phones. 'I' sets the ring type (1..4) for intercom calls while 'C' sets the ring type (1..4) for external (CO) calls.
10	48 (n)	Retrieve a CO call placed on hold by another extension.
26	49	Start the Emergency Alarm signal to all extensions.
19	40 nnnnnn	Enter the 6-digit Call Unbarring Password.
24	51	Place the phone at this extension into the Do Not Disturb mode.
24	52	Take the phone at this extension out of the Do Not Disturb mode.
18	53 1nn	Clear Follow Me. Cancel calls being forwarded from extension #'nn' to this extension.
23	54 1nn	Turn on the Message light / command at extension #'nn'
23	55 1nn	Turn off the Message light / command at extension #'nn'
	56	From the Operator station only, set Night Mode.
	57	From the Operator station only, set Day Mode.
20	59	Force this extension to use the restricted calling list.
20	50 nnnnnn	The correct password 'nnnnnn' will cause this extension to no longer use the restricted calling list.
6	6 n	Request a connection to outside line #'n'.
9	8 (n)	Retrieve a CO call placed on hold by this extension.
5	9 (or 0)	Request a connection to an outside line.
	0 (or 9)	Make an intercom call to the Operator.

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