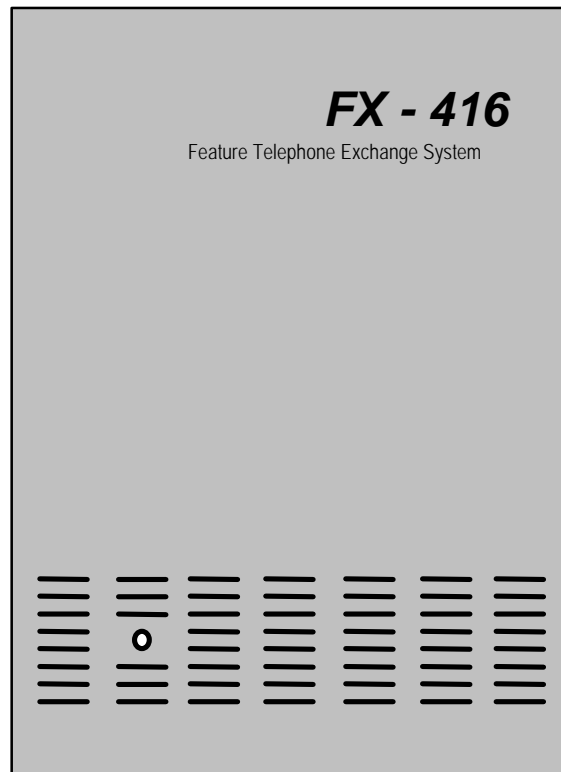


FX - 416 INSTRUCTION MANUAL



KCE Technology Corporation

Contents

Information To User	1
Installation	2
System Connection	3
Wall Mounting.....	4
System Conventions	7
Special Tones	7
Definitions	7
Power/Voice Indicator	8
Auto Attendant	8
System Security	9
Power Failure	9
System Power Backup	9
External Music Source	9
Programming FX-416 by Computer	10
System Requirements.....	10
Connecting FX-416 to the Computer	10
Installing SMP	10
Starting SMP	10
To Make Calls	11
Outgoing Calls.....	11
Intercom Calling	11
Setting Dialing Mode	12
Calling Operator Station	12
Last Number Redial	13
Automatic Call Return	13
Connecting to Voice Mail	13
Calling All Extensions.....	14
Ringling All Extensions within the Group.....	14
Calling Doorphone.....	14
Paging	15
Playback of Greeting Message	15
Door Lock.....	16
Opening Door Lock.....	16
Reserving a CO Line.....	16
Emergency Call.....	16
Canceling Emergency Call	17

Outgoing Calls Using Designated CO Line.....	17
Direct Modem-CO Line Connection Mode	18
To Answer Calls.....	19
Answering a Call.....	19
Answering Doorphone	19
Call Pickup	19
Holding Calls.....	20
Transferring Calls	20
Transferring Call to Entry Menu of Voice Mail System	20
Transferring Call to Extension's Voice Mailbox	21
Call Waiting.....	21
Call Splitting with Two External Lines.....	22
Call Splitting with an Extension and an External Line.....	22
Conference Call	23
Sending Flash to External Line.....	23
Operator Station.....	24
Current Call on Hold and Calling Extension	24
Current Call on Hold and Last Number Redial	24
Current Call on Hold and Automatic Call Return	25
Current Call on Hold and Call Waiting	25
Current Call on Hold and First Caller in Hold Queue.....	25
Current Call on Hold and Last Caller in Hold Queue.....	25
Disconnecting Current Call	26
Transferring Call.....	26
Transferring Call to Entry Menu of Voice Mail System	26
Transferring Call to Extension's Voice Mailbox	27
Transferring Call to Ring All.....	27
Transferring Call to Doorphone	27
Transferring Call to PA System.....	27
Transferring Call to Any Available CO Line	28
Transferring Call to an External Phone Number	28
Convenient Station Programming	29
Setting Extension Password	29
Password Validation	29
Canceling Extension Password.....	30
Changing Password	30
Call Transfer while Busy or No Answer	31
Do Not Disturb.....	33
Extension Excluded from Ring-All.....	33
Extension Included in Ring-All.....	34
No Ring for Doorphone Call.....	34
No Ring for Alarm/Timer.....	35
Setting Call Forwarding	36

Call Forwarding to Voice Mailbox	37
Disabling Call Forwarding.....	37
Enabling Call Forwarding.....	38
Call Forwarding to Another Phone Number	38
Playback of Stored Forwarding Phone Number	39
Call Forwarding to a Pager	39
Playback of Stored Pager Number.....	40
Setting Daily On/Off Time for Call Forwarding Option	41
Playback of Stored Daily On/Off Time	42
Setting Alarm/Timer	43
Playback of Alarm/Timer Setting	45
Setting Call Waiting Function	46
Caller ID.....	47
Voice Caller ID.....	47
Caller's Name	48
Setting the Number of Rings	49
Setting Waiting Time between 3 rd and 4 th Digit in Direct Dialing Mode	49
Setting Ring-Back Mode.....	50
System Programming	51
Setting New Supervisor Password	51
Canceling Supervisor Password	51
Canceling Extension Password.....	52
Overriding Extension Password	52
Changing Supervisor Password.....	53
Voice Announcement-Auto Attendant	53
Setting Voice Announcement to Day/Night Mode.....	54
Setting Voice Announcement to Group Mode.....	54
Recording Primary Message.....	55
Playback of Primary Message.....	55
Activating Primary Voice Announcement.....	56
Canceling Primary Voice Announcement.....	56
Recording Secondary Message.....	56
Playback of Secondary Message.....	57
Activating Secondary Voice Announcement.....	57
Canceling Secondary Voice Announcement	57
Setting Activation Time of Primary Voice Announcement.....	58
Setting Activation Time of Secondary Voice Announcement.....	58
Recording Emergency Message	58
Playback of Emergency Message	59
Setting Emergency Phone Number.....	59
Playback of Emergency Phone Number	59
Clearing Emergency Phone Number.....	60
Call Restriction	61
Setting Call Restriction for Global Level	61
Setting Call Restriction for Primary Group.....	62

Setting Call Restriction for Secondary Group.....	63
Setting Call Restriction for Individual Extension	64
Intercom Only Extension	65
Verifying Programmed Prefix Number	66
Call Restriction Override.....	67
Setting Time Limit for Nagging Option.....	68
Setting Time Limit for Nagging Then Cut Option	69
Flexible Settings for No Answer/No Selection	70
Ring-All.....	70
Assigning Operator Station	70
Special Features.....	71
Automatic FAX Connection.....	71
Assigning Voice Mail Channel	72
Canceling Voice Mail Channel	72
Doorphone	73
Assigning Doorphone Extension	73
Canceling Doorphone Extension	73
Forwarding Doorphone to Another Phone Number	74
Group Assignment-Extension.....	75
Group Assignment-CO Lines	76
Playback of Group Assignment	77
Borrowing CO Lines.....	78
Adjusting Hookswitch Flash Time.....	79
Setting Current Date	80
Playback of Current Date	80
Setting Current Time	80
Playback of Current Time	81
Programmable softkey Codes.....	81
Setting Ring Patterns	82
Reset All Settings to Default.....	82
Executive Intervention	83
Nagging for Current Call Only	83
Nagging Then Cut for Current Call Only	84
Barge-In (Override)	85
Interfacing with Voice Mail System.....	86
Disconnection Code.....	86
Message Waiting Notification	86
In-Band Code for Forwarding Message to Voice Mail System	86
In-Band Code for Retrieving Message from Voice Mail System	86
System Malfunction.....	87
System Reset	87
Powering Off the System	87

Questions and Answers	88
FX-416 Softkey Codes	89
Specification.....	91
Telephone Company and F.C.C. Requirements and Responsibilities	92

INFORMATION TO USER

WARNING:

This equipment has been tested and found to comply with the limits for a CLASS B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions contained in this manual, may cause harmful interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- * Reorient or relocate the receiving antenna
- * Increase the separation between the equipment and the receiver.
- * Connect the equipment into an outlet on a circuit different from that of the receiver.
- * Consult the dealer or an experienced audio television technician.

Note: Connecting this device to peripheral devices that do not comply with CLASS B requirements or using an unshielded peripheral data cable could also result in harmful interference to radio or television reception.

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

Installation

Please read the following warnings before installing the FX-416:

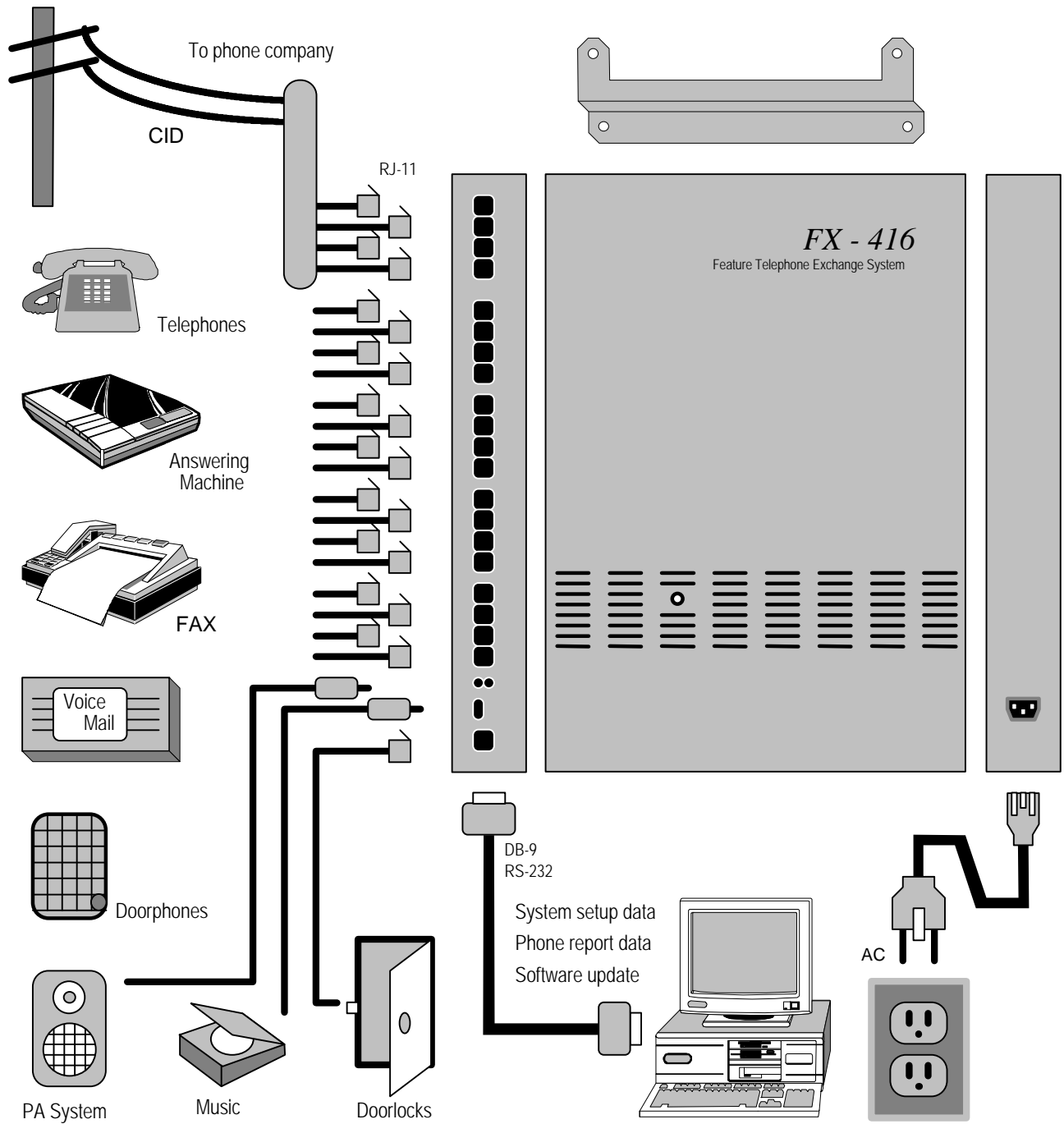
CAUTION

1. To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.
2. Never install telephone wiring during a lightning storm.
3. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
4. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
5. Use caution when installing or modifying telephone lines.

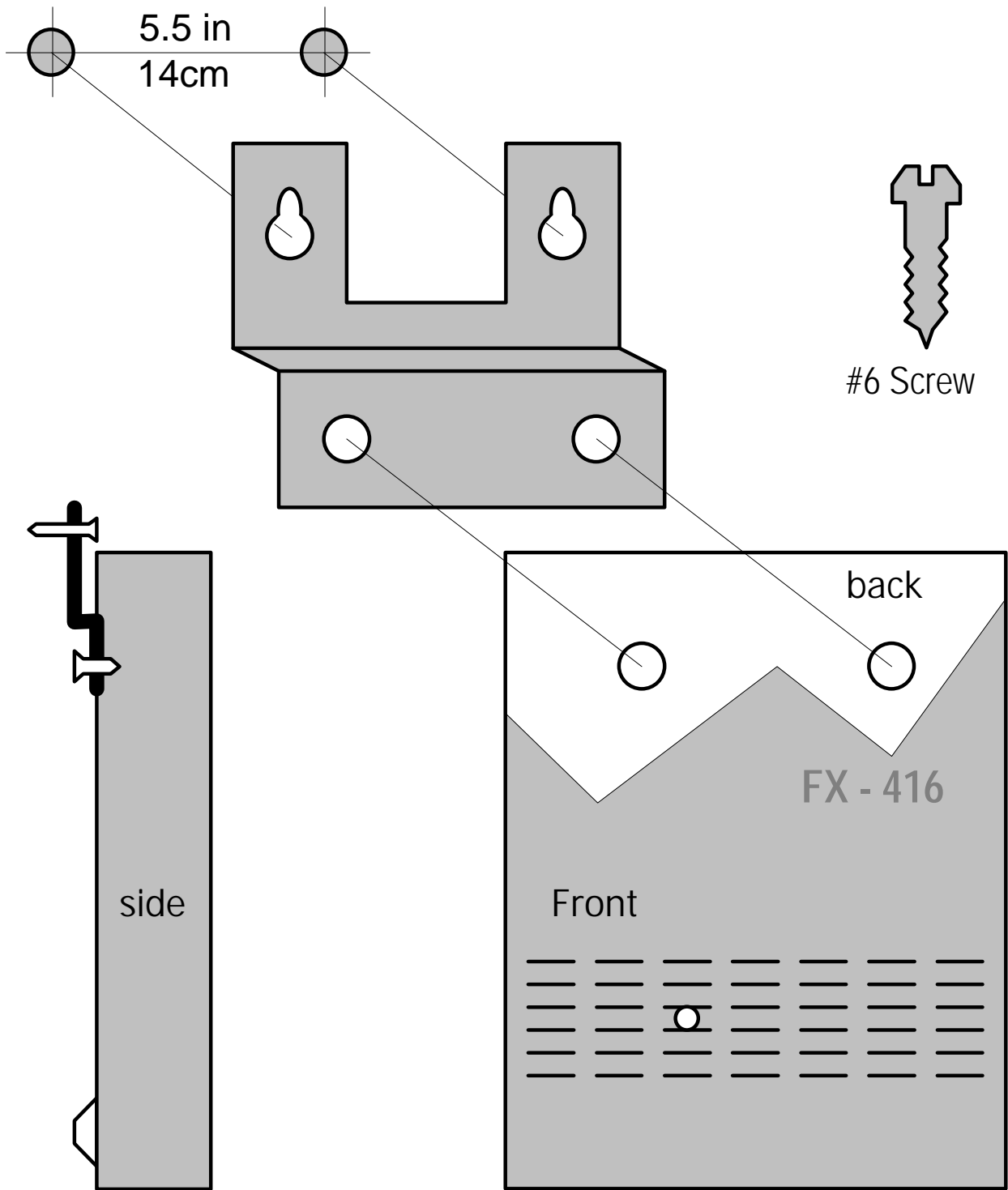
For Wall Mounting

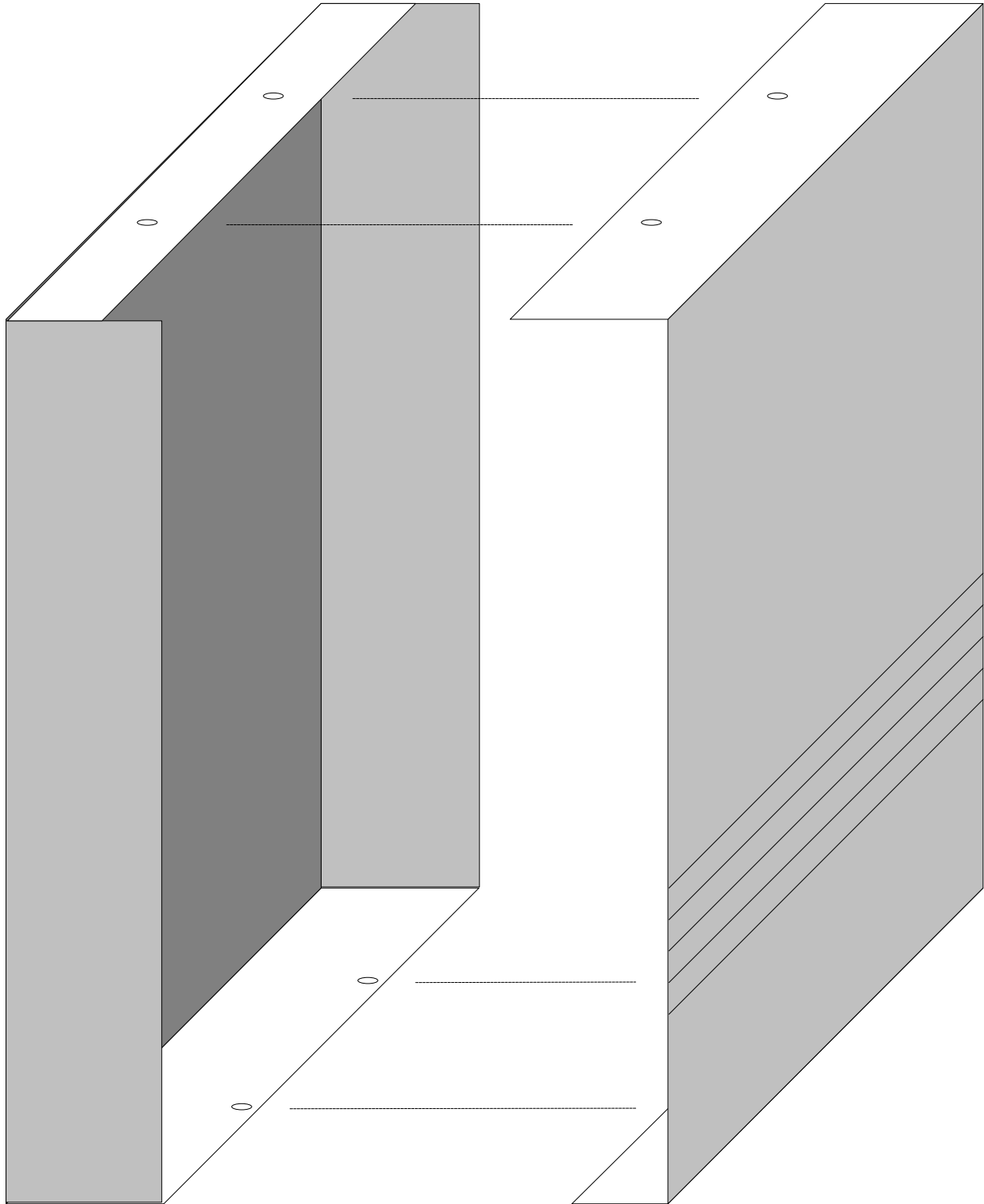
1. Do not attach the power supply cord to any building surface.
2. The wall must be able to support the weight of the FX-416.
3. Please use the same-sized screws (#6), if the screws other than the ones supplied are used.

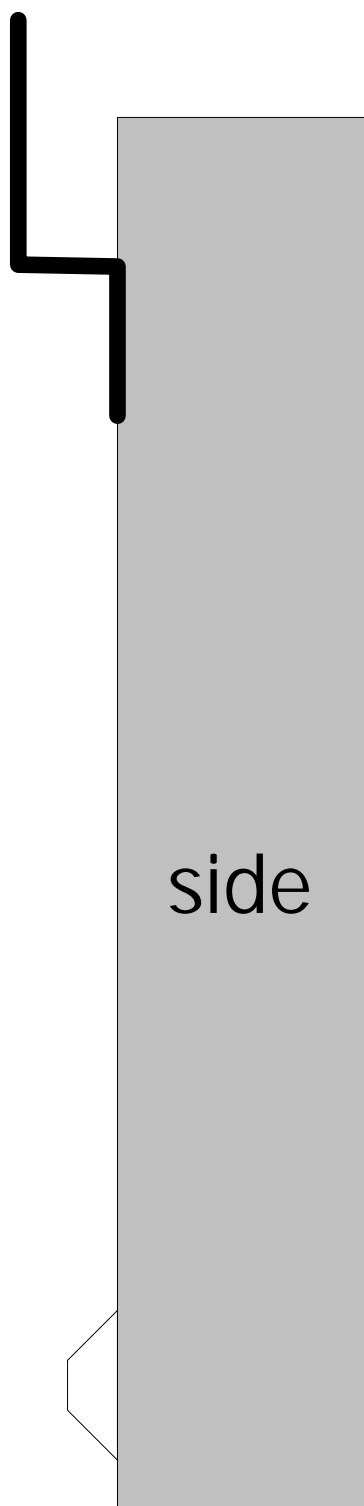
System Connection



Wall Mounting







System Convention

Special Tones

The FX-416 has various tones that represent distinct meanings in different occasions. The list of the tones are as follows (the On/Off time shown are in second):

Tone Name	On	Off	On	Off	On	Off	On	
US Ring Cadence	2	4	2	4	2	4	2	...
UK Ring Cadence	0.4	0.2	0.4	2	0.4	0.2	0.4	...
Door Phone	0.4	0.2	0.4	2	2	2	0.4	...
Alarm Ring	0.5	0.5	0.5	0.5	0.5	0.5	0.5	...
Reserve Co line Ring	0.4	0.2	0.4	0.2	0.4	2	0.4	...
Nagging tone (1 st 3 minutes)	0.1	0.2	0.1	0.2	0.1	10	0.1	...
Nagging tone (2 nd 3 minutes)	2	4	2	4	2	4	2	...
Call Waiting Tone	1	6	1	6	1	6	1	...
Confirmation Tone (YES)	0.4	0.2	0.4	---				
Confirmation Tone (NO)	2	---						
Busy Tone	0.5	0.5	0.5	0.5	0.5	0.5	0.5	...

Definitions

CO Line	The external line. CO is the abbreviation of Central Office.
Voice Announcement	The greeting message. It is recorded by the user and used to direct outside caller to select a destination party.
Extension	The internal line. Extension and station are interchangeable.
Intercom	Extension calling extension(s). It is the call between one extension and another extension(s).
Prefix Dialing Mode	The default dialing mode. You need to dial 9 first to access an outside line.
Direct Dialing Mode	Direct outside line access. You can make an outgoing call directly without dialing any access code.

Power/Voice Indicator

The FX-416 has a red LED light to indicate System Power and Auto Attendant statuses. The following LED indications have different meanings:

1. LED Light Is Off
The system is not properly connected to the power source.
2. LED Light Is Blinking Fast
When the red light is blinking fast (once every 0.5 second), it means the system is booting up and not ready.
3. LED Light Is Blinking Slowly
When the red light is blinking slowly (once every other second), it means:
 - . the system is working but the voice announcement is not recorded, or
 - . the Auto Attendant function is turned off.
4. LED Light Is On
Once the voice announcement is recorded, the red light stops blinking and stays on until the Auto Attendant function is deactivated.

Auto Attendant

Auto Attendant is a function that the greeting message, pre-recorded by the user, directs the caller to select a destination party without operator's assistance. It is an efficient and cost effective way to process incoming calls.

To activate Auto Attendant function, you need to record voice announcement to the FX-416. **Once the installation is completed, the next things you should do are:**

1. Assign and connect extensions.
2. Record the greeting message to activate the Auto Attendant function.

You may temporarily turn off the Auto Attendant function by canceling all the Voice Announcements (Primary and Secondary). When there is no one present to answer the phone for a long period of time, you may like to turn off the Auto Attendant to save caller's telephone expenses.

For how to record voice announcement, please refer to "Voice Announcement-Auto Attendant" in the System Programming section.

System Security

To protect the FX-416 from unauthorized access, the system provides two types of passwords, Supervisor password and Extension password. Password Validation may be required when you implement Station Programming and System Programming.

There is no preset password. For security purpose, you may want to enter a password to activate the password protection function.

Power Failure

When the power failure occurs, the FX-416 will automatically connect the CO Line #1 through #4 to the Extension 01 through 04 respectively to maintain regular telephone operation. Once the power outage occurs, voice recording and system setup are kept intact, but all the features except the regular telephone operation are not functional.

System Power Backup

A backup power supply is required to keep the system working in the event of power failure. Most of the Uninterruptable Power Supplies (UPS) available in the market can be used as backup power system. Please contact your local dealer for the selection of a proper UPS.

External Music Source

The FX-416 has a built-in music source used as the background music for the calls on hold.

An external music source (e.g. radio) may be connected to the FX-416 for Music on Hold feature. Outside party will hear music while the call is on hold or being transferred. You may use an external music source to replace the built-in music provided by the system. Once an external music source connected to the FX-416, the built-in music is defeated automatically.

Insert a two-conductors RCA plug into the Music input jack. The maximum input is 1.0V. Adjust the sound level with the volume control of the music source. The FX-416 will work with most of the radios with an Earphone output. Please contact your local dealer for further information.

Programming FX-416 by Computer

The flexibility of the FX-416 is largely a result of its software. With the System Management Program (SMP), You can easily program the FX-416 by computer. SMP is a windows based and menu driven software that is composed of two major functions, PBX Setting and call Report. SMP saves you a lot of work on setting the PBX functions and provides a database system for logging and tracking the telephone traffics. This section outlines the requirements for installing SMP and explains how to install and start SMP.

System Requirements

- 80486 processor or higher
- Mouse
- 16 MB RAM
- 1 MB free hard disk space
- Windows 95, Windows 98, Windows NT 4.0 operating system

Connecting FX-416 to the Computer

You need to connect the FX-416 to the computer in order to install and run SMP software. The communication between the FX-416 and your computer is through RS-232 cable.

How:

To connect FX-416 to the computer

1. Connect one end of the RS-232 cable to one of the serial ports of your PC and the other end to the FX-416 RS-232 connector (marked as DATA)

Installing SMP

How:

To install SMP

1. Close all open application programs
2. Insert SMP disk into drive A
3. Click **Start** menu and choose the **Run...** option
4. Type A:\INSTALL then click **OK**

Starting SMP

Once SMP is installed, double-click the SMP icon to start the program. SMP provides an online help system. When SMP is running on your computer, click **Help** on the menu bar to see context-sensitive help.

To Make Calls

Outgoing Calls

To make an outgoing call in Prefix Dialing mode, you have to dial prefix [9] first to access an outside line. In Direct Dialing mode, you don't need to dial prefix to access an outside line. The default dialing mode is Prefix Dialing.

Note: For changing the dialing mode, please refer to “Setting Dialing Mode” in this section.

How:

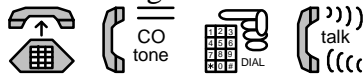
Prefix Dialing Mode



1. Lift the handset
2. Dial [9]
3. Wait for CO dial tone
4. Dial the phone number

Note: Using a phone with Saved Number Redial (Speed Dialing or One-touch Dialing) and/or Last Number Redial, you need to enter a PAUSE between Prefix (9) and the phone number before you use those features.

Direct Dialing Mode



1. Lift the handset
2. Dial the phone number

Intercom Calling

Call another extension within the FX-416 system. The first digit of the extension number is user programmable. The default setting of the extension numbers are 201 through 216.

How:



1. Lift the handset
2. Dial the extension number (201 through 216)

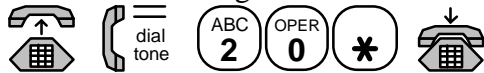
Setting Dialing Mode

For outgoing calls, the FX-416 has Prefix Dialing mode and Direct Dialing mode. There will be a delay time before connecting you to an extension for any Intercom call in Direct Dialing mode. The delay time is programmable, please refer to “Setting Waiting Time between 3rd Digit and 4th Digit” for details. Prefix Dialing is the default dialing mode. However, you may change your extension’s dialing mode to fit your own needs.

Note: The FX-416 can only be programmed in the Prefix Dialing mode.

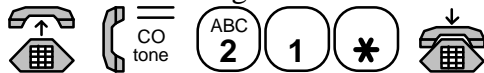
How:

To set Direct Dialing Mode



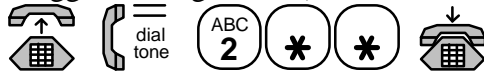
1. Lift the handset
2. Dial [2 0 *]
3. Hang up

To set Prefix Dialing Mode



1. Lift the handset
2. Dial [2 1 *]
3. Hang up

To toggle Dialing Mode (reverse current dialing mode)



1. Lift the handset
2. Dial [2 * *]
3. Hang up

Calling Operator Station

You may assign a particular extension as the operator station. The default setting of the operator station number is 200.

How:



1. Lift the handset
2. Dial [2 0 0] to ring the operator station
3. Talk to the receiver

Last Number Redial

Automatically place a call to the last phone number you dialed.

How:



1. Lift the handset
2. Dial [2 3 4] to call the last phone number you dialed

Automatic Call Return

Automatically dial back the last person who called you when you were not able to answer the phone in time.

Note: Automatic Call Return only works with Caller ID, so you must subscribe to the Caller ID service from your local telephone company.

How:



1. Lift the handset
2. Dial [2 3 5] to call the last number that called you

Connecting to Voice Mail

A Voice Mail system may be connected to the FX-416. You may access the Voice Mail system to utilize its features. For the operations of the voice mail system please refer to the manual of your voice mail system.

How:

To connect to a Voice Mail Channel



1. Lift the handset
2. Dial [2 4 5] to access the voice mail channel
3. Dial voice mail function codes

To connect to Extension's Voice Mailbox



1. Lift the handset
2. Dial [2 4 5 2 0 8] to access a voice mailbox, where 2 0 8 is the extension number of the voice mailbox (assigned to the extension by your voice mail system)
3. Dial voice mail function codes

Note: You may dial in from outside to access this function if Auto Attendant is activated.

Calling All Extensions

Ring all available extensions. Once an extension picks up the call, all rings stop.

How:



1. Lift the handset
2. Dial [2 5 0] to ring all extensions
3. Talk to the receiver

Note: You may dial in from outside to access this function if Auto Attendant is activated.

Ring All Extensions within the Group

Make an internal call to all available extensions within the group. Once an extension picks up the call, all rings stop.

How:

To ring Primary Group's extensions



1. Lift the handset
2. Dial [2 6 5] to ring all extensions in the primary group
3. Talk to the receiver

To ring Secondary Group's extensions



1. Lift the handset
2. Dial [2 6 6] to ring all extensions in the secondary group
3. Talk to the receiver

Note: You may dial in from outside to access this function if Auto Attendant is activated.

Calling Doorphone

You may call a Doorphone from any extension. Once the calling extension hangs up the phone, the conversation is terminated. The FX-416 supports 2 Doorphones. The access code for Doorphone 1 is 251 and Doorphone 2 is 252.

How:



1. Lift the handset
2. Dial [2 5 1] to call Doorphone 1
3. Talk to the receiver

Note: You may dial in from outside to access this function if Auto Attendant is activated.

Paging

Page through an external PA system.

How:



1. Lift the handset
2. Dial [2 5 5] to access the PA system
3. Page

Playback of Greeting Message

You may play back either the recorded greeting message currently in use, the primary message or the secondary message. (For information regarding Greeting Message, please refer to “Auto Attendant” in System Programming section.)

How:

To play back current greeting message



1. Lift the handset
2. Dial [2 6 0]
3. System plays back the current greeting message

To play back primary greeting message



1. Lift the handset
2. Dial [2 6 1]
3. System plays back the primary greeting message

To play back secondary greeting message



1. Lift the handset
2. Dial [2 6 2]
3. System plays back the secondary message

Note: You may dial in from outside to access this function if Auto Attendant is activated.

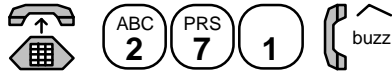
Door Lock

The FX-416 system has a Door Lock port that supports 2 Door Locks. The output of the port is TTL compatible signal. The access code for Door Lock 1 is 271 and Door Lock 2 is 272.

Opening Door Lock

You may open a Door Lock from any extension.

How:

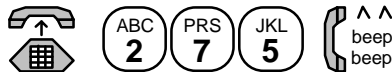


1. Lift the handset
2. Dial [2 7 1] to open Door Lock 1

Reserving a CO Line

You may reserve an outside line if all lines are busy. The system will notify you by distinctive 3 short rings. The reservation will be cancelled if you do not answer within 10 seconds.

How:

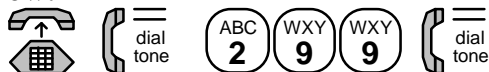


1. Lift the handset
2. Dial [2 7 5] to reserve a CO line
3. Wait for confirmation tone
4. Hang up

Emergency Call

Dial an emergency phone number that is pre-programmed by the user. Once the Emergency Call is activated, the FX-416 will announce the pre-recorded emergency message repetitively for about 2 minutes or until the call is terminated by the receiving party.

How:

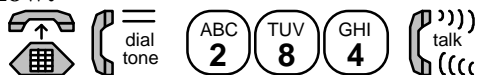


1. Lift the handset
2. Dial [2 9 9], FX-416 will automatically dial the pre-programmed emergency number

Canceling Emergency Call

Stop the Emergency Call that was just activated. The Emergency Message announcement will be terminated and you may talk to the receiving party.

How:



1. Lift the handset
2. Dial 2 8 4]
3. Wait for confirmation tone

Outgoing Calls Using Designated CO Line

The FX-416 has maximum 4 CO lines available for outgoing calls. You may specify a particular CO line for an outgoing call. The following is the reference table for the access codes of the CO lines:

CO Line Number	1	2	3	4
Access Code	291	292	293	294

How:

In Prefix Dialing Mode



1. Lift the handset
2. Dial [2 9 1], CO line 1 is used for this call
3. Wait for CO dial tone
4. Dial the phone number

In Direct Dialing Mode



1. Lift the handset
2. Dial [2 9 1], CO line 1 is used for this call
3. Wait for CO dial tone
4. Dial the phone number

Note: (1) You may dial in from outside to access this function if Auto Attendant is activated.

(2) The remote access to this function is protected by the password. The FX-416 will validate your password first before granting you the right to access this function. (For information regarding Password Validation, please refer to “Password Validation” in Convenient Station Programming section.)

(3) You may dial 9 for using any available CO line instead of a designated CO line.

Direct Modem-CO Line Connection Mode

As other telephone exchange systems, the transmission speed of a modem connecting to the FX-416 will be lower than the modem connecting directly to the telephone line. With special hardware design and software control, you are able to re-route your modem directly to a CO line through a relay to reach the maximum transmission speed allowed on the telephone line. You may use either one of the 16 extensions for modem dialing, however the Direct Modem-CO Line Connection (DMCC) is only available to the first 4 extensions, 01 to 04. Once the extension is in DMCC mode, the extension will be routed to the designated CO line. After the modem transmission is disconnected, the extension will be automatically return to the normal exchange mode. The following is the reference table of the physical CO lines connected to the extensions in DMCC mode:

Extension Number	01	02	03	04
CO Line Number	1	2	3	4

How:

To activate DMCC mode

2 9 * ,

1. Add prefix [**2 9 * ,**] to the access phone number

To Answer Calls

When the FX-416 detects an incoming call, the system will start playing greeting message if it is recorded and also activated. After the outside caller made a selection, say any extension number from 201 to 216, the call will be directed to that extension. If the outside caller did not make any selection, then the system will ring all extensions or ring the operator station if it has been programmed.

Answering a Call

How:



1. Lift the handset

Answering Doorphone

How:



1. Lift the handset
2. Talk to the visitor

Call Pickup

Any extension can answer any ringing extension.

How:



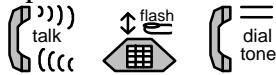
1. Lift the handset
2. Dial [2 # #]

Holding Calls

You may put an outside caller on hold while transferring the call or waiting for service.

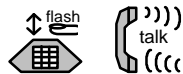
How:

To put a call on hold



1. Flash the hookswitch
2. Will hear system dial tone, the call is on hold

To retrieve a call on hold



1. Flash the hookswitch, connection resumed

Transferring Calls

Outside calls may be transferred to any other extension.

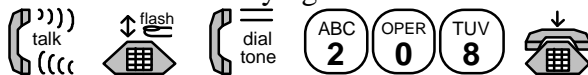
How:

Notify the other extension



1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone, then dial the extension number
3. Talk to the receiver
4. Hang up, the call is transferred

Transfer without notifying the other extension

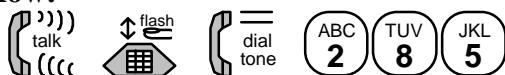


1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone, then dial the extension number
3. Hang up, call is transferred

Transferring Call to Entry Menu of Voice Mail System

To transfer the outside caller to the voice mail system entry menu which announces the greeting message of the voice mail system.

How:

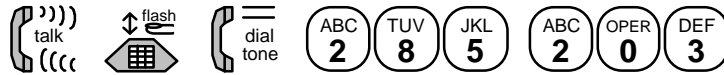


1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 5] to transfer to the entry menu of the voice mail system

Transferring Call to Extension's Voice Mailbox

To transfer the outside caller to an extension's voice mailbox.

How:

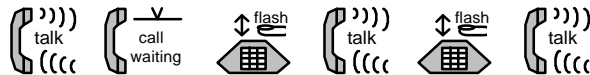


1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 5 2 0 3] to transfer the outside caller to the voice mailbox of extension 203

Call Waiting

Call waiting tone beeping during a conversation indicates there is an incoming call waiting. You may switch between two outside parties. While the conversation with one of the outside parties is terminated, you may either flash the hookswitch or hang up the phone to release the external line. After the phone was hung up, it will ring again reminding there is another party still on hold.

How:



1. Will hear call waiting tone (short beep)
2. Flash the hookswitch to put the 1st party on hold
3. Talk to the 2nd party
4. Flash the hookswitch to alternatively talk to either party

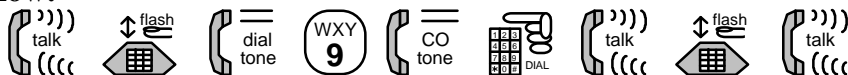


5. Once the conversation with one of the parties is terminated:
 - (1) Replace the handset and wait for Ring-Back
 - (2) Lift the handset and talk to the party on holdOr
 - (1) Flash the hookswitch to talk to the other party on hold

Call Splitting with Two External Lines

Allows you to switch between two outside parties. While the conversation with one of the outside parties is terminated, you need to hang up the phone to release the external line. After the phone is hung up, it will ring again reminding there is another party still on hold.

How:



1. Flash the hookswitch to put the 1st party on hold
2. Dial [9] to make an outside call on 2nd external line
3. Talk to the 2nd party
4. Flash the hookswitch to put the 2nd party on hold
5. Talk to the 1st party
6. Flash the hookswitch to alternatively talk to either party

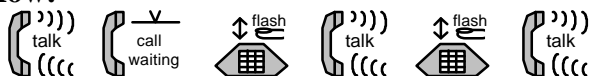


7. Once the conversation with one of the parties is terminated:
 - (1) Replace the handset and wait for Ring-Back
 - (2) Lift the handset and talk to the party on hold

Call Splitting with an Extension and an External Line

When two extensions are in Intercom, one extension hears the call waiting tone during the conversation, that extension user may switch between the external line and the other extension.

How:



1. Hear call waiting tone
2. Flash the hookswitch to put the 1st party (other extension) on hold
3. Talk to the 2nd party (outside caller)
4. Flash the hookswitch to put the 2nd party on hold
5. Talk to the 1st party
6. Flash the hookswitch to alternatively talk to either party

Conference Call

Allows a conference call among 1 external line and 2 internal extensions or 2 external lines and 1 internal extension.

How:

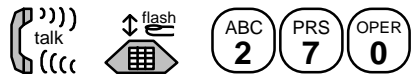


1. Flash the hookswitch to put the outside party on hold
2. Will hear system dial tone
3. Dial 2nd party (for outside party, dial 9 to access CO line)
4. Talk with the receiver
5. Flash the hookswitch
6. Dial [3] within 3 seconds, all 3 parties are in conference

Sending Flash to External Line

The FX-416 can send a Flash signal to the external line that may be used to access special features of the phone company (such as Call Waiting and Three-Way Calling) or other PABX systems.

How:



1. Flash hookswitch, while talking to an outside caller
2. Dial [2 7 0]

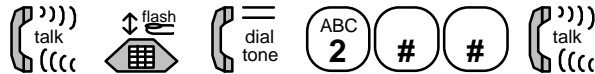
Operator Station

The Operator Station requires the capabilities of handling multiple holds and transfers. The following operations are especially for holding multiple calls and transferring calls:

Current Call on Hold and Call Pickup

To put current call into hold queue, then pick up a ringing extension.

How:

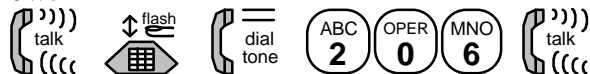


1. Flash the hookswitch to put the current caller on hold
2. Will hear system dial tone
3. Dial [2 # #] to pick up a ringing extension

Current Call on Hold and Calling Extension

To put current call into hold queue, then call an extension.

How:

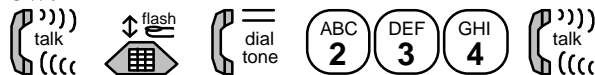


1. Flash the hookswitch to put the current caller on hold
2. Will hear system dial tone
3. Dial [2 0 6] to talk to extension 206

Current Call on Hold and Last Number Redial

To put current call into hold queue, then place a call to the last number you dialed.

How:



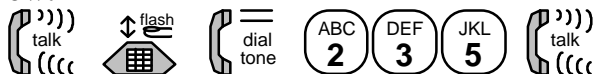
1. Flash the hookswitch to put the current caller on hold
2. Will hear system dial tone
3. Dial [2 3 4] to call the last number you dialed

Current Call on Hold and Automatic Call Return

To put current call into hold queue, then dial back the last person who called you when you were not able to answer the phone in time.

Note: Automatic Call Return Only works with Caller ID, so you must subscribe to the Caller ID service from your local telephone company.

How:

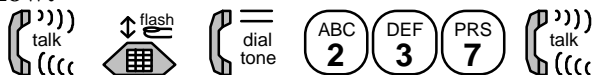


1. Flash the hookswitch to put the current caller on hold
2. Will hear system dial tone
3. Dial [2 3 5] to call the last number that called you

Current Call on Hold and Call Waiting

To put current call into hold queue, then pick up the first caller in the call waiting queue.

How:

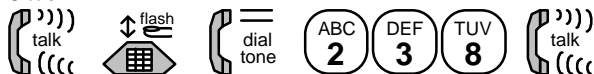


1. Flash the hookswitch to put the current caller on hold
2. Will hear system dial tone
3. Dial [2 3 7] to pick up the first caller in call waiting queue

Current Call on Hold and First Caller in Hold Queue

To put current call into hold queue, then retrieve the first caller in the hold queue.

How:

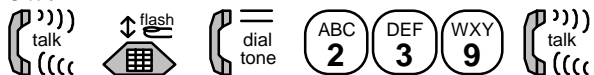


1. Flash the hookswitch to put the current caller on hold
2. Will hear system dial tone
3. Dial [2 3 8] to retrieve the first caller in call hold queue

Current Call on Hold and Last Caller in Hold Queue

To put current call into hold queue, then retrieve the last caller in the hold queue.

How:

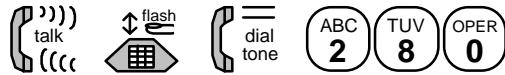


1. Flash the hookswitch to put the current caller on hold
2. Will hear system dial tone
3. Dial [2 3 9] to retrieve the last caller in call hold queue

Disconnecting Current Call

To hang up current call.

How:



1. Flash the hookswitch to put the current call on hold
2. Will hear system dial tone
3. Dial [2 8 0] to hang up the current call that was just put on hold

Transferring Call

To transfer the outside caller to an extension.

How:

Notify the other extension



1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone, then dial the extension number (e.g. extension 205)
3. Talk to the receiver
4. Flash the hookswitch, dial [2 8 2] to transfer the outside caller to the extension

Transfer without notifying the other extension



1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 1 2 0 5], to transfer the caller to extension 205

Transferring Call to Entry Menu of Voice Mail System

To transfer the outside caller to the voice mail system entry menu which announces the greeting message of the voice mail system.

How:

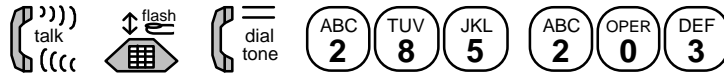


1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 5] to transfer to the entry menu of the voice mail system

Transferring Call to Extension's Voice Mailbox

To transfer the outside caller to an extension's voice mailbox.

How:



1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 5 2 0 3] to transfer the outside caller to the voice mailbox of extension 203

Transferring Call to Ring All

To transfer the outside caller to any available extension.

How:



1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 1 2 5 0] to transfer the outside caller to any available extension

Transferring Call to Doorphone

To transfer the outside caller to a doorphone.

How:



1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 1 2 5 1], will transfer the outside caller to the doorphone # 1

Transferring Call to PA System

To transfer the outside caller to the PA system.

How:

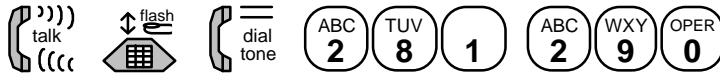


1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 1 2 5 5], will transfer the outside caller to the PA system.

Transferring Call to Any Available CO Line

To transfer the outside caller to a CO line. The outside caller dials another phone number by using the second CO line.

How:

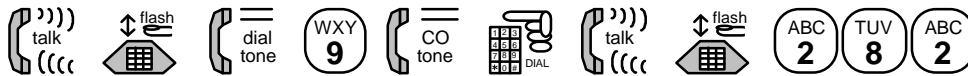


1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [2 8 1 2 9 0] to connect the outside caller to an available CO line, then dial another phone number

Transferring Call to an External Phone Number

To transfer the outside caller to an external phone number.

How:



1. Flash the hookswitch to put the outside caller on hold
2. Will hear system dial tone
3. Dial [9]
4. Wait for CO dial tone
5. Dial the phone number
6. Talk to the receiver
7. Flash the hookswitch
8. Flash the hookswitch, dial [2 8 2] to transfer the outside caller to the external number

Convenient Station Programming

You can program your extension to fit your needs. The FX-416 has two types of passwords, Supervisor password and Extension password. You need to program a password for your extension in order to protect the settings from being changed by other users. You may program your extension from any extension with the password. Once you have the extension password, all the functions in this section can also be accessed from the remote (dialing in through a CO line from outside).

Setting Extension Password

There is no preset password on any extension. If there is a need to protect the extension setup from unauthorized access, you may program a new password at that particular extension.

How:



1. Lift the handset
2. Dial [5xxxx*], xxxx represents the new password (e.g. 4321)
3. Dial [xxxx#] to verify the new password
4. Wait for confirmation tone

Password Validation

You need to enter the password whenever accessing the functions protected by the password.

How:



1. Lift the handset
2. Dial [*5xxxx#], xxxx represents the chosen password (e.g. 4321)
3. Wait for confirmation tone

Canceling Extension Password

Password feature may be disabled if the password protection is not needed. You can cancel your own extension password from any extension.

How:

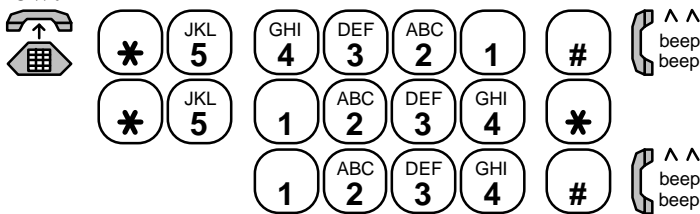


1. Lift the handset
2. Validate the password (extension password, e.g. 4321)
3. Wait for confirmation tone, then hear system dial tone
4. Dial [*5*#]
5. Wait for confirmation tone

Changing Password

Validate the password first then enter a new password.

How:



1. Lift the handset
2. Validate the password
3. Wait for confirmation tone, then hear system dial tone
4. Dial [*5xxxx*], xxxx represents the new password (e.g. 1234)
5. Dial [xxxx#] to verify the new password (e.g. 1234)
6. Wait for confirmation tone

Call Transfer While Busy or No Answer

While the extension is busy or has no answer, you may program the incoming call to be transferred to another extension, to the Operator Station or to a Voice Mailbox (if equipped with a voice mail system). You may also program your extension to go to Ring-All mode or to repeat the greeting message if it is busy or has no answer.

How:

To transfer to other extension



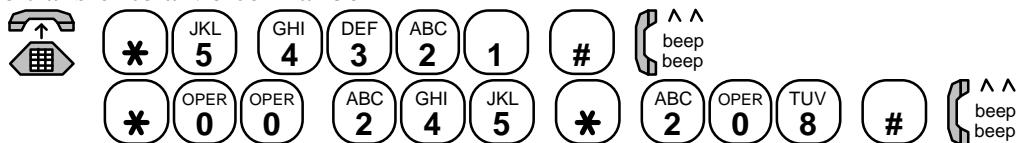
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*00 2 1 3 #], will transfer calls to extension 213
4. Wait for confirmation tone

To transfer to Operator Station



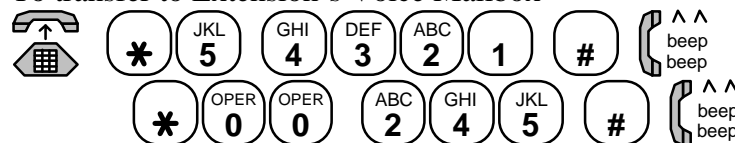
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*00 2 0 0 #], 2 0 0 is the Operator Station
4. Wait for confirmation tone

To transfer to a Voice Mailbox



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*00 2 4 5 * 2 0 8 #], where 2 4 5 represents any voice mail channel and 2 0 8 is the extension number of the voice mailbox to be transferred to
4. Wait for confirmation tone

To transfer to Extension's Voice Mailbox



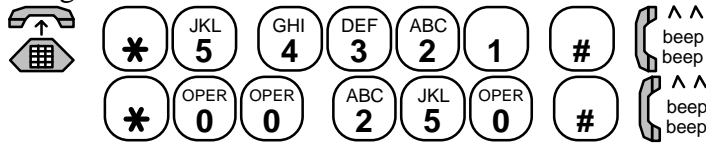
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*00 2 4 5 #] to transfer the call to the extension's own voice mailbox
4. Wait for confirmation tone

To repeat Greeting Message



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*00 2 6 0 #]
4. Wait for confirmation tone

To ring all extensions



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*00 2 5 0 #]
4. Wait for confirmation tone

To cancel transfer



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*00#]
4. Wait for confirmation tone

Do Not Disturb

Each extension can be individually programmed to block incoming calls, intercom and alarm clock.

How:

To turn on (Do Not Disturb function enabled)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*10#]
4. Wait for confirmation tone
5. Hang up

To turn off (Do Not Disturb function disabled)



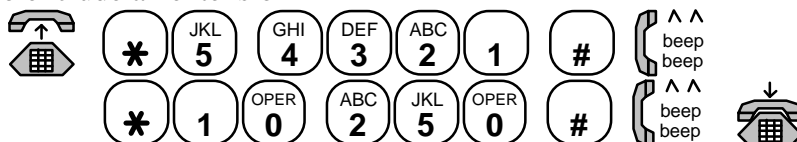
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*11#]
4. Wait for confirmation tone
5. Hang up

Extension Excluded from Ring-All

You may set individual extension not to ring during Ring-All.

How:

To exclude an extension



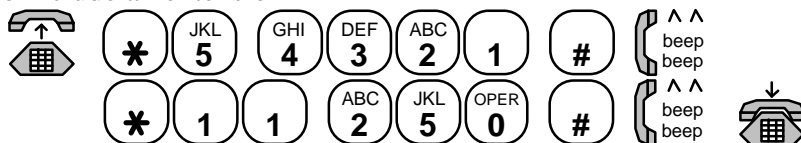
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*10 2 5 0 #]
4. Wait for confirmation tone
5. Hang up

Extension Included in Ring-All

Once an extension is excluded from Ring-All, you may reset the extension to ring when Ring-All occurs. The default setting is that all extensions will ring during Ring-All.

How:

To include an extension



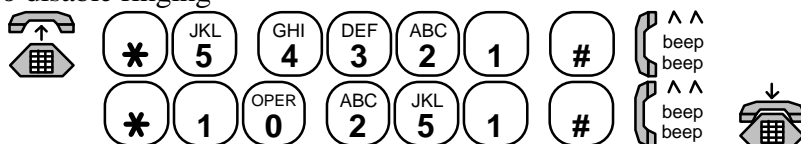
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*11 2 5 0 #]
4. Wait for confirmation tone
5. Hang up

No Ring for Doorphone Call

You may set the extension not to ring for any doorphone call.

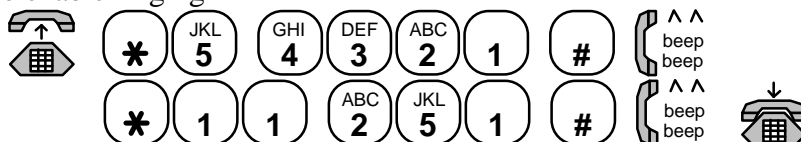
How:

To disable ringing



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*10 2 5 1 #]
4. Wait for confirmation tone
5. Hang up

To enable ringing



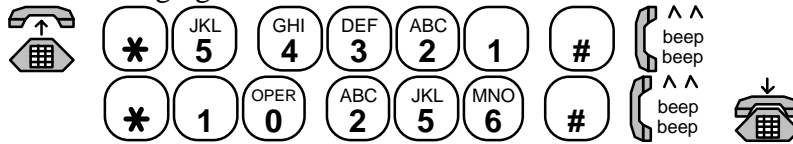
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*11 2 5 1 #]
4. Wait for confirmation tone
5. Hang up

No Ring for Alarm/Timer

You may set the extension not to ring for any alarm or timer.

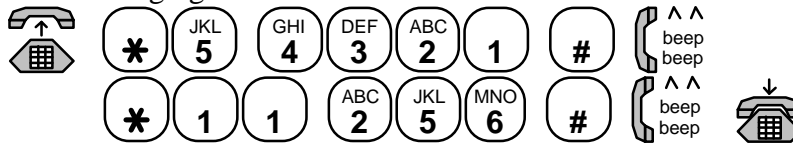
How:

To disable ringing



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*10 2 5 6 #]
4. Wait for confirmation tone
5. Hang up

To enable ringing



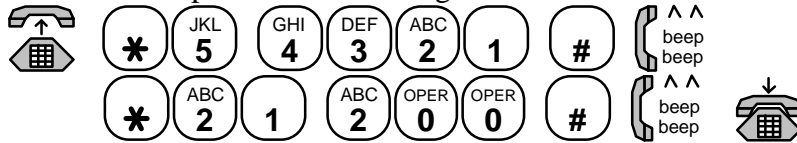
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*11 2 5 6 #]
4. Wait for confirmation tone
5. Hang up

Setting Call Forwarding

Forward your call to another extension, to the Operator Station, to a Voice Mailbox (if equipped with a voice mail system), to an outside phone number, or to a pager. When the call forwarding is set, the call forwarding is enabled automatically.

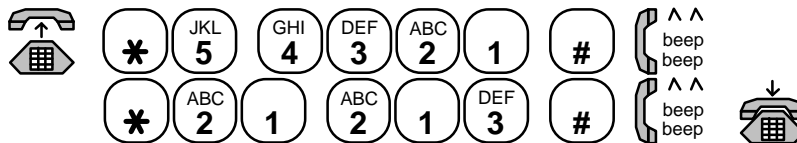
How:

To forward to Operator Station/Ring-All



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*21 2 0 0 #], will go to Ring-All if the system has no Operator Station
4. Wait for confirmation tone
5. Hang up

To forward to an extension



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*21 2 1 3 #], will forward calls to extension 213
4. Wait for confirmation tone
5. Hang up

To enable forwarding (after call forwarding disabled)



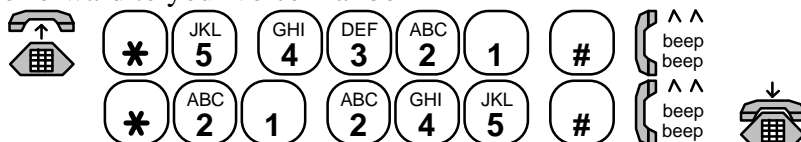
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*21 #]
4. Wait for confirmation tone
5. Hang up

Call Forwarding to Voice Mailbox

You may forward the incoming calls to a voice mailbox if a voice mail system is installed.

How:

To forward to your voice mailbox



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*21 2 4 5 #]
4. Wait for confirmation tone
5. Hang up

To forward to a selected extension's voice mailbox



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*21 2 4 5 * 2 1 2 #], where 2 1 2 is the extension number of the voice mailbox to be forwarded to
4. Wait for confirmation tone
5. Hang up

Disabling Call Forwarding

You may disable the call forwarding function set on your extension. However, the destination of the call forwarding you have programmed will be preserved in the system memory until it is overwritten.

How:

To disable forwarding



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*20#]
4. Wait for confirmation tone
5. Hang up

Enabling Call Forwarding

Reactivate the call forwarding function with all the parameters previously set on your extension.

How:

To enable forwarding (after call forwarding disabled)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*21#]
4. Wait for confirmation tone
5. Hang up

Call Forwarding to Another Phone Number

You may forward the incoming calls to another phone number. The FX-416 will use an available CO line to dial the phone number pre-programmed by you, then connect the outside caller to the specified phone number. Outside caller will hear busy tones if no CO line is available during call forwarding. The phone number will not be erased even the function is disabled. You may change the phone number by re-programming a new number into the system.

How:

To forward to another phone number



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*22 Number #], where Number is the phone number to be forwarded to (e.g. 6261188 is the phone number shown above)
4. Wait for confirmation tone
5. Hang up

To enable forwarding



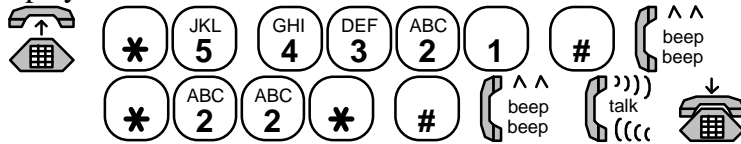
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*22#]
4. Wait for confirmation tone
5. Hang up

Playback of Stored Forwarding Phone Number

Play back the forwarding phone number you have programmed for the extension.

How:

To play back



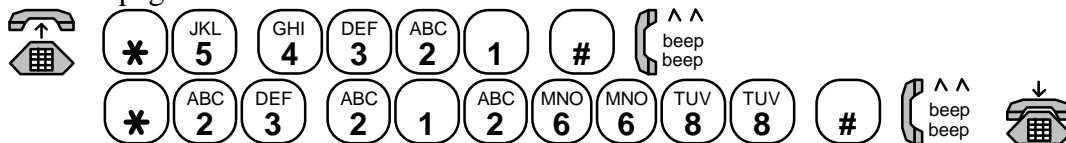
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*22*#]
4. Wait for confirmation tone
5. System plays back the phone number
6. Hang up

Call Forwarding to a Pager

You may forward the incoming calls to a pager. The FX-416 will announce a short message to the caller, then use an available CO line to dial the pager number pre-programmed by you. Outside caller will hear busy tones if no CO line is available during call forwarding. You may change the pager number by re-programming a new number into the system.

How:

To store a pager number



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*23 {Pager#} #], where {Pager#} is the pager number to be forwarded to (e.g. 2126688 is the pager number shown above)
4. Wait for confirmation tone
5. Hang up

To enable call forwarding



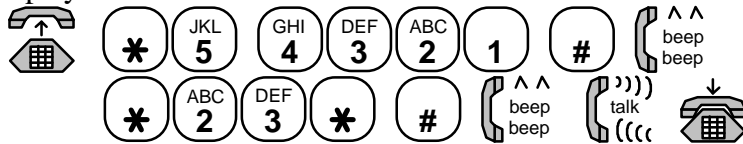
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*23#]
4. Wait for confirmation tone
5. Hang up

Playback of Stored Pager Number

The FX-416 will play back the forwarding pager number you have programmed for the extension.

How:

To play back



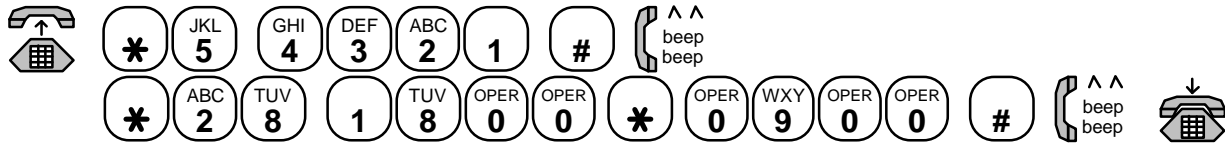
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*23*#]
4. Wait for confirmation tone
5. System plays back the pager number
6. Hang up

Setting Daily On/Off Time for Call Forwarding Option

You may set daily On/Off time for the call forwarding option you have selected. Once the On/Off time is set and enabled the FX-416 will only forward your call during the ON time and disable the call forwarding function during the OFF time.

How:

To set On/Off time



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*28 {hr}{mi n} * {hr}{mi n} #], where the {hr} = hour (use 24 hour clock) and {mi n} = minute (00 to 59), the first {hr}{mi n} (1800 = 6:00 p.m.) is the On time and the second {hr}{mi n} (0900=09:00 a.m.) is the Off time
4. Wait for confirmation tone
5. Hang up

To enable On/Off time mode



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*281#] to enable the On/Off time mode
4. Wait for confirmation tone
5. Hang up

To disable On/Off time mode



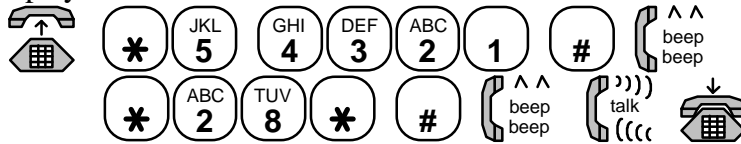
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*280#] to disable the On/Off time mode
4. Wait for confirmation tone
5. Hang up

Playback of Stored Daily On/Off Time

You may verify the On/Off time for call forwarding that stored in the system.

How:

To play back



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*28*#]
4. Wait for confirmation tone
5. System plays back the ON time and OFF time
6. Hang up

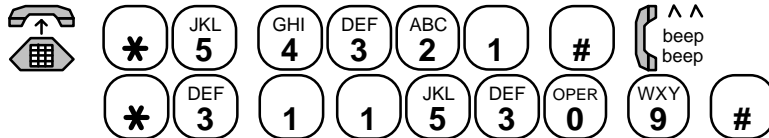
Setting Alarm/Timer

The FX-16 has a built-in clock that can be used as an Alarm Clock or Timer. A total of 8 different groups of Alarm/Timer in 10 different modes that you can program. The following is the programming table of Alarm /Timer:

Mode	0	1	2	3	4	5	6	7	8	9
Setting	Timer	Mon.	Tue.	Wed.	Thur.	Fri.	Sat.	Sun.	Weekday	Weekend

How:

To set alarm time and mode



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*3 G {hr}{mi n} X #], where G is the group number (1 to 8), the {hr} = hour (use 24 hour clock) and {mi n} = minute (00 to 59) is the alarm time, and X is the mode (0 to 9)
4. Wait for confirmation tone
5. Hang up

Example: Dial [*3115309#] to set alarm time for group 1 that the alarm goes off on every weekend at 15:30 (3:30 p.m.).

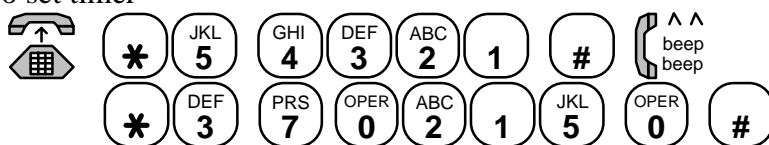
To set alarm time and mode (Once Only)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*3 G {hr}{mi n} X 1 #], where G is the group number (1 to 8), the {hr} = hour (use 24 hour clock) and {mi n} = minute (00 to 59) is the alarm time, X is the mode (0 to 9) and 1 means the alarm goes off once for that week only
4. Wait for confirmation tone
5. Hang up

Example: Dial [*35203081#] to set alarm time for group 5 that the alarm goes off on weekday at 20:30 (8:30 p.m.) for that week only.

To set timer



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*3 G 0215 0 #], where G is the group number, 0215 means the timer will trigger 2 hours and 15 minutes from the set time (maximum 24 hours), and the last 0 represents Timer mode
4. Wait for confirmation tone
5. Hang up

To enable all alarm/timer



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*391#] to enable all alarm/timer settings
4. Wait for confirmation tone
5. Hang up

To disable all alarm/timer



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*390#] to disable all alarm/timer settings
4. Wait for confirmation tone
5. Hang up

To clear a group's alarm/timer setting



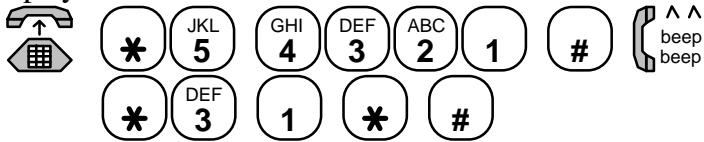
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*3 G #], where G is the group number
4. Wait for confirmation tone
5. Hang up

Playback of Alarm/Timer Setting

You may verify the alarm time that you have programmed for the extension.

How:

To play back



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*3 X * #], where X is the group number
4. Wait for confirmation tone
5. Hang up

Setting Call Waiting Function

Each extension can be individually programmed to turn Call Waiting function On, Off, or Off Once Only. Call Waiting On is the default setting.

How:

To turn on (Call Waiting function enabled)



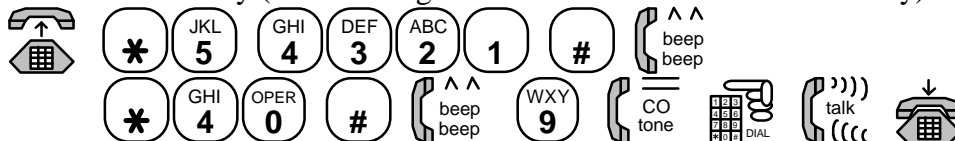
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*411#]
4. Wait for confirmation tone
5. Hang up

To turn off (Call Waiting function disabled)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*410#]
4. Wait for confirmation tone
5. Hang up

To turn off once only (Call Waiting function disabled for current call only)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*40]
4. Wait for confirmation tone
5. Dial [9] for prefix dialing, then dial the phone number
6. Hang up, Call Waiting function automatically enabled again

Caller ID

The FX-416 comes with Caller ID feature that allows you to identify the caller's phone number at each extension with a Caller ID telephone or Caller ID display unit. To use Caller ID function, you must subscribe to the Caller ID service from your local telephone company.

Voice Caller ID

Voice Caller ID is a special feature that the FX-416 will announce the caller's phone number when you pick up the call. After the announcement of the Caller ID, you have about 5 seconds to decide whether you like to talk to the caller or hang up the call. Once the Voice Caller ID feature is enabled, then the Caller's Name is automatically disabled.

Note: You must subscribe to the Caller ID service from your local telephone company for this feature. Caller ID telephone or Caller ID display unit is not required for Voice Caller ID.

How:

To enable Voice Caller ID



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*421#]
4. Wait for confirmation tone
5. Hang up

To disable Voice Caller ID



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*420#]
4. Wait for confirmation tone
5. Hang up

Example for answering a call with Voice Caller ID enabled:

1. Lift the handset
2. Listen to the Caller ID announcement
3. Press any key to answer the call if you like to talk to the caller

Or

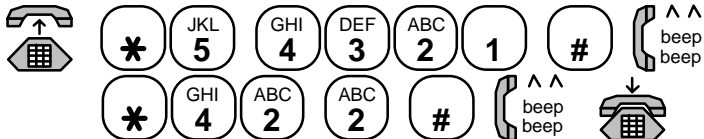
1. Lift the handset
2. Listen to the Caller ID announcement
3. Hang up if you don't like to talk to the caller, and the call will be transferred to the operator or other group or... (depends on the setup of the extension)

Caller's Name

The FX-416 provides the capability of identifying the Caller's Name. To obtain the Caller's Name, the FX-416 will prompt caller for his/her name and record it before connecting the incoming call to the extension. After the announcement of the caller's name, you have about 5 seconds to decide whether you would like to talk to the caller or hang up the call. Once the Caller's Name feature is enabled, then the Caller ID is automatically disabled.

How:

To enable Caller's Name



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*422#]
4. Wait for confirmation tone
5. Hang up

To turn off



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*420#]
4. Wait for confirmation tone
5. Hang up

Example for answering a call with Caller's Name enabled:

1. Lift the handset
2. Listen to the Caller's Name announcement
3. Press any key to answer the call if you like to talk to the caller

Or

1. Lift the handset
2. Listen to the Caller's Name announcement
3. Hang up if you don't like to talk to the caller, and the call will be transferred to the operator or other group or... (depends on the setup of the extension)

Setting the Number of Rings

The number of the rings before the call going to Busy/No Answer Transfer mode is user programmable. You may adjust the number of the rings to fit your own preference. The number of rings that you can set is from 1 to 9.

How:

To set the number of rings



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*46 X #], X represents the number of times (X can be 1 to 9)
4. Wait for confirmation tone
5. Hang up

Setting Waiting Time between 3rd Digit and 4th Digit in Direct Dialing Mode

In the Direct Dialing mode, a waiting time is added between 3rd Digit and 4th Digit to avoid the confusion between outgoing dialing and intercom. If no number is dialed after the 3rd Digit within the waiting time, then the call will be recognized as an intercom call. The length of the waiting time between the third digits and fourth digits is programmable from 1 second to 5 seconds to fit your own preference. The default waiting time is 3 seconds.

How:

To set the length of waiting time



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*47 X #], X represents the length of waiting time in second (X can be 1 to 5)
4. Wait for confirmation tone
5. Hang up

Setting Ring-Back Mode

Ring-Back is for reminding user that there is a call on hold. The default setting of the Ring-Back mode is ON for every extension.

How:

To turn on (Ring-Back enabled)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*481]
4. Wait for confirmation tone
5. Hang up

To turn off (Ring-Back disabled)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*480]
4. Wait for confirmation tone
5. Hang up

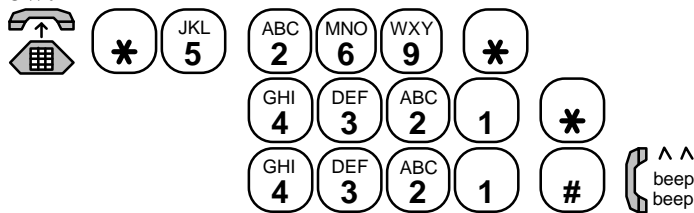
System Programming

You can program the FX-416 system to fit your requirements. This section describes all programming options available for system setup. All the settings programmed are system-wide. All the functions in this section can also be accessed from the remote (dialing in through a CO line from outside) if you have supervisor password.

Setting New Supervisor Password

There is no preset supervisor password. If there is a need to protect the system setup from unauthorized access, user may program a new supervisor password into the system. The 2 6 9 is the default number assigned to the supervisor. The password can be 4 to 8 digits long.

How:



1. Lift the handset
2. Dial [*5 2 6 9 *], denoting supervisor access
3. Dial [xxxx*], xxxx represents the new password (e.g. 4321)
4. Dial [xxxx#] to verify the new password
5. Wait for confirmation tone

Canceling Supervisor Password

Password feature may be disabled if the password protection is not needed. Once the supervisor password is cancelled, all the extension password will also be cancelled.

How:

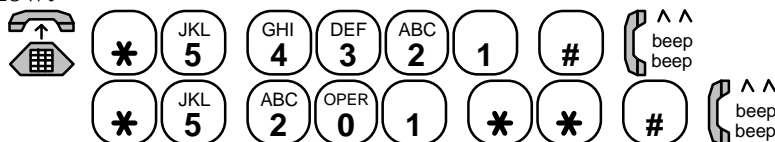


1. Lift the handset
2. Validate the password (supervisor password, e.g. 4321)
3. Wait for confirmation tone, then hear system dial tone
4. Dial [*5 2 6 9 ** #]
5. Wait for confirmation tone

Canceling Extension Password

Password feature may be disabled if the password protection is not needed. The supervisor has authority to cancel any extension password.

How:

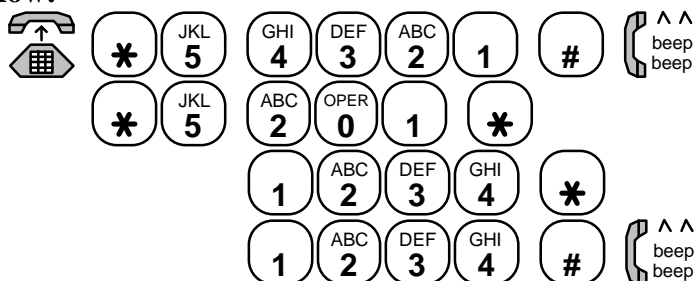


1. Lift the handset
2. Validate the password (supervisor password, e.g. 4321)
3. Wait for confirmation tone, then hear system dial tone
4. Dial [*5 2 0 1 ** #] (e.g. extension 201)
5. Wait for confirmation tone

Overriding Extension Password

The supervisor can override an extension password and set it to a new password.

How:

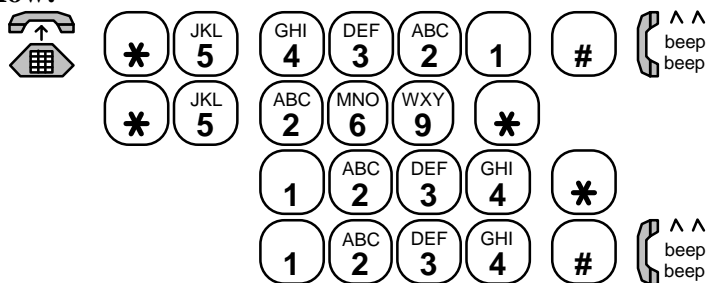


1. Lift the handset
2. Validate the password (supervisor password, e.g. 4321)
3. Dial [*5 2 0 1 *] (e.g. extension 201)
4. Dial [xxxx*], xxxx represents the new password (e.g. 1234)
5. Dial [xxxx#] to verify the new password
6. Wait for confirmation tone

Changing Supervisor Password

Validate the password first then enter a new password.

How:



1. Lift the handset
2. Validate the password (supervisor password, e.g. 4321)
3. Wait for confirmation tone, then hear system dial tone
4. Dial [*5 2 6 9 *], denoting supervisor access
5. Dial [*5xxxx*], xxxx represents the new password (e.g. 1234)
6. Dial [xxxx#] to verify the new password (e.g. 1234)
7. Wait for confirmation tone

Voice Announcement -Auto Attendant

The FX-416 can act as an electronic operator, announcing user pre-recorded, digitized greeting message to direct incoming calls automatically. User can program the voice announcement into 3 different messages – Primary, Secondary and Emergency. There are two different modes, Day/Night mode and Group mode, that you can set for the Primary and Secondary messages. In Day/Night mode, the system will announce the greeting message according to the time set by the user. In Group mode, the system will announce the distinct greeting messages for different groups. The total recording time for the Primary and Secondary message is 45 seconds.

The FX-416 has the pre-recorded words that are used in playback of phone numbers, time, day and directory messages. The following are the list of the pre-recorded words:

Number	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 30, 40, 50
Time/Day	AM, PM, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, O
Directory Message	Invalid selection, please input again Call is from Transfer to pager All lines are busy, please wait Please speak you name after the beep You got mail

Setting Voice Announcement to Day/Night Mode

The system will announce the Primary and Secondary messages according to the time set by the user. The default starting time for Primary message announcement is 08:00 and default starting time for Secondary message announcement is 17:00.

How:

To set voice announcement to Day/Night Mode



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*60]
4. Wait for confirmation tone

Setting Voice Announcement to Group Mode

The system will announce the Primary and Secondary messages according to the group assignment.

How:

To set voice announcement to Group Mode

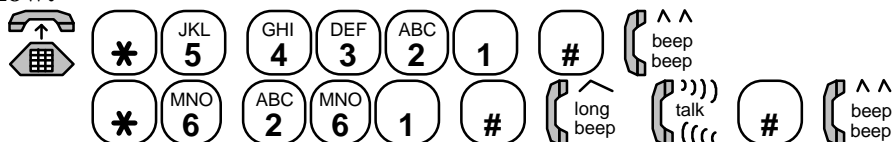


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*61]
4. Wait for confirmation tone

Recording Primary Message

You may record the Primary greeting message by using telephone on any extension. Once the message is recorded, the Auto Attendant is automatically activated.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 1 #]
4. System responds with a long tone, start recording at the end of the beep tone
5. Dial [#] to end recording
6. Wait for confirmation tone

Example for Primary Message (Day Mode):

Welcome to ABC Company, the company of technology.

If you know the extension you are trying to reach, please dial it now.

For Sales Department press 201 now, for Customer Service press 202 now,

for Accounts Payable press 203 now, for Accounts Receivable press 204 now,

for Technical Support press 205 now, for Information press 206 now,

or please stay on the line for assistance. If the line is busy or no answer,

this recording will repeat again, thank you!

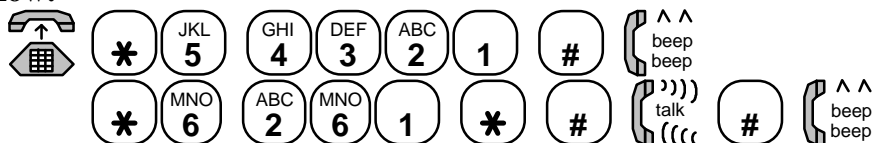
Example for Secondary Message (Night Mode):

ABC company is now closed. Our office hours are 8:00am to 5:00pm PST. You may leave a message on your party's extension, or press 201 for the general information of the mailbox.

You may make up any greeting message you like.

Playback of Primary Message

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 1 * #]
3. System plays back the recorded message
4. Dial any number to stop

Activating Primary Voice Announcement

You may re-activate the Primary voice announcement after it was turned off.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial[*6 2 6 1 1 #]
4. Wait for confirmation tone

Canceling Primary Voice Announcement

You may temporarily turn off Primary greeting message announcement. The system will go into Ring-All mode instead of announcing Primary greeting message once the Primary voice announcement is turned off.

How:

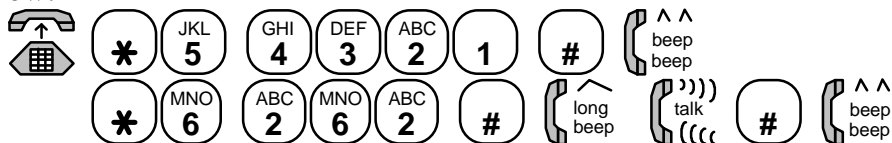


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 1 0 #]
4. Wait for confirmation tone

Recording Secondary Message

You may record the Secondary greeting message by using telephone on any extension. Once the message is recorded, the Auto Attendant is automatically activated.

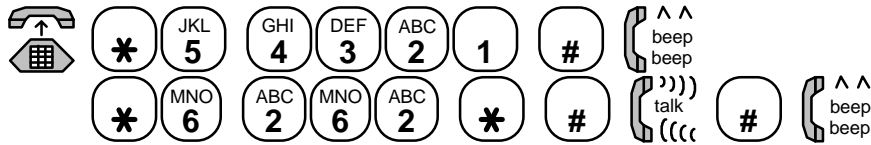
How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 2 #]
4. System responds with a long tone, start recording at the end of the beep tone
5. Dial [#] to end recording
6. Wait for confirmation tone

Playback of Secondary Message

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 2 * #]
3. System plays back the recorded message
4. Dial any number to stop

Activating Secondary Voice Announcement

You may re-activate the Secondary greeting message announcement after it was turned off.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial[*6 2 6 2 1 #]
4. Wait for confirmation tone

Canceling Secondary Voice Announcement

You may temporarily turn off Secondary greeting message announcement. The system will go into Ring-All mode instead of announcing Secondary greeting message once the Secondary voice announcement is turned off.

How:

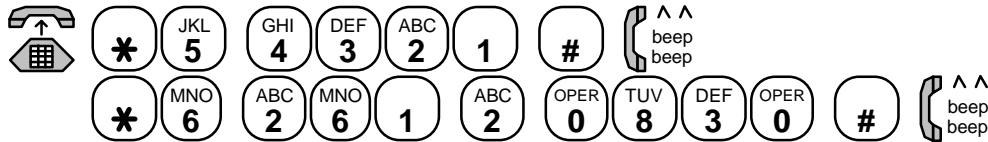


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 2 0 #]
4. Wait for confirmation tone

Setting Activation Time of Primary Voice Announcement

You may set the starting time of the Primary greeting message announcement while the voice announcement is in Day/Night mode.

How:

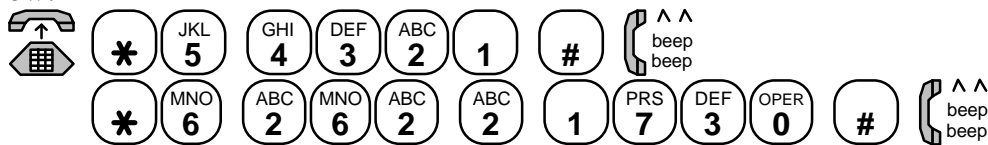


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 1 2 {Ti me} #] (e.g. {Ti me} = 0830 for 8:30 a.m.)
4. Wait for confirmation tone

Setting Activation Time of Secondary Voice Announcement

You may set the starting time of the Secondary greeting message announcement while the voice announcement is in Day/Night mode.

How:

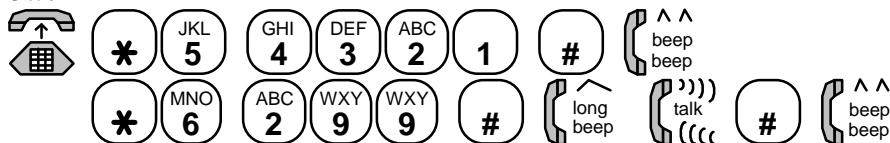


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 6 2 2 {Ti me} #] (e.g. {Ti me} = 1730 for 5:30 p.m.)
4. Wait for confirmation tone

Recording Emergency Message

You may record the Emergency Message by using a telephone on any extension. The Emergency Message shall include the important information that you need to notify the receiving party.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 9 9 #]
4. System responds with a long tone, start recording at the end of the beep tone
5. Dial [#] to end recording
6. Wait for confirmation tone

Playback of Emergency Message

How:

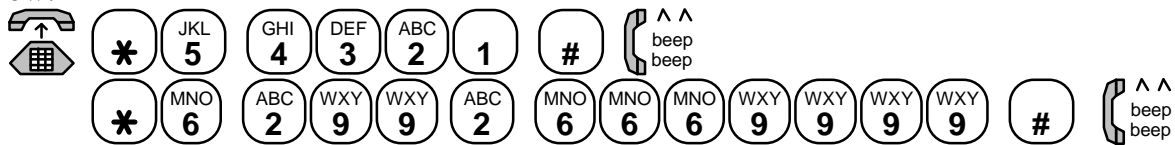


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 9 9 * #]
3. System plays back the recorded message
4. Dial any number to stop

Setting Emergency Phone Number

You may program up to 4 groups of emergency phone numbers to the system for emergency dialing. In case of emergency situation occurs, the system will automatically dial the pre-programmed phone numbers, then announce the pre-recorded emergence message.

How:

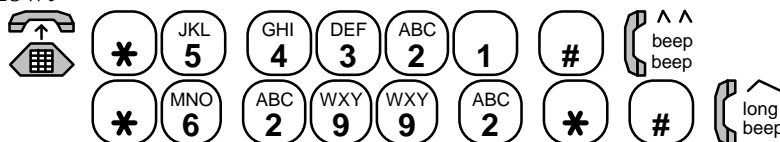


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 9 9 {G} {Phone#} #], where {G} is the group number which may be 1 to 4 (e.g. {G} = 2, {Phone#} = 6669999)
4. Wait for confirmation tone

Playback of Emergency Phone Number

To verify the emergency phone numbers that were programmed on the system for emergency dialing.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 9 9 {G} * #], where {G} is the group number which may be 1 to 4 (e.g. {G} = 2)
4. System plays back the programmed emergency number

Clearing Emergency Phone Number

You may clear any emergency phone numbers that were programmed on the system for emergency dialing.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*6 2 9 9 {G} #], where {G} is the group number which may be 1 to 4 (e.g. {G} = 2)
4. Wait for confirmation tone

Call Restriction

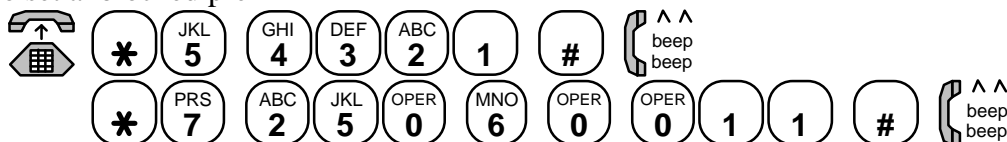
Unauthorized toll call access may be prevented by Call Restriction function. There are 3 different levels of restriction – Global (System-wise), Group, and Individual Extension. Each level may have 8 groups of the prefixes (up to 6 digits) for the number to be blocked and 8 groups of the prefixes (up to 6 digits) for the number to be unblocked.

Setting Call Restriction for Global Level

The prefix set for the call restriction at the Global level will apply to all the extensions.

How:

To set a blocked prefix



1. Lift the handset
2. Validate the password
3. Dial [*7 2 5 0 {G} 0 nnnn #], where {G} is the group number which may be 1 to 8, 0 is to block and nnnn is the prefix (up to 6 digits) of the number to be blocked
4. Wait for confirmation tone

Example: Dial [*725060011#] to block all international calls starting with 011, where 6 is the group number and 011 is the prefix assigned to that group.

To set exception of a blocked number



1. Lift the handset
2. Validate the password
3. Dial [*7 2 5 0 {G} 1 nnnn #], where {G} is the group number which may be 1 to 8, 1 is to unblock and nnnn is the prefix (up to 6 digits) of the number to be unblocked
4. Wait for confirmation tone

Example: Dial [*7250201#] to block all long distant calls starting with 1.

Dial [*7250311800#] to make 1800 as an exception number not to be blocked.

To clear all blocked numbers



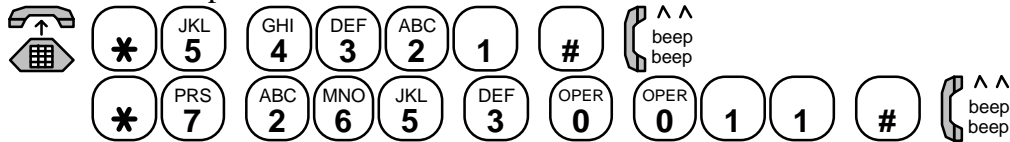
1. Lift the handset
2. Validate the password
3. Dial [*7 2 5 0 0 #]
4. Wait for confirmation tone

Setting Call Restriction for Primary Group

The prefix set for the call restriction will apply only to the extensions within the Primary group.

How:

To set a blocked prefix



1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 5 {G} 0 nnnn #], where {G} is the group number which may be 1 to 8, 0 is to block and nnnn is the prefix (up to 6 digits) of the number to be blocked
4. Wait for confirmation tone

Example: Dial [*726530011#] to block all international calls starting with 011, where 3 is the group number and 011 is the prefix assigned to that group.

To set exception of a blocked number



1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 5 {G} 1 nnnn #], where {G} is the group number which may be 1 to 8, 1 is to unblock and nnnn is the prefix (up to 6 digits) of the number to be unblocked
4. Wait for confirmation tone

Example: Dial [*7265201#] to block all long distant calls starting with 1 for all the extensions assigned as the primary group.

Dial [*7265311800#] to make 1800 as an exception number not to be blocked for all the extensions assigned as the primary group.

To clear all blocked numbers



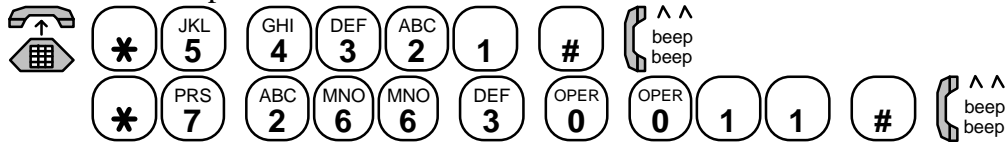
1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 5 0 #]
4. Wait for confirmation tone

Setting Call Restriction for Secondary Group

The prefix set for the call restriction will apply only to the extensions within the Secondary group.

How:

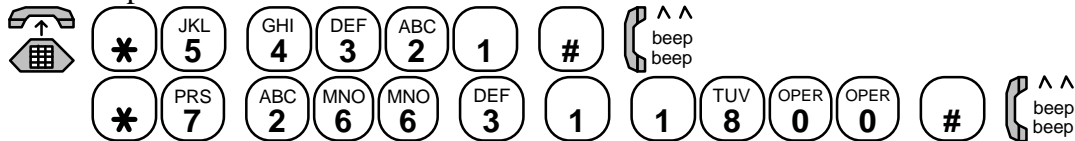
To set a blocked prefix



1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 6 {G} 0 nnnn #], where {G} is the group number which may be 1 to 8, 0 is to block and nnnn is the prefix (up to 6 digits) of the number to be blocked
4. Wait for confirmation tone

Example: Dial [*726530011#] to block all international calls starting with 011, where 3 is the group number and 011 is the prefix assigned to that group.

To set exception of a blocked number



1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 6 {G} 1 nnnn #], where {G} is the group number which may be 1 to 8, 1 is to unblock and nnnn is the prefix (up to 6 digits) of the number to be unblocked
4. Wait for confirmation tone

Example: Dial [*7266201#] to block all long distant calls starting with 1 for all the extensions assigned as the secondary group.

Dial [*7266311800#] to make 1800 as an exception number not to be blocked for all the extensions assigned as the secondary group.

To clear all blocked numbers



1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 6 0 #]
4. Wait for confirmation tone

Setting Call Restriction for Individual Extension

The prefix set for the call restriction will apply only to that particular extension.

How:

To set a blocked prefix



1. Lift the handset
2. Validate the password
3. Dial [*7 206 {G} 0 nnnn #], where 206 is the extension number and {G} is the group number which may be 1 to 8, 0 is to block and nnnn is the prefix (up to 6 digits) of the number to be blocked
4. Wait for confirmation tone

Example: Dial [*720630011#] to block all international calls starting with 011 at extension 206, where 3 is the group number and 011 is the prefix assigned to that group.

To set exception of a blocked number



1. Lift the handset
2. Validate the password
3. Dial [*7 206 {G} 1 nnnn #], where 206 is the extension number and {G} is the group number which may be 1 to 8, 1 is to unblock and nnnn is the prefix (up to 6 digits) of the number to be unblocked
4. Wait for confirmation tone

Example: Dial [*7206201#] to block all long distant calls starting with 1 from extension 206.

Dial [*7206311800#] to make 1800 as an exception number not to be blocked from extension 206.

To clear all blocked numbers



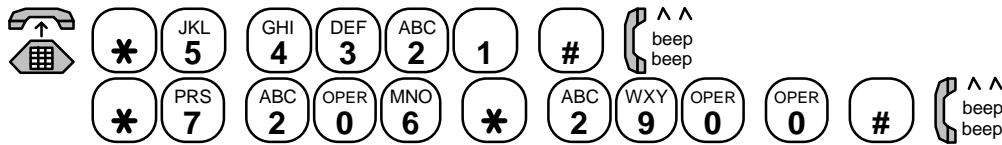
1. Lift the handset
2. Validate the password
3. Dial [*7 206 0 #]
4. Wait for confirmation tone

Intercom Only Extension

You may restrict an extension to an Intercom dialing only station. The extension is not allowed to make any outside calls.

How:

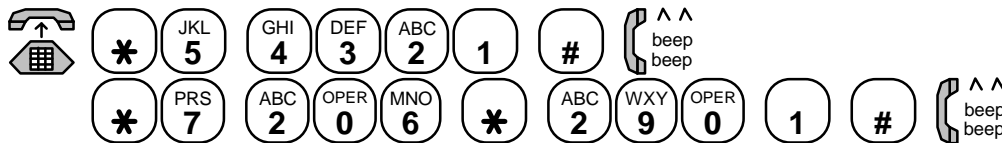
To disable CO lines access



1. Lift the handset
2. Validate the password
3. Dial [*7 2 0 6 * 2 9 0 0 #], where 2 0 6 is the extension number, 2 9 0 means all CO lines and 0 is to disable
4. Wait for confirmation tone

Example: Dial [*7206*2900#] to block all outside lines access at extension 206.

To reset the extension to default



1. Lift the handset
2. Validate the password
3. Dial [*7 2 0 6 * 2 9 0 0 #], where 2 0 6 is the extension number, 2 9 0 is all CO lines and 1 is to reset to enable
4. Wait for confirmation tone

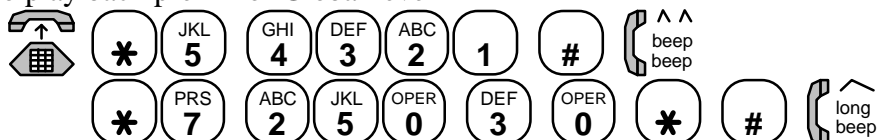
Example: Dial [*7206*2901#] to reset extension 206 to default.

Verifying Programmed Prefix Numbers

The system will play back a prefix number you have programmed for the call restriction.

How:

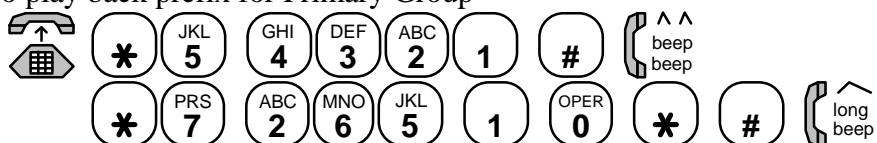
To play back prefix for Global level



1. Lift the handset
2. Validate the password
3. Dial [*7 2 5 0 {G} 0 *#], where {G} is the group number which may be 1 to 8, 0 is block
4. System plays back the prefix

Example: Dial [*725030*#] to play back the 3rd blocked prefix to stored in the memory.

To play back prefix for Primary Group



1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 5 {G} 0 *#], where {G} is the group number which may be 1 to 8, 0 is block
4. System plays back the prefix

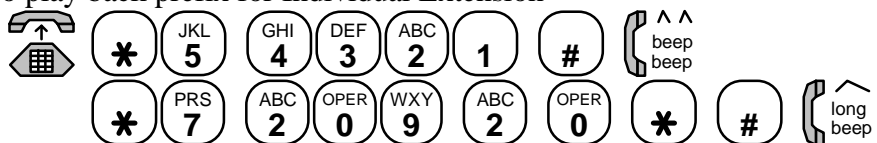
To play back prefix for Secondary Group



1. Lift the handset
2. Validate the password
3. Dial [*7 2 6 6 {G} 1 *#], where {G} is the group number which may be 1 to 8, 1 means unblocked
4. System plays back the prefix

Example: Dial [*726681*#] to play back the 8th unblocked prefix stored in the memory.

To play back prefix for Individual Extension



1. Lift the handset
2. Validate the password
3. Dial [*7 2 0 9 {G} 0 *#], where {G} is the group number which may be 1 to 8, 0 is block
4. System plays back the prefix

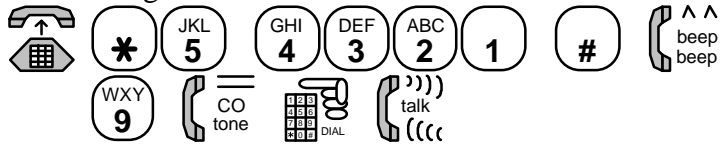
Example: Dial [*720920*#] to play back the 2nd blocked prefix stored in the memory for extension 209.

Call Restriction Override

Any authorized user may call the restricted area by entering the supervisor password to bypass the blocked number.

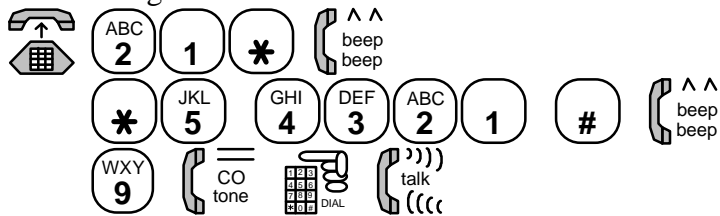
How:

Prefix Dialing Mode



1. Lift the handset
2. Validate the password
3. Dial [9]
4. Wait for dial tone
5. Dial telephone number

Direct Dialing Mode



1. Lift the handset
2. Dial [21*], change to Prefix Dialing Mode
3. Validate the password
4. Wait for dial tone
5. Dial telephone number

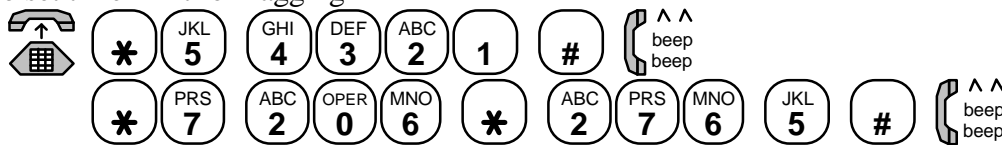
Setting Time Limit for Nagging Option

You will hear the warning beeping tones for the outgoing calls that exceed the time limit. The minimum time limit is 3 minutes and the maximum time limit you can set is 27 minutes. The time limit increases in 3 minutes increment. Once the call exceeds the time limit, the parties in the conversation will hear 3 short beep tones in 10 seconds interval for 3 minutes. After 3 minutes over the time limit, the short beep tones become long beep tones to nag the parties in conversation. The following is the reference table of length of the time limit and the factor keys.

Key	1	2	3	4	5	6	7	8	9
Time Limit (minutes)	3	6	9	12	15	18	21	24	27

How:

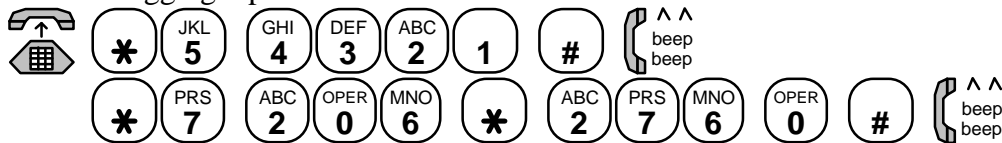
To set time limit for nagging



1. Lift the handset
2. Validate the password
3. Dial [*7 206 * 276 {key} #], where 206 is the extension number and {key} represents the factor of the time limit which may be 1 to 9
4. Wait for confirmation tone

Example: Dial [*7206*2765#] to set time limit to 15 minutes for extension 206.

To cancel nagging option



1. Lift the handset
2. Validate the password
3. Dial [*7 206 * 276 0 #], where 206 is the extension number
4. Wait for confirmation tone

Example: Dial [*7206*2760#] to cancel the nagging option set at extension 206.

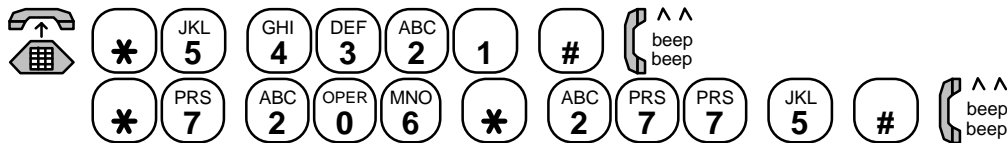
Setting Time Limit for Nagging Then Cut Option

For every outgoing call that is 6 minutes over the time limit, the call will be terminated by the system automatically if NTC (Nagging Then Cut) is set. The following is the reference table of length of the time limit and the factor keys.

Key	1	2	3	4	5	6	7	8	9
Time Limit (minutes)	3	6	9	12	15	18	21	24	27

How:

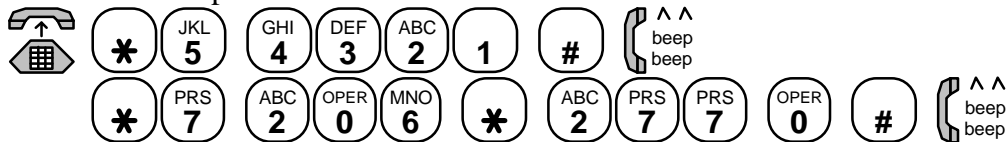
To set time limit for NTC



1. Lift the handset
2. Validate the password
3. Dial [*7 206 * 277 {key} #], where 206 is the extension number and {key} represents the factor of the time limit that may be 1 to 9
4. Wait for confirmation tone

Example: Dial [*7206*2775#] to set time limit to 15 minutes for extension 206. The call will be terminated when the conversation exceeds 21 minutes.

To cancel NTC option



1. Lift the handset
2. Validate the password
3. Dial [*7 206 * 277 0 #], where 206 is the extension number
4. Wait for confirmation tone

Example: Dial [*7206*2770#] to cancel the NTC option set on extension 206.

Flexible Settings for No Answer/No Selection

The FX-416 provides 2 flexible settings handling unanswered incoming calls or the incoming call that caller did not make any selection. The FX-416 will announce “Invalid Input” after it rang for 90 seconds if no one answered the call. You may enter a control command or make a selection after the “Invalid Input” announcement. The different settings are designed to meet user's various needs.

Ring-All

Whenever caller did not make any selection or no one answered the incoming call, the system will ring all extensions.

Note: Ring-All is the default setting.

How:



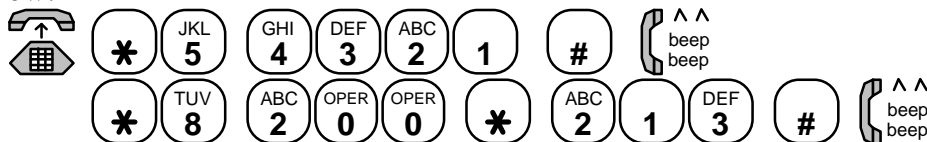
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Wait for confirmation tone, then hear system dial tone
4. Dial [*8 2 0 0 #]
5. Wait for confirmation tone

Assigning Operator Station

You may assign a particular extension as the operator. Whenever the calling party did not make any selection or no one answered the call, the incoming call will be routed to the operator.

- Note: 1. You have to program from another extension other than the extension that is to be assigned as the Operator Station.
2. Once the extension is assigned as an operator station, then "Do Not Disturb" functions is also disabled automatically.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 0 0 * 2 1 3 #], 2 1 3 represents the extension number 213 to be assigned as the operator
4. Wait for confirmation tone

Special Features

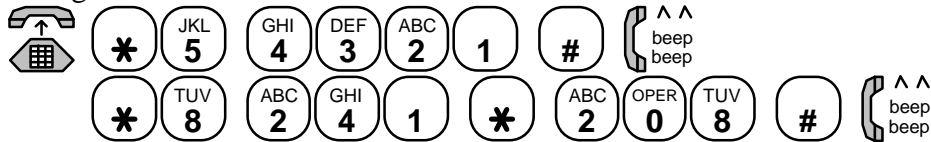
Automatic FAX Connection

If an incoming call is from a FAX with a high pitch tone beeping every 3 seconds, the system will stop playing the voice announcement and automatically route it to the extension that is dedicated as a FAX line. You may assign any one of the 16 extensions as a dedicated FAX line.

Note: You have to program from another extension other than the extension that is to be assigned as a FAX line.

How:

To assign an extension as a FAX line



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 241 * 208 #], 208 represents the extension number to be assigned as a dedicated FAX line
4. Wait for confirmation tone

To remove FAX line assignment



1. Lift the handset
2. Dial [*8 241 #] to remove the FAX line assignment
3. Wait for confirmation tone

Note: This is also a station programming, so please program at extension.

Assigning Voice Mail Channel

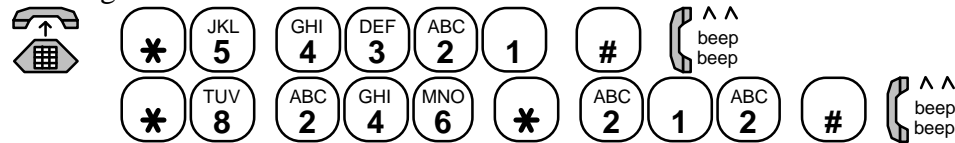
You may assign a voice mail channel to any extension. The FX-416 supports 2 voice mail channels. The following is the reference table for the access codes:

Channel No.	Any Available Channel	1	2
Access Code	245	246	247

Note: You have to program from another extension other than the extension that is to be assigned as a voice mail channel.

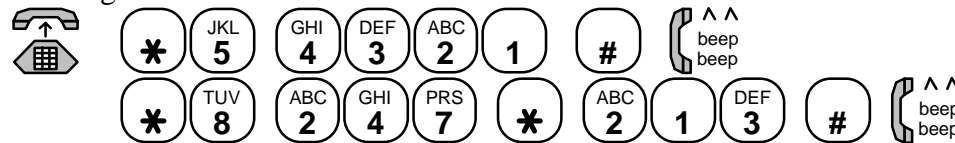
How:

To assign voice mail channel #1



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 4 6 * 2 1 2 #], 2 1 2 represents the extension number 212 to be assigned as voice mail channel #1
4. Wait for confirmation tone

To assign voice mail channel #2



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 4 7 * 2 1 3 #], 2 1 3 represents the extension number 213 to be assigned as voice mail channel #2
4. Wait for confirmation tone

Canceling Voice Mail Channel

You may reset a voice mail channel to a regular extension.

How:

To cancel voice mail



1. Lift the handset
2. Validate the password
3. Dial [*8 2 4 7 #] to reset voice mail channel #2 to a regular extension
4. Wait for confirmation tone

Doorphone

The FX-416 system currently supports 2 doorphones. Extension 15 and extensions 16 are not only regular phone extensions, but also the extensions that supply 9V power for doorphone application. If a doorbell is pressed, the system will ring all unbusy extensions. The following is the reference table of the access codes assigned to the doorphones:

Doorphone #	1	2
Access Code	251	251

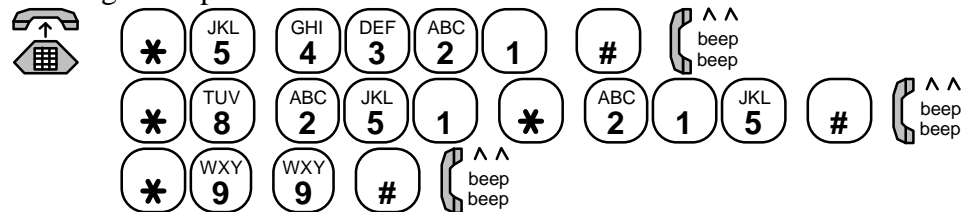
Note: You have to program from another extension other than the extension that is to be assigned as a doorphone.

Assigning Doorphone Extension

You may assign a doorphone to either extension 15 or extension 16. The FX-416 has to be reset to activate the doorphone assignment.

How:

To assign doorphone



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 5 1 * 2 1 5 #], 2 1 5 represents the extension 215 to be assigned as doorphone #1
4. Wait for confirmation tone
5. Dial [*99#], reset the system to activate the assignment
6. Wait for confirmation tone

Canceling Doorphone Extension

You may reset a doorphone extension to a regular extension.

How:

To cancel doorphone



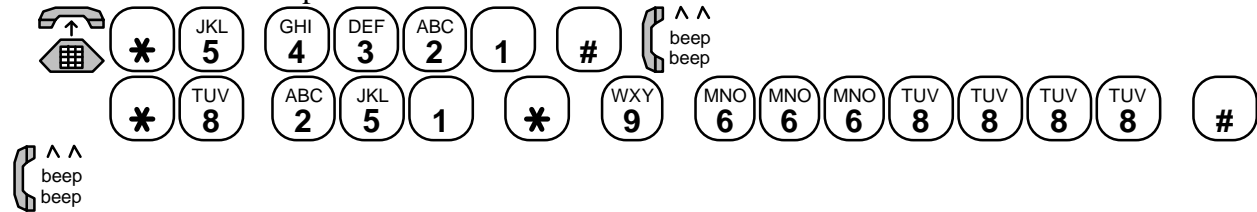
1. Lift the handset
2. Validate the password
3. Dial [*8 2 5 1 #] to cancel doorphone #1
4. Wait for confirmation tone

Forwarding Doorphone to Another Phone Number

You may forward the doorphone calls to another phone number when there is no one present to answer the calls. The FX-416 will use an available CO line to dial the phone number pre-programmed by you, then connect the visitor to the specified phone number. The phone number will not be erased even when the function is disabled. You may change the phone number by re-programming a new number into the system.

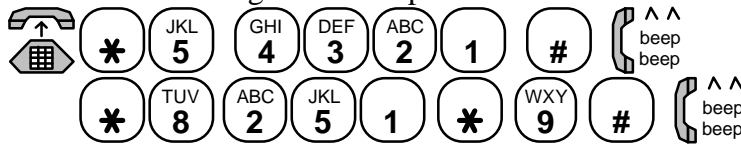
How:

To forward to another phone number



1. Lift the handset
2. Validate the password (doorphone extension password)
3. Dial [*8 2 5 1 * 9 {Phone#} #], where {Phone#} is the phone number to be forwarded to
4. Wait for confirmation tone
5. Hang up

To disable forwarding to another phone number



1. Lift the handset
2. Validate the password (doorphone extension password)
3. Dial [*8 2 5 1 *9#]
4. Wait for confirmation tone
5. Hang up

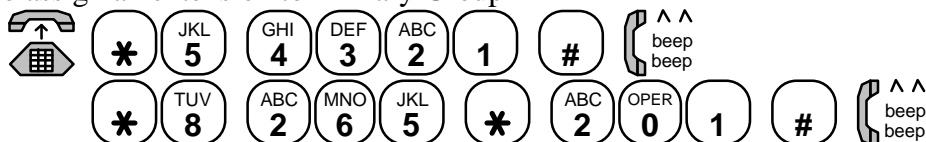
Note: You can program the phone number from any extension but not on the doorphone extension itself. You need to set up a password for the doorphone in order to program the doorphone from other extensions.

Group Assignment - Extension

You may assign any extensions to either Primary Group or Secondary Group.

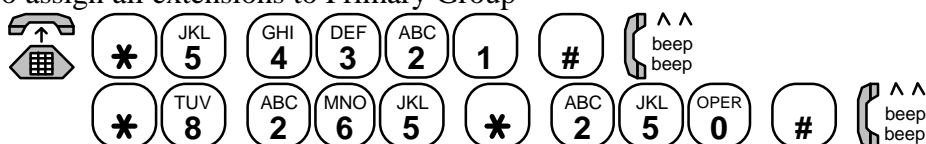
How:

To assign an extension to Primary Group



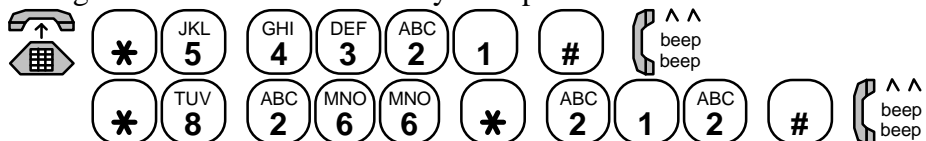
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 5 * 2 0 1 #], 2 0 1 represents the extension number to be assigned
4. Wait for confirmation tone

To assign all extensions to Primary Group



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 5 * 2 5 0 #], 2 5 0 represents all extensions
4. Wait for confirmation tone

To assign an extension to Secondary Group



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 6 * 2 1 2 #], 2 1 2 represents the extension number to be assigned
4. Wait for confirmation tone

To assign all extensions to Secondary Group



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 6 * 2 5 0 #], 2 5 0 represents all extensions
4. Wait for confirmation tone

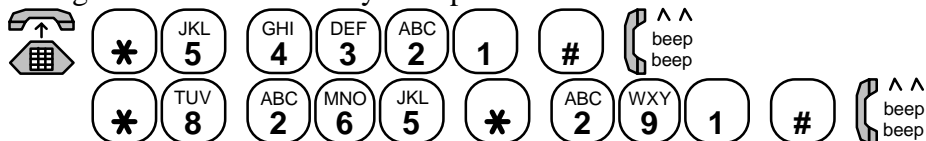
Group Assignment - CO Lines

You may assign any CO lines to either Primary Group or Secondary Group. The following is the reference table of the access codes assigned to the CO lines:

CO Line No.	Any CO Line	CO Line 1	CO Line 2	CO Line 3	CO Line 4
Access Code	290	291	292	293	294

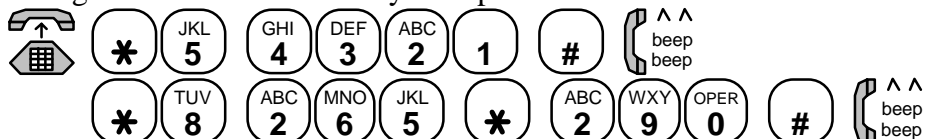
How:

To assign a CO line to Primary Group



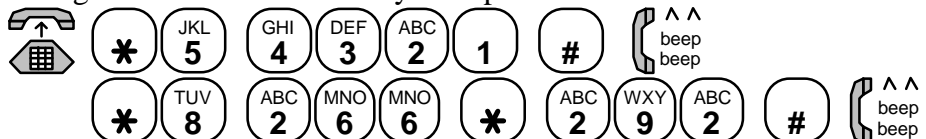
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 5 * 2 9 1 #], 2 9 1 represents the CO line 1 to be assigned
4. Wait for confirmation tone

To assign all CO lines to Primary Group



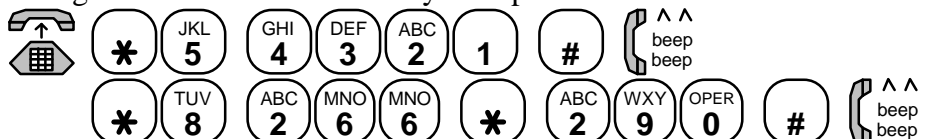
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 5 * 2 9 0 #], 2 9 0 represents all CO lines
4. Wait for confirmation tone

To assign a CO line to Secondary Group



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 6 * 2 9 2 #], 2 9 2 represents the CO line 2 to be assigned
4. Wait for confirmation tone

To assign all CO lines to Secondary Group



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 6 * 2 9 0 #], 2 9 0 represents all CO lines
4. Wait for confirmation tone

Playback of Group Assignment

To verify the extensions and CO lines assigned to the Groups.

How:

To verify the assignment of the Primary Group



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 5 * #]
4. System plays back the extension number and CO line numbers assigned to the group

To verify the assignment of the Secondary Group



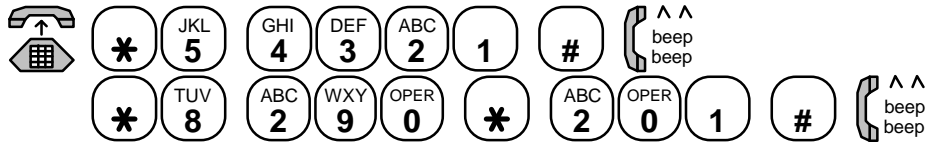
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 6 6 * #]
4. System plays back the extension number and CO line numbers assigned to the group

Borrowing CO Lines

This function allows an extension or a group to access all CO lines.

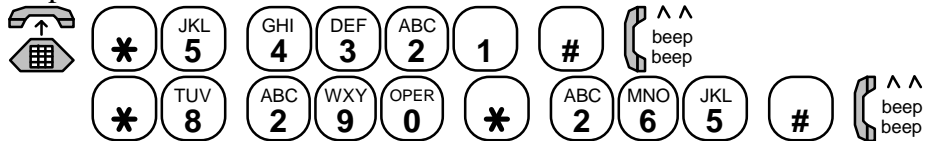
How:

Extension



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 9 0 * 2 0 1 #], 2 0 1 represents the extension allowed to use all CO lines
4. Wait for confirmation tone

Group



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 9 0 * 2 6 5 #], 2 6 5 represents the primary group allowed to use all CO lines
4. Wait for confirmation tone

To cancel borrowing



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 9 0 #] to cancel all CO lines borrowing
4. Wait for confirmation tone

To verify extensions allowed for borrowing CO lines



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*8 2 9 0 * #] to play back the extensions allowed for borrowing CO lines
4. Wait for confirmation tone

Adjusting Hookswitch Flash Time

The hookswitch flash time can be adjusted to accommodate various telephone communication applications. The range of flash time is from 0.1 to 1.0 second in 0.1-second increment. The default flash time is 0.6 second.

How:



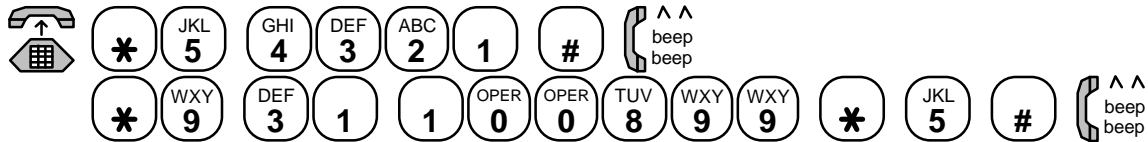
1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*9 2 7 0 S #], S represents the number 0 through 9 (see table below)
4. Wait for confirmation tone

S	1	2	3	4	5	6	7	8	9	0
Flash Time (second)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0

Setting Current Date

To set current date and the corresponding day of the week.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*9 31 d d mmy y * w #], d d represents the day of the month, mm represents the month, y y represents the last 2 digits of the year and w represents the day of the week (1 through 7, week begins with Monday and ends on Sunday)
4. Wait for confirmation tone

Playback of Current Date

To check current date.

How:

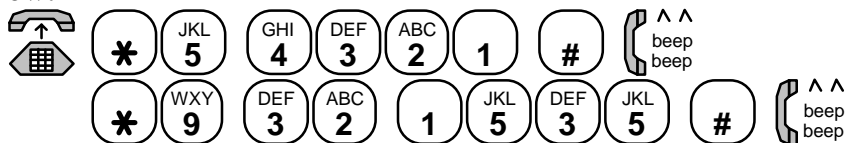


1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*931*#]
4. Wait for confirmation tone

Setting Current Time

To set current time.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*932 H H M N #], where the H H = hour (use 24 hour clock) and M N = minutes (00 to 59)
4. Wait for confirmation tone

Playback of Current Time

To check current time.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*932*#]
4. Wait for confirmation tone

Programmable Softkey Codes

The first digit of the Softkey Codes are programmable. The first digit of the default Softkey Code is 2. You may like to change the first digit if it is conflict with the access codes of the special features of the local telephone company. The first digit of the Softkey Code may be 2 to 8. Please refer to the Softkey Code Table for the details.

How:

To set first digit



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*96n*#], where n denotes the first digit of the extension number which may be 2 to 8
4. Wait for confirmation tone

Example: Dial [*965#] to change the first digit to 5. The first digit of the default softkey codes are changed from 2 to 5, like extension 206 becomes 506, supervisor code 269 becomes 569.

Setting Ring Patterns

The FX-416 has two different ring patterns, US Standard and British Standard. The default setting for the CO lines is US Standard and for the internal lines is British Standard. The settings of CO lines and internal lines are always reversed.

How:

One Long Ring (US Standard)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*970#]
4. Wait for confirmation tone

Two Short Rings (British Standard)



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*971#]
4. Wait for confirmation tone

Reset All Settings to Default

You may reset all the settings back to default.

How:

To reset



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*98#]
4. Wait for confirmation tone

Executive Intervention

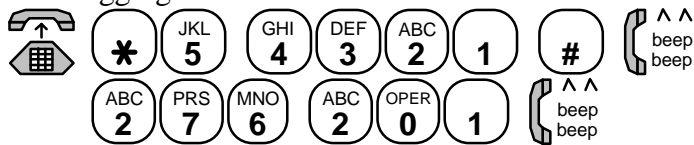
You may intervene an existing conversation if you have supervisor privilege. The supervisor password is required for the executive intervention operation.

Nagging for Current Call Only

You may initiate nagging tones to an ongoing telephone conversation. The setting of the nagging intervention is for current call only.

How:

To set nagging to an extension



1. Lift the handset
2. Validate the password
3. Dial [2 7 6 2 0 1], where 2 0 1 is the extension to be nagged
4. Wait for confirmation tone

To set nagging to a CO line



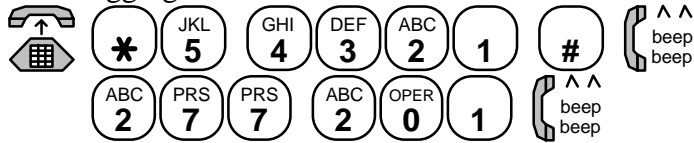
1. Lift the handset
2. Validate the password
3. Dial [2 7 6 2 9 2], where 2 9 2 is the CO line to be nagged
4. Wait for confirmation tone

Nagging Then Cut for Current Call Only

You may initiate Nagging Then Cut (NTC) to an ongoing telephone conversation. Six minutes after the initiation of the NTC, the call will automatically be terminated. The setting of the NTC intervention is for current call only.

How:

To set Nagging Then Cut to an extension



1. Lift the handset
2. Validate the password
3. Dial [2 7 7 2 0 1], where 2 0 1 is the extension to be nagged
4. Wait for confirmation tone

To set Nagging Then Cut to a CO line



1. Lift the handset
2. Validate the password
3. Dial [2 7 7 2 9 2], where 2 9 2 is the CO line to be nagged
4. Wait for confirmation tone

Barge-In (Override)

You may barge-in to an ongoing telephone conversation.

How:

To Barge-In to an extension



1. Lift the handset
2. Validate the password
3. Dial [2 7 8 2 0 1], where 2 0 1 is the extension to be nagged
4. Wait for confirmation tone

To Barge-In to a CO line



1. Lift the handset
2. Validate the password
3. Dial [2 7 8 2 9 2], where 2 9 2 is the CO line to be nagged
4. Wait for confirmation tone

Interfacing with Voice Mail System

You need to program specific settings to integrate the FX-416 with your voice mail system. Please refer to your voice mail system user's manual for the required settings.

Disconnection Code

Your mail system will terminate a call once it receives the disconnection code. The disconnection code used by the FX-416 is:

D

Message Waiting Notification

The FX-416 has a pre-recorded "You got mail" as a voice notification to inform users when they have new messages in their mailbox. The voice notification is to replace the message lamp notification that is supported by most of the PBX. The following codes are used by the FX-416 to activate or deactivate the Message Waiting Notification:

Code for Activating Message Waiting Notification

2 8 6 {X}

Code for Deactivating Message Waiting Notification

2 8 7 {X}

Note: The {X} denotes the extension number. Both 286 and 287 are softkey codes that the first digit is programmable. Please refer to the "Programmable Softkey Codes" in the System Programming section.

In-Band Code for Forwarding Messages to Voice Mail System

The FX-416 will send an In-Band DTMF code to your voice mail system when a caller requests leaving message in a mailbox. Your voice mail system will act on In-Band DTMF code sent by the FX-416. The following is the In-Band DTMF code for forwarding message to your voice mail system:

91

In-Band Code for Retrieving Messages from Voice Mail System

The FX-416 will send an In-Band DTMF code to your voice mail system when a caller requests retrieving message from a mailbox. Your voice mail system will act on In-Band DTMF code sent by the FX-416. The following is the In-Band DTMF code for retrieving message from your voice mail system:

92

System Malfunction

If the system does not operate properly, use the following steps to clear the problem.

System Reset

Whenever the system does not function properly but the system dial tone still can be heard, please try the System Reset to restart. All the system settings still remain intact while using the System Reset to clear the problem.

How:



1. Lift the handset
2. Validate the password if a password has been programmed in, otherwise go to step 3
3. Dial [*99#]
4. Wait for confirmation tone

Powering Off the System

If the System Reset still could not reset the system, user shall power off the system to clear the problem.

How:

1. Power off to reset the system
2. Wait for a few seconds then power on to restart the system

Questions and Answers

Q. Can I dial out during power outage?

A. Yes. The FX-416 will connect CO lines to the first 4 extensions automatically when power outage occurs. The actual available extensions depend on the number of the CO lines connected to the FX-416.

Q. Can I connect an answering machine to my extension?

A. Yes, you can connect an answering machine to your extension so you will not miss a call when you are unable to answer it.

Q. Can I still be able to pick up the call once I transferred it to another extension?

A. Yes, you still can pick up the call again as long as no one answers it.

Q. Can I keep the special call services from telephone company, like Call Waiting or Three-Way Calling?

A. Yes, you can still have the Call Waiting or Three-Way Calling services. FX-416 provides a special feature called "Sending Flash to External Line" for user to access the special call services. Please refer to "Sending Flash to External Line" for details.

Q. Is there anyway that the incoming calls can bypass the system and directly ring the extension to save callers' phone expenses?

A. Yes, you may turn off the Auto Attendant function so that the incoming calls will not be picked up by the system and will be routed to the extensions directly.

Q. What if I want to use one of the extensions for data transfer through a modem?

A. If you plan to do data transfer and you have the Call Waiting service on your phone line, you will need to disable the Call Waiting during your communication session. For information about how to disable your Call Waiting service you will need to contact your phone company. The FX-416 provides Call Waiting feature that you also need to disable it during your communication session. For how to disable Call Waiting function please refer to "Setting Call Waiting Function" in the Convenient Station Programming section.

Note: When using a computer to dial out, you also need to add a PAUSE between Prefix Number (9) and the destination's phone number if you are using Prefix Dialing Mode.

Q. Why I got system busy tone when I wanted to make a call?

A. You will get system busy tone when the system is busy in servicing an incoming call or other extension. When you get system busy tone, please hang up the phone, wait a moment, and then try again. You shall get system dial tone, once the system becomes available.

FX-416 Softkey Codes

DEFAULT ASSIGNMENT

2 are programmable by phone and computer

ASSIGNMENT	DESCRIPTION	NOTE
200	Operator	
201 - 216	Extension 1 to 16	
217 - 233	Reserved for future assignment	
234	Redialing the previous dialing location	
235	Call return to the previous caller	
236	Reserved for future assignment	
237	First caller in Call Waiting queue	
238	First caller in hold queue	FIFO
239	Last caller in hold queue	LIFO
240	Reserved for future assignment	
241	FAX #1	
242 - 244	Reserved for future assignment	
245	Any available Voice Mail Channel	
246	Voice Mail Channel #1	
247	Voice Mail Channel #2	
248 - 249	Reserved for future assignment	
250	All extensions	
251	Doorphone #1	
252	Doorphone #2	
253 - 254	Reserved for future assignment	
255	PA system	
256 - 259	Reserved for future assignment	
260	Voice greeting message - current	Current group or time
261	Voice greeting message - primary	
262	Voice greeting message - secondary	
263 - 264	Reserved for future assignment	
265	Primary group	
266	Secondary group	
267 - 268	Reserved for future assignment	
269	Supervisor	
270	Sending a FLASH to CO line	
271	Opening door lock #1	
272	Opening door lock #2	
273 - 274	Reserved for future assignment	
275	Reserving a CO line	
276	Nagging	

FX-416 Softkey Codes

(cont.)

DEFAULT ASSIGNMENT

2 are programmable by phone and computer

ASSIGNMENT	DESCRIPTION	NOTE
2 7 7	Nag then Cut (NTC)	
2 7 8	Barge-in (Override)	
2 7 9	Reserved for future assignment	
2 8 0	Hang-up	
2 8 1	Connecting	
2 8 2	Transfer	
2 8 3	Conference	
2 8 4	Canceling emergency calls	No password required
2 8 5	Transferring to a voice mail box	
2 8 6	Message Waiting On	
2 8 7	Message Waiting Off	
2 8 8 - 2 8 9	Reserved for future assignment	
2 9 0	Any available CO line	
2 9 1	CO line #1	
2 9 2	CO line #2	
2 9 3	CO line #3	
2 9 4	CO line #4	
2 9 5 - 2 9 8	Reserved for future assignment	
2 9 9	Automatic emergency call	
2 9 #	Reserved for future assignment	
2 9 *	Direct relay connection	For high speed modem
2 # #	Ringing extension pick-up	
2 0 *	Direct Dialing Mode	
2 1 *	Prefix Dialing Mode	
2 * *	Direct/Prefix Dialing Mode toggle	

SPECIFICATION

Capacity

CO (External) Lines	4
Extensions	16
Doorphone	2

Power Supply

AC Input	110/220 VAC $\pm 10\%$, 50/60 Hz
Power Consumption	10-20W continuous, 100 peak

Dialing

Tone	standard DTMF
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Connection

Connector	
Outsides	Modular Jack (RJ-11)
Extensions	Modular Jack (RJ-11)
Music	RCA Phono Plug
Serial Port	DB-9
Cable	
Outsides	phone wire (2 conductors)
Extensions	phone wire (2 conductors)
Music	two-conductors wire

Environment

Temperature	0 – 40°C
Relative Humidity	90% max.

Ringer Equivalence

0.1A

Ring Generation

20 Hz, 65 Vrms at 1 REN

Transmission

Insertion Loss	<3 dB
Cross Talk	–60 dB max.

CNG Tone Reception

1100 Hz $\pm 5\%$, 0.5 sec. On, 2.5 sec. Off

DTMF Reception

Frequency Shift	$\pm 2.5\%$
Level	–28 to –2 dBm

Dial Tone Frequency

400 Hz

Music On Hold Input

1.0 Vrms max

Serial Communication

RS-232, 9600 Baud 8N1

Weight

5.0 kgs (11 lbs)

Dimensions

295 mm (11.6 in.) W x 409 mm (16.1 in.) D x
114 mm (4.5 in.) H

TELEPHONE COMPANY AND F.C.C. REQUIREMENTS AND RESPONSIBILITIES

In compliance with the requirements of Part 68 of the F.C.C. Rules and Regulations for connection of terminal system (this device is classified as terminal system) to the telephone network and for your convenience, the following information is presented:

1. Notification to the Telephone Company

Customers connection terminal equipment to the telephone network shall, upon request of the Telephone Company, inform the Telephone Company of the particular line(s) to which such connection is made, the F.C.C. registration number and (see label on bottom of unit.) ringer equivalence number of the registered terminal equipment. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect at your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

2. Direct connection to A Party-line or Coin-operated Telephone Line is Prohibited

3. Incidence of Harm to The Telephone lines

Should Terminal Equipment cause harm to the Telephone Network, the Telephone Company shall, where practical, notify the customer that temporary discontinuance of service may be required. However, where prior notice is not practical, the Telephone Company may temporarily discontinue service forthwith, if such action is reasonable in the circumstances. In case of such un-notified temporary discontinuance of service, the Telephone Company shall:

- (a) Promptly notify the customer of such temporary discontinuance of service.
- (b).Afford the customer the opportunity to correct the situation which gave rise to the temporary discontinuance.
- (c).Inform the customer of the right to bring a complaint to the Commission pursuant to the procedures set out in Subpart E of Part 68 of FCC Telephone Equipment Rules.

4. Compatibility of The Telephone Network and Terminal Equipment

(a) Availability of telephone interface information.

Technical information concerning interface parameters and specifications not specified in FCC Rules, including the number of Ringers which may be connected to a particular telephone line, which is needed to permit Terminal Equipment to operate in a manner compatible with Telephone Company communications facilities, shall be provided by the Telephone Company upon customer's request.

(b) Changes in Telephone Company Communications Facilities, Equipment, Operation and Procedures.

The Telephone Company may make changes in its communications facilities, equipment, operations or procedures, where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations. If such changes can be reasonably expected to render any customer Terminal Equipment incompatible with Telephone Company Communications Facilities, or require modification or alteration of such Terminal Equipment, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing, to allow the customers an opportunity to maintain uninterrupted service.

Note