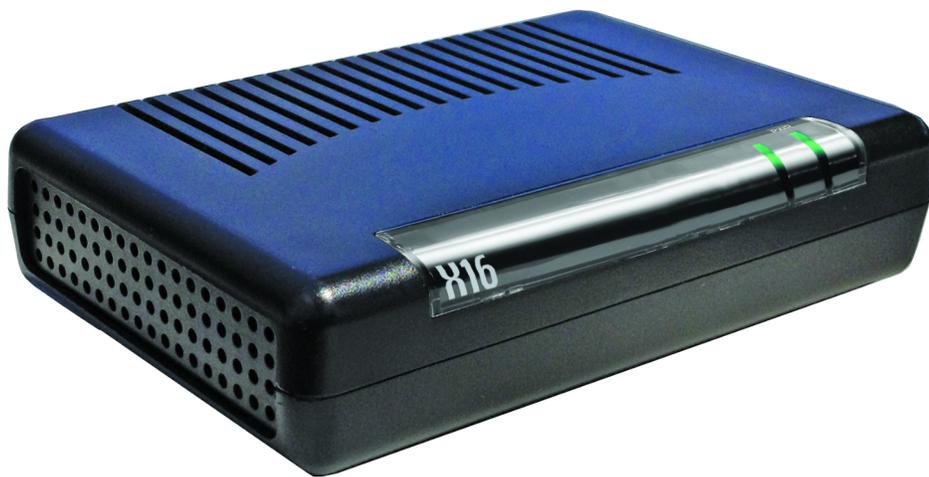


X16 Cordless Telephone Module 1645-00



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Warning: This information is designed to assist with the proper installation and use of the equipment. It is never a good idea to install or modify cabling during a lightning storm. Any attempt to service or repair the product or products will void all warranties. In addition, improper repair procedures could result in serious injury or death.

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used properly, that is, in strict accordance with the instruction manual, may cause interference to radio and television reception. However, there is no guarantee, or warranty, that interference will not occur in a particular installation. If this equipment causes interference or fails to operate correctly, due to radio frequency interference (RFI) or electromagnetic interference (EMI), it will be fixed at the owners' expense.

Cordless Telephones – The coverage and voice quality of cordless telephone is the responsibility of the cordless telephone manufacturer and may restrict the quantity of cordless phones that can be connected to your X16 system.

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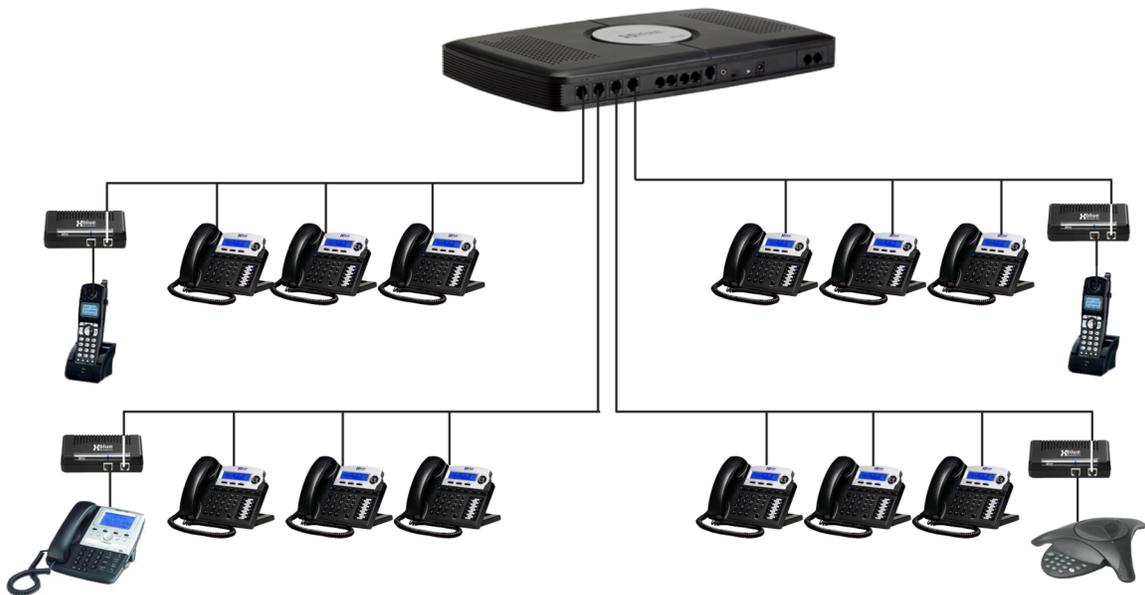
Notes:

Introduction

Thank you for purchasing the XBLUE X16 Cordless Telephone Module. This module allows you to connect a standard cordless, corded or conference room telephone to your XBLUE X16 Telephone System and each replaces one X16 digit telephone.

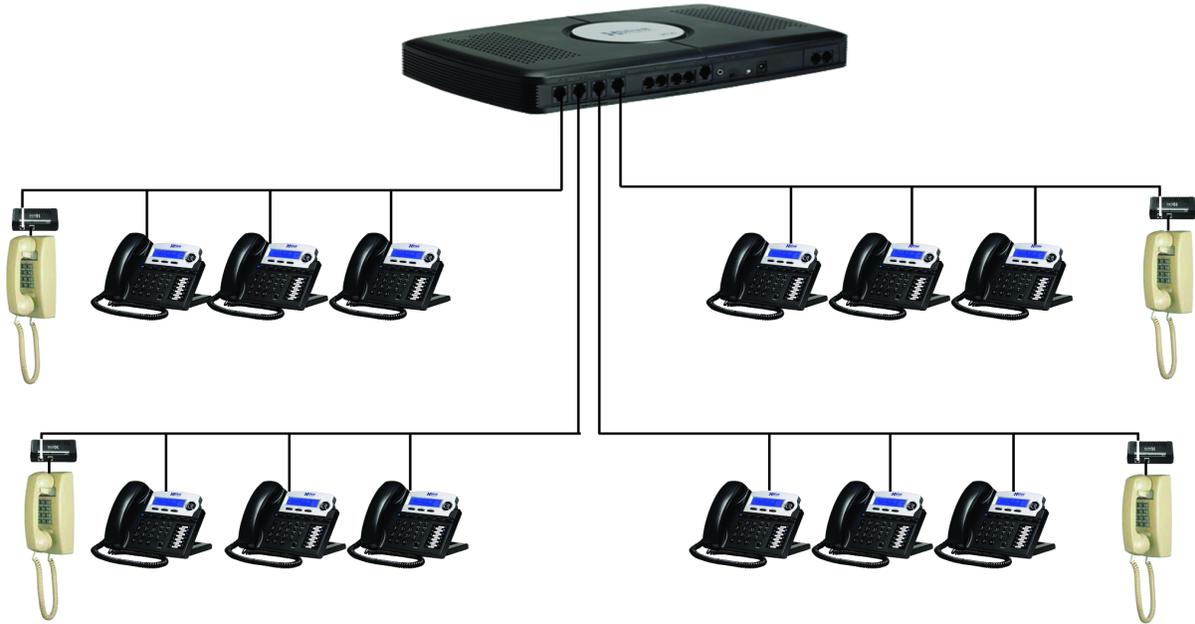
4 Cordless Telephone Modules maximum can be installed on the X16 telephone system. Each Cordless Telephone Module can be connected to ONE cordless telephone. When installing CTM's one maximum can be installed on each Digital Extension Port. (See the diagram below for the best practices in installation.)

The Cordless Telephone Module is equipped to place or receive one call at a time and can be programmed to ring or not ring. If it is programmed to ring it will have the ability to pass caller identification (Caller ID) through to any telephone that is equipped to receive caller ID. This includes the caller ID from a telephone line provider, which will require a subscription and intercom calls.



Placing a call is as easy as dialing the extension number (301 – 399) or dialing “9” to access an outside line. When the Cordless Telephone Module goes off hook it accesses intercom, which cannot be changed.

The Cordless Telephone Module is line powered; therefore, each port (labeled 1~4, 5~8, 9~12, 13~16) on the X16 will only support one older style touchtone® telephone, for a total of four per system.

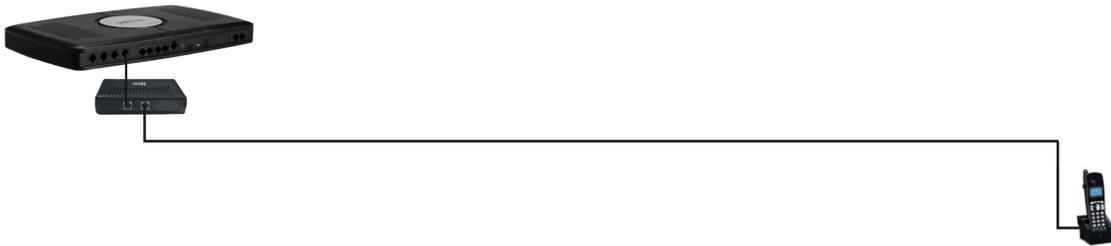


Installation

The Cordless Telephone Module is line powered, so it does not need a dedicated power supply, which makes it very easy to install. It can be located near the cordless, corded or conference room telephone or in the back room near the X16 server.

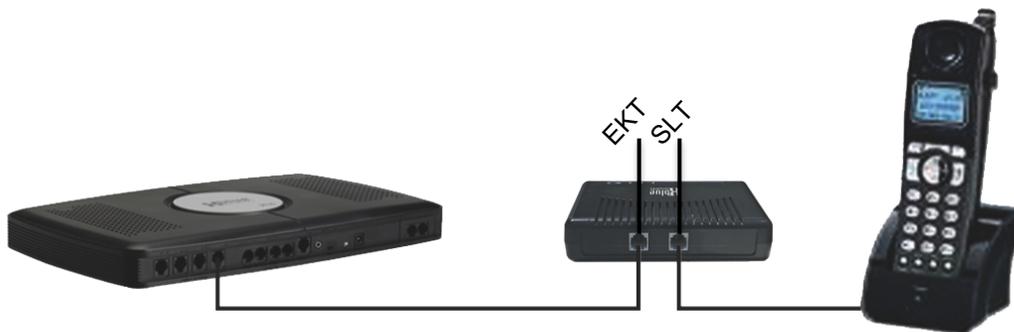
The cable between the Cordless Telephone Module and the Cordless, Corded or Conference Room telephone must be a dedicated cable. Which means that no other device, regular X16 telephone or additional Cordless Telephone Modules, can be used on this cable.

Placing the Cordless Telephone Module where the X16 server is located requires a dedicated cable between the Cordless Telephone Module and the telephone.



Use the following steps to install your new Cordless Telephone Module:

1. Plug the line from the X16 server into the port labeled “EKT”
2. Plug your cordless, corded or conference room telephone into the port labeled “SLT1”
3. The extension number of the Cordless Telephones starts at 320, but can be changed to any unused extension number from 302 – 399 in your system.
 - a. Use the following steps if you want to change the extension number of your Cordless Telephone Module:
 - i. From an Idle telephone go off hook and dial [##+ the extension number + ##]. For example, if you want your cordless, corded, or conference room telephone to use extension number 325, you will enter # # 3 2 5 # #. You will get dial tone back if the operation is successful, otherwise you will get busy “Error” tone.



Programming the Cordless Telephone Module

Programming Code Table

Parameter	Access Codes	Description	
Registering the Cordless Telephone module	## + Ext + ##	Ext = 301 – 399 – Must be an unused Extension Number	Page 10
Enable/Disable Ringing	##+5+L+R+##	L=Line number between 1 – 6 R=1 for on and 0 for off	Page 10
Call Forward – Enable/Disable	##+801+##+T	T= Forwarding Type 0=Off, 1=Voicemail, 2=External, 3=Trk2Trk	Page 11
Call Forward – Wait Time	##+802+##+tt	tt= Time before Forwarding Valid entries are 00 – 25.	Page 12
Call Forward – External Number	##+803+##+Tn+#	Tn=Telephone Number to Dial, such as a cellular telephone	Page 13
Voicemail Change Password	##+800+##+ddd	ddd=New three digit passcode	Page 14
Factory Default	# # + 000 + # #	Initializes the unit to factory default	Page 14

Programming Operation

Registering the Cordless Telephone Module

Each extension in the system must be assigned a unique extension number, which means there cannot be any duplicate extension numbers in your system.

Programming Steps:

1. From idle telephone go off hook and dial ##
2. Dial the Extension number you would like to use. Valid Entries are between 301 and 399. The default is 320.
3. Dial ## to complete the programming.
4. If programmed correctly, you will hear dial tone. If you hear “Busy” Error Tone you will have to hang up and try reentering the programming parameter.

Programming Examples: Enter ## 315 ## for extension 315.

Notes: If the number is in use, you will get a “Busy” Error Tone. If successful, you will get Dial Tone.

Enable Ringing

Each single line telephone can be programmed to ring or not ring, depending on your preference. Transferred calls will still ring.

Programming Steps:

1. From idle telephone go off hook and dial ##
2. Dial 5
3. Dial the telephone line number 1 through 6
4. Dial 0 to turn off ringing and 1 to turn on ringing
5. Dial ## to complete the programming.
6. If programmed correctly, you will hear dial tone. If you hear “Busy” Error Tone you will have to hang up and try reentering the programming parameter.

Programming Examples:

	Turn Off Ringing	Turn On Ringing (Default is On)
Line 1	## 5 1 0 ##	## 5 1 1 ##
Line 2	## 5 2 0 ##	## 5 2 1 ##
Line 3	## 5 3 0 ##	## 5 3 1 ##
Line 4	## 5 4 0 ##	## 5 4 1 ##
Line 5	## 5 5 0 ##	## 5 5 1 ##
Line 6	## 5 6 0 ##	## 5 6 1 ##

Call Forward Enable/Disable

Each extension can be programmed not to forward a call, which means that the call continues to ring, forward the call to Voicemail, or forward the call to an outside number.

Programming Steps:

1. From idle telephone go off hook and dial ##
2. Dial 801
3. Dial ##
4. Dial 0 to turn off call forward, dial 1 to forward calls to your voice mailbox, dial 2 to forward calls to an external number which picks up a second telephone line in your system, which requires at least two telephone lines, or dial 3 to forward calls using the telephone line facility (this may require a special subscription from your telephone line provider for it to work correctly).
5. If programmed correctly, you will hear dial tone. If you hear “Busy” Error Tone you will have to hang up and try reentering the programming parameter.

Programming Examples:

Description	Codes
Disabled Call Forwarding	## 8 0 1 # # 0
Call Forward to Voicemail	## 8 0 1 # # 1
Call Forward to External Number (uses a second telephone Line)	## 8 0 1 # # 2
Call Forward to External Number (Trk2Trk) (uses the telephone line facility, may require a special subscription)	## 8 0 1 # # 3

Call Forward Waiting time

This entry is the amount of time that a telephone will ring before the call is forwarded to the programmed destination.

Programming Steps:

1. From idle telephone go off hook and dial ##
2. Dial 802
3. Dial ##
4. Dial the length of time that a call should ring at your extension before a call forwards to the programmed destination. Valid entries are between 00 (calls forwards immediately without ringing your extension) and 25 seconds.
5. If programmed correctly, you will hear dial tone. If you hear “Busy” Error Tone you will have to hang up and try reentering the programming parameter.

Programming Examples:

Description	Programming Example
Call Forward Immediately	##802##00
Call Forward after 1 second	##802##01
Call Forward after 10 seconds	##802##10
Call Forward after 15 seconds	##802##15
Call Forward after 20 seconds	##802##20

Notes: Generally, this time is set between 18 and 20 seconds.

Call Forward External Number

This is where you will enter the remote telephone number; if your extension is call forwarded to either “External” (##801##2) or “TRK2TRK” (##801##3)

Programming Steps:

1. From idle telephone go off hook and dial ##
2. Dial 803
3. Dial ##
4. Dial the telephone number that calls will be sent when the call goes unanswered. Enter the number exactly how you would dial the number from your desktop telephone.
5. Dial # to complete the programming
6. If programmed correctly, you will hear dial tone. If you hear “Busy” Error Tone you will have to hang up and try reentering the programming parameter.

Programming Examples:

Description	Programming Example
Forward to an External Number	## 8 0 3 ## 19135992583#

Notes:

External call forward (##802##2) – Uses two lines when calls are forwarded, one for the inbound and one for the outbound call.

TRK2TRK call forward (##802##3) – Uses the telephone line facility, known as “Three way calling with call transfer” or “Three way calling with call disconnect” and often requires a paid subscription.

Voicemail – Change Password

At default your mailbox password is set to 123 and can easily be changed.

Programming Steps:

1. From idle telephone go off hook and dial ##
2. Dial 800
3. Dial ##
4. Dial the three digit password
5. If programmed correctly, you will hear dial tone. If you hear “Busy” Error Tone you will have to hang up and try reentering the programming parameter.

Programming Examples:

Description	Programming Example
Changing the Mailbox Password (the default is set to 123)	##800##123 ##800##913 ##800##602

Factory Default

Although it is very rare, it may be necessary to restore the Cordless Telephone Module back to factory default.

Programming Steps:

1. From idle telephone go off hook and dial ##
2. Dial 000
3. Dial ##
4. If programmed correctly, you will hear dial tone. If you hear “Busy” Error Tone you will have to hang up and try reentering the programming parameter.

Programming Examples:

Description	Programming Example
Setting the Cordless Telephone Module back to factory default.	##000##

Caller ID – No Programming Required

The Cordless Telephone Module passes caller identification (Caller ID) through to any telephone that is equipped to receive caller ID. This includes the caller ID that you will receive from a telephone line provider, which will require a subscription, and when an extension calls you.

The Cordless Telephone Module passes the caller ID number as it is received from the telephone line provider. It does not add any numbers such as 1 or remove any numbers such as the area code.

Telephone Line Calls

When a telephone line rings the line number will be displayed (see the table below) plus up to 13 additional characters or as many as your caller ID telephone is equipped to display.

Line #	Display
Line 1	L1:
Line 2	L2:

Line #	Display
Line 3	L3:
Line 4	L4:

Line #	Display
Line 5	L5:
Line 6	L6:

Intercom Calls

Calling between telephone extensions is called an Intercom call. When an extension intercoms your telephone it will display the extension number calling, 301 – 399, and the name of the caller, up to 12 additional characters.

Notes:

The Cordless Telephone Module can place or receive one call at a time, thus there is no call waiting, or call-waiting caller ID.

Your telephone's Caller ID callback may not function because it cannot add or remove any required telephone numbers.

Features

The Cordless Telephone Module is integrated with the X16 Telephone System and gives you access to several features that are usually reserved for a digital telephone.

Features and Codes

Action	Access Codes	Description
Call Pickup - Intercom	* + 3	Pick up an intercom call ringing at another extension
Call Pickup – Telephone Line	* + 5	Pick up a telephone line call ringing at another extension
Call Transfer – Direct to Ext	# + * + Ext	Ext = Extension number 301-399. The entry will resemble *#302 and hang up
Call Transfer – Announce Call	* + * + Ext + # + *	Ext = Extension number 301-399. The entry will resemble **302 make the announcement then dial # * to complete the transfer
Conference	* + * + 2 nd + # 9	Make or Receive a call, place the call on hold (**) dial the second number, when answered, dial #9 to create the conference
Hold	* + *	On a call dial **
Intercom Calling	301 – 399	Calling between extensions
Intercom Calling Ringing	Ext + *	Dial * after dialing the extension number
Paging	* + 2	Dial *2 and make the page announcement
Paging Answer	* + 2	After a Page – Dial *2 to connect to the Paging extension
Telephone Line Access – Any	Dial 9	Dial 9 to access an idle telephone line
Telephone Line Access - Specific	5 + L	L = line 1~6 – Examples 51, 52, 53, 54, 55, 56

Feature Operation

Call Pickup

Call pickup allows users to pickup calls that are ringing at a different extension.

Intercom – When a different intercom call is ringing at an extension you can go off hook and dial * + 3 to pickup the ringing call.

Telephone Line – When a telephone line call is ringing at a different extension you can go off hook and dial * + 5 to pickup the ringing call.

Call Transfer

A call can be transferred from your extension to a different extension. There are two different types of transfers, direct – where the caller is directly transferred to the intended extension, or announce – which allows you to announce the caller before the call is transferred.

Direct Transfer – While on a Telephone Line call, dial # + * and then the extension number, valid extension numbers are 0, 301 – 399, and then hang up, the call is transferred immediately.

Announce Transfer – While on a Telephone Line call, dial * + *, which places the call on hold, then dial the extension number, valid extension numbers are 0, 301 – 399, announce the call - Dial # + * to complete the transfer. If the intended party does not want to take the call dial, you may pick up the held call by dialing * + *.

Note: Only telephone line calls can be transferred to a different location. Intercom calls cannot be transferred.

Conference

You may create a conference call with up to two telephone lines or one telephone line and one additional intercom extension for a total of a three party conference.

1. While on a telephone line call dial * + * (placing the call on hold)
2. Make the second call, when that call is answered
3. Dial #9 to complete the conference

Note: The first call must be a telephone line call but the second call can be either a telephone line or intercom call. You cannot create a conference with two additional intercom extensions.

Hold

Placing a telephone line call on hold is done by dialing * + * while on a telephone line call. The held call can be picked up at the same extension by dialing * + * again, or at another cordless, corded or conference room telephone extension by dialing the telephone line access code 5 + the line number (51 = Line 1, 52 = Line 2, 53 = Line 3, 54 = Line 4, 55 = Line 5 and 56 = Line 6). X16 Digital telephone extensions can simply press the flashing telephone line.

Note: Only telephone line calls can be placed on hold.

Intercom Call

To place an intercom call - Go off hook and dial the extension number. Valid extensions are, 0 for the operator and 301 – 399.

Intercom Call Ringing

To force an X16 digital telephone to ring on an intercom call - Go off hook and dial the extension number followed by the "*" key, which forces the X16 digital telephone to ring. Valid extension numbers are, 0 for the operator, or 301 – 399.

Paging All Idle Telephones

Your cordless, corded, or conference room telephone has the ability to page all idle X16 digital telephones connected to your X16 system. However, these telephones cannot receive a page.

Placing a Page

To page all idle X16 digital telephones dial * + 2, and make the announcement.

Answer a Page

Any extension can answer the page by dialing * + 2. They two extensions, the one paging and the one that dialed *2 will be joined in a private conversation.

Telephone Line Access

When making a call you may dial 9 to use any idle telephone line, or you may dial 5 plus the telephone line number 1-6 to access a specific telephone line.

Idle Telephone Line

Dial 9 to make an outside (telephone line) call using any idle telephone line. The X16 system will automatically grab an idle telephone line and place the call.

Specific Telephone Line

Dial 5 + the telephone line number 1–6; To access a specific telephone line when making a telephone line call or pick a call up from hold.

VoiceMail Operation

When you go off hook, you will hear a special “stutter dial tone” indicating that you have a new voicemail message in your X16 voice mailbox. The tone is .25 seconds on and .25 seconds off for 1 second. You may hear a different stutter dial tone when you access a telephone line, which is an indication that you have a message in your telephone line provider’s voice mailbox.

VoiceMail Setup

Parameter	Access Codes	Description
Access Voicemail	* + 80 + PPP	PPP = Passcode (Default 123)
Record a Memo	* + 8 1	Record a memo in your voice mailbox
Play Personal OGM	* + 8 2	Listen to your existing outgoing message (OGM)
Re-Record Personal OGM	* + 8 3	Re-record your Personal outgoing message (OGM)
Delete Personal OGM	* + 8 4	Remove your current Personal outgoing message (OGM)

Using VoiceMail

Parameter	Access Codes	Description
Access Voicemail	* + 80 + PPP	PPP = Passcode (Default 123)
Mailbox Usage	1 = Play Previous Message 2 = Play/Pause Message 3 = Play Next Message 4 = Delete Message Hang up to disconnect	

Troubleshooting

Status Indications

LED Cadence Definitions

Indication	Description (time in seconds)
All Dark	No Power
Lit	Solid Lit
Fast	0.125 off, 0.125 on
Intermediate	0.5 off, 0.5 on
Slow	1.0 off, 1.0 on
Wink	0.250 off, 0.250 on, 0.250 off, 0.250 on, 0.250 off, 0.750 on

Power LED

Indication	Description (time in seconds)
Dark	No Power
Lit	Normal Operation
Slow	During Boot up
Fast	Registration Failed – The entered extension number is in use
Wink	Registration Failed – Other Reason

SLT1 LED

Indication	Description (time in seconds)
All Dark	Telephone is on hook and idle
Lit	Telephone is off hook and busy
Fast	New Voice Mail message
Fast	Incoming telephone line ring
Intermediate	Intercom extension call
Slow	Transferred telephone line call
Wink	Restore Factory Default Failure

Intercom Tone Plant

Indication	Description (time in seconds)
Dial Tone	Continuous Tone
Busy Tone	0.5 on, 0.5 off
DND Tone	0.25 On and 0.25 off
Ring Back tone	1.0 off, 1.0 on

Buzzer Cadence

Indication	Description (time in seconds)
Intercom Ring	0.5 off, 0.5 on
Telephone Line	Synchronize with the first ringing telephone Line's cadence
Transfer/Recall Ring	1.0 on, 1.0 off

Common Symptoms

Indication	Description
Will not power up when it is plugged in	<p>Confirm that the plugs are in the correct port of the Cordless Telephone Module.</p> <p>Unplug a working X16 Digital Telephone and plug it into the port labeled "EKT".</p> <p>Plug the working X16 Digital Telephone into the cable that was not working for the Cordless Telephone Module.</p>
I cannot find my extension number	Using your cordless, corded or conference room telephone dial "0" (Zero) and your extension number will be displayed on the X16 Digital Telephone's Display.
The Cordless, corded or Conference Room Telephone is not working	<p>Confirm that the plugs are in the correct port of the Cordless Telephone Module.</p> <p>Unplug one of the lines from the X16 server port labeled "CO Line" and plug it directly into your cordless, corded or conference room telephone.</p>
I do not get caller ID	Make sure that the telephone is programmed to ring.
Call Forward	<p>Calls are not forwarding to a remote telephone number: Double check that the number entered correctly.</p> <p>External Forward - Make sure that there is an idle telephone line to access the outbound call.</p> <p>TRK2TRK – Make sure that your telephone line provider offers this service. This feature usually requires a subscription from your telephone line provider.</p>

Indication	Description
I can answer but cannot make a telephone line call	The Cordless Telephone Module does not support "Pulse Dialing"
I am not getting call waiting or call waiting caller ID	The Cordless Telephone Module does not support "Call waiting or call waiting caller ID"

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