



# ***MOBILE KONNECTOR***

## **USER'S GUIDE**

# Getting started

## Congratulations

Your Konexx Mobile Connector is the ideal product for executives, sales people, and others who need data communications in the field or the office.

With your Mobile Connector, you can connect your modem, fax/modem, or fax machine to virtually any digital, PBX, multiline, or hotel telephone in seconds. Simply remove the coiled handset cord from the telephone base, connect the Mobile Connector to your telephone, then connect the handset (with coiled cord attached) and your communications device to the Mobile Connector.

Your Mobile Connector is fully compatible with V.90 modems and can support connection rates up to 33.6Kbps. It also provides the following additional features:

- Compact, lightweight design allows your Mobile Connector to go anywhere you go.
- Operates from AC adapter or 2 9-volt batteries (included and installed).
- Uses power only when you use the modem, fax/modem, or fax machine.
- Protects your modem from electrical damage due to a direct connection to digital or PBX systems.
- Runs up to 40 hours on battery power.

## Unpacking

When you unpack your Mobile Connector, make sure you have all of the following items and that none of the items are damaged:

- One Mobile Connector with batteries (2 each) installed.
- One AC adapter.

## Preinstallation Guidelines

Before installing your Mobile Connector, observe the following guidelines:

### CONNECTION

**Never connect the Mobile Connector directly to an analog or digital telephone line (wall outlet). Use the procedures in this User's Guide to avoid damaging your Mobile Connector.**

### DIALING

Configure your modem, fax/modem, or fax machine for Tone dialing.

### SPEAKER PHONES

If the attached telephone has speakerphone capability, disable speakerphone operation. This mode deactivates the handset jack used to send and receive data.

### TELEPHONE LEVEL SWITCH

Set the **Telephone Level** switch for the telephone you are using (refer to Table 3-1).

### SPEAKER CONTROL AND VOLUME

The telephone handset is deactivated during dialing.

If you use a modem or fax/modem, you can use the command to enable the modem speaker and the command to set its volume. You can then "listen in" on dialed calls to monitor their status. Refer to your modem manual for information.

# Installation

## Connection procedures

To connect your Mobile Connector to a telephone (refer to figure 2):

1. Remove the spiral handset cord from the telephone handset jack on the **telephone base unit** and insert it into the Mobile Connector jack labeled **HAND SET**.
2. Insert the Mobile Connector modular telephone cord (which is permanently attached at one end to the Mobile Connector) into the telephone handset jack on the **telephone base unit**.

3. Connect a modular telephone cord from your modem, fax/modem, or fax machine jack labeled "Line" or "Wall" to the Mobile Konnector jack labeled **DATA**.
4. The Mobile Konnector is designed to run on batteries or AC power. If you choose to run on AC power, plug the AC adapter into your wall outlet or power strip and plug the connector into the DC jack of the Mobile Konnector.

Your installation should resemble the one shown in Figure 2.

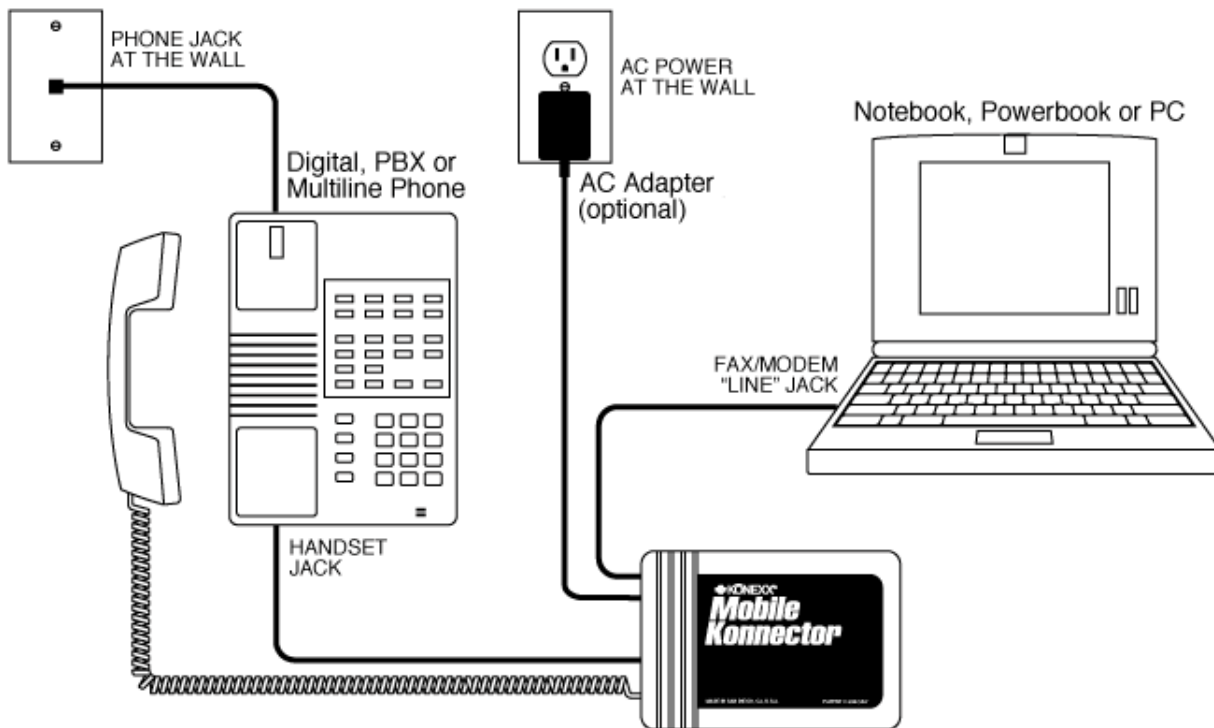


Diagram not to scale.

5. Set the **Telephone Level** switch on the bottom of the Mobile Konnector to 3.
6. Lift the telephone handset and listen for a dial tone. If you do not hear the dial tone, check your connections to ensure they match those shown in Figure 2.
7. Return the handset to the cradle until you are ready to connect your modem on-line using the Mobile Konnector.

You can now exchange data and faxes, and use the telephone handset to perform voice communications when your modem, fax/modem, or fax machine is not in use.

## Telephone Level switch

This section describes the purpose of the **Telephone Level** switch and how to set it for optimal operation.

### Overview

The bottom of your Mobile Konnector has a **Level** switch. This actually adjusts the sound coming from your modem or fax to a level that your phone can understand correctly. The level switch can be set in any of four settings and is dependent on the phone you are using.

Setting 3 is the most common. Setting 2 is the highest and is generally used on a telephone that uses a carbon microphone; some residential phones and hotel phones are this type. Settings 1 and 4 are the lower levels.

If you set the **Level** switch too high, you will hear feedback such as a buzz or loud squeal through the modem speaker when your modem is off-hook. If you hear feedback, set the **Level** switch to the next lower setting - using the sequence 2, 3, 1, 4 - until the feedback disappears.

For example, if the **Level** switch is set to 2 and you hear feedback, set it to 3. If you still hear feedback, set it to 1. If feedback continues, set it to 4.

## Switch settings

The Mobile Konnector enables your modem to communicate through your phone system with specific level settings. The settings are adjustable to four different levels depending on the model of phone you are connecting to.

Table 3-1 shows the **Level** switch settings to use for various telephone models. If the telephone you want to use does not appear in Table 3-1, set the level as described in the previous section. If feedback occurs for all four levels, contact Technical Support and they will assist you in determining the correct setting for your compatible phone.

A "Yes" in the "Auto-dial" column indicates that autodialing is supported with that telephone model. The number in the "SEE NOTE" column refers to a note at the end of the table.

*Table 3-1. Telephone Level Switch Settings*

MANUFACTURER	MODEL	SWITCH SETTING	AUTO-DIAL	SEE NOTE
Ameritech	None Specified	1	Yes	1
AT&T	Definity	3	Yes	
	Destiny	3	---	2
	Dimension	2 or 3	---	2
	G2	4	Yes	
	Horizon	2	Yes	
	ISDN	3	No	1
	Infinity	3	Yes	
	Legend	3	No	
AT&T (continued)	Merlin	3	Yes	
	Merlin II	3	---	2
	Partner	3	Yes	
	Spirit	3	Yes	1
	System 25	3	Yes	3 & 4
	System 75	3	Yes	3 & 4
	System 85	3	Yes	3 & 4
Comdial	Digitech	3	Yes	
	Executech	3	Yes	
	Impact	3	Yes	

MANUFACTURER	MODEL	SWITCH SETTING	AUTO-DIAL	SEE NOTE
David Systems	None Specified	3	---	2
Eagle	None Specified	2	Yes	
Ericcson	MD110	3	Yes	
Executone	Encore CX	3	No	
	IDS	3	No	
	Model 228	See Notes	No	7
	Model 432	See Notes	No	7
	Key Systems	2 or 3	Yes	
Fujitsu	Focus 196	See Note	No	5
	Others	4	Yes	
GAI-Tronics	Cohort	3	No	
Harris	Lanier	3	Yes	
Hitachi	Digital Model 200	1	---	2
	HCX-5000	1	---	2
Intecom	IBX System	3	No	
Intertel	Hitech/123	1	Yes	4
	2	1	---	2
	MPK-2	3	No	
	Axxess	1	Yes	
	Others			
Isoetec	Key systems	3	Yes	1 & 2
	Digital PBX	1	---	
ITT	None Specified	2	---	2
Iwatsu	Omega	2	Yes	
	Omega III	2 or 3	Yes	
	Omega IV	1 or 4	Yes	4
Kokyo Co.	Kanda	1	Yes	
Lanier	EKT - 220 (Elec. Key)	2	Yes	
Lexar	Telex	See Notes	No	5
Macrotel	None Specified	4	Yes	1
Mitel	Superset	2 or 3	No	
	SX-200	3	No	1

MANUFACTURER	MODEL	SWITCH SETTING	AUTO-DIAL	SEE NOTE
NEC	Determ II	1 or 4	Yes	1
	Determ III	1 or 4	---	2
	Determ V	1	Yes	
	Electra	2 or 3	No	
	Freedom	1	Yes	
	Mark II	1	Yes	
	Others	1	Yes	
Nitsuko	Onyx	3	---	1 & 2
Northcom	Premier (NC-1648)	3	Yes	
Northern Telecom	Advantage	3	Yes	6
	Focus	2	No	
	Logic One	3	No	
	Meridian SL1 & SL100	3	No	
	Meridian 100	3	No	
Northern Telecom (continued)	Meridian 1	3	No	
	Norstar	3	Yes	
	DR5 or DID	3	Yes	
	Unity	2 or 3	Yes	
	Vantage	3	---	
Panasonic	KXT23?5	3	Yes	
	DBS	2 or 3	Yes	
	Others	3	Yes	
Phillips	None Specified	1 or 4	---	5
Premier	Digital	1 or 4	Yes	6
Rolm	Model 120	1 or 4	No	
	Model 240	1 or 4	No	
	Model 400	1 or 4	No	
	Model 600	1 or 4	No	
	Others	1 or 4	No	
Siemens	Dyad	See Notes	No	5
	Dyad Jr.	See Notes	No	5
	HCM-600	3	---	1 & 2
	HCM-200	3	---	1 & 2

MANUFACTURER	MODEL	SWITCH SETTING	AUTO-DIAL	SEE NOTE
Siemens (continued)	Hicom Digital	1	---	1 & 2
	Saturn Digit 260	See Note	---	5
Southwestern Bell	Freedom Phone-Older	3	Yes	1
	Freedom Phone-Newer	1 or 4	Yes	
SRX	Vision Phone	2	---	2
Tadiran	EKT 221	3	Yes	1
	Emerald	3	---	1 & 2
	Coral I & II	3	---	1 & 2
	Others	3	Yes	1
Telrad	Model 816	4	Yes	
	Model 2464	4	Yes	
	Symphony	4	No	
	Digital (818)	4	No	
	Others	4	---	2
TIE	Business Comm	2	---	2
	Datastar	2	Yes	
	DCX	2	Yes	
TIE (continued)	Meritore	2	Yes	
	Onyx	3	Yes	
	TC22	2	Yes	
	EX2260	2	Yes	
	Ultracom CX	2	---	
	Keyset 9	2	---	2

MANUFACTURER	MODEL	SWITCH SETTING	AUTO-DIAL	SEE NOTE
Toshiba	EKT 2000 series	2	Yes	
	EKT 2000 series	2	---	2
	EKT6000 series	3 or 4	Yes	
	Perception	3	No	8
	Strata (Key system)	2	---	1 & 2
	Strata (Digital)	1 or 3	---	1 & 2
	103 series	2 or 3	Yes	
Trillium	Panther	2 or 3	---	1 & 2
	Talkto 616	2	---	1 & 2
Vodavi	Electronic Key System	See Note	Yes	7
Walker	Marathon	1 or 4	Yes	
	Poet	1	Yes	1

*If your telephone does not allow autodialing, you can still communicate by dialing with the keypad on your telephone. Refer to the directions for Dialing data or fax calls manually..*

#### **NOTES:**

1. Some versions of this phone may not work on the listed switch setting and may not be compatible with the Mobile Konnector. Contact Technical Support to verify that your setup is correct and to determine if the Mobile Konnector is compatible with your phone.
2. Sufficient data is not available as to whether the phone system will support autodialing with the Mobile Konnector.
3. The Mobile Konnector will not support autodial on Model 7300 telephones.
4. You may have to dial an outside access number, such as a 9, on the telephone before autodialing.
5. This telephone has nonstandard handset wiring and is not compatible with the Mobile Konnector.
6. When autodialing the user must dial a number on the keypad of the telephone set to maintain the line.
7. The Mobile Konnector is not compatible with this phone set.

## **Using Your Mobile Konnector with your Modem**

After You have connected the Mobile Konnector to your phone and set the proper switch setting you are now ready to use the Mobile Konnector to dial out to get your Email, send a FAX, attach to your office network, or simply browse the Web.

**If you use the Mobile Konnector while traveling it is recommended that you follow the instructions immediately below; however if you are using the Mobile Konnector on one main phone system, check to see if your phone system can support auto-dialing (refer to the switch setting section and phone chart). If auto-dialing is supported, jump to the auto-dialing section.**

### **Dial out with the Mobile Konnector**

Since you are not connected to a standard analog phone line, you will dial out by dialing the phone number on your phone directly then once the other end answers your modem will be able to connect. Follow the steps below to initiate the call:

1. Prepare your modem, fax/modem, or fax machine for sending.
2. Lift the telephone handset from the receiver then have your modem dial by clicking on Connect or Send. All this is doing is initiating the modem to do a connection, the number you are dialing is not really being passed through to the phone carrier.

3. Hang up the telephone handset then pick it up again. What this is doing is getting a fresh dial tone.
4. Set the handset on your desk and dial the phone number you are connecting to. Make sure to include a "9" or some other number to get an outside line if that is required .
5. Leave your handset off the cradle for the duration of the call.
6. When your on-line session or transfer is done, hang your modem up first by clicking on disconnect, hang-up, sign off, or whatever your application needs to know you are finished. Then hang up your phone.

**Dialing Hints:**

*If you're having difficulty with the timing between dialing on the phone and your modem attempting to make a connection, try the following ideas.*

1. *If your connection is from Dial Up Networking, follow the steps to setup "Operator assisted or Manual Dial." See the Dial Up Networking information later in this User Guide.*
2. *Try setting your connection software for Blind Dialing by adding the string ATX1 or ATX3 to the modem command string. Visit your application's user guide for information on how to add command strings to your modem dialing commands. Refer to the Dial Up Networking information later in this User Guide.*

**SureHints:**

1. *You must lift the handset to use the Mobile Konnector.*
2. *Hanging up the handset while connected will terminate your connection.*
3. *When the modem is connected or on-line, your handset is disabled and can not be used.*
4. *Dialing "Timeouts" can occur if your application takes too long; To avoid the dial tone timeout, either convert the document to fax format before you prepare to send it, or do not lift the handset from the telephone base until your software indicates it is ready to dial.*

## **Auto Dialing with the Mobile Konnector**

There are a few phone systems that will allow the modem to autodial; meaning you would not have to dial the phone number on the phone. This is a great way to use the Mobile Konnector if you typically use the Mobile Konnector with one phone system. For a list of telephones that support auto-dialing refer to Table 3-1. Follow the steps below for connecting your modem to do your Email, send a fax or browse the web using auto-dialing:

Connect your Mobile Konnector to your phone as described in the connection procedures and check your switch setting.

1. Prepare your modem to connect.
2. Lift the telephone handset and listen for a dial tone. Place the handset on your desk. Do not hang it up, or you will terminate the call.
3. To dial out using your modem, click on the SEND or Connect icons in your application to start the call.
4. After you've completed you on-line session, you can hang up your modem by clicking on disconnect or Stop in your application.
5. Replace your handset on the telephone to hang up the phone.

**SureHints:**

1. *You must lift the handset to use the Mobile Konnector.*
2. *Hanging up the handset while connected will terminate your connection.*
3. *When the modem is connected or on-line, your handset is disabled and can not be used.*
4. *Dialing "Timeouts" can occur if your application takes too long; To avoid the dial tone timeout, either convert the document to fax format before you prepare to send it, or do not lift the handset from the telephone base until your software indicates it is ready to dial.*

## How to Use the Mobile Konnector with Dial Up Networking in Windows 95/98/NT

### Setting up Dial-Up Networking : Windows 95 - Windows 98:

1. Open the My Computer icon (usually located in the upper left corner of desktop).
2. Within the My Computer screen, select the Dial-Up Networking icon.
3. If you already have a Dial-Up connection created, right click on the Dial-Up icon to be changed and select Properties.  
If no Dial-Up connection exists or you do not want to change an existing Dial-Up connection, click MAKE NEW CONNECTION. Name the new connection "KONEXX".
4. Make sure your modem type is displayed, and then click CONFIGURE.
5. Click on the OPTIONS tab.
6. Under "Dial Control" check "Operator assisted or manual dial. Then click OK. If changing an existing Dial-Up connection, click OK again. Your change has been completed and you are finished with this "setting up" section, please see "Making Your Connection". If you made a new Dial-Up connection you will return to the Make New Connection screen.
7. Click NEXT. The computer will ask you to enter a phone number. Enter the phone number of the computer (ISP) that you will be connecting with.
8. Click NEXT, then FINISH. This will return you to the Dial-Up Networking screen. You are now finished with this "setting up" section. Please see "Dialing out using Dial Up Networking".

### Setting up Dial-Up Networking : Windows NT 4.0

1. Open the My Computer icon (usually located in the upper left corner of desktop).
2. Within the My Computer screen, select the Dial-Up Networking icon. This will open up a Phonebook window.
3. Under Phonebook Entry to Dial, select (by clicking once) the phone number of the connection you want to set up for use with the Mobile Konnector.
4. Click the MORE button. This will bring up a drop-down list of options.
5. Click on Operator assisted or manual dial.
6. Exit the Dial Up Networking and My Computer menus. You are now finished with this "setting up" section. Please see "Dialing out using Dial Up Networking".

### Dialing out using Dial Up Networking:

Once you've created the Dial Up Networking connection in the steps above, you can use it to connect to your network, send Email, or browse the Web with Mobile Konnector. Follow the steps below to initiate the call:

1. Connect your Mobile Konnector to your phone as described in the connection procedures.
2. Set your Level Switch as described in the Switch Setting section.
3. Make sure you have the phone number you will be calling written down somewhere so you can reference it.
4. Click the icon of your Dial Up Connection that has been configured for use with the Mobile Konnector.
5. A message will appear in Windows saying "*You have selected Manual Dial. Lift the receiver and dial the phone number you would like to connect to. Immediately after the call is answered, click connect and hang up the phone.*" Follow those instructions, **except do not hang up the phone**. Hanging up the phone will terminate the call through the Mobile Konnector.

Your connection should be established. When you are finished with that session, disconnect the modem as you normally would and return the handset receiver to the cradle of the telephone.

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## Receiving data and faxes

# through your Mobile Konnector

## Receiving a data file

When someone calls you to send a data file, use the following procedure to answer the call and receive the file.

1. If you will be using your communication software's manual answer or manual receive command to answer the call, skip to step 2.  
  
Otherwise, place your modem into direct connect (local terminal) mode. The manual that came with your communication software should explain this procedure.
2. When the telephone rings, lift the telephone handset from the cradle. Leave the handset out of the cradle. DO NOT hang it up, or you will terminate the call.
3. Use your communication software's manual answer or manual receive command to answer the call.

### OR

From direct connect mode, type **ATA** and press **Enter** to have your modem answer the call.

4. At the end of the data transfer, return the handset to the cradle.
5. To hang up, use your communication software's call-termination feature, or type **ATH0** and press **Enter** from direct connect mode.

☞ The telephone handset is electronically disconnected when the modem goes off-hook. You must hang up your modem to restore use of your telephone handset.

## Receiving a fax document

When someone calls you to send a fax document, use the following procedure to answer the call and receive the document.

1. When the telephone rings, lift the telephone handset from the cradle. Leave the handset out of the cradle. DO NOT hang it up, or you will terminate the call.
2. To use a fax/modem, use your fax software's manual answer or manual receive command to answer the call.

### OR

To use a fax machine, press its **Start** button on the fax machine.

3. After you receive the document, return the handset to the cradle.
4. To hang up a fax/modem, use your fax software's call-termination feature.

### OR

To hang up a fax machine, press its **Stop** button.

## Operating tips

To ensure you get the most out of your Mobile Konnector, observe the operating tips in this chapter.

## Powering the Mobile Konnector

Your Mobile Konnector must have batteries or the AC adapter to operate in Data Mode.

- ◆ Use only the AC adapter supplied with your Mobile Konnector. Do not use an adapter for a different device.

- ◆ Weak batteries can cause transmission difficulties. Replace the batteries after 15 hours of use (40 hours for alkaline batteries).

## Telephone Level switch

Make sure the **Telephone Level** switch is set properly. Otherwise, you will hear buzzing or squelching feedback through the modem speaker when the modem is off-hook, which will adversely affect transmission and reception. For information on using this switch, refer to the switch setting section and Table 3-1.

## Tone dialing

Make sure your modem, fax/modem, or fax machine is configured for Tone (DTMF) dialing. Your Mobile Konnector will not work with pulse (rotary) dialing.

The manual that came with your modem, fax/modem, or fax machine should describe this procedure.

## V.34/V.90 Connections

Although your Mobile Konnector is V.34/V.90 compatible, not everyone can get consistent connections at 28,800 or higher. In fact, V.34/V.90 connections at 26,400, 24,000, and 21,600 are common.

The connect rate speed will be determined by the phone system's capabilities, your modems capabilities, and the quality of the phone line. When using the Mobile Konnector, your connection is going through a digital phone system which was not designed for data connections. This means your connection rates will be lower than you are used to when connecting to an analog phone line.

## Speakerphones

Make sure the telephone handset is removed from the cradle until you finish exchanging data. Hang up your modem or fax/modem to reactivate the handset.

If the telephone has a speaker, the speaker must be turned off. Speakerphone operation disables the telephone handset jack that your Mobile Konnector uses to transmit and receive data. The handset must be removed from its cradle.

## Princess and Trimline telephones

Your KONEXX Office Konnector will not operate with "Princess" or "Trimline" telephones, which have the keypad in the handset. The electronics with which the Mobile Konnector interacts are not accessible in these telephones.

## Hanging up the modem

Your Mobile Konnector disconnects the telephone handset when your modem or fax/modem is "on-line". After data transactions or when autodialing voice calls, use your communications software to hang up your modem so that the handset is reactivated.

You can either use the call-termination feature in your communication software, or type **ATH0** and press Enter from direct connect mode. The manual that came with your software should describe how to hang up the modem.

## "No Dial Tone" error message

If you receive a "No Dial Tone" error message, include the Hayes command **ATX1** or **ATX3** in your modem Dial command. These commands tell your modem or fax/modem to dial without first listening for a dial tone.

Some telephone systems (such as Rolm) do not use the standard dial tone, and your modem or fax/modem may not recognize the nonstandard tone as a dial tone.

## Autodialing

Many telephone systems will not support autodialing (the ability to have the modem/fax dial the number of the system you are trying to connect with). You can perform a simple test to find out if the phone system the KONEXX product is connected to will support autodialing. The test is accurate for about 95% of the phone systems and is only viable in the United States. The test is referred to as the dial tone time out test (DTT) and is performed as follows:

1. Lift the telephone handset from cradle and access an outside line, this may involve dialing a prefix such as a "9" on the telephone.
2. Listen to the dial tone until it times out. The dial tone should time out within 15 seconds.
3. After expiration of the dial tone, one of the following should be heard:
  - a. Recorded Operator message - this message will usually be "If you'd like to make a call, please hang up and try again..."
  - b. Error Tone - the error tone may sound like a fast busy signal, a alternating high - low tone or dead silence.

If the result of the DTT is the recorded operator message, there is a 95% probability that the phone system will support autodialing with the Mobile Konnector. If the result of the DTT is an error tone, there is a 95% probability that the phone system will not support autodialing with the Mobile Konnector unless the phone system is programmed for direct trunk access.

Approximately 65% of the phone systems that require the dialing of a prefix such as a "9" or some other number to dial out of the building, will require the prefix to be dialed manually (using the keypad of the phone) prior to having the modem/fax dialing the rest of the number.

## Calling Technical Support

In the unlikely event you encounter a problem with your Mobile Konnector and the tips in this chapter do not help you resolve the problem, please call Konexx Technical Support.

Our knowledgeable Technical Support staff is available to answer your questions Monday through Friday, 7:30 until 4:30 Pacific Standard Time. The telephone number is: (858)537-5010.

Please have the following information available when you call so we can better assist you:

- ◆ KONEXX model number
- ◆ Telephone manufacturer, model name or number
- ◆ Modem or fax/modem manufacturer, model name or number
- ◆ Communication software used

If possible, call us on the telephone which has the Mobile Konnector connected, so that we may perform diagnostics on the same telephone.

You can also send questions and comments to our 24-hour fax line: (858)537-5020.

Our goal is to make you a satisfied customer.

## Specifications

This section lists the operating and performance specifications.

### Operating specifications

Your Mobile Konnector:

- ◆ Provides an RJ-11 connection at the handset jack of the telephone.

- ◆ Converts the 4-wire handset jack to a 2-wire RJ-11 jack.
- ◆ Transforms the handset impedance to telephone line impedance, and vice versa.
- ◆ Transforms the handset signal levels to modem signal levels, and vice versa.
- ◆ Uses the **Level** switch to match the modem signal to the telephone being used. This four-position switch handles most telephones.
- ◆ Operates at data rates up to 33.6 Kbps (kilobits per second).
- ◆ Works with virtually all telephones that have a modular handset. The handset must be out of the cradle.

## FCC Requirements

### Part 68

This device has been granted a registration number by the Federal Communications Commission (FCC), under Part 68 rules and regulations for direct connection to the telephone lines. In order to comply with these FCC rules, the following instructions must be carefully read and applicable portions followed completely. These instructions must be supplied to the consumer.

1. This equipment complies with Part 68 of the FCC rules. A label located on the outside surface of this equipment contains, among other information, the FCC registration number and ringer equivalence number (REN). If requested, this information must be provided to the telephone company.
2. As indicated below the suitable jack (USOC connecting arrangement) for this equipment is shown. If applicable, the facility interface codes (FIC) and service order codes (SOC) are shown.
3. The ringer equivalence number (REN) is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.
4. If this equipment causes harm to the telephone network, the telephone company will notify you in advance. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
5. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications in order to maintain uninterrupted service.
6. If trouble is experienced with this equipment, please contact the service center for repair and/or warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved. User repairs must not be made, and doing so will void the warranty.
7. This equipment cannot be used on coin service provided by the telephone company. Connection to party line service is subject to state tariffs. (Contact your state public utilities commission for information.) If so required, this device is hearing-aid compatible (EAC).

## Industry Canada (IC) Requirements

**LOAD NUMBER:** 0.00

**NOTICE:** The Industry Canada (IC) label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

User's should ensure for their own protection that electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**CAUTION:** Do **NOT** attempt to make such connections yourself; contact the appropriate electrical inspection authority or electrician.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to the telephone loop used by the device, without overloading. The termination on a loop may consist of any combination of devices, subject only to the requirement that the total of the Load Numbers of all the devices not exceed 100.