TECHNICAL
Practice
TELECOM SOLUTIONS FOR THE 21ST CENTURY

FAXJ-1000
*FaxJack
Phone/Fax Switch*

December 14, 2011

VIKING

Eliminate the Expense of Dedicated Phone Lines!

VIKING© MODEL FAXJ-1000

The **FAXJ-1000** allows any business, large or small, to enjoy the convenience of automated data transmission without the perpetual monthly expense of a dedicated phone line.

The **FAXJ-1000** is a versatile phone/data/fax switch with the ability to automatically route calls via fax CNG tone, central office distinctive ring, or touch tones included in the dial string by the calling party. In addition, the **FAXJ-1000** offers full manual transfer capabilities.

The **FAXJ-1000** stores and retransmits caller ID information so that it is truly caller ID compatible.

Features

- Four ports allow any four analog devices to share a single line
- **Routes calls via CNG tone, distinctive ringing, touch tones sent by calling device or manually**
- Provides realistic ring-back tones while re-ringing selected device
- **Transfer from one port to another as often as may be required during the same call**
- **Caller ID information is stored and retransmitted during transfer**
- Automatic "privacy" eliminates interruptions on both in and outbound calls
- Monitors for calling party control (CPC)
- All in and outbound calls are routed to the phone 1 port during a power failure
- Manual mode will not interfere with C.O. provided voice mail
- **Ports are balanced to prevent noise on long runs**
- **Compatible with high-speed modems**
- **Surge protection on both power and phone line**
- **Internal Call Mode**

Phone…715.386.8861

Applications

Fax Machines

- Retail
- Commercial
- Industrial
- Governmental
- Home office

Modem Terminals

- Personal computers
- Vending machines
- Remote access applications

Point-Of-Sale Terminals

- Fast food chains
- Retail stores
- Convenience stores

Specifications

Power: 120V AC/13.8V AC 1.25A, UL listed adapter provided
Dimensions: 133mm x 91mm x 44mm (5.25" x 3.6" x 1.75")
Shipping Weight: 1.36 kg (3 lbs)
Environmental: 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity
CNG Detection: 1100 Hz burst
Maximum Data Speed: 56 Kbps
Minimum CPC Time: 320ms
Ring Output: 4 REN, capable of ringing (8) 0.5 REN phones
REN: 0.7A
Connections: (1) 10-position cage clamp terminal strip

IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, PLEASE CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666

Our Technical Support Department is available for assistance Monday 8am - 4pm and Tuesday through Friday 8am - 5pm central time. So that we can give you better service, before you call please:
1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:
1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to:
   Viking Electronics, 1531 Industrial Street, Hudson, WI 54016
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):
1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the product over the counter at no charge. The distributor will then return the product to Viking using the same R.A. number.
4. **The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.**

LIMITED WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of one year from the date of purchase from any authorized Viking distributor or 18 months from the date manufactured, which ever is greater. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others.

NO OTHER WARRANTIES. VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

EXCLUSION OF CONSEQUENTIAL DAMAGES. VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO PURCHASER, OR ANY OTHER PARTY, FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO THE SALE OR USE OF THE PRODUCT SOLD HEREUNDER.

EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY. WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS THE EXCLUSIVE REMEDY AND ANY LIABILITY OF VIKING SHALL BE SO LIMITED.

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT EACH AND EVERY PROVISION OF THIS AGREEMENT WHICH PROVIDES FOR DISCLAIMER OF WARRANTIES, EXCLUSION OF CONSEQUENTIAL DAMAGES, AND EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY, ARE SEVERABLE FROM ANY OTHER PROVISION AND EACH PROVISION IS A SEPARABLE AND INDEPENDENT ELEMENT OF RISK ALLOCATION AND IS INTENDED TO BE ENFORCED AS SUCH.

FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the side of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive REN's on a 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 REN's should not exceed five (5.0) To be certain of the number of devices that may be connected to a line, as determined by the total REN's, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (*e.g.*, 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

The plug used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this FAXJ-1000 does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If the FAXJ-1000 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't 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.

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 the necessary modifications to maintain uninterrupted service.

If trouble is experienced with the FAXJ-1000, for repair or warranty information, please contact:

Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to Party Line Service is subject to State Tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:
Remain on the line and briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours, such as early morning or late evenings.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

PART 15 LIMITATIONS

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# *Installation and Applications*

A. Fax / Data / Phone Application

*Note: The polarity of the connection to the **CO Line In** terminals shown to the right should be (+) or Tip to terminal 1 and (-) or Ring to terminal 2. Observing this polarity helps prevent clicks and dings of connected phones on hang up.*

* Note: To increase surge protection, fasten a wire from the screw terminal to Earth Ground (grounding rod, water pipe, etc.)

B. PABX / KSU Application

Note: To increase surge protection, fasten a wire from the screw terminal to Earth Ground (grounding rod, water pipe, etc.)
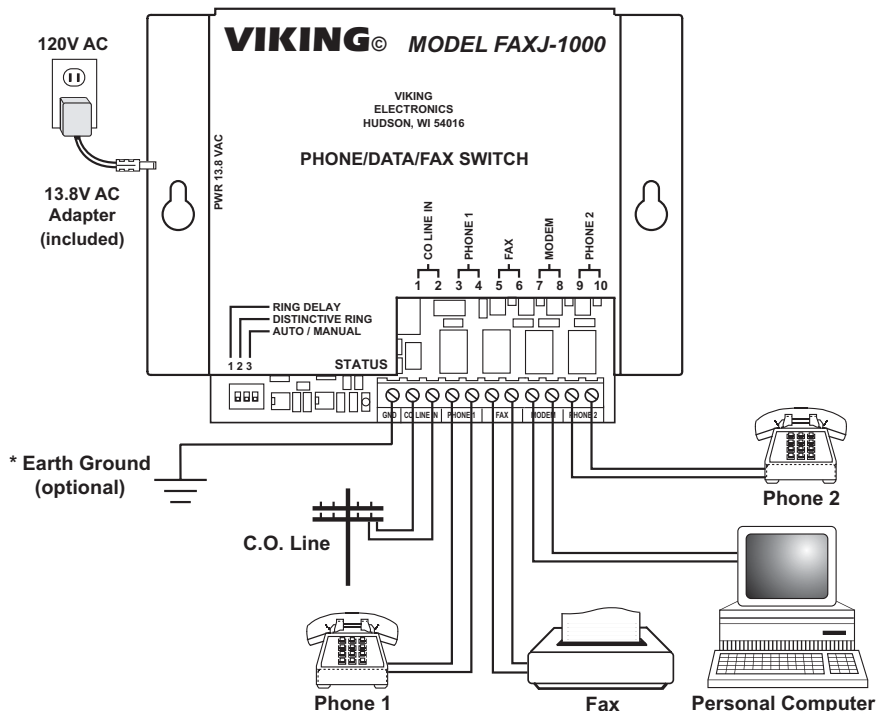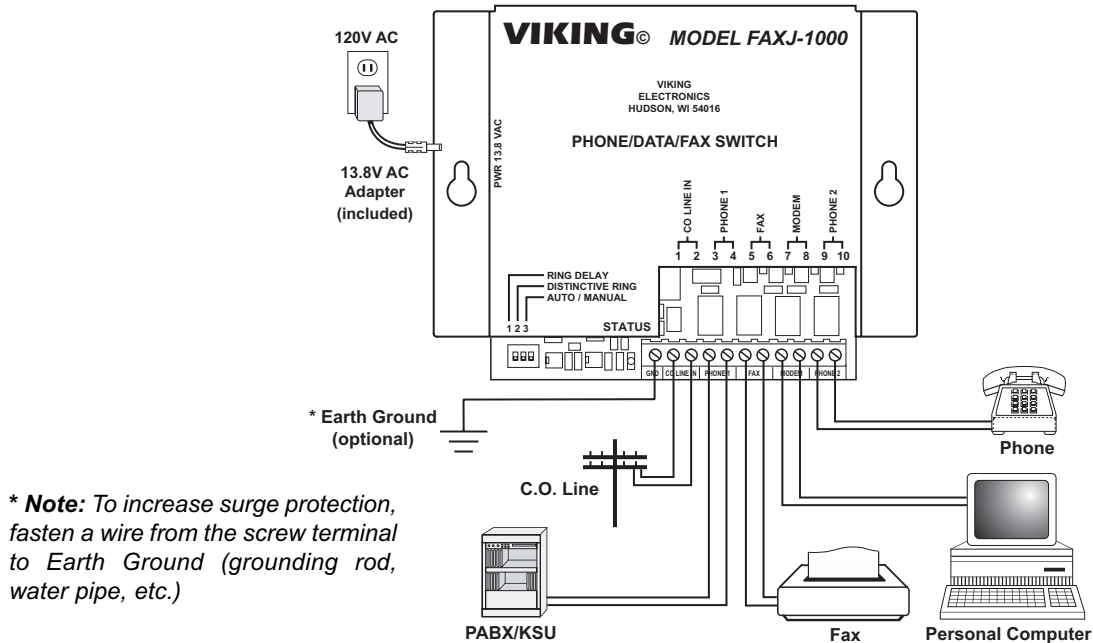
C. Installing a FAXJ-1000 on a Residential Line

The **FAXJ-1000** is designed to be wired at the Demarcation Point (the point where the phone line comes into the house), but in some cases this may not be possible or convenient. This section shows a way of hooking up the **FAXJ-1000** to any existing phone jack, provided the house is wired for at least two lines. A splitter/adapter is required for each jack in the house (ie: Radio Shack part # 279-402).

Step 1.	The connection of the **FAXJ-1000** to the telephone line can be at any extension wall jack. Unplug anything connected to the selected jack and plug a splitter/adapter into the jack.
Step 2.	Connect the **CO LINE IN** terminals of the **FAXJ-1000** to the Line 1 port of the splitter/adapter. If the phone line is a DSL line, a DSL filter should be installed as shown in the diagram below.
Step 3.	Connect the **PHONE 1** terminals of the **FAXJ-1000** to the Line 2 port of the splitter/adapter.
Step 4.	Unplug any phones at extension wall jacks located away from the **FAXJ-1000** and plug in splitter/adapters. Reconnect the phones to the Line 2 side of the splitter/adapters.

Note: At any point "down line" from the FAXJ-1000 where it is impractical to insert a splitter/adapter (ie: a wall mount phone), this type of jack can be converted by:

1. Swapping the GREEN wire with the BLACK wire.
2. Swapping the RED wire with the YELLOW wire.

*The phone can then be plugged into the converted jack.*

Note: To increase surge protection, fasten a wire from the screw terminal to Earth Ground (grounding rod, water pipe, etc.)
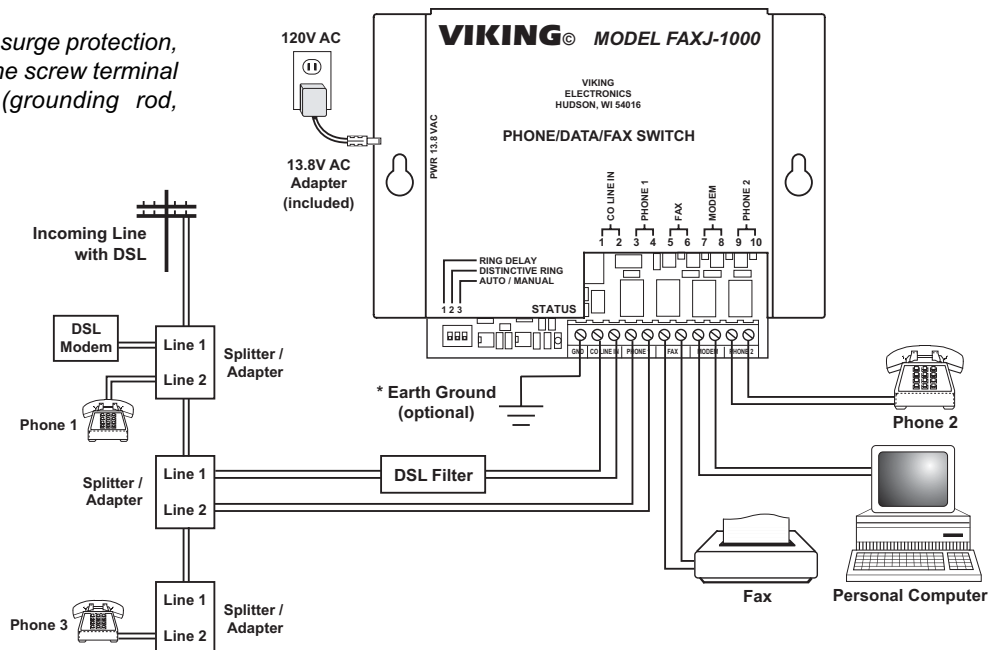
Programming

A. DIP Switch Programming

DIP Switch	Position	Description
1	OFF	Ring Limit: 5 rings (factory setting)
1	ON	Ring Limit: 10 rings
2	OFF	Distinctive Ring OFF (factory setting)
2	ON	Distinctive Ring ON
3	OFF	Automatic Answer (factory setting)
3	ON	Manual Answer

DIP Switches

ON

OFF

ON

1 2 3
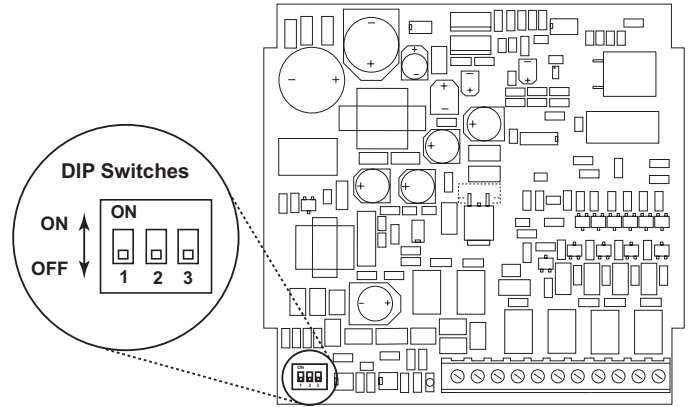
B. Accessing the Programming Mode

1. Accessing the Programming Mode Locally

Step 1.	Go off-hook on any of the device ports: **PHONE 1**, **FAX**, **MODEM** or **PHONE 2**.
Step 2.	Enter ✳ followed by **845464**.
Step 3.	Telephone company dial tone will be heard along with a double beep to indicate you have accessed the programming mode.
Step 4.	You can now Touch Tone program the features listed in section **C** (ignore busy signals, reorder tones or intercept messages heard while programming).
Step 5.	When finished programming, hang up.

* Note: The security code must be the first touch tones dialed after going off-hook, and they must be dialed within 10 seconds.

2. Accessing the Programming Mode Remotely

Step 1.	Call into the **FAXJ-1000** from a Touch Tone phone.
Step 2.	Answer the ringing line using the phone (or device) connected to any of the device ports (this may take a few moments if the **FAXJ-1000** is in the Automatic Answer mode).
Step 3.	Enter ✳ followed by **845464**.
Step 4.	A double beep will indicate that you have accessed the programming mode.
Step 5.	You can now Touch Tone program the features listed in section **C**.
Step 6.	When finished programming, hang up.

Note: Programming from a cell-phone may not be suitable in areas with weak coverage.
* Note: The security code must be the first touch tones dialed after going off-hook, and they must be dialed within 10 seconds.

C. Quick Programming Features

Enter Digits

Enable Caller ID (factory setting)	✳1
Disable Caller ID	✳2
Enable CNG detection (factory setting)	✳3
Disable CNG detection	✳4
Normal call processing (see **Operation** section **A**) (factory setting)	✳5
Fast call processing (see **Operation** section **A**)	✳6
Normal outgoing call mode (factory setting)	✳7
Internal call mode (see **Operation** section **E**)	✳8
Reset all programming to factory default settings	###

*Note: After making an entry, two beeps indicate the entry was correct and accepted into the **FAXJ-1000**'s memory. Three beeps indicate an incorrect entry that was not accepted.*
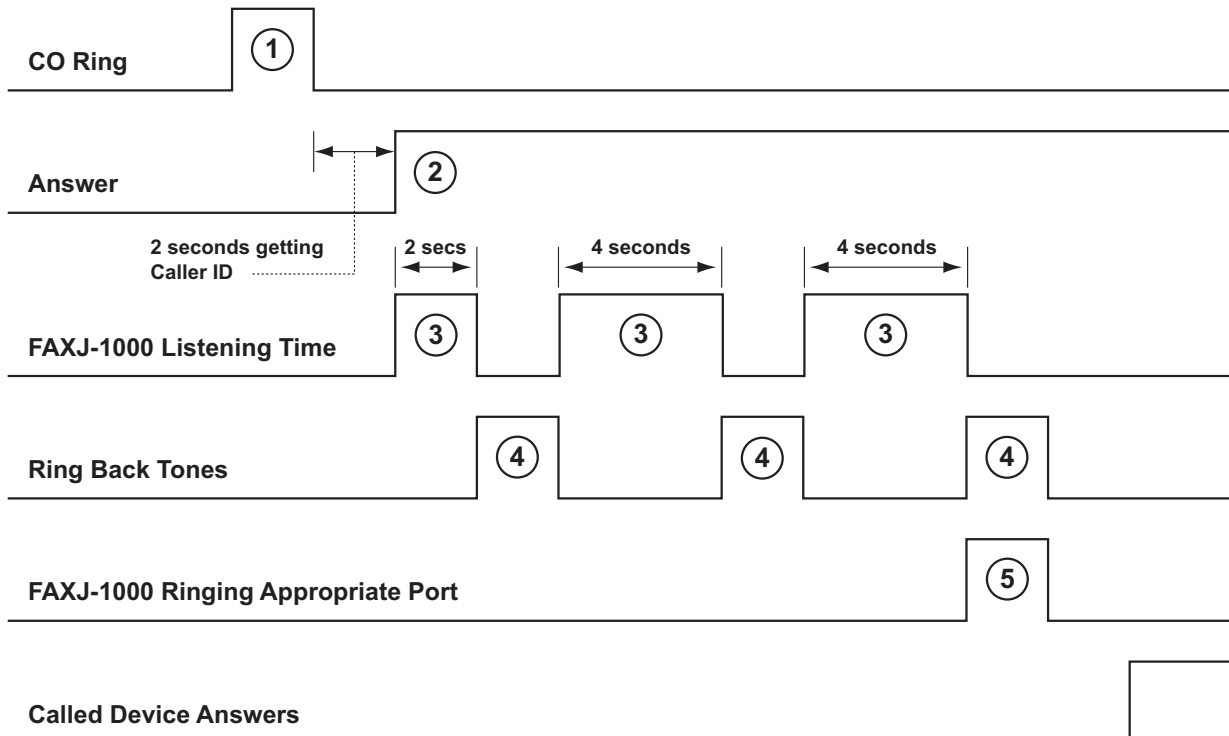
Operation

A. Automatic Answer Mode

*Note: If using distinctive ring service from the telephone company and distinctive ring is enabled (dip switch 2 set to **ON**), see **Operation**, section **F** and **G**.*

If caller ID is enabled, the **FAXJ-1000** waits two seconds after the first CO (telephone company) ring to receive and store the caller ID data and then answers the line. If caller ID is disabled, it answers the line immediately after the first ring. The **FAXJ-1000** then starts generating ringback tones to the caller every four seconds, while listening in the interval between ringbacks for fax CNG tones or Touch Tones to route the call (see **Operation**, section **D** for a description of how incoming touch tones can be used to route calls). If fax CNG tone or touch tones are detected, the **FAXJ-1000** starts ringing the appropriate device, maintaining four seconds of off time between rings. If fax CNG tones or touch tones are not detected after two ringbacks, the **FAXJ-1000** starts ringing the Phone 1 port. The selected port is rung until the ring limit is met (see **Operation**, section **F**).
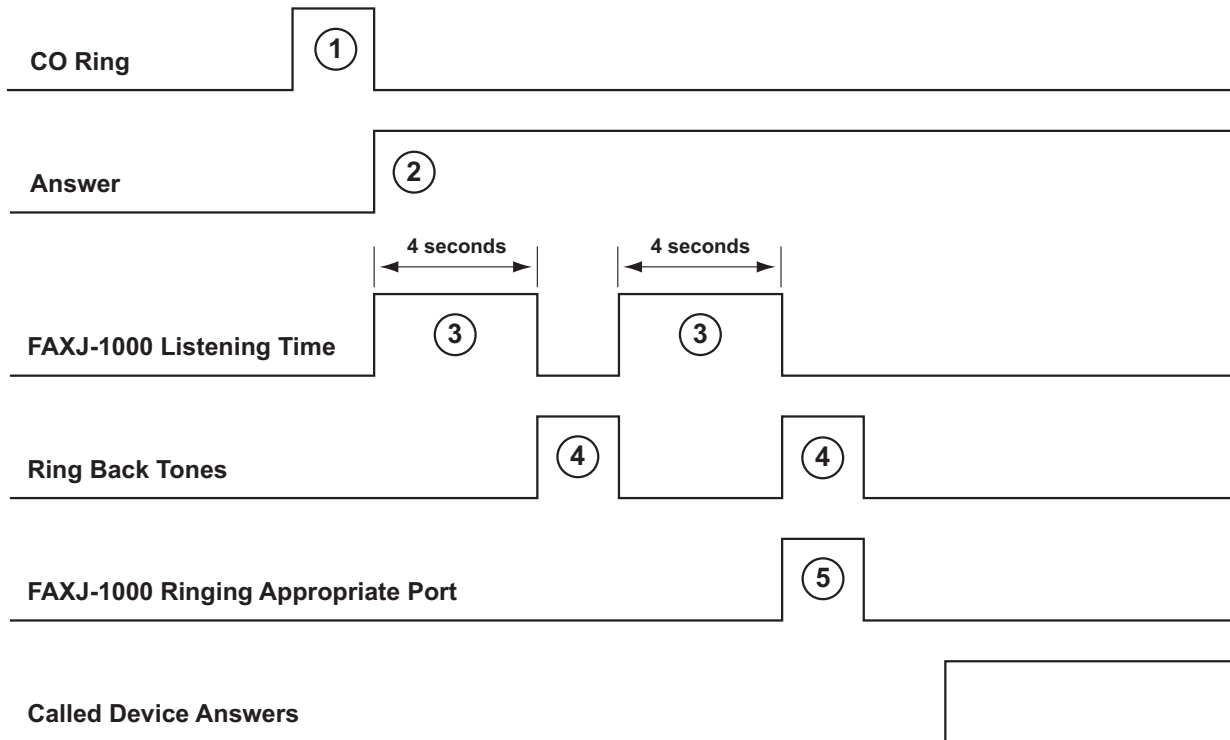
Step 1.	Incoming phone line rings. If caller ID is enabled, the **FAXJ-1000** delays for 2 seconds to capture and store the caller ID data.
Step 2.	The **FAXJ-1000** answers the line. The **FAXJ-1000** is compatible with distinctive ringing features offered by the telephone company. If you have the distinctive ring feature, the **FAXJ-1000** will direct the call to the appropriate port based on the ring cadence it detects (see **Operation**, section **G**).
Step 3.	The **FAXJ-1000** listens for one of the following: a. CNG tones (1100 hz tone burst) from an incoming automatic fax machine wishing to be connected to the on-premise fax machine. b. Touch tones from an incoming caller wishing to be connected to a specified device (i.e. "11111" for the Fax port, "22222" for the Modem port, "33333" for the Phone 1 port and "44444" for the Phone 2 port). c. Two touch tones from an incoming caller, a touch tone "**#**" and a second touch tone to route the call (ie: **#1** for the fax port, **#2** for the modem port, **#3** for the Phone 1 port or **#4** for the Phone 2 port).
Step 4.	The **FAXJ-1000** generates ring back tones to the incoming caller. In the below example the caller hears one CO ring back plus three **FAXJ-1000** ring back tones (before getting answered by the called device).
Step 5.	The **FAXJ-1000** generates ringing (routes the incoming call) to the appropriate port based on what was detected. If none of the above signals were detected, the **FAXJ-1000** generates ringing (routes the incoming call) to the Phone 1 port.

1. Automatic Answer Mode Incoming Call Sequence, Caller ID <u>Enabled</u>

*Note: If fast call processing is enabled (see **Programming** section **C**), the second 4-second listening time is eliminated, so that the **FAXJ-1000** rings the appropriate port after the first 4-second listening time. Enabling fast call processing can make it more likely for a fax call to be incorrectly routed to the Phone 1 port because CNG tone is not detected.*

2. Automatic Answer Mode Incoming Call Sequence, Caller ID <u>Disabled</u>

CO Ring	①

Answer	②

4 seconds   **4 seconds**

FAXJ-1000 Listening Time	③ ③

Ring Back Tones	④ ④

FAXJ-1000 Ringing Appropriate Port	⑤

Called Device Answers

B. Manual Answer Mode

*Note: If using distinctive ring service from the telephone company and distinctive ring is enabled (dip switch 2 set to ON), see **Operation**, section **G**.*

In the manual answer mode, CO ringing passes directly through to the Phone 1 port. In this mode, the **FAXJ-1000** waits for the call to be manually answered by the Phone 1 port and then begins watching for fax CNG tones or touch tones to route the call. The Phone 1 port will continue to ring, subject to the Ring Limit (see **Operation**, section **F**). If the call is answered by the Phone 1 port and a fax CNG tone is detected, the **FAXJ-1000** provides a busy signal to Phone 1 and starts ringing the call to the FAX port. Phone 1 can also dial a touch tone transfer command to transfer the call to another port (see **Operation**, section **C**). Following the transfer command, the **FAXJ-1000** provides a busy signal to Phone 1 and starts ringing the call to the appropriate port.

C. Transfers

While the **FAXJ-1000** is a four-port unit, only one port can be connected to the phone line at any given time. If, for example, the Phone 1 port is using the line and any of the other ports tries to make a call, they are given an internally-generated busy signal. However, the **FAXJ-1000** has the ability to transfer calls from one port to another.

Touch Tone	Port
#1	Fax
#2	Modem
#3	Phone 1
#4	Phone 2

Calls are transferred by dialing "#" + the number associated with the port you want to transfer the call to. These two touch tones must be the first touch tones dialed by the phone or device making the transfer in order to prevent accidental transfers during other dialing sequences.

When a transfer command is detected, the transferring port is provided with a busy signal and the **FAXJ-1000** starts ringing the port that the call is being transferred to. It keeps track of the port that initiated the transfer so it can ring that port back if the called port doesn't answer. Any **FAXJ-1000** port that is connected to the phone line can transfer and there is no limit to the number of transfers on a given call.

*Note: If a phone is wired on the **CO LINE IN** side of the **FAXJ-1000** and you want to stop the **FAXJ-1000** from transferring, pick up the phone and dial **#0**. The **FAXJ-1000** will then hang-up and you will have the call.*

D. Touch Tone Routing

In the automatic answer mode, the **FAXJ-1000** looks for touch tones as one method of routing the call to the correct device. These touch tones are dialed at the calling end, most often by an automatic device like a modem. In this example, the REMOTE modem dials the phone number of the **FAXJ-1000**, and then executes a series of pauses long enough to allow the call to connect (the CO to produce one ring and the **FAXJ-1000** to answer). After the **FAXJ-1000** answers, the modem dials a series of touch tone "2's" to signal that the call should be sent to the modem port (the **FAXJ-1000** needs to detect at least three touch tones to consider the string a valid command). When the **FAXJ-1000** detects the series of "2's" has ended, it then starts ringing the modem port. The chart to the right shows how the touch tones and the **FAXJ-1000** ports are correlated:

It is also possible for the person calling the **FAXJ-1000** to route themselves to one of four **FAXJ-1000** devices by dialing a "**#**" plus a touch tone 1-4 after the **FAXJ-1000** has answered and while the **FAXJ-1000** is listening for CNG tone. "**#1**" steers the call to the Fax port, "**#2**" to the Modem port, "**#3**" to the Phone 1 port and "**#4**" to the Phone 2 port.

Touch Tone	Port
1-1-1	Fax
2-2-2	Modem
3-3-3	Phone 1
4-4-4	Phone 2

E. Internal Calls

The internal call mode gives you the ability to create an "internal" call from one port of the **FAXJ-1000** to any other port. This allows the phones behind the **FAXJ-1000** to selectively call any phone on another port and communicate with that phone. When the two ports are connected together, the telephone line is disconnected so you don't hear busy signals, re-order tones or intercept messages while talking. It works like this:

When you go off hook on one of the ports, you are connected to dial tone from the telephone line. You then dial "#1" through "#4" to ring another port ("#1" = Fax, "#2" = Modem, "#3" = Phone 1 and "#4" = Phone 2). When the "#1" through "#4" is dialed, the telephone line is disconnected and you begin to hear a simulated ringback tone (single frequency ringback tones – 500 Hz – 2 seconds on, 4 seconds off), as the **FAXJ-1000** sends ringing to the appropriate port. Interrupted ringing is provided to the appropriate port until the call is answered or the port that originated the call hangs up (no limit to the number of rings). When the other port answers the call, the two ports are connected together and can communicate. Once both phones hang up, the **FAXJ-1000** returns to idle.

F. Ring Limit and Rollover

How incoming calls and Ring No Answer (RNA) situations are handled depends on the operational mode selected (automatic or manual), the type of incoming call (voice, fax, modem, etc.) and how the call was sent to the port (transferred call, CNG detected, etc.). The following charts show how calls are handled in both operational modes and all situations.

1. Manual Answer Mode

Call Type	Ring Limit 5 (DIP switch 1 OFF)	Ring Limit 10 (DIP switch 1 ON)
Any Inbound Call	1. 5 CO rings to Phone 1 port. 2. If RNA, **FAXJ-1000** answers the call and 5 rings to Fax port. 3. If RNA, **FAXJ-1000** hangs up.	1. Unlimited number of CO rings to Phone 1 port (**FAXJ-1000** does not answer).
Phone Answers, Fax CNG is Detected	1. 5 rings to Fax port. 2. If RNA, **FAXJ-1000** hangs up.	1. 5 rings to Fax port. 2. If RNA, **FAXJ-1000** hangs up.
Distinctive Ring Routing to Fax, Modem or Phone 2	1. 5 rings to selected port. 2. If RNA, **FAXJ-1000** hangs up.	1. 5 rings to selected port. 2. If RNA, **FAXJ-1000** hangs up.
Transferred Call	1. 5 rings to selected port. 2. If RNA, 5 rings to port originating transfer (rollback). 3. If RNA, **FAXJ-1000** hangs up.	1. 5 rings to selected port. 2. If RNA, 5 rings to port originating transfer (rollback). 3. If RNA, **FAXJ-1000** hangs up.

2. Automatic Answer Mode

Call Type	Ring Limit 5 (DIP switch 1 OFF)	Ring Limit 10 (DIP switch 1 ON)
Voice Call	1. 5 rings to Phone 1 port. 2. If RNA, 5 rings to Fax port. 3. If RNA, **FAXJ-1000** hangs up.	1. 10 rings to Phone 1 port. 2. If RNA, **FAXJ-1000** hangs up.
Fax Call (CNG)	1. 5 rings to Fax port. 2. If RNA, 5 rings to Phone 1 port. 3. If RNA, **FAXJ-1000** hangs up.	1. 5 rings to Fax port. 2. If RNA, 10 rings to Phone 1 port. 3. If RNA, **FAXJ-1000** hangs up.
Touch Tone Routing or Distinctive Ring Routing Fax or Modem Port	1. 5 rings to Fax or Modem port. 2. If RNA, 5 rings to Phone 1 port. 3. If RNA, **FAXJ-1000** hangs up.	1. 5 rings to Fax or Modem port. 2. If RNA, 10 rings to Phone 1 port. 3. If RNA, **FAXJ-1000** hangs up.
Touch Tone Routing or Distinctive Ring Routing Phone 1 or Phone 2 Port	1. 5 rings to Phone 1 or Phone 2 port. 2. If RNA, **FAXJ-1000** hangs up.	1. 5 rings to Phone 1 or Phone 2 port. 2. If RNA, **FAXJ-1000** hangs up.
Transferred Call	1. 5 rings to selected port. 2. If RNA, 5 rings to port originating transfer (rollback). 3. If RNA, **FAXJ-1000** hangs up.	1. 5 rings to selected port. 2. If RNA, 5 rings to port originating transfer (rollback). 3. If RNA, **FAXJ-1000** hangs up.

G. Distinctive Ringing

Distinctive ringing is an option provided by some telephone companies which permits extremely accurate routing of calls. When using this feature, you are issued several telephone numbers while having only one actual telephone line. When dialed, each number will ring "distinctively". The **FAXJ-1000** can differentiate a distinctive ring cadence from a standard ring cadence and route the call accordingly. "Normal" ring cadences are routed to the Phone 1 port while distinctive ringing is routed to the other ports.

On "normal" rings, the **FAXJ-1000** will still monitor for fax CNG tones and touch tones, before sending the call to the Phone 1 port.

Note: *If your "normal" ring is less than 1.8 seconds or a double ring, etc., you cannot use this feature.*

When the distinctive ring option is enabled in the **FAXJ-1000**, the automatic and manual answer modes can still be selected. The manual answer mode (dip switch 3 set to on) should only be used if telephone company voice mail is used on the same line as the **FAX-1000**. In the manual answer mode, the **FAXJ-1000** does not answer the line ("normal" ring patterns), allowing compatibility with the telephone company provided voice mail. If there is no telephone company voice mail on the line, the automatic answer mode (dip switch 3 set to off) should be used.
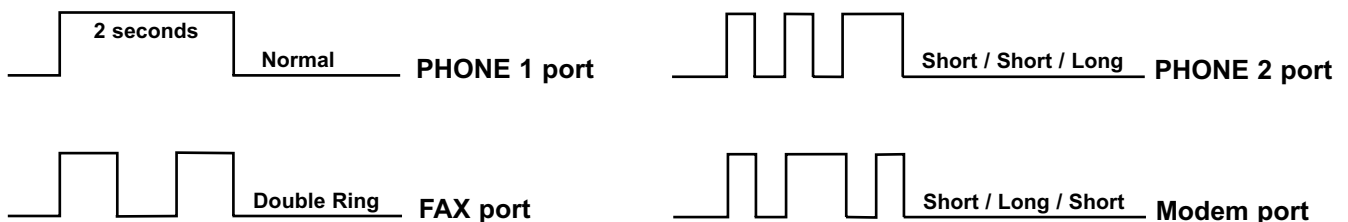

1. Automatic Answer Mode

In the automatic answer mode, the **FAXJ-1000** monitors the ring pattern of the first CO (telephone company) ring. If the **FAXJ-1000** detects a distinctive ring pattern, it answers the call and starts ringing the device specified by the distinctive ring pattern. If the **FAXJ-1000** detects a "normal" ring pattern, it answers the call then starts generating ringback tones to the caller every four seconds, while listening in the interval between ringbacks for fax CNG tones or touch tones to route the call (see **Operation**, section **D** for a description of how incoming touch tones can be used to route calls). If fax CNG tone or touch tones are detected, the **FAXJ-1000** starts ringing the appropriate device, maintaining four seconds of off time between rings. If fax CNG tones or touch tones are not detected after two ringbacks, the **FAXJ-1000** starts ringing the Phone 1 port. The selected port is rung until the ring limit is met (see **Operation**, section **F**).

2. Manual Answer Mode

In the manual answer mode, CO (telephone company) ringing passes directly through to the Phone 1 port. If the **FAXJ-1000** detects a distinctive ring pattern, it stops allowing the CO ring to pass through to Phone 1 and starts ringing the device selected by the distinctive ring pattern. If the ring cadence is a "normal" ring, the **FAXJ-1000** waits for the call to be manually answered by the Phone 1 port and then begins watching for fax CNG tones or touch tones to route the call. The Phone 1 port will continue to ring, subject to the Ring Limit (see **Operation**, section **F**). If the call is answered by the Phone 1 port and a fax CNG tone is detected, the **FAXJ-1000** provides a busy signal to Phone 1 and starts ringing the call to the FAX port. Phone 1 can also dial a touch tone transfer command to transfer the call to another port (see **Operation**, section **C**). Following the transfer command, the **FAXJ-1000** provides a busy signal to Phone 1 and starts ringing the call to the appropriate port.

The drawings below show the ring cadences and the **FAXJ-1000** ports they are correlated to:

| 2 seconds Normal | **PHONE 1 port** | Short / Short / Long | **PHONE 2 port** |
| Double Ring | **FAX port** | Short / Long / Short | **Modem port** |

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