

# VIKING PRODUCT MANUAL

COMMUNICATION &amp; SECURITY SOLUTIONS

## Interface Your Paging System with Nearly Any Phone System!

Viking's Telecom Paging Interface allows you to provide paging from nearly any phone system instead of from a microphone. You can also provide background music and electronic night bell over the audio system.

The **PI-1A** features a built-in voice activated (VOX) or AC ring activated relay which provides D.P.D.T. contacts for muting background music during paging or to provide an electronic night bell. These contacts are necessary when interfacing with systems such as Panasonic, South Western Bell, In-tertel, etc., which do not provide a paging contact closure.

In the event a paging port is not available, the **PI-1A** can provide talk battery to allow connection of the public address system to an unused line/trunk input on the phone system.



The electronic night bell feature is activated by a standard ringing analog PABX/KSU station circuit or by a common audible contact closure provided by an electronic key system. The ring pitch and volume are adjustable allowing you to differentiate between multiple ringing lines.

### Features

- Floating 600 ohm output
- **Selectable 22V DC talk battery for interfacing with unused phone system line input/trunk ports**
- Paging port interface
- Ringing analog line input for night bell
- Contact closure input for night bell
- DPDT normally open and normally closed VOX activated contacts for cutting out background music
- Adjustable VOX contact time-out
- **Adjustable VOX trigger sensitivity**
- Adjustable ring volume
- **Adjustable ring pitch**
- Wall mount housing: (2) #6x3/4 panhead screws included

### Applications

- Integrate your public address system with nearly any phone system
- Cut out background music during paging
- Electronic night bell from ringing line or contact closure

**Note:** The **PI-1A** is not compatible with ring trip paging applications. See Viking models **FXI-1** (DOD# 494), **PA-15** (DOD# 486), or **RAD-1A** (DOD# 410).

### Specifications

**Power:** 120V AC/12V DC 500mA, UL listed adapter provided

**Dimensions:** 111mm x 76mm x 36mm (4.38" x 2.97" x 1.38")

**Shipping Weight:** .48 kg (1.06 lbs)

**Environmental:** 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity

**Relay Contacts:** 30V DC@1A, 110V DC@0.3A, 125V AC @ 0.5A

**Maximum Ring Output:** 0.5V AC RMS no load, 0.4V AC RMS @ 600 ohms

**VOX Minimum Audio Signal to Activate Relay:** At 1KHz with VOX sensitivity POT set to minimum: -17dbm, with POT set to maximum: -37dbm

**VOX Time Out Delay:** 0.9 sec min / 4.3 sec max

**Talk Battery:** 22V DC

[www.vikingelectronics.com](http://www.vikingelectronics.com)  
Information: (715) 386-8861

## Features Overview

**IMPORTANT:** Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges.

**VOX Trigger Sensitivity:** Turn the pot to the left to decrease and the right to increase VOX trigger sensitivity.

**VOX Time Out Delay:** The voice activated contact closures, terminal screws 1, 2, 3 (Aux Relay) and 5, 6, 7 (Primary Relay) on the **PI-1A**, have an adjustable time out delay from 0.9 to 4.3 seconds.

**Ring Pitch Control:** Turn the pot to the left to decrease and the right to increase the ringing (warble) pitch.

**Ring Volume Control:** Turn the pot to the left to decrease and the right to increase the ringing (warble) volume. Minimum: 0mV RMS, maximum: 490mV RMS.

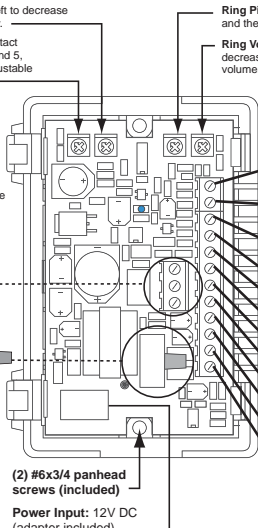
### Auxiliary Relay

The auxiliary relay is a second set of contacts that work in conjunction with the primary relay, (terminal screws 5, 6, 7).

- 3: Normally Closed
- 2: Common
- 1: Normally Open

PP  
Talk Battery Switch T

Switch	Talk Battery	For Use With:
PP	OFF	Paging port output of PABX/ KSU
T	ON	Unused Line/ Trunk input of PABX/KSU



Pin	Description
12	<b>Positive 12V:</b> A regulated 12VDC output provided to operated external relays or other devices (use terminal 11 as common).
11	<b>Ground:</b> Used as the ground (common) for terminals 10 and/or 12.
10	<b>Night Ring Contact Closure Input:</b> Produces ringing over the paging system when shorted to Ground (terminal 11).
9	<b>Line in:</b> A ringing line will produce ringing over the paging system.
8	
7	Normally closed relay contact
6	Common relay contact
5	Normally open relay contact
4	<b>Audio Out:</b> Floating 600 Ohm output, connect to input of paging amplifier.
3	
2	<b>Audio In:</b> Connect to a page port output or an unused C.O. line input (trunk/FXO port).
1	

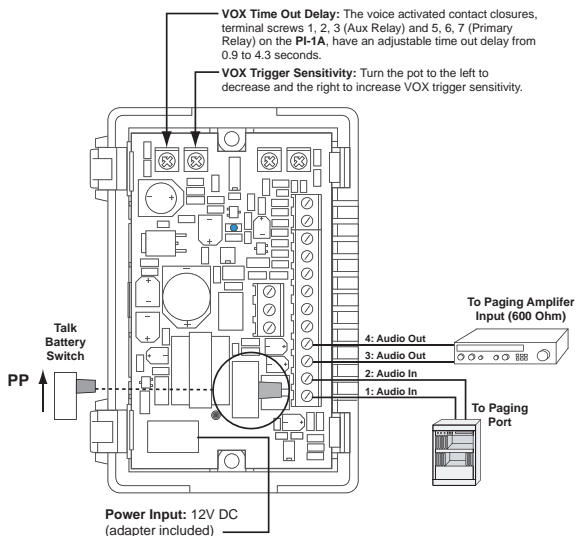
## Installation and Programming

### A. Paging

#### 1. Paging Port

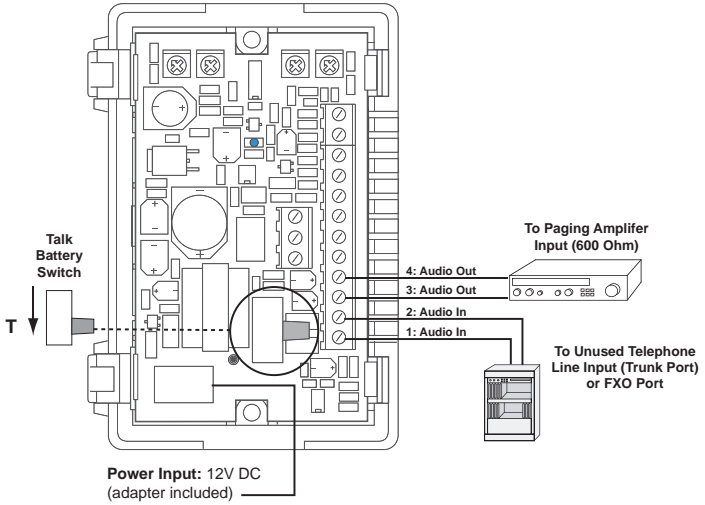
<b>Step 1.</b>	Move the Talk Battery Switch to the PP position.
<b>Step 2.</b>	Connect terminals 1 & 2 to the paging port.
<b>Step 3.</b>	Connect terminals 3 & 4 to a line level input on your amplifier.

**Note:** The VOX trigger sensitivity will probably not need to be adjusted unless the **PI-1A** is disconnecting in the middle of a page (turn clockwise to increase sensitivity if this is the case) or the **PI-1A** is not disconnecting on periods of silence longer than the VOX time out delay (turn counter clockwise to decrease sensitivity if this is the case).



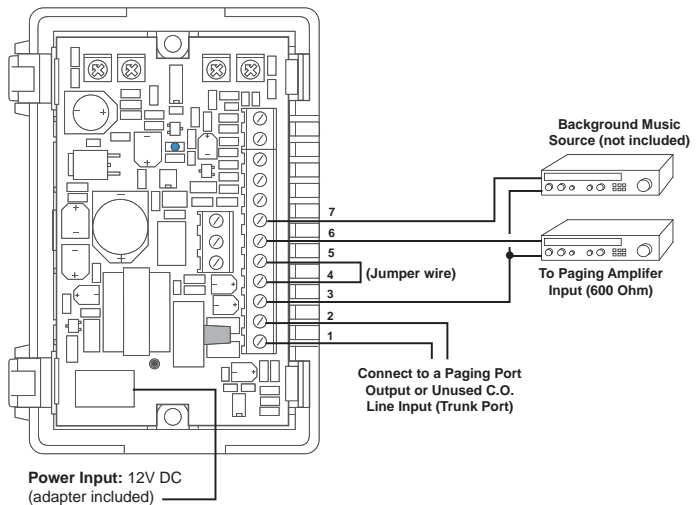
## 2. Trunk / FXO Port

<b>Step 1.</b>	Move the Talk Battery Switch to the T position.
<b>Step 2.</b>	Connect terminals 1 & 2 to the trunk/FXO port.
<b>Step 3.</b>	Connect terminals 3 & 4 to a line level input on your amplifier.



## B. Adding Background Music to Your Paging System in All Page Modes

<b>Step 1.</b>	Connect a background music source to terminals 3 & 7.
<b>Step 2.</b>	Connect a jumper wire between terminals 4 & 5.
<b>Step 3.</b>	Connect a line level input on your amplifier to terminals 3 & 6.



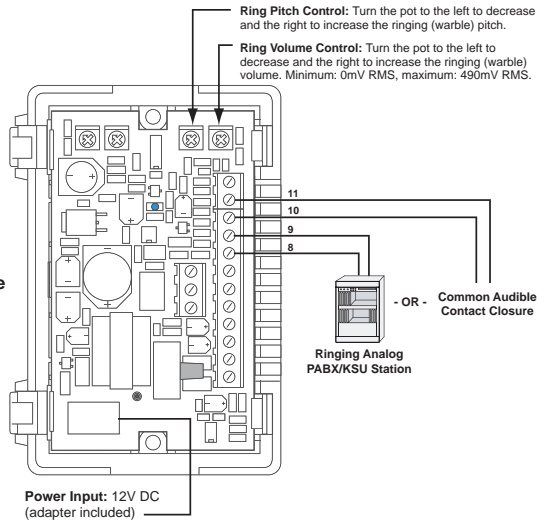
## C. Loud Ringing / Night Bell

### 1. Ringing Analog Line

<b>Step 1.</b>	Connect terminals 8 & 9 to a ringing line, FXS or analog PABX station.
<b>Step 2.</b>	Adjust the Ring Pitch Control as desired.
<b>Step 3.</b>	Adjust the Ring Volume Control as desired.

### 2. Dry Contact (Common Audible) Closure from Phone System

<b>Step 1.</b>	Connect terminals 10 & 11 to the common audible dry contact closure.
<b>Step 2.</b>	Adjust the Ring Pitch Control as desired.
<b>Step 3.</b>	Adjust the Ring Volume Control as desired.



**Note:** Either method may be used.

## Warranty

**IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, 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 Viking product 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.

### TWO YEAR 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 two years from the date of purchase from any authorized Viking distributor. 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. This warranty does not cover non-EWP products that have been exposed to wet or corrosive environments. This warranty does not cover stainless steel surfaces that have not been properly maintained.

**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.

**Product Support: (715) 386-8666**

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