

Multi-Purposed PC to Phone Line Bridge for Polling and Automatic Programming



The **PB-100** is used to provide status polling and programming of Viking **1600A** Series Emergency Phones. The **PB-100** can connect to a USB port on your PC with the included RS-232 to USB converter cable. Downloadable software is available with these two applications along with software for programming other Viking products.

When used to poll **1600A** or **E-1600-IP Series**

Emergency Phones, the application software allows the user to set up a list of phones to call along with a scheduled time for calling. Through the **PB-100**, each phone can be called, its ID code verified and it's mic and speaker tested. When finished, the application software logs the time of the call and the results. Emails can be sent with SMTP on failures.

Features

- Compatible with Windows XP, 8, 10, 11
- USB to RS-232 cable provided
- Audio out jack for monitoring
- Email notification

Specifications

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

Dimensions: 5" x 5" x 1.5" (127mm x 127mm x 25mm)

Weight: 3 lbs (1.36 kg)

Environmental: 32°F to 90°F (0°C to 32°C)

Humidity: 5% to 95% non-condensing

PC Interface: 9-pin RS-232 or USB port (cable included)

Software/Hardware Requirements:

- IBM Compatible personal computer with an available serial port
- Windows: XP, 8, 10, 11

Applications

Software Available for:

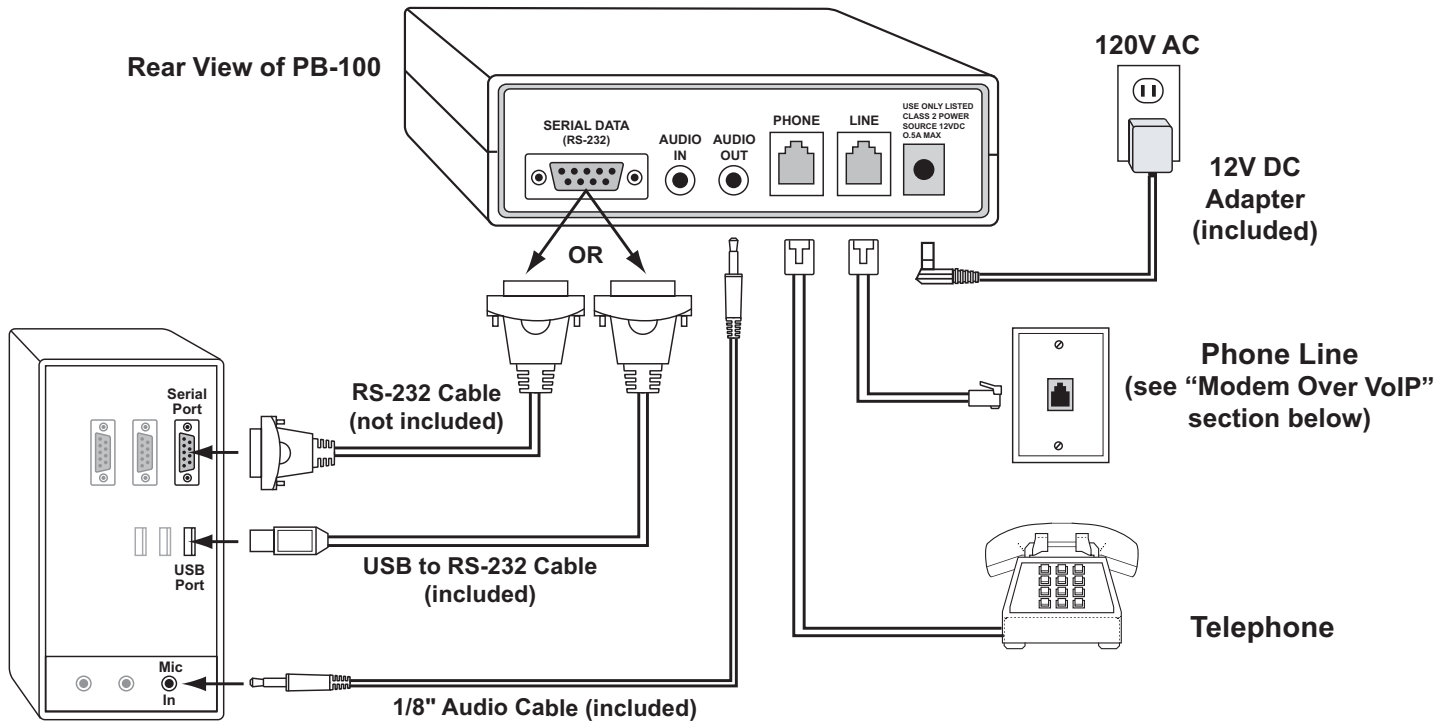
- **1600A** and **E-1600-IP Series** Emergency Phone Polling
- 1600A and E-30(Analog) Automated Programming
- Hotel / Motel Wake Up Calling

www.VikingElectronics.com
Information: 715-386-8861

Hardware Installation

The **PB-100** comes complete with a telco cord, USB to RS-232 converter cable, audio cables, and a 12V DC power adapter.

Step 1	Using the telco cord, connect a phone line to the rear panel jack labeled “ LINE ”.
Step 2	Connect one end of a 9 pin serial cable (not included) into the jack labeled “ SERIAL DATA ” and the other end into an open serial port of the PC. If a serial port or serial cable is not available, use the included RS-232 to USB cable to connect to a USB port. See the Software and Installation section.
Step 3	If audio is to be used through the PB-100 , connect the “Audio In” or “Mic In” of the sound card to the “ AUDIO OUT ” port of the PB-100 .
Step 4	Plug the 12V DC power adapter (included) into the rear panel power jack.



Software and Installation

A. USB to RS-232 Converter Cable Driver Installation

Plug the RS-232 to USB Converter Cable into a USB port on your PC. The Driver will install automatically. If any problems arise the driver installer is available on our website. USB to RS-232 Cable Software.

B. Downloadable Software (go to www.VikingElectronics.com/products/PB-100)

The **PB-100** hardware can runs several different applications. The following is a brief description of the software.

1. 1600 Series Polling Software

Polling: This software will automatically test the functionality of **1600A or E-1600-IP Series** emergency telephones on a repeating schedule. It can use up to (10) **PB-100's** at once to dial each phone and test it for ID codes and microphone/speaker function, keeping a time-stamped log of all results. The software can also be used to automatically program units in the field. For IP devices, this test validates the network path in addition to the hardware. A DID number is required for the device to receive calls.

Programming: Any **1600A Series** (or E-30, E-35, etc.) can be programmed using pre-configured settings. The unit settings are configured in the E1600 Polling/Programming software then the 'Auto Program' feature is used to call the device using the PB-100 and touch tone program all settings. See Section G for more information.

2. Smart Terminal Diagnostic Software

Smart Terminal is diagnostic program that allows the user to send and receive data directly to a COM port of your PC. ASCII, Hex and Decimal data can be entered, decoded and sent out the selected ports. Two separate display areas allow the user to view data coming in on either port. This utility is useful for troubleshooting the connection between the **PB-100** and your PC. If an "H" followed by Enter is received by the **PB-100**, it will send back a "K" and a carriage return. Do this to assure you have the correct com port configured for the **PB-100**.

3. Wake Up Caller Software

This software allows a small hotel or motel to use the **PB-100** to make scheduled wake up calls to any phone number. Set up alarms to repeat on certain days, announce the time and play a message.

C. Hardware Requirements

- IBM compatible personal computer with Windows XP 8, 10, 11
- **PB-100** hardware
- Male sub-D 9 pin cable or USB to RS-232 converter cable (provided with **PB-100** hardware)
- Available RS-232 serial port or USB port
- Windows compatible sound card
- 5MB minimum free hard drive space for each installation
- 8MB of free physical RAM for each **Viking** application running

D. Installing Viking PB-100 Software

Step 1	On your PC go to: www.vikingelectronics.com/products/pb-100/
Step 2	On the right side of the page under SOFTWARE & DOWNLOADS , click the desired application.
Step 3	Once downloaded onto your PC, double-click the file to install and follow the directions.

Important: The steps listed above are a general guideline for installing Viking software on Windows 10 / 11 systems. Installing software on your PC may be performed differently than shown.

E. Uninstalling Viking PB-100 Software

Step 1	On your PC go to "Add or Remove Programs".
Step 2	Select the Viking software you want to remove.
Step 3	Click "Uninstall".

Important: The steps listed above are a general guideline for uninstalling Viking software on Windows 10 / 11 systems. Uninstalling software on your PC may be performed differently than shown.

F. Email Notification

The E1600 Polling software can use SMTP to send out email notifications or text messages on polling failures. A server like Gmail or Zoho is used to send outbound mail. A list of email accounts can be set to receive notifications. These can be sent to a single email for all faults, or to individual addresses for each failure (program a unique email address for each phone).

NOTE: For SMTP with Gmail and Zoho, an 'App Password' should be used instead of the account password.

G. Auto programming Emergency and Entry Phones

Requirements: **PB-100** with the provided 12VDC Adaptor and USB cable. Phone line or PBX extension connected with the supplied Line Cord. A Windows PC to run the E1600 Polling software and store the settings.

The E1600 Polling (and programming) software will store thousands of units' programming settings alongside the polling options. This allows an installer to re-program a phone at any time due to a replacement or upgrade. The settings can easily be duplicated and modified for newly purchased phones.

For devices behind a PBX, a PB-100 will be needed locally at the site. Devices on POTS lines (or those that are reachable from POTS lines) can be programmed from anywhere and a single PB-100 can serve multiple sites.

1. Unit Setup Example

From the Main screen select 'Tools->'Unit Setup'. The 'Unit Setup' page in the images below is for a device connected to a public line at 7155551234. The software is set up to program a phone number for dialing out as well as all the timing and dialing options:

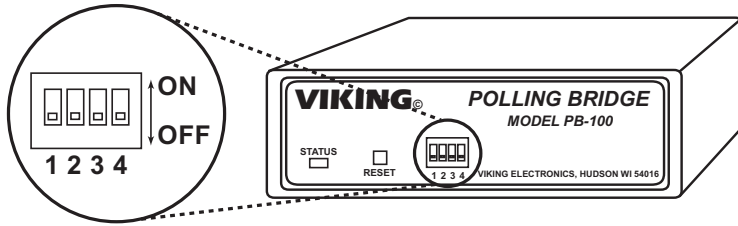
The screenshot shows the 'Unit Setup' window. On the left, a list of units is displayed with 'East Building - North Elevator' selected. Below the list are buttons for 'Add', 'Remove', 'Copy', and 'Paste'. On the right, the 'Unit Info' tab is active, showing fields for 'Name' (East Building - North Elevator), 'Phone Number' (7155551234), 'Security Code' (845464), 'New Security Code' (empty), and 'ID Code' (654321). There is a checkbox for 'Enable mic/speaker diagnostic' which is unchecked. At the bottom right are buttons for 'Sort Units', 'View Errors', 'Save', and 'Close'.

2. Device Programming Settings (Analog Units Only)

The screenshot shows the 'Unit Setup' window with the 'Call Parameters' tab active. The left sidebar is the same as in the previous image. The right panel contains various settings for analog units, including 'Talk/Listen Delay' (2 sec), 'Max Call Length' (3 min), 'Silence Time Out' (40 sec), 'Dial Next on RNA' (7), 'Panasonic Mode' (Disabled), 'Hang up on return to Dial Tone' (Enabled), 'Call Next on Busy' (Enabled), 'Pulse Dialing Rate' (10 PPS), 'Lap Counter' (Disabled), 'Announcement Delay' (Auto), and 'Repeat Announcement' (Cont). Buttons for 'Sort Units', 'View Errors', 'Save', and 'Close' are at the bottom right.

Once you are happy with all the settings click on 'Save' to store them on the PC and close the Unit Setup window. Select 'Tools->Auto Program' and select the unit to be programmed from the list on the left and click 'Send'. The software will call the unit and print the status in the 'Results' window on the right. If there is a failure it will retry once and then notify the user of a failure and log it.

Programming



Switch	Position	Description
1	OFF	1600A Series polling mode disabled
1	ON	1600A Series polling mode enabled
2	OFF	Not Used leave in "OFF" Position
2	ON	Not Used leave in "OFF" Position
3	OFF	1600A Series mic/speaker test disabled
3	ON	1600A Series mic/speaker test enabled
4	OFF	Audio attenuation disabled
4	ON	Audio attenuation enabled

A. 1600A Series Polling

For polling **1600A Series** products, set dip switches 1 and 3 to ON, 2 and 4 to OFF. Viking E-1600 devices should have 'Auto-Answer' enabled (via hardware or programming) for polling. Add devices to poll with the "Unit Setup" screen. The 'Name' and 'Phone Number' values are required to poll a phone. For IP devices, the Phone Number is the IP extension or DID number of the phone. The checkbox for 'Enable mic/speaker diagnostic' is used to test audio functionality when the call is auto answered.

Unit Setup

Units

Unit Name

Front Door

unit-2

unit-3

unit-4

unit-5

unit-6

unit-7

unit-8

unit-9

unit-10

Add

Remove

Copy

Paste

Unit Info

Call Button

Info Button

Central Station

Call Parameters

Notify Email

Name

Front Door

Phone Number

472

Security Code

845464

New Security Code

ID Code

654321

☒ Enable mic/speaker diagnostic

Sort Units

View Errors

Save

Close

Warranty

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

Our Technical Support Department is available for assistance Monday through Friday 8:00am to 5:00pm central time. Before you call, please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have the Product Manual 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. The original product boxes are not designed for shipping - an overpack box is required to prevent damage 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 RA 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 (RA) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the RA number, return the approved equipment to your distributor. Please reference the RA number on the paperwork being shipped back with the unit(s), and also the outside of the shipping box. The original product boxes are not designed for shipping - an overpack box is required to prevent damage in transit. Once your distributor receives the package, they will replace the product over the counter at no charge. The distributor will then return the product to Viking using the same RA number.
4. **The distributor will NOT exchange this product without first obtaining the RA 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.

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Product Support: 715-386-8666

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