

APPLICATION Note

TELECOM SOLUTIONS FOR THE 21ST CENTURY

**Using the PB-100
for All-Call Dialing**

March 22, 2002

Using the PB-100 to Make Calls and Announcements From a Database



The **PB-100** hardware and software provides inexpensive PC to Telephony applications on an open source basis and makes it easy to create your own application solutions using standard programming languages such as Microsoft's Visual Basic®. Applications such as message announcement centers, auto attendants, voice dialers and auto attendants may easily be created to your custom specifications.

The **PB-100** accepts simple ASCII serial commands to seize the phone line, dial or decode DTMF Touch Tones, watch for busy signal, detect loop status, perform timed hook-switch flashes or hang-up the line. If your PC is equipped with a sound card, the audio ports can also be coupled to the phone line through the **PB-100** for voice recording or playing announcements using standard file formats such as .wav files.

The **PB-100** hardware features a serial port interface, an "AUDIO IN" and "AUDIO OUT" port, an analog C.O. line interface and an analog phone port. Several pre-written applications are included and can be installed for use. In addition, all available source code is provided to allow changes or improvements to existing programs.

Features

- Compatible with Windows 95, 98, ME, NT 4.0, 2000
- Male sub-D 9 pin cable provided
- 20 digit Touch Tone buffer
- Accepts standard RS-232 ASCII commands
- Dials Touch Tones 0-9, *, # and 2 second pauses
- Audio In jack for playing announcements
- Audio Out jack for recording announcements
- Able to send and receive 1200 baud data
- Analog C.O. line port
- Analog phone port

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Applications

Inexpensive Automated Telemarketing For:

- Insurance companies
- Mortgage companies
- Research companies

Phone... 715.386.8861

Specifications

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

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

Weight: 1.36 kg (3 lbs.)

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

P.C. Interface: 9-pin RS-232 (cable included)

Software/Hardware Requirements:

- IBM Compatible personal computer with an available serial port CD-rom drive, and Windows compatible sound card
- Windows: 95 or 98 (with OLE32 updates), NT 4.0 (service pack 6 or higher), 2000 (service pack 2 or higher)
- 5MB of hard drive space
- 8MB of free physical RAM

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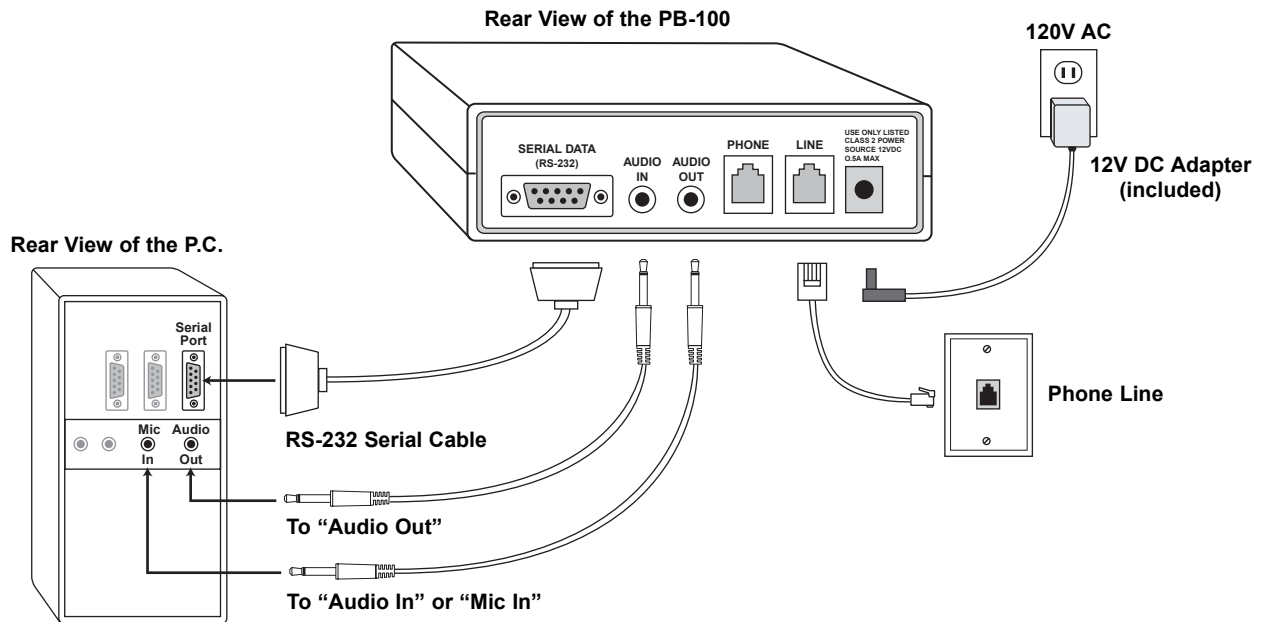
The information provider, smart terminal, voice recorder and AES-2000 programmer use a Sax Software Comm Objects third party driver for serial port communication. Due to licensing issues, this driver CAN NOT be supplied with the source code. If you use the source code as is, a pop-up message will inform you that you may use the Sax Software Comm Objects driver for evaluation purposes ONLY. YOU WILL NOT BE ABLE TO COMPILE THE SOURCE CODE!

If you wish to compile the source code, you must purchase the program from Sax Software. If you already own a Sax Software Comm Objects license, simply fill in your serial number in the properties box for each screen that uses the Sax Software Comm Objects driver.

Hardware Installation

The **PB-100** comes complete with a telco cord, serial 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 ”. If the PB-100 is to be used in series with another piece of equipment, the telecom device can be plugged into the “ PHONE ” jack.
Step 2.	Connect one end of the 9 pin serial cable into the jack labeled “ SERIAL DATA ” and the other end into an open serial port of the P.C.
Step 3.	If audio is to be used through the PB-100 , connect the “Audio Out” port of the sound card to the “ AUDIO IN ” port of the PB-100 , and “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. About the Software

The All Call Dialing program maintains a list of names and phone numbers in a Microsoft Access database. When started, the software calls each number stored in the database and plays a selected wave (.wav) file stored on your computer's hard drive.

B. System Requirements

1. Hardware Requirements

- IBM Compatible personal computer with: Windows 95, 98 or ME (with OLE32 updates), Windows NT 4.0 (service pack 6 or higher), Windows 2000 (service pack 2 or higher).
- **PB-100** hardware.
- Available RS-232 serial port.
- Male sub-D 9 pin cable (provided with **PB-100** hardware).
- Windows compatible sound card.
- 5MB minimum free hard drive space for each installation.
- 8MB of free physical RAM for each **Viking** application running.

2. Software Requirements

- Internet Explorer or Netscape Navigator Version 4 or newer to navigate CD contents.
- Windows: 95 or 98 (with OLE32 updates), NT 4.0 (service pack 6 or higher), 2000 (service pack 2 or higher).
- Adobe Acrobat Reader® version 4.x or newer to view Product and Software Documentation.

C. Installing Software

Step 1.	Connect the hardware as shown in "Hardware Installation".
Step 2.	Insert the Viking master CD to start the program.
Step 3.	Follow the instructions on the CD.

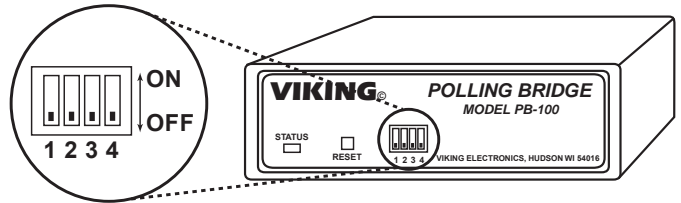
Note: If you have disabled the "Auto-Run" feature on your computer and the CD does not automatically start, double click the *setup.htm* file in the root directory of your CD-Rom drive.

D. Un-Installing Software

Step 1.	Go to "Control Panel", then select "Add/Remove Programs".
Step 2.	Select the Viking software you want to remove.
Step 3.	Click "Remove".

Programming

Switch	ON/OFF	Description
1	OFF	1600A Series polling mode enabled
1	ON	1600A Series polling mode disabled
2	OFF	AES-2000 programming disabled
2	ON	AES-2000 programming enabled
3	-	(not used)
4	-	(not used)



Note: Set all DIP switches **OFF** position as shown above.

Software Programming

Important: New records entered and changes made to existing records are temporary until the "Apply" button is pressed and the file is saved to a drive. To avoid losing data, please "Save" your work often and always save before the program is terminated.

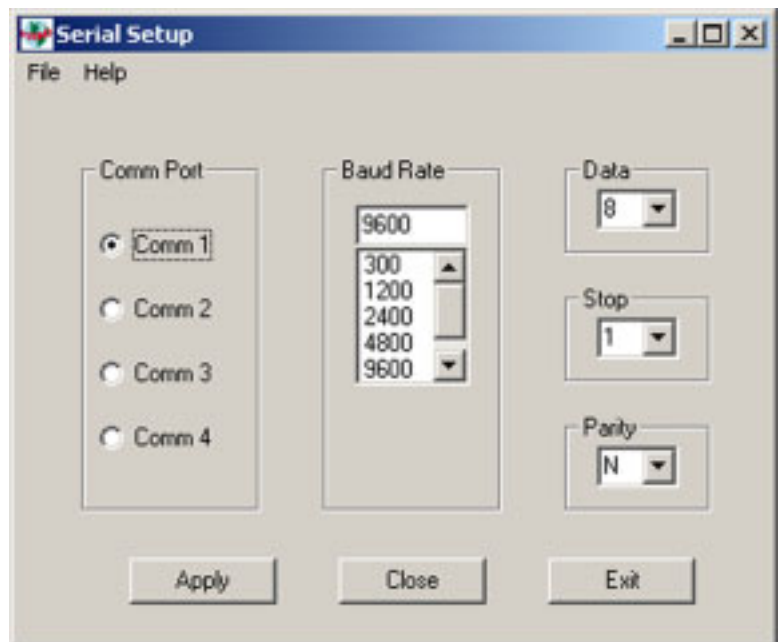
A. Configuring the Software (see Diagram A)

Important: Before starting the software, the **PB-100** hardware must be attached to the RS-232 serial port of your computer.

Upon running the software for the first time, a "Serial Setup" dialog box will open to allow you to configure the software to operate with your PC. Configure the software to operate correctly with the RS-232 serial port on your computer. (all-call/config_screen.psd)

Serial Setup	
Comm Port	1
Baud Rate	9600
Data Bits	8
Stop Bits	1
Parity	none

Diagram A



B. Database

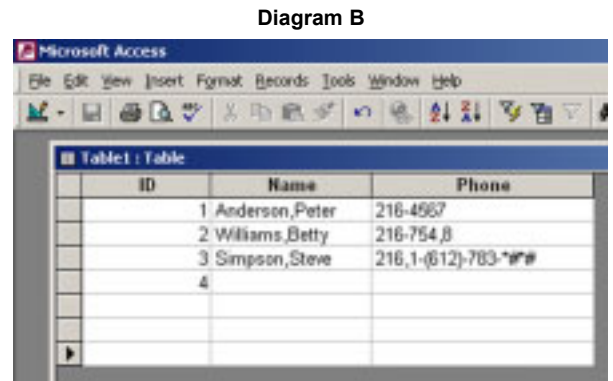
1. Database Format

The **PB-100** All Call software can read a Microsoft Access database, so long as the following requirements are met:

- The Access file must be an Access 97 (Office 97) or older.

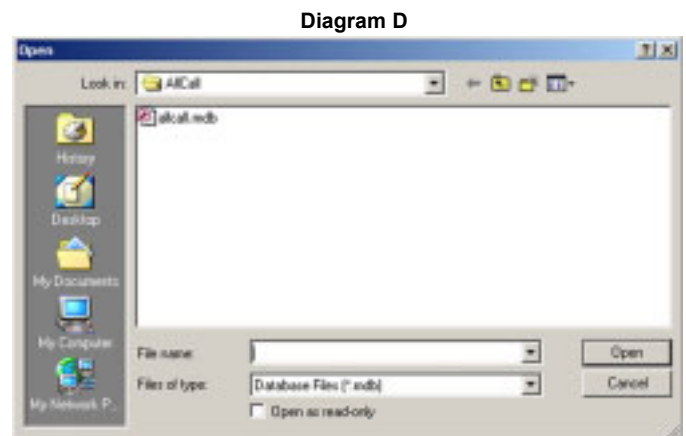
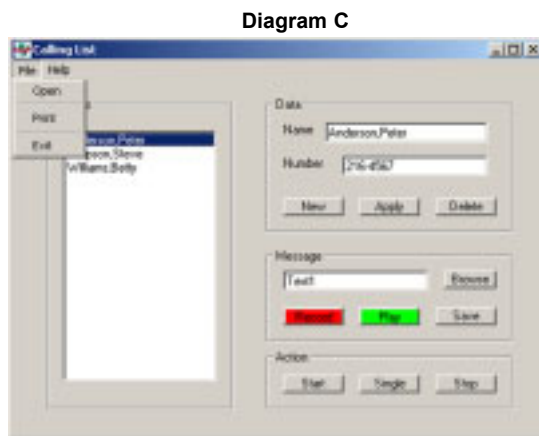
Note: If you are using Access 2000 or Access XP to create your database, you must export your database to an Access 97 format.

- The first 3 fields must be ID, Name, and Phone in order (see diagram **B**).



2. Opening an Existing Database

Step 1.	Start the AllCall software
Step 2.	Select "File" then "Open" (see diagram C). A file selection dialog box will open (see diagram D).
Step 3.	Navigate to and select your existing Microsoft Access database file.
Step 4.	Double click on the file or highlight the file and select "Open".



3. Editing the Default Database

The AllCall software automatically installs a Microsoft Access database called "allcall.mdb" in the ..\Program Files\Viking\AllCall\ directory. This file can be edited and used for your needs.

a. Deleting a Record

Step 1.	Start the AllCall software
Step 2.	Highlight the record you wish to delete.
Step 3.	Click "Delete".

IMPORTANT: The record will be deleted permanently.

b. Adding a new Record

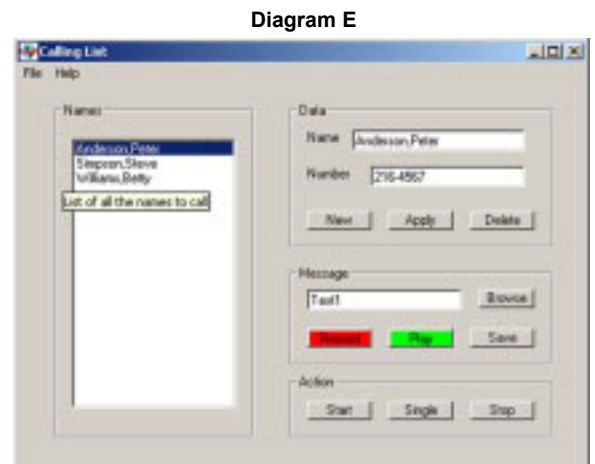
Step 1.	Start the AllCall software
Step 2.	Click "New" to create a new record and fill in the "Name" and "Number" field.
Step 3.	Click "Apply" to save your changes.

IMPORTANT: You must click "Apply" after each new record or your data will be lost.

c. Editing an Existing Record

Step 1.	Start the AllCall software
Step 2.	Highlight the record you wish to edit.
Step 3.	Make the appropriate changes in the "Name" and "Number" field.
Step 4.	Click "Apply" to save your changes.

IMPORTANT: You must click "Apply" after each new record or your data will be lost.



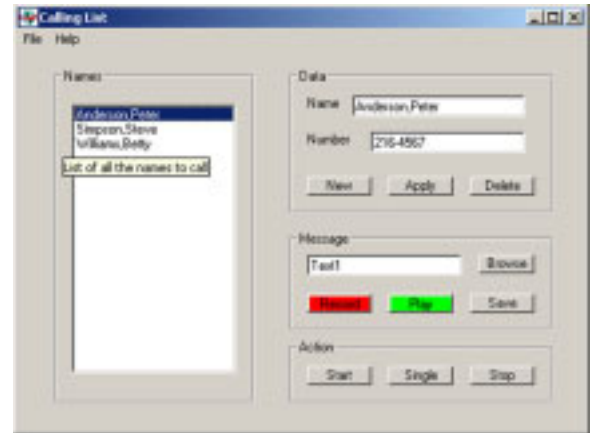
C. Recording Your Outgoing Message

The AllCall Software can play any .wav file as your outgoing message and allows you to open an existing .wav file or record and save your own.

1. Using an Existing .wav File

Step 1.	Click on the "Browse" button and navigate to the .wav file you desire (see diagram F).
Step 2.	Double click on the file or highlight the file and select "Open".

Diagram F



2. Recording Your Own .wav File

Step 1.	Attach a microphone to the input port of your sound card.
Step 2.	Enter the path and name of the file you wish to create in the "Message" box
Step 3.	Click the "Record" button and begin speaking into the Microphone.
Step 4.	When finished click the "Stop" button. You may review your message by clicking the "Play" button
Step 5.	Click the "Save" button to save your message.

Important: You must click the "Save" button or your message will be lost.

Operation

You may dial individual records selectively or dial all records in the database automatically.

A. Dialing a Single Number

Step 1.	Setup and configure AllCall software as explained in previous sections.
Step 2.	Click the "Single" button.
Step 3.	When you wish to stop calling, click the "Stop" button

The All Call software will dial the highlighted name and play the recorded "message" file.

B. Dialing All Numbers in the Database

Step 1.	Setup and configure AllCall software as explained in previous sections.
Step 2.	Click the "Start" button.
Step 3.	When you wish to stop calling, click the "Stop" button

The All Call software will begin dialing all names in alphabetical order. After dialing it will play the recorded "message" WAV file. Upon finishing the "message," the All Call software will begin dialing the next name in the list alphabetically.

Product Support Line...715.386.8666

Fax Back Line...715.386.4345

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