

# VIKING

Viking Electronics, Inc.  
1531 Industrial Street  
Hudson, Wisconsin 54016

Telecommunication Peripheral Products

Sales Line: 715-386-8861



## Automated Attendant With Digital Voice Announcer

**The Viking ACA-2B Automated Attendant provides a professional solution to increasing call handling capacity without adding manpower.**

The model **ACA-2B** answers calls promptly and courteously on the first ring and allows the caller to self-direct their call to the proper department using a Touch-Tone® phone. Callers familiar with the system can bypass the introductory announcement by dialing the proper extension. Callers without Touch-Tone® phones default to a live attendant.

The **ACA-2B Automated Attendant** can process an average of eight inbound trunk calls per minute, via two station ports. Here's how: Say someone calls into your company. The **ACA-2B** will answer the call with an announcement that has been previously recorded in your receptionist's voice, such as:

"Hello. You have reached ABC Company's Automated Attendant. Using your Touch-Tone® phone, please enter 1 for sales, 2 for product support, 3 for customer service, 0 for the operator, or enter the direct extension number of the person you wish to talk with."

The Viking **ACA-2B** allows you to reach up to nine departments by entering a single digit speed-dial access number. Callers familiar with the system can easily interrupt the menu announcement by entering the department code or a direct extension number after the announcement has begun. If the caller enters a 0 or fails to enter a number, the call will be sent to a user-programmable default number. After entering a department code or extension number, the **ACA-2B** confirms the caller's selection with a "transfer" announcement such as,

"Thank you, I'll transfer your call now."

If the incoming call is transferred to a busy phone, a "busy" announcement will give the caller instructions such as,

"That extension is busy. Please enter another extension or hold for assistance."

The **ACA-2B** can also be used with the Viking **Multi-Line Digital Voice Announcer (Model MDA-4)** for expanded extension directories, information services (i.e. sports complexes, government offices, medical centers) and other similar applications.

### FEATURES:

- Compatible with Centrex, PBX, Hybrid Key and many Electronic Key systems with OPX (Off-Premise Extension) capabilities
- Performs a blind transfer to process approximately eight calls per minute
- Use a standard handset to record natural voice announcements, or download from a tape player
- Separate announcements for greeting with menu, selection confirmation, and busy extension
- Callers may interrupt the announcement by entering an extension or single digit department code
- Callers without Touch-Tone® phones or those that fail to enter a number are transferred to a user-programmable default number
- LED display for statistics and record time information
- Rechargeable battery back-up included

**Digital Voice Products Demo Line: (715) 386-6643**

## I. HOW IT WORKS:

1. The **PABX** is programmed so incoming trunk calls ring at stations (extensions) A & B. The **ACA-2B** is connected to these extensions. On **overflow**, incoming calls are programmed to:
  - A. ring to the live attendant
  - B. ring to a second **ACA-2B** Automated Attendant
  - C. ring to an A.C.D./U.C.D. group
  - D. continue to ring at the station port, or a message center
2. The **ACA-2B** answers on the first ring (the **ACA-2B** has two digital announcers so two calls can be answered simultaneously) and provides a user-recorded "menu" of department codes and extensions. Up to nine single digit access speed dial numbers may be stored.
  - A. As soon as the **ACA-2B** recognizes the Touch-Tone® department codes (1-9) or the extension number, the answer announcement will stop. Callers that do not have a Touch-Tone® phone will default to the live attendant (the extension stored in speed-dial position 9).
  - B. The **ACA-2B** will now provide a second user-recorded transfer announcement.
  - C. The **ACA-2B** performs a "hook switch flash transfer," identical to that performed by a live person, and dials the intended extension number.
  - D. If the extension rings, the **ACA-2B** releases the call and is available for the next call.
  - E. If the extension is busy, the **ACA-2B** provides a third user-recorded busy announcement. If the caller enters another selection, the **ACA-2B** performs another hook switch flash transfer.
  - F. After three attempts to busy extensions, the caller is defaulted to the extension stored in speed dial position 8.

## II. INSTALLATION

### 1. Location

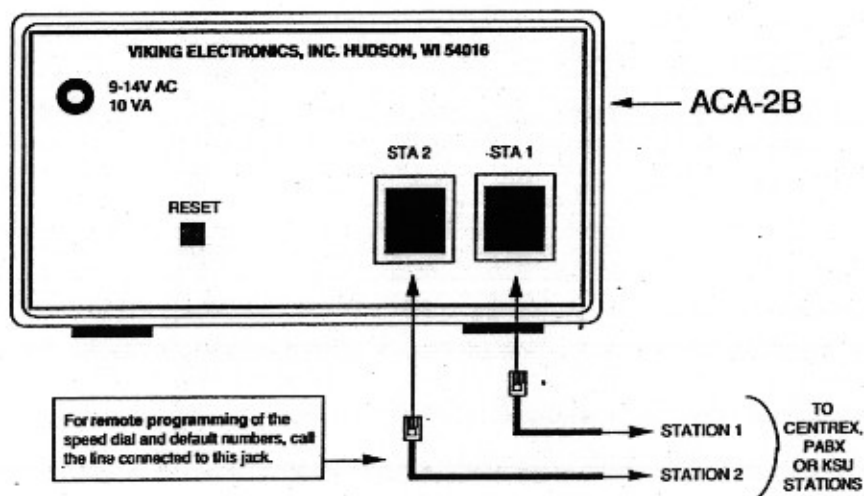
The **ACA-2B** should be installed in a location with ambient temperature between 20° and 90°F with 5% to 95% non-condensing relative humidity.

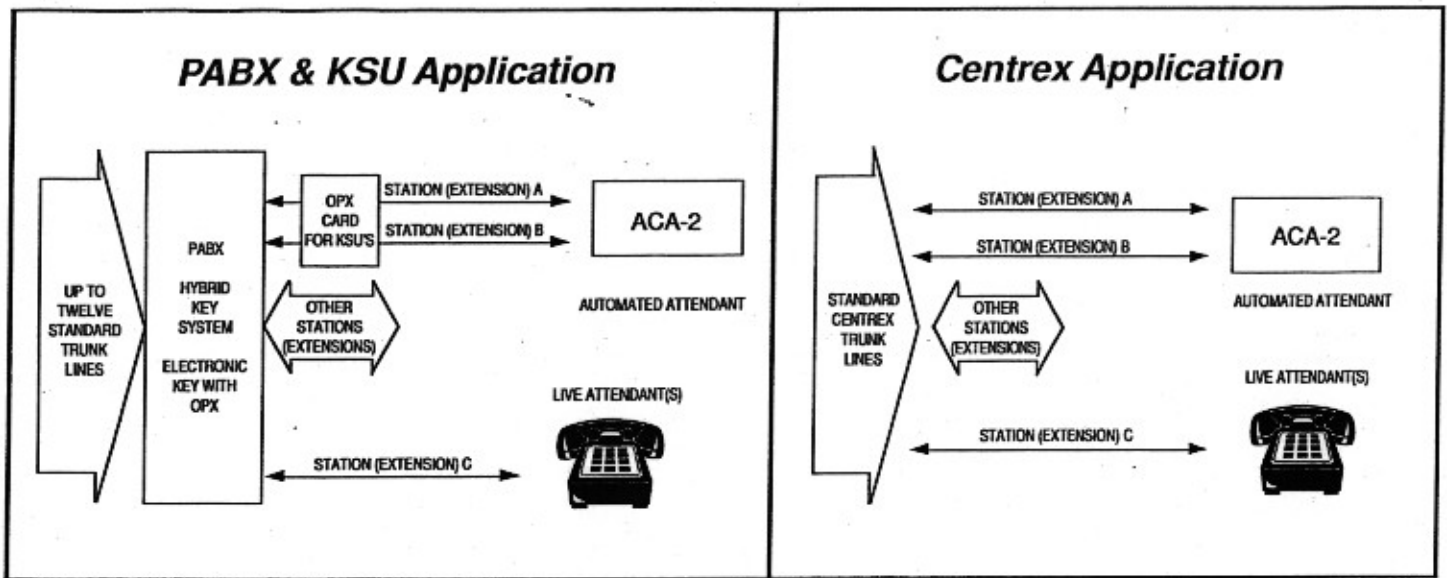
### 2. Power Source

- A. The **ACA-2B** is provided with a U.L. approved power supply.
- B. The **ACA-2B** requires a 24 hour unswitched A.C. outlet.
- C. To protect the micro-processor and provide maximum efficiency, we recommend the installation of a surge protector.
- D. The **ACA-2B** has an internal rechargeable battery which will hold the digital voice memory for up to 15 minutes after being powered for 48 hours. For applications requiring full operation during power failures up to 20 hours, use the Viking Model **PFB-12 Power Fail Back-Up System**.
- E. **Caution:** On power up, Switch 2 must be in the OFF position.

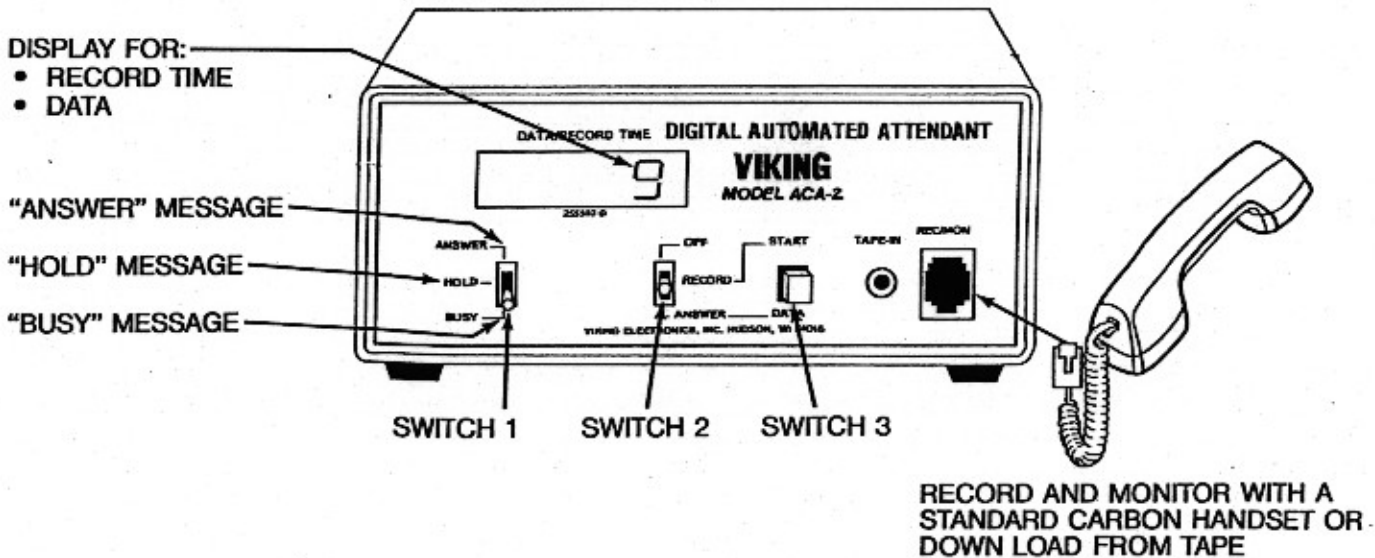
### 3. Wiring

Connect the **ACA-2B** to standard Centrex, PABX, Electronic Key and Hybrid Key System phone lines as shown in the illustrations below.





### III. OPERATION



#### Local Recording

Careful consideration should be given to your announcement content. You want to project a professional business image when answering the telephone.

1. **Write a script for each announcement - your total time for the 3 announcements cannot exceed 32 seconds.** Typical announcements are as follows:
  - A. **Answer announcement:** "Viking Electronics. Please press 1 for sales, 2 for product support, 3 for customer support, 0 for the operator or enter an extension number."
  - B. **Hold announcement:** "Please hold while your call is being transferred."
  - C. **Busy announcement:** "That extension is busy. Please dial another extension or enter 0 for the operator."

Continued On Page 5

## 2. Some Hints On Recording

- For fastest call processing, make your answer announcement short. The **ACA-2B** will not answer additional calls until the previous answer announcement is complete!
- Before recording, read the script while timing yourself. Remember, total record time cannot exceed 32 seconds. Example: answer announcement (16 seconds) + hold announcement (4 seconds) + busy announcement (10 seconds) = 30 seconds total.
- Record the most difficult announcement first.
- If you do not wish to record a certain announcement (the busy or hold announcement for instance), record one second of silence in the appropriate position. The **ACA-2B** must have something recorded in each announcement position.

## 3. Actual Recording — All recordings must be made at the same time.

- Set Switch 2 to RECORD.
- Set Switch 1 to the desired announcement to be recorded.
- The display shows the record seconds available.
  - A flashing "32" indicates you are about to record over a previous announcement.
  - A flashing display number less than "32" indicates you have recorded over a previous announcement.
  - A steady display number indicates the seconds available to record your new announcement.
- Press Switch 3 and begin speaking into the telephone handset you have plugged into the REC/MON jack. When finished, release Switch 3 - your announcement will play back for you to review.
- To record other announcements, repeat steps 3B, 3C and 3D now.
- If you re-record an announcement, you must re-record all announcements again.
- To review all announcements, set Switch 2 to OFF. Press and hold Switch 3.
- Remove handset when recording has been completed.

## Timing Specifications

- Hook switch flash: 512 + or -50 milliseconds.
- Busy signal cadence detection: 200 to 300, or 450 to 550 milliseconds (on and off signal).
- Speed dial timing: 140 millisecond burst, 140 millisecond intersignal pause (+ or -20 milliseconds).
- Default timing: If no DTMF signals are received during or within 6 seconds after the "Answer" announcement, the caller will be transferred to the default number. If no DTMF signals are received during or within 2.5 seconds after the "Busy" announcement, the caller will be transferred to the default number.

## PROGRAMMING SINGLE DIGIT SPEED DIAL ACCESS CODES

Note: Set Switch 2 to ANSWER.

- To gain system access, call the **ACA-2B** on Line 2 (station 2) using any other Touch-Tone® telephone (extension) within the system. The unit will answer and start playing the ANSWER announcement. Enter a "★". The ANSWER announcement should stop immediately (if it does not, the **ACA-2B** did not recognize the "★" command entered; enter "★" again). Once the recording stops, enter "52". You are now into the speed-dial program mode and have 8 seconds between keystrokes. For system security, a maximum of 2.5 seconds is allowed between the "★" and the "5", and between the "5" and the "2" when entering the programming mode. The **ACA-2B** will disconnect if more than 2.5 seconds elapse between these digits.
- To program or re-program a speed dial code, enter the actual number, a "★" plus the access code (1-9). 1 to 13 digit numbers can be entered. A "#" and a "★" may be entered into the actual number by entering "##" or "★★" (respectively).

Actual Number	Access Code	Department/ Location	Actual Number	Access Code	Department/ Location
_____	★1	_____	_____	★7 (see note)	_____
_____	★2	_____	_____	★8 (see note)	_____
_____	★3	_____	_____	★9 (see note)	_____
_____	★4	_____	EXAMPLE:		
_____	★5	_____	200	1	SALES
_____	★6	_____			

3. The dial rate of the touch tone generator in this Automated Attendant has been slowed down. This was done to make the Automated Attendant compatible with Key Systems and PABXs that can not accept Touch-Tone® durations shorter than 100 milliseconds. Because of this change, speed dial programming must be entered slowly and deliberately. Speed dial programming should be done from a phone (or test set) that can generate Touch-Tones® for as long as the button is depressed on the keypad of the phone (or test set). The rate of dialing from the phone that is doing the programming must not be faster than 200 milliseconds for the "ON" time of the Touch-Tone®, and 200 milliseconds for the "OFF" time between Touch-Tone® digits.

**NOTE:**

- a. The "9" position is reserved for the extension a caller defaults to if a Touch-Tone® code is not sent during the answer announcement, or the caller dials a "9" or a "0"
- b. The "8" position is reserved for the extension a caller defaults to if a Touch-Tone® code is not sent during the busy announcement.
- c. The "7" position is used to store the appropriate Touch-Tone® code needed to re-access a caller on busy; this only applies when Switch 1 is set to busy for system protocol (see 2c below).
- d. Program unused speed dial positions to the same number stored in the "9" or "8" default position.
- e. Callers that dial "0" automatically get transferred to the extension number programmed in speed dial position "9".
- f. Callers that dial a complete extension number that begins with a zero are automatically transferred to the extension number programmed in speed dial position "9".
- g. Callers that attempt to dial a complete extension number that is greater than 8 digits in length are automatically transferred to the extension number programmed in speed dial position "9".

## ANSWER MODE OPERATION

1. Set Switch 2 to ANSWER.
2. Set Switch 1 for system protocol. More than one system protocol is built into the standard **ACA-2B** so that the **ACA-2B** will be compatible with many different types of telephone systems.
  - a. ANSWER = Hook switch flash to re-access a caller on busy (standard on most PBX's such as Mitel, SL-1, Jistel, Siemens, etc.).
  - b. HOLD = Double hook switch flash to re-access a caller on busy (Centrex, AT&T Dimension, System 25, 75, 85, Merlin II, etc.).
  - c. BUSY = Hook switch flash, dial a T.T. code (speed dial position #7) to re-access a caller on busy (Iwatsu Omega IV, Rolm PBX's, etc.).

## DATA RETRIEVAL

The **ACA-2B** has a built-in call counter that can inform you of the number of calls processed. Data retrieval procedure requires that Switch 2 is in the ANSWER position.

1. To determine total calls on Line 1, set Switch 1 to the HOLD position and press Switch 3.
2. To determine total calls on Line 2, set Switch 1 to the BUSY position and press Switch 3.
3. To determine total calls on both Lines 1 and 2, set Switch 1 to the ANSWER position and press Switch 3.

**NOTE:** This data can be reset to zero by depressing the reset button on the back of the **ACA-2B**. This will reset the microprocessor only, the recorded messages and speed dial programming will not be lost. Any in-process calls will be dropped. This reset should only be done at a time when the **ACA-2B** is not processing calls.

**NOTE:** 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.

## Product Support Hot-Line... (715) 386-8666

Due to the dynamic nature of the product design, the information contained in this document is subject to change without notice. Viking Electronics, its affiliates and/or subsidiaries assume no responsibility for errors and/or omissions contained in this information. Revisions of this document or new editions of it may be issued to incorporate such changes.