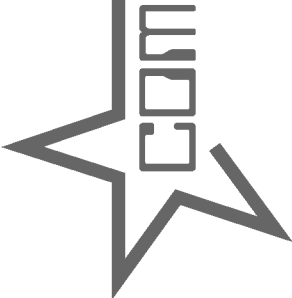


Starcom Incorporated



# AD100 series

**AUTO DIAL COURTESY PHONE**

AD100 & AD101



AD100

### ***Description***

The AD100 is a public courtesy phone that only dials numbers stored in memory. Numbers are stored in the AD100 by a computer connection or from the keypad. The AD100 features the following:

- 1- 99 stored telephone files containing numbers and names.
- 2- Two digit dialing for any stored telephone number.
- 3- Access to memory is password protected.
- 4- Volume push button for up to 18db additional receiver gain in 6db steps.
- 5- Design features to prevent toll fraud.
- 6- Stainless steel panel and chassis.
- 7- Local and remote programming of stored numbers.

### ***Operation***

A caller locates a destination listed on a display panel or directory. Each destination has a 2 digit number associated with the name. The caller picks up the handset of the AD100 telephone, receives dial tone, and dials the 2 digit number assigned to the selected destination. The AD100 processor uses this number to retrieve the destination's telephone number from its memory. The AD100 seizes the central office line and dials the number. The caller is connected to the line to hear the audible ring signal.

After a connection is established, touch tones can be sent through the system for automated attendant use. The system disconnects after the caller or destination goes on hook. A 2 second idle period is established between each call to prevent switch hook flashing and fraudulent use.

The push-button volume control increases the volume by 6db each time it is pressed for a maximum of 18db. The fourth push returns the volume to unity gain. If the caller enters 2 digits that have no stored telephone number, the receiver goes quiet, waits 2 seconds and returns dial tone.

The user can not dial personal telephone numbers directly because the internal processor controls the connection to the telephone line.

***System Memory***

The AD100 telephone stores one file for each phone number in semi-permanent memory. This data is not lost during a power failure. The 2 digit destination number is used as the file number. Each file contains up to 20 characters for the destination name and up to 18 digits for the telephone number.

A 9 pin RS232 connection allows computer access to the memory either directly or remotely using a modem. Any Windows® terminal emulator may be used.

Phone number files may be modified 3 ways:

- 1- Using the AD100 touch tone dial.
- 2- Computer using a terminal emulator program.
- 3- Remote computer access using a modem.

***Special files******Invalid files***

It is possible to enter information into invalid files. Files 100 through 199 are able to store information but are not available for dialing since all files range from 1 to 99. Other invalid files are file 00 and files greater than 201.

***Password file***

File 200 stores the passwords. The telephone number field in this file is the numeric password. The name field in file 200 is the terminal password.

The numeric password may be changed using the dial method or with the “Modify single file” option using a computer.

The terminal password may only be changed by using a computer with the “Modify single file” option.

☞ *Be sure to remember the new passwords if you edit them.*

***Location file***

The name field of file 201 stores the location name for any AD100 telephone. The location name appears on the main menu when a computer is connected to the AD100.

## **Setup**

### **Power**

Connect the power supply to the jack marked “5VDC” on the rear cover. The power supply plugs into a 115vac 60hz wall jack.

### **Line**

Connect an analog telephone line to the jack marked “LINE” using a standard RJ11 type modular plug.

*If you are using a modem:*

Connect the incoming telephone line to the line jack on your modem. Connect the phone jack on the modem to the AD100 “LINE” jack.

### **Mode select**

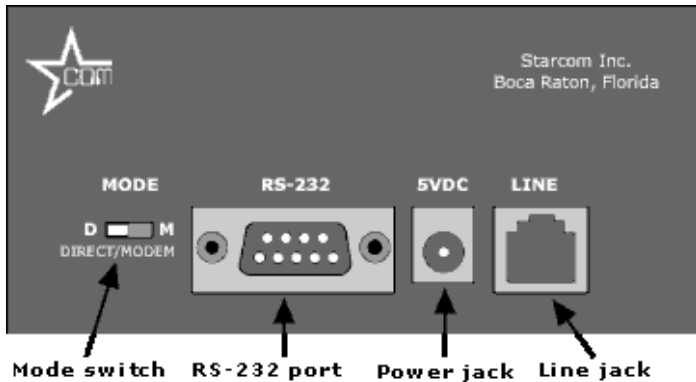
Locate the mode switch on the rear of the AD100, next to the RS-232 jack. Set the mode select switch for the type of serial connection you are using:

“D” for direct connect.

“M” for a modem connection.

### **Serial Port**

Connect the female end of a 9-pin serial cable to the jack marked “RS-232” on the AD100. Connect the other end to the modem, or to your COM port for a direct connection.



## ***System maintenance***

Program the AD100 using the dial on the phone or a personal/laptop computer. When programming from a computer, you may administer the AD100 from a remote location using a modem, or connect it directly to your computer's serial port.

### ***Password setup***

The AD100 ships with 3 default entries. Only the numeric password is required. You should change the default numeric password before installing the AD100 in a public location.

- 1- **Numeric password** - used to access the AD100 memory using the dial only. Can be set from the dial or from a terminal connection.
- 2- **Terminal password** - used to access the AD100 memory using a terminal connection. Can only be set via a terminal connection. The terminal password is not required if you only program the AD100 from the dial.
- 3- **Location** - identifies which AD100 you are programming. Can only be set via a terminal connection. The location is not required, but helpful when administering the AD100 from a remote location.

### ***Default passwords***

Numeric - 13579

Terminal - starcom

Location - Boca Raton Florida

*☞ Be sure to remember the new passwords if you edit them. Numbers cannot be stored without a valid password.*

### ***Set the password using the dial***

The file number for the numeric password is “\*\*”. To change it using the dial:

- 1- Go off-hook.
- 2- Dial “\*\*”.
- 3- Dial the current numeric password.
- 4- Dial “#”.
- 5- A 3 tone reply indicates the password is accepted.
- 6- Dial “\*\*”.

- 7- Dial the new password.
- 8- Dial “#”.
- 9- A 3-tone reply will confirm your entry.

### ***Set the passwords using a terminal***

Connect to the AD100 by a direct connection or modem. Refer to the section on terminal operation later in this guide if necessary.

*After a connection is established:*

- 1- Press enter.
- 2- At the > > > ? prompt, type in the default terminal password, “starcom”. The password is case sensitive.
- 3- Press enter. The AD100 Main Menu will be displayed.

☞ *Press F2 to return to the Main Menu at any time.*

*To change the numeric password:*

- 1- Choose option 3 from the menu by typing “3”.
- 2- Type “200” in the FILE # field.
- 3- Tab to the PHONE # field to change the numeric password. (For access using the dial.)
- 4- Type in your new password (numbers only, no spaces) and press enter.

*To change the terminal password:*

- 1- Choose option 3 from the menu by typing “3”.
- 2- Type “200” in the FILE # field.
- 3- Tab to the NAME field to change the terminal password.
- 4- Type in your new terminal password and press enter.

*To change the location:*

- 1- Choose option 3 from the menu by typing “3”.
- 2- Type “201” in the FILE # field.
- 3- Tab to the NAME field and type in the location. Press enter.

To finish, disconnect the terminal from the AD100.

## Storing numbers

### Dial method

#### Add or change a number

To store a number in memory using the dial:

- 1- Go off-hook.
- 2- Dial “\* \* \*”.
- 3- Dial the numeric password (The factory default is “13579”).
- 4- Dial “#”. A 3 tone reply indicates the password is accepted.
- 5- Dial the 2 digit file number.
- 6- Dial the telephone number.
- 7- Dial “#”. A 3 tone reply indicates the new number is stored in memory.

Repeat steps 5-7 to enter all remaining numbers.

☞ *A single low tone is heard if you exceed 18 digits, and the entry is not accepted. Re-enter the file number and a phone number with 18 or less digits.*

Go on-hook when you are finished programming.

#### Deleting a number

To delete a phone number from memory:

- 1- Go off-hook.
- 2- Dial “\* \* \*”.
- 3- Dial your password.
- 4- Dial “#”. A 3 tone reply indicates the password is accepted.
- 5- Dial the 2 digit file number.
- 6- Dial “#”. A 3 tone reply indicates the number is deleted.
- 7- Dial the next file number to delete, or go on-hook if you are finished.

#### Wait key

From the dial, press the “\*” key to enter a 1 second wait between numbers. Each “\*” counts as 1 digit.

## **Terminal method**

Using a phone number file and a terminal is the easiest way to enter lists of numbers in the AD100. With a terminal connection you can also add, edit, or delete phone numbers in memory. Refer to the section on terminal operation later in this guide, along with the phone file format section as necessary.

After entering the password, the main menu appears. The main menu displays the software version number, the location name, and 3 options:

- 1- send file to AD100
- 2- erase all files
- 3- modify single files

### **Send file**

Enter “1” at the main menu. A “waiting to receive file” message will be displayed on the computer screen. Select or click on the “send file” icon in your communications software. When prompted, enter the document name and click “OK”. The display will revert to the main menu when the transfer is complete.

### **Erase all files**

Sending a new file to an AD100 telephone does not erase previously stored names and numbers unless it writes over the same file records. Therefore, this option is useful for clearing all the files in memory. Enter “2” at the main menu. The message “are you sure” appears. Enter “y” for yes or “n” for no. It takes about 3 seconds to clear all 99 files. The location and password files are *not* erased.

### **Modify single file**

Enter “3” at the main menu. The screen displays the data for file 001. To display another file, tab the cursor to the file field, and enter a 3 digit file number (or 1 or 2 digits followed by “enter”). Press the tab key to move the cursor from one field to the next. A single file may be deleted by pressing function key F3. Modify a file by pressing the tab key to move the cursor to the number or name field. Type in a new number or name and press “enter”. The new information overwrites the existing data and is saved.

## ***Terminal operation***

### ***Terminal keys***

The computer tab key moves the cursor from one field to the next when modifying files. The up and down arrows increment or decrement to the next or previous file. The AD100 recognizes 4 function keys:

- F1 brings in a help screen.
- F2 returns to the Main screen.
- F3 deletes the current single file.
- F4 disconnects the modem.

### ***Connection types***

#### ***Direct connection***

The following variables must be set for the computer terminal emulator program.

- 1- terminal emulator = VT100
- 2- file transfer protocol = XMODEM
- 3- communications = 9600 bps, 8 data, 1 stop, no parity
- 4- connection type = direct on COMx, where “x” is the number of the COM port you are using.
- 5- download timeout = 5 seconds
- 6- flow control = hardware

Set the mode switch on the AD100 to “direct”. Connect the serial port of a computer to the AD100 serial port. Start your terminal program. Press the computer “enter” key until the > > ? prompt appears on the screen. Enter the maintenance password. (The factory default is “starcom”.) After you type in the password, press the enter key. The AD100 main menu will be displayed.

*☞ While connected, the handset may produce a buzzing sound. This is normal. You cannot place a call from the AD100 while a direct connection is in progress.*

#### ***Modem connection***

The following variables must be set for the computer terminal emulator program.

- 1- terminal emulator = VT100
- 2- file transfer protocol = XMODEM
- 3- communications = set for your modem type

- 4- connection type = set for your modem type
- 5- download timeout = 5 seconds
- 6- flow control = hardware

Set the mode switch on the AD100 to “modem”. A modem must be connected to the serial port on the AD100. The telephone line to the AD100 must go through this modem. Using the modem in your computer, dial the AD100 telephone number. The AD100 modem will answer and provide a data connection between your computer and the AD100. Enter the maintenance password and press the enter key. The AD100 main menu will be displayed. Only 3 tries are allowed for password entry. After 3 failures, the system ignores further entries. It is then necessary to disconnect and call the AD100 back. The best way to end a modem call is to click on the disconnect icon in your terminal emulator.

### ***Terminal software***


We recommend Hilgraeves’s HyperAccess when using a terminal with the AD100. It installs in less than 10 minutes with a minimum of setup questions, and is very easy to use. Connection icons for direct & modem connections are included on a disk supplied with your AD100 that you may copy to your HyperAccess phonebook.

You may need to modify the modem connection icon for your type of modem. After copying it to your phonebook, right-click on it to display its properties. Select the Communications tab. Press the “Change...” button at the upper right corner of the dialog box if the modem displayed is incorrect. Choose the correct modem for your system and press “OK”.

Direct connect icons are supplied for both COM1 and COM2. If you are using a different COM port, you will need to edit the properties of the connection icon.

## Phone number files

Phone number files are loaded into the AD100 using a computer and the direct connect or modem method. This allows some or all of the 99 numbers to be programmed in a few minutes. Phone number files are prepared on any word processor. All files for an AD100 are contained in a single document. This document must be saved in a “text only” format. (Windows’ Notepad is ideal for creating and maintaining phone number files.) Each file *must contain 3 fields* with an optional comment field. A sample file is included on the disk supplied with the ADTK1 terminal software kit.

 *Typical phone number file entry:*

<b>file#</b>	<b>phone number</b>	<b>name</b>	<b>comment</b>
5	123 456 7890	Holiday Isles Resort	;Open all year

### File format

Use the following rules to format phone number files.

#### File number

Each line begins with the file number. It is a 1 or 2 digit number with no spaces between digits followed by at least 2 spaces.

#### Telephone number

The telephone number follows the file number. Enter only numbers. Single spaces are allowed. A comma will result in a 1 second delay when dialing. End the telephone number with 2 or more spaces. Telephone numbers, including commas and spaces, may contain up to 18 digits.

#### Name

The name follows the telephone number. It can contain numbers or letters and single spaces. The name field ends with “enter” or 2 or more spaces. Names including spaces and punctuation may contain up to 20 characters.

#### Comment

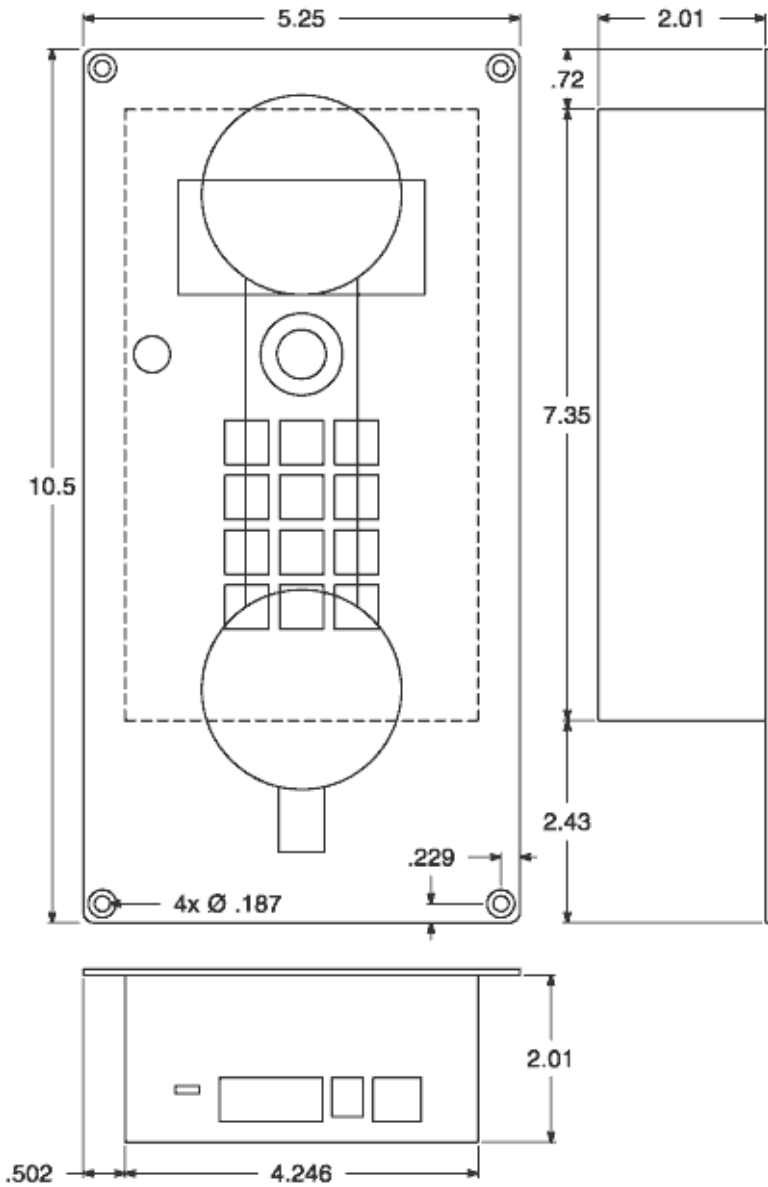
The last field is an optional comment field. It follows the name. It may contain numbers or letters. The comment field is not stored in the AD100 memory. It may contain enough characters to fill the balance of the line. The comment field must end with an “enter”.

***Mounting dimensions, AD100***



***Notes***

- 1- Compact, vertical mounting.
- 2- All connections are located on the bottom end of the rear cover.
- 3- Includes Volume button.
- 4- Dialing instructions are included on a lexan film label, and may be positioned next to the phone.
- 5- Dimensions shown in inches.

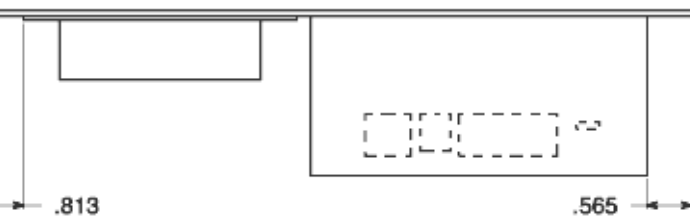
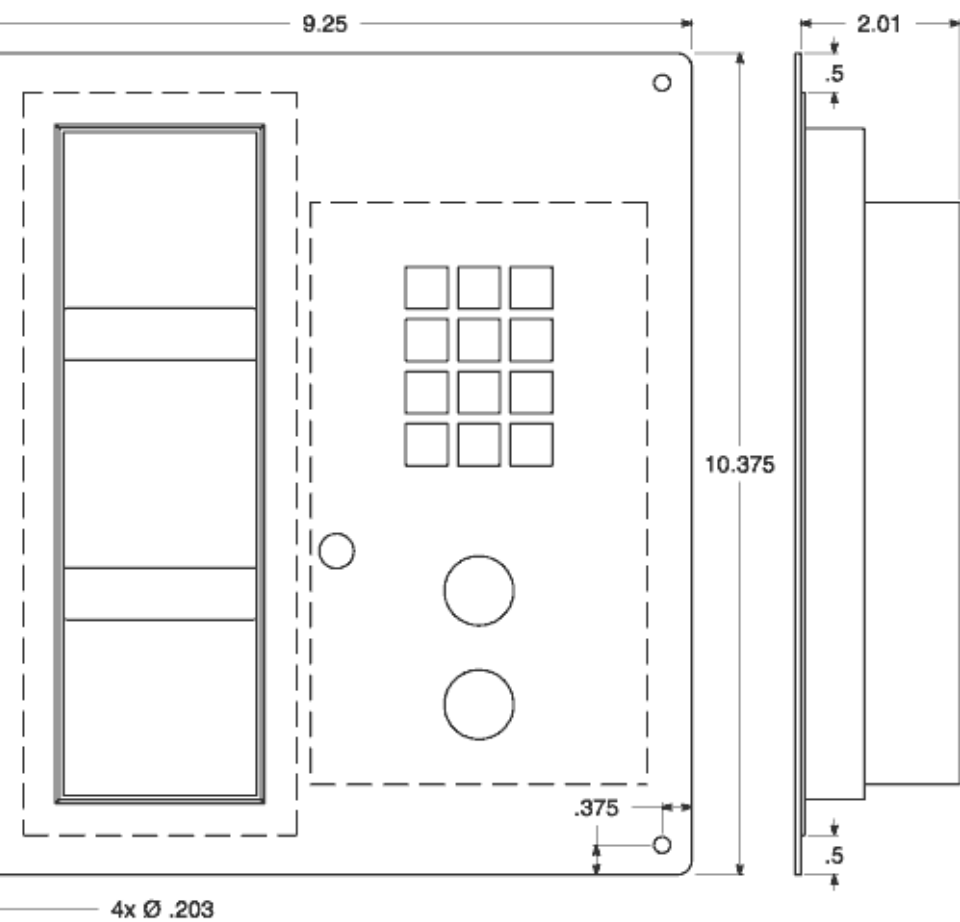


***Mounting dimensions, AD101***



***Notes***

- 1- For horizontal mounting less than 15 degrees.
- 2- Features electronic switch hook with no moving parts.
- 3- Buttons for Flash (recall) and Volume.
- 4- All connections are located on the top end of the rear cover.
- 5- Dialing instructions are printed on the face of the phone.
- 6- Dimensions shown in inches.



## Sample file

```
1 301 555 1212 Sleepy Hollow Inn ;Just down the road
3 301 555 4567 Rest Inn Peace ;across town
5 202 555 1234 The White House
16 301 555 7913 Sea Breeze Hotel ;On the water
35 9,703 555 3569 The Cozy Inn ;managed by Janet Smith
47 247 6500 The Harbor Hotel ;On the water
62 123 4567 The Ritz and Glitz ;Near shopping
79 9,1 703 123 4567 Bed & Breakfast ;Jack Clark, owner
```

*☞ The spaces are the delimiter for each field. If you have incorrect entries after transferring a file, verify each field ends with at least 2 spaces.*

## Specifications

### General

#### Size

AD100, overall ..... 5.25"W x 10.5"H x 5.3"D

AD101, overall ..... 9.25"W x 10.375"H x 4"D

Weight AD100, AD101 ..... 3.4 lbs, 4.2 lbs

### Electrical

System power ..... 5vdc @ 100ma

Touch tone dialing speed ..... 70ms

Touch tone level ..... -9db

Telephone number storage ..... 18 digits max

Name storage ..... 20 digits max

Password storage ..... 18 digits max

### Included:

1ea. MA5 power supply.

1ea. MA21 line cord.

### Options:

MA26 RS-232 interface cable.

ADTK1 Terminal software kit with cable.



**Starcom Incorporated**

3303 North Dixie Highway  
Boca Raton, FL. 33431

phone: (561) 392-7001 ★ fax: (561) 392-7003 ★ email: sales@starcom-inc.com ★ internet: www.starcom-inc.com