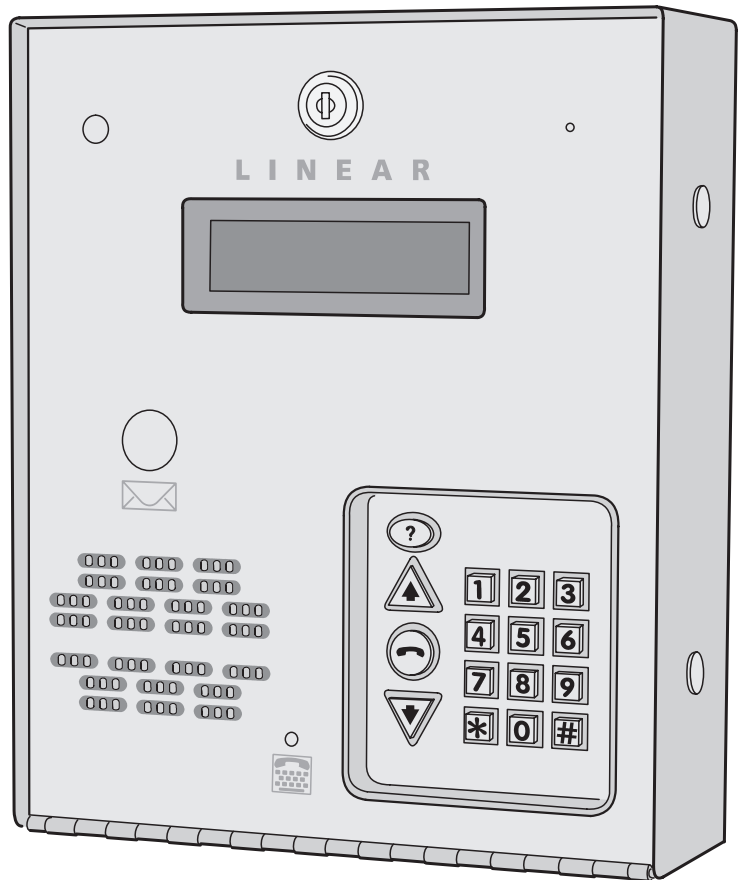




AE-100

***Commercial
Telephone Entry
System***



Facility Manager's Guide

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Introduction

The Model AE-100 Commercial Telephone Entry System is designed for use as an access control device for small apartments or gated communities with up to 125 residents. The system can be used in a lobby or outside. Surface, recessed, and pedestal mounting options are supported. The system utilizes hands-free, full duplex telephone communications between visitors and residents for granting access.

Housed in a locked, rugged stainless steel faced enclosure, the AE-100 features a lighted 12-key telephone style keypad and four operation buttons all with bright, easy-to-see graphics. The backlit two-line directory LCD display scrolls a programmable welcome message and shows the directory Names and Directory Codes. The system contains a built-in microphone, tamper resistant speaker, and a TTY connector for the hearing impaired.




Multi-lingual display programming prompts and voice help is available with a choice of English, Spanish, French-Canadian, or Portuguese language selection for the system. The system can be programmed locally using the keypad, or remotely with a touch tone telephone.

Instruction manuals and other support documents in Spanish, French-Canadian, and Portuguese are available on the Linear Web site's AE-100 product page at www.linearcorp.com.

Optional features that the AE-100 supports are provisions for postal lock and color CCTV camera installation.

Operation

In a typical installation, the unit's memory is programmed with each resident's Directory Code, Name, Telephone Number, and Entry Code.

Arriving visitors use the  or  keys to view the Name and Directory Code for the desired resident. Upon entering the Directory Code, or pressing the  button, the AE-100 will automatically dial the resident's Telephone Number and establish two-way voice communication between the visitor and the resident. The resident will then have the option to grant or deny access to the visitor by pressing a digit on their telephone. Residents simply enter their Entry Code for access.


In addition to the telephone entry, the AE-100 can grant access at the keypad using up to 125 Stand-alone Entry Codes not assigned to residents **(each Stand-alone Entry Code used reduces the number of available Directory Entries by one)**.

For ADA compliance for the hearing impaired, a visitor can connect their TTY device to the jack in the face of the system. The visitor will be able to use their TTY device to communicate with the resident's TTY device during the telephone call.

Database Overview

Programming the AE-100 involves entering installation information into the system's memory. The system uses this information as a reference "database" to control the operation of the system.

Resident Directory Data

Up to 125 resident Names, Telephone Numbers, and Entry Codes can be set. Each resident entry is assigned a Directory Code. Directory Codes can be two or three digits in length (all will be the same length). The Directory Code is the number a visitor would enter to have the system call the resident (the resident currently displayed can also be contacted using the  button). Each resident data entry also includes the resident's Telephone Number and a unique Entry Code for that resident.

RESIDENT DIRECTORY DATA (UP TO 125 RESIDENTS)

FOR EACH RESIDENT: DIRECTORY CODE (2 OR 3 DIGITS)
NAME (UP TO 16 CHARACTERS)
TELEPHONE # (UP TO 14 DIGITS)
ENTRY CODE (4 DIGITS)

Stand-alone Entry Code Data

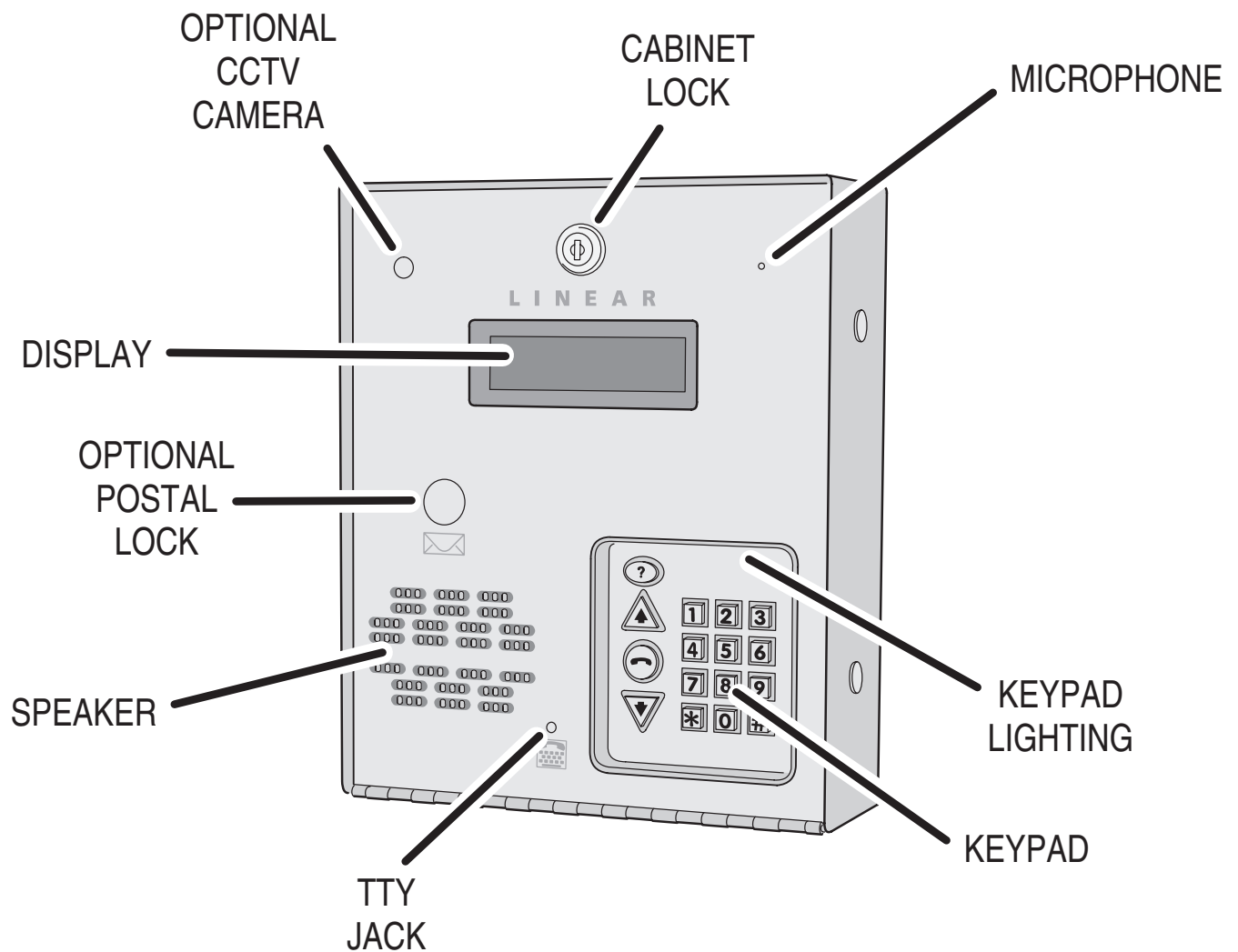
Up to 125 Stand-alone Entry Codes ("Entry Codes" are called "Access Codes when using the alternate programming method) that are not assigned to a resident's directory listing can be set. These types of Entry Codes are useful for service and maintenance personnel. **Each Stand-alone Entry Code programed reduces the available number of resident directory entries by one.** Stand-alone Entry Codes are four digits in length. When a Stand-alone Entry Code is entered at the keypad, it will activate the access relay.

STAND-ALONE ENTRY CODE DATA (UP TO 125 CODES)

FOR EACH CODE: STAND-ALONE ENTRY CODE (4 DIGITS)

NOTE: EACH STAND ALONE ENTRY CODE REDUCES THE AVAILABLE NUMBER OF RESIDENT DIRECTORY ENTRIES BY ONE

System Features



**Your access control installation company
has set this Master Password for this installation:**

Use this password to enter programming mode.

Access to Programming

To make it easy for installers familiar with Linear's and other manufacturer's access control systems, two methods of programming are available. Programming Position Numbers (or Function Codes) that match other equipment help the installer to make quick programming changes with keystrokes they've used before.

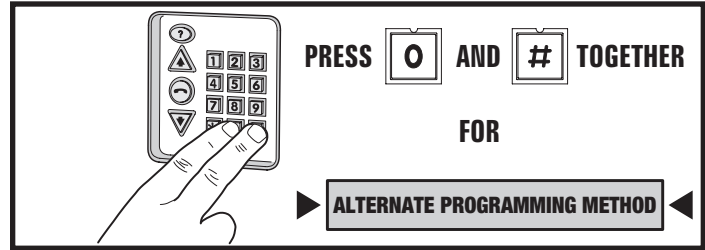
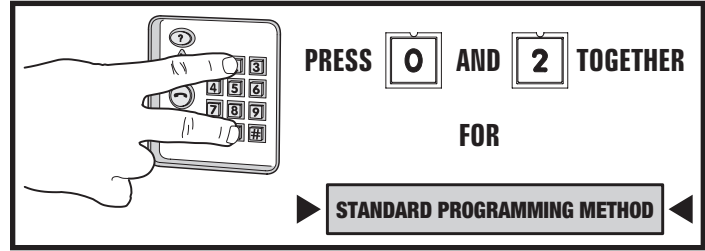
Automatic Programming Method Selection

The Programming Position Numbers (or Function Codes) change depending on the programming method used. Refer to the table on Page 13 for the numbers used for each programming method.

The keys used to enter programming from the unit's keypad select which programming method is used for the current programming session.

Entering programming by pressing **0** & **2** keys together will select the Standard Programming Method (Linear Access style). Details of each programming step when using the Standard Programming Method are shown on Pages 7-13.

Entering programming by pressing **0** & **#** keys together will select the Alternate Programming Method (other manufacturer's style). Details of each programming step when using the Alternate Programming Method are shown on Pages 15-21.



Programming from the Keypad (Standard Method)

The system can be programmed using the keypad on the faceplate of the AE-100. The display will show the programming information.

Accessing Programming from the Keypad

1. Press **0** & **2** keys at the same time, then release.
2. The display will show **[PASSWORD:]**.
3. Enter the Master Password (factory setting is 123456).
4. Press: **#**
5. If the password is correct, the display will show **[ENTER FUNCTION:]**.
6. Programming commands can now be entered on the keypad. Refer to the following sections of this manual for programming step details. Also refer to the figure for alphanumeric entry using the keypad.

Keypad Audio Prompts

When programming using the keypad, each programming step consists of entering programming data. **With the Standard Programming Method**, the system will sound beeps to indicate correct or incorrect entries.

- After a correct entry, two short beeps will sound.
- After an incorrect entry, one long beep will sound.
- After the complete programming step has been entered correctly, three short beeps will sound.

Re-entering a Command After a Mistake

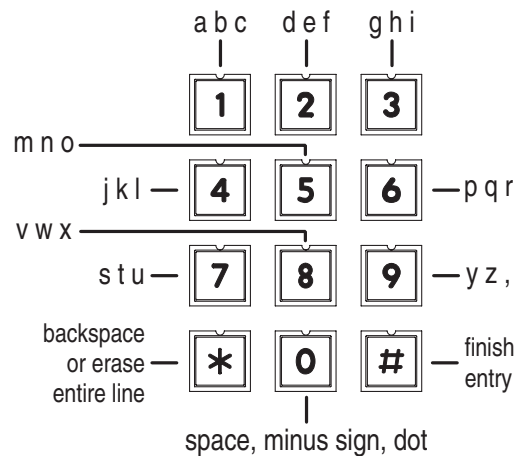
If an incorrect entry, or an incorrect key is pressed during programming, to clear the keypad press ***** and start the programming step over again.

Exiting Programming Mode

1. Press: **9 9 #**

◆ **NOTE:** The AE-100 will automatically exit Programming Mode after two minutes of programming inactivity.

KEYPAD ALPHANUMERIC ENTRY (FOR PROGRAMMING STEPS REQUIRING TEXT)



- 1ST PRESS IS 1ST LETTER
- 2ND PRESS IS 2ND LETTER
- 3RD PRESS IS 3RD LETTER
- 4TH PRESS IS THE KEY NUMBER
- 5TH PRESS IS 1ST LETTER AGAIN

• WAIT 3 SECONDS FOR THE NEXT CHARACTER (A BEEP WILL SOUND AFTER THE 3 SECOND DELAY TIME) OR PRESS ANOTHER KEY

• THE FIRST LETTER OF EACH WORD WILL BE UPPER CASE, TO MAKE AN ENTIRE WORD UPPER CASE TEXT, ENTER # FIRST

• FINISH ENTRY BY ENTERING #

• PRESS STAR KEY TO BACKSPACE, PRESS STAR AGAIN TO ERASE LINE

Programming Over the Telephone

Most system commands can be programmed using a TouchTone™ telephone. The telephone's keypad will act similar to the AE-100's keypad. Both programming methods can be used over the telephone.

Connecting with a Telephone

1. Place a call to the telephone number of the line that the AE-100 is connected to.
2. The AE-100 will answer on the third ring.
3. The system sounds beeps indicating the current system status (including any other units in a multi-unit installation):
 - One short beep sounds if all access relays are activated (all doors open).
 - Two short beeps sound if all access relays are deactivated (all doors closed).
 - One long beep sounds if there is a combination of access relays activated and deactivated (some doors open, some doors closed).
4. Enter the unit number (1-4) of the unit to log onto then press **[#]**
In a single-unit installation, use the default unit number 1.
 - ♦ **NOTE:** Log on to the Master Unit #1 in a multi-unit installation to program the master's memory. The master's memory can then be copied to the other units.
5. Enter the Master Password for the unit (the factory setting is 123456).
6. **To program using the Standard Programming Method press **[#]****
To program using the Alternate Programming Method press **[*]**
 If the password is correct, the system will sound two short beeps.
7. Programming commands can now be entered from the telephone's keypad.

To program the system, refer to the following pages of this manual.

- The Standard Programming Method steps are shown on Pages 7-13.
- The Alternate Programming Method steps are shown on Pages 15-21.

Telephone Audio Prompts

When programming over the telephone, each programming step consists of entering programming data using the telephone's keypad. The system will sound beeps over the telephone to indicate correct or incorrect entries.

The audio prompts that give feedback during programming are different for each programming method. Those differences are shown in the table to the right.

Re-entering a Command After a Mistake

If an incorrect entry, or an incorrect key is pressed during programming, press **[*]** and start the programming step over again.

Exiting Programming Mode

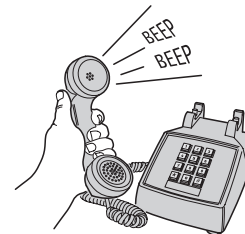
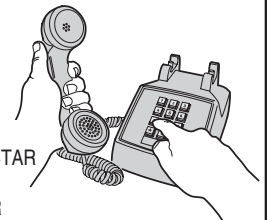
After programming, be sure to exit Programming Mode.

- ♦ **NOTE:** The AE-100 will automatically exit Programming Mode after two minutes of programming inactivity.

- To exit programming when using the Standard Programming Method, press: **[9][9][#]**
- To exit programming when using the Alternate Programming Method, press: **[9][1][#]**

CONNECTING WITH A TELEPHONE

1. CALL THE SYSTEM
2. SYSTEM ANSWERS ON THIRD RING
3. SYSTEM SOUNDS THE CURRENT STATUS:
 - > ONE SHORT BEEP - ALL RELAYS ON
 - > TWO SHORT BEEPS - ALL RELAYS OFF
 - > ONE LONG BEEP - RELAYS MIXED ON & OFF
4. ENTER THE UNIT NUMBER (1-4) AND PRESS #
FOR SINGLE-UNIT INSTALLATIONS ENTER 1#
5. ENTER THE MASTER PASSWORD
(DEFAULT PASSWORD IS 123456)
6. TO USE STANDARD PROGRAMMING PRESS #
 TO USE ALTERNATE PROGRAMMING PRESS STAR
7. BEGIN PROGRAMMING, ENTER STEP NUMBER FOLLOWED BY #



AUDIO PROMPTS FOR EACH PROGRAMMING METHOD

CONDITION	ALTERNATE METHOD SOUND	STANDARD METHOD SOUND
AFTER AN INCORRECT ENTRY	TWO LONG BEEPS	ONE LONG BEEP
AFTER A CORRECT ENTRY OF AN INTERIM STEP	ONE SHORT BEEP	TWO SHORT BEEPS
AFTER A COMPLETE COMMAND HAS BEEN ENTERED CORRECTLY	TWO SHORT BEEPS	THREE SHORT BEEPS
EXITING PROGRAMMING MODE	THREE SHORT BEEPS	NO BEEPS SOUND

TO EXIT PROGRAMMING

STANDARD PROGRAMMING METHOD

PRESS **[9][9][#]**

ALTERNATE PROGRAMMING METHOD

PRESS **[9][1][#]**

Programming Reference & Factory Defaults

STANDARD PROGRAMMING POSITION NUMBER	ALTERNATE FUNCTION CODE NUMBER	FUNCTION OF PROGRAMMING STEP	FACTORY DEFAULT VALUE
99	91	EXIT PROGRAM MODE	
SYSTEM OPTIONS			
38	38	SYSTEM DISPLAY LANGUAGE	ENGLISH
51	72	KEYPAD LOCKOUT COUNT	3 TRIES
52	71	ACCESS RELAY ACTIVATION TIME	4 SECONDS
57	10	WELCOME DISPLAY TEXT	LINEAR ACCESS TELEPHONE ENTRY
61	74	AUTOMATIC TELEPHONE ANSWER	ON
62	75	SPEAKER CHIRP ON KEYSTROKES	ON
63	76	SPEAKER TONE ON ACCESS RELAY ACTIVATION	ON
64	70	MAXIMUM VISITOR TALK TIME	60 SECONDS
77	77	RESIDENT CONTROL OF ACCESS RELAY	ON
95	95	RESIDENT CALL-BACK	OFF
ACCESS DATA CONTROL			
21	01	ADD A DIRECTORY ENTRY FOR A RESIDENT	
22	02	MODIFY AN EXISTING DIRECTORY ENTRY	
23	03	DELETE AN EXISTING DIRECTORY ENTRY	
31	31	ADD A STAND-ALONE ENTRY CODE	
33	33	DELETE A STAND-ALONE ENTRY CODE	
SYSTEM UTILITIES			
30	30	COPY ACCESS DATA ONLY FROM MASTER TO SUB-UNITS	
34	34	COPY ALL DATA FROM MASTER TO SUB-UNITS	
80	05	TIMED ACCESS RELAY LATCH	
81	05	LATCH ACCESS RELAY	
83	05	RELEASE ACCESS RELAY	
92	04	DELETE ALL RESIDENT DATA	
93	93	DELETE ALL STAND-ALONE ENTRY CODES	

Multi-unit Installations

Up to four AE-100 units may be connected to the same dedicated telephone line to form a simple network. Connecting multiple units allows transferring programming data (either the directory entries only or the entire memory's contents) from the "master" unit to the other sub-units.

In multi-unit installations each AE-100 must be assigned a unique unit number before programming. The unit number allows connecting to a specific unit when calling for programming and identifies the other units to the master unit. One unit must be assigned as "Master Unit #1".


Pre-set Unit Numbers

Your access control installation company has already programmed this system. If this is a multiple unit installation, the sub-unit numbers have been set in the sub-units, and the master unit was also programmed to recognize those numbers.

The unit numbers and locations for this installation are:

UNIT #	UNIT TYPE	UNIT LOCATION
1	MASTER UNIT	
2	SUB-UNIT	
3	SUB-UNIT	
4	SUB-UNIT	

Resident Data Programming

Up to 125 resident Names and Telephone Numbers can be set. Each resident entry is assigned a **Directory Code**. The Directory Code is the number visitors enter to have the system call the resident. Visitors can also contact a resident displayed by pressing the  key.

Use the programming worksheet supplied to organize the resident data prior to entering it into the system.

For each of the following steps, enter the Master Password and enter Programming Mode (if the unit is not already in that mode). Exit Programming Mode when all programming is complete.

Changing the Directory Code Length

The factory setting for the Directory Code length is 3 digits. It can be set to 2 or 3 digits.

1. Press   
2. Enter the **Directory Code** length (2 or 3).
3. Press 

DIRECTORY CODE LENGTH














PPN 02

02#LENGTH#

LENGTH = NUMBER (2-3) OF DIRECTORY CODE DIGITS

FACTORY SETTING: 3 DIGITS

Adding a Directory Entry for a Resident

1. Press   
2. Enter the **Directory Code** that will be displayed for the resident.
3. Press 
- ◆ **NOTE:** To add the name using all capital letters, press  before entering the name.
4. Enter the **Name** of the resident to be displayed (up to 16 characters).
5. Press 
6. Enter the resident's **Telephone Number** (up to 14 digits). Press and hold down the , , , or  key to enter 1-4 two-second pauses. Hold down the key for about two seconds. Note: Each pause entered counts as one of the 14 digits allowed in the telephone number.
7. Press 
8. Enter a unique four-digit **Entry Code** for this resident.
9. Press 
10. Enter the four-digit **Entry Code** again for verification.
11. Press 

ADDING A DIRECTORY ENTRY FOR A RESIDENT

PPN 21

21#DIR#NAME#PHONE#CODE#CODE#

DIR = DIRECTORY CODE FOR THE RESIDENT

NAME = THE RESIDENT'S NAME (UP TO 16 CHARACTERS)












PHONE = THE RESIDENT'S TELEPHONE NUMBER (UP TO 14 DIGITS)

CODE = ENTRY CODE FOR THIS RESIDENT (4 DIGITS)

CODE = ENTRY CODE ENTERED AGAIN FOR VERIFICATION

Modifying an Existing Directory Entry

Once a Directory Entry has been set, it can be modified to change a resident's Name, Telephone Number, or Entry Code.

- ◆ **NOTE:** This step cannot be performed remotely through the telephone.
1. Press   
2. Enter the resident's **Directory Code**.
3. Press 
- ◆ **NOTE:** To modify the name using all capital letters, press  before entering the name.
4. Modify the **Name** of the resident to be displayed (up to 16 characters) and press , or to keep the same name just press .
5. Modify the resident's **Telephone Number** (up to 14 digits, see how to enter pauses above) and press , or to keep the same Telephone Number just press .
6. Modify the resident's four-digit **Entry Code** and press , or to keep the same Entry Code just press .

MODIFYING AN EXISTING DIRECTORY ENTRY

PPN 22

22#DIR#NAME#PHONE#CODE#

DIR = DIRECTORY CODE FOR THE RESIDENT






NAME = THE RESIDENT'S NAME (UP TO 16 CHARACTERS)

PHONE = THE RESIDENT'S TELEPHONE NUMBER (UP TO 14 DIGITS)

CODE = THE RESIDENT'S ENTRY CODE (4 DIGITS)

Deleting an Existing Directory Entry

Directory Entries can be deleted individually (to delete all Directory Entries, see programming Step 92).

1. Press   
2. Enter the Directory Code.
3. Press 
4. Enter the Directory Code again.
5. Press 

DELETING AN EXISTING DIRECTORY ENTRY

PPN 23

23#DIR#DIR#

DIR = DIRECTORY CODE FOR THE RESIDENT

DIR = DIRECTORY CODE ENTERED AGAIN FOR VERIFICATION

Stand-alone Entry Code Programming

A **Stand-alone Entry Code** is a number entered at the AE-100 keypad to request access. Up to 125 4-digit Stand-alone Entry Codes can be set.

- ♦ **NOTE:** Each Stand-alone Entry Code programmed reduces the possible number of Directory Entries by one.

Use the programming worksheet supplied to organize the Stand-alone Entry Code data prior to entering it into the system.

For each of the following steps, enter the Master Password and enter Programming Mode (if the unit is not already in that mode). Exit Programming Mode when all programming is complete.

Adding a Stand-alone Entry Code

Stand-alone Entry Codes are entered individually.

1. Press **3 1** **⏏**
2. Enter the new **Stand-alone Entry Code**.
3. Press **⏏**
4. Enter the new **Stand-alone Entry Code** again for verification.
5. Press **⏏**

ADDING A STAND-ALONE ENTRY CODE

PPN 31

31#CODE#CODE#

CODE = NEW STAND-ALONE ENTRY CODE
CODE = NEW STAND-ALONE ENTRY CODE
AGAIN FOR VERIFICATION

Deleting a Stand-alone Entry Code

Stand-alone Entry Codes can be deleted individually (to delete all Stand-alone Entry Codes, see programming Step 93).

1. Press **3 3** **⏏**
2. Enter the **Stand-alone Entry Code** to delete.
3. Press **⏏**
4. Enter the **Stand-alone Entry Code** to delete again.
5. Press **⏏**

DELETING A STAND-ALONE ENTRY CODE

PPN 33

33#CODE#CODE#

CODE = THE STAND-ALONE ENTRY CODE TO DELETE
CODE = THE STAND-ALONE ENTRY CODE
AGAIN FOR VERIFICATION

System Options

For most installations the factory settings for the system will be appropriate. To customize the system, enter programming mode via telephone or keypad.

Use the programming worksheet supplied to log any system option changes prior to entering it into the system.

For each of the following steps, enter the Master Password and enter Programming Mode (if the unit is not already in that mode). Exit Programming Mode when all programming is complete.

System Display Language

The factory default language is English. Three other languages can be selected as the language for the user and programming displays.

◆ **NOTE:** This step cannot be performed remotely through the telephone.

◆ **NOTE:** The system supports one display language at a time.

1. Press **3 8** **⏏**
2. Choose a language:
 - Enter 1 for English
 - Enter 2 for Spanish
 - Enter 3 for French
 - Enter 4 for Portuguese
3. Press **⏏**

Keypad Lockout Count

The system counts the number of invalid Entry Codes entered at the keypad. If the invalid entries exceeds the lockout count number, the keypad is locked out for 90 seconds. The factory setting for the lockout count is three. The lockout value can be from one to nine.

1. Press **5 1** **⏏**
2. Enter the number for the lockout count (1-9).
3. Press **⏏**

Access Relay Activation Time

The factory setting will cause the access relay to activate for 4 seconds. The activation time can be set from 4-99 seconds to accommodate different types of access control devices.

1. Press **5 2** **⏏**
2. Enter the time (in seconds) for access relay to stay activated (04-99)
3. Press **⏏**

SYSTEM DISPLAY LANGUAGE

PPN 38

38#LANG#

LANG = SYSTEM DISPLAY LANGUAGE

1 = ENGLISH 2 = SPANISH
3 = FRENCH 4 = PORTUGUESE

FACTORY SETTING: ENGLISH

KEYPAD LOCKOUT COUNT

PPN 51

51#COUNT#

COUNT = NUMBER (1-9) OF INCORRECT ENTRIES
THAT WILL CAUSE A 90 SECOND LOCKOUT

FACTORY SETTING: 3 TRIES

ACCESS RELAY ACTIVATION TIME

PPN 52

52#SECONDS#

SECONDS = ACTIVATION TIME (04-99 SECONDS)

FACTORY SETTING: 4 SECONDS

System Options (Continued)

Welcome Display Text

The AE-100 display will show a visitor a welcome message alternating with instructions on how to find and call a resident. The welcome message can be customized to suit the installation.

- ◆ **NOTE:** This step cannot be performed remotely through the telephone.
- 1. Press **[5] [7] [⏏]**
- ◆ **NOTE:** To enter capital letters only, press **[⏏]** first before entering the text.
- 2. Enter the new text for the top line of the display (up to 16 characters).
- 3. Press **[⏏]**
- ◆ **NOTE:** To enter capital letters only, press **[⏏]** first before entering the text.
- 4. Enter the new text for the bottom line of the display (up to 16 characters).
- 5. Press **[⏏]**

WELCOME DISPLAY TEXT

PPN 57

57#LINE 1#LINE 2#

LINE 1 = UP TO 16 CHARACTERS TEXT
LINE 2 = UP TO 16 CHARACTERS TEXT

FACTORY SETTING: LINEAR ACCESS TELEPHONE ENTRY

Automatic Telephone Answer

The factory setting will allow the system to detect a ring signal on the telephone line and answer the call.

- ◆ **NOTE:** The automatic answer feature can be turned off, although remote programming, remote access control by residents, and resident call-back features will no longer function.
- 1. Press **[6] [1] [⏏]**
- 2. Select the option for automatic telephone answering:
 - Enter 0 to turn OFF automatic telephone answering.
 - Enter 1 to turn ON automatic telephone answering.
- 3. Press **[⏏]**

AUTOMATIC TELEPHONE ANSWER

PPN 61

61#ANSWER#

ANSWER = 0 FOR AUTO ANSWER OFF
ANSWER = 1 FOR AUTO ANSWER ON

FACTORY SETTING: AUTO ANSWER ON

Speaker Chirp on Keystrokes

The factory setting will cause the speaker to chirp when each key on the keypad is pressed. Alternately, the speaker chirp can be turned off.

- 1. Press **[6] [2] [⏏]**
- 2. Select the option for keystroke speaker chirps:
 - Enter 0 to turn OFF the keystroke speaker chirps.
 - Enter 1 to turn ON the keystroke speaker chirps.
- 3. Press **[⏏]**

SPEAKER CHIRP ON KEYSTROKE

PPN 62

62#CHIRP#

CHIRP = 0 FOR KEYSTROKE CHIRP OFF
CHIRP = 1 FOR KEYSTROKE CHIRP ON

FACTORY SETTING: KEYSTROKE CHIRP ON

Speaker Tone on Access Relay Activation

The factory setting will cause the speaker to sound a tone for two seconds when the access relay is activated. Alternately, the tone can be turned off.

- 1. Press **[6] [3] [⏏]**
- 2. Select the option for access relay activation tone:
 - Enter 0 to turn OFF the access relay activation tone.
 - Enter 1 to turn ON the access relay activation tone.
- 3. Press **[⏏]**

SPEAKER TONE ON ACCESS RELAY ACTIVATION

PPN 63

63#TONE#

TONE = 0 FOR ACCESS RELAY TONE OFF
TONE = 1 FOR ACCESS RELAY TONE ON

FACTORY SETTING: RELAY TONE ON

System Options (Continued)

Maximum Visitor Talk Time

Visitors will converse with residents over the telephone until the resident grants or denies access. If the resident responds to the visitor's request by pressing their telephone key, the system will hang up and release the telephone line. If for some reason the resident does not press the telephone key or does not hang up, the system will automatically disconnect the visitor after 60 seconds.

At ten and five seconds before the disconnect, a tone will sound on the telephone to remind the resident of the pending disconnect. The resident can extend the talk time by pressing the # key on their telephone. The disconnect time can be adjusted from 10-180 seconds.

1. Press **6 4 #**
2. Enter the disconnect time in seconds (010-180):
3. Press **#**

MAXIMUM VISITOR TALK TIME

PPN 64

64#TIME#

TIME = TIME UNTIL AUTO-DISCONNECT
(010-180 SECONDS)

FACTORY SETTING: 60 SECONDS

Resident Control of Access Relay

The factory setting allows the resident to activate the access relay by pressing the 9 key on their telephone when a call from the AE-100 is received. This feature can be disabled. Disabling this feature will only allow access by using resident Entry Codes and Stand-alone Entry Codes at the unit's keypad.

1. Press **7 7 #**
2. Select the option for resident access relay control:
 - Enter 0 to turn OFF resident access relay control.
 - Enter 1 to turn ON resident access relay control.
3. Press **#**

RESIDENT CONTROL OF ACCESS RELAY

PPN 77

77#CONTROL#

CONTROL = 0 TO DISABLE RESIDENT CONTROL
CONTROL = 1 TO ENABLE RESIDENT CONTROL

FACTORY SETTING: RESIDENT CONTROL ENABLED

Resident Call-back

The resident call-back feature allows the AE-100 to answer the telephone and switch to speakerphone mode if the telephone call is within 60 seconds of the last use of the AE-100. This feature gives residents the capability to call a visitor back in case of a recently missed call.

This feature can only be used in single unit installations.

The factory setting disables the resident call-back feature. Alternately, this feature can be enabled.

◆ **NOTE:** The Automatic Telephone Answer feature (PPN #61) must also be enabled for the resident call-back feature to function.

1. Press **9 5 #**
2. Select the option for resident call-back:
 - Enter 0 to turn OFF the resident call-back feature.
 - Enter 1 to turn ON the resident call-back feature.
3. Press **#**

RESIDENT CALL-BACK

PPN 95

95#CALL-BACK#

CALL-BACK = 0 TO DISABLE RESIDENT CALL-BACK
CALL-BACK = 1 TO ENABLE RESIDENT CALL-BACK

FACTORY SETTING: RESIDENT CALL-BACK DISABLED

System Utility Commands

Several utility commands are available for the system. Utility commands can be used to copy data to other units in a multi-unit installation, clear memory, and control the relays.

For each of the following steps, enter the Master Password and enter Programming Mode (if the unit is not already in that mode). Exit Programming Mode when all programming is complete.

Copy Access Data Only from Master to Sub-units

To synchronize programming in multi-unit installations, the Directory Entries and Stand-alone Entry Codes can be copied from the master unit to selected sub-units.

◆ **NOTE:** The installer must setup the system as a multi-unit installation before this command will operate.

◆ **NOTE:** This utility command can only be performed from the "master" unit.

⚠ **CAUTION:** This utility command will overwrite **ALL the access data** in the selected sub-units.

- Press **3 0 #**
- Enter the unit number(s) of all of the sub-units to receive the access data.
Examples:
 - To copy to unit two only enter **2 #**
 - To copy to unit three only enter **3 #**
 - To copy to units two & three enter **2 3 #**
 - To copy to units two, three, and four enter **2 3 4 #**
- To execute the command, enter **5 #** or enter ***** to exit (any other entry will abort the command).

COPY ACCESS DATA ONLY FROM MASTER TO SUB-UNITS PPN 30

30#SUB-UNITS#5#

SUB-UNITS = EACH SUB-UNIT NUMBER (2-4) TO COPY ACCESS DATA TO IN A MULTI-UNIT INSTALLATION

NOTE:

TO ALLOW FOR MULTI-UNIT NETWORK COMMUNICATIONS, WHEN EXECUTING THIS COMMAND REMOTELY OVER THE TELEPHONE, THE SYSTEM WILL DISCONNECT YOUR CALL AFTER STEP #3 THEN COPY THE DATA FROM THE MASTER UNIT TO THE SUB-UNITS.

Copy All Data from Master to Sub-units

To synchronize programming in multi-unit installations, all system data can be copied from the master unit to selected sub-units. This data includes the Directory Entries, Stand-alone Entry Code data, and all system option settings (except the sub-unit number and password).

◆ **NOTE:** The installer must setup the system as a multi-unit installation before this command will operate.

◆ **NOTE:** This utility command can only be performed from the "master" unit.

⚠ **CAUTION:** This utility command will overwrite **ALL the data** in the selected sub-units.

- Press **3 4 #**
- Enter the unit number(s) of all of the sub-units to receive the full data set.
Examples:
 - To copy to unit two only enter **2 #**
 - To copy to unit three only enter **3 #**
 - To copy to units two & three enter **2 3 #**
 - To copy to units two, three, and four enter **2 3 4 #**
- To execute the command, enter **5 #** or enter ***** to exit (any other entry will abort the command).

COPY ALL DATA FROM MASTER TO SUB-UNITS PPN 34

34#SUB-UNITS#5#

SUB-UNITS = EACH SUB-UNIT NUMBER (2-4) TO COPY ALL DATA TO IN A MULTI-UNIT INSTALLATION

NOTE:

TO ALLOW FOR MULTI-UNIT NETWORK COMMUNICATIONS, WHEN EXECUTING THIS COMMAND REMOTELY OVER THE TELEPHONE, THE SYSTEM WILL DISCONNECT YOUR CALL AFTER STEP #3 THEN COPY THE DATA FROM THE MASTER UNIT TO THE SUB-UNITS.

System Utility Commands (Continued)

Timed Access Relay Latch

For servicing or testing, while in Programming Mode, the access relay can be latched manually from the keypad for a period of hours.

1. Press **8 0 #**
2. Enter the amount of time in hours (01-98) for the access relay to latch.
3. Press **#**

TIMED ACCESS RELAY LATCH

PPN 80

80#HOURS#

HOURS = RELAY LATCH TIME IN HOURS (01-98)

Latch Access Relay

For servicing or testing, while in Programming Mode, the access relay can be latched manually from the keypad for an indefinite period of time.

- ◆ **NOTE:** This command will reset and override and timed access relay latch set by PPN 80.

1. Press **8 1 #**

LATCH ACCESS RELAY

PPN 81

81#

Release Access Relay

For servicing or testing, while in Programming Mode, this command will release the access relay if it has been manually latched (timed or indefinite).

1. Press **8 3 #**

RELEASE ACCESS RELAY

PPN 83

83#

Delete All Directory Entries

This utility command will **permanently** erase **all** Directory Codes, Names, Telephone Numbers, and resident's Entry Codes.

- ⚠ **CAUTION:** This utility command will erase **ALL the Directory Entries** in the unit.

- ◆ **NOTE:** This step cannot be performed remotely through the telephone.

1. Press **9 2 #**
2. Press **9 2 #** again for verification.

DELETE ALL DIRECTORY ENTRIES

PPN 92

92#92#

Delete All Stand-alone Entry Codes

This utility command will **permanently** erase **all** Stand-alone Entry Codes.

- ⚠ **CAUTION:** This utility command will erase **ALL the Stand-alone Entry Codes** in the unit.

- ◆ **NOTE:** This step cannot be performed remotely through the telephone.

1. Press **9 3 #**
2. Press **9 3 #** again for verification.

DELETE ALL STAND-ALONE ENTRY CODES

PPN 93

93#93#

Alternate Programming Section

To make it easy for installers familiar with Linear's and other manufacturer's access control systems, two methods of programming are available. Function Codes that match other equipment help the installer to make quick programming changes with keystrokes they have used before.

Alternate Programming Method Selection

The Programming Position Numbers (or Function Codes) change depending on the programming method used. Refer to the table on Page 13 for the numbers used for each programming method.

The keys used to enter programming from the unit's keypad select which programming method is used for the current programming session.

Entering programming by pressing **0** & **#** keys together will select the Alternate Programming Method (other manufacturer's style). Details of each programming step when using the Alternate Programming Method are shown on Pages 15-21.

Alternate Audio Prompts

The audio prompts that give feedback during programming at the unit's keypad or over the telephone are different for the Alternate Programming Method. Those differences are shown in the table to the right.

Alternate Alphanumeric Entry

When the keypad is used for alphanumeric data entry in the alternate programming mode, each key enters data differently than the standard interface mode. See the keypad figure to the right.

Alternate Programming Access from the Keypad

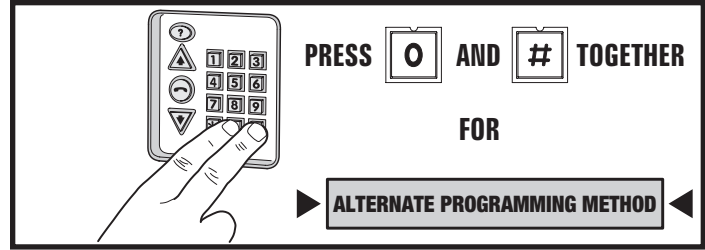
1. Press **0** & **#** keys at the same time, then release.
2. The display will show **[Master Code:]**.
3. Enter the master code (factory setting is 123456).
4. The display will show asterisks as the code is entered.
5. If the master code is incorrect, the system will sound two long beeps and return to normal operating mode.
6. If the password is correct, the display will show **[SELECT FUNCTION:]**.
7. Programming commands can now be entered on the keypad. Refer to the following pages in this manual for Alternate Programming Method step details.

Re-entering a Command After a Mistake

If an incorrect entry, or an incorrect key is pressed during programming, to clear the keypad press ***** and start the programming step over again.

Exiting Alternate Programming Mode

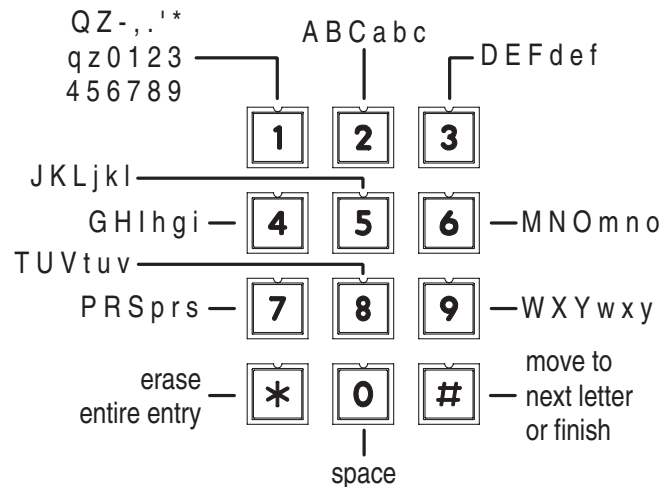
1. Press: **9 1 #**
- ♦ **NOTE:** The AE-100 will automatically exit Programming Mode after five minutes of programming inactivity.



AUDIO PROMPTS FOR EACH PROGRAMMING METHOD

CONDITION	ALTERNATE METHOD SOUND	STANDARD METHOD SOUND
AFTER AN INCORRECT ENTRY	TWO LONG BEEPS	ONE LONG BEEP
AFTER A CORRECT ENTRY OF AN INTERIM STEP	ONE SHORT BEEP	TWO SHORT BEEPS
AFTER A COMPLETE COMMAND HAS BEEN ENTERED CORRECTLY	TWO SHORT BEEPS	THREE SHORT BEEPS
EXITING PROGRAMMING MODE	THREE SHORT BEEPS	NO BEEPS SOUND

**ALTERNATE INTERFACE KEYPAD ALPHANUMERIC ENTRY
(FOR PROGRAMMING STEPS REQUIRING TEXT)**



- ENTER # AFTER EACH LETTER TO MOVE TO THE NEXT CHARACTER
- FINISH COMPLETE ENTRY BY ENTERING ##
- PRESS 8 THEN 0 TO BACKSPACE
- PRESS STAR TO ERASE ENTIRE ENTRY

Alternate Programming Reference

Refer to the following pages when programming using the Alternate Programming method.

For each of the following steps, enter the Master Password and enter Programming Mode (if the unit is not already in that mode). Exit Programming Mode when all programming is complete.

FUNCTION CODE	LOCAL PROGRAMMING	TELEPHONE PROGRAMMING
<p>01</p> <p>PROGRAM A NEW TENANT</p> <p>There are four different fields that need to be programmed: Directory Code, Name, Telephone Number, and Access Code.</p> <p>Directory Code: A unique 2 or 3 digit code assigned to each tenant for identification.</p> <p>Name: Up to 16 characters.</p> <p>Telephone Number: Up to 14 digits.</p> <p>Access Code: 4-digit code assigned to tenant for obtaining access with the keypad.</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1. Directory Codes can be set for 2 or 3 digits. All Directory Codes will be the same length. 2. A Directory Code cannot be duplicated. 3. Each Directory Code represents one tenant. 4. Delete unused Directory Codes to avoid running out of memory. 5. Tenant Names can be entered in any order. The system will display the Names in alphabetical order. 6. The same Name, Telephone Number, and Access Code can exist with different Directory Codes. 	<p>Step 1 Enter Function Code 01, then press #.</p> <div>ENTER DIR:</div> <p>Step 2 Enter the new 2 or 3 digit Directory Code.</p> <div>ENTER NAME:</div> <p>Proceed to Step 3.</p> <p>If the Directory Code has already been used the display shows:</p> <div>DIR # IS USED!</div> <p>Return to Step 2.</p> <p>If the memory is full the display shows:</p> <div>ERROR DATA</div> <p>Return to Step 2.</p> <p>Step 3 Enter the tenant Name (up to 16 characters), press # after each character, then # again after the last character.</p> <div>TELEPHONE #:</div> <p>Step 4 Enter the tenant's Telephone Number (up to 14 digits), press # after each number, then # again after the last number. Press and hold down the 1, 2, 3, or 4 key for about two seconds to enter 1-4 two-second pauses. Note: Each pause entered counts as one of the 14 digits allowed in the telephone number.</p> <div>ACCESS CODE:</div> <p>Step 5 Enter the 4-digit Access Code,</p> <p>Step 6 Press #.</p>	<p>Step 1 Enter Function Code 01 and press #, one short beep sounds.</p> <p>Step 2 Enter the new Directory Code (2 or 3 digits) and press #, one short beep sounds. (If you hear two long beeps, the Directory Number already exists, return to Step 1.)</p> <p>Step 3 Enter the Name (up to 16 characters) press # after each character, then # again after the last character, one short beep sounds.</p> <p>Step 4 Enter Telephone Number (up to 14 digits), press # after each number, then # again after the last number and press #, one short beep sounds.</p> <p>Step 5 Enter the 4-digit Access Code, then press #, two short beeps sound.</p>

FUNCTION CODE	LOCAL PROGRAMMING	TELEPHONE PROGRAMMING
<p>02</p> <p>MODIFY AN EXISTING TENANT DIRECTORY ENTRY</p> <p>Choose a tenant's Directory Code to modify (you must know the tenant's Directory Code to modify).</p>	<p>Step 1 Enter Function Code 02, then press #.</p> <div data-bbox="526 186 748 249">MODIFY DIR:</div> <p>Step 2 Enter the new 2 or 3 digit Directory Code.</p> <div data-bbox="526 298 748 361">ENTER THE NAME:</div> <p>Then the tenant's current Name is displayed:</p> <div data-bbox="526 409 748 472">CURRENT NAME</div> <p>Step 3 To keep the Name press # and skip to Step 5.</p> <p>Step 4 To change the Name press * then enter a new Name (up to 16 characters), press # after each character, then # again after the last character:</p> <div data-bbox="526 625 748 688">PHONE NUMBER CURRENT PH#</div> <p>Step 5 To keep the Telephone Number press # and skip to Step 7.</p> <p>Step 6 To change the Telephone Number press * then enter a new Telephone Number (up to 14 digits), press # after each number, then # again after the last number. Press and hold down the 1, 2, 3, or 4 key for about two seconds to enter 1-4 two-second pauses. Note: Each pause entered counts as one of the 14 digits allowed in the telephone number.</p> <div data-bbox="526 1003 748 1066">ACCESS CODE: CURRENT CODE</div> <p>Step 7 To keep the Access Code press #.</p> <p>Step 8 To change the Access Code, enter a new 4-digit Access Code, then press #.</p>	<p>NOT AVAILABLE</p>
<p>03</p> <p>DELETE AN EXISTING TENANT DIRECTORY ENTRY</p> <p>Deletes a single existing Directory Entry. This command frees up memory occupied by an unused Directory Entry.</p>	<p>Step 1 Enter Function Code 03, then press #.</p> <div data-bbox="526 1234 748 1297">DELETE DIR:</div> <p>Step 2 Enter the 2 or 3 digit Directory Code to delete, then press #:</p> <div data-bbox="526 1375 748 1438">DIR CODE IS DELETED !</div> <p>If the Directory Code does not exist, the display will show an error, return to Step #1.</p> <div data-bbox="526 1516 748 1579">ERROR ON DELETE</div>	<p>Step 1 Enter Function Code 03 and press #, one short beep sounds.</p> <p>Step 2 Enter the Directory Code (2 or 3 digits) to delete and press #, two short beeps sound. (If you hear one long beep followed by two short beeps, the Directory Code did not exist, return to Step 1.)</p>
<p>04</p> <p>CLEAR ALL TENANT DIRECTORY ENTRIES</p> <p>Deletes all existing Directory Entries. This command will erase all Directory Codes, Names, Telephone Numbers and directory-linked Access Codes.</p> <p>⚠ CAUTION: This utility command will erase ALL the Directory Entries in the unit.</p>	<p>Step 1 Enter Function Code 04, then press #.</p> <div data-bbox="526 1633 748 1696">DELETE ALL? 13</div> <p>Step 2 Enter the number displayed, then press #:</p> <div data-bbox="526 1745 748 1808">ARE YOU SURE? 5</div> <p>Step 3 Enter 5 for verification, then press # (or press * to cancel).</p>	<p>NOT AVAILABLE</p>

FUNCTION CODE	LOCAL PROGRAMMING	TELEPHONE PROGRAMMING
<p>05</p> <p>MANUAL ACCESS RELAY CONTROL</p> <p>This command can be used to latch the access relay indefinitely or for a period of time, and to unlatch the access relay.</p>	<p>Step 1 Enter Function Code 05, then press #.</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">OPEN:00 HOURS</div> <p>Step 2 Enter the number of hours from 01-98 to energize the access relay, then press #.</p> <p>- OR -</p> <p>Enter the 99 to energize the access relay indefinitely, then press #.</p> <p>- OR -</p> <p>Enter the 00 to de-energize the access relay, then press #.</p> <p>- OR -</p> <p>Enter * to cancel this command.</p>	<p>Step 1 Enter Function Code 05 and press #, one short beep sounds.</p> <p>Step 2 Enter the number of hours from 01-98 to energize the access relay, then press #.</p> <p>- OR -</p> <p>Enter the 99 to energize the access relay indefinitely, then press #.</p> <p>- OR -</p> <p>Enter the 00 to de-energize the access relay, then press #.</p> <p>Two long beeps and two short beeps will sound.</p>
<p>06</p> <p>DIRECTORY CODE LENGTH</p> <p>Selects 2 or 3 digits for the Directory Code length (factory default is 3 digits).</p> <p>NOTE: In multi-unit installations, if sub-units are being updated with access data that has Directory Codes with more digits than the sub-unit is set for, the sub-unit's Directory Code length number will be automatically adjusted to fit.</p>	<p>Step 1 Enter Function Code 06, then press #.</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">DIR DIGITS: 3</div> <p>Step 2 The display shows the current value. Enter 2 or 3, then press #.</p> <p>- OR -</p> <p>Enter * to cancel this command.</p>	<p style="text-align: center;">NOT AVAILABLE</p>
<p>10</p> <p>WELCOME DISPLAY TEXT</p> <p>The AE-100 display will show a visitor a welcome message alternating with instructions on how to find and call a resident. The welcome message can be customized to suit the installation.</p>	<p>Step 1 Enter Function Code 10, then press #.</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">(BLANK DISPLAY)</div> <p>Step 2 Enter the new welcome message. A total of 32 characters are allowed. The display will advance to the lower line after the 16th character is entered on the upper line. Enter # after each character, enter ## after the last character.</p>	<p style="text-align: center;">NOT AVAILABLE</p>
<p>30</p> <p>COPY ACCESS DATA ONLY FROM MASTER TO SUB-UNITS</p> <p>To synchronize programming in multi-unit installations, the Directory Entries and Stand-alone Entry Codes can be copied from the master unit to selected sub-units.</p> <p>CAUTION: This utility command will overwrite ALL the access data in the sub-unit(s) selected.</p>	<p>Step 1 Enter Function Code 30, then press #.</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">UNITS:</div> <p>Step 2 Enter the number(s) (2, 3, and/or 4) of all the sub-units to copy the data to, then press #.</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">ARE YOU SURE ? 5</div> <p>Step 3 Enter 5 for verification, then press #.</p> <p>- OR -</p> <p>Enter * to cancel this command.</p> <p>NOTE: The installer must setup the system as a multi-unit installation before this command will operate.</p>	<p>Step 1 Enter Function Code 30 and press #, one short beep sounds.</p> <p>Step 2 Enter the number(s) (2, 3, and/or 4) of all the sub-units to copy the data to, then press #, one short beep sounds.</p> <p>Step 3 Enter 5 for verification, then press #, two short beeps sound. (Any entry other than 5# will cancel the command.)</p> <p>NOTE: To allow for multi-unit network communications, when executing this command remotely over the telephone, the system will disconnect your call after Step #3 then copy the data from the master unit to the sub-units.</p>

FUNCTION CODE	LOCAL PROGRAMMING	TELEPHONE PROGRAMMING
31 ADD A STAND-ALONE ACCESS CODE <p>A Stand-alone Access Code is a number entered at the AE-100 keypad to request access. Up to 125 4-digit Stand-alone Access Codes can be set.</p> <p>NOTE: Each Stand-alone Access Code programmed reduces the possible number of Directory Entries by one.</p>	<p>Step 1 Enter Function Code 31, then press #.</p> <div>ACCESS CODE:</div> <p>Step 2 Enter the new 4-digit Stand-alone Access Code, then press #.</p> <div>ACCESS CODE:</div> <p>Step 3 Enter the new 4-digit Stand-alone Access Code again for verification</p> <p>Step 4 Press #.</p>	<p>Step 1 Enter Function Code 31 and press #, one short beep sounds.</p> <p>Step 2 Enter the new 4-digit Stand-alone Access Code, press #, one short beep sounds.</p> <p>Step 3 Enter the new 4-digit Stand-alone Access Code again for verification.</p> <p>Step 4 Press #, two short beeps sound.</p>
33 DELETE A STAND-ALONE ACCESS CODE <p>Deletes a single existing Stand-alone Access Code.</p>	<p>Step 1 Enter Function Code 33, then press #.</p> <div>ACCESS CODE:</div> <p>Step 2 Enter the 4-digit Stand-alone Access Code to delete, then press #.</p> <div>ACCESS CODE:</div> <p>Step 3 Enter the 4-digit Stand-alone Access Code to delete again for verification</p> <p>Step 4 Press #.</p>	<p>Step 1 Enter Function Code 33 and press #, one short beep sounds.</p> <p>Step 2 Enter the 4-digit Stand-alone Access Code to delete, press #, one short beep sounds.</p> <p>Step 3 Enter the 4-digit Stand-alone Access Code to delete again for verification.</p> <p>Step 4 Press #, two short beeps sound.</p>
34 COPY ALL MASTER MEMORY TO SUB-UNITS <p>To synchronize programming in multi-unit installations, all system data can be copied from the master unit to selected sub-units. This data includes the Directory Entries, Stand-alone Access Codes, and all system option settings (except the sub-unit number).</p> <p>NOTE: This utility command can only be performed from the "master" unit</p> <p>CAUTION: This utility command will overwrite ALL data in the sub-unit(s) selected.</p>	<p>Step 1 Enter Function Code 34, then press #.</p> <div>UNITS:</div> <p>Step 2 Enter the number(s) (2, 3, and/or 4) of all the sub-units to copy the data to, then press #.</p> <div>ARE YOU SURE ? 5</div> <p>Step 3 Enter 5 for verification, then press #.</p> <p>- OR -</p> <p>Enter * to cancel this command.</p> <p>NOTE: The installer must setup the system as a multi-unit installation before this command will operate.</p>	<p>Step 1 Enter Function Code 34 and press #, one short beep sounds.</p> <p>Step 2 Enter the number(s) (2, 3, and/or 4) of all the sub-units to copy the data to, then press #, one short beep sounds.</p> <p>Step 3 Enter 5 for verification, then press #, two short beeps sound. (Any entry other than 5# will cancel the command.)</p> <p>NOTE: To allow for multi-unit network communications, when executing this command remotely over the telephone, the system will disconnect your call after Step #3 then copy the data from the master unit to the sub-units.</p>
38 SYSTEM DISPLAY LANGUAGE <p>The factory default language is English. Three other languages can be selected as the language for the user and programming displays.</p> <p>NOTE: The system supports one display language at a time.</p>	<p>Step 1 Enter Function Code 38, then press #.</p> <div>LANGUAGE: 1-4</div> <p>Step 2 Enter:</p> <p>1 for English (Default).</p> <p>2 for Spanish.</p> <p>3 for French.</p> <p>4 for Portuguese.</p> <p>Step 3 Press #.</p>	<p>NOT AVAILABLE</p>

FUNCTION CODE	LOCAL PROGRAMMING	TELEPHONE PROGRAMMING
<p>70</p> <p>MAXIMUM VISITOR TALK TIME</p> <p>If for some reason the resident does not press the telephone keys to grant or deny access or does not hang up, the system will automatically disconnect the visitor after 60 seconds.</p> <p>At ten and five seconds before the disconnect a tone will sound on the telephone to remind the resident of the pending disconnect. The resident can extend the talk time by pressing the # key on their telephone. The disconnect time can be adjusted from 10-180 seconds.</p>	<p>Step 1 Enter Function Code 70, then press #.</p> <div>TALK TIME: 060</div> <p>Step 2 The display will show the current talk time setting. Enter the new talk time (010-180 seconds).</p> <p>Step 3 Press #.</p>	<p>Step 1 Enter Function Code 70 and press #, one short beep sounds.</p> <p>Step 2 Enter the new talk time (010-180 seconds) and press #, two short beeps sound.</p> <p>Step 3 Press #, two short beeps sound</p>
<p>71</p> <p>ACCESS RELAY ACTIVATION TIME</p> <p>The factory setting will cause the access relay to activate for 4 seconds. The activation time can be set from 4-99 seconds to accommodate different types of access control devices.</p>	<p>Step 1 Enter Function Code 71, then press #.</p> <div>OPEN TIME: 4</div> <p>Step 2 The display will show the current access relay activation time setting. Enter the new access relay activation time (04-99 seconds).</p> <p>Step 3 Press #.</p>	<p>Step 1 Enter Function Code 71 and press #, one short beep sounds.</p> <p>Step 2 Enter the new access relay activation time (04-99 seconds).</p> <p>Step 3 Press #, two short beeps sound.</p>
<p>72</p> <p>KEYPAD LOCKOUT COUNT</p> <p>The system counts the number of invalid Access Codes entered at the keypad. If the invalid entries exceeds the lockout count number, the keypad is locked out for 90 seconds. The factory setting for the lockout count is three. The lockout value can be from one to nine.</p>	<p>Step 1 Enter Function Code 72, then press #.</p> <div>LOCK-OUT COUNT: 3</div> <p>Step 2 The display will show the current lockout count. Enter the new lockout count (1-9 tries).</p> <p>Step 3 Press #.</p>	<p>Step 1 Enter Function Code 72 and press #, one short beep sounds.</p> <p>Step 2 Enter the new lockout count (1-9 tries).</p> <p>Step 3 Press #, two short beeps sound</p>

FUNCTION CODE	LOCAL PROGRAMMING	TELEPHONE PROGRAMMING
74 AUTOMATIC TELEPHONE ANSWER <p>The factory setting will allow the system to detect a ring signal on the telephone line and answer the call.</p> <p>NOTE: The automatic answer feature can be turned off, although remote programming, remote access control by residents, and resident call-back features will no longer function</p>	<p>Step 1 Enter Function Code 74, then press #.</p> <div>AUTO-ANSWER=1:</div> <p>Step 2 The display will show the auto answer setting. Enter 0 to disable auto answer. Enter 1 to enable auto answer (default).</p> <p>Step 3 Press #.</p>	<p>NOT AVAILABLE</p>
75 SPEAKER CHIRP ON KEYSTROKES <p>The factory setting will cause the speaker to chirp when each key on the keypad is pressed. Alternately, the speaker chirp can be turned off.</p>	<p>Step 1 Enter Function Code 75, then press #.</p> <div>BEEP ON=1 OFF=0</div> <p>Step 2 Enter 0 to turn the keystroke chirps OFF. Enter 1 to turn the keystroke chirps ON (default).</p> <p>Step 3 Press #.</p>	<p>Step 1 Enter Function Code 75 and press #, one short beep sounds.</p> <p>Step 2 Enter 0 to turn the keystroke chirps OFF. Enter 1 to turn the keystroke chirps ON.</p> <p>Step 3 Press #, two short beeps sound.</p>
76 SPEAKER TONE ON ACCESS RELAY ACTIVATION <p>The factory setting will cause the speaker to sound a tone for two seconds when the access relay is activated. Alternately, the tone can be turned off.</p>	<p>Step 1 Enter Function Code 76, then press #.</p> <div>UNLOCK BEEP<1,0></div> <p>Step 2 Enter 0 to turn the relay tone OFF. Enter 1 to turn the relay tone ON (default).</p> <p>Step 3 Press #.</p>	<p>Step 1 Enter Function Code 76 and press #, one short beep sounds.</p> <p>Step 2 Enter 0 to turn the relay tone OFF. Enter 1 to turn the relay tone ON.</p> <p>Step 3 Press #, two short beeps sound.</p>
77 RESIDENT CONTROL OF ACCESS RELAY <p>The factory setting allows the resident to activate the access relay by pressing the 9 key on their telephone when a call from the AE-100 is received. This feature can be disabled. Disabling this feature will only allow access by using resident Access Codes and Stand-alone Access Codes at the unit's keypad.</p>	<p>Step 1 Enter Function Code 77, then press #.</p> <div>ENA=1 DISA=0:</div> <p>Step 2 Enter 0 to disable resident control of the access relay. Enter 1 to enable resident control of the access relay (default).</p> <p>Step 3 Press #.</p>	<p>NOT AVAILABLE</p>

FUNCTION CODE	LOCAL PROGRAMMING	TELEPHONE PROGRAMMING
<p>91</p> <p>EXIT PROGRAMMING MODE</p> <p>Entering this command number will cause the unit to exit programming mode and return to normal operation.</p>	<p>Step 1 To exit programming mode, enter Function Code 91, then press #.</p> <p>NOTE: The AE-100 will automatically exit Programming Mode after five minutes of programming inactivity.</p>	<p>Step 1 To exit programming mode, enter Function Code 91.</p> <p>Step 2 Press #, three short beeps sound.</p>
<p>93</p> <p>DELETE ALL STAND-ALONE ACCESS CODES</p> <p>This utility command will permanently erase all Stand-alone Access Codes.</p> <p>CAUTION: This utility command will erase ALL the Stand-alone Access Codes in the unit.</p>	<p>Step 1 Enter Function Code 93, then press #.</p> <div>ENTER FUNCTION:</div> <p>Step 2 Enter the Function Code 93 again for verification, then press #.</p>	<p>NOT AVAILABLE</p>
<p>95</p> <p>TENANT CALL-BACK</p> <p>The tenant call-back feature allows the AE-100 to answer the telephone and switch to speakerphone mode if the telephone call is within 60 seconds of the last use of the AE-100. This feature gives residents the capability to call a visitor back in case of a recently missed call. The factory setting has this feature disabled. Alternately, this feature can be enabled.</p> <p>NOTE: The Automatic Telephone Answer feature (Function Code #74) must also be enabled for this feature to function.</p>	<p>Step 1 Enter Function Code 95, then press #.</p> <div>TENANT CALL BK=0</div> <p>Step 2 The display will show the current setting. Enter 0 to disable tenant call-back (default). Enter 1 to enable tenant call-back.</p> <p>Step 3 Press #.</p> <p>NOTE: This feature can only be used in single unit installations.</p>	<p>Step 1 Enter Function Code 95 and press #, one short beep sounds.</p> <p>Step 2 Enter 0 to disable tenant call-back. Enter 1 to enable tenant call-back</p> <p>Step 3 Press #, two short beeps sound.</p>

AE-100 Operation

Requesting Access with a Visitor Call

- If the visitor already knows the resident's Directory Code number, they can press first, then enter the Directory Code number to call the resident.
- If the visitor doesn't know the residents Directory Code number, they can scroll through the alphabetical directory entries by pressing or .
 - Pressing scrolls from A-Z.
 - Pressing scrolls from Z-A.
 - Holding down the or keys will scroll the display faster.
- When the visitor finds the resident's name and Directory Code number, they can press to call the resident.
- The system dials the resident's Telephone Number to establish 2-way communications.
- ♦ **NOTE:** The resident's Telephone Number will never be displayed to the visitor.
- The resident answers the call and converses with the visitor to determine if access should be granted.
- The resident can use their telephone's keypad to grant access activating the access relay by pressing . After access is granted, the system will disconnect the visitor and resident call.
- The resident can disconnect the visitor without granting access by pressing or by hanging up.
- ♦ **NOTE:** Disconnecting by hanging up is not recommended. The system will keep the telephone line seized until the maximum visitor talk time timer runs out (the factory default is 60 seconds).
- The length of time the visitor is allowed to talk can be programmed from 10-180 seconds. At ten and five seconds before the disconnect a tone will sound on the telephone to remind the resident of the pending disconnect. To restart the talk timer, the resident can press on their telephone.

Requesting Access with an Entry Code

Residents and authorized personnel have up to 40 seconds to key in their Entry Code.

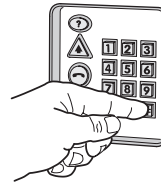
1. Press first to clear the keypad (optional), then enter the Entry Code.
2. When a correct code is entered, the access relay will activate.
 - Directory Entry Codes or Stand-alone Entry Codes can be used.
 - Up to eight seconds are allowed between each keystroke.
 - All digits of the Entry Code must be entered.
 - Example: The Entry Code length is four digits, and the code is 0042, the user must enter "0 0 4 2".
 - If a mistake is made, pressing the key will reset the keypad. The correct code can then be re-entered.
 - If the number of incorrect codes entered exceeds the keypad lockout count, the keypad will be locked and not accept any entries for 90 seconds.

Resident Call-back

If the resident call-back feature is enabled, resident's can call the AE-100 to talk to a visitor and grant access. The call-back must be made within 60 seconds after the visitor's missed call.

1. The resident dials the telephone number of the system within 60 seconds of its last use.
2. The system answers, and sounds one short beep.
3. After talking to the visitor, the resident can press their entry code to grant access, or the resident can press star to deny access.

VISITOR ACCESS

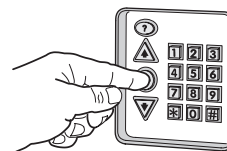


1. IF THE VISITOR ALREADY KNOWS THE RESIDENT'S DIRECTORY CODE, PRESS AND ENTER THE RESIDENT'S DIRECTORY CODE, THE SYSTEM WILL CALL THE RESIDENT

- OR -

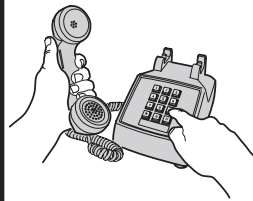


1. PRESS UP OR DOWN BUTTONS TO VIEW THE NAMES IN THE DIRECTORY (HOLDING DOWN THE BUTTON MAKES THE DIRECTORY SCROLL FASTER)



2. WHEN NAME IS FOUND, PRESS THE CALL BUTTON

- THEN -



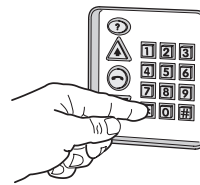
1. AFTER THE CALL IS ANSWERED, THE VISITOR CONVERSES WITH THE RESIDENT
2. THE RESIDENT GRANTS OR DENIES ACCESS

TO GRANT ACCESS, PRESS

- OR -

TO DENY ACCESS, PRESS

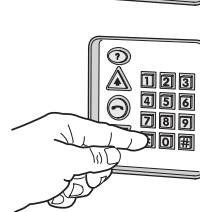
ENTRY CODE ACCESS



PRESS STAR FIRST TO CLEAR THE KEYPAD (OPTIONAL), THEN KEY IN A DIRECTORY ENTRY CODE OR STAND-ALONE ENTRY CODE



UP TO 8 SECONDS ARE ALLOWED BETWEEN EACH KEYSTROKE



UP TO 40 SECONDS ARE ALLOWED TO KEY IN THE ENTIRE ENTRY CODE

ALL FOUR DIGITS MUST BE ENTERED, INCLUDING LEADING ZEROS

IF A MISTAKE IS MADE, PRESS STAR KEY TO START OVER

THE KEYPAD WILL LOCKOUT AFTER TOO MANY INCORRECT ENTRIES

WHEN A CORRECT CODE IS ENTERED, THE ACCESS RELAY WILL ACTIVATE

RESIDENT CALL-BACK



1. CALL THE SYSTEM WITHIN 60 SECONDS OF A VISITOR'S MISSED CALL
2. THE SYSTEM ANSWERS AND SOUNDS ONE SHORT BEEP
3. CONVERSE WITH THE VISITOR
4. TO GRANT ACCESS, KEY IN AN ENTRY CODE

- OR -

TO DENY ACCESS, PRESS

Troubleshooting

System will not answer an incoming call

1. Automatic telephone answer disabled.
2. AE-100 telephone line trouble.

Keypad will not activate a relay

1. Entry code is not assigned.
2. Keypad may be in lockout from too many incorrect attempts. Wait 90 seconds for lockout to clear and try again.

Resident's Telephone does not ring when a visitor calls

1. Resident's Telephone Number programmed incorrectly.
2. Check AE-100 telephone line.
3. Call resident from another line or cell phone to determine if the resident's telephone is working.

Linear Limited Warranty

This Linear product is warranted against defects in material and workmanship for twenty-four (24) months. This warranty extends only to wholesale customers who buy direct from Linear or through Linear's normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. **This Linear LLC Warranty is in lieu of all other warranties express or implied.**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

FCC Notice

Changes or modifications not expressly described in this manual or approved by the manufacturer could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

