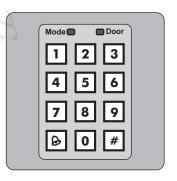
ROSSLARE

INSTRUCTION MANUAL



AC-B32

STAND-ALONE
ACCESS CONTROL UNIT



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Introduction

The AC-B32 is a proximity card and keypad access control unit.

The unit accepts up to 500 users and provides entry via the use of proximity cards and/or PIN codes.

Equipment provided

The following is provided as part of every AC-B32 package:

- AC-B32 Access Control Unit.
- Installation Kit
- Installation and Operating Instructions

Additional Equipment Required

- 1) Electric Lock Strike Mechanism
 Fail Safe (Power to Lock) or Fail Secure (Power to Open)
- 2) Power Supply with Backup Battery 12 to 16V DC (From a Regulated Power Supply)
- 3) Request To Exit (REX) Button
 Normally Open Type Switch is closed when pressed.
- **4) BL-D40 External Sounder (Optional)**Provides Siren, Bell, and Chime functions to AC-B32

Other Rosslare accessories can be found at Rosslare's Web Site:

http://www.rosslare.com.hk

Technical Specification

Electrical Characteristics

Operating Voltage Range:

12 to 16V DC From a Regulated Power Supply

Maximum Input Current:

Standby: 40mA Not including attached devices Max: 90mA Not including attached devices

Relay Outputs:

Lock Strike Relay Electronic, 3.5A

with built in suppressor protection

Auxiliary Relay Form C, 1A

Inputs:

REX N.O., Dry Contact

Auxiliary Input (In / Monitor) N.C., Dry Contact in Monitor Mode

N.O., Dry Contact in Input Mode

LEDs

Two Tri-colored LEDs

Built-In Proximity Reader

Read Range* 3.5" (90mm)

Modulation ASK at 125kHz

Compatible Cards All 26-Bit EM Cards

Environmental Characteristics

Operating Temperature: -25°F to 145°F (-31°C to 63°C)
Operating Humidity: 0 to 95% (Non-Condensing)

Mechanical Characteristics

Dimensions:

3.62" (92mm) L x 3.62" (92mm) W x 0.94" (24mm) D

Weight:

0.3 lbs (130g)

* Measured using Rosslare Proximity Card (AT-11/12) or equivalent. Range also depends on electrical environment and proximity to metal.

Key Features

Here are some of the AC-B32's key features:

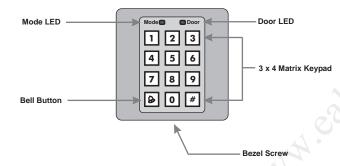
- Built in Proximity Card Reader (125 KHz ASK Modulation)
- Built in Keypad for PIN code entry
- Internal Buzzer
- Comes with security screw and security screw tool
- Two Status / Programming Interface LED's
- Three User Levels (Normal User, Secure User, Master User)
- Three Modes of Operation (Normal Mode, Bypass Mode, Secure Mode)
- "Code Search" feature makes maintaining user codes easier.
- Input for Request to Exit (REX) button.
- Lock Strike Electronic Relay with built-in suppressor protection.
- Comes with mounting template for easier installation.
- Built in Case and Back Tamper
- Bell, Chime, Siren, and Strobe features available with BL-D40.
- Bell, Chime, Siren, Battery Backup, Tamper Output (Open Collector 20mA) features available with PS-X41 (Output Power 1.2A) and PS-X42 (Output Power 1.8A).
- Programmable Siren Time
- Programmable Lock Strike Release Time
- Comes with Suppression Diode (1N4004)

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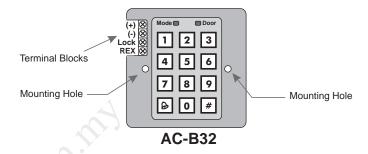
Installation

Mounting the AC-B32 Controller

- Before starting, select the location to mount the AC-B32 controller. This location should be at shoulder height and on the same side as the door handle.
- 2) The AC-B32 is designed to be easily mounted to a US Gang Box. Remove the Bezel Screw. (Use the diagram below to help you locate the Bezel Screw)



 Screw the controller onto a US Gang Box through the two Mounting Holes provided. (See diagram on the next page to help you locate the US Gang Box mounting holes)



- 4) Pass the wires through the exit/entry holes and attach them to the controllers terminal blocks as shown in the wiring diagrams. (Wiring diagrams for common installations can be found on pages 10 to 12).
- 5) Replace the controller's bezel and replace the factory default screw with the security screw that is provided in the Installation Kit. A security screw tool is also provided in the Installation Kit.

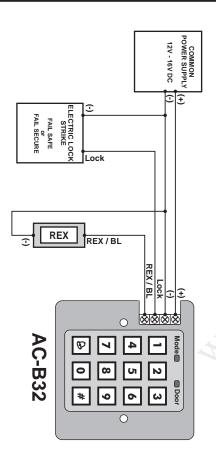
Wiring the AC-B32 Controller

A few of the typical wiring diagrams are shown on the next three pages; for other wiring diagram examples refer to the support section of the Rosslare Web Site.

Http://www.rosslare.com.hk/support

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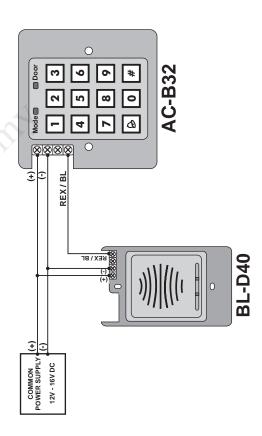
Wiring Diagrams



Salain

Wiring the BL-D40 External Sounder

Wiring the Lock Strike Relay and REX



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Normal, Secure, & Master Users

The AC-B32 accepts up to 500 users and provides entry via the use of proximity cards and / or PIN codes. Each user is provided with two code memory slots, Memory Slot 1 (Primary Code) and Memory Slot 2 (Secondary Code). The two memory slots can be programmed as Proximity Cards, PIN codes, or a combination of both Proximity Cards and PIN codes.

The way in which the two memory slots are programmed determines a users access level and also determines the way in which the AC-B32 grants access in its three Modes of Operation.

There are three user levels:

Normal User

A Normal User only has a Primary Code and is only granted access when the AC-B32 is in Normal or Bypass Mode.

Secure User

A Secure User must have a Primary and Secondary Code programmed, the two codes must not be the same. The Secure User can gain access when the AC-B32 is in any of its three Modes of Operation. In Normal Mode the Secure User must use their Primary Code to gain entry. In Secure Mode the Secure User must present both their Primary and Secondary Codes in order to gain entry.

Master User

A Master User must have both Primary and Secondary Codes programmed with the same Proximity Card or PIN code. The Master User can gain access during any Mode of Operation by presenting their Proximity Card or PIN code to the controller. (The Master User is convenient but is less secure than a Secure User).

Modes of Operation

The AC-B32 has 3 Modes of Operation:	

Mode O Door

Normal Mode is the default mode. In Normal Mode the door is locked until a Primary Code is presented to the controller. Special codes such as "Open Code 1" and "Open Code 2" are active in Normal mode. (See Page 18 for more information on Open Code 1 & Open Code 2).

2)	Ву	pa	ass	M	od	e.

1)

Mode ORANGE

O Door

Mode LED is orange

In Bypass Mode, access to the premises is dependent on whether the controller's Lock Strike Relay is programmed for Fail Safe Operation or Fail Secure Operation.

When the Lock Strike Relay is programmed for Fail Secure Operation, the door is locked until the Door Bell Button is pressed.

When the Lock Strike Relay is programmed for Fail Safe Operation, the door is constantly unlocked.

3) Secure Mode.Mode LED is red

Mode

RED

Door

Only Secure and Master Users can access the premises during the Secured Mode.

A Secure User must enter their Primary and Secondary Codes to gain entry. After entering their Primary Code the Door LED will flash green for 10 seconds, during which the Secondary Code must be entered.

A Master User only needs to present their Proximity Card or PIN code once to gain entry.

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Changing the Modes of Operation

Changing from Normal Mode to Secure Mode:

The default factory setting for the Normal / Secure Code is 3838

1) Enter the 4-digit Normal / Secure Code

Mode GREEN Door

Mode LED will flash red

RED

Door

2) Press the "#" key to confirm the Mode change. Mode I FD is red

Mode RED

Door

Changing from Secure Mode to Normal Mode:

The default factory setting for the Normal / Secure Code 3838

1) Enter the 4-digit Normal / Secure Code.

Mode RED

Mode

Door

• Mode LED will flash green.

Mode -**GREEN**

GREEN

Door

2) Press the "#" key to confirm the Mode change.

• Mode LED will turn green.

Door

Changing from Normal Mode to Bypass Mode: See Page 20 to create / modify the Normal / Bypass Code

1) Enter the 4-digit Normal / Bypass Code.

Mode GREEN Door

Mode LED will flash orange

ORANGE

Door

2) Press the "#" key to confirm the Mode change.

Mode ORANGE Door

Mode LED will turn orange

Changing from Bypass Mode to Normal Mode:

See Page 20 to create/modify the Normal / Bypass Code

1) Enter the 4-digit Normal / Bypass Code.

Mode ORANGE Door

• Mode LED will flash green

GREEN

Door

2) Press the "#" key to confirm the Mode change.

Mode LED will turn green

AC-B32

Mode **GREEN**

Door

Request to Exit (REX) Button

The REX button must be located inside the premises to be secured and is used to open the door without the use of a proximity card or PIN code, it is usually located in a convenient location, e.g. Inside the door or at a receptionist's desk. The function of the REX button depends on whether the Lock Strike Relay is programmed for Fail Safe Operation or Fail Secure Operation. The door chime in the BL-D40 does not sound when the REX button is used to open the door.

- Fail Secure Operation: From the moment the REX button is pressed, the door will be unlocked until the "Lock Strike Release Time" has passed. After this time, the door will be locked even if the REX button has not been released.
- 2) Fail Safe Operation: From the moment the REX button is pressed, the door will be unlocked until the REX button is released, plus the "Lock Strike Release Time". In this case the "Lock Strike Relay" only begins its count down once the REX button has been released.

Case and Back Tamper

If the case of the controller is opened or the controller is removed from the wall, a tamper event is triggered and a coded tamper signal is sent to a BL-D40, PS-X41 Series or PS-X42 Series Power Supply, or other compatible device.

If the BL-D40 External Sounder , PS-X41 Series or PS-X42 Series Power Supplies receive a Tamper Event Signal, they will activate a Siren and if available a Strobe Light. The Siren time can be easily programmed in the AC-B32 from 0 to 9 minutes.

Clearing a tamper event is done by entering a valid User or Open Code that will open the Lock Strike Output in the current Mode of Operation. For example, while in Secure Mode, using the Open Code to clear tamper event will not work because the Open Code does not work in Secure Mode. However, applying a Master Code or Secure Code will clear the tamper event in Secure Mode.

BL-D40 External Sounder

The BL-D40 External Sounder is compatible with the AC-X31, AC-X32, AC-X41, and AC-X42 series Standalone Controllers (For a more up-to-date list of compatible products check the Rosslare Web Site at www.rosslare.com.hk). It is designed to operate indoors and installed within the premises to be secured. The Sounder can be powered by 16V AC or 12 to 24V DC power supply.

The BL-D40 is capable of emitting four different types of alerts both audible and visual; Bell, Door Chime, Siren, and Strobe Light.

- The Bell always sounds when the controller's doorbell button is pressed.
- 2) The Door Chime can be programmed to sound whenever the controller unlocks the door (the Door Chime does not sound when the REX button is used to open the door).
- 3) The Siren can be programmed to sound when the case of the controller is opened or when the controller is removed from the wall. The controller can also program the length of the Siren in the BL-D40.

The Controller communicates with the BL-D40 using a coded proprietary Rosslare communications protocol. This provides a more secure link between the Controller and the BL-D40. If the BL-D40 receives any unrecognized codes on its communication line or communication between the controller and the BL-D40 are severed, the Strobe with flash repeatedly until the communication problem has been resolved.

Programming the AC-B32

Programming the AC-B32 is done solely via the unit's keypad driven Programming Menu System. To reach the Programming Menu System the AC-B32 must first be placed into Programming Mode. See "Entering Programming Mode" on Page 17 for more information.

During the AC-B32's manufacturing process certain codes and settings are pre-programmed. These settings are the called the "Default Factory Settings".

The table below shows the names of all the AC-B32 Menus. It also shows of all the AY-B32's default factory codes and settings.

Programming Menu

Factory Settings	Menu Description	Menu Number
2580 0852 1234 3838 N/A 0004	Change Open Code 1 Change Open Code 2 Change Program Code Change Normal / Secure Code Change Normal / Bypass Code Change Door Release Time Enroll Proximity Cards, PIN Code or both. Delete Proximity Cards Or PIN Code Return to Default Factory Setting	1 2 3 4 5 6 7 8

You will find a complete description and instructions for each of the above menu items on the following pages.

Entering Programming Mode

- 1) Press the "#" key for 2 seconds.
- Mode
- Door RED

Mode LED will turn offDoor LED will turn red

Code.

- 2) Enter your 4-digit Programming
- 1 2 3

3 4

Mode



If the Programming Code is valid the door LED will turn green and the AC-B32 will be in Programming Mode.

- **Note:** The AC-B32 must be in Normal Mode to enter the Programming Mode.
 - The factory default Programming Code is 1234
 - If a Programming Code is not entered within 5 seconds, the AC-B32 will return to Normal Mode.

Exiting Programming Mode

1) To exit the Programming Mode at any time:

Press the "#" key for 2 seconds.

Mode GREEN



• You will hear 3 beeps.

- The Door LED will be off
- The Mode LED will turn green

This indicates that the AC-B32 has returned to Normal Mode.

- 2) Wrong entries may reset the controller back to Normal Mode.
- 3) While in Programming Mode if no key is pressed for 1 minute the AC-B32 will exit programming mode and return to Normal Mode.
- **4)** A short press on "#" key may also return the system to Normal Mode in certain Programming Modes.

Changing the Open Code 1

The Open Code 1 is mainly used as a method to quickly test the Lock Strike Relay during installation.

The Default Factory Setting for the Open Code 1 is 2580. When the first user is added to the controller, the default Open Code will automatically be deleted, ready for a new Open Code 1 to be re-entered.

1) Enter Programming Mode Mode GREEN

2) Press "1" to enter Menu 1 Mode

3) Enter the new 4-digit code you wish to set as Open Code 1.

• The Mode LED will turn red

4) System returns to Normal Mode Mode Door

• The Door LED will turn off GREEN

Door

Door

GREEN

The Door LED will turn offThe Mode LED will turn green

Note: - Open Code 1 does not function in Secure Mode.

- Wrong entries will return the controller to Normal Mode.
- Code 0000 will erase and deactivate the Open Code.

Changing the Open Code 2

The Open Code 2 is mainly used as a method to quickly test the Lock Strike Relay during installation.

The Default Factory Setting for the Open Code 2 is 0852. When the first user is added to the controller, the default Open Code will automatically be deleted, ready for a new Open Code 2 to be re-entered.

1) Enter Programming Mode Mode Door GREEN 2) Press "2" to enter Menu 2 Mode Door • The Mode I FD will turn red ORANGE GREEN 3) Enter the new 4-digit code you wish to set as Open Code 2. 4) System returns to Normal Mode Mode Door You will hear three beeps GREEN The Door LED will turn off • The Mode LED will turn green

Note: - Open Code 2 does not function in Secure Mode.

- Wrong entries will return the controller to Normal Mode.
- Code 0000 will erase and deactivate the Open Code.

Changing the Programming Code

1) Enter Programming Mode Mode Door GREEN 2) Press "3" to enter Menu 3 • The Mode LED will turn green. Mode Door GRFFN GREEN 3) Enter the new 4-digit code you wish to set as Programming Code 4) System returns to Normal Mode You will hear three beeps Mode Door The Door LED will turn off GREEN • The Mode LED will turn green

Note: - Programming Code can not be erased, i.e. the code 0000 is not valid and will not erase the Programming Code.

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Changing the Normal / Secure Code

1) Enter Programming Mode

Mode

Door GREEN

- 2) Press "4" to enter Menu 4 The Mode I FD will flash red.
- Door

GREEN

- 3) Enter the new 4-digit code you wish to set as Normal / Secure Code
- ?
- 4) System returns to Normal Mode
- Mode
- Door

You will hear three beeps

- **GREEN**
- The Door LED will turn off • The Mode LED will turn green

Note: - When the Auxiliary Mode is 1, 2, 3, or 4 the Auxiliary Input takes priority over the Normal / Secure Code.

Changing the Normal / Bypass Code and Door Chime Settings

The Normal / Bypass Code is also used to turn the Door Chime off and on.

1) Enter Programming Mode

Mode



- 2) Press "5" to enter Menu 5



- The Mode LED will flash orange.
- 3) Below is a list of the four different ways that the Normal / Bypass Code and Door Chime can be programmed.
 - a) Disable Bypass Mode Disable Door Chime
 - b) Disable Bypass Mode Enable Door Chime
 - c) Enable Bypass Mode Disable Door Chime
 - d) Enable Bypass Mode Enable Door Chime

a) Disable Bypass Code - Disable Door Chime

Enter the 4-digit code 0000

b) Disable Bypass Code - Enable Door Chime

Enter the 4-digit code 0001

0

c) Enable Bypass Code - Disable Door Chime

Enter any 4-digit code ending with 0

? 0

d) Enable Bypass Code - Enable Door Chime

Enter any 4-digit code not ending with 0

GREEN

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4) System returns to Normal Mode

Mode

Door

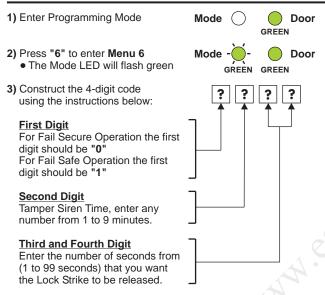
You will hear three beeps

• The Door LED will turn off

• The Mode LED will turn green

Note: - The Door is only generated when the Lock Strike Relay is activated due to a valid code entry.

Setting Fail Safe/Secure Operation Setting Tamper Siren Time Setting the Lock Strike Release Time



For example 0 5 1 2 means Fail Secure Operation, with a 5 minute Tamper Siren Time, and a 12 second Lock Strike release time.

- 4) System returns to Normal Mode
 - You will hear three beeps
 - The Door LED will turn off.
 - The Mode LED will turn green

Mode **GREEN**



Door

Enrolling Primary & Secondary Codes

Primary Codes

- Primary Codes can only be enrolled to an empty User Slot, i.e a slot where there is no existing Primary Code.
- Primary Codes must be unique, i.e. one users Primary Code may not be the same as another users Primary Code.
- Primary Codes cannot be the same as any system codes, such as the Normal / Secure Code or Open Code.
- Users who hold a Primary Code can gain entry only during Normal Mode.

Secondary Codes

- Secondary Codes can only be enrolled to User Slot that already has a Primary Code enrolled but no Secondary Code.
- Secondary Codes do not have to be unique, i.e. multiple users can all hold the same Secondary Code.
- Secondary Codes cannot be the same as any system codes, such as the Normal / Secure Code or Open Code.
- Users who hold Secondary Codes can gain entry in any Mode of Operation.

Enrolling Primary and Secondary Codes

There are two methods to enroll Primary and Secondary codes, the Standard Method and the Code Search Method.

- A. The Standard Method is mainly used when the User Slot number for the user you wish to program is known. You can program both Primary and Secondary Codes using the Standard method. (See Enrolling Users with the Standard Method on Page 24)
- B. The Code Search Method is mainly used when enrolling a users Secondary Code and the User Slot Code is unknown. The Code Search method only works if a users Primary Code is already enrolled but the Secondary Code is not. (See Enrolling Users with the Code Search Method on Page 25)

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Enrolling Primary and Secondary Codes using the Standard Method

1) Enter Programming Mode

Mode



2) Press "7" to enter Menu 7 • The Door LED will turn orange Mode



3) Enter the 3-digit User Slot number between 001 to 500 that you wish to enroll a Primary or Secondary code to.



For example, the User Slot 003 represents User #3.

4) a. If the selected slot has no Primary Code, the Mode LED will flash green, indicating that the controller is ready to accept a Primary Code.

GREEN

- b. If the selected slot already has a Primary Code but no Secondary Code, the Mode LED will flash red, indicating that the controller is ready to accept a Secondary Code.
- c. If the selected slot already has a Primary and Secondary Code, you will hear a long beep and the controller will return to Normal Mode.
- 5) Present a Proximity Card or enter the 4-digit PIN that you want to assign as the Primary or Secondary Code for this slot number.

If the Proximity Card or PIN that is entered is valid the Mode LED will stop flashing and then the controller is ready for you to enter the next 3-digit slot number (refer to step 3) that you want to assign a code to, or press the "#" key to move to the next slot number (refer to step 4). If you do not wish to continue enrolling codes, press the "#" key for 2 seconds and the controller will return to Normal Mode.

Enrolling Secondary Codes using the Code Search Method

The Code Search feature enables you to quickly enroll a Secondary Code to a user who already has a Primary Code.

1) Enter Programming Mode

Mode

Door GRFFN

Door

Mode

ORANGE

2) Press "7" to enter Menu 7 • The Door LED will turn orange

The Door LED will flash orange

3) Enter the 3-digit User Slot number 000

The controller is now waiting for the Primary Code of the User you want to add a Secondary Code to.

4) Present the Proximity Card or enter the 4 Digit PIN Code of the Primary Code belonging to the user you want to add a Secondary Code to.

The Mode I FD will flash red

If the Primary Code entered is not valid, you will hear a long beep and the AC-B32 will continue to wait for a valid Primary Code.

5) Present the Proximity Card or enter the 4-digit PIN Code to be used as the Secondary Code.

If the Secondary Code is valid the controller will beep three times and return to Normal Mode.

If the Secondary Code is invalid the controller will make a long beep and then the AC-B32 will continue to wait for a valid Secondary code to be entered.

Deleting Primary & Secondary Codes

There are two methods to delete Primary and Secondary codes, the Standard Method and the Code Search Method.

When deleting a User Slot, both the Primary Code and the Secondary code are erased.

Deleting Primary and Secondary Codes using the Standard Method

- 1) Enter Programming Mode
- Mode
- Door GREEN

- 2) Press "8" to enter Menu 8
- Mode
- Door

• The Mode LED will turn red

ORANGE

3) Enter the 3-digit User Slot codes you wish to delete.

- The Mode I FD will flash red. Indicating the controller is waiting for the Programming Code to confirm the deletion.
- Mode -

If the User Slot is empty you will hear a long beep and the AC-B32 will return to Normal Mode

4) Enter your Programming Code to confirm the deletion.

If the Programming Code is valid, you will hear three beeps and the AC-B32 will return to Normal Mode.

If the Programming Code is invalid, you will hear a long beep and the AC-B32 will return to Normal Mode.

Note: - It is recommended that a record be kept of added and deleted users so that it will be easier to keep track of which user slots are empty and which user slots are not.

Deleting Primary and Secondary Codes using the Code Search Method

1) Enter Programming Mode

Mode



Door GREEN

- 2) Press "8" to enter Menu 8 • The Mode LED will turn red





3) Enter the 3-digit User Slot 000





• The Door LED will flash orange

Mode



The controller is now waiting for the Primary Code of the User vou want to delete.

4) Present the Proximity Card or enter the 4-digit PIN Code of the Primary Code belonging to the user you want to delete.



The Mode I FD will flash red.



If the Programming Code is valid, you will hear three beeps and the AC-B32 will return to Normal Mode.

If the Programming Code is invalid, you will hear a long beep and the AC-B32 will return to Normal Mode.

Note: - It is recommended that a record be kept of added and deleted users so that it will be easier to keep track of which user slots are empty and which user slots are not.

Return To Factory Default Settings

Warning:

You must be very careful before using this command! Doing so will erase the entire memory which includes all User and Special Codes, and return all codes to their factory defaut settings.

- 1) Enter Programming Mode

 Mode

 Door
 GREEN

 2) Press "0" to enter Menu 0
 The Mode LED will flash red
 The Door LED will flash red

 3) Enter your 4-digit Programming
 Code.
 - If the Programming Code is valid, all memory will be erased, you will hear three beeps and the controller will return to Normal Mode
 - If the Programming Code is invalid you will hear a long beep and the controller will return to Normal Mode without erasing the memory of the controller.

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