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SECURITY PRODUCTS

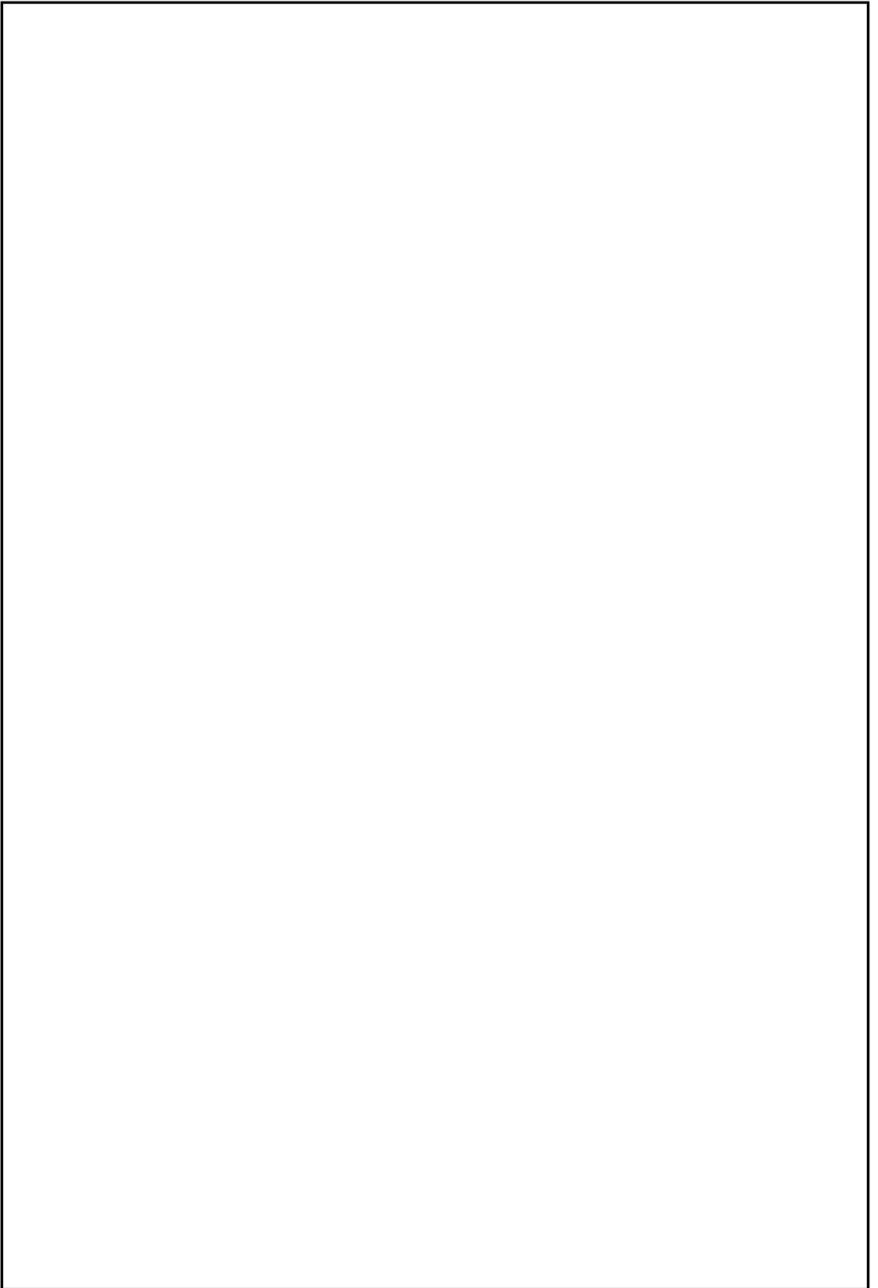
AC-020

Indoor Dual-Door Standalone Controller



Hardware installation and User Guide

08/06



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Introduction

The AC-020 is an advanced two door controller, which allows you to add or delete employees from the system, change system mode status and change system authorization codes.

The AC-020 provides a higher level of security as the programmer is normally placed in a secure location while the reader sensors are remotely located outside the controlled premises. Should a remote sensor be attacked, entry cannot be gained as the remote sensor only provides data to the programmer, not authorization to release the controlled door.

The AC-020 accepts up to 500 employees for each door via the use of proximity cards (provided separately) or PIN. Each employee is issued a unique proximity card or PIN code.

Employees designated 01 to 10 are Master users and can operate the system in both the Normal and Secure modes of operation. Employees 11 to 500, when entered from the external reader sensor may only operate the Controller in the Normal and Bypass modes of operation.

It is very important to keep an accurate record of the slot number and its assignment to each employee. This is to enable you to add additional employees at a later time or to delete a Prox. or PIN code if one is lost or stolen. A record form is enclosed for your reference to assist you with your record keeping.

The AC-020 is capable of learning both PIN codes (keyboard based codes - 4 digits code) and Prox. Codes (codes received from proximity card reader).

The Controller has two reader inputs, one for Door 1 and one for Door 2. These readers are to be located outside the restricted area. Readers need to be Wiegand 26 bits interface type, and may be a Proximity card reader (for Prox. Codes), Keyboard (for PIN type codes) or combined PIN/PROX reader. Please refer to *Accessories* – page 53.

The PIN reader can be used for programming the system, in addition to its regular duty of codes entry. During normal use, PIN codes that are employee codes can be entered only from reader sensor, while Special Codes may be entered either from AC-020 or from the reader.

Topics in this section:

- **Key Features**
- **Technical Specifications**

Key Features

Here are some of the AC-020 key features:

- Supports two 26-Bit Wiegand compatible Readers
- Three Modes of Operation
 - Normal Mode
 - Bypass Mode
 - Secure Mode
- Lock Strike Relay Output
- Request to Exit (REX) button
- Internal Siren
- Comes with security screw and security tool
- Two Status / Programming Interface LED's
- Built-in Programming Keypad
- Battery Charger
- Bell, Chime, & Strobe annunciator
- Programmable Lock Strike release time.
- Built-in Lock Strike suppressor diode.
- Comes with mounting template for easier installation.
- Built-in Reader Power Supply
- Built-in Lock Strike Power Supply

Technical Specifications

Electrical Characteristics

Main Unit

Operating Voltage:	16V AC (1.5A, 25VA) From a transformer
Maximum Input Current:	(Not including attached devices) Standby: 65mA Maximum: 120mA
Battery Charger:	12V DC Lead Acid Battery Up to 7AH recommended

Outputs

Lock Strike Relay Output:	5A Relay
Lock Strike Power Supply:	12V DC constant voltage 1.2 A current limit
Reader Power Supply:	Voltage: 12V DC Max Current: 300mA

Inputs

Request to Exit (REX):	N.O. Dry Contact
Reader Input:	26-Bit Wiegand Compatible

Indicators & Annunciators

Visual: Two Tri-Colored LEDs

Audio: Built in Sounder (Bell,
Chime & Siren)
Piezoelectric Buzzer

Environmental Characteristics

Operating Temperature: -25°F to 145°F (-31°C to
63°C)

Operating Humidity: 0 to 95% (Non-
Condensing)

Mechanical Characteristics

Dimensions: 5.3" (134mm) L x 3.4"
(85mm)
W x 1.2" (30mm) D
(Fits US Gang Box)

Weight: 0.5 lbs (220g)

Installation

The AC-020 has been designed for easy installation. Only a few steps are required to install the controller.

In this section you will learn how to mount the controller in your desired location.

You will learn how to wire the controller to its power source, which includes attaching the controller to a rechargeable Lead Acid battery.

Wiring diagrams are also provided for attaching the controller to the REX button and External 26-Bit Wiegand Compatible readers.

Topics in this section:

- **Mounting the Controller**
- **Power Wiring**
- **Typical Lock and Option Wiring**
- **Reader Wiring**

Mounting the Controller

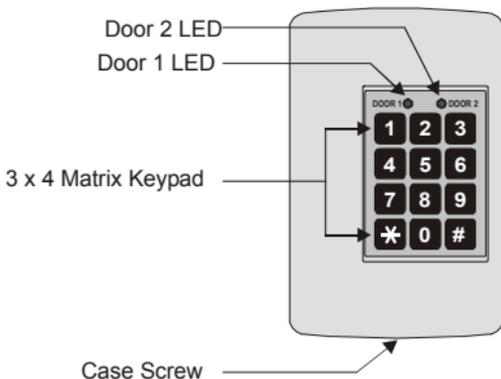
- 1) Before starting, select the location for mounting the AC-020 controller. The controller should be installed indoors and within the premises to be secured. It is recommended that the controller be installed where it cannot be seen for increased security, but still close enough to the doors so that the controller's annunciator (Door Bell, Chime & Siren) can be heard.
- 2) Find the mounting template label that is provided in your AC-020 packaging, and place it at the location that you wish to install the controller. The template is designed to assist you through the mounting procedure, showing you where you drill holes in the wall to pass the wiring through and where the wall must be drilled to insert the controllers mounting screws.
- 3) (Skip this step when attaching the AC-020 to a US Gang Box)

Drill a hole for cables as indicated on the wiring template. Two hole sizes are shown to allow for the amount of cables needed, depending on installation requirements or adding a backup battery. Drill two screw holes for mounting the AC-020 to the wall.

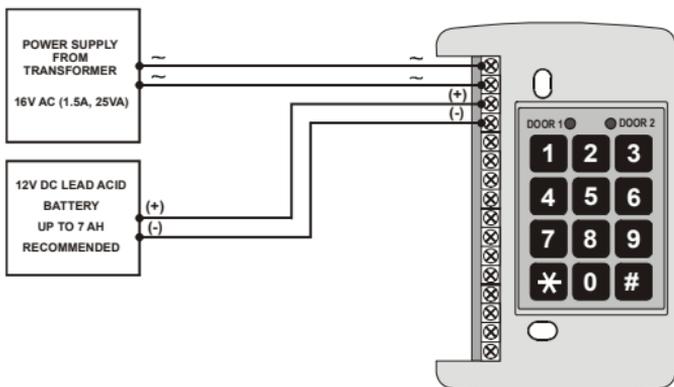
- 4) Remove the case screw from the controller (see diagram below to locate the case screw) and remove the front case from the controller.
- 5) Mount the controller to the wall using the two screws provided in the Installation Kit or use the screws provided with your US Gang Box when mounting to a US Gang Box.

- 6) Wire the controller according to the diagrams on the next few pages.
- 7) Return and secure the front case using the security screw and security tool provided in the Installation Kit.

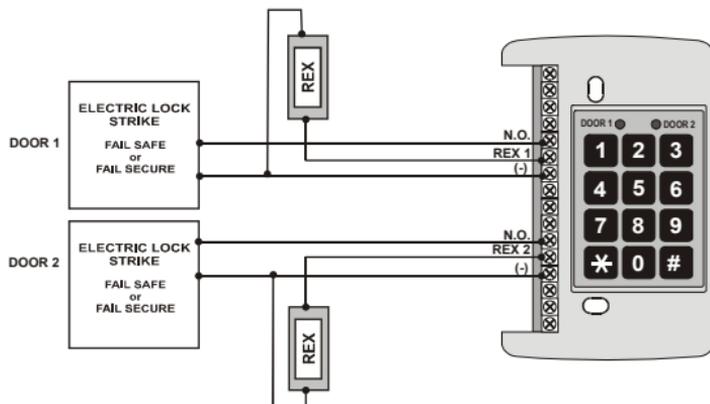
You now have mechanically installed the controller.



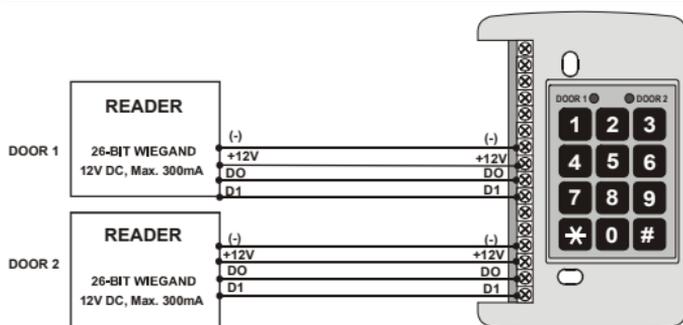
Power Wiring



Typical Lock and Option Wiring



Reader Wiring



Features and Concepts

Now that you have installed your AC-020 controller, it is time to become familiar with its features and concepts.

In this section you will learn about all the features that are programmable. They are the basic features of the AC-020 and can be programmed directly from the controller's programming keypad.

You will learn about the controller's various modes of operation, how to switch between the Modes of Operation, Special Codes, Events and Event Actions.

Topics in this section:

- **Modes of Operation**
- **Changing the Modes of Operation**
- **Events and Event Actions**

Modes of Operation

IMPORTANT NOTE:

- In all of the following operations, in order to select DOOR 1 press the * key. In order to select DOOR 2 press the # key.
- In the following operations, if the operation is done from an external reader, always press the # key on the external keyboard.
- The following examples show the LED status of Door 1 but are applicable to Door 2 as well.

The AC-020 has three modes of operation Normal, Bypass, and Secure Mode. The three modes provide different levels of security.

1) Normal Mode

- The DOOR 1 / DOOR 2  DOOR 1  DOOR 2 
LED is green
- In this mode the Controller is in the normal level of security. Only those codes that the Controller recognizes will activate the Lock Strike.
- The controller's keypad is used for programming, changing modes of operation, and activating the Lock Strike using the employee codes.
- The Lock Strike will remain active according to the programmed Release Time.
- In addition, it is possible to activate the Lock Strike in the following ways:
 - a. Pressing the REX button
 - b. Valid Code (from an outside reader only using Prox. Code or Pin. Code)

2) Bypass Mode

- The DOOR 1 / DOOR 2 LED is orange  DOOR 1  DOOR 2
- In this mode the Controller is in the lowest level of security.
- The Controller's keypad is used for changing modes of operation and activating the Lock Strike by the employee codes or by pressing the “*/#” key accordingly.
- The Lock Strike will remain active according to the programmed Release Time.
- If the Lock Strike is defined as Normally Closed it will always be active. If the Lock Strike is defined as Normally Open it can be activated in the following ways:
 - a. Pressing the REX button
 - b. Valid Code (from an outside reader only using Prox. Code or Pin. Code)

3) Secure Mode

- The DOOR 1 / DOOR 2 LED is red  DOOR 1  DOOR 2
- In this mode the Controller is in the highest level of security.
- The Controller's keypad is used for changing modes of operation and activating the Lock Strike by the employee codes.
- The Lock Strike will remain active according to the programmed Release Time.
- In addition, it is possible to activate the Lock Strike in the following ways:
 - a. Pressing the REX button
 - b. Master Codes (from an outside reader only using Prox. Code or Pin. Code)

Changing the Modes of Operation

NOTE: Changing the modes of operation can be done by entering the correct code into the Controller's Programming keypad or the external reader's keypad.

Changing from Normal Mode to Secure Mode

- 1) The controller is in Normal Mode
 - DOOR 1 / DOOR 2 LED is green  DOOR 2
- 2) Enter your Normal / Secure PIN Code
 - DOOR 1 / DOOR 2 LED will flash red  DOOR 2
- 3) Press the "*" / "#" key, respectively.
 - DOOR 1 / DOOR 2 LED will turn red  DOOR 2
 - You are now in Secure Mode

Changing from Secure Mode to Normal Mode

- 1) The controller is in Secure Mode
 - DOOR 1 / DOOR 2 LED is red  DOOR 2

2) Enter your Normal / Secure PIN Code

- DOOR 1 / DOOR 2
LED will flash green
- DOOR 1  DOOR 2

3) Press the “*/#” key, respectively.

- DOOR 1 / DOOR 2
LED will turn green
- DOOR 1  DOOR 2

- You are now in Normal Mode

Changing from Normal Mode to Bypass Mode

1) The controller is in Normal Mode

- DOOR 1 / DOOR 2
LED is green
- DOOR 1  DOOR 2

2) Enter your Normal / Bypass PIN Code

- DOOR 1 / DOOR 2
LED will flash orange
- DOOR 1  DOOR 2

3) Press the “*/#” key, respectively.

- DOOR 1 / DOOR 2
LED will turn orange
- DOOR 1  DOOR 2

- You are now in Bypass Mode

Changing from Bypass Mode to Normal Mode

- 1) The controller is in Bypass Mode
 - DOOR 1 / DOOR 2
LED is orange  DOOR 1  DOOR 2
- 2) Enter your Normal / Bypass PIN Code
 - DOOR 1 / DOOR 2
LED will flash green  DOOR 1  DOOR 2
- 3) Press the "*" / "#" key, respectively.
 - DOOR 1 / DOOR 2
LED will turn green  DOOR 1  DOOR 2
 - You are now in Normal Mode

Events and Event Actions

Tamper Event

A Tamper Event is triggered if the controller detects that a reader has been disconnected or loses power, and can also be triggered if the case of the reader is removed.

Possible Tamper Event Actions

Reader sensor wire is disconnected from the AC-020 DOOR 1 / DOOR 2 reader input terminal

Tamper data signal is received from DOOR 1 / DOOR 2 reader sensor

To clear a Tamper Event enter a valid code or Lock Strike code which will open the door locker output of the Door that caused the tamper event. For example, tamper condition at Door 2 during Secure status, entering Door 2 Lock Strike Code 1 (default 0852) from external reader will not clear tamper because it is not permitted to open the door during this operation mode. However, applying the same code from the AC-020 keyboard will clear tamper output as well as opening Door 2 Lock Strike and stopping the siren (assuming no Door 1 tamper).

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 BLD40 does not sound when the REX button is used to open the door.

- 1) **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.

Siren Sound

Siren sound triggered by Door 1 or Door 2 tamper is generally stopped by clearing the tamper of that door. However, if the tamper condition at the other door exists, one is required to clear that tamper event as well, in order to stop the siren. Either way, the siren may stop on its own if the pre-programmed siren time has elapsed.

Programming Instructions

After reading *Features and Concepts* – page 19, you should already have an understanding of the AC-020's features.

Most of these features can be programmed via the AC-020's programming keypad. The following pages describe how to program the AC-020 using the programming keypad.

Topics in this section:

- **Programming Menu Quick Reference Guide**
- **Programming the AC-020**

Programming Menu Quick Reference Guide

Menu Number	Menu Description	Page Number
1	Changing Lock Strike Code 1	34
2	Changing Lock Strike Code 2	35
3	Changing Program Code	36
4	Changing Normal/Secure Code	38
5	Changing Normal/Bypass Code	40
6	Changing Door Release Time	42
	Choosing Fail Secure/Fail Safe Operation	43
7	Enrolling Proximity Cards or Keyboard Codes	44
8	Deleting Proximity Cards or Keyboard Codes	47
0	Returning to Default Factory Setting	49

Programming the AC-020

FOR DOOR 1 PROGRAM:

Menu Number	Function	Initial Setting
1	Changing Lock Strike Code 1	2580
2	Changing Lock Strike Code 2	0000*
3	Changing Program Code	1234
4	Changing Normal/Secure Code	3838
5	Changing Normal/Bypass Code	0000*
6	Changing Door Release Time Choosing Fail Secure/Fail Safe Operation	0004 (4 seconds) Fail Secure
7	Enrolling Proximity Cards or Keyboard Codes	
8	Deleting Proximity Cards or Keyboard Codes	
0	Returning to Default Factory Setting	

FOR DOOR 2 PROGRAM:

Menu Number	Function	Initial Setting
1	Changing Lock Strike Code 1	0852
2	Changing Lock Strike Code 2	0000*

3	Changing Program Code	4321
4	Changing Normal/Secure Code	8383
5	Changing Normal/Bypass Code	0000*
6	Changing Door Release Time Choosing Fail Secure/Fail Safe Operation	0004 (4 seconds) Fail Secure
7	Enrolling Proximity Cards or Keyboard Codes	
8	Deleting Proximity Cards or Keyboard Codes	
0	Returning to Default Factory Setting	

***0000 deletes a function**

NOTE: You must be in NORMAL mode to program the AC-020. DOOR 1 / DOOR 2 LED will be green.

Wrong or timed out entries will reset the controller to the NORMAL mode condition.

To exit programming, press the “*/#” key for two seconds. Three beeps are generated and the system will return to NORMAL mode.

A short press on the “*/#” key will also return the system to NORMAL mode, and a long beep will be heard. This aborts the programming, but in some cases, such as Program Function #7, data may have already been programmed.

Wrong entries during programming may also abort programming, along with long beep generation.

All programming operations are done either from the on-board keyboard or from the reader. Programming the PROX. employee codes requires using proximity reader and proximity cards.

Entering Programming Mode

To begin programming the controller's settings, the AC-020 must first place into Programming Mode. You may only enter Programming mode from Normal mode, the controller does not permit entry to Programming Mode if the controller is in Bypass and Secure Mode.

1) Press the "*" / "#" key for 2 seconds

- The DOOR 1 LED will turn red 

2) Enter the Programming Code. The factory default Programming Code is 1234 for Door 1 and 4321 for Door 2.

If the Programming Code is valid the controller will be in Programming Mode.

- The DOOR 1 LED will turn green 

If the Programming Code is NOT valid the controller will emit a loud beep and will NOT enter Programming Mode.

Exiting Programming Mode

- 1) To exit Programming Mode at any time: Press the "*" or "#" key for 2 seconds. You will hear 3 beeps and the controller will return to Normal Operating Mode.
- 2) Wrong entries may reset the controller back to Normal Operating Mode.
- 3) While in Programming Mode if no key is pressed for 30 seconds the AC-020 will emit a long beep and return to Normal Operating Mode.
- 4) A short press on the "*" or "#" key may also return the controller to Normal Operating Mode, accompanied by a long beep.

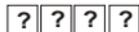
Changing Lock Strike Code 1

1) Press the “*/#” key for 2 seconds

- You will hear a short beep
- The DOOR 2 LED will turn off
- The DOOR 1 LED will turn red



2) Enter the Programming Code for confirmation.
(Default code is 1234 for Door 1 and 4321 for Door 2.)



- The DOOR 1 LED will turn green
- The DOOR 2 LED will be off

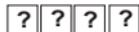


3) Press 1

- The DOOR 1 LED will remain green
- The DOOR 2 LED will turn red



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



- You will hear 3 beeps
- The system will return to NORMAL mode
- The default Lock Strike Code 1 is 2580 for Door 1 and 0852 for Door 2

Changing Lock Strike Code 2

- 1) Press the “*/#” key for 2 seconds
- You will hear a short beep
 - The DOOR 2 LED will turn off
 - The DOOR 1 LED will turn red
- DOOR 1  DOOR 2 
- 2) Enter the Programming Code for confirmation.
(Default code is 1234 for Door 1 and 4321 for Door 2.)
- [?] [?] [?] [?]
- The DOOR 1 LED will turn green
 - The DOOR 2 LED will be off
- DOOR 1  DOOR 2 
- 3) Press 2
- The DOOR 1 LED will remain green
 - The DOOR 2 LED will turn orange
- DOOR 1  DOOR 2 
- 4) Enter the new 4-digit code you wish to set as the new Programming Code.
- [?] [?] [?] [?]
- You will hear 3 beeps
 - The system will return to Normal mode

NOTE: There is no default code for Lock Strike Code 2.

Changing the Programming Code

- 1) Press the "*" / "#" key for 2 seconds
 - You will hear a short beep
 - The DOOR 2 LED will turn off
 - The DOOR 1 LED will turn red

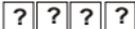
Diagram: DOOR 1 (with a red LED icon) and RED below it. DOOR 2 (with an unlit LED icon) and DOOR 2 to its right.
- 2) Enter the Programming Code for confirmation. (Default code is 1234 for Door 1 and 4321 for Door 2.)

Diagram: Four boxes, each containing a question mark (?).

 - The DOOR 1 LED will turn green
 - The DOOR 2 LED will turn off

Diagram: DOOR 1 (with a green LED icon) and GREEN below it. DOOR 2 (with an unlit LED icon) and DOOR 2 to its right.
- 3) Press 3
 - The DOOR 1 LED will remain green
 - The DOOR 2 LED will turn green

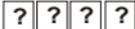
Diagram: DOOR 1 (with a green LED icon) and GREEN below it. DOOR 2 (with a green LED icon) and GREEN below it. DOOR 2 to the right of the second GREEN.
- 4) Enter the new 4-digit code you wish to set as the new Programming Code

Diagram: Four boxes, each containing a question mark (?).

NOTE: Programming Code cannot be erased. When trying to program code 0000, you will hear a

long beep and the system will return to Normal operating mode.

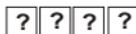
Changing the Normal / Secure Code

1) Press the "*" / "#" key for 2 seconds

- You will hear a short beep
- The DOOR 2 LED will turn off
- The DOOR 1 LED will turn red



2) Enter the Programming Code for confirmation.
(Default code is 1234 for Door 1 and 4321 for Door 2.)



- The DOOR 1 LED will turn green
- The DOOR 2 LED will turn off

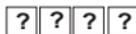


3) Press 4

- The DOOR 1 LED will remain green
- The DOOR 2 LED will flash red



4) Enter the new 4-digit code you wish to set as the new Normal/Secure change code.

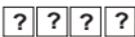


- You will hear 3 beeps

- The system will return to Normal mode (Default Secure code is 3838 for Door 1 and 8383 for Door 2.)

Changing the Normal / Bypass Code

- 1) Press the “*/#” key for 2 seconds
 - You will hear a short beep
 - The DOOR 2 LED will turn off
 - The DOOR 1 LED will turn red

DOOR 1  DOOR 2 
RED
- 2) Enter the Programming Code for confirmation. (Default code is 1234 for Door 1 and 4321 for Door 2.)
 - The DOOR 1 LED will turn green
 - The DOOR 2 LED will turn off

DOOR 1  DOOR 2 
GREEN
- 3) Press 5
 - The DOOR 1 LED will remain green
 - The DOOR 2 LED will flash orange

DOOR 1  DOOR 2 
GREEN ORANGE

NOTE: The Normal / Bypass Code also controls the Chime function for the AC-020. You may set the code to 4 available options.

Option 1: Disabling Bypass Mode - Disabling the Chime

- Enter 0000. The Bypass Mode and the Chime function are disabled.
- You will hear 3 beeps
- The system will return to Normal mode

Option 2: Disabling Bypass Mode - Enabling the Chime

- Enter 0001. The Bypass Mode is disabled and the Chime function is enabled for Normal mode.
- You will hear 3 beeps
- The system will return to Normal mode

Option 3: Enabling Bypass Mode - Disabling the Chime

- Enter a 4-digit code ending with the digit 0. The Bypass mode is enabled and the Chime function is disabled.
- You will hear 3 beeps
- The system will return to Normal mode

Option 4: Enabling Bypass Mode - Enabling the Chime

- Enter a 4-digit code ending with any digit except 0. The Bypass mode and the Chime function are enabled for both Normal mode and Bypass mode.
- You will hear 3 beeps
- The system will return to Normal mode

NOTE: No default Bypass code exists.

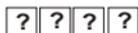
Changing the Door Release Time

1) Press the “*/#” key for 2 seconds

- You will hear a short beep
- The DOOR 2 LED will turn off
- The DOOR 1 LED will turn red
-



2) Enter the Programming Code for confirmation. (Default code is 1234 for Door 1 and 4321 for Door 2.)



- The DOOR 1 LED will turn green
- The DOOR 2 LED will turn off



3) Press 6

- The DOOR 1 LED will remain green
- The DOOR 2 LED will flash green



NOTE: This is a 4-digit code. The first digit signifies whether the unit is being used for fail secure (factory default setting) or fail safe operation. The second digit signifies the length of time in minutes the tamper alarm will sound. The last 2 digits signify the time the door release will be activated (from 01 to 99 seconds).

For Fail Secure Operation:

- Enter 0 for the first digit

For Fail Safe Operation:

- Enter 1 for the first digit

For Tamper Alarm:

- If the Tamper Alarm is required, enter 1-9 as the second digit to set the alarm sound time from a minute to 9 minutes.
- If the Tamper Alarm is not required, enter 0 as the second digit.

For Door Release Time:

- Enter the number of seconds you wish the door release to remain activated. (For example, 0512 means fail secure with a 5-minute tamper alarm sound time and a 12 second door release.)
- You will hear 3 beeps.
- The system will return to Normal mode.
- Default door open time is 4 seconds.

Enrolling Proximity Cards/Pin Codes into the System

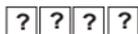
NOTE: Each proximity card is unique and can only be assigned to one slot at a time. If an unassigned proximity card is enrolled at an occupied slot, the AC-020 will generate a long beep and wait for another slot number to be entered. The card at the current slot location must be erased first, before a new code is programmed on that slot number. The same rules apply for PIN based employee codes.

1) Press the “*/#” key for 2 seconds

- You will hear a short beep
- The DOOR 2 LED will turn off
- The DOOR 1 LED will turn red



2) Enter the Programming Code for confirmation.
(Default code is 1234 for Door 1 and 4321 for Door 2.)



- The DOOR 1 LED will turn green
- The DOOR 2 LED will turn off



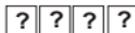
3) Press 7

- The DOOR 2 LED will turn green



- The DOOR 1 LED will turn orange

- 4) Enter the 3-digit slot code you wish to assign to the employee (for example, 003 represents slot “3”).



- The DOOR 1 LED will remain orange
- The DOOR 2 LED will flash green



- 5) Enroll the proximity card designated for this slot number to the reader.
- The DOOR 2 LED will stop flashing
- OR,**
- Enter the 4-digit PIN code designated for this slot number
 - The DOOR 2 LED will stop flashing
- 6) To enroll another card, enter the 3-digit slot code you wish to assign to the next employee.
- The DOOR 2 LED will start flashing
- 7) Present the proximity card designated for this slot number to the reader.
- The DOOR 2 LED will stop flashing
- OR,**
- Enter the 4-digit keyboard based employee code designated for this slot number to the reader
 - The DOOR 2 LED will stop flashing

Continue enrolling cards or entering keyboard employee codes in this manner until all employee codes are entered.

NOTE: The AC-020 programmer will not accept employee codes that are already allocated to a slot. The AC-020 will signal this with a long beep and the DOOR 2 LED will continue to flash green.

8) When finished enrolling the employee codes, press the "*" or "#" key.

- You will hear a long beep
- The AC-020 will return to Normal mode

NOTE: If the programming period times out before you press the "*" or "#" key, the controller will emit a long beep and return to Normal mode. However, any enrolled employee codes in this period will remain valid.

Deleting Proximity Cards/Pin Codes from the System

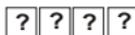
1) Press the “*/#” key for 2 seconds

- You will hear a short beep
- The DOOR 2 LED will turn off
- The DOOR 1 LED will turn red



2) Enter the Programming Code for confirmation.
(Default code is 1234 for Door 1 and 4321 for Door 2.)

- The DOOR 1 LED will turn green
- The DOOR 2 LED will turn off



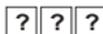
3) Press 8

- The DOOR 1 LED will turn orange
- The DOOR 2 LED will turn red



4) Enter the 3-digit slot code you wish to delete from the system

- The DOOR 2 LED will flash red



5) Enter the 4-digit Programming Code (this last step confirms that you intentionally want to delete an employee from the system).

□ ? □ ? □ ? □ ?

- You will hear 3 beeps
- The system will return to Normal mode
- If additional employee codes need to be deleted, then repeat steps 1-5.

IMPORTANT: Ensure that your record of employees and their assigned slot numbers are stored in a secure location. Then, if you wish to delete a lost or stolen employee code from the system, you can identify the card number from your record.

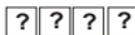
Return to Factory Default Settings

1) Press the “*/#” key for 2 seconds

- You will hear a short beep
- The DOOR 2 LED will turn off
- The DOOR 1 LED will turn red



2) Enter the Programming Code for confirmation. (Default code is 1234 for Door 1 and 4321 for Door 2.)



- The DOOR 1 LED will turn green
- The DOOR 2 LED will turn off



3) Press 0

- The DOOR 1 LED will flash red
- The DOOR 2 LED will flash red



- 4) Enter the 4-digit Programming Code.
(This last step confirms that you intentionally want to delete all your initial settings and employees from the system!)

□ ? □ ? □ ? □ ?

- You will hear 3 beeps
- The system will return to Normal mode

IMPORTANT: You must be very careful before using this command. Doing so will erase all of the employee codes from the memory and all of the special codes will return to their default values. All preprogrammed cards, PIN codes and special codes will have to be preprogrammed from the beginning.

Replacing a Lost Programming Code

In the event that your Programming Code is lost, complete the following procedure to enter Programming Mode so that you may create a new Programming Code.

The AC-020 must be in Normal Mode otherwise this will not work.

Make sure that the DOOR 1 / DOOR 2 LED is green before proceeding.

- 1) Disconnect power from the AC-020
- 2) Press the appropriate REX button
- 3) Reconnect power to the unit with the REX button pressed
- 4) Release the REX button

You now have 20 seconds to program a new Programming Code into the controller using the initial default code, 1234 for Door 1 or 4321 for Door 2, before the controller reverts to the existing code.

Replacing a Lost Normal / Secure Code

In the event that your Normal / Secure Code is lost and you are locked in Secure Mode, complete the following procedure to re-enter Normal Mode so that you may program a new Normal / Secure Code.

The AC-020 must be in Secure Mode otherwise this will not work.

Make sure that the DOOR 1 / DOOR 2 LED is red before proceeding.

- 1) Disconnect power from the AC-020
- 2) Press the appropriate REX button
- 3) Reconnect power to the unit with the REX button pressed
- 4) Release the REX button

You now have 20 seconds to enter the default Secure Code, 3838 for Door 1 or 8383 for Door 2, to re-enter into Normal Mode.

Accessories

Wiegand 26 Integrated Door Controllers



AY-X09 Series PIN Readers

AY-C09 / AY-D09

- For indoor use
- Slim Stylish Design (Mullion)
- Includes LED Indicator
- Audible Buzzer Indicator
- Built in Tamper (w/ Rosslare Controllers)
- Includes Bell Button (w/ Rosslare Controllers)



AY-X11 Series Prox Readers w/ Bell

AY-C11 / wAY-D11

- Reading Distance: 8 to 10cm
- RF Modulation: ASK at 125 kHz
- For indoor use
- Slim Stylish Design (USA Gang Box)
- Bi-Color Light Indicator
- Audible Buzzer Indicator
- Built in Tamper (w/ Rosslare Controllers)
- Includes Bell Button (w/ Rosslare Controllers)



AY-X12 Series Prox Readers

AY-C11 / AY-D11

- Reading Distance: 8 to 10cm
- RF Modulation: ASK at 125 kHz
- For indoor use
- Slim Stylish Design (USA Gang Box)
- Bi-Color Light Indicator
- Audible Buzzer Indicator (w/ Rosslare Controllers)
- Built in Tamper (w/ Rosslare Controllers)



AY-X12 Series Prox Readers

AY-H12 / AY-J12 / AY-K12 / AY-L12 / AY-M12

- Reading Distance: 7 to 12cm
- RF Modulation: ASK at 125 kHz
- For outdoor use
- Slim Stylish Design (UK or USA Gang Box, Mullion)
- Bi-Color Light Indicator
- Includes LED Control Input
- Audible Buzzer Indicator
- Built in Tamper Output



AY-X19 Series Pin & Prox Readers

AY-C19 / AY-D19

- Reading Distance: 8 to 10cm
- RF Modulation: ASK at 125 kHz
- For indoor use
- Slim Stylish Design (USA Gang Box)
- Bi-Color Light Indicator
- Audible Buzzer Indicator
- Built in Tamper (w/ Rosslare Controllers)
- Includes Bell Button (w/ Rosslare Controllers)



AY-L23 RF Reader

AY-L23

- Read Range: 70 meters (200 feet)
- For Outdoor Use (Water Proof)
- Frequency: 433MHz
- Slim Stylish Design (Mullion)
- Bi-Color LED Indicator
- LED Control
- Audible Buzzer Indicator
- Size: 145mm x 43mm x 20mm
- Used with SA-26 Wireless Remote

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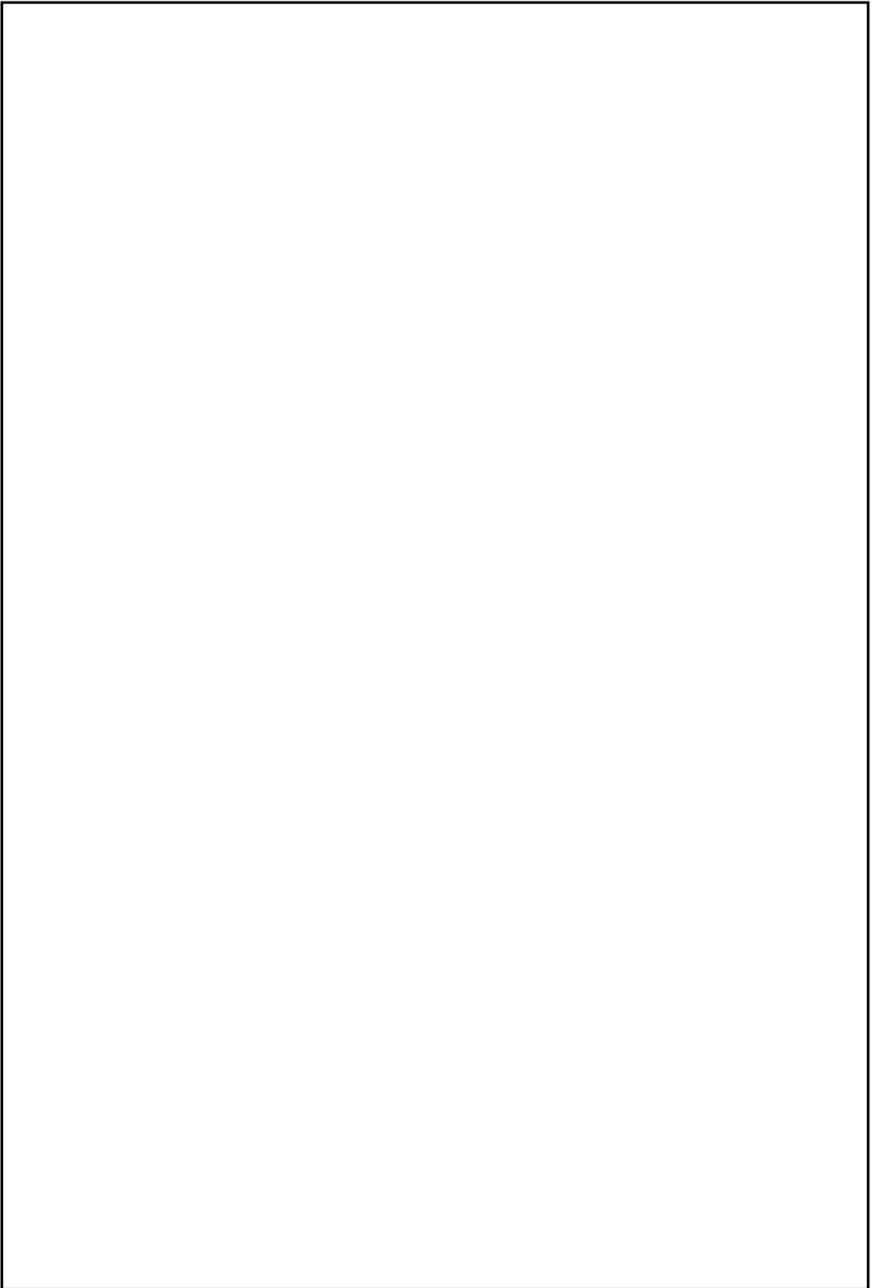
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