ENFORCER®

Indoor Illuminated Access Control Keypad with Proximity Reader

SK-1131-SPQ

Installation Manual

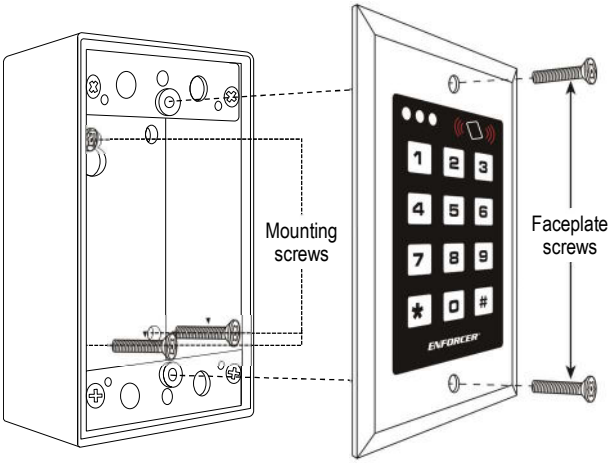
- Built-in proximity card reader
- 12~24 VAC/VDC Auto-adjusting operation
- Up to 1,000 possible user codes/cards for output 1, 100 for output 2, and 100 for output 3
- Up to 50 possible visitor codes for one-time or limited-time use (1~99 hours)
- Up to 50 duress codes for output 1, 10 for output 2, and 10 for output 3
- Output 1: Form C relay, 1A@30VDC max. / output 2: Form C relay, 1A@30VDC max. / output 3: transistor ground, 100mA@24VDC
- Outputs 1, 2, and 3 can be programmed to activate for up to 99,999 seconds (nearly 28 hours)
- Tamper output N.C. Dry contact, 50mA@24VDC max.
- All features are programmed directly from the keypad; no need for an external programmer
- EEPROM Memory protects programmed information in case of power loss
- Duress code triggers a silent alarm if a user is forced to open the door under duress
- Egress input lets users exit the premises without keying in the code
- Keypad illuminates when a button is pressed, programmable for FULL or AUTO in standby
- Mounts to a standard single-gang back box (surface-mount back box included)
- Keypad active or alarm output selectable via jumper
- Interlocking input for connecting to a second keypad
- Door sensor input for anti-tailgating
- Data I/O terminal for split-series setup providing added security
- Expansion port for future optional features

SECO-LARM®

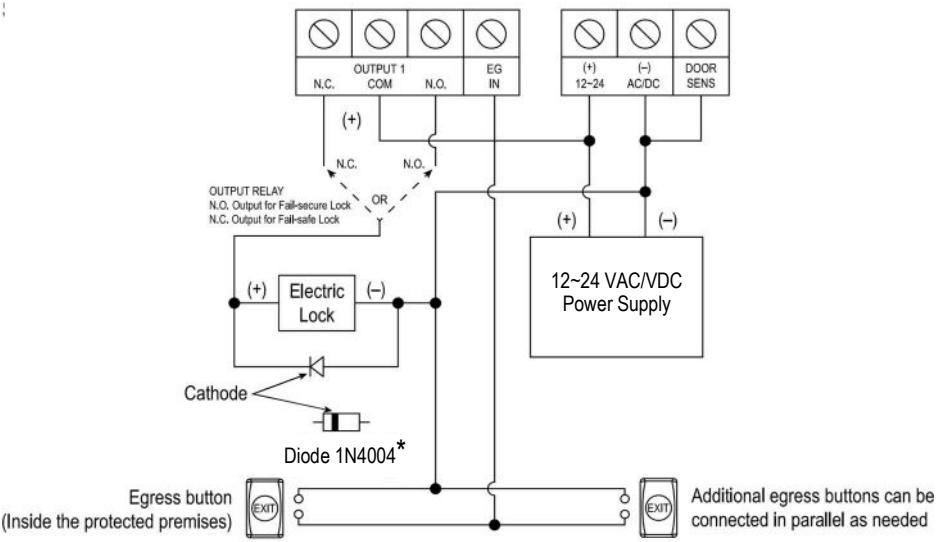
Quick Installation Guide

This page is for installers looking to do a basic installation and programming of the keypad. For more in-depth installation and programming instructions, see the *Table of Contents* on pg. 4. For optional Split-Series Controller installation and operation instructions, please refer to its manual.

Mounting Diagram



Quick Wiring Diagram



*To protect the relay, you must install the included diode—with the cathode (striped end ——|■|——) wired toward the positive side—for DC-powered locks ***unless*** *your lock has a diode built in.* AC-powered locks and electromagnetic locks require a varistor/MOV (05D390K or similar, not included) wired in the same location ***if*** *the lock does not have one built in* (all SECO-LARM electromagnetic locks have built-in protection). Failure to use these as directed will void the warranty.

Quick Programming Guide

This page is for installers looking to do a basic installation and programming of the keypad. For more in-depth installation and programming instructions, see the *Table of Contents* on pg. 4. For optional Split-Series Controller installation and operation instructions, please refer to its manual.

Programming Tips

- The *master, super user, common user, visitor, duress*, and *user codes* cannot be the same.
- A flashing center amber LED indicates the keypad is in *standby mode*.
- A solid center amber LED indicates the keypad is in *programming mode*.
- If the *user code entry mode* is set for *auto-entry*, all codes will need to be the **same number of digits** as the *master code* (see *Programming the User Code Entry Mode*, pg. 24).

Programming Instructions

Follow the instructions below if the following covers your needs.

- A new *master code*
- A single 4-digit *user code* for all users and no *user cards*
- One output to unlock a door
- A 3-second delay time in opening the door after the output is activated

1. Turn off the beeping before the 1-minute power-up period ends

   [1][2] [#]

2. Enter *programming mode*

   [0][0][0][0] [*][*]

   NOTE: The factory default master code is 0000**.**

3. Change the *master code*

   [0][1] [X][X][X][X] [#]

   NOTE: In the formula above, [X][X][X][X] represents the new *master code*.

4. Set a *user code* to operate output 1 (unlock the door)

   [1][0] [2] [0][0][0] [X][X][X][X] [#]

   NOTE: [0][0][0] chooses user ID #000 of 1,000 possible users (000~999).
   [X][X][X][X] is the new *user code* for user ID #1.

5. Set the output 1 delay time (skip this step if the default value of 5 seconds is acceptable)

   [5][1] [3] [#]

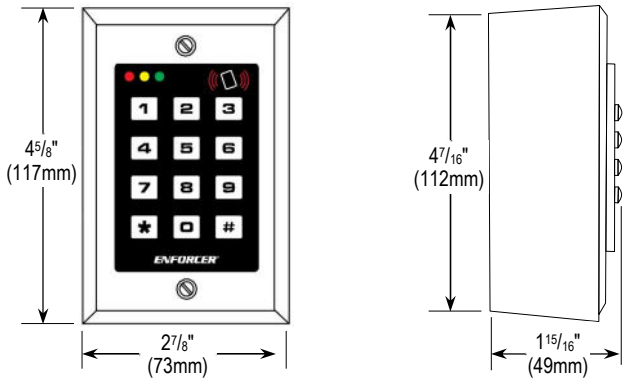
   NOTE: [3] sets the output delay time for 3 seconds.

6. Exit *programming mode*

   [*][*]

Table of Contents

Overview



Parts List

1x **Keypad**
1x **Diode**
1x **Back box**
3x **Mounting screws**
2x **Faceplate screws**
1x **Manual**

Specifications

Operating voltage		12~24 VAC/VDC
Current draw (@12VDC)	**Standby**	66mA
	Keypress	93mA
	Output 1 active	99mA
	Outputs 1 & 2 active	126mA
	Outputs 1, 2, & 3 active	127mA
	Total (max.)	160mA
Outputs	**#1 Form C**	1A@30VDC
	#2 Form C	1A@30VDC
	#3 Transistor ground	100mA@24VDC
	K or A	100mA@24VDC
	Duress	100mA@24VDC
	Interlock	100mA@24VDC
	Tamper	50mA@24VDC
Inputs	**Egress**	N.O. Ground
	Door sensor	N.C. Ground
	Door inhibit	N.O. Ground
Proximity reader frequency		125kHz (EM125)
Proximity reader sensing distance		$1^{1}/_{2}$" (38mm)
Operating humidity		5~95%, non-condensing
Operating temperature		-4°~158° F (-20°~70° C)
Dimensions (including back box)		$4^{5}/_{8}$"x$2^{7}/_{8}$"x$1^{15}/_{16}$" (117x73x49 mm)
Weight		6-oz (170g)

LED Indicators and Keypad Sounds

LED Indicators

	Red LED (Left)	Red/Amber LED (Center)	Green LED (Right)
Steady	Available for free connection	Programming mode (amber) Output 1 inhibited (red)	Available for free connection
Flashing	–	Standby mode (amber) Inhibit mode paused (red/amber) Keypad Locked (red)	–

Keypad Sounds and LEDs

Status	Sounds*	Red/Amber LED (Center)
In programming mode	–	Steady ON
Successful key entry	1 Beep	1 Flash
Successful code/card entry	2 Beeps	2 Flashes
Unsuccessful code/card entry	5 Beeps	5 Flashes
Power up delay	Continuous beeping	Continuous flashing
Output relay activation†	1-Sec long beep	–
In standby mode‡	–	1 Flash/second
System restore mode	2 Beeps	Fast flashing for 2.5 minutes
Code/card already stored	1 Long beep	–
Real time clock stopped after power loss	Continuous 3 fast beeps every 5 seconds	–

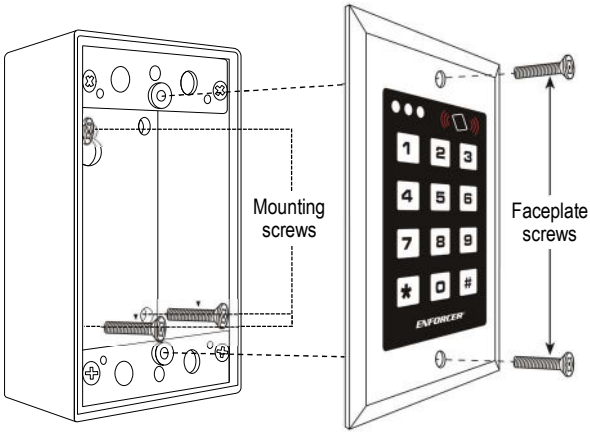
*Keypad sounds can be programmed ON or OFF (see pg. 25).

†Output relay activation sounds can be programmed for 1-sec long beep, 2 short beeps, or OFF (see pg. 25).

‡Amber center LED flashing during standby mode can be programmed ON or OFF (see pg. 26).

Installation

1. Find a suitable location to mount the keypad. Install it at the height at which most users will be able to easily operate the keypad.
2. Note where the wires will enter and knock out the appropriate opening for running the wires.
3. Install the center mounting screw on the wall. Hang the back box on this screen by the top "keyhole" mounting hole.
4. Install the remaining mounting screws and tighten all mounting screws in place.
5. Run the wire through the wall or conduit to the back box location, then into the back box.
6. Note the wiring diagram and ensure the backlit and K or A jumpers are properly set (see pg. 8).
7. Connect the wires to the keypad according to the wiring diagram on pg. 9.
8. Attach the keypad to the single-gang back box with the included faceplate screws.



Important Notes

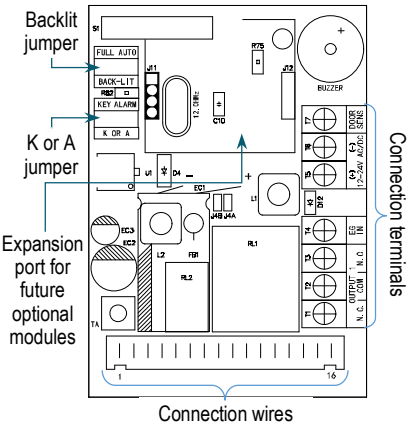
IF USING THE KEYPAD WITH A MECHANICALLY OPERATED DOOR OR GATE, MOUNT THE KEYPAD AT LEAST 15' (5m) FROM THE DOOR OR GATE TO PREVENT USERS FROM BEING CRUSHED OR PINNED. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.

1. Always disconnect power before servicing the keypad. Do not apply power until all connection wiring is completed.
2. The keypad must be properly grounded. Use a minimum of 22AWG wire connected to the common ground output wire 15 (light green). Failure to do so may damage the keypad.
3. Allow at least 2ft (60cm) between this and any other keypads to avoid interference.
4. All wiring and programming should be done by a professional installer to reduce the risk of improper installation.
5. The user's guide for this keypad is located on pg. 31 of this manual.
6. Be sure to store this manual in a safe place for future reference.

Wiring Diagram

Connection Terminals

Terminal		Description
Relay Output 1	N.C.	NO/NC/COM 1A@30VDC max.
	COM	
	N.O.	
Egress input		N.O. Pushbutton contact to ground. Press button to activate output 1.
12~24 VAC/VDC		Connect to a 12~24 VAC/VDC power supply. **Observe polarity**.
Door sensor		Connect to an optional N.C. sensor such as a magnetic contact to monitor if a door is open or closed. Connect to ground (–) if not used.



Connection Wires

Wire	Color	Function	Description
1	Red	Tamper N.C.	Tamper switch output, N.C. contact, max. 50mA@24VDC. Connect to the N.C. 24-hour protection zone of an alarm if needed.
2	Black		
3	Gray	Green LED (–)	Connect to a device to trigger the green LED
4	Green	(+)	
5	Light blue	Red LED (–)	Connect to a device to trigger the red LED
6	Yellow	(+)	
7	White	Data I/O	For connection to optional ENFORCER Split-Series Controller
8	Pink	K or A output	Transistor ground output, max. 100mA@24VDC See *Jumper Settings, K or A* below for programming details.
9	White/brown	Output 2 COM	NO/NC/COM, relay output, max. 1A@30VDC
10	Blue	Output 2 N.O.	
11	Purple	Output 2 N.C.	
12	White/Red	Output 3	Transistor ground output, max. 100mA@24VDC
13	Orange	Output 1 inhibit	N.O. input, connect to interlock control of second keypad if needed so that if one keypad is used to unlock a door, the other is temporarily disabled.
14	Brown	Interlock control	N.O. input, connect to Output 1 inhibit of second keypad if needed so that if one keypad is used to unlock a door, the other is temporarily disabled.
15	Light green	Ground (–)	Common ground output.
16	White/orange	Duress output	Transistor ground, max. 100mA@24VDC Triggers a silent alarm or other device when the user enters a *duress code*

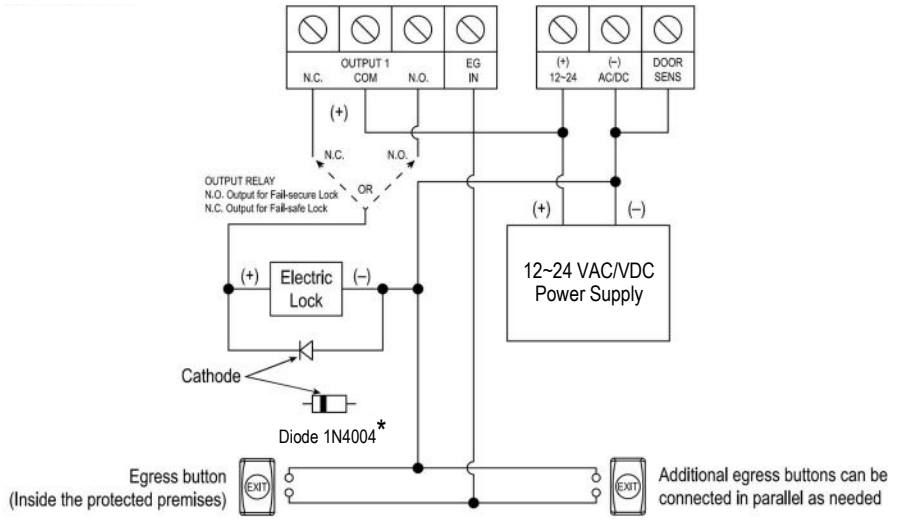
Jumper Settings

Jumper		Position	Description
Backlit	Full	●▣	Dim backlit during standby. Full backlit for 10 seconds after any button press.
	Auto	▣●	No backlit during standby. Full backlit for 10 seconds after any button press.
K or A	K	●▣	Switches to ground (–) for 10 seconds after any button press.
	A	▣●	Switches to ground (–) when alarm occurs.

Sample Applications

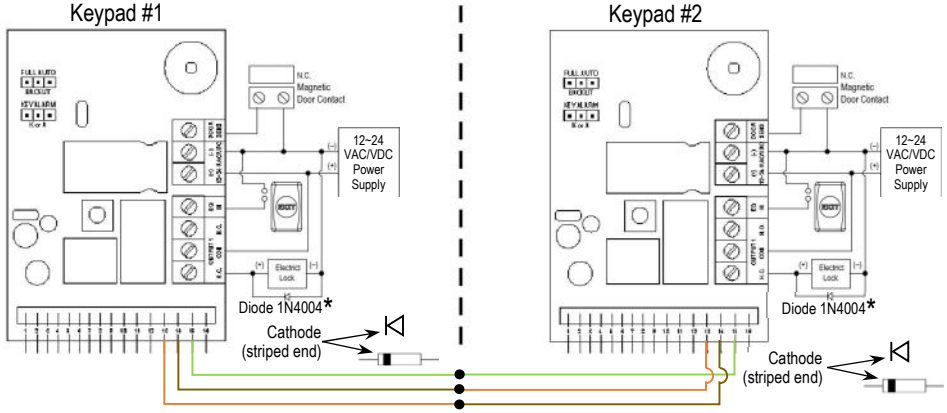
Stand-Alone Door Lock

In this application, the keypad is connected to a single door lock and an egress pushbutton.



Inter-Lock System Using Two Keypads

In this application, two keypads are each connected to separate door locks, magnetic contacts, and egress buttons. While one door is open, the other cannot be opened.



1. Connect keypad #1 *Output 1 Inhibit* (orange wire 13) to keypad #2 *Interlock Control* (brown wire 14).
2. Connect keypad #1 *Interlock Control* (brown wire 14) to keypad #2 *Output 1 Inhibit* (orange wire 13).
3. Connect *common ground (-)* (light green wire 15) of each keypad together.

*To protect the relay, you must install the included diode—with the cathode (striped end ——|▮|——) wired toward the positive side—for DC-powered locks ***unless*** *your lock has a diode built in.* AC-powered locks and electromagnetic locks require a varistor/MOV (05D390K or similar, not included) wired in the same location ***if*** *the lock does not have one built in* (all SECO-LARM electromagnetic locks have built-in protection). Failure to use these as directed will void the warranty.

Getting Ready to Program

Codes or Cards

The keypad can be set to be activated by users in one of three ways.

1. **Keypad code only** – There are five types of keypad codes
   - *Master code* – Used only for entering *programming mode*. There can be only one *master code* per keypad.
   - *Super user code* – Can be used to activate outputs 1, 2, and 3, or to disable (inhibit) or enable the operation of output 1.
   - *User codes* – Unique codes for each user to activate outputs 1, 2, or 3.
   - *Visitor codes* – Temporary user codes that can be assigned to visitors or temporary workers to activate output 1; the *visitor codes* can be programmed for one-time use or to expire after a set number of hours has passed.
   - *Duress codes* – Assigned to specific users as a way to send a silent alert if forced to use keypad under duress
2. **Proximity card only** – Standard 125kHz (EM125) proximity cards can be used to activate outputs 1, 2, or 3.
3. **Card + code** – For enhanced security, the user can be required to also enter a code after tapping a proximity card. The code may be unique to each card or to a group of users, or a common code can be used with all cards.

Security Levels

There are four possible security levels for the keypad.

1. **Card only** – The most basic, convenient level of security. Hold a previously programmed proximity card over the keypad to activate outputs 1, 2, or 3 (see *Programming User Codes and Proximity Cards* on pg. 16).
2. **User code only** – Type in a 4- to 8-digit *user code* to activate outputs 1, 2, or 3 (see pg. 16).
3. **Card + common user code** – All valid *user cards* can be programmed with a single *common user code* so that outputs 1, 2, or 3 can only be activated if one of the *user cards* and the *common user code* are used together. The *common user code* is automatically assigned when each *user card* is programmed into the keypad (see *Programming a Common User* Code on pg. 15).
4. **Card + unique user code** – The most secure level. Each proximity card can be programmed with its own unique *user code* so that outputs 1, 2, or 3 can only be activated if the card and the *unique user code* are used together (see pg. 16).

Getting Ready to Program (Continued)

Power Up the Keypad

When the keypad is first powered up, it will beep continuously for about 1 minute. During this power-up time, if needed, use *direct access to programming (DAP)* to reset the *master code* (see *Direct Access to Programming* on pg. 30).

1. Turn off the beeping before the 1-minute power-up period ends

   [1][2] [#]

   This will immediately stop the beeping. When the beeping has ended, the keypad is ready for normal operation or for programming.

Enter and Exit Programming Mode

All programming of the keypad is done in *programming mode*.

1. Enter *programming mode*

   [X][X][X][X] [*][*]

   NOTE: In the formula above, [X][X][X][X] represents the *master code*. The default *master code* is "0000" (see *Programming the Master Code* on pg. 13 to program a new *master code*). The center amber LED will change to steady ON to indicate that the keypad is in *programming mode*.

2. Exit *programming mode*

   [*][*]

   The [*][*] entry can be used to exit *programming mode* at any time while programming. The center amber LED will return to flashing, indicating *standby mode*, upon exiting *programming mode*.

   NOTE: **DO NOT DISCONNECT THE KEYPAD FROM POWER WHILE IN PROGRAMMING MODE**. Disconnecting the keypad while in *programming mode* could cause a keypad memory error.

Programming Format and Default Programming Values

In this manual, the format used for programming the keypad is as follows.

- A 2-digit ([X][X]) FUNCTION identifier to tell the keypad what is being programmed.
- A varying number of digits ([X]) represents the parameters of that FUNCTION.
- Press the [#] key to confirm programming of the FUNCTION.

The following is a list of the different programming functions.

Function	Parameters	Default functions and values	Page #
01	Master code	Default 0000, code length from 4~8 digits	13
02	Super user code	No default, must be programmed	14
03	Common user code for output 1	No default, must be programmed	15
04	Common user code for output 2	No default, must be programmed	15
05	Common user code for output 3	No default, must be programmed	15
10	User codes/cards for output 1	No default, must be programmed	15
20	User codes/cards for output 2	No default, must be programmed	15
30	User codes/cards for output 3	No default, must be programmed	15
40	Visitor codes for output 1	No default, must be programmed	18
41	Duress codes for output 1	No default, must be programmed	19
42	Duress codes for output 2	No default, must be programmed	19
43	Duress codes for output 3	No default, must be programmed	19
51	Output mode/duration for output 1	5-Second output, momentary	21
52	Output mode/duration for output 2	5-Second output, momentary	21
53	Output mode/duration for output 3	5-Second output, momentary	21
55	System real-time clock	No default, must be programmed	22
56	Auto-disable time (output 1)	No default, must be programmed	22
60	Wrong-code system lock-up	Locks keypad after 10 false code/card tries	24
70	User code entry mode	Manual entry of "#" after each code	24
71	Keypad sounds	Programming and operation beeps enabled	25
72	Output relay activation sounds	1-Second beep when output is activated	25
73	Center LED standby flashing	Center LED flashes on standby	26
80	Door-forced-open warning	Warning disabled	26
81	Door-propped-open warning	Warning disabled	27
90	Egress delay/warning/alarm	Egress output happens immediately	28
91	Door-open warning/duration	Alarm output is disabled	27

NOTE The *direct access to programming (DAP)* code 2828 (see pg. 30) and the system restore code 9999 (see pg. 13) are fixed and cannot be changed, even via programming.

System Restore

System restore will reset all programming values except the *master code* back to the default values shown on pg. 12.

1. Ensure the keypad is in *programming mode* (see *Enter and Exit Programming Mode* on pg. 11).
2. Initiate system restore.
   9 9 9 9 #

NOTES

- System restore will reset ALL programming except the *master code* back to default values. Be careful to use system restore only when absolutely necessary.
- System restore may take several minutes. The center amber LED will flash rapidly during this time.
- Once system restore has been completed, the keypad will beep twice to show that all programming values have been reset to their default values and are ready to be reprogrammed.
- At this point, the keypad is still in *programming mode*.

Programming the Master Code

The *master code* is used to enter *programming mode*. The *master code* **does not** serve as a *user code* for activating outputs 1, 2, or 3.

1. Ensure the keypad is in *programming mode* (see *Enter and Exit Programming Mode* on pg. 11).
2. Enter new *master code*.
   0 1 X X X X #

NOTES

- X X X X represents the new *master code*, which can be 4 to 8 digits long.
- There can be **only one *master code*** for the keypad.
- Programming a new *master code* will overwrite the previous *master code*.
- If the *master code* is forgotten, use *direct* access *to programming (DAP)* to reset the *master code* (see pg. 30).
- The *master, super user, common user, visitor, duress*, and *user codes* **cannot be the same**.
- If the keypad is set for *auto-code entry* mode, all codes will need to be the **same number of digits** as the *master code* (see *Programming the User Code Entry Mode* on pg. 24).

The Super User Code

The *super user code* has multiple functions.

- The *super user code* can activate or deactivate output 1, 2, or 3 at any time.
- The *super user code* can toggle operation of output 1 on or off.
- The *super user code* can pause or restart the timed output 1 auto-disable period.
- The *super user code* can also enable or disable output 1. An administrator may want to disable the output in the evening or on the weekend to prevent other users from entering a protected area.

The *super user code* is exempt from system inhibition or lockup functions and is valid at any time.

Programming the Super User Code

1. Ensure the keypad is in *programming mode* (see *Enter and Exit Programming Mode* on pg. 11).
2. Program the new *super user code*.
   [0][2] [X][X][X][X] [#]

NOTES

- [X][X][X][X] represents the new *super user code*, which can be 4 to 8 digits long.
- There can be **only one *super user code*** for the keypad.
- Programming a new *super user code* will overwrite the previous *super user code*.
- The *master, super user, common user, visitor, duress*, and *user codes* **cannot be the same**.

Deleting the Super User Code

This function is useful for protecting the premises in case the *super user code* is lost or forgotten.

To delete a *super user code*.

1. Ensure the keypad is in *programming mode* (see pg. 11).
2. Enter
   [0][2] [#]

Using the Super User Code

In these examples, assume the *super user code* is 2580.

1. Activate or deactivate output 1 (timed or toggle, depending on programming).
   [2][5][8][0] [#] [1]
2. Activate or deactivate output 2 (timed or toggle, depending on programming).
   [2][5][8][0] [#] [2]
3. Activate or deactivate output 3 (timed or toggle, depending on programming).
   [2][5][8][0] [#] [3]

The Super User Code (Continued)

4. Toggle operation of output 1 ON or OFF.

   [2] [5] [8] [0] [#] [7]

   NOTES

   - This function is used to leave output 1 active for extended periods of time.
   - Do not forget to deactivate this function after its use is no longer required.
   - It is recommended to only use this function with fail-safe locks. Fail-secure locks may be damaged by staying activated for too long.
   - All functions requiring use of the door sensor input are suspended while this function is in use.

5. To temporarily pause or restart the timed output 1 *auto-disable* period.

   [2] [5] [8] [0] [#] [8]

   NOTES

   - This function is used to enable the operation of output 1 if it was disabled using the *auto-disable* function (see pg. 22).
   - When the output 1 *auto-disable* function is inactive, the red LED will flash steadily. This indicates that the output may now be used.

6. Disable or enable output 1 (toggle, regardless of programming).

   [2] [5] [8] [0] [#] [9]

   NOTES

   - This is used to prevent users from accessing the protected premises.
   - For more information on programming timed or toggle mode, see *Programming the Output Mode and* Duration on pg. 21.
   - The center LED will flash red and amber while output 1 is disabled.
   - For safety reasons, the egress button works regardless of whether output 1 is enabled or disabled via the *super user code*.
   - The *super user code* continues to operate output 1 even while that output is disabled.

Programming a Common User Code

NOTE: This function is only used when utilizing proximity cards. For programming *user codes*, see pg. 16.

This function allows a *common user code* to be automatically added to each *user card* as it is programmed. Every *user card* user also uses the same *common user code* to operate outputs 1, 2, or 3. This provides greater security than programming the keypad to operate with the card alone. It is also more convenient than assigning each user a *unique user code*, although *unique user codes* offer an even greater degree of security.

1. To program a *common user code* for output 1.

   [0] [3] [X] [X] [X] [X] [#]

Programming a Common User Code (Continued)

2. To program a *common user code* for output 2.
   [0][4] [X][X][X][X] [#]
3. To program a *common user code* for output 3.
   [0][5] [X][X][X][X] [#]
4. To delete the *common user code* for output 1
   [0][3] [#]

NOTES

- [X][X][X][X] represents the new *common user code*, which can be 4 to 8 digits long.
- Programming a new *common user code* will overwrite the previous *common user code*.
- A common user code is not necessary if unique user codes are assigned.
- The *master*, *super user*, *common user*, *visitor*, *duress*, and *user codes* cannot be the same.

Programming User Codes and Proximity Cards

When programming *user codes* and/or *user cards*, use this general formula.

[A][A] [B] [C][C][C] [D][D][D][D] [#]

[A] – Output

[B] – Security level (or [5], to delete a *user code* or *card*)

[C] – User ID

[D] – *User code* / *user card*

Outputs

- [1][0] – Output 1, up to 1,000 possible user codes and/or proximity cards
- [2][0] – Output 2, up to 100 possible user codes and/or proximity cards
- [3][0] – Output 3, up to 100 possible user codes and/or proximity cards

Security Levels and Card/Code Deletion

There are four possible security levels for the keypad.

- [1] **Card only** – The most basic, convenient level of security. Just tap a previously programmed *user card* over the keypad to activate outputs 1, 2, or 3.

  NOTE: The *duress code* feature cannot be used with the keypad programmed to the "card only" security mode. However, a *duress code* can be entered instead of a *card*.
- [2] **User code only** – Type in a 4 to 8-digit *user code* to activate outputs 1, 2, or 3.

Programming User Codes and Proximity Cards (Continued)

- [3] **Card + unique user code** – The most secure level. This code is programmed separately for each card and can be unique to the card, or the same code can be used for a group or department. The card and code must be used together to operate the output.
- [4] **Card + common user code** – All valid *user cards* can be programmed with a single *common user code* so that outputs 1, 2, or 3 can only be activated if one of the cards and the *common user code* are used together. The *common user code* is automatically assigned as each *user card* is programmed into the keypad.
- [5] – Delete a programmed *user card* or *user code*.
- [0][9][9][9] – Delete all programmed *user cards* or *codes* for the selected output.

User IDs

- [0][0][0] to [9][9][9] – 1,000 unique user IDs for *user codes* and *cards* for output 1
- [0][0][1] to [1][0][0] – 100 unique user IDs for *user codes* and *cards* for output 2 and 3

User Codes

- A *user code* can be 4 to 8 digits long and must have the same length as the *master code* if the keypad is used in *auto-entry mode* (see *Programming the User Code Entry Mode* on pg. 24).
- The *master, super user, common user, visitor, duress*, and *user codes* **cannot be the same**.

Examples

1. Program only a *user card* for user ID #017 for output 1.
   [1][0] [1] [0][1][7] ***READ CARD*** [#]
2. Program *user code* 2275 for user ID #010 for output 1.
   [1][0] [2] [0][1][0] [2][2][7][5] [#]
3. Delete a *user card* for output 1.
   [1][0] [5] ***READ CARD*** [#]
4. Delete *user code* or *card* for user ID #002 for output 1.
   [1][0] [5] [0][0][2] [#]
5. Delete all users for output 1.
   [1][0] [0][9][9][9] [#]
6. Program a *user card* for user ID #001 for output 1 for use with a *common user code*.
   [1][0] [4] [0][0][1] ***READ CARD*** [#]

   NOTE: A *common user code* must already be programmed to the output (see pg. 15).
7. Program a *user card* for user ID #023 for output 2 for use with a *unique user code*.
   [2][0] [3] [0][2][3] ***READ CARD*** [2][4][6][8] [#]

Programming Visitor Codes

Visitor codes are temporary codes that expire after use or after a specified amount of time has elapsed. While active, they operate output 1 as normal *user codes*.

NOTES

- *Visitor codes* cannot be used to deactivate the duress output (see *Operating Duress Codes* on pg. 20).
- If a *visitor code* is programmed using a number previously programmed as a *user code*, the *visitor code* will be kept, and the *user code* will be replaced.
- If the keypad is powered down, any programmed *visitor codes* will be deleted.

When programming *visitor codes*, use this general formula.

[4][0] [A][A] [B][B] [C][C][C][C] [#]

[4][0] – Program *visitor codes*

[A] – Visitor ID

[B] – Valid duration (hours)

[C] – *Visitor code*

Visitor IDs

- [0][1] to [5][0] – 50 unique visitor IDs for *visitor codes* for output 1
- [0][9][9][9] – Delete all currently programmed *visitor codes*.

Valid Duration

- [0][0] – Set a one-time *visitor code*. This code can only be used once by a visitor, after which it is automatically deleted.
- [0][1] to [9][9] – Set the duration the *visitor code* will be valid from 1 to 99 hours.

Visitor Codes

- A *visitor code* can be 4 to 8 digits long and must have the same length as the *master code* if the keypad is used in *auto-entry mode* (see *Programming the User Code Entry Mode* on pg. 24).

Examples

1. Set the visitor ID #1 code to 1268 and make it a one-time code.
   [4][0] [0][1] [0][0] [1][2][6][8] [#]
2. Set the visitor ID #2 code to 1378 and make it valid for three hours.
   [4][0] [0][2] [0][3] [1][3][7][8] [#]
3. Delete the visitor ID #2 code from memory.
   [4][0] [0][2] [#]
4. Delete all currently programmed *visitor codes*.
   [4][0] [0][9][9][9] [#]

Programming Duress Codes

Duress codes allow users to trigger a silent alarm or alert if forced to allow access to a protected area. If a user uses *a duress code* instead of their normal *user code*, outputs 1, 2, or 3 will activate as normal, but the duress output will simultaneously activate to trigger a silent alarm or alert.

NOTES

- *Duress codes* are always valid and are not inhibited by any other operation of the keypad.
- *Duress codes* cannot be the same as any other codes.
- *Duress codes* can be used either as stand-alone codes or in conjunction with a *user card*, depending on how the *user codes* are programmed (see *Programming User Codes and Proximity Cards* on pg. 16).
- The *duress code* should be easy to remember. For instance, it can be the same as a user's normal *user code* but with a single-digit changed, such as subtracting or adding 1 to the first or last digit of the code. For example, if the user code is 1369, a good *duress code* might be 2369.

When programming *duress codes*, use this general formula.

[A][A] [B][B] [C][C][C][C] [#]

[A] – Output

[B] – Duress ID

[C] – *Duress code*

Outputs

- [4][1] – Output 1
- [4][2] – Output 2
- [4][3] – Output 3

Duress IDs

- [0][1] to [5][0] – Up to 50 duress IDs can be programmed for output 1.
- [0][1] to [1][0] – Up to 10 duress IDs can be programmed for output 2 or 3.
- [0][9][9][9] – Delete all currently programmed duress IDs for the selected output.

Duress Codes

- A *duress code* can be 4 to 8 digits long and must have the same length as the master code if the keypad is used in *auto-entry mode* (see *Programming the User Code Entry Mode* on pg. 24).

Programming Duress Codes (Continued)

Examples

1. Set a *duress code* for ID #01 for output 1 to 2369.

   [4][1] [0][1] [2][3][6][9] [#]

2. Set a *duress code* for ID #01 for output 2 to 23980.

   [4][2] [0][1] [2][3][9][8][0] [#]

3. Delete the *duress code* for ID #01 for output 1 from memory.

   [4][1] [0][1] [#]

4. Delete all *duress codes* for output 1 from memory.

   [4][1] [0][9][9][9] [#]

Operating Duress Codes

If a *duress code* is used in place of a normal user code, both the appropriate outputs 1, 2, or 3 and the duress output will be activated. However, a *duress code* **cannot** deactivate the duress output.

Only a **normal *user code/card***, ***super user code***, or a ***master code*** can deactivate the duress output.

NOTE: A *duress code* can also be used in conjunction with a *user card* to activate the duress output. However, a *user card* alone cannot activate the duress output.

Examples

In these examples, assume that 2369 is an output 1 *duress code* and that 1369 is a *user code*.

1. Activate the duress output and output 1 using the *duress code*:

   [2][3][6][9] [#]

   NOTE: Subsequently entering the *duress code* will activate output 1 again but will not deactivate the duress output.

2. Deactivate the duress output using the *user code*.

   [1][3][6][9] [#]

3. Activate the duress output and activate output 1 using the *duress code* and a *user card*.

   READ CARD [2][3][6][9] [#]

Programming the Output Mode and Duration

The relay for the outputs 1, 2, and 3 can be programmed to trigger ON and OFF with a *user code* or *user card* (toggle mode) or to trigger for a programmed length of time of up to nearly 28 hours before automatically turning OFF. The toggle or timed outputs can be used for locking or unlocking a door or for a variety of functions that can be controlled with the keypad.

When programming the *output mode* and duration, use this general formula.

[A][A] [B][B][B][B][B] [#]

[A] –Output

[B] – *Output mode* and duration

Outputs

- [5][1] – Output 1
- [5][2] – Output 2
- [5][3] – Output 3

Output Mode and Duration

- [0] – Start/stop (toggle) mode. In this case, the output starts when a *user code* and/or *user card* is entered and stops when a *user code* and/or *user card* is entered.
- [1] to [9][9][9][9][9] – The output triggered by a *user code* and/or *user card* lasts 1 to 99,999 seconds (nearly 28 hours) before automatically turning off (default 5 seconds).

NOTE: While the keypad is in momentary timed output mode, the output can be reset any time by entering the *super user code*.

Examples

In these examples, assume that the *super user code* is 2580.

1. In *programming mode*, set output 1 to toggle.
   [5][1] [0] [#]
2. In *programming mode*, set output 2 to 60 seconds.
   [5][2] [6][0] [#]
3. Reset output 1 timer.
   [2][5][8][0] [#] [1]
4. Reset output 2 timer.
   [2][5][8][0] [#] [2]

Programming the Real-Time Clock

A 24-hour *real-time clock* provides the baseline time needed to start and stop the output 1 *auto-disable time* (see *Programming Output 1 Auto-Disable* Time on pg. 22).

If the *output 1 auto-disable time* is not programmed, it is not necessary to set the *real-time clock*.

To set the clock, use this general formula.

[5][5] [H][H][M][M] [#]

[5][5] – Program *real-time clock*

[H][H] – Hours

[M][M] – Minutes

Setting Hours and Minutes

- [H][H] represents hours and [M][M] represents minutes in the military (24-hour) time format, from 00:00 to 23:59.

Examples

1. Set the *real-time clock* to 11:30 AM.
   [5][5] [1][1][3][0] [#]
2. Set the *real-time clock* to 7:15 PM.
   [5][5] [1][9][1][5] [#]

NOTES

- To ensure accurate time, it is advised to re-program the *real-time clock* every three to six months and when Daylight Savings Time begins and ends (if applicable).
- If the *output 1 auto-disable time* is programmed, losing power will cause the keypad to beep 3 times every 5 seconds. To deactivate this alert, either reset the *real-time clock* or clear the *auto-disable time*.
- If the *auto-disable time* is not programmed, losing power will not cause the keypad to beep.

Programming Output 1 Auto-Disable Time

The keypad can be programmed so that output 1 is disabled for a certain period every day. Output 1 will be disabled at the start time and will be re-enabled at the end time. This ensures that users are not allowed into the protected premises, such as during lunch hour or at night.

NOTES

- The *real-time clock* must be operating to set the *output 1 auto-disable time* (see *Programming the Real-Time Clock* on pg. 22).
- For safety purposes, the egress button still works while output 1 is auto-disabled.
- The time is set using the military (24-hour) time format (00:00 to 23:59).

Programming Output 1 Auto-Disable Time (Continued)

- If the programmed start time is before the end time, output 1 is auto-disabled within a single day. If the programmed start time is after the end time, the end time will be on the following day.
- The start time and end time cannot be the same.
- The *auto-disable time* can be temporarily paused and restarted using the *super user code* (see *Programming the Super User Code* on pg. 14).
- During the *auto-disable time*, the *super user code* can be used to operate output 1.
- The center LED will flash red and amber during the *auto-disable time*.

When programming the *auto-disable time*, use this general formula.

[5][6] [H][H][M][M] [H][H][M][M] [#]

[5][6] – Program *auto-disable time* for output 1

[H][H][M][M] – Start Time

[H][H][M][M] – End Time

Start Time

- Start time for the *auto-disable time*. [H][H] represents hours and [M][M] represents minutes in the military (24-hour) time format, from 00:00 to 23:59.

End Time

- End time for the *auto-disable time*. [H][H] represents hours and [M][M] represents minutes in the military (24-hour) time format, from 00:00 to 23:59.

Examples

In these examples, assume that the *super user code* is 2580.

1. In *programming mode*, set the *auto-disable time* from 12:00 PM to 1:00 PM.
   [5][6] [1][2][0][0] [1][3][0][0] [#]
2. In *programming mode*, set the *auto-disable time* from 6:30 PM to 7:30 AM the following day.
   [5][6] [1][8][3][0] [0][7][3][0] [#]
3. In *programming mode*, clear the *auto-disable time*.
   [5][6] [#]
4. Temporarily pause or resume the *auto-disable time*.
   [2][5][8][0] [#] [8]
5. Activate output 1 during the *auto-disable time* (i.e., open the protected door).
   [2][5][8][0] [#] [1]

Programming Wrong-Code System Lockup

The keypad can be programmed to lock up to secure the premises against unauthorized entry if multiple wrong codes are entered, or multiple wrong cards are tapped.

When programming the *wrong-code system lockup*, use this general formula.

6 0 A A #

6 0 – Program *wrong-code system lockup*

A A – Lock options

Lock Options

Choose from several different options for the *wrong-code system lockup* security level.

- 1 – After 10 successive false attempts using incorrect *user codes* or *user cards*, the keypad will lock for 60 seconds (default).
- 2 – After 10 successive false attempts using incorrect *user codes* or *user cards*, the duress output will activate. The duress output can be deactivated using any output 1 *user code* or *user card* or with the *super user code*.
- 5 to 1 0 – After 5 to 10 successive false attempts using incorrect *user codes* or *user cards*, the keypad will lock for 15 minutes or until the *super user code* is used as follows.
  SUPER USER CODE # 9
- 0 0 – No system lock-up will happen.

NOTES

- The keypad's center LED will flash red and amber to show that the keypad is locked.
- The *duress code* will still function in this mode.

Programming the User Code Entry Mode

The keypad can be programmed for auto or manual user code entry modes.

- **Auto-entry mode** – Pressing the # key is not required after typing in a *user code*. In *auto-entry mode*, all *user codes* must have the same number of digits as the *master code*.
- **Manual-entry mode** – The # key must be pressed after the *user code* to indicate the code has been entered completely. In this case, the *user codes* can have a different number of digits, from 4 to 8 digits.

To Program

- For *auto-entry mode*

  7 0 1 #

Programming the User Code Entry Mode (Continued)

- For *manual-entry mode* (default)

  7 0 2 #

NOTE: If the keypad was previously programmed for *manual-entry mode* and then is reprogrammed for *auto-entry mode*, any *codes* whose length exceeds the number of digits of the *master code* will no longer operate the keypad. However, if the keypad is reprogrammed for *manual-entry mode*, the longer *codes* will again operate the keypad.

Programming the Keypad Sounds

Some of the keypad sounds can be programmed off.

- **Keypad-audible mode** – All the keypad's status beeps are enabled.
- **Keypad-silent mode** – The successful key entry beep (1 beep) and the unsuccessful *user code* or *card* entry beeps (5 beeps) are disabled. However, the warning and power-up delay beeps remain active. This provides for a quieter work environment.

To Program

- To enable *keypad-audible mode* (default)

  7 1 1 #

- To enable *keypad-silent mode*

  7 1 0 #

NOTE: This programming function only impacts the keypad sounds. It does not impact the output relay activation sounds (see *Programming the Output Relay-Activation Sounds* below).

Programming the Output Relay-Activation Sounds

The keypad output sounds can be programmed for one of three modes.

1. **No beeps** – The keypad will not beep when the output is activated.

   7 2 0 #

2. **1-second beep** (default) – The keypad will beep for 1 second when the output is activated.

   7 2 1 #

3. **2 short beeps** – The keypad will beep twice when the output is activated.

   7 2 2 #

NOTE: This programming function only impacts the output relay activation sounds. It does not impact the keypad sounds (see *Programming the Keypad Sounds* below).

Programming the Center LED in Standby

The keypad's center LED typically flashes green while the keypad is in standby mode but can be programmed off if needed.

1. Enable center LED flashing amber during standby mode (default).
   [7] [3] [1] [#]
2. Disable center LED flashing amber during standby mode.
   [7] [3] [0] [#]

Programming the Door-Forced-Open Warning/Duration

If the keypad is connected to an optional magnetic contact or other door protection switch or device, the keypad can be programmed to beep and output to an alarm when a door has been forced open. The keypad beep and alarm output can be set to activate for 1 to 999 seconds.

1. *Door-forced-open warning* OFF (default)
   [8] [0] [0] [#]
2. *Door-forced-open warning* ON and duration
   [8] [0] [T] [T] [T] [#]

NOTES

- [T] [T] [T] represents the beep active duration, which can be set from 1 to 999 seconds.
- If programmed for *door-forced-open warning*, the keypad will beep if the door is forced open without using a *user code* and/or *card* or the egress button. The keypad will not beep if the door is opened with a *user code* and/or *card* or the egress button.
- The *door-forced-open warning* and *door-open warning* should not both be enabled, as the overlap in timing could result in incorrect alarm outputs (see *Programming the Door Open Warning/*Duration, pg. 27).
- The "K or A" jumper must be set to "A" for the alarm output to function correctly (see the *Jumper Settings* table on pg. 8).

Programming the Door-Propped-Open Warning/Delay

If the keypad is connected to an optional magnetic contact or other door protection switch or device, the keypad can be programmed to beep when a door has been propped open. This prompts authorized users to close a door that was not closed properly or to investigate a door that may have been deliberately propped open.

1. *Door-propped-open warning* OFF (default)
   [8][1] [0] [#]

2. *Door-propped-open warning* ON and duration
   [8][1] [T][T][T] [#]

NOTES

- [T][T][T] represents the delay duration, which can be set from 1 to 999 seconds.
- The delay provides time for a door to close normally before triggering the *door-propped-open warning*.
- The *door-propped-open warning* beeping will stop when the open door is closed.

Programming the Door Open Warning/Duration

If the keypad is connected to a magnetic contact or other door monitoring device, it can be programmed to trigger the alarm output for 1 to 999 seconds if the door is forced open without using a valid *user code*/*card* or is opened with the egress button. The alarm will not be activated if the door is opened with a valid *user code/card*. If triggered, the output automatically ends either at the end of the programmed time or when a valid *user code* or *super user code* is input for output 1.

To Program

1. *Door-open warning* OFF (default)
   [9][1] [0] [#]

2. *Door-open warning* ON and duration
   [9][1] [T][T][T] [#]

NOTES

- [T][T][T] represents the alarm output duration, which can be set from 1 to 999 seconds.
- If programmed for *door-open warning*, the alarm will activate for the programmed duration if the door is forced open without a valid *user code* and/or *card* bit will not activate if the door is opened with a valid *user code* and/or *card*.
- The *door-open warning* and *door-forced-open warning* should not both be enabled, as the overlap in timing could result in incorrect alarm output (see *Programming the Door-Forced-Open Warning/*Duration on pg. 26).
- The "K or A" jumper must be set to "A" for the alarm output to function correctly (see the *Jumper Settings* table on pg. 8).

Programming the Egress Delay/Warning/Alarm

With most keypads, the egress button provides a simple way for someone inside a protected areas to exit through a locked door by pressing a button instead of using a keypad. However, in some situations, delaying the egress operation and/or providing some warning when the egress button is used is desirable.

For example, in hospitals or schools, it may be desirable to delay the egress operation and provide a warning to prevent patients or young children from easily leaving the protected area.

For simple egress with no delay, warning, or alarm, do not change this setting. It is disabled by default.

When programming the *egress delay/warning*, use this general formula.

9 0 A B B #

9 0 – Program *egress delay/warning*

A – Egress mode

B B – Delay time

Egress Modes

There are six possible egress operation configurations for the keypad.

- 1 **Momentary contact with no warning** (default) – Press the egress button momentarily for silent egress operation immediately or after the programmed delay with no audible warning.
- 2 **Momentary contact with warning beep** – Press the egress button momentarily. The keypad will beep for the programmed delay duration to warn that someone is preparing to exit the protected area before allowing the door to open.
- 3 **Momentary contact with warning beep and alarm** – Press the egress button momentarily. The keypad will beep and activate the alarm output for the programmed delay duration to warn that someone is preparing to exit the protected area before allowing the door to open.
- 4 **Hold contact with no warning or alarm** – Press and hold the egress button for the programmed delay duration until the door opens. This prevents accidental opening of the door.
- 5 **Hold contact with warning beep** – Press and hold the egress button for the programmed delay duration until the door opens. The keypad will beep during the delay to warn that someone is preparing to exit the protected area before allowing the door to open.
- 6 **Hold contact with warning beep and alarm output** – Press and hold the egress button for the programmed delay duration until the door is open. The keypad will beep during the delay and activate the alarm output to warn that someone is preparing to exit the protected area before allowing the door to open.

Programming the Egress Delay/Warning/Alarm (Continued)

NOTE: When the egress button is programmed to hold for a delay duration before the door is released, it is important to put a sign near the egress button to notify users of the delay duration.

Delay Time

- [0] – No delay (default)
  Output 1 operates immediately when the egress button is pressed.
- [1] to [9][9] – Egress button delay duration
  The delay duration can be set from 1 to 99 seconds. This tells the keypad how long to wait after the egress button is pressed before activating output 1.

Examples

1. Momentary mode – Press the egress button, and the keypad will beep for 5 seconds before output 1 activates.
   [9][0] [2] [5] [#]
2. Hold button to activate – Press and hold the egress button for 10 seconds, and the keypad will beep for those 10 seconds before output 1 activates.
   [9][0] [5] [1][0] [#]
3. Return to default setting – Press the egress button to activate output 1 with no beep or delay.
   [9][0] [1] [0] [#]

NOTE: For safety and to avoid confusion, when a delay or a press-and-hold delay is programmed, please post a notice near the egress button, such as "Press and hold the button for 5 seconds or until the door is unlocked."

Direct Access to Programming

Direct Access to Programming (DAP) is used to reset the *master code* if it is forgotten. DAP will not change the programming of the keypad in any other way.

To Use DAP

1. Disconnect the keypad's power.
2. Wait one minute to ensure that the keypad's power is fully discharged.
3. Reconnect the power. The keypad will beep repeatedly for one minute.
4. While the keypad is beeping, press the egress button once to stop the beeping.

   NOTE: If no egress button is installed, use a small jumper wire to momentarily connect the egress input and common ground terminals.

5. Enter the DAP code.

6. The center amber LED will now turn ON, indicating that the keypad is ready for a new *master code* to be programmed.

NOTES

- See *Programming the* Master *Code* on pg. 13 for how to program a new *master code*.
- Direct access to programming (DAP) will not reset the keypad's programming. It will only enter *programming mode* to program a new *master code*.
- For a complete system reset, see *System Restore* on pg. 13.

Installer Notes

Users' Guide to Operating the Keypad

See *Programming the Master Code* on pg. 13 and *Programming the Super User Code* on pg. 14 for functions specific to those authorized to use those codes.

Opening the Door

In these examples, assume that the *user code* is 2275, the *common user code* is 3526, and a *unique user code* is 2468.

- **Security level 1** – card only.
  READ CARD
  One long beep indicates that the door can be opened.
- **Security level 2** – code only
  2 2 7 5 #*
  One long beep indicates that the door can be opened.
- **Security Level 3** – card + common user code.
  READ CARD
  Two short beeps and a rapidly flashing center green LED indicates that the card is accepted and the keypad is waiting for the *common user code*.
  3 5 2 6 #*
  One long beep indicates that the door can be opened.
- **Security Level 4** – card + unique user code
  READ CARD
  Two short beeps and a rapidly flashing green LED indicates that the card is accepted, and the keypad is waiting for the *unique user code*.
  2 4 6 8 #*
  One long beep indicates that the door can be opened.

NOTE: For more information on security levels, please see *Getting Ready to Program* on pg. 10.

Operating the Egress Button

Press the egress button from inside the protected premises to unlock the door and exit without using the keypad.

NOTE: For more information on programming the Egress button, please see *Programming the Egress Delay/Warning/Alarm* on pg. 28.

*The # key is not needed if the keypad is programmed for *auto-entry mode*. See pg. 24.

Accessories

Proximity Cards

(sold in packs of 10)
PR-K1S1-A

Proximity Key Fobs

(sold in packs of 10)
PR-K1K1-AQ

Troubleshooting

User code doesn't work	• Make sure you programmed a *user code* instead of a *super user* or *common user code.* • Try deleting the *super user code* and *common user code,* then reprogramming the *user code*.
Master programming code doesn't work	• See *Direct Access to Programming* (pg. 30).
Keypad constantly beeps on power-up	• This is a normal operation. Press 12# to prematurely stop the beeping (see *Power Up the Keypad*, pg. 11).

Warranty and Notices

FCC COMPLIANCE STATEMENT **FCC ID: K4E1131SPQ**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

IMPORTANT WARNING Incorrect mounting which leads to exposure to rain or moisture inside the enclosure could cause a dangerous electric shock, damage the device, and void the warranty. Users and installers are responsible for ensuring that this product is properly installed and sealed.

IMPORTANT Users and installers of this product are responsible for ensuring that the installation and configuration of this product complies with all national, state, and local laws and codes. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or codes.

California Proposition 65 Warning These products may contain chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

LIMITED LIFETIME WARRANTY This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for the lifetime of the product. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else. For all other countries the warranty is 1 (one) year.

SECO-LARM® U.S.A., Inc.
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