

ENFORCER®

Piezoelectric Mullion-Style Outdoor Stand-Alone Keypads

Manual



(SK-2323-SPAQ shown)

Model Number	2 Relay Outputs	Backlit Keys	Proximity Reader
SK-2323-SDAQ	✓	✓	
SK-2323-SPAQ	✓	✓	✓

- 12-24 VAC/VDC operation
- 2 Form C relays (1A@30VDC)
- Piezoelectric keys with no moving parts for heavy-duty use
- Optical tamper for added security
- Backlit keys for easy nighttime use
- 1,010 User codes
- IP 65 weatherproof rating, rugged aluminum construction
- Keypad LED life: up to 60,000 hours (6.8 years)

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Features:

- 12~24 VAC/VDC Operation
- 1,010 User codes
- 2 Form C relays, each rated 1A@30VDC
- Piezoelectric keys with no moving parts for heavy-duty use
- Each relay has programmable output time from 1~99 seconds or toggle
- Output #2 can be programmed for use with a doorbell
- 2 Egress inputs for exiting the premises without keying in the code
- Backlit keys for easy nighttime use
- Door sensor input for anti-tailgating operation
- Able to mount to a single-gang back box
- All features are programmed directly from the keypad—no need for an external programmer
- EEPROM memory protects programmed information in case of power loss
- Optical tamper for added security
- Circuitry is potted with epoxy for outdoor use
- IP65 weatherproof rating, rugged aluminum construction
- Built-in proximity card reader (SK-2323-SPAQ only)

Specifications:

Operating voltage	12~24 VAC/VDC	
Current draw	Standby	52mA@12VDC
	1 Relay active	73mA@12VDC
	2 Relays active	93mA@12VDC
Relay outputs	Output #1	1A@30VDC, Form C, NO/NC/COM
	Output #2	1A@30VDC, Form C, NO/NC/COM
Egress inputs	Input #1	N.O. Ground
	Input #2	N.O. Ground
Door sensor input	N.C. Ground	
Tamper sensor	Optical	
Operating temperature	-4°~122° F (-20°~50° C)	
Keypad LED life	Up to 60,000 hours (over 6.8 years)	
Weight	5.5-oz (150g)	
Proximity reader frequency (SK-2323-SPAQ only)	125kHz	
Proximity reader distance (SK-2323-SPAQ only)	2" (5cm)	

Also Available from SECO-LARM:

PR-K1K1-AQ: Proximity key fobs
(Sold in packs of 10)

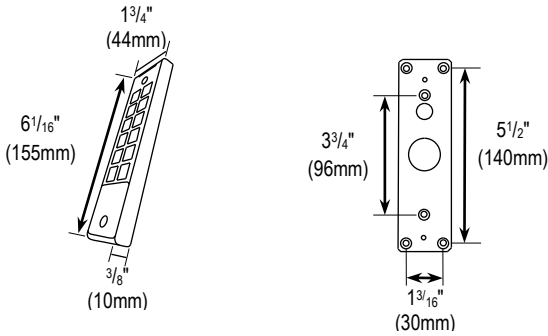


PR-K1S1-A: Proximity cards
(Sold in packs of 10)



ENFORCER Piezoelectric Mullion-Style Outdoor Stand-Alone Keypads

Dimensions:



Parts List:

1x Keypad	4x Mounting screws	2x Bracket security screws	1x Torx wrench	2x Diode
1x Manual	4x Screw anchors	2x Security screws	1x Mounting template	2x Metal oxide varistor

LED & Audible Indicators:

LED	Keypad Status
Blue	Power on, standby mode
Yellow	Programming mode
Green	Waiting to program code/card* (code+card access mode)
Red	Code/card* already present
Green	Relay 1 activated
Red	Relay 2 activated
Green	Both relays activated
Green flashing	Restoring factory defaults
Green flashing	Waiting for code/card* (code+card access mode)
Green flashing	Wrong code/card* used
Off	Power off

Audible Beeps	Keypad Status
1 Long beep	Confirmation
1 Short beep	Key press
2 Short beeps	Invalid entry
3 Short beeps	User code/card* denied
Constant short beeps	Optical tamper triggered
6 short + 1 long beep	All user codes deleted or program code length changed
No beep when key is pressed	Wrong code lockout

*Card operation with SK-2323-SPAQ only

Important Notes:

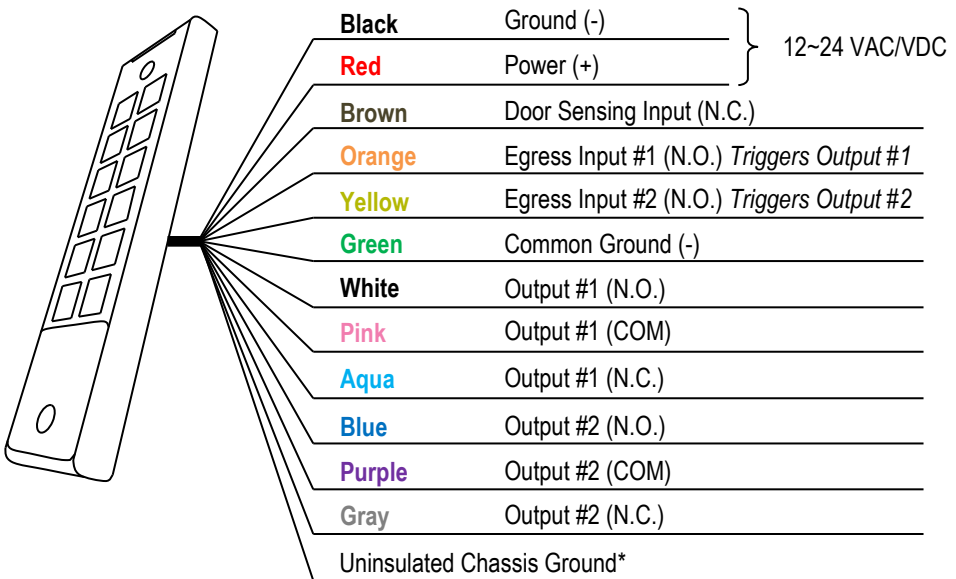


IF USING THE KEYPAD WITH A MECHANICALLY OPERATED DOOR OR GATE, MOUNT THE KEYPAD AT LEAST 5' (15m) FROM THE DOOR OR GATE TO PREVENT USERS FROM BEING CRUSHED OR PINNED. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.



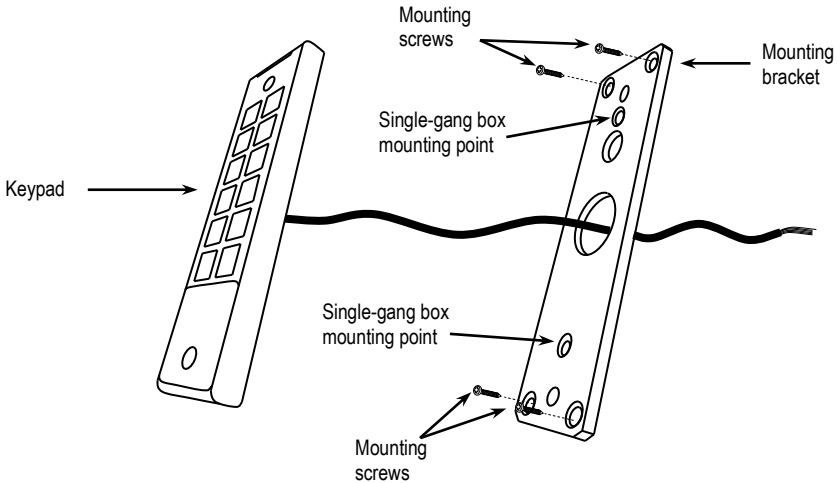
1. Always disconnect power before servicing the keypad.
2. The keypad must be properly grounded. Use a minimum 22AWG wire connected to the Uninsulated Chassis Ground wire. Failure to do so may damage the keypad.
3. All wiring and programming should be done by a professional installer to reduce the risk of improper installation.
4. Basic keypad functions are located on pg. 16 of this manual. Be sure to store this manual in a safe place for future reference.
5. If using VAC, use the Green Common Ground wire for all sensor input.

Wiring Diagram:



* **Chassis Ground:** Connect a continuous wire from the Uninsulated Chassis Ground wire to a grounding point to avoid damage from static discharge. A good grounding point could include a grounded metal conduit, a cold water pipe, or a grounding rod. Use 18AWG wire for earth ground for best results. Wire used must be at least 22AWG.

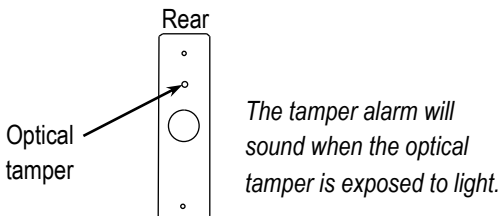
Installation:



1. Find a suitable location to mount the keypad. Do not install where it will be too high or too low for most users to operate the keypad.
2. Using the included Torx wrench, unscrew the security screw located on at the top and bottom of the face of the keypad to uninstall the mounting bracket.
3. Carefully remove the keypad from the mounting bracket.
4. Drill holes in the 4 designated mounting points located on the mounting bracket. If needed, use the included mounting template.
5. Using the 4 included mounting screws, secure the mounting bracket to a wall or other mounting surface. If mounting to brick or drywall, it may be necessary to use the included screw anchors.
6. If the installation is using surface wiring, mount the keypad to a single-gang box using the 2 single-gang box mounting points.
7. Connect each of the wires that will be used to operate the keypad according to the wiring diagram on pg. 4.
8. Reattach the keypad to the mounting bracket.
9. Use the included Torx wrench to tighten the security screws and secure the keypad to the bracket.

Optical Tamper:

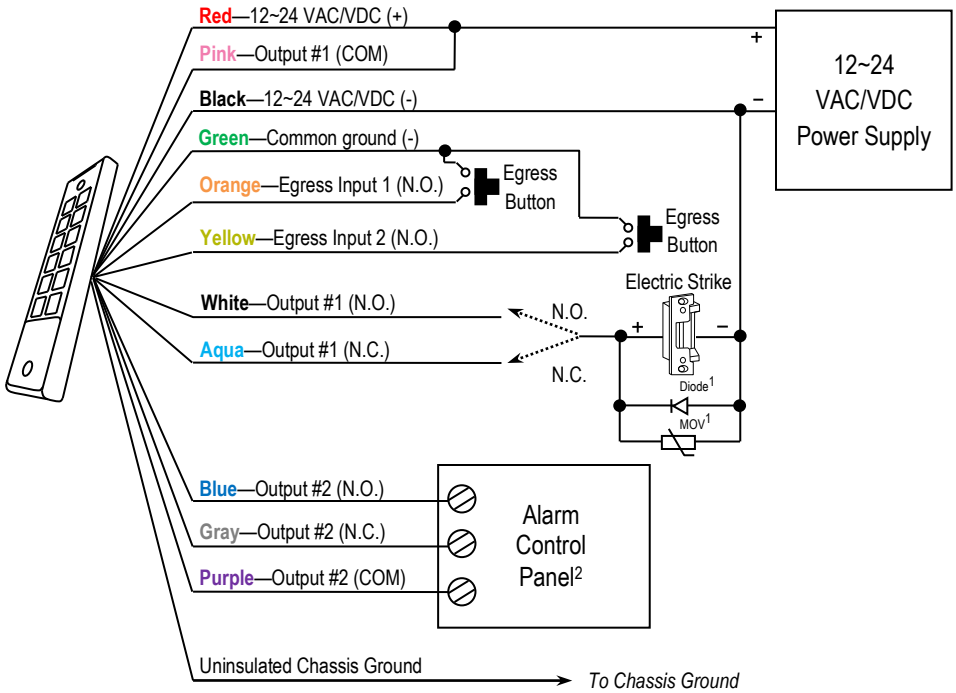
There is an optical tamper on the rear of each unit. If the sensor detects light, the tamper alarm will sound. For information on how to program the optical tamper, please see pg. 13, *Programming the Optical Tamper*.



Sample Wiring and Applications:

NOTE: Sample applications are based on DC power supplies.


Connection to Lock Device and Alarm System Arm/Disarm Control

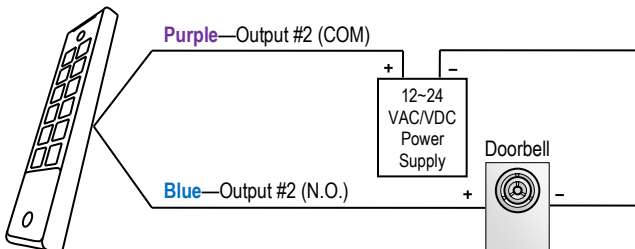


¹ Connect included diode and metal oxide varistor (MOV) as close as possible to and in parallel with an electric strike. This absorbs possible electromagnetic interference to prevent operation of the strike from damaging the keypad. Do not connect a diode or MOV when using electromagnetic locks.

² Output #2 can control the arm/disarm of the alarm control panel. Consult the alarm control panel manual for more information.

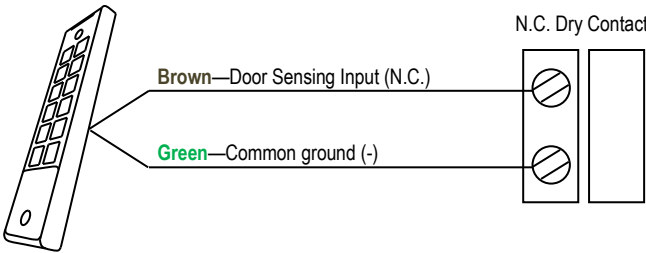
Connecting to a Doorbell

If the keypad is connected to a doorbell, press  to activate the doorbell. The doorbell output lasts for 1 second. For instructions on how to program the keypad for doorbell, see pg. 13, *Programming the Output #2 Function*.

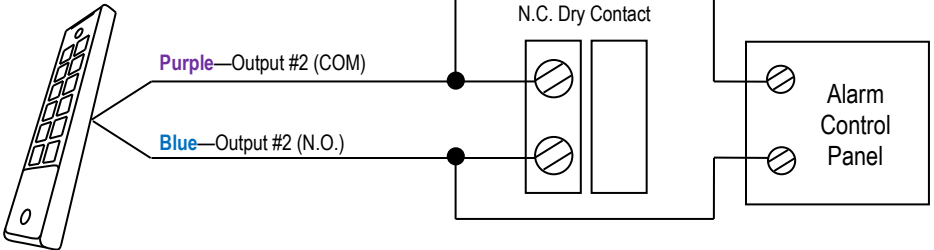


Door Sensing

The door sensing input is used for anti-tailgating. When used with an N.C. magnetic contact, the relay will de-energize one second after the door has been closed. This will bypass any existing relay timing.



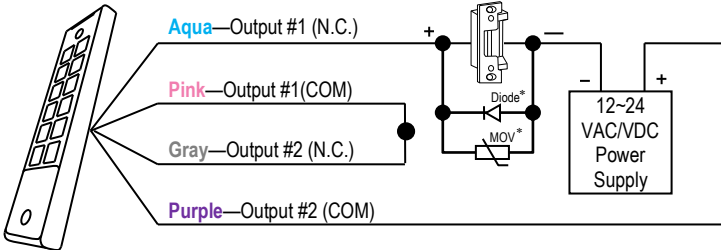
Shunting an Alarm N.C. Zone



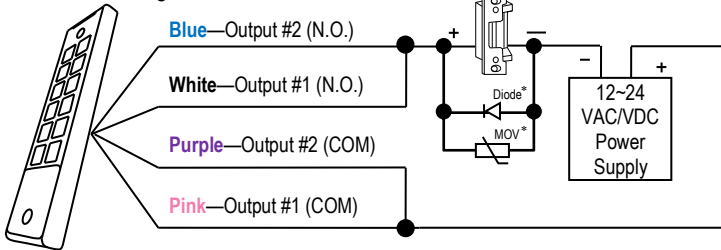
Door-Hold-Open Code

Output #1 and Output #2 can be wired together in such a way that electric lock devices remain unlocked as long as Output #2 is activated.

For N.C. Locking Devices



For N.O. Locking Devices



* Connect included diode and metal oxide varistor (MOV) as close as possible to and in parallel with an electric strike. This absorbs possible electromagnetic interference to prevent operation of the strike from damaging the keypad. Do not connect diode or MOV when using electromagnetic locks.

Programming Instructions:

1. Codes are programmed to be 2~6 digits in length. All codes must be the same length.
2. Before inputting any of the following, enter Programming Mode by entering the Master Code twice. The default Master Code is 1234.
To enter Programming Mode, enter **1 2 3 4 1 2 3 4**.
3. To exit Programming Mode, press **#**.
4. The keypad will exit Programming Mode if no keys are pressed for 30 seconds.

Programming Tips:

- Program a new Master Code immediately.
- Take note of the keypad status LED—
 - **Solid Blue:** Standby Mode
 - **Solid Yellow:** Programming Mode
 - **Flashing Green:** Awaiting code/card entry
- If you are unsure of which mode the keypad is in, press **#** until the LED is blue. The keypad is now in the Standby Mode. Enter the master code twice to return to Programming Mode.

First Time Keypad Use:

Take these steps the first time the keypad is programmed.

A. Enter Programming Mode

Enter: **1 2 3 4 1 2 3 4** (Default Master Code is **1234**).

B. Program Code Length

NOTE: To keep the default 4-digit code length, skip to step C, *Program the Master Code*.

WARNING: After a new code length is programmed, all user codes will be deleted and master code will be reset.

1. Enter Programming Mode by entering the Master Code twice. The LED will turn yellow.
(Default Master Code is **1234**).
2. Enter **▶ 9 0 4**. The keypad will sound 2 short beeps and the LED will flash yellow.
3. Enter the desired code length. This must be a number from 2~6. The keypad will sound 2 short beeps followed by 6 short beeps and 1 long beep.
4. Exit Programming Mode by pressing **#**.

NOTE: The Master Code will reset depending on the programmed code length. These will be the new Master Codes after the code length is reset:

Code Length	New Master Code
2 digits	12
3 digits	123
4 digits	1234

Code Length	New Master Code
5 digits	12345
6 digits	123456

C. Program the Master Code





1. Enter Programming Mode by entering the Master Code twice. The LED will turn yellow.
(Default Master Code is **1234**).
2. Enter **▶ 3**. The LED will flash yellow.
3. Enter the new Master Code twice. The keypad will sound 2 short beeps. The Master Code may not be the same as a user code.

Example: If the desired new Master Code is **4321**, enter: **4 3 2 1 4 3 2 1**.

4. Exit Programming Mode by pressing **#**.


D. Program the Master Card (SK-2323-SPAQ only)

In addition to a Master Code, a Master Card can also be programmed. Swiping a Master Card will give direct access to Programming Mode.

1. Enter Programming Mode by entering the Master Code twice. The LED will turn yellow.
(Default Master Code is **1234**)
2. Enter  **7**. The LED will flash green.
3. If the LED is solid green, a Master Card is already programmed. Clear it by entering  .
4. Swipe a proximity card (PR-K1S1A or similar). The keypad will sound 2 short beeps and the LED will turn yellow. This card is now the Master Card.
5. Exit Programming Mode by pressing .

E. Setting the Output #1 Access Mode*

DEFAULT: User card OR user code.

1. Enter Programming Mode by entering the Master Code twice. The LED will turn yellow.
2. Enter  **0**. The LED will flash yellow.
3. Enter one of the following:

  **User card ONLY**

  **Either user card OR user code (DEFAULT)**

  **User card AND user code**

The keypad will sound 2 short beeps and the LED will turn yellow.

NOTE: Deleting all users is recommended before changing the access mode to user card **AND** user code.

See pg. 14, *Deleting All Users*.










4. Exit Programming Mode by pressing .

Programming Output #1:











Each Output #1 user can be programmed to have a user code, a user card, or both a user code and card.*

NOTE: For all of the following programming functions, the keypad must be in Programming Mode. To enter Programming Mode, enter the Master Code twice or swipe the Master Card.

A. Programming User Codes

1. Enter a user ID number (   to   ). The LED will turn green.
2. If the LED is red, previous user data exists. Clear it by entering  . The keypad will beep in confirmation and the LED will turn green.
3. Enter a new user code. The keypad will sound 2 short beeps and the LED will turn yellow.
4. To program the next user, repeat from step 1 in section A, B, or C.
5. Exit Programming Mode by pressing .

B. Programming User Cards*

1. Enter a user ID number (   to   ). The LED will turn green.
 2. If the LED is red, previous user data exists. Clear it by entering  . The keypad will beep in confirmation and the LED will turn green.
 3. Swipe a new user card. The keypad will sound 1 short and 1 long beep and the LED will remain green.
 4. Return to Programming Mode by pressing .
- NOTE:** Must return to Programming Mode after learning a card, otherwise user will overwrite existing card.
5. To program the next user, repeat from step 1 in section A, B, or C.
 6. Exit Programming Mode by pressing  again.

*SK-2323-SPAQ only.

Continued from pg. 11.

C. Programming Both User Codes and Cards*

1. Enter a user ID number (0 0 0 to 9 9 9). The LED will turn green.
2. If the LED is red, previous user data exists. Clear it by entering . The keypad will beep in confirmation and the LED will turn green.
3. Swipe a new user card. The keypad will sound 1 short and 1 long beep in confirmation and the LED will remain green.
4. Enter a new user code. The keypad will sound 2 short beeps in confirmation and the LED will turn yellow.
5. To program the next user, repeat from step 1 in section A, B, or C.
6. Exit Programming Mode by pressing .

Programming Output #2:

Each Output #2 user may only have a user code OR a user card programmed.

NOTE: For all of the following programming functions, the keypad must be in Programming Mode. To enter Programming Mode, enter the Master Code twice or swipe the Master Card.

A. Programming an Output #2 User Code

1. Enter 4. The LED will flash yellow.
2. Enter a user ID number. (0 0 to 0 9). The LED will turn green.
3. If the LED is red, previous user data exists. Clear it by entering . The keypad will beep in confirmation and the LED will turn green.
6. Enter a new user code. The keypad will sound 2 short beeps and the LED will turn yellow.
4. To program the next user, repeat from step 2 in section A or B.
5. Return to Programming Mode by pressing .
6. Exit Programming Mode by pressing again.

B. Programming an Output #2 User Card*

1. Enter 4. The LED will flash yellow.
2. Enter a user ID number. (0 0 to 0 9). The LED will turn green.
3. If the LED is red, previous user data exists. Clear it by entering . The keypad will beep in confirmation and the LED will turn green.
4. Swipe a new user card. The keypad will sound 2 short beeps and the LED will turn yellow.
5. To program the next user, repeat from step 2 in section A or B.
6. Return to Programming Mode by pressing .
7. Exit Programming Mode by pressing again.

NOTE: If a user card previously programmed for Output #1 is later programmed for Output #2, it will no longer operate for Output # 1. However, Output # 1 cannot receive another user card unless it is first cleared.

Deleting or Changing Users and Cards:

Deleting or Changing the Master Card*

Step 1

Enter:



Step 2

Delete the existing Master Card by entering:



Step 3

Swipe a new Master Card.

or

Exit Programming Mode by entering .

*SK-2323-SPAQ only.

Deleting or Changing an Output #1 User

Step 1

Enter a user ID number.

to

Step 2

Delete existing user by

Step 3

Swipe a new user card.*

or

Enter a new user code.

or

Return to Programming Mode

by entering

- This option deletes Output #1 users one at a time.
- To delete all users, see pg. 14, *Deleting All Users*.

Deleting or Changing an Output #2 User

Step 1

Enter:

Step 2

Enter a user ID number.

to

Step 3

Delete existing user by

Step 4

Swipe a new user card.*

or

Enter a new user code.

or

Return to Programming Mode

by entering

- This option deletes Output #2 users one at a time.
- To delete all users, see pg. 14, *Deleting All Users*.

Additional Programming:

Programming the Output #1 Timer

DEFAULT: 1 second

Step 1

Enter:

Step 2

For toggle mode, enter:

or

For timed output, enter:

to

- 01 to 99 is the number of seconds Output #1 will activate.

Programming the Output #2 Function

Output #2 can be activated via or through user codes. Use the following steps to program its function.

DEFAULT: User codes

Step 1

Enter:

Step 2

For user codes, enter:

or

For doorbell, enter:

- When Output #2 is programmed for doorbell, press to activate doorbell. Doorbell output lasts 1 second.

Programming the Output #2 Timer

DEFAULT: 1 second

Step 1

Enter:

Step 2

For toggle mode, enter:

or

For timed output, enter:

to

- 01 to 99 is the number of seconds Output #2 will activate.

Programming the Optical Tamper

DEFAULT: OFF

Step 1

Enter:

Step 2

To turn optical tamper OFF, enter:

or

To turn optical tamper ON, enter:

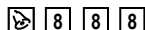
*SK-2323-SPAQ only.

Resetting the Keypad:

NOTE: Resetting the keypad will cause some or all programmed data to be lost. Do not perform either of these steps unless it is absolutely necessary.

Deleting All Users:

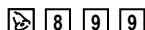
Enter:



IMPORTANT: Once key entry is made, all user codes and user cards will be deleted and the keypad will return to Programming Mode. The Master Code and all other programming settings will remain the same. To restore factory settings, see *Restore Factory Settings* below.

Restore Factory Settings:

Enter:



IMPORTANT: Once key entry is made, keypad will return to factory default settings. No user information will be retained and the Master Code will be **1234**. For SK-2323-SPAQ, Output #1 Access Mode will be set to user codes or user cards.

Manually Resetting the Master Code:

If the Master Code has been forgotten or does not work, the following steps can be taken to reset the Master Code:

1. Disconnect power from the keypad.
2. Reconnect power. The LED will flash green 8 times.
3. While the LED is flashing green, press **#**.
4. At this time, the Master Code has successfully been reset.

NOTE: Manually resetting the Master Code will only reset the Master Code. It will not affect the Master Card, User Codes/Cards*, or any other saved data. To delete the Master Card, see pg. 12, *Deleting or Changing the Master Card*.

NOTE: The Master Code will reset depending on the programmed code length. These will be the new Master Codes after the code length is reset:

Code Length	New Master Code
2 digits	12
3 digits	123
4 digits	1234

Code Length	New Master Code
5 digits	12345
6 digits	123456

Factory Defaults:

Code Length	4 digits
Master Code	1234
Output #1 Access Mode*	User codes <u>OR</u> user cards
Output #1 User Codes	None
Output #2 User Codes	None
Output #1 Timer	1 second
Output #2 Timer	1 second
Output #2 Function	User codes
Tamper Alarm	OFF

*SK-2323-SPAQ only.

Using the Keypad:

For programming instructions, see pg. 10, *Programming Instructions*.

Entering a User Code

- To activate either Output #1 or Output #2, enter the user code directly into the keypad.
- Do not enter the user ID number. The user ID number is only used during Programming Mode.

Example: If a user code for Output #1 is **4321**, enter **4** **3** **2** **1** to trigger Output #1.

Using a User Card

- To activate either Output #1 or Output #2 with a user card, hold the user card in front of the keypad. The keypad will beep once the user card has been read.

Using a User Card with a User Code

- If Output #1 is programmed to accept a user card with a user code, swipe the user card. Immediately enter the user code. This may be done in reverse order.

Wrong Code Lockout



- If a wrong code is entered or an invalid card is swiped 5 consecutive times, the keypad will go into lockout for 1 minute. During this time, no codes can be entered and no cards can be swiped.
- Pushing buttons or swiping cards during lockout will extend the lockout time.

Troubleshooting:



The keypad will not accept user codes or user cards

- Make sure the Output #1 Access Mode is programmed to accept user codes.
(See pg. 11, *Setting the Output #1 Access Mode*)
- If an incorrect card or code has been entered, the keypad may be in Wrong Code Lockout. Wait 1 minute.
(See pg. 15, *Wrong Code Lockout*)


The keypad will not program new user codes or user cards

- Before inputting new code or card, check the LED. If it is red, previous user data exists. Press   to delete.

The keypad will not program a new Master Card

- Before inputting new code or card, check the LED. If it is solid green, a Master Card is already programmed. Press   to delete.

Programming option will not work

- It is likely the keypad is not in the correct mode. Press  until the LED turns blue to put the keypad in Standby Mode. Enter Programming Mode and begin again.

Output #2 will not activate

- Make sure that Output #2 is programmed for the correct function.
(See pg. 13, *Programming the Output #2 Function*)



Egress input is not working

- Check that the egress device is wired correctly.
(See pg. 4, *Wiring Diagram*)












Relay output will not stop

- Make sure that the output is not set for toggle mode.
(See pg. 13, *Programming the Output #1 Timer* and *Programming the Output #2 Timer*)

Quick Reference Guide**NOTE:** For complete programming instructions, please see pg. 10, *Programming Instructions*.

Operation Function	Action
Enter an Output #1 user code	Directly enter on the keypad
Enter an Output #2 user code	Directly enter on the keypad
Ring doorbell	Press  (if programmed)
Enter Programming Mode	Enter the master code twice
Exit Programming Mode	Press 
Reset or restore the keypad	Please see full instructions on pg. 14
Program the proximity card reader	Please see full instructions on pgs. 10 to 13

The following functions are performed **after** entering Programming Mode.

Operation Function	Step 1	Step 2	Step 3
Change the master code	Enter 	Enter the new Master Code twice	
Program a new Output #1 user code	Enter a 3-digit user ID (from 000~999)	Enter a user code.	
Program a new Output #2 user code*	Enter  4	Enter a 2-digit user ID (from 00~09)	Enter a new user code.
Deleting an Output #1 user *	Enter a 3-digit user ID (from 000~999)	Enter  	
Deleting an Output #2 user *	Enter  4	Enter a 2-digit user ID (from 00~09)	Enter  
Set Output #1 timer	Enter  1	Enter number of seconds (from 00~99)	
Set Output #2 timer	Enter  5	Enter number of seconds (from 00~99)	
Set Output #2 function	Enter  2	Enter: 01 for user codes 02 for doorbell	
Set tamper alarm	Enter  6	Enter: 01 for OFF 02 for ON	

*After programming these functions, press  to return to Programming Mode.


WARRANTY: This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for one (1) year from the date of sale to the original customer. 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.

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