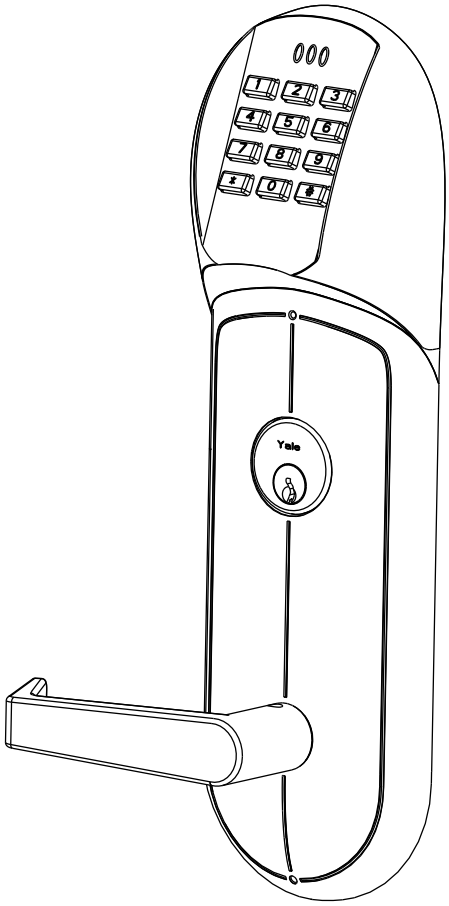
Programming/Troubleshooting Instructions

E5400LN Cylindrical Series & E890 Exit Device Trim Series



E8850FL Mortise Series

Operational Modes

Secure
Normal locked state. Any assigned user code can gain access. Lock/relocks automatically.

Lockout
Lockset will not accept any assigned user codes except for the Supervisor and Emergency Codes.

Passage
Maintains unlocked state. Relocks by entering passage code the second time

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Operational Check (Lock must be properly installed, refer to Installation Instructions)

- Insert key into outside cylinder and rotate key
- The key will retract the latchbolt
- Inside lever retracts latchbolt
- Enter factory set Emergency code 4321 [*] to unlock the outside lever and retract the latchbolt (If emergency code does not work refer to Programming Instructions and reprogram lock with a new master code and emergency code). The unit will relock after 10 seconds
- If lock is functioning properly go to Programming Instructions.
- If the lock does not function properly refer to troubleshooting page 7.

Lock Operation:

Programming is performed through a 12 digit keypad that has the numbers 0-9, [*] and [#] keys. The [#] acts as the entrance into programming mode (press & hold for 3 seconds). The [#] key also acts as a enter key during programming and is used after each code entry. If the [#] key is reentered within 5 seconds after programming a code, the unit re-enters the programming mode and looks for the next program code. The [*] Key acts a finish key after every user code entry In normal operating mode.

Note:

1) No programming can be made until the master & emergency codes are changed from the factory presets. Once the factory preset master or emergency codes are changed they can not be reprogrammed back into the unit.

2) When changing the master code, if the new master code verification does not match, then the lock exits programming mode and the previous master code stays valid.

3) During programming mode, the yellow LED will flash continuously at normal rate. To enter the lock into programming mode, the [#] key is held depressed for 3 seconds. The yellow LED will begin flashing and the [#] key can be released. During each entry of the program codes, the yellow LED will continue flashing. At the end of the last program value, the green LED will short flash twice and the horn will emit 2 short tones to indicate that valid values were entered. Pressing the [*] key at any time during programming will exit the program sequence and a long red flash and 1 very long tone will result.

   If a program value is entered out of range, the long red LED will light and a very long tone will sound indicating an invalid entry. Programming mode can be reinitiated within 5 seconds of the error by depressing the [#] key otherwise programming mode is exited.

4) After programming mode is exited, the lock always defaults to the standard user mode. (Passage & Lockout are automatically exited)

5) Upon depression of each key, the yellow LED, if enabled (PCC=32), will light for 50 msec. The sounder, if enabled (PCC=31) will sound one short tone.

6) Upon 3 (default) successive invalid faceplate entries (PCC=33), the lock will light one long red flash along with a long tone and the faceplate will inhibit further entries for a Preprogrammed (10 sec default) time (PCC=34). During this inhibit time the sounder will produce one short tone per second.

Abbreviations Table

MC	Master Code
PCC	Program Command Code
VAL	Value
#	Enter Key
*****	Finish Key
def	Default
dis	Disable
EN	Enable
LOC	User Location 1 through 99

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Code Descriptions

User 1: Master Code –

- Factory default setting of 1234* must be changed before programming can begin
- Codes should be 4 to 7 digits and entered followed by [*]
- Assigns Supervisor and Emergency Codes
- Used for Programming the lock
- Will not allow the controller to unlock the mechanism

User 2: Emergency Code –

- Factory default setting of 4321* must be changed before programming can begin
- Codes should be 4 to 7 digits and entered followed by [*]
- Allows the controller to unlock the mechanism
- Opens the lock for the Extended User time (10 second default)
- Allows for entry when the controller low battery voltage is in the “blackout” condition
- Allows access when the dead bolt (mortise lock) is thrown in all conditions
- Will not allow for programming the lock

User 3: Supervisor Code

- Codes should be 4 to 7 digits and entered followed by [*]
- Allows all programming of the controller except for changing the Master Code
- Does not have a default code, must be programmed
- Allows access to unlock the door
- Allows access when low battery exists
- Has the ability to “delete all users” (Code 60) and to “delete a block of users” (Code 62) however only Standard Users positions 6-99 can/will be deleted. The master, passage and lock-out will not be affected.
- Can utilize Code 61 “delete single user” to delete the emergency, passage & lock-out codes. Note: if Code 61 is utilized for this purpose, the functions will be completely non-operational (no code assigned) at this point (closet door)

User 4: Lockout Code

- Codes should be 4 to 7 digits and entered followed by [*]
- Used to restrict user codes 6-99 the ability to gain access
- Only the Supervisor and Emergency Codes can override the lockout
- Entering the lockout code the second time will allow Users 6-99 to re-gain entry.
- Successful entry of lockout mode is indicated by a long green LED with 2 short beeps with a pause followed by another 2 short beeps
- Successful exit of lockout mode is indicated by a long green LED with 2 short beeps

User 5: Passage Code

- Codes should be 4 to 7 digits and entered followed by [*]
- Used to enable or disable the passage feature
- After first entry, the lock remains unlocked
- After second entry, the lock remains secure second
- Operates when battery is low
- Can be overridden by Lockout Code
- Successful entry indicated by 1 long green LED along with 3 short beeps
- Successful exit indicated by 1 long green LED with 2 short beeps

Users 6-99: Normal User Code

- Codes should be 2 to 7 digits and entered followed by [*]
- Used to unlock the lock for entry
- Can not be created until the default master code has been changed and the emergency code has been programmed
- Codes 1234 & 4321 can not be used
- The green LED will flash once per second upon entry of a correct code
- A short red flash with 3 short beeps will occur if an incorrect code is entered

Programming Instructions:

The eBOSS® can support 99 Users. Each user is assigned a User Number (1-99) in addition to a Code used for entry. The Master Code is always User Number 1 and is used only for programming. The Master Code will not unlock the lock.
Use the record log on the last page to assign and log all user codes before proceeding on to programming. Store the log in a secure location.

Example:

User Type	User Number	User Code
Master	1	1 2 3 4 Factory Setting
Emergency	2	4 3 2 1 Factory Setting
Supervisor	3	Select 4-7 digits
Lockout	4	Select 4-7 digits
Passage	5	Select 4-7 digits
User	6-99	Select 2-7 digits per user

NO PROGRAMMING CAN BE MADE UNTIL THE MASTER & EMERGENCY CODES ARE CHANGED FROM THE FACTORY SETTINGS

(Enter only underlined items into the keypad)

1-Change the Master Code

EXAMPLE: Change the Master Code from 1234 (factory default) to 3131.

(Hold pound depressed until Yellow LED blinks continuously)

Enter current Master Code	1234 #	Yellow LED Blinks
Enter Program Command Code(PCC)	51#	Yellow LED Blinks
Enter User Number	1 #	Yellow LED Blinks
Enter New Master Code (4-7 digits)	3131#	Yellow LED Blinks
Re-enter New Master Code (4-7 digits)	3131#	Yellow LED Blinks Green LED Blinks

Note: If Master Code is unknown (Red LED will flash instead of Yellow) refer to step 3.

2-Change the Emergency Code
EXAMPLE: Change the Emergency Code from 4321 (Factory Defualt) to 4848

(Hold pound depressed until Yellow LED blinks continuously)

Enter current Master Code (See Example 1)	3131#	Yellow LED Blinks
Enter Program Command Code	51#	Yellow LED Blinks
Enter User Number	2 #	Yellow LED Blinks
Enter New Emergency Code (4-7digit)	4848#	Yellow LED Blinks
Re-enter New Emergency Code (4-7digit)	4848 #	Yellow LED Blinks Green LED Blinks

Emergency Code defaults to a 10 second Unlock time
Note: Emergency code is deleted when clear memory is used and must be reprogrammed.

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3-Change the Master Code when Master Code has been forgotten or lost

Remove inside escutcheon

(Hold pound depressed until Yellow LED blinks continuously)

Depress the Program (PRGM) button located at the top of the controller on the inside		Yellow LED Blinks
Enter Program Command Code	51#	Yellow LED Blinks
Enter User number	1 #	Yellow LED Blinks
Enter New Master Code (4-7 digits)	#	Yellow LED Blinks
Re-enter New Master Code (4-7 digits)	#	Yellow LED Blinks Green LED Blinks

After the Master and Emergency Codes have been entered go to the User Programming Command chart to add additional users: Supervisor, Passage, Lockout and Normal Users.

PROGRAM GUIDE

User Programming Commands

General Format	MC#	PCC	User LOC	VAL 1	VAL 2
To Enter a Master Code					
#(Hold)	MC#	51#	1#	(4-7 Digits)#	(4-7 Digits)#
To Enter a Emergency Code					
#(Hold)	MC#	51#	2#	(4-7 Digits)#	(4-7 Digits)#
To Enter a Supervisor Code					
#(Hold)	MC#	51#	3#	(4-7 Digits)#	(4-7 Digits)#
To Enter a Lockout Code					
#(Hold)	MC#	51#	4#	(4-7 Digits)#	(4-7 Digits)#
To Enter a Passage Code					
#(Hold)	MC#	51#	5#	(4-7 Digits)#	(4-7 Digits)#
To Enter a Normal User Code					
#(Hold)	MC#	51#	(6-99)#	(2-7 Digits)#	(2-7 Digits)#

User Programming Commands

Delete All Users (Deletes all codes back to defaults)					
#(Hold)	MC#	60#	60#		
Delete Individual User Codes					
#(Hold)	MC#	61#	(6-99)#		
Delete Block Of Users					
#(Hold)	MC#	62#	1st LOC #	2nd LOC #	
User Setting Reset (Resets all Programming Commands to default)					
#(Hold)	MC#	72#	72#		

These Program Modes and User Codes can be programmed with the Supervisor Code (SC) or the Master Code (MC)

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Keypad Programming Commands

General Format MC# PCC VALUE

Audible Keypad Feedback 0=DISABLE, 1=ENABLE (Default =1)
#(Hold) MC# 31# VAL #

Visual Keypad Feedback 0=DISABLE, 1=ENABLE (Default =1)
#(Hold) MC# 32# VAL #

Keypad Attempts (1 thru 255) Default = 3 Attempts
#(Hold) MC# 33# VAL #

Keypad Timeout (1 thru 255 Sec) Default = 10 Sec
#(Hold) MC# 34# VAL #

Unlock Time (1 to 255 Sec) Default = 4 Sec
#(Hold) MC# 44# VAL #

Set REX Unlock (1 to 255 Sec) Default = 10 Sec
(Hold) MC# 45# VAL

Set Emergency Unlock Time (1 to 255 Sec) Default = 10 Sec
#(Hold) MC# 46# VAL #

These Program Modes and User Codes can be programmed with the Supervisor Code (SC) or the Master Code (MC)

Features and Options:

1) **Error Lockout:** The lock will stop accepting key presses after 25 presses or three successive [*] entries without a valid code. Upon the third incorrect entry, the lock will short beep three times with one short red flash (indicating invalid code entry) and continue to short beep once per second for the duration of the lockout time (no LED will light). The lock will not accept any key presses during that 10 second (default) time. The error lockout option overrides the horn disable function (PCC#31).

2) **Low Battery Indicator:** When the battery voltage drops below (5.8 volts) the lock will short beep 4 times and allow entry. If the battery voltage drops below 5.4 volts (Blackout Mode), 4 short beeps followed by 4 long tones will sound, but the lock will not open. The lock will function for the Supervisor and Emergency Codes only. See page 7 for the battery replacement.

3) **Request To Enter Input**: A normally open contact that when closed will unlock the lock for 5 seconds. Upon activation, the lock will emit one short green flash per second. This feature requires hardwiring to the lock. This option will be sold as a kit which includes a wiring harness that connects to the board. When the lock is in passage mode, activating the request to enter will disable passage mode and relock the lock.

4) **Peizo Sounder:** 85dBA minimum. Short tone with each keystroke. Can be disabled by Supervisor code.

5) **LED Indicator**: All three LED's can be disabled by the Supervisor Code; however they are still active in the programming mode. Yellow-programming mode, Green- successful entry, Red-Indicates input error.

6) **Re-lock Duration:** The duration that the lock remains unlocked can be adjusted from 1 to 255 seconds. Default at 4 seconds.

7) **Hardwire:** The board comes standard with **a 2 pin input** connector to allow hardwiring an external 9 VDC power supply (Part # 784). This option is sold as a kit including a wiring harness that connects to connectors provided on the board.

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Troubleshooting

Problem
Green light comes on but lever will not retract latchbolt.
Solution
Check lockbody connection. Check cylinder tail piece length (see Installation Instructions). Check door Prep (refer to door templates).

Problem
No Lights come on when pushbuttons are depressed.
Solution
Ensure Visual Keypad Feedback is set to Enable (See page 6). Check battery installation. Check keypad connection.

Problem
No Audible when pushbuttons are depressed.
Solution
Ensure Audible Keypad Feedback is set to Enable (See page 6). Check battery installation. Check keypad connection.

Problem
Factory default codes not working
Solution
Reprogram default codes (Delete All Users) (See page 5) .

Problem
User codes not working
Solution
Ensure Lockout code has not been entered (See page 3). Check battery power (lock maybe in Blackout Mode). See below for battery replacement. Check lockbody connection.

Problem
Lock stays unlocked
Solution
Ensure Passage code has not been entered (See page 3). Check cylinder tail piece length (see Installation Instructions). Check lockbody connection.

Battery Replacement

The lock goes into Blackout Mode when the voltage drops to 5.4V. If this happens users 6-99 will be locked out. Supervisor and Emergency codes are the only codes that will allow access.

The codes will not be lost during battery replacement or low power conditions. Codes are stored in non-volatile memory. To replace the batteries remove the screw on the Battery Escutcheon and remove the escutcheon. Replace all 6 “AA” (alkaline only) batteries in the correct polarity position. Reinstall the escutcheon. Enter a known user code to ensure lock functions correctly.

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eBOSS® User Log

Installation Date	Door Description

User	User Name	PIN Number	Notes
1	Master Code		
2	Emergency Code		
3	Supervisor		
4	Lockout		
5	Passage		
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