

# .....SKE ELEVATOR SERIES 12-Pad

## Self-Contained Keyless Entry® System With Relay

INSTALLATION & INSTRUCTION MANUAL





## **SKE-34 Elevator Series 12-Pad Self-Contained Keyless Entry® System With Relay**

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### **Document Information**

IOMK1 Installation/Operations Manual for the SKE-34 Elevator Series 12-Pad 3x4 - September 2013. *This documentation is also applicable to prior revisions except where noted.*

### **Trademarks**

Keyless Entry® is a registered trademark of Essex Electronics, Inc.

### **Certifications**

The SKE-34 E is listed by CSA for Elevator Equipment. CSA B44.1-04/ASME-A17.5-2004. Class 2411 02.

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# ••••• Introduction

## ■ Overview – The SKE Elevator Series

The Essex SKE Elevator Series All-In-One 12-Pad Self-Contained Keyless Entry® System is an extremely versatile Keypad that can be configured in the field. It has one built-in relay. It is ideal to control one hall Station or in the car to control a penthouse, basement, or one destination floor.



■ 3x4 Keypad

If the button being controlled is 24VDC, you can power the SKE-34 from the same source as well as switching it through the relay to the call button.

There are two additional open collector outputs. With two installer-provided external relays, up to three buttons could be controlled.

## ■ Programming Overview

There are two programming commands used with the SKE Elevator Series All-In-One 12-Pad Self-Contained Keyless Entry® System.

1. **\*3** is the Programming System Setup (page 12). This programming command allows the programming of the Master code, and setting the main relay, and output A and output B opening time. It also allows latching (toggling) of the main relay, output A, and output B.
2. **\*1** is the programming section for programming user codes (page 18). When programming the user codes, you have the ability to assign users' authorizations. You can authorize a user to latch (if the system was set up to latch in the \*3 programming sequence), and you can allow a user to program or delete codes or activate one of the other outputs.

# ••••• Keypad

## ■ Keypad Specifications

Input Voltage:	5VDC or 12 to 24VDC (Jumper Selectable)
Standby Current Draw:	25mA
Outputs:	1 Relay, 24VAC/DC Max, 2A Max; 2 Open Collector, 1/4 A Max to Ground
Keypad Switch Life:	>1 Billion Cycles
Keypad Operating Environment:	-40°C to +70°C (-40°F to +160°F), 100% Relative Humidity
3x4 Keypad Dimensions:	5-1/8"H x 3-3/8"W x 7/16"D (13 x 8.6 x 1.1 cm)
3x4 Keypad Weight:	16 oz (454 gm)
LED's:	1 Red, 1 Green

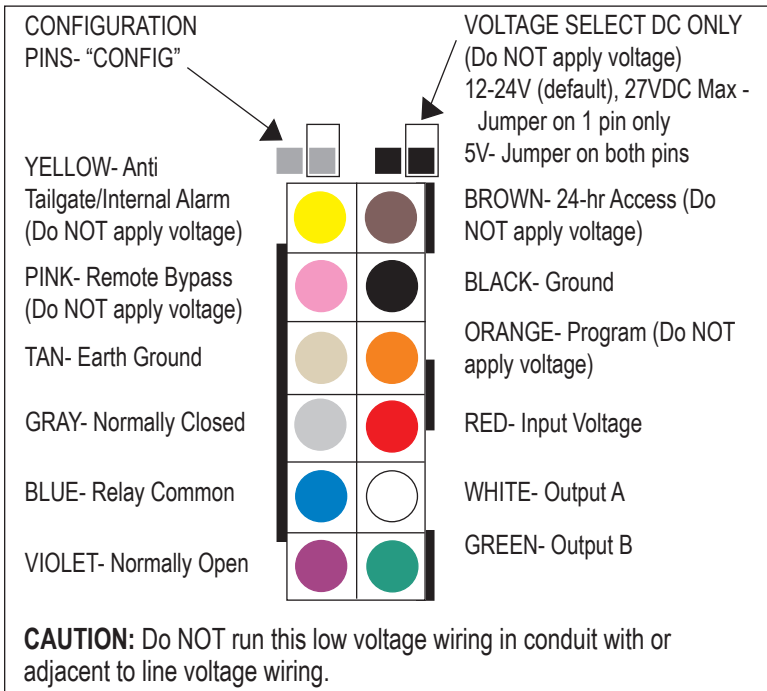
## ■ Keypad Part Numbers

### 3x4 Keypad

SKE-34BE	Brass Finished* Bezel
SKE-34SE	Stainless Steel Bezel
SKE-34KE	Black Bezel
SKE-34XE	No Bezel

\*Bezel is brass in appearance. Actual bezel is PVD-coated stainless steel.

# ••••• Keypad Connector Diagram



**RED- +Voltage, 27VDC Max**

**BLACK- Ground**

**YELLOW- Anti Tailgate** must be connected to the BLACK in Elevator applications.

**PINK- Remote Bypass**

Connect a Normally Open push button between PINK and BLACK to trigger the main output for its normal Button On Time setting.

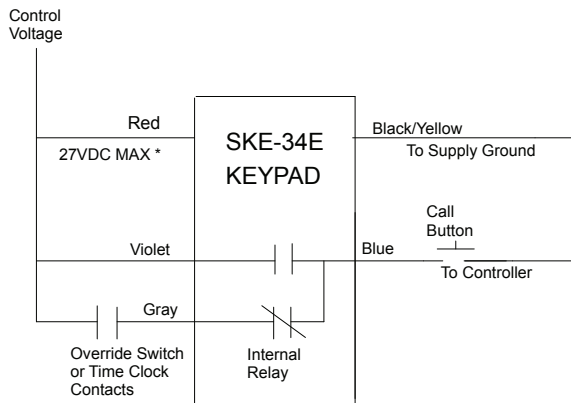
## ORANGE- Set Up Programming

Momentarily connecting ORANGE to BLACK puts the unit in Set Up Mode (same as entering \* 3, Master Code #).

## BROWN- 24-hour Access

If Time Clock is enabled in Set up (page 16) and the BROWN wire is grounded, all codes work normally. When the BROWN wire is not grounded, only those codes with 24-hour Access Authorization (page 18) will function.

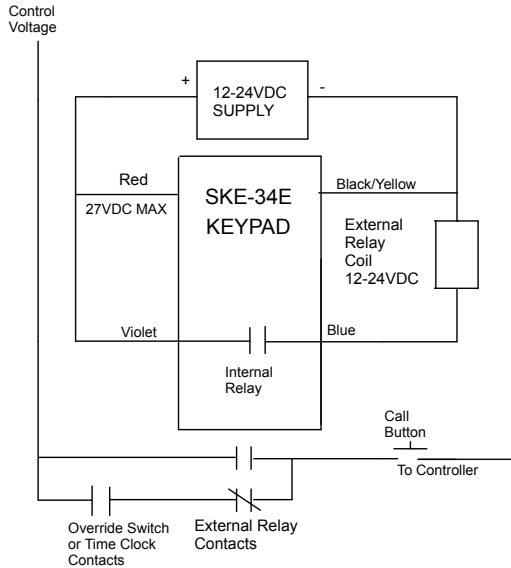
## Internal Relay Wiring Diagrams



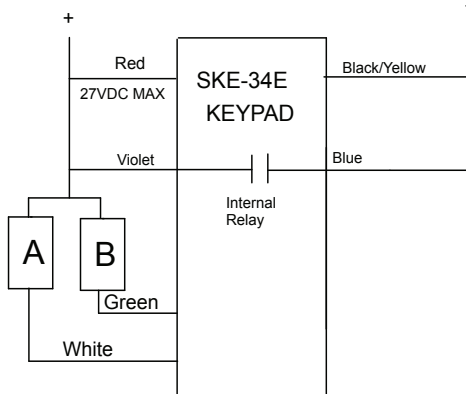
**FIGURE 1: Typical Wiring Diagram- Low Voltage Switching**

\*If Control Voltage is AC or higher than 27VDC, a separate DC Power Supply is required. If Control Voltage is above 27VAC/DC, an external relay will also be required. See Figure 2 on page 5.





**FIGURE 2: Typical Wiring Diagram- High Voltage Switching**



**FIGURE 3: Relay Coil Connection for Outputs A and B**  
Contacts wired as in Figures 1 and 2.

# ••••• Keypad Configuration

## Voltage Selection

The factory default setting for the Keypad voltage is 12-24VDC. Verify that the jumper is removed or placed over only one pin. For 5VDC, the jumper should be placed across both pins. If changing the voltage is necessary, make sure the power is removed first.

## Keypad Output Selection

**THE KEYPAD OUTPUT IS FACTORY CONFIGURED AND DOES NOT NEED TO BE RECONFIGURED IN THE FIELD.**

Once the voltage jumper is verified or correctly set (see above):

1. Remove power.
2. Jumper the two pins above the connector labeled "CONFIG."
3. Apply appropriate power. (You should hear 4 beeps and the RED LED will flash and the GREEN LED will be solid).
4. Now that the Keypad is in configuration mode, select the desired output by entering the configuration number followed by #.
  - a. Keypad Output

<b>Keypad Output</b>	<b>Configuration</b>
Self-Contained- Non-encoded	99 #

- b. (OPTIONAL) To change the audible beep, enter

<b>Code</b>	<b>Audible Beep</b>
201 #	Normal Beep (factory default)
200 #	Short Click (quieter)

You should hear 3 beeps indicating successful configuration (the RED LED will continue to flash and the GREEN LED will be solid). If you hear a long error beep, re-enter the configuration number followed by #.

5. Remove power.
6. Remove configuration jumper.
7. Re-apply power.

**IMPORTANT:** Once the configuration is selected, you must remove power, remove the configuration jumper and then re-apply power in order to complete the configuration procedure. Note: If the configuration jumper is not removed, the LED's will flash and the Keypad will beep continuously.

## Keypad Reset

In certain cases you may want to erase all user codes and restore system defaults. To perform this procedure:

**CAUTION:** This procedure completely erases the memory and restores factory defaults!!! Once the memory is cleared, all programmed User Codes are erased and factory default settings are restored.

1. Remove power.
2. Jumper the two pins above the connector labeled "CONFIG."
3. Apply appropriate power. (You should hear 4 beeps and the RED LED will flash and the GREEN LED will be solid).
4. Once the Keypad is in configuration mode, enter 0099#. The Keypad will beep twice and both LEDs will flash for approximately 10 seconds. (During this time, the Keypad will appear dead. Do NOT remove power!!!)
5. Wait and you will hear 4 beeps and the RED LED will flash and the GREEN LED will be solid.
6. Enter the configuration number followed by #.

- a. Keypad Output

<b>Keypad Output</b>	<b>Configuration</b>
----------------------	----------------------

Self-Contained - Non-encoded	99 #
------------------------------	------

- b. (OPTIONAL) To change the audible beep, enter

<b>Code</b>	<b>Audible Beep</b>
-------------	---------------------

201 #	Normal Beep (factory default)
-------	-------------------------------

200 #	Short Click (quieter)
-------	-----------------------

You should hear 3 beeps indicating successful configuration (the RED LED will continue to flash and the GREEN LED will be solid). If you hear a long error beep, re-enter the configuration number followed by #.

7. Remove power.
8. Remove configuration jumper.
9. Re-apply power.

# Self-Contained Keyless Entry® System With Relay

## ■ Specifications

Input Voltage:	5VDC or 12 to 24VDC (Jumper Selectable)
Standby Current Draw:	25mA
Outputs:	1 Relay, 2A 24V Max; 2 Open Collector, 1/4 A Max to Ground
Programmable Output: (Door Open Time)	1 to 99 seconds Default - 5 seconds
Latching:	Off (Default), Manual (Toggle On/Off) Timed
# of Users:	502 (1 Master User, 500 Users, 1 Temporary User)
Code Length:	3 to 8 Digits
Default Master Code:	1-2-3
Tamper Alarm:	4 Incorrect Code Attempts
Access Code Protection:	Non-Volatile Memory

## ■ Configuration

### Input Requirements

The SKE Series accepts 5VDC or 12 - 24VDC. System current draw (max) is as follows:

- Standby: 25mA
- During Operation: 100mA

## **Output Capabilities**

### **Main Output**

SPDT relay rated at 24V 2A Max.

### **Output A**

A transistor output intended to drive a relay that can be programmed for one of the following:

1. CCTV or Light Controller - First key press triggers a Timed Output (1 to 99 seconds).
2. Auxiliary Output - Manual Control or Timed Output (1 to 99 seconds).
3. Second Button - Users can be assigned to activate a 2nd button.
4. Doorbell - Press # at the Keypad to trigger a 1 second output for a doorbell (not included).

### **Output B**

A transistor output intended to drive a relay that can be programmed for one of the following:

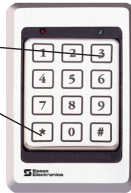
1. CCTV or Light Controller - First key press triggers a Timed Output (1 to 99 seconds).
2. Auxiliary Output - Manual Control or Timed Output (1 to 99 seconds).
3. Third Button - Users can be assigned to activate a 3rd button.
4. Doorbell - Press # at the Keypad to trigger a 1 second output for a doorbell (not included).

Use of Outputs A or B will probably require an external relay.

# ••••• Programming System Setup

The System Setup can only be modified if you know the Master Code. When the system is initially set up, the default system settings should be reviewed prior to other programming.

1. Enter \* 3



2. Enter the Master Code followed by #

Example: \* 3 1 2 3 #

This opens programming and causes:

Red LED	Green LED
Fast Flash	Solid

3. Proceed to one of the following seven programming options:

## ■ Changing the Master Code (Default: 1,2,3)

- a. Enter 1 #
- b. Enter the New Master Code followed by #
- c. Return to Step 3 or enter \* \* to exit programming.

### Keypad Status After Step Completion

Step	Beep	Red LED	Green LED
a	Double	Fast Flash	Slow Flash
b	Triple	Fast Flash	Solid

**Note:** If you forget the Master Code, momentarily ground the ORANGE wire. This will take you to Step 3 of Programming System Setup. Once you enter setup mode, you have 30 seconds to begin the program sequence.



■ **Setting the Main Relay On Time (Default: 5 Seconds)**

- a. Enter **2 #**
- b. Enter the desired Main Relay On Time (1-99 seconds), followed by **#**  
Example: **2 # 1 5 #** (15 sec. Main Relay On Time)
- c. Return to Step 3 or enter **\*\*** to exit programming.

**Keypad Status After Step Completion**

Step	Beep	Red LED	Green LED
a	Double	Fast Flash	Slow Flash
b	Triple	Fast Flash	Solid

■ **Setting Throwover Option (Default: Off)**

- a. Enter **3 #**
- b. Select the desired Throwover option:  
**Off- 0 #**  
**Manual- 9 9 #**  
**Timed-** Enter the desired time interval in hours (1-98), followed by **#**.  
Example: **3 # 8 #** (Sets timed throwover for 8 hrs)
- c. Return to Step 3 or enter **\*\*** to exit programming.

**Keypad Status After Step Completion**

Step	Beep	Red LED	Green LED
a	Double	Fast Flash	Slow Flash
b	Triple	Fast Flash	Solid

■ **Configuring Output A (Default: Aux #1)**

- a. Enter **4 #**
- b. Select one of the following:
  - **CCTV / External Light**
    - 1) Enter **1 #**

- 2) Enter the desired On Time (1-99 seconds), followed by #  
 Example: **4 # 1 # 1 5 #**  
 (Sets CCTV/Light Option for 15 seconds)

■ **Auxiliary Device #1**

- 1) Enter **2 #**
- 2) Enter the momentary output time (1-99 seconds), followed by #; **-or-** Enter **0** to set the auxiliary device for Throwover Operation (ON/OFF), followed by #  
 Example: **4 # 2 # 0 #**  
 (Sets Auxiliary Device with Throwover Operation)

■ **Second Button**

- 1) Enter **3 #**
- 2) Enter the desired Output A On Time (1-99 seconds), followed by #
- 3) Select the desired Throwover method:
  - Off- 0 #**
  - Manual- 9 9 #**
  - Timed-** Enter the desired time interval in hours (1-98), followed by #  
 Example: **4 # 3 # 5 # 9 9 #**  
 (Sets Button Output A with 5 second On Time and Manual Latching)

■ **Doorbell**

- 1) Enter **4 #**

- c. Return to Step 3 or enter \* \* to exit programming.

**Keypad Status After Step Completion**

Step	Beep	Red LED	Green LED
a	Double	Fast Flash	Slow Flash
1)	Double	Fast Flash	Fast Flash
2)	Triple	Fast Flash	Solid

■ **Configuring Output B (Default: CCTV)**

- a. Enter **5 #**
- b. Select one of the following:

■ **CCTV / External Light**

- 1) Enter **1 #**
- 2) Enter the desired On Time (1-99 seconds), followed by **#**  
Example: **5 # 1 # 1 5 #**  
(Sets CCTV/Light Option for 15 seconds)

■ **Auxiliary Device #2**

- 1) Enter **2 #**
- 2) Enter the momentary output time (1-99 seconds), followed by **#**; **-or-** Enter **0** to set the auxiliary device for Throwover Operation (ON/OFF), followed by **#**  
Example: **5 # 2 # 0 #**  
(Sets Auxiliary Device with Throwover Operation)

■ **Third Button**

- 1) Enter **3 #**
- 2) Enter the desired Output B On Time (1-99 seconds), followed by **#**
- 3) Select the desired Throwover method:  
**Off- 0 #**  
**Manual- 9 9 #**  
**Timed-** Enter the desired time interval in hours (1-98), followed by **#**  
Example: **5 # 3 # 5 # 9 9 #**  
(Sets Output B with 5 second On Time and Manual Throwover)

■ **Doorbell**

- 1) Enter **4 #**
- c. Return to Step 3 or enter **\*\*** to exit programming.

■ **Master Code Button Unlock Option (Default: Allow)**

- a. Enter **6 #**
- b. Enter **0 #** to prevent the master code from enabling the button.
- c. Enter **1 #** to allow the master code to enable the button.
- d. Return to Step 3 or enter **\* \*** to exit programming.

■ **Time Clock Input (Default: Prevent)**

- a. Enter **7 #**
- b. Enter **0 #** to prevent lockout
- c. Enter **1 #** to lockout all users that do not have 24 hour option enabled.
- d. Return to Step 3 or enter **\* \*** to exit programming.

# ••••• Normal System Operation

## ■ Keypad LED Status Indicators

- A solid green LED indicates that the Main Relay is latched ON.
- A solid red LED indicates that the Main Relay is OFF and the keypad is in stand-by mode.

Depending on how the System Options are configured, User Commands are used to operate Manual Latching and Auxiliary Outputs. The User Commands are trailing digits entered after an authorized user code followed by #. The ability to use these User Commands depends on authorizations assigned to each User (see Programming Individual Users, page 18).

As the Main Output activates, the green LED will flash for 5 seconds. While the green LED is flashing, enter one (or more) of the following User Commands:

- 0 #** to Latch the Relay Off (Main Relay, 2<sup>nd</sup> Button, 3<sup>rd</sup> Button)
- 1 #** to Latch the Relay On (Main Relay, 2<sup>nd</sup> Button, 3<sup>rd</sup> Button)
- 2 #** to Turn Output A OFF (2<sup>nd</sup> Output as Aux.)
- 3 #** to Turn Output A ON (2<sup>nd</sup> Output as Aux.)
- 4 #** to Turn Output B OFF (3<sup>rd</sup> Output as Aux.)
- 5 #** to Turn Output B ON (3<sup>rd</sup> Output as Aux.)

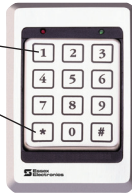
## ■ Tamper Alarm

An audible Tamper Alarm sounds when four incorrect code entries are made. After 30 seconds, the unit returns to standby mode.

# ••••• Programming Individual Users

Authorized users (master code or any user authorized to program) can program users directly from the Keypad. Each Individual User can be assigned various authorizations. Review System Setup before programming individual users.

1. Enter \* 1



2. Enter an Authorized Code followed by #

Example: \* 1 1 2 3 #

This opens programming and causes:

Red LED	Green LED
Slow Flash	Solid

3. Proceed to one of the following seven programming options:

## ■ Adding a New User

- a. Enter 1 #
- b. Enter the User ID (1 to 500) followed by #
- c. Enter the User Code/PIN (3-8 digits), followed by #
- d. **FOR NO AUTHORIZATIONS, SKIP TO STEP E.** To give special Authorizations, enter the Authorization Code, followed by #. Repeat for additional authorizations.

### Code User Authorization

- |     |                                       |
|-----|---------------------------------------|
| 1   | Latching Authorization                |
| 2   | Program or Delete Users Authorization |
| 3   | Output A Authorization (see notes)    |
| 4   | 2nd Button (Output A) (see notes)     |
| 5   | Output B Authorization (see notes)    |
| 6-7 | <i>Continued on next page</i>         |

d. cont'd.

**Code    User Authorization**

**6**        3rd Button (Output B) (see notes)

**7**        24-hour Access (see notes)

e. **Enter # to complete programming for this User.**

f. To program an additional User, return to Step b.

g. If no more Users are to be added, enter \*\* and return to Step 3, or if you have completed all User Programming, enter \*\* a second time to complete programming sequence and reset system to normal operation.

**Keypad Status After Step Completion**

<u>Step</u>	<u>Beep</u>	<u>Red LED</u>	<u>Green LED</u>
a	Double	Slow Flash	Slow Flash
b	Double	Slow Flash	Fast Flash
c	Double	Slow Flash	Fast Flash
d	Double	Slow Flash	Fast Flash
e	Triple	Slow Flash	Slow Flash

**Notes on Adding New Users:**

■ Auxiliary Device or 2nd or 3rd Output authorization depends on configuration of the A and B Outputs. See System Setup on page 12.

■ If either Output is configured for 2nd or 3rd Output operation and a user is given 4# or 6# Authorization, their User Code will activate the configured output, not the Main Relay.

■ 24-hour Access requires an external time clock or keyswitch. This allows you to restrict access to Users who are not assigned 24-hour Access. See Time Clock Input on page 16.

■ **Modify a User by User ID**

- a. Enter **2 #**
- b. Enter the User ID (1 to 500) for the User to be modified, followed by **#**
- c. To change this User's Code, enter the New User Code followed by **#**

**- OR, see step d below -**

- d. To keep this User's Code, enter **#**. Then, enter the desired User Authorization, followed by **#**. (Repeat for additional authorizations or skip to Step e for no authorizations.)

**Code      User Authorization**

- |          |                                       |
|----------|---------------------------------------|
| <b>1</b> | Latching Authorization                |
| <b>2</b> | Program or Delete Users Authorization |
| <b>3</b> | Output A Authorization (see notes)    |
| <b>4</b> | 2nd Output - output A (see notes)     |
| <b>5</b> | Output B Authorization (see notes)    |
| <b>6</b> | 3rd Output - output B (see notes)     |
| <b>7</b> | 24-hour Access (see notes)            |

- e. **Enter # to complete programming for this User.**
- f. To modify an additional User, return to Step b.
- g. If no more Users are to be modified, enter **\* \*** and return to Step 3, or if you have completed all User Programming, enter **\* \*** a second time to complete programming sequence and reset system to normal operation.

■ **Modify a User by User Code**

- a. Enter **3 #**
- b. Enter the User Code for the User you wish to modify, followed by **#**
- c. To change this User's Code, enter the New User Code followed by **#**

**- OR, see step d on next page -**



- d. To keep this User's Code, enter **#**. Then, enter the desired User Authorization, followed by **#**. (Repeat for additional authorizations or skip to Step e for no authorizations.)

**Code    User Authorization**

- 1**      Latching Authorization
- 2**      Program or Delete Users Authorization
- 3**      Output A Authorization (see notes)
- 4**      2nd Output - output A (see notes)
- 5**      Output B Authorization (see notes)
- 6**      3rd Output - output B (see notes)
- 7**      24-hour Access (see notes)

- e. **Enter # to complete programming for this User.**
- f. To modify an additional User, return to Step b.
- g. If no more Users are to be modified, enter **\* \*** and return to Step 3 or if you have completed all User Programming, enter **\* \* \*** a second time to complete programming sequence and reset system to normal operation.

**Note on Modifying Users:**

- Once you have begun to modify a User, previously programmed authorizations are deleted for this User.

■ **Deleting a User by User ID**

- a. Enter **4 #**
- b. Enter the User ID (1 to 500) for the User to be deleted, followed by **#**
- c. To delete an additional User, return to Step b.
- d. If no more Users are to be deleted, enter **\* \*** and return to Step 3, or if you have completed all User Programming, enter **\* \* \*** a second time to complete programming sequence and reset system to normal operation.

### ■ Deleting a User by User Code

- a. Enter **5 #**
- b. Enter the User Code to be deleted, followed by **#**
- c. To delete an additional User, return to Step b.
- d. If no more Users are to be deleted, enter **\* \*** and return to Step 3, or if you have completed all User Programming, enter **\* \*** a second time to complete programming sequence and reset system to normal operation.

### ■ Adding a Temporary User

- a. Enter **6 #**
- b. Enter the User Code / PIN (3-8 digits), followed by **#**
- c. Enter the desired Temporary Access Time (1-99 hours), followed by **#**
- d. For 24-hour Access Authorization, enter **0** for No or **1** for Yes, followed by **#**
- e. You are now back to Step 3 (page 18).

### ■ Deleting a Temporary User

- a. Enter **7 #**
  - b. You are now back to Step 3 (page 18).
4. Enter **\* \*** to complete the sequence and reset the system to normal operation.

# •••• Notes

# •••• Notes

# •••• Notes

# ••••• Product Limited Warranty

(effective date November 6, 2002)

**Essex Electronics Inc.** warrants that at the time of original purchase from Essex Electronics, Incorporated the ELEVATOR KEYLESS ENTRY Coded Access System will be free from defects in workmanship and material, but that the Buyers remedies under this Limited Warranty shall be limited to the following:

**Full Warranty Limited** to repair or replacement as Sellers election for 2 years from date of shipment.

This warranty extends only to the original retail, OEM or wholesale Buyer and the original place of installation. It does not apply if the ELEVATOR KEYLESS ENTRY Coded Access System, or parts thereof, is installed in violation of the applicable codes or ordinances, or is not installed by a qualified elevator technician in accordance with our instructions, is damaged by lightning or Act of God, or is misused, damaged by accident, altered or disconnected. In no event shall Essex Electronics, Incorporated be liable for any damage to persons, property or area surrounding the installation site caused by any malfunction of the ELEVATOR KEYLESS ENTRY Coded Access System.

Essex Electronics, Incorporated reserves the right to discontinue a product for any reason, without notice, at any time. If a product that has been discontinued proves defective, within the terms expressed in this Limited Warranty, a substitute product may be provided at the Sellers election, as a replacement for the original discontinued product.

Notice of any defect must be sent to Essex Electronics, Incorporated, 1130 Mark Avenue, Carpinteria, California, 93013, USA and must include the date code of the unit and description of the defect.

Upon receipt of such notification, Essex Electronics, Incorporated will determine whether to repair or replace. We also reserve the right to have our representative make any inspection or repairs, or furnish replacements.



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