CHAMBERLAIN®

SENTEX®

Visit us on the World-Wide Web at
www.chamberlain.com

PRO Systems

Programming Guide

Controller Boards
-106 & -107

PROKey

PROCard

TABLE OF CONTENTS

INTRODUCTION

ABOUT THE PRO SYSTEM

THE PROKEY SYSTEM

This system is a self-contained, standalone keypad for the control of a single door or gate. A four or five digit customized personal identification number (PIN) is assigned to an individual (or group of individuals) for controlled access. The PROkey system supports up to 2000 users, 8 time zones, and a pin retry lockout feature. The unit is programmed using a built-in keypad and audio feedback.

THE PROCARD SYSTEM

This system is a self-contained, standalone access control system that supports up to 2 card readers, 2000 cardholders, and 8 time zones. The unit is programmed using a built-in keypad and audio feedback. It also supports all the major reader technologies including proximity, wiegand, radio frequency, barium ferrite, biometrics, magnetic stripe and keypad. Supported readers must have a wiegand output (i.e., cannot use MiniKey Remote Keypad).

MODES OF ACCESS

Visitors or tenants of a building or complex controlled by a PRO system can gain access using one of the following methods:

ó Entry Codes (PROkey Only): A tenant may enter a valid entry code on the unit's keypad to enter the building or complex.

ó Cards (PROcard Only): A tenant presents an entry card to a card reader to gain entry into a controlled area. The card contains encoded information that, if valid, prompts the PRO unit to grant the tenant access. A card's PIN, or “Personal Identification Number”, is a part of the encoded information that makes a card unique.

IMPORTANT NOTE: *The PRO systems use EEPROM (electrically erasable programmable read-only memory) chips to store programming information. The systems can use two different types of EEPROMs: 52B13 or 28C16. In order for your system to work properly, you must determine the type of EEPROM your system is using and place jumper JU5 on the center pin and the pin corresponding to the chip type. To determine what type of EEPROm chip your system is using, locate the memory chips located in areas U11, U12 and U13. The model number can be located by carefully peeling off the label located on the top of the chip.*

KEY TERMS

As you read through this manual, you may encounter unfamiliar words or terms associated with PRO System. This section defines some of them for you.

Dealer/Installer

This person sells and installs the system and may have programming access.

Gate or Door

Used synonymously throughout the manual, these terms refer to controllable entry/exit areas of the complex, normally a gate or door.

Manager

This person manages a complex and/or programs the system.

Relay

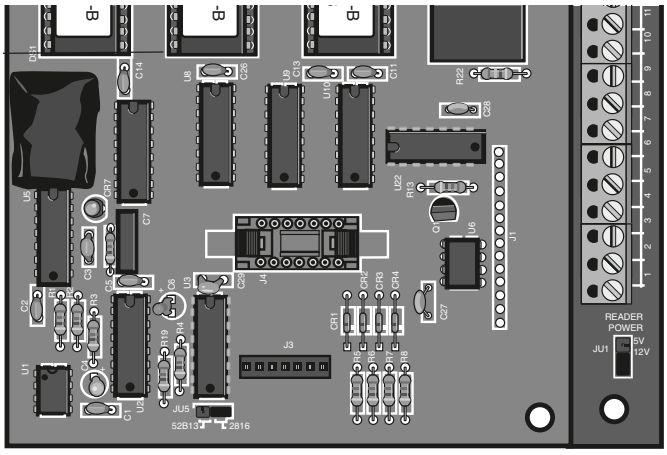
A device that responds to an electric current by activating other devices, allowing the system, for example, to lock or unlock a door/gate.

Tenant

Person occupying and/or who has entry access to the building or complex that is controlled by a PRO unit.

Unit

The unit houses PRO's core components. The PRO can only be programmed at the unit via the keypad.



PROGRAMMING OVERVIEW

Important: The PRO comes preprogrammed with factory settings. When the system is first installed, you do not need to program each feature. Review the system's factory settings before programming (see page 14). You may want different settings than those already defined.

PROGRAMMING BASICS

The PRO can only be programmed with the system's keypad. On PROcard systems that have the reader separate from the electronics, the keypad is mounted through the system's faceplate. On stand-alone PROcard systems that have the reader attached to the faceplate, the keypad is inside the enclosure.

STEPS REQUIRED TO PROGRAM THE PRO SYSTEM

Each programming command consists of the following:

- 1, 2 or 3-digit Programming Step Number
- One or more Data Fields

Example:

1. [0] [6] Programming Step Number: "06" to Set Relay Activation Time
2. [2] [5] Data Field: The relay will activate for "25" seconds.

WHEN YOU MAKE AN ERROR DURING PROGRAMMING

If you realize in the middle of an entry that you are making a mistake, you can abort the transaction by purposely making a "format" error and then completing the entry.

Example:

- If the format calls for a number, press [#] or [*] instead.
- If it calls for a [#] or [*], press a number instead.

SYSTEM FEEDBACK

PRO systems provide audio feedback through a series of beeps and tones as you program. These are described below:

FEEDBACK	DESCRIPTION
One (1) Short Beep	Occurs every time you press a key.
Two (2) Short Beeps	Occurs when you correctly complete an entry or enter programming mode.
Two (2) Long Beeps	Occurs when . . . • You are trying to validate/enter a card number or entry code that is already in the memory • You are trying to void/erase a card or code that is not found in the memory, or • You are trying to bulk load more cards than the unused memory space will hold.
Three (3) Long Tones	Occurs when the memory is full when you attempt to add a card or code.
A Series of Short Beeps	Occurs if the entry you have just made is not technically correct (e.g., the format is wrong). Also occurs when exiting programming mode.

PROGRAMMING OVERVIEW

ENTERING PROGRAMMING MODE

The first step in programming the system is to enter programming mode. Once you are in programming mode, the system will remain in this mode until you tell it to exit to the "run" mode, or until 60 seconds pass without an entry on the keypad.

1. Press . [*]

2. Enter the (6) six-digit password. The default is [1] [2] [3] [4] [5] [6]

3. You will hear two short beeps when the system enters the program mode. The unit is now ready to accept programming instructions.

Important: After entering programming mode for the first time, we suggest you change the password to maintain the security of your system (see below).

CHANGING THE PASSWORD

This programming step allows you to change the unit's programming password so that only authorized personnel may have programming access. Factory Setting: 123456

1. [0] [3]

2. [*]

3. New Password (6 digits)

Example: 03 + * + 111534
Changes the programming password to "111534".

EXITING PROGRAMMING MODE

When you successfully exit programming mode, you will hear the same series of short beeps that is emitted after a format error. In this instance, they signify that you have returned to the run mode.

To exit programming mode, push [#] or [*] after any entry is completed.

SCHEDULES, TIME ZONES AND HOLIDAYS

SET THE SYSTEM DATE AND TIME

This programming step allows the system to determine whether someone should be allowed access based on time zones (see page 8) or timed anti-passback (see page 12) and also allows the system to print the time and date on each transaction if you have a printer.
Factory Setting: Pacific Standard Time

1. 0 5

2. Hour and Minute (hhmm) (see note below)

3. Date (mmddyy)

4. Day of the Week
   (1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 = Saturday)

5. Daylight Savings Time (0 = No; 1 = Yes) (see note below)

Example: 05 + 1535 + 050803 + 3 + 1
Sets the clock to 3:35 p.m. on Tuesday, May 8, 2003 and instructs the system to adjust for daylight savings time.

NOTES:

- *Clock is set by factory to Pacific Time.*
- *Enter the hour in twenty-four hour format (2:30PM = 1430, 3PM = 1500, etc.).*
- *If your city has daylight savings time, put a "1" as the last digit of your entry. If not, make the last digit "0".*

SETTING THE AUTOMATIC UNLOCK/RELOCK SCHEDULE (30-BIT PROCARD ONLY)

This programming step allows the Pro system to automatically unlock and relock a door (or open and close an electric gate) at times you specify.

1. 0 2

2. Day of the Week
   (1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 = Saturday)

3. Unlock Time (hhmm)

4. Relock Time (hhmm)

Example: 02 + 4 + 0800 + 1745
Door will unlock at 8:00 a.m. on Wednesday and relock at 5:45 p.m.

NOTES:

- *Unlock time and relock time is entered in 24-hour 4-digit format. For example, the unlock time of 7:20 PM is entered "1920".*
- *The automatic unlock\relock timer only affects the main relay.*
- *To disable the timer on a given day, reprogram that day with 9999 as the unlock and relock times.*

SETTING HOLIDAY SCHEDULES TO OVERRIDE AUTOMATIC UNLOCK/RELOCK TIMES (30-BIT PROCARD ONLY)

This programming step allows you to set a holiday schedule so that doors or gates remain locked/closed all day on holidays or other days when normal conditions do not apply. On any day identified as a holiday, the normal automatic unlock and relock schedule will be ignored.

1. **0** **8**

2. Holiday Number (0-9)

3. Date (mmdd)

Example: 08 + 9 + 1225
Sets holiday number "9" to December 25th.

NOTES:

- *If you did not purchase the auto lock/unlock schedules option, the holiday schedules feature is not available to you, but is instead replaced with the anti-passback feature (see page 12).*
- *You may use up to 10 holidays (numbered from 0 to 9).*
- *To delete a holiday, either program a new holiday date with the same holiday number or program "9999" as the holiday date.*

SETTING UP TIME ZONES

Time zones allow you to restrict the access of one or more cards or codes to certain times on certain days (for example, the cleaning crew's cards are only good during times and days they are supposed to be in your building). You can create up to 7 different restricted time zones to provide different access times to different cards or codes. These zones are assigned to specific cards or codes when adding them to the system (see page 8).

1. **0** **7**

2. Time Zone Number (1-7)

3. Start Time (hhmm) (see note below)

4. End Time (hhmm) (see note below)

5. Day(s) of the Week
   (7 digits; 1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 = Saturday) (see note below)

Example: 07 + 3 + 0800 + 1730 + 2345600
Sets up time zone "3" to encompass the period from 8:00 a.m. to 5:30 p.m., Monday through Friday.

NOTES:

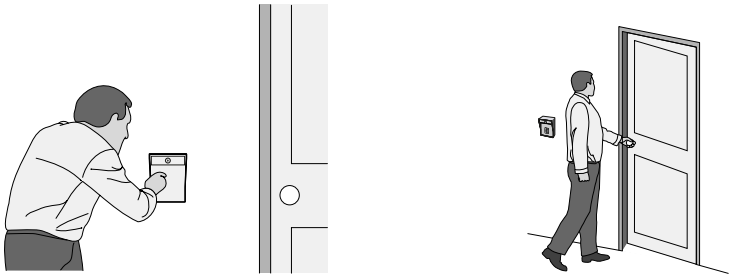
- *Start time and end time is entered in 4-digit format. For example, the starting time of 7:20 PM is entered "1920". Times may only be entered using 10-minute divisions (1230 is valid, 1235 is not).*
- *You do not need to create any restricted time zones if you do not need to restrict access by time or day. Time zone "0" allows access 24 hours per day, 7 days per week.*
- *The beginning and ending times must fall within the same day. "2400" is midnight in this entry.*
- *If you need less than 7 digits to describe the valid days, add zeroes to the end of the string until you reach 7 digits.*

MANAGING ENTRY CODES AND CARDS

ABOUT ENTRY CODES

Entry codes are programmable, numeric codes (4-5 digits in length) that allow entry or exit through a gate/door. Tenants enter their assigned code onto the PROkey's keypad to prompt the system to grant access.

Important: When adding an entry code that already exists in the system, you will hear two (2) long beeps, signaling a duplication error. The system will not allow you to enter duplicate card and/or entry codes.



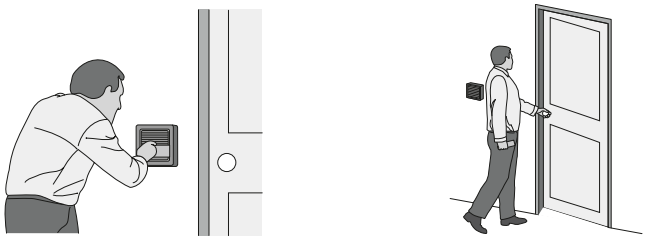
Resident key in personal Entry Code

PROkey grants entry

ABOUT CARDS

Purchased entry cards allow entry or exit through a gate/door. This feature allows tenants to swipe a card into a card reader (other card types and card readers may apply) to prompt the system to grant access.

Important: When adding a card code that already exists in the system, you will hear two (2) long beeps, signaling a duplication error. The system will not allow you to enter duplicate card and/or entry codes.



Resident places card near Card Reader

PROkey grants entry

MANAGING ENTRY CODES AND CARDS

ADDING A SINGLE CARD OR ENTRY CODE

When adding cards or entry codes to the system, keep a record of each card and entry code you assign; in particular, write down the tenant names associated with each card/code. This will help when adding, editing, or deleting cards/codes later.

1. [1]

2. Card PIN (5 digits; 00001-65534) or Entry Code (4 or 5 digits)

3. Time Zone (0-7; 0 = no restrictions)

Examples: 1 + 5467 + 0
Adds entry code “5467” with no time restrictions.
1 + 43567 + 3
Adds card with PIN “43567” and time zone “3”.

NOTES:

- *You must always enter a time zone even if no restricted zones have been created. The "0" zone allows access at any time.*
- *Entry codes must be 4 digits long unless you have changed the length to 5 digits (see page 13). 5-digit codes run from “00001” to “65534”. Any number higher than “65534” will be rejected.*
- *Always enter Card PINs as a 5-digit number. For example, card “231” is entered as “00231”.*
- *If your system is using Wiegand Swipe cards, the card identification number is not the number hot stamped on the card. The card identification numbers can be found in the "Cross Reference Report" included with the cards. Look up the card's "Hot Stamp" number and the identification number will be found in the column to the right, labeled "ID Number".*
- *For all other types of cards (e.g., Proximity, Barium Ferrite), the number imprinted on the card is the card identification number. Card numbers must be between “00001” to “65534”. Any card number higher than “65534” will be rejected.*

ADDING A GROUP OF CARDS (PROCARD ONLY)

This programming step allows you to load a group of cards that all have the same time zone in one easy step rather than loading each card individually.

1. [2]

2. Card PIN Code Start Range (00001-65534)

3. [*]

4. Card PIN Code End Range (00002-65534)

5. Time Zone (0-7; 0 = no restrictions)

Example: 2 + 00345 + · + 01344 + 1
Adds card group “00345” to “01344” with time zone “1”.

NOTES:

- *Cards added as part of a group may subsequently be voided and changed individually.*
- *Card numbers must be between “00001” and “65534”. Any card number higher than “65534” will be rejected by the system.*
- *There may be gaps in the ID numbering of the cards you receive. Be sure that any cards not shipped with the group get voided after the group entry is completed.*

DELETING A SINGLE CARD OR ENTRY CODE

1. [4]

2. Card PIN (5 digits; 00001-65534) or Entry Code (4 or 5 digits)

3. [*] [*] [*]

Examples: 4 + 5467 +*.**
Deletes entry code “5467”.

4 + 00243 +*.**
Deletes card with PIN “00243”.

VERIFYING A CARD OR ENTRY CODE

This programming step enables you to verify that an entry code exists in the unit's database.

- **Two short** *<Beeps>* indicate that the code **exists** in the database.
- **Two long** *<Beeps>* indicate that the code **does not exist** in the database.

1. [3]

2. Card PIN (5 digits; 00001-65534) or Entry Code (4 or 5 digits)

Example: 3 + 12453
Checks status of card or code “12453”.

DELETING ALL CARDS AND ENTRY CODES

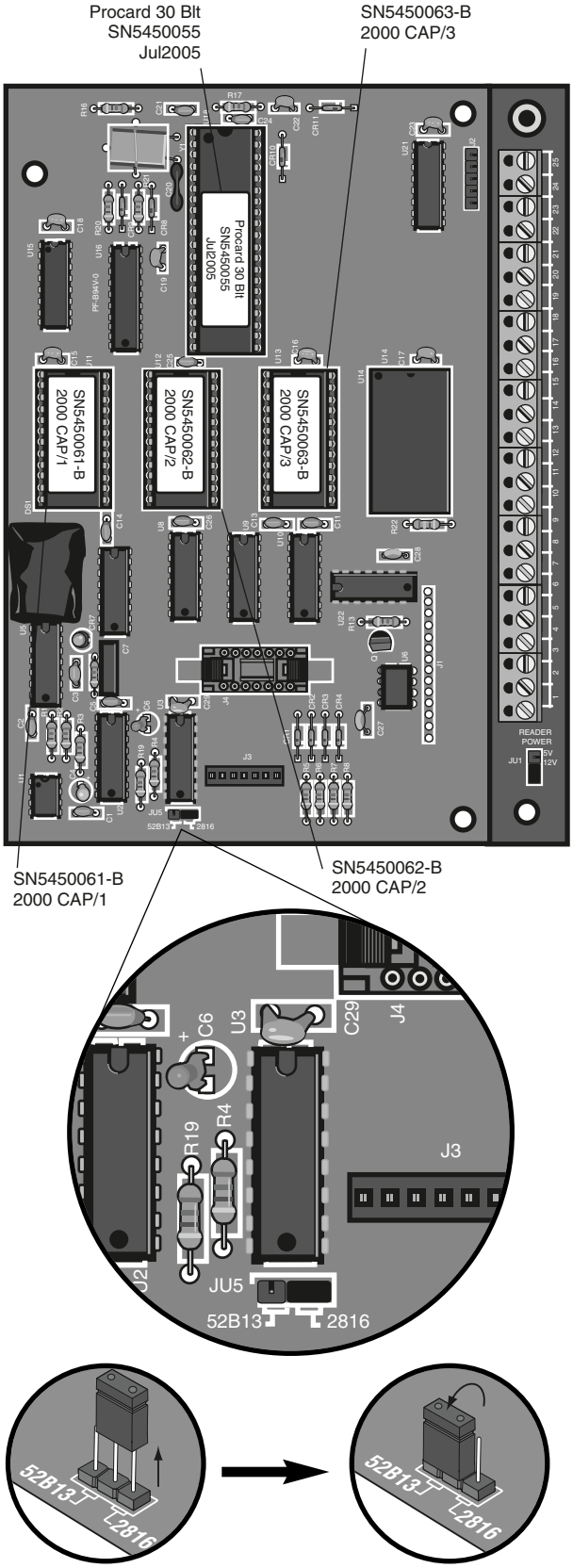
This programming step will delete all of the cards and entry codes from the unit's memory.

Important: Once you delete the codes, you cannot retrieve them.

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

NOTE: *The PRO systems use EEPROM (electrically erasable programmable read-only memory) chips to store programming information. The systems can use two different types of EEPROMs: 52B13 or 28C16. In order for your system to work properly, you must determine the type of EEPROM your system is using and place jumper JU5 on the center pin and the pin corresponding to the chip type. To determine what type of EEPROM chip your system is using, locate the memory chips located in areas U11, U12 and U13. The model number can be located by carefully peeling off the label located on the top of the chip.*

NOTE: *When jumper is set for the wrong EEPROM type the PRO system doesn't store codes into memory.*



SETTING THE MAXIMUM NUMBER OF KEYPAD ERRORS (PROKEY ONLY)

This feature (also known as "Strikes and Out") prohibits unauthorized persons from guessing an entry code. Anyone entering an entry code will have a set number of times to correctly enter his/her code. Each time the code is entered erroneously, it is a "strike". After x number of "strikes", the system will disallow code entry at the unit for 3 minutes. **Factory Setting:** 2

1. 0 9

2. Maximum Number of Errors Allowed (1-9)

Example: 09 + 6
Changes the maximum number of keypad errors to "6".

SETTING ANTI-PASSBACK (PROCARD ONLY)

The Anti-Passback feature deters someone from "passing back" his/her access card to unauthorized individuals so they can gain entry into a restricted area. **Factory Setting:** Disabled

There are 2 types of anti-passback features:

- **True Anti-Passback** requires tenants to exit before entering again (and vice versa). For example, if you have a door with an Entry Reader and an Exit Reader, a tenant who enters with the Entry Reader will have to swipe his/her card in the Exit Reader before swiping on the Entry Reader again.
- **Timed Anti-Passback** requires tenants to wait a defined period of time before using the same card on the reader. For example, if you set the Timed Anti-Passback to 60 seconds, the system will not grant access for 60 seconds to anyone who tries to re-swipe the same card onto the same reader.

To set the anti-passback feature:

1. 0 8

2. Number of minutes (02-60; 00 = Disables Anti-Passback; 99 = Enables True Anti-Passback)

Example: 0 + 8 + 05
Sets anti-passback time for 5 minutes.

NOTE: *If you have the auto lock/unlock option in your system, the anti-passback feature is not available to you, but is instead replaced with the holiday schedules feature (see page 8 for details on this feature).*

SET THE RELAY ACTIVATION TIME

This tells the system how long to activate the relay that unlocks/opens your door or gate.
Factory Setting: 10 seconds

1. 0 6

2. Number of Seconds (2 digits; 01-99)

Example: 06 + 15
Sets the relay activation time to "15" seconds.

SETTING THE ENTRY CODE LENGTH (PROKEY ONLY)

Factory Setting: 4

1. [0] [0]

2. New Entry Code Length (4 or 5)

Example: 00 + 5
Changes entry code length to "5" maximum digits.

Important: *If you decrease the entry code length and 5-digit entry codes already exist in the system, they will no longer be valid. You must change those codes to 4 digits.*

If you increase the entry code length and 4-digit entry codes already exist in the system, they will no longer be valid unless the code(s) begin with a leading zero (0). You must change all other codes to 5 digits.

SETTING THE FACILITY CODE

This programming step allows you to set the facility code of the cards the system will accept. This code is set at the factory to match the cards shipped with your system. You should not need to make an entry in this area except in unusual circumstances.

Your system's bit configuration (30 or 24 bit) determines the facility code digit length (2 or 3 digits).

- **2-digit** Facility Codes = 30-bit systems
- **3-digit** Facility Codes = 24-bit systems

To set the facility code:

1. [0] [4] [3]

2. 2-digit facility code (01-63)
   3-digit facility code (001-255)

Examples: 043 + 05
Sets **2 digit** facility code to 05.

043 + 025
Sets **3 digit** facility code to 025.

NOTE: *When you set a facility code, the system will beep twice if it accepts the code.*

PROGRAMMING QUICK REFERENCE

STEP	SEE PAGE	DESCRIPTION	PROCEDURE	FACTORY SETTING
---	6	Entering Programming Mode	* + 6-digit Password	---
---	6	Exiting Programming Mode	# or * after entry is completed	---
00	13	Setting the Entry Code Length (PROkey Only)	00 + New Entry Code Length (4 or 5)	4 Digits
02	7	Setting the Automatic Unlock/Relock Schedule (30-bit PROCard Systems Only)	02 + Day of the Week (1-7; 1 = Sunday; 7 = Saturday) + Unlock Time (hhmm) + Relock Time (hhmm)	No Schedules
03	6	Changing the Unit Password	03 + * + New Password (6 digits)	123456
05	7	Setting the System Date and Time	05 + Hour and Minute (hhmm) + Date (mmddyy) + Day of the Week (1-7; 1 = Sunday;7 = Saturday) + Daylight Savings (0 = No; 1 = Yes)	Pacific Standard Time
06	12	Set the Relay Activation (Door Open) Time	06 + Number of Seconds (2 digits; 01-63)	10 Seconds
07	8	Setting Up Time Zones	07 + Time Zone Number (1-7) + Start Time (hhmm)+ End Time (hhmm) + Day of the Week (1-7; 1 = Sunday; 7 = Saturday)	No Time Zones
08	12	Setting Anti-Passback (PROcard Only - if feature is not available, use Holiday Schedule below)	08 + Number of minutes (02-60; 00 = Disables Anti-Passback; 99 = Enables True Anti-Passback)	Not Assigned
08	8	Setting Holiday Schedules to Override Automatic Unlock/Relock Times (30-bit PROCard Systems Only)	08 + Holiday Number (0-9) + Date (mmdd)	None Assigned
09	12	Setting the Maximum Number of Keypad Errors (PROkey Only)	09 + Maximum Number of Errors Allowed (1-9)	2 Errors
0	11	Deleting ALL Cards and Entry Codes	0 + * + # + ***	---
1	10	Adding a Single Card or Entry Code	1 + Card PIN (5 digits; 00001-65534) or Entry Code(4 or 5 digits) + Time Zone (0-7; 0 = no restrictions)	---
2	10	Adding a Group of Cards (PROcard Only)	2 + Card PIN Code Start Range (00001-65534) + * +Card PIN Code End Range (00002-65534) + Time Zone(0-7; 0 = no restrictions)	---
3	11	Verifying a Card or Entry Code	3 + Card PIN (5 digits; 00001-65534) or Entry Code (4 or 5 digits)	---
4	11	Deleting a Single Card or Entry Code	4 + Card PIN (5 digits; 00001-65534) or Entry Code (4 or 5 digits) + ***	---
043	13	Setting the Facility Code	043 + 2-digit facility code (01-63) or 3-digit facility code (001-255)	Not Defined

SYSTEM FEEDBACK REFERENCE

FEEDBACK	DESCRIPTION
One (1) Short Beep	Occurs every time you press a key.
Two (2) Short Beeps	Occurs when you correctly complete an entry or enter programming mode.
Two (2) Long Beeps	Occurs when . . . • You are trying to validate/enter a card number or entry code that is already in the memory • You are trying to void/erase a card or code that is not found in the memory, or • You are trying to bulk load more cards than the unused memory space will hold.
Three (3) Long Tones	Occurs when the memory is full when you attempt to add a card or code.
A Series of Short Beeps	Occurs if the entry you have just made is not technically correct (e.g., the format is wrong). Also occurs when exiting programming mode.

OPERATOR NOTES

OPERATOR NOTES

CHAMBERLAIN

SENTEX®

FOR TECHNICAL SUPPORT, PLEASE CONTACT YOUR LOCAL CHAMBERLAIN DEALER

6001031G