senseon™
SECURE ACCESS

PROGRAMMING GUIDE
& PROXIMITY READER TECHNICAL SPECIFICATIONS

PROGRAMMING GUIDE

PROXIMITY READER | Programming Instructions & Technical Specifications

Model SEPR-1

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1. INTRODUCTION

The Senseon proximity reader SEPR-1 operates via radio-frequency identification communication (RFID) between the proximity reader and RFID cards. Senseon proximity readers are programmed through the use of an Administrator Card (up to 5 per reader) that can be used to add or delete User Cards (up to 100 per reader). The same group of Administrative and User Cards can be programmed to work with many Senseon readers. Normal system operation involves tapping an RFID User Card over the proximity reader to unlock the connected Senseon electronic locks. The reader is set to automatically relock the connected Senseon electronic locks after 5 seconds, however this is adjustable as described below.

2. INSTALLATION

The Senseon proximity reader can be surface or subsurface mounted. It is approved for subsurface mounting when the cabinet is constructed of wood or plastic, but not metal—which can block the RFID waves. When the proximity reader is subsurface mounted, it must be no more than an inch from the surface. We recommend testing the proximity readers operation before finalizing the placement and depth of the reader.

3. FIRST TIME DRAWER INSTALLATION

Before installing a drawer or door, for the first time, the locks must be fully connected to the access control system and powered on.

4. SYSTEM SETUP

1. Connect the power.
2. The proximity reader will beep once and then the LED will turn blue.
3. The proximity reader is now ready to be programmed using the pre-programmed Administrator Card (marked with a red sticker).
4. If so desired, the pre-programmed Administrator Card can be used to program additional Administrator Cards. Once, programmed additional Administrator Cards can not be deleted, unless System is reset.

5. ADMINISTRATOR AND USER DESCRIPTION

The proximity reader system is designed for two types of users:

1) **Administrator:** The administrator has system programming rights. The administrator can add or delete user cards and make additional changes to how the system operates.
2) **User:** Users can access the system, but cannot make changes to its operation.

6. PROXIMITY READER CARDS

There are three types of cards used by the proximity reader:

Administrator Card	For programming only It is not used to unlock the system
User Card	For unlocking or locking the system
Blank Card	Blank Cards can become User Cards or duplicate Administrator Cards

Each proximity reader can remember up to 5 administrator cards and 100 user cards.

7. <mark>IMPORTANT!</mark> ORGANIZATION CHECKLIST PRIOR TO PROGRAMMING

When multiple proximity readers will be operating in a common area such as a retail store or if there will be more than 20 user cards programmed, the following steps are recommended prior to programming.

1. Identify and name the location of each proximity reader. Record this information.
2. Determine who will require Administrator Cards and for which proximity readers. Record and keep this information in a safe place.
3. Organize and label the Administrator Cards.
4. Organize, label, and number the User Cards that will be needed and for which proximity readers. Record and keep this information in a safe place.
5. Begin programming.

8. PACKAGE CONTENTS

1. Senseon Proximity Reader SEPR-1
2. Pre-Programmed Administrator Card
3. Blank Cards (9 cards)
4. Torx T10H wrench
5. Mounting Hardware
6. Programming Guide

9. PROGRAMMING

The proximity reader can be programmed when used in either the surface or subsurface mounted configuration. The proximity reader's LED colors signify its mode of operation and the audible beeps provide feedback to the administrator when it's programmed.

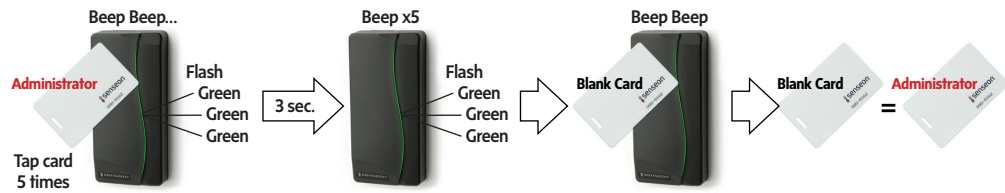Proximity reader color indicators:

Blue   Standby Mode

Green   Programming Mode

Red   Error or invalid card

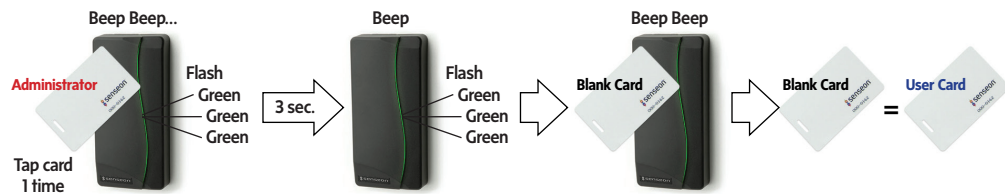**a. ADDING OTHER ADMININSTRATOR CARDS (up to 5 total)**

Action	Observation & Result
Tap Administrator Card 5 times	2 beeps after the first tap 1 more beep after each subsequent tap LED then flashes Green
Wait 3 seconds	5 beeps Green flashes continue
Tap a Blank Card	2 beeps The card now has become a Administrator Card
Tap more Blank Cards 1 time each to create more Administrator Cards (up to 5 total)	2 beeps for each new Administrator Card
EXIT - to exit programming mode tap an Administrator card 1 time or wait 15 seconds	

Beep Beep...   Beep x5   Beep Beep

Administrator Flash Green Green Green 3 sec. Flash Green Green Green Blank Card Blank Card = Administrator

Tap card 5 times

b. ADD A USER CARD

Action	Observation & Result
Tap Administrator Card 1 time	2 beeps LED then flashes Green
Wait 3 seconds	1 beep Green flashes continue
Tap a Blank Card 1 time	1 beep The card is now a User Card
Tap more Blank Cards 1 time each to create more User Cards (up to 100 total)	1 beep for each new User Card
EXIT - to exit programming mode tap an Administrator card 1 time or wait 15 seconds	

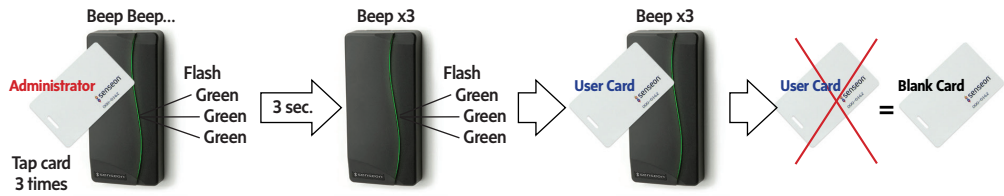Note: if you attenpt to add a user card that is already programmed to the proximity reader it will beep twice and the LED will flash Red.
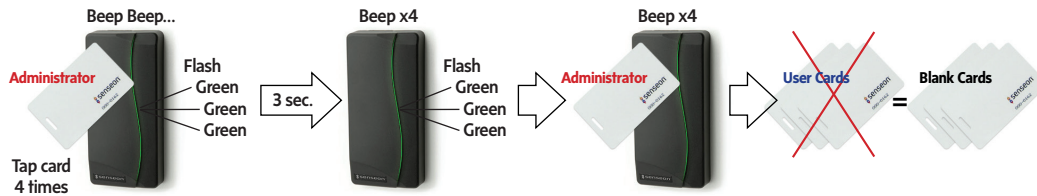
Beep Beep...   Beep   Beep Beep

Administrator Flash Green Green Green 3 sec. Flash Green Green Green Blank Card Blank Card = User Card

Tap card 1 time

c. DELETE A USER CARD

Action	Observation & Result
Tap Administrator Card 3 times	2 beeps after the first tap 1 more beep after each subsequent tap LED then flashes Green
Wait 3 seconds	3 beeps Green flashes continue
Tap the User Card to be deleted	3 beeps The User Card is now deleted
Exit - to exit programming mode tap an Administrator Card 1 time or wait 15 seconds	

Note: If you attempt to delete a blank User Card the proximity reader will beep twice and the LED will flash Red.

d. DELETE ALL USER CARDS

Action	Observation & Result
Tap Administrator Card 4 times	2 beeps after first tap 1 more beep after each subsequent tap LED then flashes Green
Wait 3 seconds	4 beeps Green flashes continue
WITHIN 3 SECONDS tap the Administrator Card again	4 quick beeps All User Cards are now deleted
EXIT - the proximity reader automatically exits programming mode	

e. ADJUST THE AUTO-RELOCK TIME

Default is 5 seconds. Auto-relock can be set to operate between 1 to 180 seconds.

Action	Observation & Result
Tap Administrator Card 6 times	2 beeps after first tap 1 more beep after each subsequent tap LED then flashes Green
Wait 3 seconds	6 beeps Green flashes continue
Count the beeps	1 beep = 1 second
Tap the Administrator Card to stop the beeps at the desired time (maximum 180 seconds)	The auto-relock time is now set for the desired number of seconds
EXIT - the proximity reader automatically exits programming mode	

f. CHANGING BETWEEN AUTO-RELOCK MODE and MANUAL LOCK MODE

Action	Observation & Result
Tap Administrator Card 8 times	2 beeps after first tap 1 more beep after each subsequent tap LED then flashes Green
Wait 3 seconds	8 beeps Green flashes continue
Wait a second and the mode changes automatically	Beeps 1 time = auto-relock mode Beeps 2 times = manual lock mode
EXIT - the proximity reader automatically exits programming mode	

g. TURN SOUND OFF/ON

When the beeper is turned off it will still continue to beep when in programming mode.

Action	Observation & Result
Tap Administrator Card 10 times	2 beeps after first tap 1 more beep after each subsequent tap LED then flashes Green
Wait 3 seconds	10 beeps Green flashes continue
Wait a second and the mode changes automatically	Beeps 1 time = beeper OFF Beeps 2 times = beeper ON
EXIT - the proximity reader automatically exits programming mode	

h. DELETE A USER CARD THAT HAS BEEN LOST OR STOLEN

Action	Observation & Result
Acquire the User Card that was programmed just before the User Card that was lost or stolen*	
Tap Administrator Card 2 times	2 beeps after the first tap 1 more beep after each subsequent tap LED then flashes Green
Tap the User Card that was added just before the User Card that is to be deleted	2 beeps The desired User Card is now deleted
EXIT - to exit programming mode tap a Administrator Card 1 time or wait 15 seconds	

* This must be identified at the time the user card is programmed (see recommended checklist before initiating programming).

i. SYSTEM RESET

A system reset will delete all cards from the system*. This includes all Administrator Cards and User Cards.

Disconnect the power to the RFID Reader	
Momentarily ground the Blue wire by connecting it to the Black wire	
Reconnect the power with the Blue wire attached to the Black wire	LED will start to blink Green After 3 seconds the RFID Reader will sound 2 long beeps
Disconnect the Blue wire	After a few seconds the RFID reader will sound 3 beeps and the LED will start flashing Green rapidly After 5 seconds the LED will starting flashing more slowly
Tap the proximity reader with a Blank Card	This is now the new Administrator Card

*We recommend that the system be reset by a qualified technician.

10. SPECIFICATIONS

Model	SEPR-1
Power Input	12VDC
Current	Standby: 80mA@12VDC
	Active: 200mA@12VDC
Read Distance (unobstructed)	6" (15cm)
User Card Limit	100 cards
Adminstrator Card Limit	5 cards
Transmit Frequency	125kHz
Outputs	1 relay (NO/NC/COM)
Contact Rating	1A@30V
Relay Time Delay	1-180 seconds/toggle mode
Temperature	4°-158°F (-20°-70°C)
Enclosure Rating	IP67
Dimensions	33/4"x13/4"x3/4" (95x44x19mm)
Certifications	CE, RoHS, FCC

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.

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