LiftMaster®

KPR2000

**Waterproof
Keypad/Proximity Reader**

**Installation
and Set Up Manual**

SPECIFICATIONS

User Capacity. . . . . 2000 User ID's with card and/or PINS
Operating Voltage . . . . 12 ~ 24 Vdc or 12 ~ 18 Vac
    Idle Current **. . . . .** ~ 50mA
    Active Current **. . . . .** ~ 80mA
Keypad. . . . . 12 Key (3x4)
    Two output formats **. . . . .** 26 bit Wiegand Card keypad mode, 8 bit ASCII keypad mode
Proximity Card Reader. . . . . HID 26 bit and 30 bit (Sentex)
    Radio Technology. . . . . 125 KHz Industry Standard Proximity Card
    Read Range . . . . 1 inch - 2.5 inches
Wiring Connections. Relay Output, REX, DOTL, Alarm, Wiegand (in/out)
Relay . . . . One (NO, NC, Common)
    Adjustable Relay Output Time. . . . 1 ~ 99 Seconds (5 seconds default)
    Adjustable Auxiliary
    Alarm Output Time . . . . 0 ~ 3 Minutes (1 minute default)
    Lock Output Load . . . . 2 Amp Maximum
    Auxiliary Alarm Output Load. . . . . 10 Amp Maximum
Wiegand Interface . . . . HID Wiegand 26 and 30 bit Format Input & Output
Environment . . . . Meets or exceeds IP68
    Operating Temperature. . . . . -20°C ~ 60°C, or -4°F ~ 140°F
    Operating Humidity. . . . . 10% ~ 90% Non-Condensing
Physical . . . . Zinc-Alloy Enclosure
    Surface Finish. . . . . Powder Coat
    Dimensions. . . . . L:128mm x W:82mm x D:28mm
    Unit Weight. . . . . 1 Pound
    Shipping Weight . . . . 1.4 Pounds

The LiftMaster KPR2000 is a single entry multi-function Access Controller with integrated keypad and card reader. It is designed and manufactured to perform in a wide range of indoor, outdoor, and harsh environments.

The KPR2000 supports up to 2000 users in multiple access configurations (Card Only, Card or PIN, or Card + PIN). The built in 125 KHz card reader supports HID 26 bit Wiegand and 30 bit Sentex Wiegand proximity card formats. The KPR2000 offers advanced programming features like; block enrollment, advanced relay programming, and Panic PINs/Cards (which open the entry and set off the alarm).

FEATURES

- Waterproof (IP68) (meets or exceeds N4)
- Vandal Resistant Enclosure
- Blue Backlit Keypad
- Multi-color LED status display
- Integrated Alarm Buzzer & Output
- One Programmable Relay Output
- Stand Alone or Pass-Through Operation

- 2000 Users (Card/PIN/Card+PIN)
- Low power consumption (50mA)
- Anti-Tamper Alarm
- Latch Mode to hold door or gate open
- Two Keypad Operating Modes
- Time Saving Block Card Enrollment

ACCESSORIES (Sold Separately)

- Model PS12D2A 12 Vdc, 2 Amp Power Supply
- Model 142A0271 Decorative Trim Plate
- Model PED42 Gooseneck Pedestal

- Model PED64 Gooseneck Pedestal
- Model LMPC2-ST HID 26 Bit Proximity Clamshell Card
- Model LMPK3-ST HID 26 Bit Proximity Key

ONE YEAR LIMITED WARRANTY

LiftMaster warrants to the first consumer purchaser of this product that it is free from defect in materials and/or workmanship for a period of 1 year from the date of purchase.
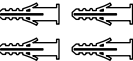
CARTON INVENTORY

NOT SHOWN: Manual

Diode IN4007 (For Relay circuit protection)

Self Tapping Screws #8 x 1"

Manager Add Card

Wall Anchors #6 x 1 1/8"

Manager Delete Card

KPR2000
Keypad/Proximity Reader/Controller
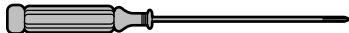
Security Screwdriver
(T-10 Security Torx Driver)

INSTALL THE KPR2000

The KPR2000 fits a standard single outlet box, or a 2.4" (6.1 cm) square pedestal mount.

Trim Plate (142A0271)
(optional)

4" (10.2 cm)

3" 7.6 cm)

2.4" (6.1 cm)

4" (10.2 cm)

.29" (.74 cm)

Face Plate

Ø 1.81"
(4.6 cm)
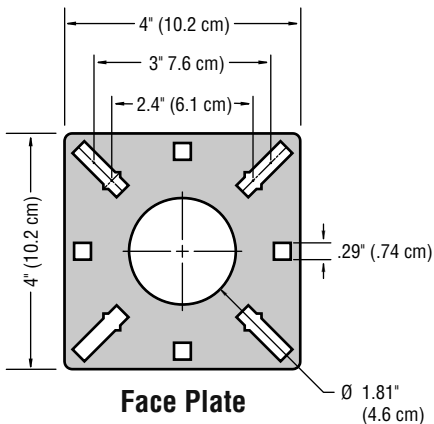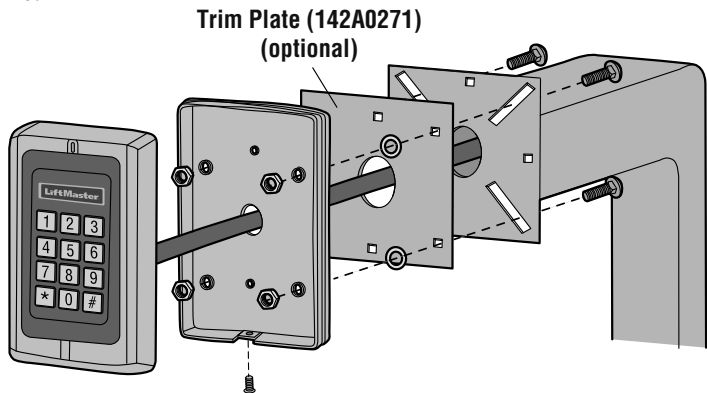
CHOOSE AN OPERATION MODE

STAND ALONE OPERATION (KPR2000 WITH A GATE OPERATOR)

The KPR2000 functions as a complete access control system. The user database is stored in non-volatile memory, reads the PINs and card codes, performs the authentication, and grants and monitors access to the property or device. In Stand Alone Operation there are three different Access Configurations listed below:

- **Card or PIN (Default):** The User must present a valid Wiegand Card to the KPR2000 or enter their PIN code followed by the # key, in order to be granted access.

- **Card Only:** The User must present a valid Wiegand Card to the KPR2000 in order to be granted access. The facility code and the ID number are both read and validated as one block of Wiegand data.

- **Card + PIN:** The User must first present a valid Wiegand Card to the KPR2000 and then enter their PIN code followed by the # key, in order to be granted access.

PASS-THROUGH OPERATION (KPR2000 WITH TELEPHONE ENTRY SYSTEM)

The KPR2000 passes all keypad and card reader Wiegand data to an external controller. The KPR2000 should be in the "Card or PIN" access configuration for pass-through operation. In this mode the LED will stay red, and the KPR2000 will beep 3 times when credentials are presented that are authenticated to the external controller. To change this mode and allow the KPR2000 to flash the green LED, and beep 1 time, the KPR2000 will have to learn the same credentials as the external controller.

IMPORTANT NOTE: Both modes of operation support Auto User ID generation (simplest method) and manual entry of user ID.

KEYPAD OPERATION

The KPR2000 keypad may output an 8 bit ASCII code every keystroke, or output a 26 bit Wiegand card packet with a facility code and a 4-5 digit card number when the # key is pressed. See configuration options on page 11.

WIRE THE KPR2000

Wire Insulation Color	Wiring Function	Notes
BASIC STAND ALONE WIRING (WITH A GATE OPERATOR)		
Red	Power	12 - 24 Volts DC or 12 - 18 Volts AC regulated power input
Black	Power	12 - 24 Volts DC or 12 - 18 Volts AC regulated power input
Blue	Relay NO	Normally Open Relay Output (Install diode) provided)
Purple	Relay Common	Common Connection for Relay Output
Orange	Relay NC	Normally Closed Relay Output (Install diode[provided])
CONNECTING TWO KPR2000 UNITS		
Red	Power	12 - 24 Volts DC or 12 - 18 Volts AC regulated power input
Black	Power	12 - 24 Volts DC or 12 - 18 Volts AC regulated power input
Green	Data 0	Wiegand Output (Pass-through)/Input (Stand Alone) Data 0
White	Data 1	Wiegand Output (Pass-through)/Input (Stand Alone) Data 1
Pink	Ground	Ground reference for Wiegand Output/Input
ADVANCED INPUT AND OUTPUT FEATURES		
Yellow	REX	Request To Exit (REX) Input
Gray	Alarm Output	Negative contact for Alarm
Brown	Contact Input	Door/Gate Contact Input (Normally Closed)
Pink	Ground	Ground reference for REX, and Door/Gate contact inputs.
ACCESS CONTROL SYSTEM		
Red	Power	12 - 24 Volts DC or 12 - 18 Volts AC regulated power input
Black	Power	12 - 24 Volts DC or 12 - 18 Volts AC regulated power input
Pink	Ground	Ground reference for Wiegand Output/Input
Green	Data 0	Wiegand Output (Pass-through)/Input (Stand Alone) Data 0
White	Data 1	Wiegand Output (Pass-through)/Input (Stand Alone) Data 1

WIRING EXAMPLES:

Connecting to an Access Control System

The example below uses the EL25/EL2000SS Wiegand Module (WOMDKT).
KPR2000 can be connected to other access systems with the same Wiegand inputs.
KPR2000 can be connected to Device 1, 2, 3 or 4 (EL25, EL2000SS).

J407 Position   **J400 Position**

Device 4 Device 3   Device 2 Device 1

Pink
Black
White
Green*
Red Power

*Maximum of 500 feet
(152.4 m)
(Same distance limitations
as used for networking 2
KPR2000's)

OR

Black (DC -)
Red (DC +)

**AC or DC
Power Supply**

J407 Position   **J400 Position**

Device 4 Device 3   Device 2 Device 1

Pink
White
Green

(+) and (-) shown
for DC applications
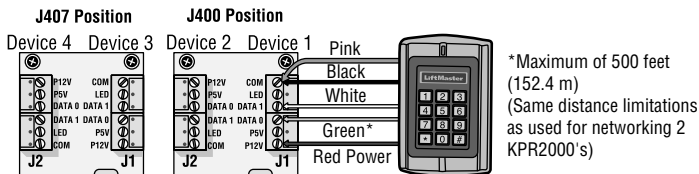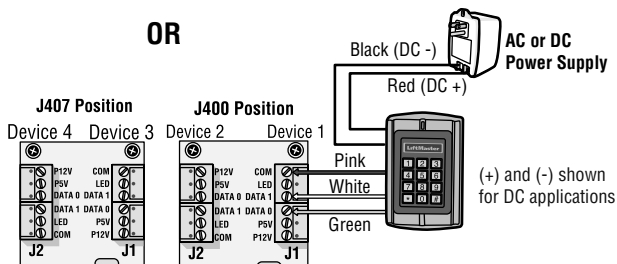
Connecting to a Gate Operator

4-wire connection with KPR2000 powered from the CSL24U/CSW24U/LA500PKGU/
LA400PKGU accessory power output.

Acc +	Red
Acc -	Black
Exit +	Blue
Exit -	Purple
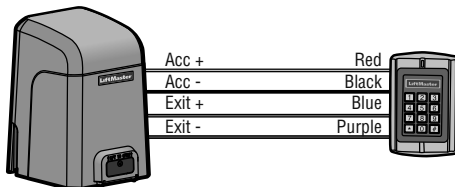
WIRING EXAMPLES:

Door Operator or Fail-Secure Strike

For DC Power: Install a 1N4007 or equivalent diode.

For AC Power: S10K30MOV (Metal Oxide Varistor) (not provided)

Normally Open

AC or DC

KPR2000

Blue
Purple
Red
Gray
Black
Yellow
Pink
Brown

External Alarm

(1 Amp Maximum)

Request to Exit

PRESS TO EXIT

(+) and (-) shown for DC applications

Door Contact
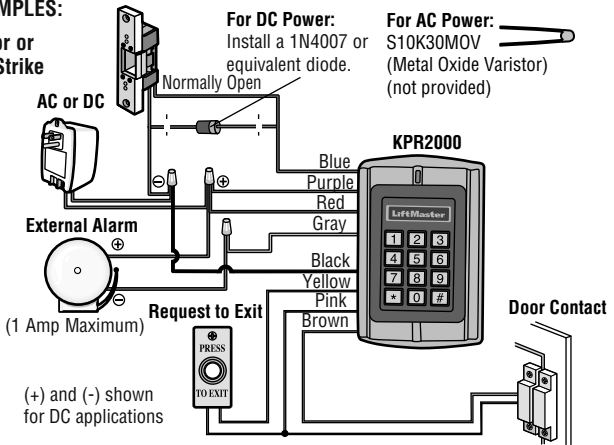
Magnetic Lock or Fail-Safe Strike

For DC Power: Install a 1N4007 or equivalent diode.

For AC Power: S10K30MOV (Metal Oxide Varistor) (not provided)

Normally Closed

AC or DC

KPR2000

Orange
Purple
Red
Gray
Black
Yellow
Pink
Brown

External Alarm

(1 Amp Maximum)

Request to Exit

PRESS TO EXIT

(+) and (-) shown for DC applications

Door Contact

9
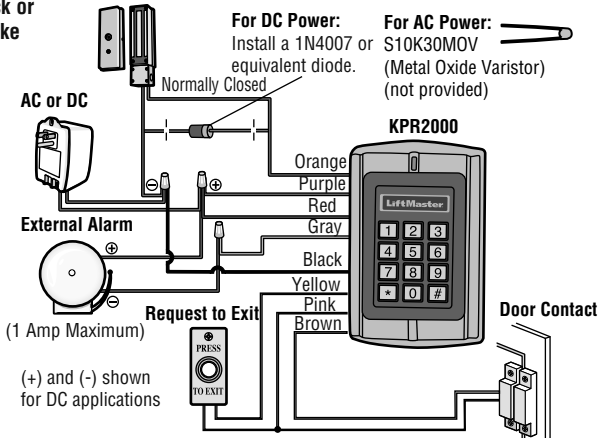
WIRING EXAMPLES:

Networking Two KPR2000 Units

For DC Power:
Install a 1N4007 or equivalent diode.

For AC Power:
S10K30MOV
(Metal Oxide Varistor)
(not provided)

AC or DC

Normally Open

**KPR2000 Stand-Alone
(Master Unit)**

Blue
Purple
Red
Gray

External Alarm

Black

Pink

(1 Amp Maximum)

Pink
(must connect for ground reference)
Maximum of 500 feet (152.4 m)

Green (Data 0)
Maximum of 500 feet (152.4 m)

White (Data 1)
Maximum of 500 feet (152.4 m)

AC or DC

**KPR2000 Stand-Alone
(Remote Unit)**

Red

Black

(+) and (-) shown
for DC applications

Pink

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CONFIGURE THE KPR2000

Change the configuration settings according to your application (optional). Multiple configuration settings can be changed at one time: enter program mode, change desired settings, then exit program mode.

SET MASTER CODE

The 6 digit Master Code is used to prevent unauthorized access to the system. To interface with the KPR2000, the manager will need a Master Code (factory default code: 888888). We highly recommend immediate update and recording of your Master Code.

Programming Step	Keystroke Combination
1. Enter Program Mode	✶ (Master Code) #
2. Update Master Code	0 (New Code) # (New Code) #
3. Exit Program Mode	✶

SET ACCESS CONFIGURATION

NOTE: See page 6 for description of each operation mode.

There are 3 types of access configurations for the KPR2000:

Card or PIN (Default): The User must present a valid Wiegand Card to the KPR2000 or enter their PIN code followed by the # key, in order to be granted access.

Card Only: The User must present a valid Wiegand Card to the KPR2000 in order to be granted access. The facility code and the ID number are both read and validated as one block of Wiegand data.

Card + PIN: The User must first present a valid Wiegand Card to the KPR2000 and then enter their PIN code followed by the # key, in order to be granted access.

Programming Step	Keystroke Combination
1. Enter Program Mode	✶ (Master Code) #
2. Card Only **OR**	3 0 #
2. Card + PIN **OR**	3 1 #
2. Card or PIN	3 2 #
3. Exit Program Mode	✶

SET RELAY CONFIGURATION

The relay configuration sets the behavior of the output relay on activation.

Programming Step	Keystroke Combination
1. Enter Program Mode	✱ (Master Code) #
2. Pulse Mode (Default) **OR** 2. Latch Mode	**4 (1-99) #** *The relay time is 1-99 seconds (default is 5 seconds)* **4 0 #** *Sets the relay to ON/OFF latch mode*
3. Exit Program Mode	✱

SET WIEGAND INPUT/OUTPUT OPTIONS

The KPR2000 offers input and output for industry standard Wiegand devices (refer to Specifications). **Default is HID 26 bit.**

Programming Step	Keystroke Combination
1. Enter Program Mode	✱ (Master Code) #
2. Set Wiegand Format	**9 (Bit Format) #** *Bit Format = Valid 2 digit format (example: 26 or 30)*
3. Exit Program Mode	✱

SET DOOR OPEN TOO LONG (DOTL) OR FORCED ALARM

This setting enables both DOTL and Door Forced Alarms and requires an external sensor input. The Door Forced alarm output timing can be set from 1-3 minutes (default is 1 minute). The Door Open Too Long (DOTL) timing is fixed to 1 minute and only sounds the built in buzzer. Factory default is OFF.

Programming Step	Keystroke Combination
1. Enter Program Mode	✱ (Master Code) #
2. DOTL /Door Forced Alarm OFF **OR** 2. DOTL /Door Forced Alarm ON	6 0 # 6 1 # *(DOTL: Alarm sounds for 1 minute. Door Forced: Alarm sounds for 1-3 minutes and enables alarm output.)*
2. Door Forced Output Timing	9 (1-3) #
3. Exit Program Mode	✱

SET STRIKE-OUT ALARM

The strike-out alarm will engage after 10 failed card/PIN attempts in a ten minute period. Factory default is OFF. The strike-out alarm can be set to deny access for 10 minutes or it can be set to operate the alarm for 10 minutes. *NOTE: Enter Master Code or Valid Card to silence all alarm outputs.*

Programming Step	Keystroke Combination
1. Enter Program Mode	✱ (Master Code) #
2. Strike-Out Alarm OFF **OR** 2. Strike-Out ON **OR** 2. Strike-Out Alarm ON	7 0 # *(Factory default)* 7 1 # *Access will be denied for 10 minutes* 7 2 #
3. Exit Program Mode	✱

SET AUDIBLE AND VISUAL RESPONSE

Factory default is ON.

Programming Step	Keystroke Combination	
1. Enter Program Mode	✱ (Master Code) #	
2. Control Backlight **OR** 2. Control LED **OR** 2. Control Sounds	ON = **7 5 #** ON = **7 7 #** ON = **7 9 #**	OFF = **7 4 #** OFF = **7 6 #** OFF = **7 8 #**
3. Exit Program Mode	✱	

SET WIEGAND KEYPAD MODE

Programming Step	Keystroke Combination
1. Enter Program Mode	✱ (Master Code) #
2. Set Keypad Mode **OR** 2. Set Keypad Mode	**6 2 #** *ASCII Keypad Mode* **6 3 #** *26 bit Card Keypad Mode (factory default)*
3. Exit Program Mode	✱

SET 26 BIT FORMAT FACILITY CODE

Programming Step	Keystroke Combination
1. Enter Program Mode	✱ (Master Code) #
2. Set Facility Code	**8 0 #** *Ignores facility code (Factory default)* **8 (Facility Code) #** *(1 - 255)*
3. Exit Program Mode	✱

PROGRAM CARDS AND PINS

Programming will vary depending on the access configuration.
Follow the instructions according to your access configuration.

GENERAL PROGRAMMING INFORMATION

- **User ID Number:** Assign a user ID number to the access code in order to keep track of the users of access cards or PINs. The user ID number can be any number from 1-2000. ***IMPORTANT:*** *User IDs do not have to be proceeded with any leading zeros. Recording of User ID is critical. Modifications to user data require either the card or the User ID be available.*

- **Proximity Card:** Any 125 KHz industry standard 26 bit Wiegand Proximity Card, or 30 bit Sentex Proximity Card.

- **Keypad PIN:** The PIN can be any 4 - 5 digits between 0000 - 65535 (except 1234 which is reserved for factory testing). ***IMPORTANT:*** *PINs less than 1000* ***must*** *be preceded with leading zeros. PINs greater than 999 do not require any leading zeros.*
  EXAMPLES:
  PIN code 15 = 0015
  PIN code 25 = 0025
  PIN code 9999 = 9999
  PIN code 65431 = 65431

- All card users are automatically assigned a default PIN of 1234 that must be changed to be activated.

ACCESS CONFIGURATION: CARD OR PIN, CARD + PIN, & CARD ONLY

ADD USER CARD(S)

Programming Step	Keystroke Combination
1. Enter Program Mode	**✳ (Master Code) #**
2. Add Card: Using Auto ID *(Allows KPR2000 to assign Card to next available User ID number)* **OR**	**1 (Read Card) #** *Repeat Step 2 for additional user cards. See Notes 1 and 2.*
2. Add Card: Select Specific ID *(Allows manager to define a specific User ID to associate the card to)* **OR**	**1 (User ID) # (Read Card) #** *See Notes 1 and 2.*
2. Add Card: Block Learn (*Allows manager to add up to 2000 cards to the KPR2000 in a single step †). Takes 2 minutes to program.*	**5 (User ID) # (The first card number) # (Card Quantity) #** *Card quantity = number of cards to be enrolled*
3. Exit Program Mode	**✳ ✳**
† Block Learn Direct Entry	Format for programming specific Card Numbers: Facility Code + Serial Number (including leading 0's) Example: FAC- 24, SN- 100 would be entered as: **26 Bit:** 02400100 **30 Bit:** 0000000100 Only the Serial Number is validated for 30 bit cards.

DELETE USER CARD(S)

Programming Step	Keystroke Combination
1. Enter Program Mode	**✶ (Master Code) #**
2. Delete Card - By User ID **OR**	**2 (User ID) #** *Deleting by User ID number will clear cards and PINs*
2. Delete Card - By Card **OR**	**2 (Read Card) #** *Requires the user card. Deletes ONLY the card number*
2. Delete Card -By Card Number	**2 (Card Number) #** *Deletes ONLY the card number †*
3. Exit Program Mode	**✶ ✶**
† Block Learn Direct Entry	Format for programming specific Card Numbers: Facility Code + Serial Number (including leading 0's) Example: FAC- 24, SN- 100 would be entered as: **26 Bit:** 02400100 **30 Bit:** 0000000100 Only the Serial Number is validated for 30 bit cards.

ADD OR DELETE A PIN

A PIN may be programmed to a separate or an existing user ID. PINs programmed separately will use additional memory.

Programming Step	Keystroke Combination
1. Enter Program Mode	**✶ (Master Code) #**
2. Add a PIN *Assigns PIN to user ID number* **OR**	**1 (User ID) # (PIN) #** *Repeat Step 2 for additional PINs* *See Notes 1 and 2.*
2. Delete a PIN *Deletes the User ID number and associated PIN*	**2 (User ID) #** *Repeat Step 2 for additional PINs* *See Notes 1 and 2 on the following page.*
3. Exit Program Mode	**✶ ✶**

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CHANGE A PIN

Allows card user to update a previously set PIN for a card & PIN or card + PIN User ID. Default PIN codes (1234) can only be changed by using Change PIN using a card.
NOTE: *This operation is executed from outside of Program Mode.*

Programming Step	Keystroke Combination
1. Change a PIN using a Card **OR**	**✱ (Read Card) (Old PIN) # (New PIN) # (New PIN) #**
1. Change PIN using PIN	**✱ (User ID) # (Old PIN) # (New PIN) # (New PIN) #**

NOTE 1: *When assigning a user both a card and a PIN, the card MUST be assigned first. After the card is assigned, the user must change the PIN using card to activate the PIN for this user. If the PIN is assigned first, a second user ID must be used to assign the card.*

NOTE 2: *When adding or deleting multiple users sequentially, the program command (1 or 2, respectively) is entered only once at the beginning of the procedure. For additional users, enter the user ID and credentials only in the same order as the first entry. When sequence is complete, programming step is terminated by pressing ✱ once.*

EXAMPLE: *To Add Multiple Users*

Programming Step	Keystroke Combination
1. Enter Program Mode	**✱ (Master Code) #**
2. Add multiple users	**1 (User ID 1) # (PIN1) #,** **(User ID 2) # (PIN2) #,** **(User ID 10) # (PIN10) #**
3. Exit Program Mode	**✱ ✱**

ACCESS CONFIGURATION: CARD ONLY

USING MANAGER CARDS

KPR2000 managers can use manager cards to program user cards into and out of the system. There are two pre-programmed manager cards (an Add Card, and a Delete Card) to allow rapid card enrollment. This is a form of Auto User ID enrollment and is only available in "Card Only" configuration.

Programming Step	Keystroke Combination
Add a User Card	1. **(Read Manager Add Card)**
	2. **(Read User Card)** *Repeat Step 2 for additional user cards*
	3. **(Read Manager Add Card)**
Delete a User Card	1. **(Read Manager Delete Card)**
	2. **(Read User Card)** *Repeat Step 2 for additional user cards*
	3. **(Read Manager Delete Card)**

ALARM

TO RESET THE ALARM

Programming Step	Keystroke Combination
To reset the door forced open warning	**(Read valid card)** OR **(Master Code) #**
To reset the door open too long (DOTL) warning	**(Read valid card)** OR **(Master Code) #**

ANTI-TAMPER ALARM

The KPR2000 uses an optical sensor as the input for its internal alarm. If the case is opened while the KPR2000 is powered, the alarm will operate. Enter Master Code or a valid card to silence all alarm outputs.

RESET THE KPR2000

This will reset the KPR2000 to the factory default but all card/PIN information will still be retained. This will also require reprogramming of the Master Add and Delete Cards. ***NOTE:** This is useful if the original Master Add and Delete Cards have been lost.*

Programming Step	Keystroke Combination
Reset the KPR2000 to the factory default	1. Power the KPR2000 down.
	2. Press and hold the ✱ button while power is restored to the KPR2000.
	3. Release the button and wait until the amber LED shines.
	4. Present any 26 bit proximity card or the Manager Add Card (provided) to the KPR2000. This card is now the Manager Add Card.
	5. Present any 26 bit proximity card or the Manager Delete Card (provided) to the KPR2000. This card is now the Manager Delete Card.
	When the red LED begins to blink, the KPR2000 has been successfully reset.

ERASE ALL CODES

Programming Step	Keystroke Combination
Delete ALL User data	1. Enter Program Mode by pressing: ✱ **(Master Code) #**.
	2. Press **2 0000 #**.
	3. Exit Program Mode by pressing: ✱ ✱
	All configuration data is retained.

SOUND & LIGHT INDICATION

Operation Status	Red LED	Green LED	Amber LED	Sounds
Power On	Flashing			Single Beep
Standby	Flashing			
Press Keypad	Flashing			Single Beep
5 Second Time-out	Flashing			3 Beeps
Enter Master Code Entry Mode	ON			Single Beep
In Program Mode	ON	Single Flash		Single Beep
Entered Single Program Step Successfully	ON	Single Flash		Single Beep
Entered Continuous Program Step Successfully		Single Flash	ON	Single Beep
Entered Continuous Program Step Incorrectly			ON	3 Beeps
Exited from Program Mode	Flashing			Single Beep
Entry Granted		ON		Single Beep
Alarm Mode Engaged	Flashing			Alarm
Pressing ✱ Toggles Standby/Master Code Entry	ON/ Flashing			Single Beep
Reset to Factory Default	ON			2 Beeps

For more information, please visit www.devancocanada.com or call toll free at 855-931-3334

HOW TO ORDER REPAIR PARTS

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PLEASE SUPPLY THE
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✓ **PART NUMBER**
✓ **DESCRIPTION**
✓ **MODEL NUMBER**