9000 Series Wireless Keypads

Description

The DMP 9060 and 9063 are fully functioning supervised wireless keypads. They provide installation flexibility while also offering optional codeless arming and disarming capabilities. Each keypad provides:

- Custom 16-character home or business name
- Four 2-button Panic keys
- 32-character display
- Backlit keyboard with easy-to-read lettering
- Internal speaker.
- Wall tamper protection
- Keyboard and logo backlighting turns *Red* in alarm conditions

The Model 9063 keypad also provides a built-in proximity card reader designed to read DMP/HID proximity credentials for codeless arming and disarming.

Figure 1: 9000 Series Keypad

Compatibility

XTL Panels

What is Included

The 9000 Series Keypad includes the following items:
- One wireless keypad mounted in a Thinline two-part housing (base and cover)
- One 3.7V lithium battery
- One 12 VDC DC Plug-in Power Supply
- Serial number label

Keypad Serial Number

For your convenience, an additional pre-printed serial number label is included. Prior to installing the device, record the serial number or place the pre-printed serial number label on the panel programming sheet. This number is required during programming. As needed, use the zone name and number label to identify a specific transmitter.

Programming the Transmitter in the Panel

The 9000 Series Wireless Keypads can be programmed into the XTL through panel programming or using the wireless keypad association mode.

Note: When a receiver is installed, powered up, or the panel is reset, the supervision time for transmitters is reset. If the receiver has been powered down for more than one hour, wireless transmitters may take up to an additional hour to send a supervision message unless tripped, tampered, or powered up. This operation extends battery life for transmitters. A missing message may display on the keypad until the transmitter sends a supervision message.

Device Setup Programming

Refer to the XTL Programming Guide (LT-1107) as needed. Program the keypad as a device in **Device Setup** during panel programming. At the Serial Number: prompt, enter the eight-digit serial number. Continue to program the device as directed in the panel programming guide.

Wireless Keypad Association

Pressing the XTL RESET button 3 times within 5 seconds enables the keypad association mode. For one minute the panel listens for wireless keypads. Any keypads not already associated with another panel are assigned to the first open keypad address. Keypads are automatically assigned addresses based upon the order in which they are detected. A maximum of 4 keypads may be associated with a panel.

Selecting the Proper Location (LED Survey Operation)

The 9000 Series keypad provides a built-in survey capability in the Installer menu to allow one person to confirm keypad communication with the panel. Refer to Accessing Keypad Wireless Survey later in this document.
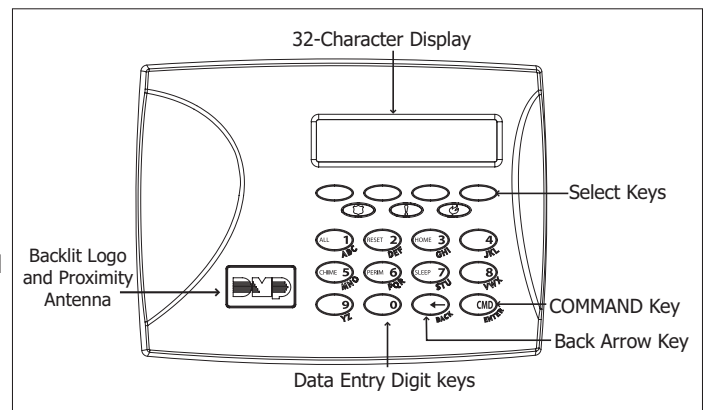
Installing the Keypad

All DMP keypad housings are designed to easily install on any desk stand, 4" square box, 3-gang switch box, or a flat surface.

Remove the Cover

The keypad housing is made up of two parts: the front, which contains the circuit board and keyboard components and the base. Use the following steps and figures to separate the keypad front and base.

1. Insert a flat screwdriver into one of the slots on the bottom of the keypad and gently lift the screwdriver handle toward you while pulling the halves apart. Repeat with the other slot.

2. Using your hands, gently separate the front from the base and set the front and components aside.
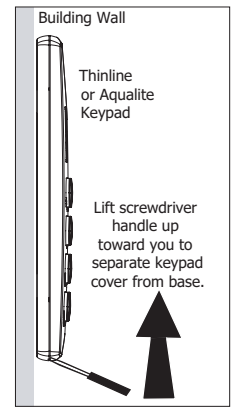
DC Power Supply

Locate the keypad near a wall outlet for the Model 371-500 plug-in DC power supply. In addition to powering the keypad, the power supply also charges the back-up battery. The plug-in power supply should be located within 100 feet of the keypad using 22 AWG wire or 250 feet using 18 AWG wire. Use the following steps to connect the plug-in power supply:

1. Connect the plug-in power supply Black wire with White stripe (positive) to the White wire of the included 4-wire harness.

2. Connect the plug-in power supply solid Black wire (negative) to the Black wire of the wire harness.

3. Plug the 2-wire harness on to the header on the back of the keypad.

4. Plug the power supply into a 110 Volt AC outlet not controlled by a switch.
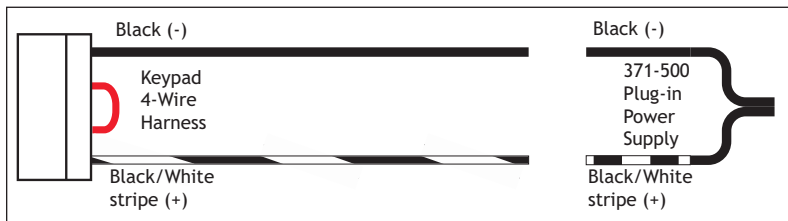

Figure 2: DC Power Supply Connection
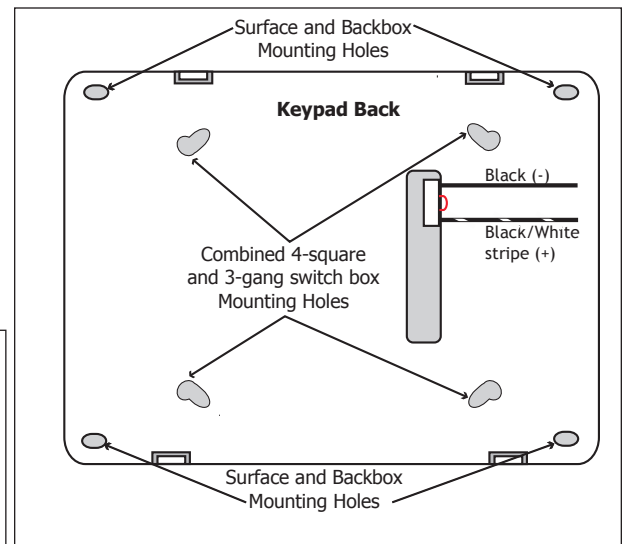
Figure 3: Mounting Holes

Standby Battery

The keypad rechargeable battery is used to provide 24 hours of backup battery power when DC power is not available. The battery is intended for backup power only and not to operate the keypad on a daily basis. If the battery is low, or not plugged into the J1 battery connector, a low battery condition is indicated by the XTL panel. Use the following steps to replace the standby battery. DMP recommends replacing the battery every 3 years under normal use.

Note: If removing the keypad from service, disconnect the 4-wire harness from the back of the keypad.

Removing the Keypad PCB

1. Disconnect the 2-wire harness from the back of the keypad.

2. Remove the base.

3. Loosen the top keypad PCB snaps.

4. Lean the keypad PCB backwards and lift out from the bottom PCB snaps.

Figure 4: PCB Snaps

Battery Replacement

1. Disconnect the battery lead connector from the keypad J3 battery header.
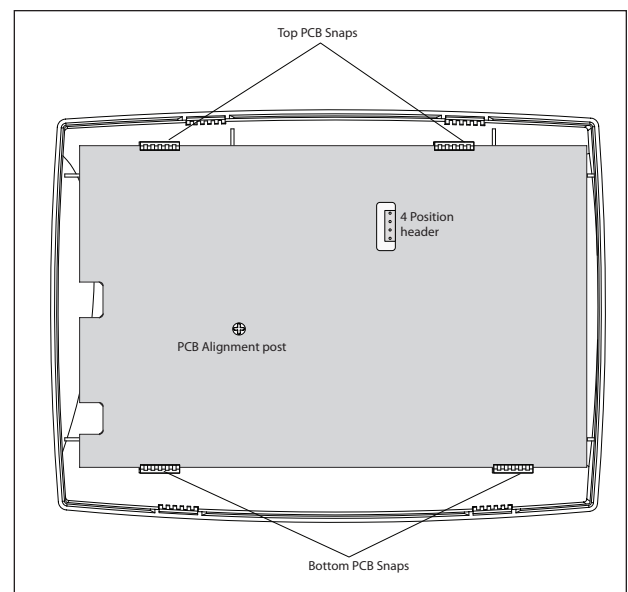2. Remove the battery strap from the standby battery.
3. Remove and properly dispose of the used battery.

⚠️ Caution: Risk of fire, explosion, and burns. Do not disassemble, heat above 212°F (100°C), or incinerate. Properly dispose of used batteries.

4. Place the new battery on the keypad PCB and replace the battery strap.
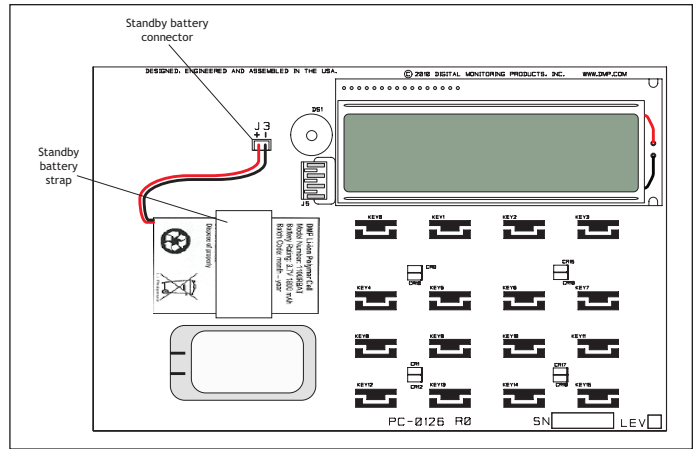5. Observe polarity and connect the battery lead connector to the keypad J3 battery header.

Installing Keypad PCB

1. Set the keypad PCB into the bottom snaps
2. Line up the PCB alignment post with the hole in the keypad PCB.
3. Press the PCB into the top PCB snaps to secure in place.
4. Replace the base.

Figure 5: Battery Replacement

Battery Supervision

The panel tests the battery once every hour when DC power is present. This test occurs 15 minutes past each hour and lasts for five seconds. A load is placed on the battery and if the battery voltage is low, a low battery is detected. If DC power has failed, a low battery is detected any time the battery voltage falls below 3.7V.

Card Reader

When a proximity credential is presented to the Model 9063 internal reader, a beep tone is heard and the Power and Armed LEDs blink. This provides both an audible and visual acknowledgement of the credential read.

Panic Key Options

2-Button Panic Keys

All keypads offer Panic key function that allows users to send Panic, Emergency, or Fire reports to the central station. Enable the Panic key function in the keypad user menu. See Keypad Programming Instructions later in this document. Install the supplied icon labels below the top row of Select keys as shown in Figure 4.

The user must press and hold the two Select keys for two seconds until a beep from the keypad is heard. At the beep, the panel sends the following zone alarm reports to the central station:

Panic (left two Select keys)—Zone 19 + Device Address
Emergency—non-medical (center two Select keys)—Zone 29 + Device Address
Fire (right two Select keys)—Zone 39 + Device Address

Internal Speaker Operation

All keypads emit standard tones for key presses, entry delay, and system alerts. The speaker also provides distinct burglary, fire, zone monitor, and prewarn cadences. The keypads provide an alternate prewarn with alarm cadence that occurs when the status list displays a zone alarm.

Backlighting

Both the logo and keyboard light when a key is pressed or the speaker sounds.
During an alarm condition, all lighted areas turn Red. When all alarm conditions are cleared from the display, the Red display turns off and the lighted areas return to the user-selected brightness.

Backlit Keyboard and Logo

The backlit keyboard and logo indicate the power and armed status of the panel. Depending on the status, the LED displays in Red or Green as listed in the table.

Color and Activity	Operation
Green Steady	Panel Disarmed, AC Power OK, Battery OK
Green Blinking	Panel Disarmed, AC Power OK, Battery Fault
No Light	Panel Disarmed, AC Power Fault, Battery OK
Red Steady	Panel Armed, AC Power OK, Battery OK
Red/Green Alternate	Panel Armed, AC Power OK, Battery Fault
Red Blinking	Panel Armed, AC Power Fault, Battery OK

End-User Options

All keypads provide three keypad adjustments the end-user can make through a User Options Menu. The user can also view the keypad model number and address.

On all keypads press and hold the Back Arrow (<—) and CMD (COMMAND) keys for two seconds to access User Options. The keypad display changes to SET BRIGHTNESS. Use the COMMAND key to display the next Option or press the Back Arrow to exit.

```
  SET BRIGHTNESS
<     ▮▮▮▮▮▮▮     >
```

Backlighting Brightness
Set the keypad LCD Display brightness level, Power and Armed LEDs, and the Green keyboard and logo backlighting. Use the left Select key to lower the brightness and the right Select key to raise the brightness. If the brightness level is lowered, it reverts to maximum intensity whenever a key is pressed. If no keys are pressed, and the speaker has not sounded for 30 seconds, the user-selected brightness level restores.

```
     SET TONE
<     ▮▮▮▮▮▮▮     >
```

Internal Speaker Tone
Set the keypad internal speaker tone. At the SET TONE display, use the left Select key to lower the tone and the right Select key to raise the tone.

```
  SET VOLUME LEVEL
<     ▮▮▮▮▮▮▮     >
```

Internal Volume Level
Set the keypad internal speaker volume for key presses and entry delay tone conditions. During alarm and trouble conditions, the volume is always at maximum level. Use the left Select key to decrease the volume and the right Select key to increase the volume.

```
  MODEL NUMBER
  9060 V100
```
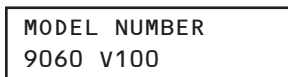
Model Number
The LCD displays the keypad model number and firmware version and date. The user cannot change this information.

```
  KEYPAD ADDRESS
        01
```
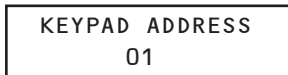
Keypad Address
The LCD displays the current keypad address. The user cannot change the keypad address.

Entering Alpha Characters

To enter an alpha character, press the key that has the desired letter written below it. The keypad display shows the number on that key. To change the number to a letter, press the top row Select key that corresponds to the letter location under the key. For example, if you press key number 1, the letters for that key are A, B, and C. Press the first Select key for A, the second Select key for B, the third Select key for C, and the fourth Select key for special characters.
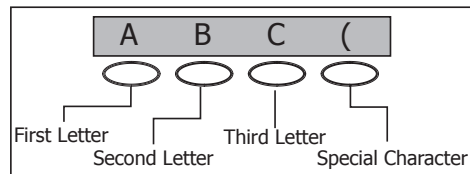
Entering Alpha Characters

Entering Non-Alphanumeric Characters

Each key also has a special, non-alpha character. These characters are not shown on the keypad. Enter a space by pressing 9 then the third Select key. The following non-alpha characters are available: ( ) ! ? / & $, (space) ' starting with the left bracket on the 1 digit key to the blank space and apostrophe on the 9 digit key. Use the 0 digit key to enter - . * # (dash, period, asterisk, or number sign).

Keys with Non-Alpha Characters

Installer Options Menu

All keypads provide Keypad Option and Keypad Diagnostic menus to allow installing and service technicians to configure and test keypad operation.

Accessing Installer Options

Access the Installer Options Menu through the User Options function. Hold down the Back Arrow and COMMAND keys for two seconds to display SET BRIGHTNESS. Enter the code 3577 (INST) and press COMMAND. The display changes to KPD OPT (keypad options) KPD DIAG (keypad diagnostics) and STOP.

The Keypad Options menu allows you to set the keypad address, select Supervised or Unsupervised mode, change the default keypad message, selectively enable the 2-button Panic keys.

Note: All programming options display on all keypads, however, actual operation for some programming options is restricted to the listed keypads.

Programming Keypad Options

```
KPD KPD
OPT DIAG     STOP
```
Keypad Options (KPD OPT)
To program keypad options, press the left Select key under KPD OPT.

```
CURRENT KEYPAD
ADDRESS:       01
```
Keypad Address
Set the keypad address from 01 to 04 with the XTL panel. The factory default address is set at 01. To change the current address, press any Select key and enter the new address. It is not necessary to enter a leading zero for addresses 01 to 04.

```
DEFAULT KEYPAD
MSG:
```
Default Keypad Message
Enter a custom message of up to 16 characters to appear on the keypad display top line whenever that line is not used for any other purpose. Press any Select key to clear the current message and enter a new custom display.

```
ARM PANIC KEYS:
*PN  *EM   *FI
```
Arm Panic Keys
Use this option to configure the top row Select keys as 2-button Panic keys. To enable or disable a Panic, press the Select key under the appropriate display: PN (Panic), EM (Emergency), and FI (Fire). Once the panic is enabled, an asterisk displays next to the description. Refer to the Panic Key Options section earlier in this document.

```
ALL?:     NO  YES
DELAY:          2
```
Arming/Disarming Wait Time (9063)
Select the number of seconds (1-9) the keypad should wait when an area system displays ALL? NO YES during arming/disarming or a HOME/SLEEP/AWAY system waits during arming only. If NO or YES, or HOME, SLEEP, or AWAY is not manually selected before the delay expires, the keypad automatically selects the YES or the AWAY key. Select zero (0) to disable this feature. This delay only occurs when any credential is presented for arming the Home/Sleep/Away system.

The following options are for programming the proximity credential for the Model 9063 only.

```
CARD OPTIONS
DMP        CUSTOM
```
Card Options
Select DMP to indicate the reader sends a 26-bit DMP data string. To save the DMP option, press the left top row Select key under DMP. Default is DMP.

Select CUSTOM if using a non-DMP credential. To select CUSTOM press the right top row Select key.

Custom Card Definitions

```
WIEGAND CODE
LENGTH:        26
```
Wiegand Code Length
When using a custom credential, enter the total number of bits to be received in Wiegand code including parity bits. Press any top row Select key to enter a number between 0-255 to equal the number of bits. Default is 26 bits.

Typically, an access card contains data bits for a site code, a user code, and start/stop/parity bits. The starting position location and code length must be determined and programmed into the keypad.

0|11101011|011010100011001|1

| First Bit Received Position = 0 | Site Code Position = 1 Length = 8 | User Code Position = 9 Length = 16 | Last Bit Received Position = 25 |

In this example the Wiegand Code Length = 26 bits.

```
SITE CODE
POSITION:        1
```

Site Code Position
Enter the site code start position in the data string. Press any Select key to enter a number between 0-255. Default is 1.

```
SITE CODE
LENGTH:          8
```

Site Code Length
Enter the number of characters the site code contains. Press any Select key to enter a number between 1-16. Default is 8.

```
USER CODE
POSITION:        9
```

User Code Position
Define the User Code start bit position. Press any Select key to enter a number between 0-255. Default is 9.

```
USER CODE
LENGTH:         16
```

User Code Length
Define the number of User Code bits. Press the fourth Select key to enter a custom number. Custom numbers can only be a number between 16-32. Press COMMAND to save the entry. The default is the DMP value of 16.

```
REQUIRE SITE
CODE:      NO YES
```

Require Site Code
Press the top row Select key under YES to use a site code and press COMMAND to view the site code entry display. Default is NO.

In addition to User Code verification, door access is only granted when any one site code programmed at the SITE CODES entry option matches the site code received in the Wiegand string. You can program up to eight three-digit site codes.

Note: A card with a site code greater than three digits cannot be used. Use only cards with three-digit site codes.

```
SITE CODES 1-4
>    >    >    >
```

Site Codes 1-4
Enter site codes 1-4 (left to right separated by > sign). Press the Select key below the > sign to add, delete, or change the site code and press COMMAND. Site code range is 0-999. Press the COMMAND key to display SITE CODES 5-8.

```
SITE CODES 5-8
>    >    >    >
```

Site Codes 5-8
Enter site codes 5-8 (left to right separated by > sign). Press the Select key below the > sign to add, delete, or change the site code and press COMMAND. Site code range is 0-999.

```
NO OF USER CODE
DIGITS:          5
```

Number of User Code Digits
The keypad recognizes four digit user codes. Press any Select key to enter the user code digit length being used by the panel. Default is 4.

When searching the bit string for the user code, the digits are identified and read from left to right.

```
DEGRADED MODE
RELAY ALWAYS OFF
```

Degraded Mode
This option defines the relay action when communication with the panel has not occurred for five seconds. Press any top row Select key to display CHOOSE ACTION. The default is Relay Always Off.

```
CHOOSE ACTION
OFF SITE  ANY ON
```

Choose the Degraded Mode Action required.
Press the first Select key to choose OFF
(Relay Always Off) —   The relay does not turn on when any Wiegand string is received. Off does not affect any REX operation.

Press the second Select key to choose SITE
(Accept Site Code) — Door access is granted when the Wiegand site code string received matches any site code programmed at SITE CODE ENTRY. For details refer back to the REQUIRE SITE CODE option.

Press the third Select key to choose ANY
(Any Wiegand Read) — Door access is granted when any Wiegand string is received.

Press the fourth Select key to choose ON
(Relay Always On) — The relay is always on.

```
CHOOSE ACTION
LAST
```

Press the first Select key to choose LAST
(Keep Last State)
    — The relay remains in the same state
      and does not change when
      communication is lost.

After choosing the action, DEGRADED MODE and the newly defined action display. Programming is now complete.

Accessing Keypad Diagnostics

If necessary, refer to *Access the Installer Menu* earlier in this document.

```
KPD KPD   KPD
OPT DIAG RF   STOP
```

Keypad Diagnostics (KPD DIAG)

The Keypad Diagnostic option allows you to check the display segments, keyboard backlighting and test individual keys.

Press the Select key under KPD DIAG. The keypad lights all display segments and illuminates the keyboard in Red. In approximately one second the display backlighting changes to Green. The keypad alternates between these two states for approximately two minutes. Press COMMAND at any time to begin testing individual keys.

```
PRESS KEY TO
TEST
```

Test Individual Keys

The display changes to PRESS KEY TO TEST. This option tests each key on the keyboard to ensure it is operating properly. Press and hold each key for about two seconds. The key number being held appears in the display. Verify the correct number displays before testing the next key.

Accessing Keypad Wireless Survey

If necessary, refer to *Access the Installer Menu* earlier in this document.

```
KPD KPD   KPD
OPT DIAG RF   STOP
```

Keypad Wireless Survey Operation (KPD RF)

The Keypad Survey option allows you to check the wireless communication between the keypad and the panel.

Press the Select key under KPD RF. The keypad logo blinks once to indicate proper operation.

When the keypad does not receive an acknowledgement from the panel, the logo remains on for about 8 seconds to let you know communication is not established. Communication is also faulty when the logo flashes multiple times in quick succession. Relocate the keypad until the logo immediately turns off indicating the keypad and panel are communicating properly. Proper communication between the keypad and panel is verified when for each press of the Select key, the LED blinks immediately on and immediately off. Repeat this test to confirm five separate consecutive LED blinks. Any indication otherwise means proper communication has not been established.

Exiting the Installer Options

When done, press the COMMAND key once to return to the Installer Options screen. Press the Select key under STOP to exit the Installer Options function.

Additional Programming

The 9063 keypads allow users to present a proximity credential to the built-in proximity reader. Users can also manually enter their user code into the keypad. The keypad verifies the user code and its authority with the panel.

Programming Cards into the System

This programming feature operates on 9063 keypads only. Access the User Menu in one of two ways. When MENU? NO YES displays, choose YES and present your proximity credential to the reader or manually enter your user code into the keypad.

From the User Menu, select USER CODES?. Choose ADD. At the ENTER CODE: - display, present the credential to the reader. The keypad works by reading the user code from the data sent by the proximity reader. For more information, refer to Entry Cards in the programming section of this document and the panel User's Guide section on adding, deleting, and changing user codes.

Proximity Credentials Compatibility

DMP Keypads with internal proximity readers are compatible with most standard 125Khz Prox credentials available from HID and all DMP proximity credentials. DMP Keypads are not compatible with iClass or other non-HID credentials. There are custom and non-standard credentials from HID that are not compatible with DMP proximity keypads. If you are using HID cards that have not been purchased directly from DMP, it is recommended to thoroughly test the application fully before installation. DMP does not guarantee compatibility with credentials not purchased from DMP.

User's Guide

This User's Guide covers 9063 keypads and contains different sections: Keypad Arming and Disarming, and Keypad Entry Delay. All of the examples displayed assume that CLOSING CODE is YES in panel programming.

Keypad Arming and Disarming

Area system Arming and Disarming

Press COMMAND, the keypad displays ARM   DISARM. Press the Select key under either option. The keypad displays ENTER CODE: -. Present your card to the reader. Once validated by the system, all areas assigned to your code arm or disarm automatically.
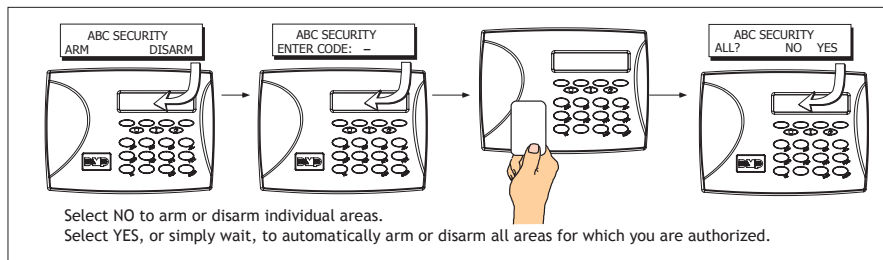

Figure 6: Area Arming and Disarming

All/Perimeter System Arming and Disarming

Present your card to the reader or press COMMAND, the keypad displays DISARM? or PERIM ALL (when arming). Press the Select key under the desired option. The keypad displays ENTER CODE: -. Present your card to the reader. Once validated by the system, the selected areas arm or disarm automatically.

Home/Away System Arming and Disarming

Present your card to the reader. If the system is armed, once the card is validated, all areas are disarmed and the keypad displays ALL SYSTEM OFF. If the system is disarmed when you present your card, once the card is validated, HOME SLEEP AWAY displays. Manually select HOME, SLEEP, AWAY or after a short time-out, all areas automatically arm in the AWAY mode.

Keypad Entry Delay

All Systems

Once the entry delay starts, the keypad sounds an entry tone and displays ENTER CODE: - . Present your card to the reader. Once validated by the system, all areas assigned to your code arm or disarm automatically.
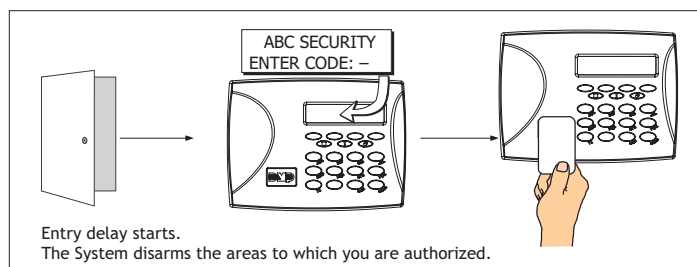

Figure 7: Entry Delay

FCC Information

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.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Specifications

Operating Voltage	12 VDC
Standby Battery	9000BAT
Voltage	3.7 VDC
Capacity	800Ah
Type	Lithium Polymer Recharable
Standby Time	24 Hours
See Battery Life Expectancy for full details.	

Frequency Range: 903-927 MHz

Dimensions	7" W x 5.25" H x 0.5" D
Color	White
Housing Material	Flame retardant ABS

Compatibility
XTL Panels

Patents
U. S. Patent No. 7,239,236

Accessories

371-500	12 VDC Plug-in Power Supply
9000BAT	Replacement Standby Battery
699	Keypad Deskstand
777	Protective Keypad Cover

Proximity Credentials
  1306P Prox Patch™
  1306PW Prox Patch™ 26-Bit
  1326 HID ProxCard II® Card
  1386 HID ISOProx II® Card
  1346 HID ProxKey II® Access Device

Listings and Approvals

FCC Part 15 RFID Reader FCC ID: CCKPC0126
Industry Canada ID: 5251A-PC0126
Underwriters Laboratories (UL)

ANSI/UL 1023	Household Burglar Alarm System Units
ANSI/UL 1610	Central Station Burglar Alarm Units
ANSI/UL 985	Household Fire Warning System

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