

*Gate Opener Safety*

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**Heavy Duty-Commercial-Industrial**  
Fully Sealed Digital Access Keypad  
Specially Designed for Gate Operators, Overhead Doors,  
Specialty Doors & Electric Door Locking Device

SINGLE OR UP TO 1000 PERSONAL CODE NUMBERS  
**Installation and programming instructions**



**Owner's Manual**

**MODEL: 1050**

Now standard 2 Relay's with automatic voltage  
Detector 10 to 30 volts AC or DC

## Introduction

Carefree Security self-contained keypads are fully sealed and are ideal for adverse environment conditions due to the electronics being potted in an epoxy, making the keypad impervious to water and moisture.

Carefree Security keypads are a digital keyless entry system designed for access control applications. The keypad is housed in a metal powder coated enclosure that can be mounted to a pedestal or directly to a wall. The keypad is available in two versions, heavy duty metal die cast keyboard or with a heavy duty plastic polymer keyboard. The keyboards have bright, easy to read graphics. Single or up to 1000 entry codes (PIN) from 2 to 6 digits in length, can be programmed.

Two LED indicators show the status of the keypad system. The red LED indicates power on, green LED indicates access is granted, yellow program LED light indicates that the keypad is in program mode or in a "lockout" condition. The keypad night light illuminates the keys to a brighter state for the duration of If wrong number is entered during programming, pressing the \* key will end programming. Entering your code number, an internal sounder beeps when a key is pressed.

### IMPORTANT- PLEASE NOTE

Please read all instructions before installing or programing this keypad. It is very important to apply and follow the procedures described herein. Your keypad represents a new generation of keypad technology that is simple to use and operate.

### TECHNICAL NOTES:

- The user of the keypad has up to 30 seconds to key in their entry code.
- All digits of the personal code number must be entered followed by # key. If the # key is not pressed, with correct code entry, activation will be sent within ½ second after the last correct access code / digit is pressed.
- To avoid ESD (electrostatic discharge) interfering with the operation of the keypad, ground the housing.
- Lightning and Surge Protection is built into the keypad. However, if you install a keypad in an area where lightning can damage the keypad, make sure to install a Model 306, Lightning & Surge Protector for extra protection. There is no warranty if the keypad is damaged by lightning, static electricity or high voltage surges.
- The keypad has automatic voltage sensor from 10 to 30 volts AC or DC. Current 10 mA typical, 150 mA maximum.
- Output Relay #1, Form C, 5 Amp, Relay #2, Form C, 1 Amp.
- The keypad has a built in timer for remote exit, a door exit switch can be wired form the keypad to a N.O. push button exit switch or to a fire access key switch to provide "codeless" entry for authorized personnel.
- When pressing any number on the keypad it will activate the Night Light to a brighter state for the duration of entering your code numbers.
- Latching relay code (toggle mode) to hold gates or doors open.
- Too many incorrect code number entries, will cause a lockout condition and the yellow LED will blink

### FEATURES:

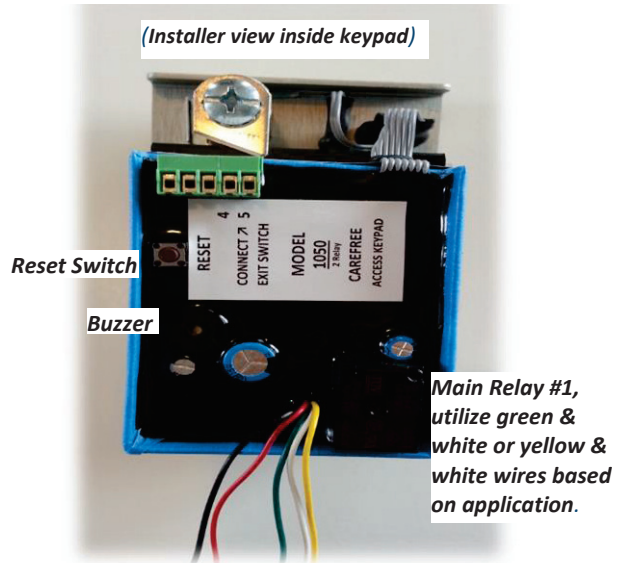
- Programmable Keypad
- Up to 1000 Personal Code Numbers
- 2 to 6 digital entry code length
- Microprocessor based memory
- Lightning and Surge protection built in
- 2 LED status indicators
- Audio tone buzzer, shipped standard with feature but not required. Can be ordered without feature.
- Easy to program
- Built in timer for remote exit door switch or fire access key switch
- Latching Relay to hold gates or doors open
- Rugged Heavy Duty Metal Housing
- Powered from a 10 Volt to 30 Volt AC or DC source
- Highly vandal resistant
- Fully sealed metal push button or plastic keyboard
- No code number loss with power failure (EPROM MEMORY)
- Night light illuminates keys whenever keypad is used
- Timed anti-pass back; and keypad lockout

Red LED light (on left) shows power on and turns to GREEN when access is granted. Yellow LED light will be on during programming and in keypad lockout.



Key lock for installation of keypad use. Not used during normal operation. Tactile Keyboard available in metal as shown or hard black polymer plastic pushbutton.

Terminal strip left to right for Relay output #2 C, NO, NC, +, -. Connect exit switch to 4 & 5.



Reset Switch  
Buzzer

Main Relay #1, utilize green & white or yellow & white wires based on application.

If a wrong key is entered, press the \* key, resetting the keypad. Re-enter correct code number.

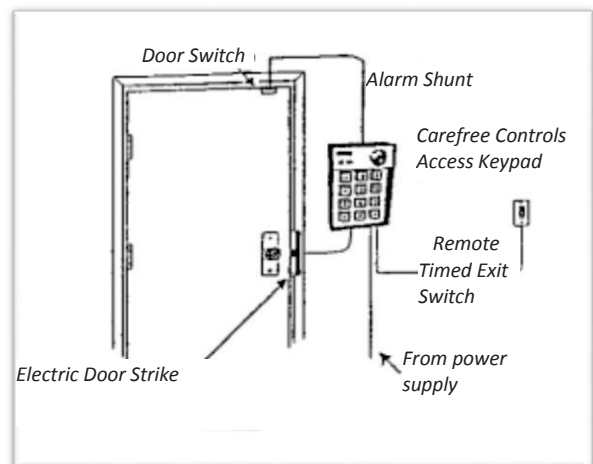
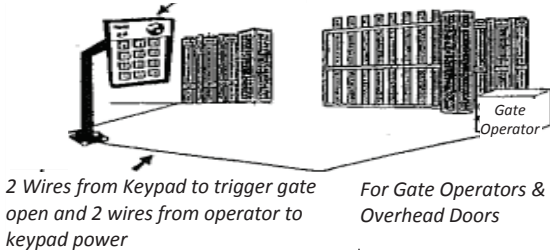
Colored Coded Wires: Red & Black = Power, White is common, Green is NO and Yellow is NC

### Warning

All illustrations and operating instructions should be read before the unit is connected to power and operated. The installation and operating instructions should be retained for future reference. All operating and user instructions should be followed. The housing should be mounted to a wall or as recommended by the manufacturer. The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the unit. Regular testing by entering any valid Personal Code Numbers must be done to ensure proper operation. Make sure that all necessary requirements, such as the proper placing of operating, warning and safety signs are followed in accordance with all Local, State and Federal regulations to ensure the safety and wellbeing of all those within the area of operation of this unit. Install this unit only on a gate or door operator with an automatic force reverse action.

### Typical Installation:

Carefree Access Keypad



## Programming Instructions

For Model 1050 Series with 2 Relay

### General Information:

1. After each programming step you must wait for the yellow LED light to finish blinking.
2. You can abort programming at any time by pressing the \* key, the yellow LED light will turn off.
3. If an invalid code number is entered or access is denied, the keypad security lockout timer is activated and the yellow LED light will blink 6 times; you must wait for the yellow LED light to stop blinking before re-entering the correct code number.

**To reset keypad to factory program number 1, 2, 3, 4, 5, 6:** If the program number is not known, or you have made a mistake when entering your new program number, you must reset the keypad. To reset the keypad push the reset switch on the back of the keypad until the buzzer sounds and 2 long yellow LED lights will blink. This will reset the keypad to factory program number 1, 2, 3, 4, 5, 6.

***To program a single personal code number or up to 1000 personal code numbers:***

**Step 1:** To start programming, enter your program number or use the factory program number 1, 2, 3, 4, 5, 6 and \* key ( the yellow LED will turn on)

**Step 2:** Enter your new personal code numbers from 2 to 6 digits and the # key (the yellow LED will blink one (1) time)

**Step 3:** Enter relay activation time: *Below relay activation time is REQUIRED during initial programming of a code. If in doubt, set the relay activation time to 2# when using relay No. 1 and 3# on Relay No. 2*

<u>Main Relay No. 1</u>	<u>Relay No. 2</u>	
2 # for 1/2 second	3 # for 1 second	{the yellow LED will blink two (2) times}
4 # for 1 second	5 # for 4 seconds	{the yellow LED will blink two (2) times}
6 # for 3 seconds	7 # for 6 seconds	{the yellow LED will blink two (2) times}
8 # for 5 seconds	9 # for 10 seconds	{the yellow LED will blink two (2) times}
10 # for 7 seconds	11 # for 15 seconds	{the yellow LED will blink two (2) times}
12 # for 15 seconds	13 # for 60 seconds	{the yellow LED will blink two (2) times}
14 # for 30 seconds	15 # for 120 seconds	{the yellow LED will blink two (2) times}
16 # Toggle mode	17 # Toggle mode	{the yellow LED will blink two (2) times}

**Step 4:** When all personal code numbers are entered, push the \* key to end the programming ( the yellow LED will turn off). To enter multiple code numbers repeat steps 2 and 3.

The keypad will search its memory for available space and will automatically store the new code number entered. If a new personal code number is entered into the keypad memory and the Yellow LED blinks fast and then two slow blinks ( when entering step 3) this means that the code number has already been entered into the keypad memory. You will need to enter a different code number.

**WRITE YOUR NEW PERSONAL CODE NUMBERS ON THE LAST PAGE UNDER PERSONAL CODE NUMBER CHART.**

**Example to program a single code number:** Enter 1-2-3-4-5-6 \* then the yellow LED will turn on.

Enter your code number a two (2) to six (6) digit number, then press the # key, the yellow LED light will blink one (1) time.

Enter 2 # for Relay No. 1 then the yellow LED light will blink two (2) times.

Enter \* then the yellow LED light will turn off.

To operate gate or door, enter your code number and the # sign. The red LED light will turn to green for ½ seconds.

**To remove or delete a single personal code number:**

Step 1: To delete a code number, enter your program number or the factory program number 1, 2, 3, 4, 5, 6 and the \* key (the yellow LED will turn on)

Step 2: Enter the personal code number to be deleted and the # key (the yellow LED will blink one "1" time)

Step 3: Enter 20 # and the keypad will search its memory for the code number that needs to be erased, when completed (the yellow LED will blink three "3" times)

Step 4: Enter \* key (the yellow LED will turn off)

To delete multiple code numbers repeat steps 2 and 3

**Erasing all personal code numbers:**

**\*\*\*Warning: Performing this command will remove all personal code numbers from the memory.**

Step 1: Enter your program number or the factory program number 1, 2, 3, 4, 5, 6 and the \* key (the yellow LED will turn on.)

Step 2: Enter 00 # (the yellow LED will blink one "1" time)

Step 3: Enter 00099 # to erase the memory, this may take up to 10 seconds; when completed (the yellow LED will blink two "2" times)

Step 4: Enter \* key (the yellow LED will turn off)

**Change factory programming number (1, 2, 3, 4, 5, 6) to a new programming code:**

For security reasons you should change the factory program number 1, 2, 3, 4, 5, 6 to a new program number from 2 to 6 digits. Or you can use the factory program number 1, 2, 3, 4, 5, 6 (not recommended) to enter into a programming mode. Your new program number or factory program number allows you to enter into a programming mode only.

To program a new program number, follow the next 4 steps below. Write the new program number in the space provided below. Remember, after you have programmed your new program number 1, 2, 3, 4, 5, 6 will no longer work.

Step 1: Enter factory program number 1, 2, 3, 4, 5, 6 and \* key (the yellow LED will turn on)

Step 2: Enter your new program number from 2 to 6 digits and # key (the yellow LED will blink one "1" time)

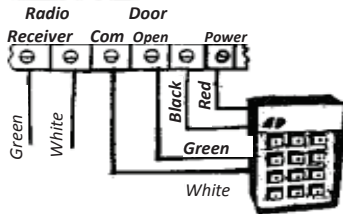
Step 3: Enter 22 # (the yellow LED will blink two "2" times)

Step 4: Enter \* key (the yellow LED will turn off)

**Write your new program number here:** \_\_\_\_\_

## Basic Wiring Diagrams

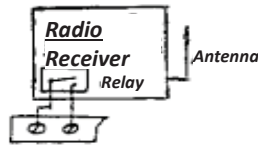
### Wire to gate operator or overhead door terminal block



Check your internal numbers on your operator for correct location of wires

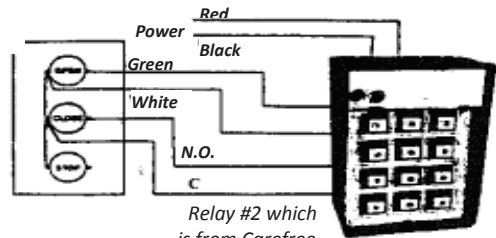
### To Open or Close the gate or overhead door from the keypad

Connect the Green and White wire from the keypad to the terminals where the radio receiver N.O. Relay contacts are connected.



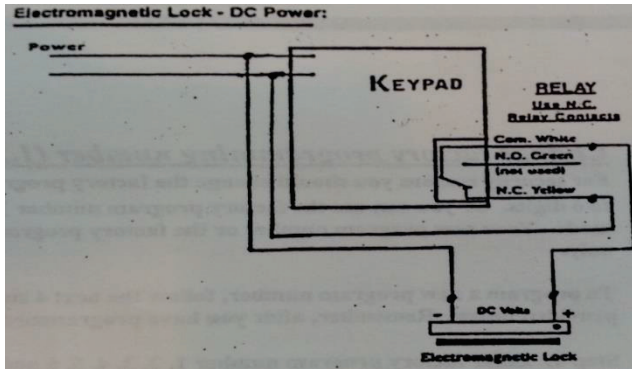
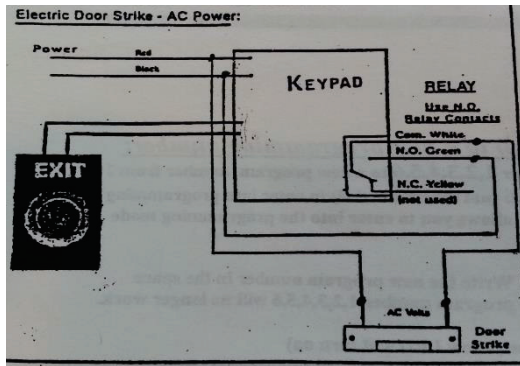
Terminals on operator for Radio Receiver

### WIRE TO A 3 BUTTON STATION

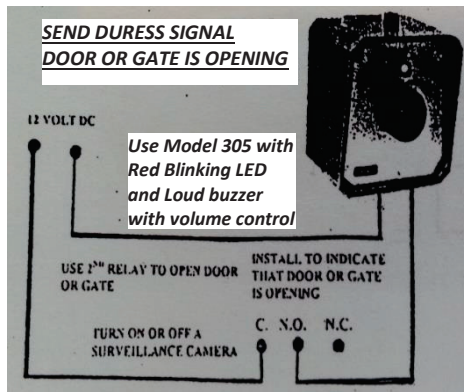


Specially Designed for Gate Operators and Overhead Doors:

## Use for Electric Door Locking Devices



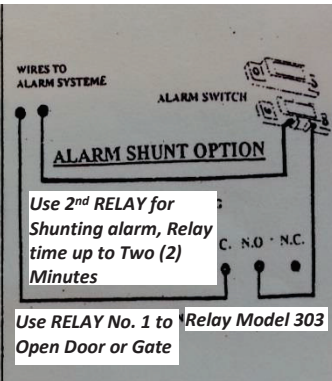
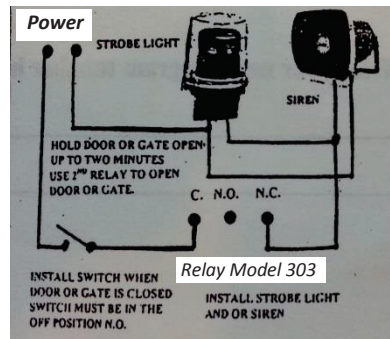
## Circuit Diagrams for Special Applications



Use Carefree Secure Relay Model 303



### WARNING DOOR OR GATE IS CLOSING



\* Note Install Carefree Secure Relay Box Model 303 in above for C, N.O., N.C.

**Protect the keypad from lighting & power surges:**

If you install a keypad that is in an area where lighting can damage a keypad:

1. Make sure the keypad metal housing is grounded.
2. Install a Model 306 Lighting & Surge Protector.

There is no warranty if the keypad is damaged due to lighting static electricity or high voltage power surges. The Model 306 will help to protect the electronics in the keypad and is very easy to install.

Do not ground the housing to the fence, fence post or pedestal. Ground the keypad metal housing to an electrical ground (operator) or install a ground rod.

**Model: 306**

Lighting and Surge Protector



- Low voltage- 35V (max)
- Install inside keypad metal housing

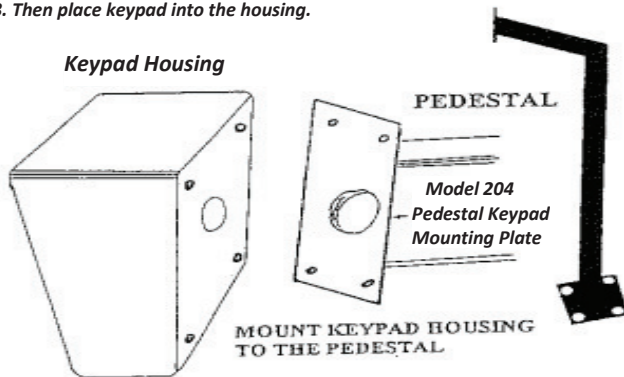
Trouble Shooting: If Lighting or High Voltage Surge strikes the keypad the micro-processor may go into a self-protection mode causing one or more of the following condition:

1. The YELLOW light will stay on.
2. The GREEN LED light will stay on (relay latched)
3. The buzzer will not turn off or on
4. Some of the push buttons on the keypad will work and others may not or
5. The keypad will not work at all.

To reset the keypad, disconnect the power to the keypad and wait at least two (2) minutes, then re- connect the power to the keypad and enter your code number. If the keypad still does not work, then a high voltage surge has damaged the micro-processor. Return the keypad to the manufacturer for evaluation.

**Installation:**

1. Remove the keypad from the housing.
2. Complete all installation and wiring of keypad
3. Then place keypad into the housing.



**WALL MOUNTING:**

