



## ***Owner's Manual***

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***1800 P Series  
Telephone Intercom Systems Lobby Panel Instructions***

DoorKing, Inc.  
120 Glasgow Avenue  
Inglewood, California 90301  
U.S.A.  
Phone: 310-645-0023  
Fax: 310-641-1586  
[www.doorking.com](http://www.doorking.com)



**Use this manual with the following models only.**

All 1802P, 1803P, 1808P and 1810P Lobby Panels with circuit board 1863-010.

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## **Important Notices**

### ***FCC – Unites States***

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules and Regulations. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Registration Number: **DUF6VT-12874-OT-T**

### ***DOC - Canada***

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The Department does not guarantee the equipment will operate to the users satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable means of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**CAUTION:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

DOC Registration Number: **1736 4507 A**

### ***Notice:***

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the sum of the load numbers of all the devices does not exceed 100.

### ***Notice:***

DoorKing does not provide a power transformer on units sold into Canada. Use only transformers that are CSA listed to power the telephone entry system. The model 1812-Plus requires a 16-volt, 20 VA transformer.

## General Information

- Prior to beginning the installation of the telephone intercom system lobby panel, we suggest that you become familiar with the instructions, illustrations, and wiring guidelines in this manual. This will help insure that you installation is performed in an efficient and professional manner.
- The proper installation of the lobby panel is an extremely important and integral part of the overall telephone intercom system. Check all local building ordinances and building codes prior to installing this system. Be sure your installation is in compliance with local codes.
- When used to control a door or pedestrian gate, try to locate the lobby panel as near as possible to the entry point. The unit should be mounted on a rigid wall to prevent excessive shock and vibration from closing doors or gates. Continuous vibration and shock from slamming doors or spring-loaded pedestrian gates will damage the circuit board. **Under no circumstances should the unit be mounted directly to a moving door or gate.**
- **ADA mounting requirements for door control.** The requirements below apply only when the lobby panel is being used to control entry through a public door only. If this system is used to control entry through a vehicular gate or private entrance, the dimensions noted below do not apply.
  1. If the clear floor space allows only forward approach to the system, the maximum high forward reach allowed is 48 inches above grade to the top of the keypad.
  2. If the high forward reach to the system is over an obstruction of greater than 20 inches but less than 25 inches, the maximum high forward reach allowed is 44 inches above grade to the top of the keypad.
  3. If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach shall be 54 inches above grade to the top of the keypad.
  4. If the high side reach is over an obstruction of 24 inches or less, the maximum high side reach allowed is 46 inches above grade to the top of the keypad.
- **When used to control a vehicular gate with an automatic gate operator, the lobby panel must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the lobby panel and/or touch the gate or gate operator at the same time.**
- Be sure that the lobby panel is installed so that it is not directly in the traffic lane. Goose neck mounting post and kiosks work well for these type applications. When planning where to locate the lobby panel, take into consideration traffic lane layouts, turn around lanes for rejected access, conduit runs, power availability, etc.
- Environmental factors must also be taken into account. Surface mount units are designed for direct outdoor installations; however it is preferable to protect them from direct exposure to driven rain or snow whenever possible. Flush mount units must be protected from direct exposure to the elements.
- This lobby panel contains a number of static sensitive components that can be damaged or destroyed by static discharges during installation or use. Discharge any static prior to removing the circuit board from the lobby panel by touching a proper ground device.
- **Instruct the end user to read and follow these instructions. Instruct the end user to never let children play with or operate any access control device. This Owner's Manual is the property of the end user and must be left with them when installation is complete.**

## Usage

The telephone intercom system lobby panels described in this manual cannot be used as stand-alone telephone entry systems. They can only be used as the lobby panel connected to DoorKing model 1816 and 1820 telephone intercom systems.



## SECTION 1 - INSTALLATION

- Installation and wiring of the telephone intercom system lobby panel is extremely important. Use the proper type of wire for communication and power wire runs.
- Do not use thinly insulated brown-jacketed telephone wire (the type found in the walls of a house) for any phone line wiring that will be exposed to the weather, or in an underground application. These wires must be of the proper gauge and must be rated for direct underground burial. A clear, noise free system is directly related to the quality of the telephone wire used. Do not run telephone lines and high voltage lines in the same conduit. Separate high voltage and telephone line conduits by at least six (6) inches. Be sure that all phone wires are twisted.

TELEPHONE LINE WIRING	
WIRE SIZE	MAX DISTANCE IN FEET
24 AWG	800
22 AWG	1600
20 AWG	2200
18 AWG	3600

- It is highly recommended that telephone line surge suppressers (DoorKing p/n 1877-010) be installed on both the phone in and phone out lines to help protect the system from power surges.
- Use the supplied power transformer, 16 VAC, 20 VA (or U.L. listed equivalent) to power the lobby panel. Do not power any other devices (electric strikes, magnetic locks, etc.) from this power transformer. For wire runs up to 100 feet, use 18 AWG wire. For wire runs up to 200 feet, use 16 AWG wire. **Power runs are susceptible to noise and hum pick-up, therefore it is preferable that you keep power runs as short as possible.**

POWER WIRING	
WIRE SIZE	MAX DISTANCE IN FEET
18 AWG	100
16 AWG	200

- It is highly recommended that a low voltage surge suppresser (DoorKing p/n 1878-010) be installed to help protect the lobby panel from power surges.
- Proper grounding and the use of surge suppressers can significantly reduce the chance of component failure because of static charges or surges. To be effective, ground connections should be made with a minimum 12 AWG wire to a ground point within 10 feet of the lobby panel. The ground point must be at an electrical panel, a metallic cold water pipe that runs in the earth, or a grounding rod driven at least 10 feet into the soil. **A gooseneck mounting post anchored in concrete does not make a good ground.**

## 1.1 Installation Guidelines

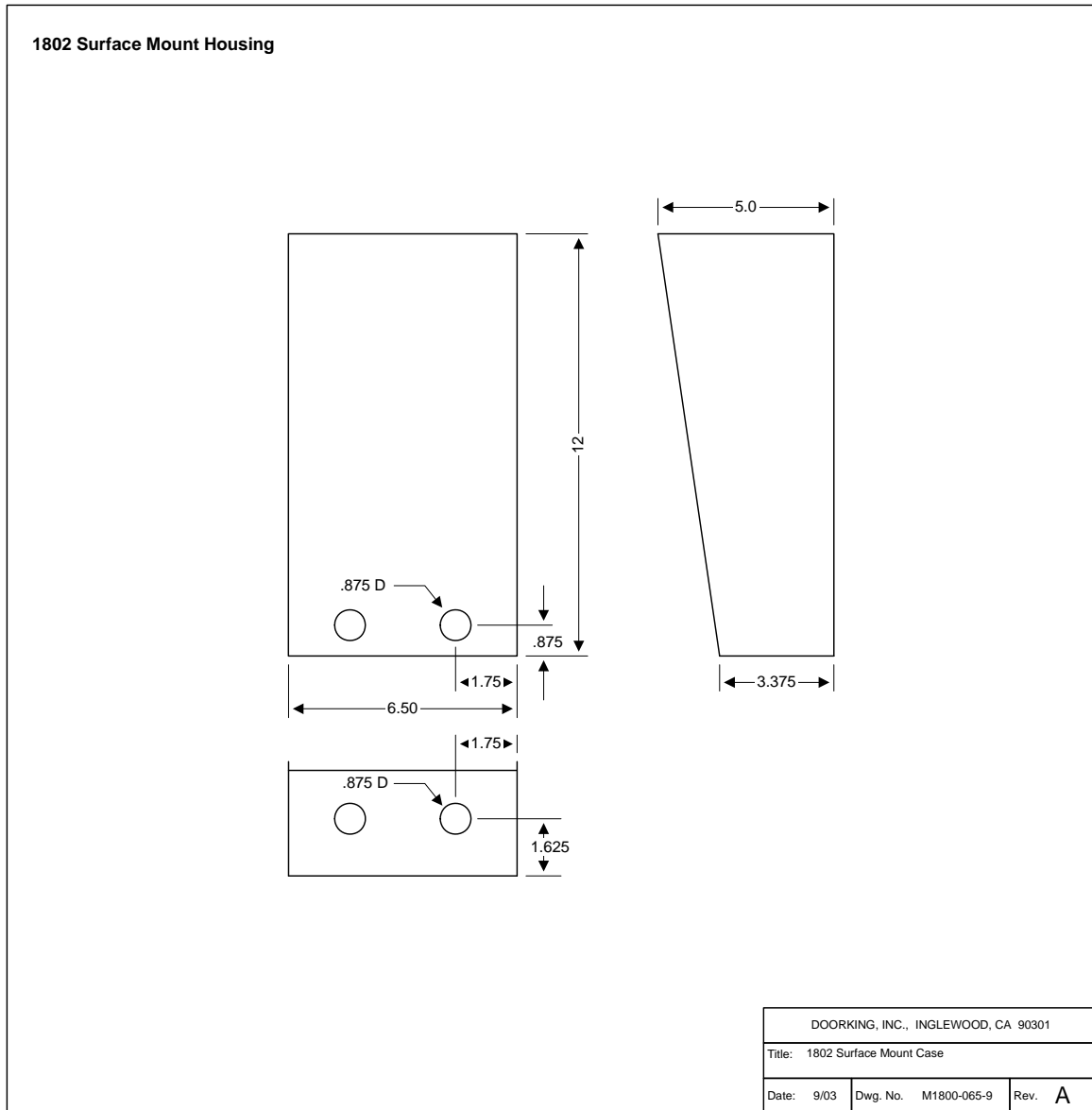
Surface mount units can be mounted directly to a wall or pilaster or post mounted using a DoorKing mounting post. Flush mount units can be mounted directly into a wall or pilaster. Be sure that the unit is securely mounted and is not subject to continuous vibration from closing doors or gates.



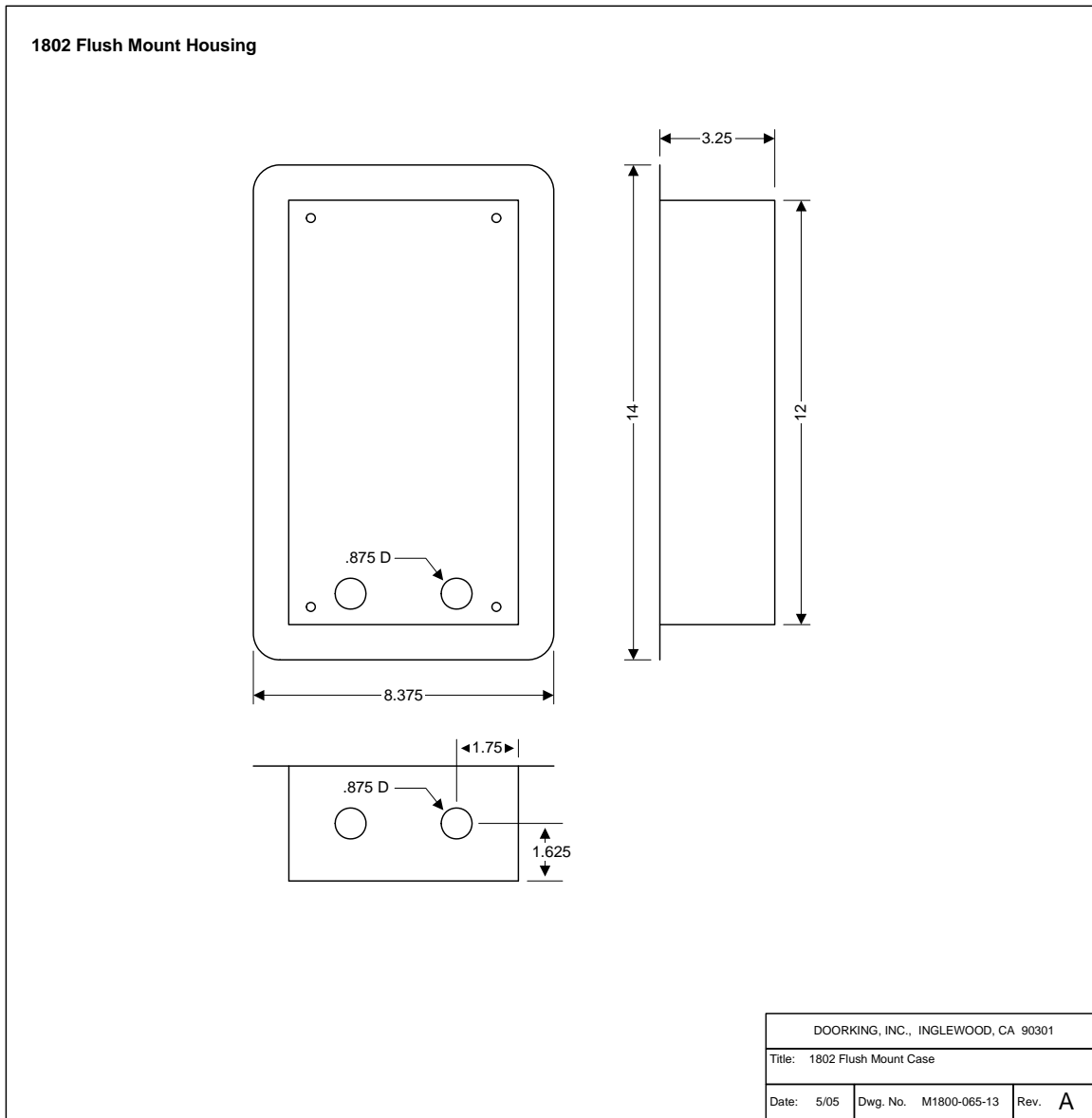
**If used to control a vehicular gate with an automatic gate operator, lobby panel must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and/or touch the gate or gate operator at the same time.**

1. Open the cabinet of the lobby panel and disconnect the keypad ribbon cable from the main circuit board.
2. Remove the 6-32 x 1/2 round head screws from the upper corners of the circuit board.
3. Remove the circuit board by gently pulling it out of the main terminal edge connector. **CAUTION** - the circuit board contains static sensitive components. Discharge any static electricity from your hands by touching a proper ground device before removing the circuit board. Place the circuit board where it will not be damaged.
4. Mount the lobby panel cabinet. Be sure that mounting screws do not protrude into the cabinet where they could cause a short on the back of the circuit board. Make any necessary conduit connections.
5. Route wiring into the cabinet. Do not apply any power at this time.
6. Clean out the cabinet. Be sure that all dirt, metal and/or wood debris is removed from the cabinet and that the terminal strip edge connector is clean and free of any loose particles.
7. Re-install the circuit board into the cabinet by gently pushing the circuit board terminals into the edge connector. **CAUTION** - the circuit board contains static sensitive components. Discharge any static electricity from your hands by touching a proper ground device before removing the circuit board.
8. Secure the circuit board to the cabinet using the screws removed in step 2.
9. Plug the keypad ribbon cable into the circuit board. The cable points down.

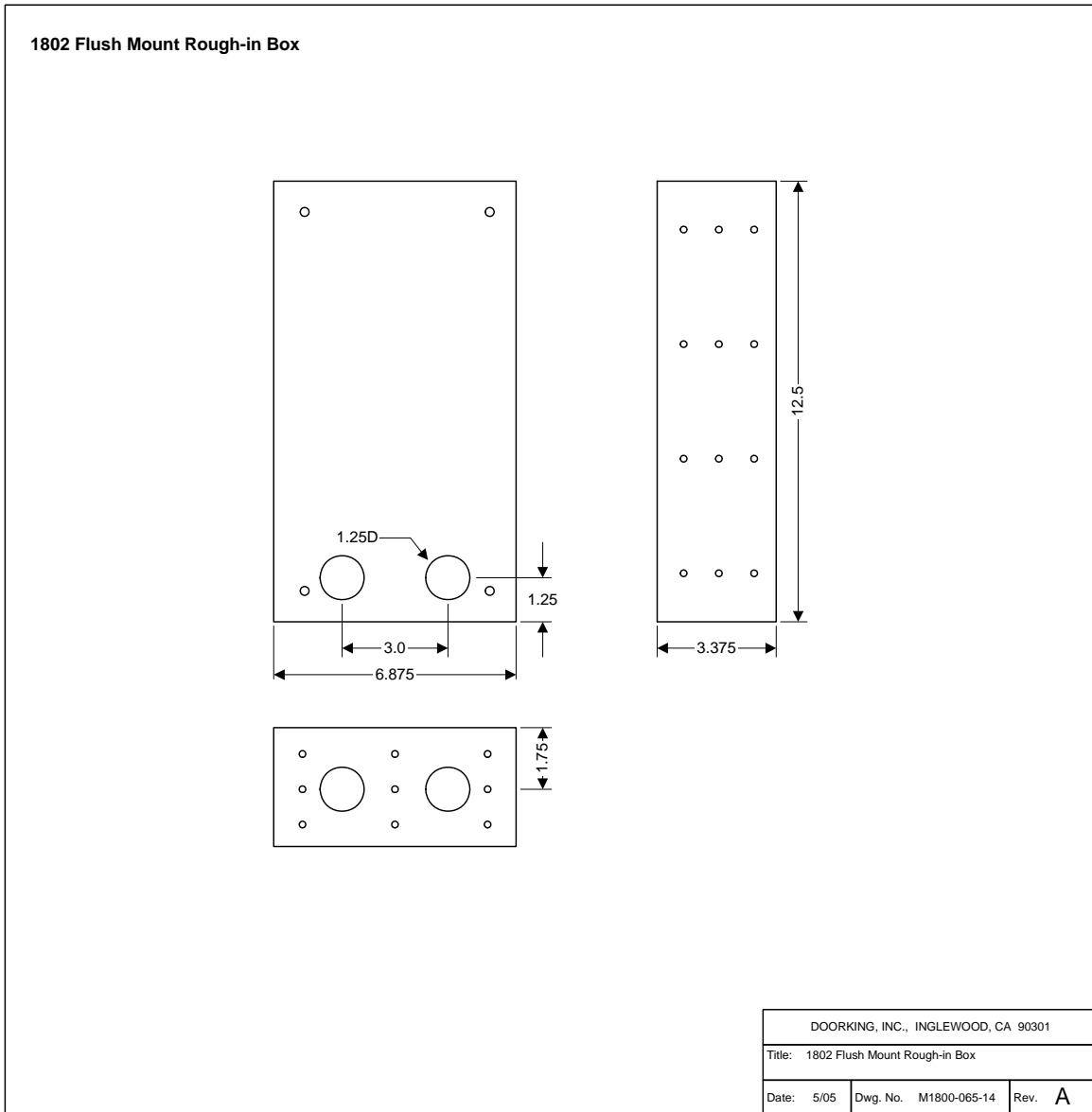
## 1.2 1802P Lobby Panel – Surface Mount



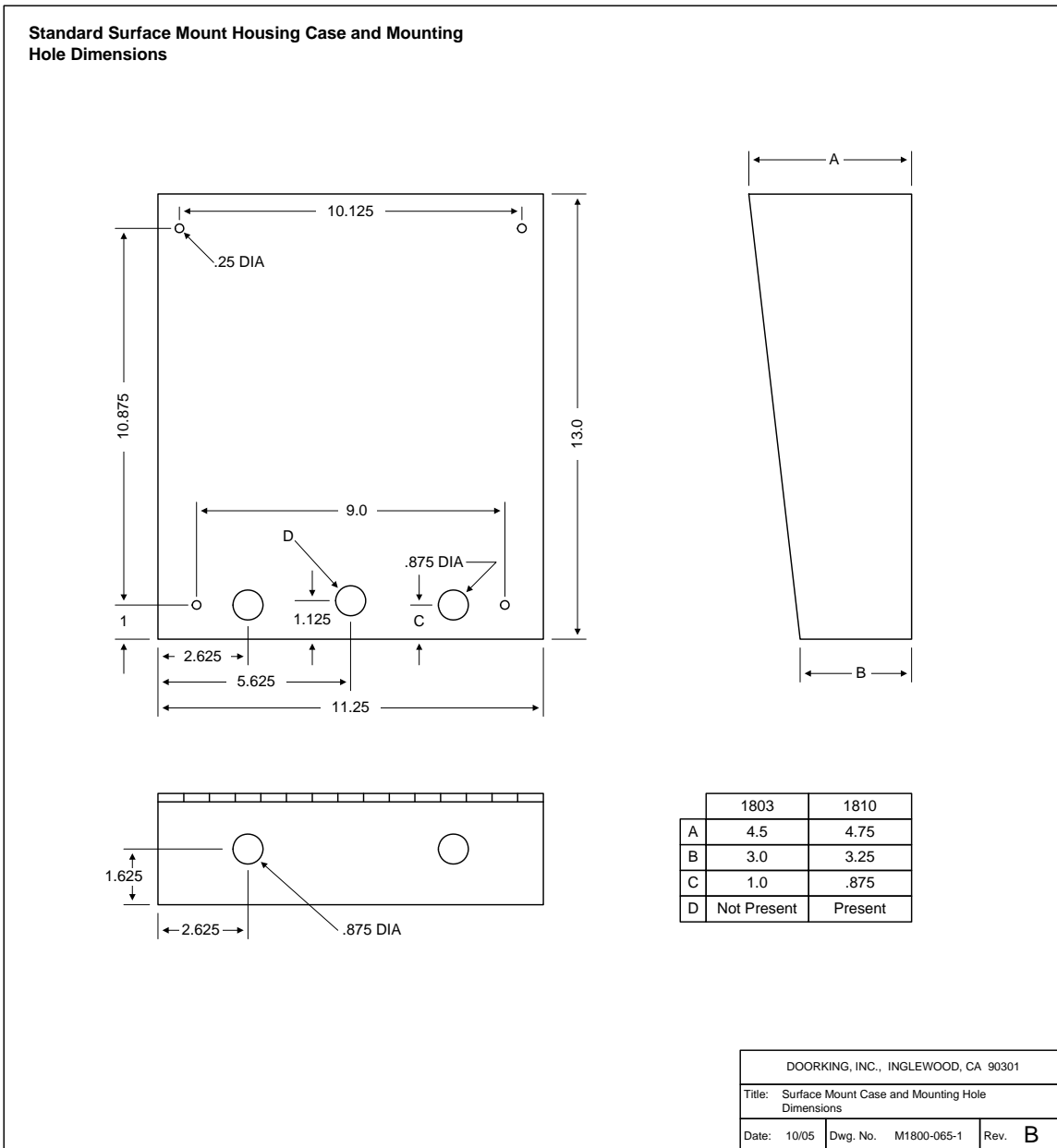
### 1.3 1802P Lobby Panel – Flush Mount



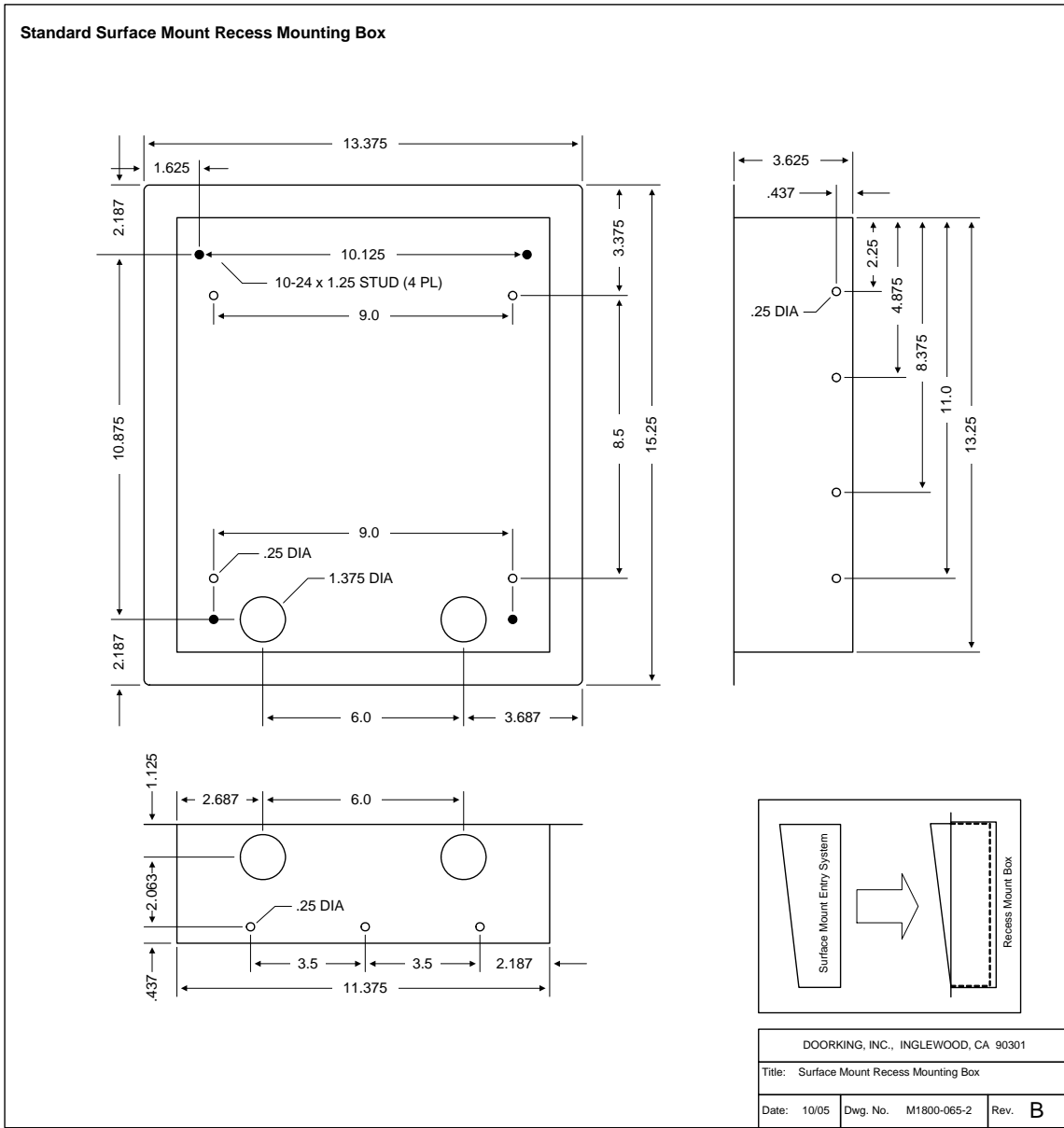
# Rough-in Box Dimensions 1802P Flush Mount



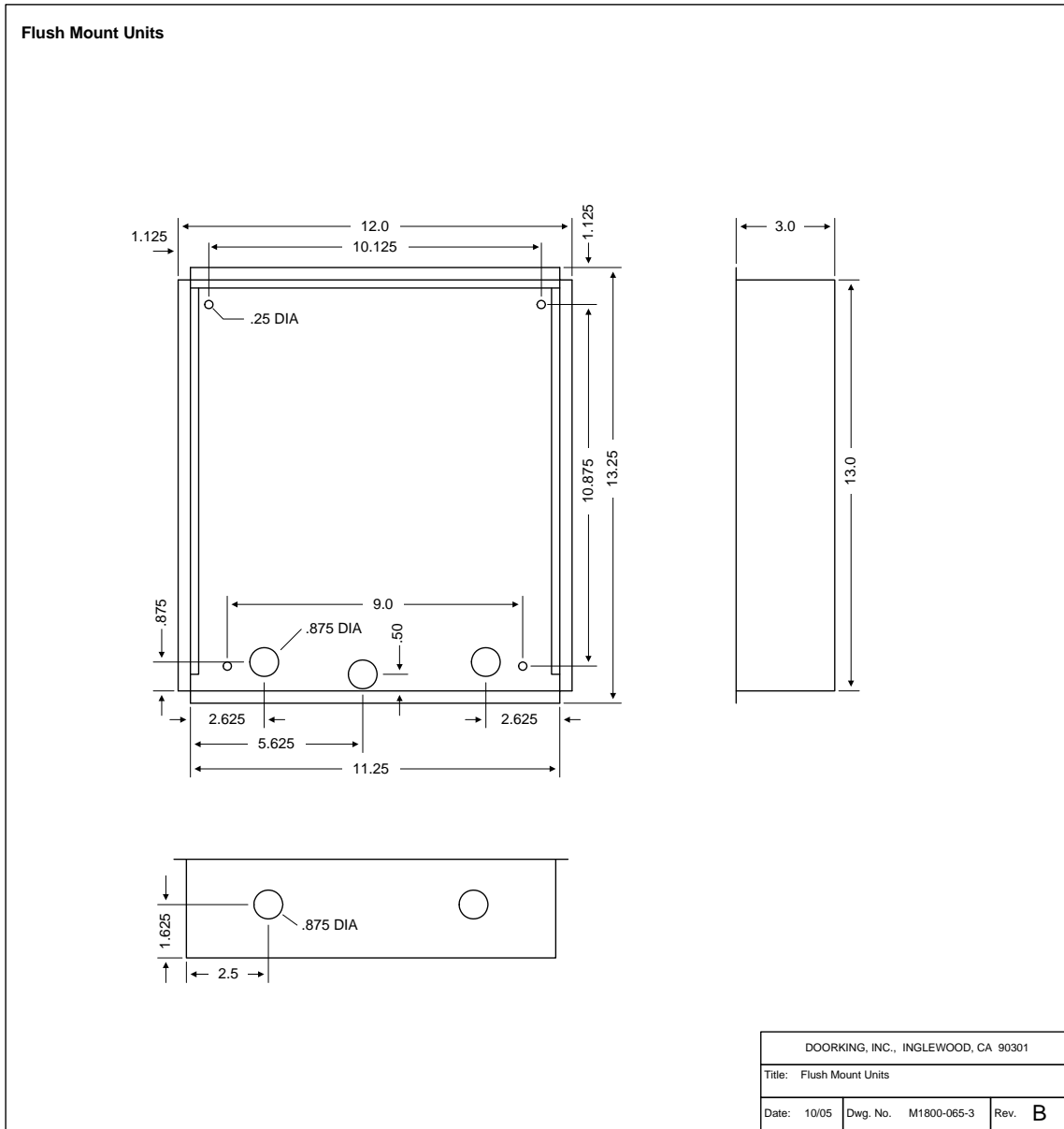
# 1.4 1803P & 1810P Lobby Panel – Surface Mount



# 1803P & 1810P Surface Mount with Recess Box



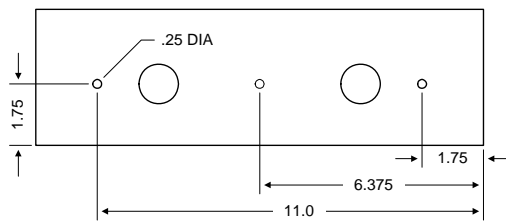
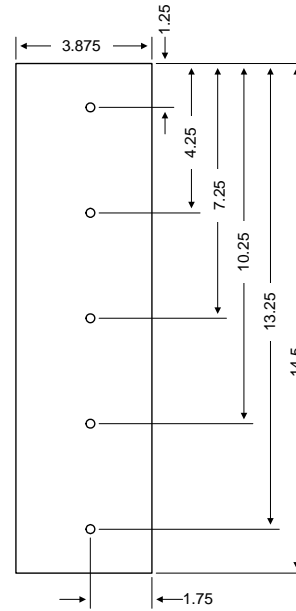
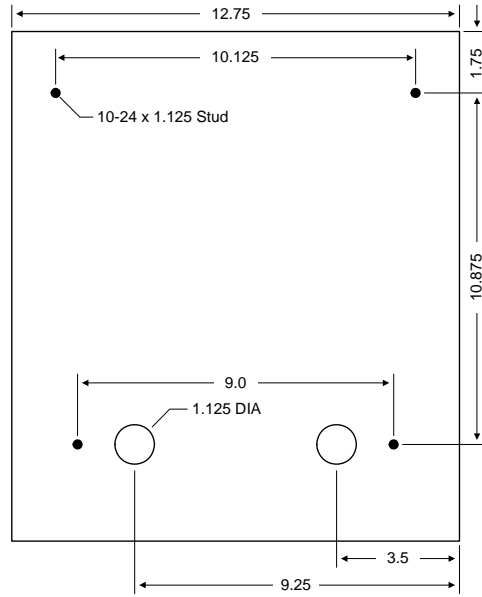
# 1.5 1803P & 1810P Lobby Panel – Flush Mount





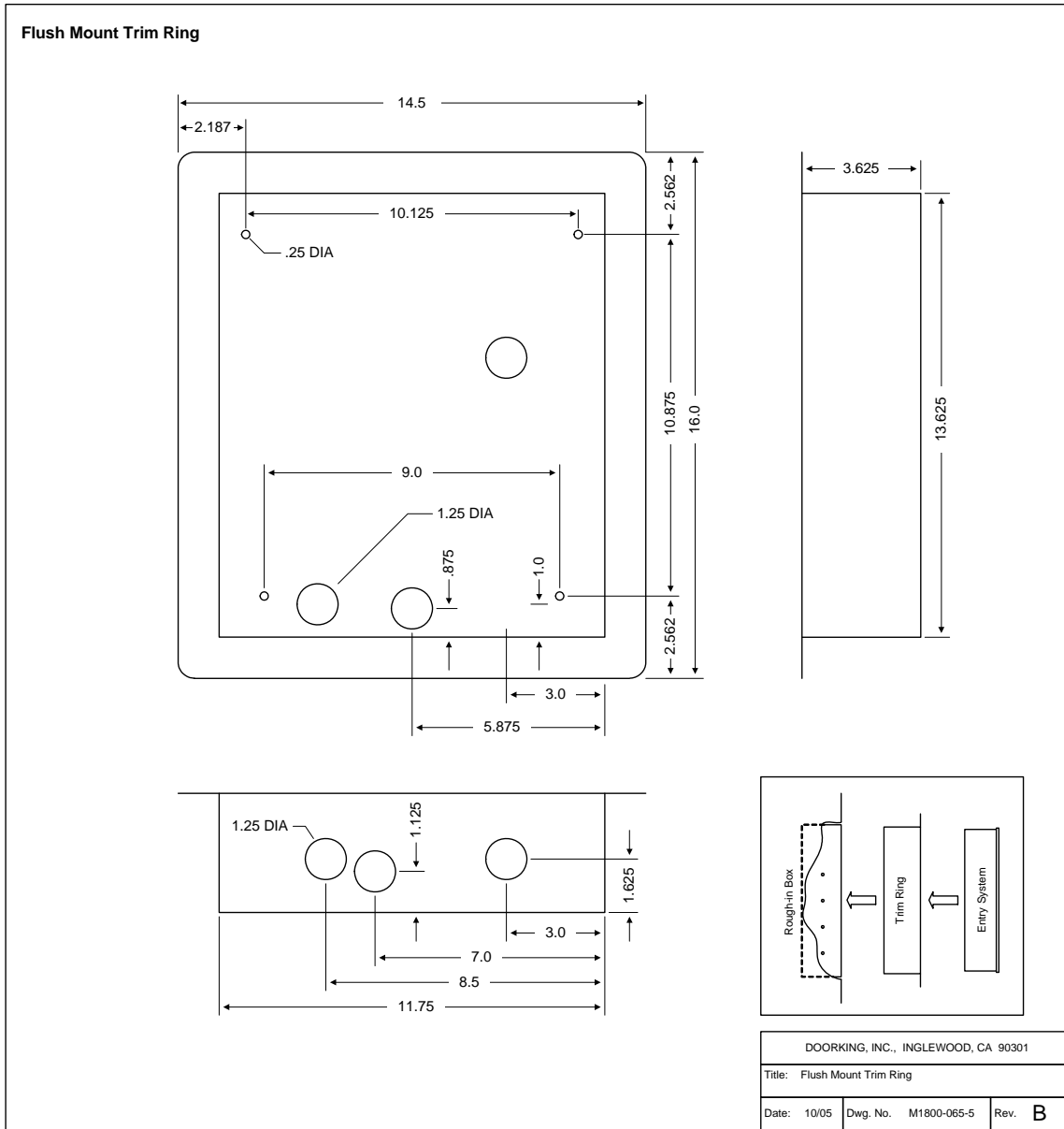
# 1803P & 1810P Flush Mount Rough-in Box

## Flush Mount Rough-in Box



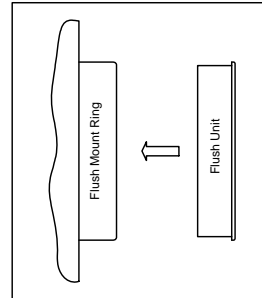
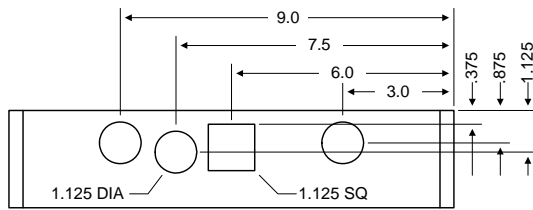
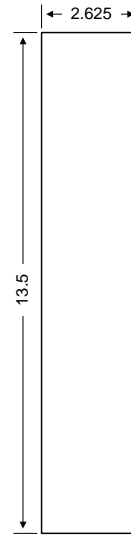
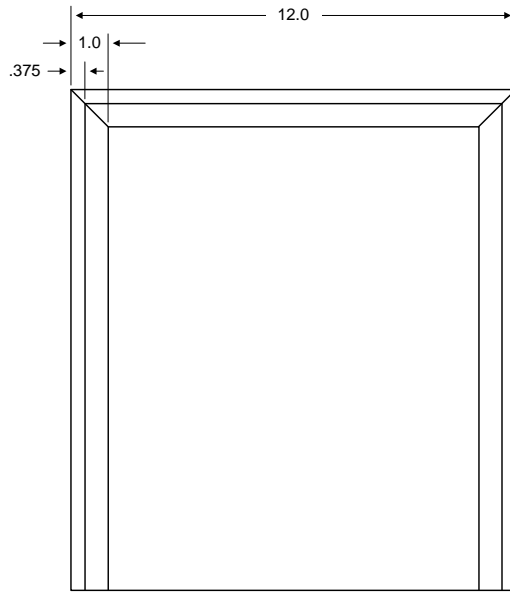
DOORKING, INC., INGLEWOOD, CA 90301			
Title: Flush Mount Rough-in Box			
Date: 10/05	Dwg. No. M1800-065-4	Rev. B	

# 1803P & 1810P Flush Mount Trim Ring



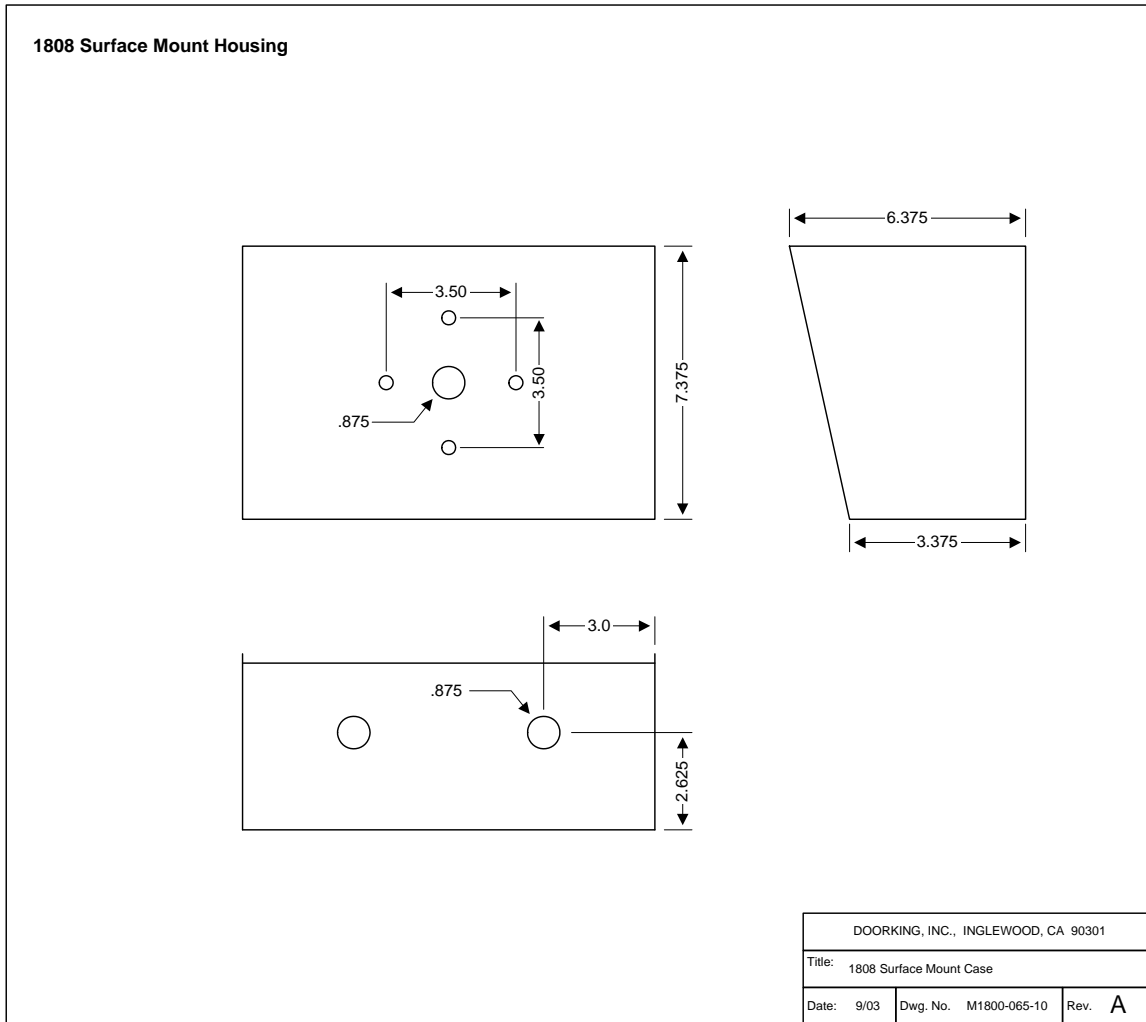
# 1803P & 1810P Wall Mount Adapter Ring

## Surface Mount Kit for Flush Style Units



DOORKING, INC., INGLEWOOD, CA 90301		
Title: Surface Mount Kit for Flush Style Units		
Date: 3/03	Dwg. No. M1800-065-6	Rev. A

# 1.6 1808P Lobby Panel Surface Mount



## 1.7 Postal Switch Installation

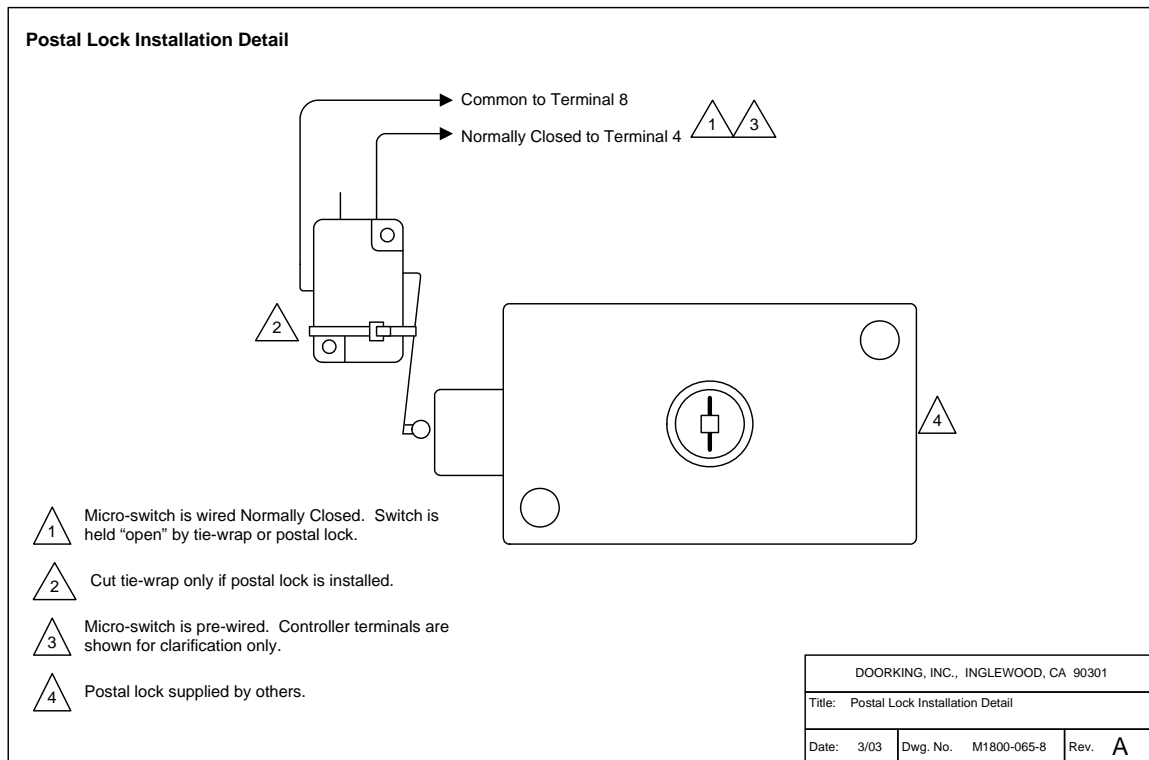
At some locations, such as gated communities, it will be necessary to provide access to the mail carrier so that they can deliver the mail. Mail carrier access will be provided by the installation of an Arrow Postal Lock. This is the same lock that the Post Office uses for gang mailboxes. These locks are not available to the public. The installer or the building owner/manager will have to call the Post Office and arrange for the installation of this lock into the telephone entry system. The 1802P, 1803P and 1810P units are all pre-wired to accept the installation of the postal lock.

The 1808P unit cannot accept the postal lock. If you are using the 1808P and need postal service access, use the DoorKing Postal Lock Box (P/N 1402-080).

Prior to installation of the postal lock, be sure power to the telephone entry system is turned off.

1. Remove the hole plug on the faceplate of the telephone entry system.
2. Cut the wire tie wrapped around the micro switch next to the postal lock access hole.
3. Remove the two hex nuts from the postal lock-mounting studs. Mount the postal lock on the two studs and secure with the hex nuts.

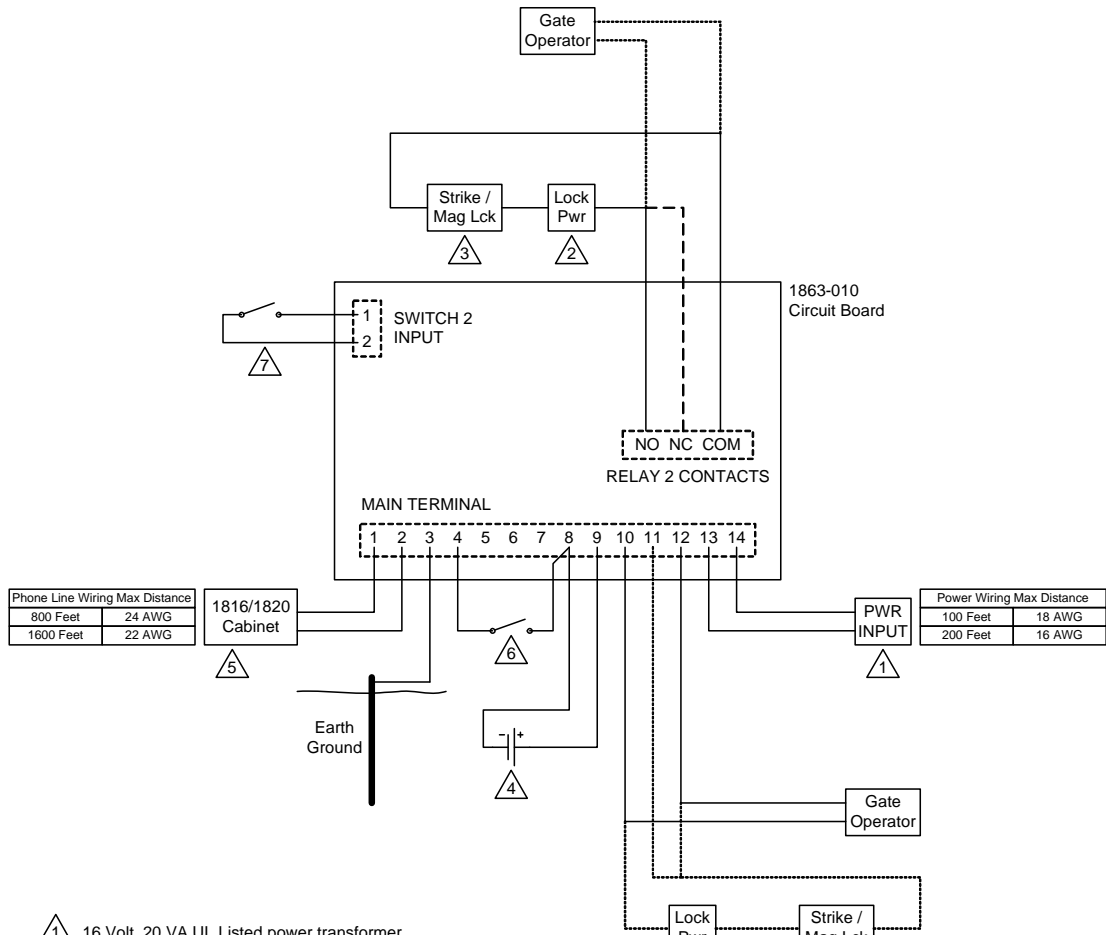
When the lock is installed, check to be sure that the pawl of the lock, in its extended position, is depressing the micro switch (the micro switch is wired normally closed). When the mail carrier inserts his key and turns the postal lock, the pawl is withdrawn and the micro switch will activate the relay that has been programmed for this function for the programmed strike time.



## 1.8 Main Terminal Description & Wiring

<b>MAIN TERMINAL</b>	<b>DESCRIPTION</b>
1	Connection to 1816/1820 Main Cabinet Terminal 14 – 800 ft. maximum with 24 AWG wire; 1600 ft. maximum with 22 AWG wire.
2	Connection to 1816/1820 Main Cabinet Terminal 15 – 800 ft. maximum with 24 AWG wire; 1600 ft. maximum with 22 AWG wire.
3	Earth Ground Only – Not a Low Voltage Common!
4	Switch Input 1. A closure between terminals 4 and 8 will cause relay 1 to activate for the programmed strike time. The Postal Switch is connected here.
5	Microphone Input – White Wire.
6	Microphone Input – Green Wire.
7	Speaker Output.
8	Common for switch input 1, speaker and battery NEGATIVE (12 VDC).
9	Microphone Input – Red Wire and battery POSITIVE (12 VDC).
10	Relay 1 Common.
11	Relay 1 Normally Closed (N.C.).
12	Relay 1 Normally Open (N.O.).
13	16 VAC Input Power – 20 VA minimum. 100 ft. maximum with 18 AWG wire; 200 ft. maximum with 16 AWG wire.
14	16 VAC Input Power – 20 VA minimum. 100 ft. maximum with 18 AWG wire; 200 ft. maximum with 16 AWG wire.
<b>RELAY 2 TERMINAL</b>	<b>DESCRIPTION</b>
Left	Relay 2 Normally Open (N.O.).
Center	Relay 2 Normally Closed (N.C.).
Right	Relay 2 Common.
<b>SWITCH 2 INPUT</b>	<b>DESCRIPTION</b>
1 & 2	Switch Input 2. A closure between these terminals will cause relay 2 to activate for the programmed strike time or dial a preprogrammed phone number (see 3.1.6).

Field Wire Diagram - 1863-010 Control Board



Phone Line Wiring Max Distance	
800 Feet	24 AWG
1600 Feet	22 AWG

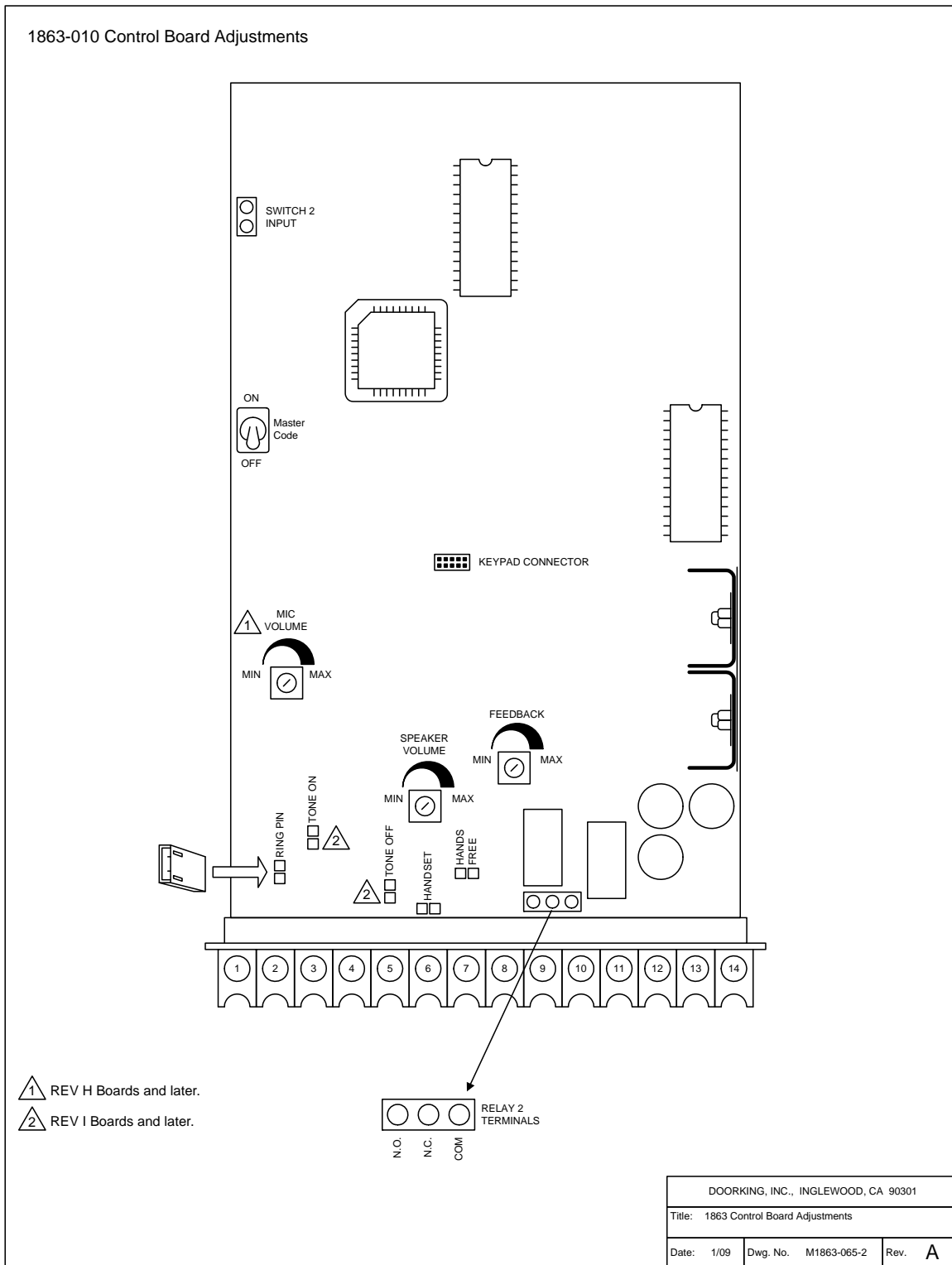
Power Wiring Max Distance	
100 Feet	18 AWG
200 Feet	16 AWG

- ⚠️ 1 16 Volt, 20 VA UL Listed power transformer.
- ⚠️ 2 Power for door strikes or magnetic lock is not provided by the system. It must be provided by an external power supply.
- ⚠️ 3 Electric strikes are wired to Normally Open (N.O.) contacts; magnetic locks are wired to the Normally Closed (N.C.) contacts.
- ⚠️ 4 Optional 12 Volt gel cell for backup power.
- ⚠️ 5 Connects to 1816/1820 Main Cabinet - Terminals 14 and 15.
- ⚠️ 6 A switch closure across terminals 4 & 8 will activate relay 1 for its programmed strike time or cause the system to dial a preprogrammed phone number.
- ⚠️ 7 A switch closure across these terminals will activate relay 2 for its programmed strike time or cause the system to dial a preprogrammed phone number.

All wiring to be performed in accordance with National Electric Code.

DOORKING, INC., INGLEWOOD, CA 90301		
Title: Field Wire Diagram - 1863 Control Board		
Date: 1/09	Dwg. No. M1863-065-1	Rev. A

# 1.9 Circuit Board Adjustments





### **1.9.1 Speaker Volume**

1. Open the front of the telephone entry system and locate the speaker volume adjustment.
2. Place a phone call from the telephone entry system to a resident. While they are talking, adjust the speaker volume potentiometer for adequate sound. To increase the volume rotate the potentiometer clockwise, to decrease the volume rotate the potentiometer counter clockwise. See Feedback adjustment (1.9.3).

### **1.9.2 Microphone Volume**

1. Open the front of the telephone entry system and locate the microphone volume adjustment (Rev H boards and higher only).
2. Place a phone call from the telephone entry system to a resident. Talk to the resident in a normal voice while adjusting the microphone volume potentiometer. Ask the resident to let you know when the sound in their telephone is adequate. To increase the volume rotate the potentiometer clockwise, to decrease the volume rotate the potentiometer counter clockwise. See Feedback adjustment (1.9.3).

### **1.9.3 Feedback**

1. Place a phone call from the telephone entry system to a resident. After they answer, ask the resident to remain silent.
2. Open the front of the telephone entry system. Remove the jumper from the TONE OFF terminals and place it on the TONE ON terminals. A tone will be heard in the speaker.
3. Rotate the feedback potentiometer clockwise, and then counter clockwise. When the tone from the speaker is minimum, this is the correct adjustment.
4. Move the jumper back to the TONE OFF terminals when complete.
5. High microphone and speaker volume levels may cause feedback. It may be necessary to reduce the speaker volume if the microphone volume is set too high. Likewise, it may be necessary to reduce the microphone volume if the speaker volume is set too high.

### **1.9.4 Master Code Switch**

The master code switch is left in the off position for normal operation. Turn the master code switch on when setting the system master code. See programming instructions to set the system master code.

If the master code switch is turned on and a new master code is not entered, the system will sound a long tone after approximately 30 seconds. This tone will continue every 30 seconds until a new master code is entered, or until the switch is turned off.

### **1.9.5 Ring Pin**

The ring pin-shortening bar is labeled RING on the control board. This shortening pin must be installed to allow the system to answer any calls placed to it. If remote programming or remote relay operation is to be used, the shortening bar must be installed. Removing the shortening bar will cause the system to never answer any call placed to it.

### **1.9.6 Handset / Hands Free**

The handset shortening pins are labeled HS, and the hands free shortening pins are labeled HF on the control board. The shortening bar is factory set and will be placed in the HF position for hands free operation, or will be placed in the HS position for those entry systems ordered with the optional handset. Do not place shortening bars on both the HS and HF pins at the same time.



## **SECTION 2 – PROGRAMMING**

### ***Before you Start***

The DoorKing P Series Lobby Panels can be programmed from the keypad on the front of the unit, from the Doorman telephone, or remotely from an off premise location.

**When programming from an off premise location, an optional dedicated central office (C.O.) phone line must be connected to the 1816 / 1820 main control cabinet and the RING pin must be installed on the lobby panel circuit board.**

The lobby panel has been programmed at the factory with many of the programming parameters already set for a typical application. There is no need to reprogram these parameters unless you want to change them. For easy reference, refer to the chart on the next page that list the various programming functions and their default settings.

### **IMPORTANT!**

**We strongly suggest that you read these programming instructions in their entirety before beginning any programming of the lobby panel.**

### **IMPORTANT!**

**The lobby panel Master Code MUST be set before any of the programming steps on the following pages can be performed.**

# **1**

## **Master Code (2.1.4)**

1. Open the cabinet of the lobby panel and move the master code toggle switch to the ON (Up) position.
2. Enter a four-digit master code on the lobby panel keypad then press \*. [ \_ \_ \_ \_ \* (**beep**)]
3. Turn the master code toggle switch to the OFF (Down) position and close the cabinet.

<b>Programming Function</b>	<b>Section</b>	<b>Description</b>	<b>Default Value</b>
00	2.4.3	Delete All Four-Digit Access Codes	N / A
01	2.3.3 2.3.4	Program System Relay Numbers Delete Individual System Relay Numbers	Blank
02	2.4.1	Four-Digit Access Code programming.	Blank
03	2.2.1	Relay strike time (both relay 1 and 2).	1 Sec
04	2.2.2	Single or Multiple Lobby Panels sharing communication line.	Single
05	2.2.3	Tone open numbers for Relay 1. Tone open numbers for Relay 2.	9 8 7 6 5 4 3 2
08	2.2.4	Talk time.	60 Sec
09	2.4.5	Five-Digit Access Code Programming	Blank
10	2.4.6	Delete Individual Five-Digit Access Codes.	N / A
11	2.4.7	Delete All Five-Digit Access Codes.	N / A
12	2.4.4	Program Four-Digit Access Code Divide Number.	9 9 9 9
13	2.4.7	Program Five-Digit Access Code Divide Number.	9 9 9 9 9
14	2.4.2	Delete Individual Four-Digit Access Codes.	N / A
15	2.2.7	Answer incoming call to 1812 is either ON or OFF.	ON
17	2.3.1	Lobby Panel Method of Operation.	0
18	2.2.6	Number of rings before the lobby panel will answer a call to it.	5
20	2.3.2	Directory Code Digit Length.	3
22	2.3.5	Delete All Relay Numbers.	N / A
23	2.2.5	Postal Switch Operation.	Relay 1
26	2.2.7	Keypad Function.	D T M F
27	2.2.8	* Key Function.	Tone Out

## 2.1 Programming Information

### 2.1.1 Programming from the Keypad

Follow the programming instructions as described in each section of this manual. The system will prompt you with short tones (beep) when programming steps have been followed correctly and with a long tone (beeeeeep) when the programming step is ended.

### 2.1.2 Programming from the Doorman Telephone

Follow these steps when programming the lobby panel from the Doorman's touch-tone telephone.

1. Take the Doorman telephone off hook.
2. Enter the four-digit access code (Note 1) to connect the Doorman telephone to the lobby panel. The lobby panel will answer with a tone. [ \_ \_ \_ \_ (beep)]
3. Follow the programming instructions as described in each section of this manual. The system will prompt you with short (beep) tones when programming steps have been followed correctly.
4. When complete, hang up.

**Note 1: Refer to the 1816/1820 manuals, section 3.2.3 for information on programming the Doorman / Lobby Panel access code into the 1816/1820 system..**

### 2.1.3 Programming from an Off-Site Location

Follow these steps when programming the lobby panel from an off-site touch-tone telephone.

1. Call the telephone number of the 1816/1820 system. The 1816/1820 will answer with a short tone.
2. Press # 2. The lobby panel will answer with a short tone. [#2 (beep)]
3. Follow the programming instructions as described in each section of this manual. The system will prompt you with short (beep) tones when programming steps have been followed correctly.
4. When complete, hang up.

### 2.1.4 Master Code

This programming step sets the lobby panel MASTER CODE. The master code is the four-digit number required to gain access to the lobby panel memory. **The master code can only be programmed from the lobby panel keypad.**

**Default setting is NONE. You MUST program a Master Code.**

1. Open the cabinet of the lobby panel and move the master code toggle switch to the ON (Up) position.
2. Enter a four-digit master code on the lobby panel keypad then press \*. [ \_ \_ \_ \_ \* (beep)]
3. Turn the master code toggle switch to the OFF (Down) position and close the cabinet.

## 2.2 General Programming

### 2.2.1 Relay Strike Time

**Default setting for Both Relays is 01 (1 Second).**

These steps will program Relay 1 and Relay 2 strike times. Strike times can be programmed from 1/4 second (enter 00 in step 3) up to 99 seconds.

1. Press \* 0 3 and enter the MASTER CODE. [**\* 0 3 \_ \_ \_ \_ (beep)**]
2. Press 1 \* to set relay 1, **OR** 2 \* to set relay 2 strike time. [**\_ \* (beep)**]
3. Enter the two-digit strike time (00-99) then press \*. [**\_ \_ \* (beep)**]
4. Repeat steps 2 and 3 to set other relay strike time.
5. Press 0# TOGETHER to end. [**0# (beeeeeep)**]

### 2.2.2 Single or Multiple Systems

**Default setting is 1 (Single System).**

Set for single if there is only one lobby panel connected to the 1816/1820 system, or set to multiple if more than one lobby panel is connected to the 1816/1820 system.

1. Press \* 0 4 and then enter the MASTER CODE. [**\* 0 4 \_ \_ \_ \_ (beep)**]
2. Press 1 \* for a single system **OR** press 0 \* for multiple systems. [**\_ \* (beep)**]
3. Press 0# TOGETHER to end. [**0# (beeeeeep)**]

### 2.2.3 Tone Open Numbers

**Default setting for Relay 1 is 9876. Default setting for Relay 2 is 5432.**

These steps will program the tone open number(s) for both relay 1 and relay 2 (each relay is programmed independently). You will need to enter a four-digit number (see chart below) to set each relay. If a function is not desired, enter # in place of a number. For example, if you want the relay to have a momentary activation function only, and you want the relay to activate when the number 9 is pressed, enter 9 # # # in step 3.

1. Press \* 0 5 and enter the MASTER CODE. [**\* 0 5 \_ \_ \_ \_ (beep)**]
2. Press 1 \* to set relay 1, **OR** press 2 \* to set relay 2. [**\_ \* (beep)**]
3. Enter the four-digit tone open number code then press \*. [**\_ \_ \_ \_ \* (beep)**]
4. Repeat steps 2 and 3 to set the other relay tone open number(s).
5. Press 0# TOGETHER to end. [**0# (beeeeeep)**]

4 Digit Tone Open Number Code	Function
1 <sup>st</sup> Digit	Momentary activation. The relay will activate for its programmed strike time.
2 <sup>nd</sup> Digit	Hold open. The relay will activate and remain activated until commanded to deactivate.
3 <sup>rd</sup> Digit	Deactivate relay.
4 <sup>th</sup> Digit	Hold open 1 hour. The relay will activate for 1 hour and then deactivate itself.

## 2.2.4 Talk Time

**Default setting is 060 (60 Seconds).**

This programming sequence sets the maximum time allowed for conversation when the 1812 places a call to the resident's house, or if call forwarding is active, or if any of the dial out numbers are used. Talk time can be set from 10 seconds up to 255 seconds (4 minutes, 15 seconds) and is entered as a three-digit number. For example, to set a talk time of 30 seconds, enter 030 in step 2.

Note – the talk time that is set in this step will not affect the talk time for the first two directory codes (0, 00, 000, 0000 and 1, 01, 001, 0001 – length depends on the programming in 2.3.2). The talk time for these directory codes is factory set to the maximum. Reserve these directory codes for management or other numbers that may require longer talk times.

1. Press \* 0 8 and enter the MASTER CODE. [ \* 0 8 \_ \_ \_ \_ (beep)]
2. Enter the talk time code (010-255) then press \*. [ \_ \_ \_ \* (beep)]
3. Press 0# TOGETHER to end. [0# (beeeeeep)]

## 2.2.5 Switch Input Operation

**Default setting for both switch inputs is 0 (switch input activates the relay).**

These steps set how the two switch inputs on the lobby panel circuit board will operate. Switch input 1 is labeled PSW (postal switch) and is found on terminal 4. Switch input 2 is a two terminal auxiliary input located on the upper left hand corner of the circuit board.

1. Press \* 2 3 and enter the MASTER CODE. [ \* 2 3 \_ \_ \_ \_ (beep)]
2. Press 1 \* to set switch 1 **OR** press 2 \* to set switch 2. [ \_ \* (beep)]
3. Press 0 \* to set the switch to activate its respective relay (switch 1 = relay 1; switch 2 = relay 2) **OR** press 1 \* to set the switch to dial out its respective directory code (switch 1 = directory code 0, 00, 000 or 0000; switch 2 = directory code 1, 01, 001 or 0001). [ \_ \* (beep)]
4. Repeat steps 2 and 3 to set the other switch.
5. Press 0# TOGETHER to end. [0# (beeeeeep)]

## 2.2.6 Number of Rings

**Default setting is 05 (5 Rings).**

This programming section sets the number of rings to allow before the lobby panel answers a call placed to it. This programming sequence does not set the number of times that a resident's phone will ring when a call is placed to it. The number of rings to answer can be set from 1 to 99 rings and must be entered as a two-digit number. For example, if you want the lobby panel to answer the call after the sixth ring, enter 0 6 in step 2.

1. Press \* 1 8 and enter the MASTER CODE. [ \* 1 8 \_ \_ \_ \_ (beep)]
2. Enter the number of rings (01 – 99) then press \*. [ \_ \_ \* (beep)]
3. Press 0# TOGETHER to end. [0# (beeeeeep)]

### **2.2.7 Keypad Function During Conversation**

These steps will set the function of the 0 through 9, and the # keys on the lobby panel keypad during conversation (Note that the star ( \* ) key is programmed separately in 2.2.8). The keys can be set to hang-up the lobby panel, or they can be set to output DTMF tones.

Note – each key must be programmed individually to output DTMF tones.

1. Press \* 2 6 and enter the MASTER CODE. [**\* 2 6 \_ \_ \_ \_ (beep)**]
2. Press the key that you want to program, then press \*. [**\_ \* (beep)**]
3. Press 0 \* for Hang-Up **OR** press 1 \* for DTMF tone. [**\_ \* (beep)**]
4. Repeat steps 2 and 3 to program other keys.
5. Press 0# TOGETHER to end. [**0# (beeeeeep)**]

### **2.2.8 Star ( \* ) Key Function During Conversation**

This step will set the function of the \* key on the lobby panel keypad during conversation. This key can be set to hang-up the lobby panel, or can be set to output a DTMF tone.

1. Press \* 2 7 and enter the MASTER CODE. [**\* 2 7 \_ \_ \_ \_ (beep)**]
2. Press 0 \* for Hang-Up **OR** press 1 \* for DTMF tone. [**\_ \* (beep)**]
3. Press 0# TOGETHER to end. [**0# (beeeeeep)**]



## 2.3 System Relay Number Programming

### 2.3.1 Operation

#### Default setting is 0 (keypad outputs DTMF tones)

The lobby panel can be programmed to communicate with the 1816/1820 main control cabinet by two different methods. The first method is to program the lobby panel so that the keypad sends DTMF tones directly to the 1816/1820 as they are entered on the keypad. Typically, this method of operation is used when the resident's "directory code" is a four-digit number that corresponds with the 1816/1820 system relay number. For example, if 0102 is entered on the lobby panel keypad, the system will connect the lobby panel to the resident's phone wired to system relay number 0102. This method of operation would be required for applications that require the lobby panel to communicate with 1000 or more residents. When using this method of operation, directory codes must be four-digits in length.

The second method of operation is to program the lobby panel to automatically dial the system relay number to establish communication with a particular resident. This method allows you to program the desired directory code length (1, 2,3, or 4 digits) and to randomly assign the directory codes. If this method of operation is used, the programmable directory code feature in the 1816/1820 programming instructions should be turned OFF. This method of operation limits the number of directory codes that can be stored in the lobby panel to 1000.

**Important! If the lobby panel will output DTMF tones as described in the first method above (this is the default setting), then skip sections 2.3.2 through 2.3.7 since these features are not used with this method of operation.**

1. Press \* 1 7 and enter the MASTER CODE. [ \* 1 7 \_ \_ \_ \_ (beep)]
2. Press 0 \* for the lobby panel to output DTMF tones as the directory code is entered on the keypad **OR** press 1 \* to set the lobby panel to dial a system relay number when the resident's directory code is entered on the keypad. [ \_ \* (beep)]
3. Press 0# TOGETHER to end. [0# (beeeeeep)]

### 2.3.2 Directory Code Digit Length

This programming sequence sets the directory code length to 1 - 2 - 3 or 4 digits. If you are going to program 11 or more system relay numbers, the directory code must be set to a minimum of two-digits. If you are going to program 101 or more system relay numbers, the directory code must be set to a minimum of three-digits.

**WARNING: This programming step will delete all system relay numbers and directory codes that have been previously programmed into the system.**

1. Press \* 2 0 and enter the MASTER CODE. [ \* 2 0 \_ \_ \_ \_ (beep)]
2. Enter the directory code digit length (1, 2, 3 or 4) then press \*. [ \_ \* (beep)]
3. This programming sequence will end itself automatically. [beeeeeep]

### **2.3.3 System Relay Number Programming**

In this programming sequence, the directory codes and system relay numbers will be programmed into the lobby panel. Directory codes may be any number, provided that they are the same length that was programmed in section 2.3.2. We suggest that you keep a listing of the directory codes that you use and the system relay numbers and names associated with them (see appendix). If you use directory codes 0, 00, 000, 0000 and/or 1,01, 001, 0001, remember that the talk time for these directory codes are factory set to the maximum and cannot be changed. Use these directory codes to program management or emergency numbers, which generally require longer conversation periods.

1. Press \* 0 1 and enter the MASTER CODE. [**\* 0 1 \_ \_ \_ \_ (beep)**]
2. Enter a directory code (1, 2, 3 or 4 digits) then press \*.  
[**\_ \* (beep)**] or [**\_ \_ \* (beep)**] or [**\_ \_ \_ \* (beep)**] or [**\_ \_ \_ \_ \* (beep)**]
3. Enter the four-digit 1816/1820 system relay number then press \*. [**\_ \_ \_ \_ \* (beep)**]
4. Repeat steps 2 and 3 to enter additional directory codes.
5. Press 0# TOGETHER to end. [**0# (beeeeeep)**]

### **2.3.4 Delete Individual Relay Numbers**

This programming sequence deletes a single relay number under a known directory code.

1. Press \* 0 1 and enter the MASTER CODE. [**\* 0 1 \_ \_ \_ \_ (beep)**]
2. Enter a directory code (1, 2, 3 or 4 digits) then press \*.  
[**\_ \* (beep)**] or [**\_ \_ \* (beep)**] or [**\_ \_ \_ \* (beep)**] or [**\_ \_ \_ \_ \* (beep)**]
3. Press # # # # then press \*. [**# # # # \* (beep)**]
4. Repeat steps 2 and 3 to delete additional relay numbers.
5. Press 0# TOGETHER to end. [**0# (beeeeeep)**]

### **2.3.5 Delete All Relay Numbers**

This programming step will delete all system relay numbers previously programmed into the lobby panel.

**WARNING: once started, this programming sequence is irreversible.**

1. Press \* 2 2 and enter the MASTER CODE. [**\* 2 2 \_ \_ \_ \_ (beep)**]
2. Press 9 9 9 9 \*. [**9 9 9 9 \* (beep)**]
3. This programming sequence will end itself automatically. [**beeeeeep**]

## 2.4 Access Code Programming

### 2.4.1 Four-Digit Access Code Programming

These steps program four-digit access codes into the lobby panel memory. The lobby panel will store a maximum of 1012 four-digit codes.

1. Press \* 0 2 and enter the MASTER CODE. [ \* 0 2 \_ \_ \_ \_ (beep)]
2. Enter a four-digit access code then press \*. [ \_ \_ \_ \_ \* (beep)]
3. Repeat step 2 to enter additional access codes.
4. Press 0# TOGETHER to end. [0# (beeeeeep)]

### 2.4.2 Delete Four-Digit Access Codes

This programming sequence allows you to delete individual four-digit access codes from the lobby panel memory.

1. Press \* 1 4 and enter the MASTER CODE. [ \* 1 4 \_ \_ \_ \_ (beep)]
2. Enter the four-digit access code to be deleted then press \*. [ \_ \_ \_ \_ \* (beep)]
3. Repeat step 2 to delete additional access codes.
4. Press 0# TOGETHER to end. [0# (beeeeeep)]

### 2.4.3 Delete All Four-Digit Access Codes

This programming sequence deletes all four-digit access codes stored in the lobby panel memory.

**WARNING: once started, this programming sequence is irreversible.**

1. Press \* 0 0 and enter the MASTER CODE. [ \* 0 0 \_ \_ \_ \_ (beep)]
2. Enter 9 9 9 9 then press \*. [ 9 9 9 9 \* (beep)]
3. This programming sequence will end itself automatically. [beeeeeep]

### 2.4.4 Four-Digit Access Code Divide Number

**Default setting is 9 9 9 9 (all four-digit access codes activate relay 1)**

The four-digit access codes can be made to activate either relay 1 or relay 2 by programming a divide number. Four-digit access codes equal to or less than the divide number will activate relay 1 and four-digit access codes greater than the divide number will activate relay 2.

HINT: you can make all four-digit access codes (except 0000) activate relay 2 by programming divide number 0000; or make all four-digit access codes activate relay 1 by programming divide number 9999.

1. Press \* 1 2 and enter the MASTER CODE. [ \* 1 2 \_ \_ \_ \_ (beep)]
2. Enter a four-digit divide number then press \*. [ \_ \_ \_ \_ \* (beep)]
3. Press 0# TOGETHER to end. [ 0# (beeeeeep)]

### **2.4.5 Five-Digit Access Code Programming**

These steps program five-digit access codes into the lobby panel memory. The lobby panel will store a maximum of 6 five-digit codes.

1. Press \* 0 9 and enter the MASTER CODE. [ \* 0 9 \_ \_ \_ \_ (beep)]
2. Enter a five-digit access code then press \*. [ \_ \_ \_ \_ \_ \* (beep)]
3. Repeat step 2 to enter up to five additional codes.
4. Press 0# TOGETHER to end. [0# (beeeeeep)]

### **2.4.6 Delete Five-Digit Access Codes**

This programming sequence deletes five-digit access codes that have been programmed into the system.

1. Press \* 1 0 and enter the MASTER CODE. [ \* 1 0 \_ \_ \_ \_ (beep)]
2. Enter the five-digit access code to be deleted then press \*. [ \_ \_ \_ \_ \_ \* (beep)]
3. Repeat step 2 to delete additional access code numbers.
4. Press 0# TOGETHER to end. [0# (beeeeeep)]

### **2.4.7 Delete All Five-Digit Access Codes**

This programming sequence deletes all five-digit access codes.

**WARNING: Once started, this sequence is irreversible.**

1. Press \* 1 1 and enter the MASTER CODE. [ \* 1 1 \_ \_ \_ \_ (beep)]
2. Press 9 9 9 9 then press \*. [ 9 9 9 9 \* (beep)]
3. The programming sequence will end itself automatically. [beeeeeep]

### **2.4.8 Five-Digit Access Code Divide Number**

**Default setting is 9 9 9 9 9 (all five-digit access codes activate relay 1)**

The five-digit access codes can be made to activate either relay 1 or relay 2 by programming a divide number. Five-digit access codes equal to or less than the divide number will activate relay 1 and five-digit access codes greater than the divide number will activate relay 2.

HINT: you can make all five-digit access codes (except 00000) activate relay 2 by programming divide number 00000; or make all five-digit access codes activate relay 1 by programming divide number 99999.

1. Press \* 1 3 and enter the MASTER CODE. [ \* 1 3 \_ \_ \_ \_ (beep)]
2. Enter a five-digit divide number then press \*. [ \_ \_ \_ \_ \_ \* (beep)]
3. Press 0# TOGETHER to end. [ 0# (beeeeeep)]

## SECTION 3 – MAINTENANCE

The DoorKing lobby panel is essentially a maintenance free device. When the unit is properly installed, it should provide years of trouble free service. Maintenance is limited to updating the directory (if applicable) and directory and/or entry codes when residents move in or out.

The faceplate of the unit should be cleaned on a regular basis to keep contaminants in the air from sticking to the surface and possibly causing pitting. When cleaning the faceplate of the system, never use an abrasive cleaner or cloth. Stainless steel cleaner works very well with a soft cloth for systems with a stainless steel faceplate. A clean damp soft cloth should be used to clean gold plated faceplates.

### **3.1 Troubleshooting**

If problems should develop with your lobby panel, refer to the trouble-shooting guide on the following pages to try and correct any problems. Our experience has shown that a majority of reported problems are actually programming related and can be corrected on site. If problems persist and they cannot be corrected, contact your authorized DoorKing dealer for assistance. Before performing any trouble-shooting, check the following:

1. Have a good VOM meter handy to check voltages and continuity.
2. Have a telephone test set (DoorKing p/n 1800-050 or equivalent) to check the communication line to the 1816/1820. Noise on the phone line will cause problems with the lobby panel.
3. Be sure that the case is properly grounded.
4. Be sure that the communication wires are twisted.
5. A hum on the system indicates that the communication line or 16 VAC power lines may be grounded. Check to be sure that the communication lines or power lines are not shorted to ground. Be sure that the cable used for communication is a twisted pair, good quality phone cable insulated for direct underground burial. Using phone wire that is designed for indoor use only can absorb moisture and cause a hum in your system.
6. Check the 16 VAC system power. Be sure that the transformer is properly rated (20 VA). Keep the wire run from the transformer to the entry system as short as possible. Use 16 or 18 AWG, 600 volt insulated wire only. **The importance of proper power wiring cannot be over stressed!**

SYMPTON	POSSIBLE SOLUTION(S)
Cannot get into programming mode.	<ul style="list-style-type: none"> <li>• Wrong master code entered. Start over.</li> <li>• Waiting too long between pushing buttons. Enter information quicker.</li> <li>• Keypad is not plugged into board correctly. Cable points down.</li> <li>• Memory chip installed upside down. The half circle indent in the chip should point to the top.</li> </ul>
System emits a long tone and cancels programming.	<ul style="list-style-type: none"> <li>• Waiting too long between pushing buttons.</li> <li>• Forgetting to press * first when programming.</li> </ul>
Keypad is dead.	<ul style="list-style-type: none"> <li>• No power. Check for 16 VAC input power, terminals 13 - 14.</li> <li>• Check that the keypad is properly connected to the circuit board. The cable on the plug points down when connected to the circuit board.</li> </ul>
Buzz or noise on the line.	<ul style="list-style-type: none"> <li>• Check for a short to ground behind the circuit board.</li> <li>• Check for pinched wires near the door hinge.</li> <li>• Check for 16-volt power shorted to a conduit.</li> <li>• Check for a communication line shorted to ground.</li> <li>• Check that the communication wires are twisted.</li> <li>• Check that all wires, speaker, keypad, etc., are isolated from ground.</li> <li>• Check that the cabinet is properly grounded. Be sure case ground (terminal 3) is not used as a low voltage common.</li> <li>• Check for excessive voltage drop on 16 VAC power.</li> <li>• Check communication line with telephone test set.</li> </ul>
Ringing or howling from speaker.	<ul style="list-style-type: none"> <li>• Feedback improperly adjusted.</li> <li>• Volume set too high.</li> </ul>
Door strike locks on.	<ul style="list-style-type: none"> <li>• Excessive voltage drop in 16 VAC power.</li> <li>• Using wrong transformer with too low VA rating.</li> <li>• Relay strike time programmed too long.</li> </ul>
Door strike holds open.	<ul style="list-style-type: none"> <li>• Lobby panel was given a hold command. Call the lobby panel to deactivate the relay.</li> <li>• Using the Normally Closed (N.C.) contact. Switch wire to the Normally Open (N.O.) contact.</li> </ul>
Lobby panel will not answer when called.	<ul style="list-style-type: none"> <li>• Ring pin is not installed.</li> <li>• Number of rings to answer is set too high. Reprogram.</li> <li>• Bad communication line or insufficient ring voltage.</li> </ul>
Touch-tone 9 will not activate relay.	<ul style="list-style-type: none"> <li>• Reprogram tone open number to 9.</li> <li>• If resident's phone emits a short tone rather than a continuous tone, press 9 twice in rapid succession.</li> <li>• Be sure resident's phone is set for tone dial and not pulse dial.</li> <li>• Try another phone that is know to work.</li> <li>• Lower speaker volume and adjust feedback.</li> </ul>
Relay activates but door strike does not energize.	<ul style="list-style-type: none"> <li>• Reprogram strike time for a longer period of time.</li> <li>• Check wiring to door strike.</li> <li>• Check door strike power supply.</li> <li>• Insure door strike is operable.</li> </ul>
Postal switch will not activate relay.	<ul style="list-style-type: none"> <li>• Reprogram switch 1 input to activate relay.</li> <li>• Be sure tie-connector is cut-off of postal micro-switch.</li> </ul>
Switch input 2 will not activate relay.	<ul style="list-style-type: none"> <li>• Reprogram switch input 2 to activate relay.</li> </ul>

SYMPTON	POSSIBLE SOLUTION(S)
Four-digit access codes will not work.	<ul style="list-style-type: none"> <li>• Forgetting to press # first.</li> <li>• Reprogram access code.</li> </ul>
Five-digit access codes will not work.	<ul style="list-style-type: none"> <li>• Forgetting to press # # first.</li> <li>• Reprogram access code.</li> </ul>
Access codes will not activate relay 2.	<ul style="list-style-type: none"> <li>• Programmed access codes are less than or equal to the programmed divide number. Reprogram divide number or program access codes higher than divide number.</li> </ul>
Access codes will not activate relay 1.	<ul style="list-style-type: none"> <li>• Programmed access codes are greater the programmed divide number. Reprogram divide number or program access codes lower than divide number.</li> </ul>
System emits a beep every 30 seconds.	<ul style="list-style-type: none"> <li>• Master code switch is turned on.</li> </ul>

## Lobby Panel Settings

Complete the information in the tables on the following pages to maintain a record of the information that has been programmed into the lobby panel.

MASTER CODE			

Tone Open Numbers	Relay 1	Relay 2
Momentary Activation		
Continuous Activation		
Release		
Hold 1 Hour		

FOUR-DIGIT ACCESS CODE DIVIDE NUMBER			

FIVE-DIGIT ACCESS CODE DIVIDE NUMBER				



Resident Name	Phone Number	Apt. Number	Directory Code	System Relay	Access Code

## **Resident Instructions**

Your building/community has been equipped with a DoorKing Telephone Intercom System that will provide communication for your guest from the lobby/gated entrance to your home. If you have any questions regarding the use or operation of this system, please contact your building manager or your association management company.

### **Guest Communication**

Your residence has been assigned a specific DIRECTORY CODE. When a guest comes to visit you, they will look your name up in a directory. Next to your name will be listed your directory code. When the guest enters this code on the lobby panel keypad, the system will automatically connect the lobby panel to your home telephone. The system will cause your telephone to sound two short rings (instead of one long ring) to identify the call as a lobby panel call.

### **Granting or Denying Access**

Once you have established communication and identified your guest by answering your telephone, you have the choice to either grant the guest access or deny the guest access.

To grant access, press \_\_\_\_ on your touch tone telephone. The telephone intercom system will respond with a confirmation tone that the door or gate has opened and will then disconnect itself.

Some newer telephones emit a very short duration tone when a number is pressed. **If** your telephone does this, you may have to press 9 twice in rapid succession to open the door or gate. To deny access, press the # key or simply hang-up.

**If** you have a rotary dial phone, dial 9 to grant access. To deny access, simply hang up.

### **Call Waiting**

If you are on the telephone when a guest tries to contact you from the lobby panel, you will hear a call waiting "click" in your telephone. Press (or dial) 3 to place your call on hold and to connect your telephone to the lobby panel, where you can speak to your guest. **If** you grant access to your guest (as described above), the system will automatically un-lock the lobby door and reconnect you to your outside call. To deny access, simply press 3 again and the system will reconnect you to your outside call without un-locking the lobby door.

### **Access Codes**

You may have been assigned a four-digit access code that will grant you access when you enter the code on the lobby panel keypad. To use the four-digit access code, you must first press the # key, then enter the four-digit code. If the access code is valid, the lobby panel will emit a tone and the door will unlock for a short period of time.

