



Owner's Manual

1819 Information Phone

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

Use this manual with the following models only.

1819 Information Telephone with circuit board 1862-010, Rev I or higher.

DoorKing, Inc. reserves the right to make changes in the products described in this manual without notice and without obligation of DoorKing, Inc. to notify any persons of any such revisions or changes. Additionally, DoorKing, Inc. makes no representations or warranties with respect to this manual. This manual is copyrighted, all rights reserved. No portion of this manual may be copied, reproduced, translated, or reduced to any electronic medium without prior written consent from DoorKing, Inc.

QUICK START

- 1** Mount the Telephone Entry System. **If the unit is being used to provide access through an automated vehicular gate, the unit must be mounted at least 10-feet away from the gate.**
See pages 11-13.

- 2** Connect 16 VAC power to terminals 13-14. Connect a dedicated touch-tone loop-start phone line to terminals 1-2. Connect ground wire to terminal 3.
See pages 15-18.

- 3** Connect device(s) to be activated (gate operator, door strikes, etc.) to relay terminals as required.
See pages 17-18.

- 4** Program a MASTER CODE (Section 3.1.1) - Factory Default is 9999
 1. Open the cabinet and turn the Master Code switch ON.
 2. Enter a four-digit Master Code on the keypad and then press *.
 3. Turn the Master Code switch OFF.

- 5** Program Phone Number (Section 3.2.1)
 1. Press *01 and enter Master Code.
 2. Enter 001 then press *.
 3. Enter a 7-digit Phone Number then press *.
 4. Press 0# TOGETHER when finished.

- 6** Adjustments (Section 2.4)
 1. Make a phone call.
 2. Adjust microphone volume**, speaker volume and feedback.
 3. Have tenant press 9 to open door or gate.
** Rev H boards and higher only.

TABLE OF CONTENTS

Preface

Important Notices.....	8
Important Information.....	9
Features	10

Section 1 – Installation

1.1	Installation Guidelines	11
1.2	Surface Mount	12
1.3	Memory Chip Installation	13

Section 2 – Wiring & Adjustments

	General Information	15
2.1	Circuit Board Adjustments	16
2.2	Wiring Diagram	17
2.3	Main Terminal Description	18
2.4	Adjustments	
2.4.1	Speaker Volume	19
2.4.2	Microphone Volume	19
2.4.3	Feedback.....	19
2.4.4	Click Sensitivity	19
2.4.5	Master Code Switch	20
2.4.6	Ring Pin.....	20

Section 3 – Programming

	General Information	21
3.1	General Programming	
3.1.1	Master Code	22
3.1.2	Single or Multiple Systems	22
3.1.3	Relay Strike Time	22
3.1.4	Tone Open Numbers	23
3.1.5	Touch-tone / Rotary-dial	23
3.1.6	Number of Rings to Answer	23
3.1.7	System Stay On Line after Touch Tone	24
3.1.8	Automatic Hang-up.....	24
3.1.9	Call Button programming.....	24
3.2	Phone Number Programming	
3.2.1	7-Digit Phone Numbers	25
3.2.2	Area Codes	25
3.2.3	Phone Numbers with Area Code Reference	25
3.2.4	Deleting Individual Phone Numbers	26
3.3	Time Functions Programming	
3.3.1	Time Clock Programming.....	27
3.3.2	Automatic Relay Activation Time Zones.....	27

Section 4 – Operating Instructions

4.1	General Instructions	
4.1.1	Calling Instructions	29
4.1.2	Responding to a Call	29
4.2	System Administrator	
4.2.1	Remote Programming	30
4.2.2	Remote Relay Activation	30
4.2.3	Relay Check	30
4.2.4	Auto Relay Activation Time Zone Enable / Disable	31
4.3	Miscellaneous Operating Instructions	
4.3.1	Line Sharing	32
4.3.2	Connection to a PBX	32
4.3.3	10-digit Dialing	32

Section 5 – Maintenance and Trouble Shooting

5.1	Replacement Parts	33
5.2	Trouble Shooting	33
5.3	Accessories	36
5.4	Log Tables	37

IMPORTANT NOTICE

FCC - UNITED 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 4528 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. 1802, 1803, 1808, 1810, 1819, 1833, 1834, 1835, 1838 and all "P" series systems require a 16.5-volt, 20 VA transformer. The models 1816, 1820 and 1837 require a 16.5-volt, 50 VA transformer. The model 1812 requires a 24-volt, 20 VA transformer.

IMPORTANT INFORMATION

- Prior to beginning the installation of the information telephone, we suggest that you become familiar with the instructions, illustrations, and wiring guidelines in this manual. This will help insure that your installation is performed in an efficient and professional manner.
- The proper installation of the information telephone is an extremely important. Check all local building ordinances and building codes prior to installing this system. Be sure your installation is in compliance with local codes.
- If used to control a door or pedestrian gate, try to locate the information telephone 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 mounting of the unit shall be in such a way that the CALL button is positioned so that it is readily visible to and usable by a person sitting in a wheelchair with an approximate eye level of 45 inches and shall comply with the following requirements:
 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 CALL button.
 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 CALL button.
 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 CALL button.
 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 CALL button.
- **When used to control a vehicular gate with an automatic gate operator, the information telephone 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 information phone and/or touch the gate or gate operator at the same time.**
- Be sure that the system is installed so that it is not directly in the traffic lane. Goose neck mounting post and kiosks work well for these type systems. When planning where to locate the system, 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. Be sure that ample lighting is provided so that the system is easily visible at night.
- This telephone entry system 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.**

SECTION 1 - INSTALLATION

Order your telephone line at least two weeks prior to the planned installation date. This will assure that a phone line is available when the unit is installed. The telephone company will require the following information from you:

Type:	Touch Tone, Loop Start
Ringer Equivalence:	0.0 A
Jack Type:	RJ11C
FCC Registration (US):	DUF6VT-12874-OT-T
DOC (Canada):	1736 4528 A

1.1 *Installation Guidelines*

1. Open the cabinet of the telephone entry system 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 cabinet of the telephone entry system. 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.



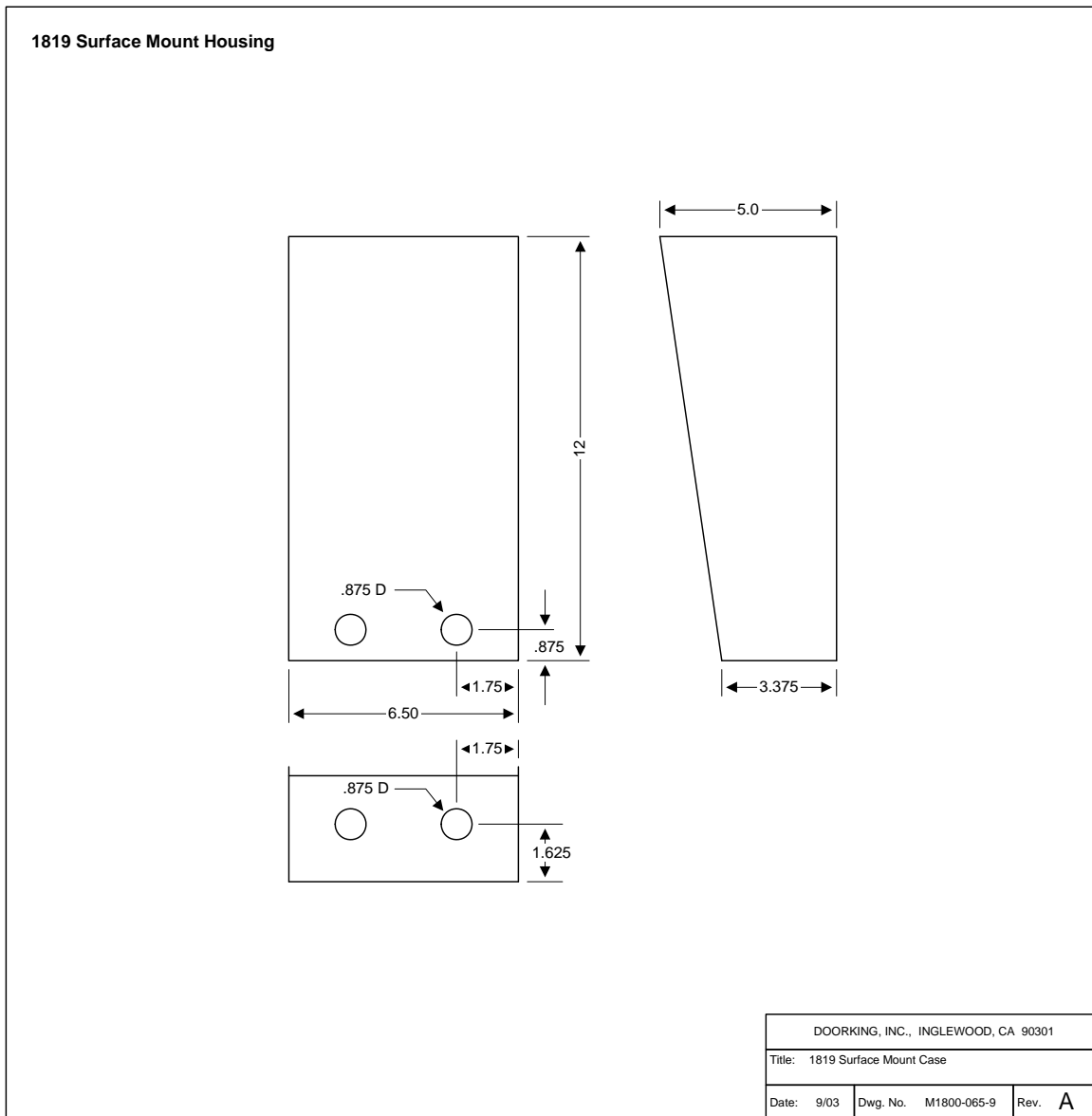
WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system must be mounted a minimum of ten (10) feet away from the gate and gate operator, or in such a way that a person cannot operate the entry system and touch the gate or gate operator at the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

1.2 Surface Mount Only

Surface mount units can be mounted directly to a wall or pilaster, or can be post mounted using a DoorKing mounting post (p/n 1200-045 and 1200-046). Be sure the unit is mounted securely and is not subject to vibration from closing doors or gates.



WARNING! If this entry system is used to control a vehicular gate with an automatic gate operator, the entry system 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 touch the gate or gate operator at the same time.



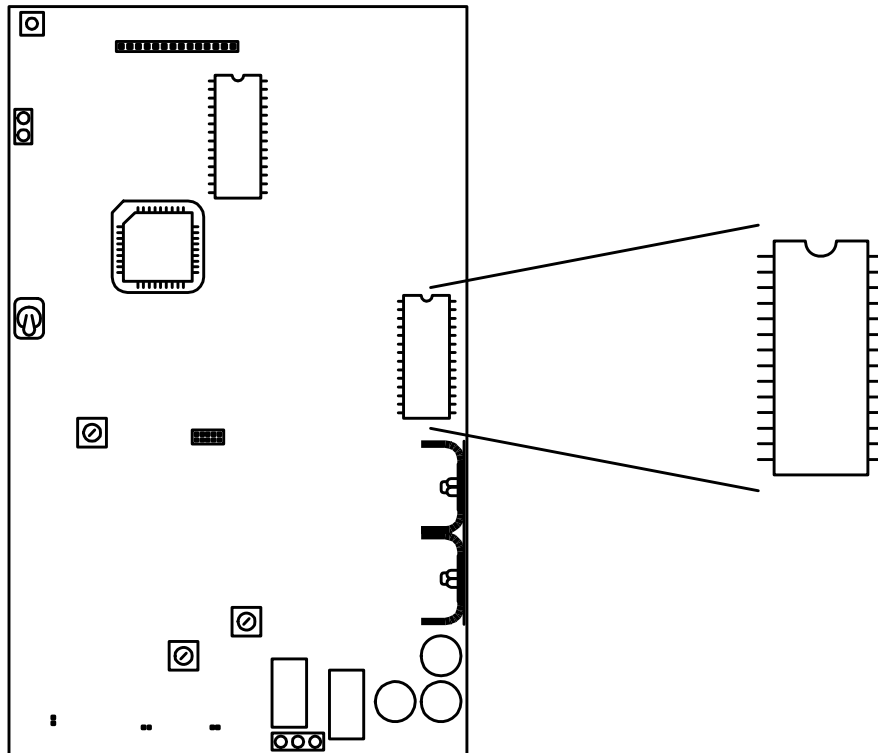
1.3 Memory Chip Installation

The telephone entry system is shipped with a memory chip packaged in a separate box inside the shipping container. The memory chip must be installed for the telephone entry system to operate.

CAUTION!! Do not install the memory chip with power to the telephone entry system turned on. Attempting to install the memory chip with power on will irrevocably damage the chip.

CAUTION!! The memory chip is a static sensitive component. Discharge any static electricity from your hands by touching a proper ground device before removing the control board. Handle the memory chip with care.

1. The large memory chip socket is colored blue and is located on the right hand side of the circuit board. Be sure that the handle is in the un-locked position (towards the left). Be sure that power to the telephone entry system is off.
2. Carefully insert the memory chip into the socket. The small half circular indentation on the chip must be at the top. **CAUTION:** Installing the memory chip upside down will cause permanent damage to the chip. Be sure that the memory chip is seated correctly in the socket.
3. Move the lever on the chip socket to the locked position (towards the right).



SECTION 2 – WIRING & ADJUSTMENTS

Prior to installing wiring to the telephone entry system, 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 wiring of the telephone entry panel is an extremely important. Use proper wire for the communication line, power wires, and be sure that the system is properly grounded. Check all local building ordinances and building codes prior to installing this system. Be sure your installation is in compliance with National Electric and local building codes.



WARNING! If this telephone entry system is used to control a vehicular gate with an automatic gate operator, the telephone entry system 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 touch the gate or gate operator at the same time. If this unit has not been installed in compliance with these instructions, do not proceed with any wiring until the unit has been moved and re-installed in accordance with these instructions.

Use only the supplied transformers (or U.L. listed equivalent) to power the telephone entry system (16.5 VAC, 20 VA, 60 Cycle). Do not connect the power transformer to a receptacle controlled by a switch.

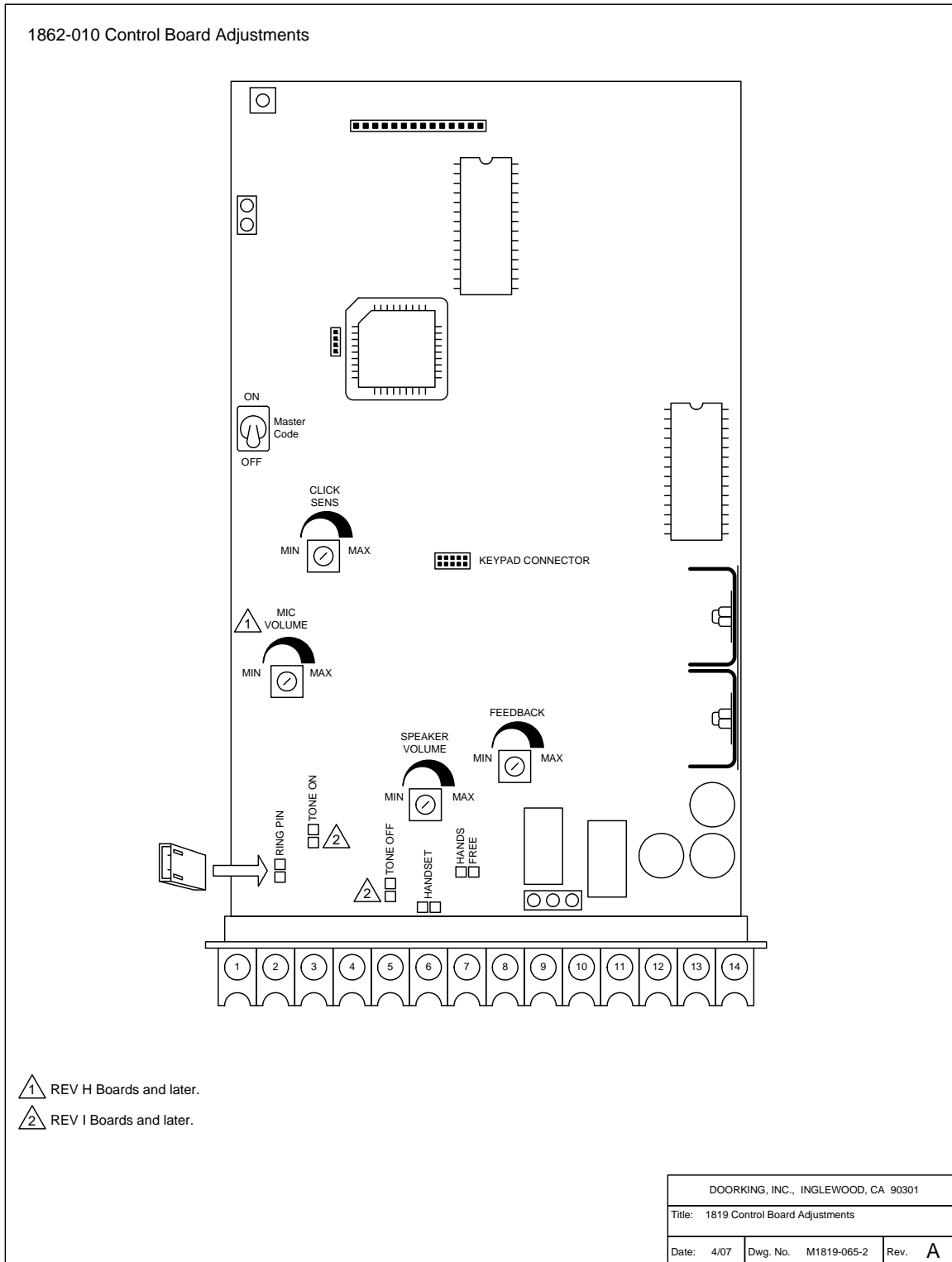
Do not power any other devices (electric strikes, magnetic locks, etc.) from this power transformer. For wire runs up to 100 feet, use 18 AWG, 600 volt insulated wire. For wire runs up to 200 feet, use 16 AWG, 600 volt insulated wire. Power wires are susceptible to noise and hum pickup; therefore it is preferable that you keep power wire runs as short as possible.

This telephone entry system 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.

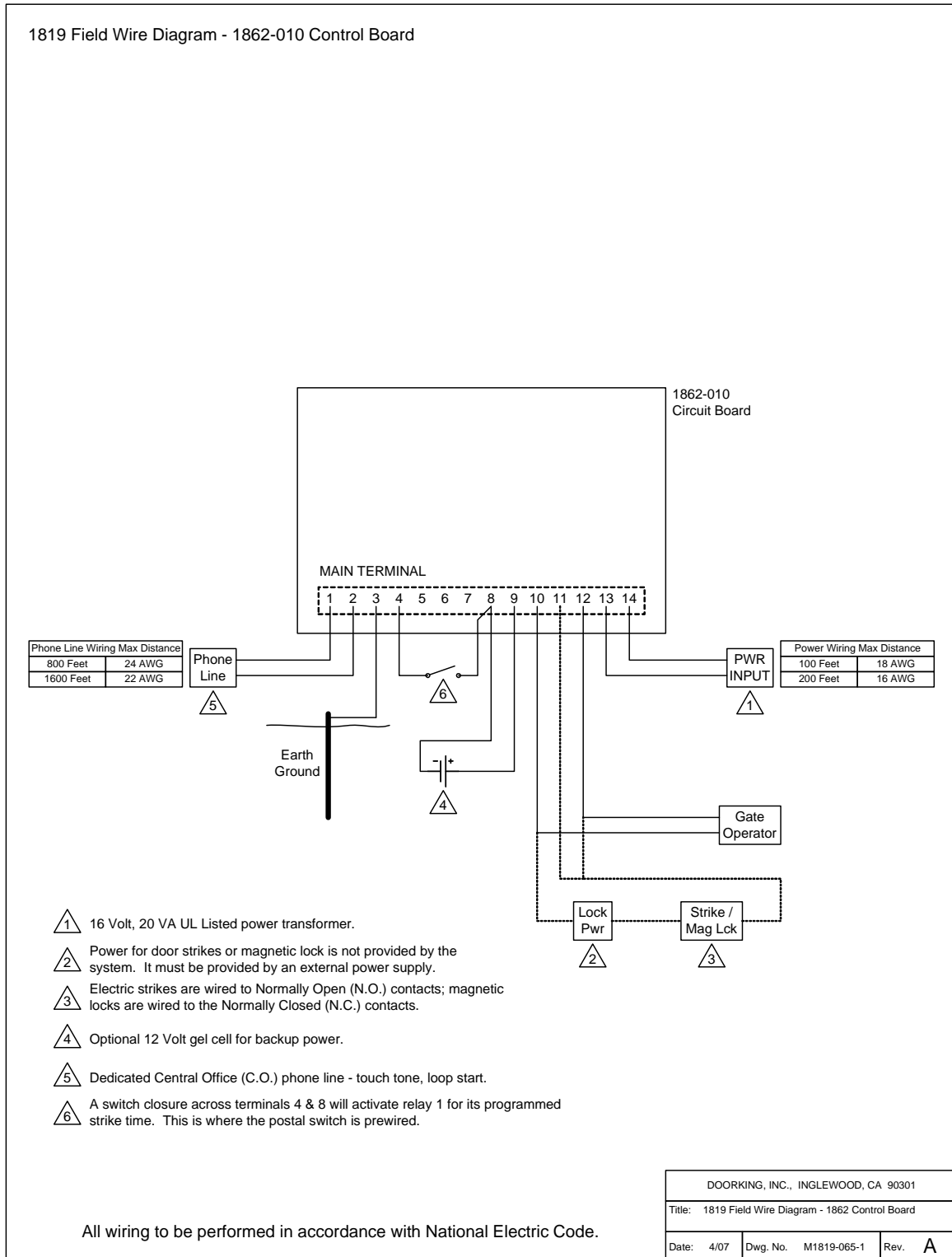
Proper grounding of this system is a requirement. The use of surge suppressers can significantly reduce the chance of component failure because of static charges or surges. To be effective, ground connections should be made with a minimum 12 AWG, 600 volt insulated wire to a ground point within 10 feet of the telephone entry system. 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 ten (10) feet into the soil.

Be sure that you use proper wire that has an insulation rated for an underground environment. All wires should be placed in conduits. Proper pre-planning can greatly ease the installation and wiring of this system. Always check with the local building code to determine the type of wire required in your municipality.

2.1 Circuit Board Adjustments



2.2 Wiring Diagram



2.3 Terminal Description

MAIN TERMINAL	DESCRIPTION
1	Phone Line Connection – 800 ft. maximum with 24 AWG wire; 1600 ft. maximum with 22 AWG wire.
2	Phone Line Connection – 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.

Do not run high voltage (115 V) power lines and communication lines in the same conduit. These should be in separate conduits at least six (6) inches apart. **Be sure that all phone line wiring is twisted and completely isolated from ground.**

Use only the supplied 16.5 VAC (or U.L. listed equivalent) to power the entry system. **Do not power any other devices (electric strikes, magnetic locks, lights, etc.) from this transformer.** Do not run 16 VAC entry system power lines over 200 feet. It is advisable to keep these wires as short as possible. **Use 18 AWG wire for wire runs up to 100 feet, and 16 AWG wire for wire runs up to 200 feet.** Install a low voltage surge suppresser (DoorKing p/n 1878-010 or equivalent) to help protect the entry system from power surges.

2.4 Adjustments

2.4.1 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. While the called person is 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 (2.4.3 step 5).

2.4.2 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. Talk to the called person in a normal voice while adjusting the microphone volume potentiometer. Ask the person 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 (2.4.3 step 5).

2.4.3 Feedback

1. Place a phone call from the telephone entry system. When the call is picked up, ask the person who answered 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.

2.4.4 Click Sensitivity (Optional - adjust only if a rotary dial phone is called)

1. Open the front of the telephone entry system and locate the click sensitivity adjustment.
2. Place a phone call from the telephone entry system to a person with a rotary dial type phone. After they answer, ask the person to dial 9 while you adjust the click sensitivity potentiometer (the person may have to dial 9 several times for you to obtain the correct adjustment). When the door or gate opens, this is the correct adjustment for the click sensitivity.
3. NOTE: Adjusting the click sensitivity too high (potentiometer fully clockwise) could cause the system to respond to loud noises while it is in use. If this happens, rotate the click sensitivity potentiometer counter clockwise 1/8 turn and re-test the system. You may have to perform this step several times to find the correct adjustment.

2.4.5 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. After the switch is turned off, the display will remain lit for approximately 30 seconds, and then will go off.

2.4.6 Ring Pin

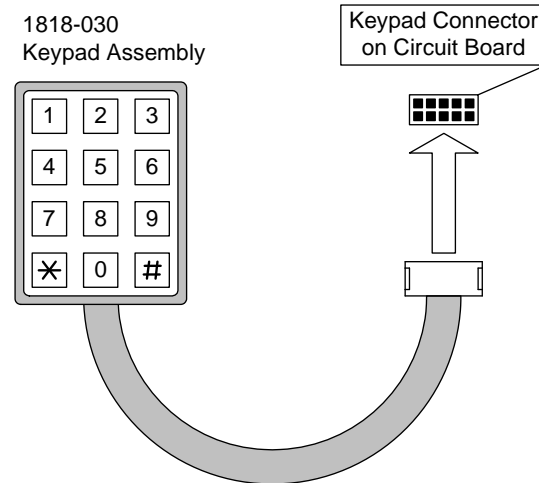
The ring pin-shortening bar is labeled RING on the control board. This shortening pin must be installed to allow the system to answer any calls placed to it. If remote programming or remote relay operation is to be used, the shortening bar must be installed. Removing the shortening bar will cause the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

SECTION 3 – PROGRAMMING

The DoorKing 1819 Information Phone is programmed using the 1818-030 keypad assembly or remotely from an off premise location using a touch tone telephone. When programming from an off site location with a touch-tone telephone, the RING pin must be installed on the circuit board (see 2.4.6). We recommend that you do not attempt programming from an off site location until you become familiar with these programming instructions.

Programming with the Keypad

1. Plug the 1818-030 keypad assembly into the keypad connector on the circuit board (pg 16). Be sure the ribbon cable on the keypad is pointed DOWN when plugged into the keypad connector.
2. 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 and with a long tone (beeeeeep) when the programming step is ended.
3. Once the programming is complete, unplug the keypad assembly and save it for future programming requirements.



Programming from an Offsite Location

Follow these steps when programming the system from an offsite location. You must use a touch-tone telephone and the RING pin must be installed to perform off site programming.

1. Call the telephone number that the entry system is installed on from a touch-tone telephone. The entry system will answer with a one second tone.
2. 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.
3. When complete, hang up. (You cannot use 0 # to end remote programming sessions).

Programming Notes

For a typical installation of the Information Phone, you will need to program only the 7-digit telephone number into the system. All other programming parameters are factory set. These instructions provide information if any of the factory default settings need to be changed.

When each programming step is performed correctly, a short tone (beep) will be heard. When the programming session is ended, a long tone (beeeeeep) will be heard.

The blank symbol _ in the programming steps indicates numbers that you will need to enter, one number per blank.

3.1 General Programming

3.1.1 Master Code

This programming step sets the system MASTER CODE. The master code is the four-digit number required to gain access to the system memory. You need to know the master code prior to performing any of the programming functions on the following pages.

NOTE: The master code cannot be programmed from an off-site location. The master code can only be programmed from the system keypad.

Factory setting = 9999

1. Open the cabinet of the telephone entry system and turn the master code switch (the small toggle switch) on.
2. Enter a four-digit master code _ _ _ _ then press * (beep).
3. Turn the master code switch off and close the cabinet.

3.1.2 Single or Multiple Systems

This program sequence sets the telephone entry system to operate as a single unit on the phone line, or to share the phone line with other units. If multiple systems are sharing the same phone line, then each one must be set as a "multiple system" and each must have a unique master code.

Factory setting = 0 (Single System).

1. Press *04 and then enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter 0* (beep) for a single system **or** 1* (beep) for multiple systems.
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.1.3 Relay Strike Time

These steps will program Relay 1 strike time. The strike time can be programmed from 1/4 second (enter 00 in step 3) up to 99 seconds by entering the desired time in seconds.

Factory setting for relay strike time is 01.

1. Press *03 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Press 1* to set relay 1 (beep).
3. Enter the two-digit strike time _ _ (00-99) then press * (beep).
4. Press 0# TOGETHER to end this programming step (beeeeeep).

3.1.4 Tone Open Numbers

These steps will program the tone open numbers for relay 1. You will need to enter a four-digit number (see chart below) to set the relay functions. 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. Do not duplicate tone open numbers.

Factory setting is 9876.

1. Press *05 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Press 1* to set tone numbers (beep).
3. Enter the four-digit tone open number code _ _ _ _ then press * (beep).
4. Press 0# TOGETHER to end this programming step (beeeeeep).

DIGIT	FUNCTION
1	Momentary activation. Relay will activate for the programmed strike time (3.1.3).
2	Relay hold. Relay will activate and remain activated until commanded to release.
3	Relay release. Deactivates the relay hold command.
4	Relay hold 1-hour. Relay will activate for 1-hour and then will automatically deactivate itself.

3.1.5 Touch-tone / Rotary-dial

This programming sequence will set the telephone entry system to dial out in either a touch-tone or rotary format. Generally, this will be set for touch-tone.

Factory setting = 0 (touch-tone).

1. Press *07 and enter the four digit MASTER CODE _ _ _ _ (beep).
2. Enter 0* (beep) for touch-tone **or** enter 1* (beep) for rotary.
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.1.6 Number of Rings to Answer

This programming sequence sets the number of rings to allow before the telephone entry system answers a call placed to it. This programming sequence does not affect the number of times that a resident's telephone will ring when a call is placed from the entry system to the resident.

Factory setting = 02 (two rings).

1. Press *18 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the number of rings __ then press * (beep).
3. Press 0# TOGETHER to end this programming step (beeeeeep).

3.1.7 System to Stay On-Line or Hang Up after Touch Tone

This programming sequence provides a method for the telephone entry system to remain on line after a resident has pressed the touch tone number to open the door or gate.

Factory setting = 1 (hang up after touch tone).

1. Press *28 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Press 1* (beep).
3. Press 0* (beep) to keep the system on line, **or** press 1* (beep) to make it hang up.
4. Press 0# TOGETHER to end this programming step (beeeeeep).

3.1.8 Automatic Hang-up Function

This programming sequence determines when the phone system will automatically hang itself up after a predetermined time of inactivity. You can program the system to not hang-up (**0**), to hang-up after 5 sec of dial-tone (**1**), to hang-up after 15 sec of silence (**2**) or to hang-up after either 5 sec of dial-tone or 15 sec of silence (**3**). **NOTE: This programming function is available on REV G boards or higher only.**

Factory setting = 1 (hang-up after 5 sec of dial-tone).

1. Press *40 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the hang-up code desired _ then press * (beep).
3. Press 0# TOGETHER to end this programming step (beeeeeep).

Code	Function
0	No hang-up.
1	Hang-up after 5 sec. of dial-tone (Factory setting).
2	Hang-up after 15 sec. of silence.
3	Hang-up after 5 sec. of dial-tone OR 15 sec. of silence.

3.1.9 Call Button to Dial Out

This programming sequence sets the CALL button to dial the phone number programmed in 3.2.1.

1. Press *23 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter 2* (beep).
3. Enter 1* (beep).
4. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2 Phone Number programming

3.2.1 Programming 7-digit Phone Numbers

In this programming sequence, the directory code and 7-digit phone number will be programmed into the system. To program phone numbers that will be referenced to an area code (long distance calls and 10 digit calling), follow the instructions under Long Distance Phone Number Programming.

NOTE: If this telephone entry system is being used in an area that requires 10-digit dialing, proceed to 3.2.2 and 3.2.3 to program the area code and phone number.

1. Press *01 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter 001 then press * (beep).
3. Enter the seven-digit phone number _ _ _ _ _ _ _ then press * (beep). If the number that you are entering in this step is less than seven-digits, enter # in the empty spaces. For example, if the system is connected to a PBX that requires four-digit extension numbers and you want to enter extension 2217, you would enter this number as 2217### then press * (beep).
4. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.2 Programming Area Code

Use this programming sequence for any 10-digit or long distance calling requirement. The area code will be entered as a four-digit number (1 + the three digit area code). If the area code is being programmed to facilitate 10-digit calling requirements, precede the three-digit area code with #.

1. Press *24 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter a 2-digit area code reference number _ _ (01 through 15) then press * (beep).
3. Enter the area code _ _ _ _ then press * (beep). NOTE-1: for long distance calling requirements, enter 1 and the three-digit area code. NOTE-2: for 10-digit calling requirements, enter # and the three-digit area code.
4. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.3 Programming Phone Number with Area Code Reference

In this section, phone numbers that are referenced to an area code (long distance and 10-digit dialing calls) will be programmed. Be sure that the area code(s) have been programmed as described in the preceding section.

NOTE: If long distance or 10-digit dialing is not required, program the seven digit telephone numbers as described in 3.2.1.

1. Press *41 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter 001 then press * (beep).
3. Enter the 2 digit area code reference number _ _ then press * (beep).
4. Enter the seven-digit phone number _ _ _ _ _ _ _ then press * (beep). If the number that you are entering in this step is less than seven-digits, enter # in the empty spaces. For example, if the system is connected to a PBX that requires four-digit extension numbers and you want to enter extension 2217, you would enter this number as 2217### then press * (beep).
5. Press 0# TOGETHER to end this programming step (beeeeeep).

3.2.4 Deleting Individual Phone Numbers

This programming sequence is used to delete a single phone number.

1. Press *01 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter 001 then press * (beep).
3. Press # # # # # # then press * (beep).
4. Press 0# TOGETHER to end this programming step (beeeeeep).

3.3 Time Functions Programming

3.3.1 Time Clock Programming

This programming sequence programs the calendar chip in the telephone entry system for the current time and date. The calendar chip must be programmed if you are going to use any of the time functions available with the entry system.

1. Press *33 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter the current hour and minutes _ _ _ _ then press * (beep). Do not use military (24 hour) time format, simply enter the hour (2 digits) and the minutes (2 digits). For example, 8:30 is entered as 0830 whether it is AM or PM.
3. Press 0* (beep) for AM, **or** press 1* (beep) for PM.
4. Enter the month _ _ then press * (beep).
5. Enter the day of the month _ _ then press * (beep).
6. Enter the year _ _ then press * (beep).
7. Enter the day of the week _ (Sun = 1, Sat = 7) then press * (beeeeeep).

3.3.2 Automatic Relay Activation Time Zones

This program sequence sets up time zones to automatically activate and deactivate the relays on the control board. Each relay can be programmed with two independent time zones. Time zones 1 and 2 affect relay 1 operation; time zones 3 and 4 affect relay 2 operation. Use the chart in the appendix to record the time zones that are programmed. These time zones can be independently turned on or turned off after they have been programmed (see operating instructions 4.2.4).

1. Press *35 and enter the four-digit MASTER CODE _ _ _ _ (beep).
2. Enter a time zone number (1 or 2) then press * (beep).
3. Press 1* (beep) to turn the time zone ON, **or** press 0* (beep) to turn the time zone OFF.
4. Enter the beginning hour and minutes _ _ _ _ then press * (beep).
5. Press 0* (beep) for AM, **or** press 1* (beep) for PM.
6. Enter the ending hour and minutes _ _ _ _ then press * (beep).
7. Press 0* (beep) for AM, **or** press 1* (beep) for PM.
8. Enter the days of the week _ _ _ _ _ _ then press * (beep). To skip any days of the week, enter # in place of the day. For example, to have a time zone active on Saturday and Sunday only (Sun = 1, Sat = 7), enter 1 7 # # # # #.
9. Repeat steps 2 through 8 to enter time zone 2.
10. Press 0# TOGETHER to end this programming step (beeeeeep).

SECTION 4 – OPERATING INSTRUCTIONS

Never allow children to operate or play with any access control device.

4.1 General Instructions

4.1.1 Calling Instructions

When the CALL button is pressed, the system will call the preprogrammed telephone number. If the line is busy, the system will emit a busy signal. Pressing the CALL button will hang the system up.

4.1.2 Responding to a Call

When communication is established, the call recipient has the option of opening the door or gate by pressing the programmed tone open number(s) on their touch tone telephone, or they can deny access to their guest by pressing # on their telephone. If access is granted, the call recipient will hear a confirmation tone in their handset indicating that the door or gate has opened, then the system will automatically hang up.

Always press the # key on the telephone if you wish to deny a person access. If you hang up to deny access instead of pressing #, the telephone entry system will remain on line until its programmed talk time expires or until it detects dial tone.

Some newer type telephones emit a short tone rather than a continuous tone when their keys are pressed. This may cause the telephone entry system to not respond to the tone open number. If this happens, simply press the tone open number twice in rapid succession to open the door or gate.

4.2 System Administrator

The administrator can perform the following operations from a remote location using a touch-tone telephone. You must know the phone number of the system and the system master code.

4.2.1 Remote Programming

1. Call the telephone number that the entry system is installed on. The system will answer with a short tone (beep). Note: the number of rings before the system answers is dependent on the programming in 3.1.6.
2. After the system answers, follow the desired programming steps in Section 3.
3. When complete, hang up. You cannot use 0# together to end the programming step from a touch-tone telephone.

4.2.2 Remote Relay Activation

1. Call the telephone number that the entry system is installed on. The system will answer with a short tone (beep). Note: the number of rings before the system answers is dependent on the programming in 3.1.6.
2. Press *16 and enter the four-digit MASTER CODE _ _ _ _ (beep).
3. Press the desired tone open number _ (beep). NOTE: Refer to 3.1.4 to determine which tone open features have been programmed, i.e. momentary open, hold open, release, hold open one hour and then release.
4. Hang up.

4.2.3 Relay Check

The telephone entry system can be called and a check can be made to determine if the relay in the system is in a "hold open" mode. This check can be useful if your gate (or door) is held open and you suspect that the telephone entry system relay may be the cause.

1. Call the telephone number that the entry system is installed on. The system will answer with a short tone (beep). Note: the number of rings before the system answers is dependent on the programming in 3.1.6.
2. Press *16 and enter the four-digit MASTER CODE _ _ _ _ (beep).
3. The system will emit a series of short tones if the relay is in a continuous activation mode.
Relay 1 activated: beep - pause - beep - pause . . .
4. Press the programmed tone number _ to deactivate the relay (beep). The system will automatically hang up.

4.2.4 Auto Relay Time Zone Enable / Disable

The two time zones that automatically activate and deactivate the relay can be turned off or on from a touch-tone telephone at any time without changing the time zone boundaries. To program the auto relay activation time zone boundaries, see section 3.3.2.

1. Call the telephone number that the entry system is installed on. The system will answer with a short tone (beep). Note: the number of rings before the system answers is dependent on the programming in 3.1.6.
2. Press *35 and enter the four-digit master code _ _ _ _ (beep).
3. Enter the time zone number _ that you want to turn off **or** on, then press * (beep).
4. Press 0* (beep) to turn the time zone OFF, **or** press 1* (beep) to turn the time zone ON.
5. Hang up or if at the system keypad, press 0# together (beeeeeep).

4.3 Miscellaneous Operating Instructions

4.3.1 Line Sharing

More than one telephone entry system can share the same phone line provided that the units have been programmed for multiple systems on the same line (see 3.1.2). When the unit is programmed for multiple systems sharing the same line, it checks the phone line for 48 volts (not busy) before attempting to place a call. If the phone line is in use, the system will emit a busy signal. If two or more systems are sharing the same phone line, it is important that each system be programmed with its own unique master code. When more than one system is on the same phone line, and a call is placed from one of the systems to a resident, only the system that placed the call will respond to any tone open numbers. Do not be concerned that all the units will activate their relay when the resident presses the tone open number.

4.3.4 Connection to a PBX

If the telephone entry system is going to be connected to a PBX system, you may need to program extension numbers in place of a seven-digit telephone number. To do this, enter the extension number and fill the remaining spaces with the # key in the phone number programming step. For example, if the PBX system uses four-digit extensions and you want to program extension 2217 as a phone number, in step 3, section 3.2.1 press:

3. 2 2 1 7 # # # * (beep).

If the PBX system requires you to dial 9 to obtain an outside line, and you want to program some outside line phone numbers in the system, program the number 9 as one of the alternate area codes. In step 3, section 3.2.2 press:

3. 9 # # # *(beep).

Then program the outside phone number as a long distance number (3.2.3) using the area code reference number used to program 9.

4.3.5 Areas with 10-digit Dialing

If the telephone entry system is installed in an area where the telephone company has instituted 10 digit dialing, simply program the required number of alternate area codes into the system without preceding the area code with the number 1. If 310 was one of the area codes required, in step 3, section 3.2.2 press:

3. 3 1 0 # * (beep).

Then program the outside phone number as a long distance number (3.2.3) using the area code reference number used to program 310.

SECTION 5 – MAINTENANCE

The DoorKing telephone entry system 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 and phone number 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.

5.1 Replacement Parts

The following items are replaceable and can be ordered from your installing dealer.

Keypad	Programming Keypad P/N 1818-030.
Circuit Board	Replacement Circuit Board P/N 1862-010 REV I or higher.
Transformer	Replacement power transformer – 16.5 VAC, 20 VA U.L. Listed DoorKing P/N 1804-060

5.2 Trouble Shooting

If problems should develop with your telephone entry system, 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 telephone line. Noise on the phone line will cause problems with the entry system.
3. Be sure that the entry system case is properly grounded.
4. Be sure that the telephone wires are twisted.
5. A hum on the system indicates that the phone line or 16 VAC power lines may be grounded. Check to be sure that the phone lines or power lines are not shorted to ground.
6. Check the 16 VAC system power. Be sure that the transformer is properly rated (16 VAC, 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!**
7. Isolate the telephone entry system. Disconnect any external devices, such as gate operators, electric strikes, magnetic locks, etc., which may affect the operation of the system.

SYMPTON	POSSIBLE SOLUTION(S)
Cannot get into programming mode.	<ul style="list-style-type: none"> • Wrong master code entered. Start over. • Waiting too long between pushing buttons. Enter information quicker. • Keypad is not plugged into board correctly. Cable points down. • Memory chips are installed upside down.
System emits a long tone and cancels programming.	<ul style="list-style-type: none"> • Waiting too long between pushing buttons. • Forgetting to press * first when programming.
Preprogrammed phone number does not dial when CALL button is pushed.	<ul style="list-style-type: none"> • Reprogram CALL button to dial out (3.1.9).
Buzz or noise on the phone line.	<ul style="list-style-type: none"> • Disconnect the phone line from the system and check it with a handset. If line is noisy, problem is with the phone line and not the entry system. • Check for any shorts to ground behind the circuit board. • Check for pinched wires near the door hinge. • Check for 16-volt power shorted to ground. • Check for phone line shorted to ground. • Check that phone wires are twisted. • Check that the proper type of phone wire was used for an outdoor and / or underground application. • Check that all wires, speaker, keypad, etc. are isolated from ground. • Check that the cabinet is properly grounded. Be sure that case ground (terminal 3) is not used as a low voltage common. • Check for excessive voltage drop on 16 VAC power.
Ringing or howling from the speaker.	<ul style="list-style-type: none"> • Feedback improperly adjusted (2.4.3). • Volume is set too high (2.4.1).
After dial out, dial tone is heard on the speaker.	<ul style="list-style-type: none"> • Phone line is a rotary-dial line. Have the phone company change it to a touch-tone line.
Door strike locks on.	<ul style="list-style-type: none"> • Excessive voltage-drop on 16 VAC line. • Using a transformer with too low VA rating. • Relay strike time programmed too long (3.1.3).
Door strike or gate operator holds open.	<ul style="list-style-type: none"> • Auto relay time zone enabled. Turn auto relay feature off or reprogram the time zone (4.2.4). • System was given a hold open command. Call the system and press the tone deactivate number (4.2.2).
Entry system will not answer when called.	<ul style="list-style-type: none"> • Ring pin is not installed (2.4.6). • Number of rings to answer is set to high. Reprogram (3.1.6). • Bad phone line or insufficient ring voltage.
Rotary dial 9 will not activate relay.	<ul style="list-style-type: none"> • Adjust click sensitivity (2.4.4).
Touch-tone 9 will not activate relay.	<ul style="list-style-type: none"> • Re-program tone-open number to 9 (3.1.4). • If resident phone emits a short pulse rather than a long tone, press 9 twice in rapid succession 99. • Try another phone that is known to work. • Lower speaker volume (2.4.1) and re-adjust feedback (2.4.3).
Relay activates but gate operator will not open.	<ul style="list-style-type: none"> • Re-program relay strike time for a longer period (3.1.3). • Check wiring to gate operator. • Check gate operator.
System emits a beep every 30 seconds.	<ul style="list-style-type: none"> • Master code switch is in the ON position.

5.3 Accessories

Surge Suppressers	High voltage (120 V) suppresser: P/N 1878-076. Phone line suppresser: P/N 1878-077. Low voltage (28 V) suppresser: P/N 1878-078.
Mounting Post	Standard gooseneck mounting post: P/N 1200-045. Standard gooseneck mounting post – long: P/N 1200-046
Telephone Test Set	Includes clips, cord and carrying case. P/N 1800-050.
Battery	12 volt .8 amp hour gel cell provides stand by power during power interruptions. P/N 1801-008.

5.4 Log Tables

Complete the information in the tables on the following pages to maintain a record of the information that has been programmed into the telephone entry system if the system. Make copies of the resident log sheet so that you have enough to complete a listing of all residents and data.

MASTER CODE			

RELAY STRIKE TIME
RELAY 1

TONE OPEN NUMBERS RELAY 1	
Momentary	
Continuous	
Release	
Hold 1 Hour	

AREA CODES														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

RELAY AUTO ACTIVATE TIME ZONES		
	ZONE 1	ZONE 2
Begin Time		
End Time		
Days of Week		

