PagePac®
by VALCOM

ISSUE 1

PagePac Door Phone Controller V-5324001

Installation and Operation Manual

947177

Contents

Introduction

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Using This Manual

This manual will help you install, program and operate the PagePac® Door Phone Controller. It contains important information on what features are available and how to use them. We urge you to read this manual prior to installing the Door Phone Controller; this will ensure that you are using the product to its fullest capability.

Section 1 (this section) provides basic information on what the Door Phone Controller is and what are its features. Also included is a Glossary of Terms, a necessity for persons not familiar with telephone equipment operation and installation.

Section 2, Installation, provides important installation information. This section has step-by-step procedures for connecting the Door Phone Controller to such optional equipment as

- Remote door unlocking devices.
- Door ajar switch.
- Auxiliary alert device.
- Remote open button.

Section 2 also provides an easy to use flow chart, which directs the installer to the next appropriate section, depending on what type of telephone equipment (residential, PBX, etc.) will be used along with your Door Phone Controller.

Sections 3 through 6 – after reading Section 2 and the flow chart at the end of that section, the installer is referred to one of these sections. Depending on which section is referenced, all the necessary programming, switch setting and operating information will also be included.

Section 7 provides troubleshooting tips for when installation is complete and the Door Phone Controller is not operating correctly.

Quick Reference Chart at the end of this manual provides all the necessary option selection information along with complete DIP switch settings and their definitions.

The PagePac® Door Phone Controller

The Door Phone Controller provides multi-functional control for communications to a dedicated door-speaker unit and a remote door-unlocking device. The Door Phone Controller (see Figure1-1) can be used alone, or it can be used along with a PBX (Private Branch Exchange) or communications system to alert personnel within a residence or building that someone is requesting attention at the entrance. Operating the unit is simple: when the push button on the door speaker is pressed, the Door Phone Controller unit signals a telephone station(s) and can activate an auxiliary alerting device (such as a door bell, chime, or tone generator) within the home or building. Upon hearing the ringing telephone and/or alerting device, answer the phone and have a two-way phone conversation with the person at the door. The person inside the building can also remotely unlock the door, either by entering a numeric code (Door Code) on the telephone's touch-tone keypad, or by pressing a button.

Features

- Control for remote door unlocking
- Voice communications with door speaker
- Door ajar detect
- Interface for door bell, chime, or tone generator
- Selectable option functions (from touch tone telephone)

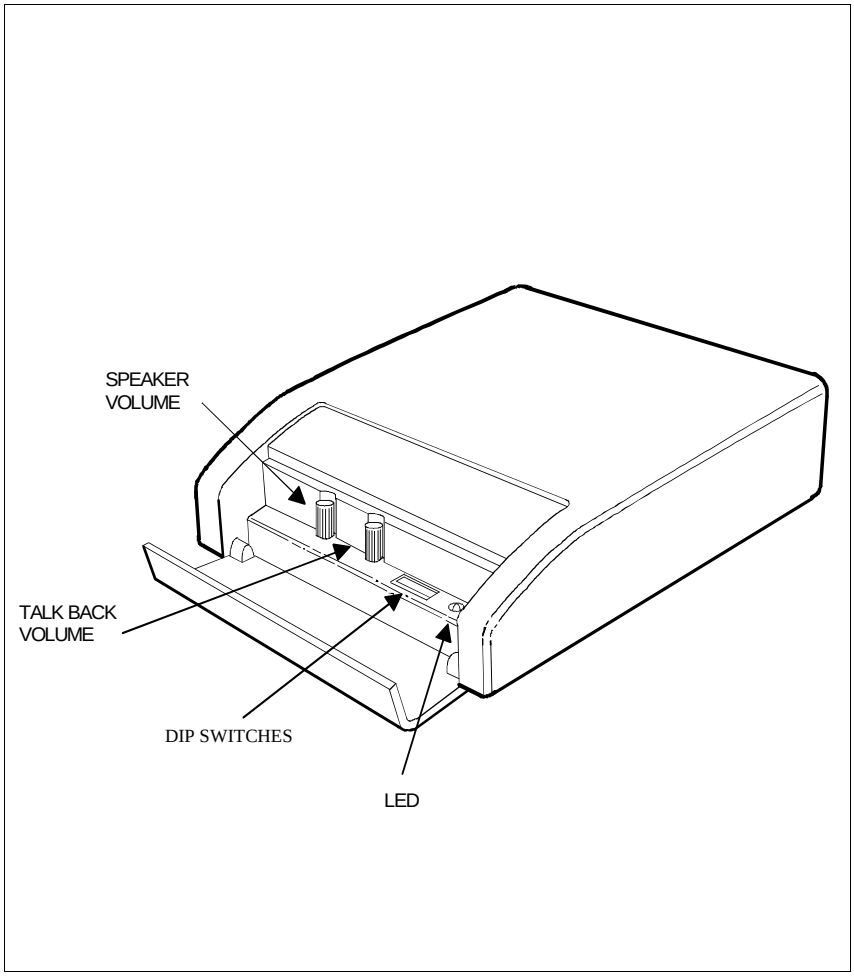

Figure 1-1. Front View of the PagePac® Door Phone Controller and Control Panel

Terms You Should Know

Auxiliary Alert—A door speaker's push button can activate a bell/chime within the building.

Cadence—Telephone Ringing cycle, i.e., 2 second ringing, 4 second no ringing.

C.O. line—Central Office telephone line carrier into building.

EKTS (Electronic Key Telephone System)—Small business telephone communications system.

Ground Start—One method by which a business telephone system (PBX) signals the telephone company that you have gone off-hook. Used in most business applications – contact your telephone company to determine if you have Ground or Loop Start.

Loop Start—One method of signaling the telephone company that your telephone has gone off-hook – used for most residential and communication system applications. Contact your telephone company to determine if you have Ground or Loop Start.

PBX (Private Branch Exchange)—Business telephone system.

Ringdown—In Station mode, the activation of the door speaker's push button will cause the Door Phone Controller to dial the number of a predetermined telephone station number (PBX or EKTS must be installed). When the telephone is answered, there is direct two-way communication with the door speaker.

Trunk Port—PBX connection for Central Office or trunk lines.

Station Port—PBX connection for station sets.

Hook-Flash—This causes telephone equipment to go “on hook” for a duration usually less than a second (not long enough to be considered as calling for the circuit to be released.)

Installation Procedures

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Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. **Read and understand all instructions.**

2. Follow all warnings and instructions marked on the product.

3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation. To avoid overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.

7. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

8. **WARNING:** RISK OF ELECTRICAL SHOCK – EQUIPMENT MUST BE PROPERLY GROUNDED. Your PagePac® equipment requires a properly grounded three-prong power receptacle for safe operation. Have the receptacle checked by a qualified electrician before connecting this equipment. Do not cut or remove the third (ground) prong from the power transformer. Do not use two-prong extension cords or adapters to defeat the safety features of this equipment. If you have a two-prong receptacle, it must be replaced with a three-prong receptacle, installed by a qualified electrician.

9. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.

10. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

12. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.

13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    A. When the power supply cord or plug is damaged or frayed.

    B. If liquid has been spilled into the product.

    C. If the product has been exposed to rain or water.

D. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

E. If the product has been dropped or the cabinet has been damaged.

F. If the product exhibits a distinct change in performance.

14. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

15. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS.

General Information

Please adhere to the following precautions:

1. Never install telephone wiring during a lightning storm.

2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.

3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.

4. Use caution when installing or modifying telephone lines.

Introduction

Note: Contact a licensed electrician for installation of optional devices such as an electric strike plate and auxiliary alert device which may require electrical wiring. For the electric strikeplate, a low voltage device (24 volts or less) is recommended.

This section provides instructions for installing your PagePac® Door Phone Controller. Provided are installation instructions for an optional electric door strike plate, door ajar contacts, and an auxiliary alert device. These optional components must be installed prior to the installation of your Door Phone Controller. (Refer to the respective installation manuals for specific mounting and wiring instructions.) The flow-chart provided in Figure 2-9, will help direct you to the next appropriate section for attaching the Door Phone Controller to the telephone equipment in your home or business (also see Compatibility Chart on page iii).

Inside the Door Phone Controller shipping carton you will find:

- The Door Phone Controller unit.
- Mounting template (along the edge of the Quick Reference Chart).
- Power cord and attached transformer.
- Two mounting screws.
- Two 6-conductor modular-to-modular 6 foot long cables.
- Terminal strip connector.
- Instruction Manual (this manual).

Door Phone Controller Back Panel Connections

Note: The 14-contact terminal strip can be unplugged from the back panel.

**Note: The Canadian equivalent of the RJ11C connector is CA11A. Where applicable, CA11A is to be understood for references to RJ11C in this manual.*

The Door Phone Controller back panel (see Figure 2-1) has two RJ11* modular connectors and one 14-contact “hard wire” terminal strip. These connections provide:

- Auxiliary Alert Contacts (2) – output to optional door bell/chime device.
- Door Latch Contacts (3) – output to an electric door strike.
- Remote Open Button Contacts (2) – input from a remote (inside) door open button.
- Door Ajar Switch Contacts (2) – input from door ajar device.

- Door Bell Button Contacts (2) – input from door bell/chime button.
- Shield Contact (1) – used for shielding audio speaker wires.
- Speaker Contacts (2) – provides audio connection to door speaker(s).

Host system RJ11 (J1 Host) modular jack interface—This jack is provided for connection to your own telephone set, or business telephone system (PBX or EKTS) (the host system).

Central Office RJ11 (J2) modular jack interface—This jack is provided for connection to a C.O. telephone line (from telephone company's central office).

WARNING: RISK OF ELECTRICAL SHOCK — EQUIPMENT MUST BE PROPERLY GROUNDED. Your PagePac® equipment requires a properly grounded three-prong power receptacle for safe operation. Have the receptacle checked by a qualified electrician before connecting this equipment. Do not cut or remove the third (ground) prong from the power transformer. Do not use two-prong extension cords or adapters to defeat the safety features of this equipment. If you have a two-prong receptacle, it must be replaced with a three-prong receptacle, installed by a qualified electrician.

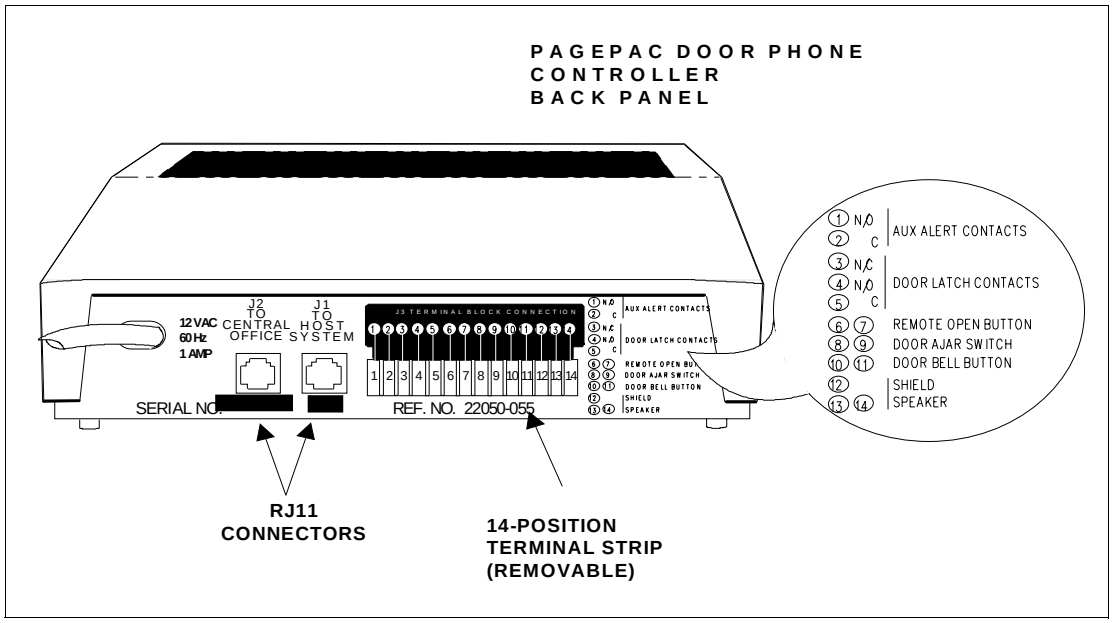

Figure 2-1. Door Phone Controller Back Panel Connections

Prior To Installation

Consider the following items before installation:

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.

PagePac® Door Phone Controller Location

You need to determine exactly where you want the unit installed and how you want it configured. Another consideration is what components will be used with the Door Phone Controller. Here are some questions that must be answered prior to installation:

- Do you currently have a door speaker installed?
- Do you have a business telephone system (PBX or EKTS)?
- Do you have a remote door unlock mechanism (electric door strike) installed?
- Do you have an auxiliary alert system (door chime) currently installed?
- Do you have a door ajar switch installed?

The Door Phone Controller is designed to control the functions of the components mentioned above, and how you answer these questions will determine how the Door Phone Controller will be installed, optioned, and operated.

When selecting options for your Door Phone Controller, e.g., to change the door-unlock security code, the Door Phone Controller unit must be DIP switch selected to Option Selection mode. For this reason you may want to install the Door Phone Controller unit in a secure area which has access only by authorized personnel. If you are installing the unit in a business environment (currently have PBX/EKTS), you may wish to install the unit along with the telephone equipment. (See Figure 2-2 for a typical installation diagram.)

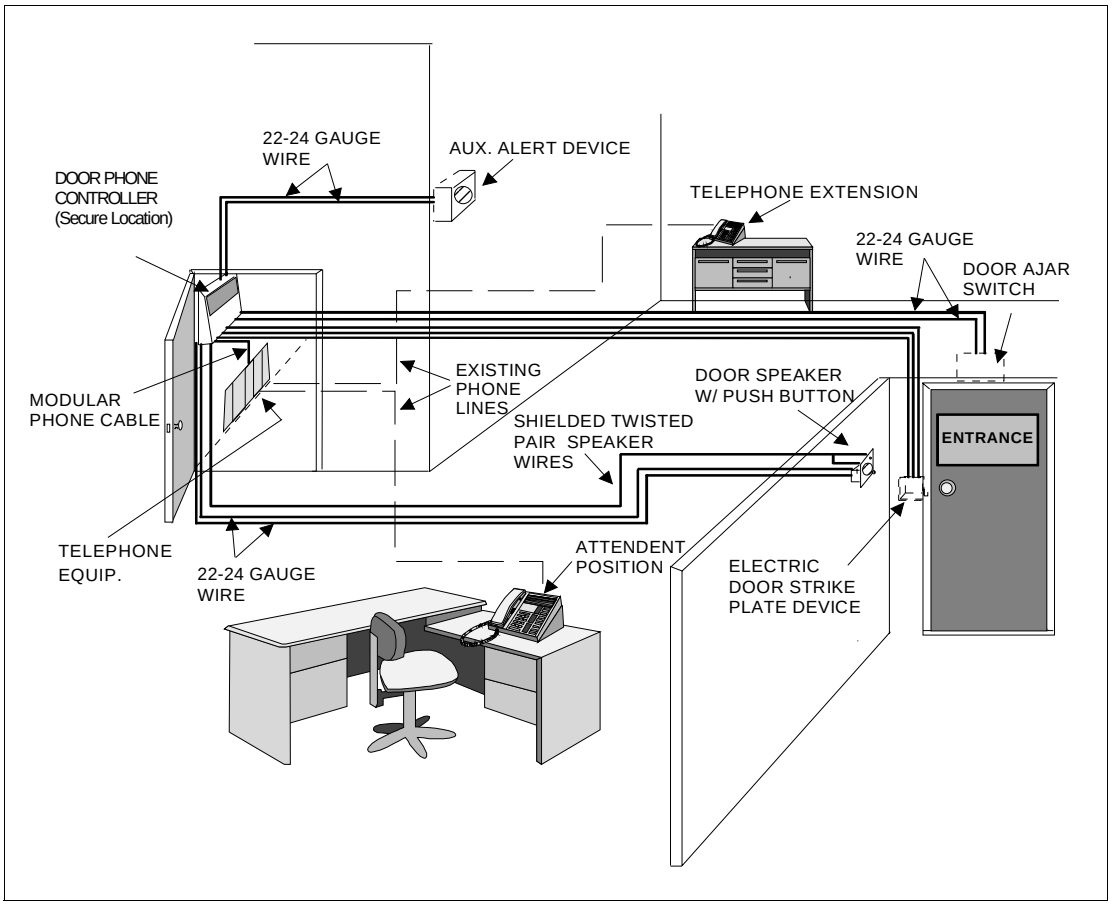

Figure 2-2. Typical PagePac® Door Phone Controller Installation

Installation

Mounting Instructions

The Door Phone Controller can be placed on a flat table or shelf, or mounted to a wall.

Wall Mount Instructions

The Door Phone Controller is shipped with a keyhole mounting template and mounting screws. Follow the steps below to mount the Door Phone Controller to a wall.

Note: When moving Door Phone Controller or adding/ removing cables from back panel, unplug transformer from 120V outlet.Also unplug the terminal strip and modular phone connectors on the back panel.

1. Place template (tear-out page at end of manual) over desired wall mounting location and mark screw positions.
2. Use a Philips screwdriver to screw each of the two screws into the marked screw positions.
   IMPORTANT: Do not drive screws all the way into wall; adequate space (5/16") must be left to position the Door Phone Controller bottom panel keyholes over screw heads.
3. Mount the Door Phone Controller over the protruding screw heads and seat unit firmly to the wall. See Figure 2-3.

WARNING: RISK OF ELECTRICAL SHOCK — EQUIPMENT MUST BE PROPERLY GROUNDED. Your PagePac® equipment requires a properly grounded three-prong power receptacle for safe operation. Have the receptacle checked by a qualified electrician before connecting this equipment. Do not cut or remove the third (ground) prong from the power transformer. Do not use two-prong extension cords or adapters to defeat the safety features of this equipment. If you have a two-prong receptacle, it must be replaced with a three-prong receptacle, installed by a qualified electrician.

4. When the Door Phone Controller is securely mounted to the wall, then all cables and wires can be connected to the terminal strip and then plugged into the back panel.

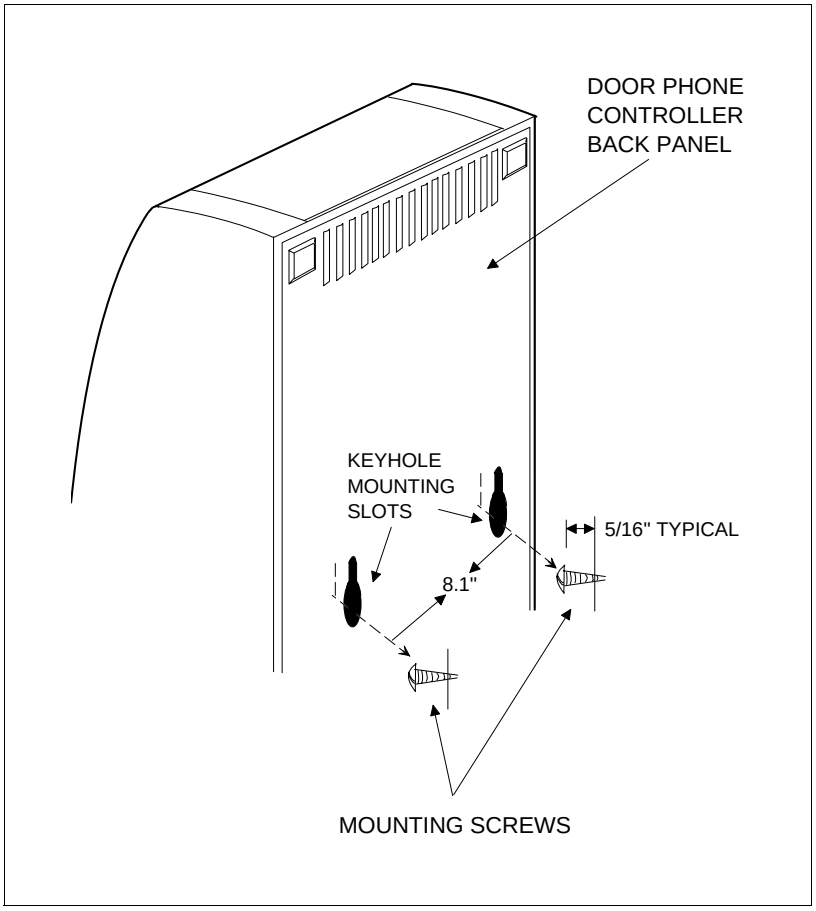

Figure 2-3. Mounting PagePac® Door Phone Controller to Wall

Connecting Door Speaker, Door Button, and Door Ajar Switch to the Door Phone Controller

Use the diagram in Figure 2-4 and follow the steps below:

Note: Polarity of wires is not important.

Note: Total wire length should not exceed 1500 feet.

Note: Door Ajar switch should be closed when door is closed. If a door ajar switch will not be used, you must leave a jumper installed across the two "Door Ajar Switch" terminals.

1. Run shielded twisted pair wires (22–24AWG) from the "Speaker" terminals on the rear panel of the Door Phone Controller (13 and 14) to the installed Door Speaker (1 and 2). Connect the shield to the "Shield" terminal on the controller (12).
2. Run 2 wires (22–24AWG) from the "Door Bell Button" terminals (10 & 11) to the door bell push button on the installed door speaker/push button assembly (3 and 4).
3. Run 2 wires (22–24AWG) from the optional "Door Ajar Switch" terminals (8 and 9) to the installed door ajar switch.

Remote Door Open Switch (Optional)

A remote door open switch (normally-open contact) provides additional means for opening an electric door opening device. To connect wires for a remote door open switch use the diagram in Figure 2-5 and follow the steps below.

1. Install the remote door open button in desired location using manufacturer's installation instructions.
2. Run 2 wires (22–24AWG) from the installed (normally-open contact) remote door open switch to the "Remote Door Open" terminals (6 and 7) on the Door Phone Controller back panel (polarity of wires is not important).

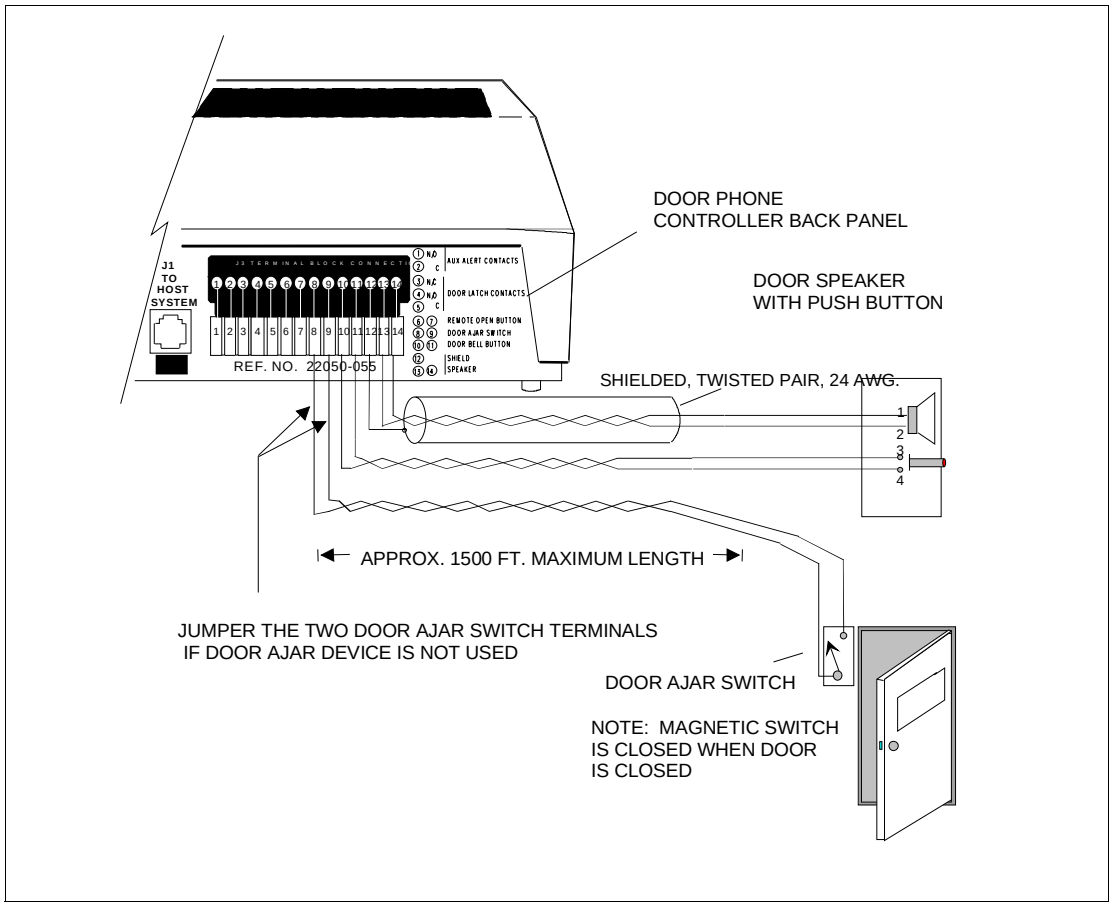

Figure 2-4. Connections for PagePac® Door Phone Speaker, Door Button and Door Ajar Devices

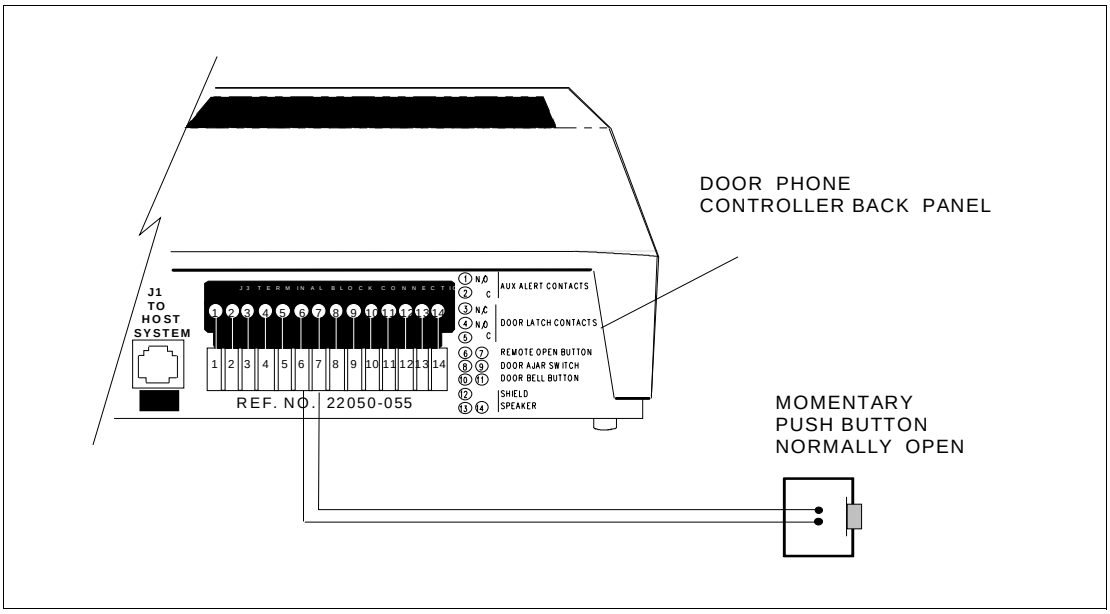

Figure 2-5. Connections for Remote Door Open Switch (optional)

Electric Door Strike Plate Device (Optional)

Note: If your Electric Door Strike Plate has more than a 1 Amp current draw, then an external relay arrangement is required.

An electric door strike plate is used to automatically open a closed or locked door. A low-voltage device (24V or less) is recommended. The Door Phone Controller can provide an open or closed contact when requested to interface to and to operate your electric door strike plate device. Once an electric door strike plate has been installed, it can be controlled by the Door Phone Controller unit, either from entering the appropriate digits from a touch tone phone or from the Remote Open switch (push button).

Follow the steps below and refer to Figure 2-6 for wiring the door strike plate device to the Door Phone Controller.

1. Have the electric door strike plate device installed as instructed by the manufacturers installation manual. Check electric installation codes and local ordinances for exact wiring requirements in your area.

Note: Do not include strike plate wires within the same cable as others wires connecting to the Door Phone Controller.

2. Normally Open (N.O.), Normally Closed (N.C.), and Common (C.) relay contacts are accessible at the Door Phone Controller terminal block. Wire these to the door strike plate device and its power source as instructed by your manufacturer's installation manual. If no instructions exist, wire the above relay contacts to the existing door open button (see #3 below).

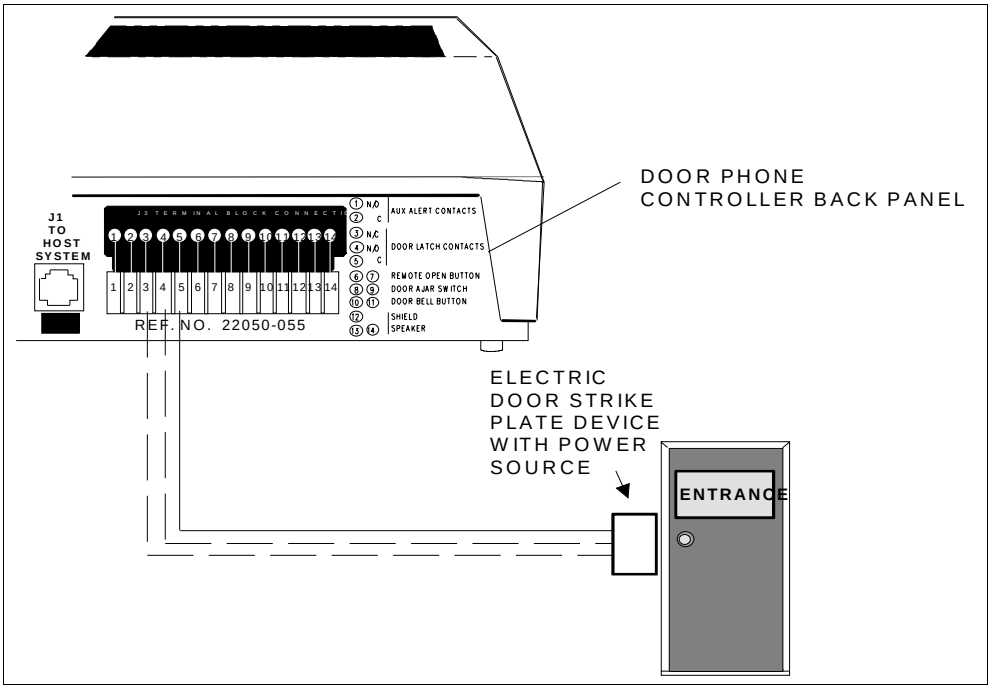

Figure 2-6. Connections for Electric Door Strike Plate (Optional)

3. Verify all connections when connecting the door strike contacts on the Door Phone Controller to existing door open buttons. Make sure of the following:

Note: One or the other will apply, not both.

- The NO and C contacts are connected in parallel to a normally-open button.
- The NC and C contacts are connected in series to a normally-closed button.

Auxiliary Alert Device (Optional)

Note: If the Auxiliary Alert Device has more than a 1 Amp draw, then an external relay arrangement will be required.

In most configurations, the Door Phone Controller will cause a telephone to ring when the doorbell button is pushed. An auxiliary alert device (chime, bell, horn, tone generator, etc.) can also be used as an alert to notify the person inside the building that the doorbell button has been pushed (Auxiliary Alert Mode). A low-voltage device (24V or less) is recommended. Follow the steps below (refer to Figure 2-7) for wiring auxiliary alert device (door bell/ chime) to the Door Phone Controller:

1. Install the auxiliary alert device (door bell/chime) as instructed by the manufacturer's installation manual.

Note: See Appendix E for specific auxiliary alert device installation information.

2. The Normally Open (N.O.) and Common (C.) relay contact, located on the Door Phone Controller back panel (see Figure 2-7), are accessible at the Door Phone Controller terminal block. Wire these to the auxiliary alert device and it's power source as instructed by the manufacturer's installation manual.

Connecting Power

When the Door Phone Controller has been mounted to a wall or placed on a shelf and all cables and wires have been connected to the back panel, plug the transformer into a 120 VAC outlet. See Figure 2-8.

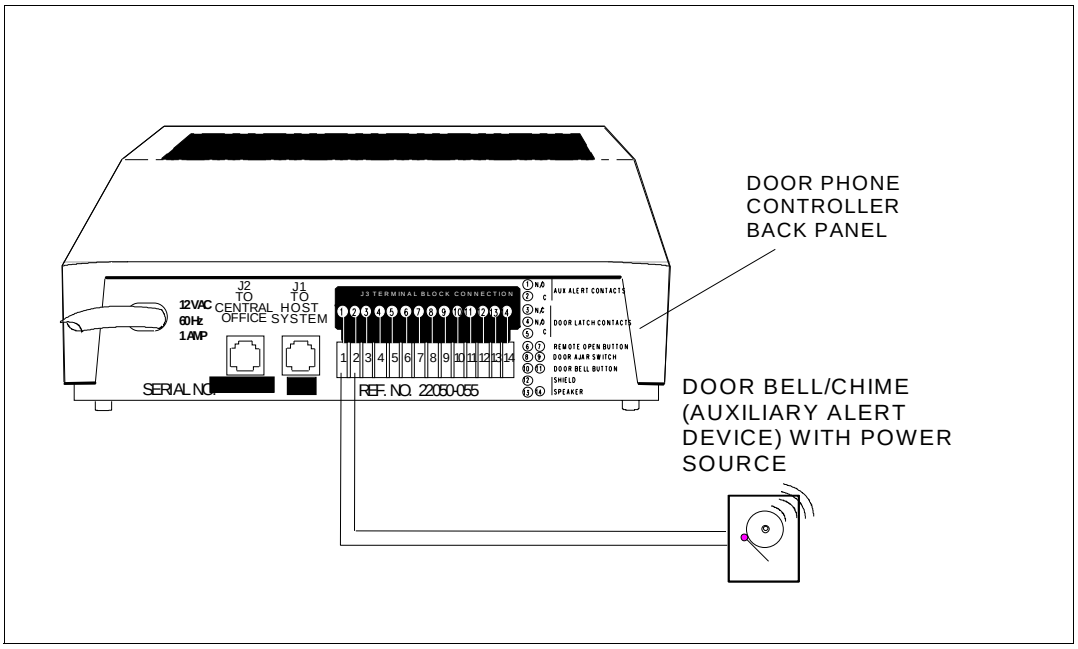

Figure 2-7. Connections for Auxiliary Alert Device (Optional)

Operation and Controls Information

Door Ajar Function

Default Condition—After the door has been opened by the four digit code or the remote push button, the Door Phone Controller will wait for the Door Ajar Call-back time-out to elapse. At this point if the door is still open, the Door Phone Controller will call back the phone/chime for the duration of the ring/chime duration and then repeat after the Door Ajar Call-back time-out has elapsed again. If the phone is answered during that time, a Door Ajar Tone will be heard. The Door Ajar Tone will cease when any DTMF Digit is pressed, or the user speaks or hangs-up.

Alternate Condition—If the door is ever opened and the Door Ajar Call-back time-out has elapsed, the Door Phone Controller will call back the phone/chime for the duration of the ring/chime duration and then repeat after the Door Ajar Call-back time-out has elapsed again. If the phone is answered during that time, a Door Ajar Tone will be heard. The Door Ajar Tone will cease when any DTMF digit is pressed, or the user speaks or hangs-up.

Speaker Volume Control

You can adjust the broadcast volume level of the door speaker by adjusting the “Speaker Volume Control” on the Door Phone Controller front panel (see Figure 1-1).

Talk Back Volume Control

You can adjust the reply volume level from the door speaker to an inside telephone extension by adjusting the “Talk Back Volume Control” (see Figure 1-1).

LED

When the PagePac® Door Phone Controller is powered on and functioning normally, the LED (Figure 1-1) should continually blink 2.5 times a second. If there is a malfunction the LED will blink faster than 4 times a second (see Troubleshooting section) or go out completely. If the LED is not lit, check power to unit first before calling for repair.

Connecting the Door Phone Controller to Your Telephone Equipment

Use the flow chart in Figure 2-9 to assist in configuring the Door Phone Controller to your residential or business-type telephone equipment. Answer each appropriate question in the flow chart and refer to the section specified within this manual. Then proceed with the necessary installation and option selection requirements. **NOTE: If you are installing the Door Phone Controller into a typical Home/Residential environment (no PBX) refer to Section 3 now.**

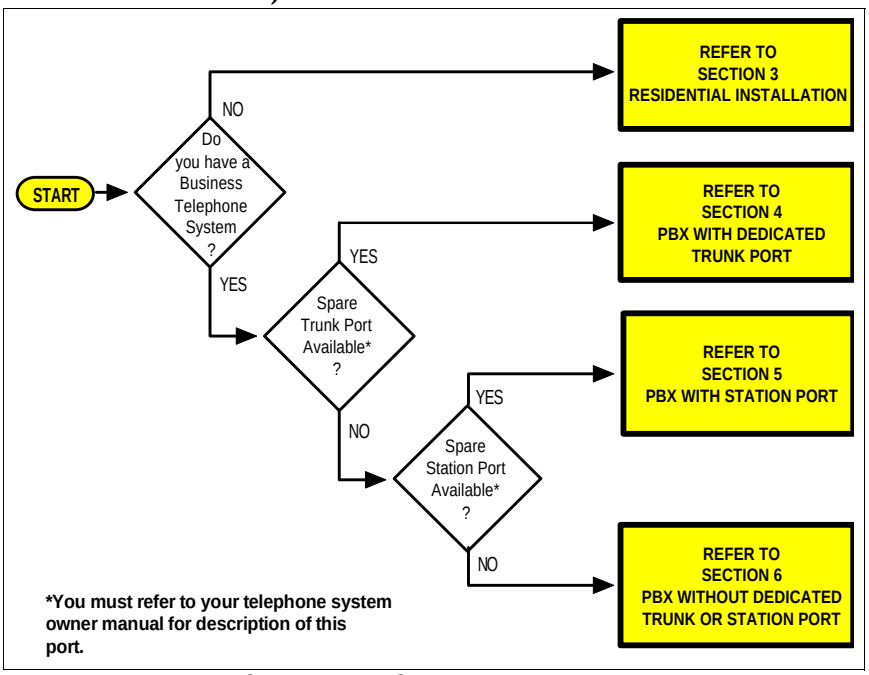

Figure 2-8. Configuration of Telephone Equipment Flow Chart

Installation for Home/Residential (Trunk Saver Mode - Loop Start)

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Contents

Overview

This section provides installation and operation information for applications such as residences or small businesses which do **not** have a telephone system.

Note: You may also use the Door Phone Controller with a dedicated phone.

When your Door Phone Controller is installed with standard telephone equipment (no PBX), the unit may operate in **Shared Line Mode** which permits a single telephone set to be shared between the Door Phone Controller and an outside line (to a Central Office). Thus, the standard telephone equipment can be used for normal call operations as well as servicing the door.

DIP Switch Selections

To customize the Door Phone Controller to your specific installation and option requirements, you must properly set the 8 position DIP switch located on the Door Phone Controller front panel (see Figure1-1).

CAUTION: Do not connect to the modular jacks on the Door Phone Controller until after the DIP switches have been properly set.

Note: Complete information about the DIP switch settings can be found in Appendix A.

When using the Door Phone Controller with a small business or residential telephone equipment (no PBX installed), the DIP switches must be set as shown in Figure 3-1(all OFF).

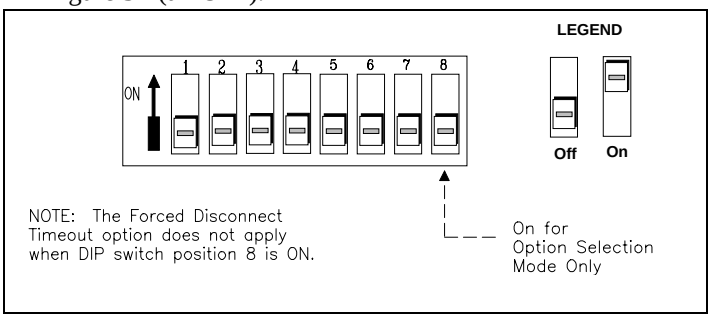

Figure 3-1. Home/Residential DIP Switch Settings

Installation

Note: When moving the Door Phone Controller or adding or removing cables from the back panel, unplug the transformer from 120V outlet. Also unplug the terminal strip and modular phone connectors on the back panel.

Connect the Door Phone Controller using the information in Section 2. Refer to Figure 3-2.

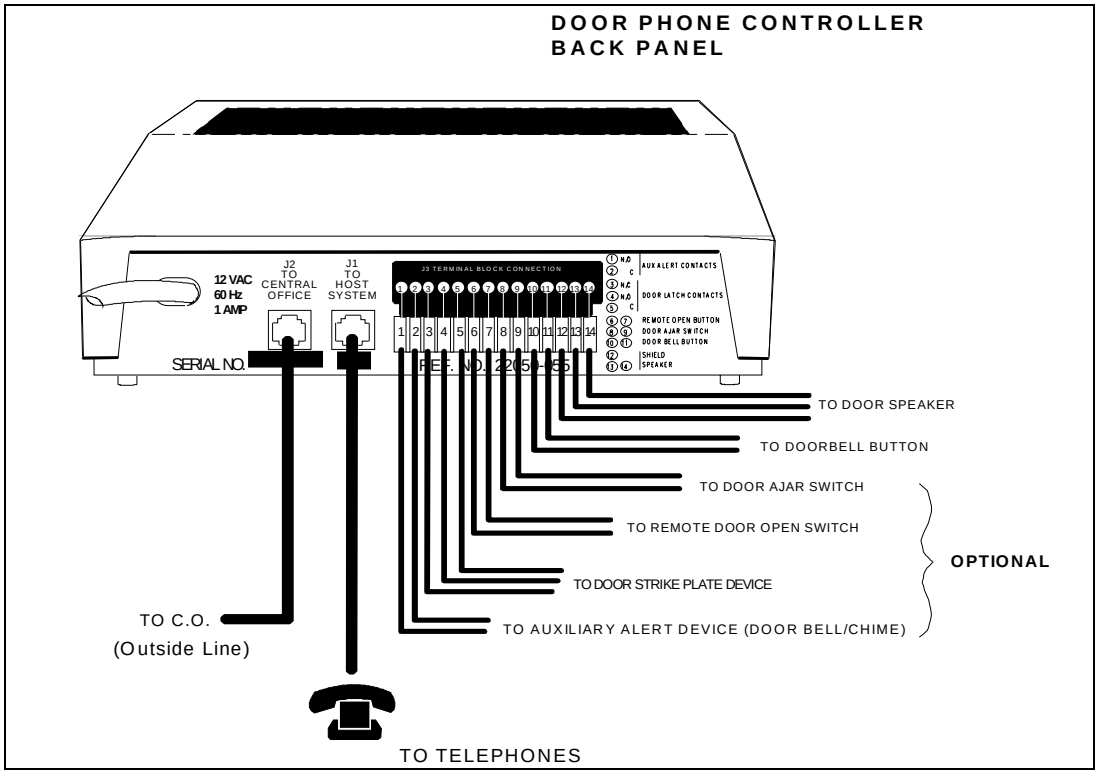

Figure 3-2. Connecting PagePac® Door Phone Controller to Standard Telephone Equipment

Option Selection

Note: Refer to Appendix B for a detailed explanation of each of these options.

The final step of the installation procedure is selecting options for your Door Phone Controller. The selection of these options must be done while in the Option Selection Mode. This mode lets you control such things as:

- Delay Before Door Ajar Call-Back.
- Ring/Chime Cadence.
- Ring/Chime Duration.
- Door Unlock Code.
- Door Unlock Duration.
- Enable Door Code.
- Door Ajar Mode.
- Forced Disconnect Time-Out.
- Reset Options to Factory Defaults.

Follow the steps below to select options for the Door Phone Controller.

1. **Select Option Selection Mode by setting position 8 of the Door Phone Controller DIP switch to the ON position (see Figure 1-1).**

2. Once the DIP switch has been set, you must make connection to the door speaker by "hook-flashing" the phone (within 5 seconds) and entering "##3" on the telephone keypad (option selection mode is active as soon as you hear a distinctive dial tone).

Note: Any or all options may be reselected in any order.

3. Use Table 3-1 to make each option selection.

Table 3-1. PagePac® Door Phone Controller Option Selection Information

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Delay Before Door Ajar Call-back	To Select Option	00	Single Beep	000 to 255 for 0 to 255 seconds of delay after strike plate release stops until Lucent Door Phone Controller calls back to indicate that door is ajar	Double Beep	30 sec.
	To Verify	01				

Table 3-1. PagePac® Door Phone Controller Option Selection Information

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Ring/Chime Cadence	To Select Option	10	Single Beep	24 (for 2 sec. on 4 sec. off cadence) **or** 15 (for 1 sec. on 5 sec. off cadence)	Double Beep	2 sec./ 4 sec.
	To Verify	11				
Ring/Chime Duration	To Select Option	20	Single Beep	00 to 99 (0 to 99 second(s) ring/chime)	Double Beep	30 sec.
	To Verify	21				
Door Unlock Code	To Select Option	30	Single Beep	4 digits (first digit must be 0,3,4,5,6,7 or 8 remaining digits can be set from 0 to 9)	Double Beep	6736 "OPEN"
	To Verify	31				
Door Unlock Duration	To Select Option	40	Single Beep	00 to 99 (door lock active time in sec.)	Double Beep	4 sec.
	To Verify	41				
Enable Door Code	To Select Option	50	Single Beep	1 Enable door code 0 Disable door code	Double Beep	1 (Enabled)
	To Verify	51				
Door Ajar Mode	To Select Option	50	Single Beep	2 For callback after strike plate release only 3 For callback anytime door is opened	Double Beep	2
	To Verify	51				
Forced Disconnect Time-Out	To Select Option	60	Single Beep	010 to 255 (unit disconnects in 10 to 255 sec.)	Double Beep	120 sec.
	To Verify	61				
Reset Options to Factory Defaults	To Select Option	70	Single Beep	## (to restore factory default conditions)	Double Beep	N/A
	To Verify	71				
Note: The Door Ajar Delay (Option Selection) will begin when the call to the door speaker is disconnected.						

Note: The Forced Disconnect Timeout option does not apply when setting options (unless 2 minutes elapse without a Touch-Tone selection)

4. To exit option selection mode, press "##3" on the telephone keypad (you will hear 2 beeps). Hang up the phone.
5. Set position 8 of the Door Phone Controller DIP switch back to the OFF position.

Operation – Basic Door Answer Function

Visitor Presses Door Speaker Button

When a visitor presses the door speaker push button, the Door Phone Controller will signal the telephone equipment inside your home or building to ring, and activate a door-bell/chime device (optional). Any additional presses on the door speaker push button will be ignored until the option selected ring/chime duration has expired (with the exception that a confirmation tone will still be sent to the speaker when the door button is pressed).

Answering a Call from the Door Speaker

The person inside the building can simply answer the ringing phone and establish two-way communications with the door speaker. To open the door, the person inside the building either enters the Door Code on the telephone's keypad or presses the customer provided door-unlock push button. Either of these actions will activate the customer provided electric door strike plate device.

As an alternative response when the telephone or door bell/chime is heard, the person inside the building can press the door-unlock push button, which will stop the ringing and will open the door. This allows the door to be unlatched without the use of a phone.

Calling the Door Speaker from Inside the Building

To initiate a call to the door, the person within the building simply takes the telephone off-hook and hook-flashes the telephone within the first 4 seconds. At this point, there will be direct two-way communication from within the building to the door speaker.

Telephone Line In Use When Visitor Presses Door Speaker Button

Note: Once the push button is pressed, you can "Hook Flash" to the door speaker and then back to the original call only once, unless the push button is pressed again.

If you forget to hook-flash back to the original call, the Door Phone Controller will call you back.

If a visitor presses the door speaker button while an existing call is already taking place on the C.O. line, the Door Phone Controller will generate a "door alert" signal to indicate a visitor needs attention at the entrance. The person inside the building can hook-flash the phone and be in direct two-way communication to the door speaker. Then normal Door Phone Controller functions can take place. When door phone functions have been completed, i.e., door has been remotely opened, hook-flashing the phone again within the forced disconnect timeout (or pressing 9) will return the line back to the original call. This feature operates much like a call-waiting function.

Telephone Line In Use With Door When Incoming Call Arrives

If there is a call in progress between the door speaker and a person inside the building and a C.O. call comes in, the person inside the building (not the door speaker) will hear a call waiting tone. The person inside the building can hook-flash the phone (or dial 9) and communicate with the incoming caller. When the call is complete, the person inside the building hangs up the phone or to speak with the person at the door speaker again, the person inside the building must hook-flash the phone (within 4 seconds after picking up the receiver).

Installation for Telephone System With Available Dedicated Trunk Port

4

Contents

Overview

This section provides installation and operation information for installations with a telephone system that has an available Dedicated Trunk port.

DIP Switch Selections

Note: Complete information about the DIP switch settings can be found in Appendix A.

To customize the PagePac® Door Phone Controller to your specific installation and option requirements, you must properly set the 8-position DIP switch located on the Door Phone Controller front Panel (see Figure 4-1).

CAUTION:
Do not connect to the modular jacks on the Door Phone Controller until after the DIP switches have been properly set.

Note: Use the Flow Chart in Figure 4-1 to properly set the DIP switch.

When using the Door Phone Controller with a telephone system which has an available dedicated trunk, set the DIP switch as shown in Figure 4-1. Prior to setting this DIP switch, you must know if the dedicated trunk is Loop Start or Ground Start; this information can be obtained from your local telephone company.

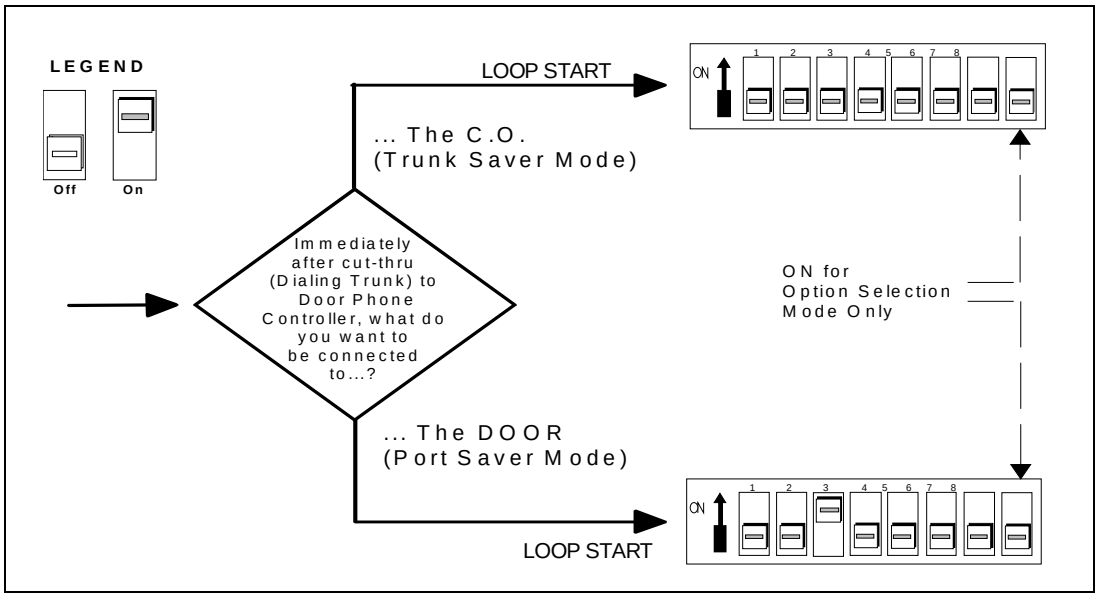

Figure 4-1. DIP Switch Setting for PBX with Dedicated Trunk Port

Installation

Note: When moving the Door Phone Controller or adding or removing cables from the back panel, unplug transformer from 120V outlet. Also unplug the terminal strip and modular cords.

Complete information regarding each DIP switch position can be found in Appendix A.

To customize the Door Phone Controller use the information supplied in Section 2 and the diagram in Figure 4-2. For ground start installations, also see Figure 4-3. phone connectors on the back panel.

Install the Door Phone Controller using the information supplied in Section 2 and the diagram in Figure 4-2. For ground start installations, also see Figure 4-3.

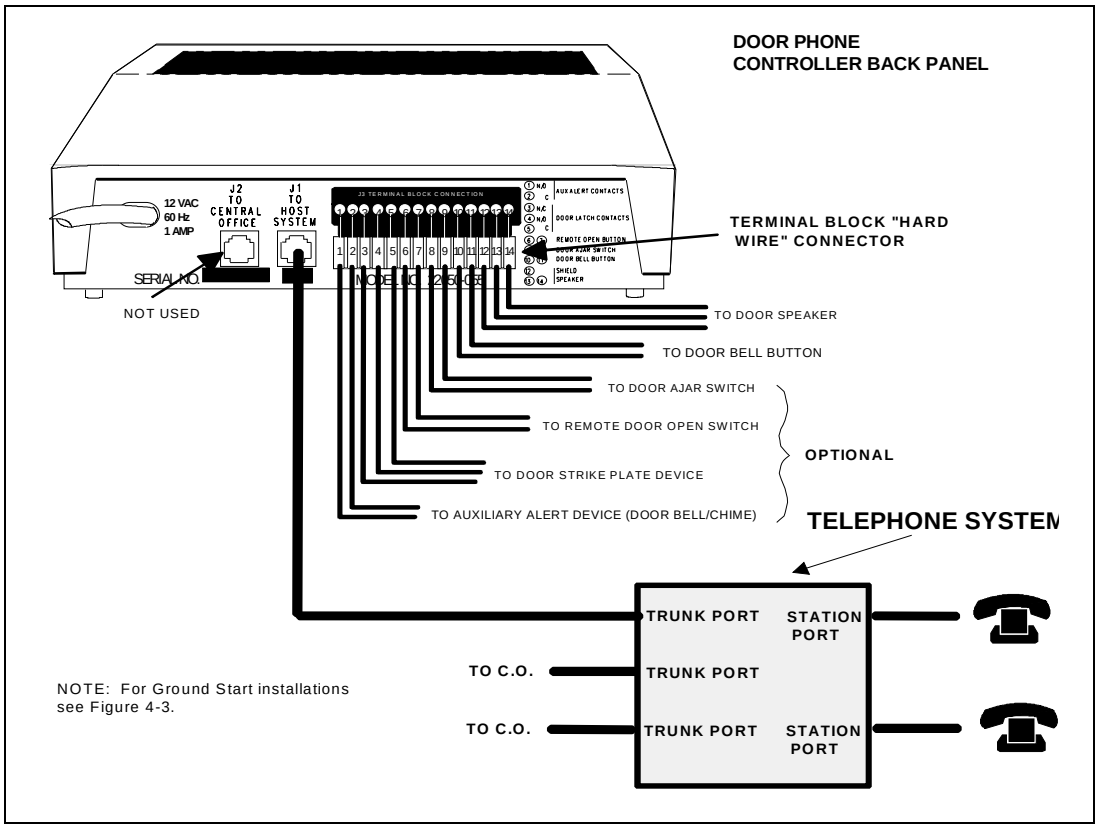

Figure 4-2. Connecting Door Phone Controller to Standard Telephone Equipment

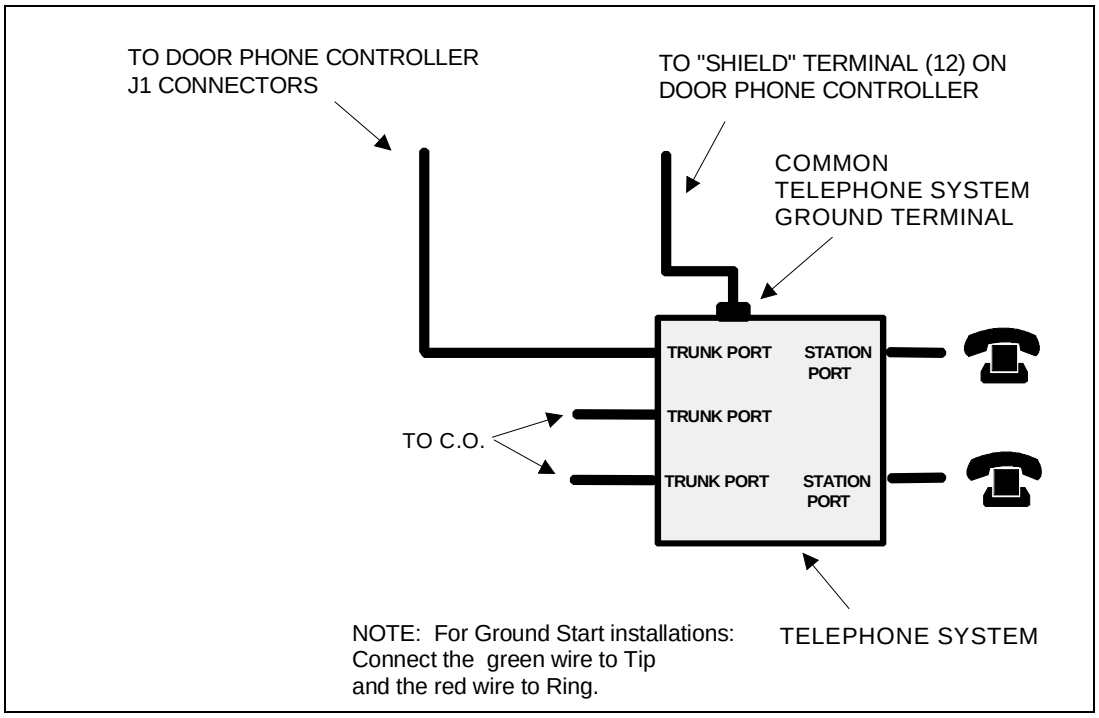

Figure 4-3. Ground Start Installations

Option Selection

Note: Refer to Appendix B for a detailed explanation of each of these options.

The final step of the installation procedure is selecting options for your Door Phone Controller. The selection of these options must be done while in the Option Selection Mode. This mode lets you control such things as:

- Delay Before Door Ajar Call-Back.
- Ring/Chime Cadence.
- Ring/Chime Duration.
- Door Unlock Code.
- Door Unlock Duration.
- Enable Door Code.
- Door Ajar Mode.
- Forced Disconnect Timeout.
- Reset Options to Factory Defaults.

Follow the steps below to select options for your Door Phone Controller.

CAUTION: Never connect a DOOR PHONE CONTROLLER with the DIP Switches optioned for TRUNK access to a STATION LINE! Doing so may cause damage to the STATION LINE and/or the DOOR PHONE CONTROLLER!

1.Select Option Selection Mode by setting position 8 of the Door Phone Controller DIP switch to the ON position (see Figure 1-1).

2. Once the DIP switch has been set, you must make connection to the door speaker by accessing the trunk connected to the Door Phone Controller. At this point you must enter “##3” on the telephone keypad (option selection mode is active as soon as you hear a distinctive dial tone).

Note: Any or all options may be reselected in any order. The Forced Disconnect Time-out option does not apply when setting options (unless 2 minutes elapse without a Touch-Tone selection).

3. Use Table 4-1 to make each option selection.
4. To exit option selection mode, press "##3" on the telephone keypad, you will hear 2 beeps. Hang up the phone.
5. Set position 8 of the Door Phone Controller DIP switch (Figure 1-1) back to the OFF position.

Operation – Basic Door Answer Function

Table 4-1. Door Phone Controller Option Selection Information

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Delay Before Door Ajar Call-back	To Select Option	00	Single Beep	000 to 255 for 0 to 255 seconds of delay after strike plate release stops until Door Phone Controller calls back to indicate that door is ajar	Double Beep	30 sec.
	To Verify	01				
Ring/Chime Cadence	To Select Option	10	Single Beep	24 (for 2 sec. on 4 sec. off cadence) **or** 15 (for 1 sec. on 5 sec. off cadence)	Double Beep	2 sec./ 4 sec.
	To Verify	11				
Ring/Chime Duration	To Select Option	20	Single Beep	00 to 99 (0 to 99 second(s) ring/chime)	Double Beep	30 sec.
	To Verify	21				
Door Unlock Code	To Select Option	30	Single Beep	4 digits (first digit must be 0,3,4,5,6,7 or 8 remaining digits can be set from 0 to 9)	Double Beep	6736 "OPEN"
	To Verify	31				
Door Unlock Duration	To Select Option	40	Single Beep	00 to 99 (door lock active time in sec.)	Double Beep	4 sec.
	To Verify	41				
Enable Door Code	To Select Option	50	Single Beep	1 Enable door code 0 Disable door code	Double Beep	1 (Enabled)
	To Verify	51				
Door Ajar Mode	To Select Option	50	Single Beep	2 For callback after strike plate release only 3 For callback anytime door is opened	Double Beep	2
	To Verify	51				
Forced Disconnect Timeout	To Select Option	60	Single Beep	010 to 255 (unit disconnects in 10 to 255 sec.)	Double Beep	120 sec.
	To Verify	61				

Table 4-1. Door Phone Controller Option Selection Information (Continued)

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Reset Options to Factory Defaults	To Select Option	70	Single Beep	## (to restore factory default conditions)	Double Beep	N/A
	To Verify	71				
Note: The Door Ajar Delay (Option Selection) will begin when the call to the door speaker is disconnected.						

Visitor Presses Door Speaker Button

When a visitor presses the door speaker push button, the Door Phone Controller will signal the telephone equipment inside your building to ring and activate a door-bell/chime (optional). Any additional presses on the door speaker push button will be ignored (with the exception that a confirmation tone will still be sent to the speaker when the door button is pressed).

Answering a Call From the Door Speaker

When a person inside the building hears the telephone ring and/or the door bell/chime sound, he can simply respond by answering the ringing phone. At this point, the Door Phone Controller will establish two-way communication with the door speaker. To open the door, the person inside the building either enters the Door Code on the telephone's keypad or presses the door-unlock push button. Either of these actions will activate the customer provided electric door strike plate device.

As an alternative response to hearing the telephone or door bell/chime, the person inside the building can press the door-unlock push button which will stop the ringing and will open the door. This allows the door to be unlatched without the use of a phone.

Calling the Door Speaker

To initiate a call to the Door Speaker, the person inside the building simply takes the telephone off-hook and accesses the trunk connected to the Door Phone Controller.

Installation for PBX Equipment With Available Station Port

5

Contents

Overview

This section provides installation and operation information for installations which use on-premise telephone system that has an available Dedicated Analog Station Port.

DIP Switch Selections

Note: Complete information about the DIP switch settings can be found in Appendix A.

To customize the Door Phone Controller to your specific installation and option requirements, you must properly set the 8-position DIP switch located on the Door Phone Controller front panel (see Figure 5-1).

CAUTION: Do NOT connect to the modular jacks on the Door Phone Controller until after the DIP switches have been properly set.

Note: Use the flow chart in Figure 5-1 to properly set the DIP switch.

When using the Door Phone Controller with a telephone system which has an available dedicated station port, set the DIP switch as shown in Figure 5-1. Prior to setting this DIP switch, you must know if the telephone system is configured for auxiliary alert mode or ringdown mode (see page 1-5 for explanation of ringdown and auxiliary modes).

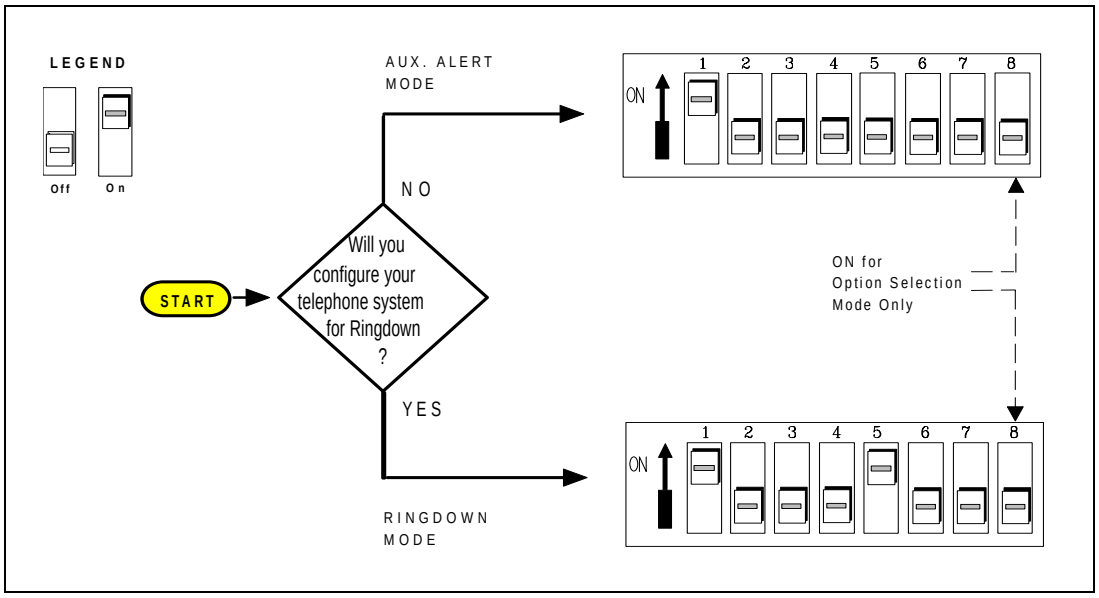

Figure 5-1. DIP Switch Configuration for Telephone System with Dedicated Station Access, Station Mode

Installation

Note: When moving the Door Phone Controller or adding or removing cables from the back panel, unplug transformer from 120V outlet. Also unplug the terminal strip and modular phone connectors on the back panel.

To customize the Door Phone Controller for this type of installation, you must properly configure the 8-position DIP switch located on the Door Phone Controller front panel (see Figure 1-1). Use the Flow Chart in Figure 5-1 to properly set the DIP switch.

Install the Door Phone Controller using the information in Section 2. Refer to Figure 5-2.

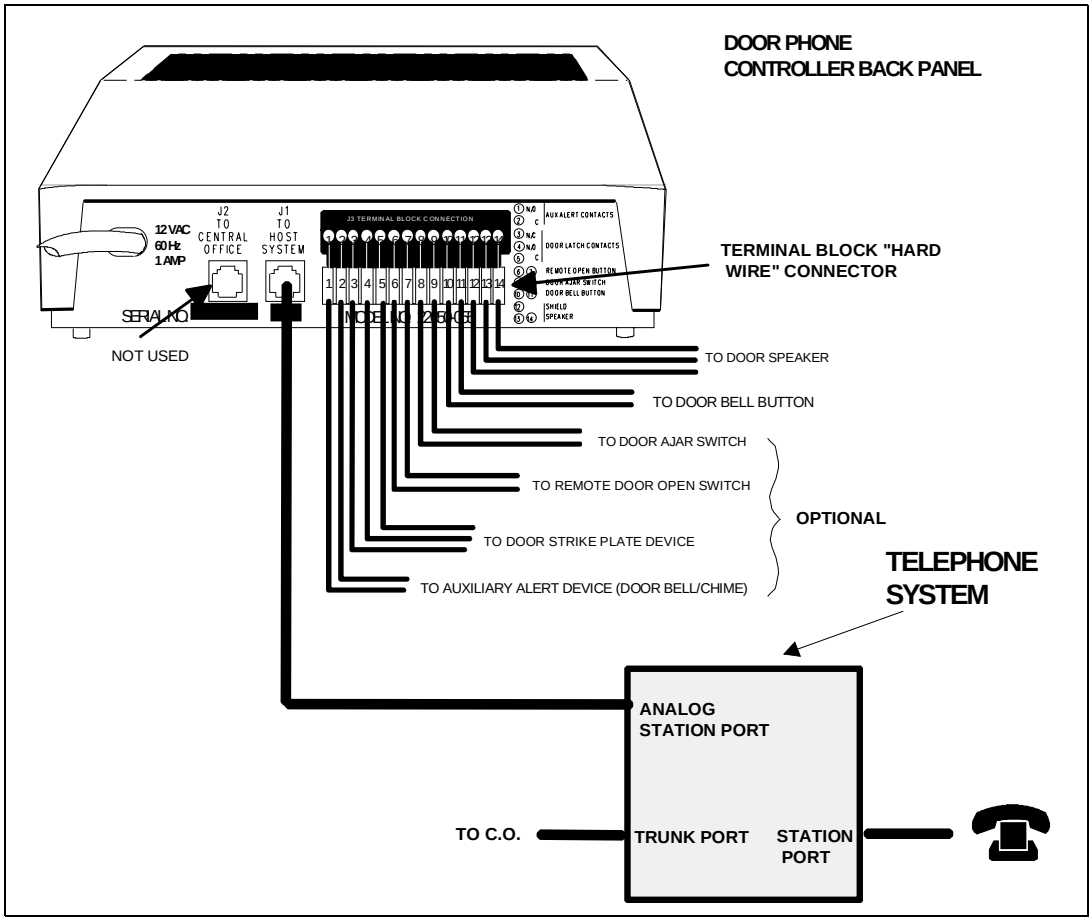

Figure 5-2. Connecting the PagePac® Door Phone Controller to a Telephone System with Dedicated Analog Station Port

Option Selection

Note: Refer to Appendix B for a detailed explanation of each of these options.

The final step of the installation procedure is selecting options for your Door Phone Controller. The selection of these options must be done while in the Option Selection Mode. This mode lets you control such things as:

- Delay before Door Ajar Callback.
- Ring/Chime Cadence.
- Ring/Chime Duration.
- Door Unlock Code.
- Door Unlock Duration.
- Enable Door Code.
- Door Ajar Mode.
- Forced Disconnect Time-Out.
- Reset Options to Factory Defaults.
- Phone Number Storage Memory 1.
- Phone Number Storage Memory 2.

Follow the steps below to select options for the Door Phone Controller.

CAUTION: Never connect a DOOR PHONE CONTROLLER with the DIP Switches optioned for TRUNK access to a STATION LINE! Doing so may cause damage to the STATION LINE and/or the DOOR PHONE CONTROLLER!

1.Select Option Selection Mode by setting position 8 of the Door Phone Controller DIP switch (see Figure 1-1) to the ON position.

2. Once the DIP switch has been set, you must make connection to the door speaker by calling the extension number assigned to the Door Phone Station Port. At this point you must enter “##3” on the telephone keypad (option selection mode is active as soon as you hear a dial tone).

Note: Any or all options may be reselected in any order.
The Forced Disconnect Time-out option does not apply when setting options (unless 2 minutes elapse without a Touch-Tone selection).

3. Use Table 5-1 to make each option selection.
4. To exit option selection mode, press "##3" on the telephone keypad. You will hear 2 beeps. Hang up the phone.
5. Set position 8 of the Door Phone Controller DIP switch back to the OFF position.

Table 5-1. PagePac® Door Phone Controller Option Selection Information

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Delay Before Door Ajar Callback	To Select Option	00	Single Beep	000 to 255 for 0 to 255 seconds of delay after strike plate release stops until Door Phone Controller calls back to indicate that door is ajar	Double Beep	30 sec.
	To Verify	01				
Ring/Chime Cadence	To Select Option	10	Single Beep	24 (for 2 sec. on 4 sec. off cadence) **or** 15 (for 1 sec. on 5 sec. off cadence)	Double Beep	2 sec./ 4 sec.
	To Verify	11				
Ring/Chime Duration	To Select Option	20	Single Beep	00 to 99 (0 to 99 second(s) ring/ chime)	Double Beep	30 sec.
	To Verify	21				
Door Unlock Code	To Select Option	30	Single Beep	4 digits (first digit must be 0,3,4,5,6,7 or 8 remaining digits can be set from 0 to 9)	Double Beep	6736 "OPEN"
	To Verify	31				
Door Unlock Duration	To Select Option	40	Single Beep	00 to 99 (door lock active time in sec.)	Double Beep	4 sec.
	To Verify	41				
Enable Door Code	To Select Option	50	Single Beep	1 Enable door code 0 Disable door code	Double Beep	1 (Enabled)
	To Verify	51				
Door Ajar Mode	To Select Option	50	Single Beep	2 For callback after strike plate release only 3 For callback anytime door is opened	Double Beep	2
	To Verify	51				
Forced Disconnect Time-Out	To Select Option	60	Single Beep	010 to 255 (unit disconnects in 10 to 255 sec.)	Double Beep	120 sec.
	To Verify	61				
Reset Options to Factory Defaults	To Select Option	70	Single Beep	## (to restore factory default conditions)	Double Beep	N/A
	To Verify	71				
Phone Number Storage Memory 1	To Select Option	80	Single Beep	0 to 20 numerical digits and ✻ (✻ = 2 second pause) # terminates entry	Double Beep	#
	To Verify	81				
Phone Number Storage Memory 2	To Select Option	90	Single Beep	0 to 20 numerical digits and ✻ (✻ = 2 second pause) # terminates entry	Double Beep	#
	To Verify	91				

Operation

Auxiliary Alert Mode – Basic Door Answer Function

Visitor Presses Door Speaker Button

When a visitor presses the door speaker push button, the Door Phone Controller will activate an auxiliary alert (door-bell/chime). Any additional presses on the door speaker push button will be ignored (with the exception that a confirmation tone will still be sent to the speaker when the door button is pressed).

Answering a Call Sent From the Door Phone

When a person inside the building hears the door bell/chime sound, he can simply respond by dialing the Door Phone Controller station number. At this point, the Door Phone Controller will establish two-way communications with the door speaker.

Note: The telephone system must pass Touch Tones to the station port connected to the Door Phone Controller in order for the Door Code to be recognized.

To open the door, the person inside the building either enters the Door Code on the telephone's keypad or presses the customer provided door-unlock push button. Either of these actions will activate the customer provided electric door release.

Complete installation instructions for adding an Auxiliary Alert option can be found in Appendix E.

As an alternative response to hearing the door bell/chime, the person inside the building can press the door-unlock push button which will stop the auxiliary contacts and will open the door. This allows the door to be unlatched without the use of a phone.

Calling the Door Speaker

To initiate a call to the Door Speaker, the person inside the building simply takes the telephone off-hook and dials the station phone number of the door speaker.

Ringdown Mode – Basic Door Answer Function

Visitor Presses Door Speaker Button

When a visitor presses the door speaker push button, the Door Phone Controller will activate a door-bell/chime (optional), go off-hook, and dial the pre-selected stored phone number, 1 or 2 (these can be selected by pressing ##1 or ##2 once connection to the speaker has been made). Any additional presses on the door speaker push button will be ignored while the Door Phone Controller is off-hook.

Answering a Call Sent From the Door Phone

When a person answers the ringing telephone, the Door Phone Controller will establish two-way communications with the door speaker.

To open the door, the person inside the building either enters the Door Code on the telephone's keypad or presses the customer provided door-unlock push button.

Note: Opening door will terminate station mode access.

Either of these actions will close the metallic contacts which activate the customer provided electric door release.

Calling the Door Speaker

To initiate a call to the Door Speaker, the person inside the building simply takes the telephone off-hook and dials the station phone number of the door speaker.

Installation for Telephone System Without Available Dedicated Trunk/Station Port 6

Contents

Overview

*Note: Ground start trunks will **NOT** operate properly with this shared trunk installation.*

This section provides installation and operation information for installations which use a telephone system that does not have an available Dedicated Trunk or Station Port. By configuring the telephone system to the instructions in this section, your telephone system equipment will operate in Trunk/Port share mode.

DIP Switch Selections

Note: Complete information about the DIP switch settings can be found in Appendix A.

To customize the Door Phone Controller to your specific installation and option requirements, you must properly set the 8-position DIP switch located on the Door Phone Controller front panel (see Figure 1-1). Use the flow chart in Figure 6-1 to help configure the DIP switch for either Trunk Saver or Port Saver Mode.

A trunk shared with the Door Phone should never be configured in a telephone system with other trunks in a common pool or group.

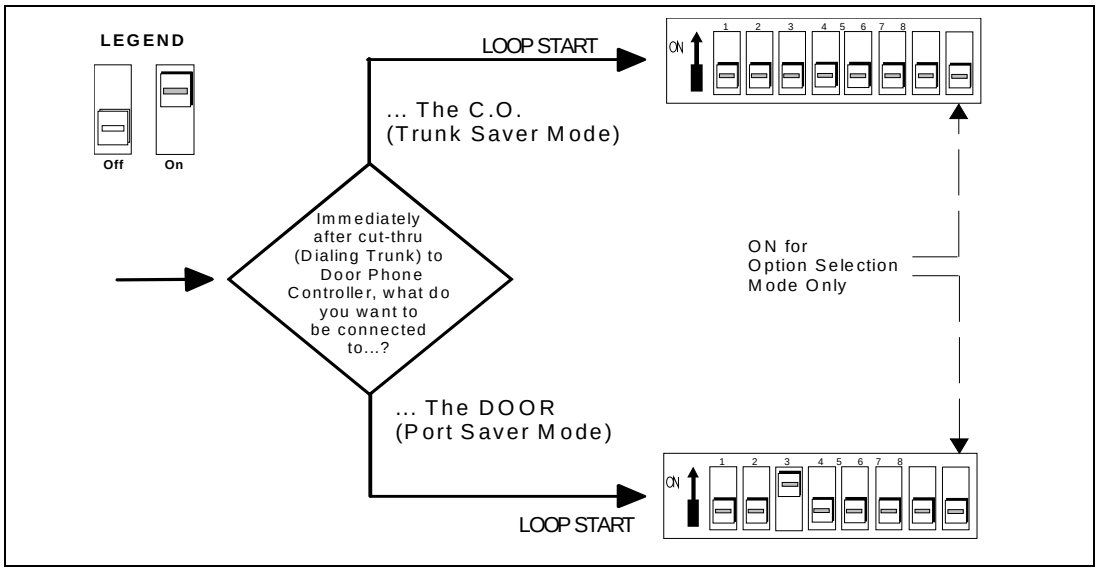

Figure 6-1. DIP Switch Setting for PBX With Shared Trunk Port

Installation

Note: When moving the Door Phone Controller or adding or removing cables from the back panel, unplug transformer from 120V outlet. Also unplug the terminal strip and modular phone connectors on the back panel. Complete information regarding each of the DIP switch positions can be found in Appendix A.

Install the Door Phone Controller using the information in Section 2. Refer to Figure 6-2.

To customize the Door Phone Controller for this type of installation, you must properly set the 8-position DIP switch located on the Door Phone Controller front panel (see Figure1-1). Use the Flow Chart in Figure 6-1 to properly set the DIP switch.

CAUTION: Do NOT connect to the modular jacks on the Door Phone Controller until after the DIP switches have been properly set.

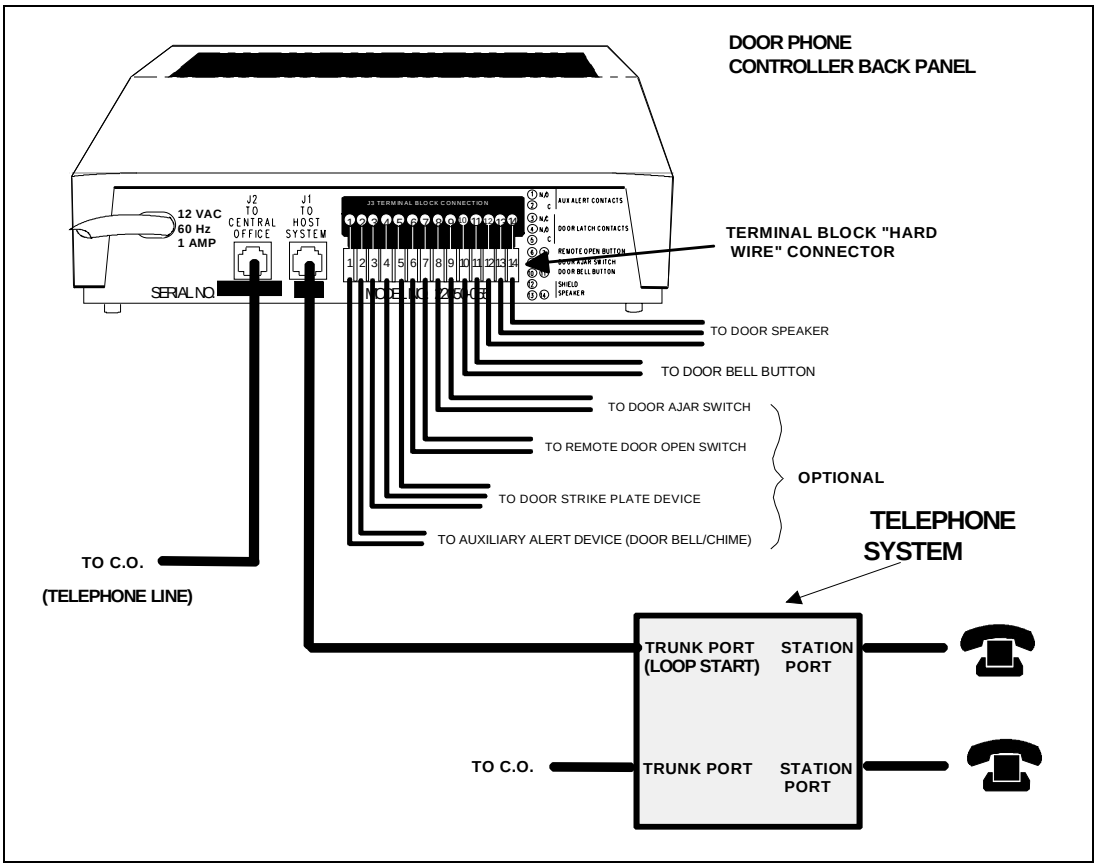

Figure 6-2. Connecting the PagePac® Door Phone Controller to a Telephone System With Shared Trunk Port

Option Selection

Note: Refer to Appendix B for a detailed explanation of each of these options.

The final step of the installation procedure is selecting options for your Door Phone Controller. The selection of these options must be done while in the Option Selection Mode. This mode lets you control such things as:

- Delay Before Door Ajar Callback.
- Ring/Chime Cadence.
- Ring/Chime Duration.
- Door Unlock Code.
- Door Unlock Duration.
- Enable Door Code.
- Door Ajar Mode.
- Forced Disconnect Time-Out.
- Reset Options to Factory Defaults.

Port Saver or Trunk Saver Mode Installation

Refer to the following instructions for Port Saver Mode or Trunk Saver Mode installation.

Port Saver Mode

Follow the steps below to set the Door Phone Controller for Port Saver Mode.

CAUTION: Never connect a DOOR PHONE CONTROLLER with the DIP Switches optioned for TRUNK access to a STATION LINE! Doing so may cause damage to the STATION LINE and/or the DOOR PHONE CONTROLLER!

1. **Select Option Selection Mode by setting position 8 of the Door Phone Controller DIP switch (see Figure 1-1) to the ON position.**

2. Access the trunk (allocated for the Door Phone Controller), and make connection to the door speaker by dialing “1” or “2” within 4 seconds. At this point you must enter “##3” on the telephone keypad (Option Selection Mode is active as soon as you hear a distinctive dial tone – if you don't hear a distinctive dial tone, check to see if switch 8 is DOWN).

3. Use Table 6-1 to make each option selection.

Note: Any or all options may be reselected in any order. The Forced Disconnect Time-out option does not apply when setting options (unless 2 minutes elapse without a Touch-Tone selection).

4. To exit Option Selection Mode, press “##3” on the telephone keypad. You will hear 2 beeps. Hang up phone.

5. Set position 8 of the Door Phone Controller DIP switch back to the OFF position.

Trunk Saver Mode

Follow the steps below to set the Door Phone Controller for Trunk Saver Mode.

CAUTION: Never connect a DOOR PHONE CONTROLLER with the DIP Switches optioned for TRUNK access to a STATION LINE! Doing so may cause damage to the STATION LINE and/or the DOOR PHONE CONTROLLER**!**

1.Select Option Selection Mode by setting position 8 of the Door Phone Controller DIP switch (see Figure 1-1) to the ON position.

2. Access the Trunk (allocated for Door Phone Controller) and make connection to the door speaker by “Hook-Flashing” the phone. At this point you must enter “##3” on the telephone keypad (Option Selection Mode is active as soon as you hear a distinctive dial tone – if you don't hear a distinctive dial tone, check to see if switch 8 is DOWN).

3. Use Table 6-1 to make each option selection.

Note: Any or all options may be reselected in any order. The Forced Disconnect Time-out option does not apply when setting options (unless 2 minutes elapse without a Touch-Tone selection).

4. To exit Option Selection Mode, press “##3” on the telephone keypad, you will hear 2 beeps. Hang up phone.

5. Set position 8 of the Door Phone Controller DIP switch back to the OFF position.

Table 6-1. PagePac® Door Phone Controller Option Selection Information

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Delay Before Door Ajar Call-back	To Select Option	00	Single Beep	000 to 255 for 0 to 255 seconds of delay after strike plate release stops until Door Phone Controller calls back to indicate that door is ajar	Double Beep	30 sec.
	To Verify	01				
Ring/Chime Cadence	To Select Option	10	Single Beep	24 (for 2 sec. on 4 sec. off cadence) **or** 15 (for 1 sec. on 5 sec. off cadence)	Double Beep	2 sec./ 4 sec.
	To Verify	11				
Ring/Chime Duration	To Select Option	20	Single Beep	00 to 99 (0 to 99 second(s) ring/chime)	Double Beep	30 sec.
	To Verify	21				
Door Unlock Code	To Select Option	30	Single Beep	4 digits (first digit must be 0,3,4,5,6,7 or 8 remaining digits can be set from 0 to 9)	Double Beep	6736 “OPEN”
	To Verify	31				
Door Unlock Duration	To Select Option	40	Single Beep	00 to 99 (door lock active time in sec.)	Double Beep	4 sec.
	To Verify	41				
Enable Door Code	To Select Option	50	Single Beep	1 Enable door code 0 Disable door code	Double Beep	1 (Enabled)
	To Verify	51				
Door Ajar Mode	To Select Option	50	Single Beep	2 For callback after strike plate release only 3 For callback anytime door is opened	Double Beep	2
	To Verify	51				

Table 6-1. PagePac® Door Phone Controller Option Selection Information (Continued)

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Forced Disconnect Time-Out	To Select Option	60	Single Beep	010 to 255 (unit disconnects in 10 to 255 sec.)	Double Beep	120 sec.
	To Verify	61				
Reset Options to Factory Defaults	To Select Option	70	Single Beep	## (to restore factory default conditions)	Double Beep	N/A
	To Verify	71				
NOTE: The Door Ajar Delay (Option Selection) will begin when the call to the door speaker is disconnected.						

Operation – Basic Door Answer Function

Visitor Presses Door Speaker Button

When a visitor presses the door speaker push button, the Door Phone Controller will signal the telephone equipment inside your building to ring, and activate an auxiliary alert (door-bell/chime) (optional). Any additional presses on the door speaker push button will be ignored (with the exception that a confirmation tone will still be sent to the speaker when the door button is pressed).

Answering a Call From the Door Speaker

When a person inside the building hears the telephone ring and/or the door bell/chime sound, he can respond by answering the ringing phone. At this point, the Door Phone Controller will establish two-way communication with the door speaker. To open the door, the person inside the building either enters the Door Code on the telephone's keypad or presses the customer provided door-unlock push button. Either of these actions will activate the customer provided electric door strike plate device.

As an alternative response to hearing the telephone or door bell/chime, the person inside the building can press the door-unlock push button which will stop the ringing and will open the door. This allows the door to be unlatched without the use of a phone.

Calling the Door Speaker From Inside the Building

Note: Your PBX must be capable of relaying the hook-flash from the station set to the trunk port.

To initiate a call to the door in the Trunk Saver mode, the person within the building simply takes the telephone off-hook, accesses the trunk connected to the Door Phone Controller, and hook-flashes the telephone within the first 5 seconds. At this point, there will be direct two-way communication from within the building to the door speaker.

To initiate a call to the door in the Port Saver mode, the person within the building simply takes the telephone off-hook, accesses the trunk connected to the Door Phone Controller, and dials "1" within the first 4 seconds. At this point, there will be direct two-way communication from within the building to the door speaker. (Alternatively, the person may dial a "9" within the first 4 seconds after accessing the trunk in order to be immediately connected to the C.O. line.)

Telephone Line In Use When a Visitor Presses Door Speaker Button

Note: Once the doorbell push button is pressed, you can "Hook- Flash" to the door speaker and then back to the original call only once, unless the push button is pressed again.

If you forget to hook-flash back to the original call, the Door Phone Controller will call you back.

If a visitor presses the door speaker button while an existing call is already taking place on the line, the Door Phone Controller will generate a "door alert" signal to indicate a visitor needs attention at the entrance. The person using the line can hook-flash the phone and be in direct two-way communication to the door speaker. The other party will be placed on hold. At this point, normal Door Phone Controller functions can take place. When the door phone functions have been completed, i.e., door has been remotely opened, hook-flashing phone again (or pressing 9) will return line to original call. This feature operates much like a call-waiting function.

Telephone Line In Use With Door When a Call Arrives

If there is a call in progress between the door speaker and a station user and a call (C.O.) comes in, the person inside the building (not the door speaker) will hear a call waiting tone. The station user can hook-flash the phone (or dial 9) and communicate with the incoming caller. When the call is complete, the station user hangs up the phone. To speak with the door phone again, the station user must either hook-flash the phone (within 4 seconds of picking up the receiver) if installed for Trunk Saver Mode or dial “1” if installed for Port Saver Mode.

Placing a Call Through the C.O. From Inside Building

To initiate a call through the C.O. in the Trunk Saver Mode, the person within the building simply takes the telephone off-hook, accesses the trunk connected to the Door Phone controller, and then dials the desired phone number. This is normal procedure for placing an outside call.

To initiate a call through the C.O. in the Port Saver Mode, the person within the building simply takes the telephone off-hook, then accesses the trunk connected to the Door Phone Controller. At this point the caller will hear a dial tone from the Door Phone Controller. Dialing a “9”, or waiting 4 seconds, will switch the caller to the C.O. and the regular phone number is dialed.

Troubleshooting and Technical Assistance

7

Contents

Troubleshooting Procedures

Table 7-1. Troubleshooting Procedures

Trouble	Possible Cause	Possible Solution
LED "off" constantly.	Check power connection.	If power connection is good, then return for repair.
LED "on" constantly.	Brown-out condition or software frozen.	Unplug and plug back in.
LED blinking more than four times a second.	Internal software error; may still work.	Unplug and plug back in; if problem continues return for repair.
Talkback volume, but no speaker volume.	Volume control turned down or DIP switches incorrectly set for mode of operation.	Verify setting of controls and DIP switches.
Speaker volume, but no talkback volume.	Volume control turned down.	Verify setting.
No page or talkback volume.	Shorted or open speaker lead connection.	Remove short or open.
Unit disconnects after a certain time.	Check forced disconnect time-out selection.	Change time-out (option selection).
Dial tone heard from the speaker.	DIP switches incorrect for mode of operation. Telephone system returns dial tone after Door Phone goes on-hook.	Verify Mode of operation. Program telephone system for no dial tone on this extension.
Cannot hear your own voice in telephone ear piece.	DIP switch incorrect.	Correct.
	Plugged wires into wrong jack.	Correct.
Station mode seizes line then disconnects before Door Phone Controller is accessed.	Forced disconnect time-out set to low.	Enter Option Selection Mode (##3), and enter new Forced Disconnect Time-out Duration.
	Station line plugged into J2.	Correct, move to J1.
Cannot access Door Phone Controller in trunk saver mode.	J1 and J2 swapped.	Check connections and correct if needed.
Getting door-ajar callback when door is actually closed.	Bad door ajar switch.	Fix or adjust.
	Open door ajar switch wiring.	Fix.
Getting door-ajar callback when door ajar switch is not used.	Missing jumper on terminal block.	Jumper pins 8 & 9 of terminal block.
Receive C.O. call waiting tone when accessing the Door Phone Controller but cannot dial and/or hook-flash to connect to call.	Door Phone Controller optioned for dedicated mode instead of Trunk Saver or Port Saver Mode.	Verify DIP switch positions.
	PBX does not relay the hook- flash.	Use in dedicated mode.

Table 7-1. Troubleshooting Procedures (Continued)

Trouble	Possible Cause	Possible Solution
Cannot open door remotely using Touch Tone door unlatch function.	Door Unlock option disabled or Wrong Door Code.	If error tone, verify Door Open Code and Door Unlock enable option.
	Check all wiring from Door Phone Controller to electric strike plate device (see manufacturer's instructions).	Disconnect wires from the terminal block “Door Unlatch Contacts.” Use volt/ohm meter to check continuity between NO and C terminals while activating Touch-Tone door unlatch function. If continuity test fails, return Door Phone Controller for repair.
Cannot open door remotely using remote door open button.	Check all wiring from Door Phone Controller to electric strike plate device, also check operation of electric strike plate device (see manufacturer's instructions).	Disconnect wires from the terminal block “Remote Open Button” and “Door Unlatch Contacts.” Use volt/ohm meter to check continuity between both wires from the remote open button while activating the button. If continuity test of button is good, button is OK. Now reconnect button wires to “Remote Button Contacts,” and check continuity of “Door Unlatch Contacts” (between NO and C) while activating remote door open button. If continuity test fails, return Door Phone Controller for repair.
Cannot open door remotely using either Remote Door Open Button or the Door Code.	Improper wiring to existing door strike device. May be caused by improper connection and use of NO (Normally-Open), NC (Normally Closed), and C (Common) door latch relay contacts, especially when interfacing these contacts to existing door configurations.	Verify all connections when connecting the door strike contacts on the Door Phone Controller to existing door open buttons. Make sure of the following: 1. The NO and C contacts are connected in parallel to a normally-open button. 2. The NC and C contacts are connected in series to a normally-open button.
Selected options are not operating as expected.	Incorrect or inappropriate values were entered.	Use Verify mode to confirm selected options without changing the values. Carefully consider the “consequences” of options chosen.

Technical Assistance

When calling, have a VOM and a telephone test set available and call from the job site. Call (540) 427-3900 and ask for PagePac Technical Support, or call (540) 427-6000 for Valcom 24-hour Automated Support or visit our web-sites at http://www.pagepac.com and www.valcom.com.

Should repairs be necessary, attach a tag to the unit clearly stating company name, address, phone number, contact person, and the nature of the problem. Send the unit to:

PagePac® Repair Dept.
Valcom, Inc.
5614 Hollins Road
Roanoke, VA 24019-5056

Appendix A—DIP Switch Settings

Setting the DIP Switch Positions

Note: All switches are OFF when shipped from the factory.

The PagePac® Door Phone Controller's basic operating modes are selected on the 8-position DIP switch at the front of the unit (see Figure 1-1). Positions 1 through 5 are used to set up the way the Door Phone Controller will interface with your telephone equipment. Position 8 is used to access Option Selection Mode. Positions 6 and 7 are not used. The definition of each switch position is given below:

Switch 1

Selects between Trunk Access and Station Access. Trunk Access = OFF; Station Access = ON.

Switch 2

Selects between Dedicated Trunk or Shared Trunk. This switch only has meaning when Trunk Access is selected with Switch 1. Shared Trunk = OFF; Dedicated Trunk = ON.

Switch 3

Selects between Trunk Saver or Port Saver. This switch only has meaning when Trunk Access is selected with Switch 1 and Shared Trunk is selected with Switch 2. Trunk Saver = OFF; Port Saver = ON.

Switch 4

Selects between Loop Start and Ground Start. This switch only has meaning when Trunk Access is selected with Switch 1. Loop Start = OFF; Ground Start = ON.

Switch 5

Selects between Auxiliary Alert or Ringdown. This switch only has meaning when Station Access is selected with Switch 1. Auxiliary Alert = OFF; Ringdown = ON.

Switch 6

Not used.

Switch 7

Not used.

Switch 8

Selects between Option Selection Mode and Normal Operation. This switch acts as a Option Selection security switch. If this switch is ON, any user can activate Option Selection Mode by keying in “##3” on a touch-tone telephone set which connects directly to the Door Phone Controller. When this switch is OFF, Option Selection Mode cannot be activated. Normal Mode = OFF; Option Selection Mode = ON.

Appendix B—Option Selection Mode Definitions

The information below provides detailed information regarding each of the settable options for the PagePac® Door Phone Controller.

Ring/Chime Cadence

Provides an alternate ring (on/off) cycle from how it would ring for a normal call. For instance, you can configure the telephone to ring for 2 seconds and then be silent for 4 seconds, or ring for 1 second and then be silent for 5 seconds.

Ring/Chime Duration

This option provides a maximum duration of telephone ringing cycles (in seconds) before the Door Phone Controller will disconnect.

Door Unlock Code

This option determines what your door unlock combination will be. The default is set for 6736, but for security reasons it is recommended you change this to your own four-number combination.

Door Unlock Duration

This option determines the amount of time the door unlock function will be activated. The default is 4 seconds.

Enable Door Code

This option can be set so the door access code is disabled. Once it is disabled, entering the door unlock code will not provide a door unlock function.

Door Ajar Mode

This option provides the choice of either having the Door Ajar call back any time the door is opened, or only after it has been opened via the strike plate release. **Note:** When the Door Ajar switch senses that the door has been opened and closed again, the door open relay will cease being energized.

Forced Disconnect Time-out

This option sets the maximum time in which two-way communications can take place between the door speaker and the telephone. Setting this option to less than 30 seconds is not advised.

Reset Option Selections to Factory Defaults

This option is useful when current option selections are unknown. Note that this function will reset the Door Unlock Code to the default value, but it will not reset “Phone Number Storage Memory 1” or “Phone Number Storage Memory 2” (see below). Defaults to dialing phone number #1.

Phone Number Storage Memory 1	This option is used in what is called “Ringdown Mode” to auto-dial a particular extension or outside-line phone number. The Door Phone Controller has two memory locations for holding user stored telephone numbers. Phone numbers can be for telephones within the same building or off-premises. These memory locations are used exclusively in Ringdown Mode. Only one memory location is active at a time. To select the active location for the phone number, a telephone connection to the Door Phone Controller must be made (by calling the extension number of the Door Phone). Once connected dial in “##1”, this selects Memory Location 1; if you were to dial in “##2”, you would select Memory Location 2.
Phone Number Storage Memory 2	See above explanation.
Delay Before Door Ajar Call Back	This option determines the length of time allowed for the door to shut after it has been opened by the strike plate release. If the door is still ajar at the end of this period, the controller will call back and an alarm tone will be heard in the receiver when the phone is answered.

Appendix C—Specifications

Electrical

Standards

The Door Answer Controller meets:

- F.C.C. part 15, class B requirements.
- F.C.C. part 68 requirements.
- CSA/NRTL requirements.

Electrostatic Discharge

Your PagePac® Door Phone Controller complies with the ESD requirements in BELL Pub 48002.

All user accessible connectors and controls have electrostatic discharge protection.

Power Supply

The Door Phone Controller is powered by an UL listed wall mount transformer with a strain relieved cord.

It functions over an input power range of 96 VAC to 129 VAC.

Your Door Phone Controller has a green LED power indicator.

- A flashing state of 2.5 per second indicates normal power to the unit and normal microprocessor operation.
- A constant ON state indicates a brown-out condition or microprocessor failure.
- A constant OFF state indicates there is no power to the unit.

Page and Talk-Back Amplifier

Paging output power is 2 watts (continuous) @ 3.35 Vrms (sine wave). Talkback input sensitivity: with 600 microVrms at the speaker leads, tip and ring output level will be -17 dBm.

Auxiliary Alert

Relay Contact Closures rated at 1 amp.

Door Latch Contacts

Relay Contact Closures rated at 2 amps.

Ring Generator

Your PagePac® Door Phone Controller provides a ring generator signal which can ring devices that respond to either 20 Hz or 60 Hz frequencies. The ringer will automatically adapt to a 50 Hz line by ringing at 25 Hz.

A Ringer Equivalence (REN) of 2 is supported by the Door Phone Controller.

C.O. Line Jack

Input has a REN of 0.5, Type B.

Mechanical

The Door Phone Controller's control unit PCB is mounted in a molded plastic enclosure with a metal back panel. The front panel is protected by a flip down cover. You have access to controls and connections on the front panel and back panel.

Front Panel

The front panel controls and indicators consist of:

- One page volume control.
- One talkback volume control.
- One 8 position DIP switch.
- One power indicator (green LED).

Back Panel

The back panel connections consist of:

- One strain relieved cord approximately 6 feet in length attached to a wall mount transformer.
- One RJ11* jack for the telephone/PBX interface.
- One RJ11* jack for Central Office interface.
- One connector mounted terminal strip.

Note: The Canadian equivalent of the RJ11C connector is CA11A. Where applicable, CA11A is to be understood for reference to RJ11C in this manual.

Dimensions and Weight

Length: 10.5 inches, Width: 9.5 inches, Height: 2.5 inches,
Weight: 5.5 lbs.

Appendix D—Using the Door Phone Controller With An Answering Machine

Installation Information

This Appendix provides two methods for configuring an answering machine to the PagePac® Door Phone Controller. The first method diagrams how to connect the Door Phone Controller with an answering machine so that only regular telephone calls are answered by the answering machine (see Figure A-1). The second method diagrammed will allow the answering machine to answer both regular telephone calls and calls from the Door Speaker (see Figure A-2).

Note: When configuring the Door Phone Controller to answer both the door and telephone calls, be sure to change your outgoing message accordingly.

CAUTION: When using your answering machine to answer both door and telephone calls, make sure to set your answering machine to allow for a limited length incoming message. Do not use an answering machine that cannot limit the incoming message length.

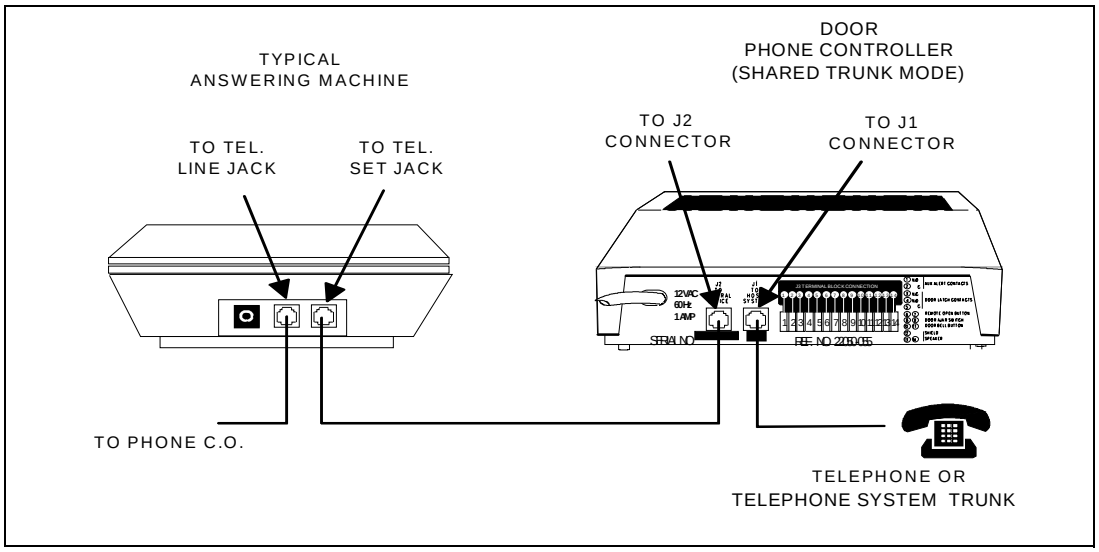

Figure D-1. Installation Method Used For Answering Only Telephone Calls

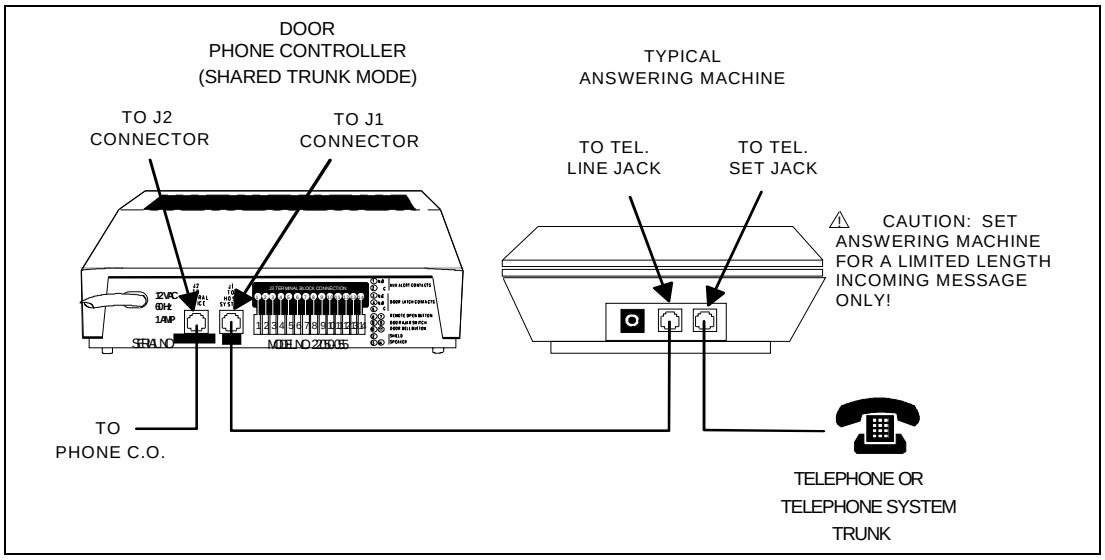

Figure D-2. Installation Method Used For Answering Both Door and Telephone Calls

Appendix E—Auxiliary Alert Option

Installation Instructions

The following instructions utilize the WP91683 L1 Power Supply for the PagePac® Door Phone Controller external alert feature.

APPLICATION INFORMATION

The WP91683 L1 Power Supply is the interface for providing 48VDC to operate external alert features for the Door Phone Controller such as bells, horns, lamps, strobes, and chimes.

The WP91683 L1 Power Supply is a plug-in power supply capable of providing 48VDC at up to 200 milliamps. The power supply operates from a 115/120 volt AC standard single or duplex receptacle.

HOW IT WORKS

The Door Phone, in conjunction with a telephone system, provides a means to alert a customer that a doorbell button has been pressed. In response the customer can answer and talk to the door from a telephone within the customers premises.

The alerting device function can be provided by an external alert device powered by the WP91683 L1 Power Supply. The Door Phone's AUX. ALERT contact closure is used by the WP91683 L1 Power Supply to provide 48 Volts DC to activate the external alert device.

INSTALLATION

These instructions apply to the use of a four-conductor modular cord only.

1. Locate the WP91683 L1 Power Supply as close as possible to the Door Phone Controller (the nearest wall receptacle, DO NOT PLUG IN YET).

2. Run a standard 2-pair wire DIW or equivalent between the Door Phone Controller and a 103A connecting block. Connect jack on the 103A block to the jack marked “Control” on the WP91683 L1 Power Supply with DW4A modular cords or equivalent (see Figure E-1).

A. Connect one end of the wire to the Door Phone Controller as follows:

   Connect the black and yellow leads to the Aux. Alert terminals of the Door Phone Controller.

B. Connect the other end of the wire to the 103A connecting block. Connect the leads as follows:

   On the 110-type connector, connect Terminal 2 to the black wire, and connect Terminal 6 to the yellow wire (see Figure E-1).

Note: A standard 4-conductor modular cord set can be used for limited distances (25 feet and under) for connections between the WP91683 L1 Power Supply power jack and alerter (signal) only.

3. Place alerter where desired. Run 2-pair DIW from alerter (signal) to power supply. Connect 4-conductor modular plugs to both ends of 2-pair wire DIW as follows:
   Position 1 - Black Wire
   Position 2 - Red Wire
   Position 3 - Green Wire
   Position 4 - Yellow Wire

4. Place one modular plug into modular jack on alerter (SIGNAL).

5. Place the second modular plug into the WP91683 L1 Power Supply jack marked “POWER”.

6. Plug WP91683 L1 Power Supply into wall receptacle.

7. Test to see that external alert is operating by pressing the button on the Door Phone Speaker.

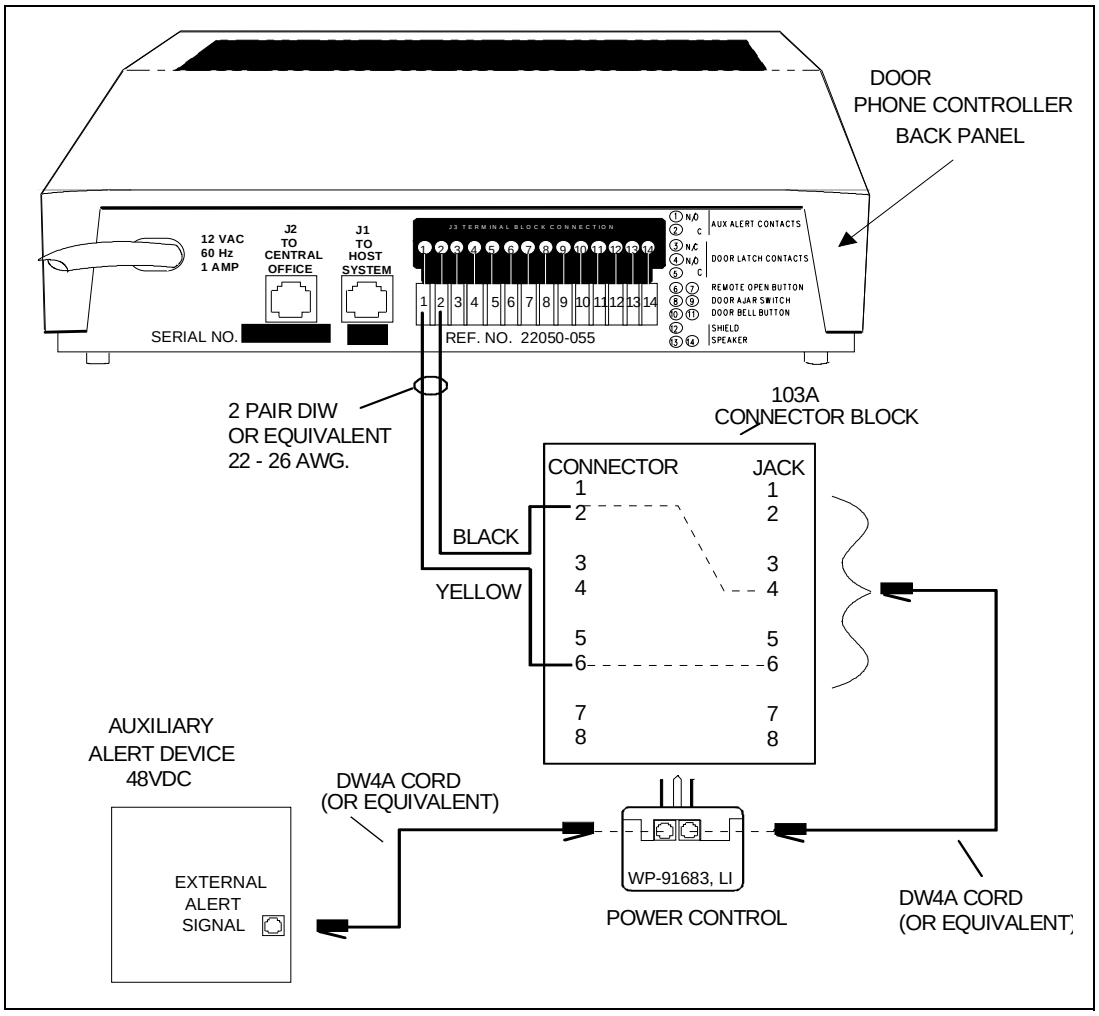

Figure E-1. Connections For Auxiliary Alert Device

Appendix F—Secondary Circuit Protection

Important Information

This equipment is for use on telephone wiring containing a secondary circuit protector. **This paging equipment requires a Secondary Circuit Protector where applicable (see Figure F-1).**

The secondary circuit protector must be located between the primary protector and the paging equipment. Refer to the Safety Information below.

Safety Information

The Secondary Circuit Protector is used when connecting paging equipment directly to telephone lines that may be exposed to high voltage power lines.

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Use appropriate Valcom approved device.

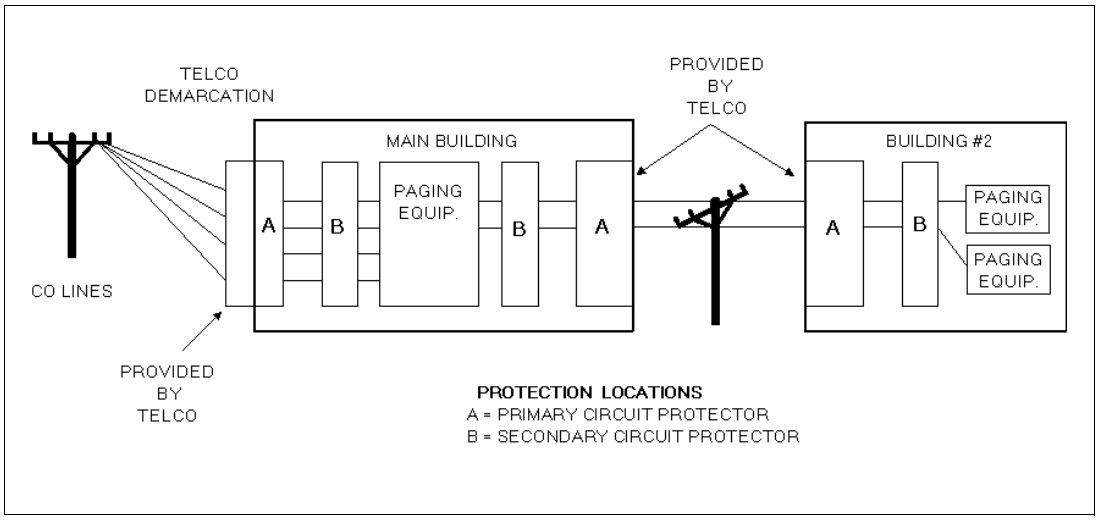

Figure F-1. Example Configurations Requiring Secondary Protection When Paging Equipment is Connected Directly to the Telephone Network

Appendix G—FCC Regulations, CSA

FCC Regulations Pertaining to This Equipment

FCC (PART 15) Radio Frequency Interference

The PagePac® Door Phone Controller generates and uses radio frequency energy and if not installed and used in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception.

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

- Reorient the radio or TV receiving antenna.
- Relocate the unit with respect to the radio or TV receiver or vice-versa.
- Plug the unit into a different outlet so that it and the radio or TV receiver are on different branch circuits.
- If necessary, the user should consult the dealer or an experienced radio/ television technician for additional suggestions. The user may find the following booklet, “How To Identify and Resolve Radio-TV Interference Problems,” helpful. This booklet was prepared by the Federal Government Printing Office, Washington, DC 20402. Stock order No. 004-000-00345-4.

FCC (PART 68)

This equipment is registered with the Federal Communications Commission (FCC) in accordance with Part 68 of its Rules. The FCC requires that the manufacturer provide you with the following information:

1. Connection and Use with Nationwide Telephone Network

The FCC requires that you connect your telephone equipment to the nationwide telephone network through a modular telephone outlet or jack. The modular telephone outlet or jack to which the equipment must be connected is a USOC RJ11C.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact your dealer for repair and/or warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

Registered equipment may not be used with telephone company Coin Telephone Lines. Equipment may be used with Party Lines in areas where state tariffs permit such connections and when equipment is adaptable for such use.

2. Information You May Need to Supply the Telephone Company

Upon request of your local telephone company, you are required to provide them with the following information:

A. The lines to which you will connect the telephone equipment.

B. The FCC registration number and Ringer Equivalence Number (REN). Both numbers are listed on the equipment label. The REN is useful to determine how many devices you may connect to your telephone line and still have them ring when your telephone line is called. In most, but not all, areas, the sum of all RENs per line should be 5 or less. You may want to contact your local telephone company. The local telephone company must also be notified upon final disconnection of the equipment from the local telephone company lines.

CSA Regulations Pertaining to This Equipment

NOTE: The Canadian equivalent to the RJ11C connector is CA11A. Where applicable, CA11A is to be understood for references to RJ11C in this manual.

This product is CSA Certified.

In Canada, the Document Registration Number appears on the maple-leaf label and the Load Number is under the maple-leaf label.

NOTICE: 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 user's 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 method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). 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:
User should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

PagePac®

DIP Switch Settings

Dip Switch Settings

Note: All switches are OFF when shipped from the factory.

The PagePac Door Phone Controller's operating modes are selected on the 8-position DIP switch at the front of the unit. Positions 1 through 5 are used to set up the way the Door Phone Controller will interface with your telephone equipment. Position 8 is used to access Option Selection Mode. Positions 6 and 7 are not used. Definitions are given below:

Switch 1 Selects between Trunk Access and Station Access. Trunk Access = OFF; Station Access = ON.

CAUTION: Damage to the PBX Station Card may result if switch position #1 is incorrectly set. Double check that switch position #1 is set to ON for Station Port Access.

Switch 2 Selects between Dedicated Trunk or Shared Trunk. This switch only has meaning when Trunk Access is selected with Switch 1. Shared Trunk = OFF; Dedicated Trunk = ON.

Switch 3 Selects between Trunk Saver or Port Saver. This switch only has meaning when Trunk Access is selected with Switch 1 and Shared Trunk is selected with Switch 2. Trunk Saver = OFF; Port Saver = ON.

Switch 4 Selects between Loop Start and Ground Start. This switch only has meaning when Trunk Access is selected with Switch 1. Loop Start = OFF; Ground Start = ON.

Switch 5 Selects between Auxiliary Alert or Ringdown. This switch only has meaning when Station Access is selected with Switch 1. Auxiliary Alert = OFF; Ringdown = ON.

Switch 6 Not used.

Switch 7 Not used.

Switch 8 Selects between Option Selection Mode and Normal Operation. This switch acts as a Option Selection security switch. If this switch is ON, any user can activate Option Selection Mode by keying in “##3” on a touch-tone telephone set which connects directly to the Door Phone Controller. When this switch is OFF, Option Selection Mode cannot be activated. Normal Mode = OFF; Option Selection Mode = ON.

(See other side for DTMF Option Selection)

PagePac®

Door Phone Controller —Option Selection Quick Reference

To Selection Options: (1) Set DIP switch location 8 to the ON position. (2) Dial door speaker phone number or extension. (3) Dial ##3. (4) Program any or all of the following functions, in any order:

Options	Mode Option	Press	Listen For	Press	Listen For	Default
Delay Before Door Ajar Call-back	To Select Option	00	Single Beep	000 to 255 for 0 to 255 seconds of delay after strike plate release stops until Door Phone Controller calls back to indicate that door is ajar	Double Beep	30 sec.
	To Verify	01				
Ring/Chime Cadence	To Select Option	10	Single Beep	24 (for 2 sec. on 4 sec. off cadence) **or** 15 (for 1 sec. on 5 sec. off cadence)	Double Beep	2 sec./ 4 sec.
	To Verify	11				
Ring/Chime Duration	To Select Option	20	Single Beep	00 to 99 (0 to 99 second(s) ring/chime)	Double Beep	30 sec.
	To Verify	21				
Door Unlock Code	To Select Option	30	Single Beep	4 digits (first digit must be 0,3,4,5,6,7 or 8 remaining digits can be set from 0 to 9)	Double Beep	6736 "OPEN"
	To Verify	31				
Door Unlock Duration	To Select Option	40	Single Beep	00 to 99 (door lock active time in sec.)	Double Beep	4 sec.
	To Verify	41				
Enable Door Code	To Select Option	50	Single Beep	1 Enable door code 0 Disable door code	Double Beep	1 (Enabled)
	To Verify	51				
Door Ajar Mode	To Select Option	50	Single Beep	2 For callback after strike plate release only 3 For callback anytime door is opened	Double Beep	2
	To Verify	51				
Forced Disconnect Time-Out	To Select Option	60	Single Beep	010 to 255 (unit disconnects in 10 to 255 sec.)	Double Beep	120 sec.
	To Verify	61				
Reset Options to Factory Defaults	To Select Option	70	Single Beep	## (to restore factory default conditions)	Double Beep	N/A
	To Verify	71				
Phone Number Storage Memory 1	To Select Option	80	Single Beep	0 to 20 numerical digits and ✻ (✻ = 2 second pause) # terminates entry	Double Beep	#
	To Verify	81				
Phone Number Storage Memory 2	To Select Option	90	Single Beep	0 to 20 numerical digits and ✻ (✻ = 2 second pause) # terminates entry	Double Beep	#
	To Verify	91				

After Selecting Options: (1) Press ##3. (2) Hang up after hearing a double beep confirmation. (3) Set DIP location 8 back to the OFF position, to prevent unauthorized re-programming. (see Other side for DIp Switch Settings).