

# INSTRUCTION MANUAL



PC2500

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### **Incidence of Harm**

Should terminal equipment or protective circuitry cause harm to the telephone network, the telephone company shall, where practicable, notify the customer that temporary disconnection of service may be required; however, where prior notice is not practicable, the telephone company may temporarily discontinue service if such action is deemed reasonable in the circumstances. In the case of such temporary discontinuance, the telephone company shall promptly notify the customer and will be given the opportunity to correct the situation.

### **Additional Telephone Company Information**

The security control panel must be properly connected to the telephone line with a USOC RJ-31X telephone jack.

The FCC prohibits customer-provided terminal equipment be connected to party lines or to be used in conjunction with coin telephone service. Inter-connect rules may vary from state to state.

### **Changes in Telephone Company Equipment of Facilities**

The telephone company may make changes in its communications facilities, equipment, operations or procedures, where such actions are reasonably required and proper in its business. Should any such changes render the customer's terminal equipment incompatible with the telephone company facilities the customer shall be given adequate notice to the effect modifications to maintain uninterrupted service.

### **Ringer Equivalence Number (REN)**

The REN is useful to determine the quantity of devices that you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the RENs of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices that you may connect to your line, you may want to contact your local telephone company.

### **Equipment Maintenance Facility**

If you experience trouble with this telephone equipment, please contact the facility indicated below for information on obtaining service or repairs. Do not return equipment to this address without prior authorization. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

#### **Digital Security Controls Ltd.**

160 Washburn Street  
Lockport, NY 14094

# SYSTEM REFERENCE

ZONE	PROTECTED AREA	ZONE TYPE
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____

FIRE \_\_\_\_\_

KEYPAD ZONE [1]+[3] \_\_\_\_\_ FIRE

KEYPAD ZONE [4]+[6] \_\_\_\_\_ AUXILIARY

KEYPAD ZONE [\*]+[#] \_\_\_\_\_ POLICE

MASTER CODE NUMBER: \_\_\_\_\_

## PROGRAMMED CODE NUMBERS:

[2] \_\_\_\_\_ [3] \_\_\_\_\_ [4] \_\_\_\_\_ [5] \_\_\_\_\_

[6] \_\_\_\_\_ [7] \_\_\_\_\_ [8] \_\_\_\_\_

SYSTEM ENTRY TIME \_\_\_\_\_ SECONDS      AUX. ENTRY TIME \_\_\_\_\_ SECONDS

SYSTEM EXIT TIME \_\_\_\_\_ SECONDS      AUX. EXIT TIME \_\_\_\_\_ SECONDS

## MONITORING STATION INFORMATION:

ACCOUNT #: \_\_\_\_\_ Phone: \_\_\_\_\_

## FOR SERVICE:

CALL: \_\_\_\_\_ Phone: \_\_\_\_\_

## **A WORD ABOUT YOUR SYSTEM**

The PC2500 Security System has been designed to give you the greatest possible flexibility and convenience. Read this manual carefully and become familiar with the operation of your Security System. Your installer will tell you which commands listed in this manual apply to your system. Fill out the SYSTEM REFERENCE sheet in this manual and store it in a safe place for future reference. The label provided for the inside of the keypad door can be used to record which sensors are on each zone.

### **IMPORTANT NOTE**

Remember that no security system can prevent emergencies. It is only intended to alert you in case of an emergency and should not take the place of prudent security practices or life and property insurance.

It is important to test your system every week. To do this, first inform the monitoring station that you are testing your system. Then, with the system disarmed, activate all detection sensors one at a time and observe the zone light come on at the keypad as each sensor is activated. Perform a bell test by entering [\*],[6],[Master Code],[8] with the system disarmed. The PC2500 can be programmed at the time of installation to automatically perform a test transmission to the monitoring station on a regular basis. If the system has not been programmed for this automatic test, call the monitoring station for instructions on how to perform a test transmission. Don't forget to inform the monitoring station when you have finished your test.

Check to see if the "Trouble" light is on when arming the system. See the Trouble Display section in this manual for a description of the different trouble conditions. Contact your installer for assistance if the trouble condition cannot be located and corrected.

## **HOW YOUR SYSTEM WORKS**

Your Security System is made up of a control panel, one or more keypads, and various detectors and sensors. The control panel will be mounted out of the way in a utility room or basement. The metal cabinet contains the system electronics, fuses and stand-by battery. There is normally no reason for anyone but the installer to have access to the control panel. The keypad(s) have an audible indicator, display lights and command entry keys. The keypad is used to send commands to the system and to display the current system status. Keypads are mounted in convenient areas close to the exit-entry doors. The security system has up to eight zones or areas of protection. Each zone used will have connected to it various sensors, such as door or window contacts, motion detectors, glassbreak detectors and vibration or shock sensors. When a sensor is in alarm, a keypad light will be on to indicate which zone is in alarm.

## **MASTER CODE**

The 4 digit Master Code is used for arming and disarming the system, for programming additional access codes, and for changing other features. The Master Code will be supplied to you by your installer. All keypad entries are made by pressing one key at a time and may be changed by you at any time if the installer selects an option. For additional access codes, see Programming Additional Access Codes.

## **ARMING**

Close all protected doors and windows and stop movement in areas covered by motion detectors. If the "Bypass" light is ON, be sure zones are being intentionally bypassed before arming the system (see Zone Bypassing).

Check to see that the "Ready" light is ON (all zones are closed). The system cannot be armed unless the "Ready" light is ON. Enter a [4 digit access code]. As each digit is entered, the keypad sounder will beep. Once the correct access code is entered, the "Armed" light will come ON and the keypad sounder will beep quickly. If the access code was entered incorrectly or the "Ready" light was not ON, the keypad sounder will beep steadily for 2 seconds.

When the correct access code is entered and the system is armed, exit through the door indicated by your installer as the exit-entry door. The exit time may be changed by your installer (please refer to the Quick-Arm feature).

## **AUTO-BYPASS OPTION - HOME-AWAY ARMING**

This feature, if selected by your installer, will allow you to arm your system with any valid access code and the system will automatically bypass the interior zones if those interior zones have been designated as home-away zones by the installer. When activated, the "Bypass" light will come ON. If you exit within the allowed exit time, the system will automatically reactivate the interior zones. This feature is designed to save the user from having to manually bypass interior zones each time they wish to arm the system and remain at home.

In residential applications where the system has been armed and the interior zones are automatically bypassed, the interior zones can be reactivated from a keypad outside the interior zones protection area (e.g. a bedroom). To reactivate the interior zones, press [\*] then [1] and the "Bypass" light will go out.

## **ENTRY DELAY OFF ARMING**

If you wish to arm your system and eliminate the entry delay, enter [\*],[9] before your access code. The "Armed" light will flash as a reminder that the system is armed and has no entry delay. An entry through any zone programmed as a delay zone will create an instant alarm.

e.g. To arm without entry delay.....Press [\*],[9],[Access Code]

## **DISARMING**

Enter the premises only through the door indicated by your installer as the entry door. The keypad sounder will be ON. Go to the keypad and enter the [4 digit access code]. If an error is made entering the code, press the [#] key and enter the code again. The "Armed" light will go out and the keypad sounder will stop. The correct access code must be entered before the allowed entry time expires. The entry delay time may be changed by the installer.

If an alarm occurred while the panel was armed, the "Memory" light and the light for the zone which caused the alarm will start to flash and will continue flashing for 2 minutes. At the end of 2 minutes, the keypad lights will stop flashing and the keypad will return to the normal Ready condition.

If you return home and find an alarm has occurred while you were away, it is possible that an intruder may still be on the premises. Go to a neighbour's and if your system is monitored, call the monitoring station. They will advise what action has been taken as a result of the alarm and whether the premises are safe to enter. If your system is not monitored, call the local police to investigate.

## **ALARM MEMORY DISPLAY**

If the "Memory" light is on, an alarm has occurred since the last time the panel was armed. The alarm memory will automatically be displayed when the system is disarmed (see Disarming).

Press the [\*] then [3] keys to display which zone caused the alarm.

The alarm memory will be cleared when the panel is re-armed.

Press the [#] key to return to Ready.

## **ZONE BYPASSING**

Bypassed zones do not cause an alarm. Use zone bypassing when access is needed to part of the protected area. Also, damaged wiring or contacts on a zone may be temporarily bypassed until repairs can be made so that the panel can be armed.

To bypass zones, enter [\*],[1] and the zone numbers to be bypassed. i.e. [1] for zone 1, [8] for zone 8. If the [0] key is pressed instead of a zone number, all zone bypasses will be removed. If the [9] key is pressed, the last group of zones which was bypassed will be recalled. Press [#] to return to Ready.

For security reasons, your installer may prevent the bypass command from operating on certain zones.

The "Bypass" light is ON as long as at least ONE zone is bypassed. Do not unintentionally bypass zones when arming. Zone bypasses are automatically cancelled each time the panel is disarmed and must be re-applied before the next arming.

## TROUBLE DISPLAY

The PC2500 continuously monitors a number of possible trouble conditions. If one of these conditions occurs, the keypad sounder will beep quickly twice every 10 seconds and the keypad "Trouble" indicator will light. Pressing any key on the keypad will silence the beeper but the "Trouble" light will remain on until the trouble condition is cleared. If you cannot determine the cause of the trouble condition, call your installer for assistance. Press the [\*] then [2] keys to display the type of trouble. The zone lights indicate the type of trouble condition.

### ZONE LIGHT

### TROUBLE

- |         |  |
|---------|--|
| 1 ..... | Defective Stand-by Battery                                 |
| 2 ..... | AC Power Failure (see <b>Note</b> below)                   |
| 3 ..... | Foil Circuit Trouble                                       |
| 4 ..... | Telephone Line Problem                                     |
| 5 ..... | Unsuccessful Communication Attempt with Monitoring Station |
| 6 ..... | Bell Circuit Failure                                       |
| 7 ..... | Smoke Detector Circuit Trouble                             |
| 8 ..... | Loss of Time on System Clock                               |

Press the [#] key to return to Ready.

**Note:** The keypad buzzer will not sound for AC failure until there is also a low battery condition. The "Trouble" light will come ON as soon as AC fails and will remain on until AC restores.

## SMOKE DETECTOR AND FIRE ALARM RESET

If your system is equipped with smoke detectors or other fire alarm detectors, use the following instructions for resetting an alarm. Before resetting a fire alarm signal, be sure you know the source of the alarm and that there is no danger (see Evacuation Planning elsewhere in this manual).

The system bell/siren alarm signal pulses 2 seconds ON and 2 seconds OFF when the alarm is generated from the fire circuit. The transmission to the monitoring station is delayed by 30 seconds. The alarm may be silenced and the transmission delayed for 2 minutes by pressing any number key on the keypad. If the detector causing the alarm is reset before the 2 minute delay expires, no further alarm will occur. If the detector is not reset, at the end of the delay the alarm will start again and the transmission will occur in 30 seconds if a keypad key is not pressed.

An immediate fire alarm signal and transmission is generated by holding down the [1] and [3] keys at the same time for 2 seconds.

Some smoke detectors require entering a keypad command to reset them after an alarm. Press [\*] then hold down the [4] key for several seconds. If the smoke has cleared, the smoke detector will reset and the fire zone light will go out when the [4] key is released. If the smoke has not cleared from the detector, open a window or door and fan clean air into the detector and try resetting again.

When the “Ready” light is ON, the system may be armed. If a zone is open, the Ready light will be OFF. All zones must be closed or bypassed before arming.

The “Armed” light will come ON to indicate that the system is armed. To arm the system, ensure that all zones are secure (the “Ready” light will be ON) and enter an Access Code.

The “Memory” light will come ON to indicate that an alarm has occurred. To display the zone or zones that caused alarms, press [\*] then [3]. The Zone Light for each zone that went into alarm will come ON.

The “Bypass” light will come ON when a zone is bypassed. To bypass a zone, enter [\*][1][Master Code][zones to be bypassed]. Press [#] to return to “Ready”.

The “Trouble” light will come ON to indicate there is a trouble condition on the system. Press any key to silence the keypad sounder. Enter [\*][2] to display the trouble condition:

<b>Zone Light</b>	<b>Trouble Condition</b>
1	Battery
2	A.C. Power
3	Day loop
4	Telephone line
5	Communicator
6	Bell circuit
7	Smoke detector circuit
8	Clock needs resetting

The **Zone Lights** are used to indicate open zones. When in the “Ready” mode, a Zone Light will come ON to indicate that a zone is open.



### **KEYPAD ZONES**

**Fire Alarm:** hold down [1]+[3]

**Auxiliary Alarm:** hold down [4]+[6]

**Panic Alarm:** hold down [\*]+[#]

**These features will not function unless programmed by your installer.** Labels on the keypad will indicate if features are active.

The “Program” light will FLASH when Access Codes are being programmed. To change Access Codes, enter [\*][5], [Master Code][number of code to be programmed, 2 through 8][new 4-digit code]. Press [#] to return to “Ready”.

The “Fire” light will come ON when a detector on the fire loop is in alarm. Press any key within 30 seconds of the alarm to silence the alarm. Press [\*][4] to reset the smoke detectors. **If a fire alarm sounds at night, evacuate the premises immediately!**

### **IMPORTANT**

**Test system weekly; have system trouble conditions corrected by installer.**



## PROGRAMMING ADDITIONAL ACCESS CODES

Up to 7 access codes in addition to the Master Code can be entered from the keypad.

Press [\*], [5] and [Master Code]. The "Program" light will flash and the zone lights will show which codes have already been programmed. To enter a new code or change an existing code, first press the code number (1 to 8) and then enter your [4 digit] code. To erase a code, press [\*\*\*\*] instead of a [4 digit] code. Note that the [\*] and [#] keys cannot be used in a code.

Pressing [#] returns you to ready mode.

## QUICK-ARM FEATURE

When the Quick-Arm feature is enabled, the panel may be armed simply by entering [\*], [0] instead of a 4 digit code. The [\*], [0] command will not disarm the panel.

Enter [\*], [6], [Master Code], [4] to turn ON and OFF the Quick-Arm feature. When the command is entered, the keypad will beep 3 times if the feature is being enabled and will sound one long beep if the feature is being disabled.

Press [#] to return to Ready.

## DOOR CHIME FEATURE

The door chime feature is used, while the panel is disarmed, to provide a tone from the keypad each time a door or window is opened or closed. The doors and windows which will provide this indication are programmed by your installer.

Enter [\*], [6], [Master Code], [6] to turn the door chime feature ON and OFF. When the command is entered, the keypad will beep 3 times if the feature is being enabled and will sound one long beep if the feature is being disabled.

## ALARM TEST

Enter [\*], [6], [Master Code], [8] for a 2 second test of the keypad lights, keypad sounder and alarm bells.

## KEYPAD ZONES

There are three zones which can be activated from the keypad. They are activated by pressing two keys at the same time and holding them for 2 seconds. These zones may or may not be active on your keypads depending on how your installer has programmed them.

- [1]+[3] Keypad FIRE zone. Pressing this key for 2 seconds will activate the keypad fire zone and the bell/siren output will pulse ON and OFF. This zone is annunciated by the "Fire" light on the keypad.
- [4]+[6] Keypad AUXILIARY zone. Pressing this key for 2 seconds will produce a series of beeps on the keypad along with the transmission. To confirm transmission, the keypad sounder will beep 6 times.
- [\*]+[#] Keypad POLICE zone. Depending on how your installer programs the panel, pressing this key for 2 seconds may produce a completely silent alarm or an audible alarm along with the transmission. If programmed as audible, the alarm bell will ring.

## TESTING

### ***IT IS RECOMMENDED THAT THE SYSTEM BE TESTED ON A WEEKLY BASIS***

**Note:** Perform such activities in the off-peak hours, such as early morning or late evening.

1. Inform the monitoring station that you are testing your system.
2. Disarm the system ("Ready" light should be ON).
3. Perform a battery/bell test by pressing [\*], [6], [Master Code], [8]. The alarm will sound for about 2 seconds. If a trouble occurs after the test, press [\*], [2] to view the trouble condition.
4. Activate each sensor in turn. For example, open a door or window. Observe the zone light come ON as each sensor is activated. The zone light will go OFF as each sensor is restored to normal (door or window is closed).
5. Press [1]+[3]. The signal will sound in a pulsed mode. Arm then disable the panel to silence the signal. Repeat this test by pressing [4]+[6] and [\*]+[#] in turn. Remember, the [4]+[6] does not ring the bell and [\*]+[#] may not be programmed for an audible signal.
6. If the fire zone is used, activation will cause the signal to sound in a pulsed mode.

**CAUTION:** Do not use open flame or burning materials to test a smoke detector. Contact your installer for information on safe methods to activate a smoke detector.

7. Should your system fail to operate properly, call your installer for service.
8. When testing is complete, call and advise the monitoring station.

## MAINTENANCE

With normal use, the system requires minimum maintenance. The following should be observed:

1. Do not wash the keypad with a wet cloth. Light dusting with a barely damp cloth should remove normal accumulations of dust.
2. The battery/bell test is designed to determine battery condition, however it is recommended that the stand-by battery be replaced every three years.
3. For other system devices such as smoke detectors, passive infrared, ultrasonic or microwave motion detectors or glassbreak detectors, consult the respective manufacturer's literature for testing and maintenance.

## **FIRE SAFETY IN THE HOME**

Most fires occur in the home and to minimize this danger it is recommended that a household fire safety audit be conducted and a family escape plan be developed.

### **HOUSEHOLD FIRE SAFETY AUDIT**

1. Are all electrical appliances and outlets in a safe condition? Check for frayed cords, over-loaded lighting circuits, etc. If you are uncertain about the condition of your electrical appliances or household service, have a professional evaluation.
2. Are all flammable liquids stored safely in closed containers in a well ventilated cool area? Cleaning with flammable liquids should be avoided.
3. Are fire hazardous materials (matches) well out of reach of children?
4. Are furnaces and wood burning appliances properly installed, clean and in good working order? Have a professional evaluation.

### **FAMILY ESCAPE PLANNING**

There is often very little time between the detection of a fire and the time it becomes deadly. It is thus very important that a family escape plan be developed and rehearsed.

1. Every family member should participate in developing the escape plan.
2. Study the possible escape routes from each location within the house and since many fires occur at night, special attention should be given to the escape routes from sleeping quarters.
3. It is essential that escape from a bedroom be possible without opening the interior door. Consider the following when making your escape plans:
  - Make sure that doors and windows that open to the outside are easily opened. Ensure that they are not painted shut, and that their locking mechanisms operate smoothly.
  - If opening the exit or using the exit is too difficult for children, the elderly or handicapped, plans for rescue should be developed. This includes making sure that those who are to perform the rescue can promptly hear the fire warning signal.
  - If the exit is above the ground level, an approved fire ladder or rope should be provided as well as training in its use.
  - Exits on the ground level should be kept clear. Be sure to remove snow from exterior patio doors in winter; outdoor furniture or equipment should not block exits.
  - The family should have a predetermined assembly point where everyone can be accounted for; for example, across the street or at a neighbour's house.
  - Once everyone is out of the house, call the Fire Department.

- A good plan emphasizes quick escape. Do not investigate first or attempt to fight the fire, and do not attempt to rescue belongings or pets as this takes up valuable time. Once outside, do not re-enter the house. Wait for the fire department.
- Write the plan down and rehearse frequently, so that should an emergency arise, everyone will know what they are to do. Revise the plan as conditions change; for example, when there are more or fewer family members in the home, or if there are changes to the house.
- Make sure your fire warning system is operational by conducting weekly tests as noted elsewhere in this manual. If you are unsure about system operation, contact your installing dealer.
- It is recommended that you contact your local fire department and request further information on home fire safety and escape planning. If available, have your local fire prevention officer conduct an in-house fire safety inspection.

## **LIMITED WARRANTY**

Digital Security Controls Ltd. warrants that for a period of twelve months from the date of purchase, the product shall be free from defects in materials and workmanship under normal use and that in fulfillment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls Ltd., such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. Digital Security Controls Ltd. neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

### **WARNING:**

Digital Security Controls Ltd. recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

## **FCC Compliance**

**CAUTION:** Changes or modifications not expressly approved by Digital Security Controls Ltd. could void your authority to use this equipment.

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

- Re-orient the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The user may find the following booklet prepared by the FCC useful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock # 004-000-00345-4

## **Important Information**

This equipment complies with Part 68 of the FCC Rules. On the side of this equipment is a label that contains, among other information, the FCC registration number of this equipment.

### **Notification to Telephone Company**

Upon request, the customer shall notify the telephone company of the particular line to which the connection will be made, and provide the FCC registration number and the ringer equivalence of the protective circuit.

**FCC Registration Number:** F534J3-10411-AL-E

**Ringer Equivalence Number:** 0.0B

**USOC Jack:** RJ-31X

### **Telephone Connection Requirements**

Except for the telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and telephone company provided jacks, or equivalent, in such a manner as to allow for easy, immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that, if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customer's premises which remains connected to the telephone network shall occur by reason of such withdrawal. Ensure that plugs and jacks meet the dimension, tolerance and metallic plating requirements of 47 C.F.R. Part 68 Subpart F.

