• W A R N I N G •

This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer.

Installation Manual

PC5102-433

Version 1.O

FCC COMPLIANCE STATEMENT

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

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio 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
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different 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 prepared by the FCC helpful: "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.

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences de règlement sur le matériel brouilleur du Canada.

AVIS: L'étiquette de l'Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Industrie Canada n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêchent pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, les lignes téléphoniques et les canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

AVERTISSEMENT: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

L'indice de charge (IC) assigné a chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordée à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle combinaison de dispositifs, pourvu que la somme des indices de charge de l'ensemble des dispositifs ne dépasse pas 100.

L'Indice de charge de ce produit est 2.

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. Industry Canada 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. 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.

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

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

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

The Load Number of this unit is 2.

Table of Contents

C O N T E N T S

WARNING Please Read Carefully

Note to Installers

This warning contains vital information. As the only individual in contact with system users, it is your responsibility to bring each item in this warning to the attention of the users of this system.

System Failures

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types of emergencies where it may not provide protection. Any alarm system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some but not all of these reasons may be:

■ Inadequate Installation

A security system must be installed properly in order to provide adequate protection. Every installation should be evaluated by a security professional to ensure that all access points and areas are covered. Locks and latches on windows and doors must be secure and operate as intended. Windows, doors, walls, ceilings and other building materials must be of sufficient strength and construction to provide the level of protection expected. A reevaluation must be done during and after any construction activity. An evaluation by the fire and/or police department is highly recommended if this service is available.

■ Criminal Knowledge

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons with criminal intent to develop techniques which reduce the effectiveness of these features. It is important that a security system be reviewed periodically to ensure that its features remain effective and that it be updated or replaced if it is found that it does not provide the protection expected.

■ Access by Intruders

Intruders may enter through an unprotected access point, circumvent a sensing device, evade detection by moving through an area of insufficient coverage, disconnect a warning device, or interfere with or prevent the proper operation of the system.

■ Power Failure

Control units, intrusion detectors, smoke detectors and many other security devices require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment such as a security system. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

■ Failure of Replaceable Batteries

This system's wireless transmitters have been designed to provide several years of battery life under normal conditions. The expected battery life is a function of the device environment, usage and type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. While each transmitting device has a low battery monitor which identifies when the batteries need to be replaced, this monitor may fail to operate as expected. Regular testing and maintenance will keep the system in good operating condition.

■ Compromise of Radio Frequency (Wireless) Devices

Signals may not reach the receiver under all circumstances which could include metal objects placed on or near the radio path or deliberate jamming or other inadvertent radio signal interference.

■ System Users

A user may not be able to operate a panic or emergency switch possibly due to permanent or temporary physical disability, inability to reach the device in time, or unfamiliarity with the correct operation. It is important that all system users be trained in the correct operation of the alarm system and that they know how to respond when the system indicates an alarm.

■ Smoke Detectors

Smoke detectors that are a part of this system may not properly alert occupants of a fire for a number of reasons, some of which follow. The smoke detectors may have been improperly installed or positioned. Smoke may not be able to reach the smoke detectors, such as when the fire is in a chimney, walls or roofs, or on the other side of closed doors. Smoke detectors may not detect smoke from fires on another level of the residence or building.

Every fire is different in the amount of smoke produced and the rate of burning. Smoke detectors cannot sense all types of fires equally well. Smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches or arson.

Even if the smoke detector operates as intended, there may be circumstances when there is insufficient warning to allow all occupants to escape in time to avoid injury or death.

■ Motion Detectors

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbeques, fireplaces, sunlight, steam vents, lighting and so on.

■ Warning Devices

Warning devices such as sirens, bells, horns, or strobes may not warn people or waken someone sleeping if there is an intervening wall or door. If warning devices are located on a different level of the residence or premise, then it is less likely that the occupants will be alerted or awakened. Audible warning devices may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners or other appliances, or passing traffic. Audible warning devices, however loud, may not be heard by a hearing-impaired person.

■ Telephone Lines

If telephone lines are used to transmit alarms, they may be out of service or busy for certain periods of time. Also an intruder may cut the telephone line or defeat its operation by more sophisticated means which may be difficult to detect.

■ Insufficient Time

There may be circumstances when the system will operate as intended, yet the occupants will not be protected from the emergency due to their inability to respond to the warnings in a timely manner. If the system is monitored, the response may not occur in time to protect the occupants or their belongings.

■ Component Failure

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component.

■ Inadequate Testing

Most problems that would prevent an alarm system from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, a fire, a storm, an earthquake, an accident, or any kind of construction activity inside or outside the premises. The testing should include all sensing devices, keypads, consoles, alarm indicating devices and any other operational devices that are part of the system.

■ Security and Insurance

Regardless of its capabilities, an alarm system is not a substitute for property or life insurance. An alarm system also is not a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency situation.

Thank you for purchasing the PC5102-433 Wireless Receiver. This product will allow you to connect up to 8 Wireless Keys to the PC580, PC1555, and the Power Series control panels.

The PC5102-433 uses 433 MHz. It provides on-board PGMs and features a 6-digit serial number for all wireless devices. These new serial numbers include hexadecimal digits. *Please read Section 3.1 "A note on Electronic Serial Numbers (ESN)" for more information on enrolling 6-digit devices.*

We are confident you will find the PC5102-433 Wireless Receiver a unique and useful control panel enhancement.

Introduction

S E C T I O N 1

This manual describes how to install, program and maintain the PC5102-433.

Before you install the PC5102-433 module, you should complete the following steps in your system installation:

1. Plan the installation and wiring of the security system (see your system *Installation Manual*).
2. Install the control panel, and install and enroll at least one keypad to use for programming.

Program the PC5102-433 from a system keypad or using DLS-3 v1.3 with the PC5102-433 v1.0 Driver Pack. Read your system *Installation Manual* for more information.

1.1 How to use this Manual

Read this manual before you begin installing the PC5102-433. To install and set up the PC5102-433 and wireless keys, follow these steps. Refer to the sections listed below.

1. Temporarily mount and wire the PC5102-433 module (see *Section 2*).
2. Enroll and program wireless keys (see *Section 3*).
3. Complete PGM and other programming on the system (see *Section 4*).
4. Test the placement of all the wireless keys *(see Section 5).*
5. Permanently mount the PC5102-433 receiver *(see Section 5).*

For additional information on trouble conditions and battery replacement, see *Section 6.*

For help with troubleshooting, see *Section 7.*

1.2 Specifications and Features

- Current Draw: 200mA
- Frequency: 433 MHz
- Receiver can receive signals from up to 8 wireless keys
- Antenna - internal. Installation not required.
- Location
  - can be wired up to 750 ft. / 230 m from the main panel with 22 gauge wire
  - connects to Keybus
  - for longer wire runs, thicker gauge wire must be used.
- Compatibility: The PC5102-433 v1.X can be connected to the following panels: PC501X, PC5020, PC5008, PC1555, PC580

1.3 Compatible Wireless Keys

Please refer to the instruction sheets of the following keys for more information.

The PC5102-433 v1.X can receive signals from the following keys:

- WLS909-433 Wireless Key
- WLS919-433 Wireless Key

1.4 Batteries

The WLS909-433 uses three A-76 batteries and the WLS919-433 uses two CR2032 Lithium batteries.

PC5102-433 Set Up & Wiring

S E C T I O N 2

This section describes how to set up and wire the PC5102-433 module.

2.1 Choose a Mounting Location for the PC5102-433

NOTE: Mount the PC5102-433 receiver and wireless keys after you have done placement tests with the wireless keys (see sections 5.1 and 5.2).

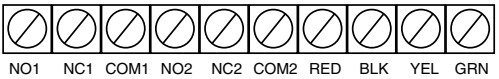
Find a place that is:

- Dry
- Central to the proposed placement of all wireless keys
- As high as possible
- Far from sources of interference, including: electrical noise (computers, televisions and electric motors in appliances and heating and air conditioning units); large metal objects like heating ducts and plumbing which may shield the antenna.

Make sure that electrical wires will not run over the antenna of the module when it is mounted.

When mounting the PC5102-433 in a basement, place the module as high and as close to the underside of the first floor as possible. The range of the module will be reduced if the unit is mounted below ground level.

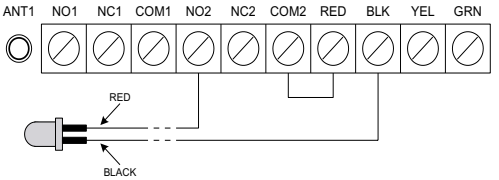
2.2 Terminal Descriptions



NO1	PGM1 Normally Open Relay Contact
NC1	PGM1 Normally Closed Relay Contact
COM1	PGM1 Relay Common Contact
NO2	PGM2 Normally Open Relay Contact
NC2	PGM2 Normally Closed Relay Contact
COM2	PGM2 Relay Common Contact
RED	Keybus Power +12V
BLK	Keybus Ground
YEL	Keybus Clock
GRN	Keybus Data

2.3 Connecting the LED to the PC5102-433

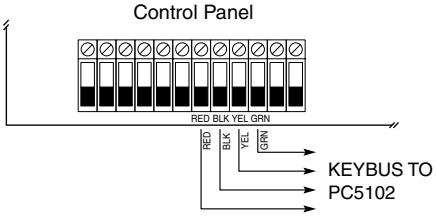
The LED can be used to indicate whether the system is armed or disarmed.



2.4 Connect the PC5102-433 Receiver

CAUTION: *Remove all power from the system while connecting modules to the Keybus.*

Connect the PC5102-433 to the four-wire Keybus of the control panel according to the following diagram.



After you have completed the wiring, reconnect the power to the security system. *Now that you have wired the PC5102-433, you should enroll and program the wireless keys. See Section 3 for instructions.*

NOTE: *Each control panel may either have a PC5102 or a PC5132 enrolled.*

Enrolling Wireless Keys

S E C T I O N 3

This section describes how to enroll wireless keys (WLS909-433 and WLS919-433). For more information on these keys, read the instruction sheet included with each key.

3.1 A Note about Electronic Serial Numbers

An electronic serial number (ESN) is printed on the back of each wireless key. ESNs are used to enroll the wireless keys with the PC5102-433 receiver.

In order to reduce the occurrence of wireless keys with the same serial number, 6-digit serial numbers are now printed on the back of each wireless key. The 6-digit serial numbers include hexadecimal digits. For instructions on programming hexadecimal numbers, see your system *Installation Manual*, Section 4: How to Program.

***NOTE**: 6-digit serial numbers are only supported on the following control panels: PC5020, PC501X v2.0 and higher, PC1555, PC5008 and PC580.*

The WLS909-433 and WLS919-433 keys have both a 5-digit and a 6-digit serial number printed on them. When connecting the PC5102-433 to a PC5010 v1.x panel, enter 5-digit serial numbers only. When connecting the PC5102-433 to a PC5020 or PC5015 v2.x and higher, PC5010 v2.0 and higher, PC1555, PC5008 or PC580 panel enter the 6-digit serial number.

3.2 Enroll & Program Wireless Keys

For wireless keys to work on the system, you need to enroll them and then program the function buttons, if the default values are not the functions desired. Wireless keys are not assigned to zones and require no zone programming. You can enroll up to 8 wireless keys on the system.

Enroll Wireless keys

1. At a system keypad, enter [✱][8][Installer's code] to go to the Installer's Programming section.
2. Enter programming section [804].
3. Enter a 2-digit number [41]-[48] to program the wireless key serial number. These numbers correspond to wireless key numbers 01- 08.
4. Enter the key's ESN. The entry *must* be six digits. If an older key with a 5-digit ESN is being enrolled, add the digit [0] to the beginning of the ESN. (E.g. ESN=61234, enter 061234)
5. The key is now enrolled on the system. Record the serial number and the assigned slot number in the programming worksheets in the back of this manual.
6. Repeat steps 3 - 5 until all wireless keys have been enrolled.
7. **(PC5020 / PC501X only)** By default, all wireless keys are assigned to Partition 1. To assign keys to Partition 2, enable the appropriate options in programming section [91].

***NOTE**: A wireless key can only be assigned to one partition.*

8. To exit press [#].

Program the WLS909-433 or WLS919-433 Function Buttons

WLS909-433 and WLS919-433 wireless keys have four programmable function buttons. Default functions have been assigned, but you may program the functions desired. After the functions are programmed, when you press and hold one of the four buttons for one second, the system will execute the programmed function.

For systems using partitions (PC5020 / PC501X only): all wireless keys assigned to Partition 1 will have the four functions programmed in section [61]. All wireless keys assigned to Partition 2-8 will have the four functions programmed in section [62-68]. For example, if function button 1 in Section [61] is programmed for Stay arming, then pressing the first button on wireless keys assigned to Partition 1 will Stay arm Partition 1.

***NOTE**: Wireless keys will not work when the partition they are assigned to is being accessed for zone bypassing or programming.*

1. At a system keypad, enter [✱][8][Installer's code].
2. Enter programming section [804].
3. Enter programming section [61] to [68] for partitions 1 to 8.
4. For each of the 4 function buttons, enter the 2-digit number of the function you want to select. See the programming worksheets in the back of this manual for a list of function key options.
5. Record your programming choices in the worksheets in the back of the manual.
6. To exit press [#].

3.3 Identified Wireless Keys

Reporting by the system of openings/closings by individual wireless keys and command output [✱][7] activation by wireless key buttons may be supported on certain control panels. To do this, the system will reserve access codes 17 – 24 for wireless keys 01-08 respectively. You must program one access code for each wireless key (using [✱][5] access code programming) for this feature to work correctly.

***NOTE**: Program these access codes on the system* after *you have connected the PC5102-433 to the Keybus (see section 2.4).*

Refer to your system *Installation Manual* for information on access code programming.

Opening/Closing By Wireless Key Reporting

***NOTE**: The Identified Wireless Key Closing option is only available with the PC5020 or PC501X v2.0 and higher, PC1555, PC5008, PC580 v2.0 and higher by turning section [015] Option 4 off.*

To enable the reporting of openings and closings by identified wireless keys:

- Make sure the control panel is v2.0 or higher
- Program a valid access code for each key
- Program a closing and opening reporting code for each key's access code
- Turn off the **Quick Arm** option in section [015] option [4] of the control panel programming

To ensure that an *unidentified wireless key* cannot disarm the system, turn off section [017], option [1] (in the control panel programming). This option is available in control panels with software version 2.1 or higher.

Command Output Activation

***NOTE**: The Identified Wireless Key Command Output Activation feature is only available with the PC5020, PC501X, PC1555, PC5008 and PC580 v2.0 and higher.*

To enable command output activation by wireless keys, ensure that:

- The control panel is v2.0 or higher
- Program a valid access code for each key
- Enable the PGM output attribute **Requires Access Code** for each PGM output programmed as [✱][7][1-4] in sections [141] to [154].

Now that you have enrolled all the wireless keys, you will need to program the system to work properly with the keys. See section 4 for more information.

Other Programming

S E C T I O N 4

4.1 PC5102 PGM Outputs

The PC5102 433 has two on-board Form C Relay PGM outputs. Each of these can be individually programmed to either:

1. Follow main panel PGM outputs 1 to 14.

NOTE: *Please refer to your System Installation Manual for available PGM outputs.*

NOTE: *If the PC5102-433 is connected to the following panels, PC580/PC1555 all versions, PC5010 v1.x, WSS5010 1.0, 2.1, PC1565-2P v2.2 or PC5016 v1.x, the PC5102 PGM outputs cannot be programmed to follow main panel PGM outputs 1 or 2.*

2. Activate for a programmable amount of time when a data packet is received from a wireless key programmed with option 31 or 32 and the PGM output programming section [91] or [92] is programmed with option 15 (PC5102 PGM pulse). The default for the two PGM activation time programming sections [94] and [95] is 00 minutes and 05 seconds.
3. Toggle state when a data packet is received from a wireless key programmed with option 31 or 32 and the PGM output programming section [91] or [92] is programmed with option 16 (PC5102 PGM Toggle).

4.2 Enable PC5102-433 Supervision

The control panel will supervise the PC5102-433 receiver via the Keybus after at least one key has been enrolled on the module (see section 3.2 “Enrolling Wireless Keys”).

To activate module supervision, after you enroll the first key(s):

1. Exit and then re-enter installer’s programming.
2. Enter programming section [902]. Wait approximately one minute.
3. To exit press [#].

The system will generate a General System Supervisory trouble if the module is removed from the Keybus. If you need to remove the PC5102-433 module from an existing system, you will have to disable supervision of the PC5102-433.

NOTE*: Deleting all wireless keys from the PC5102-433 or defaulting the PC5102-433 will cause a supervisory fault.*

To disable PC5102-433 supervision:

1. Disconnect the PC5102-433 from the Keybus
2. Enter [✱][8][Installer Code].
3. Enter [902]. The control panel will clear all supervision and re-scan the system for connected modules. The scan will take approximately one minute.
4. To exit press [#].

To review which modules the control panel is currently supervising:

1. Enter [✱][8][Installer’s Code]
2. Enter [903] to display all modules. On LED keypads, light [17] will indicate that the PC5102-433 is present on the system. On LCD keypads, scroll until the module name appears on the display.
3. To exit press [#].

If the PC5102-433 module does not show on the keypad, one of the following conditions may be present:

- the module is not connected properly to the Keybus
- there is a problem with the Keybus wiring run
- the module does not have enough power
- no keys have been enrolled on the PC5102

NOTE: *The PC5102-433 will be supervised and displayed as a PC5132.*

4.3 PC5102-433 Software Default

Returning the PC5102-433 programming to factory default settings is a quick way to remove all the enrolled wireless keys from the system and reset all the programming in section [804].

NOTE*: Performing this procedure will not change any programming sections except [804]. Resetting the control panel to factory default settings will* not *return the PC5102-433 module to factory default settings.*

To restore the PC5102-433 programming to the factory default settings:

1. Enter [✱][8] [Installer's Code].
2. Enter programming section [996].
3. Enter the Installer's Code, followed by [996] again. The programming for the PC5102-433 will be restored to its factory default settings.
4. To continue programming the unit, exit installer's programming by pressing [#] and then re-enter installer's programming by entering [✱][8] [Installer's Code].

For instructions on restoring the default programming of the control panel or any other connected module, see your system *Installation Manual.*

4.4 Deleting Wireless Keys

To remove a wireless key from the system, follow the guideline for enrolling a wireless key (see section 3.2). Program the ESN as [000000]. The wireless key for the zone will be removed.

Now that you have completed all PC5102-433 related programming, you can test and mount the receiver. See Section 5 for more information.

Testing & Mounting

S E C T I O N 5

5.1 Test the Reception of Wireless Keys

It is very important to test each wireless key. Following these steps will test the signal strength between the PC5102-433 and the wireless key.

Testing Individual Wireless Keys

To ensure that the PC5102-433 receiver is receiving transmissions from these devices, use the function keys on the WLS909-433/WLS919-433 at several different points in the installation.

5.2 Mount the PC5102-433

When you have tested reception of the PC5102-433 with all the wireless devices (see section 5.1) and you have a good mounting location, mount the PC5102:

1. Pull the Keybus wires through the hole at the bottom of the cabinet.
2. Mount the cabinet securely to the wall.

Now that your PC5102-433 and wireless devices are mounted and working properly, read section 6 for information on potential wireless trouble conditions, and battery replacement.

Additional Notes

S E C T I O N 6

6.1 Trouble Conditions

The control panel always watches for possible trouble conditions. If a trouble condition occurs, the keypad "Trouble" light will turn on and the keypad will beep. Press [✱][2] to display the trouble conditions.

The following trouble conditions apply to the PC5102-433 and/or any enrolled wireless keys.

General System Tamper - This trouble is generated when the PC5102-433 plastic cover is removed.

General System Supervisory - This trouble will be generated if the panel loses communication with any module connected to the Keybus. The event buffer will log a detailed description of the event.

Device Low Battery - This trouble is generated when a wireless device exhibits a low battery condition. Press [7] one, two, or three times to view which devices are experiencing battery failure. An LED keypad will indicate battery failure using zone lights 1 to 8.

Tamper Switches

There is one tamper switch on the PC5102-433 board. Removing the plastic cover will cause a general system tamper.

6.2 Wireless Zone Low Battery Transmission

Within any transmission, the device will indicate the status of the battery. If a battery is low, the system will indicate a Device Low Battery trouble.

The system will delay reporting the event to the central station for the number of days programmed for **Zone Low Battery Transmission Delay** in section [370]. This will prevent unnecessary reporting of the event if the user has been instructed on how to replace batteries.

Replacing Batteries in Wireless Devices

1. Remove the cover of the device from its back plate.
2. Refer to the battery installation instructions on the installation sheet of each component. Be sure to note the proper orientation of the batteries as you install them.
3. When the fresh batteries are in place, re-attach the cover to the back plate. The battery trouble will clear when any button is pressed after the installation of the new batteries, the device should function normally.

***NOTE**: When batteries in one device need to be replaced, the batteries in all devices may need to be replaced at the same time.*

Troubleshooting

S E C T I O N 7

1. When I enter the 2-digit zone number while adding a wireless device, the keypad gives me a long beep.

You cannot enter ESNs unless a PC5102-433 wireless receiver is connected to the Keybus. See section 2 for instructions on setting up and wiring the PC5102-433 module.

2. I have entered the ESN for the wireless key but when I press the function keys, the panel does not perform the desired function.

Check the following:

- Ensure the ESN has been entered correctly.
- Ensure that the function keys have been programmed for the requested function.
- Ensure that the wireless key is enabled for the partition (if partition programming is used).

3. When I press the wireless key function buttons, I see no results.

Check the following (see sections 5.1 and 5.2 for more information on testing devices):

- Verify that you are testing the correct zone.
- Verify that the correct ESN was entered when the device was enrolled.
- Verify that the device is in range of the PC5102. Try testing the device in the same room as the receiver.
- Confirm that the PC5102-433 is properly connected to the Keybus (see section 2 for PC5102-433 set up and wiring instructions).
- Check that you are testing the wireless key correctly (see sections 5.1 and 5.2 for testing instructions).
- Check that the batteries are working and installed correctly.
- Look for large metal objects that may be preventing the signal from reaching the PC5102.
- Ensure that all wireless keys operate correctly throughout.

Programming Worksheets

S E C T I O N 8

[804] 5102-433 Wireless Expansion Programming

- 6-digit entry is required. **See Section 3.1 "A note on Electronic Serial Numbers" for details on programming 6-digit serial numbers.**

Wireless Key Serial Numbers

Default = 000000

[41] Key 01 _____

[42] Key 02 _____

[43] Key 03 _____

[44] Key 04 _____

[45] Key 05 _____

[46] Key 05 _____

[47] Key 07 _____

[48] Key 08 _____

Entry	Key Description	Entry	Key Description
00	Null Key	17	[✱][1] Reactivate Stay/Aways
01-02	*For Future Use*	18	*For Future Use*
03	Stay Arm	19	[✱][7][3] Command Output #3
04	Away Arm	20	For Future Use
05	[✱][9] No-Entry Arm	21	[✱][7][4] Command Output #4
06	[✱][4] Chime ON/OFF	22-26	*For Future Use*
07	[✱][6][ ][4] System Test	27	Disarm (OFF)
08-12	*For Future Use*	28	Fire Alarm
13	[✱][7][1] Command Output #1	29	Auxiliary Alarm
14	[✱][7][2] Command Output #2 / Sensor Reset	30	Panic Alarm
15	*For Future Use*	31	PC5102 PGM1 Pulse
16	[✱][0] Quick Exit	32	PC5102 PGM2 Pulse

Wireless Key Options

Partition 1 Wireless Key Options

[61] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

Partition 2 Wireless Key Options

[62] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

Partition 3 Wireless Key Options

[63] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

Partition 4 Wireless Key Options

[64] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

Partition 5 Wireless Key Options

[65] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

Partition 6 Wireless Key Options

[66] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

Partition 7 Wireless Key Options

[67] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

Partition 8 Wireless Key Options

[68] Function Key 1 03 ⌊__⌋ Function Key 3 27 ⌊__⌋

Function Key 2 04 ⌊__⌋ Function Key 4 30 ⌊__⌋

[91] Wireless Keys (1-8) Partition Assignments

Default = 01

Wireless Key 01 ⌊__⌋ Wireless Key 05 ⌊__⌋

Wireless Key 02 ⌊__⌋ Wireless Key 06 ⌊__⌋

Wireless Key 03 ⌊__⌋ Wireless Key 07 ⌊__⌋

Wireless Key 04 ⌊__⌋ Wireless Key 08 ⌊__⌋

Entry	Description
00	Null (No Operation)
01	Main Panel PGM1
02	Main Panel PGM2
03	PC5208 PGM3
04	PC5208 PGM4
05	PC5208 PGM5
06	PC5208 PGM6
07	PC5208 PGM7
08	PC5208 PGM8
09	PC5208 PGM9
10	PC5208 PGM10
11	PC5204 PGM11
12	PC5204 PGM12
13	PC5204 PGM13
14	PC5204 PGM14
15	PC5102 PGM Pulse (local)
16	PC5102 PGM Toggle (local)

[92] PC5102 PGM1 Output Option

Default 01

PGM1 Output Option ⌊__⌊__⌋

[93] PC5102 PGM2 Output Option

Default 02

PGM2 Output Option ⌊__⌊__⌋

[94] PC5102 - PGM1 Output Activation Time

Default 00

PGM1 Output Activation Time (Minutes) ⌊__⌊__⌋

Default 05

PGM1 Output Activation Time (Seconds) ⌊__⌊__⌋

[95] PC5102 - PGM2 Output Activation Time

Default 00

PGM2 Output Activation Time (Minutes) ⌊__⌊__⌋

Default 05

PGM2 Output Activation Time (Seconds) ⌊__⌊__⌋

NOTE: *Sections [94] and [95] have a valid minimum programmable value of 00 minutes 01 seconds, and a valid maximum programmable value of 99 minutes 99 seconds.*

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I N D E X

LIMITED WARRANTY

Digital Security Controls Ltd. warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls Ltd. shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original owner must promptly notify Digital Security Controls Ltd. in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period.

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Products which Digital Security Controls Ltd. determines to be repairable will be repaired and returned. A set fee which Digital Security Controls Ltd. has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls Ltd. determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

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