

# MAXSYS™

---

## PC4936 v1.0 • Installation Manual

**WARNING:** *This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.*

## 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.

### **International Warranty**

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls Ltd. shall not be responsible for any customs fees, taxes, or VAT that may be due.

### **Warranty Procedure**

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls Ltd. must first obtain an authorization number. Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

### **Conditions to Void Warranty**

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- damage incurred in shipping or handling;
- damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- damage due to causes beyond the control of Digital Security Controls Ltd. such as excessive voltage, mechanical shock or water damage;
- damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls Ltd.);
- defects caused by failure to provide a suitable installation environment for the products;
- damage caused by use of the products for purposes other than those for which it was designed;
- damage from improper maintenance;
- damage arising out of any other abuse, mishandling or improper application of the products.

Digital Security Controls Ltd.'s liability for failure to repair the product under this warranty after a reasonable number of attempts will be limited to a replacement of the product, as the exclusive remedy for breach of warranty. Under no circumstances shall Digital Security Controls Ltd. be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

### **Disclaimer of Warranties**

**This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) 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.**

**This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.**

**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.

### **Installer's Lockout**

Any products returned to DSC which have the Installer's Lockout option enabled and exhibit no other problems will be subject to a service charge.

### **Out of Warranty Repairs**

Digital Security Controls Ltd. will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls Ltd. must first obtain an authorization number. Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

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.

# Table of Contents

---

<b>Section 1:Introduction</b>	<b>1</b>
1.1 Specifications .....	1
1.2 Additional Devices .....	2
<b>Section 2:Getting Started</b>	<b>3</b>
2.1 Installation Steps .....	3
2.2 Combustion Wiring .....	4
2.3 Audio Station Wiring .....	5
2.4 Telephone Line Connection .....	6
2.5 Music Input Wiring .....	6
<b>Section 3:Audio Functions</b>	<b>7</b>
3.1 Paging .....	7
3.2 Page Listens To All .....	7
3.3 Cancelling a Page .....	7
3.4 Do Not Disturb .....	7
3.5 Answering Doorbells .....	8
3.6 Opening the Door .....	8
3.7 Doorchime .....	8
3.8 Monitoring .....	8
3.9 Answering Incoming Calls .....	8
3.10 Transferring and Holding Calls .....	9
3.11 Call Waiting .....	9
3.12 User Help (Keypad function key) .....	9
3.13 Music Input .....	9
3.14 Alarm Follower .....	10
3.15 Verbal Alarm Announcements .....	10
3.16 Central Station Talk/Listen-in .....	10
<b>Section 4:Programming</b>	<b>11</b>
4.1 Port Definitions .....	11
4.2 Audio Station Options .....	11
4.3 Doorstrike Function Button .....	11
4.4 Page Listens To All .....	12
4.5 Hands Free Doorbell Answer .....	12
4.6 Verbal Alarm Options .....	12
4.7 Zone Port Assignment .....	12
4.8 Keypad Port Assignment .....	13
4.9 Central Station Talk/Listen-In .....	13
4.10 Central Station Talk/Listen-In Commands .....	14
<b>Section 5:Programming Worksheets</b>	<b>15</b>

## 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, barbecues, 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.

# Section 1: Introduction

---

## 1.1 Specifications

**NOTE:** In order for the PC4936 module to operate properly, the power output capability from the AUX terminals combined must not be exceeded. Use the data presented below to ensure that the PC4936 module is not overloaded when connecting audio stations.

### ***PC4936 Audio Interface Module***

- Standby Current Draw - 65 mA
- Maximum Current Draw - 100 mA
- Total current providing capability between AUX terminals - 500 mA
- Input Impedance at any microphone input - 25k $\Omega$
- Maximum Music Input signal level amplitude - 200 mV peak to peak
- Connect up to 7 Audio Stations (interior or exterior)
- Page Function
- Monitor Function
- Answer Incoming Calls
- Alarm Output Follower

### ***PC4937 Eight-port Expansion Module***

- Current Draw - 5 mA
- Connect up to 8 Audio Stations (interior or exterior)
- Total current providing capability between AUX terminals - 500 mA
- Input Impedance at any microphone input - 25k $\Omega$
- Maximum Music Input signal level amplitude - 200 mV peak to peak

### ***PC5921 Interior Audio Station***

- Standby Current Draw - 20 mA
- Maximum Current Draw - 50 mA
- Built-In Speaker and Microphone

### ***PC5921EXT Exterior Audio Station***

- Standby Current Draw - 20 mA
- Maximum Current Draw - 50 mA
- Built-In Speaker and Microphone

### ***PC5921EXT/R Exterior Audio Station***

- Standby Current Draw - 20 mA
- Maximum Current Draw - 50 mA
- Built-In Speaker and Microphone
- Relay Output for doorbell circuit connection

### ***PC5904 Central Station Talk/Listen Module***

- Standby Current Draw - 30 mA
- Maximum Current Draw - 175 mA
- Built in microphone and 3.5 in. speaker

### ***LCD4503 Keypad - Intercom station portion***

- Standby Current Draw (intercom portion) - 20 mA
- Maximum Current Draw (intercom portion) - 50 mA
- Built-In Speaker and Microphone

**NOTE:** As the number of intercom stations increases on the system, an additional power supply may be required.

## **1.2 Additional Devices**

### ***PC4937 Eight Port Expansion Module***

The PC4937 adds 8 more ports to the PC4936 Audio Interface module.

### ***PC5921 Interior Audio Station***

Each station has a separate microphone and speaker. Each station must be home run to the interface module using shielded 22 gauge, 4 conductor wire. Each station can be used to initiate or receive pages, answer incoming calls, answer the doorbell, monitor rooms or sound an alarm follower.

### ***PC5921EXT Exterior Audio Station***

The PC5921EXT Exterior Audio Station is housed in a gray fade resistant case, designed for outside use. Each station has a separate microphone and speaker. Each station must be home run to the interface module using shielded 22 gauge, 4 conductor wire. The station can be used to sound the doorbell chime on interior audio stations.

### ***PC5921EXT/R Exterior Audio Station***

The PC5921EXT/R Exterior Audio Station is housed in a gray fade resistant case, designed for outside use. Each station has a separate microphone and speaker. Each station must be home run to the interface module using shielded 22 gauge, 4 conductor wire. The station can be used to sound the doorbell chime on interior audio stations. A relay is included so that a pre-existing doorbell can be used.

### ***PC5904 Central Station Talk/Listen Module***

The PC5904 Interior Central Station Talk Listen module is used in conjunction with the PC4936 audio interface module for Talk/Listen-In purposes. While all other station types can provide Talk/Listen-In capabilities, this station provides an added level of volume to the central station operator's voice. Each station has a separate microphone and speaker. Each station must be home run to the interface module using Shielded 22 gauge, 4 conductor wire. All stations can be used to sound an alarm follower.

### ***LCD4503 Keypad and Audio Station***

The LCD4503 Keypad and Interior Audio Station is used in conjunction with the PC4936 Audio Interface module. Each keypad has a separate microphone and speaker. Each keypad must be home run to the interface module using shielded 22 gauge, 4 conductor wire. Each keypad can be used to initiate or receive pages, answer incoming calls, answer the doorbell, monitor rooms or sound an alarm follower.

# Section 2: Getting Started

---

## 2.1 Installation Steps

Follow these steps to install the PC4936 Audio Interface module and audio stations. Review this section to get an overall understanding of the order of installation. Once this is done carefully work through each step.

### **Step 1 Mounting the PC4936 Audio Interface Module**

Mount the cabinet close to the control panel as the PC4936 must be connected to the incoming telephone line. Before attaching the cabinet to the wall make sure to press the nylon circuit board mounting studs into the cabinet from the back.

### **Step 2 Connecting the PC4937 Module (optional)**

To add 8 ports to the system, connect the PC4937 to the PC4936 module. See the PC4937 Installation Sheet for instructions.

### **Step 3 Wiring the Combus**

Wire the Combus to the PC4936 Audio Interface module according to the diagram provided in 2.2 “Combus Wiring” on page 4.

### **Step 4 Wiring the Audio Stations**

Wire each audio station according to the diagram provided in 2.3 “Audio Station Wiring” on page 5.

### **Step 5 Wiring the Incoming Telephone Line**

Wire the incoming telephone line according to the diagram provided in 2.4 “Telephone Line Connection” on page 6.

### **Step 6 Enrolling the PC4936**

You must enroll the PC4936 on the system before it will work. To enroll the PC4936, enter ref # [0200] then scroll to PC4936. To enroll the module, press [\*]. The keypad confirms enrollment by displaying “PC4936 Mod. 01 Enrolled”. Refer to the PC4020 Installation Manual for more information.

### **Step 7 Program the PC4936 and Ports**

The PC4936 Audio Interface module programming can be done from any system keypad. Refer to Section 4: “Programming” on page 11 for information on each programming section.

## **Helpful Installation Tips**

### *Feedback*

If an intercom station appears to be exhibiting feedback noise, check the following for potential causes.

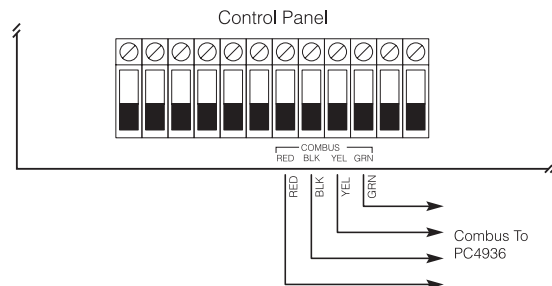
- Microphone - Remove the backplate. The microphone and holder are located in the bottom-left corner. Ensure that the microphone is pushed

fully into the black rubber holder so that the face of it is flat against the rubber.

- Speaker - Ensure that the felt is secured around the speaker.
- Gain Control - Remove the backplate. The speaker volume control is located directly above the microphone and the microphone sensitivity control is located directly beneath the speaker. Turning either of these controls counter clockwise will reduce their gain, thereby reducing the possible level of feedback.
- Placement - Avoid installing intercom stations directly across from one another. Feedback may also occur due to room acoustics which will be affected by several different factors such as the size of the room, whether or not the floor is carpeted and different objects that may be in the room. Try moving one of the intercom stations to correct the problem.
- Ventilation - In some extreme instances the station may be feeding back to itself. The speaker output may be feeding back into the microphone within the housing. To eliminate this, open a hole through the wall equal in size to the rectangular opening in the backplate to allow the sound to escape.

## 2.2 Combos Wiring

The PC4936 Audio Interface module has 4 terminals marked Combos (red, black, yellow and green). Connect the four Combos terminals on the PC4936 to the four terminals on the control panel marked Combos (red, black, yellow and green).

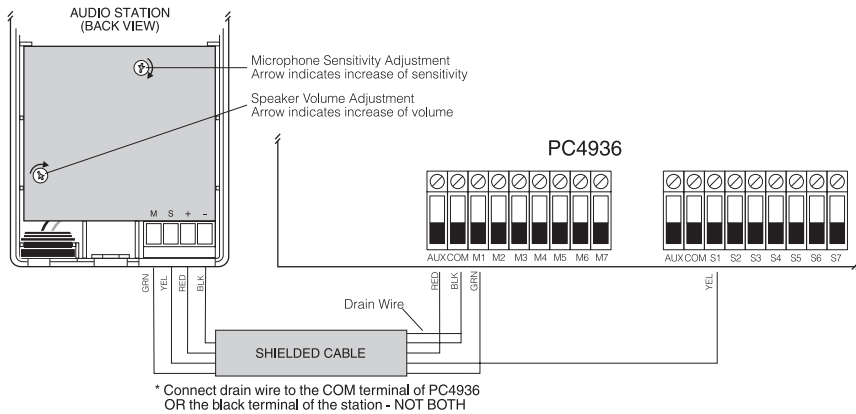




## 2.3 Audio Station Wiring

Up to 7 audio stations can be connected to the PC4936 Audio Interface module. Each station must be home run to the interface module via a shielded 22 gauge, 4 wire cable. Each PC5921 can be up to 1000' from the PC4936; each PC5904 can be up to 500' from the PC4936.

Connect each station to power (red - AUX, black - COM) and to the proper audio connections on the PC4936 module (yellow - speaker, green - microphone). Connect the drain wire of the shield to the COM terminal on the PC4936 module or the black terminal of the station (make sure the drain wire of the shield does not short anything on the back of the board), but not both. Refer to the diagram below:



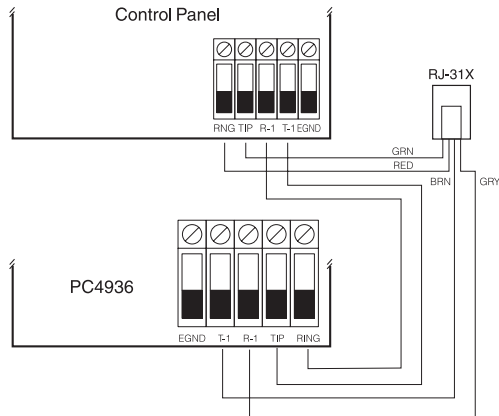
### Avoiding Audio Station Interference Noise

The Combus wiring and several different electrical devices (fluorescent lighting, etc.) may induce noise onto the intercom wires. For this reason shielded wire should be used whenever possible. If shielded wire is not used, each intercom wire must be spaced a minimum of 4 ft./1.2 m from all Combus wiring, electrical wiring, fluorescent lighting and other sources of electrical interference. If this is not possible, shielded wire must be used with the drain of the shield connected as indicated in the above diagram.

## 2.4 Telephone Line Connection

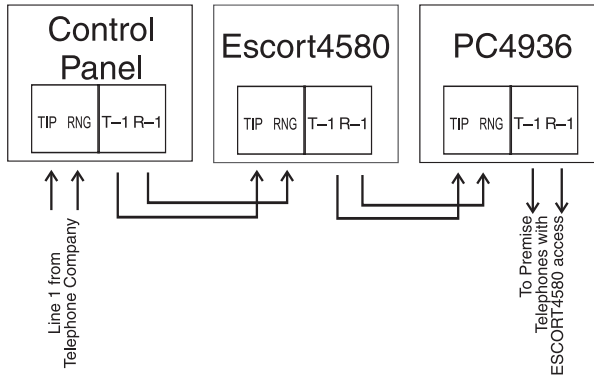
The PC4936 has 4 terminals for the telephone line connection (TIP, RING, T1 and R1). The wiring must be as follows:

- Incoming line - PC4020 TIP and RING
- PC4020 T1 and R1 - PC4936 TIP and RING
- PC4936 T1 and R1 - house telephone



**NOTE:** If there is an Escort4580 on the system, connect the modules to the telephone line as shown below.

**NOTE:** Connect the control panel and any other modules used in the order shown below.



## 2.5 Music Input Wiring

The music input must be wired to a single port, using an audio signal which does not exceed 200mV peak to peak. To do this, connect the music source to the microphone input for a port:

- connect one side of the source to the microphone input - one of terminals M1 to M7, or M8 to M15 (if an PC4937 is used).
- connect the other side to a COM terminal.

Program the port the music source is connected to for Music Input. See section 4.1 “Port Definitions” on page 11.

# Section 3: Audio Functions

---

## 3.1 Paging

Users can page people on the premises using the intercom stations.

**NOTE:** *Only one page can be performed at a time.*

To initiate a page press the Page/Answer button on any station. The station beeps twice. If no beeps are heard it is because another conversation is already taking place. If the page is successful all other stations that are not on “Do Not Disturb” will sound a rapid beep. Talk into the audio station. The system broadcasts your voice to all other interior audio stations.

To answer the page, press the Page/Answer button on another station. The station beeps twice to indicate that a connection is established between the intercom stations where the page was initiated and answered. No other station will transmit the conversation.

The PC4936 automatically detects the source of the loudest voice and uses this to control the direction of conversation. During a page, the Do Not Disturb (DND) light will be on when the microphone of the intercom station is active.

To end a page, either person can press the Page/Answer button. If the PC4936 detects silence for 30 seconds, it will end the page.

## 3.2 Page Listens To All

You can program the system so that when a page is initiated, users at all other intercom stations can respond “hands-free” for 30 seconds (i.e. without pressing the Page/Answer button). Ports in DND mode, or which have the Paging/Monitoring/Doorbell Sounds option turned off will not be able to answer the page.

A user who wants to talk for longer than 30 seconds can press the Page/Answer button to establish a private communication link. If the page is not answered within 30 seconds, it will time out.

## 3.3 Cancelling a Page

To cancel a page, press the Page/Answer button a second time. The page will automatically be cancelled if there is no response in 30 seconds.

## 3.4 Do Not Disturb

To avoid receiving pages, doorbox calls or incoming telephone calls, users can put a station on Do Not Disturb (DND). To do this, press the Do Not Disturb button on the station. The Do Not Disturb light on the station will come on to indicate the unit is in Do Not Disturb mode.

To take a station off DND, press the Do Not Disturb button again. The Do Not Disturb light on the station will go out.

### **3.5 Answering Doorbells**

Exterior stations (PC5921EXT, PC5921EXT/R) can be programmed as doorbox 1 or doorbox 2 for doorbell operation. When someone presses the button on a doorbox 1 station, it will broadcast a “dingdong” sound over the system. Doorbox 2 will broadcast a “dong” sound over the system.

To answer the doorbell users can press the Page/Answer button on any station. The audio channel will operate the same as it does for a page.

If a page is in progress when a doorbell is pressed the two persons on the page will hear the tone. To answer the doorbell either person can press the Page/Answer button. The page will end and the user will immediately be connected to the doorbell station.

### **3.6 Opening the Door**

You can program any intercom station to open the door (using a doorstrike module) while in communication with a doorbox station. After answering a doorbell on an intercom station, press and hold the Page/Answer button for 2 seconds to activate the doorstrike. The system will sound an acknowledgment beep. The PC4020 will trigger the programmed Command Output (1 - 8), which will activate the PGM output connected to the doorstrike. See section 4.3 “Doorstrike Function Button” on page 11.

To terminate communications with the doorbox station, press the Page/Answer button briefly.

### **3.7 Doorchime**

If the doorchime feature is enabled for zones on the system, when a zone is violated or restored, the keypads on the partition will beep. If an Escort4580 v1.3 is connected to the system, it will announce the label for the zone which generated the doorchime over the audio stations.

### **3.8 Monitoring**

The Monitor feature allows users to listen-in on one area at any other intercom station (except stations on DND). To listen-in on an area, go to the station in the area and press and hold the Do Not Disturb button for two seconds. The station will be put in Do Not Disturb mode and the Do Not Disturb light will flash. The PC4936 will transmit all sounds heard from that station to all the other stations on the system.

Other features such as paging, door answer and answering incoming calls can still be performed and will override the monitor feature. If a page, door answer or telephone call answer is in progress the monitor feature will not operate until the conversation is ended. To turn off the monitor feature press the Do Not Disturb button once. The red light on the station will stop flashing.

Only one station at a time can be monitored. To monitor another area, turn the monitor feature off on the first station.

### **3.9 Answering Incoming Calls**

When an incoming call is detected, the PC4936 will sound a ringing tone on all stations which are enabled to sound the tone (unless on Do Not Disturb).

To answer the call the user must press the Page/Answer button for 1 second. Once the call is answered the audio channel will operate the same as it does for a page.

The call will end if the user presses and holds the Page/Answer button for 1 second. The call will also end after 30 seconds of silence.

If a page is in progress when an incoming call is detected only the two users on the page will hear the ring. To answer the call either user can press and hold the Page/Answer button for 1 second. The page will end and the user will immediately be connected to the incoming call.

If a user has answered a telephone call at an intercom station and then the doorbell is pressed, the user will hear the doorbell. The user can press Page/Answer to hang up the telephone, and then press Page/Answer one more time to answer the doorbell.

### **3.10 Transferring and Holding Calls**

Once a user has answered a call on an intercom station, they can:

- put the call on hold
- transfer the call to an in-house telephone
- page someone so that they can answer the call at another intercom station

To put a call on hold press the Do Not Disturb button once. Once the call is on hold, you can page someone else to answer the call, or answer doorbells as usual.

To pick up a holding call at a telephone, go to the telephone, pick up the receiver and press the [#] key for 1 second. This puts the call through to the telephone and disconnects the intercom station from the conversation.

To pick up a holding call at any intercom station, press the Do Not Disturb button.

### **3.11 Call Waiting**

If you have answered the telephone through an audio station and a second call comes in, the station will ring. To answer the second call while on line with the first call, press the Page/Answer button. This puts the first call on hold and answers the second call. To return to the first call press the Page/Answer button again.

### **3.12 User Help (Keypad function key)**

If programmed, users can press the User Help function key at a keypad to broadcast Escort4580 voice prompts through the nearest intercom station. For function key programming instructions, see your PC4020 Installation Manual.

### **3.13 Music Input**

The music input feature allows users to broadcast background music to all stations which are enabled for paging. The music input feature can be turned on or off using any keypad on the system.

For the music input to work, the incoming audio signal must be connected to a port which is programmed for music input. See 2.5 “Music Input Wiring” on page 6 and 4.1 “Port Definitions” on page 11 for more information.

To turn on the background music, enter user programming [\*][6][Master Code] then press [9]. To turn off the music, enter [\*][6][Master Code][9] again.

**NOTE:** *The monitor and music input feature cannot be on at the same time. If both are turned on monitoring will take priority and the music will not be heard.*

### 3.14 Alarm Follower

The audio stations will sound alarm conditions along with the Bell Output of the control panel. All stations will sound an alarm using Burglary and Fire type tones. All Burglary alarms will sound a steady alarm output. All Fire alarms will sound a pulsed alarm output.

### 3.15 Verbal Alarm Announcements

If you have installed an Escort4580 v1.3 on the system, when zones go into alarm the Escort will announce the labels for those zones over the intercom system. The alarm announcement will be as follows:

- an alarm tone
- verbal announcement of the first zone in alarm
- verbal announcement of the latest zone in alarm
- series repeats until alarms are silenced.

See section 4.6 “Verbal Alarm Options” on page 12 for more information.

### 3.16 Central Station Talk/Listen-in

When a Talk/Listen-in event occurs the PC4936 will seize the telephone line, call the central station and initiate a talk/listen-in session. The PC4936 will start a 90-second session of low-gain listen-in on the station closest to the zone in alarm, or on all stations if the **CS Listen All** option is on (see 4.9 “Central Station Talk/Listen-In” on page 13). When the central station operator presses any key on the telephone a new 90-second session will begin.

If a Holdup, Panic or Duress alarm occurs, the operator will only be able to listen-in, as the speakers will not be turned on. See 4.9 “Central Station Talk/Listen-In” on page 13 for information on programming which events will trigger a Talk/Listen-in session.

Central station operators can control the Talk/Listen-in session using the keys on their touch-tone telephone. You can program the functions of these keys by following the instructions in 4.10 “Central Station Talk/Listen-In Commands” on page 14.

**NOTE:** *Doorbells and monitoring will not work when Talk/Listen-in mode is on.*

**NOTE:** *If Talk/Listen-in is active and another event occurs, the PC4936 will end the Talk/Listen-in session and transmit the event to the central station.*

# Section 4: Programming

---

Refer to the PC4020 Installation Manual for programming instructions. The following section explains all the programmable features including how the feature operates and options for the feature.

## 4.1 Port Definitions

Ref #: [001600XX00], where XX = ports 01-15

Each PC4936 has 7 ports that can be connected to audio stations. Program ports 08 - 15 only if you have installed and enrolled an PC4937 (8-port expansion module).

One port can be connected to a music input. Program that port as [04].

Only PC5921EXT and PC5921EXTR exterior boxes should be defined as [01] Doorbox 1 or [02] Doorbox 2.

Program all PC5921 Interior Audio and PC5904 Central Station Talk/Listen stations as [03] Intercom.

Program all unused stations as [00].

- Option [00] - Not Used
- Option [01] - Doorbox 1
- Option [02] - Doorbox 2
- Option [03] - Intercom
- Option [04] - Music Input

## 4.2 Audio Station Options

Ref #: [001600XX01], where XX = port 01-15

You can disable certain features of each interior audio station using the following toggle options. All options are turned on for each station by default.

- Pag/Mon/Drbell: When you turn this option off, pages, doorbell sounds and monitoring will not be broadcast to the station.
- Incoming Rings: When you turn this option off, incoming telephone calls will not ring at the station.
- Doorstrike: When you turn this option off, users will not be able to unlock the door (using the doorstrike) from the station.

## 4.3 Doorstrike Function Button

Ref #: [001600XX02], where XX = port 01-15

If you set up the doorstrike function button, when users answer a doorbell page, they will be able to open the door near the doorbox station. See section 3.6 “Opening the Door” on page 8.

For this feature to work, you must:

1. Connect the doorstrike module near the doorbox to a PGM output terminal.
2. Program the PGM output for one of Command Outputs 1 - 8. (See your PC4020 Installation Manual for information on PGM output programming.)

3. Program each internal audio station to trigger the Command Output. (Ref #: [001600XX02], where XX = port 01-15)

#### 4.4 Page Listens To All

Ref #: [001601]

Enable the **Page Listn All** option to allow all stations which hear pages to respond without having to press the Page/Answer button. If the page is answered, normal page activity will take place. If the page is not answered, it will time out after 30 seconds. See also 3.2 “Page Listens To All” on page 7.

#### 4.5 Hands Free Doorbell Answer

Ref #: [001601]

Enable the **Hands Free Dr.** option to allow all stations which hear doorbell pages to respond without pressing Page/Answer. As well, visitors initiating the doorbell page will be heard on all other stations which hear pages. If the doorbell page is not answered, it will time out after 30 seconds.

#### 4.6 Verbal Alarm Options

If you have installed an Escort4580 v1.3 on the system, when zones go into alarm the Escort will announce the labels for those zones over the intercom system. The alarm announcement will be as follows:

- an alarm tone
- verbal announcement of the first zone in alarm
- verbal announcement of the latest zone in alarm
- series repeats until alarms are silenced.

You can program two options on the PC4936 to customize the verbal alarm:

##### **Alarm Tone Time**

Ref #: [001602]

Program the length of time the alarm tone will sound before the zone label is announced. Default is 000, valid entries are 000-255 seconds.

##### **Bells Active During Verbal Alarm**

Ref #: [001601]

If the **Bel. Verbal Alm** toggle option is on, the system bells will sound throughout the verbal alarm announcement. If this option is off, the system bells will sound during the alarm tone, but will pause while the Escort announces the label(s) of the zone(s) in alarm.

#### 4.7 Zone Port Assignment

Ref #: [001606]

When the Central Station Talk/Listen-In feature operates, the panel will automatically turn on the station closest to the alarm. For this to operate properly you must program the Zone Port Assignment to tell the panel which zone is closest to each station. When the communication link is established the central station operator will hear input from the station closest to the alarm.



**NOTE:** Program the Zone Port Assignments even if zone alarms are not used. Tamper, Openings and Closings, and all other events will not function if ports are not assigned to zones.

## 4.8 Keypad Port Assignment

Ref #: [001607]

Use this section to tell the panel which keypad is closest to each audio station. This is important for the User Help, Verbal Alarm and Verbal Door Chime features to work correctly. See section 3.12 “User Help (Keypad function key)” on page 9 and section 4.6 “Verbal Alarm Options” on page 12.

## 4.9 Central Station Talk/Listen-In

Ref #: [001601]

**NOTE:** Enable the “Event Buffer Follows Swinger Shutdown” option in the control panel if Central Station Talk/Listen-In is used.

You can program the PC4936 to initiate a Talk/Listen-in session with the central station for any or all of the following events:

- Zone alarms
- Miscellaneous alarms (Police Code, Door Forced Open and Open Too Long alarms)
- Tamper
- Openings
- Closings
- Auxiliary alarms
- Panic alarms
- Duress alarms
- Opening after alarm

If the Openings and Closings options are enabled, you should also enable the Duress Alarm option.

**NOTE:** In all cases, a reporting code for the event must be programmed in the control panel. For example, if a reporting code for a zone alarm is not programmed, an alarm in the zone will not initiate a Talk/Listen-In session.

**NOTE:** Module tamper will not initiate a Talk/Listen-In session.

For Talk/Listen-in to work correctly on zone alarms, you must assign each zone to the closest audio station (see 4.7 “Zone Port Assignment” on page 12).

**NOTE:** Zones programmed as silent will not initiate a Talk/Listen-In session. Only a Listen-In session will occur.

To have the PC4936 turn on Talk/Listen-in on all stations (instead of only the one closest to the alarm), enable the **CS Listen All** option.

The Talk/Listen-In communication will end after the programmed **Listen-in Time** expires (ref #: [001603]). The central station operator can extend the on-line time by pressing any key on their touch-tone telephone or entering the extend time command. (See 3.16 “Central Station Talk/Listen-in” on page 10 and section 4.10 “Central Station Talk/Listen-In Commands”, below).

## 4.10 Central Station Talk/Listen-In Commands

Ref #: [001604XX], where XX = key number 00-11

Ref #: [001605XX], where XX = mode key number 00-11

When the panel transmits a reporting code to central station and Talk/Listen-In is initiated, the panel will pass the telephone line to the PC4936 for Talk/Listen-In. The PC4936 will then turn on the closest station to the alarm, or if the **CS Listen All** option is enabled, all stations will turn on.

Once the central station has established the Talk/Listen-in link the operators can control the session by pressing keys [0] through [9], [#] and [\*] on their touch-tone telephone. Additional commands may be programmed as Mode Keys, which are two button entries on the touch-tone telephone.

The central station may be using other Talk/Listen-In equipment. You can program the PC4936 so that central station operators can use the same commands for all equipment. Ask your central station how they need the command keys to be programmed.

The following commands are available:

<b>00</b> Key not used	<b>09</b> Terminate session
<b>01</b> Talk to all speakers	<b>10</b> For future use
<b>02</b> For future use	<b>11</b> Cancel keypress
<b>03</b> High gain listen to all	<b>12</b> For future use
<b>04</b> For future use	<b>13</b> Zone select
<b>05</b> For future use	<b>14</b> Increase microphone input
<b>06</b> Low gain listen to all	<b>15</b> Decrease microphone input
<b>07</b> Extend time	<b>16</b> For future use
<b>08</b> For future use	<b>17</b> Mode key

# Section 5: Programming Worksheets

---

## Port Programming

**NOTE:** Program ports 08 - 15 only if an PC4937 expander module is installed.

[001600XX00]

### Port Definitions (XX = Port number, 01-15)

See section 4.1 "Port Definitions" on page 11.

(00) Not used	(01) Doorbox 1	(02) Doorbox 2
(03) Intercom (Monitor)	(04) Music Input	
	Default	Default
Port 01: <input type="text"/>	03	Port 08: <input type="text"/>
Port 02: <input type="text"/>	03	Port 09: <input type="text"/>
Port 03: <input type="text"/>	03	Port 10: <input type="text"/>
Port 04: <input type="text"/>	03	Port 11: <input type="text"/>
Port 05: <input type="text"/>	03	Port 12: <input type="text"/>
Port 06: <input type="text"/>	03	Port 13: <input type="text"/>
Port 07: <input type="text"/>	03	Port 14: <input type="text"/>
		Port 15: <input type="text"/>
		00

[001600XX01]

### Audio Port Options (XX = Port number, 01-15)

See section 4.2 "Audio Station Options" on page 11.

	Paging/Monitor/ Doorbell	Incoming Rings	Doorstrike
Default:	Y	N	N
<b>Port</b>			
01	<input type="text"/>	<input type="text"/>	<input type="text"/>
02	<input type="text"/>	<input type="text"/>	<input type="text"/>
03	<input type="text"/>	<input type="text"/>	<input type="text"/>
04	<input type="text"/>	<input type="text"/>	<input type="text"/>
05	<input type="text"/>	<input type="text"/>	<input type="text"/>
06	<input type="text"/>	<input type="text"/>	<input type="text"/>
07	<input type="text"/>	<input type="text"/>	<input type="text"/>
08	<input type="text"/>	<input type="text"/>	<input type="text"/>
09	<input type="text"/>	<input type="text"/>	<input type="text"/>
10	<input type="text"/>	<input type="text"/>	<input type="text"/>
11	<input type="text"/>	<input type="text"/>	<input type="text"/>
12	<input type="text"/>	<input type="text"/>	<input type="text"/>
13	<input type="text"/>	<input type="text"/>	<input type="text"/>
14	<input type="text"/>	<input type="text"/>	<input type="text"/>
15	<input type="text"/>	<input type="text"/>	<input type="text"/>

**[001600XX02] Doorstrike Function Key (XX = Port number, 01-15)  
See section 4.3 “Doorstrike Function Button” on page 11.**

Enter the 2-digit option for the Command Output that will be triggered.

- (00) Not used
- (01) Command Output 1 (05) Command Output 5
- (02) Command Output 2 (06) Command Output 6
- (03) Command Output 3 (07) Command Output 7
- (04) Command Output 4 (08) Command Output 8

Default: [00]

Port 01: <input type="text"/>	Port 08: <input type="text"/>
Port 02: <input type="text"/>	Port 09: <input type="text"/>
Port 03: <input type="text"/>	Port 10: <input type="text"/>
Port 04: <input type="text"/>	Port 11: <input type="text"/>
Port 05: <input type="text"/>	Port 12: <input type="text"/>
Port 06: <input type="text"/>	Port 13: <input type="text"/>
Port 07: <input type="text"/>	Port 14: <input type="text"/>
	Port 15: <input type="text"/>

**PC4936 Programming**

**[001601] Audio Toggle Options: See sections 4.4 “Page Listens To All”, 4.5 “Hands Free Doorbell Answer”, 4.6 “Verbal Alarm Options”, 4.9 “Central Station Talk/Listen-In”.**

Default

CS Listen All	N	<input type="text"/>
Page Listn All	N	<input type="text"/>
Hands Free Dr.	N	<input type="text"/>
Bel. Verbal Alm	N	<input type="text"/>
Zone Alarms	Y	<input type="text"/>
Misc. Alarms	Y	<input type="text"/>
Tampers	N	<input type="text"/>
Openings	N	<input type="text"/>
Closings	N	<input type="text"/>
[A] Alarm	Y	<input type="text"/>
[P] Alarm	Y	<input type="text"/>
Duress Alarm	N	<input type="text"/>
Open After Alm	N	<input type="text"/>

**[001602] Alarm Tone Time: See 4.6 “Verbal Alarm Options” on page 12**

Default: 015  (000-255 seconds)

**[001603] Listen In Time: See 4.9 “Central Station Talk/Listen-In” on page 13.**

Default: 000  (000-255 seconds)

[001606]

Zone Listen In: See 4.7 "Zone Port Assignment" on page 12.

Default: [00]

Select port 01 - 15

Zone	Port	Zone	Port	Zone	Port	Zone	Port
001	_____	034	_____	067	_____	100	_____
002	_____	035	_____	068	_____	101	_____
003	_____	036	_____	069	_____	102	_____
004	_____	037	_____	070	_____	103	_____
005	_____	038	_____	071	_____	104	_____
006	_____	039	_____	072	_____	105	_____
007	_____	040	_____	073	_____	106	_____
008	_____	041	_____	074	_____	107	_____
009	_____	042	_____	075	_____	108	_____
010	_____	043	_____	076	_____	109	_____
011	_____	044	_____	077	_____	110	_____
012	_____	045	_____	078	_____	111	_____
013	_____	046	_____	079	_____	112	_____
014	_____	047	_____	080	_____	113	_____
015	_____	048	_____	081	_____	114	_____
016	_____	049	_____	082	_____	115	_____
017	_____	050	_____	083	_____	116	_____
018	_____	051	_____	084	_____	117	_____
019	_____	052	_____	085	_____	118	_____
020	_____	053	_____	086	_____	119	_____
021	_____	054	_____	087	_____	120	_____
022	_____	055	_____	088	_____	121	_____
023	_____	056	_____	089	_____	122	_____
024	_____	057	_____	090	_____	123	_____
025	_____	058	_____	091	_____	124	_____
026	_____	059	_____	092	_____	125	_____
027	_____	060	_____	093	_____	126	_____
028	_____	061	_____	094	_____	127	_____
029	_____	062	_____	095	_____	128	_____
030	_____	063	_____	096	_____		
031	_____	064	_____	097	_____		
032	_____	065	_____	098	_____		
033	_____	066	_____	099	_____		

[001607]

**Keypad Port Assignment: See 4.8 “Keypad Port Assignment” on page 13.**

Select port 01 - 15		Default	Default		Default
Keypad 01:	_____	01	Keypad 07:	_____	00
Keypad 02:	_____	02	Keypad 08:	_____	00
Keypad 03:	_____	03	Keypad 09:	_____	00
Keypad 04:	_____	04	Keypad 10:	_____	00
Keypad 05:	_____	00	Keypad 11:	_____	
Keypad 06:	_____	00	Keypad 12:	_____	

[001608]

**Default PC4936**

To confirm default press [\*].

**Central Station Telephone Key Functions**

[001604XX]

**Telephone Key Programming (XX = key number, 00-11)**

[001605XX]

**Telephone Mode Key Programming (XX = key number, 00-11) See 4.10 “Central Station Talk/Listen-In Commands” on page 14.**

**Options:**

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| <b>00</b> Key not used            | <b>09</b> Terminate session         |
| <b>01</b> Talk to all speakers    | <b>10</b> For future use            |
| <b>02</b> For future use          | <b>11</b> Cancel keypress           |
| <b>03</b> High gain listen to all | <b>12</b> For future use            |
| <b>04</b> For future use          | <b>13</b> Zone select               |
| <b>05</b> For future use          | <b>14</b> Increase microphone input |
| <b>06</b> Low gain listen to all  | <b>15</b> Decrease microphone input |
| <b>07</b> Extend time             | <b>16</b> For future use            |
| <b>08</b> For future use          | <b>17</b> Mode key                  |

Select a function (00-17) for each telephone key that will be used. Contact your central station to determine what functions to program. Program unused keys as [00].

Key #	Key	Default	Key #	Key	Default
(00)	[0]	00	(00)	Mode + [0]	00
(01)	[1]	01	(01)	Mode + [1]	00
(02)	[2]	00	(02)	Mode + [2]	00
(03)	[3]	03	(03)	Mode + [3]	00
(04)	[4]	14	(04)	Mode + [4]	00
(05)	[5]	15	(05)	Mode + [5]	00
(06)	[6]	06	(06)	Mode + [6]	00
(07)	[7]	07	(07)	Mode + [7]	00
(08)	[8]	00	(08)	Mode + [8]	00
(09)	[8]	17	(09)	Mode + [9]	00
(10)	[*]	00	(10)	Mode + [*]	00
(11)	[#]	11	(11)	Mode + [#]	00

### **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 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** 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: F53CAN-31477-KX-N

Ringer Equivalence Number: 0.1B

USOC Jack: RJ-31X

Facility Interface Code: 02LS2

Service Order Code: 9.0F

### **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. Stan-

dard 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.

**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. Interconnect rules may vary from state to state.

**CHANGES IN TELEPHONE COMPANY EQUIPMENT OR 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. 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 St., Lockport, NY 14094



©1999 Digital Security Controls Ltd.

1645 Flint Road, Downsview, Ontario, Canada M3J 2J6

(416) 665-8460 • Fax (416) 665-7498 • 1-800-387-3630

[www.dscgrp.com](http://www.dscgrp.com)

Printed in Canada 29003577 R0

**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 à 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 0.1B.

**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 0.1B.