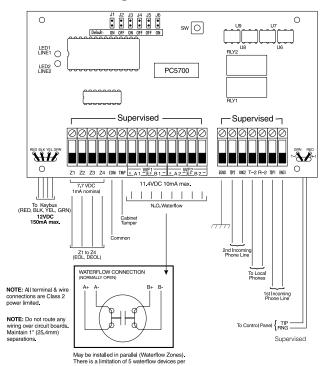
# Installation Instructions

The PC5700 is a zone expansion module to be used with any control panel which supports the PC5108 module. In addition to four general purpose zone inputs, the module provides the following features: two Class A supervisory waterflow zones, ground fault detection and dual-supervised telephone lines. The PC5700 connects to a control panel via the 4-wire Keybus using standard 22-gauge unshielded cable.

## **PC5700 Connection Diagram**



### **Zone Inputs**

The first four zone inputs (Z1-Z4) on the PC5700 are general purpose zones which can be programmed as any zone type offered by the alarm control panel.

The last four zone inputs are as follows:

Zone #	Zone Type	Terminals
Zone 5	Class A (waterflow)	A1+, A1-, B1+,B1 circuit 1
Zone 6	Class A (waterflow)	A2+, A2-, B2+,B2 circuit 2
Zone 7	Ground fault detection zone	EGND
Zone 8	TLM fault	TIP2, RNG2, TIP1, RNG1

### The zone definitions for these four zones should be as follows:

Zone 5	[07] Delayed Fire or [08] Standard Fire
Zone 6	[07] Delayed Fire or [08] Standard Fire

Zone 7 [08] Standard Fire

Zone 8 [09] 24Hr Supervisory (LINKS)

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For Commercial Fire installations, please refer to Section 6 of the PC5020/PC5020CF Installation Manual.



Zone 7 and Zone 8 do not need to be wired and can be programmed as null (00) if the control panel used has a software version of 3.1 or higher.



When installing the PC5700 fire module, ensure that a minimum 1/4" (6.4mm) separation is maintained at all points between power limited and all other non-power limited wiring and connections.

WARNING: A maximum of 100V RMS may be present on telephone connections. Disconnect prior to servicing.

## Jumpers J1-J6

Jumpers are used to determine which zones will be assigned to the PC5700. Jumpers J1-J3 control the first four PC5700 zones. Jumpers J4-J6 control the second four PC5700 zones (two water-flow, ground fault and TLM fault zones).

### **Jumper Settings**

The PC5700 module can be used to add up to 6 additional hardwired zones to the control panel.

For control panels v3.x and higher, please refer to the jumper settings below:

Expander Zones	Jumpers			System Zones
Group A (Zones 1-8) Group B (Not used)	J1	J2	J3	Assigned
	ON	ON	ON	Zones Disabled
	OFF	ON	ON	Zones 9 - 16
	ON	OFF	ON	Zones 17 - 24
	OFF	OFF	ON	Zones 25 - 32
	ON	ON	OFF	Zones 33 - 40
	OFF	ON	OFF	Zones 41 - 48
	ON	OFF	OFF	Zones 49 - 56
	OFF	OFF	OFF	Zones 57 - 64



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On control panels with software versions 3.x and higher, the PC5700 v2.0 will operate in a single group of 8 zones.

# For control panels v2.x and lower, please refer to the jumper settings below:

Expander Zones	Jumpers			System Zones
Group A (Zones 1-4)	J1	J2	J3	Assigned
Group B (Zones 5-8)	J4	J5	J6	
	ON	ON	ON	Zones Disabled
	OFF	ON	ON	Zones Disabled
	ON	OFF	ON	Zones 9-12
	OFF	OFF	ON	Zones 13-16
	ON	ON	OFF	Zones 17-20
	OFF	ON	OFF	Zones 21-24
	ON	OFF	OFF	Zones 25-28
	OFF	OFF	OFF	Zones 29-32



On control panels with software versions 2.x and lower, the PC5700 v2.0 will operate in two groups of four zones.

#### **Ground Fault Detection**

Ground fault detection must be enabled for Commercial Fire installations by connecting the EGND terminal on the PC5700 to a solid earth ground. Upon detection of a ground fault trouble, the module will cause a fault on module Zone 7.



On control panels with software version 3.1 and higher, the module will communicate the ground fault to the panel directly via the keybus. Zone 7 does not need to be used in this case.

#### 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-32105-KX-N Facility Interface Code: N/A

Ringer Equivalence Number: 0.1B USOC Jack: RJ-31X Service Order Code: N/A

TELEPHONE CONNECTION REQUIREMENTS Except for the telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and telephone company provided jacks, or equivalent, in such a manner as to allow for easy, immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that, if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customer's premises which remains connected to the telephone network shall occur by reason of such withdrawal.

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.

### **Telephone Line Monitoring by the PC5700**

The PC5700 module has the capacity to monitor two telephone lines. When the PC5700 module detects a problem with the main line it will automatically switch to the secondary line. The secondary line will be used by the panel until the problem with the main line is cleared. The PC5700 can detect the problem and switch to the secondary line before the panel generates a TLM Trouble. Whenever the PC5700 detects a problem on either line it will cause a tamper on module zone 8. The PC5700 has two onboard LEDs that are used to indicate the current status of each of the telephone lines. If a TLM Fault is detected on either line the appropriate LED will be on. When the switch located at the top of the module is pressed and held, the LEDs corresponding to the last telephone line restored from the trouble state will turn on. This function will only work if both lines are currently restored. The LED's will return to normal operation when the switch is released.



When using control panels with software versions 3.1 and higher, the module will communicate to the panel which phone line is in TLM Fault. Zone 8 does not need to be used in this case.

**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 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

NOTICE: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction. Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment. 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. REN: 0.1B.

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. REN: 0.1B.