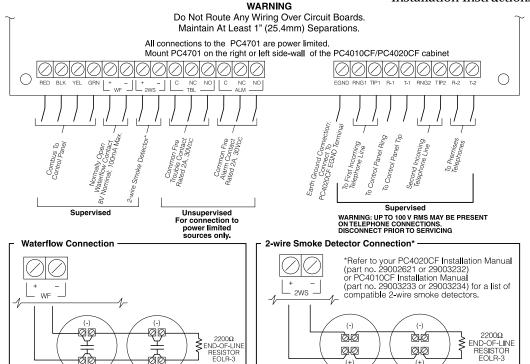


# PC4701 Fire Expansion Module

## **Installation Instructions**



#### 1. Introduction

The PC4701 is a fire expansion module for use with PC4010CF/ PC4020CF Maxsys security systems. One module may be installed per system.

NOTE: The PC4701 cannot be used on a Maxsys system if an Escort4580 is also connected.

## **Specifications**

- · Connects to control panel via 4-wire Combus
- Current Draw: 40 mA (from Combus)
- Class B / Style B 2-Wire Smoke Detector Supervision
  - Operating Voltage Range: 8.9-12.0 VDC
  - Maximum Alarm Current: 80mA
  - Maximum Ripple: 0.5 VP-P
  - · Compatibility Identifier: FM1
  - Maximum line resistance:  $50\Omega$
- Class B / Style B Waterflow Supervision
- · Supervised Dual Telephone Lines
- · Service Type: Automatic, Manual, Sprinkler Supervisory, Waterflow
- · Signaling Type: Non-Coded

## **Installing the PC4701**

## 3.1 Unpacking

The PC4701 package includes the following parts:

- · One PC4701 circuit board
- 2 listed end-of-line resistors (2200 ohms)
- · Four plastic stand-offs

## 3.2 Mounting

Install the PC4701 on either side-wall of the PC4010CF/ PC4020CF cabinet, mounted in a dry, secure location.

Perform the following steps to mount the unit:

- 1. Press the four plastic stand-offs through the mounting holes on the side wall of the cabinet.
- 2. Secure the cabinet to the wall in the desired location. Use appropriate wall anchors when securing the cabinet to drywall, plaster, concrete, brick or other surfaces.
- 3. Press the circuit board into the plastic stand-offs to secure the module to the cabinet.

Once the unit is mounted, complete the wiring.

Before beginning to wire the unit, ensure that all power (AC transformer and battery) is disconnected from the control panel. Perform the following steps to complete wiring:

1. Connect the four Combus wires to the PC4701. Connect the red, black, yellow and green Combus wires to the RED, BLK, YEL and GRN terminals, respectively.

ØØ

2. Complete all other wiring according to the wiring diagrams

## Common Fire Trouble Contact

90

If the Common Fire Trouble Contact is connected, the output will activate when any of the following troubles occur:

- Fire Zone Trouble
- · Any Bell Trouble
- Any AC Trouble
- · Any Battery Trouble
- · Ground Fault Trouble
- · Communication Troubles

The output will deactivate when all trouble conditions are restored. Refer to the PC4010/PC4020CF Installation Guide for more information on these trouble conditions.

# Common Fire Alarm Contact

If the Common Fire Alarm Contact is connected, the output will activate when an alarm occurs on any fire zone. The output will deactivate when all fire zones have been successfully reset.

## Telephone Line Switching

When the PC4701 detects a TLM trouble on either telephone line, it will automatically use the other telephone line if a communication needs to be sent. If there are no TLM troubles, the PC4701 will use telephone line 1, leaving telephone line 2 available for the premises telephones.

## 3.4 Applying Power

After all wiring is completed, apply power to the control panel. Connect the battery leads to the battery, then connect the AC transformer. For more information on control panel power specifications, see the control panel Installation Manual.

**NOTE**: Do not connect the power until all wiring is complete.

## **Enrolling the Module**

Once all wiring is complete, the module must be enrolled on the system. To enroll the module, perform the following:

- 1. Enter installer's programming by pressing [\*] [8] [Installer's
- 2. Scroll to "Module Hardware" and press the [\*] key.
- 3. Scroll to "Enroll Module" and press the [\*] key.
- Scroll through the different modules until "PC4701 Fire" is displayed. Press the [\*] key. After this is done, the keypad displays the module number and confirms enrollment (e.g. "PC4701 Fire Mod 01 Enrolled")

Please refer to the System Installation Manual for information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer.

For more information regarding module enrollment, see the control panel Installation Manual.

### 5. Programming the Module

To access PC4010/PC4020 programming, enter [\*][8] followed by the Installer's code. Program the sections indicated on this worksheet, and record your programming choices in the space provided. The waterflow and 2-wire smoke zones are hard-coded and the zone type cannot be changed. Refer to your Commercial Fire Installation Guide for more information on PC4701 zones.

If the 2-wire smoke auto-verify feature is enabled in the System Toggles section (ref. # [000200]), the panel will automatically verify alarms from the 2-wire smoke circuit of the PC4701 before

sounding the bells and transmitting the alarms.

Verification will function as follows: when the 2-wire smoke circuit is shorted, the PC4701 performs a sensor reset by removing power from the circuit for 20 seconds. After the 20 second reset, power will be restored to the circuit and troubles will be bypassed for 10 seconds to allow detectors to settle. If the smoke detectors initiate another alarm within 60 seconds after power is restored, a fire alarm will be generated immediately. If the smoke detector is not reset by the power down, the zone will not be restored. If this occurs, the panel will initiate a fiire alarm immediately (30 seconds after initial alarm).

If the feature is disabled, the panel will generate fire alarms instantly.

Please refer to your PC4010/PC4020 Installation Manual for information on how to program.

| Conding   Cond | [0001]      | Event Messages       |                                |                     |                   |                  |
|--|-------------|----------------------|--------------------------------|---------------------|-------------------|------------------|
| [000200] System Toggle Options: scroll to 2WS AutoVerify Default: N  [00020311] Waterflow Delay Default: 000   | [000102]    | 2-Wire Smoke         |                                |                     |                   |                  |
| [00020311] Waterflow Delay Default: 000 Valid entries are 000-090 seconds.  NOTE: If a waterflow delay is programmed, the PC4701 waterflow zone follows it. Please see your PC4010CF/4020CF Installation Guide for more details.  [000403] Reporting Codes [00040309] Fire Events 2 Wire Alarm 2 Wire Trouble Fire Test Begin 2 Wire Restore 2 Wire TBL Rest Fire Test End Waterflow Alarm Waterflow TBL Fire Bypass   | [000103]    | Waterflow            |                                |                     |                   |                  |
| NOTE: If a waterflow delay is programmed, the PC4701 waterflow zone follows it. Please see your PC4010CF/4020CF Installation Guide for more details.  [000403] Reporting Codes [00040309] Fire Events 2 Wire Alarm 2 Wire Trouble Fire Test Begin 2 Wire Restore 2 Wire TBL Rest Fire Test End Waterflow Alarm Waterflow TBL Fire Bypass   | [000200]    | System Toggle Option | ns: scroll to 2WS AutoVerify   | Default: N          | L                 |                  |
| Guide for more details.  | [00020311]  | Waterflow Delay      | Default: 000                   | Valid entries       | are 000-090 secor | nds.             |
| Fire Events  2 Wire Alarm  |             |                      | he PC4701 waterflow zone follo | ws it. Please see y | our PC4010CF/402  | OCF Installation |
| 2 Wire Alarm 2 Wire Trouble Fire Test Begin 2 Wire Restore 2 Wire TBL Rest Fire Test End Waterflow Alarm Waterflow TBL Fire Bypass   | • • • • • • |                      |                                |                     |                   |                  |
| 2 Wire Restore   | [00040309]  |                      |                                |                     |                   |                  |
| Waterflow Alarm Waterflow TBL Fire Bypass  |             | 2 Wire Alarm         | 2 Wire Trouble                 | LJ                  | Fire Test Begin   | L                |
|  |             | 2 Wire Restore       | 2 Wire TBL Rest.               | LJ                  | Fire Test End     |                  |
| Waterflow Rest Waterflw TBL Rest Fire Unbypass   |             | Waterflow Alarm      | ∟ Waterflow TBL                |                     | Fire Bypass       |                  |
|  |             | waternow marin       |                                |                     | <i>J</i> 1        |                  |

#### INDUSTRY CANADA NOTICE

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.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Number of all the devices does not exceed 5.

The REN of this unit is 0.0.

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 télécomunications 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 luimême; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

AVIS: L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface. La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

L'indice d'équivalence de la sonnerie (IES) de ce produit est 0.0.

### **FCC COMPLIANCE STATEMENT**

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

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.
- <sup>n</sup> Increase the separation between the equipment and receiver
- Onnect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- <sup>n</sup> 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 albel 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-32904-AL-N Ringer Equivalence Number: 0.0B

USOC Jack:

RJ31X

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 line.

The FCC prohibits customer-provided terminal equipment be connected to party lines or to be useful 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.

REQUIPMENT 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

