



# Technical Bulletin

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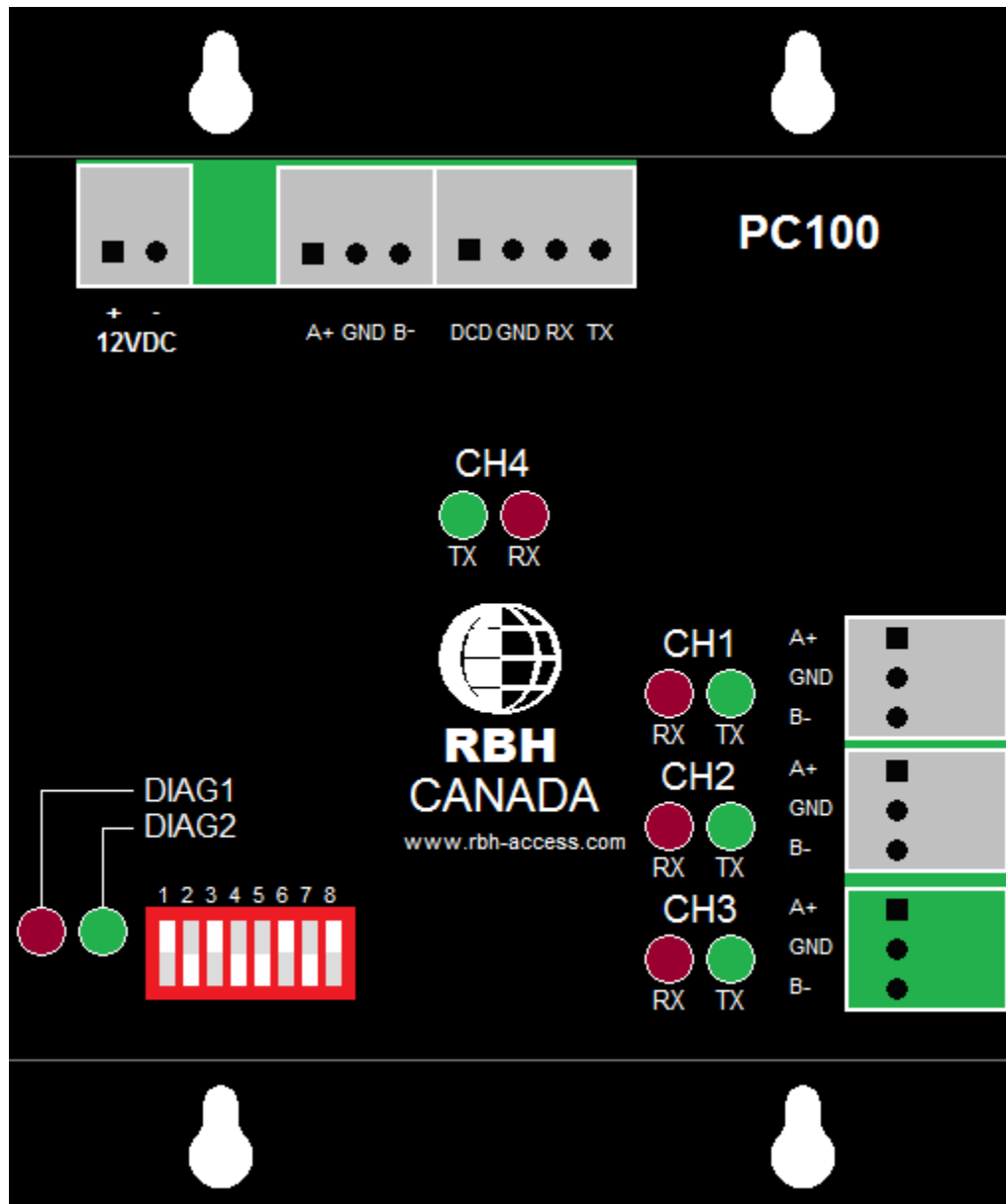
**Number: 62**

**PC-100 for Integra™**

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## PC-100

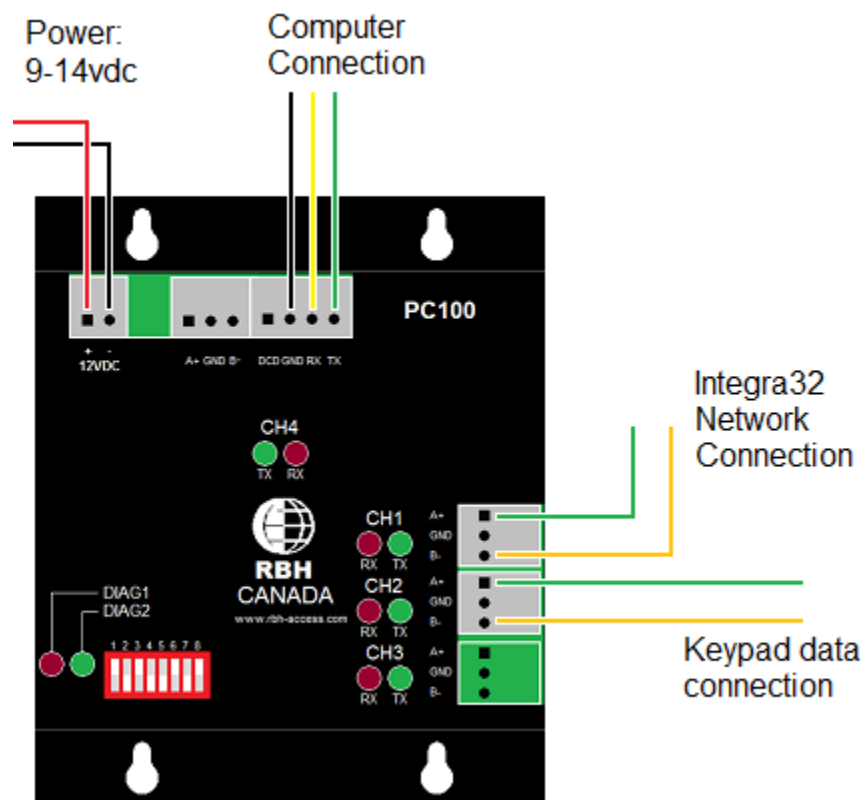


The PC-100 communications interface can be used for a number of different applications.

PC-100s can be used to interface alarm panels with the Integra™ system. Some DSC, Bosch, Summit, Gardtec, Rokonet, and Paradox alarm panels can be interfaced this way.

**All channels of the PC-100 are programmed for a baud rate of 9600 8-bits no parity therefore all Integra32™ panels need to be programmed for 9600 baud.**

## Wiring



The PC-100 connects to the IRC-2000 through the RS-485.

### Power

9-14vdc @ 150ma

### LEDs

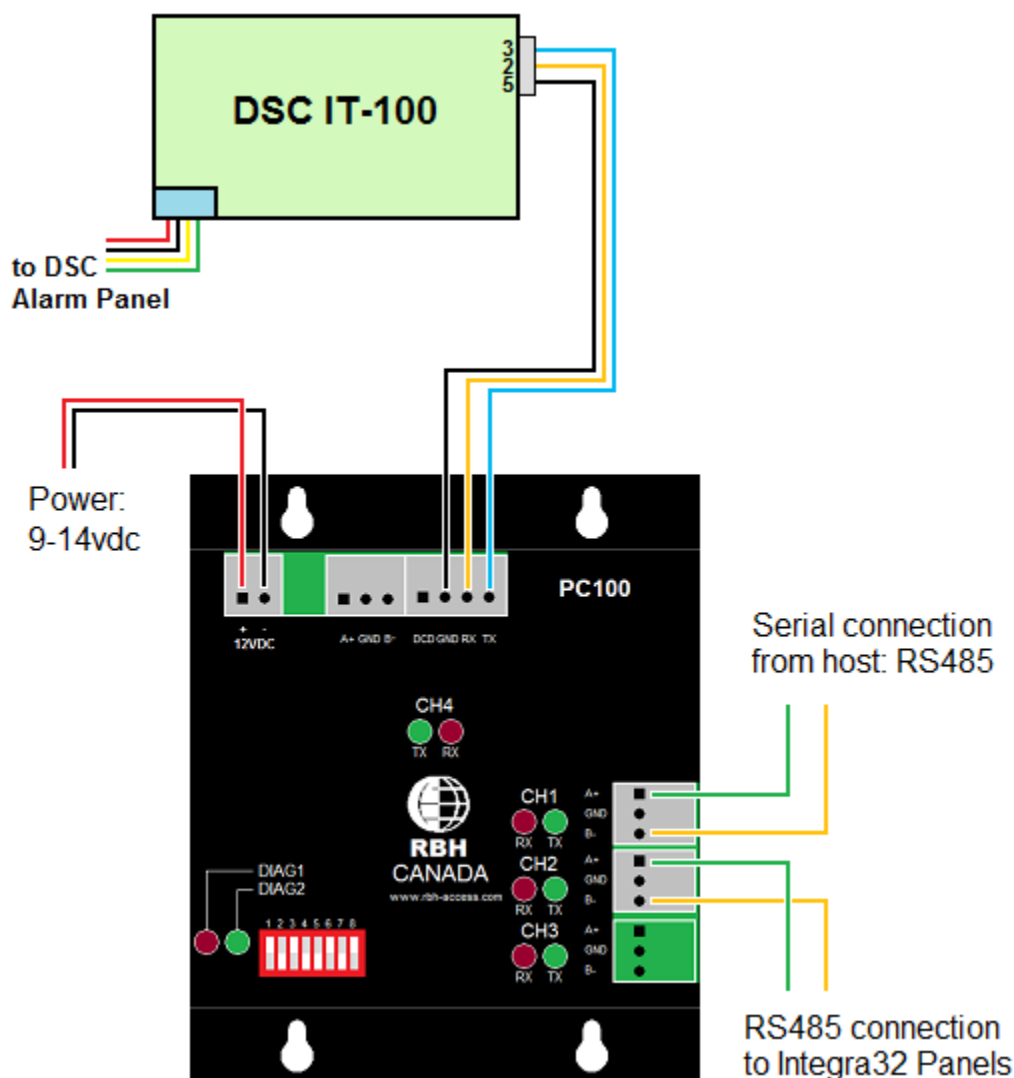
DIAG1 – Interface status

DIAG2 – Integra status:

Communication Channel LEDs – Each communication channel has a green transmit LED and a red receive LED.

Normally flashing at a rate of once a second, DIAG2 will flash twice as fast if the unit is offline with the Integra network.

## DSC Alarm Panel Interface<sup>1</sup>



### Interface Description

This PC100 interface uses the DSC “IT100” to allow communications between the Integra Access Control System and the DSC Power Series Burglar Alarm panel.

The PC100 is programmed through the Integra32 Software Version 3.7.18 (or higher) and is designed to be “Stand Alone”. While the host is offline the PC100 continues to monitor activity in the Access Control System allowing interaction between the Access and Alarm Systems.

<sup>1</sup> PC100 and Integra Panel will require a common reference point (neg.) if they are not powered from the same source.

## ***Programming a PC100 for a DSC Alarm Panel***

To add the PC100 to the Integra network use the DSC option when selecting a PC100 style of panel. After adding the PC100 edit the following properties.

### **Keypads**

The address column refers to the alarm panel partition number. Use the Name field as a description of the partition. By editing the Keypads you are allowing the system the capability of showing the partition status.

### **PIN Code**

To allow the system the capability of arming and disarming partitions a matching PIN code must be applied. If there are different PIN codes for each partition multiple entries may be required. When selecting a PIN code for use with a command only the name of the pin code appears.

### **Links**

For a given event the PC100 will automatically issue an arm or disarm command. This can occur while online to the host or while offline.

### **Inputs**

This is a list of possible inputs from the alarm panel and what area they are assigned. When a keypad status window is opened, these inputs will also be displayed.

### **Partition Monitoring**

Every partition in the Alarm System is represented by a Keypad in the Integra32 Software. Whenever a partition changes its Alarm, Mode or State the status display for the keypad will be updated.

### **Input Monitoring**

Up to 256 inputs can be monitored through the emulation of alarm inputs by the PC100. Whenever an input from the alarm panel changes state the PC100 will report a change of its own virtual input state. In order to associate inputs with partitions the user must edit the input names and assign the inputs to a partition that matches the alarm panel set – up.

### **Partition Arming / Disarming**

Each partition can be armed or disarmed through an operator command or link. The link will be executed whenever a matching event is noticed by the PC100 therefore online or offline operation is available.

## Offline Operation

When the host is not connected the PC100 will send special polls to the IRC controllers that will not affect the log memory. When the host re-connects old log messages will be ignored by the PC100 in order to prevent false execution of links. Messages older than 4 minutes will be ignored by the PC100.

Alarm panel messages are stored in PC100 memory and retrieved from the host in sequence from the oldest message to the latest. If the power fails the buffer will be lost. It is for this reason that it is recommended that the power for the PC100 come from a battery backed up source such as the alarm panel itself.

## Bosch Alarm Panel Interface

It is recommended that the user be familiar with the DS7400Xi panel and has the ability to program PIN codes and parameters into the panel.

The PC100 interface has been designed to connect the Integra network to the DS7400Xi alarm panel through the option or keypad bus. It will emulate a keypad when a link has been provided and report status to the Integra network when included in the list of keypads. If you observe the red and green led associated with the keypad network you should notice the red LED flashing as it receives data and the green LED flashing as it responds to polls. The response to polls will only occur under the following conditions:

The keypad address is included in the list of keypads programmed in the Integra network

The keypad emulation box has been checked.

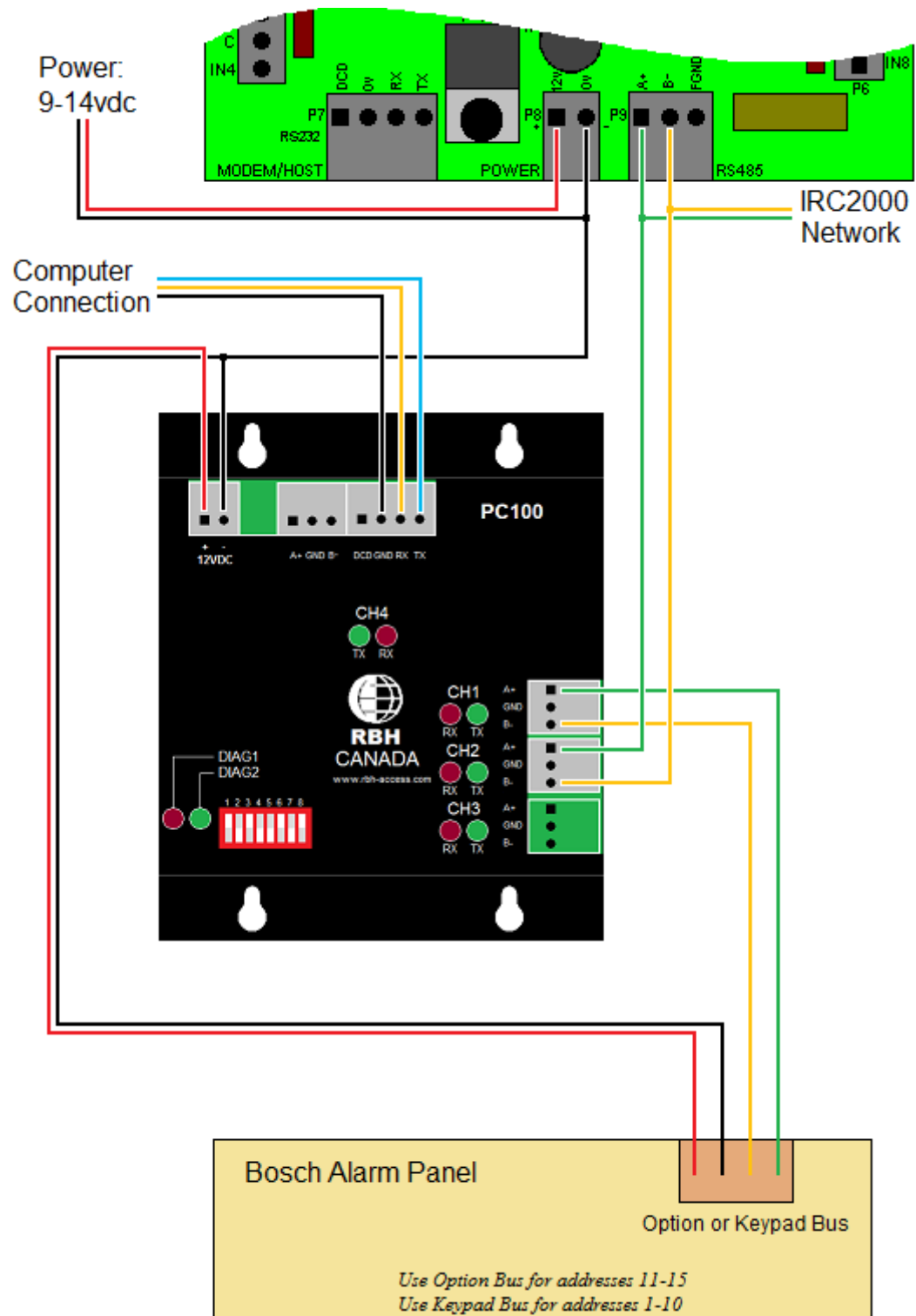
The keypad address has been programmed into the alarm panel.

In order for the alarm panel to poll the emulated keypad the keypad assignment for the alarm panel should be programmed. Keypad addresses 1-10 connect to the keypad bus and addresses 11-15 is connected to the option bus.

The PC100 can monitor all keypads on the bus that are listed under panel properties “Keypads”.

A Link to an Event will use an emulated keypad to enter a password followed by a command. If the password is not programmed into the alarm panel no operation will take place. Whenever a command is executed the green “DIAG2” LED will turn on. The green “DIAG2” LED will turn off when the alarm panel finishes its poll to the keypad.

Do not overload the power supply by connecting the IRC2000's along with their weigand readers to the Bosch +12v supply.



# Summit Alarm Panel Interface

## *General description*

The PC100 when made for the Summit application will interface the Electronics Line Summit alarm panel to the IRC2000 access control system.

1. (RS232, RS485, TCP/IP) Host – for communication with the PC software running Integra32™.
2. (RS485) Panel – for connection to the LSCP bus on the Summit alarm panel.
3. (RS485) IRC – for connection to the Access control system.

All channels are programmed for a baud rate of 9600 8-bits no parity and all Integra32™ panels need to be programmed for 9600 baud.

All activity is synchronized to the Summit LSCP bus. If the bus is disconnected all activity on the PC100 will halt. The PC100 acts like a zone expander to the Summit panel allowing up to 32 zones. Each zone is mapped to an element in the IRC network. The state of each element in the IRC network will cause a zone to appear open or closed.

The PC100 acts like an IRC panel at address 32 to the host. The host can poll the PC100 to see if it is online, request status, write to memory, and update flash memory.



**IRC2000 panels connected along with the PC100 must be running firmware version 76 or higher for the PC100 and the IRC2000 panels to function together correctly.**

## *Programming an Arm/Disarm key-switch*

When an Access Granted message is used as a source for an input, the status of the alarm panel is checked before execution is allowed. If the function is to disarm the panel and the panel is already disarmed no action will take place. Conversely if the function is to arm the panel and the panel is already armed the command will be ignored.

The key-switch functionality works on the basis of a momentary contact. Whenever the button is pushed the alarm panel will change states if possible when the switch returns to its closed position. It is not allowed to arm if an exterior zone is open for example.

Each zone can be programmed manually through the keyboard interface.

There are two types of arming allowed - STAY and AWAY.



### ***Sharing a door contact***

It is possible to use the door contact of the access control system to be mapped to the door contact of the alarm panel as long as the reporting for the door contact is enabled by software.

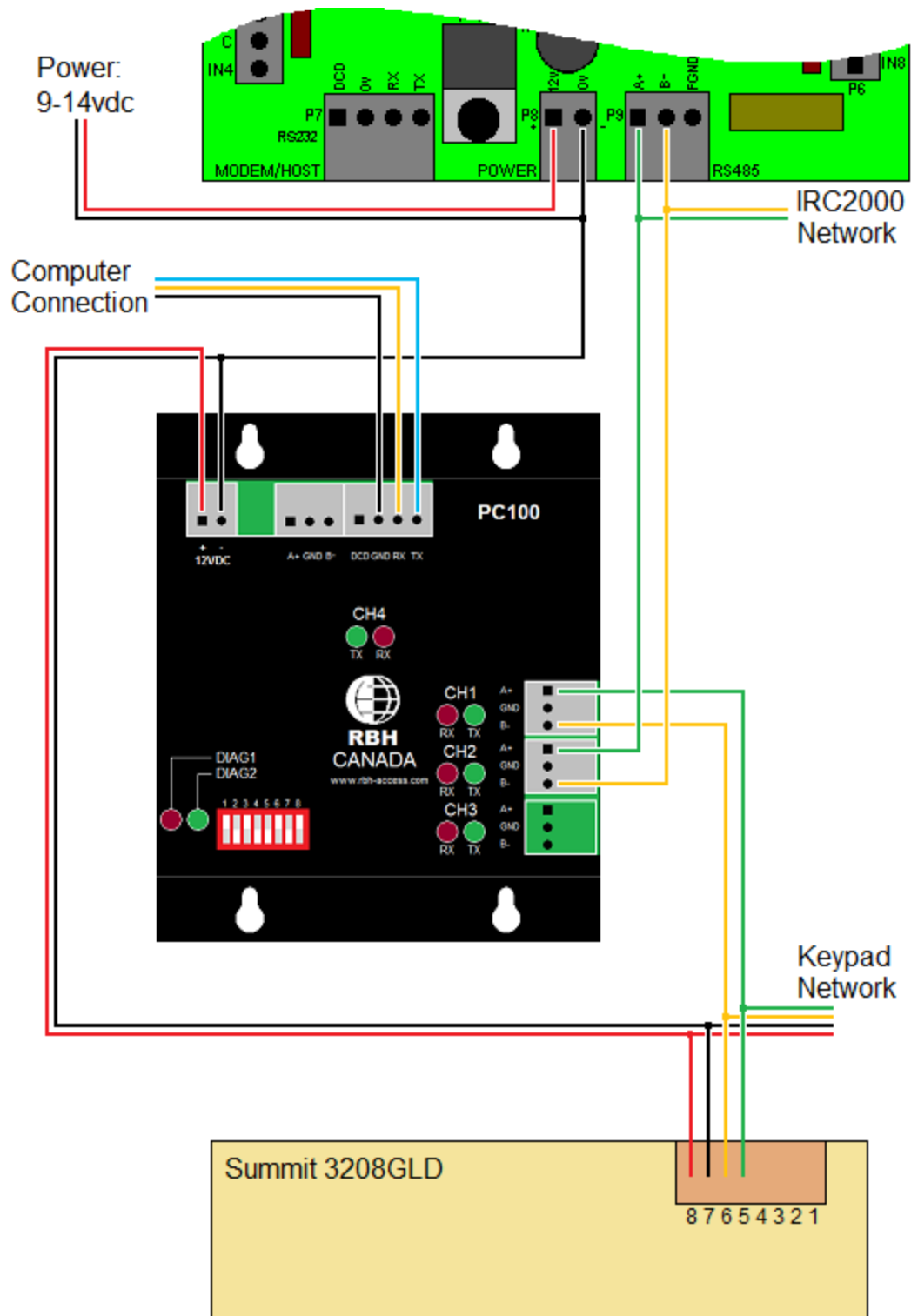
### ***Using Alarms***

Three types of alarms with A or B readers are allowed.

DHO alarm reader "A"
DHO alarm reader "B"
Forced entry reader "A"
Forced entry reader "B"
Reader Tamper "A"
Reader tamper "B"

### ***Multiple Combinations***

For multiple combinations of inputs/outputs and events a spare output on an IRC panel can be assigned this functionality, through the use of links. The output can be assigned to a Summit input and instructed to follow.



## Appendix A

### ***PC100 Firmware***

#### **Bosch**

##### **Version BIE23**

- PC100 firmware for interfacing a Bosch DS7240 panel with software version r3.5 or higher.

##### **Version BIL23**

- PC100 firmware for interfacing a Bosch DS7400Xi panel with software version r3.5 or higher.

#### **DSC<sup>2</sup>**

##### **Version IRITV3 (reports version 30)**

- PC100 firmware for interfacing a DSC IT100 panel with Integra32™ software version 3.7.18 or higher

#### **Gardtec/Risco<sup>3</sup>**

##### **Version GTIXN9 (reports version 9)**

- PC100 firmware for interfacing a Gardtec alarm panel with Integra32™ software.

#### **Paradox<sup>4</sup>**

##### **Version IRPAR (reports version 70)**

- PC100 firmware for interfacing a Paradox alarm panel with Integra32™ software.

#### **Rokonet**

##### **Version ROK6 (reports version 6)**

- PC100 firmware for interfacing a Rokonet alarm panel with Integra32™ software.

#### **Summit**

##### **Version SUM22 (reports version 22)**

- PC100 firmware for interfacing a Summit 3208GLD panel with software version r3.5 or higher.

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<sup>2</sup> Works with software version 3.7.18 R4.1 and higher and Firmware 113+

<sup>3</sup> Works with software version 3.6.3R 4.0 and higher

<sup>4</sup> Works with software version 3.7.18 R4.1 and higher and Firmware 113+