SPECTRA

4-Zone Expansion Bus Module
8-Zone Expansion Bus Module
V1.0 (SPC-ZX4 / SPC-ZX8)
&
4-Zone Hardwire Module V1.0
8-Zone Hardwire Module V2.0
w/ Auto-panel Recognition
(APR3-ZX4 / APR3-ZX8)

BUS TECHNOLOGY UL LISTED Made in CANADA

Instructions

Introduction

These modules provide an interface between the Spectra control panel and any hardwire detection devices. The SPC-ZX4 and APR3-ZX4 each supply you with four additional hardwire inputs while the SPC-ZX8 and APR3-ZX8 each supply you with eight additional hardwire inputs as well as one normally open 50mA PGM output.

Technical Specifications

Power input:	9-16 Vdc, 28mA maximum
Speed operation:	20MHz
PGM current limit:	50mA (SPC-ZX8 / APR3-ZX8)
Number of zones:	4 zones (SPC-ZX4 / APR3-ZX4) 8 zones (SPC-ZX8 / APR3-ZX8)
Proper operation:	Red LED flash
Bus fault indication:	Red LED toggles 1 sec. on & 1 sec. off
Humidity:	95% maximum
Temperature:	-20ºC to 50ºC (28ºF to 122ºF)
Compatibility:	Any Spectra control panel V1.0 or higher (SPC-ZX4 / SPC-ZX8) Any Spectra control panel V2.0 or higher and any Digiplex control panel (APR3-ZX4 / APR3-ZX8)

Auto-Panel Recognition

APR3-ZX4 & APR3-ZX8 only

This is a feature that allows the APR3-ZX4 or APR3-ZX8 to be used with Spectra or Digiplex (DGP-848 or DGP-NE96). When connected to the bus/network, the APR3-ZX4 or APR3-ZX8 will automatically detect which system it is connected to and adjust its internal communication parameters accordingly. It allows the APR3-ZX4 or APR3-ZX8 to be connected to any Digiplex control panel (DGP-848 or DGP-NE96) as well as any Spectra control panel V2.0 or higher.

Installation

Connect the **+** terminal of the expansion module to the **AUX +** terminal of the control panel. Connect the **-** terminal of the expansion module to the **AUX –** terminal of the control panel. Connect the **GRN** and **YEL** terminals of the expansion module to the **GRN** and **YEL** terminals of the control panel. Refer to Figure 1 or Figure 2 on the reverse side.

Only one SPC-ZX4, APR3-ZX4, SPC-ZX8, or APR3-ZX8 can be connected per Spectra control panel.

Zone Connections

Each input terminal, allows you to connect one hardwire detection device. These devices are connected as shown in Figure 1 or Figure 2 on the reverse side. Devices connected to the module's input terminals must be enabled as described in *Zone Input Assignment* (section [**651**]) and its parameters must be defined as explained in *Zone Programming* in the *Spectra Reference & Installation Manual*. The zone expansion module will communicate the status of the zones to the control panel through the communication bus.

The expansion modules do not support the zone doubling (ATZ) feature.

Programming Method

1. Press the **[ENTER]** key
2. Enter the **[INSTALLER CODE]**
3. Enter the 3-digit **[SECTION]** you want to program
4. Enter the required data

These modules can also be programmed through WinLoad. Refer to the WinLoad help file for more information.

EOL Zones

Section [650]: Option [1]

If all detection devices connected to the module have input terminals that require 1KΩ end of line resistors, turn on option **[1]**. For more information on the use of EOL resistors, refer to the *Spectra Reference & Installation Manual*.

Tamper Recognition

Section [650]: Option [2]

The modules do not come equipped with an anti-tamper switch. If your installation requires tamper recognition, enabling this feature will reserve input terminal Z1 of the module as a tamper input. This allows you to connect an anti-tamper switch to input Z1 (see Figure 1 or Figure 2 on the reverse side). When a tamper is detected on the module, it will send a Zone Tamper report code to the control panel via the communication bus. The Zone Tamper report code will originate from the zone defined by the Expansion Input. Please note that the corresponding zone must be programmed (refer to the *Spectra Reference & Installation Manual*).

If enabled, do not connect anything other than the tamper switch to input terminal Z1.

Zone Input Assignment

Section [651]: Options [1] to [8]

After connecting the hardwire detection devices to the inputs, you must enable the zone inputs that are being used. To do so, enter section **[651]** and enable the options that correspond to the module's inputs that are being used. When the option is OFF, the input is disabled. The enabled zone inputs are then automatically assigned to an expansion input. Each expansion input represents a specific zone in the system depending on the type of Spectra control panel being used and whether the ATZ option is enabled in the control panel (refer to the appropriate Spectra control panel *Programming Guide*). Once the module's zone inputs have been assigned, their associated zones must be programmed as described in *Zone Programming* (refer to the appropriate Spectra control panel *Reference & Installation Manual*).

Section [651]

Option **[1]** ON = ENABLE INPUT "z1" = EXPANSION INPUT 1
Option **[2]** ON = ENABLE INPUT "z2" = EXPANSION INPUT 2
Option **[3]** ON = ENABLE INPUT "z3" = EXPANSION INPUT 3
Option **[4]** ON = ENABLE INPUT "z4" = EXPANSION INPUT 4
Option **[5]** ON = ENABLE INPUT "z5" = EXPANSION INPUT 5
Option **[6]** ON = ENABLE INPUT "z6" = EXPANSION INPUT 6
Option **[7]** ON = ENABLE INPUT "z7" = EXPANSION INPUT 7
Option **[8]** ON = ENABLE INPUT "z8" = EXPANSION INPUT 8

Do not assign detection devices from different modules (i.e. SPC-319) to the same expansion input. For example, do not assign a wireless transmitter to EXPANSION INPUT 1 and connect a detection device to input z1 of the APR3-ZX8 and enable option [1] in section [651].

PGM Follows Spectra Global PGM

Section [650]: Option [3]

SPC-ZX8 & APR3-ZX8 only

The SPC-ZX8's and APR3-ZX8's PGM can be programmed to follow the events and/or PGM Delay Timer defined by the Global PGM. This means if the option is enabled, the module's PGM will ignore its activation and deactivation events and timer. Instead it will follow the Global PGM activation and deactivation events programmed in the Spectra control panel and will follow the Spectra control panel PGM Global Timer. Refer to the *Spectra Reference & Installation Manual* for more details.

PGM Timer

Section [655]

SPC-ZX8 & APR3-ZX8 only

Once the PGM output is activated, the PGM remains activated until the programmed PGM Timer value elapses. Enter a 3-digit decimal value between **000** and **255**. If the PGM Timer is set between **001** to **255**, the PGM will deactivate after the set time has elapsed and the PGM Deactivation Event set in section **[657]** can be used as a second PGM Activation Event. If the PGM Timer is set at **000**, the PGM will deactivate when the PGM Deactivation Event set in section **[657]** occurs.

The PGM will only activate 100mS after the activation event has occurred (if programmed).

PGM Activation Event

Section [656]

SPC-ZX8 & APR3-ZX8 only

The PGM Activation Event determines which event will activate the PGM output. Use the *SPC-ZX8/ APR3-ZX8 PGM Programming Table* (on the reverse side) to program the PGM's Activation Event.

PGM Deactivation Event

Section [657]

SPC-ZX8 & APR3-ZX8 only

Once the PGM output is activated, the PGM will return to its normal state when the PGM Deactivation Event has occurred. Use the *SPC-ZX8/APR3-ZX8 PGM Programming Table* (on the back of this instruction) to program the PGM's Deactivation Event. If the PGM Timer in section **[655]** has been set at **000**, the PGM will deactivate when the deactivation event has occurred. If the PGM Timer in section **[655]** has been set between **001** to **255** the PGM will deactivate when the timer has elapsed and the PGM Deactivation Event can be used as a second PGM Activation Event.

The PGM will only deactivate 100mS after the deactivation event has occurred (if programmed).

SPC-ZX8 and APR3-ZX8 PGM Programming Table

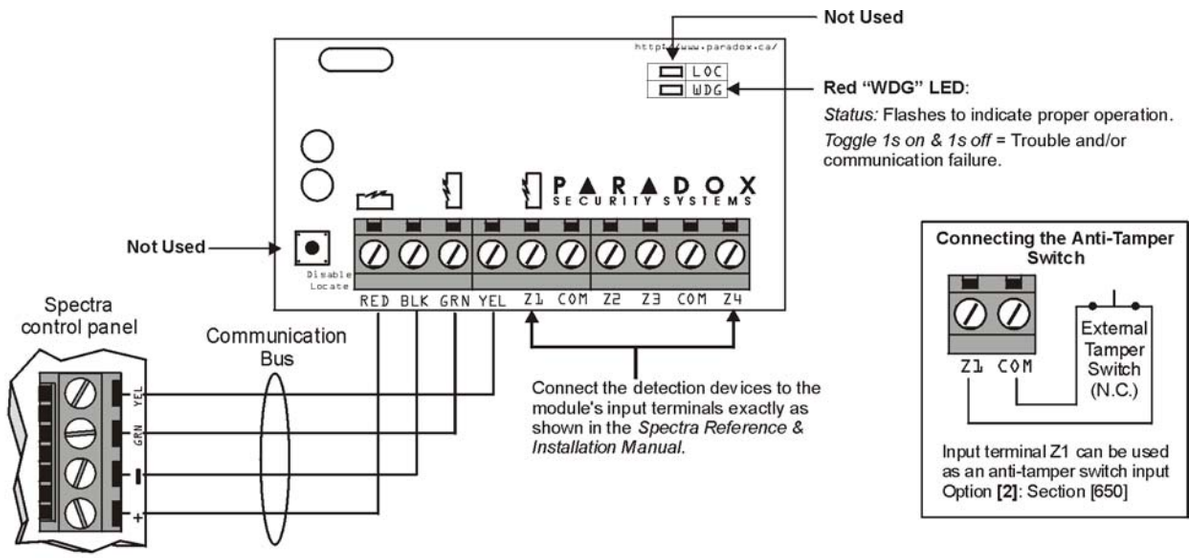
Section # — **Event Group #** — **Sub-Group #** — **Partition #**

[656] = PGM1 Activation Event ___ / ___ ___ / ___ ___ / ___

[657] = PGM1 Deactivation Event ___ / ___ ___ / ___ ___ / ___

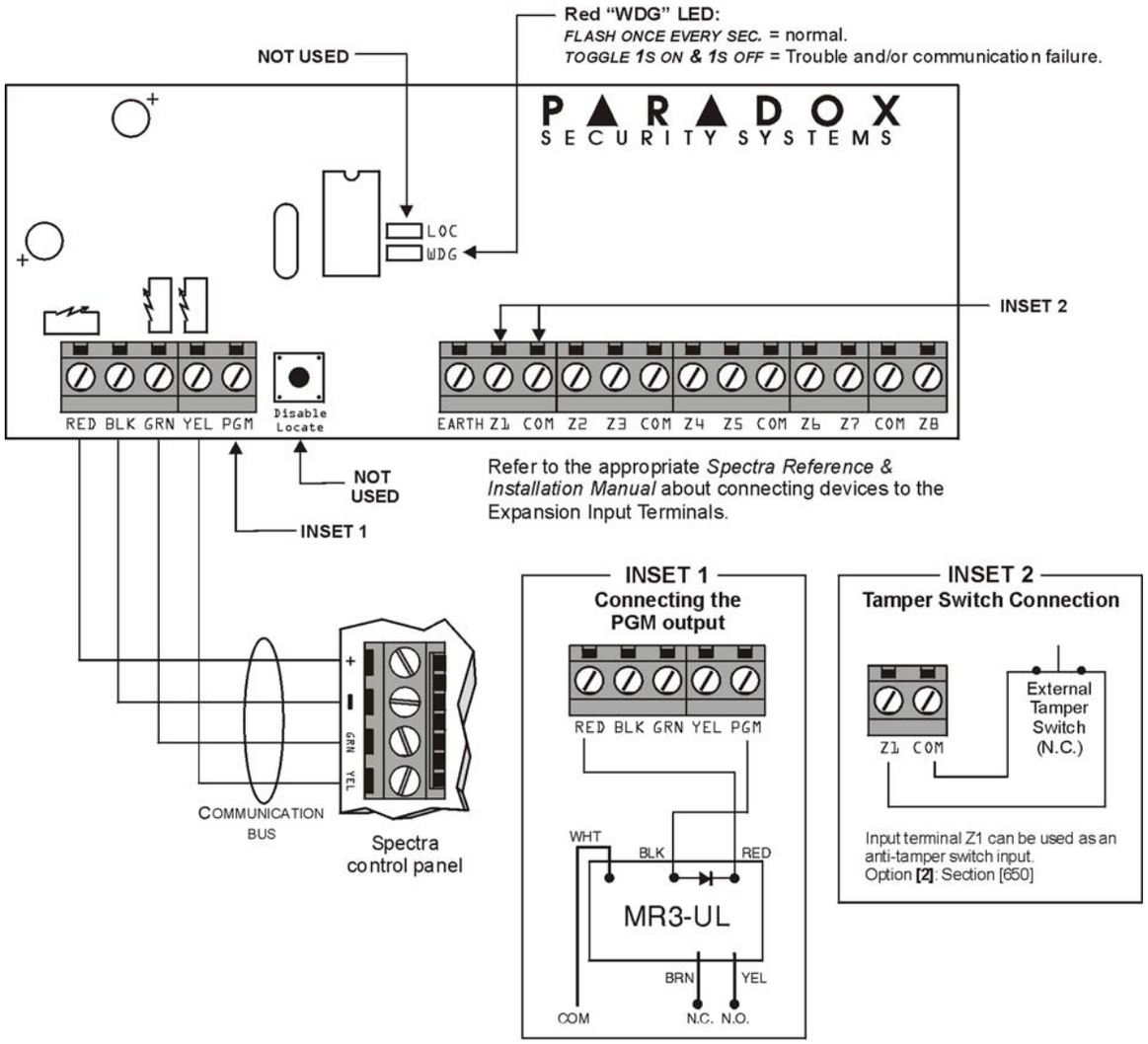
Event Group #	Sub-Group #	Partition #
For SPC-ZX8: 60 = Hardwire Zone Opened 61 = Hardwire Zone Closed 62 = Hardwire Tamper Opened 63 = Hardwire Tamper Closed **For APR3-ZX8:** 60 = Hardwire Zone/Tamper Opened 61 = Hardwire Zone/Tamper Closed	01 = Expansion Input 1 - Section [651] - **[1]** 02 = Expansion Input 2 - Section [651] - **[2]** 03 = Expansion Input 3 - Section [651] - **[3]** 04 = Expansion Input 4 - Section [651] - **[4]** 05 = Expansion Input 5 - Section [651] - **[5]** 06 = Expansion Input 6 - Section [651] - **[6]** 07 = Expansion Input 7 - Section [651] - **[7]** 08 = Expansion Input 8 - Section [651] - **[8]** 99 = Any zone input	Not used; enter 00

Figure 1: SPC-ZX4 or APR3-ZX4 Installation Drawing



Remove AC and battery power from the control panel before connecting the module to the communication bus. Do not connect the APR3-ZX4 or SPC-ZX4 more than 76m (250 ft) from the control panel. Only one APR3-ZX4 or one SPC-ZX4 can be connected per Spectra control panel.

Figure 2: SPC-ZX8 or APR3-ZX8 Installation Drawing



Remove AC power and battery before adding a module to the system. Do not connect the APR3-ZX8 or SPC-ZX8 more than 76m (250 ft) from the control panel. Only one SPC-ZX8 or APR3-ZX8 can be connected per Spectra control panel.

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