



4-zone & 8-zone Expansion Modules APR3-ZX4 (V1.0) and APR3-ZX8 (V2.0)



Instructions

Introduction

The 4-zone (APR3-ZX4) and 8-zone (APR3-ZX8) Expansion Modules are interfaces between the Digiplex control panels and any hardwired detection devices. Both the APR3-ZX4 and APR3-ZX8 connect to the control panel's combus. The APR3-ZX4 provides four additional hardwired inputs (eight with ATZ enabled) while the APR3-ZX8 provides eight additional hardwired inputs (16 with ATZ enabled) and one 50mA on-board PGM output.

Technical Specifications


Input voltage:	Typically 11 to 16 Vdc
Current consumption:	28mA maximum
Number of outputs:	One 50mA PGM (APR3-ZX8 only)
Number of inputs:	4 inputs (APR3-ZX4) 8 inputs (APR3-ZX8)
Number of zones:	4 standard zones, 8 with ATZ (APR3-ZX4) 8 standard zones, 16 with ATZ (APR3-ZX8)
Humidity:	85% maximum
Operating temperature:	-20°C to 50°C (-4°F to 122°F)*
Compatibility:	EVO96 DGP-848 Any Spectra control panel (V2.0 or higher) WinLoad Installer Upload/Download Software V2.03 or higher

* UL tested to 0°C to 49°C (32°F to 120°F).
Specifications may change without prior notice.

Installation

The module is connected to the control panel's combus in a star and/or daisy chain configuration. This 4-wire combus provides power and two-way communication between the control panel and all modules connected to it. Connect the four terminals labeled **RED**, **BLK**, **GRN** and **YEL** of the module to the corresponding terminals on the control panel as shown in Figure 1 on the reverse side.

Each APR3-ZX4 has four hardwired input terminals, allowing you to connect up to eight non-combus detectors (with ATZ enabled) while each APR3-ZX8 has eight hardwired input terminals, allowing you to connect up to 16 non-combus detectors (with ATZ enabled) to the system. Devices connected to the module's input terminal must be assigned to a zone in the control panel and the zone's parameters must be defined. For more information, please refer to the appropriate Digiplex control panel's Reference & Installation Manual. The module will communicate the status of the zones to the control panel through the combus. Connect the devices to the module as shown in Figure 1 on the reverse side.

 **IMPORTANT: The APR3-ZX4 and APR3-ZX8 follow the ATZ and EOL definitions set in the control panel.**

Auto-panel Recognition

This feature allows the module to be used with Spectra or Digiplex. When connected to the combus, the module will automatically detect

which system it is connected to and adjust its internal communication parameters accordingly. It allows the APR3-ZX4 and APR3-ZX8 to be connected to either DGP-848 or EVO96, as well as any Spectra control panel V2.0 or higher.

If connecting the module to a Spectra control panel, refer to the "Spectra Expansion Module Instructions (APR3ZX8S-EI)".

Programming Method

To access the module's programming mode:


1. Press and hold the **[0]** key.
2. Enter the **[INSTALLER CODE]**.
3. Enter section **[953]** (DGP-848) / **[4003]** (EVO96).
4. Enter the module's 8-digit **[SERIAL NUMBER]**.
5. Enter the 3-digit **[SECTION]** you want to program.
6. Turn the desired option ON/OFF or enter the required data.

The module can also be programmed using the WinLoad Installer Upload/Download Software or using the control panel's Module Broadcast feature. For more information, please refer to the appropriate Digiplex control panel's Reference & Installation Manual. Please note that the serial number can be located on the module's PC board.

Tamper Recognition

Section [001] - Option [1] (default = OFF)

The module does not come equipped with an anti-tamper switch. If your installation requires tamper recognition, enabling this feature will reserve input terminal Z4 (APR3-ZX4) or Z8 (APR3-ZX8) as a tamper input. This allows you to connect an anti-tamper switch to input Z4 or Z8 as shown in Figure 1 on the reverse side. When a tamper is detected on the module, it will send a tamper report to the control panel via the combus.

 **IMPORTANT: With Tamper Recognition enabled, do not connect anything other than the anti-tamper switch to input terminals Z4 (APR3-ZX4) or Z8 (APR3-ZX8), even if the ATZ feature is enabled.**

PGM Deactivation Option (APR3-ZX8 only)

Section [001] - Option [2] (default = OFF)

When the PGM Activation Event occurs, this option determines when the PGM will return to its normal state (deactivate). When option **[2]** is ON, the PGM will deactivate when the PGM Timer programmed in section **[018]** has run-out. When option **[2]** is OFF, the PGM will deactivate when the PGM Deactivation Event programmed in sections **[023]** to **[026]** occurs.

PGM Normal State (APR3-ZX8 only)

Section [001] - Option [3] (default = OFF)

When the PGM Activation Event occurs, the PGM will switch to its opposite state (i.e. open to close or close to open). When option **[3]** is ON, the PGM will be set as a Normally Closed (N.C.) contact. When option **[3]** is OFF, the PGM will be set as a Normally Open (N.O.) contact.

PGM Base Time Selection (APR3-ZX8 only)

Section [001] - Option [4] (default = OFF)

If the PGM Deactivation Option (section [001] option **[2]**) is set to follow the PGM Timer, you must define whether the PGM Timer programmed in section [018] is in minutes or seconds. If option **[4]** is ON, the PGM Timer will be in minutes. If option **[4]** is OFF, the PGM Timer will be in seconds.

Input Speed (Time Value)

Odd Numbered Sections [003] to [017]

The Input Speed defines how quickly each input terminal on the module responds to an open zone. The module will not send an open zone report to the control panel until the programmed input speed

elapses. This feature prevents any momentary glitches from causing an alarm or unnecessary reporting. Each of the input terminals can be programmed with a different input speed.

If using an APR3-ZX4:

Odd numbered sections **[003]** to **[009]** represent APR3-ZX4 inputs 001 to 004 respectfully (terminals Z1 to Z4). Sections **[011]** to **[017]** represent inputs 005 to 008 respectively (the ATZ inputs of terminals Z1 to Z4). To program the input speed, enter a 3-digit decimal time value (000-255) into the appropriate section, where this value is multiplied by the Input Speed (Base Time Selection) of 15 milliseconds, 1 second or 1 minute.

If using an APR3-ZX8:

Odd numbered sections **[003]** to **[017]** represent APR3-ZX8 inputs Z1 through Z8 respectfully. To program the input speed, enter a 3-digit decimal time value (000 to 255) into the appropriate section, where this value is multiplied by the Input Speed (Base Time Selection) of 15 milliseconds, 1 second or 1 minute.

Input Speed (Base Time Selection)

Even Numbered Sections [002] to [016] (default = all inputs @ 600ms)

This feature determines the multiplier for the Input Speed time value.

If using an APR3-ZX4:

Even numbered sections **[002]** to **[008]** represent APR3-ZX4 inputs 001 to 004 respectfully (terminals Z1 to Z4). Sections **[010]** to **[016]** represent inputs 005 to 008 respectively (the ATZ inputs of terminals Z1 to Z4). Press the **[▼]** and **[▲]** keys to select a Base Time value from 000 to 002 (see below) and then press **[ENTER]**.

If using an APR3-ZX8:

Even numbered sections **[002]** to **[016]** represent APR3-ZX8 input terminals Z1 through Z8 respectfully. Press the **[▼]** and **[▲]** keys to select a Base Time value from 000 to 002 (see below) and then press **[ENTER]**.

000= Input Speed is multiplied by 15 milliseconds.

001= Input Speed is multiplied by 1 second.

002= Input Speed is multiplied by 1 minute.

PGM Timer Setting (APR3-ZX8 only)

Section [018]

If the PGM Deactivation Option (section **[001]** option **[2]**) is set to follow the PGM Timer, the value programmed in section **[018]** represents how long the PGM will remain in its opposite state after being activated. To program the timer, enter a 3-digit decimal value (001-255) into section **[018]**, where this value is multiplied by the PGM Base Time Selection (section **[001]** option **[4]**) of 1 second or 1 minute.

PGM Activation Event (APR3-ZX8 only)

Sections [019] to [022]

The PGM Activation Event determines which event will activate the APR3-ZX8's on-board PGM output. The Event Group specifies the event, the Feature Group identifies the source, and the Start # and End # sets the range within the Feature Group. Use the PGM Programming Table in the "Digiplex Modules' Programming Guide" to program the APR3-ZX8 PGM Activation Event.

Enter the sections that correspond to the Event Group, Feature Group, Start # and End # of the PGM and enter the required data.

	Event Group	Feature Group	Start #	End #
PGM	[019]	[020]	[021]	[022]

 **Only Event Groups 000 to 055 can be used to program the APR3-ZX8's PGM Activation Event.**


PGM Deactivation Event (APR3-ZX8 only)

Sections [023] to [026]

If the PGM Deactivation Option is set to follow the PGM Deactivation Event (section **[001]** option **[2]**), the PGM will return to its normal state when the event programmed in sections **[023]** to **[026]** occurs. The Event Group specifies the event, the Feature Group identifies the source, and the Start # and End # sets the range within the Feature Group. Use the PGM Programming Table in the "Digiplex Modules' Programming Guide" to program the APR3-ZX8 PGM Deactivation Event.

Enter the sections that correspond to the Event Group, Feature Group, Start # and End # of the PGM and enter the required data.

	Event Group	Feature Group	Start #	End #
PGM	[023]	[024]	[025]	[026]

 **Only Event Groups 000 to 055 can be used to program the APR3-ZX8's PGM Deactivation Event.**

PGM Test Mode (APR3-ZX8 only)

Section [030]

Entering section **[030]** will activate the PGM for 8 seconds to verify if the PGM is functioning properly.

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Figure 1: Connecting the APR3-ZX4 and APR3-ZX8

! - Remove AC and battery power from the control panel before connecting the module to the combus. Refer to the appropriate Digiplex control panel's Reference & Installation Manual for the maximum allowable installation distance from the control panel.

- If both the "LOC" and "WDG" LED are flashing alternately, the module is experiencing a communication failure with the control panel.

