P A R A D O X™

RTX3

Wireless Expansion Module

Installation Manual
V6.0 and higher

Introduction

The RTX3 is a 2-way, 32 zone wireless expansion module which enables EVO and SP Series control panels to support wireless hardware such as sirens, motion detectors, water detectors, and remote controls.

RTX3 Board and Connectors

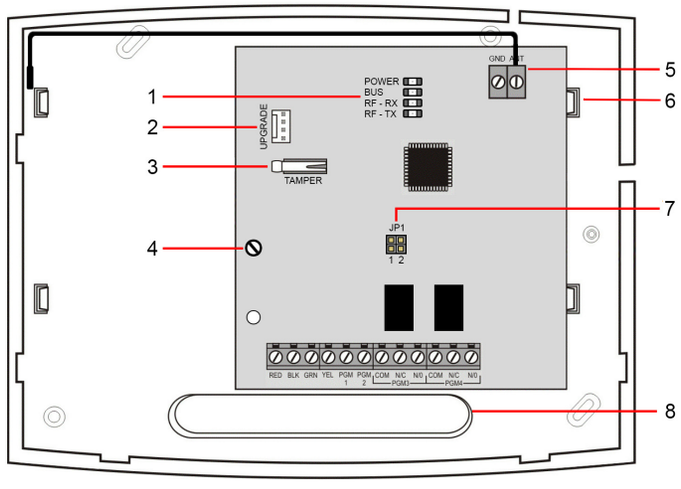

FIGURE 1

1. LED display 2. Firmware upgrade serial connector 3. Anti-tamper switch 4. PCB screw	5. Antenna 6. Mounting clips (2) 7. Selectable frequency jumper (Position 1 - 433 MHz) (Position 2 - 868 MHz) 8. Wiring slot

Installation

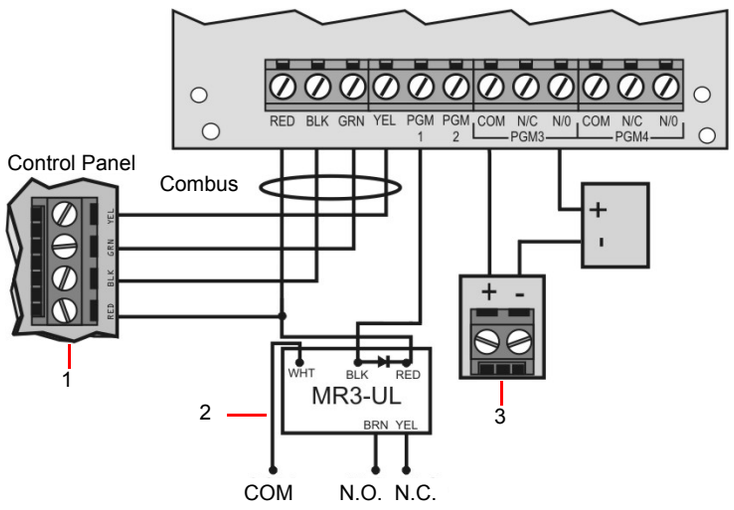

FIGURE 2

Installation Notes

Refer to the Figure 2 for the following connections and instructions.

1. Control panel Digiplex connection.
2. Use a relay if the current draw exceeds 150mA on PGM1 or PGM2. Connect the RTX3's RED connector to the relay's RED connector, and the RTX3's PGM connector (PGM1 or PGM2) to the relay's BLK connector.
3. Connect PGM3 and PGM4 to external power supplies if additional power is required. A PS25 is recommended. Connect the PGM's N.O. connector to the external power supply's "+" connection. Connect the power supply's "-" connector to the device's "-" connector. Connect the PGM's COM connector to the device's "+" connector.

Write down the serial number of all wireless modules used with the RTX3.

System Reset for EVO Panels

1. Press and hold the **[0]** key.
2. Enter the **[INSTALLER CODE]**.
3. Enter section **[4001]**.
4. Enter the module **[SERIAL NUMBER]**.

System Reset restores the RTX3's factory settings.

LED Feedback

LED	OFF	ON
POWER	OFF	OK (10.5V to 16V)
BUS	No clock or data exchange	Clock and data OK
RF - RX	Not receiving data	Flashes green when receiving data
RF - TX	Not transmitting data	Flashes green when transmitting data

Programming RTX3 for SP Series Panels

When connected to a SP Series control panel, RTX3 settings are programmed through control panel programming sections. For detailed instructions refer to the *SP Series Programming Guide*.

Notes:

- Only one RTX3 module can be connected to a SP Series panel.

Programming for EVO Series Panels

Program RTX3 settings for EVO panels with either a keypad or BabyWare PC software.

Programming RTX3 with a Keypad

When connected to an EVO panel, program RTX3 settings through the keypad by entering Module Programming Mode.

To enter Module Programming mode:

1. Press and hold the **[0]** key.
2. Enter the **[INSTALLER CODE]**.
3. Enter section **[4003]**.
4. Enter the module **[SERIAL NUMBER]**.
5. Enter the required **[DATA]**.

After Programming RTX3 for EVO Control Panels

Program the zones, PGMs, sirens and remote controls into the EVO panel. Refer to EVO section **[3034]** and RTX3 section **[001]** options **[2]** and **[3]** for wireless transmitter supervision options. **Requirement:** Configure all wireless sirens in an EVO system to a single RTX3.

RTX3 Programming Sections for EVO Panels

Section	Feature		Details
[001]	**Option**		
	[1]	Low battery supervision	For RTX3 version 1.5 and higher, this option is always on **ON**: default
	[2]	Check-in supervision	**OFF**: default
	[3]	Check-in supervision time interval	**OFF**: 24 hours (default) **ON**: 80 minutes
	[4]	RF Jamming supervision	**OFF**: default
	[5]	On-board module tamper supervision	**OFF**: default
	[6]	PGM1 initial state	**OFF**: Normally Open (default) **ON**: Normally Closed
	[7]	PGM2 initial state	**OFF**: Normally Open (default) **ON**: Normally Closed
	[8]	Transmit tamper signal	**OFF**: RTX3 ignores tamper signal (default) **ON**: RTX3 reports tamper signal
[002]	**Remote Control Options**		
	[1]	REM2 visual and auditory feedback compatibility options*	**OFF**: Old visual and auditory feedback (Supported by REM2 v2.00 or lower) **ON**: New visual and auditory feedback (default) Note: Requires REM2 v2.01 and higher
	* The new visual and auditory feedback includes the following system status: stay armed, instant armed and exit delay. Other status feedback has not changed. For REM2 v1.04 or older, stay arm, instant arm and exit delay status are not supported, and a rejection beep will be heard when the system is in these status.		
[030]	View Transmitter, Remote Control and PGM Serial Numbers		**To view a transmitter's 6-digit serial number:** Press and hold the transmitter's anti-tamper switch
[101] to [132]	**Assign Wireless Transmitters** [101] = Zone Input 1; [132] = Zone Input 32 Enter 6-digit serial number or press and release the transmitter's tamper switch. To delete an assigned transmitter, enter 000000 as the serial number.		
See Details	**Remote Controls**		**To program remotes controls:** • Refer to *User Code* and *Remote Control Programming sections* in *the EVO Programming Guide* OR: • Program through BabyWare

Section	Feature	Details
[601] to [632]	Transmitter signal strength	[601] = Zone input 1 [632] = Zone input 32 • 3 or less: weak (move transmitter) • 4 to 10: **OK**
[701] to [732]	Current battery life	[701] = Zone input 1 [732] = Zone input 32 View number of weeks the batteries have been in the transmitter
[801] to [832]	Previous battery life	[801] = Zone input 1 [832] = Zone input 32 View number of weeks the previous batteries were in the transmitter
[671] to [678]	2WPGM Signal Strength	Sections [671]-[678] correspond to Zone inputs 1 - 8 Signal Strength: • 3 or less: weak (move transmitter) • 4 to 10: **OK**
[991]	View two-way PGM Tamper Trouble	PGM # in tamper trouble is displayed
[992]	View two-way PGM Supervision Trouble	PGM # in supervision trouble is displayed
[901] to [908]	Assign 2WPGMs	Sections [901]-[908] correspond to Zone inputs 1 - 8 **To assign 2WPGMs:** Enter a 6-digit serial number or press and release the transmitter's tamper switch **To delete an assigned 2WPGM:** Enter 000000 as a serial number Note: If a section between [901] to [904] is empty, the RTX3 uses the on board PGM

PGM Programming for EVO

This applies to EVO panels version 6.90 and below.

1. Enter section **[0901]** - **[0932]**.
2. Enter the 8-digit serial number and 3-digit output number.
3. Enter the 3-digit Event Group, Feature Group, Start # and End # for PGM activation.
4. Enter the 3-digit Event Group, Feature Group, Start #, and End # for PGM deactivation.
5. Define the PGM Delay Value (001 to 255 x 1 sec./min.). Default set to 15 minutes.
6. Set your PGM options, refer to the table below.

OPTION	DESCRIPTION	PGM #	
		OFF	ON
1	PGM deactivation after (OFF = deactivation event; ON = PGM timer)	☐	▲
2	PGM base time (OFF = seconds; ON = minutes)	☐	▲
3	Flexible PGM deactivation option (OFF = PGM timer only; ON = PGM timer and/or deactivation event)	▲	☐
4	PGM initial state (OFF = normally open; ON = normally closed)	▲	☐
5	PGM time base (OFF = follow option 2, ON = hour)	▲	☐
6 to 8	Future use	-	-

PGM Option Programming for EVO

	PGM Activation*			
	Event Group	Feature Group	Start #	End #
PGM1	[910]	[911]	[912]	[913]
PGM2	[920]	[921]	[922]	[923]
PGM3	[930]	[931]	[932]	[933]
PGM4	[940]	[941]	[942]	[943]
PGM5	[950]	[951]	[952]	[953]
PGM6	[960]	[961]	[962]	[963]
PGM7	[970]	[971]	[972]	[973]
PGM8	[980]	[981]	[982]	[983]
Default Data	000	000	000	000

	PGM Deactivation*			
	Event Group	Feature Group	Start #	End #
PGM1	[914]	[915]	[916]	[917]
PGM2	[924]	[925]	[926]	[927]
PGM3	[934]	[935]	[936]	[937]
PGM4	[944]	[945]	[946]	[947]
PGM5	[954]	[955]	[956]	[957]
PGM6	[964]	[965]	[966]	[967]
PGM7	[974]	[975]	[976]	[977]
PGM8	[984]	[985]	[986]	[987]
Default Data	000	000	000	000

	PGM Delay	
	Delay (000 to 255)	Options
PGM1	[918]	[919]
PGM2	[928]	[929]
PGM3	[938]	[939]
PGM4	[948]	[949]
PGM5	[958]	[959]
PGM6	[968]	[969]
PGM7	[978]	[979]
PGM8	[988]	[989]
Default Data	005	OFF

The following options apply to sections **[919]**, **[929]**...**[989]**:

Option **[1]**: PGM deactivation after, refer to table.

Option **[2]**: PGM Base Time: On = minutes; Off = seconds (default)

Option **[8]**: Flexible PGM deactivation**, refer to table

[1]	[8]	Details
OFF	OFF	Deactivation event
OFF	ON	Deactivation Event
ON	OFF	PGM Timer
ON	ON	PGM Timer or Deactivation event

* For a complete list of events, refer to the PGM programming section of your EVO Programming Guide.

** In order to use the "Flexible PGM deactivation" option **[8]**, the PGM deactivation after option **[1]** must be ON.

Firmware Upgrade

Upgrade RTX3 firmware using a serial connection (307USB).

For firmware upgrade instructions see the *Firmware Upgrade Instructions* document at: Paradox.com > Software > BabyWare.

Hardware Compatibility

	EVO	SP Series
Zones	32	32
Remotes	32/999	32
Remote Control Type	REM1 RAC1 REM2 REM3 REM15 REM25	
Wireless PGMs	8	16
Wireless Keypads	-	8
Wireless Siren	8	4
Wireless Repeater	-	2

Technical Specifications

Power input voltage	12 Vdc
Frequency	433 or 868 MHz selectable
Sensitivity	-120 dBm
Current consumption	50 mA
Dimensions and weight	15 x 16 x 3 cm (6 x 6 x 1.1 in.) / 24g
Operating temperature	0°C to 49°C (32°F to 120°F)
Humidity	5 - 90%
PGM outputs	PGM1 and PGM2 - 150mA PGM transistor outputs PGM3 - Form C relay output rated at 5A/28Vdc, N.O./N.C. (PGM4 optional)
Range	Refer to the appropriate transmitter instructions
Other	Di-pole antenna; error correction algorithm
Approvals	CE, EN50131 Security Grade 2, Environmental Class II

Warranty

For complete warranty information on this product, please refer to the Limited Warranty Statement which can be found on our website: paradox.com/terms or contact your local distributor. Specifications may change without prior notice.

Patents

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