

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

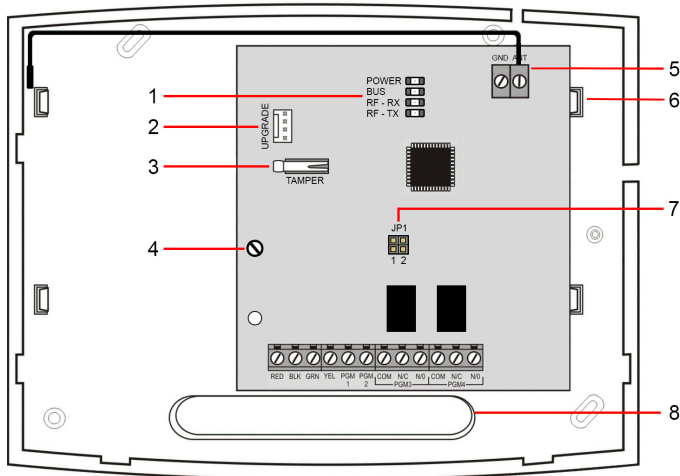


FIGURE 1

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

Installation

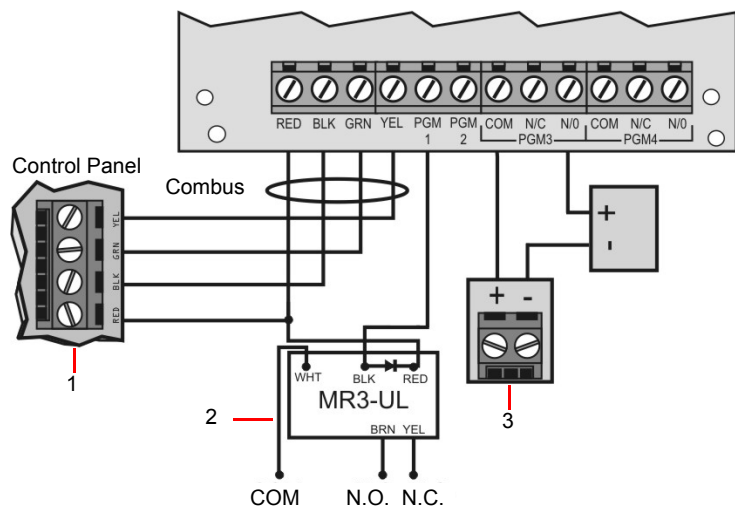


FIGURE 2

Installation Notes

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

- Control panel Digiplex connection.
- 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.
- 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

- Press and hold the [0] key.
- Enter the [INSTALLER CODE].
- Enter section [4001].
- 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:

- Press and hold the [0] key.
- Enter the [INSTALLER CODE].
- Enter section [4003].
- Enter the module [SERIAL NUMBER].
- 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 <i>User Code and Remote Control Programming sections in the EVO Programming Guide</i> 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)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	PGM base time (OFF = seconds; ON = minutes)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Flexible PGM deactivation option (OFF = PGM timer only; ON = PGM timer and/or deactivation event)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	PGM initial state (OFF = normally open; ON = normally closed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	PGM time base (OFF = follow option 2, ON = hour)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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, EN 50131-1 and EN 50131-3, Security Grade 2, Environmental Class II

FCC and Industry Canada Compliance Statement

This device complies with FCC Rules Part 15 and with Industry Canada license exempt RSS standard(s). Operation is subject to two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference that may be received or that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC ID: KDVRTX3

IC: 2438A-RTX3

FCC WARNING

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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Paradox Security Systems Ltd.) could void the user's authority to operate the equipment.

Warranty

For complete warranty information on this product, please refer to the Limited Warranty Statement which can be found on paradox.com/terms or contact your local distributor.

Patents

US, Canadian and international patents may apply. Paradox is a trademark or registered trademark of Paradox Security Systems (Bahamas) Ltd.

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