MG-RTX3 V1.1 Instructions

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The MG-RTX3 is a 2-Way Wireless Expansion Module for use with any Digiplex EVO, Spectra SP, and Esprit series control panel. It is also compatible with the DGP-NE96 and DGP-848 control panels.

Compatibility Chart				
	EVO	Spectra SP	Esprit	Stand-Alone
Zones	32	32	-	-
Remotes	96/999	32	32	8
Wireless PGMs	8	16	-	-
Wireless keypads	-	8	-	-
2-Way Remote	✓	✓	-	-
Wireless Repeater	-	2	-	-

Technical Specifications

Compatibility	All Magellan wireless transmitters Digiplex EVO (EVO48, EVO96 and EVO192) Digiplex (DGP-848 and DGP-NE96) Spectra SP (SP5500, SP6000 and SP7000) Esprit (728ULT and 738ULT)
Frequency:	433MHz or 868MHz
Sensitivity:	-120 dBm
Current consumption:	50 mA
Dimensions (no antenna):	15cm x 16cm x 3cm (6in x 6.5in x 1.1in)
Operating temperature:	0°C to 49°C (32°F to 120°F)
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

Installation

In order to ensure the best possible signal reception, avoid mounting the MG-RTX3 on metal, or in any location that could cause RF interference. Mount it as high as possible and in locations not susceptible to drastic temperature changes. Mount the MG-RTX3 in a location that allows at least 5cm (2”) around the module for adequate ventilation and heat dissipation.

If the environment is too noisy, the module’s RF RX LED will turn on. When performing the noise level test, make sure that there are no transmitters powered up. Refer to the illustrations on the next page for additional information.

System Reset

Press and hold the Programming button for 5 seconds, the BUS RX LED will flash. Release the button and press it again while the LED flashes to reset the module to its default values. The system reset feature only functions during the first 30 seconds after the MG-RTX3 is powered up.

Spectra SP Series Information

When connected to a Spectra SP series panel, the MG-RTX3 settings are programmed into the panel. Refer to the panel’s Programming Guide. Requires version 2.0 or higher of the MG32LED or MG10LED keypads.

Digiplex EVO Programming

To enter programming mode with a Digiplex EVO panel, press and hold the **[0]** button. Enter the installer code and go to section **[4003]**. Enter the MG-RTX3’s 8-digit serial number. Enter the section number you wish to program.

WARNING: When used without an EVO641 or EVO641R keypad, enable option [1] in section [3029].

Group	Digiplex EVO	Digiplex EVO Programming
Options	**[001]**	Option [1]: Low battery supervision (default: ON) Option [2]: Check-in supervision (default: OFF) Option [3]: Check-in supervision time interval OFF = 24 hours (default) ON = 80 minutes Option [4]: RF Jamming supervision (default: ON) Option [5]: On-board module tamper supervision (default: OFF) Option [6]: N/A Option [7]: N/A Option [8]: Ignore transmitter tamper signal OFF = MG-RTX3 ignores tamper signal (default) ON = MG-RTX3 reports tamper signal
View Serial Number	**[030]**	To see a transmitter’s 6-digit serial number, press and hold a transmitter’s anti-tamper switch.
Zones	**[101] to [132]**	Assign up to 32 wireless transmitters to the MG-RTX3. [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 a serial number.
Remote Control	**See text**	Program 999 remotes with one MG-RTX3 using an EVO641/EVO641R keypad (refer to User Code and Remote Control programming in the Digiplex EVO *Programming Guide*). If you are not using an EVO641/EVO641R keypad, program 32 remotes per MG-RTX3 using sections **[201]** to **[432]** detailed in Table 3 on the back page.
Transmitter Info	**[601] to [632]**	Transmitter Signal Strength [601] = Zone Input 1; [632] = Zone Input 32 3 or less = too weak (move transmitter); 4 to 10 = OK.
	[701] to [732]	Current Battery Life [701] = Zone Input 1; [732] = Zone Input 32 View the 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.
Two-Way PGM	**[671] to [678]**	Two-Way PGM Signal Strength [671] = PGM 1; [678] = PGM 8 3 or less = too weak (move transmitter); 4 to 10 = OK.
	[901] to [908]	Assign up to 8 Two-Way PGMs to the MG-RTX3 [901] = PGM 1; [908] = PGM 8 Enter 6-digit serial number or press and release the transmitter’s tamper switch To delete an assigned Two-Way PGM, enter 000000 as a serial number. If a section between [901] to [904] is empty, the MG-RTX3 will use the on-board PGM.
	[910] to [989]	Program the Two-Way PGM activation event, deactivation event and PGM Delay options. Refer to Table 1 below.
	[991]	View Two-Way PGM tamper trouble (PGM # in trouble will be displayed)
	[992]	View Two-Way PGM supervision trouble (PGM # in trouble will be displayed)

Table 1: Digiplex EVO PGM Option Programming

		Event Group	Feature Group	Start #	End #
PGM Activation*	PGM1	[910]	[911]	[912]	[913]
	PGM2	[920]	[921]	[922]	[923]
	-	+10 per PGM	+10 per PGM	+10 per PGM	+10 per PGM
	PGM8	[980]	[981]	[982]	[983]
PGM Deactivation*	PGM1	[914]	[915]	[916]	[917]
	PGM2	[924]	[925]	[926]	[927]
	-	+10 per PGM	+10 per PGM	+10 per PGM	+10 per PGM
	PGM8	[984]	[985]	[986]	[987]

*For a complete list of events, refer to the PGM programming section of your Digiplex or Digiplex EVO control panel’s programming guide.

		PGM Delay	Options
PGM Delay (000 to 255) Default: 005	PGM1	[918]	[919]
	PGM2	[928]	[929]
	-	+10 per PGM	+10 per PGM
	PGM8	[988]	[989]

Option [1]: ON = PGM delay; OFF = Latch (default)

Option [2]: ON = Minutes; OFF = Seconds (default)

Esprit Programming

To enter programming mode with Esprit, connect an Esprit 636 or 646 to the “Program” connector. Press the “Esprit Mode Programming” button. Press [enter] on your Esprit keypad and enter the installer code (default: 757575). Enter the desired section number.

Group	Esprit	Esprit Programming
Codes	**[000]**	Enter Installer Code (4 or 6 digits, default: 757575)
	[301] to [332]	Assign a valid user code from the Esprit Panel into the MG-RTX3. [301] = user 01; [332] = user 32. To delete a user code, press [2ND] and then [Enter]
Remote Control	**[201] to [232]**	Assign a remote control to the MG-RTX3. [201] = remote control 01; [232] = remote control 32 Press enter and after the confirmation beep, press [Enter] again. Press and hold any button on the remote until you hear two beeps. To delete a remote control, press [2ND] followed by [Enter].
	[401] to [432]	Program remote control button options. [401] = remote control 01; [432] = remote control 32 Options [1] to [3]: See Table 2 below Option [4]: Enable button 🔒 for PGM activation (see section [011]) Option [5]: Enable button 🔓 for PGM activation (see section [012]) Option [6]: Enable button ⏻ for PGM activation (see section [013]) Option [7]: Enable button → for PGM activation (see section [014]) Option [8]: Enable button ⏻ + → for Panic Alarm
PGM	**[011] to [014]**	Program which buttons will also activate a PGM output. [011] = Remote Button 🔒 [012] = Remote Button 🔓 [013] = Remote Button ⏻ [014] = Remote Button → Option [1]: Activate PGM 1 output Option [2]: Activate PGM 2 output Option [3]: Activate PGM 3 output Option [4]: Activate PGM 4 output Refer to section **[401]** to **[432]**
	[021] to [024]	Set PGM as latched or with a PGM delay [021] = PGM1; [024] = PGM 4 Option [0]: Latched Option [1]: 1 second Option [2]: 5 seconds (default) Option [3]: 10 seconds Option [4]: 20 seconds Option [5]: 40 seconds Option [6]: 60 seconds Option [7]: 2 minutes Option [8]: 4 minutes
Options	**[001]**	Option [1]: ON = 6-digit access code length (default) OFF = 4-digit access code length Option [2]: ON = Panic Alarm toggles PGM and generates a panic. OFF = Panic Alarm toggles the PGM (default: ON)
Panic Alarm	**[002]**	Option [0]: No PGM output on panic alarm Option [1]: Toggle PGM 1 on panic alarm Option [2]: Toggle PGM 2 on panic alarm Option [3]: Toggle PGM 3 on panic alarm (default) Option [4]: Toggle PGM 4 on panic alarm
	[003]	Option [0]: No RF signal lockout on panic alarm (default) Option [1]: 30-second RF signal lockout on panic alarm Option [2]: 60-second RF signal lockout on panic alarm Option [3]: 90-second RF signal lockout on panic alarm Option [4]: 120-second RF signal lockout on panic alarm

Table 2: Remote Control Arming Options [401] to [432], Options [1] to [3]

Option **[1]**	Option **[2]**	Option **[3]**	Definition
Off	Off	Off	No Arm or Disarm
On	Off	Off	Button 🔒 = Regular Arm*** (Default)**
Off	On	Off	Button 🔓 = Regular Arm*****
On	On	Off	Button 🔒 = Regular Arm***** Button 🔓 = Regular Arm*****
Off	Off	On	Button 🔒 = Force Arm*****
On	Off	On	Button 🔒 = Force Arm***** Button 🔓 = Stay Arm*****
Off	On	On	Button 🔒 = Regular Arm***** Button 🔓 = Stay Arm*****
On	On	On	Button 🔒 = Stay Arm*****

* Buttons used to arm are also used to disarm the system

Figure 1: Mounting

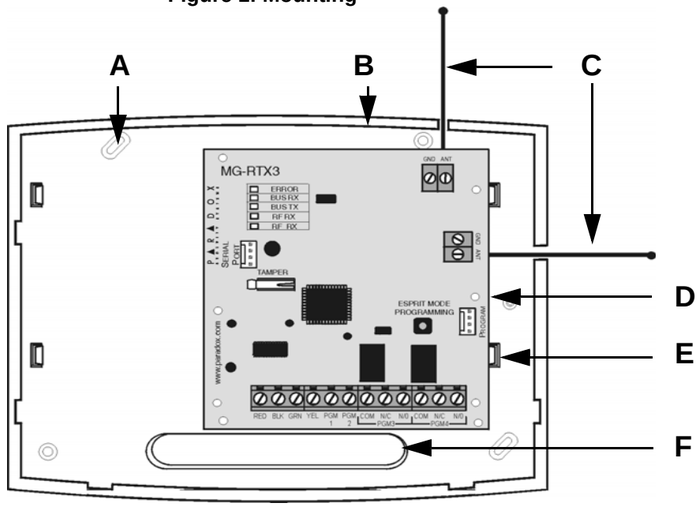
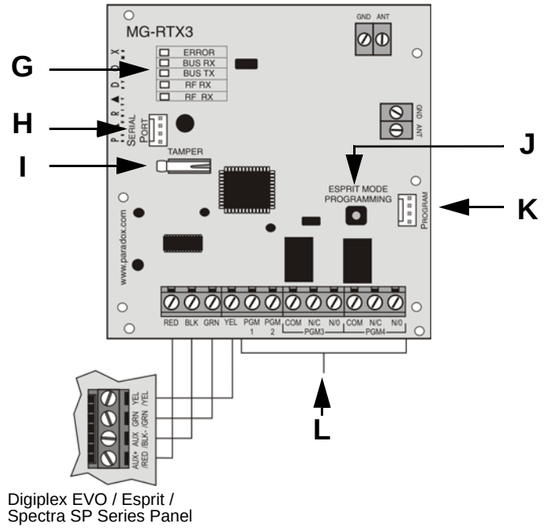


Figure 2: Connection



Digiplex EVO / Esprit / Spectra SP Series Panel

Element	
Figure 1: Mounting	
A	Mounting Holes (x 4)
B	Back Cover
C	Antennas: The vertical antenna is the default antenna. Connect the horizontal antenna to improve reception and range.
D	PCB Mounting Holes (x 9)
E	Mounting clip (x 4)
F	Wiring Slot
Figure 2: Connection	
G	ERROR (Red): Indicates a problem with the module. BUS RX (Green): Flashes when receiving information from the panel. BUS TX (Red): Flashes when transmitting information to the panel. RF RX(Green): Flashes when receiving wireless information. RF TX(Yellow): Flashes when transmitting wireless information. Special Display (Digiplex EVO only): BUS RX / BUS TX / Error / Condition OFF / OFF / ON / Combus is shorted / No clock / No data OFF / ON / ON / Wrong data / Invalid Combus address (Too many modules) ON / OFF / ON / Future Use ON / ON / ON / Combus lines reversed ---- / ---- / Flash / Combus power is too low
H	Connect to a 306USB and use WinLoad's In-Field Firmware Upgrade Application to upgrade the firmware.
I	Anti-Tamper Switch
J	Esprit Programming: Press to enter programming mode in Esprit mode. System Reset: Press and hold the Programming button for 5 seconds, the BUS RX LED will flash. Release the button and press it again while the LED flashes to reset the module to its default values. This is only possible in the first 30 seconds after the MG-RTX3 is powered up.
K	Connect the Esprit 636/646 LED keypad to the "Program" connector.
L	Refer to PGM Connection for connection information.
Figure 3: PGM Connection	
M	Connect to any device such as a garage door, light or siren.
N	Connect to an external Power Supply (PS-817 recommended)
O	Note that you should use a relay if the current draw will exceed 150mA.

Figure 3: PGM Connection

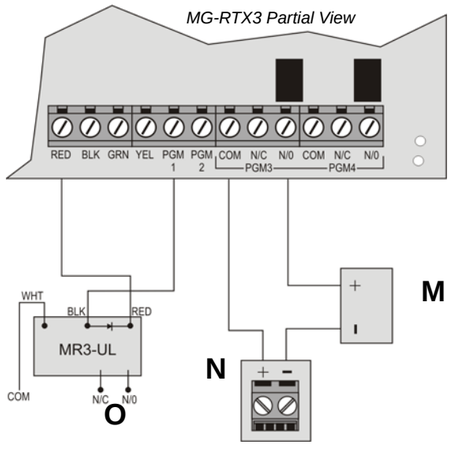


Figure 4: MG-REM1

Figure 5: MG-REM2

With Spectra SP and Digiplex EVO panels only

Table 3: Programming without an EVO641/EVO641R

Digiplex EVO Remote Control	**[040] to [043]**	View how many of the 32 remotes are used. [040] = remotes 1 to 8; [043] = remotes 25 to 32. To delete a remote, press the corresponding number until it's no longer displayed in these sections.
	[201] to [232]	Assigning remote controls to the MG-RTX3. [201] = remote 01; [232] = remote 32 Enter the desired section and then press and hold a button on the remote control until you hear a confirmation beep.
	[301] to [332]	Assign the remote controls to users by entering a user number (001 to 255) in the appropriate section (Users 001 to 255, Section [301] = remote 01, section [332] = remote 32.)
	[401] to [432]	Program the remote control or delete the remote control button programming. [401] = remote 01; [432] = remote 32 _____/_____/_____/_____/_____/_____/_____/_____ (default: 15000000) N/A N/A N/A (see *Figure 4*) N/A N/A N/A (see *Figure 5*) [0] = Button Disabled [8] = Panic 2† (Non-Medical) [1] = Regular Arm [9] = Panic 3† (Fire) [2] = Stay Arm [stay] = Smoke reset [3] = Instant Arm [force] = Utility Key 1* [4] = Force Arm [arm] = Utility Key 2* [5] = Disarm [disarm] = Utility Key 3* [6] = Stay/Instant Disarm [byp] = Utility Key 4* [7] = Panic 1† (Police) [mem] = Utility Key 5* [clear] = Exit without saving [enter] = Save data