



MG-RTX3 V1.2



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
Zones	32	32	-
Remotes	32/96/999	32	32
Wireless PGMs	8	16	-
Wireless Keypads (MG32LRF only)	-	8	-
2-Way Remote	✓	✓	-
Wireless Repeater	-	2	-

What's New with Version 1.2

- The MG-RTX3's built-in LEDs now display the status of the Spectra SP Series as shown in F on Table 6.
- The MG-RTX3 with Digiplex EVO now supports MG-REM2 V2.01 remotes programmed directly in the panel. These remotes can also support the new visual and auditory feedback. When programming with Digiplex EVO, use section [002] to switch between V2.00 mode or V2.01 mode for all MG-REM2.

Before Programming

- Connect the MG-RTX3 according to the installation guide.
- Write down the serial number of all wireless modules to be used with the MG-RTX3. If this installation replaces another MG-RTX3, make sure the programming can be transferred.
- Make sure every wireless module works properly and that you have the latest version of the firmware for the MG-RTX3 and panels.

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 Programming

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. You can only connect one MG-RTX3 on a Spectra SP Series panel.

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.

After Programming with EVO

Program the zones, PGMs, and remotes into the EVO panel. Look at EVO section [3034] for wireless transmitter supervision options.



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

Table 1: Digiplex EVO Programming

[001]	MG-RTX3 Options 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
[002]	Remote Control Mode Option [1]: Remote Control Mode OFF = Remote V2.00 mode (Use with remotes version 2.00 or higher) ON = Remote V2.01 mode EVO Panel with EVO641/EVO641R (Only use with remotes version 2.01 or higher) (default)
[030]	See Transmitter, Remote and PGM Serial Numbers To see a transmitter's 6-digit serial number, press and hold a 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 a serial number.
See text	Remote Controls 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 as detailed in Table 3.
[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.
[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 Two-Way PGMs [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]	PGM Programming Program the Two-Way PGM activation event, deactivation event and PGM Delay options. Refer to Table 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 2: Digiplex EVO PGM Option Programming

		Event Group	Feature Group	Start #	End #		Event Group	Feature Group	Start #	End #
		PGM1	PGM2	PGM3	PGM4		PGM5	PGM6	PGM7	PGM8
PGM Activation*	PGM1	[910]	[911]	[912]	[913]	PGM5	[950]	[951]	[952]	[953]
	PGM2	[920]	[921]	[922]	[923]	PGM6	[960]	[961]	[962]	[963]
	PGM3	[930]	[931]	[932]	[933]	PGM7	[970]	[971]	[972]	[973]
	PGM4	[940]	[941]	[942]	[943]	PGM8	[980]	[981]	[982]	[983]
PGM Deactivation*	PGM1	[914]	[915]	[916]	[917]	PGM5	[954]	[955]	[956]	[957]
	PGM2	[924]	[925]	[926]	[927]	PGM6	[964]	[965]	[966]	[967]
	PGM3	[934]	[935]	[936]	[937]	PGM7	[974]	[975]	[976]	[977]
	PGM4	[944]	[945]	[946]	[947]	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	Options	
		PGM1	PGM2		PGM3	PGM4	Option [1]:
PGM Delay (000 to 255) Default: 005	PGM1	[918]	[919]	PGM5	[958]	[959]	Option [1]: ON = PGM delay OFF = Latch (default)
	PGM2	[928]	[929]	PGM6	[968]	[969]	
	PGM3	[938]	[939]	PGM7	[978]	[979]	Option [2]: ON = Minutes OFF = Seconds (default)
	PGM4	[948]	[949]	PGM8	[988]	[989]	

Table 3: Programming without an EVO641/EVO641R

[040] to [043]	View Used Remotes [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 [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 Remotes 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 or Delete Remote. [401] = remote 01; [432] = remote 32 _____ / _____ / _____ / _____ / _____ / _____ / _____ / _____ (default: 15000000) [0] = Button Disabled [1] = Regular Arm [2] = Stay Arm [3] = Instant Arm [4] = Force Arm [5] = Disarm [6] = Stay/Instant Disarm [7] = Panic 1† (Police) [8] = Panic 2† (Non-Medical) [9] = Panic 3† (Fire) [stay] = Smoke reset [force] = Utility Key 1* [arm] = Utility Key 2* [disarm] = Utility Key 3* [byp] = Utility Key 4* [mem] = Utility Key 5* [clear] = Exit without saving [enter] = Save data

Figure 1: MG-REM1



Figure 2: MG-REM2



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.

Table 4: Esprit Programming

[000]	Installer Code Set Installer Code (4 or 6 digits, default: 757575)
[301] to [332]	User Code Assignment 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]
[201] to [232]	Remote Control Assignment [201] = remote control 01; [232] = remote control 32 Press [Enter]. After the confirmation beep, 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]	Remote Control Button Options [401] = remote control 01; [432] = remote control 32 Options [1] to [3]: See Table 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
[011] to [014]	PGM Output Activation [011] = Remote Button [012] = Remote Button [013] = Remote Button [014] = Remote Button Option [1]: Activate PGM 1 output (Default ON in section [011]) Option [2]: Activate PGM 2 output (Default ON in section [012]) Option [3]: Activate PGM 3 output (Default ON in section [013]) Option [4]: Activate PGM 4 output (Default ON in section [014]) Refer to section [401] to [432]
[021] to [024]	PGM Latch/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
[001]	Code Length Option [1]: ON = 6-digit access code length (default) OFF = 4-digit access code length Panic Alarm Option [2]: ON = Panic Alarm toggles PGM and panic alarm. (Default) OFF = Panic Alarm toggles the PGM
[002]	PGM Output on Panic 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]	RF Lockout on Panic 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 5: 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

Installation Information

Table 6: Mounting and Connection

Element	
Figure 3: Mounting	
A	Back Cover
B	Antennas: The vertical antenna is the default antenna. Connect the horizontal antenna to improve reception and range.
C	PCB Mounting Holes (x 9)
D	Mounting clip (x 4)
E	Wiring Slot
Figure 4: PCB and Connection	
	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.
F	Special Display (Digiplex EVO and Spectra SP Series only): BUS RX BUS TX Error Condition OFF OFF ON Combus is shorted / No clock / No data / Fail to Com 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
G	Connect to a 306USB and use WinLoad's In-Field Firmware Upgrade Application to upgrade the firmware.
H	Anti-Tamper Switch
I	Esprit Programming: Press to enter programming mode in Esprit mode.
J	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 to program in Esprit and Stand Alone mode.
L	If the current draw exceeds 150mA on PGM1 or PGM2, use a relay. Connect the MG-RTX3's RED connector to the relay's RED connector, and the PGM connector (PGM1 or PGM2) to the relay's BLK connector.
	Connect PGM 3 and PGM4 to external power supplies if you need additional power. A PS-817 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.

Figure 3: Mounting

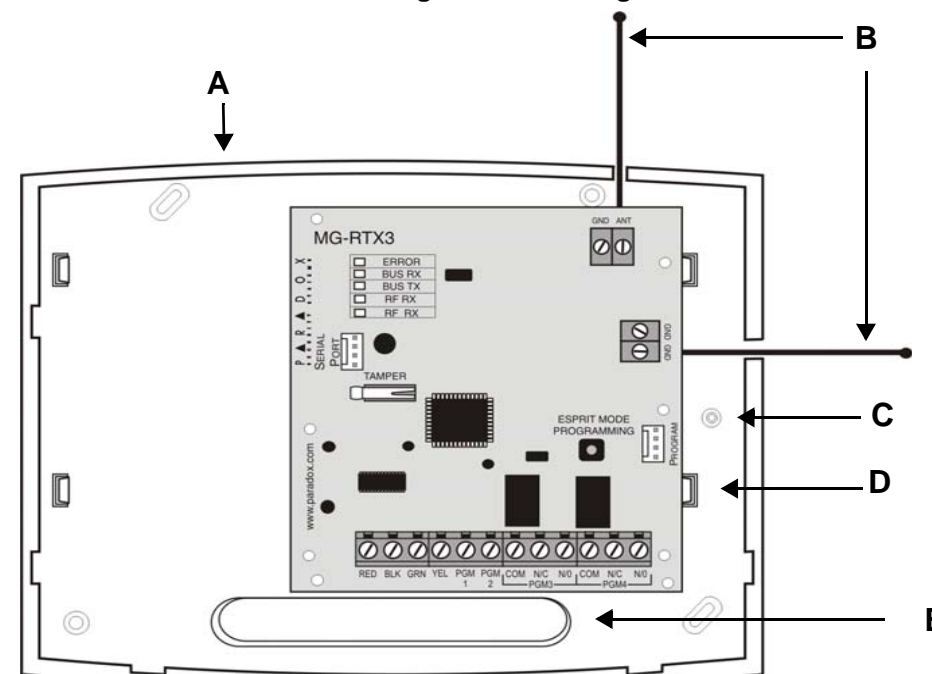
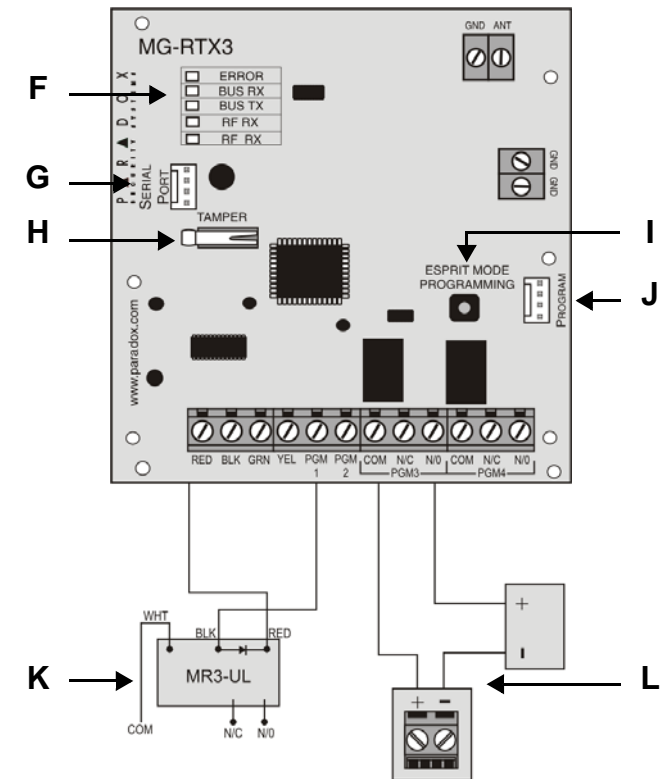


Figure 4: PCB and Connection



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 <i>Instructions</i>
Other:	Di-pole antenna; Error Correction Algorithm
Approvals	For the latest information on product approvals, visit our Web site at paradox.com

Changes or modifications on equipment not expressly approved by the Paradox Security Systems could void the user's authority to operate the equipment.

FCC ID: KDYMGR-TX3

CANADA: 2438A-MGRTX3

FCC PART 15, WARNINGS INFORMATION TO USER

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of 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 equipment intermittently, the user is encouraged to try to correct the interference by one or more of the following measures: (1) re orient or relocate the receiving antenna; (2) increase the separation between the equipment and receiver; (3) connect the equipment to an outlet on a circuit other than the one to which the receiver is connected, or (4) consult the dealer or an experienced radio/tv technician for assistance. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.