



MG / SP series
SERIAL INTERFACE PROTOCOL
Version 2.10 and UP



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PROJECT FILE

PROJECT : **MG/SP PANELS**
MAIN FILE : **SPXXXX Serial Port Protocol V2.10.doc**
SW ENGINEER : **Rene Legault / Benoit Demers-Raymond**

FUNCTIONAL DESCRIPTION

This document explains how the serial protocol works on the MG/SP control panels. It contains all the information that the panel sends/receives through its onboard serial connector and shows how to interpret this information.

The panel's onboard serial connector is a 5V serial communicator. Connection is made via a 306 / IP100 / GSM / Modem adapter cable that fits directly on the control panel (see figure 1).

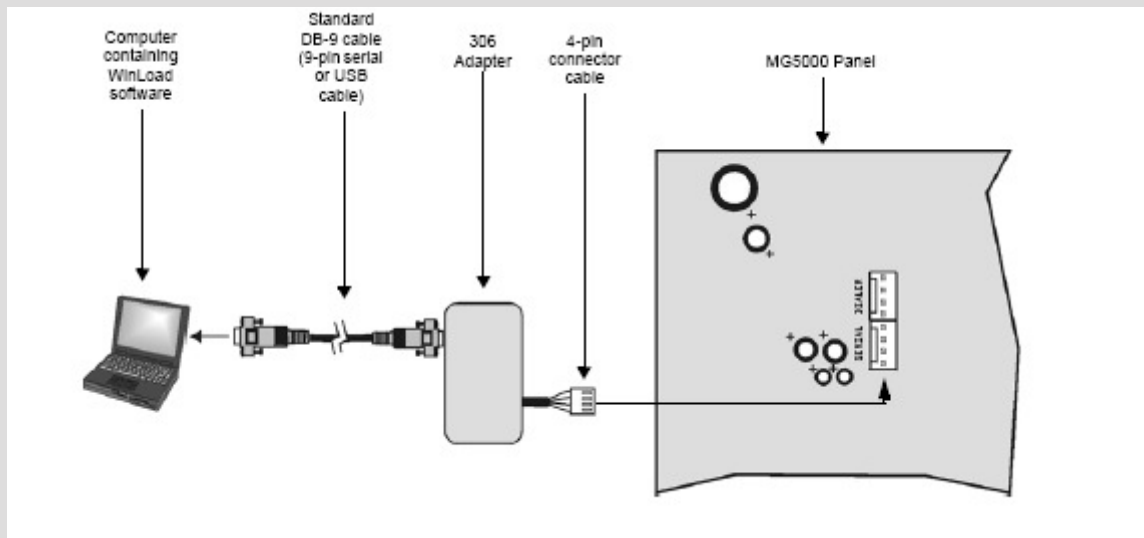


Figure 1

FEATURES

1. 5V communication
 2. 37 bytes per communication packet
 3. High-speed communication
-

FEATURE DETAILS

1. 5V communication

The serial interface is an asynchronous 5V serial communicator.

2. 37 bytes per communication packet

Every time communication is made or a new event is generated (i.e., armed by a user, alarm on a zone, disarmed by a user, etc.), the panel will send or receive 37 bytes of information. In this document, Bit 7 is the most significant bit in the byte and Bit 0 is the least significant bit in the byte.

3. High-speed communication

Control panel's onboard serial connector is set to communicate at 9,600 Baud, 1 start bit, 8 data bits, 1 stop bit and no parity.

Communication sequence

- 1- Start communication (PC command 0x5F).
- 2- Initialize communication. (PC command 0x00).
- 3- Exchange :
 - PC command 0x30, 0x40, 0x50, 0x60, 0x70, 0x80, 0x90
 - Panel command 0xE0
- 4- End communication (PC command 0x70).

PROTOCOL DESCRIPTION

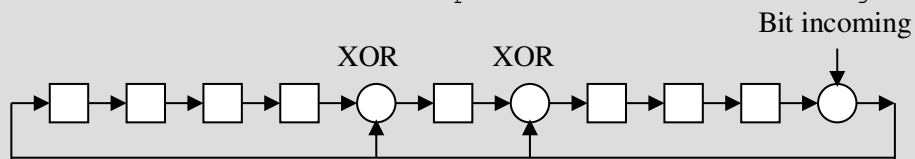
Below are the available source ID to identify who is connected to the panel.

Source ID	
0x01	Winload direct
0x02	Winload through IP module
0x03	Winload through GSM module
0x04	Winload through modem
0x05	NEware direct
0x06	NEware through IP module
0x07	NEware through GSM module
0x08	NEware through modem
0x09	IP module (Web Page)
0x0A	VDMP3 direct
0x0B	VDMP3 through GSM module
0x0C	Remote

Table 1 : Source ID Values

Note 1:

Modem : CRC checksum is a complex calculation following this:



Each bit of a byte coming is XOR with the bit 0 of CRC check register, the result of the XOR is used to change the bit 4 and 3 with a XOR as well then all bits are shifted to the right for the next bit.

Direct : Simple checksum.

If the panel doesn't recognize a command, it will send this message through its serial port.

Panel Answer - Command 0x7X : Error Message

Byte	Value	Description
00	0x7X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x5F : Start communication**PC request**

Byte	Value	Description
00	0x5F	Command
01	0x20	Extra validation byte.
02-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x0X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01-03	0x00	N/U
04	0xXX	Panel Product ID 0x15 = SP5500 0x16 = SP6000 0x17 = SP7000 0x40 = MG5000 0x41 = MG5050
05	0xXX	Panel Firmware Version
06	0xXX	Panel Firmware Revision
07	0xXX	Panel Firmware Build
08	0xXX	Programmed Panel ID Digit 1 & 2 (Section [910])
09	0xXX	Programmed Panel ID Digit 3 & 4 (Section [910])
10-14	0x00	N/U
15	0xXX	Transceiver Firmware Build (N/U on SP series)
16	0xXX	Transceiver Family (N/U on SP series)
17	0xXX	Transceiver Firmware Version (N/U on SP series)
18	0xXX	Transceiver Firmware Revision (N/U on SP series)
19	0xXX	Transceiver Noise Floor Level (N/U on SP series)
20	0xXX	Transceiver Status (N/U on SP series) Bit 2 to 8 = Free Bit 1 = Noise Floor Level too high Bit 0 = Constant Carrier Detected
21	0xXX	Transceiver Hardware Revision
22-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Winload : Panel ID must match between the panel and the application or else, the communication will abort.

NEware / Web Page : No Panel ID validation.

Command 0x00 : Initialize communication**PC request**

Byte	Value	Description
00	0x00	Command
01-03	0x00	N/U
04	0xXX	Panel Product ID 0x15 = SP5500 0x16 = SP6000 0x17 = SP7000 0x40 = MG5000 0x41 = MG5050
05	0xXX	Panel Firmware Version (Cmd 0x5F answer).
06	0xXX	Panel Firmware Revision (Cmd 0x5F answer).
07	0xXX	Panel Firmware Build (Cmd 0x5F answer).
08	0xXX	Programmed Panel ID Digit 1 & 2 (Cmd 0x5F answer - N/U by NEware)
09	0xXX	Programmed Panel ID Digit 3 & 4 (Cmd 0x5F answer - N/U by NEware)
10	0xXX	Programmed PC Password Digit 1 & 2 (N/U by NEware)
11	0xXX	Programmed PC Password Digit 3 & 4 (N/U by NEware)
12	0x00	N/U
13	0xXX	Source mode (old method) 0x00 = Winload connection. 0x55 = NEware connection.
14	0xXX	User Code digit 1&2 (N/U by Winload)
15	0xXX	User Code digit 3&4 (N/U by Winload)
16	0xXX	User Code digit 5&6 (N/U by Winload)
17-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x10	Command
01	0xXX	0x25 = NEware connection. (N/U by Winload)
02	0xXX	0x10 = NEware connection. (N/U by Winload)
03	0xXX	User ID low byte according to User Code (N/U by Winload).
04	0xXX	Partition rights access (N/U by Winload) Bit 7-2 = N/U Bit 1 = Partition 2. Bit 0 = Partition 1.
05-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

If the PC password (Winload/Web Page) or User Code (NEware) received from the PC doesn't match the one of the panel, the panel will send a communication error command (Command 0x70).

Command 0x30 : Set Time & Date**PC request**

Byte	Value	Description
00	0x30	Command
01-03	0x00	N/U
04	0xXX	Century
05	0xXX	Year
06	0xXX	Month
07	0xXX	Day
08	0xXX	Hour
09	0xXX	Minute
10-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x3X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x40 : Perform Action**PC request**

Byte	Value	Description
00	0x40	Command
01	0x00	N/U
02	0xXX	Action : 0x01 = Stay Arm 0x02 = Stay Arm 0x03 = Sleep Arm 0x04 = Full Arm 0x05 = Disarm 0x06 = Stay Arm with Stay-D enabling 0x07 = Sleep Arm with Stay-D enabling 0x08 = Disarm Both Partition with Stay-D disabling 0x10 = Bypass 0x20 = Make the panel generate a beep 0x30 = PGM ON in overwrite mode 0x31 = PGM OFF in overwrite mode 0x32 = PGM ON 0x33 = PGM OFF 0x80 = Reload panel's RAM with EEPROM value 0x85 = Perform a Bus Scan Module 0x90 = Future use for LCD keypad Labeling
03	0xXX	Action = 0x05 → Partition number (0 or 1). Action = 0x10 → Zone number to bypass (0 to 31). Action = 0x20 → 0x04 = One beep. 0x08 = Fail beep. 0x0C = Beep twice. 0x10 = Accept beep. Action = 0x30 to 0x33 → PGM Number (0 to 15).
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x4X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0xXX	Action
03-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x50 : Panel Status 0 – system status**PC request**

Byte	Value	Description
00	0x50	Command
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x00	Panel status request 0.
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x5X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x00	Panel Status 0.
04	0xXX	Bit 7: Timer Loss Trouble Indicator Bit 6: Global Fire-Loop Trouble Indicator Bit 5: Global Module Tamper Trouble Indicator Bit 4: Global Zone Tamper Trouble Indicator Bit 3: Global Communication Trouble Indicator Bit 2: Global Bell Trouble Indicator Bit 1: Global Power Trouble Indicator Bit 0: Global RF Transmitter Low Battery Indicator
05	0xXX	Bit 7: RF Interference Trouble Indicator Bit 6 to Bit 2: N/U Bit 1: Global Module Supervision Trouble Indicator Bit 0: Global Zone Supervision Trouble Indicator
06	0xXX	Bit 7: N/U Bit 6: Wireless Repeater Battery Failure Indicator Bit 5: Wireless Repeater AC Loss Indicator Bit 4: Wireless Keypad Battery Failure Indicator Bit 3: Wireless Keypad AC Loss Indicator Bit 2: Auxiliary Output Overload Trouble Indicator Bit 1: AC Failure Trouble Indicator Bit 0: No/Low Battery Trouble Indicator
07	0xXX	Bit 7 to Bit 2: N/U Bit 1: Bell Output Overload Trouble Indicator Bit 0: Bell Output Disconnect Trouble Indicator
08	0xXX	Bit 7 to Bit 6: N/U Bit 5: Computer Fail to Communicate Indicator Bit 4: Voice Fail to Communicate Indicator Bit 3: Pager Fail to Communicate Indicator Bit 2: Central 2 Reporting FTC Indicator Bit 1: Central 1 Reporting FTC Indicator Bit 0: Telephone Line Trouble Indicator

09	0xXX	Century
10	0xXX	Year
11	0xXX	Month
12	0xXX	Day
13	0xXX	Hour
14	0xXX	Minute
15	0xXX	AC Input DC Voltage Level decimal value (0 - 255)
16	0xXX	Power Supply DC Voltage Level decimal value (0 - 255)
17	0xXX	Battery DC Voltage Level decimal value (0 - 255)
18	0xXX	RF Noise Floor Level decimal value (0 - 255)
19	0xXX	Zone 01 to 08 Open Indicator (In bit Position)
20	0xXX	Zone 09 to 16 Open Indicator (In bit Position)
21	0xXX	Zone 17 to 24 Open Indicator (In bit Position)
22	0xXX	Zone 25 to 32 Open Indicator (In bit Position)
23	0xXX	Zone 01 to 08 Tamper Indicator (In bit Position)
24	0xXX	Zone 09 to 16 Tamper Indicator (In bit Position)
25	0xXX	Zone 17 to 24 Tamper Indicator (In bit Position)
26	0xXX	Zone 25 to 32 Tamper Indicator (In bit Position)
27	0xXX	PGM 01 to 08 Tamper Indicator (In bit Position)
28	0xXX	PGM 09 to 16 Tamper Indicator (In bit Position)
29	0xXX	Bus Module 01 to 08 Tamper Indicator(In bit Position)
30	0xXX	Bus Module 09 to 16 Tamper Indicator(In bit Position)
31	0xXX	Zone 01 to 08 Fire-Loop Trouble Indicator (In bit Position)
32	0xXX	Zone 09 to 16 Fire-Loop Trouble Indicator (In bit Position)
33	0xXX	Zone 17 to 24 Fire-Loop Trouble Indicator (In bit Position)
34	0xXX	Zone 25 to 32 Fire-Loop Trouble Indicator (In bit Position)
35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x50 : Panel Status 1 – system status**PC request**

Byte	Value	Description
00	0x50	Command
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x01	Panel status request 1.
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x5X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x01	Panel status 1.
04	0xXX	Zone 01 to 08 RF Supervision Trouble Indicator (In bit Position)
05	0xXX	Zone 09 to 16 RF Supervision Trouble Indicator (In bit Position)
06	0xXX	Zone 17 to 24 RF Supervision Trouble Indicator (In bit Position)
07	0xXX	Zone 25 to 32 RF Supervision Trouble Indicator (In bit Position)
08	0xXX	PGM 01 to 08 RF Supervision Trouble Indicator (In bit Position)
09	0xXX	PGM 09 to 16 RF Supervision Trouble Indicator (In bit Position)
10	0xXX	Bus Module 01 to 08 Supervision Indicator (In bit Position)
11	0xXX	Bus Module 09 to 16 Supervision Indicator (In bit Position)
12	0xXX	Wireless Repeaters and Wireless Keypad 1 to 6 Supervision Trouble Indicator (In bit Position)
13	0xXX	Zone 01 to 08 RF Low Battery Indicator (In bit Position)
14	0xXX	Zone 09 to 16 RF Low Battery Indicator (In bit Position)
15	0xXX	Zone 17 to 24 RF Low Battery Indicator (In bit Position)
16	0xXX	Zone 25 to 32 RF Low Battery Indicator (In bit Position)
17	0xXX	Partition 1 status : Bit 7: Pulse Alarm (fire alarm). Bit 6: Audible alarm. Bit 5: Silent alarm. Bit 4: Is / was in Alarm Indicator. (Strobe) Bit 3: N/U Bit 2: Stay Arm Indicator Bit 1: Sleep Arm Indicator Bit 0: Arm Indicator (Stay/Sleep/Full arm)
18	0xXX	Partition 1 status :

		Bit 7: Bell Activated Indicator Bit 6: Auto-Arming Engaged Indicator Bit 5: Recent Closing Delay Indicator Bit 4: Intellizone Delay Indicator Bit 3: At least one zone is bypassed Indicator Bit 2: Alarm(s) is / are in the memory Indicator Bit 1: Entry Delay Indicator Bit 0: Exit Delay Indicator
19	0xXX	Partition 1 status : Bit 7: Paramedic Alarm Bit 6: Reserved Bit 5: Arm with a Remote Indicator Bit 4: Transmission Delay Finished Indicator Bit 3: Bell Delay Finished Indicator Bit 2: Entry Delay Finished Indicator Bit 1: Exit Delay Finished Indicator Bit 0: Intellizone Delay Finished Indicator
20	0xXX	Partition 1 status : Bit 7: N/U Bit 6: Wait window (window mode). Bit 5: N/U Bit 4: In remote delay. Bit 3: N/U Bit 2: StayD mode active. Bit 1: Force Arm Indicator Bit 0: Ready Status Indicator
21	0xXX	Partition 2 status-> See Partition 1 Status (Byte 17)
22	0xXX	Partition 2 status-> See Partition 1 Status (Byte 18)
23	0xXX	Partition 2 status-> See Partition 1 Status (Byte 19)
24	0xXX	Partition 2 status-> See Partition 1 Status (Byte 20)
25	0x0X	Wireless Repeater AC Lost Indicator (In bit Position)
26	0x0X	Wireless Repeater Battery Failure Indicator (In bit Position)
27	0xXX	Wireless Keypad AC Lost Indicator (In bit Position)
28	0xXX	Wireless Keypad Battery Failure Indicator (In bit Position)
29	0xXX	Wireless Keypad 7 to 8 Supervision Trouble Indicator (In bit Position)
30-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x50 : Panel Status 2 – zone status**PC request**

Byte	Value	Description
00	0x50	Command
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x02	Panel status request 2.
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x5X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x02	Panel status 2.
04	0xXX	Zone 01 Status -> Bit 7: Zone was in Alarm Indicator Bit 6: Zone is in Alarm Indicator Bit 5 & 4: 11b : In Fire Delay 01b : In Entry Delay 10b : In Intellizone Delay 00b : In No Delay Bit 3: Zone Bypassed Indicator Bit 2: Zone Shutdown Indicator Bit 1: Zone is in TX Delay Indicator Bit 0: Zone was Bypassed Indicator
05	0xXX	Zone 02 Status -> See Zone 01 Status (Byte 04)
06	0xXX	Zone 03 Status -> See Zone 01 Status (Byte 04)
07	0xXX	Zone 04 Status -> See Zone 01 Status (Byte 04)
08	0xXX	Zone 05 Status -> See Zone 01 Status (Byte 04)
09	0xXX	Zone 06 Status -> See Zone 01 Status (Byte 04)
10	0xXX	Zone 07 Status -> See Zone 01 Status (Byte 04)
11	0xXX	Zone 08 Status -> See Zone 01 Status (Byte 04)
12	0xXX	Zone 09 Status -> See Zone 01 Status (Byte 04)
13	0xXX	Zone 10 Status -> See Zone 01 Status (Byte 04)
14	0xXX	Zone 11 Status -> See Zone 01 Status (Byte 04)
15	0xXX	Zone 12 Status -> See Zone 01 Status (Byte 04)
16	0xXX	Zone 13 Status -> See Zone 01 Status (Byte 04)
17	0xXX	Zone 14 Status -> See Zone 01 Status (Byte 04)
18	0xXX	Zone 15 Status -> See Zone 01 Status (Byte 04)
19	0xXX	Zone 16 Status -> See Zone 01 Status (Byte 04)
20	0xXX	Zone 17 Status -> See Zone 01 Status (Byte 04)
21	0xXX	Zone 18 Status -> See Zone 01 Status (Byte 04)
22	0xXX	Zone 19 Status -> See Zone 01 Status (Byte 04)
23	0xXX	Zone 20 Status -> See Zone 01 Status (Byte 04)
24	0xXX	Zone 21 Status -> See Zone 01 Status (Byte 04)

25	0xXX	Zone 22 Status -> See Zone 01 Status (Byte 04)
26	0xXX	Zone 23 Status -> See Zone 01 Status (Byte 04)
27	0xXX	Zone 24 Status -> See Zone 01 Status (Byte 04)
28	0xXX	Zone 25 Status -> See Zone 01 Status (Byte 04)
29	0xXX	Zone 26 Status -> See Zone 01 Status (Byte 04)
30	0xXX	Zone 27 Status -> See Zone 01 Status (Byte 04)
31	0xXX	Zone 28 Status -> See Zone 01 Status (Byte 04)
32	0xXX	Zone 29 Status -> See Zone 01 Status (Byte 04)
33	0xXX	Zone 30 Status -> See Zone 01 Status (Byte 04)
34	0xXX	Zone 31 Status -> See Zone 01 Status (Byte 04)
35	0xXX	Zone 32 Status -> See Zone 01 Status (Byte 04)
36	0xXX	Checksum ^{Note 1}

Command 0x50 : Panel Status 3 – zone scaled signal strength**PC request**

Byte	Value	Description
00	0x50	Command
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x03	Panel status request 3.
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x5X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x03	Panel status 3.
04	0xXX	Zone 01 Scaled Signal Strength (1 to 10).
05	0xXX	Zone 02 Scaled Signal Strength (1 to 10).
06	0xXX	Zone 03 Scaled Signal Strength (1 to 10).
07	0xXX	Zone 04 Scaled Signal Strength (1 to 10).
08	0xXX	Zone 05 Scaled Signal Strength (1 to 10).
09	0xXX	Zone 06 Scaled Signal Strength (1 to 10).
10	0xXX	Zone 07 Scaled Signal Strength (1 to 10).
11	0xXX	Zone 08 Scaled Signal Strength (1 to 10).
12	0xXX	Zone 09 Scaled Signal Strength (1 to 10).
13	0xXX	Zone 10 Scaled Signal Strength (1 to 10).
14	0xXX	Zone 11 Scaled Signal Strength (1 to 10).
15	0xXX	Zone 12 Scaled Signal Strength (1 to 10).
16	0xXX	Zone 13 Scaled Signal Strength (1 to 10).
17	0xXX	Zone 14 Scaled Signal Strength (1 to 10).
18	0xXX	Zone 15 Scaled Signal Strength (1 to 10).
19	0xXX	Zone 16 Scaled Signal Strength (1 to 10).
20	0xXX	Zone 17 Scaled Signal Strength (1 to 10).
21	0xXX	Zone 18 Scaled Signal Strength (1 to 10).
22	0xXX	Zone 19 Scaled Signal Strength (1 to 10).
23	0xXX	Zone 20 Scaled Signal Strength (1 to 10).
24	0xXX	Zone 21 Scaled Signal Strength (1 to 10).
25	0xXX	Zone 22 Scaled Signal Strength (1 to 10).
26	0xXX	Zone 23 Scaled Signal Strength (1 to 10).
27	0xXX	Zone 24 Scaled Signal Strength (1 to 10).
28	0xXX	Zone 25 Scaled Signal Strength (1 to 10).
29	0xXX	Zone 26 Scaled Signal Strength (1 to 10).
30	0xXX	Zone 27 Scaled Signal Strength (1 to 10).
31	0xXX	Zone 28 Scaled Signal Strength (1 to 10).
32	0xXX	Zone 29 Scaled Signal Strength (1 to 10).

33	0xXX	Zone 30 Scaled Signal Strength (1 to 10).
34	0xXX	Zone 31 Scaled Signal Strength (1 to 10).
35	0xXX	Zone 32 Scaled Signal Strength (1 to 10).
36	0xXX	Checksum ^{Note 1}

Command 0x50 : Panel Status 4 – pgm, repeater, rf keypad signal strength

PC request

Byte	Value	Description
00	0x50	Command
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x04	Panel status request 4.
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x5X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x04	Panel status 4.
04	0xXX	PGM 01 Scaled Signal Strength (1 to 10).
05	0xXX	PGM 02 Scaled Signal Strength (1 to 10).
06	0xXX	PGM 03 Scaled Signal Strength (1 to 10).
07	0xXX	PGM 04 Scaled Signal Strength (1 to 10).
08	0xXX	PGM 05 Scaled Signal Strength (1 to 10).
09	0xXX	PGM 06 Scaled Signal Strength (1 to 10).
10	0xXX	PGM 07 Scaled Signal Strength (1 to 10).
11	0xXX	PGM 08 Scaled Signal Strength (1 to 10).
12	0xXX	PGM 09 Scaled Signal Strength (1 to 10).
13	0xXX	PGM 10 Scaled Signal Strength (1 to 10).
14	0xXX	PGM 11 Scaled Signal Strength (1 to 10).
15	0xXX	PGM 12 Scaled Signal Strength (1 to 10).
16	0xXX	PGM 13 Scaled Signal Strength (1 to 10).
17	0xXX	PGM 14 Scaled Signal Strength (1 to 10).
18	0xXX	PGM 15 Scaled Signal Strength (1 to 10).
19	0xXX	PGM 16 Scaled Signal Strength (1 to 10).
20	0xXX	Wireless Repeater 01 Scaled Signal Strength (1 to 10).
21	0xXX	Wireless Repeater 02 Scaled Signal Strength (1 to 10).
22	0xXX	Wireless Keypad 01 Scaled Signal Strength (1 to 10).
23	0xXX	Wireless Keypad 02 Scaled Signal Strength (1 to 10).
24	0xXX	Wireless Keypad 03 Scaled Signal Strength (1 to 10).
25	0xXX	Wireless Keypad 04 Scaled Signal Strength (1 to 10).
26	0xXX	Wireless Keypad 05 Scaled Signal Strength (1 to 10).
27	0xXX	Wireless Keypad 06 Scaled Signal Strength (1 to 10).
28	0xXX	Wireless Keypad 07 Scaled Signal Strength (1 to 10).

29	0xXX	Wireless Keypad 08 Scaled Signal Strength (1 to 10).
30-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x50 : Panel Status 5 – zone exit delay**PC request**

Byte	Value	Description
00	0x50	Command
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x05	Panel status request 5.
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x5X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0x80	Validation to distinguish from Eeprom read.
03	0x05	Panel status 5.
04	0xXX	Zone 01 to 08 Exit Delay Indicator (In bit position).
05	0xXX	Zone 09 to 16 Exit Delay Indicator (In bit position).
06	0xXX	Zone 17 to 24 Exit Delay Indicator (In bit position).
07	0xXX	Zone 25 to 32 Exit Delay Indicator (In bit position).
08-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x50 : Read Data From Eeprom**PC request**

Byte	Value	Description
00	0x50	Command
01	0x00	N/U
02	0xXX	EEPROM Address High (Needs to be lower then 0x80)
03	0xXX	EEPROM Address Low
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x5X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0xXX	EEPROM Address High (Needs to be lower then 0x80)
03	0xXX	EEPROM Address Low
04-35	0xXX	Data read from Eeprom Address (32 bytes)
36	0xXX	Checksum ^{Note 1}

Command 0x60 : Write Data To Eeprom**PC request**

Byte	Value	Description
00	0x60	Command
01	0x00	N/U
02	0xXX	EEPROM Address High (Needs to be lower then 0x80)
03	0xXX	EEPROM Address Low
04-35	0xXX	Data To Write At Eeprom Address (32 bytes)
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x6X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0xXX	EEPROM Address High (Needs to be lower then 0x80)
03	0xXX	EEPROM Address Low

04-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x80 : Save Winload Event Pointer

PC request

Byte	Value	Description
00	0x80	Command
01	0x00	N/U
02	0xXX	Winload Event Pointer High
03	0xXX	Winload Event Pointer Low
04-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x8X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0xXX	Winload Event Pointer High
03	0xXX	Winload Event Pointer Low
04-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0x90 : Special Action**PC request**

Byte	Value	Description
00	0x90	Command
01	0x00	N/U
02	0xXX	Special Action : 0x01 = Send command to transceiver (MG Series only). 0x02 = Update bus keypad zone.
03	0x00	N/U
04	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 01. Special Action = 0x02 → Bus Keypad 01 to 08 (In bit position).
05	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 02. Special Action = 0x02 → Bus Keypad 09 to 16 (In bit position).
06	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 03.
07	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 04.
08	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 05.
09	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 06.
10	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 07.
11	0xXX	Special Action Data : Special Action = 0x01 → RF bus communication data 08.
06-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x9X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01	0x00	N/U
02	0xXX	Special Action
03-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Command 0xE0 : Live Event command.

When an event is generated, the panel will send the following command on the serial port. The Event Number and the Event Sub-Group are listed in the Event Description table of the MG/SP Programming Guide.

Panel sends live event command to PC

Byte	Value	Description
00	0xE0	Command
01	0xFF	Century
02	0xFF	Year
03	0xFF	Month
04	0x00	Day
05	0xFF	Hour
06	0xFF	Minute
07	0xFF	Event Group Number
08	0xFF	Event Sup-group Number
09	0xFF	Partition Number
10	0xFF	Module Serial Number digit 1 and 2
11	0xFF	Module Serial Number digit 3 and 4
12	0xFF	Module Serial Number digit 5 and 6
13	0xFF	Module Serial Number digit 7 and 8
14-35	0x00	N/U
36	0xFF	Checksum ^{Note 1}

Command 0x70 : Close connection**PC request**

Byte	Value	Description
00	0x70	Command
01	0x00	N/U
02	0x05	Validation byte.
03-32	0x00	N/U
33	0xXX	Source ID (See table 1)
34	0xXX	User ID high byte
35	0xXX	User ID low byte
36	0xXX	Checksum ^{Note 1}

Panel answer

Byte	Value	Description
00	0x7X	High nibble Command Low nibble Bit 3: N/U Bit 2: System in alarm. Bit 1: Winload line connection. Bit 0: Winload direct connection.
01-35	0x00	N/U
36	0xXX	Checksum ^{Note 1}

Note: This answer is also sent from the Panel as an error message when a command received from the PC is not supported.