Galaxy: G3-144

This module controls a Galaxy G3-144 alarm system over RS-232.

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Galaxy G3 144.umc
CATEGORY:	Alarm system
VERSION:	1.0
SUMMARY:	This module controls a Galaxy G3-144 alarm system over RS-232.
GENERAL NOTES:	There are 3 Galaxy G3 alarm systems: 48, 144 and 520. Each system has its own Crestron module:

- "Galaxy G3 530.umc"
- "Galaxy G3 144.umc"
- "Galaxy G3 48.umc"

Please use the appropriate module for each of these systems.

A Galaxy alarm system provides us with an amount of zones divided over so called Rio's. Each Rio consists of 8 zones. Every G3 alarm system has 2 Rio's situated on the PCB itself. The other Rio's are divided over one or more Bus Lines. So the difference between the 3 Galaxy G3 systems is defined by the amount of Bus Lines and the Rio's connected to these Bus Lines.

For example the G3-48 alarm system has two Rio's connected to the PCB and allows for 1 Bus Line with 4 extra Rio's. This total of 6 Rio's with 8 zones on each of them makes 48 zone. Although the 2 first Rio's are physically connected to the PCB, they are considered to be part of the Bus Line. So the 2 Rio's on the PCB are "Line 1 Rio 0" and "Line 1 Rio 1". The Rio's physically connected to the Bus Line are "Line 1 Rio 2" up to "Line 1 Rio 5".

The G3-144 and G3-520 alarm systems work in a slightly different way. When dip switch 8 of the Rio Switches on the PCB is set to on, an extra Rio can be connected on Bus Line 1. In that case the second Rio on the PCB will be "Line 0 Rio 1".

This can all be summed up in the following table:

	PCB	Bus Line 1	Bus Line 2	Bus Line 3	Bus Line 4
G3-48	"Line 1 Rio 0" and "Line 1 Rio 1"	"Line 1 Rio 2" up to "Line 1 Rio 5"	/	/	/
G3-144 **(dip switch off)**	"Line 1 Rio 0" and "Line 1 Rio 1"	"Line 1 Rio 2" up to "Line 1 Rio 8"	"Line 2 Rio 0" up to "Line 2 Rio 7"	/	/
G3-144 **(dip switch on)**	"Line 1 Rio 0" and "Line 0 Rio 1"	"Line 1 Rio 1" up to "Line 1 Rio 8"	"Line 2 Rio 0" up to "Line 2 Rio 7"	/	/
G3-520 **(dip switch off)**	"Line 1 Rio 0" and "Line 1 Rio 1"	"Line 1 Rio 2" up to "Line 1 Rio 15"	"Line 2 Rio 0" up to "Line 2 Rio 15"	"Line 3 Rio 0" up to "Line 3 Rio 15"	"Line 4 Rio 0" up to "Line 4 Rio 15"
G3-520 **(dip switch on)**	"Line 1 Rio 0" and "Line 0 Rio 1"	"Line 1 Rio 1" up to "Line 1 Rio 15"	"Line 2 Rio 0" up to "Line 2 Rio 15"	"Line 3 Rio 0" up to "Line 3 Rio 15"	"Line 4 Rio 0" up to "Line 4 Rio 15"

The modules for both the G3-144 and G3-520 have optional outputs for "Line 0 Rio 1". So only

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		use these outputs when dip switch 8 is set to on.
		NOTE: You have to specify whether the dip switch is set to on or off by using the parameter "Dip Switch 8" on module G3-144 and G3-520
CRESTRON HARDWARE REQUIRED:		X or 2 series processor with com port 9600, 8, 1, N
SETUP OF CRESTRON HARDWARE:		Test were performed on a PRO2 with TPS-15
VENDOR FIRMWARE:		Test were performed on a Galaxy G3-144 V5.00
CABLE DIAGRAM:		The wires of the cable are to be connected directly on the alarm systems PCB.
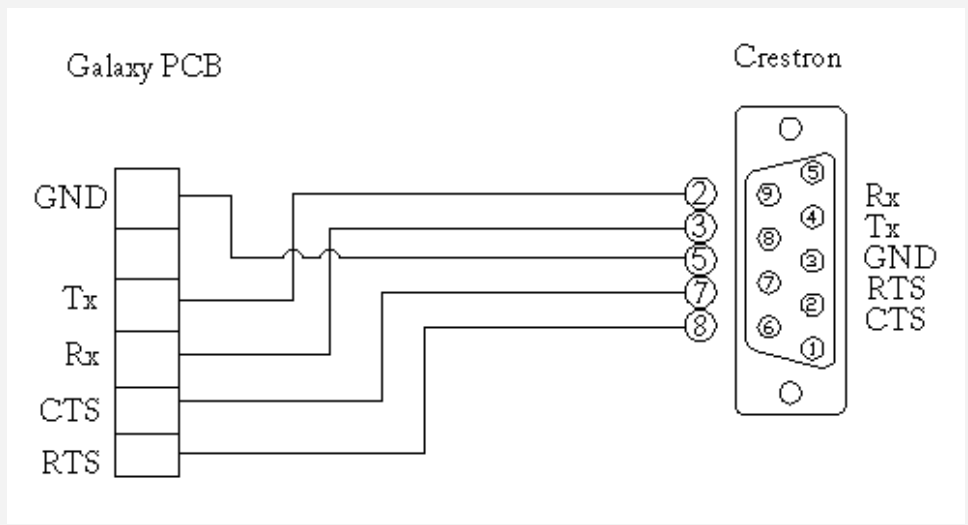
CONTROL:

Rx	S	To be connected to the Rx of the com port
Init	D	Pulse to start polling of the different zones. When the module is "enabled" this will result in a continuous loop of polling.
Enable_On/Off	D	Pulse to enable/disable the module (toggle)
Enable_On	D	Pulse to enable the module
Enable_Off	D	Pulse to disable the module
Check_Groups	D	Pulse to poll once for the group statuses (set, unset, partially set)

Check_Group_Alarms	D	Pulse to poll once for the group alarm statuses (normal, alarm, reset required)
Group_X_Unset	D	Pulse to unset group X
Group_X_Set	D	Pulse to set group X
Group_X_Part_Set	D	Pulse to partially set group X
Group_X_Reset	D	Pulse to reset group X

FEEDBACK:

Tx	S	To be connected with the Tx of the com port
Enabled	D	High when the module is enabled
[Ack_Received]	D	Pulses for every "Acknowledge" that is received
[Nack_Received]	D	Pulses for every "Non acknowledge" that is received
[Activity]	D	Pulses once every time the module polls for zones
[Line_0_Rio_1_ZoneX]	D	When dip switch 8 is set to on, the second Rio physically connected to the PCB will change from "Line 1 Rio 1" to this "Line 0 Rio 1". Allowing for "Line 1 Rio 1" to be used on the actual Bus Lin itself. (See the General Notes of this document). In that case, these 8 optional outputs will be used to display the state of this "Line 0 Rio 1" on the PCB. High when active.
Line_X_Rio_Y_Zone_Z	D	High when zone Z on Rio Y on Line X is active.
Group_X_Unset_Fb	D	High when group X is set (pulse the Check_Groups input to get this information)
Group_X_Set_Fb	D	High when group X is unset (pulse the Check_Groups input to get this information)
Group_X_Part_Set_Fb	D	High when group X is partially set (pulse the Check_Groups input to get this information)
Group_X_Alarm_Normal	D	High when the alarm of group X is normal (pulse the Check_Group_Alarms input to get this information)
Group_X_Alarm_Alarm	D	High when group X is in a state of alarm (pulse the Check_Group_Alarms input to get this information)
Group_X_Alarm_Reset_Required	D	High when group X needs to be reset

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(pulse the Check_Group_Alarms input to get this information)

PARAMETERS:

Password	S	The password needed to operate the Galaxy alarm system
Dip Switch 8	D	Define the actual state of the 8th Rio switch on the PCB. 1d = ON 0d = OFF

TESTING:

OPS USED FOR TESTING:	V3.155.1143
COMPILER USED FOR TESTING:	V2.08.41