Galaxy Dimension GD-series

GENERAL INFORMATION

SIMPLWINDOWS FILE NAME:	C3 Galaxy Dimension GD-V3.00.umc
CATEGORY:	Security
CURRENT VERSION:	3.00
PROGRAMMER:	LC
SUMMARY:	This module controls a Galaxy Dimension GD-series alarm system over RS-232 or IP*[1]
SYSTEMBUILDER COMPATIBLE	Yes
GENERAL NOTES:	The Galaxy Dimension GD-series alarm system can provide up to 520 zones supplied by RIO's. (Remote Input/Output) Each RIO consists of 8 zones. The GD-48 alarm system has two RIO's connected to the PCB and allows for 1 Bus Line with 4 extra RIO's. 6 RIO's with 8 zones on each makes 48 zones. The GD-48 allows for a maximum of 4 groups. This is summed up in the table at the end of this document. **Galaxy RS-232 Setup:** The Galaxy must be set up correctly otherwise the Crestron will NOT be able to log on. 1. Enter Galaxy Engineer mode – Enter 'engineer' PIN + [ent] from a Galaxy panel 2. Enter 56. COMMUNICATIONS 3. Enter 6. INT RS-232 1 4. Enter 1. Mode = 2. DIRECT [esc] to backup 5. Enter 2. FORMAT 6. Enter 1. SIA = 4 7. Enter 3. ACCOUNT NO. = remote login code 8. Enter 4. COMMS SETUP 9. Set the Baud rate, data bits, stop bits & parity from the sub menus 10. Repeat [esc] to return to the Engineer page 11. Enter 'engineer' PIN + [esc] to exit. The unit will then run a tamper test & return to normal operation **IMPORTANT NOTE:** The company installing & commissioning the Galaxy Panel must enable the **Remote** code using the Honeywell RSS (Remote Servicing Suite) software. The Remote code must match the module 'remote login code' parameter. Failure to set this up will mean that the Crestron will NOT be able to login to the Galaxy. **Initial Module setup:** Enter the login code in the 'remote login code' parameter field. This should have been setup in the Galaxy already by the installation engineer. If not the default is 543210. If you do not enter a 'default manager PIN', on first use the module will switch to Manager mode. The [keypad.fb$] will report 'No Crestron manager PIN stored. Key in new PIN & press [ent]'. Enter the PIN that will be used by the system manager. This should be the same as the PIN the manager would enter at a Galaxy keypad. Once the PIN has been set the message 'PIN stored' will be displayed momentarily on the [keypad.fb$] followed by 'User:0 PIN:xxxx. DO NOT enter the 'remote login code' here. Next set up the user PIN numbers. Step through the list using the [A>] & [<B] buttons. Key in the PIN and press [ent]. Once the PIN has been set the message 'PIN stored' will be displayed momentarily on the [keypad.fb$] followed by 'User:n PIN:xxxx. To exit Manager mode key in the Manager PIN then [esc]. To enter Manager mode later key in the Manager PIN then [ent]. **Programming Notes:** This module uses NVRAM for storing the user PIN numbers. It is important to note that if the position of the module changes in the program that these values may change also. We therefore recommend that once all the PIN numbers have been stored, any additional programming that may require the use of NVRAM is placed below this module. Alternatively place the module at the top of the program tree before any PIN numbers are stored.

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Operation:
The module must be logged in to operate any Galaxy functions. Assert login and the module will attempt to connect to the Galaxy using the PIN from the 'remote login code' parameter field. Once logged in the module will be enabled, all functions are available and the module will start polling.

* Setting & un-setting: Using the keypad is similar to a Galaxy keypad.
  Set: Enter PIN, Press [A>] for full set or [<B] to part set. Do NOT press [ent] to set.
  The keypad timer will start to count down. When the timer expires the system will attempt to set. Press [esc] to cancel the operation before the timer expires.
  Unset: Enter PIN & press [ent]
* Cancelling an alarm, fault or tamper: Key in a valid PIN followed by [ent]
* Resetting: After an alarm, fault or tamper has occurred the system must be reset.
  1. Clear the cause of the alarm, fault or tamper
  2. Key in a valid PIN followed by [ent]
  3. Review the alarm, fault or tamper status of the **[busn.riox.zonez.fb]** outputs.

There are 'quick' digital inputs that can be used to test the Galaxy operation but these should be hidden from the end user. These are marked below '(not for general use)'

All inputs enclosed [ ] are optional. Read the Galaxy documentation if in doubt.

XPanel Setup: (Galaxy Dimension demo program.vtp)
- Open the demo program .vtp file
- The IP ID should match the XPanel in the demo program. (Set as required)
- Set the IP address in e-control Gateway Info to match the processor
- Press [OK] and compile (F12)
- Run the XPanel application

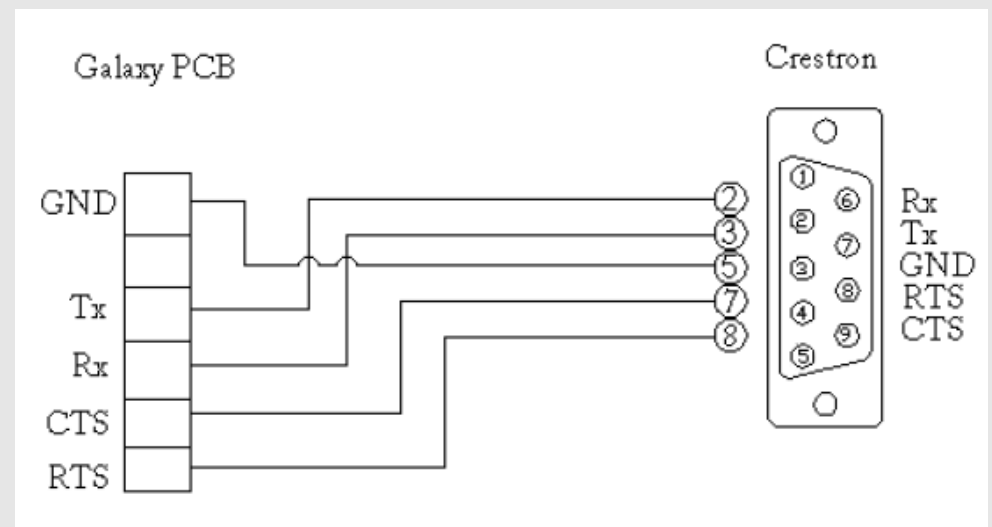|	
REQUIRED AUXILIARY FILES:	C3 Galaxy Dimension string parser V1.04.usp
COMMS SETUP:	**RS-232:** (Default) 9600, 8,1,N. Handshaking: None. RTS/CTS is not used. Tested up to 57600. NOTE: When setting the baud rate ensure the Galaxy baud rate is set to match. See **GENERAL NOTES** on how to set this up. **IP:** Port 10005, TCP (does not support UDP) for SIA Level 4 control only (not tested for 3-Series processor)
CABLE DIAGRAM:	

INPUT DEFINITIONS

rx$:	S	Data from Galaxy unit. Connect to RS-232 tx$

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login	**D**	Log on to unit & enables polling and alarm control
logout	**D**	Log off the unit. Alarm control disabled. (NACK sent from unit - this is normal)
[user.pin.reset]	**D**	Pulse to reinitialise the user PIN. This will prompt: 'No PIN stored for Crestron user. Enter new PIN & press [ent]'. The PIN will then be stored in the module for verification Maximum of 5 different PINs can be stored (x=1 to 5).
[user]	**A**	Select user for PIN entry and storage
[enable.toggle]	**D**	Pulse to enable/disable the module (default is polling enabled)
[enable.on]	**D**	Pulse to enable the module and start polling
[enable.off]	**D**	Pulse to disable the module. Note: If disabled entering any number key will enable polling for 30s.
[group.status]	**D**	Pulse to poll once for the group status (set, unset, partially set)
[alarm.status]	**D**	Pulse to poll once for the group alarm status (normal, alarm, reset required)
[zone.status]	**D**	Pulse to poll once for the RIO zone status.
[numeric, *# keys]	**D**	Connect to keypad on touchpanel for PIN entry. '*' acts like backspace
[A]	**D**	Full alarm set. (step+ while in Manager mode)
[B]	**D**	Partial/Group set alarm. (step- while in Manager mode)
[ent] **[entx]**	**D**	Enter key Enter to save the new PIN. Maximum of 5 different PINs can be stored (x=2 to 5). To save the first PIN you should use [ent].
[esc]	**D**	Back out of the current operation.
[group.nn.unset]	**D**	Pulse to unset group nn (not for general use)
[group.nn.set]	**D**	Pulse to set group nn (not for general use)
[group.nn.part.set]	**D**	Pulse to partially set group nn (not for general use)
[group.nn.reset]	**D**	Pulse to reset group nn (not for general use)
[all.unset]	**D**	Pulse to unset all groups (not for general use)
[all.set]	**D**	Pulse to set all groups
[all.part.set]	**D**	Pulse to part set all groups
[all.reset]	**D**	Pulse to reset all groups (not for general use)
[include.busn.riox.zonez]	**D**	Set these inputs high to include the corresponding zone (fb). Set low to exclude. When a zone is excluded it does not get checked when the alarm is set. Use this if you are working on an incomplete alarm system or these zones are being used for sensors that are not directly part of the alarm system. e.g. water sensors. These inputs default to '1' when the module is inserted in the program.

OUTPUT DEFINITIONS

tx$:	**S**	Data to unit. Connect to RS-232 rx$
[login.fb]	**D**	Galaxy unit is logged on
[ack.fb]	**D**	1s pulse each time a valid command is acknowledged

[nack.fb]	**D**	1s pulse when a command is rejected if unit is logged off or command not recognised
[activity.fb]	**D**	0.2s pulse each time a Zone, Group or Alarm activity is detected
[system.online.fb]	**D**	Indicates that the module is able to communicate with the alarm panel
[enable.poll.fb]	**D**	Enable status feedback
[timer.fb]	**A**	Countdown timer indicating time remaining before alarm is set
[system.open.fb]	**D**	Indicates that the alarm was being set while the system is still open. Use this tally to take the user to a page indicating which zones are still open
[keypad.fb$]	**S**	Keypad information. Shows error messages, alarm status messages and ***** when PIN entered. Includes MSP of 80 characters
[system.msg.fb]	**S**	Service messages. Not for the end user
[pinx.verified.fb]	**D**	Indicates that the user entered PIN is valid (Pulse).
[pinx.status.fb]	**A**	Indicates the status of the stored PIN. 0d:Not stored 1d:Stored Maximum of 5 different PINs can be stored (x=1 to 5)
[group.nn.unset.fb]	**D**	High when group nn is unset and while **[group.nn.unset]** is asserted. (pulse the **[group.status]** input to get this information if polling is disabled)
[group.nn.set.fb]	**D**	High when group nn is set and while **[group.nn.set]** is asserted. (pulse the **[group.status]** input to get this information if polling is disabled)
[group.nn.part.set.fb]	**D**	High when group nn is partially set and while **[group.nn.part.set]** is asserted. (pulse the **[group.status]** input to get this information if polling is disabled)
[group.nn.alarm.reset.req.fb]	**D**	High when group nn needs to be reset and while **[group.nn.reset]** is asserted. (pulse the **[alarm.status]** input to get this information if polling is disabled)
[group.nn.alarm.normal.fb]	**D**	High when the alarm of group nn is normal (pulse the **[alarm.status]** input to get this information if polling is disabled)
[group.nn.alarm.triggered.fb]	**D**	High when the alarm of group nn is triggered (pulse the **[alarm.status]** input to get this information if polling is disabled)
[all.unset.fb]	**D**	High if one or more groups are unset
[all.set.fb]	**D**	High if one or more groups are set
[all.part.set.fb]	**D**	High if one or more groups are part set
[all.reset.reg.fb]	**D**	High if one or more groups require reset
[all.alarm.normal.fb]	**D**	High if one or more group alarms are normal
[all.alarm.triggered.fb]	**D**	High if one or more group alarms are triggered
[busn.riox.zonez.fb]	**D**	High when zone z on RIO x on Bus n is active

PARAMETERS

remote login code	**(s)**	Code required for remote login to the unit only. (default: 543210)
max user digits	**(d)**	Set the maximum number of characters for the user PIN (default: 5d)
poll interval	**(s)**	Set the poll interval in seconds (default: 0.4s) NOTE: it may be necessary to increase the poll interval significantly if the program is demanding. The default value will give very fast group and zone status.

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full set exit time	**(s)**	Set the timed exit length for full set. Valid range: 5-320s (default: 60s)	
part set exit time	**(s)**	Set the timed exit length for part set. Valid range: 0-320s (default: 5s)	

REVISION NOTES

3.00	LC	• Updated for 3-series processors • Added the possibility to have 5 different PINs
2.08	GO	• Added multi-user support. Module now supports up to 100 user PIN's • Fixed bug whereby after a system set, the keypad still displayed system setting message • Pressing [esc] while the system setting message is being displayed now cancels the set • C3 Galaxy Dimension string parser module changed to C3 Galaxy Dimension processor • Galaxy Dimension GD-48 help document renamed to Galaxy Dimension GD-series for generic use over the various different Galaxy models • Revision to system set logic and timed set events • Additional error checking added on System set • System open now reported at all times on all included zones • Keypad message logic re-written and now allows alternating messages • Added new routine - when system is offline all zone and group outputs are cleared
2.07	GO	• Changed the operation of the [include.busn.riox.zonez] inputs. These no longer disable the setting of the system. This allows the zones to be used for sensors without disabling the system set functions
2.06	GO	• Changed polling routine so that no polling occurs until a successful logon has been made • Amended help file to include Galaxy setup procedure • Changed parameter 'login pin' to 'remote login code' • Updated help file to reflect parameter change above. Includes more detail on setting up the Galaxy Panel • Updated help file to include XPanel setup
2.05	GO	• Added polling routine to keypad numeric keys if module is disabled. This will poll the alarm for 30s • Added momentary fb to group buttons when pressed following a user request • Added **[system.msg.fb]** output for alarm debugging
2.04	GO	• Added [include.busn.riox.zonez] inputs and associated logic • Improved polling method requiring less system resources • Added new error checking logic if attempt to set the system while open
2.03	GO	• Revision to string & data handling logic • Added timed exit logic on full and part set
2.02	GO	• Minor logic changes • Added new text subsystem for user feedback to keypad
2.01	GO	• Added [all group inputs & outputs] and logic • Revised polling method
2.00	GO	**Initial release** • Added keypad inputs • New login and detection logic • Added SystemBuilder compatibility • New string & data handling logic

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COMMENTS:	• The # key currently serves no function. Included in the module definition as placeholder only. • This module 'should' work with a Honeywell C-series alarm panel but please note this has **NOT** been tested by C3 and we make no guarantee that it will perform as expected with this system *[1] Requires Crestron IP client Port 10005. Not tested by C3 for 3-Series processor.

Additional information

GD-SERIES - RIO BUS LINE TABLE

PCB	BUS LINE 1	BUS LINE 2	BUS LINE 3	BUS LINE 4
Bus 1 RIO 0	**Bus 1 RIO 2***	**Bus 1 RIO 0**	**Bus 1 RIO 0**	**Bus 1 RIO 0**
Bus 1 RIO 1	**Bus 1 RIO 3***	**Bus 1 RIO 1**	**Bus 1 RIO 1**	**Bus 1 RIO 1**
	Bus 1 RIO 3*	**Bus 1 RIO 2**	**Bus 1 RIO 2**	**Bus 1 RIO 2**
	Bus 1 RIO 4*	**Bus 1 RIO 3**	**Bus 1 RIO 3**	**Bus 1 RIO 3**
	Bus 1 RIO 5*	**Bus 1 RIO 3**	**Bus 1 RIO 3**	**Bus 1 RIO 3**
	Bus 1 RIO 6	**Bus 1 RIO 4**	**Bus 1 RIO 4**	**Bus 1 RIO 4**
	Bus 1 RIO 7	**Bus 1 RIO 5**	**Bus 1 RIO 5**	**Bus 1 RIO 5**
	Bus 1 RIO 8	**Bus 1 RIO 6**	**Bus 1 RIO 6**	**Bus 1 RIO 6**
	Bus 1 RIO 9	**Bus 1 RIO 7**	**Bus 1 RIO 7**	**Bus 1 RIO 7**
	Bus 1 RIO 10	**Bus 1 RIO 8**	**Bus 1 RIO 8**	**Bus 1 RIO 8**
	Bus 1 RIO 11	**Bus 1 RIO 9**	**Bus 1 RIO 9**	**Bus 1 RIO 9**
	Bus 1 RIO 12	**Bus 1 RIO 10**	**Bus 1 RIO 10**	**Bus 1 RIO 10**
	Bus 1 RIO 13	**Bus 1 RIO 11**	**Bus 1 RIO 11**	**Bus 1 RIO 11**
	Bus 1 RIO 14	**Bus 1 RIO 12**	**Bus 1 RIO 12**	**Bus 1 RIO 12**
	Bus 1 RIO 15	**Bus 1 RIO 13**	**Bus 1 RIO 13**	**Bus 1 RIO 13**
		Bus 1 RIO 14	**Bus 1 RIO 14**	**Bus 1 RIO 14**
	*GD-48	**Bus 1 RIO 15**	**Bus 1 RIO 15**	**Bus 1 RIO 15**

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