ELAN®

Integration Note

Manufacturer:	DSC
Model Number(s):	**MAXSYS Series**
Core Module Versions:	4.0 (all builds)
Comments:	
Document Revision Date:	1/30/2013

OVERVIEW AND SUPPORTED FEATURES

The **DSC MAXSYS Series** panels integrate with the **g!** system using an RS-232 serial connection. The panel requires the PC4401 Data Interface Module to provide the RS-232 connection to the panel.

Integration of the security system provides monitoring and control from any touch screen, telephone or computer both locally and remotely. Additionally, events occurring in the security system can trigger system commands in other sub-systems in the home. For example, a burglar alarm can turn all the lights on and send out email alerts. The security system can also receive commands as a result of events within other sub-systems. For example, changing the house mode from Home to Vacation can trigger a security command to arm the system.

> **IMPORTANT! This panel requires the PC4020 chip on the main circuit board be version 3.5 or higher to properly communicate with g!.**
>
> **Due to possible compatibility issues, the DSC MAXSYS should only be used on COM ports 1 and 2 of the HC-Series System Controllers.**

THESE PANELS SUPPORT THE FOLLOWING FEATURES:

Arm – Disarm: Arm and disarm from the Viewer interface is supported. Status information is available for all partitions.

Auto Arm: Arming as a System Command from the Event Mapper is supported. By default, automatic arming is disabled in the Configurator.

Zone Status: Zone status information is available for all zones (in any partition), and is properly shown in the Viewer.

Zone Bypass: Zones can be bypassed from the **g!** interface.

History View: The history view is properly supported on any Viewer.

Auto Partition Detection: All available partitions are automatically detected.

Auto Zone Detection: After a zone has been faulted the **g!** system will automatically detect the zone number and partition number, but it will not detect the zone name.

THESE PANELS DO NOT SUPPORT THE FOLLOWING FEATURES:

Auto Name Detection: Zone and partition names cannot be read from the panel.
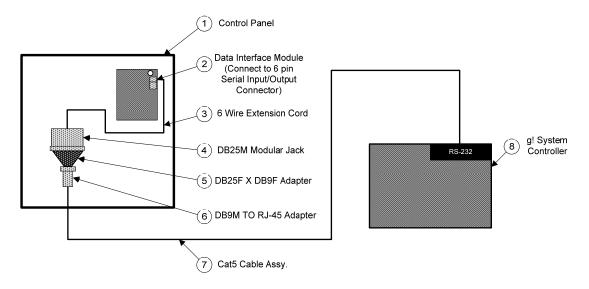
Arm in Stay Mode: The DSC MAXSYS panels can only be armed in **Away** mode from the **g!** interface: due to a limitation in the DSC RS-232 protocol, it is not possible to arm the panel in **Stay** mode.

> Any feature not specifically noted as supported should be assumed to be unsupported.

INSTALLATION OVERVIEW

1. Mount the PC4401 inside the MAXSYS panel, and connect the PC4401 to the controller according to the DSC documentation.

2. Install and setup the security system.

3. Run a Cat5 wire from the **g!** system to the security panel and test the cable.

4. Test the security panel, zone sensors and keypads for functionality.

5. Connect the **g!** system to the panel electrically.

6. Configure the **g!** system controller communication device and security panel and confirm communication between the panel and the **g!** system controller.

7. Fault all the zones in the system. Faulting the zone sends a message to the **g!** system which then automatically adds the zone in the Configurator. Zones that can't be easily faulted must be added by hand. Confirm that all zones are visible in the Configurator, and then provide names for each zone and partition with the Configurator.

8. Test the arming and disarming capability from a computer or touch screen and confirm history function.

CONNECTION DIAGRAM

BILL OF MATERIALS

#	Device	Manufacturer	Part Number	Protocol	Connector Type	Notes
1	Control Panel	DSC	MAXSYS Series	RS-232	Various	
2	Data Interface Module	DSC	PC4401	RS-232	RJ-12 Female x Terminal Strip	
3	6 Wire Extension Cord	DSC	N/A	RS-232	RJ-12 Male X RJ-12 Male	Included with PC4401
4	DB25 Modular Jack	DSC	N/A	RS-232	RJ-12 Female X DB-25 Male	Included with PC4401
5	DB25F to DB9F Adapter	Belkin	F2L089	RS-232	DB-25 Female X DB-9 Female	Not Included with PC4401
6	DB9M to RJ45 Adapter	ELAN	HA-CB-307	RS-232	DB-9 Male X RJ-45 Female	
7	Cat5 Cable	Installer	N/A	RS-232	RJ-45 Male X RJ-45 Male	Must terminate all 8 conductors
9	g! System Controller	ELAN	Various (r.g. HC12)	RS-232	RJ-45 Male X RJ-45 Male	

PANEL PROGRAMING

Before communication can start between the **g!** system and the MAXSYS panel, there are several fields that need to be changed in the panel configuration. You will need the installer access code to enter the programming mode. The default code is 5555 for new installations.

To enter programming mode, press [*] + [8] + [Installers Code].

Step	Instructions	Comments
1	Press [*] + [8] + [Installers Code]	Enter programming mode
2	Press [Scroll R] + [Scroll R] + [*]	Goes to **Module Hardware**
3	Press [*]	Goes to **Enroll Module**
4	Press [Scroll R] + [*]	Selects the **PC44XX RS232** for enrolling
5	Open and close the Tamper circuit on the PC4401	The transition from secure to violated enrolls the module: the keypad should display the module number and confirm enrollment
6	Press [#] [*] [8] [Installers Code]	Returns to main menu (keypad displays **System Area**)
7	Press [*]	Go into System Area settings
8	Press [Scroll R] several times	Scroll until **PC44XX Options** appears
9	Press [*]	**Module Options** appears in the display
10	Press [*]	PC44XX RS232 #01 appears in the display
11	Press [*]	Module Functions appears in the display
12	Press [*]	The current function is displayed
13	Press [Scroll L] or [Scroll R]	Scroll to select **DataLink**
14	Press [*]	Saves your setting, shows Module Function in display
15	Press [Scroll R] + [*]	Goes to Baud Rate, shows the current baud rate
16	Press [Scroll R] or [Scroll L]	Scroll to select **1200 Baud**
17	Press [*]	Saves your setting, returns to Module Function
18	Press [#] several times	Exits from programming mode

g! CONFIGURATION DETAILS

The following table provides settings used in the g! Configurator when connecting to the DSC MAXSYS Series control panel. Please refer to the *Configurator Reference Guide* for more details.

- o   "<Select>"   Select the appropriate item from the list (or drop-down) in the Configurator.
- o   "<User Defined>", etc.   Type in the desired name for the item.
- o   "<Auto Detect>", etc.   The system will auto detect this variable.

Devices	Variable Name	Setting	Comments
Communication Devices	Name	<User Defined> (Default: **Security**)	
	Type	**Serial Port**	
	SerialBrick Name	N/A	
	Communication Type	**Standard Connection**	
	Location	<User Defined> (Not Required)	
	Com Port	<Select>	
Security Panels	Name	<User Defined> (Default: **DSC MAXSYS**)	
	Device Type	**DSC MAXSYS**	
	Location	<User Defined> (Not Required)	
	Comm Device	<Select> (Default: **Secuirty**)	
PIN	Set Button	<User Defined>	Click the **Set** button, then enter the PIN
		Name Show Auto Keys	
	Disarm	Disarm Yes NO 4	
	Mode 1	Arm Yes NO 4	
Partions	Name	<Auto Detect> (Default: **Auto Detect Partition X**)	
	User Number	0	
	Show Partition	<Select> (Default: **Yes**) (See Note 1)	
	Areas in Partition	<User Defined> (Not Required)	
Zones	Name	<User Defined> (Default: **Auto Detect Zone X**)	
	Enable Bypass	<Select> (Default: **Yes**)	

Notes:
1. Set **Show Partition** to No for any partitions that are not used, or for partitions that should not be displayed in the g! Viewer interface.

COMMON MISTAKES

1. Failing to test the Cat5 cable assembly. It is easy to make a mistake when terminating the Cat5 cable with the RJ-45 connectors. Always use a LAN tester to check for continuity and shorts.

2. Using a Cat5 patch cable without all 8 conductors. Some Ethernet patch cables only have the 4 conductors (1,2,3,6) needed for Ethernet communications. These cables will not work as patch cables for RS-232 communications. Visually inspect the clear plastic connectors to determine if all 8 wires are present.

3. Using a null modem to connect the RS-232 port. The DCS MAXSYS Series panel connection does not require a null modem when connecting to a **g!** system controller.

4. Failing to plug the Cat5 cable assembly into the correct port. Make sure the RJ-45 connector is plugged into the same port (COM1, 2, 3 or 4) that is specified in the Configurator.