Integration Note

Manufacturer:	Lutron
Model Number(s):	**Homeworks 4 Series, 8 Series, & Wireless Series P5 Processors**
Minimum Core Module Version:	
Document Revision Date:	2/12/2013

> **IMPORTANT: The baud rate and flow control settings used to communicate from the g! system to the HomeWorks system changed starting with version 4.0 Build 389.**
>
> **If you are upgrading from a version prior to 4.0.389 to a version later than 4.0.389, you must change the serial port settings on the Lutron processor to 9600 baud, no flow control.**

OVERVIEW AND SUPPORTED FEATURES

Installing a Lutron lighting system can be broken down into the following steps:

1. Work with the client to determine what lights will be controlled, where switches will be installed, and where keypads will be installed. Follow Lutron guidelines.

2. Install and test the Lutron system, again according to Lutron standard procedures. See **Installation Overview** below for details on wiring the Lutron hardware to the **g!** system.

3. Program the Lutron system: refer to **Lutron Programming Overview** below.

4. Integrate the lighting system into the **g!** system and test proper operation. See **g! Configuration Details** and **g! System Programming Details** below.

LUTRON LIGHTING SYSTEMS SUPPORT THE FOLLOWING FEATURES:

Switch Control: Control of individual loads from virtual and simulated keypads.

Scene Control: Control of scenes from virtual and simulated keypads.

Schedule Control: Up to three schedules can be set using the Viewer software. The schedules are tied to the house mode.

Auto Detection: The **g!** system will automatically detect most switches, keypads, input modules and output modules in the system. See **g! System Programming Overview** for more details.

INSTALLATION OVERVIEW

Installing a Lutron lighting system in conjunction with a **g!** system includes the following steps:

1. During the rough-in phase, **in addition** to the wire runs needed for the Lutron system, add a single Cat5 cable from the HomeWorks Processor to the **g!** System Enclosure.

2. Complete the Lutron installation, and test according to Lutron procedures.

3. Terminate, test, and connect the Cat5 cable from the Lutron system and the **g!** system.

4. Configure the **g!** system.

CONNECTION DIAGRAM

Refer to the **Bill of Materials** and **Wiring Diagram** that follow. Refer to the **RS-232 Connection Options** Integration Note for alternative connections methods.
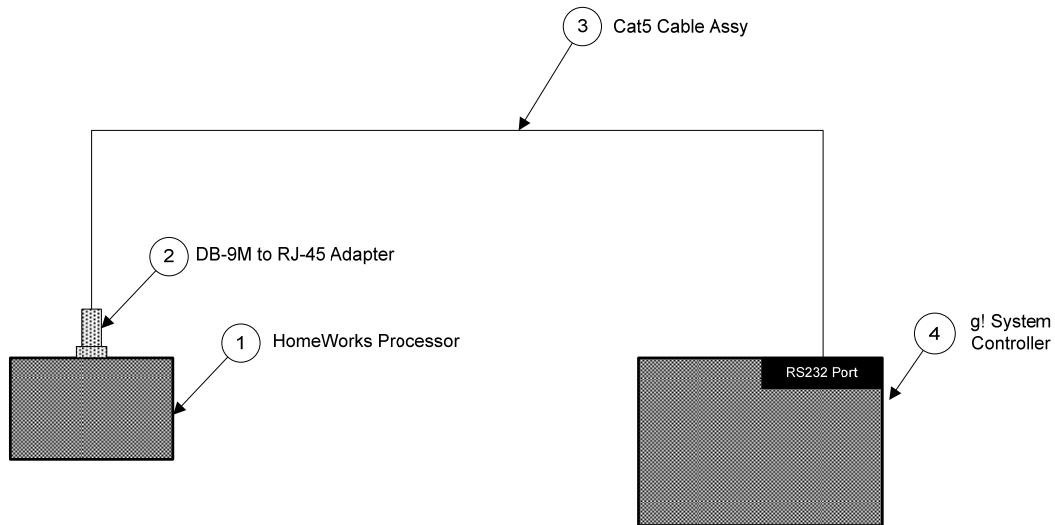
BILL OF MATERIALS

#	Device	Manufacturer	Part Number	Protocol	Connector Type	Notes
1	HomeWorks Processor	Lutron	H-RFP-2P*	RS-232	DB-9 Female	*example of Lutron part number, refer to Lutron processors
2	DB-9M to RJ-45 Adapter	ELAN	HA-CB-307	RS-232	DB-9 Male X RJ-45 Female	
3	Cat5 Cable Assy.	Installer	N/A	RS-232	RJ-45 Male X RJ-45 Male	Must terminate all 8 conductors
4	g! System Controller	ELAN	Various (e.g. HC 12)	RS-232	RJ-45 Female	

LUTRON PROGRAMMING OVERVIEW

The following steps describe the process to change the default communication on the Lutron processor to 9600 baud, no hardware handshaking.

Step	Instructions	Comments
1	Press **Menu** on the HomeWorks processor to access the menu system.	Brings up the main menu.
2	Select **Setup**, then press **OK**.	Brings up the Setup menu.
3	Select **Serial Port Settings**, then press **OK**.	Brings up the Serial Port Settings menu.
4	Select the link used to connect to the **g!** system, the press **OK**.	Brings up the baud rate and flow control settings for the selected link.
5	Use the arrow keys to set the **Baud Rate** to **9600** and the **Flow Control** to **None**.	Use the up and down arrows to go between baud rate and flow control, then use the left and right arrows to change the setting.
6	Press **Done** to save your settings	The screen puts you back in the Serial Port Settings menu.
7	Press **Back** several times to exit the menu.	

g! CONFIGURATION DETAILS

The following table provides settings used in the **g!** Configurator. Please refer to the *Configurator Reference Guide* for more details.

- o   "<Select from list>"   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.

Refer to the **g! System Programming Details** below for additional information.

Devices	Variable Name	Setting	Comments
Communication Devices	**Name**	<User Defined> (Default: **Lighting**)	
	Type	**Serial Port**	
	Communication Type	**Standard Connection**	
	Location	<User Defined> (Not Required)	
	COM Port	<Select from list>	COM1, 2, 3 or 4
Lighting Interface	**Name**	<User Defined> (Default: **Lutron Homeworks Interactive**)	
	Device Type	**Lutron Homeworks Interactive**	
	Location	<Select from list> (Not Required)	
	COM Device	<Select from list> (Default: **Lighting**)	
<Auto-Detect Devices>	Press a button on a Lutron keypad to begin the automatic discovery process.		
Lighting Devices	**Name**	<Auto Detect>	Press a button on a keypad to start auto detect
	Lighting Interface	<Auto Detect>	
	Device Type	<Auto Detect>	
	Location	<Select from list> (Not Required)	
	Station / Enc / Mod / LD	<Auto Detect>	
Keypads	**Name**	<User Defined>	
	Lighting Interface	<Auto Detect>	
	Keypad Type	<Auto Detect>	
	Location	<Select from list> (Not Required)	

g! System Programming Details

Once you have completed the initial configuration steps above, complete the following steps to get the keypads in the **g!** system to match the physical keypads on the wall.

Step	Instructions	Comments
1	Automatically detect devices	Press a button on the dimmers or keypads in the Lutron system. Wait for the system to complete detecting all of the devices.
2	Select the first keypad	In the tree structure under **Keypad Interfaces** at left, select the first keypad. This displays the keypad's properties (and template) in the properties window at right.
3	Set the keypad's name	In the properties window at the top, enter the desired name for this keypad and press Enter.
4	Set the keypad template	Click the **Ch. Temp.** button at upper right: in the pop-up dialog, select the correct keypad template in the list and click **OK**. The template now appears in the properties window for the selected keypad.
5	Set the button names	Click the **Edit Text** button at upper right. Type in the desired name and click **OK**. Repeat for the remaining buttons on the keypad.
6	Repeat for remaining keypads	

COMMON MISTAKES

1. Incorrect serial port settings on the HomeWorks processor:

    - For Core Module versions 4.0.388 and earlier, use 115200 baud and hardware flow control.

    - For Core Module versions 4.0.389 and later, use 9600 baud and no flow control.

2. Failing to plug the Cat5 cable assembly into the correct serial port. Make sure the RJ-45 connector is plugged into the correct serial port as specified in the Configurator.

3. Configuring 2 subsystems with the same serial port.