

Galaxy Hardware Quick Guide

HARDWARE PROGRAMMING & DIAGNOSTICS



635 Web Configuration Tool

JAN 2021
SG 11.7.0
(S28 11.0.7)

HARDWARE COMPATIBILITY

635 Web Configuration Tool v.1.x works with...

- 635 CPU only
- 635 Daughter boards
- 600 Daughter boards (with corresponding flash)

IMPORTANT: if you have a 600 CPU, you must use the 600 Configuration Tool.

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1 ~ 635 Configuration Tool – FEATURES & REQUIREMENTS

The 635 Web Configuration Tool (Web Tool) is the programming and diagnostic tool for the 635 Panel (ACP). A 635 Access Control Panel (635 CPU) and can have both 635 & 600 daughter boards intermixed.

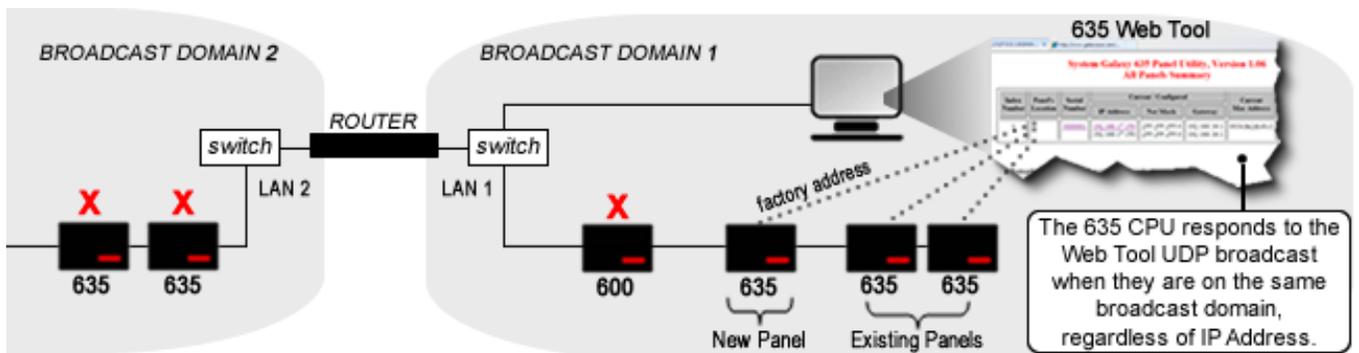
The 635 Web Tool consists of two components:

- 1) a **self-contained PC application** that connects with the panel's 635 CPU (see requirements below).
- 2) the **embedded web pages** that reside in the 635 CPU memory. 635 CPUs are shipped with a default (192.168.n.nnn) address and with the Web Enabled option ON.

Programming and Diagnostic Features:

- able to program 635 CPU's when they are on the same broadcast domain
- view & configure the *network connection settings and panel configuration* in a 635 CPU
- view & configure 635 & 600 daughter boards (i.e. DPI, DIO, DSI). Model 600 daughter boards must be running the corresponding flash version used in the 635 CPU.
- test the functionality of 635 & 600 daughter boards (i.e. toggle LED's, activate relays, etc.)

NETWORK DIAGRAM EXAMPLE:



NOTICE: The diagram above depicts a divided network, such as a LAN, VLAN, or any network that has multiple broadcast domains. The red-X indicates a panel that cannot **respond** to the Web Tool, either because it is not within the broadcast domain or is not a model that is supported by the 635 Web-Tool (e.g. 600 CPU).

IMPORTANT REQUIREMENTS

1. The **635 Web Tool** uses *Internet Explorer-8* (or later) or *Firefox 4* web browser.
2. The **PC 127.0.0.1 loop back address & UDP ports 8104, 8105, 8106** (these must be **unblocked**).
3. The **635 Web Tool** detects all 635 CPU's by their MAC Address provided the following is true:
 - Your PC/Laptop must be connected to the same broadcast domain as the 635 Panel(s).
 - The 635 CPU must be powered on and connected to the network.
 - **THE CABINET DOOR on the 635 Panel MUST BE OPEN (TAMPER SWITCH ACTIVE).**
4. The **635 Web Tool** can configure & test both 635 & 600 daughter boards if the following is true:
 - Boards must be powered ON and attached to the 635 CPU via the I2C bus (ribbon cable).
 - *Web Enabled* option must be ON (1) (factory default = ON; set in the Network Configuration).
5. The 635 Web Tool **cannot** detect a model 600 Panel (use the **600 Config Tool**).

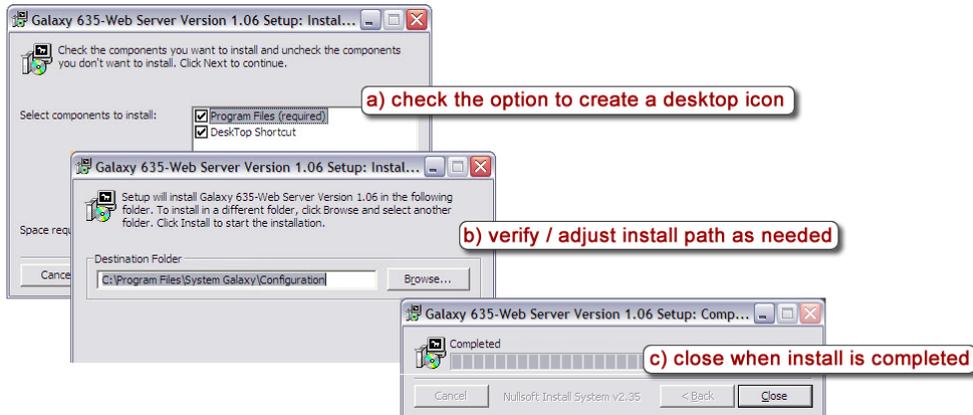
IMPORTANT: if the **Web Enabled** option is ON (checked), then the Panel Status can be viewed by typing the panel's IP Address into a browser address field. Programming and testing can only be performed if the door is open. If the **Web Enabled** option is OFF (UNchecked), then no programming or testing can be done.

2 ~ Installing the 635 Web Tool

- 1) The **Web Tool** install file is found on the SG-10 Install DVD. You can run the install file from the disk or copy it to the PC/Laptop before executing the file. Double-click the file to execute.



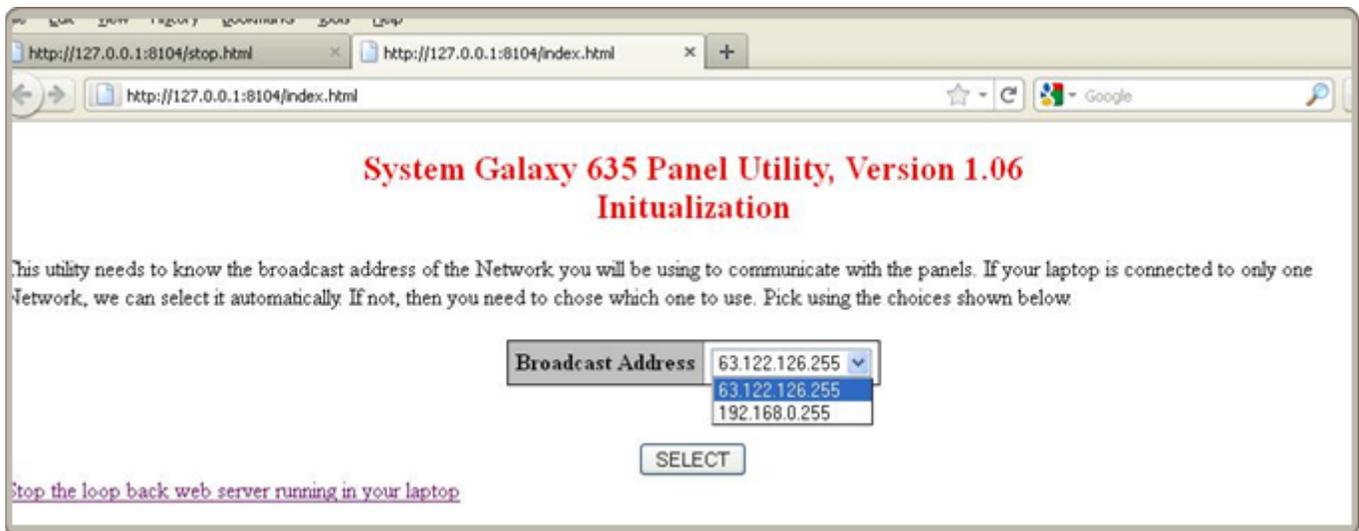
- 2) During the installation you must confirm the install path for the program. The install takes only a few seconds.



- 3) Start the Web Tool using the startup icon



- 4) **NOTE – if you have dual NIC cards, you must choose which NIC card to use.**



3 ~ Using the 635 Web Tool

QUICK STEPS

1. **Install the 635 Web Configuration Tool** on a PC that is connected to the same broadcast domain as the 635 panel/s you wish to program or test.
2. **Click desktop icon** to start the Web Tool (your default browser opens).



3. Select the correct NIC card if dual NIC cards are used.
4. The Config Tool automatically detects all 635 CPU's by MAC address on your same domain if the CPU's **web enable** option is ON (factory default). IF turned off, you must use Putty or HyperTerminal.
 - a. **Click the Serial Number** of the panel to Configure Network parameters of the CPU.

~OR~

- b. **Click the IP Address** to view Panel Status screen and configure daughter boards.
 - View current programming, set Panel's Date/Time, see list of daughter boards.
 - Click the **Configure Panel link** to configure the Panel's Cluster and Unit IDs and program the Event Server connection settings.
 - Click the **board's Serial#** to configure or test the daughter boards.

The 'All Panel Summary' screen – (LIST OF DETECTED 635 PANELS)

The All Panel Summary (home) page opens in your default browser.

635 Panels must be powered up, connected to the same broadcast domain, and the **CABINET DOOR on the Panel MUST BE OPEN (TAMPER SWITCH ACTIVE)**.

Index Number	Panel's Location	Serial Number	Current / Configured			Current Mac Address	Web Enabled	DHCP Enabled
			IP Address	Net Mask	Gateway			
1		3000001	192.168.17.150 192.168.17.150	255.255.255.0 255.255.255.0	192.168.16.1 192.168.16.1	00:0cfa:2dc6:c1	1	0

Click Serial Number to open Network Config screen:
 ~ view & change IP Address/ network settings of CPU
 ~ enable & disable Web and DHCP options

Click IP Address to open Panel Status screen:
 ~ view & change panel configuration
 ~ synch panel time with PC/Server
 ~ configure and test daughter boards

CPU's current network settings

Web and DHCP options are shown for convenience (1=enabled)
 NOTE: click Serial Number to change these options

The 'Network Configuration' – (PANEL NETWORK SETTINGS)

This screen allows you to view the current network settings and to give the 635 Panel a descriptive name (location) and configure the network settings.

- ❖ From **All Panels Summary** page, click on the Panel's **Serial Number** to open **Network Configuration** screen.
 - **UPDATE button** – sends (posts) your changes to the panel (CPU).
 - **CANCEL button** – clears changes to fields before update; resets fields to the values in the panel. Cancel will not undue changes you already updated.

Network Configuration

serial number	3000001
Location	<input type="text"/>
Configured IP Address	192.168.17.150
Configured Net Mask	255.255.255.0
Configured Gateway	192.168.16.1
Mac Address	00:0c:fa:2d:c6:c1
Use default MAC address	<input type="checkbox"/> Enabled
Web Server	<input checked="" type="checkbox"/> Enabled
DHCP	<input type="checkbox"/> Enabled

FIELD DEFINITIONS

- The **Serial Number** of the board cannot be changed (this is a factory setting).
- **Location field:** enter a descriptive name for the location of the panel (e.g. Lobby, Front Door, 1st Floor, etc.).
- **IP Address:** displays current IP Address in the board. Type an IP Address that is valid for your network.
- **Network Mask:** displays current Mask. Type a network mask that is valid on your network.
- **Gateway:** displays current Gateway. Type a gateway address that is valid on your network..
- **Mac Address:** It is not recommended to change this. The first 3 octets are fixed. The last 3 octets can be changed.
- **Use default MAC Address:** when checked, this option returns the panel to its default MAC address.
- **DHCP:** when enabled (checked), the CPU will obtain its IP Address dynamically – DHCP Server must be online.
- **Web Server:** when checked (ON), the technician can access all configuration and diagnostic screens. This option must be ON in order to configure the CPU's Cluster, Unit and Event Server settings, as well as configure and test the daughter boards. When unchecked, the browser will return a '**404 Page cannot be displayed**' for all screens except the Summary and Network Configuration screen shown here.

The 'Panel Status' screen – (STATUS OF CPU & DAUGHTER BOARD)

This screen shows the Panel's current settings and connection status to the Event Server as well as useful statistics such as flash version, number of users (cards), unacknowledged logs, and date/time (real-time).

- ❖ From the All Panels Summary page, click on the CPU IP Address to open the Panel Status screen.

TIP: if you do not have the Web Tool installed and you know a panel's IP Address, you can type it into the browser address window. The panel door must be open. Web Enabled option must be ON/checked.

Panel's current configuration

Model Number:	635
Local Date/Time:	00:09:55 06/10/2011 Set Date/Time
Unit No:	001
Cluster No:	001
Serial Number:	03000001
Software Version:	4.68y
CPU Number is:	1
Extended Card Mode:	No
Number of Users:	2061482948
Unacknowledged Logs:	8

click button to send PC time to Panel

Event Server Configuration				
No.	Status	Server IP	Server Port	Local Port
0	Connected	192.168.17.2	3001	3001
1	Not Used			
2	Not Used			
3	Not Used			

Attached Boards						
Serial#	Board#	Status	Board Type	Version	Using CPU	Flash Update
3005697	16	NORMAL	635-DPI	4.68y	1	n/a

click Serial# to configure & test a board
status updates while board is actively updating flash

[All Panels Summary](#)
[Panel Configuration](#) click link to open Panel (CPU) Configuration screen

You can open the **Panel Configuration** and Daughter Board **Configure/Test screens** from this page.

IMPORTANT: Flash version of daughter boards should match the CPU. If the board needs to update, make sure the **Auto Update** option is enabled. A board can take up to 10 minutes to begin flashing once it is connected to the IC2 BUS by ribbon cable, provided it has a valid ID. **DO NOT INTERRUPT POWER DURING THE FLASHING CYCLE. The Panel Status screen will show the flashing status. Screen refreshes automatically or F5 on your keyboard will force a screen refresh.**

The 'Panel Configuration' – (CPU PROGRAMMING)

This screen allows the technician to change the Panel's current configuration and connection parameters to the Event Server.

- ❖ From the **Panel Status** screen, click on the **Panel Configuration link** (at the bottom of the screen) to open the **Panel Configuration** screen.
 - **UPDATE button** – sends (posts) your changes to the panel (CPU).
 - **CANCEL button** – clears changes to fields before update; resets fields to the values in the panel. Cancel will not undue changes you already updated.

Panel Configuration

New configuration data has been saved in flash

Location:	
Cluster ID (1-254):	<input type="text" value="1"/>
Unit ID (1-254):	<input type="text" value="1"/>
CPU Number (1-2):	<input type="text" value="1"/>
Encryption Phrase:	<input type="text" value="chose a phrase"/>
Ethernet Speed/Mode:	<input type="text" value="0"/> [0=auto, 1=100FD, 2=100HD, 3=10FD, 4=10HD]

Panel Options
<input type="checkbox"/> Enable Encryption of all message traffic
<input checked="" type="checkbox"/> Enable a web server on this CPU
<input type="checkbox"/> Obtain an IP address dynamically
<input type="checkbox"/> Use Extended Card Format

Event Servers	635 Port	Server Port	Server IP Address
<input checked="" type="checkbox"/> Server 1	<input type="text" value="3001"/>	<input type="text" value="3001"/>	<input type="text" value="192.168.17.2"/>
<input type="checkbox"/> Server 2	<input type="text" value="3001"/>	<input type="text" value="3001"/>	<input type="text" value="255.255.255.255"/>
<input type="checkbox"/> Server 3	<input type="text" value="3001"/>	<input type="text" value="3001"/>	<input type="text" value="255.255.255.255"/>
<input type="checkbox"/> Server 4	<input type="text" value="3001"/>	<input type="text" value="3001"/>	<input type="text" value="255.255.255.255"/>

[All Panels Summary](#)
[Panel Status](#)

NOTES

- The panel Cluster ID and Unit ID must match the ID's in the customer's database. The Unit ID must be unique within the cluster. CPU Number should be 1.
- Encryption Phrase (if used) must match the phrase programmed at the Event Server. All panels on the same Event Server must match.
- Typically you will configure one Event Server IP address. Port 3001 is the default port and must be unblocked. Additional Event Servers provide redundancy in case the first event server is turned off. The panel will switch to the next available server. (if used, all encryption phrases must match)
- The Event Server IP Address **must** be a static IP address.

The 'DPI Configure & Test' – (READERS)

This screen allows the technician to configure and test the DPI programming

- ▶ Note: a 635 DPI uses a dipswitch to manually set a Board Number and Automatic Flash Update option.
 - ▶ Both a 635 DPI and 600 DPI can be tested from this screen.
- ❖ From the **Panel Status** screen, click on the **Serial#** link (in the table of attached boards) to open the **DPI Configure and Test** screen.
- **UPDATE CONFIGURATION button** –sends changes to the panel.

Board configuration requested by serial number

Configuration Options	
Local Date/Time:	09:02:41 06/10/2011
Serial Number:	2001247
Software Version:	4.69a
Board Number (1-16):	<input type="text" value="4"/>
Automatic Flash Updates:	Enabled ▾
<input type="button" value="update configuration"/>	

Section One Testing	
Reader Type	Weigand ▾
Relays	Both Off ▾
LED	Off ▾
Door Sense	No Resistors ▾
Start of Code Bits:	<input type="text" value="0"/>
End of Code Bits:	<input type="text" value="48"/>
Card Status:	000000000000000002C04A61
Door Status:	closed
Rex Status:	Off

Section Two Testing	
Reader Type	Weigand ▾
Relays	Both Off ▾
LED	Off ▾
Door Sense	No Resistors ▾
Start of Code Bits:	<input type="text" value="0"/>
End of Code Bits:	<input type="text" value="48"/>
Card Status:	
Door Status:	open
Rex Status:	Off

NOTES

- You can activate the Relays independently or all at once (per Section).
- You can toggle LED1 on the reader (reader must be connected).
- You can test the Door Sense, Door Status, and Rex Status from this screen (devices must be connected).
- Card Status displays the raw card data when it is presented to the reader. You can choose the start and stop bits you desire to capture.

The 'DIO Configure & Test' – (INPUT/OUTPUT BOARD)

This screen allows the technician to change the DIO programming and test the inputs and outputs.

- ❖ From the **Panel Status** screen, click on the **Serial#** link of the DIO board (in the table of attached boards) to open the **DIO Configure and Test** screen.
 - **UPDATE CONFIGURATION button** –sends changes to the panel.

600-DIO Configure and Test

Board configuration requested by serial number

Configuration Options	
Local Date/Time:	09:04:29 06/10/2011
Serial Number:	2300075
Software Version:	4.69a
Board Number (1-16):	<input type="text" value="5"/>
Automatic Flash Updates:	<input type="button" value="Enabled"/>
<input type="button" value="update configuration"/>	

Relay Controls			
One	<input type="button" value="On"/>	Two	<input type="button" value="Off"/>
Three	<input type="button" value="Off"/>	Four	<input type="button" value="Off"/>

Inputs	Normal	Alternate
One	182	123
Two	183	124
Three	0	0
Four	0	0
Five	0	0
Six	0	0
Seven	0	0
Eight	0	0

[All Panels Summary](#)
[Panel Status](#)

NOTES

- You can activate the 4 output Relays independently.
- When inputs are activated the board reports the threshold values (input device must be connected).

The 'DSI Configure & Test' - (LCD Display)

This screen allows the technician to change the DSI programming and test the LCD Display ability to display the maximum 4 lines of text or large clock format. You can set the unit address of the LCD also.

- ❖ From the **Panel Status** screen, click on the **Serial#** link of the DSI board (in the table of attached boards) to open the **DSI Configure and Test** screen.
 - **UPDATE CONFIGURATION** button –sends changes to the panel.

To Test the LCD DISPLAY...

Board configuration requested by serial number

Configuration Options	
Local Date/Time:	08:49:30 06/10/2011
Serial Number:	2400501
Software Version:	4.69a
Board Number (1-16):	5
Automatic Flash Updates:	Enabled
<input type="button" value="update configuration"/>	

Selection Testing	
Section	Two
Function	4x20 LCD Display
<input type="button" value="Apply"/>	

click APPLY

select the section
select the LCD Display

DSI Section 2 set to drive LCD Display

LCD Status		LCDs RS-485 Address	
Address	Found	Old Address	New Address
1	no	02	01
2	yes	<input type="button" value="Change Address"/>	
3	no		
4	no		
5	no	<input checked="" type="radio"/> Text Display <input type="radio"/> Large Clock	
6	no		
7	no		

set the new address of the LCD

toggle the LCD to show text or clock

[All Panels Summary](#)

[Panel Status](#)

NOTES

- The LCD Display Unit must be physically connected to the correct DSI 485 section (one or two) you are testing.
- You must select the 485 Section (1 or 2) and set the type of device to **4 x 20 LCD Display** and click APPLY, in order to view/update the LCD addressing and test the ability to display clock or text.
- To **change the address of an LCD**, choose the OLD Address (current address) and set the NEW Address to the desired value, then click the CHANGE ADDRESS button.
- When the **new address** is set, the **LCD Found Status** will change to YES.

The 'DSI Configure & Test' - (Cypress Time Clock)

This screen allows the technician to change the DSI board programming as well as test the Cypress Clock's ability to accept a time update.

- ❖ From the **Panel Status** screen, click on the **Serial#** link of the DSI board (in the table of attached boards) to open the **DSI Configure and Test** screen.
 - **UPDATE CONFIGURATION button** –sends Board Number and Auto Update settings to the DSI.
 - **APPLY button** –sends PC time to the Cypress Time Clock/s on the selected channel.

Board configuration requested by serial number

Configuration Options	
Local Date/Time:	60:94:69 28/110/111198
Serial Number:	2400670
Software Version:	4.69a
Board Number (1-16):	<input type="text" value="5"/>
Automatic Flash Updates:	Enabled <input type="button" value="v"/>
<input type="button" value="update configuration"/>	

Selection Testing	
Section:	One <input type="button" value="v"/>
Function:	Cypress Time Clock <input type="button" value="v"/>
<input type="button" value="Apply"/>	

To Test Cypress Time Clock...

choose the section
select Cypress Time Clock

click APPLY button)

DSI Section 1 set to drive a Cypress Time Clock

NOTES

- The Cypress Clock Unit must be physically connected to the DSI 485 section you are selecting (one or two) in order to set the time.
- Up to 32 Cypress Clocks can be connected on one DSI 485 channel.

The 'DSI Configure & Test' - (RELAY OUTPUT or ELEVATOR OUTPUT BOARD)

This screen allows the technician to change the DSI programming and test the ability to engage and disengage relays on the RELAY OUTPUT or ELEVATOR OUTPUT boards.

❖ From the **Panel Status** screen, click on the **Serial#** link of the DSI board (in the table of attached boards) to open the **DSI Configure and Test** screen.

- **UPDATE CONFIGURATION** button –sends changes to the panel.

To Test the OUTPUT board...

Board configuration requested by serial number

Configuration Options	
Local Date/Time:	08:45:23 06/10/2011
Serial Number:	2400501
Software Version:	4.69a
Board Number (1-16):	<input type="text" value="5"/>
Automatic Flash Updates:	<input type="button" value="Enabled"/>
<input type="button" value="update configuration"/>	

Selection Testing	
Section:	<input type="button" value="Two"/>
Function:	<input type="button" value="Relay Boards"/>
<input type="button" value="Apply"/>	

select the section
select RELAY BOARDS
~ OR ~
ELEVATOR BOARDS

click APPLY

DSI Section 2 set to drive Relay Boards

Automatically Ripple Relays

rBrd #	Found	R1	R2	R3	R4	R5	R6	R7	R8
1	yes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
2	no	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
3	no	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					

↑ YES indicates the board is connected using shown address (1, 2, etc)

RELAY BOARDS are addressed using the on-board dip switch

NOTES

- The Relay Board must be physically connected to the DSI 485 section you are selecting (one or two).
- Relay Boards must have a unique board number within the 485 channel (1-16); set using the onboard dipswitch.
- In the Testing options, you must select the section you wish to test; and either Relay Boards or Elevator Boards and click APPLY, in order to test the relays on each board.
- You can test the boards with the Automatic Ripple option; relays will toggle on and off in a sequential order. Or you can individually select a specific relay; checking the relay activates it, while unchecking the relay will deactivate it.
- Each relay has an LED that turns on when the relay is activated and turns off when the relay is deactivated.

The 'DSI Configure & Test' - (SCHLAGE PIM WIRELESS)

This screen allows the technician to change the DSI programming and test the DSI ability to connect to the PIMs and control WAPM Door functionality.

- ❖ From the **Panel Status** screen, click on the **Serial#** link of the DSI board (in the table of attached boards) to open the **DSI Configure and Test** screen.
 - **UPDATE CONFIGURATION** button –sends changes to the panel.

Board configuration requested by serial number

Configuration Options	
Local Date/Time:	11:32:35 06/14/2011
Serial Number:	2400670
Software Version:	4.69a
Board Number (1-16):	5
Automatic Flash Updates	Enabled
<input type="button" value="update configuration"/>	

To Test Schlage PIM/WAPMs...

Selection Testing	
Section	One
Function	Schlage Wireless Access
<input type="button" value="Apply"/>	

choose the section
select Schlage Wireless

click APPLY button)

DSI Section 1 set to drive Schlage Wireless Access

choose type of reader (prox/mag stripe)

SCAN for PIMs or WAPM Status

Prox Cards

Unlock doors with any credential

CHECK this to unlock doors using any credential.

Reader No (wapm#)
Card, Door and REX status are shown

Door/Reader Activity	
Reader No:	
Card Status:	
Door Status:	
Rex Status:	

[All Panels Summary](#)
[Panel Status](#)

NOTES

- PIMs & WAPMs must be physically connected to the DSI 485 section that you select (i.e. one or two).
- PIMs & WAPMs must have a unique ID numbers within the 485 channel;
- You must program the PIM and Door numbers using the Schlage Programming Tool.