

N800

4" HANDHELD CONTROLLER

INSTALLATION MANUAL



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Safety

Switch On Safely

Do not switch the device on when wireless device use is prohibited or when it may cause interference or danger.

Interference

All wireless devices may be susceptible to interference, which could affect performance.

Road Safety Comes First

Obey all local laws. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety.

Switch Off In Hospitals

Follow any restrictions. Switch the device off near medical equipment.

Switch Off In Aircraft

Follow any restrictions. Wireless devices can cause interference in aircraft.

Switch Off When Refueling

Do not use the device at a refueling point. Do not use near fuel or chemicals.

Switch Off Near Blasting

Follow any restrictions. Do not use the device where blasting is in progress.

Use Sensibly

Use only in the normal position as explained in the product documentation.

Qualified Service

Only qualified personnel may repair this product.

Enhancements and Batteries

Use only approved enhancements and batteries. Do not connect incompatible products.

Water- Resistance

Your device is not water-resistant. Keep it dry.

Connecting To Other Devices

When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible products.

Additional Safety Information

Small Children

Your device and its enhancements may contain small parts. Keep them out of the reach of small children.

Operating Environment

This device meets RF exposure guidelines when used either in the normal use position or when positioned at least 1.0 centimeters (3/8 inches) away from the body. When a carry case, belt clip, or holder is used for body-worn operation, it should not contain metal and should position the device the above-stated distance from your body. To transmit data files or messages, this device requires a quality connection to the network. In some cases, transmission of data files or messages may be delayed until such a connection is available. Ensure the above separation distance instructions are followed until the transmission is completed.

Parts of the device are magnetic. Metallic materials may be attracted to the device. Do not place credit cards or other magnetic storage media near the device, because information stored on them may be erased.

Battery Information

This device uses a rechargeable battery. Please refer to Pages 50-53 of this manual for Charging/Discharging information, Battery Authentication procedure and Removal and Replacement information.

Care and Maintenance

Your device is a product of superior design and craftsmanship and should be treated with care. The following suggestions will help you protect your warranty coverage.

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, remove the battery, and allow the device to dry completely before replacing it.
- Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- Do not attempt to open the device other than as instructed in this guide.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Do not paint the device. Paint can clog the moving parts and prevent proper operation.
- Use a soft, clean, dry cloth to clean any lenses, such as camera, proximity sensor, and light sensor lenses.
- Use chargers indoors.
- To reset the device from time to time for optimum performance, power off the device and remove the battery.

These suggestions apply equally to your device, battery, charger, or any enhancement. If any device is not working properly, take it to the nearest authorized service facility for service.

Cleaning

To clean the N800's screen, turn the unit OFF using the **Power** button. First use a soft dry cloth to remove contamination. If dirt is still present, use a damp cloth that has been squeezed of excess water. Use of strong chemicals and/or some cleaning agents may discolor the polyester film that makes up the touch screen.

Contents

Safety	2
Care and Maintenance	3
1. Introduction	5
Features	5
Quick Reference.....	6
Callouts	7
2. System Design & Applications	10
Pre-Wire	11
Applications	12
3. Connections	17
System/Interface Connections	18
4. Operation/Setup	21
Device Control.....	22
System Setup	24
Web Browser	47
Battery Information.....	50
5. Troubleshooting	53
Appendix A: Specifications	54
Appendix B: Programming	54
Appendix C: Wireless Networks	55
Warranty	Back Page

1. Introduction

The N800 4" Handheld Controller provides an intelligent, affordable solution for controlling audio, video, and automation equipment in a multi-room environment or as a stand-alone controller (in a Home Theater, for example). The N800 4" Handheld Controller provides the freedom to control home theater lighting, drapes, blinds HVAC, security and more from anywhere in the home using a standard 802.11b/g WiFi wireless network. An ELAN SS1 System Station is required for two-way RS-232 feedback and control.

Touch Screen Technology

The N800 utilizes a polyester plastic film suspended over a glass panel which is then adhered to the front of a color LCD (Liquid Crystal Display) screen. Depressing the polyester film with the included stylus allows the film to touch the glass panel underneath, generating a location signal that is read by the electronics. The color LCD display is an active matrix TFT Liquid Crystal Display. Please use fingers or the included stylus only when operating this unit. Do not use pens, pencils, etc. as these may damage the polyester film.

Features

- **Portable Handheld Control of ELAN Systems**
- **2- Way Feedback From Most ELAN Entertainment Sources**
- **Easy, Powerful VIA!®TOOLS Programming**
- **2- Way Feedback From Supported ELAN Integration Partners**
- **High- Resolution Widescreen Display**
- **Web Browser With Flash Support**
- **Zoom, Full- Screen and Panning Functions**
- **Easy Internet Connection over Wi- Fi®**
- **Auto Connections to Saved Wi- Fi Hot Spots**
- **Matching VIA!® and Olé™ Skins**
- **Built- In Stereo Speakers**
- **Integrated Desk Stand**
- **IR and RS- 232 Control Options With SS1 System Station**
- **Rechargeable Internal Battery**

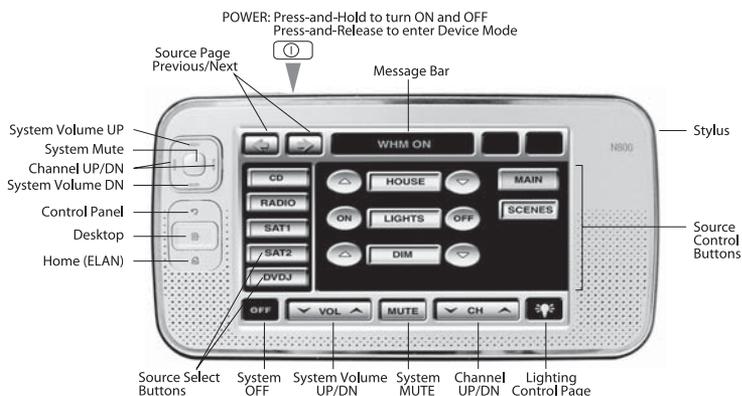
N800 Quick Reference Card

The N800 is packaged with a Quick reference Card to allow users to quickly access all of the features of the unit.

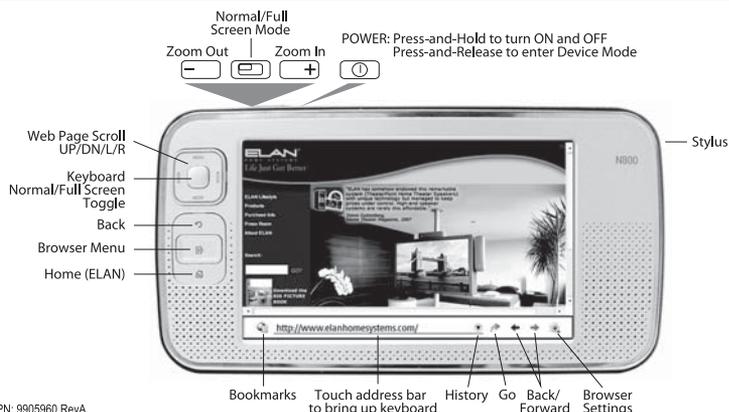


QUICK REFERENCE GUIDE

ELAN System Control



Web Browsing



PN: 9905960 RevA

Figure 1.1: Quick Reference Card

Handheld Controller Callout

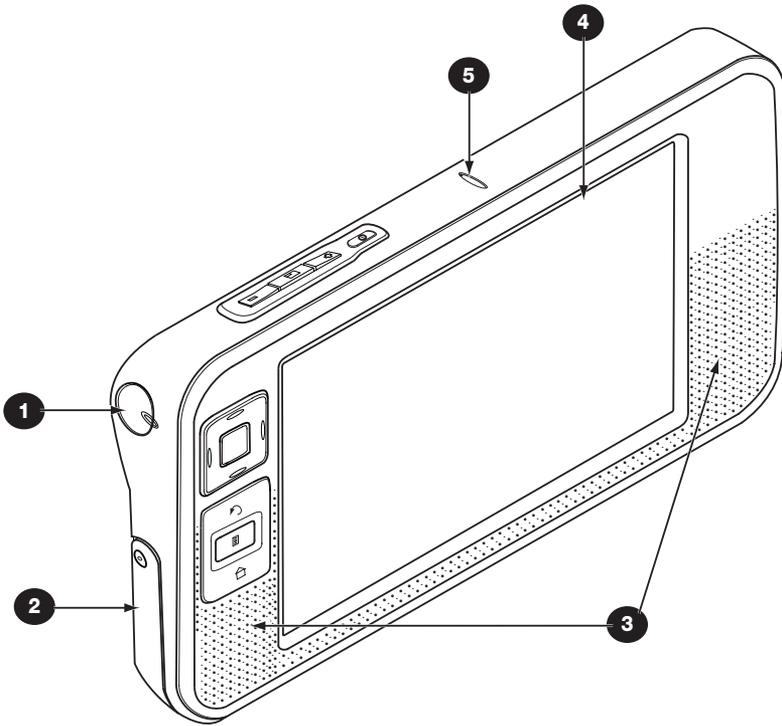


Figure 1.2: N800 Callout

Item #	Item	Description
1	Web Cam	Not Used
2	Integrated Desk Stand	Allows support for tabletop use
3	Speakers	Provides sound for web browsing
4	Touch Screen	4.13" LCD
5	Microphone	Not used

Hardware Keys-Front

A key press refers to the press and release of a key. Some actions depend on the length of the key press.

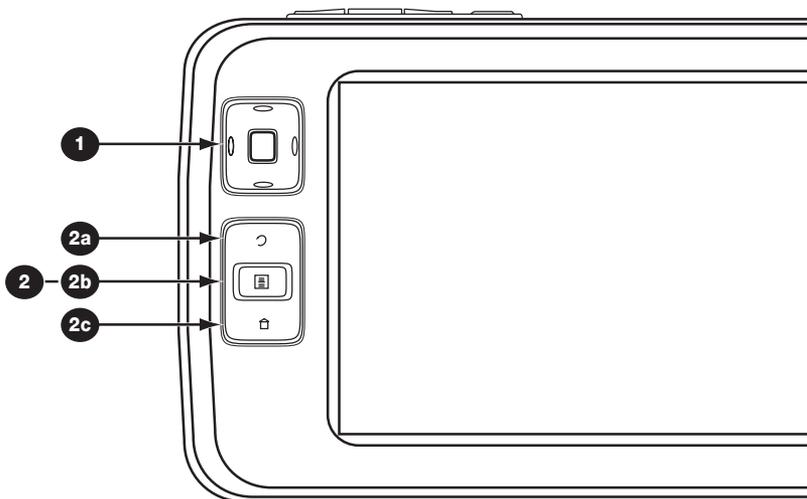


Figure 1.3: Hardware Keys - Front

Item #	Button	Description
1	Scroll Key	Web Browser Application: Moves the focus from item to another in the respective direction. Press the center of the scroll key to activate the highlighted item, and to accept confirmation notes. ELAN System Control: Top and bottom key press controls System Volume UP/DOWN respectively. Side to side presses control Channel UP/DOWN. Press the center of the scroll key for System MUTE.
2	Task Navigator	
2a	Escape Key	Web Browser Application: Back ELAN System Control: Access Control Panel About/ELAN Devices/Settings/Installer
2b	Menu Key	Web Browser Application: Browser Menu ELAN System Control: Desktop
2c	Home Key	Access VIA! Application

Hardware Keys-Top

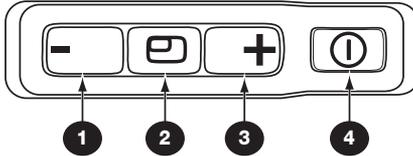


Figure 1.4: Hardware Keys - Top

Item#	Button	Description
1	Zoom -	Web Browser Application: A short keypress changes the zoom level of the current view, and adjust the volume down in audio applications.
2	Full Screen	Web Browser Application: A short keypress switches between full screen and normal screen modes.
3	Zoom +	Web Browser Application: A short keypress changes the zoom level of the current view, and adjust the volume up in audio applications.
4	Power	A short keypress opens the Device Mode dialog. A long keypress turns the N800 ON or OFF.

Side Panel

The Side Panel of the N800 features ports for connection of USB, Power and Headphones/Audio. There is also storage for the Stylus.

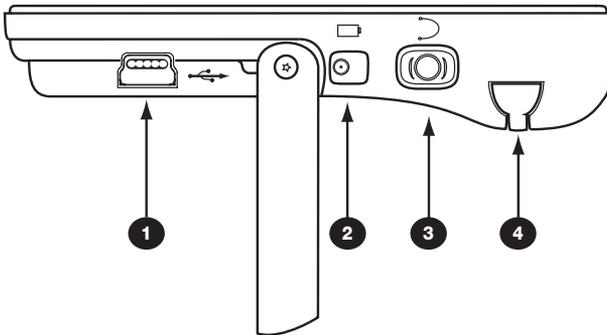


Figure 1.5: Connections - Side Panel

Item #	Port/Item	Description
1	Mini USB	Not available for use in this application
2	Power Connector	5 VDC 890mA wall transformer connection
3	Headphone Connector	3.5mm Stereo mini connection
4	Stylus	Removable stylus for tapping touch screen.

2. System Design & Applications

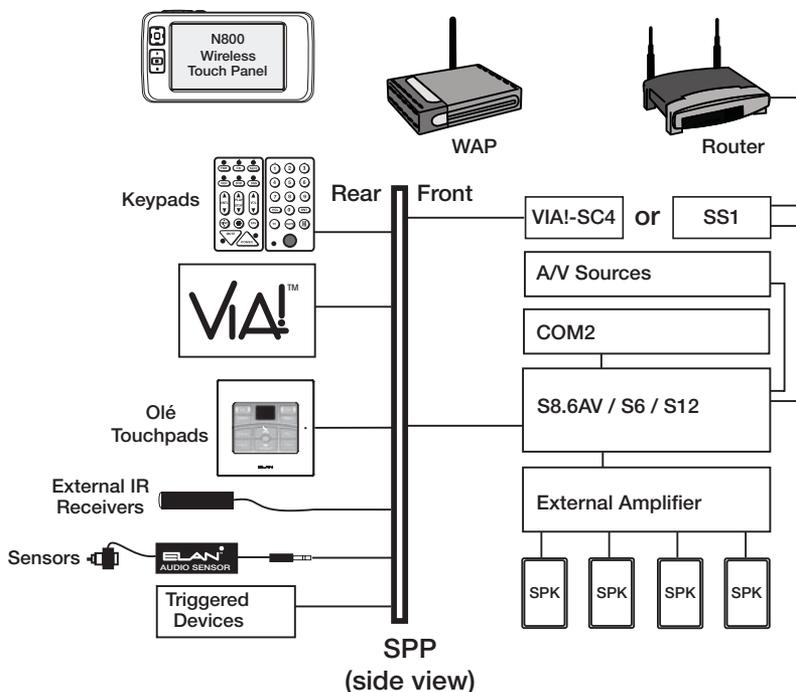


Figure 2.1: System Overview

The first step to a good design is to map the system. It is advisable to mark up a copy of the house floor plan with speaker, keypad, touch panel, touchpad, volume control, and equipment locations, etc. Make sure that all locations are decided upon before pre-wiring commences so that all necessary wiring and installation hardware is in place. This unit will be interfacing with other components such as relay-controlled devices, source components, sensors, serial controllers, and user interfaces, so it is essential that ALL system components are accounted for prior to the pre-wire stage.

Secondly, make a detailed list of all components. Include source equipment, touch panels, touchpads, keypads, RS-232 controlled devices, relay controlled devices, power supplies, sensors, and the SS1 System Station itself. Be sure to include necessary electrical boxes, structured wiring enclosures, telephone lines, rough-in brackets, ELAN Precision Panels, patch cables, etc.

Pre-Wire

Pre-wiring for the SS1 System Station requires careful system planning. Pay close attention to where each component will be located and ensure that the appropriate wires are run to the correct locations! Make sure to plan for the future. It is often advantageous to pre-wire for components that may be installed later.

Wireless Access Points

Wireless Access Points (WAPs) take information originating from a wireless N800 Handheld Controller and send it to the system's router. Keep in mind that local conditions and different WAP ranges will make each installation different. Test the range before finalizing the installation locations of WAPs. Use Cat-5 cable to connect the WAP to the router.

Router

A Router (wired or wireless) is the heart of the N800's communication system. Location of a wired router is not critical, as long as access is provided for connections and service. A wireless router must be located where its signal can reach the WAP and other wireless devices on the network. A router will typically share duties between the Handheld Controllers, ELAN VIA!dj Digital Music Servers, VIA!dvdj DVD Controllers, and any computers in the customer's home. Use Cat-5 cable to connect the Router to the SS1 System Station.

SS1 System Station

The SS1 System Station is an RS-232, IR, Sense and Relay controller. It also translates the N800's 8.02.11b/g WiFi commands into actions that can control system functions including Home Theater or a zone control of an ELAN multi-room system. Future software/feature-set enhancements to the SS1 are field-upgradeable through VIA!TOOLS setup software.

Applications

Stand-Alone/Home Theater

The N800 Handheld Controller can be used for any Stand-Alone (non-ELAN) system application or as a Home Theater controller. **Figure 2.1** shows a basic application

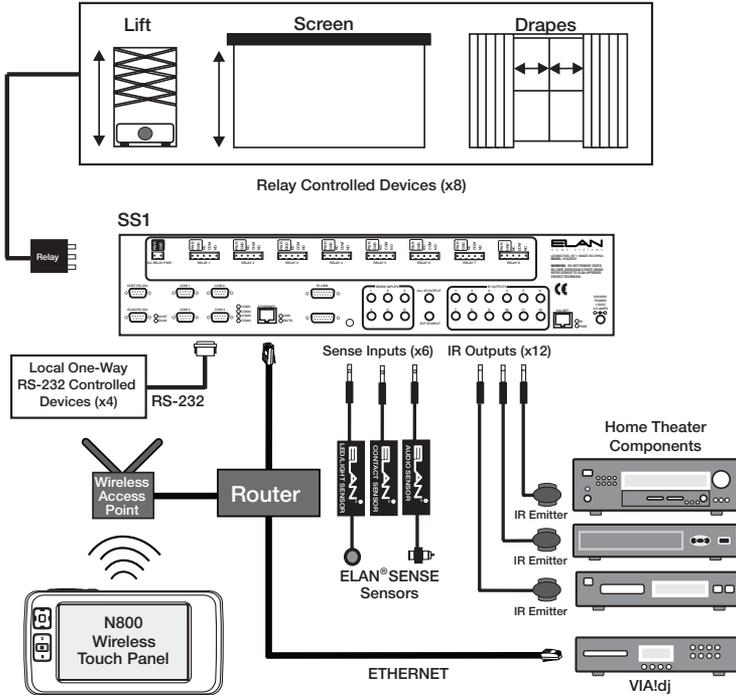


Figure 2.2: Stand-Alone/Home Theater Application

S12 Multi-Room A/V Controller

Use either ELAN's PS12 Precision Panel or SPP. **Figure 2.2** shows the N800 Handheld Controller and a PS12 or SPP connected to an ELAN S12.

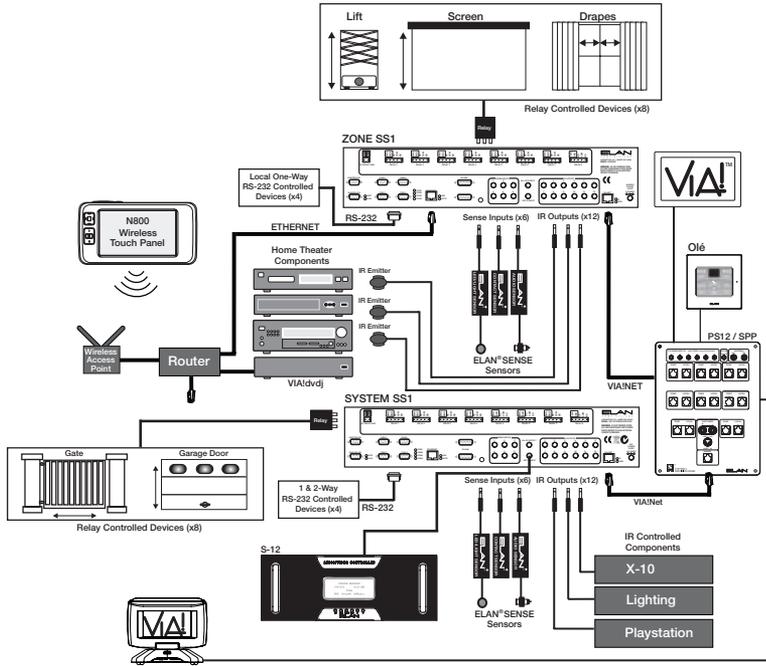


Figure 2.3: S12 Multi-Room A/V Controller Application

S8 Multi-Room A/V Controller

ELAN's SPP (System Precision Panel) is designed to work with any S Series Multi-Room controller. **Figure 2.3** shows the N800 Handheld Controller connected to a System8 (S8.6AV or S8.6AVP) Multi-Room A/V Controller using an SPP.

Note: The SPP can be used with ANY ELAN S Series Multi-Room Controller. Connections are identical for ELAN S6, S8 or S12 applications.

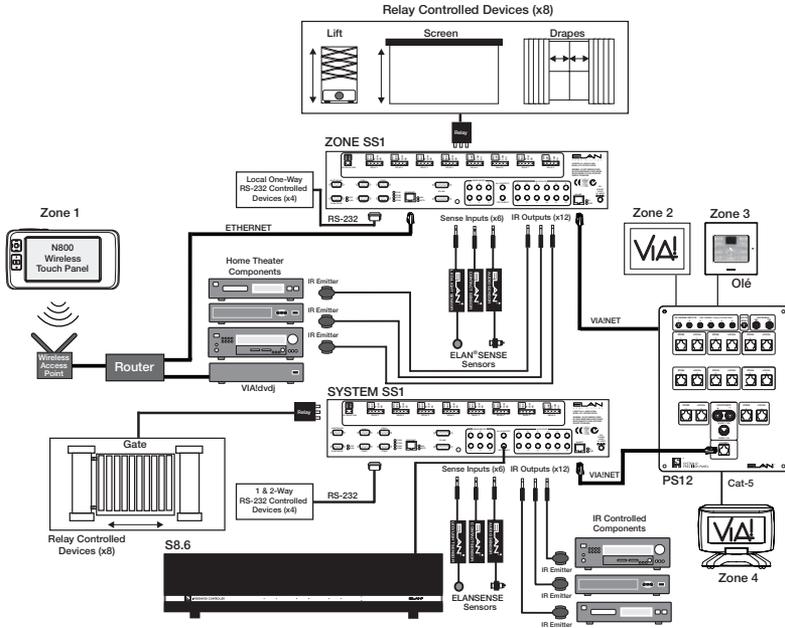


Figure 2.4: S8 Multi-Room A/V Controller Application

S6 Integrated Multi-Room Controller

Figure 2.4 shows the N800 Handheld Controller and an ELAN S6 controlling A/V sources, relay-controlled sources and RS-232-controlled sources.

Note: The SPP can be used with ANY ELAN S Series Multi-Room Controller. Connections are identical for ELAN S6, S8 or S12 applications. See Figure for details

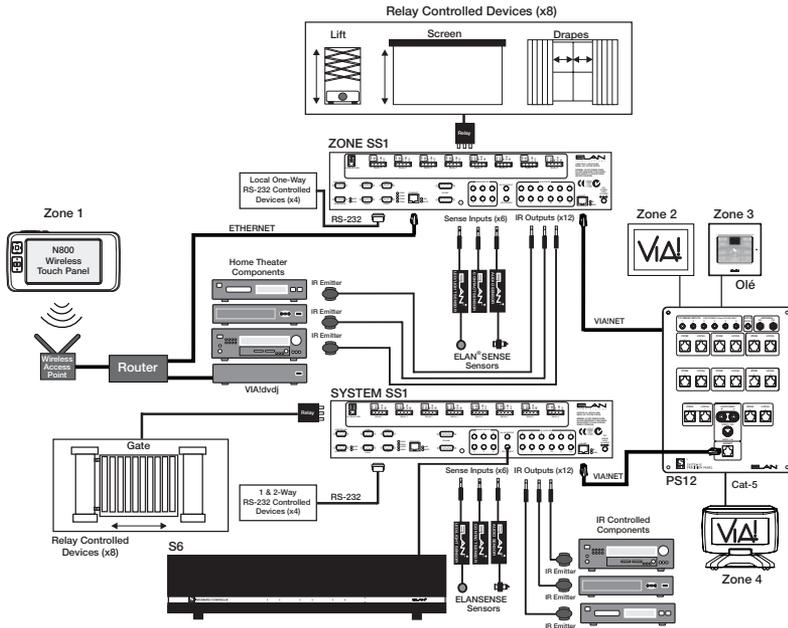


Figure 2.5: S6 Integrated Multi-Room Controller Application

Z•System

Advanced features like **Audio Detect** and **Spatial Enhancement** can be accessed using the N800 Handheld Controller in a ELAN Z•System. **Figure 2.5** shows how to configure the N800 using a PVIA10 and ZONE SS1 for a Z•System application.

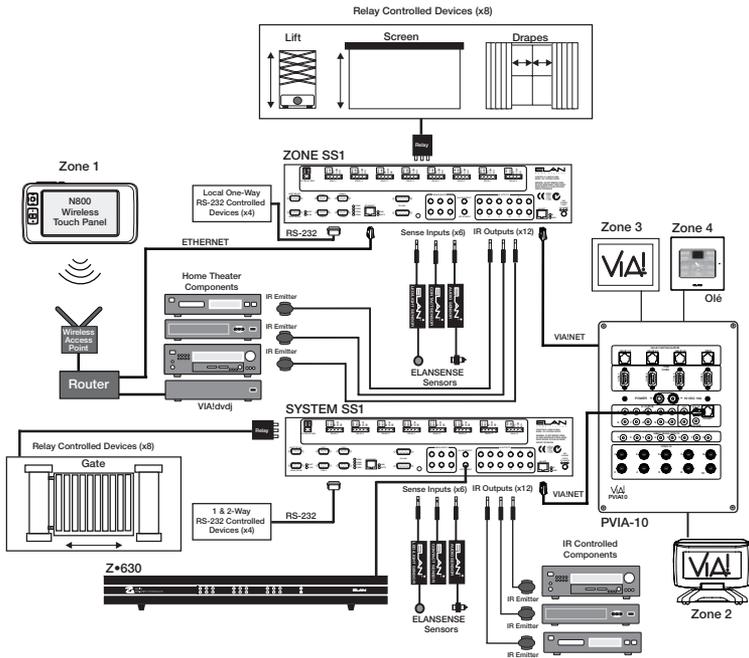


Figure 2.6: Z• System Multi-Room Controller Application

3.Connections

Power Connection

The battery recharges when connected to the included 5VDC 890mA wall transformer. The N800 will operate for approximately three hours of continuous use on a charge; ten days in Standby mode. The charger port is located on the right side of the panel as shown in **Figure 3.1**.

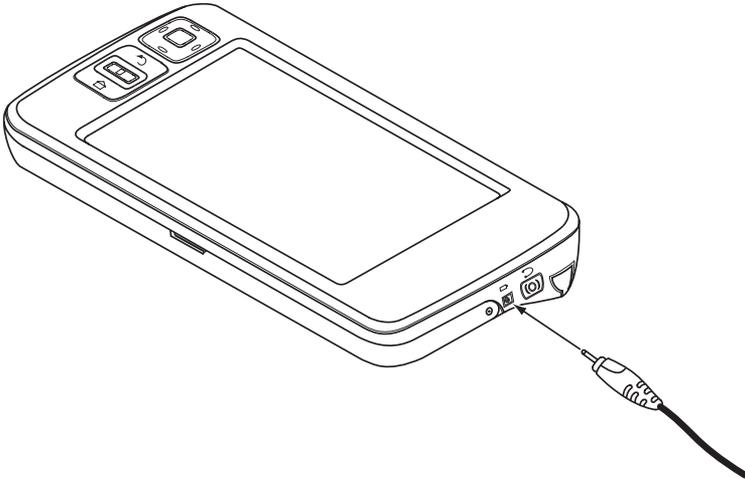


Figure 3.1: Power Connection

Headphone Connection

A 3.5mm stereo connection is provided for connecting stereo headphones when privacy is needed. When headphones are plugged in, the built-in speakers are disengaged.

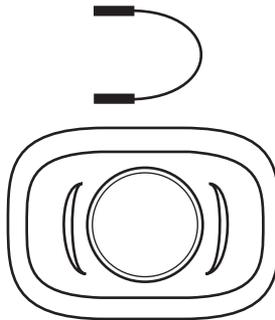


Figure 3.2: Headphone Connection

USB Port

This port is not currently used.

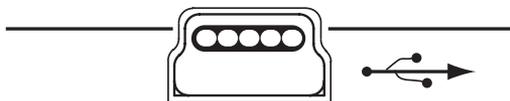


Figure 3.3: USB Port

System/Interface Connections

The N800 requires a VIA!SS1 System Station interface in order to function correctly.

SS1 System Station

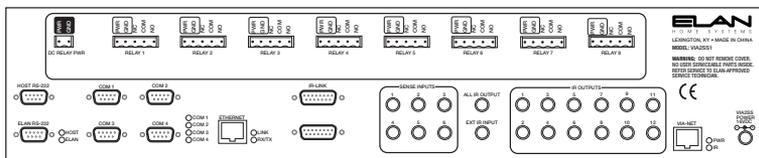


Figure 3.4: SS1 System Station

System Types

The VIA!SS1 System Station combines functions such as IR Routing, RS-232 control, relay activation and Ethernet control into a single device, allowing the N800 and other ELAN Handheld Controllers and wired VIA!s and Olé Touchpads to control many aspects of an A/V system and/or automation system. The SS1 has three primary application types:

- **STAND- ALONE** - Connection Hub for N800 Handheld Controllers in Stand- Alone/ Home Theater applications.
- **ZONE** - Connection Hub for N800 Handheld Controllers when used as a controller for a zone in an ELAN Multi- Room Controller- based system.
- **SYSTEM** - System Controller when connected to wired VIA! Touch Panels, Olé Touchpads and ZONE SS1 Connection Hubs.

Note: Please consult the SS1 Installation Manual for complete details of SS1 system configuration and installation.

Stand-Alone SS1

Stand-Alone applications typically use the SS1 as a Control Station/ Connection Hub for the N800 Handheld Controller. These applications can provide IR routing in order to control local IR sources (not part of an ELAN Multi-Room Controller-based system), one-way RS-232 devices that are not part of an ELAN Multi-Room Controller-based system, relay controlled devices, and perform intelligent ON/OFF commands through the Sense Inputs. A Wireless Access Point is used to relay information from the N800 Handheld Controller to the SS1.

Zone SS1

Zone applications consist of a wireless N800 Handheld Controller utilizing the SS1 as a Connection Hub when controlling a zone of an ELAN Multi-Room Controller-based system. ZONE applications can provide IR routing in order to control local IR sources, IR zone control, IR control of system-wide sources, one and two-way control of RS-232 devices, relay device control, and perform intelligent ON/OFF commands through the Sense Inputs. A Wireless Access Point is used to relay information from a N800 to the SS1.

System SS1

System applications are used when an SS1 is performing tasks outside of being the control center for the N800 Handheld Controller. Often, a System SS1 is linked to an ELAN Multi-Room Controller-based system. These applications can control local IR sources, system-wide IR sources, ELAN Multi-Room Controllers, one and two-way RS-232 devices, relay controlled devices, and perform intelligent ON/OFF commands through the Sense Inputs.

Zone SS1s (with N800 Handheld Controllers), wireless VIA![®] Touch Panels, wired VIA! Touch Panels, Olé[™] Film Interactive Touchpads, keypads, and hand-held remotes can all utilize functions of a System SS1.

SPP System Precision Panel

The SPP is designed to accommodate all connectivity required for S6, S8 and S12 installations, including N800s, VIA! Touch Panels and Olé Touchpads.

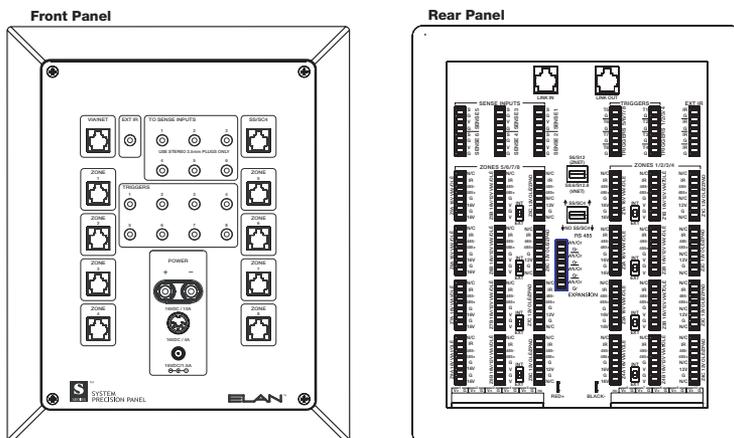
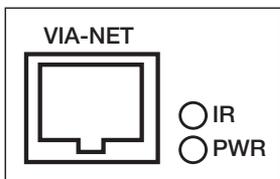


Figure 3.5: SS1 SPP System Precision Panel

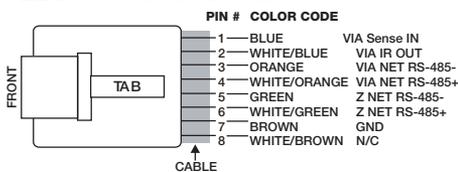
VIA!NET/ZNET

Use a Cat-5 wire with ELAN Standard RJ-45 pinout to connect the SS1 System Station to a system's VIA!NET or ZNET when installing ELAN devices including S6, S8, S12, and Z*630 Multi-Room Controllers and SC-4 System Controllers.

SS1



ELAN SS1 RJ-45 Pin-Out



Insert wires in this order:

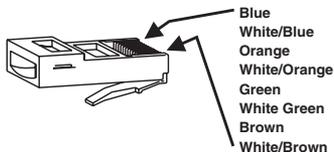


Figure 3.6: VIA!NET/ZNET

4. Operation/Setup

N800 Handheld Controllers are designed to be simple and intuitive to operate. Each source is custom programmed to work just the way the homeowner desires. ELAN recommends using the provided stylus to operate the touch screen. The stylus for the N800 touch screen is located in the upper right corner of the panel and slides out from the chassis easily

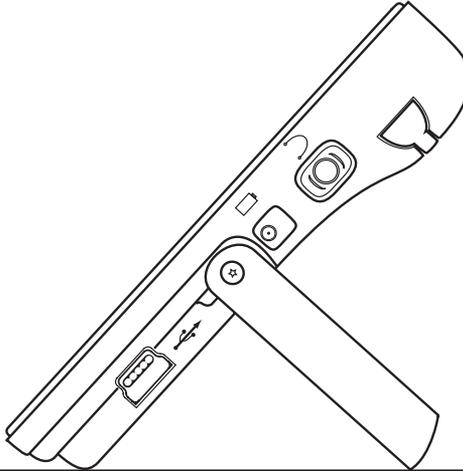


Figure 4.1: N800 Side View

Control Surfaces

The N800 Handheld Controller uses different display styles or “motifs”. Since every N800 can be designed to reflect personal preferences and the type of source components being utilized, button placement in the figure below may be different from the configuration you have designed.



Figure 4.2: N800 Control Surface

Device Control

The N800 can be controlled in two ways: tapping the screen with the stylus or pressing the hardware keys on the chassis.

Stylus

Using the stylus enables different functions depending on the context. The stylus can be used in the following ways (when using the **Web Browser**, **Shortcuts** and **Settings** pages):

- **Single Tap** - To activate controls and other interactive interface components, tap them once with the stylus. A single tap may open a list, activate a button in a dialog or a link on a web page, select a check box, and activate a text input method from a text field.
- **Highlight and Activate** - To highlight an item, tap it once with the stylus. To activate or open the item, tap it again.
- **Multiple Selection** - To select consecutive items, place the stylus on a non-highlighted item, and drag the stylus over the items. To add more items, place the stylus on a non-highlighted item and drag the stylus over the items. To remove a selection, tap a single item.
- **Drag and Drop** - To drag an item, hold the stylus down on a highlighted item, drag the item to its new location, and release the stylus.
- **Tap and Hold** - To activate a context-sensitive menu, briefly hold the stylus down on an item.

Keyboard

When a text field requires input, tapping the text input field will bring up the keyboard to allow login passwords and other information to be entered as shown in **Figure 4.3**.



Figure 4.3: Keyboard

Text Input

To begin text input, tap any text field with the stylus or your fingers. The text input area appears on the touch screen and displays the keyboard

The N800 can complete words based on the built-in dictionary for the selected text input language. The N800 also learns new words from your input.

On-Screen Keyboard Callout

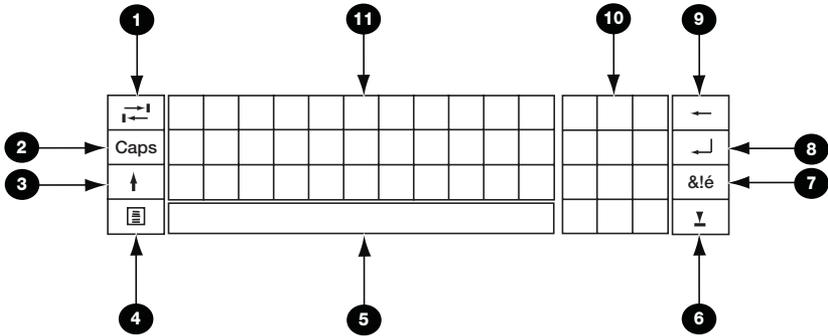


Figure 4.4: Keyboard Callout

Item	Name	Description
1	Tab key	Adds a tabulator space or moves the cursor to the next available text input field.
2	Caps key	Locks the uppercase characters of the keyboard. In the handwriting recognition mode, switches between the normal and special character recognition modes.
3	Shift key	Allows you to enter an uppercase character in the On-Screen keyboard mode when you write in lowercase. When you tap this key in handwriting recognition mode, the last lowercase character switches to uppercase and vice versa.
4	Input Menu key	Opens the Text Input Menu, which includes commands such as <i>Edit>Copy, Cut, and Paste</i> .
5	Space bar	Inserts a space. This area also shows word completion.
6	Close key	Closes the On-Screen Keyboard and Handwriting Recognition Input area.
7	Special Character key	Opens a view, in which you can select from commonly used special characters, symbols, and language character accents.
8	Enter key	Moves the cursor to the next row or text input field. Additional functions are based on the current context.
9	Backspace key	Deletes the character to the left of the cursor.
10	Numeric Keyboard	When you press the shift key, the most common special characters are displayed in this area.
11	On-Screen Keyboard	

System Set-up

The N800 **System Set-Up** pages are used to enter set-up values such as Brightness and Volume settings, Screen Calibration, Time-Outs, and some additional set-up values only available to authorized installers.

It is essential that a wireless network is in place and operating in order for the N800 to function. A Wireless Access Point (WAP) and Router (or Router/WAP combination) must be in place and in range of the N800. See **Appendix C: Wireless Networking** for greater details of wireless network setup and equipment.

There are two areas in which settings may be adjusted:

- Shortcuts
- Control Panel

The **Shortcuts** menu appears on the main screen and is accessed by tapping the icons in the upper right corner of the N800. The **Control Panel** is accessed by pressing the **Escape** hard control button on the left side of the unit while it is in ELAN mode.

Shortcuts

Located on the upper right of the touch screen **Home Page** are four **Shortcut Settings** icons as shown in **Figure 4.5**. For detailed menu structures see the following section entitled **Control Panel**.

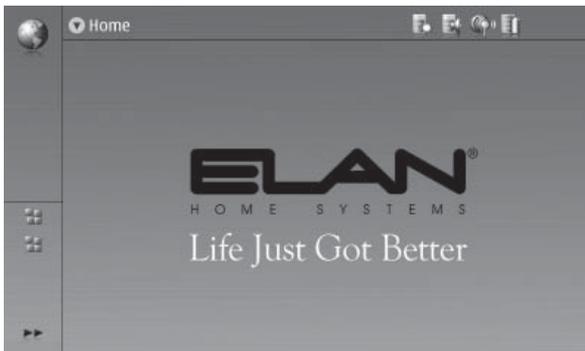


Figure 4.5: Shortcuts

Display Settings

The first icon on the left is the **Display Settings**, as shown in *Figure 4.6*. Tapping this selection brings up a window that allows adjustment of the touch screens Brightness level.

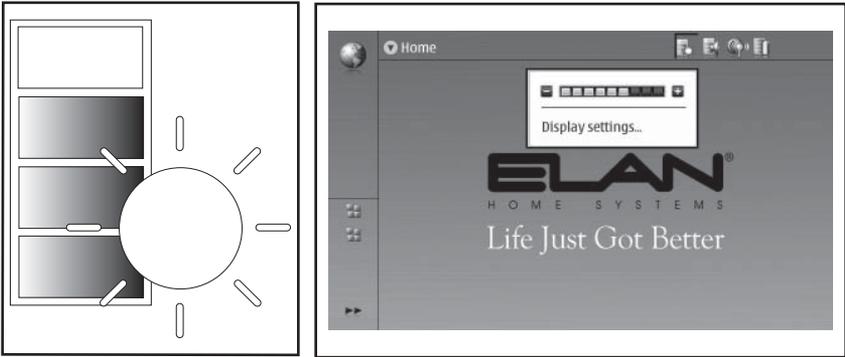


Figure 4.6: Display Settings

Tapping the words '**Display Settings**' in this window opens the **Display** menu as shown in *Figure 4.7*.

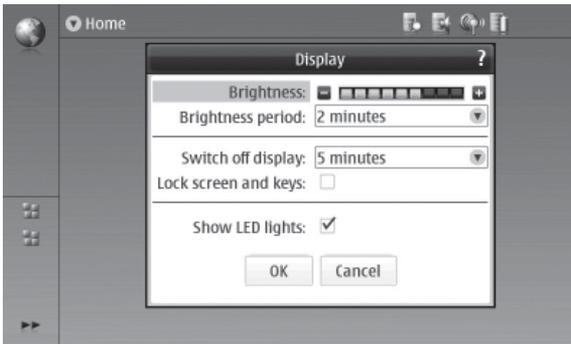


Figure 4.7: Display Menu

This menu includes:

- **Brightness Period** - Dims the screen after a period of inactivity.
- **Switch Off Display** - Sets the amount of time the screen is active after use.
- **Lock Screen and Keys** - to keep from accidentally activating the unit while being carried.
- **Show LED Lights** - Turns the LED display around the navigation buttons On or Off.

After setting up this page select the **OK** button to save the changes and return to the **ELAN (Main)** page.

Sound Settings

Second from the left is the **Sounds** icon that, when tapped, brings up the controls for the **Master Volume** of the N800.



Figure 4.8: Sound Settings

Tapping the word **Sound Settings** in this window will display the **Sounds** menu which has two tabs. First is the **General** tab which contains the **Master Volume** control with a ramping +/- indicator bar. It also has two levels of sound available for the **System Sounds**, **Key Sounds**, and **Touch Screen** sounds. The second tab is for **Ringtones** (not applicable). After setting the levels select **Close** to return to the **Home Page**.

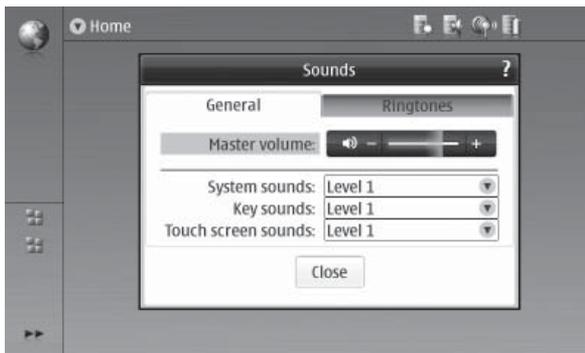


Figure 4.9: Sounds - General Tab

Network Connectivity

The third Shortcut Icon from the left is **Network Connectivity** as shown in **Figure 4.10**. Tapping this icon brings up a window that allows the panel to disconnect and change network connections.



Figure 4.10: Network Connectivity

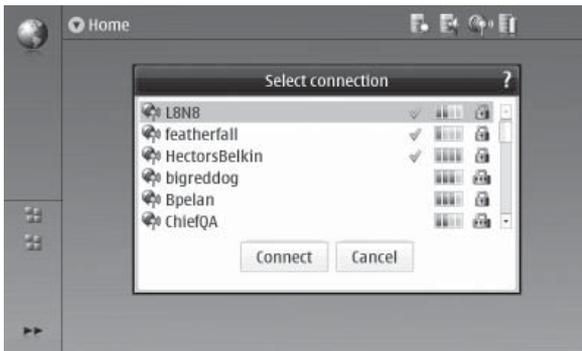


Figure 4.11: Change Connection Menu

Select **Disconnect** and a pop-up window will ask if you wish to disconnect. Click **OK** to disconnect or **Cancel** to exit. The **Change Connection** menu will search for nearby networks and display them for selection indicating signal strength and encryption status. Highlight the network you wish to connect to and click on **Connect**.

Battery Level Indicator

The fourth icon is the **Battery Level Indicator**. Tapping this icon will bring up a pop-up window that gives estimated battery time when in Idle mode and when in use. Tap on the **ELAN** page to navigate away from this window. Select the **Home** navigation button to return to the **VIA! Control** screen.

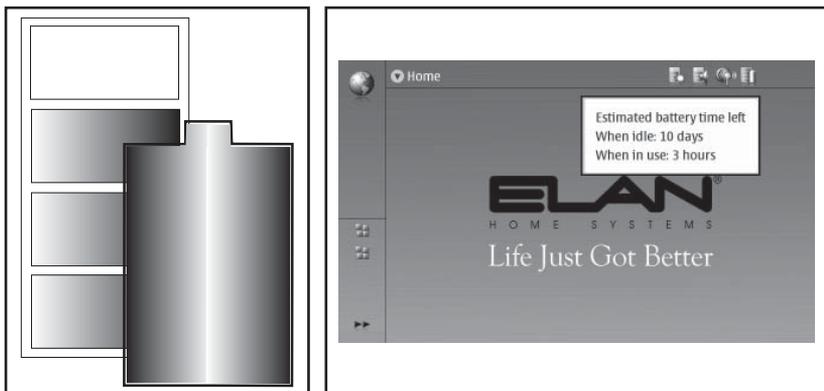


Figure 4.12: Battery Level Indicator

Control Panel

About

While in ELAN mode (showing the system control screen), select the **Escape** navigation button to enter the **Control Panel**. Menu buttons line the right side of the screen vertically, the top button selects the **About** page.



Figure 4.13: Control Panel - About

Tapping the **About** button brings up the device *Software Version*, the *Project Name*, the *Zone Name*, the *Zone Number*, and *Motif* type as shown in **Figure 4.13**.

ELAN Devices

Tapping the **ELAN Devices** button brings up the device *Name*, *Type*, and *IP Address*.

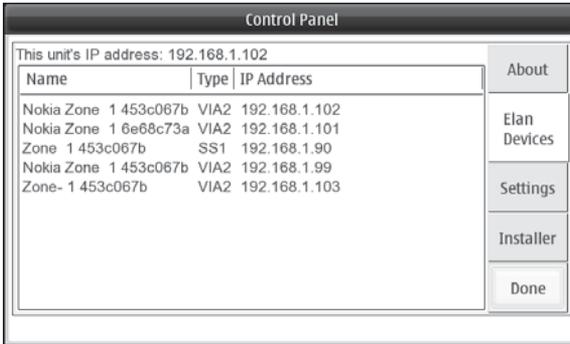


Figure 4.14: Control Panel - ELAN Devices

Settings

The **Settings** button brings up the **Settings** page. The following choices are available: **Screen Calibration**, **Date and Time**, **Display**, **Connectivity**, **Language and Region**, and **Sounds**. Several of these choices duplicate functions found on the **Shortcuts** area described previously.

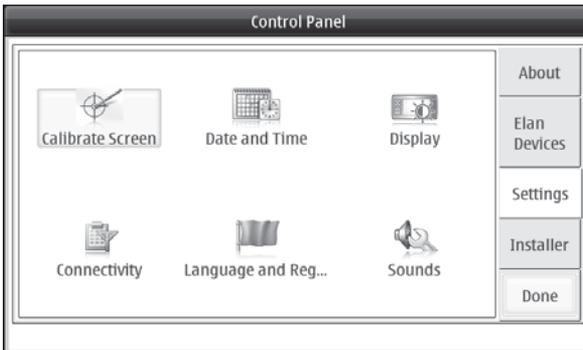


Figure 4.15: Control Panel - Settings

Screen Calibration

If at any time the touch screen responds inaccurately, you may need to calibrate it. Select **Screen Calibration** from the **Settings** page. If the touch screen does not respond at all, you can also access this function by pressing **Menu** in the **Home View** and using the **Scroll** key to navigate within the menu.

The calibration sequence consists of touching and holding the screen in four different places. Use the stylus and tap where indicated on the touch-screen in accordance with the displayed instructions as shown in **Figure 4.16**.



Figure 4.16: Control Panel - Screen Calibration

Date and Time

Select **Date and Time** to open the window for this function. *Home City*, *Date*, *Time* as well as *Daylight Saving Zone* can be set. Press **OK** to save the information.

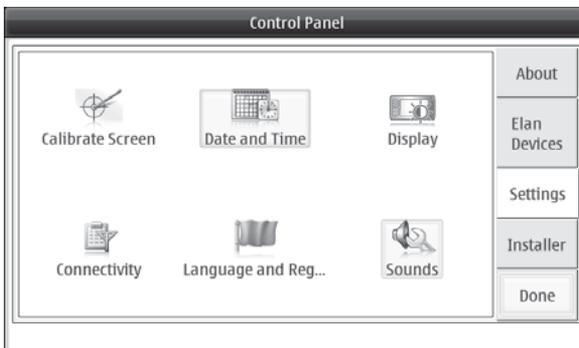


Figure 4.17: Control Panel - Date and Time



Figure 4.18: Date and Time - Date



Figure 4.19: Date and Time - Time



Figure 4.20: Date and Time - Daylight Savings Time

Display

The Display menu allows fine-tuning of the functions **Brightness**, **Brightness Period**, **Switch Off Display** (timeout), **Lock Screen and Keys** and **Show LED Lights**.

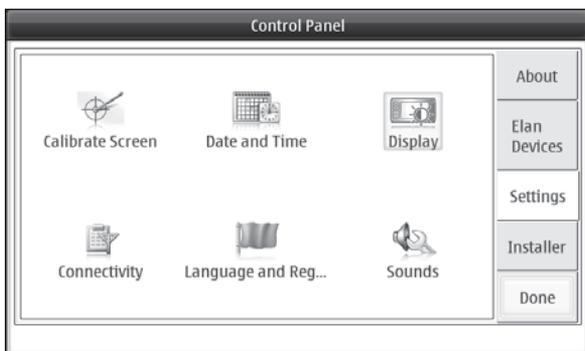


Figure 4.21: Control Panel - Display

Select **Display** to change the display settings. The **Brightness** setting is automatically selected first. Use this to adjust the brightness of the display using the +/- increment buttons.

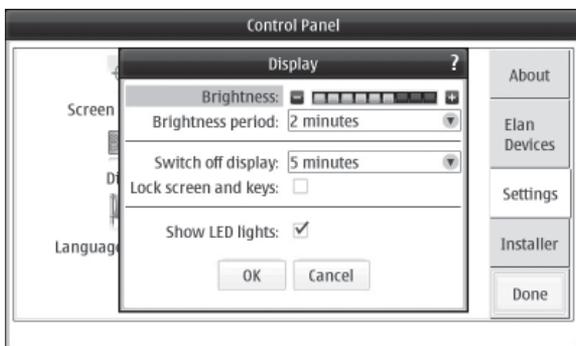


Figure 4.22: Display - Brightness

Use **Brightness Period** to define how soon the display brightness decreases in order to save power. **Switch Off Display** determines the time out period that the the display is illuminated after the last touch. Choose between 10 seconds, 30 seconds, 1 minute, 2 minutes and 5 minutes.

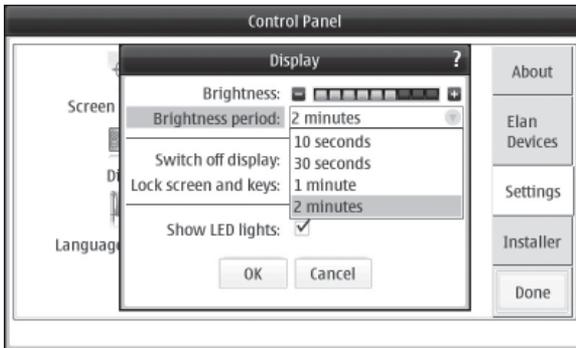


Figure 4.23: Display - Brightness Period/Switch Off Display

Lock Screen and Keys sets the automatic lock for the touch screen and keys.

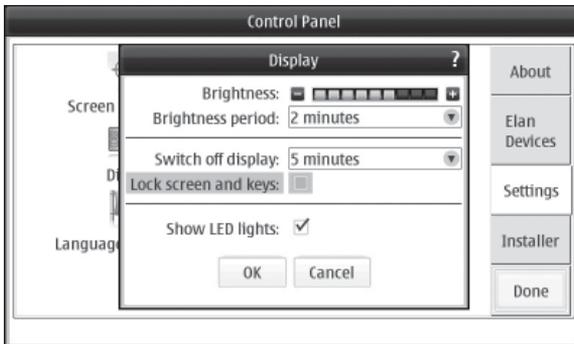


Figure 4.24: Display - Lock Screen and Keys

Show LED Lights turns On or Off the Blue LED's around the 'hard' navigation buttons on the front of the device. Press **OK** to save the settings.

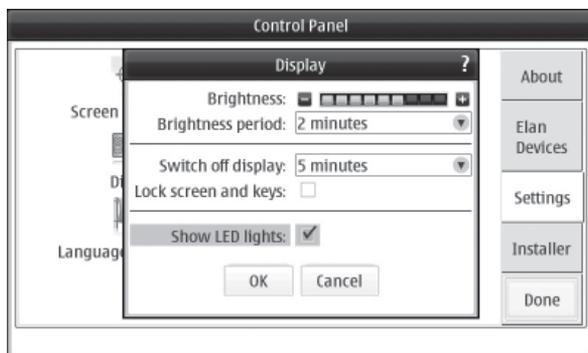


Figure 4.25: Display - Show LED Lights

Connectivity

Select **Connectivity** to edit and create Internet connections and to adjust creation logic. This window contains two selections: **General** and **Idle Times**. See **Appendix C: Wireless Networking** for greater details of wireless network setup and equipment.

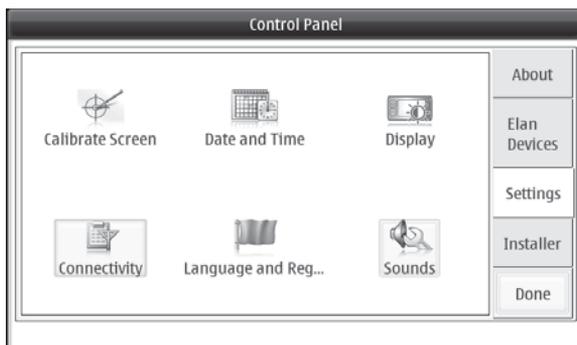


Figure 4.26: Control Panel - Connectivity

General

The general tab contains the options: **Connect automatically** and **Search interval**. These options determine how the N800 connects to the home network in order to function with ELAN's SS1 System Station and the Internet.

Connect Automatically

- Select **WLAN Connections**.

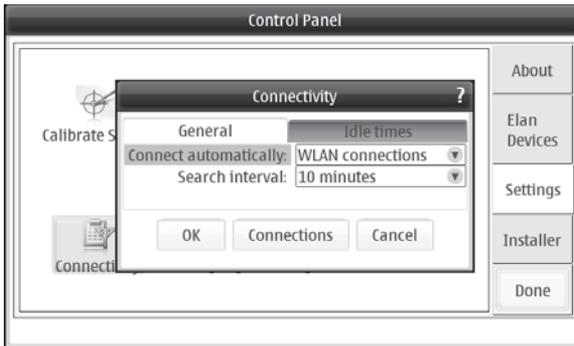


Figure 4.27: Connectivity - Connect Automatically

- Select **Connection**. Connections that have been saved in the network **Connectivity** steps will be displayed.



Figure 4.28: Connectivity - Connections

- Select the connection established for the ELAN system, then select **Done**. For the most reliable connectivity, place only the ELAN network in this area.
- Once the connection is selected, click **OK**.

Connection Setup

To Setup or Edit connections:

- Select the connection to be edited
- Select **WLAN**, then **Network Name** (name of WAP), **Network Mode** (infra structure), then **Security Method** (**None**, **WEP**, **WPA Pre-Shared key**, **WPA with EAP**). These settings will vary depending on the structure of the network.
- Fill in appropriate information based on the network configuration.

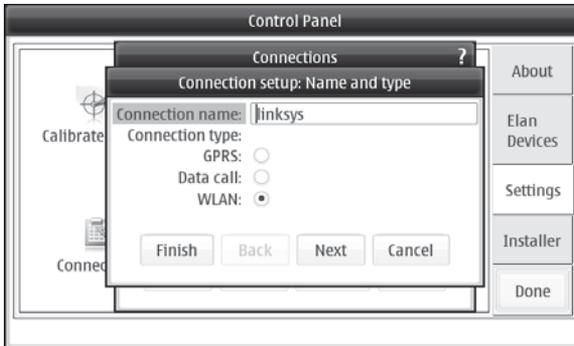


Figure 4.29: Connectivity - Setup/Edit Connections

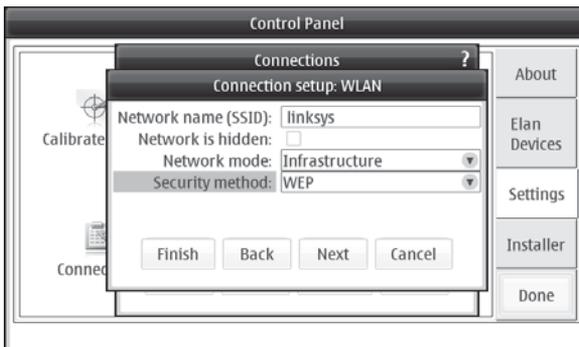


Figure 4.30: Connectivity - Security Method



Figure 4.31: Connectivity - WEP Key

Advanced

To set Advanced functions:

- Select **Advanced** button
- **Proxies** - not typically used
- **IP Address** - Set N800 to static IP address (not recommended)
- **Other - Transmission Power** - **100mw** (default) provides best range
10mw saves power but reduces range
- Select **OK**
- Select **Finish**

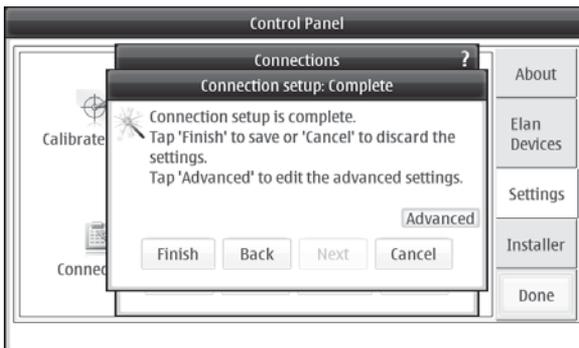


Figure 4.32: Connectivity - Advanced Settings

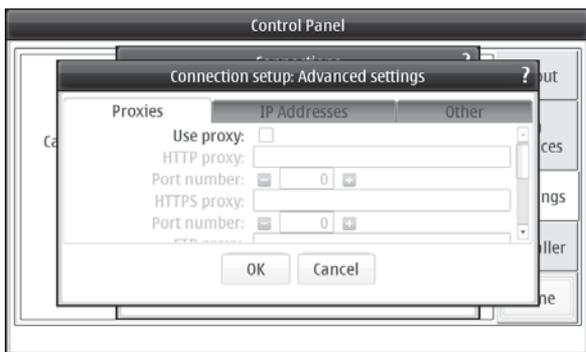


Figure 4.33: Connectivity - Advanced Settings

To set a static IP address, Select the **IP Addresses Tab**, uncheck the **Auto-Retrieve IP Address** box, then fill in the appropriate information.

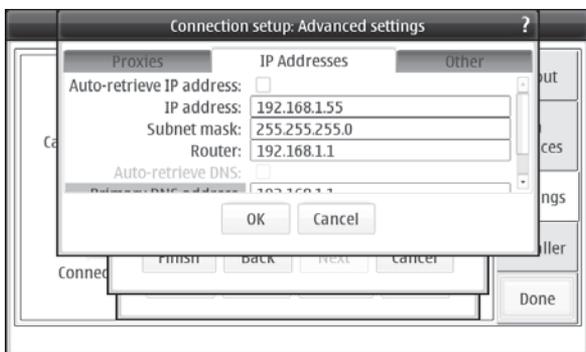


Figure 4.34: Advanced Settings - IP Addresses

Search Interval- Define how often connections are searched in the background.

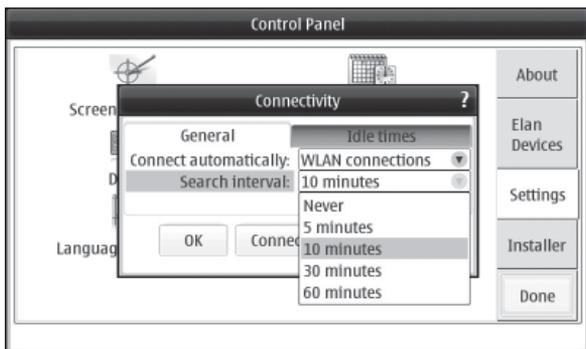


Figure 4.35: Advanced Settings - Search Interval

NOTE: Once you have saved one or more WLAN(s) in Connections, the N800 searches for those connections every 10 minutes by default, while there is no ongoing connection. To disable the search in the background (in order to save battery power), set the search interval value to Never.

On the **Idle Times** page, select the time after which the Internet connection ends automatically if the connection is not used. Use **WLAN Idle Time** for connections created through a WLAN access point.

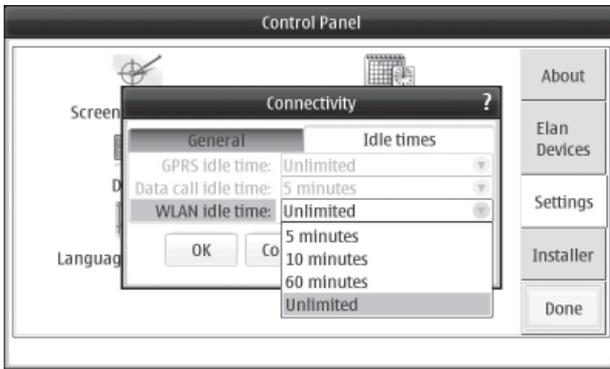


Figure 4.36: Advanced Settings - Idle Time

NOTE: The network may also have idle timers that may cause the internet connection to break, regardless of the idle timers of the N800.

When an application is accessed that requires an Internet connection, the N800 uses the WLAN connections you have saved by default. If connections have not been saved or they are unavailable, you are asked to select the Internet Access Point to use. You can save the network after selecting it from the list. However, if the WLAN network name is set as hidden, the settings must be configured manually.

Language and Region

Tapping this button selects the **Region** and **Device Language**.

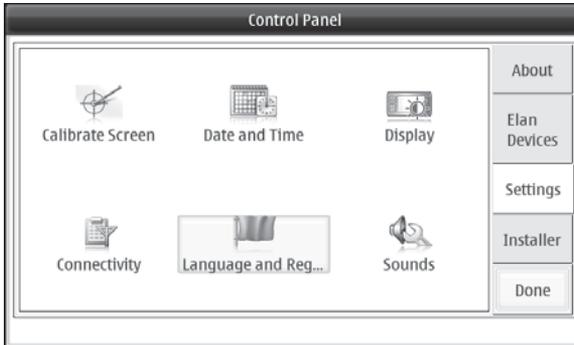


Figure 4.36: Control Panel - Language and Region



Figure 4.37: Control Panel - Device Language

Sounds

The **Sounds** menu is identical to what is described in the **Shortcuts** section. See **Shortcuts** for details.

Installer

Tapping the **Installer** button brings up the **Password** screen, shown in **Figure 4.38**.

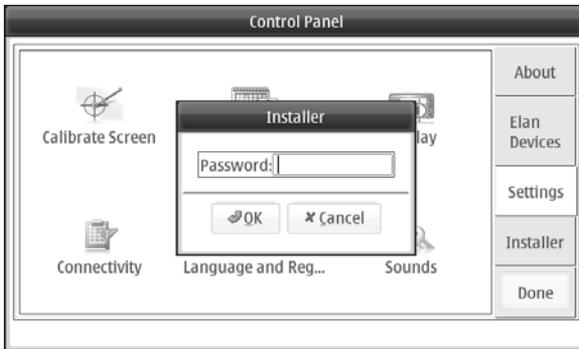


Figure 4.38: Installer - Password

Enter the Password: **9195**. Then press **OK**.

The **Download** screen will then be displayed as shown in **Figure 4.39**.

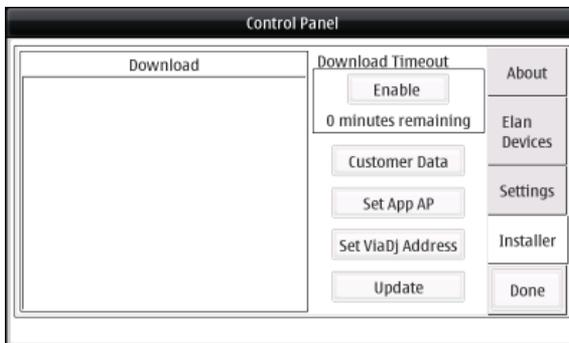


Figure 4.39: Control Panel - Installer

Note: This section assumes that a wireless home network is installed and working correctly. In order for all supported features to work correctly, the network must also be connected to the Internet. It is important that the system's Router is configured to DHCP.

Note: The N800 should already be connected to the network as described previously under Connectivity.

To download VIA!TOOLS programming to the N800:

- Select the N800's **Enable** button under **Download Timeout**
- Press the **Download Enable Button** on the SS1

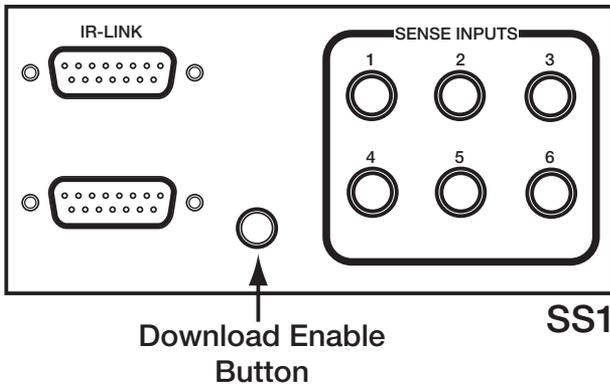


Figure 4.40: SS1 Download Enable Button

- In VIA!TOOLS, select the N800 to be programmed on the **System Page**. Go to the **Transfer Page** and select the **Transfer to SS and/or VIA!2** button.



Figure 4.41: VIA!TOOLS Transfer Page

- The **Transfer** Page will pop up. Select **Scan**.



Figure 4.42: VIA!TOOLS Scan Page

- The scanning process will display the SS1 and the N800 in the **Transfer Page list**. Ensure that the **Transfer to Device** checkbox is checked for both the N800 and the SS1.

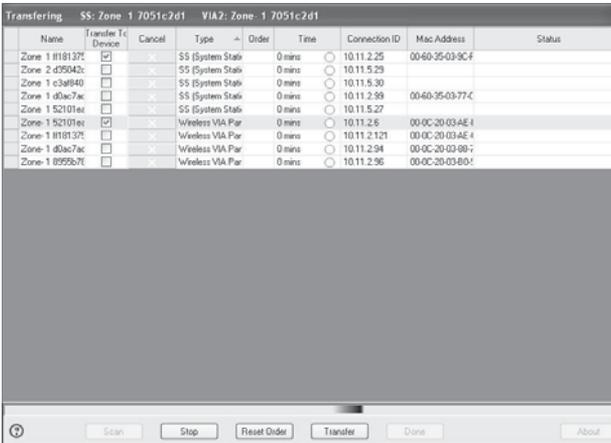


Figure 4.43: VIA!TOOLS Scan Page

- Select **Transfer** to enable download to both the SS1 and N800. Once the progress bar has indicated that the download is complete, press **Done**.

Customer Data:

- Select the **Customer Data** button.

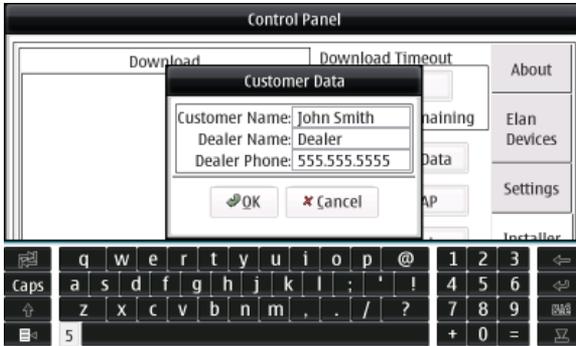


Figure 4.44: Customer Data

- Enter relevant information using the on screen keyboard
- Select **OK**.

Select Access Point

To select a network:

- Press **Set App AP**.

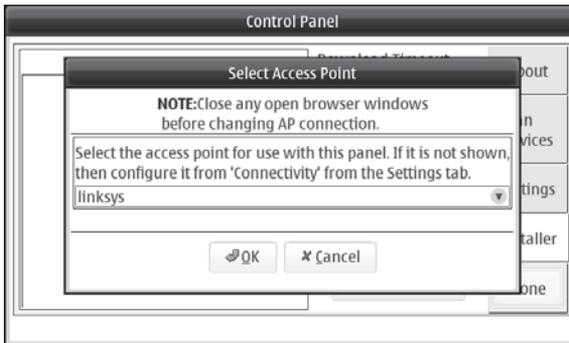


Figure 4.45: Select Access Point

- Choose a pre- configured network from the drop- down menu.

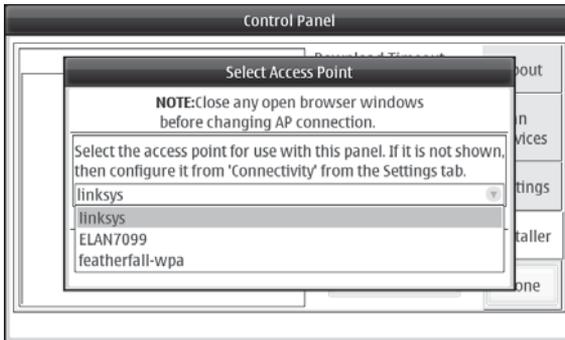


Figure 4.46: Select Access Point

- Press **OK**.

VIA!dj

To set a static IP address for a VIA!dj Digital Music Server:

- Press **Set ViaDj Address**.
- Touch the text box area with the stylus. The Virtual Keyboard will appear. Type the static IP address of the VIA!dj (available from the VIA!dj's display), then press **OK**.

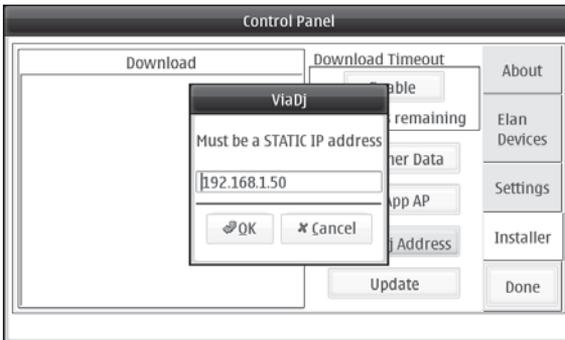


Figure 4.47: VIA!dj Static IP

Update

To Update the N800's software :

- Press **Update**.
- The unit will automatically connect to the Internet and download any available updates.
- A verification screen will be displayed once the update is complete that will indicate various information including software version, bug fixes and other useful information.

Note: ELAN strongly recommends Updating the N800 before programming.

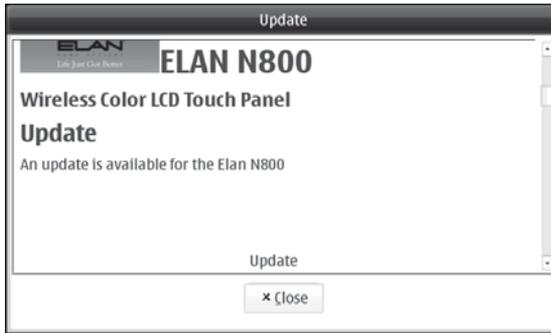


Figure 4.48: Update



Figure 4.49: Update Verification

Web Browser

To open the browser:

- Tap the **Globe** icon and select **Open new browser window** or **Manage bookmarks** as shown in **Figure 4.49**.

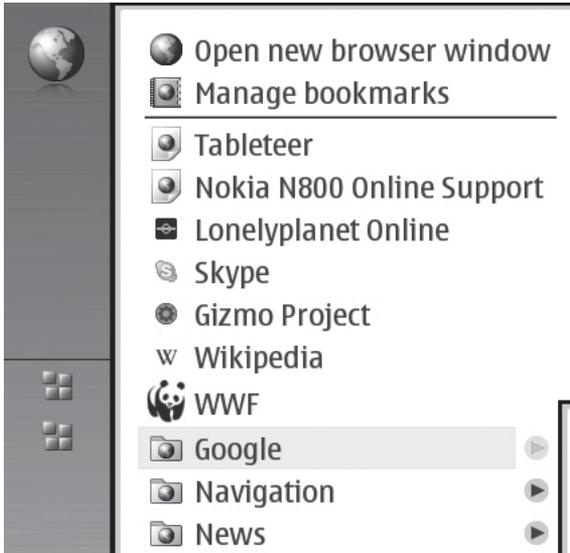


Figure 4.50: Web Browser

Open and Browse Web Pages

To open a web page:

- Tap the **Address** field at the bottom of the screen, enter the address with the on-screen keyboard, and tap the **Enter** key (green arrow).



Figure 4.51: Open a Web Page

To reload a page:

- Hold the stylus down briefly on the green arrow icon and select **Reload**. To stop loading the the page, tap the **X** icon.

To browse and scroll a web page:

- Drag a page in the desired direction with the stylus, use the scroll keys, or drag the scroll bars on the right side and bottom of the screen.

To browse recently visited pages:

- Tap the directional arrows on the bottom right browser bar.

To view a page in a larger or smaller size:

- Press the **+** or **-** hard keys on the top left of the unit chassis.
- To select a predefined zoom level from the application menu, select **Web > View> Zoom** and the desired zoom level.

To view the web page in full screen size:

- Press the **Full Screen** hard key on the top left of the unit chassis. To return to normal view, press the **Full Screen** hard key again.

To view the web page in optimized size:

- Select **Web > View > Optimized view**. The web page is fit to the width of the screen; text and images are zoomed and scaled differently, if necessary.

To change the web browser settings:

- Select **Web > Tools > Settings**.

For more information, see the N800 help file.

Bookmarks

To add a bookmark to the current web page:

- Hold the stylus down on the web page and select **Add bookmark...** from the context sensitive menu as shown in **Figure 4.51**.

To save a link as a bookmark:

- Hold the stylus down on link and select **Add link to bookmarks...**as shown in **Figure 4.51**.



Figure 4.52: Context Sensitive Menu

Manage Bookmarks

To manage bookmarks that have been saved in the N800:

- Tap the **Globe** icon and select **Manage Bookmarks**. In the **Bookmark Manager**, you can **add, move, copy, rename, delete** and **open** bookmarks and folders. The bookmark folders are shown on the left, and the bookmarks in the selected folder on the right.

To open a folder and a bookmark contained in it:

- Tap the folder, and tap the bookmark twice.

E-Mail

To send and receive e-mail messages you must have an active internet connection and a registered e-mail account with the web browser provider such as Yahoo, MSN etc.

Cache

A **cache** is a memory location that is used to store data temporarily. If you have accessed confidential information requiring passwords, empty the cache after each use.

To empty the cache:

- Select **Web > Tools > Clear > Cache**

Battery Information

Charging and Discharging

Your device is powered by a rechargeable battery. The battery can be charged and discharged hundreds of times, but it will eventually wear out. When the operating and standby times are noticeably shorter than normal, replace the battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device.

If a replacement battery is being used for the first time or if the battery has not been used for a prolonged period, it may be necessary to connect the charger, then disconnect and reconnect it to begin charging the battery.

Unplug the charger from the electrical plug and the device when not in use. Do not leave a fully charged battery connected to a charger, since overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time.

If the battery is completely discharged, it may take several minutes before the charging indicator appears on the display.

Use the battery only for its intended purpose. Never use any charger or battery that is damaged.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the positive (+) and negative (-) terminals of the battery. (These look like metal strips on the battery.) This might happen, for example, when you carry a spare battery in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15°C and 25°C (59°F and 77°F). A device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

Do not dispose of batteries in a fire as they may explode. Batteries may also explode if damaged. Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.

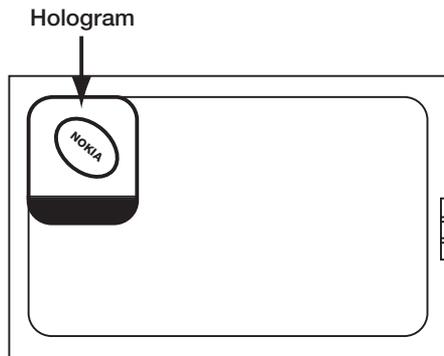
Do not dismantle or shred cells or batteries. In the event of a battery leak, do not allow the liquid to come in contact with the skin or eyes. In the event of such a leak, flush your skin or eyes immediately with water, or seek medical help.

Nokia Battery Authentication Guidelines

Always use original Nokia batteries for your safety. To check that you are getting an original Nokia battery, purchase it from an authorized Nokia dealer, look for the Nokia Original Enhancements logo on the packaging, and inspect the hologram label using the following steps:

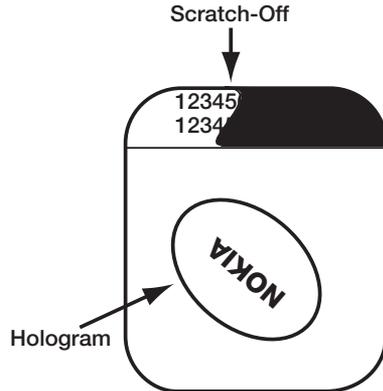
Authenticate Hologram

1. When looking at the hologram on the label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.
2. When you angle the hologram left, right, down, and up, you should see 1, 2, 3, and 4 dots on each side respectively.



BP-5L Battery

3. Scratch the side of the label to reveal a 20-digit code, for example, 12345678919876543210. Turn the battery so that the numbers are facing upwards. The 20-digit code reads starting from the number at the top row followed by the bottom row.
4. Confirm that the 20-digit code is valid by following the instructions at www.nokia.com/batterycheck.



Successful completion of the four steps is not a total assurance of the authenticity of the battery. If you have any reason to believe that your battery is not an authentic, original Nokia battery, you should refrain from using it, and take it to the nearest authorized Nokia service point or dealer for assistance. Your authorized Nokia service point or dealer will inspect the battery for authenticity. If authenticity cannot be verified, return the battery to the place of purchase.

If you cannot confirm that your Nokia battery with the hologram on the label is an authentic Nokia battery, please do not use the battery. Take it to the nearest authorized Nokia service point or dealer for assistance. The use of a battery that is not approved by the manufacturer may be dangerous and may result in poor performance and damage to your device and its enhancements. It may also invalidate any approval or warranty applying to the device. To find out more about original Nokia batteries, visit www.nokia.com/battery.

Removal and Replacement

To remove battery for replacement:

- Place thumb under the tab on the back of the unit and remove the rear panel.

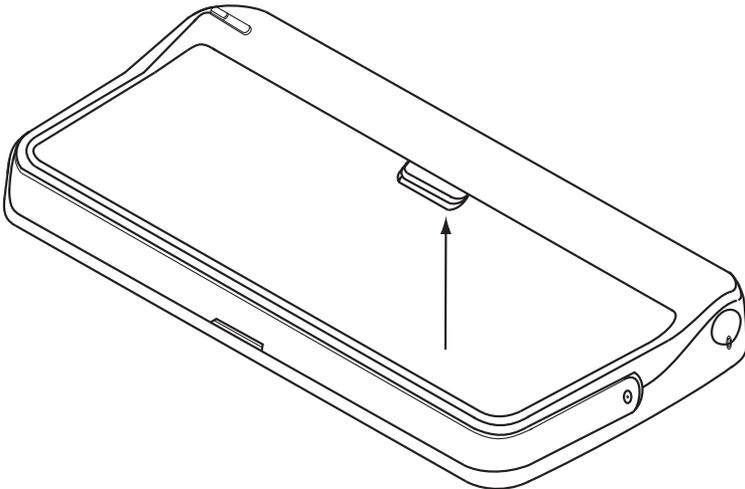


Figure 4.53: Remove Rear Panel

- Remove the battery from the right edge of the unit by prying up with thumbnail.
- Replace the battery as shown in *Figure 4.53*. Replace the rear panel.

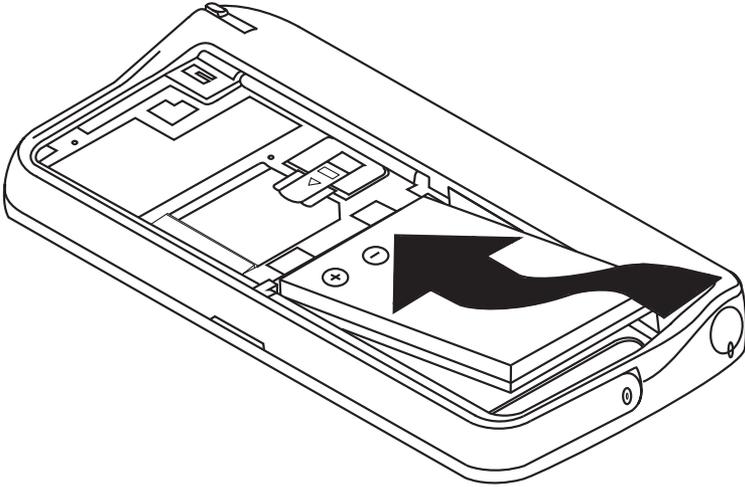


Figure 4.54: Replace Battery

5. Troubleshooting

Symptom	Possible Cause	Solution
N800 does not turn ON	Battery discharged	Recharge battery by connecting charger to charging port on N800
N800 battery does not charge	1. Wall charger plugged into outlet that has no AC voltage	Plug into confirmed live wall socket
	2. Wall charger defective	Replace charger
	3. Battery defective	Replace battery
Unable to download VIA!TOOLS program to N800 and/or SS1	1. Ethernet wiring to SS1 is incorrect/disconnected/defective	Verify and correct Ethernet wiring
	2. SS1 not ready to connect	Press DOWNLOAD ENABLE BUTTON on SS1
	3. Incorrect VIA!TOOLS download procedure	carefully follow download steps in this manual and in VIA!TOOLS Help file
N800 won't control devices, zones, etc.	1. Router locked up	Reset/Reboot Router Reset/Reboot SS1
	2. N800 and/or Router security settings incorrect	Verify settings on N800 and Router
	3. System control wiring (IR/RS-232) incorrect	Verify and correct control wiring
	4. Incorrect programming (wrong zone, missing IR/RS-232 commands, incorrect sequences, etc.)	Verify and correct VIA!TOOLS programming
Cannot connect to the Internet	1. WAP issues	Verify WAP communication
	2. Internet Service Provider issues	Verify internet connection from wired connection
	3. Router/Modem issues	Reset/Reboot Router and/or modem
	4. Firewall issues	Check/verify firewall settings - ensure firewall/security settings will allow Internet connection for N800

Appendix A: Specifications

Display	
Display size	4.13", 16X9 widescreen
Resolution	High resolution 800X 480 pixels
Colors	65.5k
Web Browser	
Audio	ACC, AMR, MP2, MP3, RA (Real Audio) WAV, WMA
Image	BMP, GIF, ICO, JPEG, PNG, TIFF, SVG-tiny
Video	3GP, AVI, H.263, MPEG-1, MPEG-4, RV (Real Video)
Memory/storage	RAM 128MB, Flash 256MB
WLAN	802.11 b/g
Power	5 VDC 890 mA Wall Transformer Charger
Operating time	Standby: 10 days; Operation: up to 3 hours continuous
Operating temp	14° to131° F, -10° to 55° C
Weight	7.27 oz./ 206g

Appendix B: Programming

All N800 Handheld Controllers must be programmed with ELAN VIA!TOOLS Setup Software.

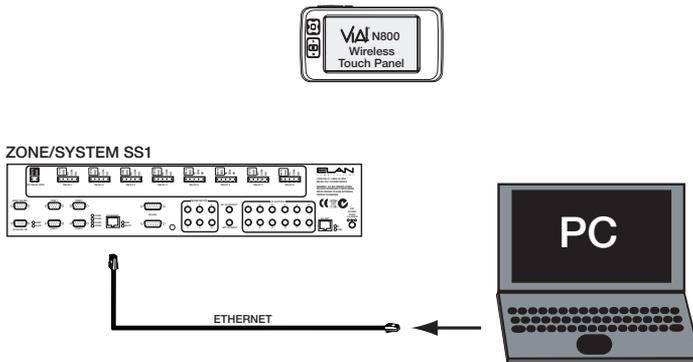


Figure B.1: Programming

Please see the VIA!TOOLS Help file for complete step-by-step information on programming N800 Handheld Controllers.

Appendix C: Wireless Networks

A properly functioning wireless network for the N800 consists of:

- One or more N800s
- An ELAN SS1 System Station
- A Router
- A Wireless Access Point (WAP)

The Router and WAP may be combined into a single device.

SS1 System Station

The SS1 System Station is an RS-232, IR, Sense and Relay controller. It also translates the N800's 8.02.11b/g WiFi commands into actions that can control system functions including Home Theater or a zone control of an ELAN multi-room system. Future software/feature-set enhancements to the SS1 are field-upgradeable through VIA!TOOLS setup software.

Note: For detailed connections and operation of the SS1, please consult the SS1 Installation Manual.

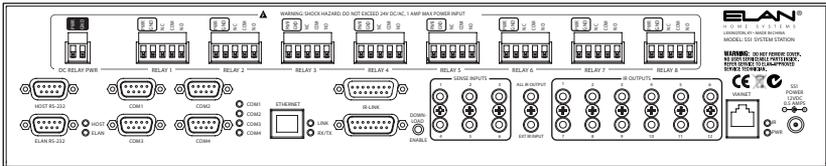


Figure C.1: SS1 System Station

Router

A router is a computer networking device that forwards data to its proper destination and connects two or more networks together. Routers typically connect home networks to the Internet. Wireless Routers that combine the functions of a Router and WAP are popular options for home networks.

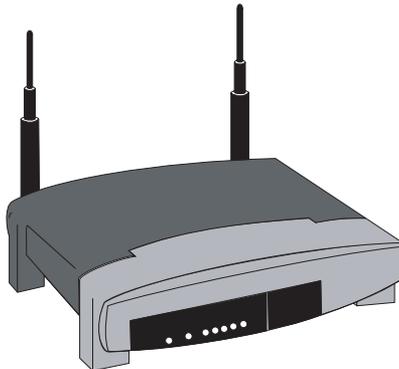


Figure C.2: Router

Wireless Access Point

The N800 requires a Wireless Access Point (WAP). The WAP is a device that connects the N800 together with the SS1 System Station to create a wireless control system. The WAP is connected directly to the router via ethernet, and relays data between the N800 and the SS1 System Station. Wireless Routers that combine the functions of a Router and WAP are popular options for home networks.

NOTE: 802.11b/g standards use the unlicensed 2.4 gigahertz (GHz) band. Operating in an unregulated frequency band, 802.11b and 802.11g equipment can incur interference from microwave ovens, cordless phones, and other appliances using the same 2.4 GHz band.

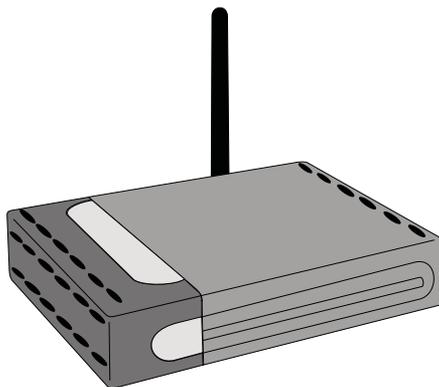


Figure C.3: Wireless Access Point

Wireless Setup

It is essential that a functioning wireless network is set up and functioning prior to installing the N800. The Router needs to be configured for **DHCP** so that it provides IP addresses automatically for each component in the system. In order to access the N800's Internet Browser, the wireless network must be configured to access the Internet.

Detailed instructions on wireless network setup are outside the parameters of this manual. Please consult the documentation that accompanies the Router and/or WAP for specific instructions.

Limited Warranty

ELAN HOME SYSTEMS L.L.C. ("ELAN") warrants the N800 4" Handheld Controller to be free from defects in materials and workmanship for the period of one year (1 year) from date of purchase. If within the applicable warranty period above purchaser discovers that such item was not as warranted above and promptly notifies ELAN in writing, ELAN shall repair or replace the item at the company's option. This warranty shall not apply (a) to equipment not manufactured by ELAN, (b) to equipment which shall have been installed by other than an ELAN authorized installer, (c) to installed equipment which is not installed to ELAN's specifications, (d) to equipment which shall have been repaired or altered by others than ELAN, (e) to equipment which shall have been subjected to negligence, accident, or damage by circumstances beyond ELAN's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or other catastrophic events beyond ELAN's control, or to improper operation, maintenance or storage, or to other than normal use of service. With respect to equipment sold by, but not manufactured by ELAN, the warranty obligations of ELAN shall in all respects conform to the warranty actually extended to ELAN by its supplier. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation or other expenses which may be incurred in connection with repair or replacement.

Except as may be expressly provided and authorized in writing by ELAN, ELAN shall not be subject to any other obligations or liabilities whatsoever with respect to equipment manufactured by ELAN or services rendered by ELAN.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES EXCEPT WARRANTIES OF TITLE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

ATTENTION: TO OUR VALUED CONSUMERS

To ensure that consumers obtain quality pre-sale and after-sale support and service, ELAN Home Systems products are sold exclusively through authorized dealers. ELAN products are not sold online. The warranties on ELAN products are **NOT VALID** if the products have been purchased from an unauthorized dealer or an online E-tailer. To determine if your ELAN reseller is authorized, please contact ELAN Home Systems at (859) 269-7760.



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