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**Ness Evolution**  
Multi-media Touch Screen for Ness SmartLiving systems

USER MANUAL



GameOver



Innovative Electronic Solutions



[www.nesscorporation.com](http://www.nesscorporation.com)

EVOLUTION User Manual

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## ABOUT THIS MANUAL


DCMUINE0EVO **MANUAL CODE**2.00 **VERSION**

### Terminology 0-1

When not otherwise specified, refers to the Evolution device.	<b>DEVICE</b>
Refers to the intrusion control panel of the SmartLiving system.	<b>CONTROL PANEL</b>
Directions as seen by the operator when directly in front of the mounted device.	<b>LEFT, RIGHT, BEHIND, ABOVE, BELOW</b>
Click-on a specific item on the interface (from a drop-down menu, options box, graphic object, etc.).	<b>SELECT</b>
Press/Click-on a key/button on the touch screen.	<b>PRESS</b>

### Graphic conventions 0-2

Following are the graphic conventions used in this manual.

Conventions	Example	Description
Text in italics	Refer to <i>paragraph 0-2 Graphic conventions</i>	Indicates the title of a chapter, section, paragraph, table or figure in this manual or other published reference.
<text>	#<AccountCode>	Editable field
[Uppercase letter]	[A]	Reference relating to a part of the system or video object.
Button		Touch screen buttons

The "Note" sections contain important information relating to the text.

#### Note

The "Attention" prompts indicate that total or partial disregard of the procedure could damage the device or its peripherals.

#### ATTENTION!

# Chapter 1

## GENERAL INFORMATION

### Suppliers details 1-1

Supplier Ness Corporation  
Address: 4/167 Prospect Hwy  
Seven Hills, NSW, 2147, Australia  
Tel: +61 2 8825 9222  
e-mail: customerservice@ness.com.au  
Web: www.nesscorporation.com

Any persons authorized by the manufacturer to repair or replace the parts of this system, hold authorization to work on Ness Corporation brand devices only.

### Description of the product and various models 1-2

Description: Multimedia device for domotic control  
Models: Evolution/G - multimedia device for domotic control in SmartLiving systems with Ethernet interface and WiFi.  
Evolution/S: Evolution/G - multimedia device for domotic control in SmartLiving systems with Ethernet interface.

### Included documents 1-3

- Installation Manual
- User's Manual (this manual)

These manuals are included in the package. If you wish to order extra copies, please contact the offices at Ness Corporation.

# Chapter 2

## USING THE EVOLUTION DEVICE

The fruition of the Evolution device is done through the RGB touch screen and the CapSense buttons (to the right of the touch screen).

The user can navigate inside the "Evolution system" by means of the pages, signalling icons and all the connected devices and "click-on" buttons which allow you to navigate and activate commands.

The appendix provides a list of icons and buttons which may appear on several pages with the same properties (refer to *Appendix A, Recurrent buttons and icons*).

### Home page 2-1

The home page, which appears on first startup of the Evolution device, provides users with all the necessary information. The home page is divided into four sections:

Table 1: Home page

A	Operating environment data		
B	Widgets		
C	Status banner		
D	Buttons	Evolution device management	
E	Application		

### Operating environment data 2-2

In this section (*table 1, A*), located on the top right, you can view the:

- Time/Hour
- Date
- Temperature

## Evolution

The temperature value is indicated in °C but can be hidden during the programming phase.

At default, the data refers to the Evolution device. However, the data can also be downloaded from a connected SmartLiving control panel (the control panel must be equipped with a Joy/MAX keypad in order to provide temperature values) which, during the configuration phase, must be configured as "local".

To view or change the Evolution device clock and/or the temperature sensed by its on-board sensor, use the respective buttons (refer to paragraph 2-5 *Buttons*).

## Widgets 2-3

The section on the bottom left (*table 1, B*) is dedicated to the widgets available for the Evolution device which can be setup via software:

- Presentation of images
- Weather forecast
- Analogue clock
- SmartLiving control panel status
- RSS News

These widgets allow users to view data and information immediately on the home page, but can also function as buttons for the activation of services.

In order to use the image widget, you must first insert a micro-SD card into PCB which contains the pictures.



## Note

## Status banner 2-4

The section on the top left (*table 1, C*) shows the status of the Evolution device and the SmartLiving control panels in the configuration, by means of side scrolling templates (one for each device). This scrolling is automatic but can also be guided by the scroll arrows on the right.



Each box acts as a button which, when pressed, takes you to the status viewing page.

The  button, on the left, opens a window where the Evolution device and the control panels in the configuration arranged in list form. Pressing the  button on this page allows you to view the status of the selected Evolution device or control panel.







The Evolution device status indicates the following:



- Description - the identification string of the Evolution device
- Firmware Revision
- Type of power
- Voltage status:

**EVOLUTION DEVICE STATUS**

Table 2: **Evolution device banner**

Signalling	Icon	Cause	Note
<b>Backup-battery power</b>		The backup battery is capable of supplying sufficient voltage current to the Evolution device.	The icon will not be shown if, as well as the battery, another power source is connected.
<b>Mains power</b>		The switching power supply provides power to the Evolution device.	If the switching power supply and the BUS are connected, both signals will appear simultaneously.
<b>Power from I-BUS</b>		The power to the Evolution device is supplied through terminals "+" and "-" of the BUS.	
<b>Normal current</b>		The current supplied to the Evolution device is sufficient (approx. 12V).	

If you press this template, you will have access to two sections:






-  a section where you can view and change the status of the Evolution device outputs;
-  a section where you can view the voltage current supplied by the switching power supply and the BUS, and also the current used by the board and fed to the terminals.

The status banner of SmartLiving control panels which are shown on the home page, indicate the following:

- Description - the identification string of the control panel
- Control panel model and firmware revision
- Away arming mode status
- Alarm and fault status

**CONTROL PANEL STATUS**

Table 3: **Control panel banner**

Signalling	Icon	Cause
<b>Away armed</b>		At least one of the partitions belonging the SmartLiving control panel is armed.
<b>Disarmed</b>		All the partitions of the SmartLiving control panel are disarmed.
<b>Standby</b>		All the partitions of the SmartLiving control panel are in standby.
<b>Alarm</b>		At least one of the partitions of the SmartLiving control panel is in alarm status.
<b>Fault/Tamper</b>		At least one SmartLiving system partition has detected fault or tamper status.

## Evolution

If you press this box, a page will appear which contains the control panel description and four buttons that allow you to access the viewing and management sections of the control panel status.

For a more detailed description of these sections, refer to the SmartLiving control panel manual or to *Appendix B, The SmartLiving control panel status*.


## Buttons 2-5

The section on the bottom left shows the command activation and programming buttons relating to the management of the Evolution device (*table 1, D*) and other applications (*table 1, E*).

There can be as many as 15 buttons, distributed as follows:

- 4 buttons for Evolution device management, fixed and unprogrammable
  - Settings
  - Events log
  - Screen cleaning
  - Graphic maps
- 4 application buttons, fixed and unprogrammable
  - Presentation of images
  - Media player
  - Browser internet
  - Videocameras
- 8 programmable buttons for commands to the Evolution device or to the control panels.



The  button allows you to access the programming sections of the Evolution device parameters.

Changes will become operative only after pressing the "Save" button.

### SETTING THE EVOLUTION DEVICE PARAMETERS

Table 4: **Settings buttons**













Section	Icon	Function	Note
<b>Evolution device parameters</b>		This section allow you to select the: <ul style="list-style-type: none"> <li>• loudspeaker volume</li> <li>• touch screen brightness</li> <li>• compensation of the temperature sensed by the on-board sensor</li> </ul>	The temperature compensation setting will not appear, if the temperature shown on the home page is that sensed by the local control panel.
<b>View network parameters</b>		This section allows you to view all the data relating to the connected LAN and the available WiFi networks.  To start the search, press the  button. If any WiFi networks are available, they will be listed in the section on the bottom left. The SSID and signal power (%) of each WiFi network will be indicated.	The LAN connection type is indicated by the icon on the top right: <ul style="list-style-type: none"> <li>•  Ethernet connection</li> <li>•  WiFi connection</li> </ul>

Table 4: **Settings buttons**


<p><b>Advanced settings</b></p>		<p>This section provides three additional configuration buttons:</p> <ul style="list-style-type: none"> <li> a reset button which restarts the graphic interface and system update</li> <li> a hard reset button which resets the factory default settings</li> <li> a button which starts the firmware upgrade procedure.</li> </ul>	<p>All these operations require confirmation before being executed.</p>
<p><b>Date / Time</b></p>		<p>This section allows you to change the date and time on the Evolution device.</p>	<p>This section will not appear if the data shown on the home page refer to the local control panel.</p>


The  button allows you to access and view the events log of the Evolution device. **EVENTS LOG**

For further details about the events log refer to paragraph 2-6 *Events log*.

The  button allows you to bypass (exclude) the functions of the touch screen, in order to allow the user to clean the Evolution device without the risk of activating undesired commands. **SCREEN CLEANING**

If you wish to restore the touch screen functions and return to the








home page, you must press and hold the  button for at least 4 seconds.

The  button allows you to access and view the configured graphic maps. **GRAPHIC MAPS**

Refer to paragraph 2-7 *Graphic maps* for a full description of the graphic maps and their functions.

The following table shows the buttons inserted at default in the homepage and the relative applications: **APPLICATION**

Table 5: **Application buttons**


Section	Icon	Function	Note
<b>Presentation of images</b>		Photo-frame application for JPG and PNG file viewing on touch screen.	In order to use this application, you must first insert a micro-SD card into PCB which contains the files.
<b>Media player</b>		Multimedia reader for audio and video file reproduction	
<b>Internet browser</b>		Application for Internet navigation via web pages/ cellphone	
<b>Videocameras</b>		This section allows you to view the video footage of the configured cameras.	<p>You can select the camera by means of the buttons on the left.</p> <p> The  button allows you to scroll through the cameras in groups of 4.</p> <p>To view in streaming mode press .</p>

## Events log 2-6

The events log is a selection of events related to the functions and the use of the Evolution. The events stored in the log are selected by the installer.

The Evolution device, as well as saving events to the events log, can be programmed to signal the occurrence of events in various ways in accordance with their programming:

- Automatic opening of the events log
- Audible signalling by means of sound files

- Visualization of the  button on the homepage which, when pressed, opens the events log.


If you press the  button on the home page or when an event which is configured to be saved occurs, the following page will be shown:

Table 6: Events log

<b>A</b>	Events list	
<b>B</b>	Description of the selected event	
<b>C</b>	Control button	
<b>D</b>	Image attached to the selected event	
<b>E</b>	Videocamera attached to the selected event	

The section on the bottom left shows the list of events recorded in the memory; each event indicates the following:

- Time and date
- Description of the control panel
- Event icon
- Device description
- Event description
- Image attached to the event; this image can be configured as a graphic map link
- Videocamera in streaming mode attached to the event

Additionally, the following control buttons are available:

Table 7: Events log control buttons

Button	Icon	Function	Note
<b>Command</b>		Button for the activation of the command associated with the selected event	
<b>Clear log</b>		Button to delete all events from the log	This operation cannot be undone
<b>Automatic events log page opening</b>		Indicates that the events log page opens automatically at the occurrence of an event.	This button switches the ongoing function to the alternative function.
		Indicates that the occurrence of an event will change the icon of the button for accessing to the events log page; the button becomes	

## Graphic maps 2-7

The Evolution device provides supervisory functions based on graphic maps which are connected in a tree structure.

A map is a graphic representation of a portion of the space in which the security systems are, identified by an image file.

Each map may contain an arbitrary number of icons represented by icons. An object can be:

- Partition status
- Partition arming-mode status
- Zone status
- Zone activation status
- Link to a map
- IP camera

The status icons used are those described in appendices *A* and *B*.

# Chapter 3

## PROGRAMMING

The programming process of the Evolution device includes:

- setting the operational and functional parameters of the Evolution device
- selecting the widgets and applications
- configuring the SmartLiving control panels
- configuring the devices connected to the Evolution device (videocameras or the devices connected to the outputs)

The Evolution device has been designed to accept programming via the touch screen and from a computer. Programming via the touch screen has its limitations, as described in paragraph *2-5 Buttons*.

The user can programme the Evolution device from a computer. The EvoLight application provides access to the configuration of the Evolution device.

Programming from a computer requires:

- An Evolution device connected to a LAN
- A computer connected to the same network as the Evolution device
- Windows operative system
- The EvoLight software application

### **.NET Framework 3-1**

dotnetfx.exe - small file on CD (supplied to the user) and a setup file to add .NET Framework 2.0 Platform to the operative system of the computer using Ness's programming and management software.

To operate correctly, EvoLight software applications requires .NET Framework 2.0 Platform.

If the computer has Windows Vista or Windows Seven, this platform is already included. If the computer has another operative system, the .NET Framework 2.0 may not be included.. Therefore, if you wish the software application to perform as intended, you must install it.

### **The EvoLight software application 3-2**

The EvoLight software application resides on the user's computer and, on startup, requires direct connection with the Evolution device through the LAN (Ethernet or WiFi).



Once the computer is properly connected to the Evolution device, you can access specific configuration parameters which can be viewed (downloaded from the Evolution device) and changed

(uploaded to Evolution device). It is unnecessary to save the data or solution to the computer memory when closing the application after completing the operation.

## Using the software application 3-2-1

Table 8: EvoLight interface

A	Menu bar and function icons relating to the application (closure and info) and access to the Ness Corporation website.	
B	Button to download the configuration of the connected Evolution device.	
C	Button to upload the configuration of the connected Evolution device.	
D	Application Menu	
E	Section for the settings of the parameters required by the application selected on the left.	


The EvoLight software application provides data transfer buttons (  to download the configuration of the connected Evolution device and  upload the ongoing configuration.

During the data transfer phase, the Evolution device continues to operate regularly. However, at the end of the upload process, the Evolution device will restart with the new configuration.

## Application 3-2-2

This paragraph describes the EvoLight applications available on the respective menu (*table 8, D*).



The  button opens a wizard which guides you through the connection procedure between the computer and the Evolution device and, later, allows you to view and configure the parameters.

### CONNECTION WIZARD

This operation requires:


- IP address of the Evolution device
- Connection password

It is the installer's responsibility to setup the connection network and provide the user with all the relative information.

### Note






The  button allows you to access the configuration section of the widgets you intend to insert in the appropriate section on the home page (*table 1, B*).

A representation of this section will appear on the right of the home page where one of the widgets (available on the list) can be dragged and dropped. Once selected, the details of each inserted widget will be shown at the bottom, in order to allow you to view or change them.

To delete the widget, simply right click-on the widget you wish to delete.

## WIDGETS




The  button allows you to access the configuration section of the applications you intend to insert in the appropriate section on the home page (*table 1, E*).

A representation of this section will appear on the right of the home page where one of the applications (available on the list) can be dragged and dropped. Once selected, the details of each inserted application will be shown below the template, in order to allow you to view or change them.

To delete the application, simply right click-on the application you wish to delete.

## APPLICATION BUTTONS




The  button allows you to access the configuration section of the CapSense buttons on the frame on the right side of the touch screen.

A representation of the Evolution device will appear on the right, where you can select one of the four buttons. Once selected, you can select the related action and the action related to the superkey function (activated by prolonged pressing). The details of each associated application will be shown below the template, in order to allow you to view or change them.

## CAPACITIVE BUTTONS




The  button allows you to access the configuration section of the general parameters of the Evolution device:

- touch screen brightness
- loudspeaker volume
- standby activation
- communication channel

This section allows you to configure the image presentation and media player applications which relate to the buttons (at default) on the home page (*table 1, E*).


## GENERAL SETTINGS



The  button accesses a section which allows you to select the language of the EvoLight software application.

## LANGUAGE



The  button accesses a section which allows you to view information relating to the software application and manufacturer.






## ABOUT THE APPLICATION

# Chapter 4

## ERRORS AND FAULTS

### Fault signalling 4-1

The following table shows the Evolution device faults signalled on the rotating banner on the top left of the home page touch screen:

Fault	Icon	Cause	Note
Low battery		The backup battery is inefficient (voltage below 10.4V) or is not functioning properly.	The fault will end when the voltage restores to above 11.4V.
Low Voltage		The Evolution device is operating at a voltage lower than normal (below 11.2V).	
High Voltage		The Evolution device is operating at a voltage higher than normal (above 14V).	
Tamper active		A tamper attack is occurring on the Evolution device (forced opening of the casing/touch screen or dislodgement from its mounting location).	This signal will cease when the tamper event restores.
Control panel loss		The relative control panel is not longer available on the LAN net (ethernet or WiFi).	This signal will cease when the control panel loss event restores.

# Appendix A

## RECURRENT BUTTONS AND ICONS

The following table shows the buttons and icons which appear on various touch screen pages:

Table 9: **Button icons**










Button	Icon	Effect
<b>Scroll</b>		Clicking-on or prolonged pressing of this button allows you to scroll lists or a series of images or templates.
<b>Ok</b>		Confirms the ongoing operation. Confirms the selection.
<b>Cancel</b>		Cancels the ongoing operation.
<b>Save</b>		Saves the ongoing operation.
<b>Home</b>		Closes the open page and steps back to the home-page

Table 10: **Status icon**

Signalling	Icon	Cause
<b>Standby</b>		The element the icon refers to (control panel/partition/zone) has not detected alarm or fault events.
<b>Alarm</b>		The element the icon refers to (control panel/partition/zone) has detected and signalled an alarm condition.
<b>Fault/Tamper</b>		The element the icon refers to (control panel/partition/zone) has detected and signalled a fault or tamper condition.
<b>Alarm memory</b>		The element the icon refers to (control panel/partition/zone) detected, signalled and restored an alarm condition.

# Appendix B


## THE SMARTLIVING CONTROL PANEL STATUS

The banner on the top right of the home page (*table 1, C*) allows you to access and view the status of the Evolution device or of the SmartLiving control panel in configuration.



If you are using a SmartLiving control panel, 4 sections are available:

- Arming scenarios
- Partitions / Zones
- Outputs
- Events log

The  button allows you to access the arming scenarios **ARMING SCENARIOS** section.

All the scenarios are listed and provide the following details:

- Description string
- Activation status icon

You can activate a scenario by first selecting it and then pressing the






 button (on the left). In response the scenario icon will change in accordance with the result of the activation:

Table 11: **Arm/Disarm operations**

Icon	Signalling
	Scenario deactivated
	Scenario activated successfully
	Scenario not activated





The  button allows you to access authorized partitions. The partitions are listed and show the following details:


- Description string
- Arming mode icon
- Partition status icon
- Alarm memory

The arming status of each selected partition can be changed by pressing the buttons on the left. In response the partition icon will change:

**PARTITIONS**

Table 12: **Arming mode icons**

Icon	Button
	Arms the selected partition in Away mode
	Arms the selected partition in Stay mode
	Arms the selected partition in Instant mode
	Disarms the selected partition

The  button deletes the alarm memory of the selected partition.



The partitions section provides a button  which allows access to the zones of the selected partition. **ZONES**

The page that appears shows the description of the partition the zones belong to and a list containing the following details:


- Description string
- Partition status icon
- Activation status icon
- Alarm memory

You can change the activation status of each of the selected zones by pressing the buttons on the left. In response the zone icon will change:

Table 13: **Arming mode icons**



Icon	Button
	Bypass (deactivate) the selected zone
	Unbypass (activate) the selected zone




The  button allows you to access the control panel outputs **OUTPUTS** section and change the status of each output.


In order to do this, you must first select the output and then press the buttons on the right. In response the output icon will change:

Table 14: **Arming mode icons**

Icon	Button	Signalling
	Activate the selected output	Output activated
	Deactivate the selected output	Output deactivated



The  button allows you to view the events log of the selected **EVENTS LOG** control panel.

The buttons on the left allow you to choose the number of new events you wish to view. In order to allow this, press the button on the right .