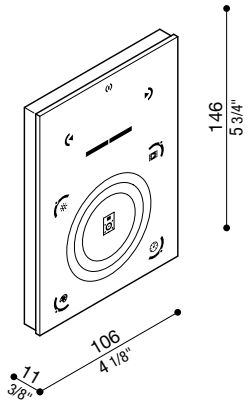
Sunlite Touch Sensitive Intelligent Control Keypad STICK-DE3

LBXT40000



Overview

The feature rich lighting controller has been designed to provide a control solution for the most demanding of projects, whilst maintaining an easy to use panel of touch sensitive buttons. The controller integrates a graphical color screen allowing scene photos to be displayed. Easily view the selected zone, scene name and design without the need to navigate through complex menus. Change the speed, color and dimmer using the circular palette.
The lighting levels, color and effects can be programmed from a PC, Mac, Android, iPad or iPhone using the included software.

Key Features

- Sleek glass design which sits 11mm from the wall
- Graphical color display to show selected environment
- Color/dimmer/speed palette
- Color temperature mixing
- Touch sensitive buttons. No mechanical parts
- Touch sensitive wheel allows for accurate color selection
- Multi-zone microSD memory
- Multi-room control with 500 scenes, 10 zones
- 1024 DMX channels. Control 340 RGB fixtures
- USB & Ethernet connectivity for programming and control
- RS232, Dry Contact Ports and an Infra Red input port
- Clock and calendar with Sunrise/Sunset triggering
- Network communication. Control lighting remotely
- Catalog of designs including black glass
- Windows/Mac software to set dynamic colors/effects
- iPhone/iPad/Android remote and programming apps

Technical Data

Input Power	5-15v DC
Output Protocol	DMX512 (x2)
Programmability	PC, Mac, Tablet, Smartphone
Available Colors	Black
Connections	USB Type-C, Ethernet, RS232, Clock, 8 relay
Memory	microSD (32Gb Max)
TCP Connections	10
Temperature	-10 °C a 45 °C
Battery	LIR2032
Mounting	Single or double gang wall socket
Dimensions	146x106x11mm
Weight	247g
Standards	EC, EMC, ROHS, ETL

Lombardo S.r.l.
Via Pizzigoni 3, Villongo (BG) - 24060 - Italy - **T** 0039 035 939 411 - **E** info@lombardo.it

Sunlite Touch Sensitive Intelligent Control Keypad STICK-DE3

LBXT40000

Lombardo.

Easy installation

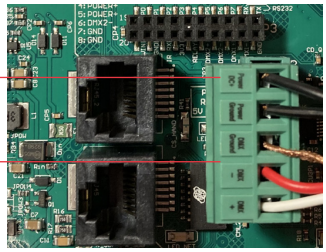
1. Mount an electrical box inside the wall

The controller can be installed in any standard electrical backbox. If you use a double size box, you can insert the power supply inside.
Note: We recommend against installing against a metal wall or surface as this can cause issues with the touch buttons.

2. Connect the wires

POWER: Connect a 5V to 15V DC ACDC supply.
Be sure to not invert the + and the ground.

DMX: Connect the DMX cable to the lighting receivers (Leds, Dimmers, Fixtures..)
(for XLR: 1=ground 2=dmx- 3=dmx+)

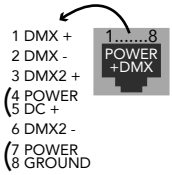


3. Mount the interface on the wall

First, mount the back-plate of the interface to the wall with 2 or more screws.
Secondly, connect the connectors:
DMX and power (green connector block or RJ45)
Ethernet cable (shown with yellow cable)

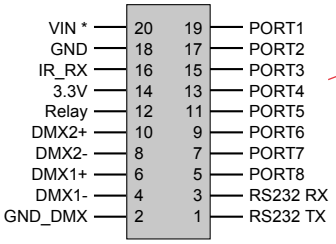
The front panel is mounted by pressing it against the back plate and then sliding down.
Note: power should not be turned on until the controller is securely in place.

POWER+DMX WITH THE CONNECTOR BLOCK

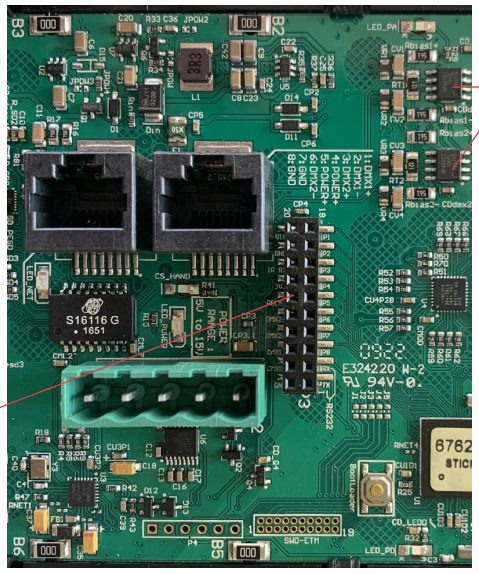


POWER+DMX WITH THE RJ45 CABLE

Check pin configurations. Applying power to the dmx input will damage the controller.
Make sure the controller is mounted without too much force behind as this can push apart the glass.



2×10 pins EXTENSION socket



*__VIN pin 20__ is not protected and should not be used

DMX CHIP replacement:
DMX universe #1
DMX universe #2
Ref:
DMXSECN-L

Compatible header connectors:

WURTH ELEKTRONIK (rif.61301121)
MOLEX (rif.10-30-7202)
TE Connectivity (rif.1-87227-0)
JST (rif.B20B-XADSS)
HARWIN (rif.M20-9981048)
SAMTEC (rif.TSW-110-xx-T-D)
AMPHENOL (rif.10129378-910002LF)

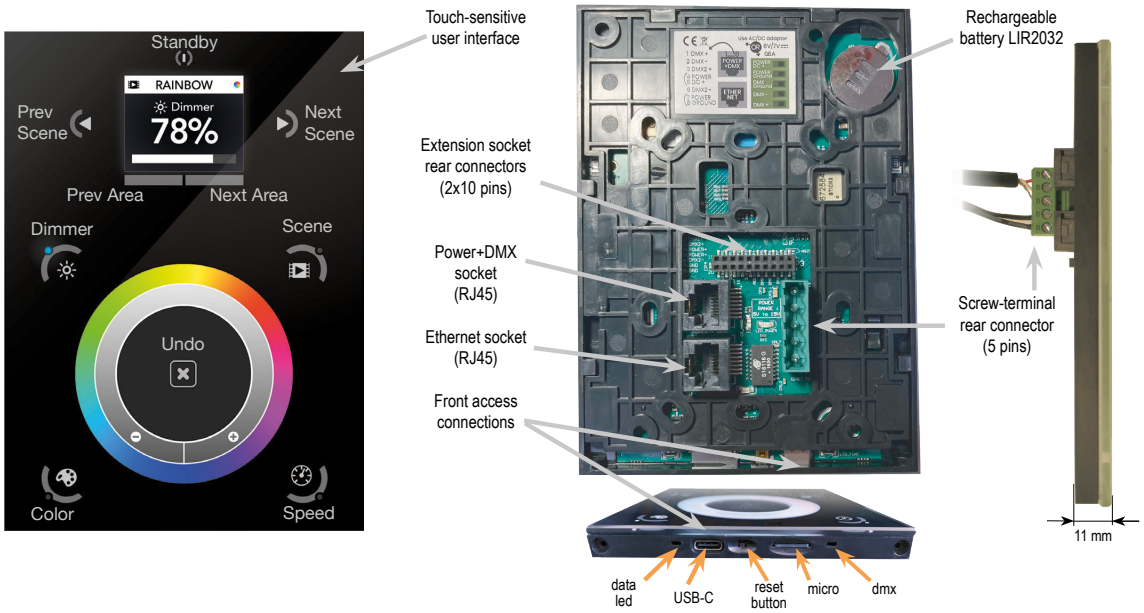
Lombardo S.r.l.
Via Pizzigoni 3, Villongo (BG) - 24060 - Italy - **T** 0039 035 939 411 - **E** info@lombardo.it

lombardo.it

Sunlite Touch Sensitive Intelligent Control Keypad STICK-DE3

LBXT40000

Connections and triggering

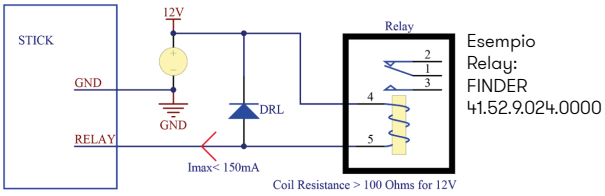


Dry Contact Port Triggering

It is possible to start scenes using the input ports (contact closure) included on the 2×10pin Extension Socket. To activate a port, a brief contact of at least 1/25 second must be established between the ports (1...8) and the ground (GND). Note: 1. A scene must be assigned to a port in the software, 2. The scene will not be switched off when the switch is released.

BLACKOUT Relay (energy saving)

A relay can be connected between the RELAY and GND sockets of the 20 pin extension socket. This is an open drain ouput that allows current to flow only when the controller is on. It can be used to turn off other equipment such as lighting drivers.



Esempio Relay: FINDER 41.52.9.024.0000

Network Control

The controller can be connected to a local network, allowing it to be controlled from a smartphone or tablet over WiFi.

- Connect the controller to a router or switch with an RJ45 cable
- The controller is set by default to get an IP address from the router via DHCP. If the network is not working with DHCP, a manual IP address and subnet mask can be set using Hardware Manager > Ethernet screen. Uncheck DHCP & enter IP settings
- If the network has a firewall enabled, allow ports 2430 and 2431

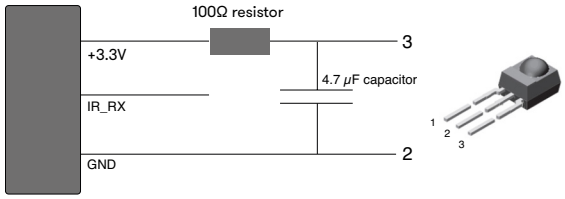
RS232 Triggering

Make a cable using the 3 pins : TX, RX and G (GND)
Set the RS232 parameters to : 9600bds 8 bits, no Parity, 2 Stop bits
Messages should be hexidecimal not decimal (ie. 1 = 01, 255 = ff etc.)

- to play a scene, send 4 bytes : **1 × y 255**
- to stop a scene, send 4 bytes : **2 × y 255**
- to pause a scene, send 4 bytes : **3 × y 255**
- to release a pause, send 4 bytes : **4 × y 255**
- to reset a scene, send 4 bytes : **5 × y 255**
- When (y)=0, (x) can be set between **0 and 255**
- to stop scene 145, send the command: **2 145 0 255**
- When (y)=1, (x) can be set between **0 and 243** to trigger scenes 256-499
- to play scene 300, send the command: **1 44 1 255**

Infra Red

The controller works with the official IR remote control, however there is no receiver. A 36khz infra red receiver can be connected, such as the TSOP34836 by Vishay Semiconductors. Farnell ref: 4913127. This can be attached to the 20 pin connector. It is a good idea to add a resistor and capacitor to surpress power supply disturbance.



TCP Triggering

The controller can be connected to an existing automation system over a network and triggered via UDP packets on 2430. Note that it is also possible to use TCP packets on port 2431 but Security for Cloud Access must be disabled.
Refer to the STICK3 remote protocol document for more information available in the Downloads section of our website.

Lombardo S.r.l.
Via Pizzigoni 3, Villongo (BG) - 24060 - Italy - **T** 0039 035 939 411 - **E** info@lombardo.it

Sunlite Touch Sensitive Intelligent Control Keypad STICK-DE3

Lombardo.

LBXT40000

Programming the Controller

The controller can be programmed from a PC, Mac, iOS (Apple) or Android device using the software listed below . Refer to the corresponding software manual for more information. Firmware and settings can be updated using Hardware Manager (installed with PC/Mac programming software) or with Hardware Tools (Android / iOS):

Windows / Mac Programming Software

ESA Pro 2 Software (Windows/Mac) - Multi-zone
nicolaudie.com/esapro2.htm

ESA2 Software (Windows/Mac) - Single Zone
nicolaudie.com/esa2.htm

Hardware Manager (Windows/Mac) - Firmware, clock
https://su-tools-n-g.ov/Releases/HardwareManager.dmg

App Apple iOS e Android

Arcolia Designer
Multi-zone programming from a tablet or smartphone

Hardware Tools
Update firmware, set clock, settings, etc.

Remote Control via Wifi Network

Free apps are provided to allow remote control over a local area network when running in stand alone mode. Connect the controller to a Wifi network. The apps will find all compatible devices on the network using multicast / broadcast messages. Use Hardware Manager to configure the network settings for your controller.

Arcolis Remote - A simple interface provides the easiest way to control your device (iOS / Android)

Arcolis Remote Pro - Create a customized remote controller with buttons, faders and color control (iOS / Android)

Color Temperature Mixing

In addition to mixing RGB using the color pallet, it is also possible to mix up to 3 custom colors. This is useful for mixing color temperature. To set this up, choose the correct profile for your lighting fixture when programming the controller. Profiles for common channel configurations can be found in the 'Generic' folder:
RGBW for Red, Green, Blue, White
RGBA for Red, Green, Blue, Amber
RGBY for Red, Green, Blue, Yellow
WWCW for Warm White, Cold White

Once your show has been written to the controller, tap the color mode button and use the circular palette to change the color. If your lighting fixture has more than 3 color channels, tap the color mode button a second time to mix the additional colors.

Settings Menu

To access the settings menu, hold the standby button for 3 seconds.
- Use the arrow buttons or palette to scrol through the menus
- Use the area buttons to navigate forwards and backwards
- The 'undo' button can also be used to navigate forwards.

Mode (M):	Manages the on/off button and the 4 modes (dimmer, speed, color, scene)
Arrows (A):	Allows you to adjust which modes can be controlled by the arrows
Pallet (P):	Allows you to adjust which modes can be controlled by the palette wheel
Scene (S):	Scene management
Time (T):	Manages the internal clock and time-scheduled functions
Trigger (T):	Manages the controllers external triggering properties
Ethernet (E):	Enables the Ethernet socket on the controller
DateTime (D):	Manages the date and time stored inside the controller
Graphics (G):	Screen management
DMX (DMX):	Manage the timings of the DMX output messages and the page priorities (advanced function!)
Sensitive (S):	Manage the touch sensitivity settings
Language (L):	change the language of the text which appears on the screen
About:	check the firmware release date and version number and assign a name for the controller

Service

To replace the Li-Ion rechargeable battery on the DE3 :
1. You need a rechargeable 3.6v LIR 2032 replacement battery.
2. Remove the back panel by pulling down and sliding it out.
3. Using a paper clip push the battery from the bottom so it slides out of its cage.
4. Slide the replacement battery in from the top, making sure the positive side is facing up.
5. Replace the back panel by pushing it up into place.

Lombardo S.r.l.
Via Pizzigoni 3, Villongo (BG) - 24060 - Italy - **T** 0039 035 939 411 - **E** info@lombardo.it

Sunlite Touch Sensitive Intelligent Control Keypad STICK-DE3

Lombardo.

LBXT40000

Internal Menu

MODE [M] - Manages the on/off button and the 4 modes (dimmer, speed, color, scene)

M Dim. enable	enables/disables the use of the on/off button so that the controller is permanently on
M Dim. Control	enables/disables the use of the on/off button so that the controller is permanently on
M Color. enable	when enabled, the color of a scene can be changed
M Speed. enable	when enabled, dynamic scenes can be made faster and slower
M Scene. enable	when enabled, the scene can be changed
M Timing. reset	when enabled, the controller will revert to the default mode after it has been left for a specified period of time
M Timing. time	the amount of time the controller will wait before reverting to the default mode
M Default	the default mode which the controller will revert to after a certain amount of time
M Dimmer 100%	when enabled, the dimmer mode will adjust between 0% and 100% without saturating to white between 100% and 200%
M Lock Control	Once this is enabled, you can hold the dimmer button for 5 seconds to enable/disable lock mode. It's automatically activated after 120 seconds. When lock is activated, you'll see a red border around the screen

Arrows [A] - the amount of time the controller will wait before reverting to the default mode

A Dimmer enable	allows for the Dimmer mode to be controlled by the arrows
A Color enable	allows for the Dimmer mode to be controlled by the arrows
A Speed enable	allows for the Speed mode to be controlled by the arrows
A Scene enable	allows for the Scene mode to be controlled by the arrows
A Default	the mode to jump to when the arrows are pressed, if the arrows are not enabled on the selected mode

Palette [P] - Allows you to adjust which modes can be controlled by the palette wheel

P Dimmer enable	allows for the Dimmer mode to be controlled by the palette wheel
P Color enable	allows for the Color mode to be controlled by the palette wheel
P Speed enable	allows for the Speed mode to be controlled by the palette wheel
P Scene enable	allows for the Scene mode to be controlled by the palette wheel
P Default	the mode to jump to when the palette is pressed, if the palette is not enabled on the selected mode

Scene [S] - Scene management

S On/Off enable	displays an empty off scene before scene 0 in each area
S Pause enable	allows a scene to be paused if the scene mode button is held for 1 second
S Stop enable	allows a scene to be stopped if the scene mode button is held for 4 seconds
S Fade timing	manages fading between scenes
Force Auto	the fade time set inside the show file will be used
Force	the automatic fade time set in the menu will override all fade times in the show file
Force Max	the controller will look at the show file fade time and the menu fade time and use the greatest
Force Min	the controller will look at the show file fade time and the menu fade time and use the smallest
S Fade time	the time of the automatic fade between scenes
S Setting management	determines how dimmer/speed/color overrides are saved
S Trigger	sets the scene triggering mode. Time Delay and Scene Butt allow for scenes to be scrolled through without playing

First Start [F] - Default settings when the unit is first started

F Scene No.	Default settings when the unit is first started
F Start Trigger	Default settings when the unit is first started
F Display Time	when enabled, the time will be displayed on the screen at startup
F Display Firmware	when enabled, the firmware version will be displayed on the screen at startup
F Start Trigger	when enabled, in combination with Recovery mode, a calendar triggered scene will start from where it was last playing, after a power interruption. When disabled, a scene will start at the beginning.

Trigger [T] - Manages the controllers external triggering properties

T Time enable	enables the clock triggering
T Ports enable	enables the 8 dry contact ports
T Beacon Mode	enables ability to trigger 256 scenes using binary combinations of contact ports
T UDP enable	allows the controller to send and receive UDP messages required for network control
T Blackout port	enables the blackout relay output which is triggered when the standby button is touched

Lombardo S.r.l.
Via Pizzigoni 3, Villongo (BG) - 24060 - Italy - **T** 0039 035 939 411 - **E** info@lombardo.it

Sunlite Touch Sensitive Intelligent Control Keypad STICK-DE3

Lombardo.

LBXT40000

Internal Menu

Ethernet [E] - Manages the controller's network settings

Ethernet	enables the Ethernet socket on the controller
LAN	enables network discovery
WAN & Remote	enables direct IP connections from WAN and remote locations (i.e. the internet)
Wan Port	define port to connect to controller (default is 2431)
Software Pwd	define password to connect programming and configuration software
Remote Pwd	define password to connect remote control apps
Dynamic IP Addr	enables dynamic IP addressing (DHCP) which allows the controller to obtain an IP address from a router
Sync Blackout	when this open is enabled, all other controllers on the network will go into standby when the standby button is pressed
Enable NTP	enables Network Time Protocol. The controller will synchornise the clock with the internet if a connection is available
Dynamic IP Add	If enable, the controller will look for a DHCP server to receive network settings
Sync Blackout	sychronises blackout mode across all controllers on a network
Enable NTP	enables time sychronisation over the internet
NTP Server	the IP address of the server to synchronize the clock. The default is 005.135.141.108
DHCP Status	shows whether DHCP has assigned a valid IP address. DHCP success or fail displayed
Device's IP Add	the controller's static IP address that it will use if it does not receive an IP address via DHCP
Lease	the lease time for a IP address given by DHCP
Mask	the subnet mask of the controller if not set to DHCP. Generally this is 255.255.255.0
Default Gateway	the IP address of the router if not set to DHCP
MAC Address	a unique ID used to identify the controller on the network

Date/Time [D] - Manages the date and time stored inside the controller

Date	the controllers date
Time	the controllers clock time
G Bright normal	the % brightness when the controller is not sleeping
G Bright sleep	the % brightness when the controller is sleeping
G Bright LED	the % brightness of the mode and reset LEDs

Graphics [G] - Screen management

G Image enable	allows for images to be shown for each scene if they have been assigned in the programming software
G Image full	when enabled, the image will be displayed in full screen and the scene and area will not be visible
G Image time	the time it takes before the image is displayed in full screen
G Sleep enable	when enabled, the screen brightness will dim after a certain amount of time
G Sleep time	when enabled, the screen brightness will dim after a certain amount of time
G Bright normal	the brightness of the screen's backlight
G Bright sleep	the brightness of the screen's backlight whilst the controller is sleeping
G Bright LED	the brightness of the scene, undo and standby LED's

DMX Output [X] - Manage the timings of the DMX output messages and the page priorities (advanced function!)

X MBB	Mark Before Break- the time to wait between sending each 512 channel DMX message (or 'packet')
X Break	Break- the time to wait just before sending a new packet, resetting the DMX line
X MAB	Mark After Break- the message which tells your receiver to begin reading data
X MBS	Mark Between Slots- the delay time between sending each DMX channels data within the DMX packet
Univ-1/Univ-2	each timing can be set differently depending on the universe number
X Alpha Mode	if the same scene is triggered in the global area and a second area, the area with the highest letter will take priority
X LTP Mode	If the same scene is triggered in the global area and a second area, the latest scene triggered takes priority

Sensitive [S] - Manage the touch sensitivity settings

S USB Init	reset the touch sensitivity when the USB is connected and disconnected
S Auto Time	the time to wait before automatically resetting the touch sensitivity
S High Sense	when enabled, the sensitivity will be increased
S See Values	see each touch sensitive button number and palette value

Language [L] - change the language of the text which appears on the screen

About	check the firmware release date and version number and assign a name for the controller
Reset	Reset all settings to the factory default

Lombardo S.r.l.
Via Pizzigoni 3, Villongo (BG) - 24060 - Italy - **T** 0039 035 939 411 - **E** info@lombardo.it

Sunlite Touch Sensitive Intelligent Control Keypad STICK-DE3

LBXT40000

Lombardo.

Troubleshooting

Touch buttons not responding

If the STICK is not responding to touch input, this could be because the touch sensitive buttons have recalibrated incorrectly. In this state it is common for the display to be stuck on RGB values. This is not a hardware fault and can be resolved.

The back of the Stick-DE3 is not electrically shielded because it is designed to be mounted against a wall. If electronic interference happens through movement, touching of your hands and/or cables at the back, this can cause the symptoms described above.

To avoid this problem:

- Only power the Stick-DE3 on once it is securely mounted and is not able to move. Ensure the cables are also not able to move.
- We do not recommend mounting on a metal surface as this is known to cause interference with the touch buttons. In some cases, connecting earth to the metal surface and to the Stick-DE3 GND can solve this. In many cases, the Stick-DE3 will need to be mounted against a nonmetallic surface.
- Mount using a deep back box with enough space for the cables. Try to avoid the cables touching the back of the PCB.
- Mount on a completely flat surface. This will prevent bending.

All LEDs on the controller are flickering

There has been no showfile detected on the SD memory card.

- Try formatting the SD card in the computer
- Try re-writing the show file
- Try replacing the SD memory card

The lights are not responding

- Check the DMX +, - and GND are connected correctly
- Check that the driver or lighting fixture is in DMX mode
- Be sure that the DMX address has been set correctly
- Check there are no more than 32 devices in the chain
- Check that the DMX LED is flickering to the right of the SD card
- Connect with the computer and open Hardware Manager

All LEDs on the controller are flickering except the standby LED

There is no SD card detected.

- Check the SD card is properly connected
- Check the SD card is 32Gb or less in size
- Try formatting the SD card to FAT16 or FAT32 in the computer
- Try re-writing the show file

4 Mode LEDs on the controller are flickering

The controller is in bootloader mode. This is a special 'startup mode' which is run before the main firmware loads.

- Check that there is nothing metallic touching the back of the controller
- Try re-writing the firmware with the latest hardware manager
- Try formatting or replacing the SD card

Displayed error messages

INIT SD	If this message is frozen, it means the controller is having a problem initialising the SD card
NO SD CARD	No SD card detected
DATA ERROR	The controller can read the SD card, however, it can not understand the data on it
EMPTY SD	The SD card is empty
CAPSENS	Problem with the touch sensitivity chip detected: • Remove USB cable from controller • Update firmware to 1.09 or later • If above does not solve it, contact support
ERROR xx	Try rewriting your show
RTC QUARTZ	Contact support

The controller is not detected by the computer

- Be sure that the latest software version is installed
- Connect by USB and open the Hardware Manager (found in the software directory). If it is detected here, try to update the firmware

Cannot write show

- Use HardwareManager to write an Empty Show
- Format your SD card to FAT format without Quick option

Lombardo S.r.l.
Via Pizzigoni 3, Villongo (BG) - 24060 - Italy - **T** 0039 035 939 411 - **E** info@lombardo.it