
	SmartCrystal™ Cinema Neo Dual	n ° : MUV1600178
		Version : A01
	USER MANUAL	Date : 10/05/2019

SMART CRYSTAL™ CINEMA NEO DUAL


User Guide



MODEL: VBSP-12000

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I. PRODUCT OVERVIEW

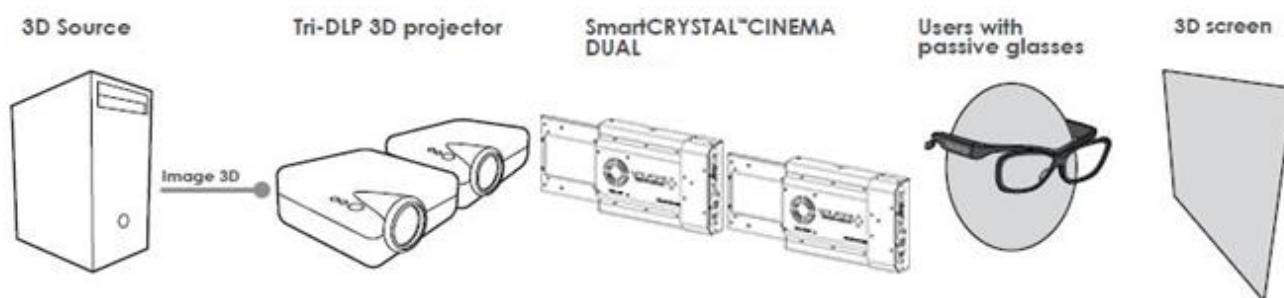
The SmartCrystal™ Cinema Neo Dual is a complete standalone automatic dual glass polarized filter for dual projection and large format screen.

Automatic mode operation involves creating automation cues in your server(s) macros: **See section: V/4/Network connection / Page 11**

II. REQUIREMENTS

To use the SmartCrystal™ Cinema Neo Dual unit, the following is required:


1. 3D content :
 - ✓ The server(s) must broadcast the 3D content in two 2D contents
 - ✓ 1 2D content (left images) for the left projector
 - ✓ 1 2D content (right images) for the right projector
2. 2X3D cinema projectors:
 - ✓ The two projectors must be synchronized in order to broadcast the left and right images simultaneously in 2D mode
 - ✓ As Auto-Mode option is disabled and there are no 3D signal coming from projectors, BNC connectors are not used with Dual systems
3. Polarization-preserving silver screen
4. Passive circular-polarized 3D glasses



Most types of 3D cinema projectors are compatible with the SmartCrystal™ Cinema Neo Dual system.

DLP (Digital Light Processing) projectors are especially efficient for 3D projection. The system is easy to set up with a DCI-compliant DLP projector and works with projector lamps up to 7KW.

Please consult Volfoni for additional information.

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Polarization-preserving silver screen

In order to enjoy the best quality 3D images, a polarization-preserving silver screen designed for 3D projection is required. If your screen was not manufactured specifically for 3D use, you might experience uncomfortable and blurry 3D images with a high level of cross-talk.

Passive polarized 3D glasses

The SmartCrystal™ Cinema Neo Dual is compatible with most commonly used passive 3D glasses (circular-polarized only).

III. SMARTCRYSTAL CINEMA NEO DUAL FEATURES

1. General specifications


- ✓ Meets all standards for electronics approved by CE
- ✓ For use with lightweight circular-polarized passive 3D glasses
- ✓ Passive 3D glasses are available from Volfoni. ***Please consult Volfoni for additional information.***

2. Technical specifications

- ✓ Maximum power of projector: 7 kW
- ✓ Power supply: 110V/240V 50/60Hz
- ✓ Operating temperature: +10°C to +50°C (50°F to 122°F)
- ✓ Storage temperature: -5°C to +50°C (23°F to 122°F)
- ✓ Polarization window dimension: 171x116 mm
- ✓ Product dimensions (L x W x H): 224 x 133 x 446 mm
- ✓ Weight: 6kg per units (13.2 lb)

3. Electrical specifications

- ✓ V= 240 / 110 VAC
- ✓ F = 50 / 60 Hz
- ✓ Consumption <40mA AC / 220V (e)
- ✓ The unit has a built-in surge protector
- ✓ The system is supplied with two different power cables, a European model and an American model.
- ✓ This equipment should be electrically grounded.
- ✓ To rectify any indicated faults, please contact your dealer, installer stating the model number shown in the silver label of the product.

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4. Theoretical brightness performance SCC Neo Dual

- ✓ Maximum power of projector: 7 kW
- ✓ Power supply: 110V/240V 50/60Hz

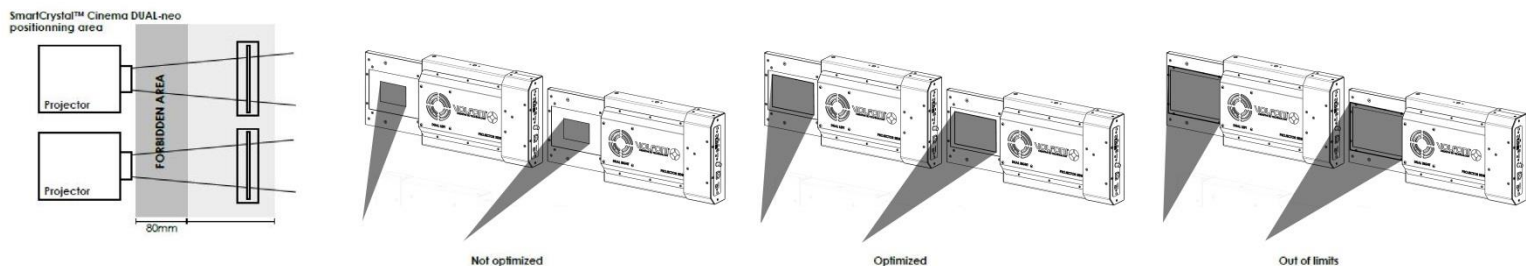
Aspect ratio (LxH)		30K lumens				20K lumens				15K lumens			
		6 FI on the screen		4.5 FI on the screen		6 FI on the screen		4.5 FI on the screen		6 FI on the screen		4 FI on the screen	
		Feet	Meter	Feet	Meter	Feet	Meter	Feet	Meter	Feet	Meter	Feet	Meter
Flat (1.85)	Flat (1.85)	81 x 44	25 x 13.5	94 x 51	28.7 x 15.5	66.5 x 36	20.5 x 11	77 x 42	23 x 5 x 13	58 x 31	17.5 x 9.5	66.5 x 36	20.5 x 11
	Scope (2.35)	92 x 39	28 x 12	106 x 45	32.5 x 14	75 x 32	23 x 10	87 x 37	26.5 x 11	65 x 28	20 x 8.5	75 x 32	23 x 10

IV. INSTALLATION REQUIREMENTS

1. Description & goals


The SmartCrystal™ Cinema Neo Dual must be placed directly in front of the lens of the projector at a distance such that the image from the projector covers as much as possible the entire area of the polarization window in order to minimize thermal heating effects.

Ensure that the side of the SmartCrystal™ Cinema marked "PROJECTOR SIDE" is facing towards the projector and the polarizer marked with a «RIGHT EYE» is in front of your right projector and the polarizer marked with a «LEFT EYE» is in front of your left projector.



Monitor the distance between the projector and the SmartCrystal™ Cinema Dual as it is very important to preserve the Polarizer

You may tilt the SmartCrystal™ polarization panel at a slightly to avoid scattering light reflection onto the projector lens and to reduce potential ghosting.

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3. Optical & mechanical requirements

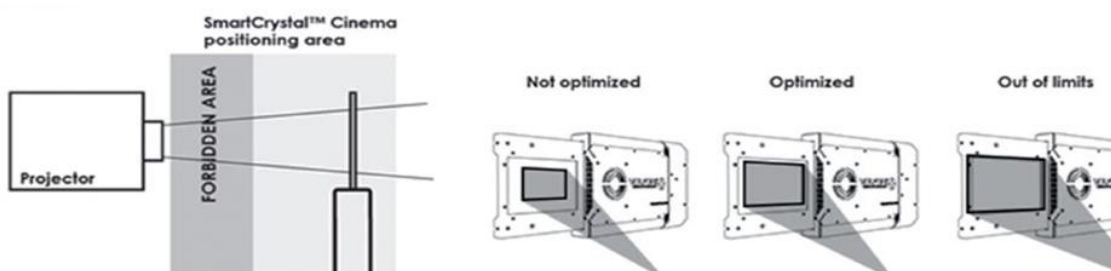
The SmartCrystal™ Cinema Neo Dual system must be placed directly in front of the lens of the projector at a distance such that the image from the projector covers as much as possible the entire area of the polarization window in order to minimize thermal heating effects.

Ensure that the side of the SmartCrystal™ Cinema marked "PROJECTOR SIDE" is facing towards the projector and the polarizer marked with a «RIGHT EYE» is in front of your right projector and the polarizer marked with a «LEFT EYE» is in front of your left projector.

WARNING



Monitor the distance between the projector and the SmartCrystal™ Cinema as it is very important to preserve the LCD. The projected image must cover the LCD area as much as possible, to avoid heating only a small part of the LCD.



The image must cover as much as possible the LCD panel


LCD panel overheating is not covered under warranty

DDV170084-A00 - Sc. Neo Warning Flyer

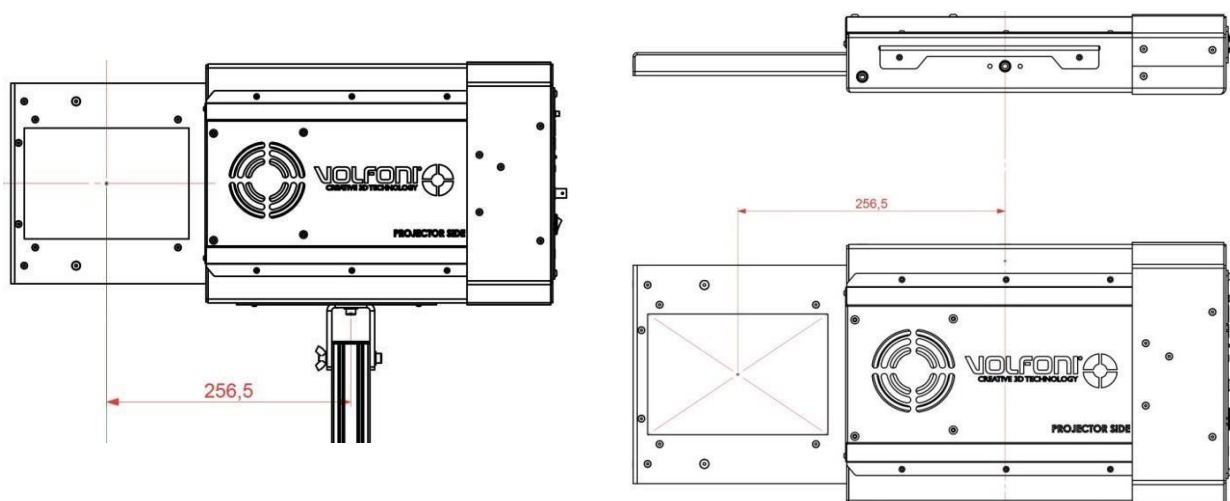


Monitor the distance between the projector and the SmartCrystal™ Cinema Dual as it is very important to preserve the Polarizer

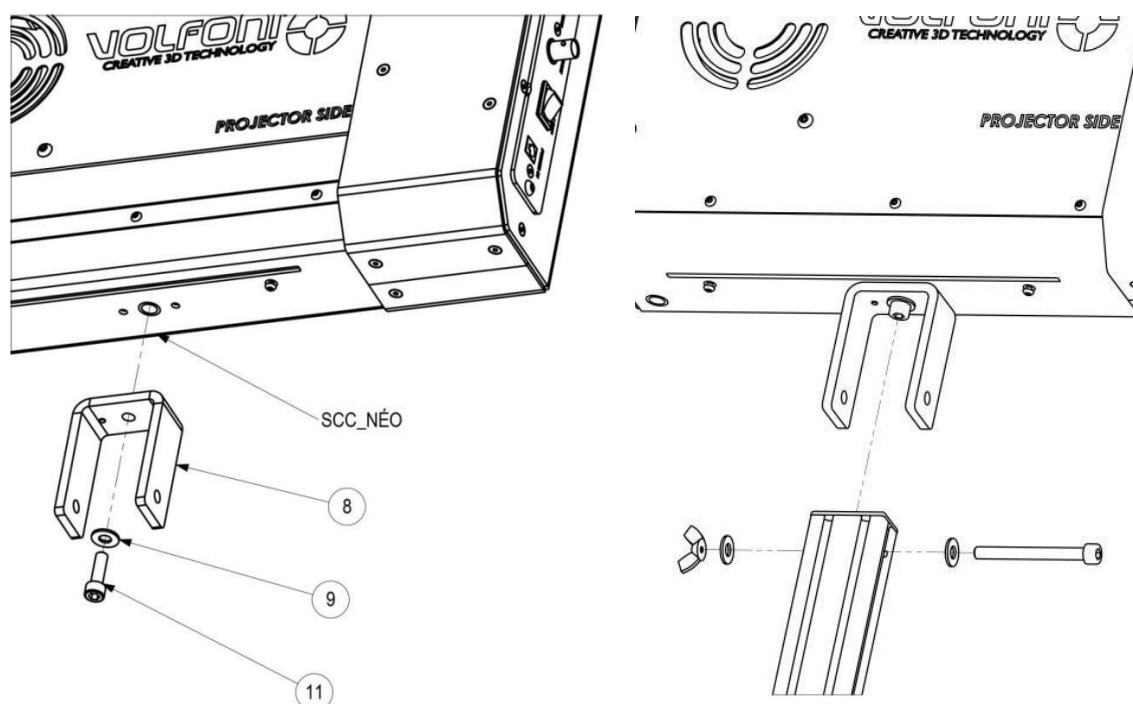
You may tilt the SmartCrystal™ polarization panel at a slightly to avoid scattering light reflection onto the projector lens and to reduce potential ghosting.


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A. Phase one



B. Phase two



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4. Projectors settings


To use the SmartCrystal™ Cinema Neo Dual, the 3D projectors must be set as follows:

3D content:

- ✓ The server(s) must broadcast the 3D content in two 2D contents
- ✓ 1 2D content (left images) for the left projector
- ✓ 1 2D content (right images) for the right projector

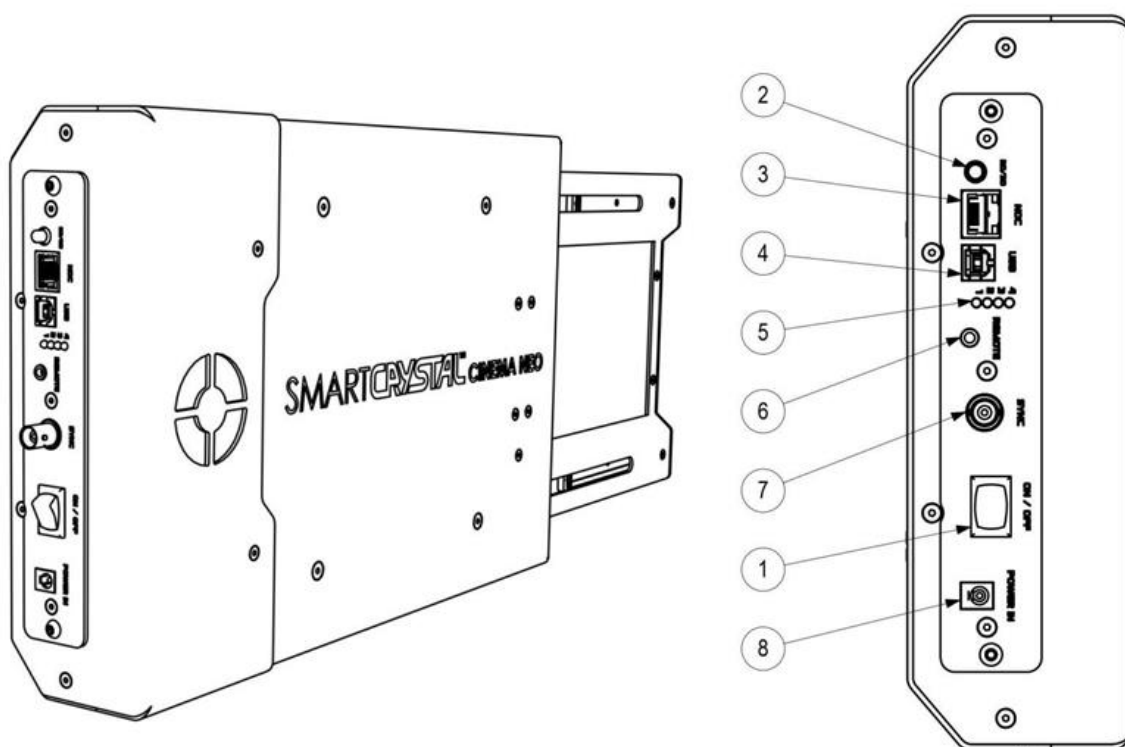
2X3D cinema projectors:

- ✓ The two projectors must be synchronized in order to broadcast the left and right images simultaneously in 2D mode
- ✓ As Auto-Mode option is disabled and there are no 3D signal coming from projectors, BNC connectors are not used with Dual systems


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V. USING THE SMART CRYSTAL CINEMA NEO DUAL

1. User interface description



- 1- On / Off switch
- 2- 2D / 3D
- 3- RJ45 (NOC): Automation
- 4- USB (Software update)
- 5- LEDs (Visual Control)
- 6- Remote control
- 7- BNC (Synchronization): Not Applicable for Dual Systems
- 8- 12V (Power supply)

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2. On / Off switch

Put this button in position ON to power the SmartCrystal™ Cinema Neo Dual and begin operating the system. Put it in position OFF when you want to stop using the 3D system.

3. Manual mode

There is one button that moves the polarization window of the SmartCrystal™ Cinema Neo left and right. When the system is powered, press this button and the polarization window will emerge from its encasement (3D mode). Press this same button when you want to stop using the SmartCrystal™ Cinema, and the polarization window will go back inside its encasement (2D mode):

- ✓ *This button blinks in green when the polarization window is moving*
- ✓ *This button is green continuously when the 3D system is open and the polarization window is out of the encasement*
- ✓ *This button is not illuminated when the polarization window is in 2D mode.*


When not using the SmartCrystal™ Cinema, put the system in 2D mode to protect the polarization window from dust and damage, and thereby increase product longevity.

4. Network connection – RJ45 plug

The NOC connector allows the system to be connected to a central network in order to retrieve information and perform remote operations on the SmartCrystal™ Cinema Neo Dual (e.g., monitoring, remote control, etc.).

There are two different modes:

- ✓ Manual mode: the user interface of the SmartCrystal™ Cinema Neo Dual directly controls the operation of the 3D system.
- ✓ NOC mode: information and operations are automatically sent from the server via the central network:
- ✓ **Follow the procedure:** <http://volfoni.com/en/smartcrystal-dual-a/>: **Remote Connection Guide**

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5. Software update – USB port : *See page 14*

6. LED check

There are 5 different LED lights that indicate the following:

LED number 1: **STATE OF FAN:**

- ✓ This LED is blue when the fan is running
- ✓ Red when there is a problem with the ventilation system

LED number 2: **STATE OF MOTOR:**

- ✓ This LED is blue when the motor is running
- ✓ Red when there is a problem with the system

LED number 3: **STATE OF SYNC:**

- ✓ Not Applicable for Dual Systems
- ✓ Synchronization cable is not used
- ✓ 2D contents
- ✓ The LED is red

LED number 4: **POWER SUPPLY:**


- ✓ This LED is blue when the system is properly powered
- ✓ Off when the system is not powered

2D/3D LED: **LCD FRAME POSITION STATUS:**

- ✓ This button blinks in green when the polarization window is moving
- ✓ This button is green continuously when the 3D system is open and the polarization window is out of the encasement
- ✓ This button is not illuminated when the polarization window is in 2D mode

7. Remote control : *Please contact us for more details*

8. BNC connector : *Not applicable for Dual systems*

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VI. MAINTENANCE

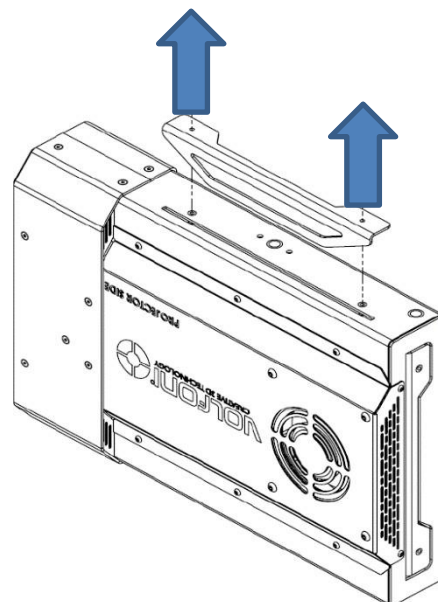
1. Snap hook

To increase safety, please use the snap hook when fixing the SmartCrystal™ Cinema Neo Dual.

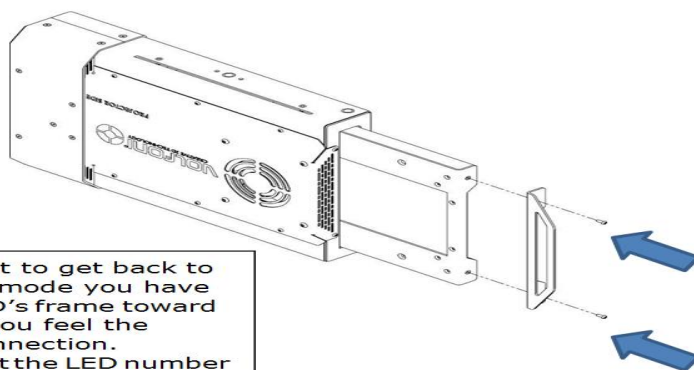
2 . Easy maintenance

To facilitate the maintenance, you can operate the frame manually. It allows you to easily clean the LCD from dust for example.


a. Unscrew 2 followingscrews



b. Fix the handle to the LCD frame with the two screws you have just removed



When you want to get back to the automatic mode you have to push the LCD's frame toward the inside till you feel the mechanical connection. Then check that the LED number 2 isn't red.


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3. Software update

The latest software is available on Volfoni website to update your product.


How to use the software update:

- ✓ Go to Volfoni website (www.volfoni.com)
- ✓ Choose the menu SERVICES/SUPPORT
- ✓ Download the software VOLFONILoader (Windows or Mac)
- ✓ Connect your computer to the system with the USB-A /USB-B cable (cable supplied with your SmartCrystal™ Cinema Neo Dual)
- ✓ Turn on your SmartCrystal™ Cinema Neo Dual
- ✓ Verify that the software recognizes your system
- ✓ Once the device is connected, press CHECK FOR UPDATE
- ✓ Load the latest version if it's not already on your SmartCrystal™ Cinema Neo Dual

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VII. TROUBLESHOOTING

PROBLEM	SOLUTION
<i>The system does not work</i>	<ol style="list-style-type: none"> 1- Verify that the power LED is illuminated when working 2- If it is off, this indicates that there is a problem with the power supply of the system 3- Check that the electronic module is correctly mounted into the bracket 4- Check that the power supply is connected and that the system is in the power ON state 5- Should the error persists, please contact your reseller or integrator
<i>The image is blurred</i>	Check that 2D images coil out polarizers are sharp
<i>No 3D or bad 3D quality</i>	<ol style="list-style-type: none"> 1- Ensure that the side of the device marked “Projector side” is facing towards the projector 2- Ensure the polarizer marked with a “Right eye” is in front of your right projector 3- Ensure that the polarizer marked with a “Left eye” is in front of your left projector 4- The server(s) must broadcast the 3D content in two 2D contents : 1 2D content (left images) for the left projector and 1 2D content (right images) for the right projector 5- The two projectors must be synchronized in order to broadcast the two 2D contents (left and right images) simultaneously in 2D mode 6- Tilt the polarizer panel at a slightly to avoid scattering light reflection onto the projector lens and to reduce potential ghosting 7- Silver screen must be used 8- We recommend to use Volfoni passive glasses (circular polarization) 9- Remove projection porthole in case of it depolarizes the light


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<i>The LED for “state of motor” illuminates in red</i>	1- Fix the handle as described page 13 2- Pull out the LCD’s frame at the maximum 3- Push the LCD’s frame towards the inside till you feel the mechanical connection 4- If issue remains the same, please contact directly your reseller or integrator and do not touch the electronics of the device
<i>The LED for “state of fan” illuminates in red</i>	In such case, please contact directly your reseller or integrator and do not touch the electronics of the device
<i>You cannot control the system remotely (NOC)</i>	Follow procedure : http://volfoni.com/en/smartcrystal-dual-a/ Remote Connection Guide
<i>In case of device needs to be repaired in our offices</i>	Equipment (modules and cables) should be returned in their original packaging along with the original proof of purchase Equipment that is broken or scratched is not covered under warranty Volfoni does not guarantee uninterrupted or error-free operation of the product

IF YOU DO NOT NOTICE ANY IMPROVEMENT FURTHER TO THE SUGGESTED SOLUTIONS, PLEASE CONTACT YOUR SUPPORT

VIII. IMPORTANT SAFETY RECOMMENDATIONS

- ✓ Protect all parts of the 3D system from direct sunlight, heat or water.
- ✓ Extreme conditions may alter the product's performance.
- ✓ Do not modify the electrical or mechanical components of your 3D system.
- ✓ Do not apply force to the window of the polarization modulator.
- ✓ Do not touch the polarization window.
- ✓ Avoid vibrations and shock.
- ✓ Use a clean soft cloth when cleaning the polarization modulator to avoid scratching.

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- ✓ Always transport the SmartCrystal™ Cinema Neo Dual system in its original packaging to avoid scratching the LCDs or the frame.
- ✓ In case of damage to the SmartCrystal™ Cinema Neo Dual where the skin is exposed to liquid crystal material, we recommend that you immediately wash the area with soap and water.
- ✓ In case of eye exposure to liquid crystal material, please seek medical advice immediately.
- ✓ Please note that passive 3D glasses must not be used as sunglasses.

IX. WARRANTY

The SmartCrystal™ Cinema Neo Dual is protected under warranty to the original purchaser for three (3) years according to local legislation. Equipment (modules and cables) should be returned in their original packaging along with the original proof of purchase. Equipment that is broken or scratched is not covered. Volfoni does not guarantee uninterrupted or error-free operation of the product.

X. FURTHER INFORMATION

NOTICE:

The Volfoni Group reserves the right to make changes in the hardware, packaging or other documentation without prior written notice. SmartCrystal™ Cinema Neo Dual is a trademark of the Volfoni Group. All trademarks are the property of their respective companies.

www.volfoni.com


XI. REGULATORY STANDARDS

European Union - Disposal information

This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches the end of its life, take it to a collection point designated by local authorities. Some collection points accept product for free.

The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

This Class B digital apparatus complies with Canadian ICES-003.

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XII. VOLFONI CONTACTS

Distributed by Volfoni SAS

2474, RD 6007
 Le Logis de Bonneau
 Les Bureaux du Parc
 06270 Villeneuve-Loubet
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