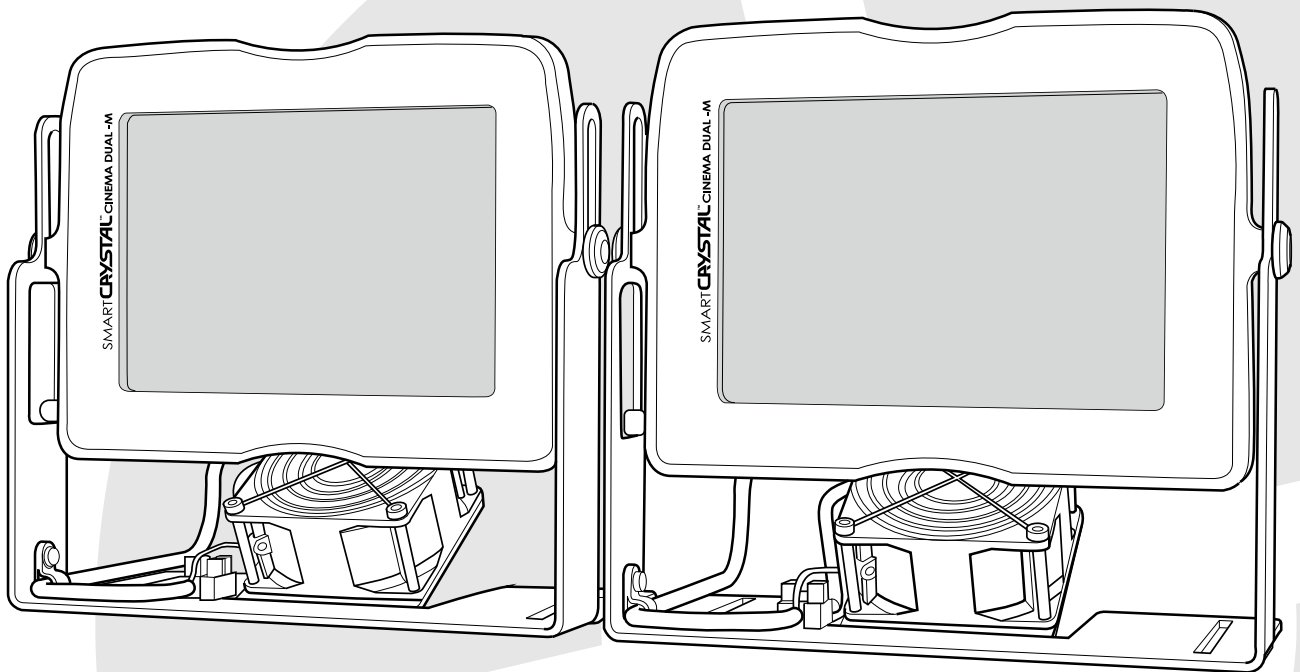


# SMART **CRYSTAL**<sup>™</sup> CINEMA DUAL-M

## User Guide





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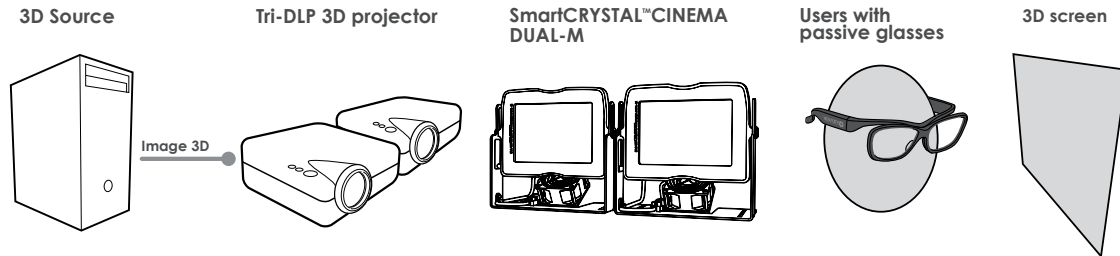
## 1. PRODUCT OVERVIEW

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

## 2. REQUIREMENTS

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

- 3D content
- 2X3D cinema projector
- Polarization-preserving silver screen
- Passive circular-polarized 3D glasses



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

### 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 Dual Manual is compatible with most commonly used passive 3D glasses (circular-polarized only).

Please contact Volfoni ([contact@volfoni.com](mailto:contact@volfoni.com)) to learn about our line of passive 3D glasses

## 3. SMARTCRYSTAL™ CINEMA DUAL MANUAL FEATURES

### 3.1 - General specifications

- Meets all standards for electronics approved by CE
- For use with lightweight circular-polarized passive 3D glasses
- Passive 3D glasses as well as clip-on 3D glasses are available from Volfoni. Please contact us for more details.

### 3.2 - 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: 163x112 mm
- Product dimensions (L x W x H): 240 x 250 x 130 mm
- Weight: 2kg per units (4.4 lb)

### 3.3 - Electrical specifications

- V= 240 / 110 V AC
- F= 50 / 60 Hz
- P = 12 W
- 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.



### 3.4 - Theoretical brightness performance SCC Dual

		30K lumens				20K lumens				15K lumens			
		6 fL on the screen		4.5 fL on the screen		6 fL on the screen		4.5 fL on the screen		6 fL on the screen		4 fL on the screen	
		Feet	Meter	Feet	Meter	Feet	Meter	Feet	Meter	Feet	Meter	Feet	Meter
Aspect ratio (LxH)	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	23x5 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

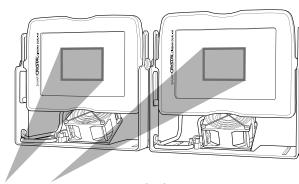
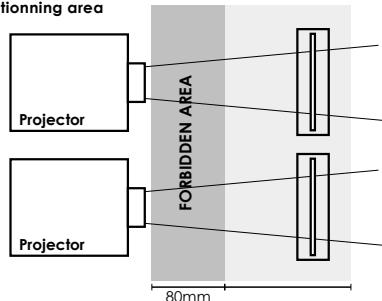
## 4. INSTALLATION

The SmartCrystal™ Cinema Dual M should 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.

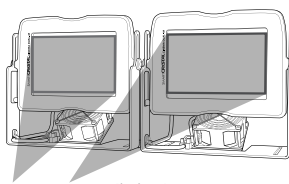
Ensure that the side of the SmartCrystal™ Cinema marked "PROJECTOR SIDE" is facing towards the projector and the polarizer marked with a «RIGHT EYE» is in front of your right projector and the polarizer marked with a «LEFT EYE» is in front of your left projector.

The SmartCrystal™ Cinema polarization module must be placed at least 80mm (4 inches) away from the projector lens.

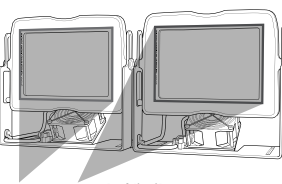
SmartCrystal™ Cinema DUAL-M positioning area



Not optimized



Optimized



Out of limits



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.

## 5. TROUBLESHOOTING

PROBLEM	SOLUTION
The image is blurred	Check that 2D images coil out polarizers are sharp



## 6. 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.
- Please note that passive 3D glasses must not be used as sunglasses.

## 7. WARRANTY

The SmartCrystal™ Cinema Dual M is protected under warranty to the original purchaser for one year according to local legislation. Purchasing terms may grant longer warranty periods. 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. The SmartCrystal™ Cinema may become damaged if it is placed in front of the projector-lens such that the image from the projector does not cover as much as possible the entire area of the polarization-window (see section 4 "Installation"). Damage caused by placing the SmartCrystal™ Cinema too close to the projection lens is not covered by warranty. Volfoni does not guarantee uninterrupted or error-free operation of the product.

## 8. 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 is a trademark of the Volfoni Group.

All trademarks are the property of their respective companies.

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

## 9. 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.