



Active 3D System for Digital Cinema

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User Guide



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## 1. Getting Started

You have just purchased a state-of-the-art active 3D system for digital cinema designed and manufactured in France by *Eyes Triple Shut (E3S)*.

Thanks to E3S patented technology, viewing experience has never been so perfect. There is neither ghosting<sup>1</sup> nor color banding<sup>2</sup>, residual light is exceptional and viewing angle is very large, allowing an incredible viewing comfort, wherever seated in the theatre.

Please take a moment to read these instructions before installing your system.

First of all, you must contact your integrator to enter the correct parameters on the projector interface.

For your information :

<b>Polarity</b>	Négative
<b>Delay</b>	-1200 $\mu$ s
<b>Darktime</b>	1000 $\mu$ s

Different 3D settings will automatically lead to poor image quality (ghosting, color banding etc.) and can even cause headaches and nausea among spectators.



**View of a pair of PURPLE ONE active 3D glasses**

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<sup>1</sup> a double image when receiving a multipath signal (right-eye image and left-eye image)

<sup>2</sup> a problem of inaccurate colour presentation in computer graphics

## 2. Installing the Synchronization Kit

### A. What's included ?



**Synchronizer**



**Infrared (IR) emitter**



**IR Tester**

### B. Installing the synchronization kit

1. Plug GPIO Cable to Projector and Synchronizer ("SYN. IN")
2. Plug Power Module to Synchronizer (between "LINK 3" and "SYN. IN")
3. Place IR emitter to have the best reflection
4. Plug XLR cable to IR Emitter and Synchronizer ("LINK 1")
5. If more than one IR Emitter is needed, repeat step 3 and 4 with extra IR Emitter and XLR Cable
6. Switch Synchronizer Distribution Module "A B" switch to position "B"
7. Switch Synchronizer Polarity switch to position "+"
8. Switch Synchronizer "on off" switch to position "on"

### C. Using the IR Tester

The IR tester is designed to help the theatre staff to check that every pair of glasses handed to a customer is working correctly.

The IR tester is very easy to use : press the button on the side to turn it on. Place the glasses close enough to the case and they will flash.

The IR tester activates the glasses at a low frequency of 12 Hz (or 12 moves per second), vs. 144 Hz during a screening, so the eyes can see the liquid crystal shutters opening and closing.

If you can't see the shutters opening and closing, check if the battery is correctly charged. If not, place it on the charging station. If the battery is charged, the glasses are malfunctioning what means they should not be handed to a customer in any case.

### 3. Installing the Charging Racks

#### A. Installing and Using the Charging Racks

Installation is very simple. You just need to plug the power supply into an electric plug.



**View of the charging and storing rack**

The Charging Racks are mounted on wheels for improved mobility. Closing shutters are integrated to secure the glasses.

When the glasses are charging, the charging indicator light located on the charging station is on. When the glasses are charged, the light is off.

The charger will start the charging process only if the battery autonomy is below 80% of autonomy in order to avoid any premature wear of the battery.

#### B. Technical Data

	96 Model	144 Model	192 Model
Code	E3S_CRB096	E3S_CRB144	E3S_CRB192
Capacity	96 pairs of glasses	144 pairs of glasses	192 pairs of glasses
Dimensions	160 x 120 x 55,5 cm	160 x 120 x 55,5 cm	160 x 120 x 55,5 cm
Weight	95 kg	106 kg	121 kg
Power Supply	Input 85~264VAC ; 120~370VDC Output 5V - 12A	Input 85~264VAC ; 120~370VDC Output 5V - 26A	Input 85~264VAC ; 120~370VDC Output 5V - 26A

## 4. Getting to know **PURPLE ONE**

### A. What's inside ?

*PURPLE ONE* active 3D glasses are composed of a plastic hull, an electronic circuit and two liquid crystal shutters.

A low-battery indicator light is located on the right side of the plastic hull. This light is on when battery is below 10% (or 4 hours) of autonomy. It is highly recommended to put the glasses on charge when low-battery indicator light is on to avoid any problem during the screening.



**View of the *PURPLE ONE* glasses and close-up on the sensor and the low-battery indicator light.**

### B. Using *PURPLE ONE*

*PURPLE ONE* active 3D glasses are designed for heavy use in movie theatres. Their ultra-resistant plastic hull offers a great mechanical resistance and an incredible wearing comfort. The glasses adapt to any kind of heads : children, adults, and people wearing prescription glasses.

Lithium battery recharging time is one hour. Autonomy is approximately 40 hours.

Thanks to the powerful IR signal coming from the IR emitter(s) located in the projection booth and the sensitivity of the glasses' sensor, synchronisation is very reliable even if viewers put a finger on the sensor or move their head.

## 5. General Recommendations

1. Do not position *PURPLE ONE* glasses on the charging station backwards
2. Position *PURPLE ONE* glasses on the charging station carefully
3. Unplug the power supply of the rack before moving it
4. If the glasses have not been used during a long period, we recommend to charge the glasses 24 hours prior to next screening (battery security)
5. If the glasses have not been used during a long period, wait a few minutes before charging indicator light turns on (low tension battery protection)
6. The glasses should be tested with the IR tester before being handed to customers
7. To clean the glasses, we recommend to use anti-bacterial cleaning wipes designed for active 3D glasses (Eyes3Shut can provide them). Do not use any corrosive or abrasive liquid. Do not wash *PURPLE ONE* glasses with water or any liquid.
8. *PURPLE ONE* active 3D glasses are designed to be used exclusively in movie theatres

## 6. Warranty

### A. *PURPLE ONE* Active 3D Glasses

Eyes3Shut warrants this product (*PURPLE ONE* active 3D glasses) to meet all the published product specifications for 18 months from the date of purchase. Any dysfunctioning regarding electronics, plastic and shutters is covered by this warranty. Vandalism and battery are excluded.

### B. Synchronization Kit and Charging Racks

Eyes3Shut warrants that synchronization kits and charging racks will perform according to the data provided in the documentation during 5 years from the date they are delivered to you. Any dysfunctioning regarding electronics is covered by this warranty. Any damage on the outside plastic or metal case is excluded. Battery is also excluded.

If you need to call on the warranty, please contact your integrator.

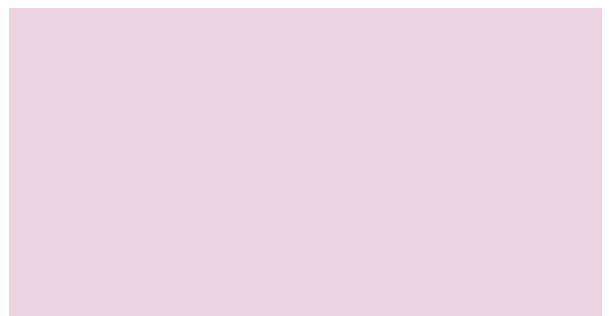
## More information

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