

# CLS Mirror Panels

## DMX protocol

The table below shows the DMX protocol of the Mirror type 1 (60 x 60 cm) panel.

Mirror type 2 (60 x 120 cm) and Mirror type 3 (60 x 180 cm) have more sections per color, and will respectively need 16 or 24 channels per color.

Channel	Value	Function	Channel	Value	Function	Channel	Value	Function
1	0-255	Red 1	9	0-255	Green 1	17	0-255	Blue 1
2	0-255	Red 2	10	0-255	Green 2	18	0-255	Blue 2
3	0-255	Red 3	11	0-255	Green 3	19	0-255	Blue 3
4	0-255	Red 4	12	0-255	Green 4	20	0-255	Blue 4
5	0-255	Red 5	13	0-255	Green 5	21	0-255	Blue 5
6	0-255	Red 6	14	0-255	Green 6	22	0-255	Blue 6
7	0-255	Red 7	15	0-255	Green 7	23	0-255	Blue 7
8	0-255	Red 8	16	0-255	Green 8	24	0-255	Blue 8

## DMX protocol controls

- Control input: XLR 3-pin male
- Control output: XLR 3-pin female
- Control cable: 120 Ω DMX cable
- Control signal: DMX 512 / 1990

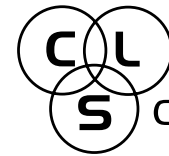
## 8. TECHNICAL SPECIFICATIONS

Panel:	Mirror type 1	Mirror type 2	Mirror type 3
Input voltage:	DC 12 V	DC 12 V	DC 12 V
Power consumption:	24 VA	36 VA	72 VA
Number of LED:	112	348	576
Weight:	6,5 Kg	11 Kg	16,2 Kg
Shipping Weight:	8,6 Kg	14,7 Kg	21 Kg
Measurements:	600 x 605 x 25 mm	1250 x 600 x 40 mm	1800 x 605 x 25 mm*
Shipping Dimensions:	700 x 700 x 140 mm	1300 x 680 x 140 mm	1900 x 700 x 140 mm
Ambient Temperature:	-20° to + 45°C		

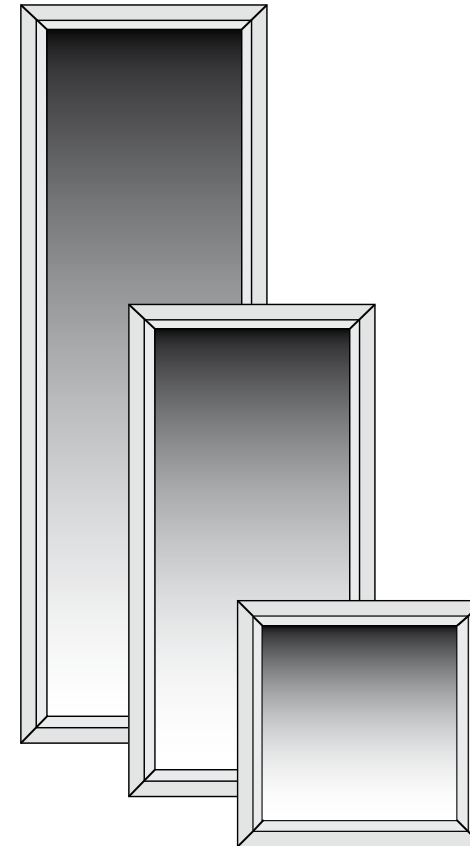
\* measurements +/- 2 mm

Measurements (H x W x D) without cables

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Creative Lighting Solutions



## CLS Mirror Panels

### 1. INTRODUCTION

Thank You for selecting the CLS Mirror Panel. The CLS Mirror Panel is a Fixture which uses LED color mixing to create a color changing transparent surface. With this technique it is possible to create a wide range of colors and patterns, making this unit suited for a wide range of decorative and architectural applications.

The CLS Mirror Panel is based on dimmable red, green and blue LEDs ,and advanced electronics, to create a low energy, high output light source. It is available in three different size's, so they fit multiple purpose's.

#### The CLS Mirror Panels offers:

- 8 ,16 or 24 independent controllable RGB segments
- High efficiency LED light source
- Decorative housing
- Rich saturated colors

#### Included Items

The CLS Mirror Panel is shipped in one package containing the following items:

- 1 CLS Mirror Panel
- 1 User manual

#### Optional Accessories

- |                                    |                 |
|------------------------------------|-----------------|
| • CLS Mirror Panel power supply    | Art. nr. 872379 |
| • CLS Power supply cable 4 meters  | Art. nr. 872375 |
| • CLS Power supply cable 10 meters | Art. nr. 872377 |
| • CLS DMX cable 0.8 meters         | Art. nr. 911200 |
| • CLS DMX cable 1.5 meters         | Art. nr. 911201 |
| • CLS DMX cable 3.0 meters         | Art. nr. 911203 |
| • CLS DMX cable 5.0 meters         | Art. nr. 911205 |
| • CLS DMX cable 10.0 meters        | Art. nr. 911206 |
| • CLS DMX cable 15.0 meters        | Art. nr. 911207 |
| • CLS DMX cable 20.0 meters        | Art. nr. 911209 |

**ATTENTION: It is important to read this manual before you install or use this product.**

### 7. DMX-ADDRESSING

To control the CLS Mirror Panels with a DMX controller, you will need to set the start address of each fixture. This can be done by using the UP and DOWN buttons next to the Mirror panels display.

**WARNING** **ATTENTION!**  
**NEVER USE ADDRESS 1 IF CONNECTED TO A DMX CONTROLLER**

- Mirror type 1 (60 x 60 cm) uses 24 channels, for 8 x red, 8 x green and 8 x blue section.
- Mirror type 2 (60 x 120 cm) uses 48 channels, for 16 x red, 16 x green and 16 x blue section.
- Mirror type 3 (60 x 180 cm ) uses 72 channels. for 24 x red, 24 x green and 24 x blue section.

To allow individual DMX control over each of the CLS Mirror Panels sections, you have to make sure there is no overlapping of addresses!

#### To set the DMX address of the each fixture you have to take the following steps

- Connect the fixture to DC power.
- The current DMX address will be visible on the led display at the back side of the unit.
- Set the DMX address by pressing the UP or DOWN button.
- Repeat these steps for each fixture in the DMX link.



#### This cable has to be connected to the DMX output of the controller and the input of the first Mirror panel.

- First address the fixtures as described in the DMX addressing section of this manual.
- Then disconnect the units from power.
- Connect the Male XLR 3 connector to the output of your DMX controller.
- Connect the Female XLR 3 to the next fixture's input. A maximum of 32 fixture's can be connected in this way.
- Use a DMX termination plug in the last fixtures' output.
- Power up the units again.

If you want to control more than 32 units with a DMX controller ,you will have to use an active DMX splitter, and set up each of it's outputs as described above.

### 5. STAND ALONE OPERATION

The Mirror Panels can be used stand alone. In this mode it will generate random patterns.

**To set a single unit to stand alone you will have to take the following steps:**

- Connect the fixture to DC power.
- Set the fixture to address 001 by using the up and down buttons next to the display.
- Make sure that none of the XLR 3 connectors are connected.
- Reset the fixture. By powering off the Power Supply, wait for 10 seconds and then powering on it again.

Now the Mirror Panel will generate patterns and colors in a random way.

**To set multiple linked fixture's stand alone, you will have to take the following steps:**

- Connect all the fixtures to DC power.
- Identify the first fixture in the link by checking which fixture has only the XLR 3 female connector plugged in.
- **Make sure that only Mirror Panels of the same type are linked together, and that no other fixture's are in this link!**
- Set all the fixture's on a DMX address higher than 001.
- Set the first fixture to address 001.

Now the Mirror Panels will generate patterns and colors in sync to the first fixture.

**WARNING**

**ATTENTION!**  
**IF YOU SET MORE THAN ONE FIXTURE IN A LINK AS MASTER, THE PANELS WILL BE DAMAGED**

### 6. DMX-OPERATION

The Mirror Panel may be controlled and operated by devices which send DMX according to the USITT DMX 512 standard. For specific control values see the DMX Protocol on page 8.

**Connecting to a DMX controller**

To connect a DMX 512 controller to the Mirror Panel(s) you need standard 3 pole XLR cable's.

- Pin 3 = hot
- Pin 2 = cold
- Pin 1 = ground.

### 2. SAFETY INFORMATION

**Warning! This product is for professional use only, not for domestic use.**

**Read this manual before powering up or installing the CLS Mirror Panels. Follow the instructions listed below and observe all warnings in this manual.**

#### Protection from electric shock

- Disconnect the power supply from AC power before installation, dismantling or maintenance of the unit.
- Make sure all connectors are connected properly.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground fault protection.
- Do not expose the unit to rain or moisture (indoor use only).
- Refer all service to a qualified technician.

#### Protection from burns and fire

- Provide a ventilated clearance of at least 20 mm around the unit.
- Do not install the Mirror Panel near to a heat source.
- Do not install the Mirror Panel in a corrosive, flammable or explosive area.
- Do not modify the Mirror Panel, or install other than genuine parts.
- Do not operate the Mirror Panel if the ambient temperature exceeds 45°C.

#### Protection from injury due to falls

- Verify that all covers and mounting hardware are securely fastened.
- Block access below the work area whenever installing or removing the unit or power-supply.

**WARNING**

**ATTENTION!**  
**WHEN CLEANING THE SURFACE OF THE MIRROR PANELS, ALWAYS USE A SOFT TISSUE. COMBINED WITH NON-AGGRESSIVE CLEANING FLUIDS, LIKE WATER.**

### 3. INSTALLATION

This section describes in general terms how to install the fixture, and to connect it to a power supply, and to set up a data link. (for multiple units only)

#### Installing the CLS Mirror Panel

- You can support it on a shelf, using our wallmount set.
- Suspend it by using the ceiling mount set.

Be sure to secure the panels on their location, and always use the correct length of metric screws.

#### Powersupply

The Mirror Panels need to be powered by a DC 12V powersupply. The required current depends on the size of the panel.

- Mirror type 1 (60 x 60 cm) uses 2 ampere max. / 8 pieces on 1 supply max.
- Mirror type 2 (60 x 120 cm) uses 4 ampere max. / 4 pieces on 1 supply max.
- Mirror type 3 (60 x 180 cm) uses 6 ampere max. / 2 pieces on 1 supply max.

#### Connecting the Power Supply

- Make sure that nothing is connected to AC power!
- Unscrew the end cap of the 12 V DC male power cable.
- Plug the male DC connector of the Mirror Panel in the female DC connector of the power supply.
- Tighten the connection ring on the connectors firmly.

Multiple units can be wired in series by connecting the female connector of the first unit to the male connector on the second panel, and so on. Always connect the power supply in the middle of the total number of connected panels: If you want to power for example 6 piece's of Model 1 Mirror Panel, you should connect the power supply between number 3 and 4, so each output is equally loaded.

The maximum number of panels you can connect to a single power supply depends on the model. Be sure to mount the end cap on the last unit in a link. Now you can plug the Power supply in an grounded AC wall outlet.

**WARNING**

**ATTENTION!**  
**IT IS NOT POSSIBLE TO CONNECT PANELS OF DIFFERENT SIZES TO ONE POWERSUPPLY. EACH SIZE NEEDS ITS OWN POWERSUPPLY!!**

### 4. DATA LINKING MULTIPLE FIXTURES

You need to create a data link if you want to:

- Run multiple Mirror Panels in a synchronous way in stand alone mode.
- Control one ore more fixtures via a DMX controller.

The Mirror Panel can be data-linked by using the XLR 3 input and output connectors at the backside of the unit.

To set up a data link you have to take the following steps:

- Disconnect all the units from the AC supply.
- Connect the XLR 3 Female connector of the first panel to the XLR 3 Male of the next fixture.
- You can use CLS DMX cables if you need more length.
- Continue connecting the fixtures XLR 3 female output to the next fixtures XLR 3 male input.
- A maximum of 32 units can be connected in this way.
- Connect all the units to the AC supply again.

