

### Question: Can i use the transparent LCD Panel without the box ?

Transparent LCD technology requires a very strong backlight in order to correctly display images on the panel. Generally speaking, it's not possible (or recommended) to use the LCD as a self-standing unit.

That is we designed HYPEBOX, a complete Transparent LCD box with optimized internal illumination.

Customers asking to integrate TLCD in doors, or as a window with no back light, etc...

- On doors: in general, the standard illumination of room is not enough, so the TLCD will look dark
- On windows: during a sunny day, you may get a nice result. But also the background is important, a clear sky is probably the best, but trees, buildings, cars, etc.. will create confusion.

TLCD Panel – OFF (without showcase)

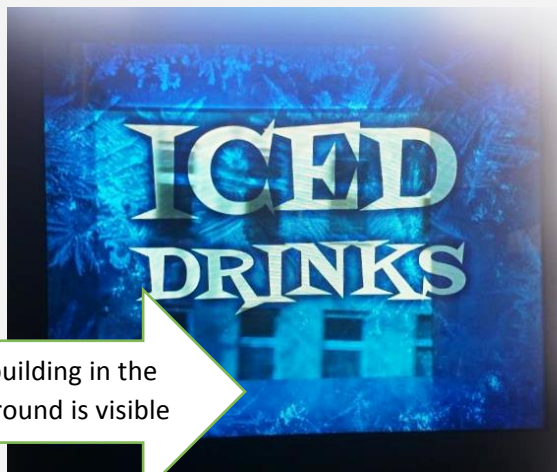


Without box and proper illumination  
(only standard room illumination)

TLCD Panel – ON (without showcase)

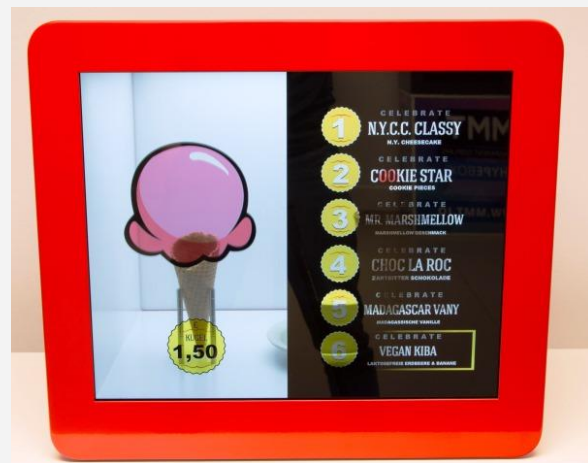


Without box and proper illumination  
(only standard room illumination)



The building in the  
background is visible

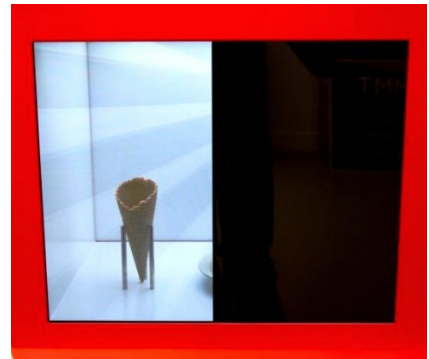
Hypebox 19" with backlight ON, no rear panel,  
placed in front of a window during a sunny day



Standard Hypebox 19" with backlight ON. Bright  
backlight and white background for best results

### Question: What does 15% Transparency mean ?

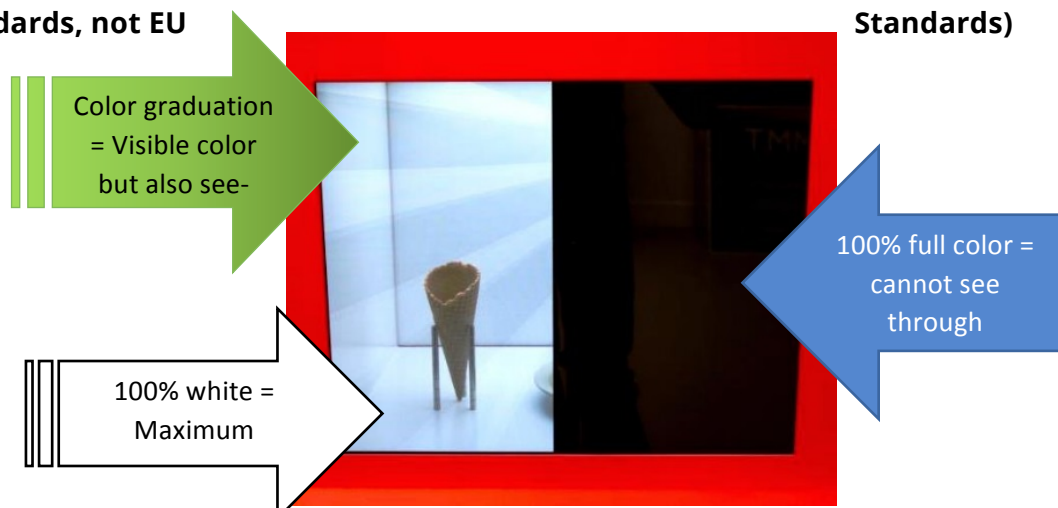
The so called "percentage of transparency" is just an indication: 15% transparent doesn't mean that the LCD is blocking 85% of the view. As the white color on the TLCD looks like 99% transparent, nearly like glass, colors are actually fully visible and (especially the black color) blocking the view. Actually, 15% is the highest transparency currently available. But there is no way to "measure" the transparency of an LCD Panel considering how the human eye see it because it's not only determined by the panel, but also by the backlight.



### Question: How should i develop the media content and how do i run it on HYPEBOX or Transparent LCD Panels ?

HYPEBOX / TLCD is compatible with the most common video standards. The same content running on a standard LCD will run on a TLCD. There are several ways to play contents:

1. *Internal Media Player*: play videos directly from an USB Stick
  2. External player (i.e. a PC) as through the HDMI input
  3. The TOUCH version has an additional USB port to connect the touch sensor to the external device (PC, MAC, Linux device or iStick Android device).
- **100% White = Maximum transparency / 100% solid color = not see-through**
  - **Depending on the color graduation, the screen will be more or less transparent**
  - **Preferred settings: 8bit color depth, .mp4 file format & h264 codec at 25 fps (US Standards, not EU Standards)**



### **Question: Can they be used in Landscape as well as Portrait mode ?**

HYPEBOX designed to be used in landscape mode cannot be used in Portrait mode.  
HYPEBOX designed to be used in portrait mode cannot be used in Landscape mode.

### **Question: Can we fit our own player into the unit ?**

The standard unit is provided with a media player / HDMI interface to connect any external player. We can for sure design a free space so that customer can hide his own player or PC.

### **Question: Do you have stock ready to ship ?**

We usually do have units ready, for the bestseller size such as: 19", 32", 42", 47", 55".  
With your help and feedback, we can focus on the most requested size and always try to have units available. This will bring more instant sales for sure.

### **Question: Can we do the box smaller or larger ?**

Yes, customer can request different size, depth, landscape or portrait orientation, different backlight and access panel position, colour, etc...

### **Question: How does the touch functionality work on those models ?**

PQLabs multi touch frames are compatible with Windows, MAC, Linux and Android (with iStick). Download and install the drivers, connect the USB touch port to the PC and the device will work instantly. A calibration may be requested to increase touch accuracy.

We choose IR frames because they do not affect transparency as they run all over the TLCD border. Capacitive sensors instead, are applied on top of the TLCD reducing transparency and object inside the box appear "blurred".  
Here's an example:



### **Question: Do you offer curved transparent displays ?**

Currently, TLCD cannot be bent.

### **Question: Can the product be fixed to the base for security reasons ?**

On standard units, there are no holes on the back or bottom of the unit in order to avoid dust entering inside the unit. If requested, we can drill holes or VESA standard.

### **Question: Is the display protected from the front ?**

The touch version features a protective 4mm glass.

### **Question: How does a dark product affects the lighting inside of the box ?**

The backlight will provide the correct illumination to enhance the objects size and details. Having said that, feel free to contact us with further details and, if needed, we will suggest a different size of the box or lighting position.

### **Question: How are products delivered to us ?**

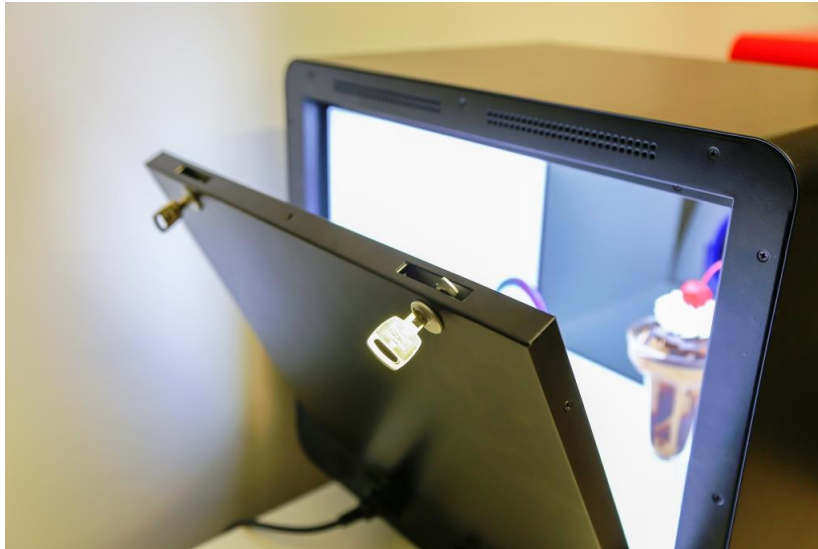
The HYPEBOX is delivered in robust wooden crates. In addition to that, a shock sensor will show if the crate suffered a strong hit.





### **Question: How do we place and change the item/product inside?**

On standard units, the access panels is located on the back. The key locks are available upon request.



### **Question: Can you provide a larger version than 84" ? (e.g. 4x2 m)**

84" is the biggest TLCD on the market. The bezel is quite large, and this makes it difficult to create something like a narrow-bezel video wall. So it's possible to install one TLCD next to the other (with the right background illumination), but the bezel may be of several cm.

### **Question: Can the surrounding border be reduced when using the displays side-by-side ?**

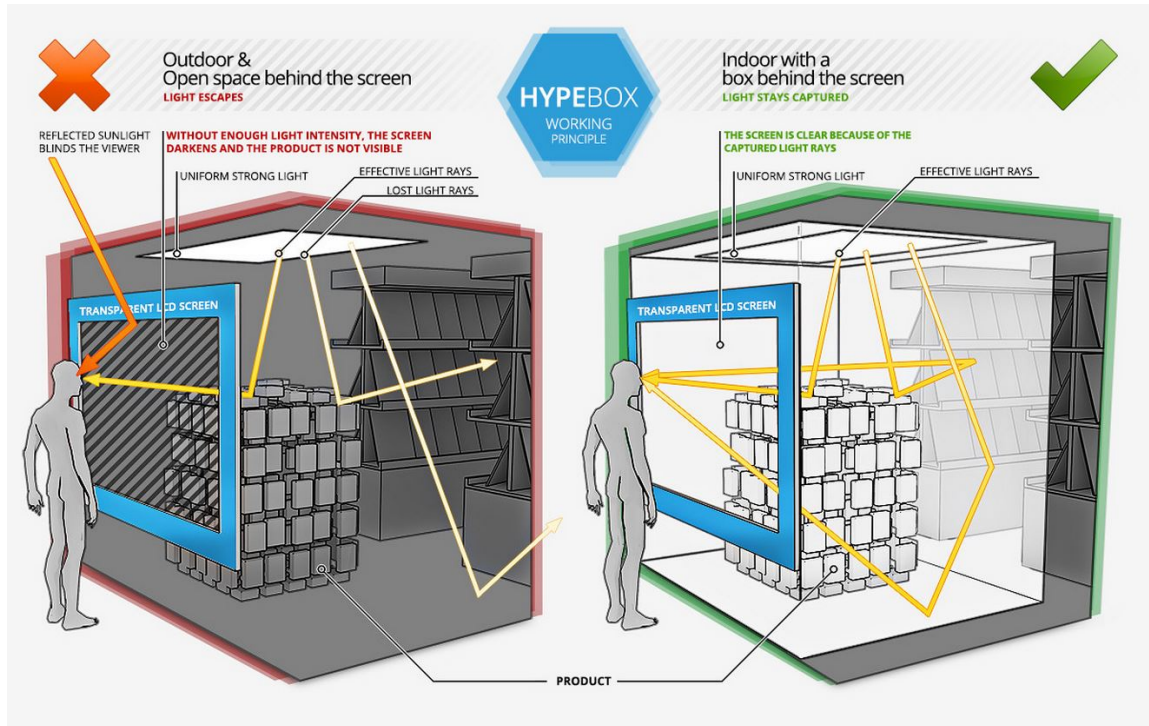
That would be too risky. Connections may get damaged over time and past experiences taught us not to bend or limit the space for this cables.



### Question: Is it possible to use the transparent Display in a store window ?

Yes, it is possible. For better results:

1. The inside illumination must be (really) bright. At least 10.000 lux right behind the panel.
2. Light must be uniform to avoid shadows. Use many LED lights instead of 1 strong spotlight.



3. The objects (mannequin, shelves, products, etc...) should be placed closed to the window, not too far away.

Example of a bad installation, with poor lighting (dark screen) and object too distant (not visible).

The store window glass was Also very reflective, creating an annoying effect.



### Question: What is the available screen resolution ?

Generally speaking FullHD, while the 65" and 84" are 4K (75" UHD coming soon).

### Question: Are other colors available and what is the cost ?

Any colour, please specify the RAL code. Prices are now written in the latest Price List and vary depending on the box size. No additional fee for orders of 5 or more units.

### Question: How much is the temperature and humidity inside of the box ?

Both values vary depending on the box size and orientation (Landscape / Portrait). This is mainly due to the fact that the Landscape version only has the backlight on the top. As the heat moves up, it leaves the unit from the top, and the inside of the box is just slightly warmer.

The Portrait is generating more heat due to the fact that the backlights are on both sides. So double the amount than the Landscape version. In addition to that, almost half of the heat is moving outside the unit, half inside the box.

HYPEBOX Model	Room conditions	Inside HYPEBOX
HB 47" Landscape	26.5° C, 30% humidity	31.2° C, 24% humidity
HB 55" Portrait	28° C, 30% humidity	37° C, 20% humidity
HB 19"	25.8° C, 32% humidity	37° C, 20% humidity
HB 21.5" Landscape	25.8° C, 32% humidity	39.5° C, 20% humidity

### Question: TLCD and OLED technology, what are the differences ?

It was recently announced an OLED prototype panel, size 55" from Samsung (also rebranded by Planar, NEC). In general, this (amazing) technology is not ready yet to hit the market.

- 1) Displaying content over the whole display area will let the brightness go down rapidly.
- 2) Black is not opaque.
- 3) White is shining in a way that you can't look through white spaces anymore.

- 4) OLED lifespan is currently 10,000 hrs. TLCD panels are passive components, so the real lifespan is related to the backlight illumination used. In our solutions, we offer a lifespan of 80,000 hrs.
- 5) OLED is still in a development state that small defects are coming already after a few months of use.

Since it's a prototype and not in mass production, its price is much higher and not comparable to the TLCD.

### **Question: What is the minimum brightness to achieve the transparency ?**

The brightness provided by HB and suggested for customers that are planning to build their own showcase is around 10,000 lux, directly behind the panel.

The brightness inside of the HYPEBOX depends on the size and the orientation of the unit. The bigger it is, the more backlight it requires. In landscape mode, light is placed on top, while in portrait mode, on the two sides. In this way, objects inside HYPEBOX are correctly illuminated, creating no shadows. Generally speaking, the brightness is 10,000 Lux intensity BEHIND THE MIDDLE OF THE PANEL. Lighting color: 6,000K (Kelvin).