

User Manual Black OnyX3



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WARNING!

Read the safety precautions in this section before installing, powering, operating or servicing this product.

The following sysmbols are used to identify important safety information on the product and in this manual:



WARNING!

Safety hazard. Risk of severe injuty or death.



WARNING!

Refer to manual before installing, powering or servicing.



WARNING

Hazardous voltage. Risk of lethal or severe electric shock.



WARNING!

Hot surface.
Do not touch.



WARNING!

Fire hazard.



WARNING

Emission hazardous to eyesight.



- This product is for professional use only. It is not for household use.
- This product presents risks of severe injury or death due to fire hazards, electric shock and falls.



- Read this manual before installing, powering or servicing this product, follow the safety precautions listed below and observe all warnings in this manual and printed on the product.
- If you have questions about how to operate the panel safely, please contact your ROE supolier.



PROTECTION FROM ELECTRIC SHOCK

- Connect the product to AC mains power within the range 100-240V nominal at 50 or 60 Hz only
- Disconnect the product from power when not in use.
- · Always ground (earth) the product electrically.
- Before using the product, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Do not use the product if the power cable or a power plug is in any way damaged, defective or showing signs of overheating.
- Do not attempt to open any cover.
- Refer any service operation not described in this manual to a qualified technician.



PROTECTION FROM FIRE

- Do not stick filters, masks or other materials directly onto LED modules.
- Do not modify the product in any way not described in this manual.
- Install only genuine ROE parts in or on the product unless an alternative is described in this manual.
- Do not operate the product full load if the ambient temperature of power units (Ta) exceeds 45°C (113° F) or less than -20°C(-4° F).



PROTECTION FROM INJURY

- Create an installation by installing panels at the top and working downwards. Disassemble an installation by removing panels at the bottom and working upwards.
- Check that all external covers and rigging hardware are securely fastened.
- Block access below the work area and work from a stable platform whenever installing, servicing
 or moving the product.

Important warnings

Maximum and minimum ambient temperature:

The maximum ambient temperature for the LED wall is 45 °C; the minimum temperature is (-20°C.)

High leakage current:

The combination of power boxes in an installation results in increased levels of Leakage current. In order to avoid risk of electric shock due to high leakage current, proper grounding of the installation is required.

This equipment MUST be earthed:

In order to protect against risk of electric shock, the installation should be properly grounded. Defeating the purpose of the grounding type plug will expose you to the risk of electric shock.

Power system

Mains cords:

The power cords delivered with this system have special properties for safety. They are not user Serviceable. If the power cords are damaged, replace them only with new ones. Never try to repair a power cord.

Data cables:

The data cables provided with this system have special properties for safety. They are not user serviceable. If the data cables are damaged, replace them only with new ones. Never try to repair a data cable. Per requirements of the National Electrical Code® in the USA, the length of a data cable must not exceed 100 m (332 feet). Avoid exposure of data cables to accidental contact with lightning or power conductors.

Black OnyX panels cannot be hot swapped:

Always disconnect the power cord from the control box before connecting or disconnecting the cable string or one of Black OnyX panels.

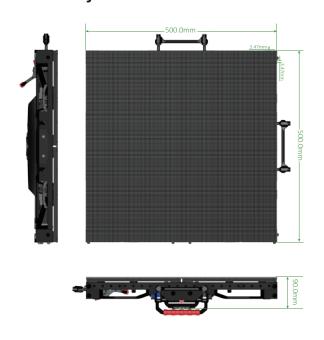
02 Specification:

The Black OnyX Panles is new high-performance indoor HD LED display incorporating professional industrial design. Magnesium alloy panel makes it lightweight and strong. The module uses Multi-Color's newest anti-glare black LEDs to get a high contrast ratio. The innovative and friendly design supports a convenient installation for both hanging and stacking which makes it the ideal solution for large events, concert tours and exhibitions. The finest pixel pitch and outstanding color processing ensures a high-end performance in TV studios and lecture halls.

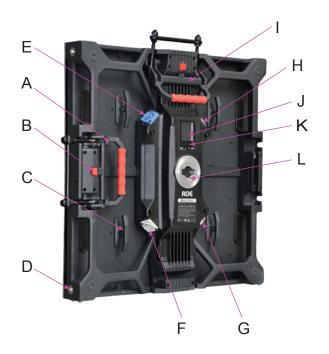
Black OnyX3 Specification:

B0-3	
Pixel Pitch	3.47mm
Pixel Density	82944/sqm
LED Configuration	Black SMD 3-in-1
Viewing Angle	140°/140°
Brightness	1500 cd/sqm(After calibration)
Driving IC	MBI5153
Refresh Rate	2340Hz
Contrast	5000:1
Gray Scale	16bit
Scan	1/12
Cabinet Dimension	500×500×90(mm)
Cabinet Material	Magnesium Alloy
Cabinet Weight	7.70kg
Power Consumption(Max./average)	640/290W/sqm
Operating Temp/Humidity	-20°C~50°C, 10~90%RH
Storage Temp/Humidity	-40°C~60°C, 10~90%RH
Lifetime	>50000h
Max. Stacking	8 cabinets
Max. Hanging	20 cabinets
Curve(optional)	Concave
3D Ready(optional)	Yes

Black OnyX3 Dimensions:



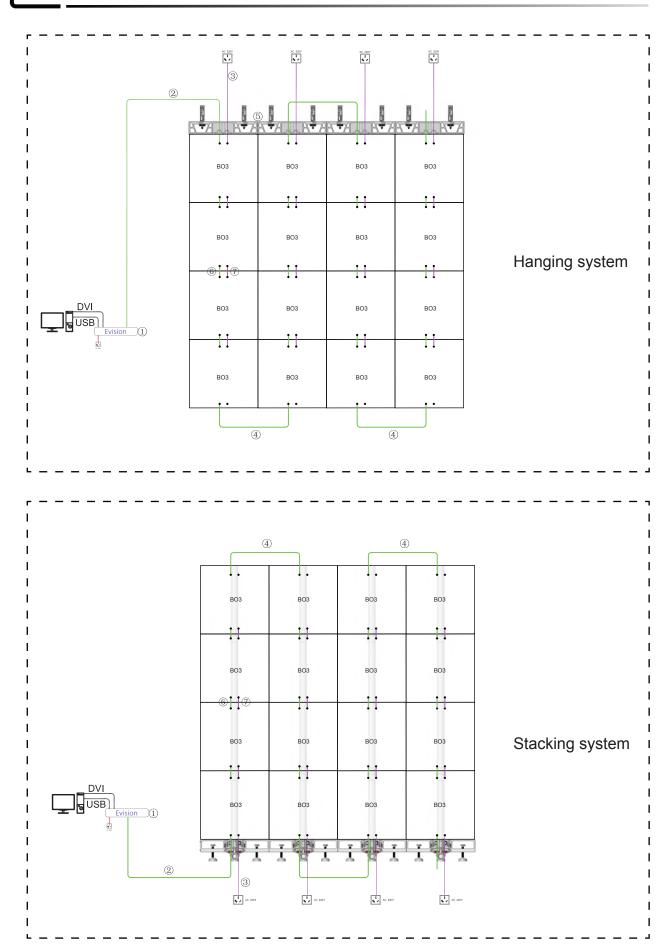
Backside diagram:



Note:

- A. Horizontal Connector
- B. Control Button
- C. Handle
- D. Assistant Position bead
- E. Power In
- F. Power Out
- G. Data Out
- H. Data In
- I. Vertical Connector
- J. LCD Screen
- K. Function Button
- L. Hole-Assisted for stacking system

O3 Connection:



Black OnyX3 Built in Power Supply

04 Accessories





Name: Evision
Part No.: 201000S0009
Dimension: L480×W240×H45mm

Weight : 2.30kg

2



Name : CAT-5

Part No. :208004S0076

Dimension :30m Weight :1.42kg Max Length :100m 3



Name : Power Cable
Part No. : 208001S0795

Dimension : 10m
Weight : 0.96kg
Max Current : 16A

Max Capacity : 16 tiles of MC-H(AC 220V)

8 tiles of MC-H(AC 110V)





Name : CAT-5

Part No. : 208004S0206

Dimension : 0.75m Weight : 0.16kg (5)



Name : Base bar(for hanging system)

Part No. : 207002C0007

Dimension : L494×W158×D205mm

Weight : 4.12kg

Material : Cold Rolled Steel

6



Name : CAT-5

Part No. : 208004S0207

Dimension: 0.35m
Weight: 0.08kg







Name : Power Cable
Part No. : 208001S0796

Dimension: 0.30m Weight: 0.10kg



Name : Flightcase
Part No. : 309003-00042

Dimension : L1334×W600×H885mm Max Capacity : 10 tiles of Black OnyX3



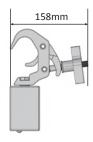
Header and base bar Assembly:

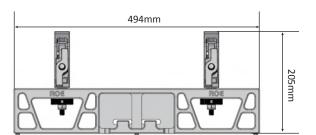
Hanging System

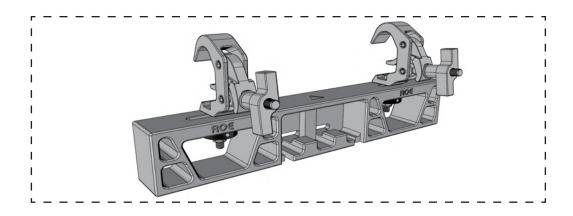
Standard Header:

Figure 1: Clamp

Figure 2: Headers

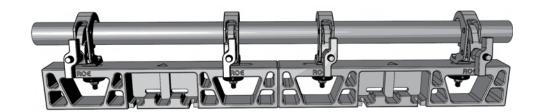






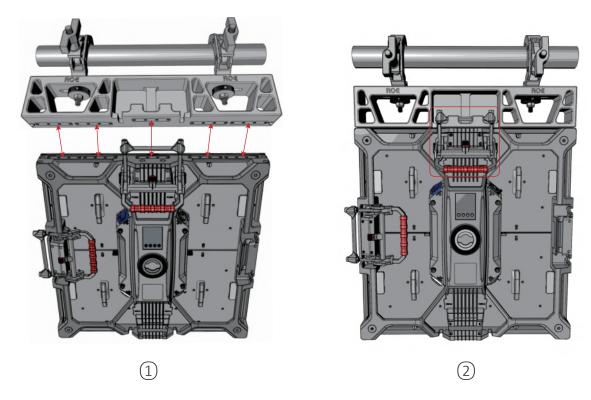
Hanging Installation

1. Fix the header on the Truss



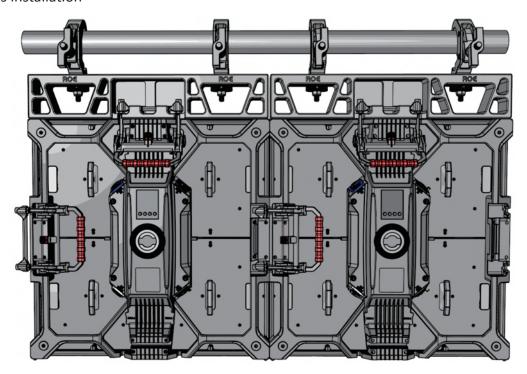
2. Connect BlackOnyX panels with the header

- 1) Panels will be attached to the header by magnets automatically.
- 2) Press the red button and lock the panels by vertical connector.

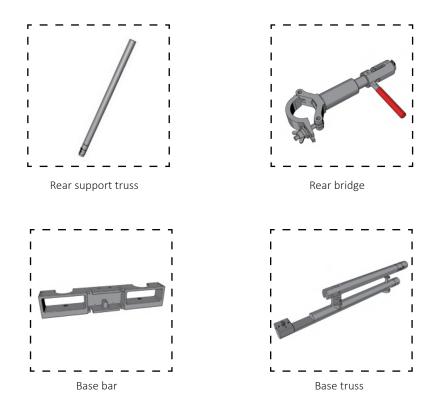


Notes: (For Safety) Please do this by two persons.

3. Panels installation



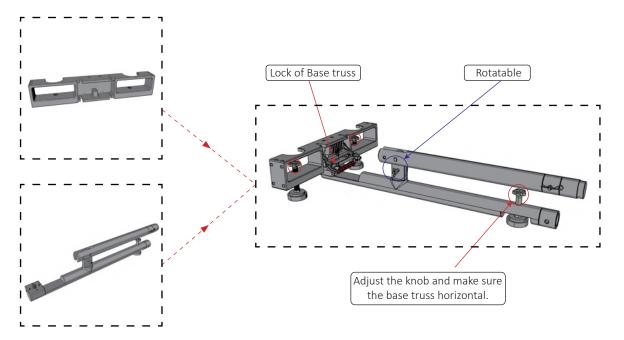
Stacking System



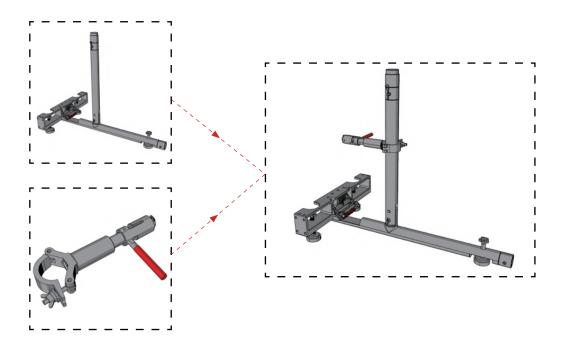
Stacking Installation

1. Base bar connection with Base truss

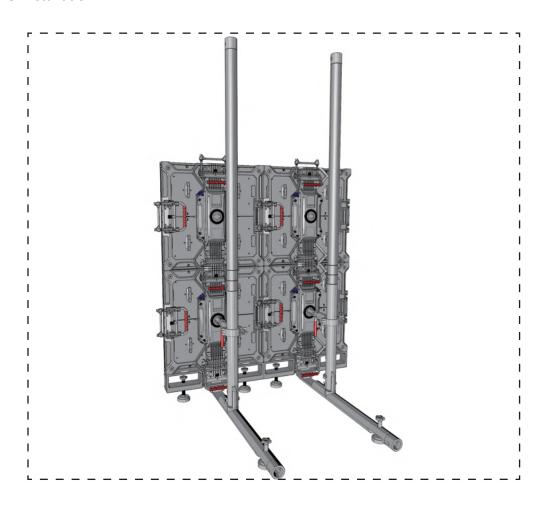
Connect the Base bar and Base truss by Vertical Connector.



2. Rear support truss and rear bridge installation

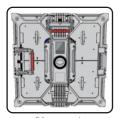


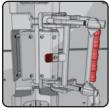
3. Panel installation

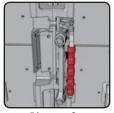


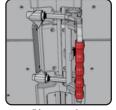
Straight installation

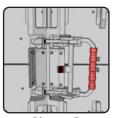
Horizontal connector operation











Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

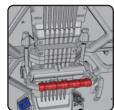
- 1. Press the red button to loosen the handle.(pic2)
- 2. Pull the handle to turn the connecting bar.(pic3)
- 3. Connect two panels and align them.(pic 4)
- 4. Push handle back for locking.(pic5)

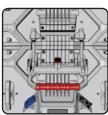
Vertical connector operation











Picture 1

Picture 2

icture 3

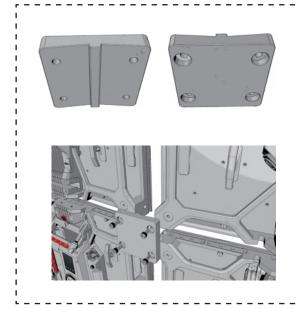
Picture 4

Picture 5

- 1. Panels will be attached together by magnets automatically.(pic1)
- 2. Press the red button to loosen the handle.(pic2)
- 3. Pull the handle to turn the connecting bar.(pic3)
- 4. Connect two panels and align them.(pic 4)
- 5. Push handle back for locking.(pic5)

Curve Installation

The range of curve: 0~10° (horizontally inner arc).







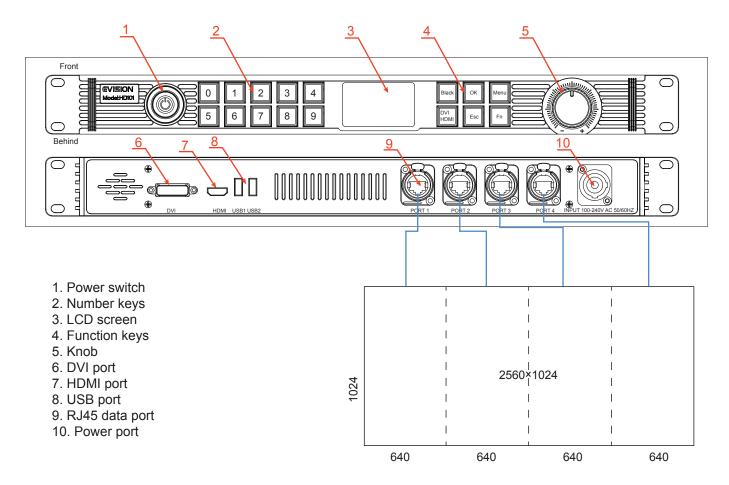
Control System:

The control system of Black OnyX series consist of receiving card and sending card. Receiving card is integrated with LED panels.

Specification	
Working voltage	100-240V AC
Power	< 20W
Working temperature	-20°C to 45°C
Input port	DVI
Output ports number	4 ports
Communication port	USB/RJ45
Max resolution	2560×1024
Data transmission port	1000M Ethernet
Material	AL6061
Dimension	L480×W240×H45mm
Weight	2.30kg



Evision(201000S0009)



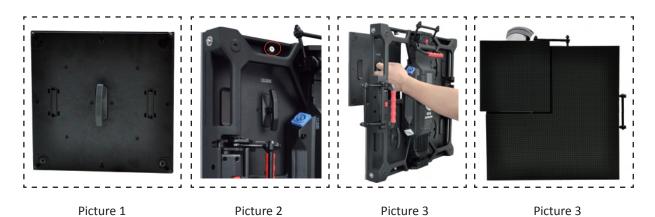
Software:

Please read software manual firstly,(download link as blow): Http://www.roevisual.com/how-to-make-led-display



Service and Maintance:

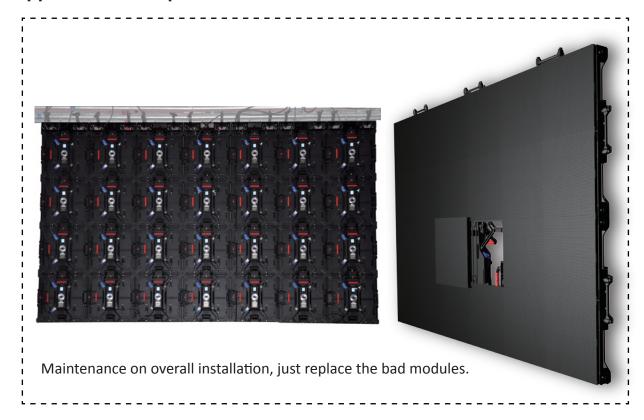
Maintance:



Easy Maintenance with push-out module and all the modules are the same design.

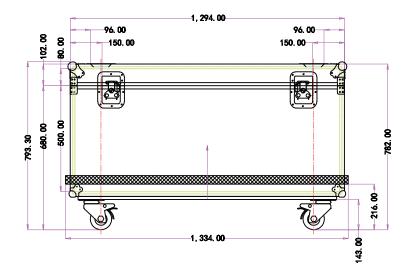
- 1. A single modules.(Picture 1)
- 2. Remove the screw in red.(Picture 2)
- 3. Hold the handle and push the module.(Picture 3)

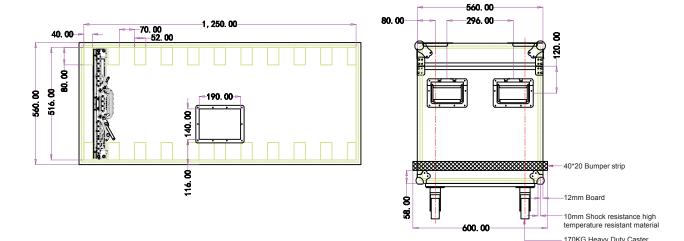
Application example





10 pcs LED panels per Flightcase





Picture:





Please, contact us for additional information



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