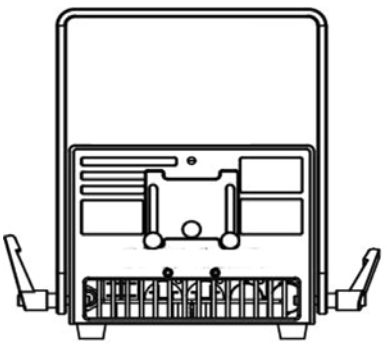
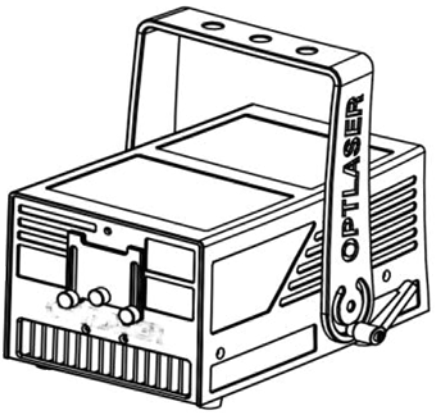
ECS-BEAMBOX3W

ECS-BEAMBOX15

Thank you for purchasing our products!

Please read this manual before using the laser device!





PRO AUDIO TRADE

Pro Audio Trade
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Thank you for purchasing our Beambox3W/ Beambox15!

These Class IV laser devices' radiation can cause damage to the eyes, skin, or even set fire if not used properly. For personal safety and correct usage, please carefully read this manual and save it for future reference.

1 Packing List

After opening the package, check if all the items listed below are inside, and contact your supplier if anything is missing:

- 1 x PD laser projector
- 1 x AC Power cord
- 1 x Keys, and 2 x Interlock adapter (for RJ45)

Other customized accessories such as ILDA cable, control systems, etc.

2 Product Introduction

New PD Series units come with diode-based only laser sources and all sources have beam correction for creating a great show with analog FULL colors modulation.

The PD Series units can be controlled over ILDA and have a bult-in memory with preset patterns, also with SD-card slot for freely programs export onto it, that can be easily triggered through DMX. They can also be operated in automatic and sound-to-light mode.The laser projector provides a master-slave-mode. Show lasers of the same series (slave projectors), connected via DMX to a main projector (master projector) project the same patterns like the master projector.

These Series can be applied for clubs, bars, small/ medium venues or theaterevents, parties, business activities, large venues etc.

3 Safety Precautions

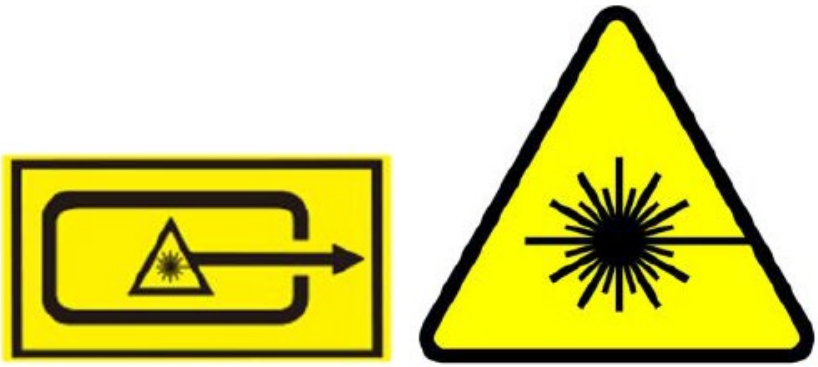
Use this device only according to the operating instructions, as this class IV laser device is dangerous because of the laser character of low divergence and high energy density.

- Never look to the light beam directly
- Never project the beam to flammable and explosive materials
- Never project the beam to any easy burning items at any distance
- Don’t use the device if there are any visible damages on housing, connector panels, power supplies or power cords
- Don’t operate the device in severe conditions, such as too low/ high temperature, dust,vibrating vehicles, rain, snowing, etc.
- Avoid dripping or splashing water, and don’t place any liquid filled containers near the device

3.1 Caution Labels

Warnings and other notices on the device(s).

Aperture labels



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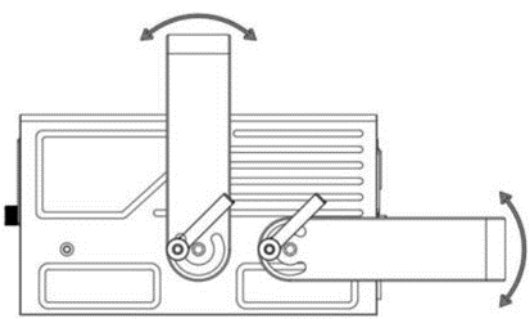
4 Installation Instruction

Bracket: The bracket has two sets of mounting positions for different applications, which correspond to flat and vertical hanging.

The other series don't have this mounting option.

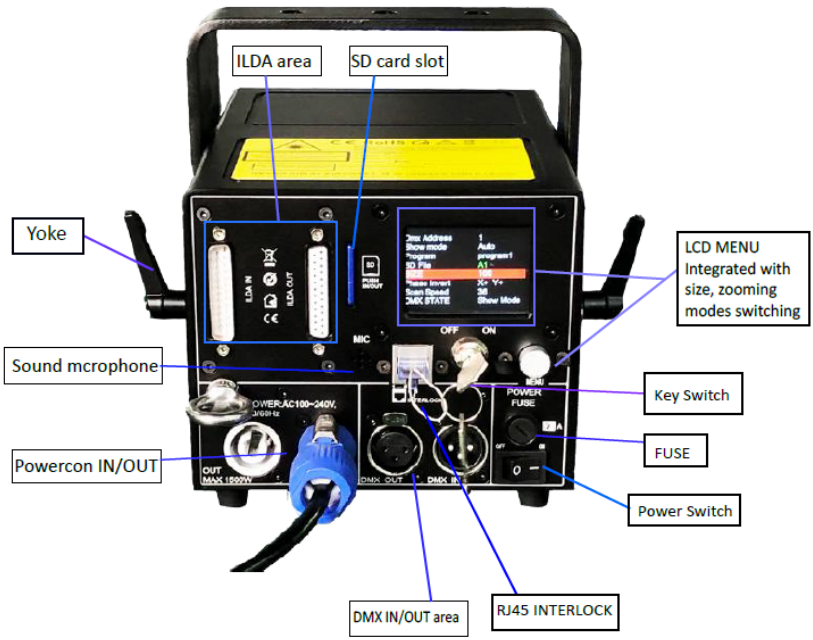
- Reserve the power outlet at the location where the device is to be installed
- Reserve the ILDA cable, DMX cable and remote control cable in the device installationposition if necessary
- For hanging installation, use a hook with a bearing level of more than 30KG, and an adjustable project angle
- Use a safety rope with a bearing level of more than 50KG to fix the device to the steady light bracket, and make sure the safety rope isn't tensed up. If the safety rope is tensed up, it means that the device's safety ring is disabled, andimmediate repair is required
- Connect the device to AC power when the power switch is OFF, then switch it on, connect the remote control cable, insert the safety key and switch it to ON

For hanging applications, turn on/ off the device with a remote control.



5 Operations

5.1 Back Panel of BEAMBOX3W

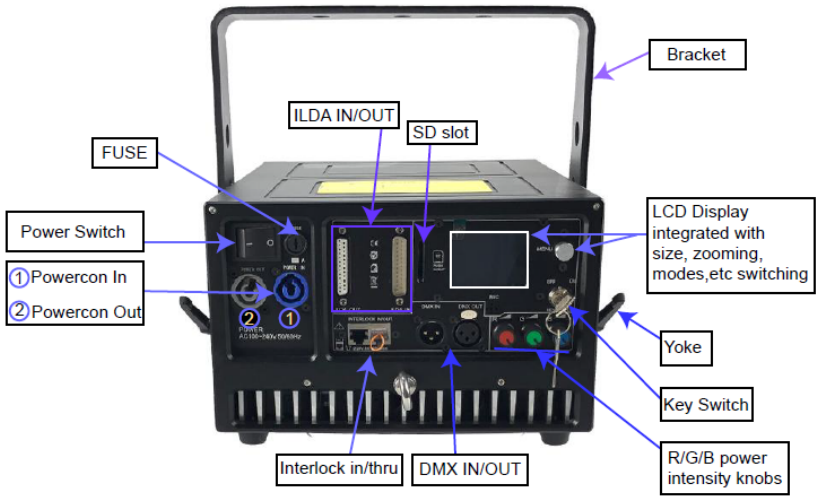


LCD Display

DMX Address
Work mode: shows current working mode
File(s): shows current working file(s)
Version: shows the edition of software being used

Menu Knob - LCD display: Press the knob to activate the display and enter the setting menu, rotate the knob to choose the subject, press the knob once to change the value, and ***press the knob twice to confirm and save the settings.***

5.2 Back Panel of BEAMBOX15



Work Modes/ Setting Guidance

LCD Display Operation

DMX Address	1
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
Langusge	English

e.g. Default Status

DMX Address	2
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
Langusge	English

Click the DMX column once and manually rotate the menu knob to change the address(1-17 for options)

DMX Address	
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
Langusge	English

Double-click the menu knob to save the preferred status.(When this step done, the background of the status will turn to red)

Note:
All the contents listed on the LCD display can be freely changed to the preferable status. The most important step is “double-click” the menu knob to SAVE the preferred status when all selections/ settings are done.
(The other settings should be operated step by step as DMX setting reference as the guidance above).

6 Settings Introductions

- DMX Address: Choose the proper DMX value for your preferred shows
- Show mode: Select a preferred work mode from Sound activation, Auto, PRG (SD-card displays), ILD (SD-card displays)

Sound Mode: plays the built-in programs triggered by sound
Auto Mode: plays the built-in programs automatically
PRG Mode: in PRG mode, display PRG files, the second line indicates the name of current PRG file
ILD Mode: play a single ILD file in cycle saved in the SD card (ILD format only). See 8 *SD Card File Introduction* for the ILD file format

- Program: Switch the preset programs from 1, 1, 3, the displaying flies in Sound and/or Auto mode
- SD File (folder): Switch the files which are saved on the SD card
- SIZE: Setting the projection angle of the preset programs/ graphics, adjustable value 10-100. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- Phasic setting: Switch the projection directions of the preset programs/ graphics. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- Scan Speed Adjust: Adjust scan speed. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- DMX STATE: Set up the DMX mode before DMX signal input. Show mode upon the preferred setting. Black out (no reaction under ILDA signal control).
- SLAVE MODE:

Slave: (slave projectors), connected via DMX to a main projector (master projector) project the same patterns like the master projector.

Master: (master projector), output signal from master projector during playback, there can be only one master device in one signal line, otherwise the signal will be messed up.

- X Phasic/ X Invert: Inverting the X axis directions (Positive or Reverse). Workable to both preset programs and ILDA signal playback.
- Y Phasic/ Y Invert: Inverting the Y axis directions (Positive or Revers). Workable to both preset programs and ILDA signal playback.
- Laser Lock: Manually operation via the LCD display. ON protection started, SHUT laser down once laser single point presented. OFF indicates protection for the laser single point invalid. Workable to both preset programs and ILDA mode.
- Sound Intensity: Intensity adjustable from 0 to 100
- SD Sound: During SD-card playback, sound only reacts to preset/ exported programs.PRG (SD playback in order) & ILD (SD playback loop), sound reacts on/off.
- COLOR: Preset accordingly to the laser system's color configuration when released from manufacturer.
- Language selection: optional (English or Chinese)

7 Display mode introduction

- Audio Mode (Sound mode): Preset programs triggered by sound, any proper sound will enable laser to output.
- Auto Mode: The preset programs automatically display in Auto mode.
- PRG Mode (SD playback in order): The preset/ exported programs playback in sequence. To redact the playlist please see *8 SD Card File Introduction.*
- ILD Mode (SD loop playback): Loop playback the single ILD file (extension named .ILD). About .ILD format, please see *8 SD Card File Introduction*.

Note: the ILD here refers to playing the ILD file in the SD card, not the ILDA signal through software on computer.

Note 1: DMX Mode: International standard DMX512 signal. In any of the above playback modes, the device can automatically recognize and switch to DMX mode after accessing the DMX signal. The device

has 17 DMX channels. See *9 DMX Table* for details. DMX consoles vary in different manufacturers' models. Please refer to the specific DMX console instructions.

Note 2: ILDA (PC) mode: International standard ILDA signal is under computer control.In any of the above operating modes, when an ILDA signal with an interlock function is connected, the ILDA (computer) signal control has priority and the device operates in accordance to the ILDA signal.

In ILDA mode, a control hardware will be required, the recommended one should be ***FB3 controller*** from Pangolin, yet we can also provide this part with fair cost when purchasing laser systems.

The ILDA software has different operating methods form different manufacturers.

Please see the specific ILDA software instructions, the most commonly and widely used is QuickShowfrom *Pangolin.com*.

Quickshow Interface

8 SD Card File Introduction

- The system accepts only FAT32 file, formatting the new SD card to FAT32 type is required before use it.
- Short file/ File folder names, the file names is limited to 8 digits and the expanded name is limited to 3 digits, the names could only contain English letters, Arabic numbers, and underline, the others could not be recognized.
- Equipped an exclusive SD card for the device and don't save the other files inside; the quantity for the file folders is limited to 20, and each file folder is limited to contain 256 ILD files and 10 PRG files by maximum.
- PRG playlist: user could edit the playlist by text editor, the expanded name of the playlist is .PRG format.

The playlist is composed of the file name, play speed, and play times, "i" is the identification code stand for iShow, and comma "," is used to separate it.

Edit only one program per line; for example, if a program prg1.prg contains 3 files:file1.ild, file2.ild, and file3.ild; play speed for file1.ild is 12K and repeated 3 times; play speed for file2.ild is 20k and play once, the file 2 was produced by iShow; play speed for file3.ild is 18K and repeated 4 times; and the contents of the prg1.prg is as below:

File1.ild,12,3 - File2.ild,20,1,i - File3.ild,18,4

- After creating a file folder, create a PRG file under this file folder by the same file name, and edit all the playing files into this PRG file, the speed edited here is the play speed in ILDA mode. For example, create file folder "Lasershow", and file "Lasershow.prg" under this folder; after adding a new ILDA file, we need to add this ILDA file to the PRG playlist, so that we could find this file correctly in the ILDA mode and play it by required speed.

9 DMX Table

<table>
<tr><td rowspan="5">CH1</td><td rowspan="5">Mode selection</td><td>0-49</td><td colspan="3">Auto</td></tr>
<tr><td>50-99</td><td colspan="3">Sound</td></tr>
<tr><td>100-149</td><td colspan="3">Play PRG files in sequence</td></tr>
<tr><td>150-199</td><td colspan="3">Play ILD file circularly</td></tr>
<tr><td>200-255</td><td colspan="3">Manual</td></tr>
<tr><td rowspan="3">CH2</td><td rowspan="3">Graphics/Files Folder selection</td><td rowspan="3">0-255</td><td>Manual</td><td colspan="2">PRG & ILD mode</td></tr>
<tr><td>Graphics selection</td><td colspan="2" rowspan="2">File Folder selection</td></tr>
<tr><td>every 3 value each graphic</td></tr>
<tr><td rowspan="3">CH3</td><td rowspan="3">Strobe</td><td>0-10</td><td>None</td><td colspan="2" rowspan="3">File playing selection</td></tr>
<tr><td>11-199</td><td>Auto, from slow to fast</td></tr>
<tr><td>200-255</td><td>Sound control</td></tr>
<tr><td rowspan="17">CH4</td><td rowspan="17">Colors selection</td><td>0-5</td><td colspan="3">Off</td></tr>
<tr><td rowspan="2">6-16</td><td rowspan="2">White</td><td>6-10</td><td>ILD file color</td></tr>
<tr><td>11-16</td><td>white</td></tr>
<tr><td>17-33</td><td colspan="3">Red</td></tr>
<tr><td>34-50</td><td colspan="3">Green</td></tr>
<tr><td>51-67</td><td colspan="3">Blue</td></tr>
<tr><td>68-84</td><td colspan="3">Yellow</td></tr>
<tr><td>85-101</td><td colspan="3">Purple</td></tr>
<tr><td>102-118</td><td colspan="3">Cyan</td></tr>
<tr><td>119-135</td><td colspan="3">White, Red, Green, and Blue in segmenting</td></tr>
<tr><td>136-152</td><td colspan="3">Blue, Yellow, Purple, and Cyan in segmenting</td></tr>
<tr><td>153-169</td><td colspan="3">White, red, green, blue, yellow, purple, and cyan in segmenting</td></tr>
<tr><td>170-186</td><td colspan="3">White, red, green, blue in flowing</td></tr>
<tr><td>187-203</td><td colspan="3">Blue, yellow, purple, and cyan in flowing</td></tr>
<tr><td>204-220</td><td colspan="3">White, red, green, blue, yellow, purple, and cyan in flowing</td></tr>
<tr><td>221-237</td><td colspan="3">In segmenting according to the breaking point of the graphics</td></tr>
</table>

		238-255	Change colors by sound
CH5	X axis Movements	0-125	Manual Operation
		126-185	Auto. left and right circularly
		186-225	Auto jumping left and right circularly
		226-245	Auto irregular jumping
		246-255	Irregular jumping by sound control
CH6	Y axis Movements	0-125	Manual
		126-185	Auto. Up & Down circularly
		186-225	Auto Up & Down jumping circularly
		226-245	Auto irregular jumping
		246-255	Irregular Jumping by sound control
CH7	Zooming	0-10	None
		11-87	Manual zooming
		88-150	Zoom+
		151-200	Zoom-
		201-255	Circular
CH8	X axis rotation	0	None
		1-128	Manual
		129-255	Auto
CH9	Y axis rotation	0	None
		1-128	Manual
		129-255	Auto
CH10	Centre rotation	0	None
		1-128	Manual
		129-192	Auto rotation clockwise
		193-255	Auto rotation anti-clockwise
CH11	Drawing	0-10	None
		10-74	Manual adjusting
		75-104	Auto (increasing)
		105-144	Auto (decreasing)
		145-184	Auto circularly
		185-224	Loop circularly (increasing)
		225-255	Loop circularly (decreasing)
		0-9	None

CH12	X axis Wave	10-69	Low amplitude
		70-129	Medium amplitude
		130-189	Large amplitude
		190-255	Maximum amplitude
CH13	Y axis Wave	0-9	None
		10-69	Low amplitude
		70-129	Medium amplitude
		130-189	Large amplitude
		190-255	Maximum amplitude
CH14	Display Mode	0-63	Normal
		64-127	Light dots
		128-191	By segment
		192-255	Dots
CH15	Red modulation	0-255	From the brightest to off
CH16	Green modulation	0-255	From the brightest to off
CH17	Blue modulation	0-255	From the brightest to off

10 White Balance Adjustment

To achieve the preferable white balance by adjusting the brightness of each color (red, green, and blue) through adjustments on the software you use or DMX console. 6.7. Remote Control Connector (Interlock).

The device will start after the CAT5 (RJ45 jack) is inserted to the interface. It's possible to extend the wires on the CAT5 to the console for remote shutdown in any emergent situation.

11 Safety Lock

The safety lock is designed to avoid starting the device by unqualified personnel. Only when the key is inserted the laser will start.

11.1 Maintenance Instruction

The device is mostly installed in locations with dust, haze, or smoke, that easily pollute the lens and decrease the output brightness. These particles also easily pollute the light case, fans, PCBA, block the heat dissipation, and reduce the stability of the electronic components, so regular cleaning is very necessary and important to keep the maximum light output and increase the stability and lifetime.

It's recommended to clean the lens, the outer case, and the fans every 2 weeks. Clean the inner light every 4 weeks. The cleaning frequency should increase when operating in severe conditions.

Note:

Only a qualified & authorized technician(s) is (are) allowed to clean the inner parts. Improper inner cleaning can cause serious damage to the device. It's forbidden to use corrosive chemicals to clean the device, pure alcohol and acetone are recommended for cleaning the lens.

Clean the lens carefully and gently, don't touch the lens with any hard and sharp materials.

11.2 After Sales Service and Warranty

- One year's warranty for the device
- The components and accessories costs are charged after the warranty period
- Warranty voids for the damages or injuries caused by force majeure, like, earthquake,typhoon, etc.
- Warranty voids for the damages or injuries caused by improper operation and projection, such as wrong input voltage, water immerse, physical shock, etc.

12 Technical Parameters

12.1 Specifications BEAMBOX3W

Models	BEAMBOX3W
Beam Size@ Aperture	2,5*5 mm
Divergence (full angle)	1,3mrad
Controls	Mainboard (Auto + Sound + SD + DMX) + ILDA, FB4 (on request)
Scanning System	DT40 40Kpps @8° +/-30° MAX
Wavelength (nm)	R/638 G/520 B/445
Laser Power (mW)	650+850+1500
Modulation	Analog >60KHz
Power Supply	100~240V 50~60Hz
Consumption (W)	90
N.W. (Kg)	4,26
Dimension (mm)	156*224*125

12.2 Specifications BEAMBOX15

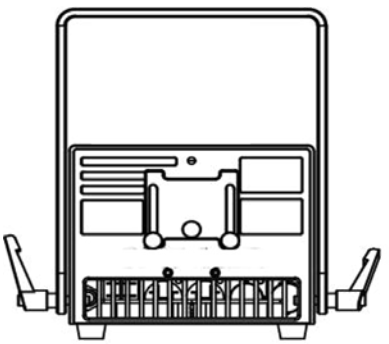
Models	BEAMBOX15
Beam Size@ Aperture	4,5*6,5mm
Divergence (full angle)	1,1mrad
Controls	Mainboard (Auto + Sound + SD + DMX) + ILDA, FB4 (on request)
Scanning System	DT40 40Kpps@8° +/-30°MAX
Wavelength (nm)	R/638 G/520 B/445
Laser Power (mW)	4000+4000+7000
Modulation	Analog W60KHz
Power Supply	100~240V 50~60Hz
Consumption (W)	290
N.W. (Kg)	11,62
Dimension (mm)	320*250*160

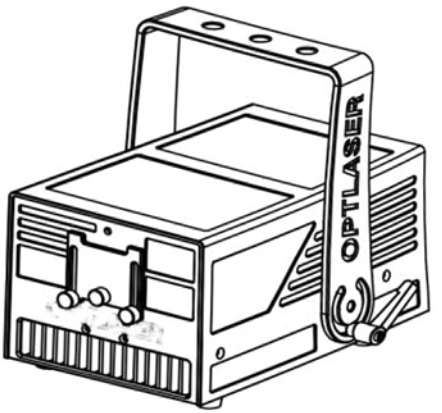
ECS-BEAMBOX3W

ECS-BEAMBOX15

Wij danken u voor het aankopen van onze producten!

Lees deze handleiding voordat u het laserapparaat gebruikt!





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De straling van deze klasse IV-laserapparaten kan schade aan de ogen, de huid of zelfs brand veroorzaken als ze niet op de juiste manier worden gebruikt. Voor persoonlijke veiligheid en correct gebruik, gelieve deze handleiding aandachtig te lezen en te bewaren voor toekomstig gebruik.

1 Packing List

Controleer na het openen van de verpakking of alle onderstaande items erin zitten en neem contact op met uw leverancier als er iets ontbreekt:

- 1 x PD laser projector
- 1 x AC-netsnoer
- 1 x sleutel en 2 x interlock-adapter (voor RJ45)

Andere op maat gemaakte accessoires zoals ILDA-kabel, besturingssystemen, enz.

2 Product Introduction

New PD Series units come with diode-based only laser sources and all sources have beam correction for creating a great show with analog FULL colors modulation.

The PD Series units can be controlled over ILDA and have a bult-in memory with preset patterns, also with SD-card slot for freely programs export onto it, that can be easily triggered through DMX. They can also be operated in automatic and sound-to-light mode.The laser projector provides a master-slave-mode. Show lasers of the same series (slave projectors), connected via DMX to a main projector (master projector) project the same patterns like the master projector.

These Series can be applied for clubs, bars, small/ medium venues or theaterevents, parties, business activities, large venues etc.

3 Safety Precautions

Use this device only according to the operating instructions, as this class IV laser device is dangerous because of the laser character of low divergence and high energy density.

- Never look to the light beam directly
- Never project the beam to flammable and explosive materials
- Never project the beam to any easy burning items at any distance
- Don’t use the device if there are any visible damages on housing, connector panels, power supplies or power cords
- Don’t operate the device in severe conditions, such as too low/ high temperature, dust,vibrating vehicles, rain, snowing, etc.
- Avoid dripping or splashing water, and don’t place any liquid filled containers near the device

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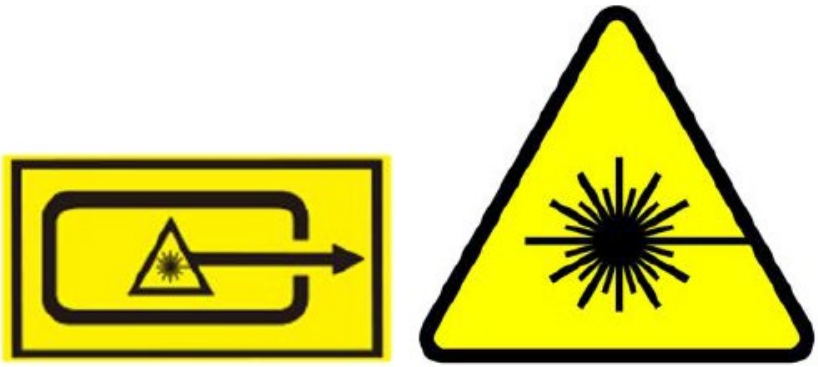
Warnings and other notices on the device(s).

Aperture labels



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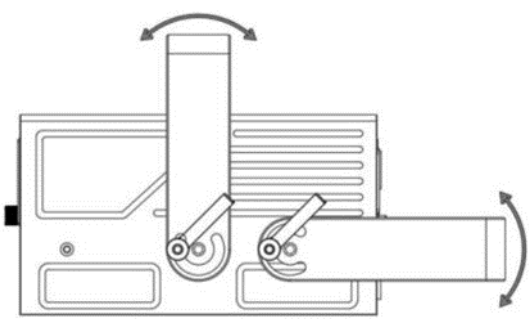
The other series don't have this mounting option.

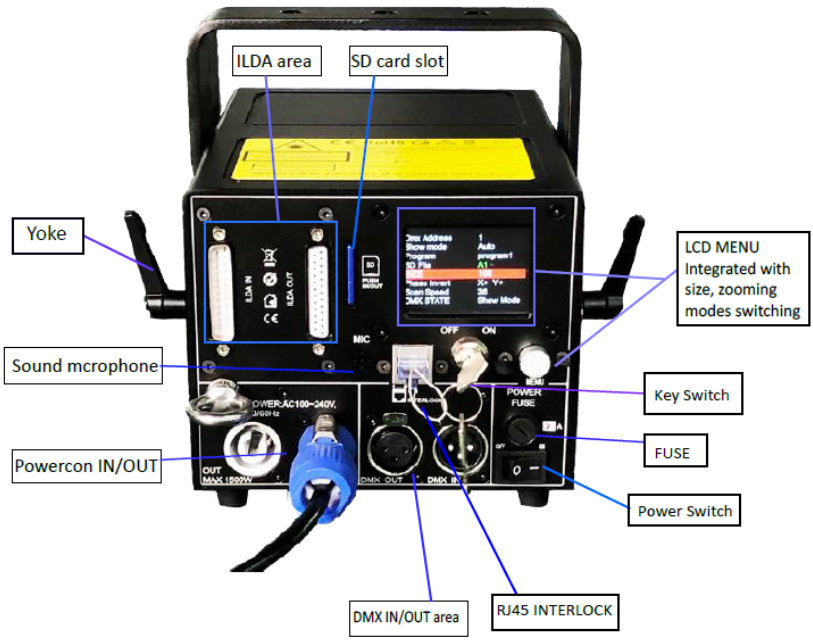
- Reserve the power outlet at the location where the device is to be installed
- Reserve the ILDA cable, DMX cable and remote control cable in the device installationposition if necessary
- For hanging installation, use a hook with a bearing level of more than 30KG, and an adjustable project angle
- Use a safety rope with a bearing level of more than 50KG to fix the device to the steady light bracket, and make sure the safety rope isn't tensed up. If the safety rope is tensed up, it means that the device's safety ring is disabled, andimmediate repair is required
- Connect the device to AC power when the power switch is OFF, then switch it on, connect the remote control cable, insert the safety key and switch it to ON

For hanging applications, turn on/ off the device with a remote control.



5 Operations

5.1 Back Panel of BEAMBOX3W

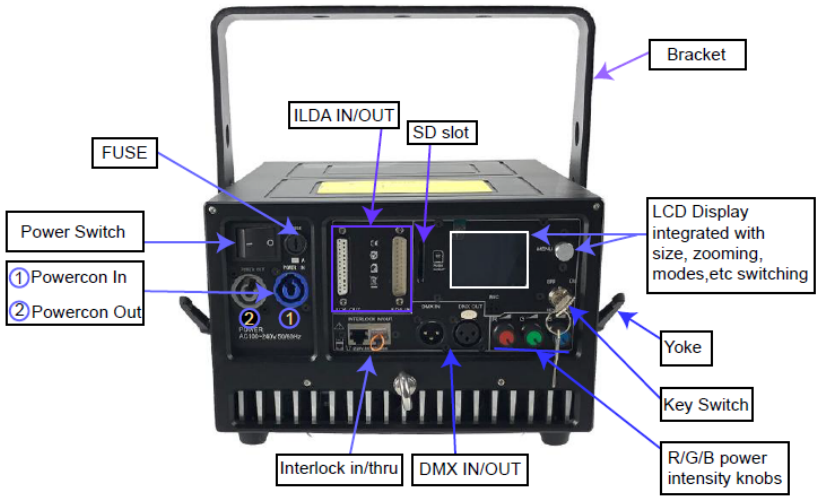


LCD Display

DMX Address
Work mode: shows current working mode
File(s): shows current working file(s)
Version: shows the edition of software being used

Menu Knob - LCD display: Press the knob to activate the display and enter the setting menu, rotate the knob to choose the subject, press the knob once to change the value, and ***press the knob twice to confirm and save the settings.***

5.2 Back Panel of BEAMBOX15



Work Modes/ Setting Guidance

LCD Display Operation

DMX Address	1
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
Langusge	English

e.g. Default Status

DMX Address	2
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
Langusge	English

Click the DMX column once and manually rotate the menu knob to change the address(1-17 for options)

DMX Address	
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
Langusge	English

Double-click the menu knob to save the preferred status.(When this step done, the background of the status will turn to red)

Note:
All the contents listed on the LCD display can be freely changed to the preferable status. The most important step is “double-click” the menu knob to SAVE the preferred status when all selections/ settings are done.
(The other settings should be operated step by step as DMX setting reference as the guidance above).

6 Settings Introductions

- DMX Address: Choose the proper DMX value for your preferred shows
- Show mode: Select a preferred work mode from Sound activation, Auto, PRG (SD-card displays), ILD (SD-card displays)

Sound Mode: plays the built-in programs triggered by sound
Auto Mode: plays the built-in programs automatically
PRG Mode: in PRG mode, display PRG files, the second line indicates the name of current PRG file
ILD Mode: play a single ILD file in cycle saved in the SD card (ILD format only). See 8 *SD Card File Introduction* for the ILD file format

- Program: Switch the preset programs from 1, 1, 3, the displaying flies in Sound and/or Auto mode
- SD File (folder): Switch the files which are saved on the SD card
- SIZE: Setting the projection angle of the preset programs/ graphics, adjustable value 10-100. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- Phasic setting: Switch the projection directions of the preset programs/ graphics. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- Scan Speed Adjust: Adjust scan speed. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- DMX STATE: Set up the DMX mode before DMX signal input. Show mode upon the preferred setting. Black out (no reaction under ILDA signal control).
- SLAVE MODE:

Slave: (slave projectors), connected via DMX to a main projector (master projector) project the same patterns like the master projector.

Master: (master projector), output signal from master projector during playback, there can be only one master device in one signal line, otherwise the signal will be messed up.

- X Phasic/ X Invert: Inverting the X axis directions (Positive or Reverse). Workable to both preset programs and ILDA signal playback.
- Y Phasic/ Y Invert: Inverting the Y axis directions (Positive or Revers). Workable to both preset programs and ILDA signal playback.
- Laser Lock: Manually operation via the LCD display. ON protection started, SHUT laser down once laser single point presented. OFF indicates protection for the laser single point invalid. Workable to both preset programs and ILDA mode.
- Sound Intensity: Intensity adjustable from 0 to 100
- SD Sound: During SD-card playback, sound only reacts to preset/ exported programs.PRG (SD playback in order) & ILD (SD playback loop), sound reacts on/off.
- COLOR: Preset accordingly to the laser system's color configuration when released from manufacturer.
- Language selection: optional (English or Chinese)

7 Display mode introduction

- Audio Mode (Sound mode): Preset programs triggered by sound, any proper sound will enable laser to output.
- Auto Mode: The preset programs automatically display in Auto mode.
- PRG Mode (SD playback in order): The preset/ exported programs playback in sequence. To redact the playlist please see *8 SD Card File Introduction.*
- ILD Mode (SD loop playback): Loop playback the single ILD file (extension named .ILD). About .ILD format, please see *8 SD Card File Introduction*.

Note: the ILD here refers to playing the ILD file in the SD card, not the ILDA signal through software on computer.

Note 1: DMX Mode: International standard DMX512 signal. In any of the above playback modes, the device can automatically recognize and switch to DMX mode after accessing the DMX signal. The device

has 17 DMX channels. See *9 DMX Table* for details. DMX consoles vary in different manufacturers' models. Please refer to the specific DMX console instructions.

Note 2: ILDA (PC) mode: International standard ILDA signal is under computer control.In any of the above operating modes, when an ILDA signal with an interlock function is connected, the ILDA (computer) signal control has priority and the device operates in accordance to the ILDA signal.

In ILDA mode, a control hardware will be required, the recommended one should be ***FB3 controller*** from Pangolin, yet we can also provide this part with fair cost when purchasing laser systems.

The ILDA software has different operating methods form different manufacturers.

Please see the specific ILDA software instructions, the most commonly and widely used is QuickShowfrom *Pangolin.com*.

Quickshow Interface

8 SD Card File Introduction

- The system accepts only FAT32 file, formatting the new SD card to FAT32 type is required before use it.
- Short file/ File folder names, the file names is limited to 8 digits and the expanded name is limited to 3 digits, the names could only contain English letters, Arabic numbers, and underline, the others could not be recognized.
- Equipped an exclusive SD card for the device and don't save the other files inside; the quantity for the file folders is limited to 20, and each file folder is limited to contain 256 ILD files and 10 PRG files by maximum.
- PRG playlist: user could edit the playlist by text editor, the expanded name of the playlist is .PRG format.

The playlist is composed of the file name, play speed, and play times, "i" is the identification code stand for iShow, and comma "," is used to separate it.

Edit only one program per line; for example, if a program prg1.prg contains 3 files:file1.ild, file2.ild, and file3.ild; play speed for file1.ild is 12K and repeated 3 times; play speed for file2.ild is 20k and play once, the file 2 was produced by iShow; play speed for file3.ild is 18K and repeated 4 times; and the contents of the prg1.prg is as below:

File1.ild,12,3 - File2.ild,20,1,i - File3.ild,18,4

- After creating a file folder, create a PRG file under this file folder by the same file name, and edit all the playing files into this PRG file, the speed edited here is the play speed in ILDA mode. For example, create file folder "Lasershow", and file "Lasershow.prg" under this folder; after adding a new ILDA file, we need to add this ILDA file to the PRG playlist, so that we could find this file correctly in the ILDA mode and play it by required speed.

9 DMX Table

<table>
<tr><td rowspan="5">CH1</td><td rowspan="5">Mode selection</td><td>0-49</td><td colspan="3">Auto</td></tr>
<tr><td>50-99</td><td colspan="3">Sound</td></tr>
<tr><td>100-149</td><td colspan="3">Play PRG files in sequence</td></tr>
<tr><td>150-199</td><td colspan="3">Play ILD file circularly</td></tr>
<tr><td>200-255</td><td colspan="3">Manual</td></tr>
<tr><td rowspan="3">CH2</td><td rowspan="3">Graphics/Files Folder selection</td><td rowspan="3">0-255</td><td>Manual</td><td colspan="2">PRG & ILD mode</td></tr>
<tr><td>Graphics selection</td><td colspan="2" rowspan="2">File Folder selection</td></tr>
<tr><td>every 3 value each graphic</td></tr>
<tr><td rowspan="3">CH3</td><td rowspan="3">Strobe</td><td>0-10</td><td>None</td><td colspan="2" rowspan="3">File playing selection</td></tr>
<tr><td>11-199</td><td>Auto, from slow to fast</td></tr>
<tr><td>200-255</td><td>Sound control</td></tr>
<tr><td rowspan="17">CH4</td><td rowspan="17">Colors selection</td><td>0-5</td><td colspan="3">Off</td></tr>
<tr><td rowspan="2">6-16</td><td rowspan="2">White</td><td>6-10</td><td>ILD file color</td></tr>
<tr><td>11-16</td><td>white</td></tr>
<tr><td>17-33</td><td colspan="3">Red</td></tr>
<tr><td>34-50</td><td colspan="3">Green</td></tr>
<tr><td>51-67</td><td colspan="3">Blue</td></tr>
<tr><td>68-84</td><td colspan="3">Yellow</td></tr>
<tr><td>85-101</td><td colspan="3">Purple</td></tr>
<tr><td>102-118</td><td colspan="3">Cyan</td></tr>
<tr><td>119-135</td><td colspan="3">White, Red, Green, and Blue in segmenting</td></tr>
<tr><td>136-152</td><td colspan="3">Blue, Yellow, Purple, and Cyan in segmenting</td></tr>
<tr><td>153-169</td><td colspan="3">White, red, green, blue, yellow, purple, and cyan in segmenting</td></tr>
<tr><td>170-186</td><td colspan="3">White, red, green, blue in flowing</td></tr>
<tr><td>187-203</td><td colspan="3">Blue, yellow, purple, and cyan in flowing</td></tr>
<tr><td>204-220</td><td colspan="3">White, red, green, blue, yellow, purple, and cyan in flowing</td></tr>
<tr><td>221-237</td><td colspan="3">In segmenting according to the breaking point of the graphics</td></tr>
</table>

		238-255	Change colors by sound
CH5	X axis Movements	0-125	Manual Operation
		126-185	Auto. left and right circularly
		186-225	Auto jumping left and right circularly
		226-245	Auto irregular jumping
		246-255	Irregular jumping by sound control
CH6	Y axis Movements	0-125	Manual
		126-185	Auto. Up & Down circularly
		186-225	Auto Up & Down jumping circularly
		226-245	Auto irregular jumping
		246-255	Irregular Jumping by sound control
CH7	Zooming	0-10	None
		11-87	Manual zooming
		88-150	Zoom+
		151-200	Zoom-
		201-255	Circular
CH8	X axis rotation	0	None
		1-128	Manual
		129-255	Auto
CH9	Y axis rotation	0	None
		1-128	Manual
		129-255	Auto
CH10	Centre rotation	0	None
		1-128	Manual
		129-192	Auto rotation clockwise
		193-255	Auto rotation anti-clockwise
CH11	Drawing	0-10	None
		10-74	Manual adjusting
		75-104	Auto (increasing)
		105-144	Auto (decreasing)
		145-184	Auto circularly
		185-224	Loop circularly (increasing)
		225-255	Loop circularly (decreasing)
		0-9	None

CH12	X axis Wave	10-69	Low amplitude
		70-129	Medium amplitude
		130-189	Large amplitude
		190-255	Maximum amplitude
CH13	Y axis Wave	0-9	None
		10-69	Low amplitude
		70-129	Medium amplitude
		130-189	Large amplitude
		190-255	Maximum amplitude
CH14	Display Mode	0-63	Normal
		64-127	Light dots
		128-191	By segment
		192-255	Dots
CH15	Red modulation	0-255	From the brightest to off
CH16	Green modulation	0-255	From the brightest to off
CH17	Blue modulation	0-255	From the brightest to off

10 White Balance Adjustment

To achieve the preferable white balance by adjusting the brightness of each color (red, green, and blue) through adjustments on the software you use or DMX console. 6.7. Remote Control Connector (Interlock).

The device will start after the CAT5 (RJ45 jack) is inserted to the interface. It's possible to extend the wires on the CAT5 to the console for remote shutdown in any emergent situation.

11 Safety Lock

The safety lock is designed to avoid starting the device by unqualified personnel. Only when the key is inserted the laser will start.

11.1 Maintenance Instruction

The device is mostly installed in locations with dust, haze, or smoke, that easily pollute the lens and decrease the output brightness. These particles also easily pollute the light case, fans, PCBA, block the heat dissipation, and reduce the stability of the electronic components, so regular cleaning is very necessary and important to keep the maximum light output and increase the stability and lifetime.

It's recommended to clean the lens, the outer case, and the fans every 2 weeks. Clean the inner light every 4 weeks. The cleaning frequency should increase when operating in severe conditions.

Note:

Only a qualified & authorized technician(s) is (are) allowed to clean the inner parts. Improper inner cleaning can cause serious damage to the device. It's forbidden to use corrosive chemicals to clean the device, pure alcohol and acetone are recommended for cleaning the lens.

Clean the lens carefully and gently, don't touch the lens with any hard and sharp materials.

11.2 After Sales Service and Warranty

- One year's warranty for the device
- The components and accessories costs are charged after the warranty period
- Warranty voids for the damages or injuries caused by force majeure, like, earthquake,typhoon, etc.
- Warranty voids for the damages or injuries caused by improper operation and projection, such as wrong input voltage, water immerse, physical shock, etc.

12 Technical Parameters

12.1 Specifications BEAMBOX3W

Models	BEAMBOX3W
Beam Size@ Aperture	2,5*5 mm
Divergence (full angle)	1,3mrad
Controls	Mainboard (Auto + Sound + SD + DMX) + ILDA, FB4 (on request)
Scanning System	DT40 40Kpps @8° +/-30° MAX
Wavelength (nm)	R/638 G/520 B/445
Laser Power (mW)	650+850+1500
Modulation	Analog >60KHz
Power Supply	100~240V 50~60Hz
Consumption (W)	90
N.W. (Kg)	4,26
Dimension (mm)	156*224*125

12.2 Specifications BEAMBOX15

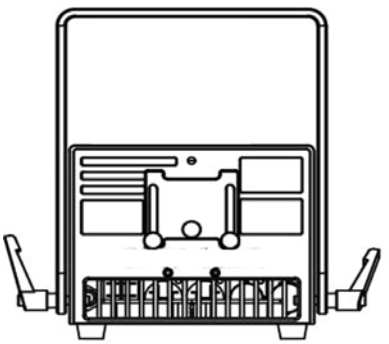
Models	BEAMBOX15
Beam Size@ Aperture	4,5*6,5mm
Divergence (full angle)	1,1mrad
Controls	Mainboard (Auto + Sound + SD + DMX) + ILDA, FB4 (on request)
Scanning System	DT40 40Kpps@8° +/-30°MAX
Wavelength (nm)	R/638 G/520 B/445
Laser Power (mW)	4000+4000+7000
Modulation	Analog W60KHz
Power Supply	100~240V 50~60Hz
Consumption (W)	290
N.W. (Kg)	11,62
Dimension (mm)	320*250*160

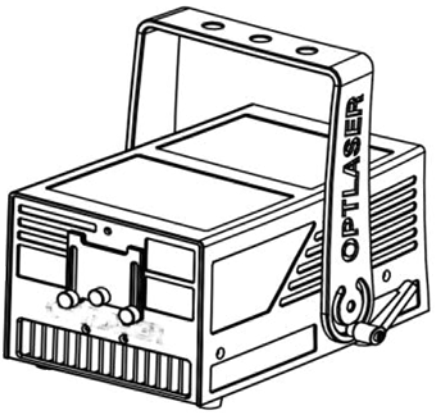
ECS-BEAMBOX3W

ECS-BEAMBOX15

Merci d'avoir acheté nos produits!

Lisez ce manuel avant d'utiliser l'appareil laser!





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PRO AUDIO TRADE

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Merci d'avoir acheté notre Beambox3W/Beambox15!

Le rayonnement de ces appareils laser de classe IV peut causer des dommages aux yeux, à la peau ou même un incendie s'il n'est pas utilisé correctement. Pour votre sécurité personnelle et une utilisation appropriée, veuillez lire attentivement ce manuel et le conserver pour référence future.

1 Packing List

Après avoir ouvert le colis, vérifiez que tous les éléments ci-dessous sont inclus et contactez votre fournisseur s'il manque quelque chose:

- 1 x projecteur laser PD
- 1 x cordon d'alimentation AC
- 1 x clé et 2 x adaptateurs de verrouillage (pour RJ45)

D'autres accessoires personnalisés tels que le câble ILDA, les systèmes de contrôle, etc.

2 Product Introduction

New PD Series units come with diode-based only laser sources and all sources have beam correction for creating a great show with analog FULL colors modulation.

The PD Series units can be controlled over ILDA and have a bult-in memory with preset patterns, also with SD-card slot for freely programs export onto it, that can be easily triggered through DMX. They can also be operated in automatic and sound-to-light mode.The laser projector provides a master-slave-mode. Show lasers of the same series (slave projectors), connected via DMX to a main projector (master projector) project the same patterns like the master projector.

These Series can be applied for clubs, bars, small/ medium venues or theaterevents, parties, business activities, large venues etc.

3 Safety Precautions

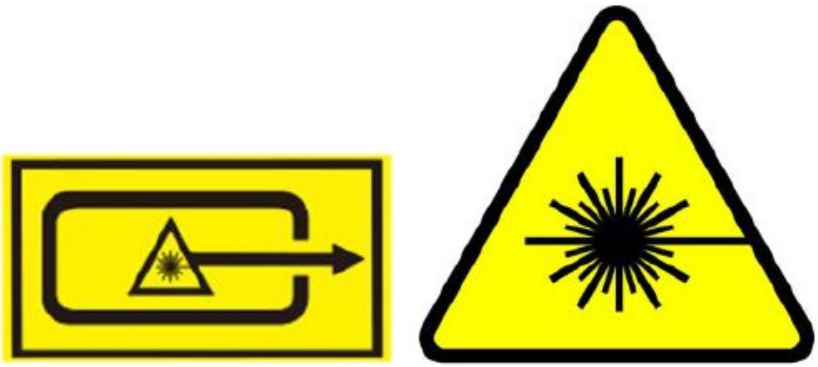
Use this device only according to the operating instructions, as this class IV laser device is dangerous because of the laser character of low divergence and high energy density.

- Never look to the light beam directly
- Never project the beam to flammable and explosive materials
- Never project the beam to any easy burning items at any distance
- Don’t use the device if there are any visible damages on housing, connector panels, power supplies or power cords
- Don’t operate the device in severe conditions, such as too low/ high temperature, dust,vibrating vehicles, rain, snowing, etc.
- Avoid dripping or splashing water, and don’t place any liquid filled containers near the device

3.1 Caution Labels

Warnings and other notices on the device(s).

Aperture labels



Production label

PRO AUDIO TRADE
Pro Audio Trade
Heilig Hartstraat 23
8870 Izegem
BTW BE 0770.510.194
+32(0)51/31.28.03
info@bekafun.be

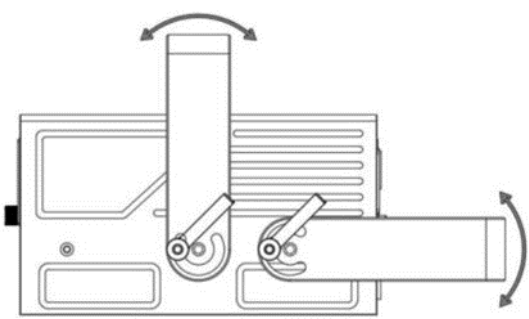
4 Installation Instruction

Bracket: The bracket has two sets of mounting positions for different applications, which correspond to flat and vertical hanging.

The other series don't have this mounting option.

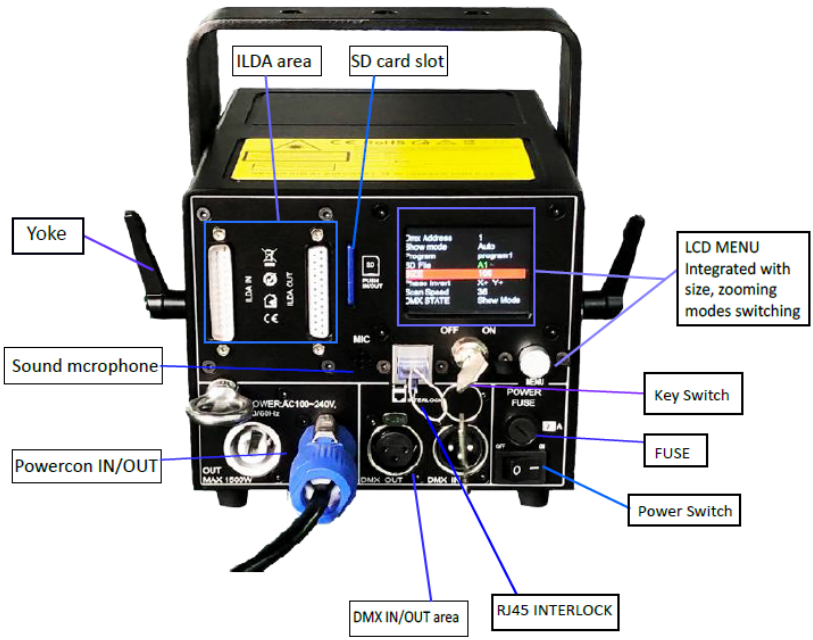
- Reserve the power outlet at the location where the device is to be installed
- Reserve the ILDA cable, DMX cable and remote control cable in the device installationposition if necessary
- For hanging installation, use a hook with a bearing level of more than 30KG, and an adjustable project angle
- Use a safety rope with a bearing level of more than 50KG to fix the device to the steady light bracket, and make sure the safety rope isn't tensed up. If the safety rope is tensed up, it means that the device's safety ring is disabled, andimmediate repair is required
- Connect the device to AC power when the power switch is OFF, then switch it on, connect the remote control cable, insert the safety key and switch it to ON

For hanging applications, turn on/ off the device with a remote control.



5 Operations

5.1 Back Panel of BEAMBOX3W

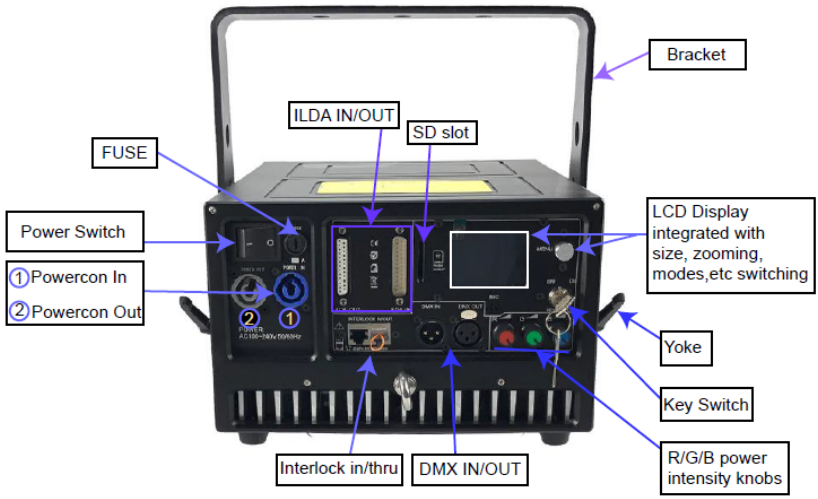


LCD Display

DMX Address
Work mode: shows current working mode
File(s): shows current working file(s)
Version: shows the edition of software being used

Menu Knob - LCD display: Press the knob to activate the display and enter the setting menu, rotate the knob to choose the subject, press the knob once to change the value, and ***press the knob twice to confirm and save the settings.***

5.2 Back Panel of BEAMBOX15



Work Modes/ Setting Guidance

LCD Display Operation

DMX Address	1
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
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e.g. Default Status

DMX Address	2
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
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DMX Setting	Show Mode
Slave Mode	Slave
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SD Sound	Off
Langusge	English

Click the DMX column once and manually rotate the menu knob to change the address(1-17 for options)

DMX Address	
Show Mode	ILD
Program	program 1
SD file	No SD
SIZE	100
Phase Invert	X+ Y+
Scan Speed	28
DMX Setting	Show Mode
Slave Mode	Slave
X Phase	Positive
Y Phase	Phase
Laser Lock	Off
Sound sence	90
SD Sound	Off
Langusge	English

Double-click the menu knob to save the preferred status.(When this step done, the background of the status will turn to red)

Note:
All the contents listed on the LCD display can be freely changed to the preferable status. The most important step is “double-click” the menu knob to SAVE the preferred status when all selections/ settings are done.
(The other settings should be operated step by step as DMX setting reference as the guidance above).

6 Settings Introductions

- DMX Address: Choose the proper DMX value for your preferred shows
- Show mode: Select a preferred work mode from Sound activation, Auto, PRG (SD-card displays), ILD (SD-card displays)

Sound Mode: plays the built-in programs triggered by sound
Auto Mode: plays the built-in programs automatically
PRG Mode: in PRG mode, display PRG files, the second line indicates the name of current PRG file
ILD Mode: play a single ILD file in cycle saved in the SD card (ILD format only). See 8 *SD Card File Introduction* for the ILD file format

- Program: Switch the preset programs from 1, 1, 3, the displaying flies in Sound and/or Auto mode
- SD File (folder): Switch the files which are saved on the SD card
- SIZE: Setting the projection angle of the preset programs/ graphics, adjustable value 10-100. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- Phasic setting: Switch the projection directions of the preset programs/ graphics. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- Scan Speed Adjust: Adjust scan speed. Only react from the preset programs/ graphics, no reaction under ILDA signal control.
- DMX STATE: Set up the DMX mode before DMX signal input. Show mode upon the preferred setting. Black out (no reaction under ILDA signal control).
- SLAVE MODE:

Slave: (slave projectors), connected via DMX to a main projector (master projector) project the same patterns like the master projector.

Master: (master projector), output signal from master projector during playback, there can be only one master device in one signal line, otherwise the signal will be messed up.

- X Phasic/ X Invert: Inverting the X axis directions (Positive or Reverse). Workable to both preset programs and ILDA signal playback.
- Y Phasic/ Y Invert: Inverting the Y axis directions (Positive or Revers). Workable to both preset programs and ILDA signal playback.
- Laser Lock: Manually operation via the LCD display. ON protection started, SHUT laser down once laser single point presented. OFF indicates protection for the laser single point invalid. Workable to both preset programs and ILDA mode.
- Sound Intensity: Intensity adjustable from 0 to 100
- SD Sound: During SD-card playback, sound only reacts to preset/ exported programs.PRG (SD playback in order) & ILD (SD playback loop), sound reacts on/off.
- COLOR: Preset accordingly to the laser system's color configuration when released frommanufacturer.
- Language selection: optional (English or Chinese)

7 Display mode introduction

- Audio Mode (Sound mode): Preset programs triggered by sound, anyproper sound will enable laser to output.
- Auto Mode: The preset programs automatically display in Auto mode.
- PRG Mode (SD playback in order): The preset/ exported programs playback in sequence.To redact the playlist please see *8 SD Card File Introduction.*
- ILD Mode (SD loop playback): Loop playback the single ILD file (extension named .ILD). About .ILD format, please see *8 SD Card File Introduction*.

Note: the ILD here refers to playing the ILD file in the SD card, not the ILDA signal throughsoftware on computer.

Note 1: DMX Mode: International standard DMX512 signal. In any of the above playback modes, the device can automatically recognize and switch to DMX mode after accessingthe DMX signal. The device

has 17 DMX channels. See *9 DMX Table* for details. DMX consoles vary in different manufacturers' models. Please refer to the specific DMX console instructions.

Note 2: ILDA (PC) mode: International standard ILDA signal is under computer control.In any of the above operating modes, when an ILDA signal with an interlock function is connected, the ILDA (computer) signal control has priority and the device operates in accordance to the ILDA signal.

In ILDA mode, a control hardware will be required, the recommended one should be ***FB3 controller*** from Pangolin, yet we can also provide this part with fair cost when purchasing laser systems.

The ILDA software has different operating methods form different manufacturers.

Please see the specific ILDA software instructions, the most commonly and widely used is QuickShowfrom *Pangolin.com*.

Quickshow Interface

8 SD Card File Introduction

- The system accepts only FAT32 file, formatting the new SD card to FAT32 type is required before use it.
- Short file/ File folder names, the file names is limited to 8 digits and the expanded name is limited to 3 digits, the names could only contain English letters, Arabic numbers, and underline, the others could not be recognized.
- Equipped an exclusive SD card for the device and don't save the other files inside; the quantity for the file folders is limited to 20, and each file folder is limited to contain 256 ILD files and 10 PRG files by maximum.
- PRG playlist: user could edit the playlist by text editor, the expanded name of the playlist is .PRG format.

The playlist is composed of the file name, play speed, and play times, "i" is the identification code stand for iShow, and comma "," is used to separate it.

Edit only one program per line; for example, if a program prg1.prg contains 3 files:file1.ild, file2.ild, and file3.ild; play speed for file1.ild is 12K and repeated 3 times; play speed for file2.ild is 20k and play once, the file 2 was produced by iShow; play speed for file3.ild is 18K and repeated 4 times; and the contents of the prg1.prg is as below:

File1.ild,12,3 - File2.ild,20,1,i - File3.ild,18,4

- After creating a file folder, create a PRG file under this file folder by the same file name, and edit all the playing files into this PRG file, the speed edited here is the play speed in ILDA mode. For example, create file folder "Lasershow", and file "Lasershow.prg" under this folder; after adding a new ILDA file, we need to add this ILDA file to the PRG playlist, so that we could find this file correctly in the ILDA mode and play it by required speed.

9 DMX Table

<table>
<tr><td rowspan="5">CH1</td><td rowspan="5">Mode selection</td><td>0-49</td><td colspan="3">Auto</td></tr>
<tr><td>50-99</td><td colspan="3">Sound</td></tr>
<tr><td>100-149</td><td colspan="3">Play PRG files in sequence</td></tr>
<tr><td>150-199</td><td colspan="3">Play ILD file circularly</td></tr>
<tr><td>200-255</td><td colspan="3">Manual</td></tr>
<tr><td rowspan="3">CH2</td><td rowspan="3">Graphics/Files Folder selection</td><td rowspan="3">0-255</td><td>Manual</td><td colspan="2">PRG & ILD mode</td></tr>
<tr><td>Graphics selection</td><td colspan="2" rowspan="2">File Folder selection</td></tr>
<tr><td>every 3 value each graphic</td></tr>
<tr><td rowspan="3">CH3</td><td rowspan="3">Strobe</td><td>0-10</td><td>None</td><td colspan="2" rowspan="3">File playing selection</td></tr>
<tr><td>11-199</td><td>Auto, from slow to fast</td></tr>
<tr><td>200-255</td><td>Sound control</td></tr>
<tr><td rowspan="17">CH4</td><td rowspan="17">Colors selection</td><td>0-5</td><td colspan="3">Off</td></tr>
<tr><td rowspan="2">6-16</td><td rowspan="2">White</td><td>6-10</td><td>ILD file color</td></tr>
<tr><td>11-16</td><td>white</td></tr>
<tr><td>17-33</td><td colspan="3">Red</td></tr>
<tr><td>34-50</td><td colspan="3">Green</td></tr>
<tr><td>51-67</td><td colspan="3">Blue</td></tr>
<tr><td>68-84</td><td colspan="3">Yellow</td></tr>
<tr><td>85-101</td><td colspan="3">Purple</td></tr>
<tr><td>102-118</td><td colspan="3">Cyan</td></tr>
<tr><td>119-135</td><td colspan="3">White, Red, Green, and Blue in segmenting</td></tr>
<tr><td>136-152</td><td colspan="3">Blue, Yellow, Purple, and Cyan in segmenting</td></tr>
<tr><td>153-169</td><td colspan="3">White, red, green, blue, yellow, purple, and cyan in segmenting</td></tr>
<tr><td>170-186</td><td colspan="3">White, red, green, blue in flowing</td></tr>
<tr><td>187-203</td><td colspan="3">Blue, yellow, purple, and cyan in flowing</td></tr>
<tr><td>204-220</td><td colspan="3">White, red, green, blue, yellow, purple, and cyan in flowing</td></tr>
<tr><td>221-237</td><td colspan="3">In segmenting according to the breaking point of the graphics</td></tr>
</table>

		238-255	Change colors by sound
CH5	X axis Movements	0-125	Manual Operation
		126-185	Auto. left and right circularly
		186-225	Auto jumping left and right circularly
		226-245	Auto irregular jumping
		246-255	Irregular jumping by sound control
CH6	Y axis Movements	0-125	Manual
		126-185	Auto. Up & Down circularly
		186-225	Auto Up & Down jumping circularly
		226-245	Auto irregular jumping
		246-255	Irregular Jumping by sound control
CH7	Zooming	0-10	None
		11-87	Manual zooming
		88-150	Zoom+
		151-200	Zoom-
		201-255	Circular
CH8	X axis rotation	0	None
		1-128	Manual
		129-255	Auto
CH9	Y axis rotation	0	None
		1-128	Manual
		129-255	Auto
CH10	Centre rotation	0	None
		1-128	Manual
		129-192	Auto rotation clockwise
		193-255	Auto rotation anti-clockwise
CH11	Drawing	0-10	None
		10-74	Manual adjusting
		75-104	Auto (increasing)
		105-144	Auto (decreasing)
		145-184	Auto circularly
		185-224	Loop circularly (increasing)
		225-255	Loop circularly (decreasing)
		0-9	None

CH12	X axis Wave	10-69	Low amplitude
		70-129	Medium amplitude
		130-189	Large amplitude
		190-255	Maximum amplitude
CH13	Y axis Wave	0-9	None
		10-69	Low amplitude
		70-129	Medium amplitude
		130-189	Large amplitude
		190-255	Maximum amplitude
CH14	Display Mode	0-63	Normal
		64-127	Light dots
		128-191	By segment
		192-255	Dots
CH15	Red modulation	0-255	From the brightest to off
CH16	Green modulation	0-255	From the brightest to off
CH17	Blue modulation	0-255	From the brightest to off

10 White Balance Adjustment

To achieve the preferable white balance by adjusting the brightness of each color (red, green, and blue) through adjustments on the software you use or DMX console. 6.7. Remote Control Connector (Interlock).

The device will start after the CAT5 (RJ45 jack) is inserted to the interface. It's possible to extend the wires on the CAT5 to the console for remote shutdown in any emergent situation.

11 Safety Lock

The safety lock is designed to avoid starting the device by unqualified personnel. Only when the key is inserted the laser will start.

11.1 Maintenance Instruction

The device is mostly installed in locations with dust, haze, or smoke, that easily pollute the lens and decrease the output brightness. These particles also easily pollute the light case, fans, PCBA, block the heat dissipation, and reduce the stability of the electronic components, so regular cleaning is very necessary and important to keep the maximum light output and increase the stability and lifetime.

It's recommended to clean the lens, the outer case, and the fans every 2 weeks. Clean the inner light every 4 weeks. The cleaning frequency should increase when operating in severe conditions.

Note:

Only a qualified & authorized technician(s) is (are) allowed to clean the inner parts. Improper inner cleaning can cause serious damage to the device. It's forbidden to use corrosive chemicals to clean the device, pure alcohol and acetone are recommended for cleaning the lens.

Clean the lens carefully and gently, don't touch the lens with any hard and sharp materials.

11.2 After Sales Service and Warranty

- One year's warranty for the device
- The components and accessories costs are charged after the warranty period
- Warranty voids for the damages or injuries caused by force majeure, like, earthquake,typhoon, etc.
- Warranty voids for the damages or injuries caused by improper operation and projection, such as wrong input voltage, water immerse, physical shock, etc.

12 Technical Parameters

12.1 Specifications BEAMBOX3W

Models	BEAMBOX3W
Beam Size@ Aperture	2,5*5 mm
Divergence (full angle)	1,3mrad
Controls	Mainboard (Auto + Sound + SD + DMX) + ILDA, FB4 (on request)
Scanning System	DT40 40Kpps @8° +/-30° MAX
Wavelength (nm)	R/638 G/520 B/445
Laser Power (mW)	650+850+1500
Modulation	Analog >60KHz
Power Supply	100~240V 50~60Hz
Consumption (W)	90
N.W. (Kg)	4,26
Dimension (mm)	156*224*125

12.2 Specifications BEAMBOX15

Models	BEAMBOX15
Beam Size@ Aperture	4,5*6,5mm
Divergence (full angle)	1,1mrad
Controls	Mainboard (Auto + Sound + SD + DMX) + ILDA, FB4 (on request)
Scanning System	DT40 40Kpps@8° +/-30°MAX
Wavelength (nm)	R/638 G/520 B/445
Laser Power (mW)	4000+4000+7000
Modulation	Analog W60KHz
Power Supply	100~240V 50~60Hz
Consumption (W)	290
N.W. (Kg)	11,62
Dimension (mm)	320*250*160