

AURA

IntenZ CB-150 RGB COB LED Matrix bar



User manual

Safety instructions



WARNING!



Always keep this device away from moisture and rain! Hazardous electrical shocks may occur!



WARNING!



Only connect this device to a matching power outlet. This device is intended to work on a specified AC currency. Connecting this device to power outlets with other voltages may result in permanent damage and possible hazardous situations, such as fire or electrical shocks!



WARNING!



Be careful with every operation of this device. Touching live wires inside and outside the unit may cause hazardous electrical shocks!

This unit must be operated by, or under the supervision of an adult. This device is not suitable for children.

Every person involved with the installation, operation and maintenance of this device has to:

- Be qualified
- Follow the instructions of this manual
- Make sure there is no damage caused by transport. If the device seems damaged from the outside, do not use it and contact your dealer for more information and consultation.
- To make sure the device maintains in perfect condition and for safe operation, it is necessary for the user to follow the instructions and warning notes of this user manual.
- Damage caused by improper use or modifications to the device are not covered by warranty.
- This device does not have any user-serviceable parts inside. Servicing of this device needs to be done by qualified technicians.

Important notes regarding safety and health:

- Never let the power cord come in contact with other cables. Handle the power cord and all connectors with the mains with caution.
- Never remove any warning or informative labels from the unit
- The ground contact always needs to be connected. Do not cover or remove the ground contact.
- Never leave cables lying around
- Do not open the device and do not modify any hard- or software of this unit.
- Do not insert this object into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the system on and off frequently as this will reduce the lifespan of the device.
- Do not drive the inputs of the fixture with a signal larger than required to work at full performance.
- Only use this device indoor, avoid contact with water, moist or other liquids. Do not place items filled with liquids on top of the unit.
- Avoid nearby flames or heat sources, do not place this device near flammable liquids, gas or flammable items.
- Always disconnect the device when it is not in use for a longer period or time, when servicing is needed or when the device needs cleaning.

- Only handle the power cord by its connectors. Never pull the cable to remove a connector from its socket, as this could lead to damage and electrical shocks.
- Always operate this device with a stable AC current.
- Always operate this device with the AC ground wire connected to the electrical system's ground.
- Never use other types of cables than specified in the manual, do not use defective or bad functioning cables. Contact your dealer when the included or required cables do not work properly with this device.
- When the device has been exposed to large temperature differences (for example, transport from outdoor to indoor), do not connect the device immediately. Do not activate the unit until it has reached room temperature, as moist might build up inside the unit, which may cause shortcuts and/or electrical shocks.

Guidelines and types of use:

- This device is intended to be used by professionals on stage, in theatres, clubs and other equal venues.
- This device is not suitable for children and always needs to be operated by an adult.
- Only use the device when the environment is suitable and will not cause any damage. Do not use the product in moist or dusty environments, or where long-term damage may occur such as:
 - indoor swimming pools where chlorine is used.
 - Beaches, where sand and salt are present.
 - Outdoor, without roof protection
 - Indoor areas where intense heat sources are present or where the temperature exceeds levels which are comfortable for humans.
- Only use the included power adapter and only connect the device to a suitable power outlet with the correct output voltage. Connecting the device to a power outlet with the wrong type of voltage or using the product with a wrong type of power supply may cause permanent damage to the device.
- Avoid shocks and collision during use and transport. Do not transport the device while in use. Avoid brute force during the installation and operation of this device.
- Familiarise yourself with the functions of the device before use. Do not allow operation of the device by unskilled or unqualified people.
- Use of the device in other ways than described in this user manual may cause damage and injury. Ayra does not take responsibility for any damage or injury caused by improper use.

Storage and transport:

- This device is intended for mobile use. When transported, use the original packaging of the product, or a fitting flightcase, preferably filled with foam.
- This device is not intended for permanent use. Operation breaks will ensure that the lifespan of the device remains unchanged.
- If the device is not used for a longer period of time, disconnect it from its power source and store it in its original packaging, or in a fitting flightcase.
- Store the device indoor, dry and do not expose the device to extreme temperature differences.

Housing:

- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be avoided at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device
- Check the fixture and screws for corrosion. Corrosion should not be present on the fixture. Contact your dealer or a skilled technician when corrosion is found on the fixture
- Every power or signal chassis/connector should be mounted tightly. Do not use the device when connectors are loose.
- Do not use the power cord when the cores are visible. Contact your dealer for a replacement if needed.
- Avoid the buildup of dust and dirt. Clean the exterior of the fixture every month with a dry or damp cloth. When using the device intensively, the cleaning frequency needs to be increased.

Fuses:

- The main fuse of this device is to be found on the rear of the device. In most cases, directly next to the power inlet.
- Only replace a fuse for a new one with the same type and rating! Do not use a fuse with a higher or lower rating.
- Do not bridge the fuse with electrical wires, aluminum foil, as the fuse is used for protection against electrical shocks and short circuit.
- Always mount the fuse cover back to the fuse compartment.

Box contents

Box contents

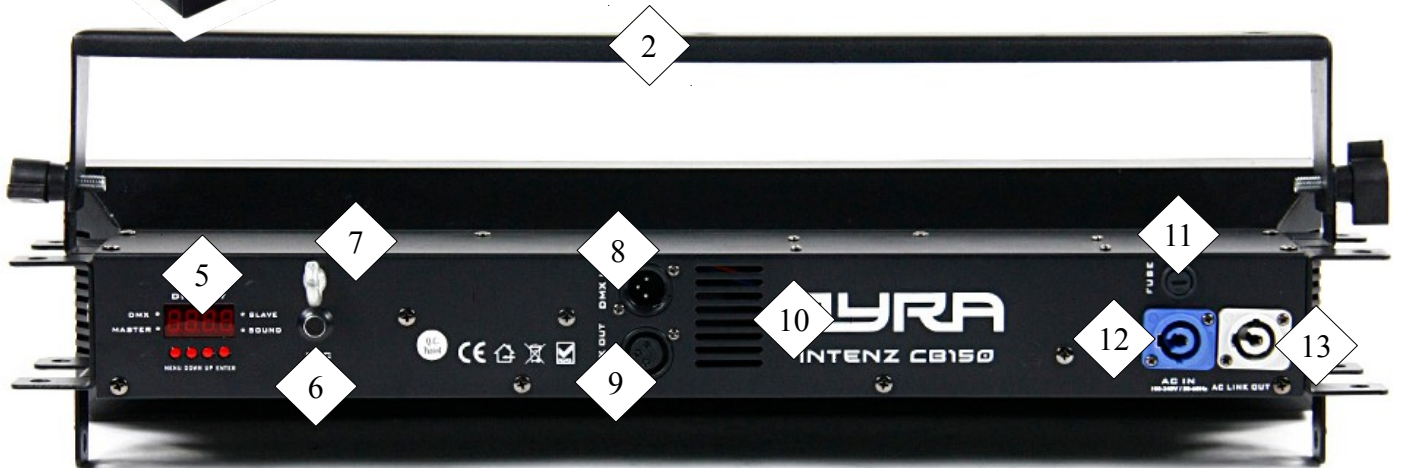
1x IntenZ CB-150 fixture
1x power cable
1x XLR-XLR signal cable
1x installing bracket
1x metal coupler (vertical single use)
2x small coupling pin with safety clip
2x large coupling pin with safety clip

Unit and accessory inspection

- Always use the supplied power cable to connect the unit to a power supply. If the cable appears broken or has visible damage, do not use it.
- If the unit is not going to be used for a longer period of time, disconnect it from the power supply and store it in a dust-free environment.
- Always check the unit for possible damage before use. If you suspect that something is wrong with the unit, do not connect it to a power source! When you suspect that your unit is broken or damaged, contact your local dealer or a certified technician to inspect the unit.

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Device overview



1. Beam output
2. Adjustable bracket
3. Bracket tightening knob
4. Rigging hardware
5. Menu display with buttons
6. On-board microphone
7. Safety eye
8. DMX input
9. DMX output
10. Ventilation slot
11. Fuse
12. Twist-lock Power input
13. Twist-lock Power output

Special features

The IntenZ CB-150 is equipped with special features, which enhance the performance of the fixture and also provide more user convenience.

I.T.M. (Intelligent Temperature Monitoring):

Temperature controlled fan cooling

The internal fan of the unit is temperature controlled, which means that the fan will only turn on if needed. For theatrical and other applications where fixtures need to be as silent as possible, this provides lots of convenience. When the fixture is not used (in blackout mode, or used with low output), the fan will not turn on.

The internal fan will turn on when the temperature sensor detects a temperature between 40 and 60 degrees Celsius. At first, the fan will turn on in low power mode, thus being very silent but still cooling. When the unit detects that the temperature has not changed (or even increased), the speed of the fan will increase to its maximum level (when the temperature reaches 60 degrees Celsius).

Temperature controlled power limit protection

When working in extreme environments (especially high temperature environments such as clubs or sunny outdoor festivals) it is important for the drivers and LED modules to stay intact and be reliable. Therefore, the IntenZ CB-150 is equipped with a power drop protection, which decreases the LED output when the temperature of the fixture exceeds 60 degrees Celsius. For every degree above the 60 degrees limit, the output power will be decreased with 5%.

Temperature controlled protect mode

When the temperature of the fixture exceeds 68 degrees Celsius, the critical maximum temperature limit is reached and the LED output of the fixture will be shut down automatically. A cool-down time is applied until the temperature decreases back to 60 degrees Celsius.

When the temperature of the fixture does not decrease after several shut-down actions, check the following:

- Is the fan still working?
- Is the fan blocked?
- Is the environment temperature too high?
- Is the fan sucking hot air into its ventilation system?
- Is the fixture too close to other (hot) objects?

If you are unable to solve temperature problems, shut down the fixture completely and check if the fixture still works when you connect it in a colder area. If you have any problems with the functionality of the fixture after this check, contact your local dealer or a skilled technician to inspect the unit.

S.L.S. (Signal Loss Setting):

The Signal Loss Setting system can be used to program a secondary working mode when the DMX mode fails, for example due to a loose cable. The secondary mode is set to Black out mode in default (which shuts down the output of the fixture until a proper DMX-signal is detected). By switching off the Black out mode, the fixture will turn to sound controlled operation when DMX-signal is lost.

In most situations, the Black out mode is used for professional environments (which prevents mismatching colours and chases) and Sound controlled operation is selected for more small-scaled applications, which prevents total black out.

I.M.S. (IntenZ Matrix System):

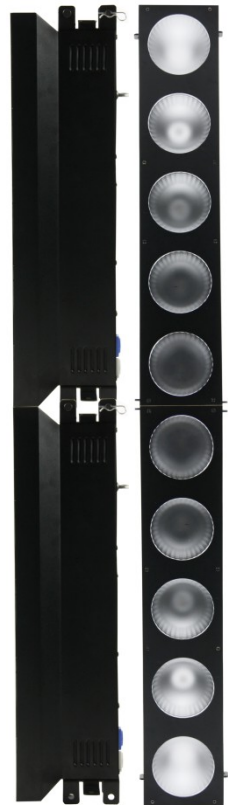
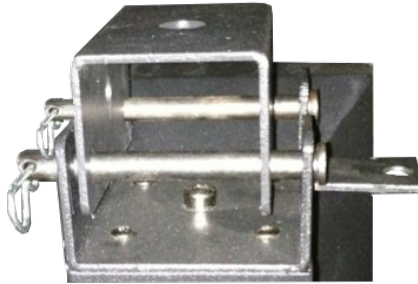
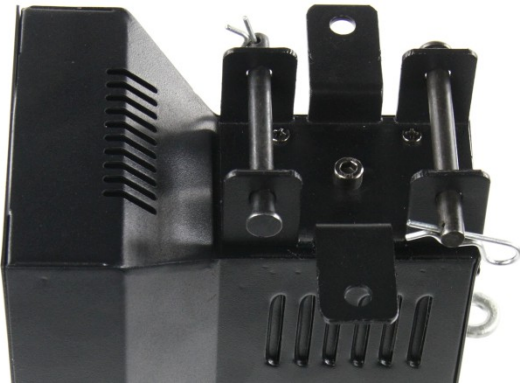
The IntenZ CB-150 is equipped with the special IntenZ Matrix System, which makes it possible to mount several fixtures in a matrix setup. Vertical coupling of the fixtures is possible (to make large setups with 5 CB-150 fixtures / 25 pixels in a row). Horizontal coupling when the fixture is in vertical position is also possible, which creates a 5x5 matrix panel, made from 5 CB-150 fixtures.

NOTE: Always attach the included safety pins! If lost, contact your local dealer for replacements.

Vertical array, vertical fixtures

To make a vertical array of several IntenZ CB-150 fixtures in vertical mode, use the included hardware. The large couplers are needed for a vertical array. A maximum of 5 IntenZ CB-150 fixtures can be installed as a vertical array.

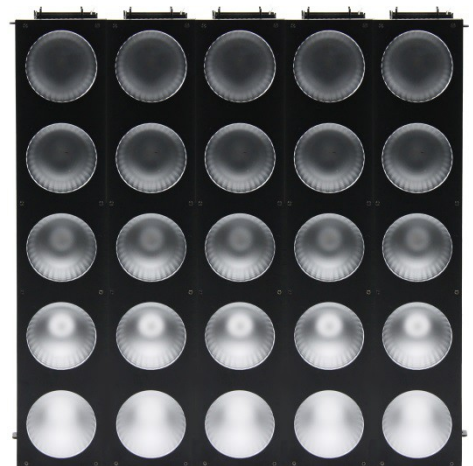
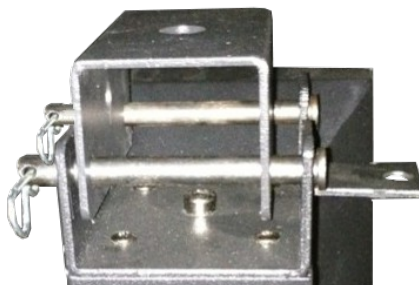
Attach fixtures as shown below:



Note: The small U-shaped bracket contains a hole for a clamp or coupler. The top fixture must be installed with the U-bracket attached, the other units can be installed below the first fixture.

Horizontal array, vertical fixtures

To make a horizontal array of several IntenZ CB-150 fixtures in vertical mode, use the included hardware. The small couplers are needed for a vertical array. An unlimited amount of fixtures can be attached, only if there is a new coupler/attachment point available every 4 fixtures. (1 fixture with attachment point, 3 fixtures without, 1 fixture with attachment point). Ayra recommends to supply every used fixture with an attachment point, for safety reasons Every fixture must be provided with a safety cable, regardless of the amount of attachment points are used.



NOTE: Always check the maximum load capacity of the construction you wish to mount the CB-150 fixtures to. The maximum load of your construction = the maximal spread amount of fixtures you can install!

Setting up the unit

To activate the unit, connect the included power supply to the unit and a suitable 230V, 50 Hz power outlet.

The fixture will start up and show the last chosen setting on the display. Usually, with a new product, this is the DMX mode with the value set on 001.

The display shows several settings, each with the possibility to set several values.

Use the display and the menu buttons to set preferences, change settings and scroll through the menu. "Enter" is used to save a certain setting or preset, press "Menu" for at least 2 seconds to discard the change and return to the main menu.

The table below shows an explanation for every feature and value.

display	Mode	Function
ADDR	DMX address setting	A001-A512
CHND	Channel mode	1CH/3CH/5CH/7CH/15CH/18CH
SLND	Master/slave mode	Master (default) Slave 1 - Slave 2
SOUN	Sound controlled mode	Sound controlled mode on/off
SHND	Auto mode	Auto speed 1-9 – Show 0-16
SENE	Sound sensitivity	Sound sensitivity 0-100
BALA	White Balance	Red 000~255 Green 000~255 Blue 000~255
BLND	Black out mode	YES-NO
Led	LED mode	ON-OFF
DISP	Display inversion	Display Inversion, Idsp-dspl
TEST	Test mode	Self test
TEMP	Temperature	0 ~ 9999
Hour	Using time of light	Fixture hours, 0 ~ 9999

ADDR: DMX address setting, used to determine the DMX starting channel. From this channel on, the fixture will respond to values, corresponding with the amount of channels that the fixture is occupying. (For example, when you turn the fixture in 3CH mode and set the starting address to value 003, the fixture will respond to channels 3, 4 and 5.)

CHND: The channel mode of the fixture makes it possible to use the correct channel mode setting for every application. For simple and basic setups, users may prefer to use the 1- or 3-channel mode. For advanced setup, users may prefer to control each pixel in detail, by using the 15- or 18-channel mode.

SLND: When using the master/slave function, you need to connect 2 or more fixtures with XLR-XLR cable. The first fixture in line needs to be set as master, the others as Slave 1 or 2 (synchronized or mirrored performance). This way, the slaves will mimic the behavior of the master fixture for wonderful synchronized lighting shows.

SHND: Auto mode. Select one of the internal programs and set the speed correctly for the best effects.

SOUN: Activate or disable the built-in sound controlled mode. This way, the fixture will respond to the beat of the music.

SENE: The sensitivity of the built-in microphone is adjustable, to optimize the built-in sound controlled mode. For example, when your music source (speakers) are placed far away, you might want to increase the sensitivity to make sure that the fixture responds to the sound accurately.

BALA: When using several fixtures, it might be possible that you want to optimize the colour temperature when using full output (white, created by RGB @ 100% output). Some people prefer white with a slight blueish tone, others prefer warm white to mimic traditional light bulbs. Every separate colour can be changed (dimmed) to achieve perfect white balance when projecting full white in normal mode.

BLND: Black out mode (S.L.S.) The Signal Loss Setting provides the right action when the fixture suddenly loses DMX signal. By activating the function, the fixture goes in blackout mode. By deactivation the mode, the fixture goes in sound controlled mode.

Led: The LED display will shut off automatically after a few seconds when this function is activated. When pressing any button, the display will activate again. When deactivating the feature, the display will be lit permanently.

DISP: Display invert version – When using the fixture in a hanging setup, it is possible to flip the display, so the characters will be shown upside down. This makes reading the several statuses much easier.

TEST: Self test mode, to control all segments and LEDs

TEMP: Current temperature, displayed in degrees Celsius.

Hour: The fixture shows how much hours it has been active. This is very practical for rental companies which need to perform service intervals on all fixtures after several hours of performing, to maintain optimal shape.

The IntenZ CB-150 is equipped with several working modes, each with its own advantages. For simple events there are stand-alone modes, for advanced situations there are options to create synchronized lightshows and the fixture is able to be controlled with a DMX-512 controller. A short description for each mode can be found below:

Auto:

Automatic lightshow with a pre-programmed internal show, on a pre-defined speed.

Sound:

Automatic lightshow with a pre-programmed internal show, on the beat of the music, thanks to an internal microphone which senses the beat of the music and will change a step every time a beat is detected.

Slave:

In master/slave mode, it is possible to link several IntenZ CB-150 fixtures together, to create synchronized lightshows in the Auto or Sound mode. The first fixture in the chain needs to be set in the Auto or Music mode. All the next fixtures need to be set to Slave and will mimic the behavior of the first fixture. The master/slave function requires XLR – XLR cables (not included).

DMX:

The IntenZ CB-150 can be connected to a DMX-controller with standard XLR – XLR cable. While doing so, a DMX-terminator must be connected to the last fixture, at the end of the DMX-chain. This prevents reflections in the DMX-signal, which could cause flickering and unwanted behavior from your intelligent fixtures.

A DMX terminator is a XLR connector with a resistor of 120 Ohm, placed between pin 2 and 3 as a bridge.

With the following channel assignment, it is possible to control the IntenZ CB-150:

1CH mode:

CH1	Show	
		000-007 Blackout
		008-022 Show 1
		023-037 Show 2
		038-052 Show 3
		053-067 Show 4
		068-082 Show 5
		083-097 Show 6
		098-112 Show 7
		113-127 Show 8
		128-142 Show 9
		143-157 Show 10
		158-172 Show 11
		173-187 Show 12
		188-202 Show 13
		203-217 Show 14

		218-232 Show 15 233-247 Show 16 248-255 Sound active running show 1 to 16
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3CH mode:

CH1	000-255	Red
CH2	000-255	Green
CH3	000-255	Blue

5CH Mode:

CH1	000-255	The 1 st head Color
CH2	000-255	The 2 nd head Color
CH3	000-255	The 3 rd head Color
CH4	000-255	The 4 th head Color
CH5	000-255	The 5 th head Color

7CH Mode:

CH1	000-255	The 1 st head Color
CH2	000-255	The 2 nd head Color
CH3	000-255	The 3 rd head Color
CH4	000-255	The 4 th head Color
CH5	000-255	The 5 th head Color
CH6	000-255	Dimmer
CH7	000-255	Strobe

15CH Mode:

CH1,CH4,CH7,CH10,CH13	000-255	Red 1/2/3/4/5
CH2,CH5,CH8,CH11,CH14	000-255	Green 1/2/3/4/5
CH3,CH6,CH9,CH12,CH15	000-255	Blue 1/2/3/4/5

18CH Mode:

CH1,CH4,CH7,CH10,CH13	000-255	Red 1/2/3/4/5
CH2,CH5,CH8,CH11,CH14	000-255	Green 1/2/3/4/5
CH3,CH6,CH9,CH12,CH15	000-255	Blue 1/2/3/4/5
CH16	000-255	Color
CH17	000-255	Dimmer
CH18	000-255	Strobe

Technical specifications

- Powerful COB RGB LED technology
- Classic reflector look – Modern LED technology
- Equipped with 5x 30 Watt COB RGB LED chips
- Perfect colour mixing thanks to close diode placement and optimized reflector technology
- Intense and colourful beams
- Fluent dimming 0-100% for each colour
- Individual pixel control
- I.M.S. (Intenz Matrix System) ready – Combine multiple devices for large-scale matrix or array setups
- Built-in microphone for music-controlled operation
- Menu display and buttons for easy adjustment of settings
- Adjustable colour temperature
- S.L.S. (Signal Loss Setting) – Blackout or sound controlled mode when no DMX signal is detected
- DMX operation: 1, 3, 5, 7, 15 or 18 channels
- I.T.M. (Intelligent Temperature Monitoring) - reduces light output to prevent overheating and controls the fan speed
- Suitable for use as wall washer, blinder, strobe, low-res visual screen, allround club lighting system, etc.
- Low power consumption – High output – Long lifespan

Connectors:

- DMX: 3p XLR male and female
- Power: Twist-lock connector (power cable to Schuko included) and Twist-lock output (link)

Power:

- Voltage: AC100-240V 50/60Hz
- Power consumption: 150W

Physical:

- Dimensions: 620 x 160 x 150 mm (without bracket)
- Weight: 3.5 kg

Connectors and wiring schematics:

DMX-connections:

DMX-output

XLR mounting-socket:



- 1: Ground
- 2: Signal (-)
- 3: Signal (+)

DMX-input

XLR mounting-plug:



- 1: Ground
- 2: Signal (-)
- 3: Signal (+)

Electrical wiring:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	