abyss USB

User Manual

CHAUVET DJ

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1. BEFORE YOU BEGIN

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- Mounting Bracket with Mounting Hardware
- Power Cord
- Warranty Card
- Quick Reference Guide

Unpacking Instructions
Carefully unpack the product immediately and check the container to make sure all the parts are in the package and are in good condition.

Claims
If the box or the contents (the product and included accessories) appear damaged from shipping, or show signs of mishandling, notify the carrier immediately, not Chauvet. Failure to report damage to the carrier immediately may invalidate your claim. In addition, keep the box and contents for inspection.

For other issues, such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with Chauvet within 7 days of delivery.

Text Conventions

Convention	Meaning
1—512	A range of values
50/60	A set of values of which only one can be chosen
Settings	A menu option not to be modified
Menu > Settings	A sequence of menu options to be followed
<ENTER>	A key to be pressed on the product's control panel
ON	A value to be entered or selected

Symbols

Symbol	Meaning
⚡	Electrical warning. Not following these instructions may cause electrical damage to the product, accessories, or the user.
⚠	Critical installation, configuration, or operation information. Not following these instructions may make the product not work, cause damage to the product, or cause harm to the operator.
ⓘ	Important installation or configuration information. The product may not function correctly if this information is not used.
📝	Useful information.

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Product at a Glance

Use on Dimmer	✖	Auto Programs	✖
Outdoor Use	✖	Auto-ranging Power Supply	P
Sound-Active	✖	Replaceable Fuse	P
DMX	P	User-Serviceable	✖
Master/Slave	P		

Safety Notes

Please read the following Safety Notes carefully before working with the product. The Notes include important safety information about installation, usage, and maintenance.

⚠

- Always connect the product to a grounded circuit to avoid the risk of electrocution.
- Always disconnect the product from the power source before cleaning or replacing the fuse.
- Avoid direct eye exposure to the light source while the product is on.
- Make sure the power cord is not crimped or damaged.
- Never disconnect the product from power cord by pulling or tugging on the cord.
- If mounting the product overhead, always secure to a fastening device using a safety cable.
- Make sure there are no flammable materials close to the product when operating.
- Do not touch the product's housing when operating because it may be very hot.

ⓘ

- The product is not intended for permanent installation.
- Always make sure that the voltage of the outlet to which you are connecting the product is within the range stated on the decal or rear panel of the product.
- The product is for indoor use only! (IP20) To prevent risk of fire or shock, do not expose the product to rain or moisture.
- Always install the product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- Be sure that no ventilation slots on the product's housing are blocked.
- Never connect the product to a dimmer.
- Make sure to replace the fuse with another of the same type and rating.
- Never carry the product from the power cord or any moving part. Always use the hanging/mounting bracket.
- The maximum ambient temperature (Ta) is 104 °F (40 °C). Do not operate the product at higher temperatures.
- In the event of a serious operating problem, stop using the product immediately.
- Never try to repair the product. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
- To eliminate unnecessary wear and improve its lifespan, during periods of non-use completely disconnect the product from power via breaker or by unplugging it.

📝

Keep this User Manual for future use. If you sell the product to someone else, be sure that they also receive this document.

2. INTRODUCTION

Product Overview

Menu
Buttons

Display

D-Fi USB
Port

Fuse Holder

Power In

DMX
In/Out

Power Out

Safety Loop

Lens

IR Sensor

⚠ **WARNING! DO NOT plug anything other than a D-Fi USB into the USB port. Doing so may cause damage to the product.**

Product Dimensions

9.7 in
246 mm

7.7 in
195 mm

9 in
228 mm
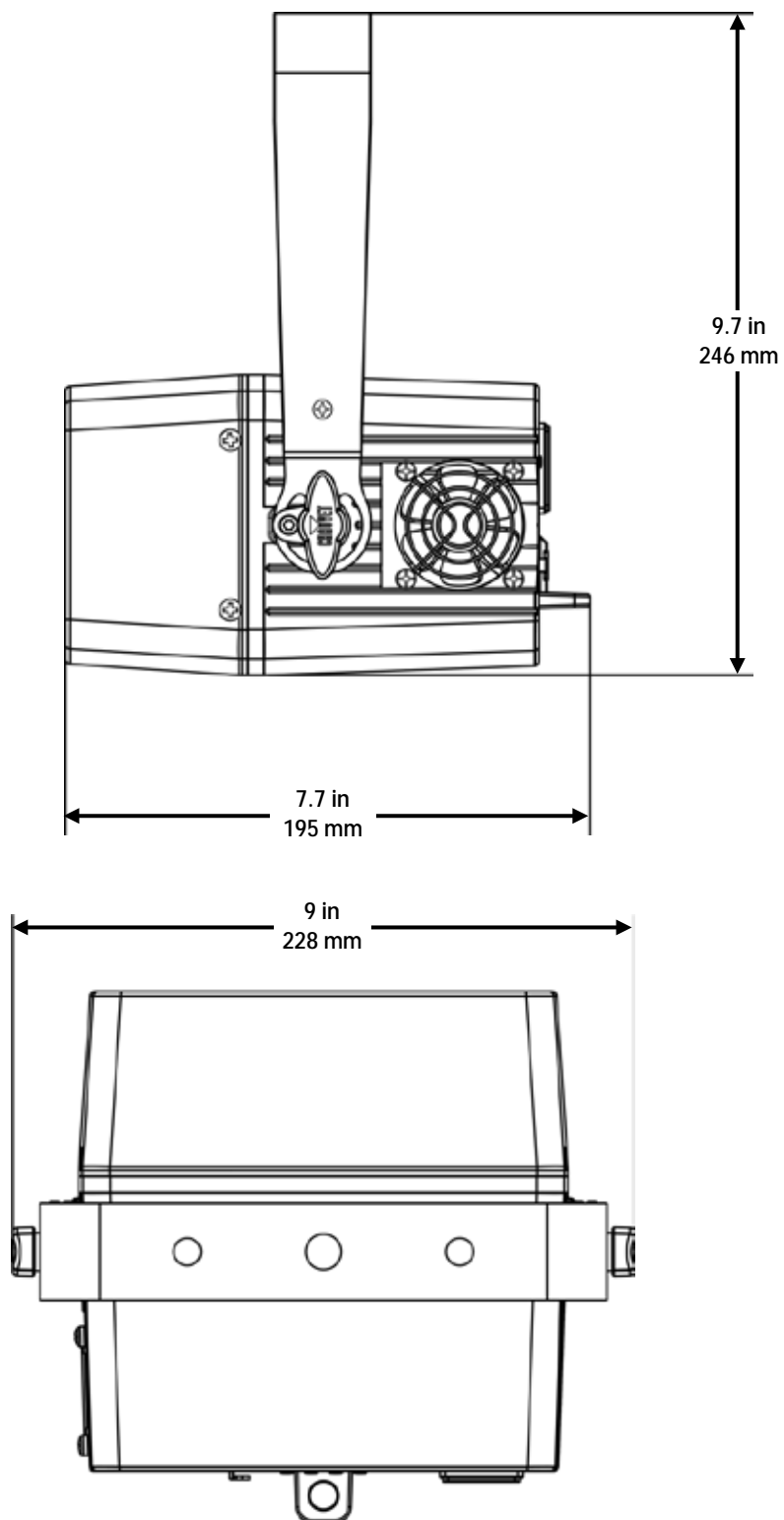
3. SETUP

AC Power The Abyss USB has an auto-ranging power supply and it can work with an input voltage range of 100 to 240 VAC, 50/60 Hz. To determine the product's power requirements (circuit breaker, power outlet, and wiring), use the current value listed on the label affixed to the product's back panel, or refer to the product's specifications chart. The listed current rating indicates the product's average current draw under normal conditions.

⚠ · **Always connect the product to a protected circuit (circuit breaker or fuse). Make sure the product has an appropriate electrical ground to avoid the risk of electrocution or fire.**
· **To eliminate unnecessary wear and improve its lifespan, during periods of non-use completely disconnect the product from power via breaker or by unplugging it.**
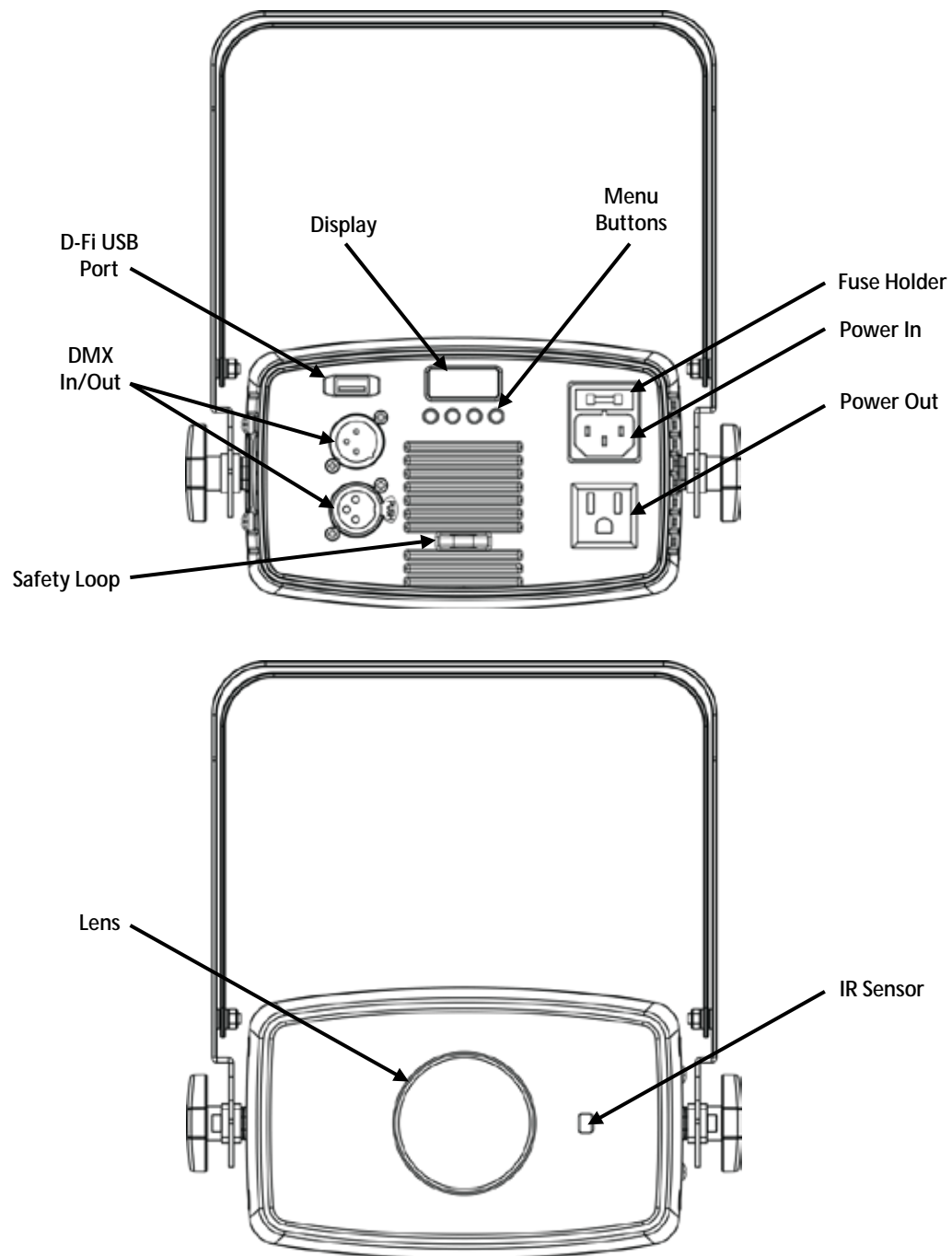
ⓘ **Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.**

Fuse Replacement
1. Wedge the tip of a flat-head screwdriver into the slot of the fuse holder.
2. Pry the fuse holder out of the housing.
3. Remove the blown fuse from the holder and replace with a fuse of the exact same type and rating.
4. Insert the fuse holder back in place and reconnect power.

Installed fuse (held by plastic clip)

Safety cap

Spare fuse holder (inside safety cap)
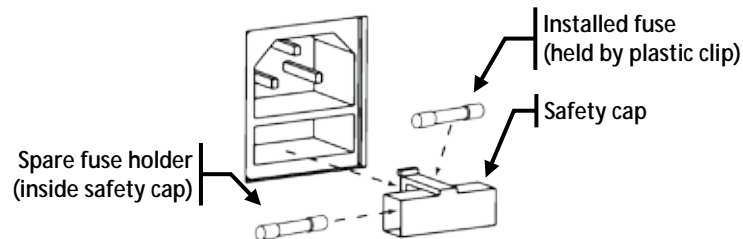
⚠ **Disconnect the product from the power outlet before replacing the fuse.**

Power Linking The product provides power linking via the Edison outlet located in the back of the product. Please see the diagram below for further explanation.

Power Linking Diagram

1st Product

2nd Product

3rd Product

Additional Products
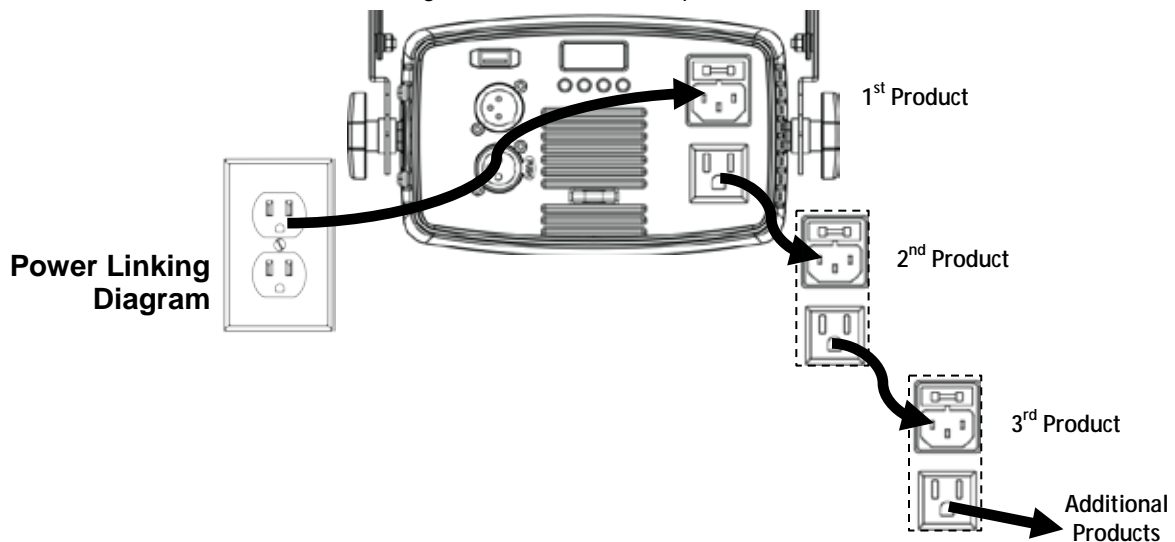
ⓘ **You can power link up to 14 Abyss USB products on 120 VAC or up to 27 Abyss USB products on 230 VAC.**

⚠ **The power linking diagram corresponds to the North American version of the product ONLY! If using the product in other markets, you must consult with the local Chauvet distributor as power linking connectors and requirements may differ in your country or region.**

Mounting

Before mounting the product, read and follow the safety recommendations indicated in the Safety Notes.

Orientation

The Abyss USB may be mounted in any position; however, make sure adequate ventilation is provided around the product.

Rigging

· Before deciding on a location for the product, always make sure there is easy access to the product for maintenance and programming purposes.

· Make sure that the structure onto which you are mounting the product can support the product's weight. See the Technical Specifications for weight information.

· When mounting the product overhead, always use a safety cable. Mount the product securely to a rigging point, whether an elevated platform or a truss.

· When rigging the product onto a truss, use a mounting clamp of appropriate weight capacity.

· When power linking multiple products, mount the products close enough for power linking cables to reach.

· The bracket adjustment knobs allow for directional adjustment when aiming the product to the desired angle. Only loosen or tighten the bracket knobs manually. Using tools could damage the knobs.

Mounting Diagram

Mounting Clamp
(such as the **CLP-15N** from Chauvet)

Hanging/Mounting Bracket
(also used as floor supports)

Safety Cable
(such as **CH-05** from Chauvet)

Bracket Adjustment Knob
x 2
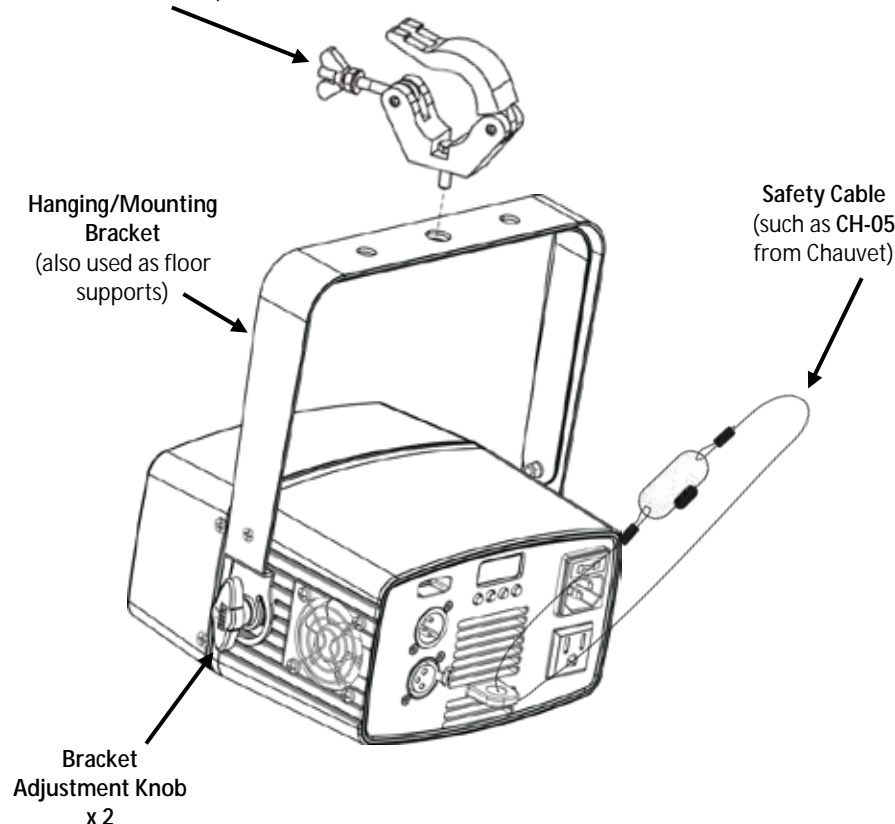
4. OPERATION

Control Panel Operation

To access the control panel functions, use the four buttons located underneath the display. Please refer to the Product Overview to see the button locations on the control panel.

Button	Function
<MENU>	Press to find an operation mode or to back out of the current menu option
<UP>	Press to scroll up the list of options or to find a higher value
<DOWN>	Press to scroll down the list of options or to find a lower value
<ENTER>	Press to activate a menu option or a selected value

Menu Map

Main Level	Programming Levels		Description
3-CH	**d 1–d512**		3-channel DMX mode
C--	**C 1**		White Static Color
	C 2		Purple Static Color
	C 3		Yellow Static Color
	C 4		Blue Static Color
	C 5		Green Static Color
	C 6		Orange Static Color
	C L	**L 0–L100**	Left Color Wheel Rotation (slow to fast)
	C r	**r 0–r100**	Right Color Wheel Rotation (slow to fast)
Wave	**Stop**		Stop Wave Effect Rotation
	W--L	**L 0–L100**	Left Wave Effect Rotation (slow to fast)
	W--r	**r 0–r100**	Right Wave Effect Rotation (slow to fast)
U--	**U 0–U255**		Dimmer
SET	**On**		IR function on or off
	OFF		
teMP	**__**		Displays the product's current temperature

DMX Linking

The Abyss USB works with a DMX controller. Information about DMX is in the CHAUVET DMX Primer, which is available from the Chauvet website http://www.chauvetlighting.com/downloads/DMX_Primer_rev05_WO.pdf.

Configuration (DMX)

Set the product in DMX mode to control with a DMX controller.
1. Connect the product to a suitable power outlet.
2. Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket on the product.

DMX Personality and Starting Address

When selecting a starting DMX address, always consider the number of DMX channels the selected DMX mode uses. If you choose a starting address that is too high, you could restrict the access to some of the product's channels.

The Abyss USB uses 3 DMX channels in a 3-CH DMX mode, which defines the highest configurable address to **510**.

If you are not familiar with the DMX protocol, download the DMX Primer from www.chauvetlighting.com.

To select the starting address, do the following:
1. Press **<MENU>** repeatedly until **3-CH** shows on the display.
2. Press **<ENTER>** and **d 1–d512** will show on the display.
3. Use **<UP>** or **<DOWN>** to select the starting address.
4. Press **<ENTER>**.

DMX Channel Assignments and Values

3-CH

Channel	Function	Value	Percent/Setting
1	**Dimmer**	000–255	0–100%
2	**Color Wheel**	000–021	White
		022–042	Purple
		043–063	Yellow
		064–084	Blue
		085–105	Green
		106–127	Orange
		128–188	Left rotation (fast to slow)
		189–194	Stop
		195–255	Right rotation (slow to fast)
3	**Wave Effect Wheel**	000	Stop
		001–122	Left rotation (slow to fast)
		123–133	Stop
		134–255	Right rotation (fast to slow)

D-Fi USB Connectivity

The Abyss USB is able to become a D-Fi wireless receiver/transmitter with the use of the D-Fi USB from CHAUVET DJ. Simply set the product's DMX Personality and DMX Address, set the DIP switch D-Fi receiving/transmitting channel, then plug it into the D-Fi USB port.

WARNING! DO NOT plug anything other than a D-Fi USB into the USB port. Doing so may cause damage to the product.

Once plugged in, the D-Fi USB will take over the product. Wired DMX, manual display control/menu buttons and IRC-6 will be unavailable until you unplug the D-Fi USB. The priority levels are:

1. D-Fi USB	**3. IRC-6 Remote Control**
2. Wired DMX	**4. Manual Digital Display/Menu Buttons**

Configuration (D-Fi USB)

1. Set the DMX Personality and DMX address on your product.
2. Use the Chart provided to set **BOTH**:
   · the Channel, and then
   · the Receiving or Transmitting option.

NOTE: DIP Switch <u>5</u> is for Transmitting OR Receiving, please choose carefully.

D-Fi USB DIP Switch Channels

RECEIVING / TRANSMITTING DIP switch settings for Channels 1–16

Configuration (Standalone)

Set the product in one of the standalone modes to control without a DMX controller.

· Connect the product to a suitable power outlet.

Never connect a product that is operating in any standalone mode to a DMX string connected to a DMX controller. Products in standalone mode may transmit DMX signals that could interfere with the DMX signals from the controller.

Color Wheel

To set the position or the rotation direction and speed of the color wheel on the Abyss USB, follow the instructions below:

1. Press **<MENU>** repeatedly until **C--** shows on the display.
2. Press **<ENTER>**.
3. Use **<UP>** and **<DOWN>** to select one of the following:
   · **C 1** (static white)
   · **C 2** (static purple)
   · **C 3** (static yellow)
   · **C 4** (static blue)
   · **C 5** (static green)
   · **C 6** (static orange)
   · **C L** (left rotation)
   or
   · **C r** (right rotation)
4. Press **<ENTER>**.
5. For **C L** or **C r**, use **<UP>** and **<DOWN>** to increase or decrease the rotation speed.
6. Press **<ENTER>**.

Wave Effect Wheel

To set the rotation direction and speed of the wave effect wheel on the Abyss USB, do the following:

1. Press **<MENU>** repeatedly until **Wave** shows on the display.
2. Press **<ENTER>**.
3. Use **<UP>** and **<DOWN>** to select one of the following:
   · **Stop** (no rotation)
   · **W--L** (left rotation)
   or
   · **W--r** (right rotation)
4. Press **<ENTER>**.
5. For **W--L** or **W--r**, use **<UP>** and **<DOWN>** to increase or decrease the rotation speed.
6. Press **<ENTER>**.

Dimmer

To set the total output level of the Abyss USB, follow the instructions below:

1. Press **<MENU>** repeatedly until **U--** shows on the display.
2. Press **<ENTER>**.
3. Use **<UP>** and **<DOWN>** to increase or decrease the total output level.
4. Press **<ENTER>**.

Temperature

To view the product's current temperature, do the following:

1. Press **<MENU>** repeatedly until **teMP** shows on the display.
2. Press **<ENTER>**.

IRC-6 Infrared Remote Control

The Abyss USB is compatible with the IRC-6 infrared remote control from Chauvet. To activate IR mode, follow the instructions below:

1. Press **<MENU>** repeatedly until **SET** shows on the display.
2. Press **<ENTER>** to accept.
3. Press **<UP>** or **<DOWN>** to select **On** or **OFF**.
4. Press **<ENTER>**.

IRC-6 Operation

Color Wheel

To set the color wheel rotation direction:
1. Press **<AUTO>** on the IRC-6.
2. Press **<+>** or **<–>** to toggle the direction.

To set the color wheel rotation speed:
1. Press **<SPEED>** on the IRC-6.
2. Press **<+>** or **<–>** to increase or decrease the rotation speed.

To set a static color:
- · For white, press **<1>** on the IRC-6.
- · For purple, press **<2>** on the IRC-6.
- · For yellow, press **<3>** on the IRC-6.
- · For blue, press **<4>** on the IRC-6.
- · For green, press **<5>** on the IRC-6.
- · For orange, press **<6>** on the IRC-6.

Wave Effect Wheel

To set the wave effect wheel rotation direction:
1. Press **<SOUND>** on the IRC-6.
2. Press **<+>** or **<–>** to toggle the direction.

To set the wave effect wheel rotation speed:
1. Press **<SENSITIVITY>** on the IRC-6.
2. Press **<+>** or **<–>** to increase or decrease the rotation speed.

Dimmer

To adjust the dimmer level:
1. Press **<MANUAL>** or **<W>** on the IRC-6 for full dimmer control,
    or
    Press **<%>** on the IRC-6 for 10-step dimmer control.
2. Press **<+>** or **<–>** to increase or decrease the dimmer level.

Black Out

To black out the light:
    Press **<BLACK OUT>** on the IRC-6.
This will turn off the light until the button is pressed again.
NOTE: The IRC will not respond to any inputs when Black Out is activated. If the remote does not respond when a button is pressed, try pressing **<BLACK OUT>**. You may have inadvertently activated Black Out.

All other buttons on the IRC-6 infrared remote control have no function with this product.

Master/Slave Mode (wired)

The Master/Slave mode allows a single Abyss USB product (the master) to control the actions of one or more Abyss USB products (the slaves) without the need of a DMX controller. The master product will be set to operate in either Stand-Alone mode or with the IRC-6, while the slave products will be set to operate in Slave mode. Once set and connected, the slave products will operate in unison with the master product.

Configure the products as indicated below.

Slave products:

1. Press **<MENU>** repeatedly until **3-CH** shows on the display.
2. Press **<ENTER>** to accept.
3. Set the DMX address to **d 1**.
4. Connect the DMX input of the first slave product to the DMX output of the master product.
5. Connect the DMX input of the subsequent slave products to the DMX output of the previous slave product.
6. Finish setting and connecting all the slave products.

Master product:

1. Set the master product in Stand-Alone mode or with the IRC-6.
2. Make the master product the first product in the DMX daisy chain.

- · **Configure all the slave products before connecting the master to the daisy chain.**
- · **Never connect a DMX controller to a DMX string configured for Master/Slave operation because the controller may interfere with the signals from the master.**
- · **Do not connect more than 31 slaves to the master.**

Master/Slave Mode (D-Fi USB)

The D-Fi USB allows a single Abyss USB product (the master) to control the actions of one or more Abyss USB products (the slaves) without the need of a DMX controller or DMX cables. The master (transmitter) product will be set to operate in either Stand-Alone mode or with the IRC-6, while the slave (receiver) products will be set to operate in Slave mode. Once set and connected, the slave products will operate in unison with the master product.

Configure the products as indicated below.

Slave products:

1. Press **<MENU>** repeatedly until **3-CH** shows on the display.
2. Press **<ENTER>** to accept.
3. Set the DMX address to **d 1**.
4. Set the D-Fi USB to receive on a specific channel, 1–16.
5. Plug in the D-Fi USB.
6. Finish setting and connecting all the slave products.

Master product:

1. Press **<MENU>** repeatedly until **3-CH** shows on the display.
2. Press **<ENTER>** to accept.
3. Set the DMX address to **d 1**.
4. Set the master product in Stand-Alone mode or with the IRC-6.
5. Set the D-Fi USB to transmit on the D-Fi channel the slaves are receiving on.
6. Plug in the D-Fi USB.

- · **All products must be set to the same DMX personality, DMX address, and D-Fi channel.**
- · **Configure all the slave products before configuring the master to transmit.**
- · **Never connect a DMX controller to a D-Fi channel configured for Master/Slave operation because the controller may interfere with the signals from the master.**

5. MAINTENANCE

Product Maintenance

Dust build-up reduces light output performance and can cause overheating. This can lead to reduction of the light source's life and/or mechanical wear. To maintain optimum performance and minimize wear, clean your lighting products at least twice a month. However, be aware that usage and environmental conditions could be contributing factors to increase the cleaning frequency.

To clean the product, follow the instructions below:

1. Unplug the product from power.
2. Wait until the product is at room temperature.
3. Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external surface/vents.
4. Clean all transparent surfaces with a mild soap solution, ammonia-free glass cleaner, or isopropyl alcohol.
5. Apply the solution directly to a soft, lint free cotton cloth or a lens cleaning tissue.
6. Softly drag any dirt or grime to the outside of the transparent surface.
7. Gently polish the transparent surfaces until they are free of haze and lint.

Always dry the transparent surfaces carefully after cleaning them.

6. TECHNICAL SPECIFICATIONS

Dimensions and Weight

Length	Width	Height	Weight
7.7 in (195 mm)	9 in (228 mm)	9.7 in (246 mm)	5.8 lb (2.7 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

Power

Power Supply Type	Range	Voltage Selection
Switching (internal)	100 to 240 VAC, 50/60 Hz	Auto-ranging

Parameter	120 V, 60 Hz	230 V, 50 Hz
Consumption	38 W	37 W
Operating Current	0.5 A	0.3 A
Power linking current (products)	8 A (14 products)	8 A (27 products)
Fuse	T 1 A, 250 V	T 1 A, 250 V

Power I/O	U.S./Worldwide	UK/Europe
Power input connector	IEC	IEC
Power output connector	Edison	IEC
Power Cord plug	Edison (U.S.)	Local plug

Light Source

Type	Power	Lifespan
LED	30 W	50,000 hours

Color	Quantity	Current
Cool white	1	7 A

Photometrics

Parameter	
Coverage Angle	59°
Illuminance @ 2 m	715 lux

Thermal

Maximum External Temp.	Cooling System
104 °F (40 °C)	Fan-assisted Convection

DMX

I/O Connectors	Channel Range
3-pin XLR	3

Ordering

Product Name	Item Code	UPC Number
Abyss USB	03051059	781462214074

RoHS C E

RETURNS

In case you need to get support or return a product:
- If you are located in the U.S., contact Chauvet World Headquarters.
- If you are located in the UK or Ireland, contact Chauvet Europe Ltd.
- If you are located in Mexico, contact Chauvet Mexico.
- If you are located in Benelux, contact Chauvet Europe BVBA.
- If you are located in any other country, DO NOT contact Chauvet. Instead, contact your local distributor. See www.chauvetlighting.com for distributors outside the U.S., UK, Ireland, Mexico, or Benelux.

If you are located outside the U.S., UK, Ireland, Mexico, or Benelux, contact your distributor of record and follow their instructions on how to return Chauvet products to them. Visit our website www.chauvetlighting.com **for contact details.**

Call the corresponding Chauvet Technical Support office and request a Return Merchandise Authorization (RMA) number before shipping the product. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

Send the merchandise prepaid, in its original box, and with its original packing and accessories. Chauvet will not issue call tags.

Clearly label the package with the RMA number. Chauvet will refuse any product returned without an RMA number.

Write the RMA number on a properly affixed label. DO NOT write the RMA number directly on the box.

Before sending the product, clearly write the following information on a piece of paper and place it inside the box:
- Your name
- Your address
- Your phone number
- RMA number
- A brief description of the problem

Be sure to pack the product properly. Any shipping damage resulting from inadequate packaging will be your responsibility. FedEx packing or double-boxing are recommended.

Chauvet reserves the right to use its own discretion to repair or replace returned product(s).

CONTACT US

USA WORLD HEADQUARTERS

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Outside the U.S., United Kingdom, Ireland, Mexico, or Benelux contact the dealer of record. Follow their instructions to request support or to return a product. Visit our website for contact details.