SHOCKER 90 IRC

User Manual
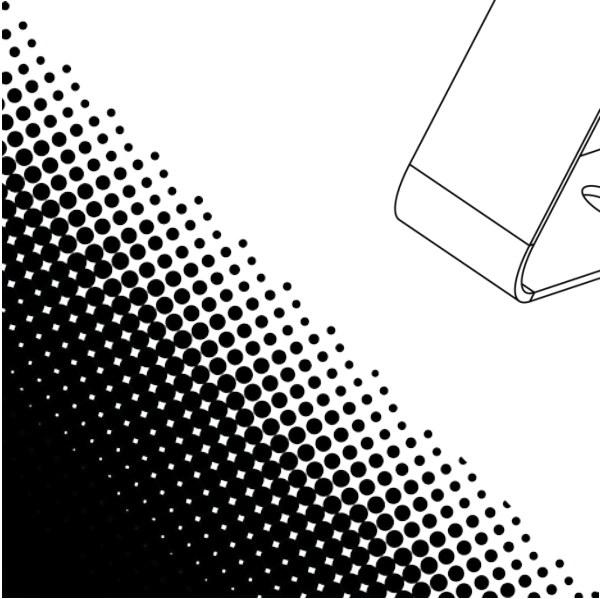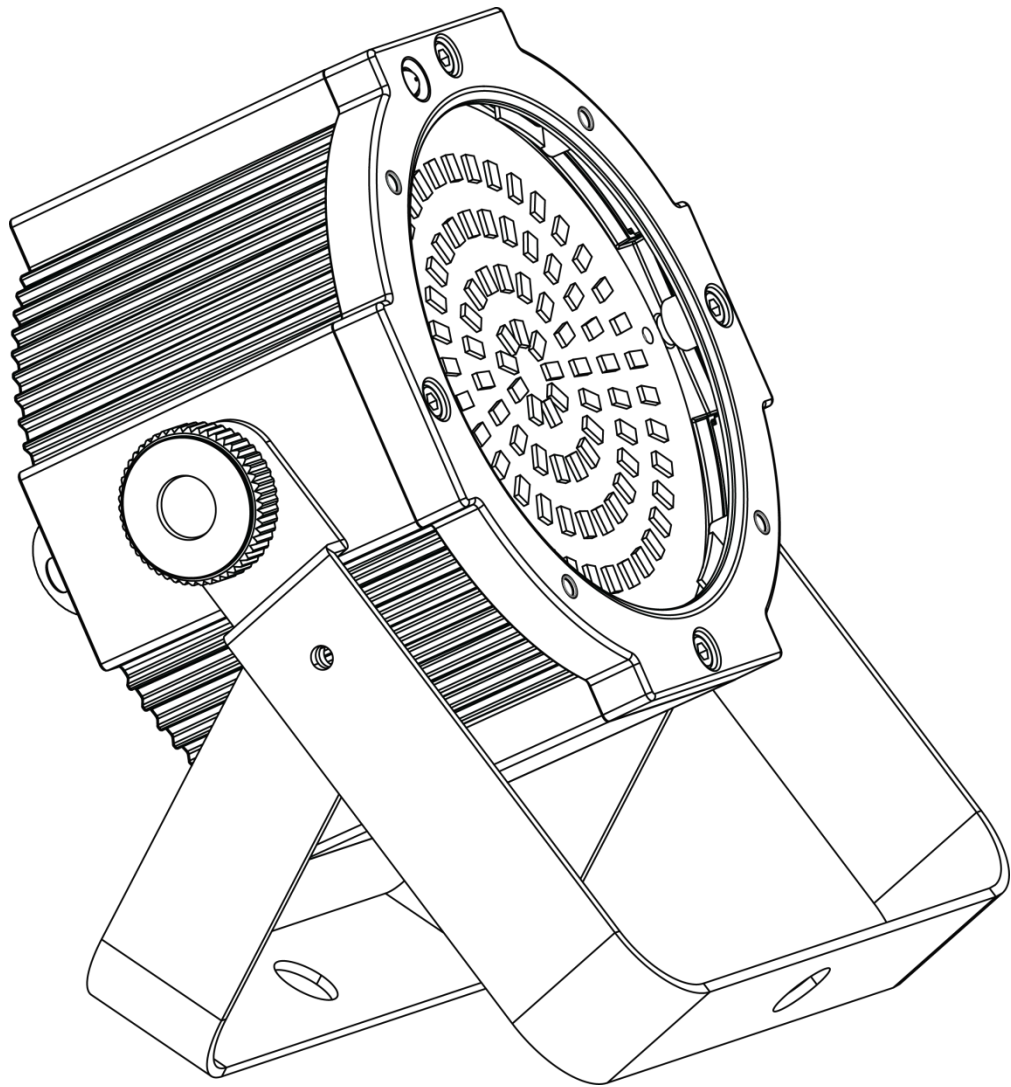
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TABLE OF CONTENTS

1. BEFORE YOU BEGIN

What Is Included
- Shocker™ 90 IRC
- 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
⚠	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.

Disclaimer

The information and specifications contained in this document are subject to change without notice. Chauvet assumes no responsibility or liability for any errors or omissions that may appear in this manual. Chauvet reserves the right to update the existing document or to create a new document to correct any errors or omissions.

You can download the latest version of this document from www.chauvetlighting.com.

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Author	Date	Editor	Updated
A. Leon	01/20/15	M. Trouard	01/21/15

Product at a Glance

Use on Dimmer	✖	Auto Programs		P
Outdoor Use	✖	Auto-ranging Power Supply		P
Sound-Active	P	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.
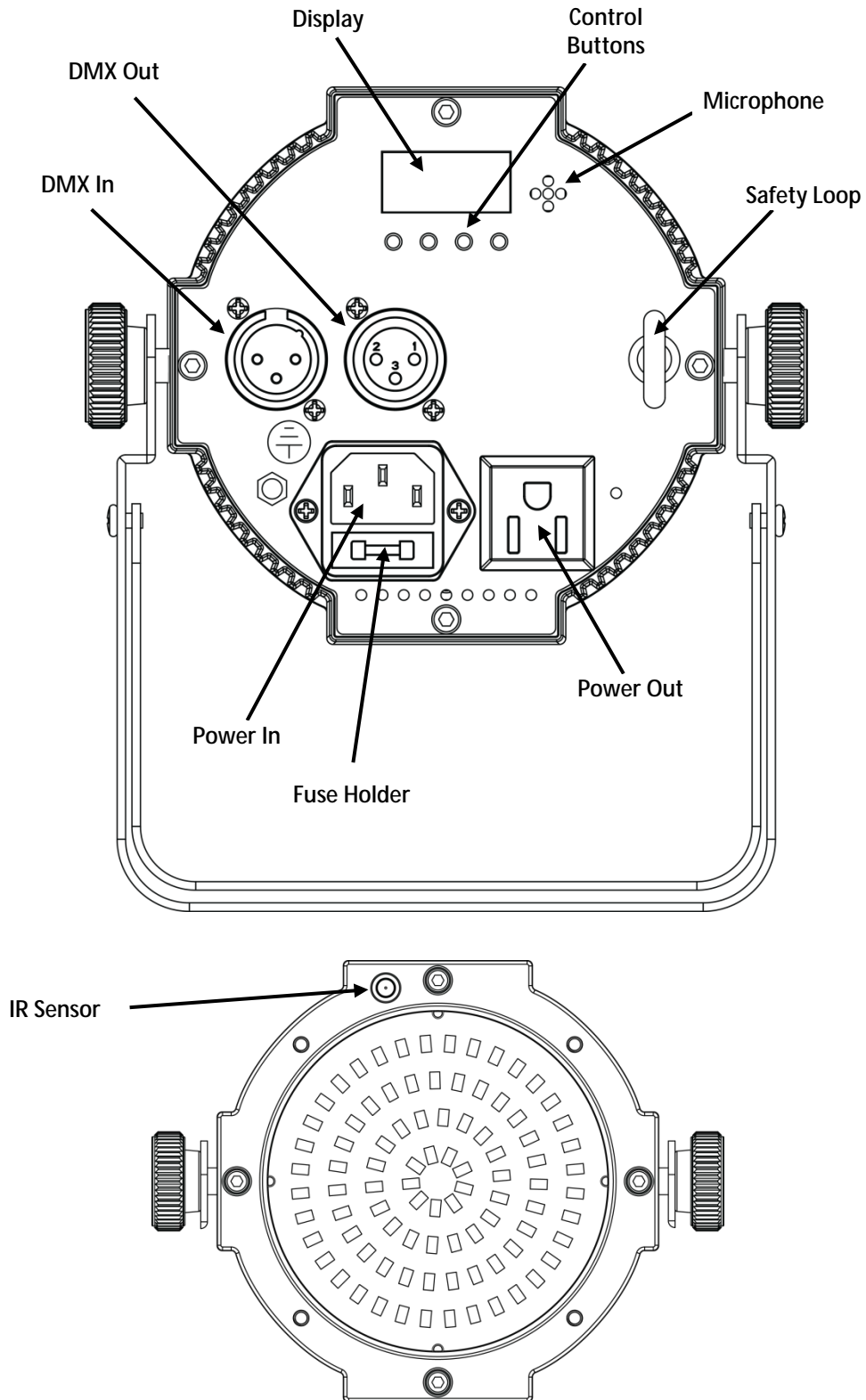
ⓘ

- 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.
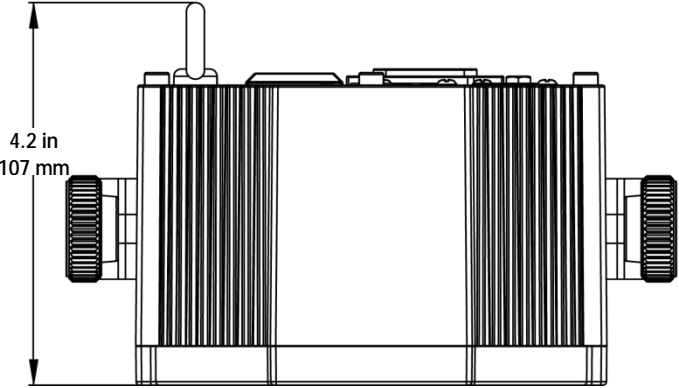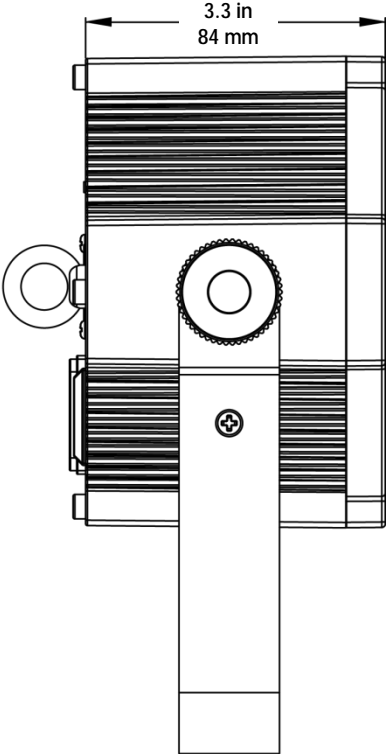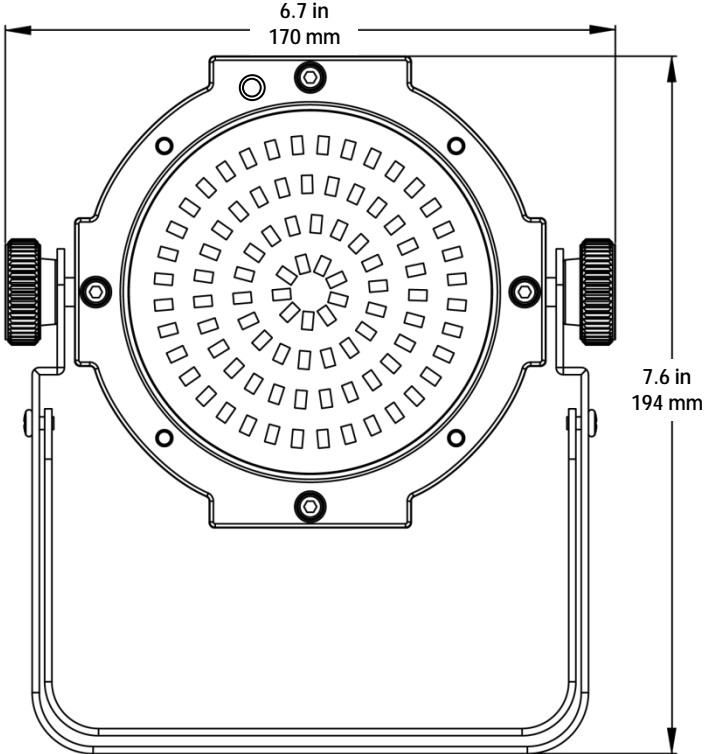
📝

- 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

Display
Control Buttons
DMX Out
Microphone
DMX In
Safety Loop
Power Out
Power In
Fuse Holder

IR Sensor

Product Dimensions

6.7 in
170 mm

7.6 in
194 mm

3.3 in
84 mm

4.2 in
107 mm

3. SETUP

AC Power

The Shocker™ 90 IRC 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.

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)
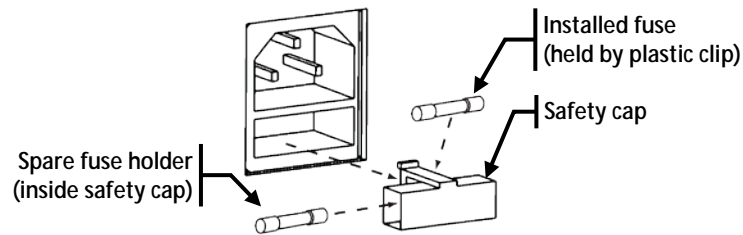
Disconnect the product from the power outlet before replacing the fuse.

Power Linking

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

1st Product

Power Linking Diagram

2nd Product

3rd Product

Additional Products
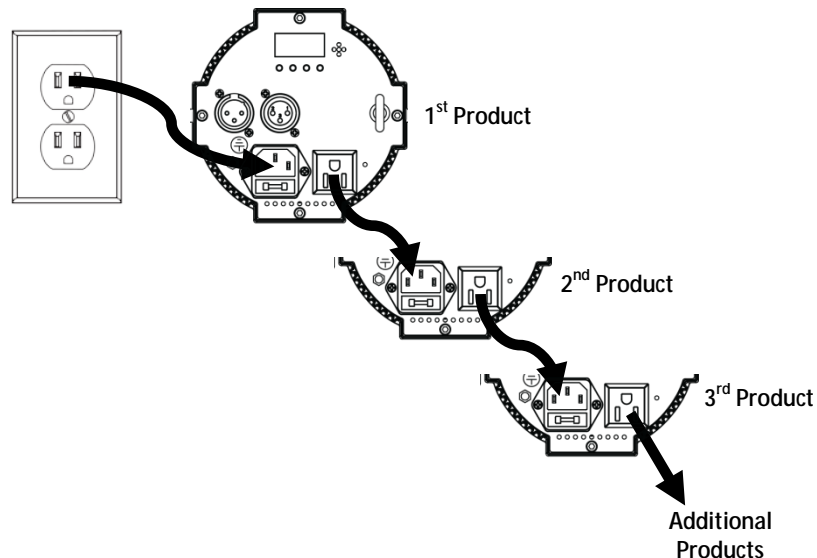
You can power link up to 20 Shocker™ 90 IRC units on 120 VAC or up to 36 Shocker™ 90 IRC units on 230 VAC.

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 Shocker™ 90 IRC 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 **CLP-15** from Chauvet)

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

Bracket Adjustment Knobs
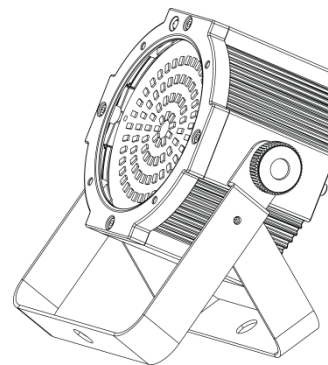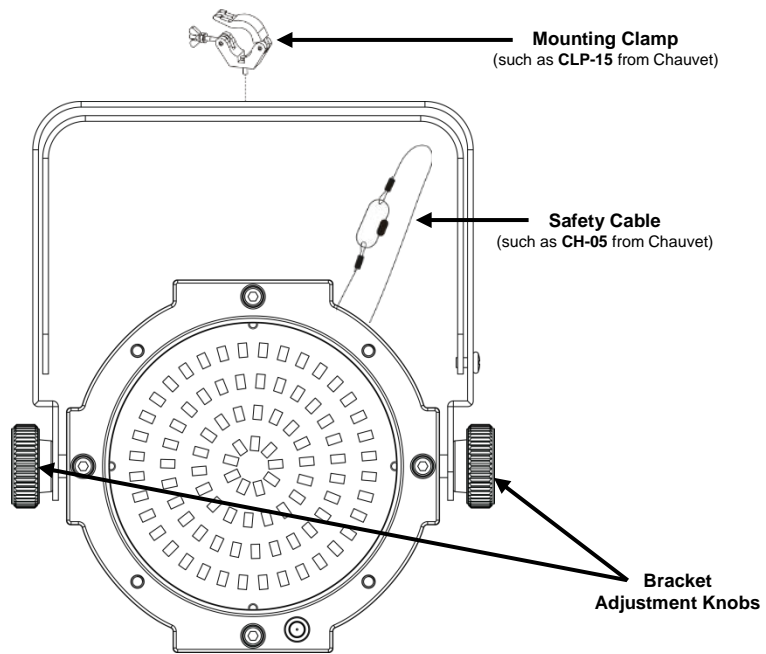
Floor Mounting

4. OPERATION

Control Panel Operation

To access the control panel functions, use the four buttons located underneath the display. Please refer to the <u>Product Overview</u> 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

Mode	Programming Steps		Description
DMX Personality and Starting Address	2-CH	d 1–d512	Selects the DMX personality and starting address
	5-CH		
	8-CH		
Auto Programs	P--	P 0–P 7	Selects auto programs 0–7
Program Speed	S--	S 1–S100	Sets auto program speed
Custom	U--	d 0–d255	Sets dimmer (0–100%)
		S 0–S255	Selects the strobe speed, slow to fast (0–28 Hz)
Sound-Active	Snd	Snd1	Sets the Sound-Active mode
		Snd2	
Sound Sensitivity	SenS	u 0–u100	Selects the sound sensitivity
Infrared	SET	ON	Turns Infrared mode on or off
		OFF	
Temperature	**Temp**		Shows current temperature of the product

DMX Linking

The Shocker™ 90 IRC works with a DMX controller. Information about DMX is in the CHAUVET® DMX Primer, which is available from the Chauvet website <u>http://www.chauvetlighting.com/downloads/DMX_Primer_rev05_WO.pdf</u>.

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.

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 Shocker™ 90 IRC uses up to 8 DMX channels, which defines the highest configurable address to **505**.

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

To select the starting address, do the following:

1. Press **<MENU>** repeatedly until the desired DMX mode (**2-CH**, **5-CH**, or **8-CH**) shows on the display.
2. Press **<ENTER>** and **d 0-d512** will show on the display.
3. Use **<UP>** or **<DOWN>** to select the starting address.
4. Press **<ENTER>**.

DMX Channel Assignments and Values

8-CH	Channel	Function	Value	Setting
	1	**Zone 1**	000–005	No function
			006–249	Strobe rate, slow to fast
			250–255	Continuous on (blinder effect)
	2	**Zone 2**	000–005	No function
			006–249	Strobe rate, slow to fast
			250–255	Continuous on (blinder effect)
	3	**Zone 3**	000–005	No function
			006–249	Strobe rate, slow to fast
			250–255	Continuous on (blinder effect)
	4	**Zone 4**	000–005	No function
			006–249	Strobe rate, slow to fast
			250–255	Continuous on (blinder effect)
	5	**Auto/Sound-Active Programs**	000–020	No function
			021–040	Auto program 0
			041–060	Auto program 1
			061–080	Auto program 2
			081–100	Auto program 3
			101–120	Auto program 4
			121–140	Auto program 5
			141–160	Auto program 6
			161–180	Auto program 7
			181–225	Sound-active mode 1
			226–255	Sound-active mode 2
	6	**Auto Speed** (when Channel 5 is set at **021**–**180**)	000–255	Auto program speed, slow to fast
		Sound Sensitivity (when Channel 5 is set at **181**–**255**)	000–010	No function
			011–255	Sound sensitivity
	7	**Dimmer**	000–255	0–100%
	8	**Strobe All Zones**	000–005	No function
			006–255	Strobe rate, slow to fast

Shocker™ 90 IRC Zones for DMX Control
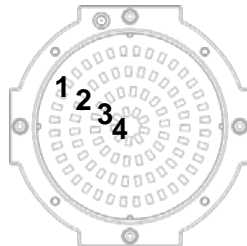
5-CH	Channel	Function	Value	Setting
	1	**Dimmer**	000→005	No function
			006→255	0–100%
	2	**Strobe Speed**	000→005	No function
			006→255	Strobe speed, slow to fast
	3	**Shutter** (When Channel 2 is set at **006**–**255**)	000→005	Open
			006→255	Pulse speed, slow to fast
	4	**Strobe Effects** (When Channel 2 is set at **006**–**255**)	000→005	No function
			006→042	Ramp up
			043→085	Ramp down
			086→128	Ramp up – ramp down
			129→171	Random
			172→214	Lightning
			215→255	Spikes
	5	**Zone Strobe Macros**	000→005	No function
			006→042	Macro 1, slow to fast
			043→085	Macro 2, slow to fast
			086→128	Macro 3, slow to fast
			129→171	Macro 4, slow to fast
			172→214	Macro 5, slow to fast
			215→255	Macro 6, slow to fast

2-CH	Channel	Function	Value	Setting
	1	**Strobe Speed**	000→001	No function
			002→249	Strobe speed. slow to fast
			250→255	Continuous on (blinder effect)
	2	**Dimmer**	000→255	0–100%

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.**

Auto Programs

To select an auto program, do the following:

1. Press **<MENU>** repeatedly until **P--** shows on the display.
2. Press **<ENTER>**.
3. Use **<UP>** or **<DOWN>** to select **P 0–P 7**.
4. Press **<ENTER>**.

Program Speed

To set the speed for the auto program, follow the instructions below:

1. Press **<MENU>** repeatedly until **S--** shows on the display.
2. Press **<ENTER>**.
3. Use **<UP>** or **<DOWN>** to select **S 0–S100**, slow to fast.
4. Press **<ENTER>**.

Custom Mode

To create your own effect in the custom mode, do the following:

1. Press **<MENU>** repeatedly until **U--** shows on the display.
2. Press **<ENTER>**.
3. Press **<ENTER>** to select either:
   ·   **d 0–d255** for custom output, 0–100%
   ·   **S 0–S255** for custom strobe speed, slow to fast (0–28 Hz)
4. Use **<UP>** or **<DOWN>** to increase or decrease.
5. Press **<ENTER>**.

Sound-Active Mode

To enable the Sound-Active mode, follow the instructions below:

1. Press **<MENU** repeatedly until **Snd** shows on the display.
2. Press **<ENTER>**.
3. Use **<UP>** or **<DOWN>** to select:
   ·   **Snd1** - cycles through auto programs
   ·   **Snd2** - outward from the center
4. Press **<ENTER>**.

Adjusting Sound Sensitivity

To adjust the sensitivity of the Sound-Active mode, do the following:

1. Press **<MENU** repeatedly until **SenS** shows on the display.
2. Press **<ENTER>** and **u 0-u100** will show on the display.
3. Turn the music on and adjust the sound sensitivity using the **<UP>** and **<DOWN>** buttons until the product starts responding to the beat of the music.
4. Press **<ENTER>**.

Product Temperature

To see the current temperature of the Shocker™ 90 IRC, follow the instructions below:

1. Press **<MENU>** repeatedly until **SET** shows on the display.
2. Press **<ENTER>** and the current Celsius temperature of the product shows on the display.

IRC-6 Infrared Remote Control

The Shocker™ 90 IRC is compatible with the IRC-6 infrared remote control from Chauvet. To enable or disable control with the IRC-6, do the following:

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

IRC-6 Operation
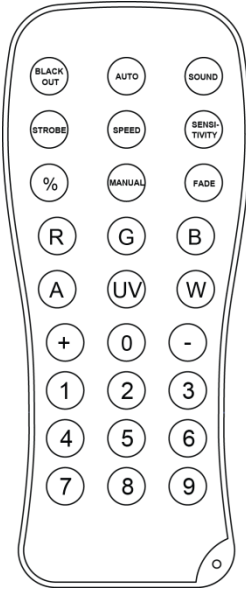
Be sure the IRC-6 remote is pointing directly at the product and there is nothing in between the remote and the product.

The following buttons function with this product:

· **<W>** - activates the output of the LEDs
· **<SOUND>** - activates Sound-Active mode
· **<SENSITIVITY>** - adjusts sound sensitivity
· **<STROBE>** - controls strobe speed
· **<+>** - increases values for controls as described above
· **<->** - decreases values for controls as described above
· **<BLACK OUT>** - turns LEDs on/off

· All other buttons on the remote have no function with this product.

The IRC-6 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.

Master/Slave Mode

The Master/Slave mode allows a single Shocker™ 90 IRC (the master) to control the actions of one or more Shocker™ 90 IRC products (the slaves) without the need of a DMX controller. The master will be set to operate in either Custom or Sound-Active mode, or an auto program, while the slave units will be set to operate in Slave mode. Once set and connected, the slaves will operate in unison with the master unit.

Configure the units as indicated below.

Slave units:

1. Press **<MENU>** repeatedly until one of the DMX modes shows on the display.
2. Press **<ENTER>** and **d 1-d512** will show on the display.
3. Use **<UP>** or **<DOWN>** to set the DMX address to **d 1**.
4. Connect the DMX input of the first slave unit to the DMX output of the master.
5. Connect the DMX input of the subsequent slaves to the DMX output of the previous slave.
6. Finish setting and connecting all the slaves.

Master unit:

1. Set the master to operate in either Custom or Sound-Active mode, or an auto program.
2. Make the master unit the first unit in the daisy chain.

- **Configure all the slave units 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.**

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
7.6 in (194 mm)	6.7 in (170 mm)	3.3 in (84 mm)	3.2 lb (1.5 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	47 W	44 W
Operating Current	0.4 A	0.2 A
Power linking current (units)	8 A (20 units)	8 A (36 units)
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
SMD	0.41 W	50,000 hours

Color	Quantity	Current
White	90	20 mA

Photometrics

Parameter	
Beam angle	65°
Field angle	112°
Strobe Rate	0 to 28 Hz

Thermal

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

DMX

I/O Connectors	Channel Range
3-pin XLR	2, 5 or 8

Ordering

Product Name	Item Code	UPC Number
Shocker™ 90 IRC	03050847	781462211943

RoHS

C E
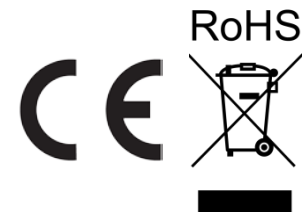
To return a product or request support:

- In the U.S., contact Chauvet World Headquarters (See Contact Us).
- In the UK or Ireland, contact Chauvet Europe Ltd. (See Contact Us).
- In Mexico, contact Chauvet Mexico. (See Contact Us).
- In any other country, DO NOT contact Chauvet. Instead, contact your lighting distributor. See www.chauvetlighting.com for distributors outside the U.S., UK, Mexico, or Ireland.

Outside the U.S., UK, Mexico, or Ireland, contact your distributor and follow their instructions on how to return Chauvet products to them. Visit our website for contact details.

Returns

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.

You must 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

WORLD HEADQUARTERS - Chauvet

General Information
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Toll free: (800) 762-1084

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Email: tech@chauvetlighting.com

World Wide Web   www.chauvetlighting.com

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Email: servicio@chauvet.com.mx

World Wide Web   www.chauvet.com.mx

Outside the U.S., United Kingdom, Ireland, or Mexico, contact the dealer of record and follow their instructions to request support or to return a product. Visit the Chauvet website for contact information.