

LumiOS

HPAR 90 R2

IP65 HYBRID RGBW BATTERY PAR

USER MANUAL



WIRED DMX • WIRELESS DMX • WIFI • IR CONTROL

DESIGNED AND ENGINEERED IN CANADA

01 WELCOME + CONTENTS

This manual outlines the use and operation of the HPAR 90 R2 hybrid-battery LED par light fixture. Documentation includes menu, DMX channel allocation modes, wireless functionality and care instructions.

IMPORTANT

1. For DMX control, the fixture must be placed on User Setting -> DMX512 Address.
2. For wireless operation, Slave Mode is used to establish the connection; after connection, return to DMX512 Address for real-time DMX control.

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02 FIXTURE OVERVIEW

The HPAR 90 R2 is an IP65 hybrid PAR with AC mains or battery operation. Control can be made with wired DMX, 2.4 GHz wireless DMX, WiFi app control, IR control, standalone program or static operation, with master/slave capability.



Front view



Side view

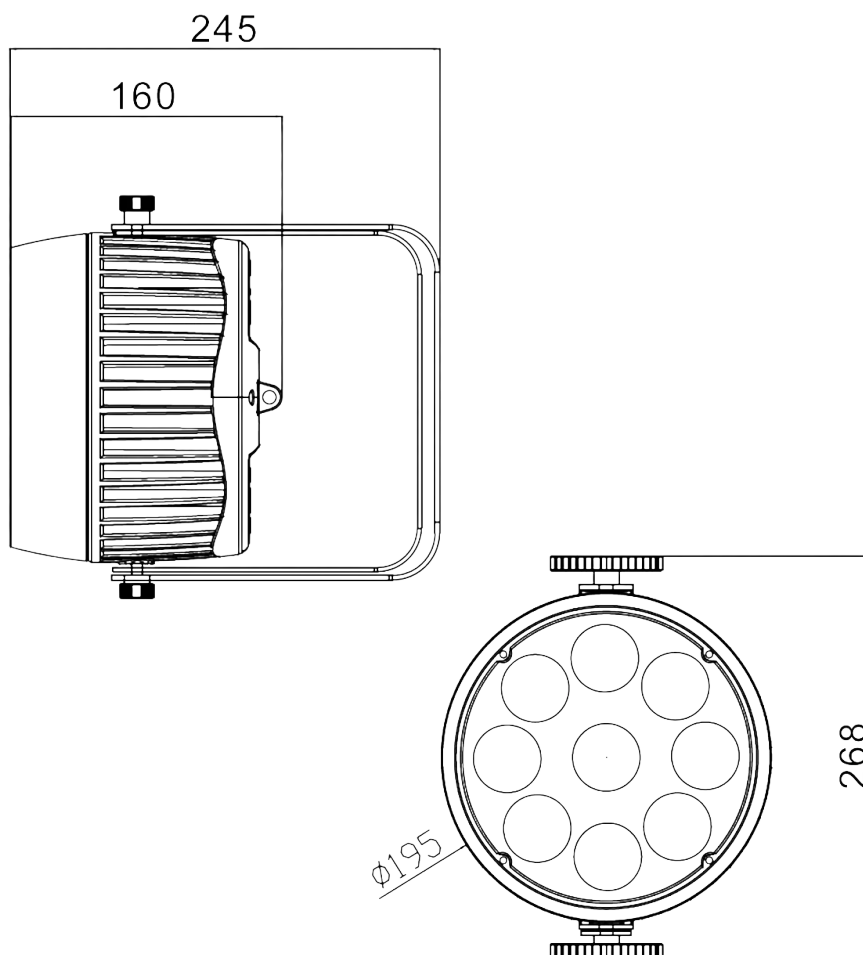


Angled view

Key Product Information

ITEM	DETAIL
Environmental Rating	IP65
Light Engine	9x12W RGBW 4-in-1 LEDs
Beam Angle	25°
DMX Modes	5CH and 9CH
Data Connectors	5-pin IP65 Waterproof XLR (In / Out)
Wireless	2.4 GHz wireless DMX
Other control	WiFi app, IR, Auto / Show, Sound, Master / Slave
Battery	12V, 16Ah
Power Connectors	Truecon® Seetronic IP65 Waterproof (In / Out)
Power Input	100-240V AC, 50/60Hz
Maximum Draw	100W
Weight	5 kg (11 lbs)

03 DIMENSIONS + INSTALLATION



DIMENSION NOTE

Dimensions are represented in millimeters (mm).

03 INSTALLATION - BRACKET

The HPAR 90 R2 is equipped with a double bracket to provide increased stability and support, helping to securely position the fixture while allowing for precise aiming and adjustment. The additional mounting point reduces movement, vibration, and unwanted shifting, which is particularly beneficial in theatrical, concert, event, and architectural lighting applications where consistent beam placement is important. A double-bracket configuration can also improve the fixture's overall durability and ease of handling with ground placement applications, making it a practical choice for users that require frequent repositioning or reliable long-term performance.



04 REAR PANEL + CONTROL MENU



- DMX OUT - 5-pin IP65 XLR
- DMX IN - 5-pin IP65 XLR
- POWER OUT – Truecon® Seetronic IP65
- POWER IN – Truecon® Seetronic IP65
- Power Switch
- Central display and navigation keys
- Wireless status symbol / display area

Navigation

The navigation keys provide four control actions: MENU, UP, DOWN and ENTER.

MENU	To select the programming functions and to go back (return home).
UP	To go forward in the selected functions.
DOWN	To go backward in the selected functions.
ENTER	To confirm the selected functions.

MENU	ITEM	SETTING / RANGE
Choose Pattern	Static Color	RGBW+Strobe, 0-255 (5 Parameters)
	Macro Color	001-016
	Show Mode	AUTO / FADE / SNAP / STROBE(RGB) (Speed 0-20)
	Sound Model	Sound 1-3
	User Colors	RGBW 000-255 16 User Presets
	User Program Run	1 Static Color / 2 Auto Mode
User Setting	DMX Channel Mode	5CH / 9CH
	DMX512 Address	001-512
	Slave Mode	Wireless slave connection mode
	WiFi Mode	Local app control mode

04 CONTROL MENU - SYSTEM SETTINGS

System and information items documented in the supplied source manual.

MENU	ITEM	SETTING / RANGE
System Setting	White Balance	RGBW 0-255 (4 Parameters)
	Show Battery	Yes / No
	Display Sleep	Open / 5 sec / 10 sec / 15 sec
	Dimmer Option	Normal -> Lowest
	Auto Power	Off / On
	IRC Setting	Yes / No
	RF 2.4 Receiving	Yes / No
	RF 2.4 FREQ	1CH-7CH
	Power Setting	High / Medium / Low
	Emergency Lamp Mode	Yes / No
	DMX Hold	Yes / No
	Auto Lock	Yes / No
Information	LED Temp	Shown in Degrees Celsius (°C)
	Work Hours	000H-999H
	Software Version	Version Code Displayed
	Hardware Version	Version Code Displayed
CONTROL PRIORITY		When changing between WiFi, Slave and DMX operation, place the fixture in the specific menu item required for that mode. For DMX, use DMX512 Address.

05 IR + WIFI CONTROL

IR remote control



Enable IR control

1. Open System Setting.
2. Select IRC Setting.
3. Set it to Yes and press ENTER.

IR Remote Buttons

ON / OFF, R / G / B / W, AUTO, SOUND, STROBE, BLACK OUT, + / -, and numeric keys.

Keep a clear line of sight between the IR remote and fixture.

Generic WiFi App Control

HPAR 90 R2 can use a simple generic LED control application over WiFi networks with iOS and Android devices.

1. On the fixture, open User Setting -> WiFi Mode.
2. On the phone, open WiFi/WLAN settings and connect to the fixture network identified in the source manual as LED_***.
3. Scan the app QR at right and install/open the generic LED WiFi app.
4. Use the app while the fixture remains in WiFi Mode.
5. Exit WiFi Mode before returning to DMX or another operating mode.



06 WIRED DMX OPERATION

DMX MODE

To work in DMX mode, go to User Setting -> DMX512 Address. The fixture must be on the DMX512 Address line to be in DMX Mode.

3/5-pin XLR connections

PIN	FUNCTION
1	Ground / shield
2	DMX Data 1 -
3	DMX Data 1 +
4	DMX Data 2 -
3	DMX Data 2 +

Wired connection procedure

- Connect the controller DMX OUT to the fixture DMX IN using a DMX cable.
- Open User Setting -> Channel and select 5CH or 9CH. Press ENTER.
- Open User Setting -> DMX512 Address. This places the fixture into DMX Mode.
- Set the required starting address from 001-512 and press ENTER.
- For additional fixtures, connect the first fixture DMX OUT to the next fixture DMX IN. Continue in a daisy chain.
- Fixtures on the same start address respond together. Use separate addresses when independent control is required.

Address examples

MODE	FIXTURE 1	NEXT INDEPENDENT FIXTURE
5CH	001 uses channels 1-5	006, 011, 016, and so on...
9CH	001 uses channels 1-9	010, 020, 030, and so on...

CHECK

If the fixture is connected to DMX but does not respond, first confirm that the display is on User Setting -> DMX512 Address, then confirm channel mode and DMX start address.

07 WIRELESS DMX + SLAVE MODE

Use Slave Mode to establish the wireless DMX connection. After the link is established, switch back to DMX512 Address for real-time DMX control.

Connection procedure

STEP	ACTION
1	Open User Setting -> Slave Mode on the receiving fixture.
2	Wait for the fixture to connect to the wireless DMX transmitter / master.
3	When connected, the fixture indicates the wireless DMX channel by turning to the corresponding status color.
4	Return to User Setting -> DMX512 Address. This puts the fixture into DMX Mode so it reacts to real-time DMX.
5	Set the required DMX address and confirm the required 5CH or 9CH personality.

Wireless channel indication

RF CHANNEL	STATUS COLOR
CH1	Red
CH2	Green
CH3	Red + Green
CH4	Blue
CH5	Red + Blue
CH6	Blue + Green
CH7	Red + Blue + Green
IMPORTANT	Slave Mode is the connection step. For real-time wireless DMX after connection, the fixture must be returned to User Setting -> DMX512 Address.

08 5-CHANNEL DMX

The 5-channel mode provides RGBW intensity control plus dimmer response/curve selection.

CH	DMX VALUE	FUNCTION
1	0-255	Red dimmer
2	0-255	Green dimmer
3	0-255	Blue dimmer
4	0-255	White dimmer
5	0-19	Normal mode
	20-39	Dimmer curve (slow)
	40-59	Dimmer curve (slower)
	60-255	Dimmer curve (slowest)

09 9-CHANNEL DMX

The 9-channel mode provides extended functionality.

CH	DMX VALUE	FUNCTION
1	0-255	Master Dimmer
2	0-9	Strobe off
	10-255	Strobe: 10 lowest, 255 fastest
3	0-255	Red Dimmer (max depends on master dimmer)
4	0-255	Green Dimmer (max depends on master dimmer)
5	0-255	Blue Dimmer (max depends on master dimmer)
6	0-255	White Dimmer (max depends on master dimmer)
7	0-9	No function
	10-29	Color Chase CH8 controls speed
	30-49	Color Jump CH8 controls speed
	50-69	Color Fade CH8 controls speed
	70-89	Color Mutation CH8 controls speed
	90-109	Red Strobe CH8 controls speed
	110-129	Green Strobe CH8 controls speed
	130-149	Blue Strobe CH8 controls speed
	150-169	Full Strobe CH8 controls speed
	170-209	Sound Activation – Color Jump
	210-229	Sound Activation – Color Jump + Color Fade
	230-255	Sound Activation - Strobe
8	0-255	Speed Control for CH7 Effects
9	0-19	Normal mode
	20-39	Dimmer curve (slow)
	40-59	Dimmer curve (slower)
	60-255	Dimmer curve (slowest)

10 POWER, BATTERY + CARE

Power

The HPAR 90 R2 will accept mains 100-240V AC, 50/60Hz. Maximum power draw is 100W. The fixture will run on AC power and/or charge the internal 12V battery. Connections are made using the supplied Truecon® Seetronic IP65 cable.

Battery

The internal battery is a 12V, 16Ah type. Runtime in battery mode depends on output level, operating mode, color mix (LED levels), battery condition, and ambient temperature conditions.

System power settings

SETTING	OPTIONS
Power Setting	High / Medium / Low
Show Battery Meter	Yes / No
Auto Power	Off / On
Emergency Lamp Mode	Yes / No
Display Sleep	Open / 5 sec / 10 sec / 15 sec

Emergency Lamp

When this mode is set to “Yes”, the fixture operates as normal while powered by AC mains. If power and signal are interrupted the LEDs will come on full WHITE under battery power. This feature is meant to supplement approved emergency lighting systems and should not be used in place of such systems. Consult with local laws, by-laws, statutes, and regulations regarding emergency lighting requirements.

Cleaning + care

- Disconnect power before cleaning or service.
- Use a soft cloth with water and mild detergent when required.
- Do not use solvents, abrasive cleaners or caustic agents.
- Do not immerse the fixture in water or liquid.
- Keep weather caps and connector seals correctly seated for outdoor operation.
- Inspect brackets, connectors and cables before use.

IP65

IP65 is an environmental ingress-protection rating; it does not mean the fixture may be submerged in water.

11 QUICK REFERENCE



Red output



Green output



Blue output

Operating shortcuts

FUNCTION	QUICK PATH
Wired DMX	User Setting -> Channel -> 5CH/9CH; then User Setting -> DMX512 Address
Wireless link	User Setting -> Slave Mode; wait for connection / status color
Wireless real-time DMX	After connection: User Setting -> DMX512 Address
IR	System Setting -> IRC Setting -> Yes
WiFi	User Setting -> WiFi Mode; connect phone to LED_***; open LED WiFi app



HPAR 90 R2 product / support QR

The supplied QR code links to the HPAR 90 R2 product page on lumiosled.com.

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