QUASAR SCIENCE R2 LED Linear Light User Guide

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QUASAR SCIENCE

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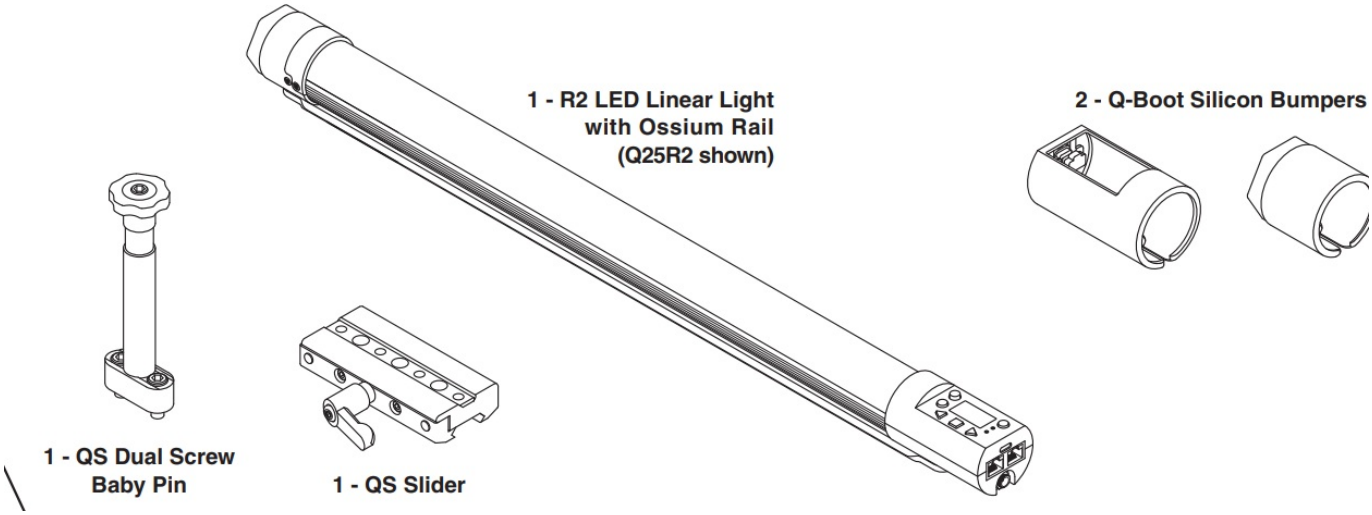
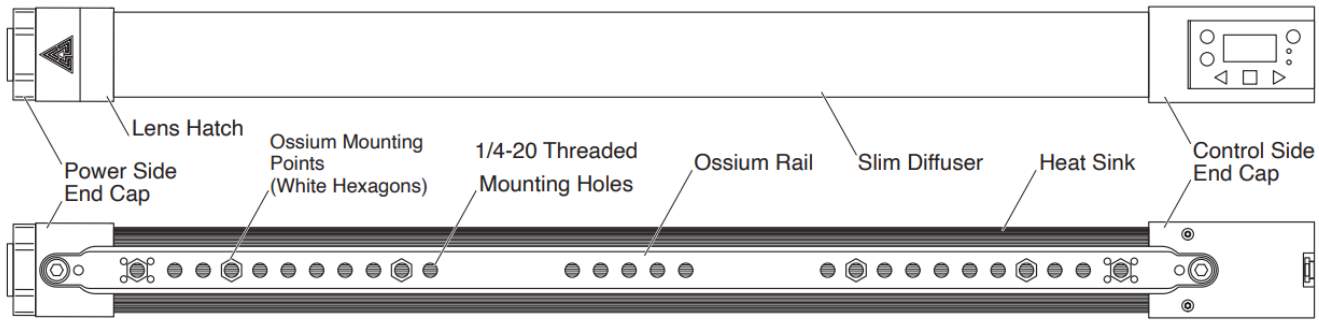
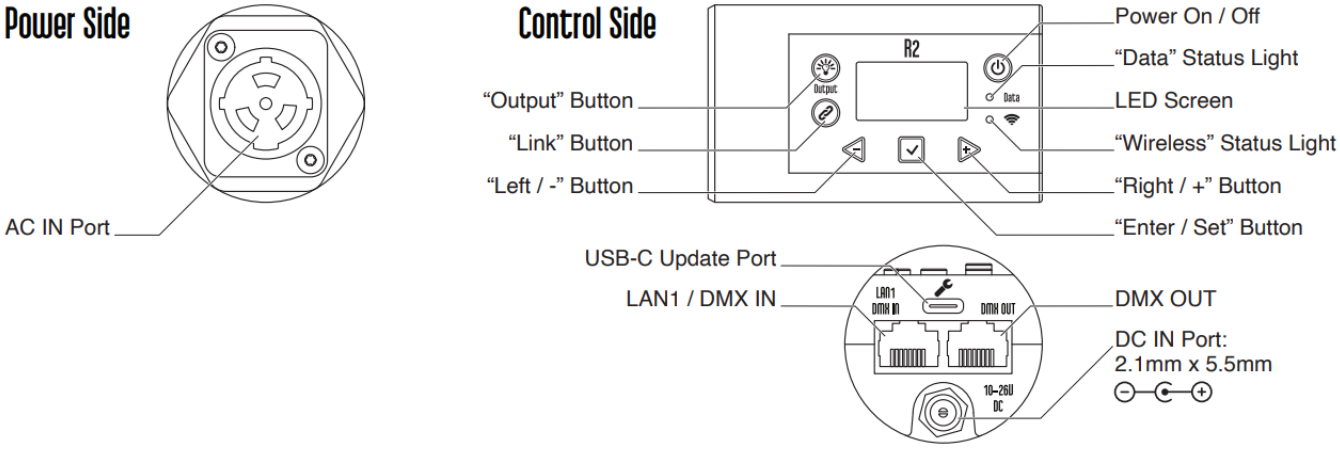
What's in the Box



R2 Overview

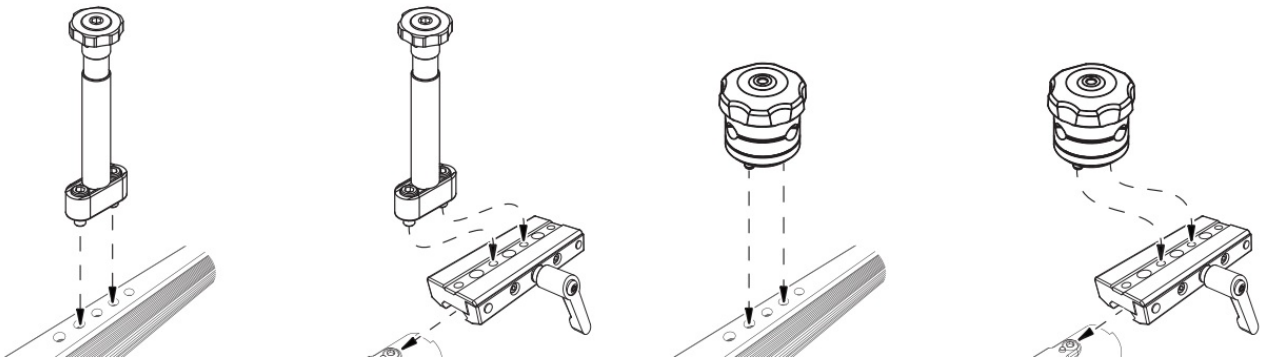


R2 Interface Layout



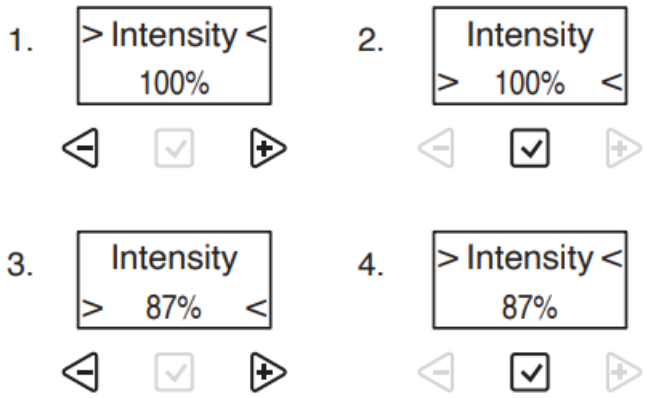
Mounting R2

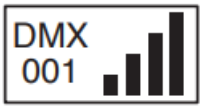
- Mount Dual Screw Baby Pin directly to the light using 3/16 Hex wrench.
- Mount Dual Screw Baby Pin to Ossium Rail Slider using 3/16 Hex wrench for added convenience and versatility
- Mount Rotator* using 5/32 hex wrench directly to the light.
- Mount Rotator* using 5/32 hex wrench to Ossium Rail Slider for added convenience and versatility



Getting Started

- To set the Intensity, Color Temp, +/- Green, Saturation and Hue:
- Press or until desired function is shown on screen, and press to select.
- The selection carets “> <” will move from the “>Function<” to the “>Value<”.
- Press or to set the value. Press to save.
- The selection carets “> <” will move from the “>Value<” back to the “>Function<”.





Key Interface

- Power Button: Light On: Press and hold for 1 second. Light Off: Press and hold for 2 seconds. Double Tap: Go to Status Screen.
- Output Button: Toggle the button to enable/disable light output for manual mode operation. Change the color/intensity without the change affecting the environment.
- Link Button: On CRMX: For RX, press and hold to unlink light. For TX, Single tap to send pairing signal.
- Double Tap to bring up Wireless Menu (Pg 13.)
- Left / Minus Button: Decrease a value or navigate Left.
- Right / Plus Button: Increase a value or navigate Right.
- Enter / Save Button: Enter selection, Save Value.

- Upgrade Port: USB-C Port for performing software updates with a USB-C Thumb Drive

Status Lights

The Data and Wireless Status Lights can be various colors based on the connection type and status. Check that the light is in the correct wired and wireless modes and that Status lights are enabled in the config. See Page 8 for color combinations.

Button Shortcuts

Main Menu – Manual Mode

- > Intensity 0 to 100% by 1%
- > Color Temp 1,750K to 10,000K by 1 Just Notable Difference
- > +/- Green (Magenta), -G 100 to G 0 to +100 G — Ex. +G 25 = 1/4 +Green, -G 50 = 1/2 -Green
- > Saturation 0 to 100% by 1%
- > Hue 0° to 360°
- > CT Preset 3,200K – 4,300K – 5,600K – 6,500K(D65) – 7,500K(D75) – 10,000K – 2,000K – 2,500K – 3,000K
- > Color Preset Red – Orange – Yellow – Green – Cyan – Blue – Violet – Magenta
- > Effects Demo* Rainbow – Short Circuit – Paparazzi – Strobe – Fire – Emergency Lights – (See Page 17-18)
- > Config Light Settings (See Page 11)

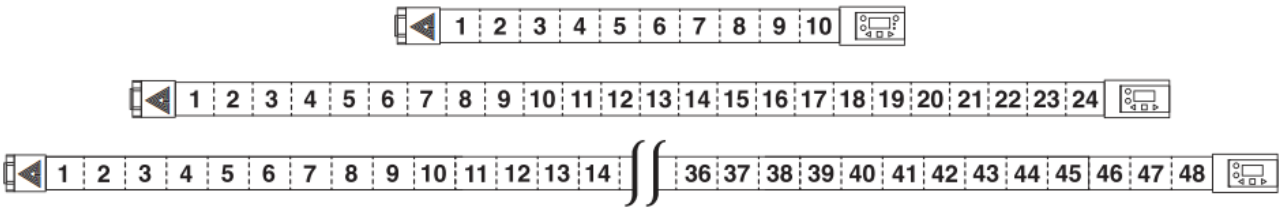
Config Menu

- > DMX Channel Set the DMX Channel
- > Number of Pixels Set the number of pixel groups in the light to control in groups. (See Page 12)
- > Profile Set the DMX profile for the light. (See Page 18-23)
- > Wired Settings Select the Wired data options to control the light. (DMX, Art-Net, sACN) (See Page 13)
- > Wireless Settings Select the Wireless data options. (CRMX, Bluetooth, WiFi) (See Page 14)
- > Lead / Follow Set Lead/Follow mode for the light. (See Page 15)
- > Output Mode Set the light to Normal Output, High Output, or Low Output Mode. (See Page 16)
- > Power On Mode With Button, turns on with Power Button. With Input, turns on when power is connected. (See Page 16)
- > Status Lights Turns the status lights on/off for use on camera.
- > Languages English (Check the website for additional languages.)

- > Lamp Hours Displays the total hours the light has been powered on. Press Enter to See LED Hours.
- > Update Firmware Set the light into Update mode.
- > Firmware Displays the firmware version on the light.
- > Reset to Default Sets the light back to all its default values.

Pixel Selection & Layout

- When choosing DMX profiles, each Parameter Channel Group are repeated per pixel.
- When a Q100R2 is set to 1 Pixel for an example, it will control the entire light as 1 pixel and require 1 set of DMX Data to control it.
- When a Q100R2 is set to 48 Pixels for an example, it will control the light as 48 pixels and require 48 sets of DMX Data to control it.
- The Layout of the pixels start from the “Gaffer’s Left” when looking at the light projected towards the Gaffer, with the controls on the right side.



Wired Control Menu

- > Wired Mode Choose DMX512 or Ethernet Mode to Wire Control the light.
- > DMX Control the light with DMX512.
- > Ethernet Control the light with sACN or Art-Net.
- > DMX Settings
- > DMX Channel Set the DMX Channel 001 to 512.
- > Terminate Terminate the DMX Signal when last in line.
- > Ethernet Settings
- > View IP Address Show the IP address automatically received through DHCP or the Static IP address set.
- > IP Address Mode Set the IP Address Mode.
- > DHCP (Auto) Allow the light to obtain the IP address from the router automatically.
- > Static Allow the light to set the IP address manually.
- > Save DHCP as Static Save the info received from the DHCP Router and save as a Static IP, changing Mode to Static.
- > IP Address, Subnet Mask, Gateway Enter the IP address, Subnet mask, and Gateway.
- > Universe Set the Universe for the light.
- > DMX Channel Set the DMX Channel 001 to 512.
- > Ethernet Mode Choose the Ethernet protocol: sACN/Art-Net, sACN Only, Art-Net Only.

Wireless Control Menu

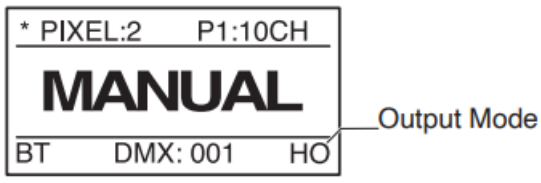
- > Wireless Mode
- > Wireless DMX Lumen Radio CRMX wireless DMX. Press and hold to Clear. Tap transmitter to pair.
- > Bluetooth Enable the light to connect over Bluetooth.
- > WiFi Enable the light to connect to a wireless network to receive Art-Net over WiFi.
- > Off Turns off all Wireless functionality.
- > Wireless DMX Settings* Shows the Hardware and Firmware of the CRMX TimoTwo.
- > WiFi Settings* Connect to a Wireless Network to receive Art-Net over WiFi. Turn the light into a wireless access point to allow mobile device to set up wireless settings.
- > Status Lights On/Off Turns off status lights for use when light is seen on camera.
- > Reset Wireless Settings to Default Reset All Wireless Settings to factory default.

Lead/Follow Mode

- Lead/Follow mode allows one light to control many lights at once. The Lead transmits color and intensity data, wired or wirelessly, to the
- Follows. When the Lead changes levels, the Follows will change as well. This applies to on board FX as well.
- To use Lead/Follow mode, go to Config -> Lead/Follow. Set the leader to Lead and set all of the followers to Follow 1 to match the leader.
- Follow 2-8 are used with effects to do the same effect with different timings. This will run the same effects, intensities and levels but not in sync.

Output Mode

There are 3 different Output Modes, which are used to increase the light output or the resolution in different areas of the dimming range.



- Normal Output: Normal operating temperature, standard light output.
- High Output: High operating temperature, maximum light output.
- Low Output: Gives maximum resolution in the low dimming section of the light. Maximum power is about 25% of High Output

Power On Mode

Power On mode is used to define how to turn on the light.

Effects Manual

Main Menu

Effect	Result
Rainbow	Scroll through the hue from 0° at full saturation
Short Circuit	Light is on with random bursts of turning off
Paparazzi	Light is off with random flashes of turning on
Strobe	Rhythmic flashes on
Fire	A fire flicker effect
Emergency Lights	Flashing lights of various colors
Demo	Scrolls through the Hue Wheel and all Effects

Effects Parameters

Item	Result
Effect	Choose effect
Intensity	Set Intensity of effect
Color	Set base color temp
Temp	Set +/- green of the color temp
+/- Green	Saturate the effect
Saturation	Set the hue
Hue Rate	0-200% for the speed of the effect
	100% is normal speed

Effect Controls (Manual)

Fire

Weight	Result
Rate	0-200% for the speed of the effect 100% is normal speed
Maximum	Highest intensity level of effect
Minimum	Lowest intensity level of effect
Weight	Low, Centered, High
Preset	+/-400K Color at 2400K, 3200K,4000K, 5600K

Emergency Light Submenu

Item	Result
Pattern	Single, Double, Triple, Quad
Color Presets	R&B, B&B, R&32, R&56, B&32, B&56 R&B&32, R&B&56
Color 1 & 2	Red, Orange, Yellow, Green, Blue, Magenta,
	2000K, 3200K, 4000K, 5600K, 6000K

DMX Profiles & Pixel Patching

DMX Profiles for the lights come in 2 types. Basic DMX Profiles that include HSIC, RGB, CCT modes and FX Profiles that have additional channels to trigger the built in FX.

DMX Profiles (Basic)

When programming the light pixels, each Pixel acts as its own single “light” unit, ie, a Parameter Channel Group (PCG). Each PCG contains a set of DMX channels defined by the selected DMX Profile, to control a given pixel.

DMX Profiles (FX)

The FX Profiles are built upon the same profiles as the Basic Profiles. For example. Profile 9 is Profile 1 + FX Channels. When using DMX profiles with built in FX, an FX Channel Group (FCG) is added at the end of the patch. Changes in the FCG applies to the entire light

DMX Pixel Patching Examples

If the Number of Pixels = 1, the entire fixture functions as 1 group controlled by the currently set DMX Profile. F or DMX Profile = “1: HSIC Mode – 8 Bit – 5 Channels”, that group has 5 DMX control channels: 1. Intensity (%) 2. Color Temp (K) 3. +/- Green (-G 100 to +G 100) 4. Hue (deg) 5. Saturation (%)

Example 1:

PCG 1					PCG 2					PCG 3					PCG 4				
Int%	CCT	± G	Hue	Sat%	Int%	CCT	± G	Hue	Sat%	Int%	CCT	± G	Hue	Sat%	Int%	CCT	± G	Hue	Sat%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Example 2:

PCG 1					PCG 2					FCG		
Int%	CCT	± G	Hue	Sat%	Int%	CCT	± G	Hue	Sat%	FX	Size	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13

DMX Profiles (Basic)

#	Name	Bit Depth	# of Channels Per Pixel	Channel Description
1	HSIC	8 Bit	5	1: Intensity 2: Color Temp 3: +/- Green Control 4: Hue 5: Saturation
2	HSIC-16	16 Bit	8	1+2: Intensity 3: Color Temp 4: +/- Green Control 5+6: Hue 7+8: Saturation
3	HSI	8 Bit	3	1: Intensity 2: Hue 3: Saturation
4	XFade with +/- G	8 Bit	3	1: Intensity 2: Color Temp 3: +/- Green Control
5	XFade	8 Bit	2	1: Intensity 2: Color Temp
6	CCT & RGB	8 Bit	7	1: Intensity 2: Color Temp 3: +/- Green Control 4: Crossfade 5: Red 6: Green 7: Blue
7	CCT & RGB-16	16 Bit	9	1+2: Intensity 3: Color Temp 4: +/- Green Control 5+6: Crossfade 7: Red 8: Green 9: Blue
8	RGB	8 Bit	3	1: Red 2: Green 3: Blue
13	RGBTD	8 Bit	5	1: Red 2: Green 3: Blue 4:2000K 5: 6000K
14	RGBTD	16 Bit	10	1+2: Red 3+4: Green 5+6: Blue 7+8:2000K 9+10: 6000K

DMX Profiles (Basic) Parameters

Parameter	DMX Value	Value
Intensity	0-255	0 – 100%
Color Temp	0-255	1,750K-10,000K
+/- Green		See Chart at right
Hue	0-255	0° – 360°
Saturation	0-255	0 – 100%
Crossfade	0-255	0 – 100%
Red	0-255	0 – 100%
Green	0-255	0 – 100%
Blue	0-255	0 – 100%

DMX Value	%	Effect
0-10	0-4	No Effect
11-20	5-8	Full Minus Green
21-119	8-46	-99% to -1%
120-145	47-57	Neutral
146-244	57-96	1% to 99%
245-255	96-100	Full Plus Green

DMX Profiles (FX)

#	Name	Bit Depth	# of Ch Per Pixel	# of FX Ch	Parameter Channel Group (Repeated per Pixel)	FX Channel Group (One Group per Light)
9	**HSIC-FX**	8 Bit	5	3	1: **Intensity** 2: **Color Temp** 3: **+/- Green** 4: **Hue** 5: **Saturation**	x+1: **FX** x+2: **FX Rate** x+3: **FX Size** x = Total Number of Channels in Parameter Channel Groups
10	**HSIC-FX-16**	16 Bit	8	3	1+2: **Intensity** 3: **Color Temp** 4: **+/- Green** 5+6: **Hue** 7+8: **Saturation**	
11	**CCT & RGB-FX**	8 Bit	7	3	1: **Intensity** 2: **Color Temp** 3: **+/- Green** 4: **Crossfade** 5:**Red** 6: **Green** 7: **Blue**	
12	**CCT & RGB-FX –16**	16 Bit	9	3	1+2: **Intensity** 3: **Color Temp** 4: **+/- Green** 5+6: **Crossfade** 7: **Red** 8: **Green** 9: **Blue**	

DMX Profiles (FX) Parameters

Effect	DMX Value	%
OFF	0-26	0-10
Rainbow	27-38	11-15
Short Circuit	39-51	16-20
Paparazzi	52-64	21-25
Strobe	65-77	26-30
Fire	78-90	31-35
Emergency Lights	91-102	36-40
Future Use	103-255	41-100

Item	Result
Effect	Choose effect
Intensity	Set intensity of effect
Color Temp	Set base color temp
+/- Green	Set +/- green of the color temp
Saturation	Saturate the effect
Hue	Set the hue
Rate	0-200% – Speed of the effect 100% – Normal speed
Size	Fire Effect: Set the +/- of the Intensity Ex: Int 50%, FX Size 10 = 50-10, and 50+10. Result = 40-60 Fire Emerg Light: Set the Blink Pattern

Basic Specifications

Model	Q25R2	Q50R2	Q100R2
Wattage	Max 25 watts	Max 50 watts	Max 100 watts
Weight	1.76 lbs (0.8 kg)	3.3 lbs (1.5 kg)	5.84 lbs (2.64 kg)
Dimensions	23 x 1.75 in (584.2 x 44.5 mm)	46.9 x 1.75 in (1161.7 x 44.5 mm)	90.86 x 1.75 in (2307.8 x 44.5 mm)
Power Consumption	120v = 0.25 amp 240v = 0.13 amp	120v = 0.45 amp 240v = 0.25 amp	120v = 0.90 amp 240v = 0.50 amp
	12v = 2.50 amp 24v = 1.30 amp	12v = 4.50 amp 24v = 2.30 amp	24v = 4.80 amp

Warranty

3 year warranty from date of purchase.The customer must provide proof of purchase.This warranty is transferable.Quasar Science will pay for:The replacement parts, repair and/or labor costs to correct defects in materials and workmanship.*Service must be provided by Quasar Science or an Authorized Quasar Science Service Center*Quasar Science will not pay for: Damage resulting from accident, misuse or abuse. Acts of God. Any failure that occurs for any other reason than materials and workmanship. Any shipping or handling costs.Disclaimer of implied warranties/limitations of remedies:Implied warranties, including the extent applicable warranties of merchantability or fitness for a particular purpose are excluded to the extent legally permissible.Any implied warranties that may be imposed by law are limited to 3 years or the shortest period allowed by law. Some states, provinces or countries do not allowlimitations or exclusions on how long an implied warranty of merchantability or fitness lasts, the above limitations or exclusions may not apply to you.If this product fails to work as warranted, the customer’s sole and exclusive remedy shall be repair or replacement according to the terms of this limited warrantyQuasar Science, LLC does not assume any responsibility for incidental or consequential damages. This warranty gives you specific legal rights and you mayalso have other rights which vary from state to state, province to province or country to country

Documents / Resources

	**QUASAR SCIENCE R2 LED Linear Light** [pdf] User Guide R2 LED Linear Light, R2, LED Linear Light

References

- Rainbow 2 – Quasar Science
- Support – Quasar Science