PAR 1 RGBW

User Manual

Professional Entertainment Technology

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Safety information

	WARNING!
⚠	**Read the safety precautions in this manual before installing, powering, operating or servicing this product.**

The following symbols are used to identify important safety information on the product and in this manual:

⚠	⚠	⚠	⚡	🔥
Warning! Safety hazard. Risk of severe injury or death.	**Warning!** LED light emission. Risk of eye injury.	**Warning!** Refer to manual before installing, powering or servicing.	**Warning!** Hazardous voltage. Risk of lethal or severe electric shock.	**Warning!** Hot surfaces and fire hazard.

Avoid looking directly into the LED light source beam and do not view the light output with optical instruments or any device that may concentrate the beam.

This product presents risks of severe injury or death due to fire hazards, electric shock and falls.

Read this manual before installing, powering or servicing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture. If you have questions about how to operate the fixture safely, please contact your Martin™ dealer or call the Martin 24-hour service hotline at +45 70 200 201.

Please keep this document for future consultation.

Protection from electric shock

Always shut down power to the fixture before carrying out any installation or maintenance work.

Disconnect the fixture from AC power before removing or installing any cover or part and when not in use.

Always ground (earth) the fixture electrically.

Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault

(earth-fault) protection.

Replace defective fuses with ones of the specified type and rating only.

The voltage and frequency at the power throughput outlet are the same as the voltage and frequency applied to the power inlet. Only connect devices to the power outlet that accept this voltage and frequency.

Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.

Isolate the fixture from power immediately if the power plug or any seal, cover, cable, or other component is damaged, defective, deformed, wet or showing signs of overheating. Do not reapply power until repairs have been completed

Do not expose the fixture to rain or moisture.

Protection from burns and fire

Do not operate the fixture if the ambient temperature (T_a) exceeds 40° C (104° F).

The surface of the product casing can reach up to 85° C (185° F) during operation. Avoid contact by persons and materials. Allow the fixture to cool for at least 10 minutes before handling.

Keep flammable materials well away from the fixture. Keep all combustible materials (e.g. fabric, wood, paper) at least 100 mm (4 in.) away from the fixture.

Ensure that there is free and unobstructed airflow around the fixture. Provide a minimum clearance of 100 mm (4 in.) around fans and air vents.

Do not illuminate surfaces within 200 mm (7.9 in.) of the fixture.

Do not attempt to bypass thermostatic switches or fuses.

Connect only other fixtures of the same type to the power throughput sockets. Do not connect any other type of device to these sockets.

Do not stick filters, masks or other materials onto any optical component.

Protection from injury

Do not look continuously at LEDs from a distance of less than 8.3 m (27 ft. 3 in.) from the front surface of the fixture without protective eyewear such as shade 4-5 welding goggles. At less than this distance, the LED emission can cause eye injury or irritation. At distances of 8.3 m (27 ft. 3 in.) and above, light output is harmless to the naked eye provided that the eye's natural aversion response is not overcome.

Do not look at LEDs with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light output.

Ensure that persons are not looking at the LEDs from within 8.3 m (27 ft. 3 in.) when the product lights up suddenly. This can happen when power is applied, when the product receives a DMX signal, or when certain control menu items are selected.

To minimize the risk of eye irritation or injury, disconnect the fixture from power at all times when the fixture is not in use, and provide well-lit conditions to reduce the pupil diameter of anyone working on or near the fixture.

Fasten the fixture securely to a fixed surface or structure when in use. The fixture is not portable when installed.

Ensure that any supporting structure and/or hardware used can hold at least 10 times the weight of all the devices they support.

If suspending from a rigging structure, fasten the fixture to a rigging clamp. Do not use safety cables as the primary means of support.

If the fixture is installed in a location where it may cause injury or damage if it falls, install a secondary attachment such as a safety cable that is approved by an official body such as TÜV as a safety attachment for the weight that it secures. The safety cable must comply with EN 60598-2-17 Section 17.6.6 and be capable of bearing a static suspended load that is ten times the weight of the fixture and all installed accessories.

Check that all external covers and rigging hardware are securely fastened.

Block access below the work area and work from a stable platform whenever installing, servicing or moving the fixture.

Do not operate the fixture with missing or damaged covers, shields or any optical component.

In the event of an operating problem, stop using the fixture immediately and disconnect it from power. Never attempt to use a fixture that is obviously damaged.

Do not modify the fixture or install other than genuine RUSH by Martin™ parts.

Refer any service operation not described in this manual to a qualified technician.

Introduction

The PAR 1 RGBW is a powerful LED lamp incorporating seven 10 W RGBW long-life CREE LEDs. It provides RGBW color mixing, 32 color presets, smooth electronic dimming, as well as strobe effects. The device is extremely rugged, lightweight and compact, and is ideal for mobile DJ's or small fixed installations.

The fixture can be controlled using any DMX-compliant controller, and it has three DMX control modes providing simple or complex control capability. It can also function as a standalone device, running pre-programmed shows in Show Mode, with the option of sound-activated triggering.

Before using the product for the first time

1. Read Safety information on page 5 before installing, powering, operating or servicing the fixture.

2. Unpack and ensure that there is no transportation damage before using the fixture. Never attempt to operate a damaged fixture.

3. If the fixture is not going to be hard-wired to a mains supply, attach a local power plug (not supplied) to the end of the supplied power cable.

4. Before operating, ensure that the voltage and frequency of the power supply match the power requirements of the fixture (see Specifications on page 33).

5. Check the Martin Professional website at www.martin.com for the most recent user documentation and technical information about the fixture. RUSH by Martin user manual revisions are identified by the revision letter at the bottom of the inside cover.

Note that when the fixture is powered on for the first time, it may smoke slightly as it warms up, but this will only last a few minutes and is no cause for concern.

Physical installation

The fixture is designed for indoor use only and must be used in a dry location with adequate ventilation. Always ensure that none of the fixture's ventilation slots are blocked and always ensure that the product is firmly affixed to avoid vibration during operation.

The fixture should be mounted or attached using the holes in its bracket.

Fastening the fixture to a flat surface

The fixture can be fastened to a hard fixed flat surface that is oriented at any angle. Ensure that the surface can support at least 10 times the weight of all fixtures and equipment to be installed on it.

Fasten the fixture securely. Do not stand it on a surface or leave it where it can be moved or can fall over. Attach a securely anchored safety cable to the fixture if it is installed in any location where it may fall and cause injury or damage if the primary attachment fails.

Mounting the fixture on a truss

The fixture can be clamped to a truss or similar rigging structure in any orientation. When clamping a fixture to a truss:

1. Check that the rigging structure can support at least 10 times the weight of all fixtures and equipment to be installed on it.

2. Block access under the work area.

3. Rig the fixture using clamps and hardware suitable for the purpose. Working from a stable platform, hang the fixture on the truss. Tighten the rigging clamps and hardware.

4. Secure the fixture against clamp failure with a secondary attachment such as an approved safety cable that is rated for the weight of the fixture and affixed to the safety cable attachment point on the fixture (do not use the mounting bracket).

AC power

Read Safety information on page 5 before connecting the fixture to AC mains power.

For protection from electric shock, the fixture must be grounded (earthed). The power distribution circuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault) protection.

Socket outlets or external power switches used to supply the fixture with power must be located near the fixture and easily accessible so that the fixtures can easily be disconnected from power.

Do not insert or remove live Neutrik PowerCon connectors to apply or cut power, as this may cause arcing at the terminals that will damage the connectors.

Do not use an external dimming system to supply power to the fixture, as this may cause damage to the fixture that is not covered by the product warranty.

Use only Neutrik PowerCon cable connectors to connect to power sockets. Power input and throughput cables must be rated 20 A minimum, have three conductors 1.5 mm² (16 AWG) minimum conductor size and an outer cable diameter of 5 - 15 mm (0.2 - 0.6 in.). Cables must be hard usage type (SJT or equivalent) and heat-resistant to 90° C (194° F) minimum. In the EU the cable must be HAR approved or equivalent.

Cables used for power throughput must meet the same specifications as for power input cables.

The fixture can be hard-wired to a building electrical installation if you want to install it permanently, or a power plug that is suitable for the local power outlets can be installed on the power cable.

The fixture has an auto-ranging power supply that accepts AC mains power at 100V~240V, 50/60Hz. Do not apply AC mains power to the fixture at any other voltage than this.

Power can be relayed from one fixture to another device in a daisy-chain via the white PowerCon throughput socket. Do not connect devices to power in a chain that will exceed the power and current ratings of any cable or connector used in the chain. When using:

- 120 V 60 Hz mains power, do not connect more than 4 fixtures to power in one chain.

- 230 V 50 Hz mains power, do not connect more than 8 fixtures to power in one chain.

Fixture overview
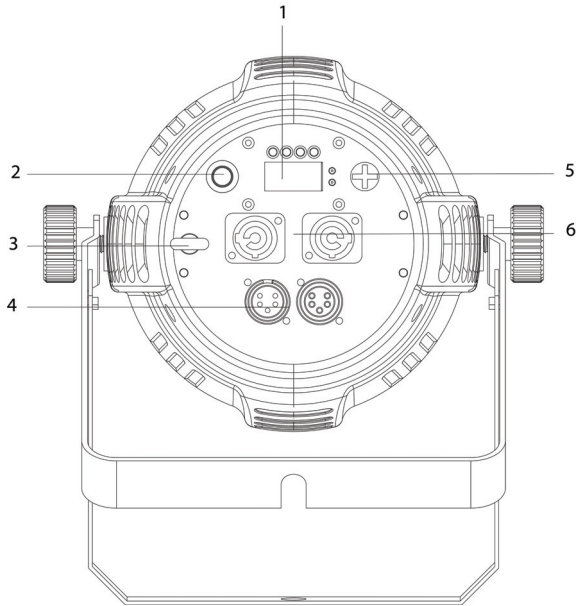
Display and control panel (1)

The fixture has two LEDs at the control panel on the rear of the fixture:

DMX	On	DMX input present
SOUND	Flashing	Sound activation

The fixture has four buttons at the control panel on the rear of the fixture:

MENU	- Activate menus, or - Return to the previous level of the menu structure, or - Hold to exit the menus (this occurs automatically after a period where there has been no user input).
DOWN	Go down a menu branch
UP	Go up a menu branch
ENTER	Confirm the selected function

Microphone (2)

Built-in microphone for triggering sound-activated scene changes in show mode.

Safety cable attachment point (3)

Keep the installation safe by securing the fixture with a secondary attachment such as an approved safety cable that is rated for the weight of the fixture. Do not use the fixture bracket to secure the safety cable.

DMX XLR 5-pin (4) inputs & outputs

For the DMX512 data link input and for daisy chaining to the next fixture.

Fuse (5)

The T 6.3A fixture fuse can be found under the cover next to the display. The fuse protects the fixture from current surges.

Mains power input and output (6)

For connection to supply mains power (blue socket) and for daisy chaining to the next fixture (white socket).

Control data link

A DMX 512 data link is required in order to control the fixture via DMX or to use the master/slave functionality. The fixture has 5-pin XLR connectors for DMX data input and output.

| Input | Output | Input | Output | Input | Output | Input | Output |
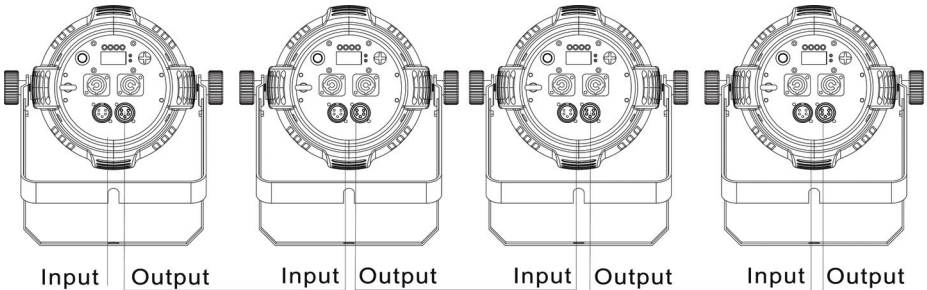
The number of daisy-chained fixtures is limited by the number of DMX channels required by the fixtures in relation to the maximum 512 channels available in one DMX universe. Note that if independent control of a fixture is required, it must have its own DMX channels. Fixtures that are required to behave identically can share the same DMX address and channels. To add more fixtures or groups of fixtures when the above limit is reached, add a DMX universe and another daisy-chained link.

Tips for reliable data transmission

Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft.). Heavier gauge cable and/or an amplifier are recommended for longer runs. The pin-out on all connectors is pin 1 = shield, pin 2 = cold (-), and pin 3 = hot (+). Pins 4 and 5 in the XLR connectors are not used in the fixture but are available for possible additional data signals as required by the DMX512-A standard. Standard pin-out is pin 4 = data 2 cold (-) and pin 5 = data 2 hot (+).

To split the link into branches, use a splitter, such as the Martin 4-Channel Opto-Isolated RS-485 Splitter/Amplifier. Terminate the link by installing a termination plug in the output socket of the last fixture. The termination plug, which is a male XLR plug with a 120-Ohm, 0.25-Watt resistor soldered between pins 2 and 3, "soaks up" the control signal so it does not reflect and cause interference. If a splitter is used, terminate each branch of the link.

Connecting the data link

To connect the fixture to data:

1. Connect the DMX data output from the controller to the closest fixture's male XLR DMX input connector.

2. Connect the DMX output of the fixture closest to the controller to the DMX input of the next fixture and continue connecting fixtures output to input. Terminate the last fixture on the link with a 120-Ohm resistor.

Fixture setup

This section explains the fixture characteristics that can be set that determine how it can be controlled and will behave. These settings are made using the menus available from the control panel, and are retained, even when the fixture is powered off.

Using the control menus

A map of the control menu structure can be found in Control menus on page 28.

To access the control menus, press the MENU button. Navigate the menu structure using the MENU, ENTER, DOWN and UP buttons. Select any required menu option using the ENTER button. To return to a higher level in the menu structure without any change press the MENU button (this will occur automatically after an interval where there has been no user input.).

DMX addressing
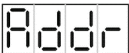
| Addr |

The DMX address, also known as the start channel, is the first channel used to receive instructions from a DMX controller. The fixture can be controlled using signals sent by a DMX controller on a number of channels (5 or 7, depending on the DMX mode that has been set). Each DMX controlled fixture must have a DMX address set. For example, if a fixture has a DMX address of 10 and it is in 5-channel DMX mode, then it uses channels 10, 11, 12, 13 and 4. The following fixture in the DMX chain could then be set to a DMX address of 15.

For independent control, each fixture must be assigned its own control channels. Two fixtures of the same type may share the same address, if identical behavior is desired. Address sharing can be useful for diagnostic purposes and symmetric control, particularly when combined with the inverse pan and tilt options.

The DMX address is configured using the | Addr | menu in the control panel.

To set the fixture's DMX address:

1. Select | Addr | and press the ENTER button.

2. Use the UP and DOWN buttons to select a DMX address.

3. Once the address has been selected, press the ENTER button to set it (or, to return to a higher level of the menu structure without any change press the MENU button).

DMX channel modes

$\boxed{\text{ChNd}}$

The fixture provides two control modes enabling varying degrees of DMX control and enabling the efficient use of DMX channel bandwidth. Each of these modes is documented in detail in DMX protocols on page 26 and they are summarized briefly here:

DMX channel mode	Description
5 channels	Individual control of red, green, blue and white channels for color mixing, plus full range dimming.
7 channels	Individual control of red, green, blue and white channels for color mixing, plus full range dimming. 32 color presets and strobe effects.

To set the fixture's DMX channel mode:

1. Select $\boxed{\text{ChNd}}$ and press the ENTER button.

2. Use the DOWN and UP buttons to select the $\boxed{\text{5Ch}}$ or $\boxed{\text{7Ch}}$ DMX channel mode.

3. Once the mode has been selected, press the ENTER button to set it (or, to return to a higher level of the menu structure without any change press the MENU button).

Show mode

$\boxed{\text{ShNd}}$

In the absence of a DMX control signal, show mode provides standalone pre-programmed light shows. Show mode can be combined with sound activation to provide a music-synchronized light show.

To set a fixture's show mode:

1. Select $\boxed{\text{ShNd}}$ and press the ENTER button.

2. Use the DOWN and UP buttons to select one of the following shows:

   $\boxed{\text{Sh 0}}$ Random scenes and effects (requires sound activation to be enabled).

   $\boxed{\text{CoLo}}$ Shows one of ten preset colors with no scene changes (sound activation has no effect). Colors are with full range dimming.

   $\boxed{\text{FAdE}}$ Color changes - fast (SP1) to slow (SP3) - (sound activation has no effect)

has no effect).

3. Once the mode has been selected, press the ENTER button to set (or, to return to a higher level of the menu structure without any change press the MENU button).

Dimmer modes

dI	nn

For DMX control, there are four possible settings for controlling the rate of dimming:

dI	1	LINEAR. The increase in light intensity appears to be linear as DMX value is increased.

dI	2	SQUARE LAW – light intensity control is finer at low levels and coarser at high levels.

dI	3	INVERSE SQUARE LAW – light intensity control is coarser at low levels and finer at high levels.

dI	4	S-CURVE – light intensity control is finer at low levels and high levels and coarser at medium levels.
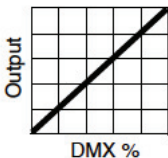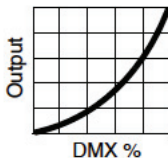
| Optically linear | Square law | Inverse square law | S-curve |
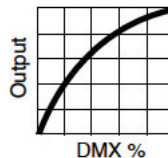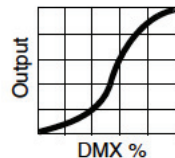
To set the fixture's dimmer curve:

1. Select [dI nn] and press the ENTER button to confirm. The present mode will blink on the display.

2. Use the DOWN and UP buttons to select [dI 1], [dI 2], [dI 3] or [dI 4].

3. Once the mode has been selected, press the ENTER button to set it (or, to return to the higher level of the menu structure without any change press the MENU button).

Sound activation

SoUn

The fixture has a built-in microphone that can be used to synchronize its behavior to the beat of music. When the fixture is not connected to a DMX controller, and is running in Show Mode, it can be set to trigger scene changes (effects and color changes) in synch with music.

To turn on sound activation:

1. Select ⏣⏣⏣⏣ and press the ENTER button.

2. Use the DOWN and UP buttons to select ⎿ on ⏋ (sound activation on) or ⎿ oFF ⏋ (sound activation off).

3. Once the mode has been selected, press the ENTER button to set it (or, to return to a higher level of the menu structure without any change press the MENU button).

Microphone sensitivity

⏣⏣⏣⏣

To adjust the sensitivity of the sound-activation microphone:

1. Select ⏣⏣⏣⏣ and press the ENTER button.

2. Use the DOWN and UP buttons to change the sound sense from 0 …100.

3. Once the level has been selected, press the ENTER button to set it (or, to return to a higher level of the menu structure without any change press the MENU button).

Blackout

⏣⏣⏣⏣

You can blackout the fixture using the control menu:

1. Select ⏣⏣⏣⏣ and press the ENTER button.

2. Use the DOWN and UP buttons to select YES (blackout) or NO (do not blackout). Press the ENTER button to set (or, to return to a higher level of the menu structure without any change press the MENU button).

LED display on/off

⏣⏣⏣⏣

To set the LED display to be on all the time, or to automatically switch off when not in use:

1. Select ⏣⏣⏣⏣ menu and press the ENTER button.

2. Use the DOWN and UP buttons to select the ON (LED on) or OFF (LED off when not in use). Press the ENTER button to set (or, to return to a higher level of the menu structure without any change press the MENU button).

LED display inversion

| dS IP |

To invert the LED display:

1. Select | di SP | menu and press the ENTER button.

2. Use the DOWN and UP buttons to select the | di SP | (normal display orientation) or | dS IP | (invert display). Press the ENTER button to set (or, to return to a higher level of the menu structure without any change press the MENU button).

White balance adjustment

| baL a |

To adjust the white balance mix:

1. Select | baL a | and press the ENTER.

2. Use the DOWN and UP buttons to select | rEd |, | Gr EE | or | bLuE |.

3. Press the ENTER button to setup.

4. Use the DOWN and UP buttons to change the value (125~255).

5. Once the correct value has been selected, press the ENTER button to set it (or, to return to a higher level of the menu structure without any change press the MENU button).

Manual mode

| Manu |

To manually set individual functions and effects:

1. Select | Manu | and press the ENTER button.

2. Use the DOWN and UP buttons to choose | rEd | (red), | Gr EE | (green), | bLuE | (blue), | Uhi t | (white), | di MM | (dimmer) or | Stro | (strobe). Press the ENTER button to select (or, to return to the higher level of the menu structure without any change press the MENU button).

3. Use the DOWN and UP buttons to specify a value for the chosen effect from 0 to 255.

4. To return to a higher level of the menu structure, press the MENU button.

Auto test

┕╘┌╚┅╘

To perform a complete test of all of the fixture functions:

1. Select ┕╘┌╚┅╘ and press the ENTER button. The fixture will run a self-test routine.

2. To return to a higher level of the menu structure, press the MENU button.

Temperature test

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To check the onboard temperature of the fixture:

1. Select ┕╘┌┌┌┌ and press the ENTER button. The display will show the temperature of the unit.

2. To return to a higher level of the menu structure, press the MENU button.

Fixture time

┌┌┌┌┌

To display the fixture's operating hours counter:

1. Select ┌┌┌┌┌ and press the ENTER button. The display will show the number of hours the unit has been run.

2. To return to a higher level of the menu structure, press the MENU button.

Firmware version

┌┌┌┌

To display the fixture's installed firmware version number:

1. Select ┌┌┌┌ and press the ENTER button. The display will show the version of software installed on the fixture.

2. To return to a higher level of the menu structure, press the MENU button.

Effects

This section describes DMX-controllable effects that require particular

explanation. See DMX protocols on page 26 for a full list of the DMX channels and values required to control the different effects.

Strobe effects

The strobe effects provide instant open and blackout, variable speed regular and random strobe.

Strobe effects are available in 7-channel DMX mode.

Electronic dimming

Overall intensity can be adjusted 0-100% using electronic dimming in 5 and 7-channel DMX modes.

Color control

All DMX modes offer full RGBW color mixing.

32 color presets are available in 7-channel mode.

Maintenance

Read Safety information on page 5 before maintaining the fixture. Always comply with the safety instructions.

Refer any service operation not described in this user manual to a qualified service technician.

Excessive dust, smoke fluid, and particle buildup degrades performance, causes overheating and will damage the fixture. Damage caused by inadequate cleaning or maintenance is not covered by the product warranty.

Always disconnect mains power before cleaning or servicing the fixture.

Fixtures must be serviced in an area where there is no risk of anyone being injured by failing parts, tools or other materials.

Cleaning

The cleaning of external optical lenses must be carried out periodically to optimize light output. Cleaning schedules for lighting fixtures vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the fixture. Environmental factors that may result in a need for frequent cleaning include:

- Use of smoke or fog machines.

- High airflow rates (near air conditioning vents, for example).

- Presence of cigarette smoke.

- Airborne dust (from stage effects, building structures and fittings or the natural environment at outdoor events, for example).

If one or more of these factors is present, inspect fixtures within their first 100 hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation. If in doubt, consult your RUSH by Martin dealer about a suitable maintenance schedule.

Use gentle pressure only when cleaning, and work in a clean, well-lit area. Do not use any product that contains solvents or abrasives, as these can cause surface damage.

To clean the fixture:

1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.

2. Vacuum or gently blow away dust and loose particles from the outside of the fixture with low-pressure compressed air.

3. Clean the LED lenses by wiping gently with a soft, clean lint-free cloth moistened with a weak detergent solution. Do not rub the surface hard: lift particles off with a soft repeated press. Dry with a soft, clean, lint-free cloth or low-pressure compressed air. Remove stuck particles with an unscented tissue or cotton swab moistened with glass cleaner or distilled water.

4. Check that the fixture is dry before reapplying power.

Service and repairs

There are no user serviceable parts inside the fixture. Do not open the housing.

Never try to repair the fixture by yourself as this may result in damage, malfunction and it may potentially void your product warranty. The equipment must only be serviced or repaired by an authorized RUSH by Martin service technician.

Installation, on-site service and maintenance can be provided worldwide by the Martin Professional Global Service organization and its approved agents, giving owners access to Martin's expertise and product knowledge in a partnership that will ensure the highest level of performance throughout the product's lifetime. Please contact your RUSH by Martin supplier for details.

DMX protocols

5 channel mode

Channel	Value	Function
1	0-255	Red 0-100%
2	0-255	Green 0-100%
3	0-255	Blue 0-100%
4	0-255	White 0-100%
5	0-255	Dimmer 0-100%

7 channel mode

Channel	Value	Function
1	0-255	Red 0-100%
2	0-255	Green 0-100%
3	0-255	Blue 0-100%
4	0-255	White 0-100%
5		**Color presets**
	0-7	Off
	8-15	Color 1
	16-23	Color 2
	24-30	Color 3
	31-38	Color 4
	39-46	Color 5
	47-54	Color 6
	55-61	Color 7
	62-69	Color 8
	70-77	Color 9
	78-85	Color 10
	86-92	Color 11
	93-100	Color 12
	101-108	Color 13
	109-116	Color 14
	117-123	Color 15
	124-131	Color 16
	132-139	Color 17
	140-147	Color 18
	148-154	Color 19
	155-162	Color 20
	163-170	Color 21

Channel	Value	Function
	171-178	Color 22
	179-185	Color 23
	186-193	Color 24
	194-201	Color 25
	202-209	Color 26
	210-216	Color 27
	217-224	Color 28
	225-232	Color 29
	233-240	Color 30
	241-247	Color 31
	248-255	Color 32
6	0-255	Dimmer 0-100%
7		**Strobe**
	0-7	Off
	8-15	Open
	16-131	Strobe - Slow-Fast
	132-139	Open
	140-181	Pulse - Slow to fast, fast close & slow open
	182-189	Open
	190-231	Pulse - Slow to fast, slow close & fast open
	232-239	Open
	240-247	Random strobe
	248-255	Open

Control menus

To access the control menus, press the MENU button until the required one is shown on the display. Select the required menu using the ENTER button. For more information, see Using the control menus on page 17.

Menu	Option/setting		Explanation
Addr	1~ 512		Fixture DMX address setting
ChNd	5Ch		5-channel DMX mode
	7Ch		7-channel DMX mode
ShNd	Sh 0		Show mode – random show (requires sound activation to be active)
	CoLo		Show mode – preset color (sound activation not used)
		CoL 1	Red (dimmable)
		CoL2	Blue (dimmable)
		CoL 3	Purple (dimmable)
		CoL 4	Orange (dimmable)
		CoL 5	Green (dimmable)
		CoL6	Yellow (dimmable)
		CoL7	Magenta (dimmable)
		CoL 8	Light blue (dimmable)
		CoL 9	White (dimmable)
		Col 0	Green-tinted yellow (dimmable)
	FAdE		Show mode – color scene transitions (sound activation not used)
		SP 1	Rapid scenes/color changes
		SP 2	Medium scenes/color changes
		SP 3	Slow scene/color changes

Menu	Option/setting		Explanation
dI NN	dI 1		Dimmer mode 1 - Linear
	dI 2		Dimmer mode 2 – Square law
	dI 3		Dimmer mode 3 – Inverse square law
	dI 4		Dimmer mode 4 – S-curve
SoUn	on		Sound activated mode.
	oFF		No sound activation
SEnS	1 ~ 100		Microphone sensitivity for sound activation
bLNd	no		Blackout mode
	YES		
LEd	on		LED display off when not in use.
	oFF		LED display on all the time.
dISP	dISP		Normal display
	dSIP		Invert display
bALA	rEd	125	White balance - red
	GrEE	~	White balance – green
	bLUE	255	White balance – blue
NAnu	rEd		Manual mode - red
	GrEE		Manual mode – green
	bLUE	0	Manual mode – blue
	Uhit	~	Manual mode – white
	dI NN	255	Manual mode – dimmer
	Stro		Manual mode - strobe
tESt			Automatic test
tENP			Temperature test

Menu	Option/setting	Explanation
FhrS		Fixture operating hour counter
uPr		Currently installed firmware version

Troubleshooting

This section describes a few common problems that may occur during operation and provides some suggestions for easy troubleshooting:

Symptom	Potential cause	Remedies
No light from fixture.	Power supply issue, such as blown fuse, faulty connector or damaged cable.	Ensure that the mains supply is connected and supplying power to the fixture.
		Ensure that the fixture's power-on LED is lit.
		Check all power connections and cables.
		Replace the fixture fuse.
Sound activation does not work.	The fixture does not react to the beat of music.	Ensure that the fixture is not connected to a DMX signal
		Tap the microphone to ensure that it is functioning. The fixture should react when in sound activation mode.

Symptom	Potential cause	Remedies
Fixture does not respond to DMX control.	Fault in the DMX network due to connector or cable damaged, or incorrect DMX addressing, or potential interference from proximity to a high voltage installation.	Check that the fixture DMX LED is on, and if not, check all DMX cables and connections to ensure the integrity of the physical network. Ensure that the DMX network is terminated. Check that the components in the DMX network all use standard DMX polarity. Ensure that the fixture is set to the correct DMX address, one that matches that set on the DMX control device. Check the pins on the connectors from the previous fixture in the DMX network. Attempt to control the fixture with another DMX control device. Move the fixture if it is being operated very close to an unshielded high-voltage installation.

RUSH PAR 1 RGBW user manual

Specifications

Physical

Weight .... 6 kg (13.2 lbs.)
Dimensions .... 260 x 195 x 293 mm (11.4 x 7.7 x 11.5 in.)
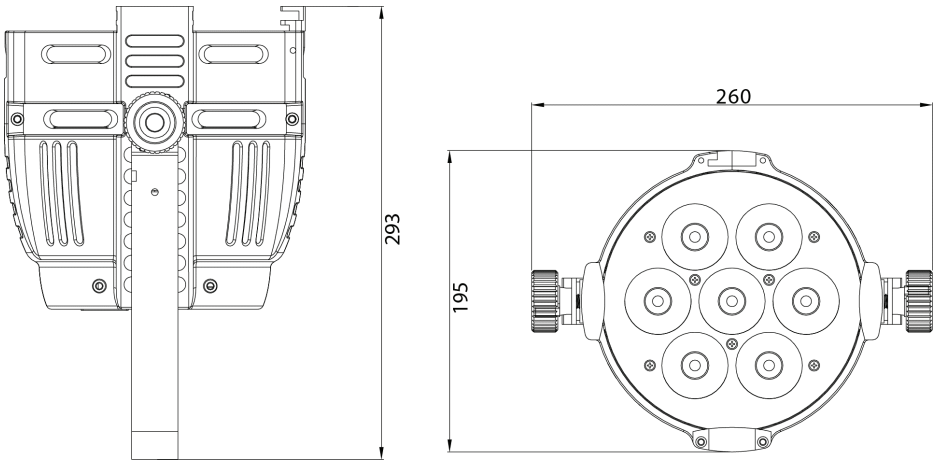
Dynamic Effects

Color .... Red, green, blue & white mixing, 32 presets
Strobe effects.. Random, regular, variable speed
Sound activation ....Adjustable microphone sensitivity
Standalone built-in shows..................Random, preset colors, or variable fade
Dimming..Electronic 0-100%

Optics and Photometric Data

Light source .... 7 x 10 W RGBW CREE MC-E LEDs
Beam angle...20°

Control and Programming

DMX channels.. 5/7
DMX control protocol .... USITT DMX512/1990
Interface .... LCD Control panel
Non-DMX control ....Standalone in Show Mode

Construction

Color.. Black

Installation

Location..For indoor use only
IP rating..IP 20

Connections

AC power input ....Neutrik PowerCon
AC power throughput...Neutrik PowerCon
DMX data in/out ....5-pin locking XLR

Electrical

AC power ....100-240 V, 50/60 Hz
Power consumption ....78 W
Fuse .... T 6.3A
Power supply unit.................................. Auto-ranging electronic switch mode
Supplied power cable...1.5 m (5 ft)

Typical power and current

110 V, 60 Hz .... 78 W, 1.1 A
230 V, 50 Hz .... 78 W, 0.62 A

Thermal

Maximum ambient temperature (T_a max.) .... 40° C (104° F)
Minimum ambient temperature (T_a min) ....0°C (32°F)

Specifications are subject to change without notice. For the latest product specifications, see www.martin.com

	Disposing of this product
	RUSH by Martin™ products are supplied in compliance with Directive 2002/96/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), as amended by Directive 2003/108/EC, where applicable. Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of RUSH by Martin products

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