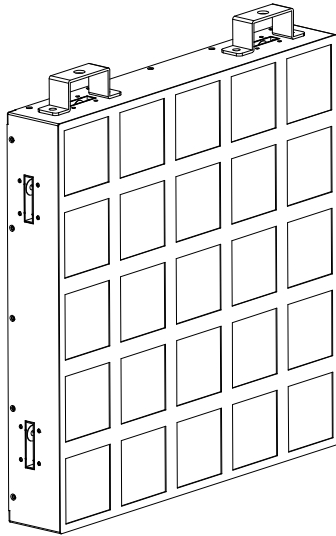


STROBE 1 5x5



User Manual



Professional Entertainment Technology

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Manual: Revision B

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Safety information



WARNING!

Read the safety precautions in this manual before installing, 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!

Powerful light emission.
Risk of eye injury.



Warning!

See user manual for important safety information.



Warning!

Hazardous voltage.
Risk of lethal or severe electric shock.



Warning!

Hot surfaces and fire hazard.



Warning! Risk Group 1 product according to EN 62471. Do not stare directly into the beam. Do not view the light output with optical instruments or any device that may concentrate the beam.



This lighting fixture is for professional use only – it is not for household use. The fixture must be installed by a qualified technician. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls. It produces a powerful, concentrated beam of light that can create a fire hazard or a risk of eye injury if the safety precautions below are not followed.

If you have any questions about how to install, operate or service the fixture safely, please contact your Martin™ distributor (see www.martin.com/distributors for details) or call the Martin™ 24-hour service hotline on +45 8740 0000, or in the USA on 1-888-tech-180.

Respect all locally applicable laws, codes and regulations when installing, operating or servicing the fixture.

There are no user-serviceable parts inside the fixture. Do not open it. Refer any service or repair operation not described in this manual to an authorized Martin™ service technician. Do not try to carry out any such operation yourself, as doing so may present a health or safety risk. It may also cause damage or malfunction and it may void your product warranty.



Install, operate and service RUSH by Martin™ products only as directed in their user manuals, or you may create a safety hazard or cause damage that is not covered by product warranties.

Follow the safety precautions listed below and observe all warnings in this manual and printed on the product. Keep this user manual for future use.

For the latest user documentation and other information for this and all Martin™ products, please visit the Martin website at <http://www.martin.com>



Protection from electric shock

Do not expose the fixture to rain or moisture.

Disconnect the fixture from AC power before carrying out any installation or maintenance work and when the fixture is not in use.

Ensure that the fixture is electrically connected to ground (earth).

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.

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 fixture can easily be disconnected from power.

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

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

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

Use only Neutrik PowerCon cable connectors to connect to the fixture's power sockets.

Do not connect devices to power in a chain that will exceed the electrical ratings of any cable or connector used in the chain.

The supplied power input cable is rated 6 A and can safely supply only one fixture with mains power. Do not connect any device to the fixture's MAINS OUT connector when using this cable. If you replace this cable and also use the replacement cable to supply only one fixture with mains power, the replacement cable must also be rated 6 A minimum, have three conductors 18 AWG or 0.75 mm² minimum conductor size, have an outer cable diameter of 6 - 15 mm (0.2 - 0.6 in.) and be temperature-rated to suit the application. In the USA and Canada the cable must be UL listed, type SJT or equivalent. In the EU the cable must be type H05VV-F or equivalent.

To connect fixtures to mains power in a chain, you must first obtain 14 AWG or 1.5 mm² power input and throughput cables that are 16 A rated and temperature-rated to suit the application. In the USA and Canada the cables must be UL-listed, type SJT or equivalent. In the EU the cables must be type H05VV-F or equivalent. Suitable cables with Neutrik PowerCon connectors are available from Martin™ (see 'Accessories' on page 39). If you use these cables, you can connect fixtures to power in a linked chain, MAINS OUT throughput socket to MAINS IN input socket, but do not link more than:

- Two (2) RUSH Strobe 1 5x5 fixtures in total at 100-120 V, or
- Four (4) RUSH Strobe 1 5x5 fixtures in total at 200-240 V.

The voltage and frequency at the MAINS OUT socket are the same as the voltage and frequency applied to the MAINS IN socket. Only connect devices to the MAINS OUT socket that accept this voltage and frequency.



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 65°C (149°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.

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 ins.) 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 eye injury

Do not look continuously at LEDs from a distance of less than 8.3 meters (27 ft. 3 inches) 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 meters (27 ft. 3 inches) 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 meters (27 ft. 3 inches) 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.



Protection from injury

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 STROBE 1 5x5 is designed to provide blinder or pixel matrix chase effects. This fixture has variable speed strobe effects, built-in light chases and provides the ability to create user-defined chases, as well as alphabetic and numeric characters in light via DMX. The STROBE 1 5x5 is powered by twenty-five flicker-free 5-watt cool white LEDs laid out in a 5 x 5 pixel array. Multiple STROBE 1 5x5s can be coupled together into a larger array.

The device is rugged, lightweight and compact, and is ideal for touring or small fixed installations.

The fixture can be controlled using any DMX-compliant controller. It can also function without DMX control as a standalone device running one of the eight pre-programmed shows, with the option of sound-activated scene triggering.

We recommend the use of haze or fog to enhance STROBE 1 5x5 effects.

Before using the product

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 37.)
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.

Physical installation



Read Safety information on page 5 before installing the fixture.

This fixture may only be installed by qualified and experienced professionals.

The fixture is designed for indoor use only and must be used in a dry location with adequate ventilation. Ensure that none of the fixture's ventilation slots are blocked.

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. If installing an array of multiple STROBE 1 5x5s, ensure that each of them has a safety cable that is attached to the load bearing structure and *not to an adjacent fixture!*

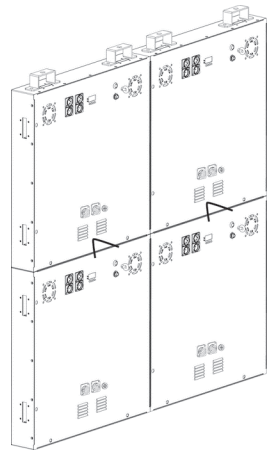
Martin™ can supply suitable safety cables and rigging clamps for use with the fixture (see 'Accessories' on page 39).

The fixture can be oriented at any angle. Ensure that the mounting surfaces and hardware can support at least 10 times the weight of all fixtures and equipment to be installed on them.

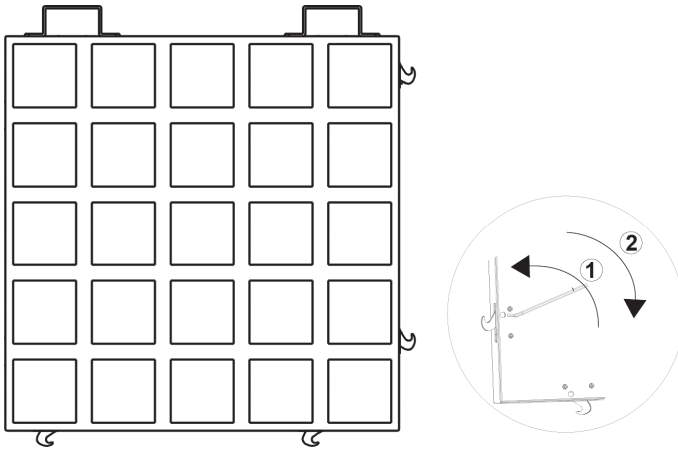
Joining fixtures

Multiple STROBE 1 5x5s can be joined together into an array. Note that a single STROBE 1 5x5 fixture must never bear the weight of more than four other STROBE 1 5x5s that are hung beneath it, and must never bear the weight of horizontally adjacent fixtures.

1. When hanging one STROBE 1 5x5 beneath another, remove the brackets at the top of the fixture.
2. Each fixture has four built-in attachment hooks — two on the bottom and two on one side — for connecting fixtures. These can be retracted (①) or extended (②) using a 4 mm L-shaped hex



wrench (Allen key). Place the two fixtures to be attached side-by-side, and extend the hooks to connect them.



Mounting on a truss

An individual fixture or array can be clamped to a truss or similar rigging structure. When clamping 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 or array using clamps and hardware suitable for the purpose. Fasten them to the screw holes in the fixture bracket. Working from a stable platform, hang the fixture on the truss. Tighten the rigging clamps and hardware.
4. Secure each and every fixture against clamp failure with a secondary attachment such as a safety cable that is passed through the safety cable mounting point on the rear of the fixture. Secondary attachments must be approved for the weight of the fixture and fastened to the load bearing structure, *not to an adjacent fixture!*

AC power



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

Warning! The mains power input cable supplied with the fixture is rated 6 A and can supply only one fixture with mains power. Do not connect any device to the fixture's MAINS OUT power throughput socket when using this input cable. If you want to connect other fixtures to the MAINS OUT socket, see 'Linking fixtures to power in a chain' on page 14.

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 power 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.

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.

If you install a power plug on the power cable, install a grounding type (earthed) plug with integral cable grip that is rated minimum 250 V, 6 A. Follow the plug manufacturer's instructions and connect the wires in the power cable as shown in this table:

	Live or L	Neutral or N	Earth, Ground or 
US system	Black	White	Green
EU system	Brown	Blue	Yellow/green

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

Linking fixtures to power in a chain

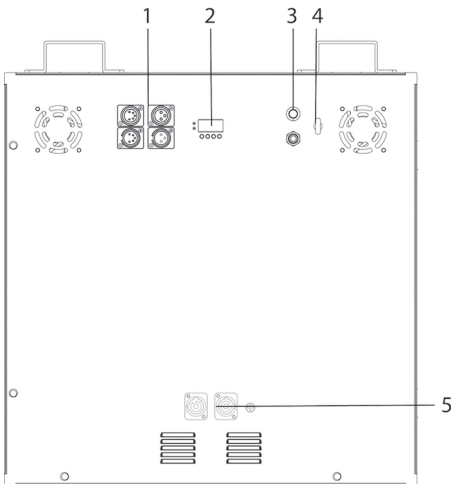
If you obtain a 14 AWG / 1.5 mm² power input cable and 14 AWG / 1.5 mm² throughput cables from Martin™ (see 'Accessories' on page 39), you can relay mains power from one fixture to another by connecting fixtures to power in a linked daisy-chain, MAINS OUT throughput socket to MAINS IN input socket.

Using 14 AWG or 1.5 mm² cables from Martin™, you can link:

- Maximum two (2) RUSH Strobe 1 5x5 fixtures in total at 100-120 V, or
- Maximum four (4) RUSH Strobe 1 5x5 fixtures in total at 200-240 V.

If you install a power plug on the 14 AWG / 1.5 mm² power input cable available from Martin™, install a grounding type (earthed) plug with integral cable grip that is rated minimum 16 A, 250 V.

Fixture overview



1 - 3- & 5-pin XLR DMX inputs and outputs

2 - Control panel and display

The fixture has two LEDs next to the display on the rear of the fixture:

DMX	On	DMX input present
SOUND	Flashing	Sound activation

The fixture has four buttons next to the display on the rear of the fixture:

MENU	<ul style="list-style-type: none"> • Activate the menu mode functions, or • Return to the previous level of the menu structure, or • Press and hold to exit the menus
DOWN	Go down a menu branch
UP	Go up a menu branch
ENTER	Confirm the selected function

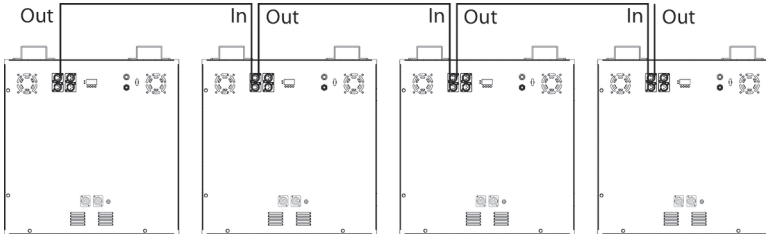
3 - Microphone for sound activation in music trig operation

4 - Safety cable attachment point

5 - Mains power input (PowerCon blue) and throughput (PowerCon white)

Control data link

A DMX 512 data link is required in order to control the fixture via DMX. We recommend the use of a controller that has pixel mapping functionality. The fixture has 3-pin and 5-pin XLR connectors for DMX data input and 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 is 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 5-pin 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 DMX 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 DMX data link

To connect fixtures to data:

1. Connect the DMX data output from the controller to the first fixture's male XLR DMX input connector.
2. Connect this fixture's DMX output to the DMX input of the next fixture and continue connecting fixtures output to input. Terminate the last fixture on the link as described above.

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

See the map of the control menu structure in Control menus on page 34.


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




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 (4, 25 or 29, 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 4-channel DMX mode, then it uses channels 10, 11, 12 and 13. The following fixture in the DMX chain could then be set to a DMX address of 14.

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  menu in the control panel.

To set the fixture's DMX address:

1. Select  and press the ENTER button.
2. Use the UP and DOWN buttons to select the address (1 to 512).
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

CHNd

The fixture provides three 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 protocol on page 27 and they are summarized briefly here:

DMX channel mode	Description
4 channels	Sound-activated stand-alone, line, number or letter effects, full range dimming and strobe effects.
25 channels	Dimming control of individual LED pixels.
29 channels	Dimming control of individual LED pixels. Sound-activated stand-alone, line, number or letter effects, full range dimming and strobe effects.

To set the fixture's DMX channel mode:

1. Select CHNd and press the ENTER button.
2. Use the DOWN and UP buttons to select the 4Ch, 25Ch, or 29Ch 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 (auto trig)

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 SHNd and press the ENTER button.
2. Use the DOWN and UP buttons to select show 0~8. Shows 1-8 are pre-programmed shows. Show 0 executes a random show.

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).

Manual settings

MANU

To manually set individual dimmer or strobe settings:

1. Select **MANU** and press the ENTER button.
2. Use the DOWN and UP buttons to choose **DIMM** (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.

Sound activation (music trig)

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 effect changes in synch with music.

To turn on sound activation:

1. Select **SOUN** 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).

Blackout

BLND

You can blackout the fixture using the control menu:

1. Select **BLND** 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

LED

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

1. Select LED 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

DISP

To invert the LED display:

1. Select DISP menu and press the ENTER button.
2. Use the DOWN and UP buttons to select the DISP (normal display orientation) or DISIP (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).

Auto test

TEST

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

1. Select TEST 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.

Fixture time

Fhrs

To display the fixture's operating hours counter:

1. Select **Fhrs** and press the ENTER button. The display will show the number hours the unit has been run.
2. To return to a higher level of the menu structure, press the MENU button.

Firmware version

ver

To display the fixture's installed firmware version number:

1. Select **ver** 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 protocol on page 27 for a full list of the DMX channels and values required to control the different effects.

Line, number or letter effects

Line effects (30 variable speed pre-programmed effects), numbers (0~9, count up or countdown) or letters (A~Z) can be used in 4- and 29-channel DMX modes.

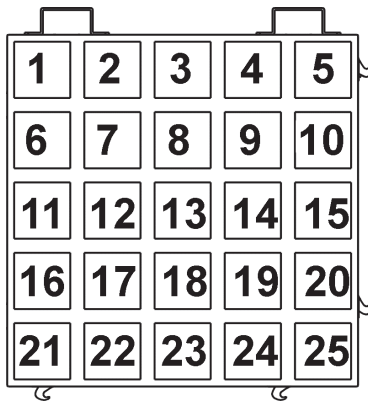
Strobe effects

The strobe effects in 4- and 29-channel DMX modes provide instant open variable speed, and sound-activated strobe effects.

Electronic dimming

Overall intensity of all pixels can be adjusted in 4- and 29-channel DMX modes. Individual pixels can be dimmed in 25- and 29-channel DMX modes.

During individual pixel dimming, pixels are controlled with reference to the numbering system shown below:



Maintenance



Read 'Safety information' on page 5 before servicing the fixture.

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

Disconnect mains power before cleaning or servicing the fixture.

Service fixtures in an area where there is no risk of injury from failing parts, tools or other materials.

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 Martin™ for details.

Cleaning

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.

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 and the air vents 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 mild 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 protocol

4 channel mode

Channel	Value	Function
1		Mode
	0-7	Blackout
	8-67	Full on
	68-127	Line effects mode (see channel 2-1)
	128-187	Number mode (see channel 2-2)
	188-247	Letter mode (see channel 2-3)
	248-255	Stand alone with sound activation
2-1		Line effects mode (see channel 1)
	0-7	No function
	8-15	Effect 1 – slow to fast
	16-23	Effect 2 – slow to fast
	24-31	Effect 3 – slow to fast
	32-39	Effect 4 – slow to fast
	40-47	Effect 5 – slow to fast
	48-55	Effect 6 – slow to fast
	56-63	Effect 7 – slow to fast
	64-71	Effect 8 – slow to fast
	72-79	Effect 9 – slow to fast
	80-87	Effect 10 – slow to fast
	88-95	Effect 11 – slow to fast
	96-103	Effect 12 – slow to fast
	104-111	Effect 13 – slow to fast
	112-119	Effect 14 – slow to fast
	120-127	Effect 15 – slow to fast
	128-135	Effect 16 – slow to fast
	136-143	Effect 17 – slow to fast
	144-151	Effect 18 – slow to fast
	152-159	Effect 19 – slow to fast
	160-167	Effect 20 – slow to fast
	168-175	Effect 21 – slow to fast
	176-183	Effect 22 – slow to fast
	184-191	Effect 23 – slow to fast
	192-199	Effect 24 – slow to fast
	200-207	Effect 25 – slow to fast
208-215	Effect 26 – slow to fast	
216-223	Effect 27 – slow to fast	

Channel	Value	Function
	224-231	Effect 28 – slow to fast
	232-239	Effect 29 – slow to fast
	240-247	Effect 30 – slow to fast
	248-255	Random line effect
2-2	Number mode (see channel 1)	
	0-15	No function
	16-35	Number 0
	36-55	Number 1
	56-75	Number 2
	76-95	Number 3
	96-115	Number 4
	116-135	Number 5
	136-155	Number 6
	156-175	Number 7
	176-195	Number 8
	196-215	Number 9
	216-235	Count up 0-9, slow to fast
236-255	Count down 9-0, slow to fast	
2-3	Letter mode (see channel 1)	
	0-21	No function
	22-30	Letter A
	31-39	Letter B
	40-48	Letter C
	49-57	Letter D
	58-66	Letter E
	67-75	Letter F
	76-84	Letter G
	85-93	Letter H
	94-102	Letter I
	103-111	Letter J
	112-120	Letter K
	121-129	Letter L
	130-138	Letter M
	139-147	Letter N
	148-156	Letter O
	157-165	Letter P
	166-174	Letter Q
	175-183	Letter R
184-192	Letter S	
193-201	Letter T	

Channel	Value	Function
	202-210	Letter U
	211-219	Letter V
	220-228	Letter W
	229-237	Letter X
	238-246	Letter Y
	247-255	Letter Z
3	0-255	Dimmer 0-100%
4		Strobe
	0-7	Open
	8-131	Strobe – slow to fast
	132-139	Open
	140-181	Slow open, fast close
	182-189	Open
	190-231	Fast open, slow close
	232-239	Open
	240-247	Sound activated (music trig) strobe
	248-255	Open

25 channel mode

Channel	Value	Function
1	0-255	Dimmer LED 1 - 0-100%
2	0-255	Dimmer LED 2 - 0-100%
3	0-255	Dimmer LED 3 - 0-100%
4	0-255	Dimmer LED 4 - 0-100%
5	0-255	Dimmer LED 5 - 0-100%
6	0-255	Dimmer LED 6 - 0-100%
7	0-255	Dimmer LED 7 - 0-100%
8	0-255	Dimmer LED 8 - 0-100%
9	0-255	Dimmer LED 9 - 0-100%
10	0-255	Dimmer LED 10 - 0-100%
11	0-255	Dimmer LED 11 - 0-100%
12	0-255	Dimmer LED 12 - 0-100%
13	0-255	Dimmer LED 13 - 0-100%
14	0-255	Dimmer LED 14 - 0-100%
15	0-255	Dimmer LED 15 - 0-100%
16	0-255	Dimmer LED 16 - 0-100%
17	0-255	Dimmer LED 17 - 0-100%
18	0-255	Dimmer LED 18 - 0-100%
19	0-255	Dimmer LED 19 - 0-100%
20	0-255	Dimmer LED 20 - 0-100%
21	0-255	Dimmer LED 21 - 0-100%
22	0-255	Dimmer LED 22 - 0-100%
23	0-255	Dimmer LED 23 - 0-100%
24	0-255	Dimmer LED 24 - 0-100%
25	0-255	Dimmer LED 25 - 0-100%

29 channel mode

Channel	Value	Function
1	0-255	Dimmer LED 1 - 0-100%
2	0-255	Dimmer LED 2 - 0-100%
3	0-255	Dimmer LED 3 - 0-100%
4	0-255	Dimmer LED 4 - 0-100%
5	0-255	Dimmer LED 5 - 0-100%
6	0-255	Dimmer LED 6 - 0-100%
7	0-255	Dimmer LED 7 - 0-100%
8	0-255	Dimmer LED 8 - 0-100%
9	0-255	Dimmer LED 9 - 0-100%
10	0-255	Dimmer LED 10 - 0-100%
1	0-255	Dimmer LED 11 - 0-100%
12	0-255	Dimmer LED 12 - 0-100%
13	0-255	Dimmer LED 13 - 0-100%
14	0-255	Dimmer LED 14 - 0-100%
15	0-255	Dimmer LED 15 - 0-100%
16	0-255	Dimmer LED 16 - 0-100%
17	0-255	Dimmer LED 17 - 0-100%
18	0-255	Dimmer LED 18 - 0-100%
19	0-255	Dimmer LED 19 - 0-100%
20	0-255	Dimmer LED 20 - 0-100%
21	0-255	Dimmer LED 21 - 0-100%
22	0-255	Dimmer LED 22 - 0-100%
23	0-255	Dimmer LED 23 - 0-100%
24	0-255	Dimmer LED 24 - 0-100%
25	0-255	Dimmer LED 25 - 0-100%
26		Mode
	0-7	Blackout
	8-67	Full on
	68-127	Line effects mode (see channel 27-1)
	128-187	Number mode (see channel 27-2)
	188-247	Letter mode (see channel 27-3)
	248-255	Stand alone with sound activation (music trig)
27-1		Line effects mode (see channel 26)
	0-7	No function
	8-15	Effect 1 – slow to fast
	16-23	Effect 2 – slow to fast
	24-31	Effect 3 – slow to fast
	32-39	Effect 4 – slow to fast
	40-47	Effect 5 – slow to fast

Channel	Value	Function
	48-55	Effect 6 – slow to fast
	56-63	Effect 7 – slow to fast
	64-71	Effect 8 – slow to fast
	72-79	Effect 9 – slow to fast
	80-87	Effect 10 – slow to fast
	88-95	Effect 11 – slow to fast
	96-103	Effect 12 – slow to fast
	104-111	Effect 13 – slow to fast
	112-119	Effect 14 – slow to fast
	120-127	Effect 15 – slow to fast
	128-135	Effect 16 – slow to fast
	136-143	Effect 17 – slow to fast
	144-151	Effect 18 – slow to fast
	152-159	Effect 19 – slow to fast
	160-167	Effect 20 – slow to fast
	168-175	Effect 21 – slow to fast
	176-183	Effect 22 – slow to fast
	184-191	Effect 23 – slow to fast
	192-199	Effect 24 – slow to fast
	200-207	Effect 25 – slow to fast
	208-215	Effect 26 – slow to fast
	216-223	Effect 27 – slow to fast
	224-231	Effect 28 – slow to fast
	232-239	Effect 29 – slow to fast
	240-247	Effect 30 – slow to fast
	248-255	Random line effect
27-2	Number mode (see channel 26)	
	0-15	No function
	16-35	Number 0
	36-55	Number 1
	56-75	Number 2
	76-95	Number 3
	96-115	Number 4
	116-135	Number 5
	136-155	Number 6
	156-175	Number 7
	176-195	Number 8
	196-215	Number 9
	216-235	Count up 0-9, slow to fast
236-255	Count down 9-0, slow to fast	

Channel	Value	Function
27-3	Letter mode (see channel 26)	
	0-21	No function
	22-30	Letter A
	31-39	Letter B
	40-48	Letter C
	49-57	Letter D
	58-66	Letter E
	67-75	Letter F
	76-84	Letter G
	85-93	Letter H
	94-102	Letter I
	103-111	Letter J
	112-120	Letter K
	121-129	Letter L
	130-138	Letter M
	139-147	Letter N
	148-156	Letter O
	157-165	Letter P
	166-174	Letter Q
	175-183	Letter R
	184-192	Letter S
	193-201	Letter T
	202-210	Letter U
	211-219	Letter V
220-228	Letter W	
229-237	Letter X	
238-246	Letter Y	
247-255	Letter Z	
28	0-255	Dimmer 0-100%
29	Strobe	
	0-7	Open
	8-131	Strobe – slow to fast
	132-139	Open
	140-181	Slow open, fast close
	182-189	Open
	190-231	Fast open, slow close
	232-239	Open
	240-247	Sound activated 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 19.

Menu	Option/setting	Explanation
Addr	1 5 12	Fixture DMX address setting
ChNd	4Ch	4-channel DMX mode
	25Ch	25-channel DMX mode
	29Ch	29-channel DMX mode
ShNd	Sh 0 ~ Sh 8	Show mode – 0 (random) and shows 1~8
MAnu	di nn	Manual setting - dim
	Stro	
SoUn	on	Sound activated mode.
	off	No sound activation
bLNd	yes	Blackout mode
	no	
LEd	on	LED display off when not in use.
	off	LED display on all the time.
di SP	di SP	Normal display
	dS iP	Invert display
tEst		Automatic test
FhrS		Fixture operating hour counter
vEr		Currently installed firmware version

Troubleshooting

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

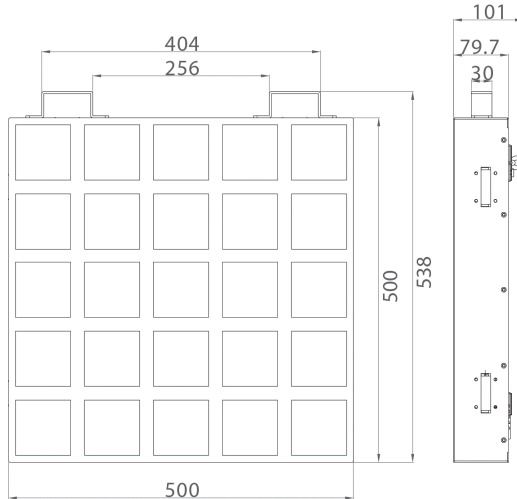
Symptom	Potential cause	Remedies
No light from fixture, or fans not working.	Power supply issue, such as blown fuse, faulty connector or damaged cable.	Ensure that the mains supply is connected and supplying power to the fixture. Ensure that the fixture's power-on LED is lit. Check all power connections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

Symptom	Potential cause	Remedies
<p>Fixture does not respond to DMX control.</p>	<p>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.</p>	<p>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.</p> <p>Ensure that the DMX network is terminated.</p> <p>Check that the components in the DMX network all use standard DMX polarity.</p> <p>Ensure that the fixture is set to the correct DMX address, one that matches that set on the DMX control device.</p> <p>Check the pins on the connectors from the previous fixture in the DMX network.</p> <p>Attempt to control the fixture with another DMX control device.</p> <p>Move the fixture if it is being operated very close to an unshielded high-voltage installation.</p>

Specifications

Physical

Weight..... 9.5 kg (20.9 lbs.)
 Dimensions (W x H x D) 500 x 538 x 101 mm (19.7 x 21.2 x 4 in.)



Dynamic Effects

Strobe effect Electronic - regular and random pulse, burst, strobe effects
 Pre-programmed effects Effect, letter and number display macros
 Electronic dimming 0-100%, individually dimmable pixels
 Effects orientation Standard or inverted 180°

Optics and Photometric Data

Light source 25 x 5 W cool white LEDs
 Color temperature 6000-6500 K

Control and Programming

Control options DMX, stand-alone
 DMX channels 4, 25 or 29
 Stand-alone trigger options Music trig, auto trig
 Stand-alone sequences 8 pre-programmed shows or random show
 Stand-alone memory 20 scenes
 Setting and addressing Control panel with LCD display
 DMX compliance USITT DMX512/1990

Construction

Color Black
Housing Steel
Protection rating IP 20

Installation

Location Indoor use only, must be fastened to surface or structure
Mounting points Integral hanging brackets, side-by-side mounting locks
Orientation Any

Connections

AC power in/thru Neutrik PowerCon
DMX data in/thru 3-pin & 5-pin locking XLR

Electrical

AC power 100 – 240 V nominal, 50/60 Hz
Typical total power consumption* 148 W
Fuse T6.3A

**Power consumption figures are typical, not maximum. Allow for +/-10% variation.*

Typical power and current

110 V, 60 Hz 148 W, 2.0 A
230 V, 50 Hz 146 W, 1.2 A

Thermal

Cooling Forced air
Maximum ambient temperature (T_a max.) 40° C (104° F)
Minimum ambient temperature (T_a min) 5° C (41° F)
Total heat dissipation (calculated, +/- 10%) 510 BTU/hr.

Approvals



EU safety EN 60598-2-17 (EN 60598-1), EN 62471, EN 62493
EU EMC EN 55015, EN 55103-1, EN 55103-2,
..... EN 61000-3-2, EN 61000-3-3, EN 61547
US EMC FCC Part 15 Class A
Canadian EMC ICES-003 Class A
Australia/NZ C-TICK N4241

Included Items

- 1.5 m (5 ft.) power cable without power plug
- Mounting brackets including screws

Accessories

Cables, 16 A, for connection to power in chains

- Power input cable, 14 AWG, SJT, 1.5 mm², H05VV-F, with PowerCon input connector, 3 m (9.8 ft.) P/N 11541508
- Power relay cable, 14 AWG, SJT, 1.5 mm², H05VV-F, with PowerCon connectors, 1.4 m (4.6 ft.) P/N 11541509
- Power relay cable, 14 AWG, SJT, 1.5 mm², H05VV-F, with PowerCon connectors, 2.25 m (7.4 ft.) P/N 11541510
- Power relay cable, 14 AWG, SJT, 1.5 mm², H05VV-F, with PowerCon connectors, 3.25 m (10.7 ft.) P/N 11541511

Power connectors

- Neutrik PowerCon NAC3FCA
power input connector, cable mount, blue P/N 05342804
- Neutrik PowerCon NAC3FCB
power output connector, cable mount, light grey P/N 05342805



Related Items

- RUSH Software Uploader 1™ P/N 91611399

Ordering Information

- RUSH Strobe 1 5x5™ in cardboard box P/N 90480020

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

 	<p>Disposing of this product</p> <p>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</p>
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