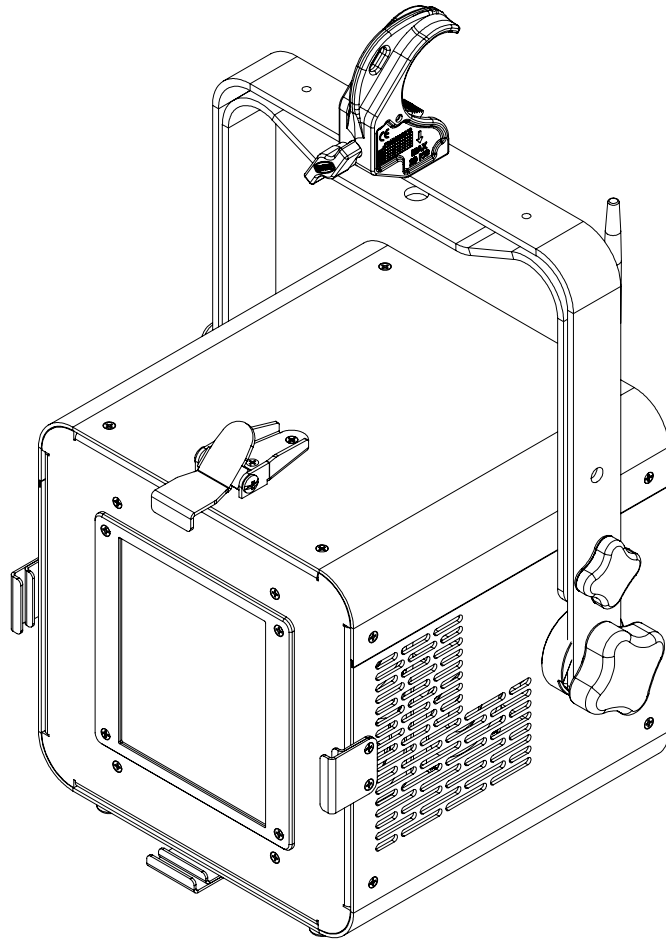


VIOSTORM[®]

BY WILDFIRE[®]

PRO SERIES



VSP-120 USER MANUAL

REVISION 1.0

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INTRODUCTION

Congratulations on your purchase of a Wildfire VioStorm Pro Series model VSP-120 UV-A Lighting Fixture. VioStorm® Pro Series fixtures combine true 365nm UV LED emitters with high quality bandpass filtration for improved performance and no visible light output. Featuring Wildfire's intuitive Trias® DMX/RDM Control System with optional wireless DMX and versatile interchangeable optics. Please take a moment to read this manual thoroughly before attempting to operate the fixture. Improper set-up, use or servicing may cause damage to the fixture and void the unit's warranty.

SAFETY INFORMATION

RISK GROUP 3 - WARNING - UV EMITTED FROM THIS PRODUCT AT A PRIMARY WAVELENGTH OF 365NM. DO NOT LOOK INTO THE BEAM DIRECTLY OR VIEW THE BEAM DIRECTLY WITH OPTICAL INSTRUMENTS THAT MAY CONCENTRATE THE LIGHT/RADIATION OUTPUT.

CAUTION - RISK OF PERSONAL INJURY. THIS LED ARRAY IS NOT INTENDED FOR GENERAL ILLUMINATION AND MAY REQUIRE THE USE OF SPECIAL SAFEGUARDS. INSTALL AND USE ONLY IN STRICT ACCORDANCE WITH THE PRODUCT AND PACKAGING MARKINGS.

CAUTION – WHEN USED IN ACCORDANCE WITH THE MANUFACTURERS OPERATING INSTRUCTIONS, NO HAZARDS EXIST TO MOST PEOPLE. HOWEVER, INDIVIDUALS SUFFERING FROM A RANGE OF SUNLIGHT EXPOSURE DISORDERS, APHAKIC AND PSEUDOAPHIKIC, OR THOSE INDIVIDUALS RECEIVING PHOTOSENSITIVE MEDICATION MAY RECEIVE DISCOMFORT IF EXPOSED TO ULTRAVIOLET LIGHT.

CAUTION – NOT FOR RESIDENTIAL USE. DRY LOCATIONS ONLY.

SPECIFICATIONS

HOUSING:

5052 H32 aluminum with stainless steel fasteners

FINISH:

Flat black powder coat

MOUNTING:

Fully adjustable yoke with three height positions and integrated removable floor stand

UV LIGHT SOURCE:

Twelve 10W 365nm UV LED emitters

RADIANT POWER:

3,200 mW each

LED LIFE:

20,000Hr. at 25° C

OPTICS:

Molded Silicone 15°, 27° or 42°

LENS:

Schott UG2A Bandpass Filter Glass

OPERATING TEMPERATURE:

-10° to 115° F / -20° to 45° C

HUMIDITY:

0-95% non-condensing

POWER INPUT CONNECTION:

Neutrik PowerCON True 1

POWER OUTPUT CONNECTION:

Neutrik PowerCON True 1 (Max 15A)

POWER CORD:

9' 14/3 SJT cable with PowerCON True 1 to NEMA 5-15P

DMX CONNECTIONS:

Neutrik Gold, 5-pin XLR Male, 5-pin XLR Female

DMX CHANNELS:

Three (2 Dimming, 1 Effects)

CONTROL MODES:

Three (Wired DMX, Local and optional Multiverse wireless DMX)

OPERATION MODES:

Three (1 Channel, 2 Channel, 3 Channel)

USB CONNECTION:

Amphenol Rugged Mini-B USB Female

INPUT VOLTAGE:

100-240 VAC

INPUT CURRENT:

1.73 Amps Max

FREQUENCY:

50-60Hz.

POWER FACTOR:

0.97

POWER CONSUMPTION:

175 Watts

CIRCUIT PROTECTION:

7 Amp hydraulic magnetic breaker switch

SURGE PROTECTION:

Type 5 SPD 10kV / 10kA

ACCESSORY FRAME:

10" / 25.4cm

WEIGHT:

13.35 lbs. / 6.05 kg

PROTECTION RATING:

IP-20 Indoor Use Only

SAFETY LISTING:

ETL #5004307

SETUP & OPERATION

UNPACKING

Unpack the fixture and inspect for any signs of physical damage. Report any damage to Wildfire or your local distributor immediately. Included with each unit should be the following items:

1. Truss Clamp, designed to attach the fixture to a 1 1/2" to 2" pipe truss
2. Safety Cable, provided to secure the fixture when mounted on a pipe truss
3. 9' Power Cable
4. 3' USB Cable
5. PowerCON True 1 Power-Out Cable Connector

OPTIONAL ACCESSORIES

Contact Wildfire or your local distributor for pricing on the following optional accessories:

1. 10" Barn Doors
2. 15° Spot Optic Set
3. 27° Spot Optic Set
4. 42° Spot Optic Set

INSTALLATION

The fixture is equipped with a yoke assembly for mounting. The yoke may be fitted with either a pipe clamp (included) for mounting on a pipe truss or a baby bail block or junior pin for mounting on a light stand.

If the fixture is mounted on a pipe truss, be sure to use the included safety cable, looping it through the yoke assembly and around the pipe truss. This will prevent the fixture from falling and possibly causing injury in the event that the pipe clamp was not securely tightened.

To adjust the angle of the fixture, loosen the knobs on either side of the unit slightly, rotate to desired angle and tighten. Care should be taken to support the front of the fixture while loosening the knobs to prevent the fixture from rotating forward possibly causing injury.

The fixture comes standard with a 10" bracket assembly for attaching barn doors and other accessories. When using accessories, be sure to attach the safety cable provided by the accessory manufacturer to the fixture yoke assembly.

OPERATION

Plug the fixture into the appropriate power source and turn the power switch to the ON position. The Home screen on the main menu will display the fixture model and firmware revision. Pressing the UP button once from the Home menu screen will take you to the Control Source menu selection. Press the SELECT button and use the UP and DOWN buttons to select one of the three available Control Source modes which are Local, Wired DMX, and Multiverse. If your fixture is not equipped with the Multiverse wireless DMX option, this menu selection will not be available. Once you have made your selection, pressing the SELECT button saves your selection and takes you back to the main menu.

LOCAL CONTROL SOURCE

To operate the fixture in local control, set Control Source from the main menu to Local. Set Dimmer main menu selection to the desired output level (0 – 100%). To utilize one of the fixtures preprogrammed effects in local control, set the Effects main menu selection to the desired effect. See Local Control Effects Chart for available options.

WIRED DMX CONTROL SOURCE

To operate the fixture in Wired DMX control, connect the fixture to a DMX control device such as a lighting control board or lighting control software. Set Control Source from the main menu to "Wired DMX". If the fixture is receiving valid DMX data, you will see three dots flashing in lower the right-hand corner of the display.

Set DMX Mode main menu selection to the desired total number of channels that you want to use (1, 2 or 3)

Set DMX Address main menu selection to the starting DMX address you want to use. The total number of addresses available to choose from depends on the DMX Mode you have selected. 1 Channel (001-512), 2 Channel (001-511), 3 Channel (001-510). Subsequent addresses will be in numerical order.

MULTIVERSE WIRELESS DMX CONTROL SOURCE

To operate the fixture in Multiverse control source mode, connect your Multiverse Wireless DMX transmitter to a DMX control device such as a lighting control board or lighting control software. Set Control Source from the main menu to "Multiverse". If the fixture is receiving valid DMX data, you will see three dots flashing in lower the right-hand corner of the display.

Set MV Show ID, MV Show Key and MV Universe main menu selections to match the Multiverse Wireless DMX transmitter settings.

Set DMX Mode main menu selection to the desired total number of channels that you want to use (1, 2 or 3)

Set DMX Address main menu selection to the starting DMX address you want to use. The total number of addresses available to choose from depends on the DMX Mode you have selected. 1 Channel (001-512), 2 Channel (001-511), 3 Channel (001-510). Subsequent addresses will be in numerical order.

PREPROGRAMMED EFFECTS

To utilize one of the fixtures preprogrammed effects in either Wired DMX or Multiverse, set the data value of the effects channel on your lighting controller to the desired effect setting. See DMX Control Chart for available options.

RDM

Remote Device Management is a protocol enhancement to DMX512 that allows bidirectional communication between a system controller and attached RDM-compliant devices over a standard DMX line. This allows for remote configuration, status monitoring, and management of the connected RDM devices. VioStorm fixtures are compliant with RDM protocol and support monitoring and setting of the following parameters:

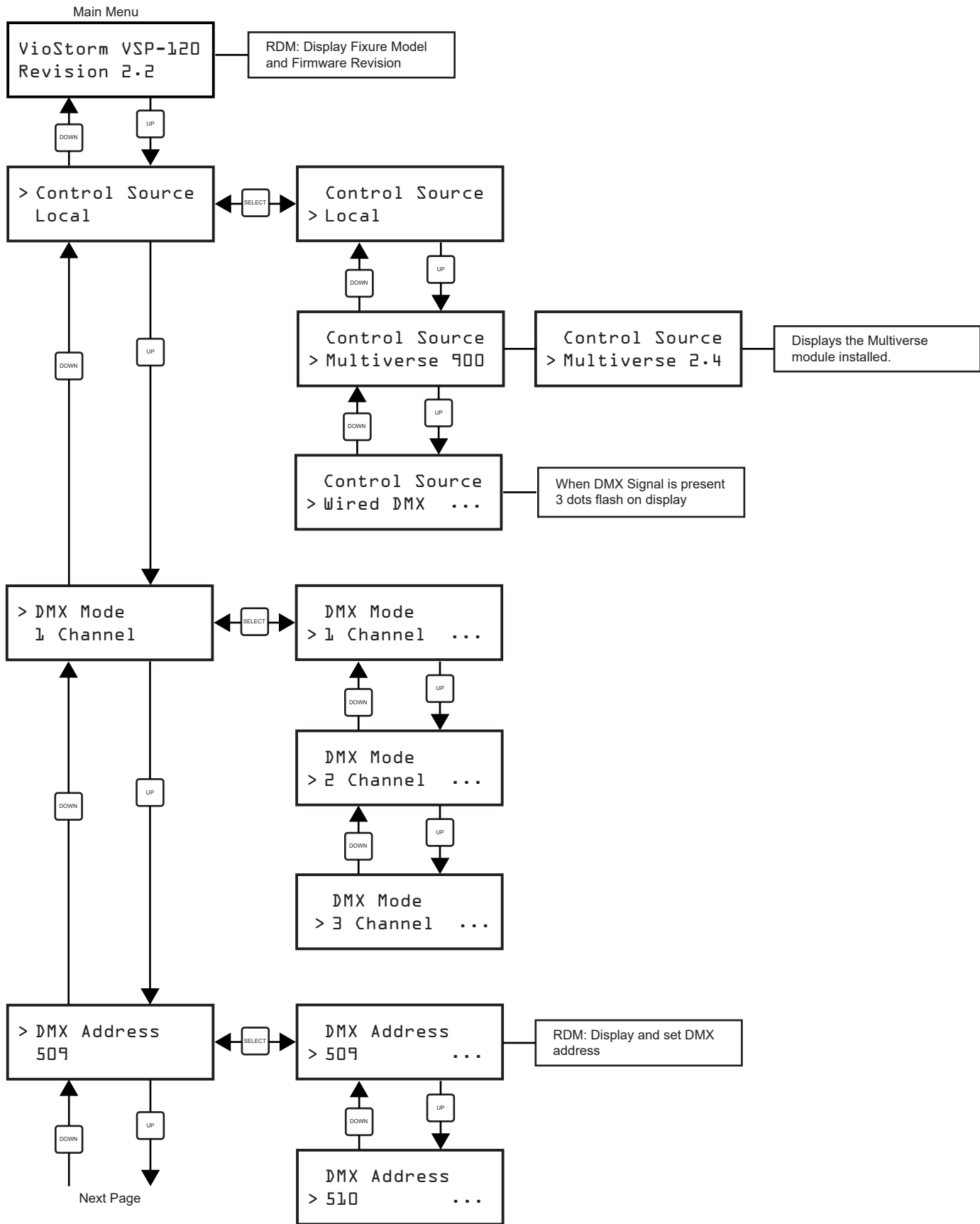
Fixture Model	Displays the fixture model followed by the current optic setting
Fixture Label	Display and remotely set fixture label
Manufacturer	Displays the fixture manufacturers name
Software Version	Displays the fixtures current software version
DMX Address	Display and remotely set DMX starting address.
LED Hours	Displays the total hours that the fixture has been on
LED State	Displays the current LED state, OFF or ON
Temperature	Displays the current LED module temperature with over temperature warning at 55C
Fan RPM	Displays the current RPM for fans A & B with fan failure warnings at 0 RPM
Device ID	Display fixtures unique device ID

In Local, Wired DMX and Multiverse Control Source modes, if no buttons are pressed for 60 seconds the display will go dark. To reactivate the display, press any button.

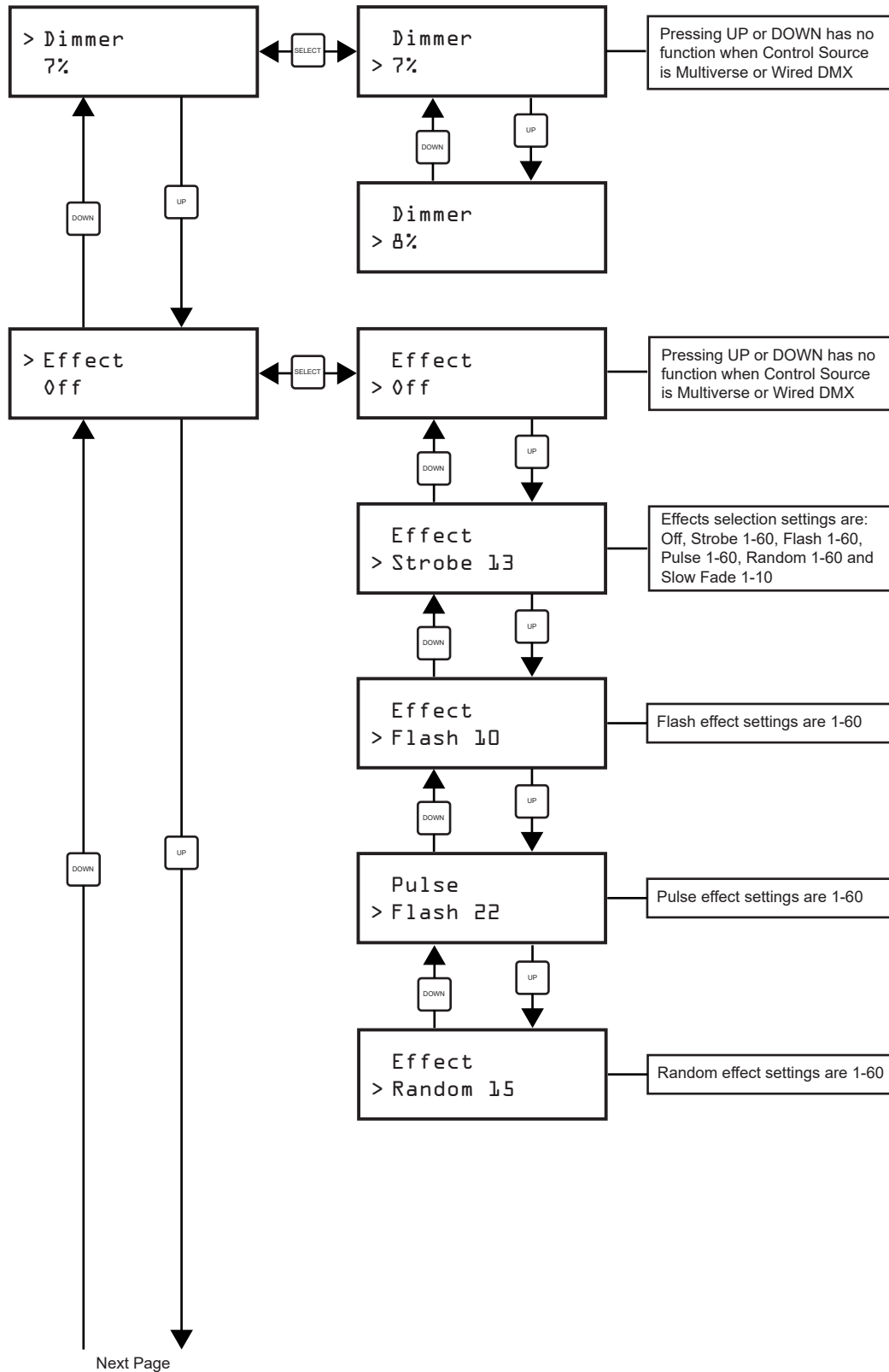
The LED Hours function records the total number of hours the fixture has been on. To reset this, select LED Hours from the main menu and then press and hold the UP or DOWN button for 6 seconds.

VioStorm fixtures are equipped with automatic high temperature protection circuitry that shuts the LED's off if the temperature exceeds 70° C. Once it cools to 65° C the LED's will turn back on.

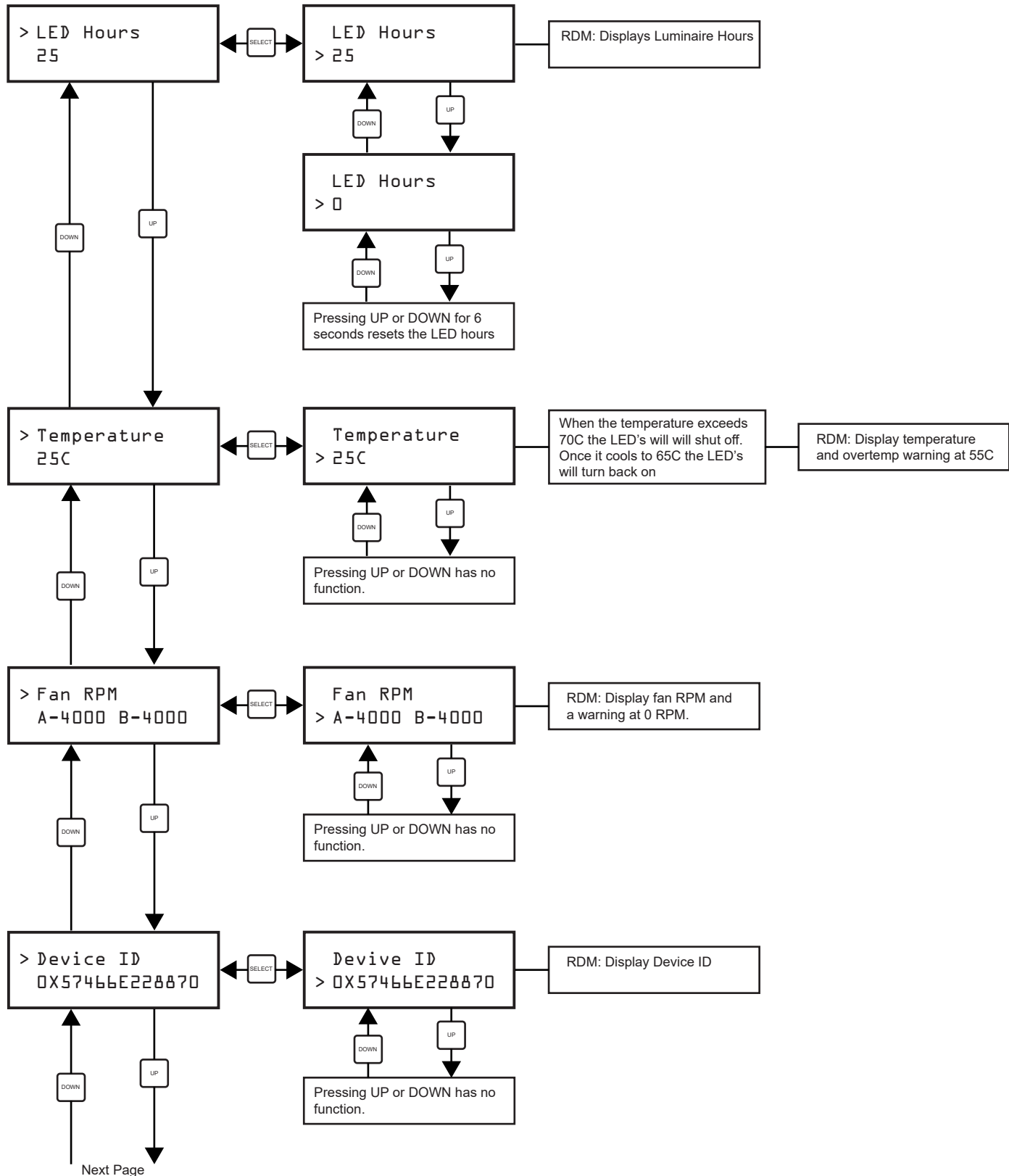
GRAPHICAL MENU TREE



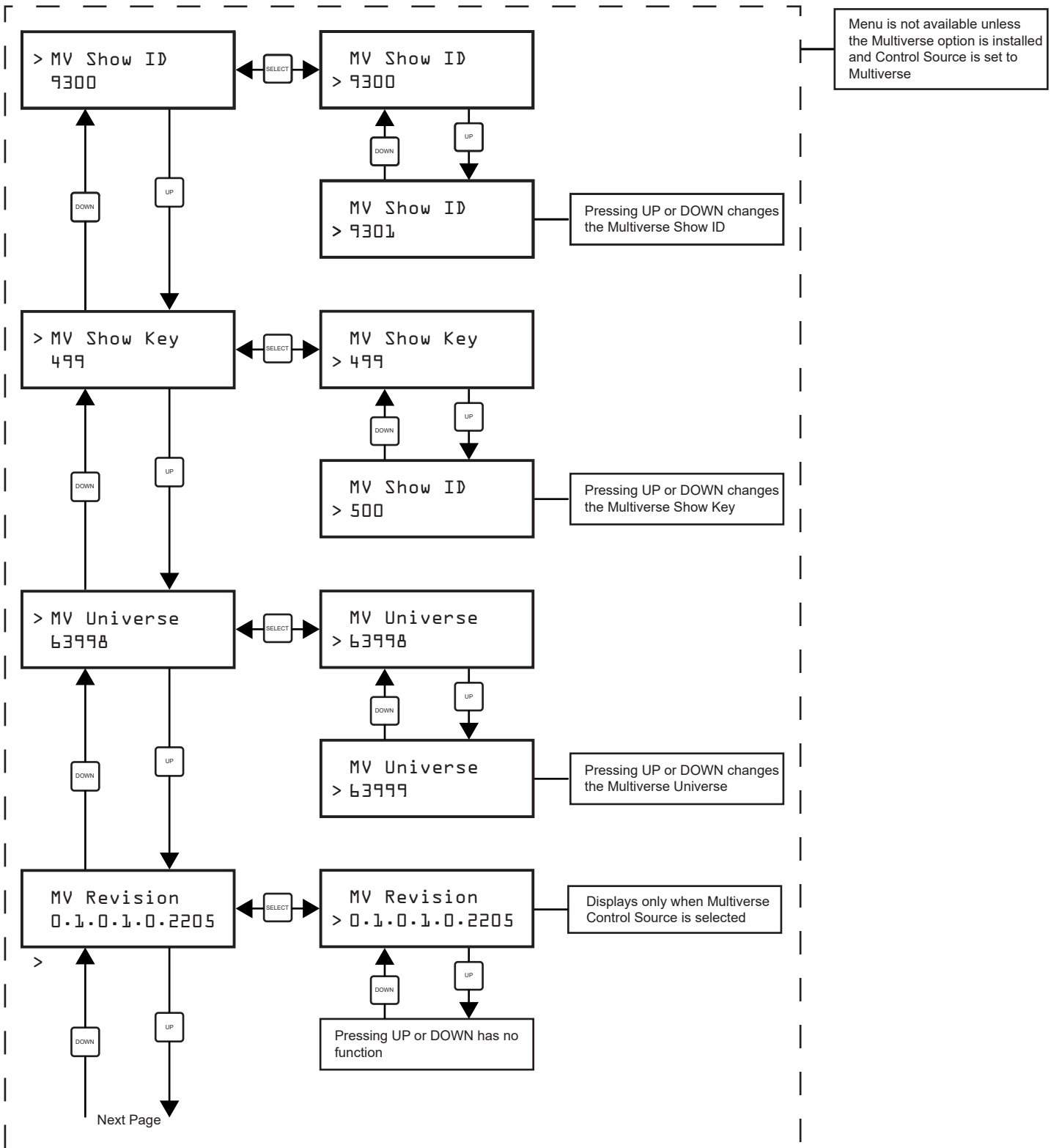
GRAPHICAL MENU TREE



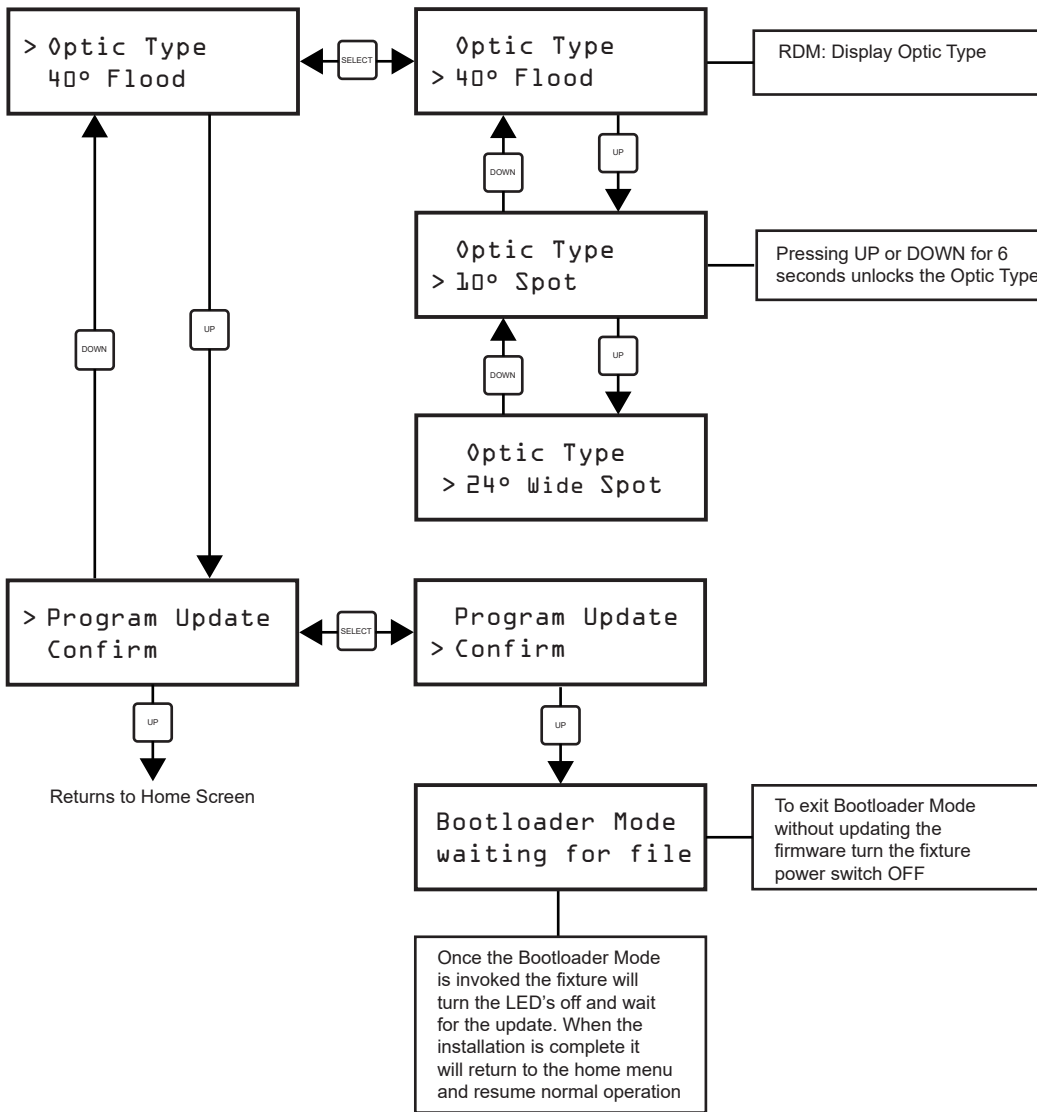
GRAPHICAL MENU TREE



GRAPHICAL MENU TREE



GRAPHICAL MENU TREE



LOCAL CONTROL EFFECTS CHART

WILDFIRE® TRIAS® LIGHTING CONTROL SYSTEM REV. 2.2 VIOSTORM PRO LOCAL CONTROL EFFECT SETTINGS

VioStorm Pro UV LED Lighting System
Model VSP-120

Effects Menu

Effect	Setting	Description
Off	Effects Off	All LED's static at the brightness level set on the Dimmer menu selection
Strobe	1-60	Strobes all LED's at the brightness level set on the Dimmer menu selection, at a rate adjustable from 2-12 SPS
Flash	1-60	Flashes all LED's at the brightness level set on the Dimmer menu selection, at a rate adjustable from 1-12 FPS
Pulse	1-60	Pulses all LED's at at the brightness level set on the Dimmer menu selection, at rate adjustable from 5 sec. long pulse to 4 PPS
Random	1-60	Randomly strobes all LED's at the brightness level set on the Dimmer menu selection at an adjustable rate
Slow Fade 1	1 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 2:10, ON 1:00, Fade :10, OFF 1:00
Slow Fade 2	2 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 4:10, ON 2:00, Fade :10, OFF 2:00
Slow Fade 3	3 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 6:30, ON 3:00, Fade :30, OFF 3:00
Slow Fade 4	4 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 8:30, ON 4:00, Fade :30, OFF 4:00
Slow Fade 5	5 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 10:30, ON 5:00, Fade :30, OFF 5:00
Slow Fade 6	6 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 12:30, ON 6:00, Fade :30, OFF 6:00
Slow Fade 7	7 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 14:30, ON 7:00, Fade :30, OFF 7:00
Slow Fade 8	8 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 16:30, ON 8:00, Fade :30, OFF 8:00
Slow Fade 9	9 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 18:30, ON 9:00, Fade :30, OFF 9:00
Slow Fade 10	10 Minute	Fades all LED's ON and OFF at the brightness level set on the Dimmer menu selection, Total Time 20:30, ON 10:00, Fade :30, OFF 10:00

DMX CONTROL CHART

WILDFIRE® TRIAS® LIGHTING CONTROL SYSTEM REV. 2.2 VIOSTORM PRO DMX CONTROL CHANNEL ASSIGNMENT

VioStorm Pro UV LED Lighting System
Model VSP-120

3 Channel Mode

DMX Channel	Channel Label	DMX Address	Data Value	Control Function	Description
Channel 1	Effects	1	0-5	Effects Off	All LED's static at the brightness level set on channels 2 and 3
			6-65	Strobe	Strobes all LED's at the brightness level set on channel 2 and 3 at a rate adjustable from 2-12 SPS
			66-125	Flash	Flashes all LED's at the brightness level set on channel 2 and 3 at a rate adjustable from 1-12 FPS
			126-185	Pulse	Pulses all LED's at at the brightness level set on channel 2 and 3 at rate adjustable from 5 sec. long pulse to 4 PPS
			186-245	Random	Randomly strobes all LED's at the brightness level set on channel 2 and 3 at an adjustable rate
			246	Slow Fade 1m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 2:10, ON 1:00, Fade :10, OFF 1:00
			247	Slow Fade 2m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 4:10, ON 2:00, Fade :10, OFF 2:00
			248	Slow Fade 3m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 6:30, ON 3:00, Fade :30, OFF 3:00
			249	Slow Fade 4m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 8:30, ON 4:00, Fade :30, OFF 4:00
			250	Slow Fade 5m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 10:30, ON 5:00, Fade :30, OFF 5:00
			251	Slow Fade 6m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 12:30, ON 6:00, Fade :30, OFF 6:00
			251	Slow Fade 7m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 14:30, ON 7:00, Fade :30, OFF 7:00
			253	Slow Fade 8m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 16:30, ON 8:00, Fade :30, OFF 8:00
			254	Slow Fade 9m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 18:30, ON 9:00, Fade :30, OFF 9:00
			255	Slow Fade 10m	Fades all LED's ON and OFF at the brightness level set on channel 2 and 3, Total Time 20:30, ON 10:00, Fade :30, OFF 10:00
Channel 2	Dimming Coarse	2	0-255	Dimming (0-100%)	Coarse adjustment of the brightness level of all UV LED's 0 to 100%
Channel 3	Dimming Fine	3	0-255	Dimming (0-100%)	Fine adjustment of the brightness level of all UV LED's 0 to 100%

2 Channel Mode

DMX Channel	Channel Label	DMX Address	Data Value	Control Function	Description
Channel 1	Dimming Coarse	1	0-255	Dimming (0-100%)	Coarse adjustment of the brightness level of all UV LED's 0 to 100%
Channel 2	Dimming Fine	2	0-255	Dimming (0-100%)	Fine adjustment of the brightness level of all UV LED's 0 to 100%

1 Channel Mode

DMX Channel	Channel Label	DMX Address	Data Value	Control Function	Description
Channel 1	Dimming Coarse	1	0-255	Dimming (0-100%)	Adjustment of the brightness level of all UV LED's 0 to 100%

MAINTENANCE & TROUBLESHOOTING

OPTIC CHANGE/REPLACEMENT

To change the optics, unplug the fixture. Remove any accessories from the front. Position the fixture on the yoke floor stand so that the fixture is pointed upward. Remove the bandpass filter bezel and filter from the front of the fixture, exposing the optics. Remove the 16 small screws that attach the optic sets to the LED module. Lift the optics straight up and off the module. To replace reverse these steps. Torque the bandpass filter bezel screws to 7 Lb-In in a crisscross pattern. Do not overtighten the bezel screws as this can crack the glass bandpass filter. The following optic sets are available for the VioStorm VSP-120 series fixtures. Contact Wildfire or your local distributor for pricing.

Part #	Description	Required Sets
138-050	15° Spot Optic Set	2 Sets
138-051	27° Spot Optic Set	2 Sets
138-052	42° Spot Optic Set	2 Sets

FIRMWARE UPDATES

The VioStorm Series control firmware revision is displayed on the home menu screen as seen below in Fig.1. When updates to this firmware are available, they can be downloaded directly from the support section of Wildfire’s website at: www.wildfirelighting.com/support/. Save the installation program folder to your desktop and follow the instructions provided with the download to update the firmware.

Prior to attempting to install any firmware updates, read the firmware release notes thoroughly to ensure that you are installing the correct update for your fixture.

Installing incorrect firmware can damage your fixture, rendering it inoperable.

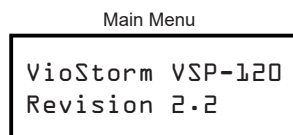


Fig.1

CLEANING

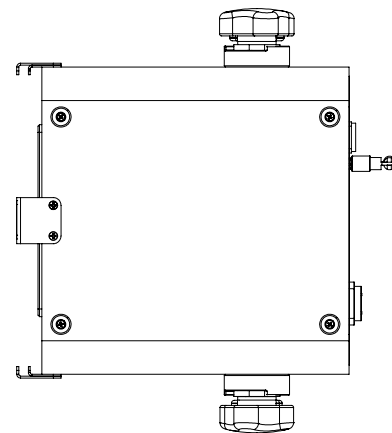
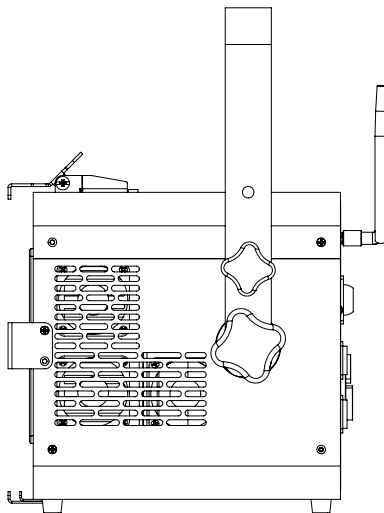
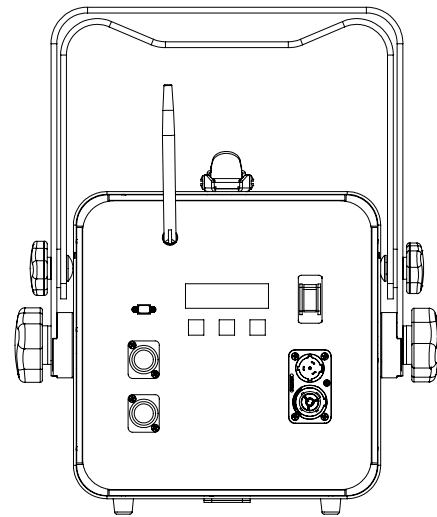
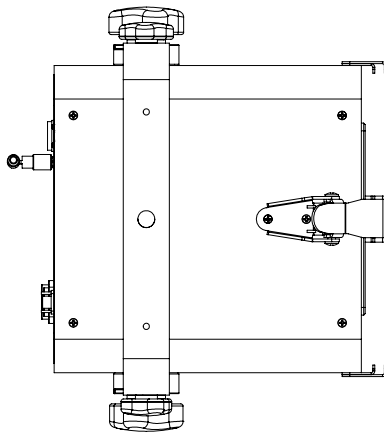
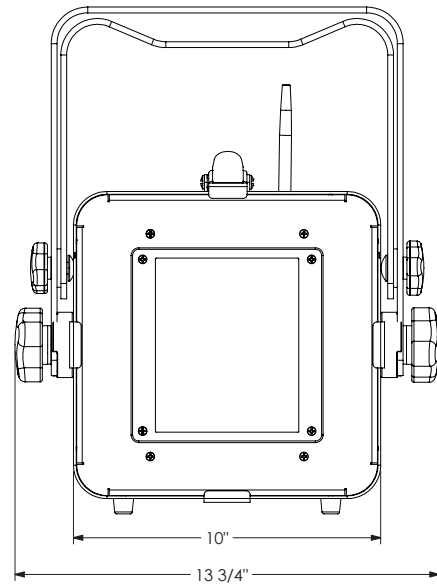
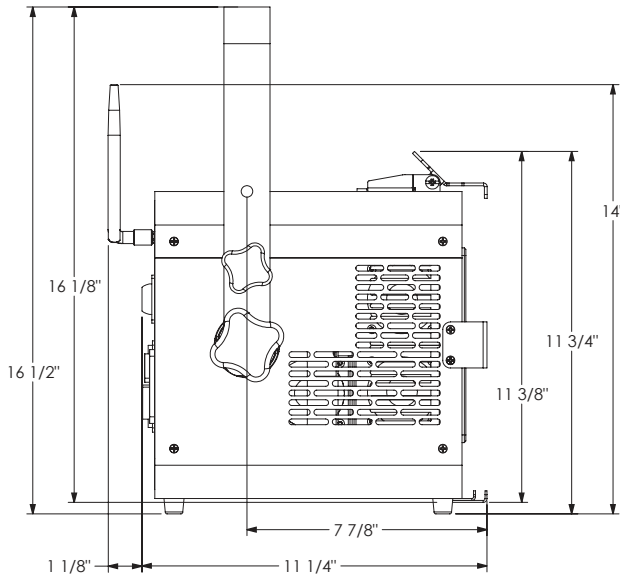
For best performance the fixture fan vents should be kept free of dirt and dust and can be cleaned using compressed air. At no time should any cleaning chemicals or abrasives be used to clean any part of the fixture. Do not spray or apply any liquid directly to any part of the fixture. Always unplug the fixture before cleaning. For normal cleaning, a dry soft cloth should be used to wipe any surface free from dust and light dirt.

TROUBLESHOOTING

The fixture will not turn on: – Check to make sure there is power to the fixture. Make sure the power/breaker switch on the back of the fixture has not been tripped. If you have checked all of the above and the fixture still won't turn on, contact Wildfire technical support at (310) 755-6780 or your local distributor

The fixture turns on but there is no UV light output: – Make sure the fixture is set to the correct Control Source setting for your mode of operation. (Wired DMX, Multiverse or Local) If you are running the fixture in local mode make sure the Dimmer menu selection is not turned all the way down. If you are running the fixture in Wired DMX or Multiverse mode, make sure the dimmer channels on your lighting control device are not all the way down. If you have checked all of the above and the fixture still won't turn on, contact Wildfire technical support at (310) 755-6780 or your local distributor.

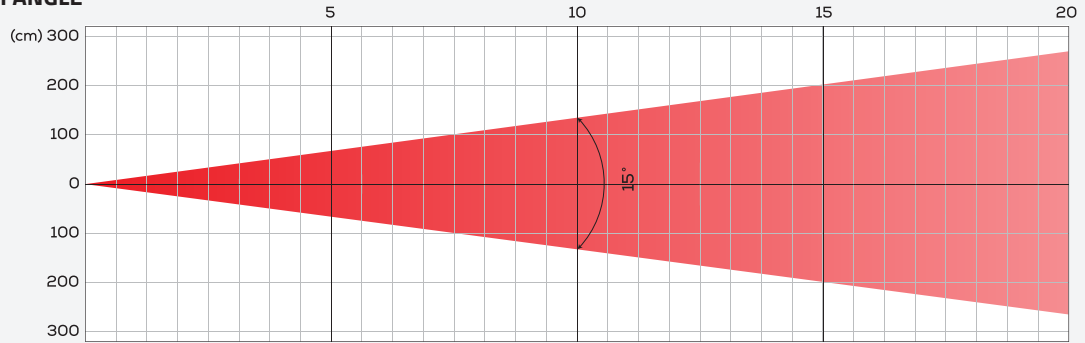
DRAWINGS



PHOTOMETRICS

SPOT

BEAM ANGLE

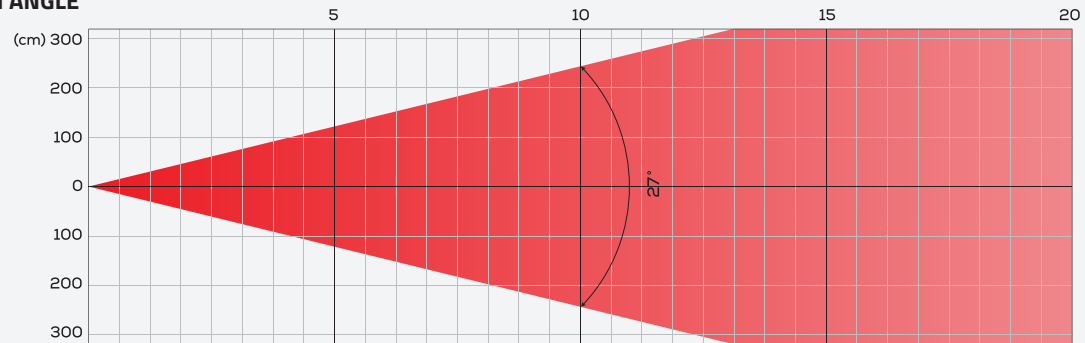


INTENSITY

Distance (m)	5		10		15		20	
unit	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)
365nm UV	15885	1.40	3971	2.79	1765	4.19	993	5.58

WIDE SPOT

BEAM ANGLE

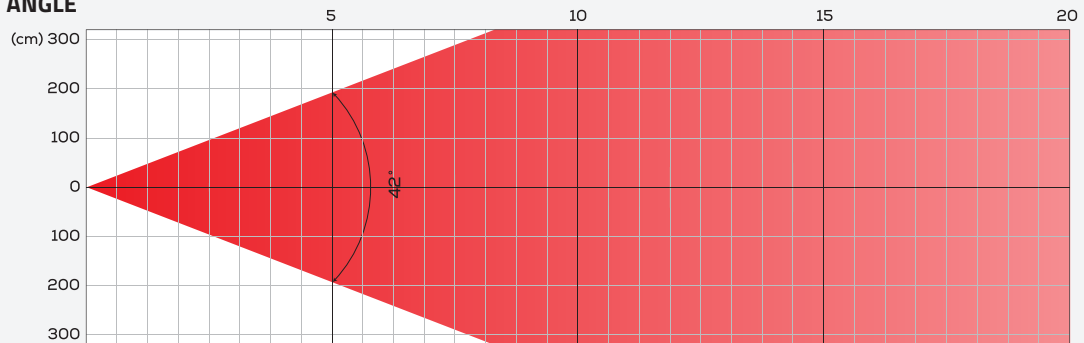


INTENSITY

Distance (m)	5		10		15		20	
unit	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)
365nm UV	5402	2.44	1351	4.88	600	7.32	338	9.76

FLOOD

BEAM ANGLE



INTENSITY

Distance (m)	5		10		15		20	
unit	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)	mW/m ²	Diameter (m)
365nm UV	2246	3.83	561	7.67	250	11.50	140	15.34

Wildfire Lighting Three Year Limited Warranty

This Limited Warranty covers the following products only if manufactured by Wildfire, Inc. dba Wildfire Lighting ("Wildfire"): Lighting Fixtures, LED Lamps, and Fixture Accessories (herein, "Fixtures"). Fluorescent lamps are expressly excluded from this warranty. Wildfire warrants to the original purchaser, or end user if purchased unused from a distributor, that for a period of three years from the date of delivery of any Fixture; whether used in a portable or permanent installation, such Fixtures will be free from defects in material and workmanship under normal use and conditions. This warranty is personal to the first user of the product and is not transferrable to subsequent owners or users. The three year warranty period is based only on the original date of delivery and is not reset by any subsequent warranty repairs.

Warranty does not cover any product or part of a product that has been subjected to accident, negligence, alteration, abuse or misuse and excludes any accessories or parts not supplied by Wildfire. Warranty does not cover expendable parts such as fuses, lamps, glass or any components warranted directly by the original manufacturer. This warranty does not extend to any products not manufactured by Wildfire.

Wildfire's responsibility under this warranty shall be to repair or replace at Wildfire's discretion such parts as determined to be defective upon Wildfire's inspection. Wildfire will warranty its repair or replacement (as applicable) only for the original warranty period. Wildfire will not assume any responsibility for any labor expended or materials used to repair any equipment without Wildfire's prior written authorization.

Wildfire shall not be responsible for any incidental, general or consequential damages to property, damage for loss of use, time profits or income, or any other charges.

The owner's obligation during the warranty period is to notify Wildfire of any suspected defect, to obtain a return authorization number, and to return the product freight and insurance prepaid to the following address:

**Wildfire Lighting 2908 Oregon Court Suite G1, Torrance, CA 90503
(800) 937-8065**

Collect shipments for freight allowances or shipments without return authorization numbers will not be accepted and returned to sender.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER OBLIGATIONS AND LIABILITIES ON WILDFIRE'S PART. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THE OWNER ACKNOWLEDGES THAT NO OTHER REPRESENTATIONS WERE MADE TO HIM WITH RESPECT TO THE QUALITY AND FUNCTION OF THE GOODS SOLD.

Wildfire's warranty is limited to the express terms thereof. Prior dealings or trade usage shall not modify this warranty in any way.

Wildfire's products are understood to be commercial in nature and are not covered under California's Song-Beverly Consumer Warranty Act or similar laws in other jurisdictions. This limited warranty gives you specific legal rights and you may also have other rights which vary from state to state.



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WILDFIRELIGHTING.COM