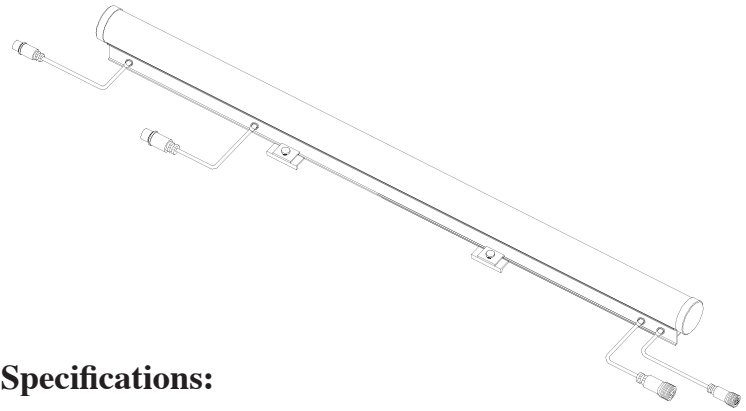
SUPER VISION
INTERNATIONAL

SVi
SaVi™ Tube
Fixture



Specifications:

Application:	Dry Locations
Listings:	UL Listed, CE Certified
IP rating :	IP64
Dimensions:	39.97”(W)X1.97”(D)X2.95”(H)
	1000mm(W)X50mm(D)X75mm(H)
Beam Angle:	122º
Lamps:	144 High Power LEDs - 48 Red, 48 Green,
	48 Blue
Operating Temperatures:	-4º F to 140º F (-20º C to 60º C)
Working Voltage:	120 or 240 VAC
Wattage / Current:	16.8 watt
Weight:	3.3lbs (1.5kg)
Warranty:	2 years

Installation Manual

tel 407.857.9900 fax 407.857.0050 www.svision.com

Table of Content

pg

01. General Information 2
02. Introduction to DMX 3
03. Cable Connections 3
04. Wiring Application 4
05. System Operating 5
06. Fixture Power / Normal Operation 5
07. DMX Addressing 5-7
08. Trouble Shooting 7
09. Photometrics 8
10. Terminal of DMX Control Run 9

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01. General Information

SaVi™ Tube - MULTICOLOR CHANGING TYPE
(with Built-in-Transformer)

SaVi™ Tube uses Red, Green and Blue LEDs to produce a vast array of colors integrated with micro-electronic technology and digital technology encased in a high quality component with great physical appeal and offers the most flexibility in function. Not limiting its ability to change color along each tube, some of the other lighting effects include: color chasing, color fading, gray scale change, flash with adjustable speed, not to mention DMX capabilities for even further flexibility. This latest version includes a built in transformer allowing easy installation without the need of an additional component to supply power to each tube which further expands its applications both indoors and outdoors.

PRINCIPLE

SaVi™ Tube tube uses LEDs as the light source configured in a linear array, each at a 100°„angle inside of the PC circular tubing. Light emitted reflect and refract to give off a color-mixed light which are diffused by the housing and presented as a uniform light. Connected to and controlled through an external pre-programmed controller, the **SaVi™ Tube** scrolls through different functions and able to perform many various lighting effects.

FUNCTIONS

Static colors: red, green, yellow, blue, purple, cyan, white.
Color change: scrolls through all the static colors
Slow flow 1 (single directional flow)
Slow flow 2 (bi-directional flow)
Roll chase 1 (rolling backward and forward)
Roll chase 2 (scan backward and forward)
Multi color
Fast flow 1
Fast flow 2
2 color chase
2 color flow
252 gray scale color change

PARAMETER

Luminance: 64LM
Operating temperature: -20C - +40C
Operating humidity: 0-95%
IP rating: IP 64

STRUCTURAL SPECIFICATION:

Tube: milky white polycarbonate
Channel: aluminum
Size: L1000*W50*H75mm
Weight: 1.5kg

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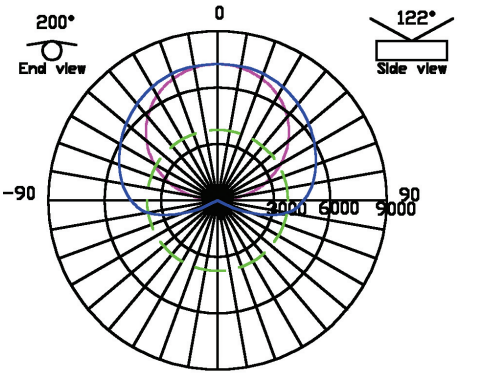
SOURCE SPECIFICATIONS

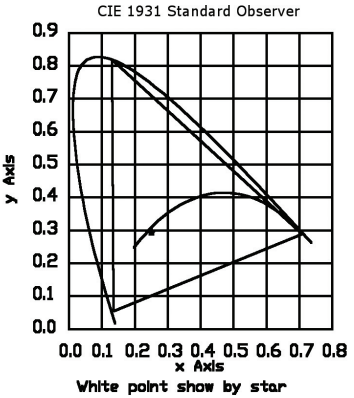
Source: 144LEDs
(48Red,48Green,48Blue)
Beam Angle: 122¡ã
(at 50 % of peak illuminance)
Distribution: Asymmetric direct illumination
CCT(white): Adjustable 5,500-14,000K
CRI: Not measurable(CIE 13.3-1995)

CANDLE POWER DISTRIBUTION



End view(solid line) and Side view (dashed line) (Candelas)
Measured on: White
Beam center: 7400mcd
Thin dashed lined: indicates 50% of peak
Multipliers: 0.07Red,0.57Green,0.36Blue

GAMUT



LIGHT OUTPUT

COLOR	TOTAL OUTPUT (LUMENS)	POWER (WATTS)	EFFICACY (lm/W)
WHITE	63.9	16.8	3.8
RED	16.1	11.6	1.4
GREEN	42.3	11.5	3.7
BLUE	14.6	11.6	1.3

LIGHT SOURCE SPECIFICATION:

LED VF(V)	VF(V)	Wave length (nm)	View angle (°„)	Brightness (MCD)
Red	1.9-2.3	620-629	100	80-150
Green	3.0-3.8	515-525	100	350-700
Blue	3.0-3.8	465-475	100	100-200

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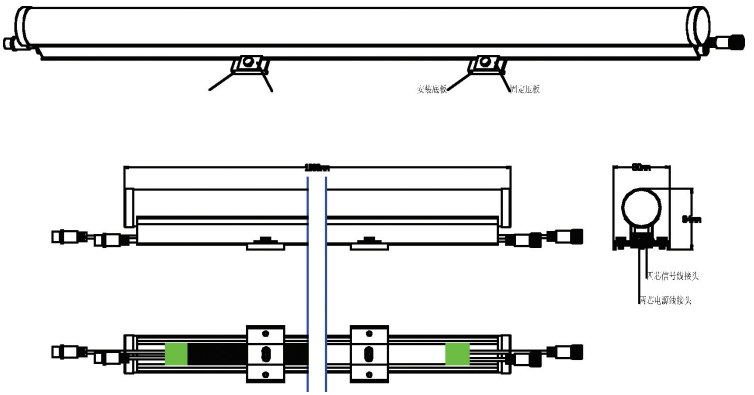
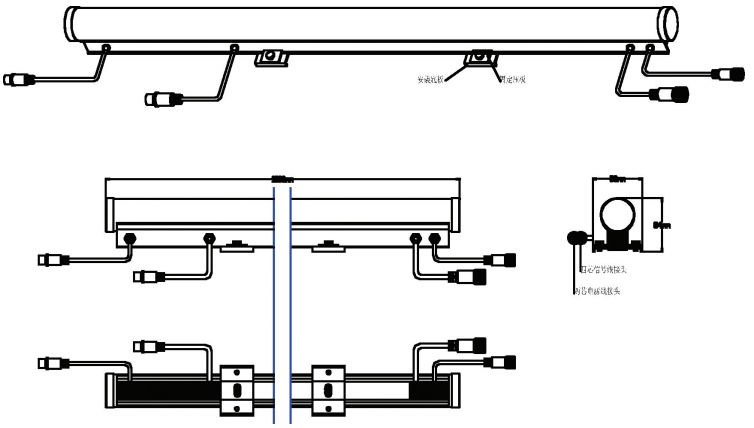
02. Installations

The upper housing of the LEDNEON Tube is a polycarbonate tubular structure held by an aluminum channel with seams on the bottom of the channel to be clamped into place with aluminum brackets. Input and output connectors are divided into two segments, one for power shown with a 2-pin connector and one for signal shown by a 4-pin connector.

There are two different types of methods for connection.
1. Lead wires are made on the button of the channel



2. Lead wires are on one side of the channel tube.



Please refer to the diagram to install the LEDNEON Tube

1. Secure two aluminum mounting brackets on the installing surface and tighten with screws.
2. Place the led neon tube onto the groove of the mounting base.
3. Clamp the tube on the mounting brackets with a fastening plate and fasten them tightly with a bolt.
4. Adjustments can be made along the direction of the tube if necessary, tighten all sides of the bolt when desired position is determined.

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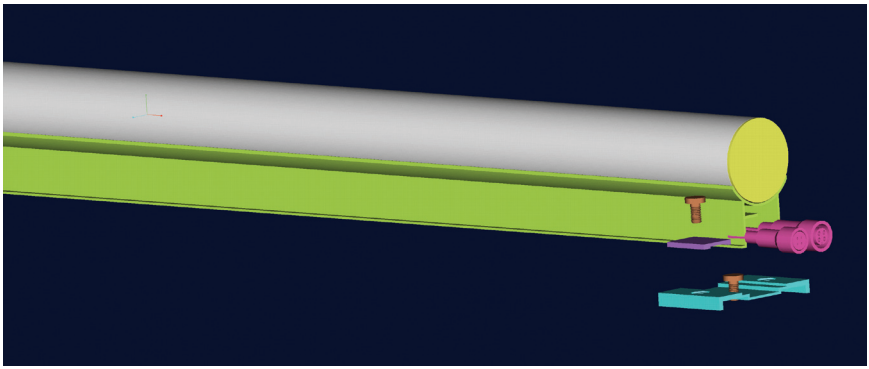

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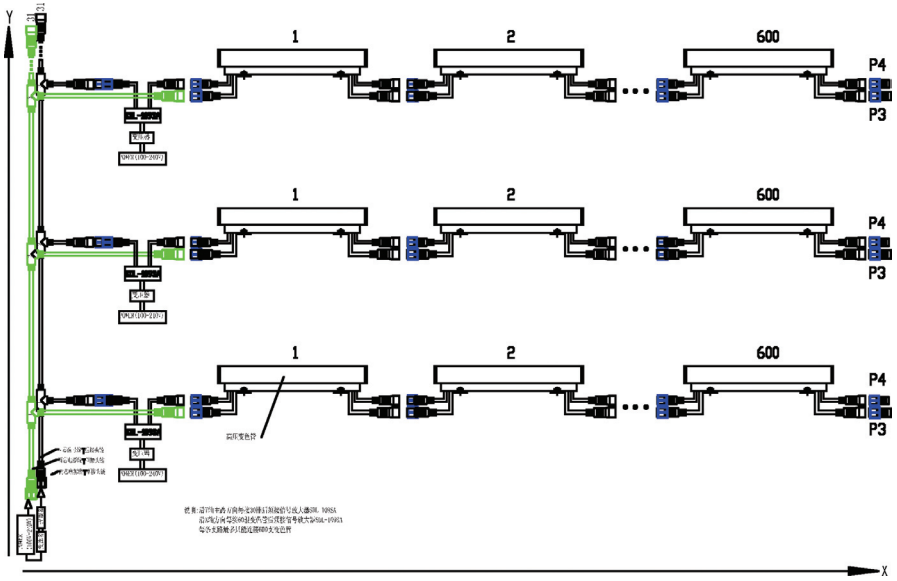
MULTIPLE TUBES CONNECTION METHOD -ONE

This diagram shows a single circuit, the Y axis as the main circuit with additional segments and the X axis as the branch circuits. On the Y axis, there is a 4-pin signal cable with T type connectors (signal output) and a 2-pin power cable with T type connector (power output). The spacing of the connectors is 0.2m. Signals from the SDL-109C1 controller are transmitted to a LED tube and passed onto the next. Connect the power input connector of the tube directly to the output connector of the main cable. Add a signal amplifier after every 60 tubes on the X axis, be sure to connect a power supply to the signal amplifier to supply power. The maximum number of tubes that ca be connected to each single circuit is 600 tubes. Add a signal amplifier after every 31 T type connectors on the axis Y main signal cable.
(All the free connector must be screw tightly and sealed with a waterproof end cap, and all the connecting point must be sealed with glue to ensure waterproofing.



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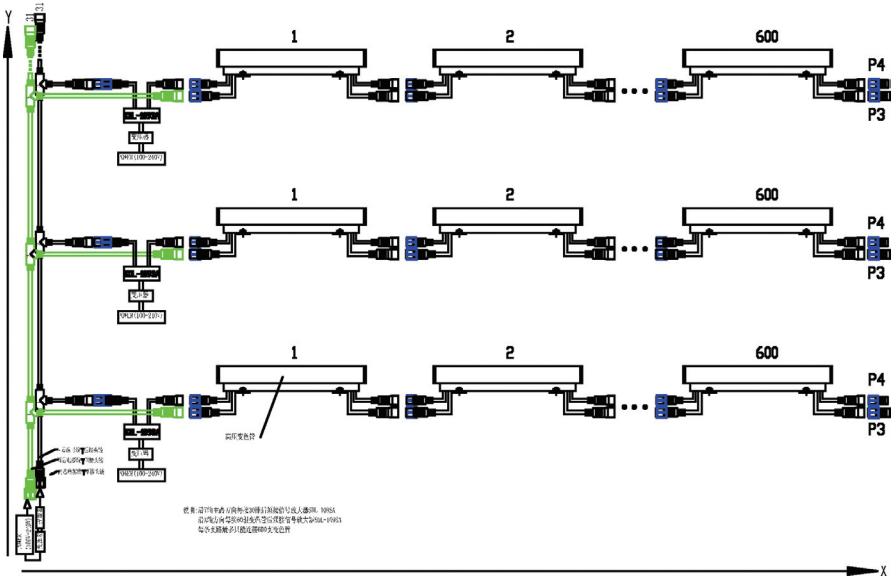
MULTIPLE CONNECTION METHOD - TWO

Connect the signal connector (identified by the 4-pin connector) of the first tube in a series with that of the SDL-109C1, and connect the power connector (identified as the 2-pin connector) of it with a power cable with a plug. Connect the other tubes one by one, female to male, male to female and add a signal amplifier after every 60 tubes. Each segment of 90 tubes should have a separate power supply. Be sure to connect the first tube of each segment to the power supply directly and plug the last tube with an end cap provided along with the tubes for waterproofing. The maximum quantity of tubes in a series is 600.
(All the free connector must be plugged with waterproof end cap, and all the connecting points must be sealed with glue to ensure waterproofing.)



p3: 2-pin power connector end cap
P4: 4-pin signal connector end cap (with two resistors inside)

CONTROLLER: SDL-109C1 controller / SDL-109C1 controller together with DMX512
Signal input connector: 4-pin male connector
Signal output connector: 4-pin female connector
Electrical specification:
Input: AC100-240v
Operating voltage: DC12V
Current: 1.4A
Power consumption: Max. 16.8

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03. Controller Operation Instruction

The controller that controls the led tube system has four functional buttons, namely, MODE, SET UP, UP, and DOWN.

Press the mode button in turn:
Black;
Static green;
Static yellow;
Static blue;
Static purple;
Static cyan;
Static white;
Color change
Slow flow1
Slow flow2
Roll chase1
Roll chase2
Multi color
Fast flow1
Fast flow2
2-color chase
2-color flow
Color fade
Auto run
System mode

Press the SET UP button:

Run speed (1-100)

Flash freq: (1-100)

Color sort: (range: 0-20) (for 2-color flow, and 2-color chase)

Unit times: the operating times of each function under auto run mode

Set address: [yes]: set address for all the tube (if you operate the system for the first time, or if there are any changes in terms of the order or the quantity of the tubes, set address for the system. Once the addresses are set, they are stored in the memory of the tube.
[No]: do not set address

Tube amount: set the number of the tubes that are interconnected to the SRC-109C1 controller.

DMX channel:

[0]: disable the DMX function, the system is controlled by the controller alone.

[1-508]: enable the DMX function, the number shown is the first functioning channel on the DMX controller.

For example: if you use one DMX controller to control two SDL-109C1 controllers, and the DMX channel of the first controller is set to be 1, then the number of the second controller should be 5, because the first controller will occupy channel 1 to 4, and the second controller has to occupy channel 5 to 8.

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UP: increase the parameter
DOWN: decrease the parameter

When the system is under DMX mode, it receives four channel signals. The initial number can be adjusted by UP or DOWN button ranging from 1 to 508.

Channel 1: DMX data range from 0 to 255, a span of value represents a specific function. 20 functions are available.

0-12: BLACK
13—25: RED
26—38: GREEN
39—51: YELLOW
52—64: BLUE
65—77: PURPLE
78—90: CYAN
91—103: WHITE
104—116: COLOR CHANGE
117—129: SLOW FLOW 1
130—142: SLOW FLOW 2
143—155: ROLL CHASE 1
156—168: ROLL CHASE 2
169—181: MULTI COLOR
182—194: FAST FLOW 1
195—207: FAST FLOW 2
208—220: 2COLOR CHASE
221—233: 2 COLOR FLOW
234—246: COLOR FADE
247—255: AUTO RUN

Channel 2: adjusting the speed of dynamic functions
(0-255) '0' indicate that the speed is one step per minute, and '255' indicate that it is 100 steps per second.

Channel 3: adjusting the frequency of flash.
0: 1Hz
255: 20Hz

Channel 4:
Select the group of two colors for 2 color chase and 2 color flow functions

0-11	R + G	120-131	G + W
12-23	R + Y	132-143	Y + B
24-35	R + B	144-155	Y + P
36-47	R + P	156-167	Y + C
48-59	R + C	168-179	Y + W
60-71	R + W	180-191	B + P
72-83	G + Y	192-203	B + C
84-95	G + B	204-215	B + W
96-107	G + P	216-227	P + C
108-119	G + C	228-239	P + W
		240-255	C + W

Caution:
1. Please read through the installation instructions carefully prior to installation and abide by the directions when ready to install.
2. Do not apply it in places adjacent to flammable or corrosive substance.
3. For safety purposes, please do not look directly at the light tube too close when lit.
4. Ensure that all the connectors are correctly connected and do not force any connectors that do not fit.
5. Do not disassemble unit without written consent from manufacture, unauthorized modification will void an expressed or written warranty.
6. Turn off the power supply before installation, connection or maintenance.
7. If there is any question, please call in a specialist.
8. This system is installed by specialist only. Non-specialist does not disassemble or install it.
9. Contact you supplier and support@svision.com for more information.

Please note: specifications and improvements in the design of this product and this manual are subject to change without any prior written notice.

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Note:

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