

# USER MANUAL

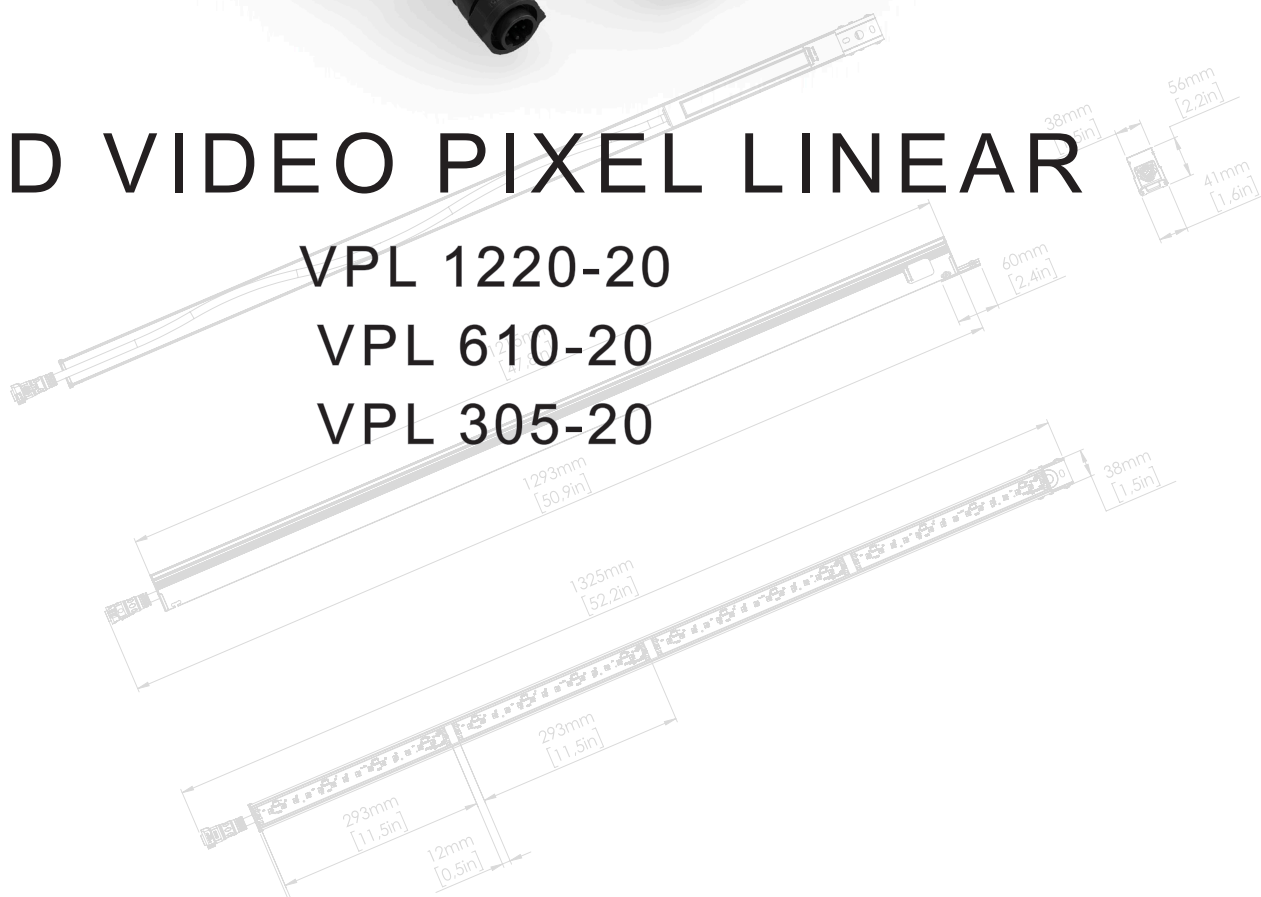


## LED VIDEO PIXEL LINEAR

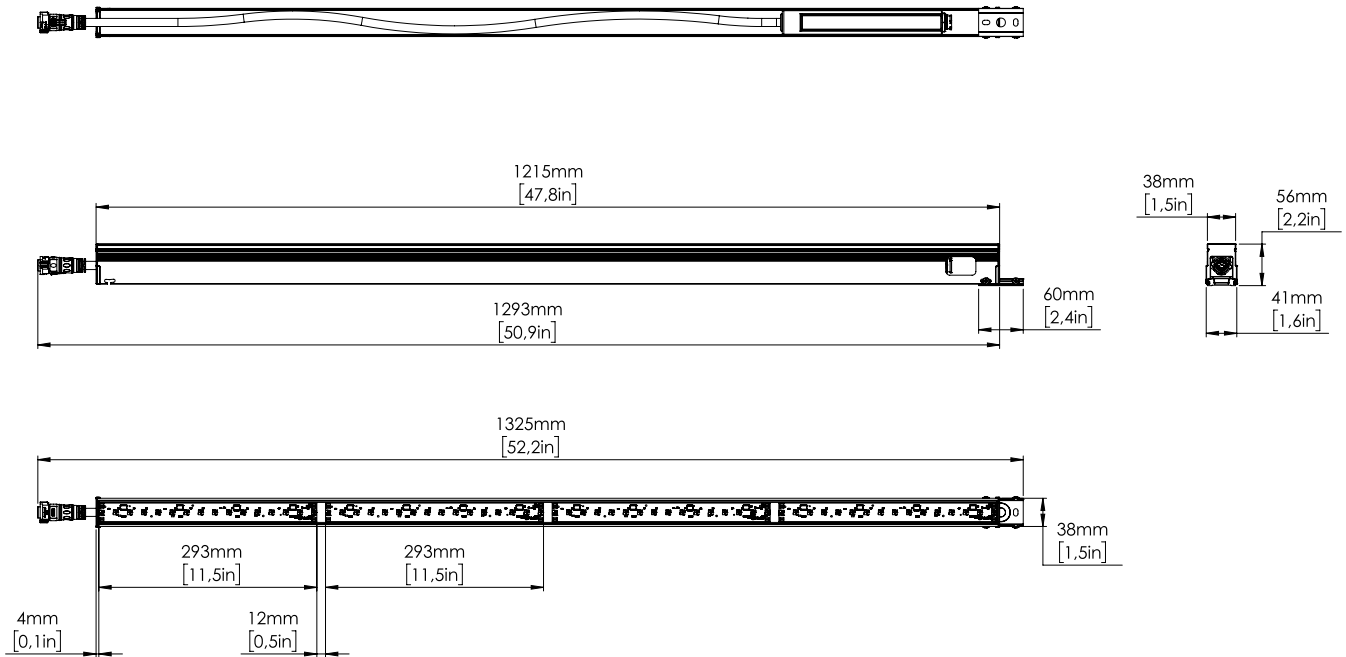
VPL 1220-20

VPL 610-20

VPL 305-20



## VPL dimensions



All dimensions are in millimeters and inches. Drawing not to scale. Cable length might vary +/- 20mm

This manual covers installation, use, and maintenance of the VPL.  
A digital version is available on [www.sgmlight.com](http://www.sgmlight.com), or upon request via [support@sgmlight.com](mailto:support@sgmlight.com).

## VPL USER MANUAL REV. C

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English edition

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## Safety information



### **WARNING!**

*Read the safety precautions in this section before installing, powering, or operating this product.*



*SGM luminaires are intended for professional use only. They are not suitable for household use.*

**Les luminaires SGM sont impropres à l'usage domestique. Uniquement à usage professionnel.**

*Review the following safety precautions carefully before installing or operating the device.*



**DANGER!** *Risk of electric shock. Do not open the device.*

- Do not open the device; there are no user-serviceable parts inside.
- Ensure that power is cut off when wiring the device to the AC mains supply.
- Ensure that the device is electrically connected to earth (ground).
- Do not apply power if the device or mains cable is in any way damaged.
- Do not immerse the fixture in water or liquid.



**WARNING!** *Take measures to prevent burns and fire.*

- Install in a location that prevents accidental contact with the device.
- Install only in accordance with applicable building codes.
- Do not paint, cover, or modify the device, and do not filter or mask the light.
- Keep all flammable materials well away from the device.
- Allow the device to cool for 15 minutes after operation before touching it.



**WARNING!** *Take measures to prevent personal injury.*

- Do not look directly at the light source from close range.
- Take precautions when working at height to prevent injury due to falls. Secure the fixture with suitable safety cables, and always comply with relevant load dimensioning, safety standards, and requirements.
- For Permanent Outdoor Installations (POI), ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosion-resistant hardware.

## Before installing this product

Please visit the SGM official website at [www.sgmlight.com](http://www.sgmlight.com) for the latest version of this user manual / safety information leaflet. Due to continuous improvements, the instructions may change without notice. SGM always recommends the latest available firmware version from [www.sgmlight.com](http://www.sgmlight.com).



### *External cleaning and visual inspection of the fixture*

All users of SGM fixtures should regularly clean those parts of the fixture directly exposed to the elements, such as the external housing and front lenses. Additionally, all owners of SGM fixtures must periodically check the external housing of the fixture for structural breaks, components in bad shape, cracked lenses, or loose screws. To ensure proper operation, but also to prevent the risk of potential accidents, do not use the fixture if the lens, housing, or power cables are damaged. If parts of the fixture appear to be missing, cease use immediately and contact SGM support.



### *Wiring and conduit / containment*

SGM fixtures supplied with power and data cable leads are not intended for installation in permanently installed conduit or containment. When installing fixtures in a permanent installation, ensure cable leads are installed as a service loop to an appropriately rated junction box using suitable cable strain reliefs / glands. All installed fixtures must be securely mounted and service loop appropriately protected for installation location. All electrical wiring and connections should be completed by a qualified electrician.



### *Safety Precautions*

When using electrical equipment, basic safety precautions should always be followed including the following:

1. Do not mount near gas or electric heaters.
2. Permanently installed equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
3. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
4. Do not use this equipment for other than intended use.
5. Refer service to qualified personnel or authorized service centers.
6. Do not look directly into the beam for long periods of time, when the fixture is on.
7. The fixture shall, under no circumstance, be covered with insulating material of any kind.

**READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**

# Overview




The VPL Series is a group of "Video Pixel Linear" fixtures. It is a Each VPL is an array of LED Quad-Pixel clusters independently controlled, designed to create powerful pixel mapping and media effects for both indoor and outdoor installations. The fixture is a perfect lighting fixture for linear and radial installations where high-visibility and very flexible setup are essential.

## VPL Series:

- Is an all-weather IP-66-rated fixture.
- Has 16, 32 or 64 full-color LED Quad-Pixel clusters.
- Is IK09-rated, C-5M / CX (marine) protected, UV and corrosion resistant.
- Uses Power and Data in one cable with no need for external power supplies or drivers.
- Is Art-Net and sACN compatible.
- Has 16 bit control with real time remote monitoring and auto addressing.
- Is available in different lengths, with optional front lenses as and accessories.

## VPL variants:

There are three available lengths of the VPL; 1ft, 2ft, and 4ft long.

VPL	Size	LED Quad pixel
1220-20	1220mm. / 4 ft. 	64 Quad pixel clusters 256 full-color LED chips
610-20	610mm. / 2 ft. 	32 Quad pixel clusters 128 full-color LED chips
305-20	305mm. / 1 ft. 	16 Quad pixel clusters 64 full-color LED chips

## Identifying Power + Data

The VP cable with the male connector is the flexible cable which extends from the power supply, while the female VP data connector is mounted directly into the power supply (see figure 1).

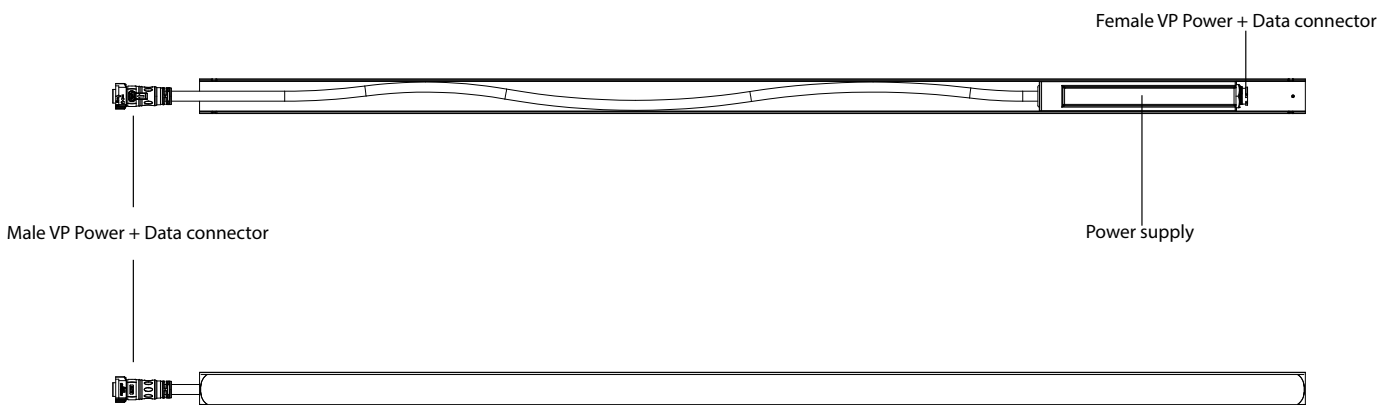


Figure 1: Identifying Power + Data

# Preparing for installation

## Unpacking

Unpack the device and inspect it to ensure that it has not been damaged during transportation.

## Location / application

The fixture is IP66-rated and designed for both indoor and outdoor events, which completely protects the fixture from:

- Dust: to the degree that dust cannot enter the device in sufficient quantities to interfere with its operation.
- High pressure jets of water from any direction.

When selecting a location for the device, ensure that:

- It is situated away from public thoroughfares and protected from contact with people.
- It is not immersed in water.
- It has adequate ventilation.

**VPL Connector End cap:**

- Ensure that the last fixture's has a waterproof VPL Connector End cap installed in the female chassis connector, to maintain the IP66 rating

## Transportation

- Always use the supplied packaging or suitable flight case for transportation and storage.
- Never carry the fixture by connected cables or wires!

# Installing / Rigging the VPL

SGM offers three brackets for installation of VPLs: The touring bracket for temporary setups and single or dual bracket for permanent installations.

The VPL Touring Bracket (P/N: 83060633) (see figure 2) is perfect for temporary installations. It has a snap-on sliding bracket for quick release and easy setup, designed as a versatile item to attach a generic third-party clamp for rigging the VPLs. When using touring brackets, always secure every VPL with a safety wire, attached to the fixture's highest point.

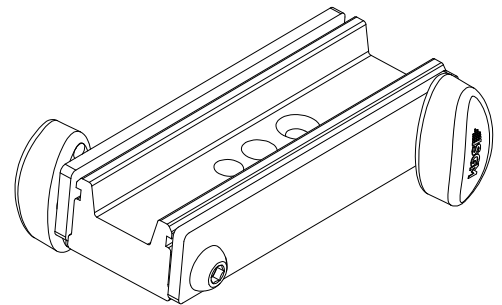
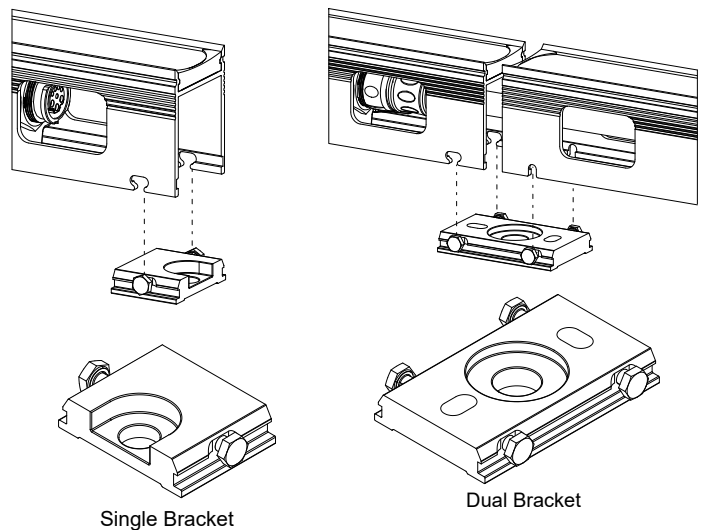


Figure 2: VPL Touring Bracket

The choice of permanent installation brackets depends on the VPL setup. The Single Installation Bracket (P/N: 86060634) is intended for single ends of VPLs, arranged in a parallel array, while the VPL Dual Installation Bracket (P/O: 83060635) is intended for installing the fixtures in a physical series connection (see figure 3). The VPL Dual Installation Bracket will maintain the pixel pitch of 20mm and can be used in combination with the touring bracket to ensure a consistent distance between pixels.



## PLEASE NOTE

Understanding and choosing the right bracket is crucial for safety.

For permanent installations, the VPLs should always be mounted with at least two brackets.

Always secure every VPL with a safety wire when using the VPL Touring Bracket.

Figure 3: VPL Single and Dual installation bracket and their installation. The dual bracket will maintain the pixel pitch of the VPLs.

## Temporary installations

The Touring Bracket is designed for temporary installations and rental applications. It is a versatile bracket, meant for attachment to truss or pipes. A VPL Single Touring bracket can carry a SGM VPL 1220-20 if it is placed no more than 300 mm away from either end of a VPL. (see figure 4).

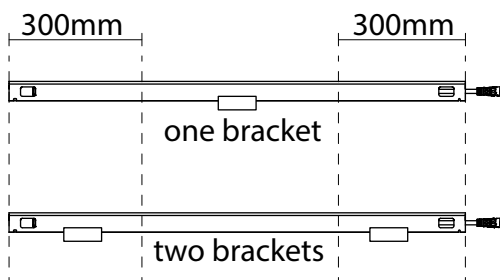


Figure 4: Bracket guide-line, if the bracket is closer to than 300mm to the edge, two brackets are advised.

## Safety wires

The safety wire should be installed at the highest point on the VPL to minimize the fall distance. When installing VPLs in ceilings or any horizontal plane with people below, make sure to install one safety wire in both ends of the VPL (see figure 6). If the fixtures are installed as an extension of each other, one safety wire can be attached to two adjacent fixtures (see figure 5).

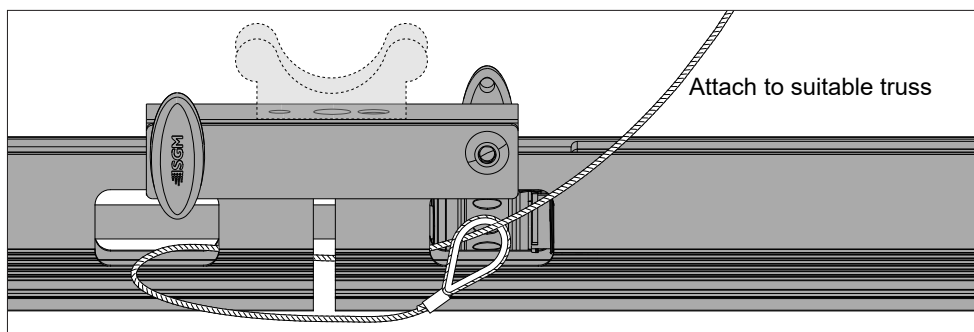


Figure 5: Attaching safety wire through the holes in the VPL profiles.

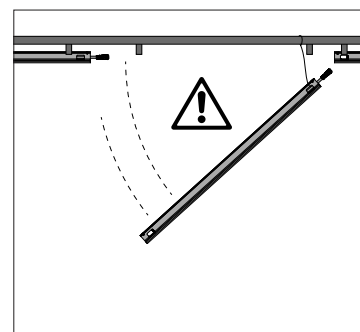


Figure 6: Attach the safety wire in both sides.

### NOTE!

The VPLs should always be properly fixed and not hung in the cables.

Always install a safety wire on both ends when using VPLs in a ceiling installation.



## Frames

To create frames and shapes with the VPLs, install the fixtures with enough space for the VP cable to attach to the next VPL. Figure 7 illustrates the two recommended orientations of the standard VPL 1220-20 and 610-20. Note that the VPL 305-20 cannot bend a full 90 degree due to the compactness of the fixture's cable. Make sure the installation is rigid so that the fixtures cannot move and cause extensive wear on the cables. For further information or suggestions about the VLP and their installation, please contact your local SGM distributor or SGM support at [support@sgmlight.com](mailto:support@sgmlight.com)

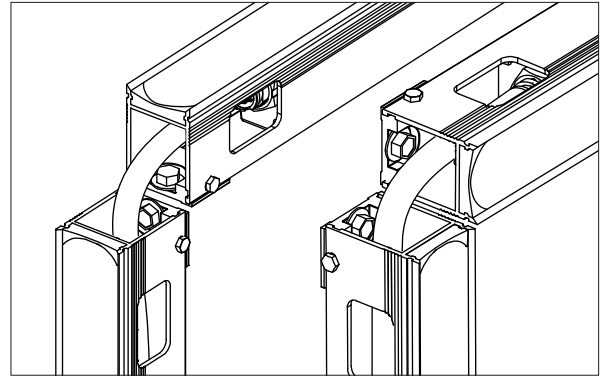


Figure 7: Orientations of a corner lying flat or sideways.

## Grounding of fixtures

When installing VPLs on the exterior of high buildings it is always recommended to ground the individual fixtures to the building to minimize the risk of failure due to lightning strikes. Make sure to check the local building code for possible directives or laws regarding lightning prevention.

### Installing ground wire

The GND/Earth Cable kit (P/N: 83062050) contains one ground wire (Green and yellow wire with a ring terminal, 1 meter) and one M3 nut with a star washer, which fits on the bolt near the female VP connector on the VPL. Remember to apply cavity wax after mounting the ground wire to prevent corrosion (see figure 9 and 10).

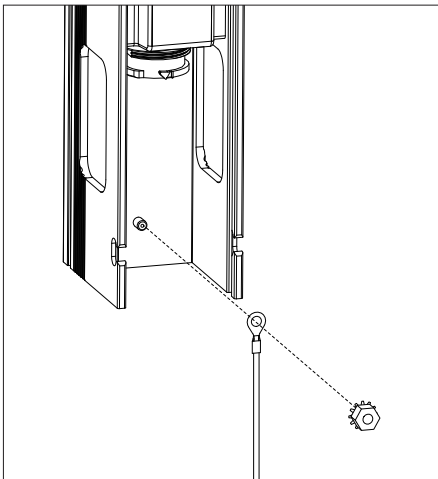


Figure 9: Attach cable and nut

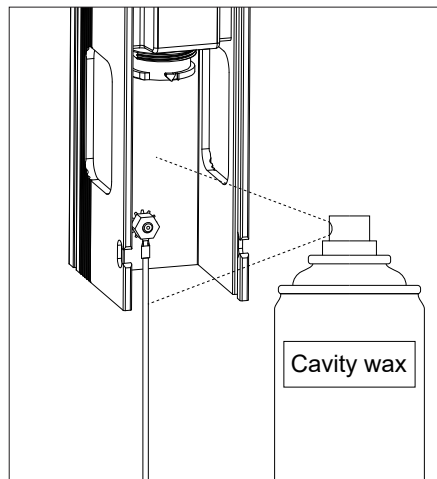


Figure 10: Apply Cavity wax

### CAUTION!!

Always wear appropriate personal protection according to the Cavity wax producers instructions.

## Connecting the VPL series

The VPL Series can operate on any 200–240 V, 50/60 Hz AC mains power supply. Power is connects to the fixture via a Power+Data joiner or inserter (not included) (see figure 11 for connection diagram).

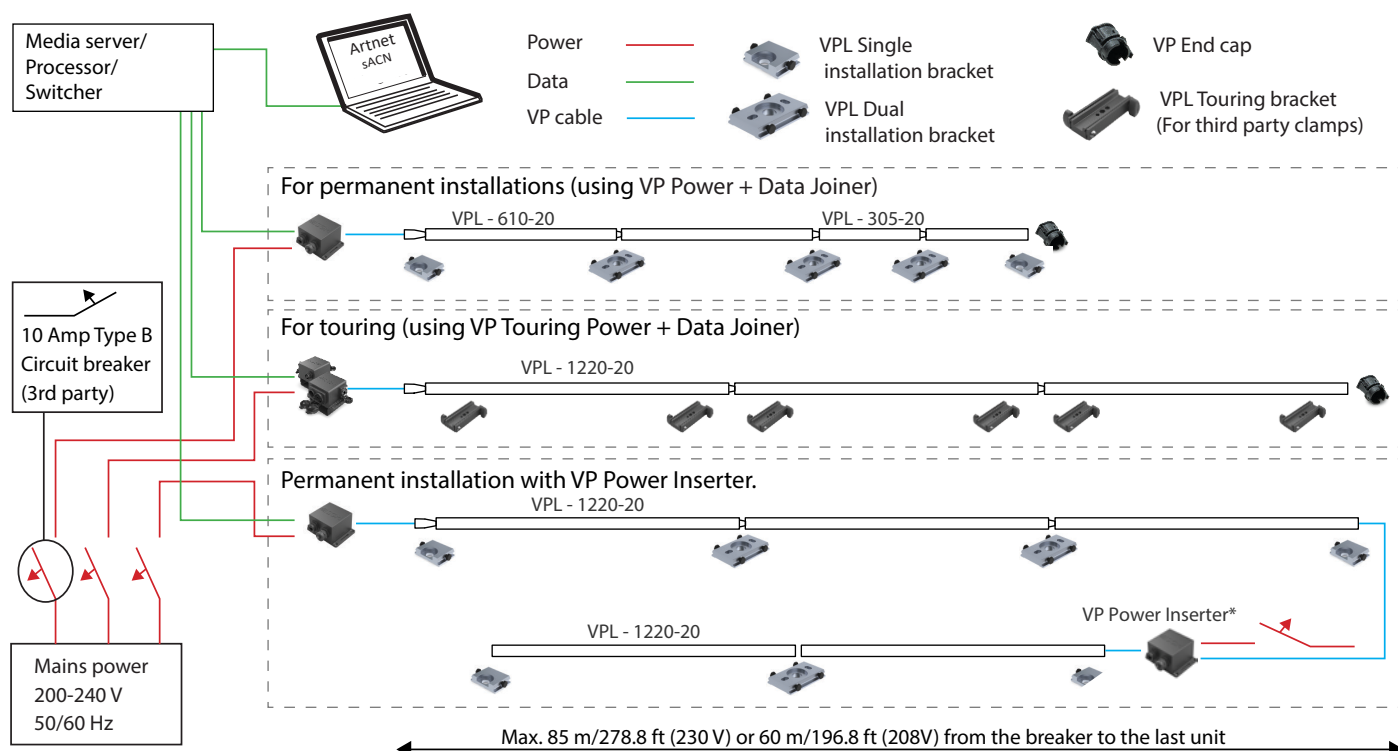


Figure 11: VPL Connection diagram

### VP Power + Data Joiner

The VP Power + Data Joiner (see figure 12) is designed to join power and data for a daisy chain of VP fixtures. One VP Power + Data Joiner can send power and data up to 65 VPL 1220-20 units at 240 volts and 45 units at 208 volts. It is recommended to install a 10amp type B circuit breaker for each string of cabled VPL fixtures.

### Connect to AC power

Connect the fixture to AC power using a SGM Power + Data joiner (not included) or similar. To ensure the correct ingress protection (IP-rating), always use the SGM VP cables, and waterproof RJ-45 kit (see figure 13) (Order number: 83062057).

**Always ensure that the installation doesn't exceed the maximum capacity in a daisy-chain.**

The power cable must be grounded/earthed, and the AC power supply must incorporate a 10 amps type B circuit breaker for fault protection.

For a temporary outdoor installation, the power cable must be fitted with a grounded connector intended for exterior use.

For permanent installations, have a qualified electrician to wire the power cable directly to a suitable branch circuit. All cabling and distribution ingress protection (IP) rating must be suitable for the location.

#### PLEASE NOTE!

The built-in protective caps must be securely mounted on any unused Power or Data connectors, and VP End Caps (see figure 14) installed in the unused fixture's VP Connectors the fixtures, in order to maintain the IP-rating.

#### CAUTION!!

Do not connect the fixture to an electrical dimmer system, as doing so may cause damage and void warranty.

\* Note  
For special installations with more VPL strings in combination with more cable lengths in between, please contact your distributor or SGM support.

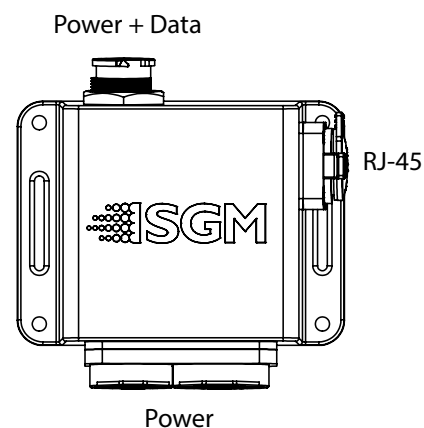


Figure 12: VPL Power + Data Connector

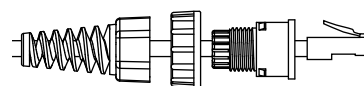


Figure 13: Waterproofing an RJ-45



Figure 14: VP End Cap

## Cable lengths

SGM offers 3 lengths of extension cable; 1m, 2.5m and 5m. However, it is possible to purchase a Custom Extension Cable Kit in either 1m or 10m (1m: P/N 83062054, 10m P/N 83062055), and the Crimping tool for VP connectors (P/N 83062301), to make cables of any length. The cables have one moulded connector while the other end is ready to be cut in the desired length. Note that only one cable can be made from each Custom Extension Cable Kit, and that the Crimping tool is necessary to install the adapters.

1. Cut the cable in the desired length
2. Disassemble the X-lok connector and lead the cable through the seal cap (see figure 15).
3. Strip the cable with suitable tools. The exposed copper wire should be 9-11mm (see figure 16).
4. Mount the crimping pins and use the VP Crimping tool (see figure 17) to securely fasten them. The power cables use AWG 16 pins while the data pins use AWG 26.
5. Insert the crimped pin in the clamp ring according to the illustration in figure 18.

**Note: The VP Crimping tool can only open after completely pressing the tool, or switching the release switch. Do not force it!**

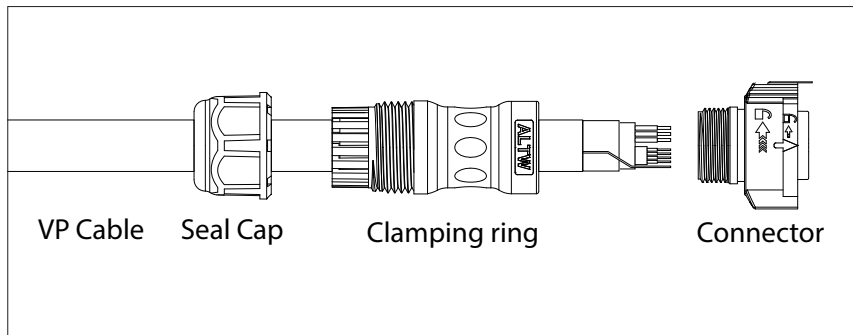


Figure 15: X-lok parts

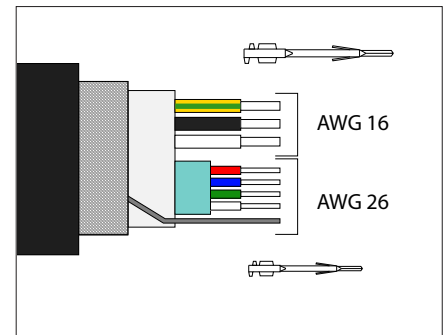


Figure 16: VP Cable

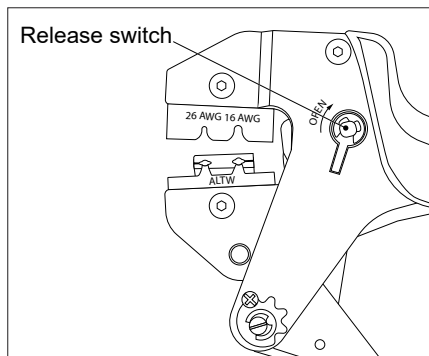


Figure 17: VP Crimping tool

## VP Connector

The VPL Series has a female multi-core 8 pin cable located in the first end of the VPL, and a male multicore 8 pin connector in the last end of the VPL. The 8 pins are divided by 1xShield, 3xPower, 4xSignal (see figure 18).

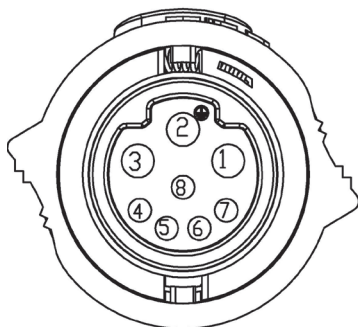


Figure 18: VPL female connector

- 1 — Power - White
- 2 — Power - Yellow/Green
- 3 — Power - Black
- 4 — Data - White
- 5 — Data - Green
- 6 — Data - Red
- 7 — Data - Blue
- 8 — Power - Shield

### The power cable color coding

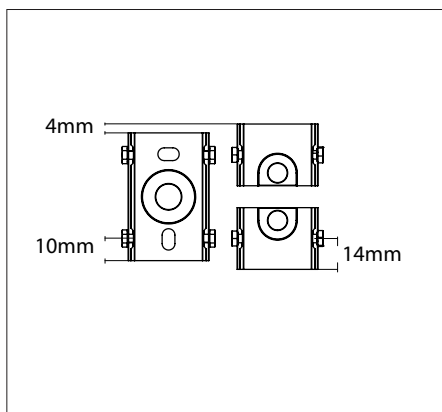
- Connect the black wire to live
- Connect the white wire to neutral
- Connect the green/yellow wire to ground (earth)

Wire	Color	Symbol	Conductor
	Black	L	live
	White	N	neutral
	green/yellow	$\perp$ or $\oplus$	ground (earth)

Figure 19: Power cable color code

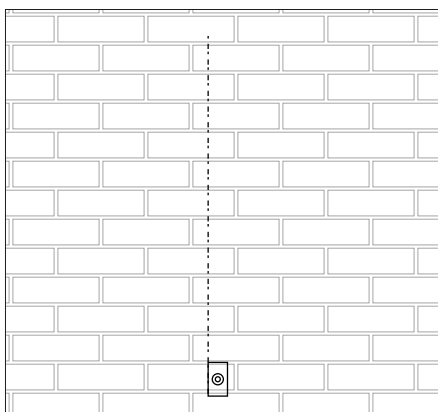
## Installing the fixtures

The recommended way to install VPLs and brackets is to install one at the time. Although it is possible to mount the brackets first, the inherent expansion and contraction of the aluminium profiles, from which the VPLs are made, can cause complications where temperatures may vary.



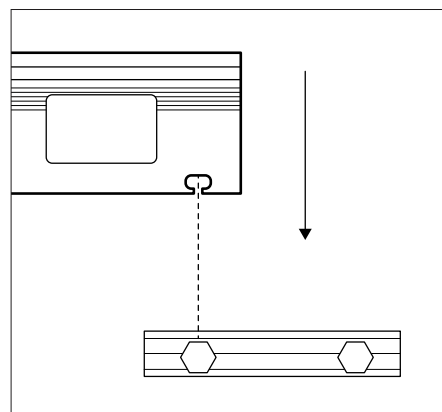
### Note

Whenever single and dual brackets are used at the same time remember to take the size difference into consideration



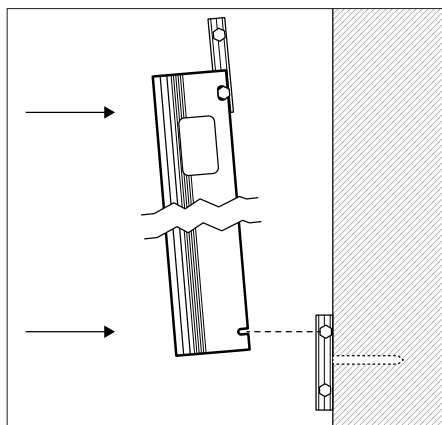
### Step 1

Draw the linear path guide-lines for the VPLs and install the first bracket



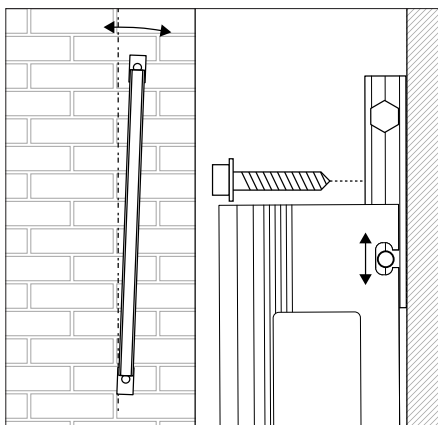
### Step 2

Attach a second bracket to the VPL at the end with the oblong hole, by clicking it into place.



### Step 3

Click the VPL into the installed bracket. Remember to tighten the bolts.

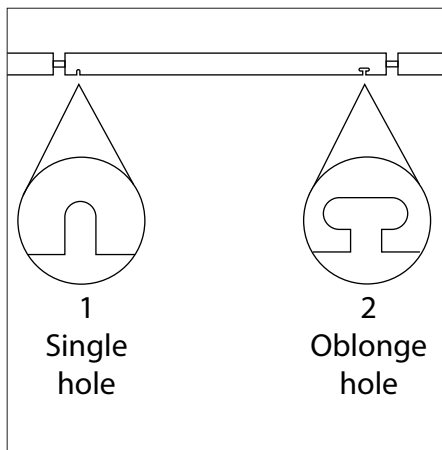


### Step 4

Align the VPL to the guides and adjust the bracket so the bolts are centered in the oblong hole. This will prevent thermal expansion difficulties.

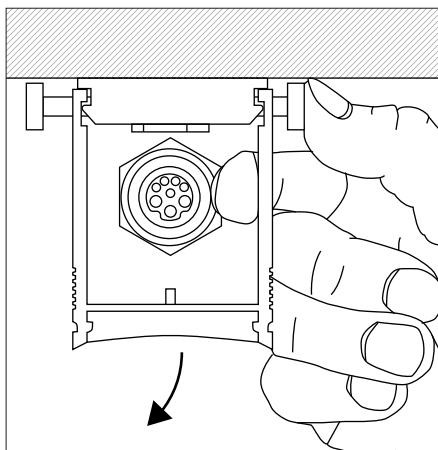
## Replacing a fixture

### De-mounting



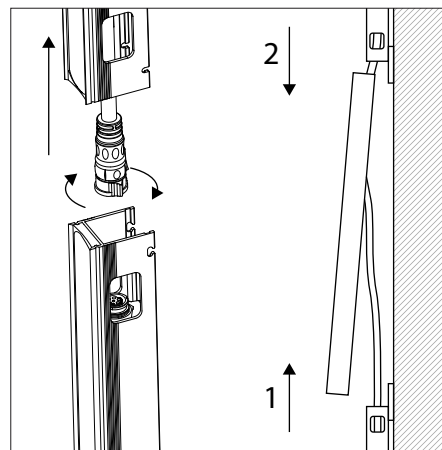
### Step 1

Loosen the bolts while holding the profile and begin to loosen the single hole side bracket.



### Step 2

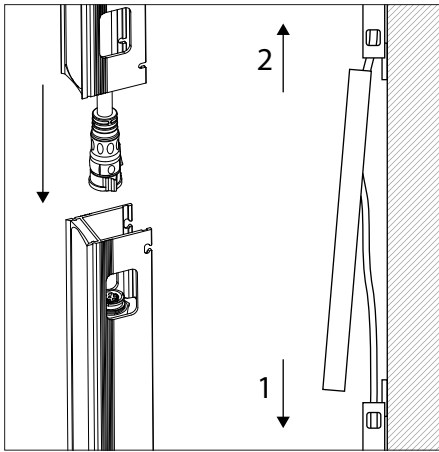
Remove the VPL by carefully twisting the profile off the bracket. You can get a grip through the hole near the connector.



### Step 3

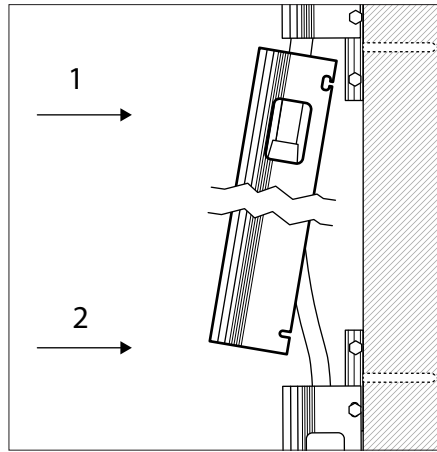
When the profile is free, remove the VP cable starting with the lower cable, and remove the fixture.

## Replacing



Step 1

Insert the power/data cable and ensure that it is connected properly with a click sound on insertion. Confirm the alignment of the arrows .



Step 2

Click the VPL into the brackets with the oblong hole first and the single one after. Tighten the bolts after installation.

## VPL networking guide

The VPL is intended to be set up for use prior to programming using the **SGM Network Admin** software available for PC. The software and manual for the SGM Network Admin is available at [www.sgmlight.com](http://www.sgmlight.com). Using the Admin software, the VPL system is designed for easy installation and patching, with IP addresses automatically assigned in the 2.x.x.x /8 range. The user only needs to specify the DMX Universe and DMX starting address for each VPL, via the software.

It is recommended that any network design and installation be facilitated by personnel trained and experienced with the programming and use of pixel control products. SGM recommends to always use dedicated professional networks, instead of standard corporate networks.

### Getting Connected

1. Once your VPLs are connected to the power and data joiner and have booted, Connect a Cat5e or higher category cable from your controller or switch to the VPL Power & Data joiner.
2. Navigate to the ethernet connection to your VPLs. In Windows 10 navigate to Control Panel \ Network and Internet \ Network and Sharing Center, then click on "Change adapter settings" on the left of the window. All your network connections should now be visible. If connected, your VPL network connection should be identifiable as "Realtek Controller".
3. Click the connection to access Ethernet Properties and scroll through the list of protocols to ensure that "Internet Version Protocol Version 4 (TCP/IPv4)" is enabled.
4. Click on that protocol to open properties. Select "Use the following IP address" to set your preferred IP 2.x.x.x address manually. For example, 2.0.0.2.
5. Set Subnet mask to 255.X.X.X range and leave gateway settings blank unless needed.
6. Click OK, click Close on "Ethernet Properties" and also on "Ethernet Status".
7. On your controlling device, configure your ethernet port settings for set IP addressing.

Launch the SGM Network Admin program. You should now have control of all connected VPLs through SGM Network Admin software.

### Network Setup

The VPL fixtures can work properly in a wide array of network setups. Depending on the size of your network and installation, there may be further considerations to effectively manage the data traffic of large scale RGB pixel style control.

If possible, SGM advises keeping VPL networks separated from general building networks or using VLAN's to avoid excess network traffic. Networked data traffic for pixel control is not suitable for typical TCP/IP network settings and often is not able to be managed effectively with general IT personnel.

There are two fundamental aspects to understand about VPL network communications:

- VPLs address themselves automatically in the 2.x.x.x /8 range on start-up. This method has been designed to make setup easier and to optimize the reliability of the system.
- The VPL product line receives and transmits information via sACN or Art-Net ethernet protocols. Both are Universal Datagram Packet (UDP) type protocols. UDP protocol can be networked in the same topology as TCP, but there are some important considerations for effectively routing and managing UDP in a large full-duplex network.

## **Art-Net, sACN, and Casting Considerations**

sACN and Art-Net are communication protocols developed to transport DMX512 data over an Ethernet network. Both sACN and Art-Net can utilize Broadcast, Unicast, or Multicast, but there are some important differences in how they can use these casting types.

### **Art-Net**

Art-Net primarily uses unicast but will broadcast when it detects many consumers on a particular universe. Usually, in applications like the RGB pixel style control of the VPL, there are a small amount of pixel controllers driving large amounts of pixels. This means that the broadcast fallback mode does not happen often. Art-Net can be multicast but there is no standardized address scheme.

The SGM Network Admin program utilizes Art-Net4 for discovery and device management via the Remote Device Management (RDM) protocol. Therefore, if sACN is chosen as the preferred pixel/lighting data protocol, keep in mind that Art-Net will also be needed, on the same network, to monitor and configure the VPLs.

By default an Art-Net product will factory start using a Class A IP address scheme in the 2.x.x.x range, since this allows Art-Net products to communicate directly and without the need for a DHCP server to be connected to the network. This is also the case of VPLs.

In large installations, especially ones utilizing ACN (Architecture for Control Networks), it is important to note that Art-Net cannot offset DMX512 universes and cannot be put into different ACN ranges.

### **sACN**

sACN (or ANSI E1.31 – 2016) is primarily intended to use multicast. Network switches have differing levels of support for multicasting. To handle multicast data correctly, a switch needs to know which multicast subscribers are attached to which of its physical ports. It obtains this information by monitoring IGMP packets. If the switch does not see these packets, it will either treat the packets as unwanted and block them, or convert the packets to broadcast.

This is important because the maximum number of sACN DMX512 universes is 63,999. An unintended broadcast of that much data can take down everything connected to the network, large or small.

It is important to note that VPLs must be in the 2.x.x.x range, therefore some network configuration will be needed if sACN is used within any other IP range.

### **IGMP**

Multicast requires some additional network management on the part of the controller and receiver. VPL uses Internet Group Management Protocol (IGMP) version 3 for this management. In a VPL network, controllers and connected equipment must support IGMP v3 to manage the subscription of multicast addresses in network routers.

For more information on:

Art-Net, please see <https://art-net.org.uk/>

sACN (ANSI E1.31 – 2016) or,

RDM (ANSI E1.20 – 2010) or,

DMX512 (ANSI E1.11 - 2008 (R2018)) please see TSP ([esta.org](http://esta.org))

## **Universal Datagram Packet (UDP)**

UDP is used for entertainment lighting data because it is fast. Speed and timing are critical in creating coordinated, instant changes in a pixel array. Network infrastructure products such as switches are typically designed for TCP/IP packet traffic with occasional UDP data. They also expect to see the majority of data as unicast. Lighting control networks often contain mainly UDP and can contain a significant percentage of broadcast data.

In Full-Duplex networks, The TCP and UDP protocols are part of the IP layer. Both TCP and IP have their own flow control techniques. However, the TCP and IP methods of flow control are oblivious of each other and having both enabled on a network can lead to problems. For this reason, many ethernet switch manufacturers ship their products with IP flow control disabled, assuming that TCP will handle its own flow control. That assumption is fair in an office environment. However, entertainment networks tend to be primarily UDP which does not have any flow control. SGM recommends to enable IP based flow control if possible.

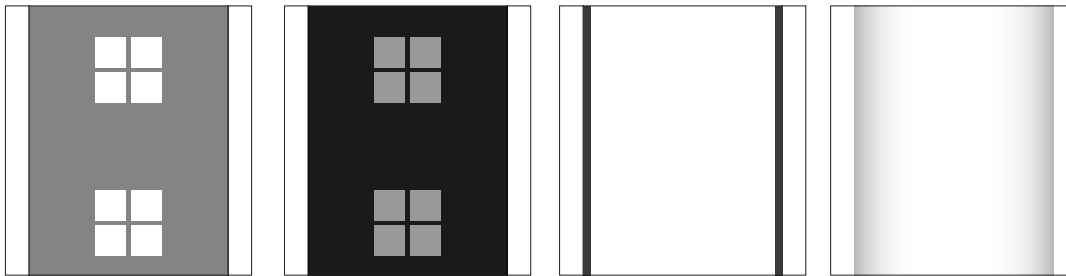
## **Network Size**

SGM does not specify a preferred topology for a network. However, in large networks, the introduction of routers and extra switches can introduce data delays on the signal path. It is recommended to incorporate a minimum of devices between the lighting data controller and the VPL installation. This is especially noticeable when using VPLs to create videos or fast-moving images.

VPLs can make use of Rapid Spanning Tree if desired. However, the above applies if the signal path is lengthened or routed in a significantly different way in the event of a path change. See later in this manual for details on how Rapid Spanning Tree is handled.

## Lenses

The direct view of the VPLs can be modified with snap-on lenses.



### Clear (No Lens)

With no lens attached, the VPL shows well defined pixels.

### Smoked

Smoked lenses will appear all black when the VPL is turned off.

### Opal Black

The opal black lens the diffuses light, while the black frames remove undesired light spill.

### Opal

Diffuse lens with an increased viewing angle

## Removing a lens

The best way to remove a VPL lens is to open the hooks at the profile and lift the lens up. We strongly recommend not to use any metal tools in the process as these can damage both the VPL lens, the VPL aluminium profile, the optical silicone and, in worst case, the LEDs, which will result in a reduced Ingress Protection.

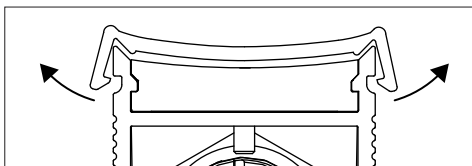


Figure 20: Open lens-hooks

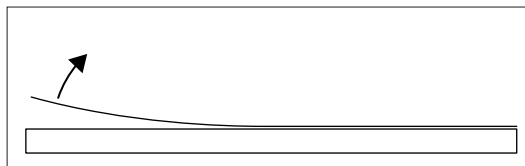


Figure 21: Lift up the VPL lens

## Cutting a VPL lens

When adjusting the length of a VPL it is recommend to use a fine-toothed saw (a blade with 24 or more teeth per inch) like a hacksaw. Keep in mind that when sawing by hand it is recommend to use a mitre box and driving the saw as horizontal as possible (see figure 22). When the lens has been cut, some plastic shavings might remain on the lens, which can be removed with a sharp edge or knife (see figure 23).

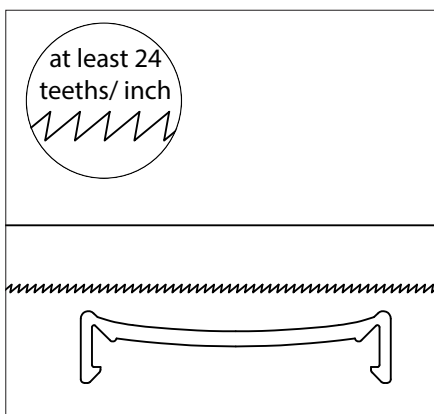


Figure 22: Cutting the lens horizontally

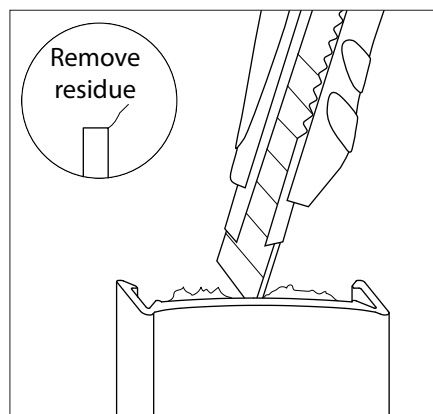


Figure 23: removing left-over shavings



## Troubleshooting

To test the functionality of a VPL, touch the VPL at the soldered power and data terminal connections with a powerful magnet or the SGM Spanner key/magnet (see figure 24). If power is connected, the red LEDs will light. Touch the VPL with the magnet again and it will show blue LED's only. Then it will be green LEDs only, then white, and finally, individual LEDs going back and forth. This can be used to troubleshoot the fixture and check it is receiving power.

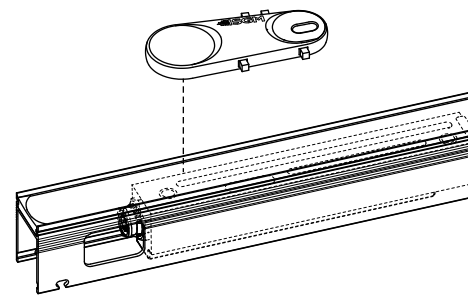


Figure 24: Functionality test of VPL

Problem	Potential cause(s)	Remedies
Fixture does not respond or appears to be off.	No power to the fixture. (The fixture does not react when touching the soldered terminals with a magnet)	Confirm that the power is switched on, that the cables are plugged in, and the power connector is inserted and turned to its locked position.
	No data to the fixture (The fixture reacts to touching the soldered terminals with a magnet)	Confirm that the cables are plugged in and the power connector is inserted and turned to its locked position.
Fixture suddenly turned off.	Power was turned off.	Check the switches and breakers.
	Data connection was disconnected.	Inspect data cables.
If the problem is not solved, please contact SGM support via: support@sgmlight.com or through your local SGM distributor.		

## Maintenance

The only maintenance related to the VPLs is periodical exterior cleaning and occasional update of the firmware.

### Upgrading the firmware

The installation of the upgrade is done through the SGM Network Admin tool. To execute the installation please see the SGM Network Admin manual.

The latest firmware, manuals and the SGM Network Admin tools are all available for free download on SGM's webpage: [www.sgmlight.com](http://www.sgmlight.com), if in any doubt, please contact SGM support at: support@sgmlight.com.

### Cleaning

SGM fixtures with an IP66-rating do not require cleaning procedures inside the fixture. However, cleaning the optical silicone may be needed to achieve the maximum light output after exposure to dust, sand, or dirt.

Whenever necessary, clean the VPL using a soft cloth dampened with water. For a thorough cleaning of the exterior, the use of a plastic cleaner such as SONAX PROFILINE Interior Plastic Cleaner is recommended. Do not use products that contain solvents, abrasives, or caustic agents for cleaning, as they can cause damage to hardware, cables, and connectors. Consult [www.sgmlight.com](http://www.sgmlight.com) or contact SGM Light support if you have any questions regarding cleaning and maintenance.

Cleaning will vary greatly depending on the operating environment and installation. It should therefore be checked at frequent intervals within the first few weeks of operation to see how often cleaning is necessary.



## Fixtures and accessories

The VPL Series can be used with a variety of accessories.

Contact your local SGM dealer to get the latest pricing and news about available accessories.

Please note: the products listed below are subject to change without notice.

### Ordering information

VPL305-20.....	P/N: 80080052
VPL610-20.....	P/N: 80080055
VPL1220-20.....	P/N: 80080053

### VPL Accessories

VP cable 1m.....	P/N: 07860249
VP cable 2,5m.....	P/N: 07860250
VP cable 5m.....	P/N: 07860251
VP cable kit 1m.....	P/N: 83062054
VP cable kit 10m.....	P/N: 83062055
Crimping tool for VP connector.....	P/N: 83062301
VP Power + Data Joiner.....	P/N: 83062046
VP Touring Power + Data joiner.....	P/N: 83062049
VPL Dual installation bracket.....	P/N: 83060635
VPL Single installation bracket.....	P/N: 83060634
VPL Touring bracket.....	P/N: 83060633
VP Power inserter.....	P/N: 83062047
VP Connector End cap .....	P/N: 83062056
VPL GND/Earth wire kit.....	P/N: 83062050
Waterproof RJ-45 Kit.....	P/N: 83062057

### VPL Lenses

VPL Lens Opal 305.....	P/N: 83061070
VPL Lens Opal 610.....	P/N: 83061072
VPL Lens Opal 1220.....	P/N: 83061074
VPL Lens Opal 1330.....	P/N: 83061076
VPL Smoked clear 305.....	P/N: 83061077
VPL Smoked clear 610.....	P/N: 83061078
VPL Smoked clear 1220.....	P/N: 83061079
VPL Smoked clear 1330.....	P/N: 83061080
VPL Opal/Black 305.....	P/N: 83061081
VPL Opal/Black 610.....	P/N: 83061082
VPL Opal/Black 1220.....	P/N: 83061083
VPL Opal/Black 1330.....	P/N: 83061084

## Support hotline

SGM offers 24/7 technical support hotline.

Worldwide: +45 3840 3840

US: +1 407-242-6217

[support@sgmlight.com](mailto:support@sgmlight.com)

## Approvals and certifications

*Conforms to*  
*Conforms to*  
*Conforms to*  
*Certified to*  
*Certified to*  
*Certified to*

*2014/35/EU: Low Voltage Directive*  
*2014/30/EU: EMC Directive*  
*2011/65/EU: RoHS2 Directive*  
*CAN/CSA Std. CSA E60598-1 Ed:2*  
*CAN/CSA Std. CSA-E598-2-17-98 Ed:1*  
*UL Std. 1573*



*The information in this document is subject to change without notice. For the latest information, visit [www.sgmlight.com](http://www.sgmlight.com)*

## User Notes

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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