

VARI***LITE**



VL1100 LED Luminaire QuickStart Guide

Introduction

About This Guide

This Quickstart Guide is intended for a knowledgeable user to unpack, install, and use the VL1100 LED™ Luminaire in a short time period. For the complete manual in PDF format, please visit our web site at www.vari-lite.com and click the user manual download link on the product downloads page. The complete manual provides you all information related to accessories, menu structures, DMX channel mapping/modes, and care for your new luminaire.

Read this manual in its entirety before operating luminaire. Keep this guide for future reference.



WARNING: It is important to read ALL accompanying safety and installation instructions to avoid damage to the product and potential injury to yourself or others. **AVERTISSEMENT:** Il est important de lire toutes les instructions de sécurité et d'installation d'accompagnement pour éviter d'endommager le produit et les risques de blessures à vous-même ou les autres.

Notes:

- For complete product description, features, and specifications, refer to product datasheet on the Vari-Lite web site at www.vari-lite.com.
- For power requirements, refer to “**Current vs. Voltage**” on page 6.
- VL1100 LED luminaires accept glass gobos only. Use of metal gobos will void the luminaire’s warranty.



Additional Documentation

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), “Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition” (ISBN: 9780955703522). USITT Contact Information:

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Customer Service

Our Goal

At Vari-Lite, we are committed to providing you the highest quality in customer service. Our comprehensive resources are available to help your business succeed and ensure you get the full benefit of being a Vari-Lite customer. Whether your needs are telephone troubleshooting assistance, product training or technical service, our full-time staff of experienced professionals are on-hand to provide support.

How to Reach Us

For assistance in your area, call the dealer from which your product was purchased.

or Contact an Authorized Service Center

or Contact the Vari-Lite Customer Service Department, 7am - 6pm CST Monday through Friday, at the following:

phone: 1-877-VARI-LITE (1-877-827-4548) or +1-214-647-7880

e-mail: entertainment.service@signify.com

Note: Performing maintenance procedures may void the product warranty. Refer to the Vari-Lite Limited Warranty card included in the product shipping package for more information. For all service and maintenance issues, please contact your local Authorized VARI*LITE Dealer or Service Center.

Additional Resources

For additional resources and documentation on this product, please visit our website at www.vari-lite.com and follow the Support link.

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Version as of: **24 April 2017**

VL1100 LED™ Luminaire QuickStart Guide

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Compliance and Safety Notices

Compliance

Safety Standards

We, Vari-Lite, 10911 Petal Street, Dallas, Texas 75238 declare under our responsibility for the products contained herein are in conformity with the essential requirements of the following European Directives and Safety standards for United States and Canada.

EN 60589-2-17:1989+A2:1991 used in conjunction with 60598-1:2008/A11:2009

UL 1573 Issue: 2003/05/29 Ed: 4 Rev: 2016/12/22

CSA C22.2#166:2015 Ed.2

EMC Standards

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with Vari-Lite system, service, and safety guidelines, may cause harmful interference to radio communications.

FCC 47CFR 15:2016

CENELEC EN 55015:2006/12/01

CES-005:2007/02/01

Safety Notice

It is extremely important to read ALL safety information and instructions provided in this manual and any accompanying documentation before installing and operating the products described herein. Heed all cautions and warnings during installation and use of this product. Safety symbols used throughout this manual are as follows:



CAUTION advising of potential damage to product.



WARNING advising of potential injury or death to persons.

GENERAL INFORMATION PERTAINING TO PROTECTION AGAINST ELECTRICAL SHOCK, FIRE, EXPOSURE TO EXCESSIVE UV RADIATION, AND INJURY TO PERSONS CAN BE FOUND BELOW.

WARNING:

INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST FIRE

1. VARI*LITE luminaires have been designed for use with specific lamp types. The VL1100 LED Luminaire requires a certain type of lamp (see **"Replacement Items/Accessories"** on page 8 for all lamp types). Installing another type or unapproved lamp may be hazardous.
2. Luminaires may be mounted on any type of surface as long as mounting instructions are followed. See instructions detailed in this manual.
3. Note distance requirement from combustible materials or illuminated objects for VARI*LITE luminaires.

WARNING:

INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST ELECTRICAL SHOCK

1. VARI*LITE luminaires are designed for dry locations only. Exposure to rain or moisture may damage luminaire.
2. Disconnect power before servicing any VARI*LITE equipment.
3. Servicing to be performed by qualified personnel only.

WARNING: Possibly hazardous optical radiation emitted from this product.

WARNING: RF INTERFERENCE

This is a Class B product. In a domestic environment this product may cause radio interference, in which case, the user may be required to take adequate measures.

Notes de sécurité

Avant de procéder à l'installation des produits décrits dans ce guide et de les mettre en marche, il est extrêmement important de lire TOUS les renseignements et TOUTES les directives de sécurité contenues dans ce guide ainsi que toute documentation jointe. Tenir compte de tous les avertissements et suivre toutes les précautions pendant l'installation et l'utilisation de cet appareil. Les symboles de sécurité utilisés dans ce guide sont les suivants :



ATTENTION Ce symbole annonce que l'appareil risque d'être endommagé.



AVERTISSEMENT Ce symbole annonce qu'il y a risque d'accident grave ou même fatal.

CETTE SECTION CONTIENT DES INFORMATIONS GÉNÉRALES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES, LES INCENDIES, L'EXPOSITION EXCESSIVE AUX RAYONS UV ET TOUT AUTRE ACCIDENT POUVANT ENTRAÎNER DES BLESSURES.

AVERTISSEMENT: DIRECTIVES POUR SE PROTÉGER CONTRE LES INCENDIES

1. Les luminaires VARI*LITE ont été conçus pour être utilisés uniquement avec certaines type de lampes. Vérifier le type de lampe avant de remplacer les lampes. L'installation d'un autre type de lampe peut poser un danger.
2. Les luminaires peuvent être fixés sur tout type de surface tant que les directives de montage sont respectées. Voir les explications détaillées dans ce guide.
3. Vérifier la distance à respecter entre les matériaux combustibles ou les objets illuminés et les luminaires VARI*LITE.

AVERTISSEMENT: DIRECTIVES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES

1. Les luminaires VARI*LITE sont conçus pour une utilisation au sec uniquement. Une exposition à la pluie et à l'humidité risque d'endommager le luminaire.
2. Débrancher l'appareil avant de procéder à la révision de tout matériel VARI*LITE.
3. Les révisions doivent être effectuées uniquement par des personnes qualifiées.

AVERTISSEMENT: DIRECTIVES POUR SE PROTÉGER CONTRE UNE EXPOSITION EXCESSIVE AUX RAYONS UV

1. Plusieurs luminaires VARI*LITE utilisent une lampe qui produit des rayons UV. NE PAS fixer son regard sur la lampe.
2. L'utilisation des luminaires sans lentille ou blindage pose des risques. Tous blindages, lentilles ou écrans ultraviolet visiblement endommagés au point que leur efficacité en est affectée doivent être remplacés, par exemple s'il y a des fissures ou de profondes rayures.

AVERTISSEMENT: INTERFÉRENCE RF

Cet appareil est de Classe B. Dans un environnement domestique, cet appareil peut causer des interférences radio, et si c'est le cas, l'utilisateur peut avoir à prendre des mesures adéquates.

Other / Autre

Temperature / Température

Exterior surface temperature 25°C ambient / Température de surface extérieure 25°C ambiante

- 5 Minute / 5 Minutes: 37°C
- Steady State / Régime permanent: 45°C

Light Source Replacement / Remplacement de sources lumineuses

- The light source contained in this luminaire shall only be replaced by the manufacturer, service agent, or similar qualified person.
- La source lumineuse contenue dans ce luminaire ne doit être remplacée que par le fabricant, l'agent de service ou une personne qualifiée similaire.

About The VL1100 LED Luminaire

Included Items

The following illustration shows all items included with the luminaire:

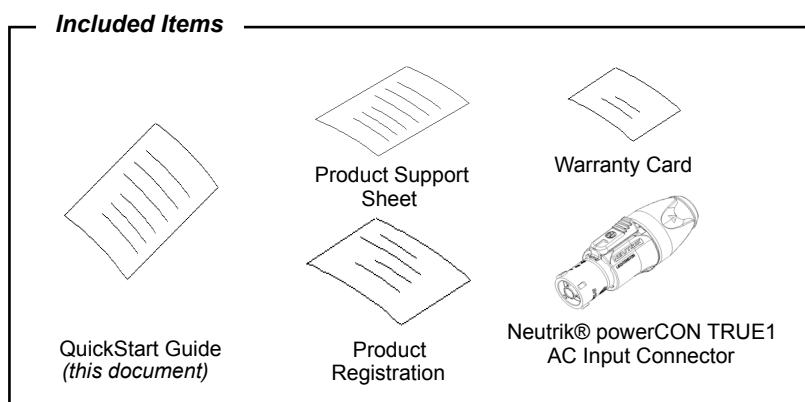


Figure 1: VL1100 LED Luminaire Included Items

Replacement Items/Accessories

The following optional and/or replacement items can be ordered directly from your Authorized VARI*LITE Dealer. When ordering, please order by the Vari-Lite part number.

Vari-Lite Part No.	Accessory
PCT1BE	AC Input Cable, Neutrik® powerCON TRUE1 with Bare End (no connector), 1 Meter
PC1GTL208	AC Input Cable, Neutrik® powerCON TRUE1 with Twist Lock (Male), 250V, 1 Meter
PCT1GP	AC Input Cable, Neutrik® powerCON TRUE1 with Stage Pin (Male), 1 Meter
PCT1SB	AC Input Cable, Neutrik® powerCON TRUE1 with Edison Male, 1 Meter
PEGASUS	USB Upload Cable
22.9620.0194	Safety Cable Assembly
25.9661.0057	DMX Termination Connector Assembly
55.6840.0001	Truss Hook, Mega-Clamp, Round and Square
55.6841.0001	Truss Hook, Mega-Claw for 2" Round Tube

Note: Please Check with Authorized Vari*Lite Dealer for availability on accessories.

VL1100 LED Luminaire Part Number Variants

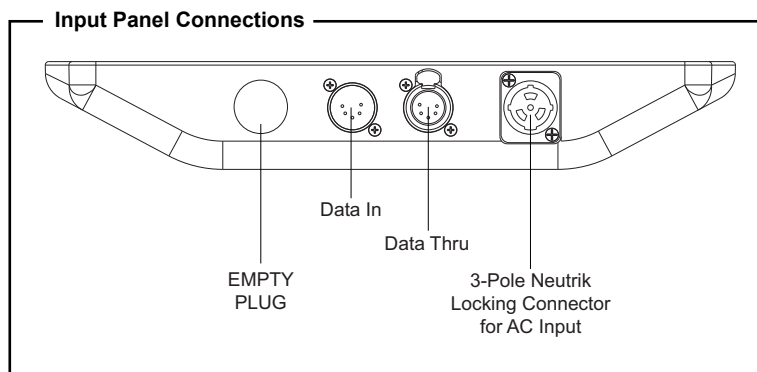
Part No.	Model	Model Description
20.1602.0001.01	VL1100 LED S	VL1100 LED Low Color Temperature with Shutter
20.1602.0001.11	VL1100 LED I	VL1100 LED Low Color Temperature with Iris
20.1602.0001.02	VL1100 LEDHP S	VL1100 LED High Power with Shutter
20.1602.0001.12	VL1100 LEDHP I	VL1100 LED High Power with Iris

Connecting Power and Data

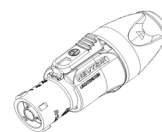
Connecting Power

The luminaire requires standard AC power distribution from 100-240 VAC, 50/60 Hz. Current required depends on the AC supply voltage and product model. Refer to **“Current vs. Voltage” on page 6** for all models covered in this manual.

Note: The mating Neutrik® powerCON TRUE1 connector is supplied; however, you will need to purchase or construct a cable appropriate for your application. Available power input cables is found in **“Replacement Items/Accessories” on page 4**.



AC Power Input
3-Pole Neutrik® powerCON TRUE1
for AC Input Power



Neutrik® powerCON TRUE1
AC Input Connector

Figure 2: Power Connector

Depending on the application, the luminaire’s AC input cable may require a different connector. If required, install a new connector meeting your requirements using the following wire color code reference:

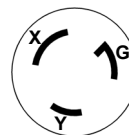
Wire*	Connection
Green/Yellow	AC Ground
Blue	AC Neutral
Brown	AC Line
* International (Harmonized) Standard	



WARNING: DO NOT connect to three-phase service in countries with 240 volt power. **AVERTISSEMENT:** NE PAS se connecter au service en trois phases dans les pays avec puissance de 240 volts.

For single-phase power at 240 volts RMS:

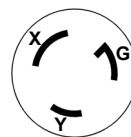
Connection	Pin
AC Neutral	X
AC Line	Y
Ground (Earth)	G



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For three-phase power at 200 volts RMS:

Connection	Pin
Phase 1	X
Phase 2	Y
Ground (Earth)	G



WARNING: It is not recommended to power any VARI*LITE luminaire from a dimmer - even in 'NONDIM' mode. Dimmer and non-dim modules are not suitable sources of power because their output modifies the AC wave form. This may work for a short time, but will eventually result in power problems, luminaire mis-operation and/or failure and may void the luminaire's warranty. **AVERTISSEMENT:** Il n'est pas recommandé pour alimenter un luminaire VARI*LITE d'un gradateur - même en mode 'NONDIM'. Modules de gradation et non sombres ne sont pas des sources appropriées de pouvoir parce que leur production modifie la forme d'onde AC. Cela peut fonctionner pendant une courte période, mais finira par entraîner des problèmes d'alimentation, luminaires mauvais fonctionnement et / ou l'échec et peut annuler la garantie de l'appareil.

Current vs. Voltage

Table 1-1, VL1100 LED Luminaire - Current vs. Voltage (460W LED Source) provides the luminaire's current draw at specific voltages. Total Luminaire Current is calculated with the lamp on and all motors sequencing.



WARNING: It is the responsibility of the user to adequately protect supply source with a correct size and type circuit breaker and not overload circuits. **AVERTISSEMENT:** Il est de la responsabilité de l'utilisateur de protéger adéquatement la source d'alimentation avec une taille correcte et le disjoncteur de type et surchargez pas les circuits.

Table 1-1: VL1100 LED Luminaire - Current vs. Voltage (460W LED Source)

AC Voltage @ 60Hz	Total Luminaire Current (Motor + LED Current)
100V	6.3A
110V	5.7A
120V	5.2A
130V	4.8A
200V	3.1A
210V	3.0A
220V	2.8A
230V	2.7A
240V	2.6A

Connecting Data

A maximum of 32 luminaires may be connected in any one DMX data link.

Note: This maximum limit applies to the luminaire "daisy chain" only. Your system or console may require fewer luminaires on a single data link path. Consult your console documentation for more information.

To connect power and data:

- Step 1. Connect data cable from console to first luminaire in chain at DATA IN connector.
- Step 2. If required, connect additional data cables from DATA THRU connectors to DATA IN connectors of remaining luminaires in link.

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- Step 3. At last luminaire in link, install male termination connector at DATA THRU connector. (Luminaires and other devices on the same DMX chain may not function properly without termination.)

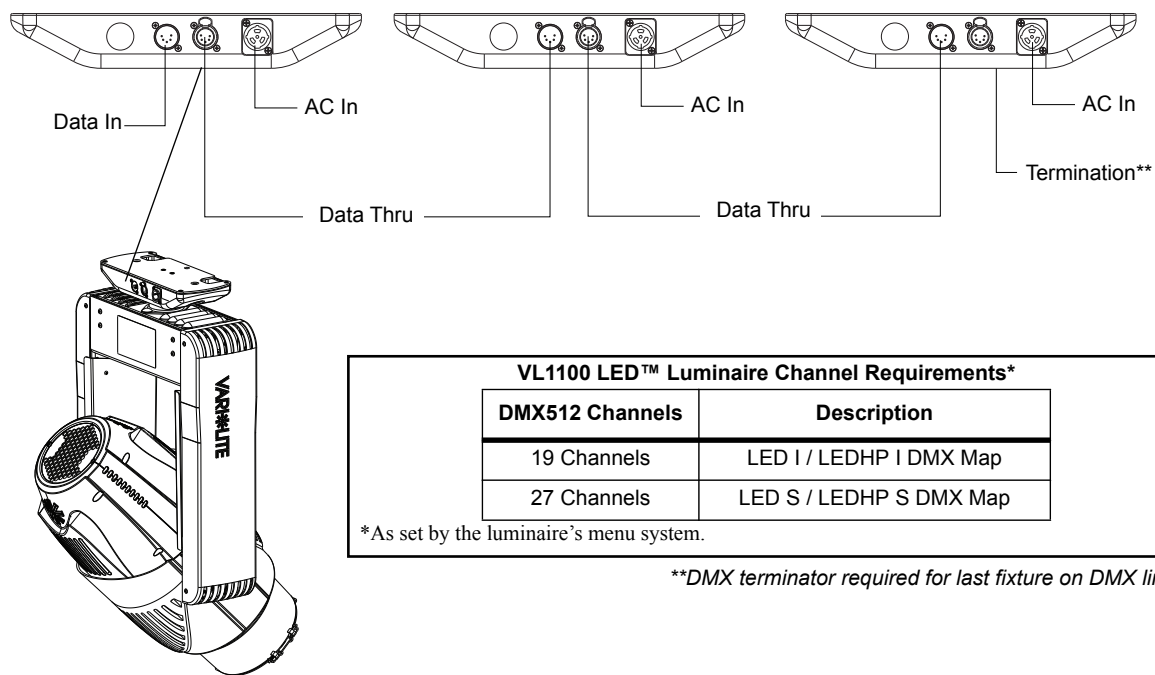


Figure 3: Data Link

- Step 4. Connect AC Input Cable connector to power input source.
- Step 5. Dress AC input and data cables and secure them so that they will not interfere with luminaire head and yoke movement.

Installation Procedures

Floor Mounting the Luminaire

All luminaires included in this manual are designed to sit directly on its base in a floor installation application. When used in this type of application, be sure to leave enough space around the luminaire to allow proper, uninterrupted airflow for cooling and movement.

Hanging the Luminaire

The VL1100 LED™ Luminaire be hung horizontally or vertically from any structure designed to work with the type of load created by this moving luminaire. The pan tube base provides two mounting holes for attaching truss hooks or other mounting hardware as required. Many compatible truss hooks are available from different manufacturers for your particular needs. The Mega Claw Truss Hook, shown in the example illustration below, can be ordered separately from Vari-Lite (refer to [“Replacement Items/Accessories” on page 4](#)).

To install truss hooks (if required):

- Step 1. At pan tube base, attach two truss hooks as shown in **Figure 4**.
- Step 2. Tighten hardware securely



WARNING: Attach truss hooks securely.

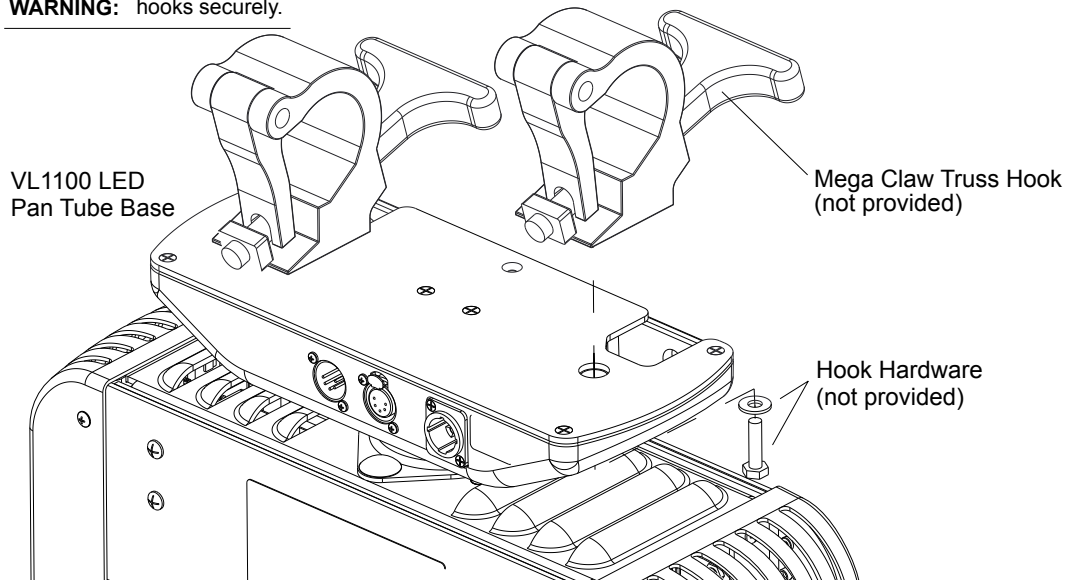


Figure 4: Example VL1100 LED Luminaire Truss Hook Installation

To hang luminaire in truss:

- Step 1. Lift luminaire into mounting position.
- Step 2. Secure in place with truss hooks. Ensure truss hook hardware that locks hook in place (e.g. wing bolt) is properly tightened and that luminaire is fully supported.
- Step 3. Attach safety cable (sold separately, should attach with 2 locking carabiners) as follows:
 - a. Connect end of safety cable to safety mounting hole at one side of pan tube base.
 - b. Loop at least once around pipe and attach other end at second safety mounting hole.
- Step 4. Connect power and data cables according to procedure outlined in [“Connecting Power and Data” on page 5](#)



Locking Carabiners

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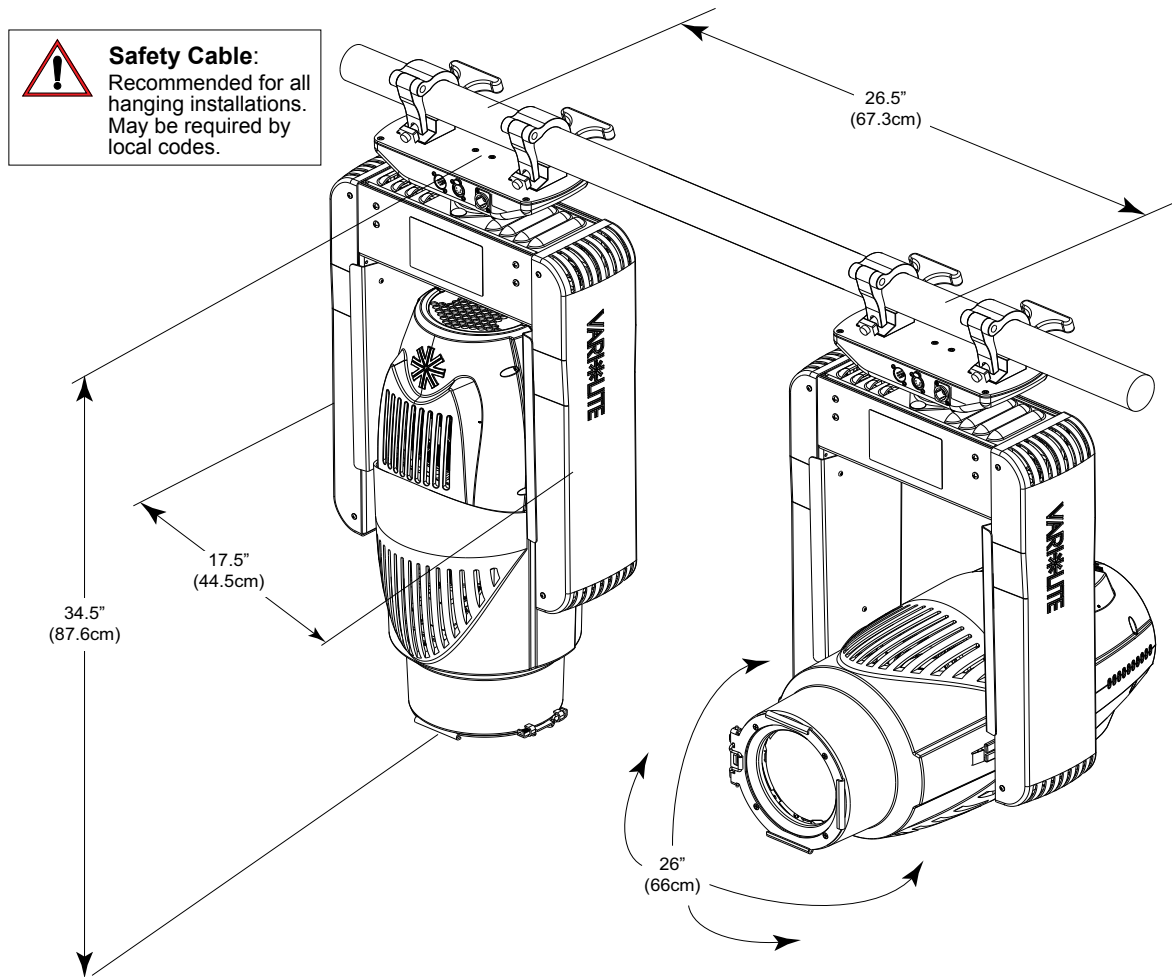


Figure 5: Example VL1100 LED Luminaire Truss Hanging Installation

Menu Operation

LCD Display and Menu System

The VL1100 LED Luminaire's LCD Display and Menu System provides local control for accessing the following fixture's settings:

- Address – to set the DMX address
- Setup – to change any modes
- Configure – various parameter settings, set luminaire ID
- Fixture – fixture status, recalibrate, reboot, software version, view fixtures hours, etc.
- DMX – change the map, set address, invert pan/tilt
- Manual – manual control of parameters
- Test – test functions of parameters

The menu system is controlled at the Menu Display available at the enclosure input panel. If there are multiple luminaires in a system, any settings or changes would need to be made at each LCD Menu as desired.

Menu Controls

The menu system is controlled by an OK (Enter), ESC (Escape), and four Arrow (<△▽>) buttons. These buttons function are shown in Figure 6.

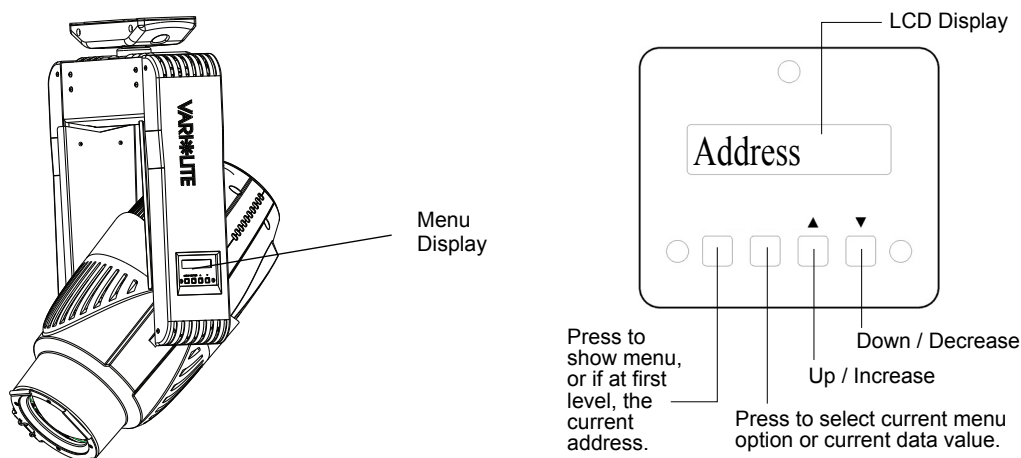


Figure 6: Menu Control

LCD Display and Menu System Operation

The LCD Display Menu system consists of several categories. Use the menu buttons to access and make changes to menu items. When the desired menu item is reached, press [Menu] button to display the menu options and to navigate and configure options as needed.

The menu system is controlled by four buttons. These buttons function as follows:

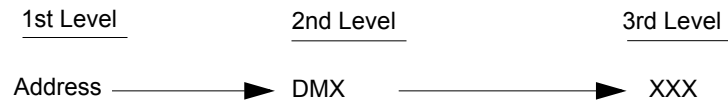
- [Menu] button – Displays the menu, or if at first level, the current address. Can also enable menu to exit a menu level.
- [Enter] button – Selects the current menu option or stores current data value
- [△] Down arrow – Scrolls menu options upward or increases current data value.
- [▽] Up arrow – Scrolls menu options downward or decreases current data value.

To navigate and access menu settings/selections:

- Step 1. Make sure unit is powered and turned on.
- Step 2. Press [Menu] to display 1st level functions.
- Step 3. Scroll through the 1st level functions by pressing [△▽] arrows.
- Step 4. Once the desired function appears in the display, press OK [Enter] to access 2nd level functions.
- Step 5. Use the [△▽] arrows to scroll through 2nd level functions.
- Step 6. Press [Enter] to access 3rd level functions. When the highest level for the function is reached, [△▽] arrows can be pressed to select a value or select a toggle activation such as ON/OFF.
- Step 7. Press OK [Enter] to store the value or select an action.

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For example, the **Address** function has one sub-level: **DMX**. This 2nd level menu allow access to a 3rd level, which is a value. The **Address** function is a three-level menu.



Menu Default State

The menu displays default state during normal operation is to display the address. After 10 seconds of inactivity at the display, it will change to this default state.

After 5 minutes of inactivity, the menu display will switch to its off state.

Program Starting Address

The DMX starting address is entered using the Menu Display. This address will be retained even if the power is removed. Refer to your console operating instructions for specific information regarding its addressing requirements.

To program a DMX starting address:

- Step 1. Press [Menu].
- Step 2. Press [$\triangle \nabla$] arrows until Address appears. Press [Enter].
- Step 3. DMX will appear. Press [Enter].
- Step 4. Press [$\triangle \nabla$] arrows to enter starting address.
- Step 5. Press [Enter] to set.

Program Starting Address Without Calibrating

It is possible to bypass the calibration sequence and go directly to the Menu Display programming in order to pre-program an address setting.

To program starting address without calibrating luminaire:

- Step 1. While powering up luminaire, press and hold [Menu].
- Step 2. Program address as described in **“Program Starting Address” on page 11**.
- Step 3. Release when display reads ":"

The luminaire will require a reset to restore control.

Quick Reference DMX Map

The summary list for the Iris (I) and Shutter (S) 16-bit DMX maps are as indicated in [VL1100 LED I / LED HP I - DMX Channel Summary Listing](#) and [VL1100 LED S / LED HP S - DMX Channel Summary Listing](#).

Table 1-2: VL1100 LED I / LED HP I - DMX Channel Summary Listing

DMX Channel	Description		DMX Channel	Description
1	Dimmer		11	Magenta
2, 3	Pan		12	Rotating Gobo
4, 5	Tilt		13, 14	Gobo Index
6	Edge		15	Beam
7	Zoom		16	Focus Time
8	Diffusion		17	Color Time
9	Blue		18	Beam Time
10	Amber		19	Control

Table 1-3: VL1100 LED S / LED HP S - DMX Channel Summary Listing

DMX Channel	Description		DMX Channel	Description
1	Dimmer		13, 14	Gobo Index
2, 3	Pan		15, 16	Frame 1A, 1B
4, 5	Tilt		17, 18	Frame 2A, 2B
6	Edge		19, 20	Frame 3A, 3B
7	Zoom		21, 22	Frame 4A, 4B
8	Diffusion		23	Rotate Frame
9	Blue		24	Focus Time
10	Amber		25	Color Time
11	Magenta		26	Beam Time
12	Rotating Gobo		27	Control

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