

VARI*LITE

VL3600 PROFILE IP

USER MANUAL

INTRODUCTION

OUR GOAL

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.

TECHNICAL SUPPORT

Our Service and Support team is tasked with online and field support, repair, demo, commissioning, maintenance contracts, and technical training for fixtures and systems. In addition, this team plays a large role in Systems sales, responsible for administering final commissioning, record-keeping, and organizing services. Refer to the back cover of this user manual for contacts in your region or visit **WWW.VARI-LITE.COM/SUPPORT**.

CUSTOMER SERVICE

Customer Service is responsible for boxed goods and spare parts quotations, order entry and fulfilment, project delivery, lead times, and general account management. They also manage all after sales warranty fulfilment, RGA, and repairs invoicing in tandem with our After Sales Service & Support team. Visit our website to find a customer service agent in your region.

ADDITIONAL DOCUMENTATION

Additional product documentation, including DMX maps, software, and photometric reports, is available for download on our website.

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:

USITT

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Fax: 866-398-7488 or +1-315-463-6525

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ABOUT THIS DOCUMENT

Read all instructions before installing or using this product. Retain this user manual for future reference.

Additional product information and descriptions may be found on the product data sheet(s) which can be downloaded from the Vari-Lite website at WWW.VARI-LITE.COM.

This user manual provides necessary information regarding safety, installation, operation and routine maintenance for Vari-Lite VL3600 Profile IP. Familiarizing yourself with this information will help you to get the most out of your product.

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.

This user manual covers the following model(s):

• VL3600 Profile IP; order code(s) 74817-001, 74817-101, 74817-011, 74817-111

SAFETY WARNINGS AND NOTICES

Read this user manual in full before attempting to install, operate or maintain the fixture to which it relates. This user manual is intended to provide general guidance to such suitably qualified personnel. Installation and operation of the fixture are to be performed by qualified personnel only.

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

- Fixtures must be installed per the IP rating as marked on the unit. Failure to follow those markings may cause an unsafe condition and void warranty.
- Use safety tether when mounting.
- Equipment should be mounted in locations and at heights where it will not be readily subjected to tampering by unauthorized personnel.
- Not for residential use. Do not use this equipment for other than intended use.
- Note distance requirement(s) from combustible materials or illuminated objects. Do not mount near gas
 or electric heaters.
- Install only in locations with adequate ventilation. Ensure sure that ventilation slots are not blocked.
- Ensure that the voltage and frequency of the power supply match the power requirements of the fixture.
- The fixture must be earthed/grounded to the appropriate conductor.
- Do not operate fixture outside the specified ambient temperature range.
- Do not connect the fixture to any dimmer pack.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition and void warranty.
- Refer service to qualified personnel. This fixture contains no user serviceable parts.
- Prior to first use, carefully inspect fixture to ensure no damage has occurred during shipping.
- Materials used in the manufacturing process can cause strong odors when the product is new. These
 odors dissipate over time.
- Prior to each use, carefully inspect power cables and replace any damaged cables.
- Exterior surfaces of the luminaire will be hot during operation. Take appropriate precautions.
- Continuous use of the fixture may shorten the lifespan. Power down the fixture when not in use.
- Do not cycle power on and off repeatedly. Disconnect mains power if the fixture is not used for an
 extended period.
- Clean fixtures regularly, particularly when working in a dusty environment.
- Never touch power cables or wires while the fixture is powered on.
- Avoid entangling power wires with other cables.
- In the event of a serious operating problem, immediately discontinue using the fixture.
- It is hazardous to operate luminaires without lens or shield. Shields, lenses, or ultraviolet screens shall be changed if they have become visibly damaged to such an extent that their effectiveness is impaired, for example, by cracks or deep scratches.
- Original packing materials can be reused for transporting the fixture.
- Do not look directly at the LED light beam while the fixture is on.
- This is a Class A product. In a domestic environment this product may cause radio interference, in which case, the user may be required to take adequate measures.
- The light source contained in this luminaire shall only be replaced by the manufacturer or service agent or similarly qualified person.

SAVE THESE INSTRUCTIONS.

WARNING: Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel. Caution Against Direct Sunlight Through Front Lens Assembly



CAUTION AGAINST DIRECT SUNLIGHT THROUGH FRONT LENS ASSEMBLY

The design and nature of the front lens assembly in Vari-Lite LLC luminaires is to efficiently focus the light energy from the luminaire's lamp for maximum light output.

- When the front lens assembly is exposed to direct sunlight or intense light from neighboring fixtures, the lens will collect and intensify this light and focus it back into the fixture. Intense sunlight or beams from other fixtures can cause damage to internal assemblies contained within the fixture.
- When fixture is not in use and direct sunlight or other intense light is present, position luminaires so their front lens assembly it not directly exposed to the light source.

CAUTION AGAINST POWERING LUMINAIRES FROM DIMMER CIRCUITS

It is not recommended to power any Vari-Lite LLC 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 eventually results in power problems, luminaire mis-operation and/or failure.

- When using a power distribution rack, do not use dimmer or non-dim modules to power any Vari-Lite LLC luminaire. Damage to the luminaire can occur.
- Using a dimmer or non-dim module to power your Vari-Lite LLC luminaire will void your luminaire's warranty.

CAUTION AGAINST THE USE OF THIRD PARTY PARTS OR ACCESSORIES

- Heat and heat distribution are important factors when operating Vari-Lite LLC luminaires. Vari-Lite LLC luminaires are designed to dissipate heat efficiently and safely. Any blockages or obstructions, such as aftermarket baffles, covers, enclosures, etc. can interrupt the luminaire's ability to dissipate heat properly and can damage the luminaire.
- Vari-Lite LLC cannot be responsible for issues arising from non-approved parts and accessories installed on or used with any Vari-Lite LLC product. Customers of such products should contact the manufacturer directly for assistance and support.

TRANSPORTING LUMINAIRES

When shipping or transporting luminaires, Vari-Lite LLC recommends that the luminaire(s) be sufficiently protected against any (including, but not limited to) shock, vibration, drops, jarring, exposure to the environment, etc.

Failure to sufficiently protect any Vari-Lite LLC luminaire during shipping or transportation will result in damage and void the luminaire's warranty. Vari-Lite LLC will not be responsible for any shipping damage or breakage of any product under any circumstances. Vari-Lite LLC will not be responsible for any third party case manufacturer's cases.

NOTE: As with all automated luminaires, proper handling and suitable protective shipping cases should be used when transporting fixtures to reduce the risk of damage.

TRANSPORTATION AND SHIPPING CASE REQUIREMENTS

Cases to transport Vari-Lite LLC luminaires should meet the following loading requirements:

- Luminaire head, yoke, and enclosure sub-assemblies shall be equally supported and constrained where no one sub-assembly (head, yoke, or enclosure) fully supports the entire mass of the luminaire.
- The interior of the case shall be of high quality and uniform density foam. The foam shall be of the same type and density throughout as to equally and uniformly support loading at every contact surface.
- The case shall, when laid on any of its six (6) surfaces, maintain the loading requirements outlined above.
- All cases not meeting the aforementioned loading requirements, with wheels, shall have markings
 on the exterior of the case that the unit is to be transported on it wheels only (e.g. "Case must be
 transported and remain [at all times] on its wheels").



COMPLIANCE NOTICE



FCC DECLARATION OF CONFORMITY

This equipment has been tested and found to comply with the limits for a Class A 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 Strand system, service, and safety guidelines, may cause harmful interference to radio communications.

As tested under this standard:

FCC 47CFR 15B cIA*CEI

Issued:2009/10/01 Title 47 CFR Part 15 Subpart B Unintentional Radiators Class A

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.



EU DECLARATION OF CONFORMITY

We, Vari-Lite LLC., 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 harmonized standards:

Low Voltage Director (LVD), 2006/95/EC

EN 60589-2-17:1984+A1:1987+A2:1990 used in conjunction with 60598-1:2008/A11:2009

Electromagnetic Compatibility Directive (EMC), 2004//108/EC

EN 55022:2010, EN55024:2010

HOW TO OBTAIN WARRANTY SERVICE

A copy of the Limited Warranty card was included in the shipping package for this product.

To obtain warranty service, please contact customer service at 1-214-647-7880, or **entertainment.service signify.com** and request a Return Material Authorization (RMA) for warranty service. You will need to provide the model and serial number of the item being returned, a description of the problem or failure and the name of the registered user or organization. If available, you should have your sales invoice to establish the date of sale as the beginning of the warranty period. Once you obtain the RMA, pack the unit in a secure shipping container or in its original packing box. Be sure to clearly indicate the RMA number on all packing lists, correspondence, and shipping labels. If available, please include a copy of your invoice (as proof of purchase) in the shipping container.

With the RMA number written legibly on or near the shipping address label, return the unit, freight prepaid, to:

Vari-Lite LLC
Attention: Warranty Service (RMA#)
10911 Petal Street
Dallas, Texas 75238
USA

As stated in the warranty, it is required that the shipment be insured and FOB our service center.

IMPORTANT! When returning products to Vari-Lite for repairs (warranty or out-of-warranty) from a country other than the USA, "Vari-Lite LLC", must appear in the address block as the Importer of Record (IOR) on all shipping documentation, Commercial Invoices, etc. This must be done in order to clear customs in a timely manner and prevent returns.

1 DESCRIPTION

FEATURES

- Large-scale profile luminaire with 180mm front lens and 45,000 lumens of output – Ideal for key or effect lighting in the largest of productions.
- IP65 outdoor rating and market leading size-to-weight ratio —
 Outstanding performance no matter the weather, with weight
 and size closer to a 1000W IP20 fixture than any other IP65
 fixture in its class.
- CMY+CTO graduated color wheel mixing system Provides a wide color mixing spectrum with a homogenization of color that completely fills the front lens at all times, improving direct view applications on stage or on camera.
- Color quality enhancement control Dedicated color enhancement wheel, which include CRI boost filter and a selection of minus green.
- Exclusive VL*FX animation wheel system Gives users access to 3 different animation effects wheels that can create dynamic projected and mid-air effects on their own or layered with gobos and prisms.

- V*Track Calibration System Size and power with none of the unwanted movement. Limit movement during calibration and reduce start up time. Reduce risk of the fixture hitting set objects or shaking the rig.
- SmartFan Control including standard, studio, and whisper modes – Multi-mode fan control to adjust settings & manage fan noise. Offers a low dB experience across all frequencies, eliminating buzzing or hums. Ideal for when for when you want to use the fixture in indoor applications.
- Full set of fixture features to meet the needs of the most demanding show – Two Gobo wheels with interchanging gobos, four blade full wipe framing system with 120° of rotation, iris and dual prism system which includes both an effects and scenic prism.
- Touring and Installations versions available. Touring version fitted with entertainment industry standard chassis mounted IP65 Power and DMX connectors. Installation version fitted with captive Power and DMX terminated to standard entertainment industry IP65 inline connectors.

Download the product datasheet(s) from the Vari-Lite website at **WWW.VARI-LITE.COM** for the full technical specifications.

2 INSTALLATION & SETUP

POWER AND DATA CABLING REQUIREMENTS

CONNECTING POWER

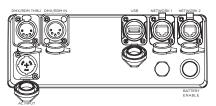
This fixture requires standard AC power distribution from 120-240VAC, 50/60 Hz. Current required depends on the AC supply voltage and product model

NOTE: The mating True1 IP 65 compatible connector is supplied; however, you will need to purchase or construct a cable appropriate for your application.

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 240V power.

For single-phase power from 120-240 volts RMS:



CONNECTION	PIN
AC neutral	X
AC line	Υ
Ground (earth)	G

For three-phase power at 208 volts RMS:

CONNECTION	PIN
Phase 1	X
Phase 2	Υ
Ground (earth)	G

CURRENT VERSUS VOLTAGE

TABLE 1 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.

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.

TABLE 1. CURRENT VS. VOLTAGE (1000W LED)

AC VOLTAGE AT 60HZ	TOTAL CURRENT
120V	12.66A
180V	8.22A
208V	7.12A
230V	6.32A
240V	6.12A

DATA CABLE - DMX512/RDM

The luminaire is equipped with two, 5-pin XLR connectors for DATA IN and DATA THRU (out) applications. DATA IN requires a 5-pin, female XLR connector and DATA THRU requires a 5-pin, male XLR connector. When purchasing or constructing data cable, it is important that not only the correct cable type be used, but also quality cable to ensure a reliable DMX512 system. All cable must be IP65 rated or higher. Your cabling should meet the following USITT DMX specification requirements:

- Suitable for use with EIA485 (RS485) operation at 250k baud
- MUST BE IP65 RATED OR HIGHER see below
- Characteristic impedance 85-150 ohms, nominally 120 ohms
- Low capacitance
- Two twisted pairs
- · Foil and braid shielded
- 24 AWG min. gauge for runs up to 1000 feet (300m)
- 22 AWG min. gauge for runs up to 1640 feet (500m)

NOTE: Microphone type cable and other general purpose, two-core audio or signal cable are not suitable for use with DMX512.

Refer to the USITT Recommended Practice for DMX512 guide for additional information regarding DMX512 systems.

The XLR 5-pin connectors should be wired as follows:

RECOMMENDED CABLE TYPES/MANUFACTURERS

Pin/Wire Code to XLR Connectors						
Data Thru Cable Pinout	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Data In Cable Pinout
1 0 5	Foil & Braided Shield	1st conductor of 1st twisted pair	2nd conductor of 1st twisted pair	1st conductor of 2nd twisted pair	2nd conductor of 2nd twisted pair	5 0 0 1
Male Conn.		Data (-)	Data (+)	Data (-)	Data (+)	3 Female Conn.

These are only a few of the suitable cable types. Any quality EIA485, twisted pair, 120 ohm, shielded cable will also work. Refer to **TABLE 2**.

IP65 CONNECTORS

IP65 rated connectors can include, but are not limited to

- NEUTRIK TOP Series
- · Seetronic W Series

NOTE: Check cable o-ring and rubber seals prior to use. If damaged or missing required lubricant then the cable should not be used.

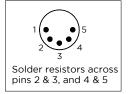
TABLE 2. RECOMMENDED CABLES

TYPE	PAIRS	ΖΩ*	JACKET	AWG	USE	TEMP (°F)	TEMP (°C)
BELDEN CABLES							
1215A	2	150	PVC	26	IBM Type 6 Office cable	75	24
1269A	2	100	PTFE	22 (solid)	High Temp, Plenum cable	200	93
8102	2	100	PVC	24	UL2919	80	27
8132	2	120	PVC	28	UL2919	80	27
8162	2	100	PVC	24	UL2493	60	16
82729	2	100	PTFE	24	High Temp, Plenum cable	200	93
88102	2	100	PTFE	24	High Temp, Plenum cable	200	93
89696	2	100	PTFE	22	High Temp, Plenum cable	200	93
89729	2	100	PTFE	24	High Temp, Plenum cable	200	93
89855	2	100	PTFE	22	High Temp, Plenum cable	200	93
9729	2	100	PVC	24	UL2493	60	16
9804	2	100	PVC	28	UL2960	60	16
9829	2	100	PVC	24	UL2919	80	27
9842	2	120	PVC	24	UL2919	80	27
PROPEX CABLES							
PC224P	2	110	Polyurethane	22	Heavy Duty and Portable	105	41
PC224T	2	110	PVC	22	UL2464	105	41
PC226T	3	110	PVC	22	UL2464		

^{*} Characteristic impedance

TERMINATION CONNECTOR

A XLR termination connector is required at the last luminaire (or "far end of the line") to prevent signal reflections. Signal reflections may cancel out the signal at certain line lengths, resulting in errors. The terminator is also necessary for software downloads and running tests on multiple luminaires. To construct your own connector, you will need the following components:



- 5-pin, male XLR connector.
- Two 1/4W 5% 120 ohm resistors.

NOTE: A male termination connector is available as an accessory from Vari-Lite.

DATA CABLES - NETWORK/RJ45

The luminaire is equipped with two RJ45 Ethercon compatable connectors. This pair of connectors include a passive pass-thru that will allow signal to pass even if one unit is powered down. Cables should be Cat5, Cat5e or Cat6 and should be equipped with IP65 or higher rated etherCON compatible connectors.

HANGING THE FIXTURE

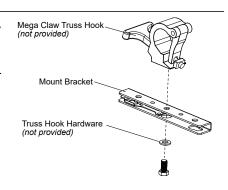
The VL3600 Profile IP can be hung horizontally or 45° vertically from any structure designed to work with the type of load created by this moving luminaire. Two mounting truss hooks or other mounting hardware are required. Many compatible truss hooks are available from different manufacturers for your particular needs.

A minimum of two hooks per luminaire is required. If mounting method does not use truss hooks, two attachment points, per luminaire, are required.

Install mounting hardware and brackets:

Step 1. Install truss hooks (also refer to "Truss Hook Hardware (by others)" on page 23) for additional information) on two provided truss hook brackets as required as shown in Figure 2-7.

NOTE: Various types of truss hooks can be used. The Mega Claw truss hook (as shown in the example above) as well as many other standard hooks, can be ordered separately.





TRUSS HOOK HARDWARE (BY OTHERS)

When installing hanging hooks on mounting brackets, Vari-Lite strongly recommends the use of a Belleville washer when installing a truss hook or claw. The Belleville washer's size should be approximately 13-25mm (0.5-1.0 in) diameter. Belleville washers are available in various thicknesses and any of the following thicknesses are acceptable for the application described: 0.9.mm, 1.0mm, 1.3mm, 1.9mm (0.035-inch, 0.043-inch, 0.050-inch, 0.073-inch).

The washer serves two purposes:

- **To spread out the load.** When a washer IS NOT used, the bolt head (without a washer) concentrates the load in a smaller area, creating focused stress on the steel bracket, making premature failure possible. A steel washer is recommended to spread this load over a larger surface area.
- **To keep the bolt in place.** The recommended Belleville washer maintains tension in the bolted assembly and prevents it from vibrating loose.

If a Belleville washer is not available, a regular flat washer measuring in diameter of 25mm (1 inch) minimum can be used in conjunction with a suitable split lock washer situated between the bolt head and flat washer.

- Step 2. Determine required configuration of bracket installation. Brackets may be installed in many different orientations.
- Step 3. While pulling up on locking mechanism release, fit keyed holes onto raised mounting buttons at bottom of enclosure. Slide forward and release locking mechanism to lock in place. Ensure brackets are locked securely.

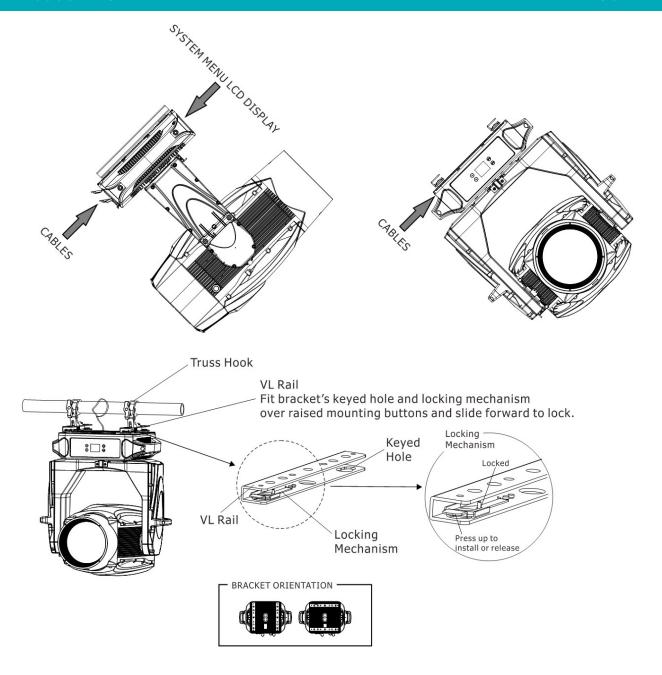
WARNING: Ensure that the bracket locking mechanism is fully seated after the bracket is installed on the luminaire.

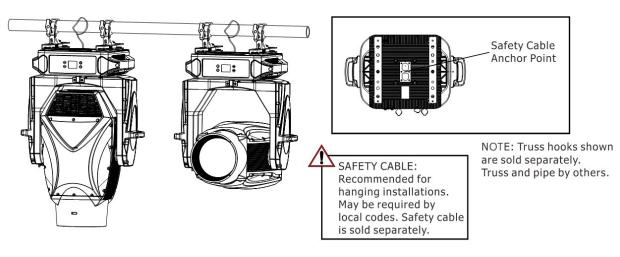
Installing in Truss:

- Step 1. Using two people, lift luminaire into mounting position.
- Step 2. Secure in place with truss hook. 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 (as required) as follows:
 - a. Loop safety cable at least once around safety cable anchor point rod.
 - b. Loop safety cable at least once around truss/pipe and secure around pipe.
- Step 4. Make sure tilt and pan locks are disengaged so luminaire moves freely.
- Step 5. Connect power and data cables.

When the fixture is mounted in a side hanging orientation, you must enable side hang in the menu for proper operation. To enable side hang, press MENU. Select CONFIG > MOVEMENT > SIDE HANG > ENABLE.

VL3600 PROFILE IP





FLOOR MOUNTING

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.

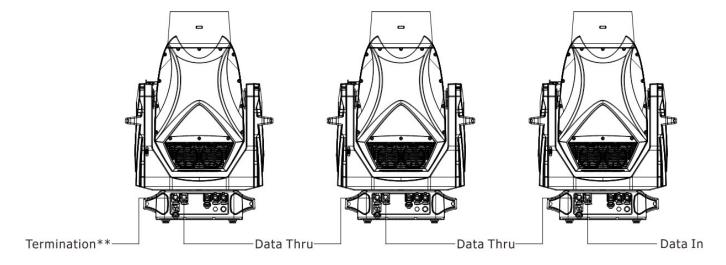
CONNECTING DATA AND POWER

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.
- 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.)
- 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.



POWERING UP

POWER-UP PROCEDURE

When AC power is applied, the luminaire immediately begins a calibration sequence. Pan and Tilt will either move direct to the home position or to the current DMX values depending on menu settings. The internal color and beam mechanisms will also move through a full range of motion. After calibration, the luminaire head will either stop at its "home" position (which positions the pan axis at mid-rotation and the head parallel to the yoke with the lens pointing away from the luminaire enclosure) or move to its current DMX-defined position if DMX data is present. All internal mechanisms also move to their "home" or DMX-defined positions.

CAUTION: Before applying power, be sure the luminaire is hung (or positioned), and the pan and tilt locks are disengaged, so that the head and yoke can move freely without restriction.

To power up:

- Step 1. At each luminaire, apply power connecting the power cable to the unit.
- Step 2. Luminaire automatically steps through calibration and stops at "home" position (only if DMX is not present).

ADDRESSING

PROGRAM STARTING ADDRESS

The address setting for DMX console controlled systems is entered using the Menu Display. The luminaire retains the DMX address even if power is removed.

DMX ADDRESS

To set, edit, and save a DMX address:

- Step 1. Press [MENU].
- Step 2. Press [UP] / [DOWN] arrows until Address appears. Press [ENTER].
- Step 3. Use [UP] and [DOWN] arrow buttons to scroll through all available starting address.
- Step 4. Once correct starting address is selected, press [ENTER] to set..

NOTE: The luminaire has an auto lock function on the Menu Display. To unlock, while touching the ENTER button, touch UP -> DOWN -> UP -> DOWN if unit is sitting. If hanging, while touching the ENTER button, touch DOWN -> UP -> DOWN -> UP.

PROGRAM STARTING ADDRESS WITHOUT CALIBRATION

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

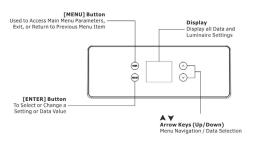
To program starting address without calibrating luminaire:

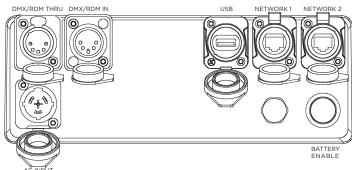
- Power the luminaire on. As soon as the display says 'Calibrating' touch and hold the MENU button.
- After a few seconds, release the menu button and then program address as in Program Starting Address above.

NOTE: The luminaire will require a reset to restore control.

Program starting address in Battery Mode:

To activate menu in Battery Mode when the fixture is not connected to a power source, touch and hold the MENU button, and at same time press and hold the battery enable button on the rear. Once the screen boots you can release both and access menu normally. Pressing the MENU button from the top level or home screen will shutoff display.





TRANSPORTING

When shipping or transporting luminaires, Vari-Lite recommends that the luminaire(s) be sufficiently protected against any (including, but not limited to) shock, vibration, drops, jarring, exposure to the environment, etc. Failure to sufficiently protect any Vari-Lite luminaire during shipping or transportation will result in damage and void the luminaire's warranty. Vari-Lite will not be responsible for any shipping damage or breakage of any product under any circumstances. Vari-Lite will not be responsible for any third-party case manufacturer's cases.

NOTE: As with all automated luminaires, proper handling and suitable protective shipping cases should be used when transporting fixtures to reduce the risk of damage. For more information, please refer to Vari-Lite technical notice (TN-235) "Transportation and Shipping Case Requirements" in the "Support" area of the Vari-Lite web site.

TRANSPORTATION AND SHIPPING CASE REQUIREMENTS

Cases to transport Vari-Lite luminaires should meet the following loading requirements:

- Luminaire head, yoke, and enclosure sub-assemblies shall be equally supported and constrained where no one sub-assembly (head, yoke, or enclosure) fully supports the entire mass of the luminaire.
- The interior of the case shall be of high quality and uniform density foam. The foam shall be of the same type and density throughout as to equally and uniformly support loading at every contact surface.
- The case shall, when laid on any of its six (6) surfaces, maintain the loading requirements outlined above.
- If using the provided SIP, ensure it fits securely into the case.
- All cases not meeting the aforementioned loading requirements, with wheels, shall have markings on the exterior of the case that the unit is to be transported on it wheels only (e.g. "Case must be transported and remain [at all times] on its wheels").

OPERATION

COLOR WHEEL

The VL3600 Profile IP contains two fixed color wheels. One holds the normal fixed colors and the second the color adjustments (CRI Booster, 1/4 and 1/2 Minus Green and CTB).

NOTE: Fixed colors can only be changed by an authorized service center.



	Congo Red Dark Blue 2 Kelly Green Yellow	
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Color Adjustment Color Wheel 2
4 CTB CRI Booster
1/2 Minus Green 1/4 Minus Green 2

SLOT	DMX RANGE	CENTER
1	32 - 63	48
2	64 - 95	80
3	96 - 127	112
4	128 - 159	144
5	160 - 191	176
6	192 - 223	208

SLOT	DMX RANGE
1	31 - 60
2	61 - 90
3	91 - 120
4	121 - 180

VL*FX WHEEL

The effects wheel offers 3 images.

NOTE: VL*FX Wheel images can only be changed by an authorized service center.







1. Amoeboid Chamber

2. Dichrofusion

3. Concurrent

GOBO WHEEL

The VL3600 Profile IP accommodates glass gobos. There are two wheels, with Gobo Wheel 1 offering 10 fixed gobos plus one open position and Gobo Wheel 2 offering 7 rotatable, indexable gobos plus one open position.

Gobo Wheel 1



















10. Pipes Breakup

GOBO		
SLOT	DMX RANGE	CENTER OF IMAGE
1	21 - 41	31
2	42 - 62	52
3	63 - 83	73
4	84 - 104	94
5	105 - 125	115
6	126 - 146	136
7	147 - 167	157
8	168 - 188	178
9	189 - 209	199
10	210 - 230	220

CAUTION: VL3600 Profile IP accepts glass gobos only. Use of metal gobos in these luminaires may damage gobo assembly and will void the luminaire warranty.

Gobo Wheel 2











1. Night Sky

2. New Twirler

3. Bricked Out

4. Horizontal Slits







5. Super Alpha Rays

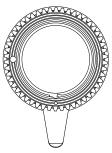
6. Honeycomb Reverse

7. On the Rocks

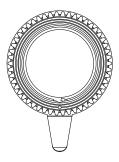
CORO	IND	DEX	ROTA	TION	MEGA STEPPING	
GOBO SLOT	DMX RANGE	CENTER OF IMAGE	DMX RANGE	CENTER OF IMAGE	DMX RANGE	CENTER OF IMAGE
1	6 - 10	8	46 - 50	48	86 - 90	88
2	11 - 15	13	51 - 55	53	91 - 95	93
3	16 - 20	18	56 - 60	58	96 - 100	98
4	21 - 25	23	61 - 65	63	101 - 105	103
5	26 - 30	28	66 - 70	68	106 - 110	108
6	31 - 35	33	71 - 75	73	111 - 115	113
7	36 - 40	38	76 - 80	78	116 120	118

GOBO DIAMETER	IMAGE AREA DIAMETER	GLASS THICKNESS	CARRIER REQUIRED?
27mm	17.5mm	1.1mm	Yes

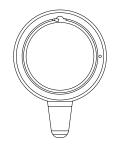
Compatible carriers for gobos are shown below.



Rotate Gobo Carrier with Magnet 3033002536



Rotate Gobo Carrier 303300235



Fixed Gobo Carrier 3033002537

REMOVE AND INSTALL LUMINAIRE COVERS

WARNING: This procedure should only be performed by authorized service personnel. Refer to the VL3600 Profile IP Service Manual for additional details.

VL3600 Profile IP luminaires require special attention when the removal of any covers is required. The seals must be inspected, and care taken when replacing the covers.

WARNING: Failure to follow instructions may cause damage to unit and void warranty. Only authorized service personnel should attempt.

To remove head covers:

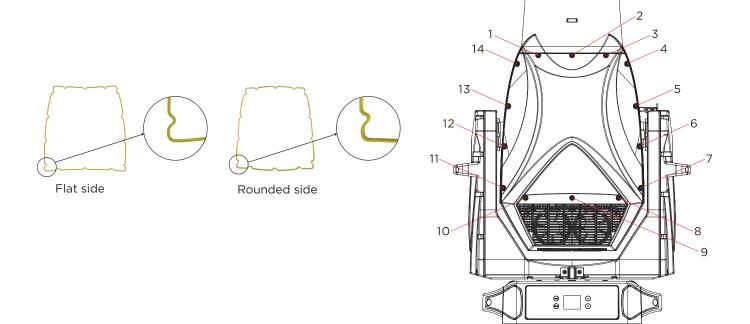
- Step 1. Remove power from luminaire.
- Step 2. Using a Torx T-20 driver (one is supplied with each luminaire) remove the 14 x M4x12mm SHCP T20 screws at each cover. There is no need to remove the waterproof silicon gasket.

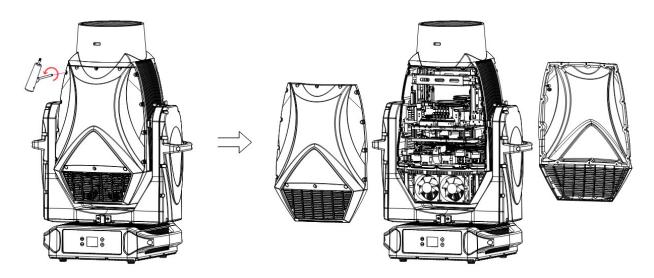
NOTE: There is a tether connecting the covers to the luminaire. If removing, use caution when re-attaching to avoid damage to threads.

To replace head covers (See Fig below):

- Step 1. If gasket has been removed, inspect the groove and remove any residue. Place the flat side of the IP sealing gasket inward and the rounded side outward.
- Step 2. Align the gasket with the groove and install it, again with the flat side in the groove. The rounded side should protrude out of the groove about 1mm.
- Step 3. Install 1 x M4x12mm SHCP T20 screw into position 9 two-thirds of the length.
- Step 4. Install 2 xM4x12mm SHCP T20 screws into positions 8 and 10 two-thirds of the length.
- Step 5. Install 1 x M4x12mm SHCP T20 screw into position 2 two-thirds of the length.
- Step 6. Install 2 x M4x12mm SHCP T20 screws into positions 1 and 3 two-thirds of the length.
- Step 7. Install the remaining M4x12mm SHCP T20 screws into positions 4,5,6,7,11,12,13 and 14 two-thirds of the length.
- Step 8. Tighten positions 7 and 14 to 20 kgf.cm (1.96 Nm / 1.45 lbf.ft)
- Step 9. Tighten positions 4 and 11 to 20 kgf.cm (1.96 Nm / 1.45 lbf.ft)
- Step 10. Tighten all remaining positions 1,2,3,5,6,8,9,10,12,13 to 20 kgf.cm (1.96 Nm / 1.45 lbf.ft)

WARNING: If the gasket has any damage or 'dents' it must be replaced.

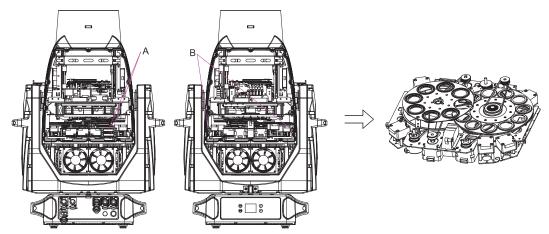




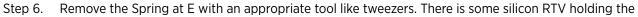
REPLACE A ROTATING GOBO

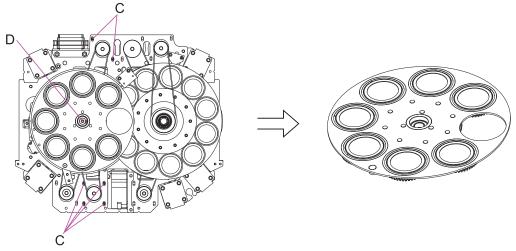
To replace a rotating gobo (see below):

- Step 1. Remove power from luminaire.
- Step 2. Remove top and bottom head covers as described on previous page.
- Step 3. Remove the 4 screws and disconnect the DB Plug at A.
- Step 4. On the other side, remove the 2 screws at B and remove the gobo/color assembly.



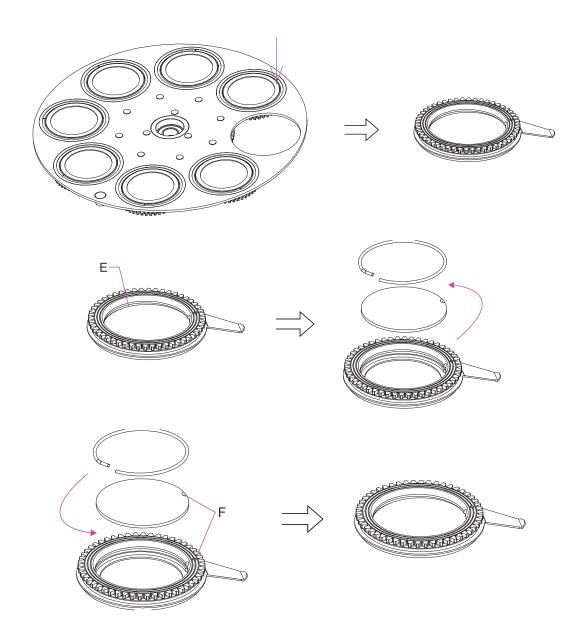
Step 5. Press down on the edge of the rotating gobo carrier you wish to remove and slowly pull out.





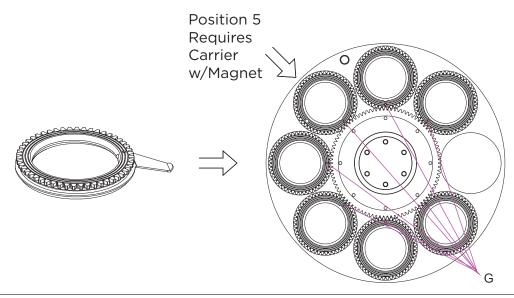
- gobo/spring into the carrier, carefully remove it before removing the spring to avoid damage to the
- Step 7. Do not touch the surface of the gobo with bare fingers (wear gloves). Put the gobo and the spring back into the carrier, aligning the mark on the gobo with the mark on the carrier as shown in F. The coated side should face upwards. Apply a small amount of silicon RTV to hold the gobo in place.
- Step 8. Ensure the sun gear on the gobo wheel is oriented so that all 7 timing marks on the sun gear align with the timing marks on the gobos (G below). If they do not, turn the sun gear until all gobos are aligned.

NOTE: Take care when removing wheels as there are spacers present. Ensure you keep track of these and replace in the proper orientation/position.



- Step 9. Insert the gobo holder back into the rotating gobo wheel ensuring the timing mark on the gobo carrier aligns with the timing mark on the sun gear.
- Step 10. Replace the gobo wheel on the bulkhead and re-install in fixture. Follow instructions on replacing the covers.
- Step 11. Power and test.

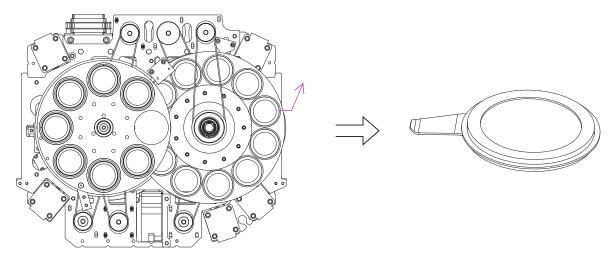
REPLACE A FIXED GOBO



NOTE: Position 5 carrier requires a magnet to calibrate the gobo index/rotation. Always ensure the carrier in that position has a magnet installed.

To replace a fixed gobo (see below):

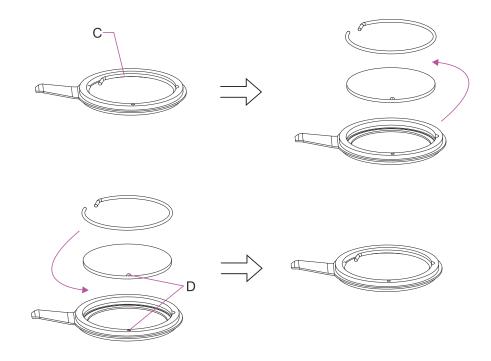
- Step 1. Remove power from luminaire.
- Step 2. Remove top and bottom covers as described above.
- Step 3. Remove the gobo/color assembly as described above.
- Step 4. Gently lift the fixed gobo carrier you wish to remove from the edge of the gobo wheel and slowly pull it out.
- Step 5. Remove the Spring at C with an appropriate tool like tweezers. There is some silicon RTV holding the gobo/spring into the carrier, carefully remove it before removing the spring to avoid damage to the



gobo.

- Step 6. Do not touch the surface of the gobo with bare fingers (wear gloves). Put the gobo and the spring back into the carrier, aligning the mark on the gobo with the mark on the carrier as shown in D. The coated side should face upwards. Apply a small amount of silicon RTV to hold the gobo in place.
- Step 7. Insert the fixed gobo carrier back into the fixed gobo wheel. Re-install the bulkhead into the fixture. Follow the instructions to re-install the covers.
- Step 8. Power and test.

DMX OPERATION



DMX MAPS

The tables assume a DMX start address of 1. When a different starting address is used, this address becomes channel 1 function and other functions follow in sequence.

DMX CHANNEL		PARAMETER DEFAULTS	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)	PARAMETER			
1	1	Intensity High	O	0-65535	16-Bit control of Dimming
2	2	Intensity Low			
3	3	Pan High	70767	0.65575	F400 Total Dan Datation
4	4	Pan Low	32767	0-65535	540° Total Pan Rotation
5	5	Tilt High	70767	0.05575	0700 Tabal Till
6	6	Tilt Low	32767	0-65535	270° Total Tilt
7	7	Focus High	70767	0.65575	Focus control
8	8	Focus Low	32767	0-65535	Default value 50% Focus range
9	9	Zoom High	70767	0.65575	Zoom control
10	10	Zoom Low	32767	0-65535	Default value 50% zoom range
11	11	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
12	12	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
13	13	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
14	14	CTO Wheel	0	0 - 255	CTO Color Control 0-100% saturation
				0 - 255	8-bit control of Color Adjustment (Color Wheel 2).
				0 - 30	Open
		Color	0	31 - 60	CRI Booster
15	15	Adjustment (Color Wheel 2)		61 - 90	1/2 Minus Green
		(Color Wheel 2)		91-120	1/4 Minus Green
				121180	СТВ
				181-255	Reserved
				0 - 255	8-bit control of Color Wheel. (spin speed slow to fast from control channel) OPEN (centered at 0)
				0-31	Open
				32-63	Red Center - 48
16	16	Color Wheel 1	0	64-95	Dark Blue Center - 80
16	10	(Color Wheel)		96-127	Yellow Center - 112
				128-159	Kelly Green Center - 144
				160-191	Amber Center - 176
				192-223	Congo Blue Center - 208
				224-255	Open



DMX	CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)	PARAMETER	DELAGEIS	KANGE BIIX	DESCRIPTION
				0 - 255	
				0 - 5	Linear Movement using shortest (quickest) path.
				6 - 10	Linear Movement using normal (longest) path.
				11 - 15	Wheel Spin CW (Forward)
17	17	Color Wheel 1		16 - 20	Wheel Spin STOP
17	17	Control	0	21 - 25	Wheel Spin CCW (Reverse)
				26 - 56	Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0
				57 - 87	Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0
				88 - 255	Reserved Values
				0-255	8-bit control of Gobo Wheel See channel 19 for control options
		Gobo Wheel 1 (Fixed)	O	0 - 20	Open - No Gobo
	18			21 - 41	Gobo 1 Leafy Breakup
				42 - 62	Gobo 2 Medium Circle
				63 - 83	Gobo 3 Square Pile
				84 - 104	Gobo 4 Confusion
18				105 - 125	Gobo 5 Dust
				126 - 146	Gobo 6 Neurons
				147 - 167	Gobo 7 Radial Breakup
				168 - 188	Gobo 8 Staples
				189 - 209	Gobo 9 Blobs
				210 - 230	Gobo 10 Pipes Breakup
				231 - 255	Open - No Gobo
				0 - 255	Used as a control channel for different movement options for Gobo Wheel 1 (Channel 18)
				0 - 5	Gobo Selection using shortest (quickest) path.
				6 - 10	Gobo Selection using normal (longest) path.
				11 - 20	Reserved Values
				21 - 50	Wheel Spin CW Forward (Fast to Slow)
19	19	Gobo Wheel 1	0	51 - 60	Wheel Spin STOP
13	19	Control		61 - 90	Wheel Spin CCW Reverse (Slow to Fast)
				91 - 120	Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
				121 - 150	Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
				151 - 180	Reserved Values
				181 - 210	Reserved Values
				211 - 255	Reserved Values



	CHANNEL 16-BIT	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	(DEFAULT)				
				0 - 255	8-bit control of Gobo Wheel 2. See channel 21 for Index/Rotation See channel 23 for control options.
				0 - 5	Open - No Gobo
				6 - 10	Gobo 1 Night Sky Index
				11 - 15	Gobo 2 New Twirler Index
				16 - 20	Gobo 3 Bricked Out Index
				21 - 25	Gobo 4 Horzonal Slits Index
				26 - 30	Gobo 5 Super Alpha Rays Index
				31 - 35	Gobo 6 Honey Comb Reverse Index
				36 - 40	Gobo 7 On the Rocks ndex
				41 - 45	Open - No Gobo
				46 - 50	Gobo 1 Night Sky Rotate
				51 - 55	Gobo 2 New Twirler Rotate
20	20	Gobo Wheel 2	О	56 - 60	Gobo 3 Bricked Out Rotate
				61 - 65	Gobo 4 Horzonal Slits Rotate
				66 - 70	Gobo 5 Super Alpha Rays Rotate
				71 - 75	Gobo 6 Honey Comb Reverse Rotate
				76 - 80	Gobo 7 On the Rocks Rotate
				81 - 85	Open - No Gobo
				86 - 90	Gobo 1 Night Sky Rotate Mega Stepping
				91 - 95	Gobo 2 New Twirler Rotate Mega Stepping
				96 - 100	Gobo 3 Bricked Out Rotate Mega Stepping
				101 - 105	Gobo 4 Horzonal Slits Rotate Mega Stepping
				106 - 110	Gobo 5 Super Alpha Rays Rotate Mega Stepping
				111 - 115	Gobo 6 Honey Comb Reverse Rotate Mega Stepping
				116 - 120	Gobo 7 On the Rocks Rotate Mega Stepping
				121 - 255	Open - No Gobo
21	21	Gobo Wheel 2 Rotate/Index		0 - 65535	16-bit control of index and rotation of gobo wheel 2.
		High Byte	32767	0 - 32756	Rotate Fast to Slow <<<
22	22	Low Byte		32757 - 32780	Rotation STOP
		2011 Dyte		32781 - 65535	Rotate Slow to Fast >>>

DMX	CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
				0 - 255	Used as a control channel for different movement options for Gobo Wheel 2 (Channel 20)
				0 - 5	Gobo Selection using shortest (quickest) path.
				6 - 10	Gobo Selection using normal (longest) path.
				11 - 20	Reserved Values
				21 - 50	Wheel Spin CW Forward (Fast to Slow)
				51 - 60	Wheel Spin STOP
23	23	Gobo Wheel 2	0	61 - 90	Wheel Spin CCW Reverse (Slow to Fast)
		Control		91 - 120	Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
				121 - 150	Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
				151 - 180	Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0
				181 - 210	Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
				211 - 255	Reserved Values
				0 - 255	8-bit control of VLFX (Gobo Wheel 3). See Channel 27 for control options.
				0 -10	Open - No Gobo
				11 -33	Gobo 1 Amoeboid chamber Index
				34 -56	Gobo 2 Dichrofusion Index
				57 -79	Gobo 3 Concurrent Index
				80 -90	Open - No Gobo
24	24	VLFX (Gobo	0	91 -113	Gobo 1 Amoeboid chamber Rotate
		Wheel 3)		114 -136	Gobo 2 Dichrofusion Rotate
				137 -159	Gobo 3 Concurrent Rotate
				160 -170	Open - No Gobo
				171 -193	Gobo 1 Amoeboid chamber Rotate Mega Stepping
				194 -216	Gobo 2 Dichrofusion Rotate Mega Stepping
			217 -239	Gobo 3 Concurrent Rotate Mega Stepping	
				240 -255	Open - No Gobo
25	25	VLFX (Gobo Wheel 3)		0 - 65535	16-bit control of index and rotation of VLFX (Gobo wheel 3).
•		Rotate/Index High Byte	32767	0 - 32756	Rotate Fast to Slow <<<
26	26	Low Byte		32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>

DMX	CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)	TANAHETEN			
				0 - 255	Used as a control channel for different movement options for Gobo Wheel 3 (24)
				0 - 5	Gobo Selection using shortest (quickest) path.
				6 - 10	Gobo Selection using normal (longest) path.
				11 - 20	Reserved Values
				21 - 50	Wheel Spin CW Forward (Fast to Slow)
				51 - 60	Wheel Spin STOP
		VLFX		61 - 90	Wheel Spin CCW Reverse (Slow to Fast)
27	27	Gobo Wheel 3 Control	0	91 - 120	Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0
				121 - 150	Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0
				151 - 180	Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0
				181 - 210	Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
				211 - 255	Reserved Values
				0-255	Iris size control
28	28	Iris	0	0 - 200	Iris beam size open to closed
				201 - 255	Iris pulse slow to fast
29	29	Frame 1A	0	0 - 255	Controls Framing Shutter 1A from Open (DMX 0) to Full (DMX 255).
30	30	Frame 1B	0	0 - 255	Controls Framing Shutter 1B from Open (DMX 0) to Full (DMX 255).
31	31	Frame 2A	0	0 - 255	Controls Framing Shutter 2A from Open (DMX 0) to Full (DMX 255).
32	32	Frame 2B	0	0 - 255	Controls Framing Shutter 2B from Open (DMX 0) to Full (DMX 255).
33	33	Frame 3A	0	0 - 255	Controls Framing Shutter 3A from Open (DMX 0) to Full (DMX 255).
34	34	Frame 3B	0	0 - 255	Controls Framing Shutter 3B from Open (DMX 0) to Full (DMX 255).
35	35	Frame 4A	0	0 - 255	Controls Framing Shutter 4A from Open (DMX 0) to Full (DMX 255).
36	36	Frame 4B	0	0 - 255	Controls Framing Shutter 4B from Open (DMX 0) to Full (DMX 255).
37	37	Frame Rotate	128	0 - 255	Controls Framing Shutter mechanism from +/- 60°
				0 - 255	Controls Prism mechanism with following values.
				0 - 5	Open
70	70	Prism 1	0 355	6 - 10	Index
38	38	(Triangular)	0 - 255	11 - 15	Rotate Normal
				16 - 20	Rotate with Mega Stepping
				21 - 255	Reserved Values



DMX CHANNEL		PARAMETER DEFAULTS	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
39	39	Prism 1 (Index/Rotate)		0 - 65535	16-bit control of prism rotation and index.
39	39	High Byte	32767	0 - 32756	Rotate Fast to Slow <<<
40	40	Low Byte	02.0.	32757 - 32780	Rotation STOP
40	40	LOW Byte		32781 - 65535	Rotate Slow to Fast >>>
				0 - 255	Controls Prism mechanism with following values.
				0 - 5	Open
41	41	Prism 2 (Flat)	0 - 255	6 - 10	Index
71	71	1 113111 2 (1 101)	0 233	11 - 15	Rotate Normal
				16 - 20	Rotate with Mega Stepping
				21 - 255	Reserved Values
40	40	Prism 2		0 - 65535	16-bit control of prism rotation and index.
42	42	(Index/Rotate) High Byte	32767	0 - 32756	Rotate Fast to Slow <<<
43	43	Low Byte	32707	32757 - 32780	Rotation STOP
	3	LOW Byte		32781 - 65535	Rotate Slow to Fast >>>
				0-255	Control of dual frost
				0 - 10	No Frost
44	44	Frost	0	11 - 20	Frost 1
44	44	11030		21 - 25	Frost 1+2
				26 - 36	Frost 2
				37-255	Reserved
				0 - 5	Shutter closed
				6 - 10	Shutter open
				11 - 125	Strobe Slow>>>>>Fast 0.5Hz-30Hz
4.5	4-	G to t		126 - 130	Shutter open
45	45	Strobe	9	131 - 245	Strobe Random/Random Sync* Slow>>>>>Fast
				246 - 250	Shutter open
				251 - 255	Shutter closed *See Programmers channel for mode slection
46	46	Future use channel	0		Channel reserved for future use

DMX	CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)	FARAPIETER	DELAGEIS	NANGE BIIX	DESCRIPTION
47	47	Programmers Channel	0	0-40 41 - 45 46 - 50 51 - 55 56 - 60 61 - 65 66 - 70 71 - 75 76 - 80 81 - 85 86 - 90 91 - 95 96 - 100 101 - 105 106 - 110 111 - 115 116 - 120 121 - 125 126 - 130 131 - 135 136 - 140 141 - 145 146 - 150 151 - 155 156 - 160 161 - 165 166 - 170 171 - 175	Functions do not require 3 second DMX rule. Mode will change once DMX level is reached Idle Dimming Curve Linear Dimming Curve S-Curve Dimming Curve Square Curve (Default)** Dimmer Snap On Dimmer Snap Off (Default) Reserved Values Reserved Values Edge Tracking On Edge Tracking Off (Default) Reserved Values Color Snap Off (Default) Color Snap On (de-activates color timing channel) Reserved Values Strobe Random (Default) Strobe Random Sync Reserved Values
	48	Focus Timing	255	0 - 255	Adjustment of fixture timing to control Pan/Tilt mechanisms. See Timing Channel Values
	49	Optics Timing	255	0 - 255	Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Values.
	50	Color Timing	255	0 - 255	Adjustment of fixture timing to control color mechanisms. See Timing Channel Values.
	51	Beam Timing	255	0 - 255	Adjustment of fixture timing to control beam shaping mechanisms. See Timing Channel Values.
	52	Gobo Timing	255	0 - 255	Adjustment of fixture timing to control gobo mechanisms. See Timing Channel Values.



DMX	CHANNEL	DADAMETER	DEFAULTS	DEFAULTS RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)	PARAMETER	DEFAULTS	RANGE DINA	DESCRIPTION
				0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows
				0-4	Automatic fan/output adjustment (Default)
48	53	Fan Control	O	05 - 255	Linear control of fan speed and LED max output DMX 5 =Highest Constant Fan Speed (Standard mode) DMX 255 = Lowest Constant Fan Speed (Whispe mode) * Standard mode only. Function is dec-activated if Studio or Boost modes are selected via Dmx o User Interface
49	54	Luminaire Control	O	0-255 0 - 5 6 - 10 11 - 15 16 - 20 21 - 25 26 - 30 31 - 85 86 - 90 91 - 95 96 - 100 101 - 110 111 - 115 116 - 120 121 - 125 126 - 135 136 - 140 141 - 145 146 - 150 151 - 155 156 - 160 161 - 165 166 - 170 171 - 175 176 - 180 181 - 185 186 - 190 191 - 255	Control Channel used for full fixture settings Set discrete value of desired effect, wait >3 sec then set value to 0 (Idle). Idle (Default) Full Luminaire ReCal - also used to wake from shutdown Fixture Shutdown ReBoot Display - Menu On Display - Menu Off Reserved Values Status Check Side Hang Disable (Default) Side Hang Enable Reserved Values Standard Mode (Default) - fan channel active Studio Mode Whisper Mode Reserved Values Fan On (Default) Fan Auto Reserved Values ReCal Position ReCal Color ReCal Beam ReCal Optics ReCal Gobo Reset Defaults CTB Correction Off (Default) CTB Correction On Reserved



Timing Channel Values

DMX	% VALUES	TIME (SEC)
0		Full Speed
1		0.2
2		0.4
3	1	0.6
4		0.8
5	2	1
6		1.2
7		1.4
8	3	1.6
9		1.8
10	4	2
11		2.2
12		2.4
13	5	2.6
14		2.8
15	6	3
16		3.2
17		3.4
18	7	3.6
19		3.8
20	8	4
21		4.2
22		4.4
23	9	4.6
24		4.8
25	10	5
26		5.2
27		5.4
28	11	5.6
29		5.8
30		6
31	12	6.2
32		6.4
33	13	6.6
34		6.8
35		7
36	14	7.2
37	17	7.4
38	15	7.4
39	15	7.8
40		8
41	16	8.2
42	10	8.4
43	17	
43	17	8.6
44		8.8

DMX	% VALUES	TIME (SEC)
45	% VALUES	
	10	9
46	18	9.2
47	10	9.4
48	19	9.6
49		9.8
50		10
51	20	10.2
52		10.4
53		10.6
54	21	11
55		11
56	22	12
57		12
58		13
59	23	13
60		14
61	24	14
62		14
63		15
64	25	15
65		16
66	26	16
67		16
68		17
69	27	17
70		18
71	28	18
72		18
73		19
74	29	19
75		20
76	30	20
77		20
78		21
79	31	21
80		21
81		22
82	32	22
83	1 -	23
84	33	23
85		23
86		24
87	34	24
88	34	25
	75	
89	35	25

90 25 91 26 92 36 26 93 27 94 37 27 95 27 96 28 97 38 28 98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36 117 46 36	
92 36 26 93 27 94 37 27 95 27 96 28 97 38 28 98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
93 27 94 37 27 95 28 97 38 28 98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
94 37 27 95 27 96 28 97 38 28 98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
95 27 96 28 97 38 28 98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
96 28 97 38 28 98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
97 38 28 98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
98 29 99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
99 39 29 100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
100 29 101 30 102 40 30 103 30 104 31 105 41 31 106 32 107 42 32 108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
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108 32 109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
109 33 110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
110 43 33 111 34 112 44 34 113 34 114 35 115 45 35 116 36	
111 34 112 44 34 113 34 114 35 115 45 35 116 36	
112 44 34 113 34 114 35 115 45 35 116 36	
113 34 114 35 115 45 35 116 36	
114 35 115 45 35 116 36	
115 45 35 116 36	
116 36	
117 /6 76	
117 40 30	
118 36	
119 37	
120 47 37	
121 38	
122 48 38	
123 38	
124 39	
125 49 39	
126 39	
127 40	
128 50 40	
129 41	
130 51 41	
131 41	
132 42	
133 52 42	
134 43	

Timing Channel Values - continued

DMX	% VALUES	TIME (SEC)
135	53	43
136		43
137		44
138	54	44
139		45
140	55	45
141		45
142		46
143	56	46
144		47
145	57	47
146		47
147		48
148	58	48
149		49
150	59	49
151		49
152		50
153	60	50
154		50
155		51
156	61	51
157		52
158	62	52
159		52
160		53
161	63	53
162		54
163	64	54
164		54
165		55
166	65	55
167		56
168	66	56
169		56
170		57
171	67	57
172		58
173	68	58
174		58
175		59
176	69	59
177		59
178		60
179	70	60

DMX	% VALUES	TIME (SEC)
180		65
181	71	65
182		65
183		70
184	72	70
185		75
186	73	75
187		75
188		80
189	74	80
190		85
191	75	85
192		85
193		90
194	76	90
195		95
196	77	95
197		95
198		100
199	78	100
200		110
201	79	110
202		110
203		120
204	80	120
205		120
206	81	130
207		130
208		140
209	82	140
210		140
211		150
212	83	150
213		160
214	84	160
215		160
216		170
217	85	170
218		180
219	86	180
220		180
221		190
222	87	190
223	<u> </u>	200
224	88	200
		200

DMX	% VALUES	TIME (SEC)
225		200
226		210
227	89	210
228		210
229		220
230	90	220
231		230
232	91	230
233		230
234		240
235	92	240
236		250
237	93	250
238		250
239		260
240	94	260
241		270
242	95	270
243		270
244		280
245	96	280
246		290
247	97	290
248		290
249		300
250	98	300
251		310
252	99	310
253		310
254		310
255	100	Follows Cue Data

RDM PARAMETERS

REQUIRED / IMPLEMENTED		×	×	×						×	×				×	×		×		×	×	×	×			×				×	×
ESTA STANDARD		×	×	×											×	×		×								×					
COMMENT																															
VALUE		0x0001	0x0002	0x0003	0x0010	0x0011	0x0015		0x0020	0x0030	0x0031	0x0032	0x0033		0x0050	0x0051		0900×0	0x0070	0x0080	0×0081	0x0082	0600×0	0x00A0	0x00B0	000000	0x00C1	0x00C2		0×00E0	0×00E1
RDM PARAMETER IDS	gement	DISC_UNIQUE_BRANCH	DISC_MUTE	DISC_UN_MUTE	PROXIED_DEVICES	PROXIED_DEVICES_COUNT	COMMS_STATUS	ion	QUEUED_MESSAGE	STATUS_MESSAGES	STATUS_ID_DESCRIPTION	CLEAR_STATUS_ID	SUB_DEVICE_STATUS_REPORT_THRESHOLD	ion	SUPPORTED_PARAMETERS	PARAMETER_DESCRIPTION	nation	DEVICE_INFO	PRODUCT_DETAIL_ID_LIST	DEVICE_MODEL_DESCRIPTION	MANUFACTURER_LABEL	DEVICE_LABEL	FACTORY_DEFAULTS	LANGUAGE_CAPABILITIES	LANGUAGE	SOFTWARE_VERSION_LABEL	BOOT_SOFTWARE_VERSION_ID	BOOT_SOFTWARE_VERSION_LABEL		DMX_PERSONALITY	DMX_PERSONALITY_DESCRIPTION
SET ALLOWED	Category - Network Management						×	Status Collection				×	×	- RDM Information			Category - Product Information					×	×		×				Category - DMX512 Setup	×	
GET	Category - N				×	×	×	Category - S	×	×	×		×	Category - R	×	×	Category - P	×	×	×	×	×	×	×	×	×	×	×	Category - D	×	×

GET ALLOWED	SET ALLOWED	RDM PARAMETER IDS	VALUE	COMMENT	ESTA STANDARD	REGUIRED /
×	×	DMX_START_ADDRESS	0x00F0		×	×
×		SLOT_INFO	0×0120			×
×		SLOT_DESCRIPTION	0×0121			×
×		DEFAULT_SLOT_VALUE	0×0122			×
Category - S	Sensors 0x02xx	×				
×		SENSOR_DEFINITION	0×0200			×
×	×	SENSOR_VALUE	0×0201	Fan speed and temperatures		×
	×	RECORD_SENSORS	0x0202			
Category - L	Category - Dimmer Settings 0x03xx	igs 0x03xx				
×	×	Dimmer Curve	0x0343			×
×		Dimmer Curve Description	0x0344			×
×	×	Modulation Frequency	0x0347			×
×		Modulation Frequency Description	0x0348			×
Category - F	ower / Lamp	Category - Power / Lamp Settings 0x04xx				
×	×	DEVICE_HOURS	0×0400			×
×		LAMP_HOURS	0x0401			×
×		LAMP_STRIKES	0×0402			×
×		LAMP_STATE	0x0403			×
×		LAMP_ON_MODE	0×0404			×
×		DEVICE_POWER_CYCLES	0×0405			×
Category - D	Category - Display Settings 0x05xx	gs 0x05xx				
×	×	DISPLAY_INVERT	0x0500			×
×	×	DISPLAY_LEVEL	0x0501			×
Category - C	Configuration 0x06xx	0x06xx				
×	×	PAN_INVERT	0×0600			×
×	×	TILT_INVERT	0×0601			×
×	×	PAN_TILT_SWAP	0×0602			×
×	×	REAL_TIME_CLOCK	0x0603			
Category - II	P & DNS Conf	Category - IP & DNS Configuration 0x07xx				
×		LIST_INTERFACES	0x0700	This is required if any IP setting is used	*	×

REQUIRED / IMPLEMENTED	×				×	×			×						×	×	×	×	×					×	×	×		×	×	×
ESTA STANDARD									*						×															
COMMENT									Required if support 0x0703, 0x0704, or 0x0706									All Test, Pan/Tilt, Encoder		See E1-20_2010a	Table A-7 defines			Value range depends on options (Standard, Studio, etc)		Value range depends on options	Value range depends on options			Value range depends on options
VALUE	0×0701	0x0702	0x0703	0x0704	0x0705	0x0706	0x0707	0x0708	0×0709	0x070A	0x070B	0x070C	0x070D		0x1000	0×1001	0x1010	0x1020	0x1021	0x1030	0x1031	Ox7FEO-Ox7FFF	0x8000-0xFFDF	0x8A97	0x8AD3	0x8AA0	0x8AA1	0x8AA2	0x8AA3	0x8AA4
RDM PARAMETER IDS	INTERFACE_LABEL	INTERFACE_HARDWARE_ADDRESS_TYPE1	IPV4_DHCP_MODE	IPV4_ZEROCONF_MODE	IPV4_CURRENT_ADDRESS	IPV4_STATIC_ADDRESS	INTERFACE_RENEW_DHCP	INTERFACE_RELEASE_DHCP	INTERFACE_APPLY_CONFIGURATION	IPV4_DEFAULT_ROUTE	DNS_IPV4_NAME_SERVER	DNS_HOSTNAME	DNS_DOMAIN_NAME	~	IDENTIFY_DEVICE	RESET_DEVICE	POWER_STATE	PERFORM_SELFTEST	SELF_TEST_DESCRIPTION	CAPTURE PRESET	PRESET PLAYBACK	Σ	50	Output Power Mode	Pan/Tilt Feedback (On/Off)	Display On Time	LED Dimmer Curve	Pan Tilt Movement (On/Off)	Head Motor Movement (On/Off)	Auto Shutdown Mode
SET			×	×		×	×	×	×	×	×	×	×	- Control 0x10xx	×	×	×	×		×	×	ESTA Reserved Future RDM	Manufacturer-Specific PIDs	×	×	×	×	×	×	×
GET ALLOWED	×	×	×	×	×	×				×	×	×	×	Category - C	×		×	×	×		×	ESTA Reserv	Manufacture	×	×	×	×	×	×	×

4 OPERATION

MENU FUNCTIONS

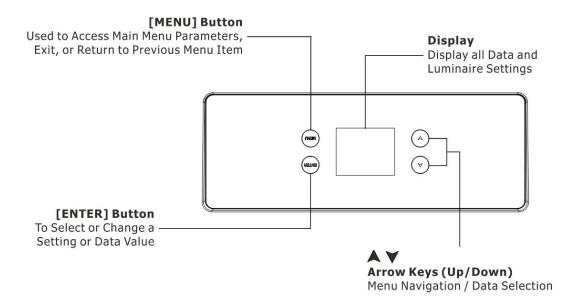
To access the menu, touch the MENU button. Then use the ARROW buttons to navigate through the menu items in the list. Touch ENTER to select. Repeat as needed to move through the menu lists. Once you have reached your desired selection, use the ARROW buttons to choose or set desired setting and then touch ENTER to store. Touching the MENU button will return to the previous menu level.

The VL3600 Profile IP Display and Menu System provides local control for accessing the following fixture's settings:

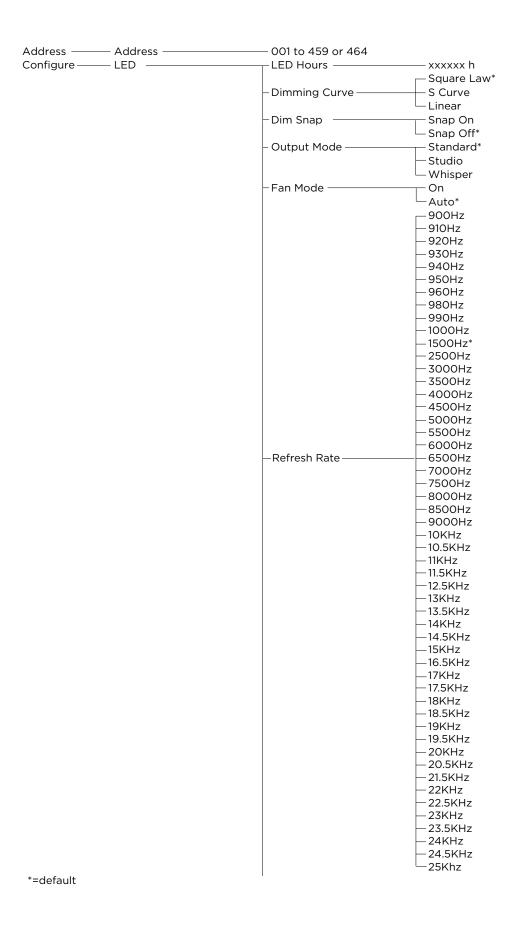
- Address to set the DMX address
- · Configure various parameter settings, set luminaire ID
- DMX change the map, view incoming DMX, invert pan/tilt
- Fixture fixture status, recalibrate, reboot, software version, view fixtures hours, service, etc.
- Test test functions of parameters
- Manual Preset edit and set the manual presets within the fixture

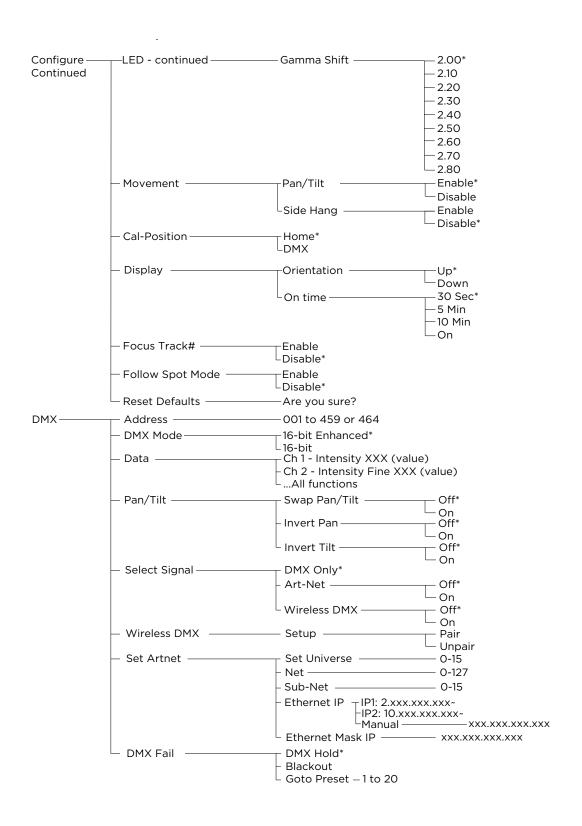
The menu system is controlled at the Menu Display available at the enclosure input panel. If there are multiple luminaires in a system, any settings or changes would need to be made at each Menu as desired

NOTE: The luminaire has an auto lock function on the Menu Display. To unlock, while touching the ENTER button, touch UP -> DOWN -> UP -> DOWN if unit is sitting. If hanging, while touching the ENTER button, touch DOWN -> UP -> DOWN -> UP.

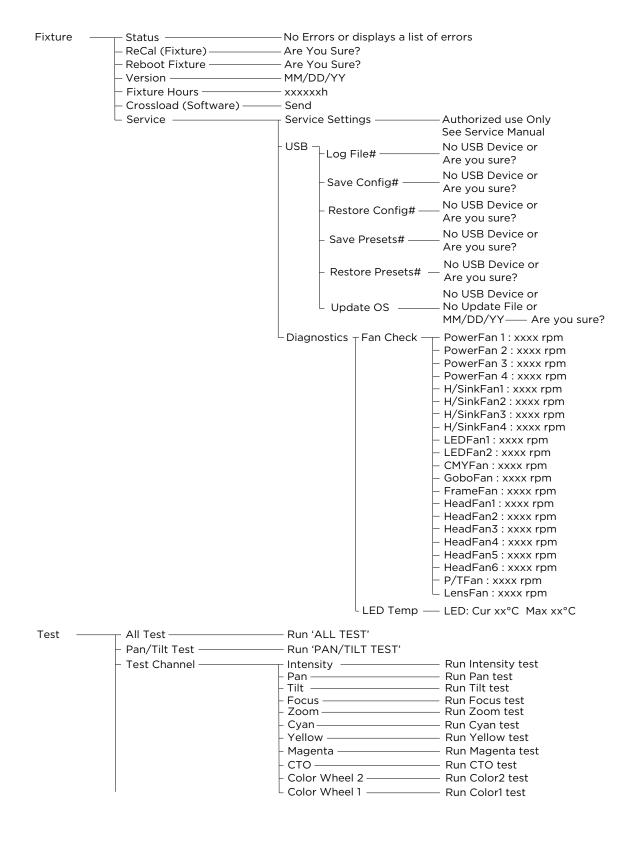


NOTE: Menu functions are subject to activation in subsequent software releases. Please check software release notes for details

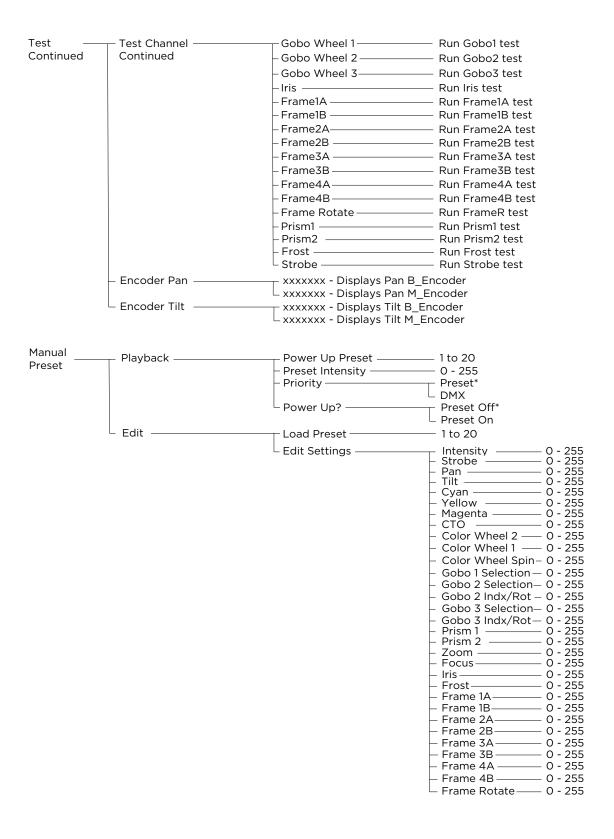


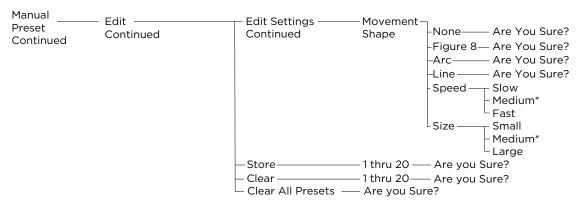


^{*=}default ~=preset in factory #=not implemented



#=not implemented





*=default

MENU SYSTEM

DISPLAY AND MENU SYSTEM OPERATION

The Display Menu system consists of several categories. Use the Menu Button to access the menu. Then use the Up/Down arrow to navigate. When you reach the desired item, touch the Enter Button. To go backwards, touch the Menu Button.

To navigate and access menu settings/selections:

- Step 1. Make sure unit is powered and turned on.
- Step 2. Touch [MENU] to access menu categories.
- Step 3. Use two Arrow (▲ ▼) buttons to navigate through the various options and settings.
- Step 4. Once menu item is reached, touch [ENTER] to access the menu item parameters.
- Step 5. Make changes to parameters as desired.
- Step 6. Press [ENTER] button to accept changes.

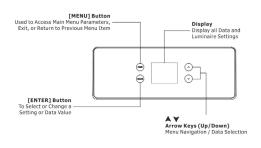
MENU BATTERY OPERATION

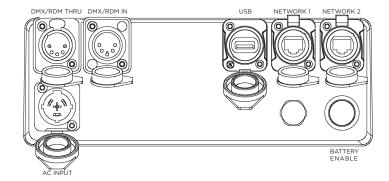
The menu system utilizes a battery powered system for operation when the luminaire is not connected to power. The primary purpose of this mode is to allow basic setup and configuration of the luminaire.

To enable the battery operation of the menu system:

• To activate menu in Battery Mode when the fixture is not connected to a power source, touch and hold the MENU button, and at same time press and hold the battery enable button on the rear. Once the screen boots you can release both and access menu normally. Pressing the MENU button from the top level or home screen will shutoff display.

NOTE: Any commands that require full power will be ignored while the menu system is in battery operation mode.





STATUS BAR

The Status Bar is always present and displays luminaire operational information of the luminaire. The Status Bar contains the following information:

- LED indicates current LED status
- MODE indicates LED output mode STA, STU, WSP
- ERR Displays a number indicating the total amount of current errors. When errors are present, messages will appear in red text. When no errors are present, NO will display.
- MAP indicates current DMX mode 16E or 16.
- ADDR Displays the current DMX address for the fixture.

NOTE: When the fixture does not detect a DMX input signal, the DMX address text will display in red text.

NOTE: The luminaire has an auto lock function on the Menu Display. To unlock, while touching the ENTER button, touch UP -> DOWN -> UP -> DOWN if unit is sitting. If hanging, while touching the ENTER button, touch DOWN -> UP -> DOWN -> UP.

ADDRESS

ADDRESS

Sets the starting DMX address for the fixture. Can also be set via RDM.

CONFIGURE

LED

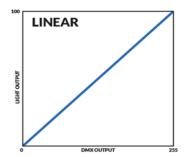
This menu allows for viewing the LED engine hours, setting the dimming curve, dim snap, output mode, fan mode, refresh rate, and gamma.

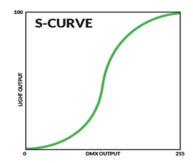
LED Engine Hours

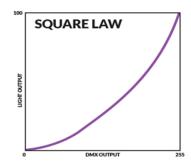
Displays the current LED engine hours.

Dimming Curve

Select from Linear, S-Curve and Square Law. Can also be set via the programmer channel and RDM.







Dim Snap

Dim Snap On allows for fastest output changes between levels but reduces smoothness dimming the LED engine. Dim Snap Off ensures all fades between output levels remains smooth and flicker free but limits fast, instant snaps between levels. Can also be set via the programmer channel and RDM.

Output Mode

Standard mode provides full LED output. Studio mode reduces fan speed to reduce the fan noise of the fixture. Whisper mode decrease the fan noise further. In both Studio mode and Whisper mode, the LED output will decrease accordingly. Can also be set via the control channel and RDM.

Fan Mode

Fan On runs fans at continuous max speed based on Output Mode. Fan Auto will reduce/increase speed on demand based on LED operating temperature. The fan will not exceed the maximum permissible level based on Output Mode. Can also be set via the control channel and RDM. See Appendix B.

Refresh Rate

Choose the refresh rate of the LED engine (see Display Menu Tree for list).

Gamma Shift

Choose the Gamma shift of the LED engine from 2.00 to 2.80

MOVEMENT

Pan/Tilt

Enable allows for the feedback of the encoders to correct the position of pan/tilt in the case of an uncommanded move. Disable prevents this correction, allowing the unit to by positioned by hand.

Side Hang

Enable allows for the fixture to be mounted at up to a 45° angle from horizontal. Disable should be used when hanging normally.

CAL-POSITION

Home

During calibration, pan and tilt will move to the center (50%) of travel. Once calibration has completed, the fixture will move to the current DMX value of pan and tilt.

DMX

During calibration, pan and tilt will move directly to the current DMX value of pan and tilt.

DISPLAY

Orientation

Sets the orientation of the display. Up should be chosen if the fixture is sitting on its base. Down should be chosen if the fixture is hanging.

On Time

Sets how long the display remains illuminated after the last button touch. Choose from 30 seconds, 5 minutes, 10 minutes, or always on.

FOCUS TRACK

With focus track enabled, once you set a focus (edge) value, running the zoom channel will hold that focus on your image. If you then adjust the focus channel, it will jump to that position based on the DMX value. Disabled will cause the lenses to always move based on the DMX values.

FOLLOW SPOT MODE

Enabling Follow Spot Mode allows the fixture to be hand positioned without the use of DMX. All other functions are still dependent on DMX control. The pan and tilt motors do provide resistance and breaking. If you disable Follow Spot Mode, the pan and tilt will return to the correct position based on the DMX value.

RESET DEFAULTS

Resets all the factory defaults of the fixture. This includes setting the DMX Address to 001. Can also be done via RDM and via the control channel.

NOTE: Control channel will not change the current DMX address.

DMX

ADDRESS

Sets the starting DMX address of the fixture. Can also be set via RDM.

DMX MODE

16Bit Enhanced

Includes luminaire timing channels. See DMX map.

16Bit

Omits luminaire timing channels. See DMX map.

DATA

Allows the current DMX value present on each of the luminaire's DMX channels to be viewed.

PAN/TILT

Swap Pan/Tilt

Choose ON to have the pan mechanism controlled via the tilt DMX channels and vice versa. OFF behaves normally.

Invert Pan

Choose ON to reverse the direction of pan. OFF behaves normally.

Invert Tilt

Choose ON to reverse the direction of tilt. OFF behaves normally.

SELECT SIGNAL

DMX Only

Fixture only responds to DMX via the onboard XLR connector input.

ART-NET

Fixture responds to ART-NET via the onboard RJ45 connector input if set to ON.

Wireless DMX

Fixture responds to the built in Wireless DMX if set to ON and paired with appropriate transmitter.

NOTE: Lumenradio CRMX devices provided by others.

WIRELESS DMX

VL3600 Profile IP comes with a built in Wireless DMX receiver. It supports Lumenradio CRMX format. Follow their instructions to configure the transmitter and prepare for pairing.

Setup

Once you have chosen Wireless DMX from Select Signal above and have set your transmitter into its pair mode, come here to Setup and touch [ENTER]. Choose PAIR to join the active network. Choose UNPAIR to disconnect.

SET ART-NET

Set Universe

Select the Art-Net universe you wish to connect to (0 to 15)

Net

Select the Art-Net Net you wish to connect to (0 to 127)

Sub-Net

Select the Art-Net Sub-net you wish to connect to (0 to 15)

Ethernet IP

Choose the factory preset IP address for the fixture. IP1 will choose an IP address in the 2.xxx.xxx.xxx range and IP2 will choose the 10.xxx.xxx.xxx. This will be based on a sub-net mask of 255.0.0.0. Manual allows you to create a custom IP address of your choosing, ensuring you adhere to the correct sub-net mask.

Ethernet Mask IP

Allows you to set you Ethernet Sub-Net Mask if using a manual IP address.

DMX FAIL

DMX Hold

If DMX is lost, fixture will maintain its present state until DMX is restored.

Blackout

If DMX is lost, fixture will go to blackout until DMX is restored.

Goto Preset

If DMX is lost, fixture will go to the preset (1 through 20).

FIXTURE

STATUS

Shows list of error message from previous calibration. If none, it will say No Errors.

RECAL

Runs the calibration routine within the fixture. Can be performed via the control channel or RDM.

REBOOT FIXTURE

Restarts the entire operating system of the fixture. Can be performed via the control channel or RDM.

VERSION

Shows the current software version of the fixture. Version is listed in MM/DD/YY format. Can be viewed via RDM.

FIXTURE HOURS

Shows the accumulated hours the fixture has been powered on. Can be viewed via RDM.

CROSSLOAD (SOFTWARE)

Allows the current version of software installed in the fixture to be sent to other units via an attached DMX cable.

SERVICE

Service Settings - Password protected

This is for the use of authorized service personnel only. Refer to Service Manual for information.

USB

Log File

Saves a .csv file on the usb drive that contains information about the unit, including settings and previous error messages.

Save Config

Saves the current configuration of the fixture (including all settings) that can then be restored into another fixture (i.e., replacing a unit in a system).

Restore Config

Allows the configuration that was saved to the USB in another fixture to be loaded into this fixture. Note the Config needs to have already been loaded onto the USB drive (see previous).

Save Presets

Stores the current presets on the USB drive. These can then be loaded into a different fixture or back into the same unit.

Restore Presets

Load the saved presets on the USB drive into the current fixture. Note they presets need to have already been loaded onto the USB drive (see previous).

Update OS

A USB drive may be used to update the firmware of the fixture. Visit **WWW.VARI-LITE.COM** to download the latest version. Save to the root level of the USB drive. Install drive into the USB port on the connector panel. Choose Update OS from the menu. Select the version you wish to install and touch [ENTER]. Software will install.

Diagnostics

Fan Check

Displays all fan speeds in RPM.

LED Temp

Displays the current and maximum temperature (since the last power cycle) of the LED engine in °C.

TEST

ALL TEST

Runs the self-test of all functions. To stop the test, press [MENU].

PAN/TILT TEST

Runs the self-test of pan/tilt. to stop the test, press [MENU].

TEST CHANNEL

Choose the function you wish to test from the list and touch [ENTER]. The self-test will run. To stop the test touch [MENU].

ENCODER PAN

Displays the value of the two absolute value encoders for pan. Pan M displays the value of the motor encoder, and Pan B displays the secondary pan encoder. If pan/tilt movement is enabled, the fixture will return to previous position after movement.

ENCODER TILT

Displays the value of the two absolute value encoders for tilt. Tilt M displays the value of the motor encoder, and Tilt B displays the secondary tilt encoder. If pan/tilt movement is enabled, the fixture will return to previous position after movement.

MANUAL PRESET

PLAYBACK

Power Up Preset

Selects the preset (1 to 20) that will be played back after power up if enabled.

Preset Intensity

Selects the master intensity of a preset being played back (0 to 255).

Priority

Choose Preset if you always want a preset to playback. Choose DMX if you only want a preset to playback if there is no DMX present.

Power Up?

Choose Preset On if you want the fixture to playback the preset at power up. Choose Preset Off if you do not want a preset to play.

EDIT

Load Preset

Select from preset 1 to 20 and touch [ENTER]. That preset will be played back.

Edit Settings

Choose the function from the list you wish to edit and touch [ENTER]. Use the [UP]/[DOWN] buttons to set desired value. Touch [ENTER] to store. Then continue to adjust all function desired. Movement Shape allows you to select from 3 preset movement effects (Figure 8, Arc, Line) and also set the speed (slow, medium, fast) and size (small, medium, large). Choose none if no movement effect is desired.

Store

After setting all your functions, select which preset number you wish to store (1 to 20) and touch [ENTER]. Touch [ENTER] again to confirm when prompted.

Clear

Select the preset (1 to 20) you wish to clear and touch [ENTER]. Touch [ENTER] again to confirm when prompted.

Clear All Presets

When prompted, touch [ENTER] to confirm and all presets (1 to 20) will be erased.

WARNING: Clearing the presets CANNOT be undone!

Presets can also be stored via a DMX controller using the control channel.

APPENDIX A CARE AND MAINTENANCE

TROUBLESHOOTING

The following are a few common problems that may occur during operation.

The unit does not work; light and fan do not turn on

- Check the connection of power and main fuse.
- Measure the mains voltage on the main connector.

Not responding to DMX controller

- Check DMX connectors, cables to see if they link properly.
- Check the address settings and DMX polarity.
- If you have intermittent DMX signal problems, check the pins on connectors or on DMX PCB of the unit or the previous one.
- Try to use another DMX controller.
- Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

CLEANING

The cleaning of internal lenses must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the fixture's optics.

General cleaning guidelines:

- Clean with soft cloth using normal glass cleaning fluid.
- Always dry the parts carefully.
- Clean the external optics at least every 30 days.

CLEANING OPTICS, FILTERS AND GOBOS

WARNING: Remove power from luminaires before performing maintenance.

WARNING: Acetone is a harsh cleaning agent and solvent. Acetone is very flammable.

Handle acetone according to manufacturer's safety instructions and precautions.

The front lens, optics/color filters may require cleaning after extended use.

- FRONT LENS: Use a isopropyl alcohol with a soft, lint-free cloth to clean the front lens.
- OPTICS/COLOR FILTERS/ GOBOS: Use Acetone or Isopropyl Alcohol along with a soft, lint-free cloth to clean the optics/color filters.

CAUTION: Do not continuously rub color filters or reflector - it may damage or remove the optical coating.

APPENDIX B FAN SPEED AND CONTROL

ADDENDUM

FAN SPEED AND CONTROL

All Vari-Lite luminaires will be governed by the same fan speed vs. noise levels. vs. maximum power output rules as detailed below. The noise related to these levels will conform to the Noise Criteria levels, details of which are contained within this document.

There are three control parameters that can be selected separately or in conjunction (when permitted) to manage fan speed vs. noise levels vs. maximum power output.

NOTE: Not all fixtures have all modes or functions. Refer to DMX map and User Interface menu tree to see if your product has one or more of these functions.

Output Modes

These modes are selectable at the fixture's DMX control channel or via the fixture's user interface screen.

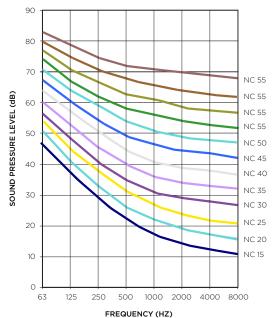
Boost mode - LED output boosted to >100% of standard output. Fan speeds increased to manage heat level of LED (may be limited to only run for XX hours). Fixture will not exceed NC45-NC55 sound levels in this mode.

Standard mode - Full LED output. Fan speed is set to cool LED appropriately but not exceed NC40 sound level in this mode.

Studio mode - Fan speed reduced to achieve 10% dB reduction from Standard mode and not exceed NC35 sound level. LED output is approximately 80% of Standard output to ensure LEDs operate at optimum temperature and output efficiency. Fan speed remains constant and does not ramp up or down.

Whisper mode - Fan speed reduced to achieve 30% dB reduction from Standard mode and not exceed NC25 sound level. LED output is approximately 60% of Standard output to ensure LEDs operate at optimum temperature and output efficiency. Fan speed remains constant and does not ramp up or down.

Silent mode - fans are turned off or turn very slowly to not contribute to fixture noise. LED output is capped to ensure LEDs operate at optimum temperature and output efficiency. Fans are either off or fan speed remains constant. Target NC15 sound level in this mode.



MODE	LED OUTPUT	FAN SPEED	NOISE CRITERION	EQUIVALENT SOUND LEVEL DBA (@3M)	
Boost Mode	>100%	Boosted fan speed constant NC45		50	
Standard Mode	Full 100%	Full 100% constant	NC40	45	
Studio Mode	80%	Appropriate speed to reduce dB levels >10% of full speed	NC35	40	
Whisper Mode	60%	Appropriate speed to reduce dB levels >30% of full speed	NC25	35	
Silent Mode	TBC	Fan off	NC15	25	

NOISE CRITERION	OCTAVE BAND CENTER FREQUENCY (HZ)										
	63	125	250	500	1000	2000	4000	8000			
CITIZITION	SOUND PRESSURE LEVELS (DB)										
NC-15	47	36	29	22	17	14	12	11			
NC-20	51	40	33	26	22	19	17	16			
NC-25	54	44	37	31	27	24	22	21			
NC-30	57	48	41	35	31	29	28	27			
NC-35	60	52	45	40	36	34	33	32			
NC-40	64	56	50	45	41	39	38	37			
NC-45	67	60	54	49	46	44	43	42			
NC-50	71	64	58	54	51	49	48	47			
NC-55	74	67	62	58	56	54	53	52			
NC-60	77	71	67	63	61	59	58	57			
NC-65	80	75	71	68	66	64	63	62			
NC-70	83	79	75	72	71	70	69	68			

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VL3600 PROFILE IP USER MANUAL

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