VARI*LITE

VL2600 SERIES

USER MANUAL

VL2600 PROFILE
VL2600 SE PROFILE
VL2600 WASH
VL2600 SE WASH
VL2600 SPOT

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 a 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, are 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:

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> Website: www.usitt.org

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 VL2600 Series. 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):
- VL2600 Profile; order code(s) 88-105-7270-00, 88-105-7270-10
- VL2600 SE Profile; order code(s) 74802-001, 74802-101
- VL2600 Spot; order code(s) 88-105-6950-00, 88-105-6950-10
- VL2600 Wash; order code(s) 88-105-7340-00, 88-105-7340-10
- VL2600 SE Wash; order code(s) 74802-003, 74802-103

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.

- For indoor, dry location use only. Do not use outdoors unless fixture is suitably IP rated.
- 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 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. Use constant current or relay modules only.

- When using a power distribution rack, do not use dimmer modules to power any Vari-Lite LLC luminaire. Damage to the luminaire can occur. Use constnat current or relay modules only.
- Using a dimmer 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 system, service, and safety guidelines, may cause harmful interference to radio communications.

As tested under this standard:

FCC 47CFR 15B clA*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 INSTALLATION & SETUP

POWER AND DATA CABLING REQUIREMENTS

CONNECTING POWER

This fixture requires standard AC power distribution from 100VAC-240 VAC, 50/60 Hz. Current required depends on the AC supply voltage and product model.

⚠️ **NOTE:** The mating Neutrik® powerCON® True1 connector is supplied; however, you will need to purchase or construct a cable appropriate for your application.
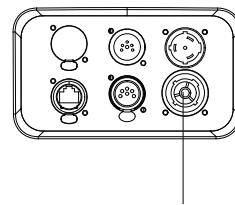
AC power input

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 at 240 volts RMS:
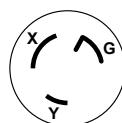
CONNECTION	PIN
AC neutral	X
AC line	Y
Ground (earth)	G

For three-phase power at 200 volts RMS:

CONNECTION	PIN
Phase 1	X
Phase 2	Y
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 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 misoperation and/or failure and may void the luminaire's warranty. Use constant current or relay modules only.

TABLE 1. CURRENT VS. VOLTAGE (550W LAMP)

AC VOLTAGE AT 60HZ	TOTAL LUMINAIRE CURRENT (MOTOR + LAMP CURRENT)		
	PROFILE	SPOT	WASH
100V	7.8A	7.5A	7.1A
110V	7.0A	6.7A	6.3A
120V	6.4A	6.1A	5.8A
130V	5.9A	5.6A	5.3A
200V	3.8A	3.6A	3.4A
210V	3.6A	3.5A	3.3A
220V	3.4A	3.3A	3.1A
230V	3.3A	3.2A	3.0A
240V	3.2A	3.1A	2.9A

DATA CABLES

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 cables, it is important that not only the correct cable type be used, but also quality cable to ensure a reliable DMX512 system. Your cabling should meet the following USITT DMX specification requirements:
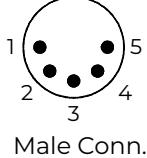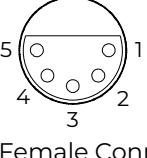
- Suitable for use with EIA485 (RS485) operation at 250k baud
- Characteristic impedance 85-150 ohms, nominally 120 ohms
- Low capacitance
- Two twisted pairs
- Foil and braid shielded
- 24 AWG min. gauge for runs up to 1000 feet (300m)
- 22 AWG min. gauge for runs up to 1640 feet (500m)

NOTE: Microphone type cables and other general purpose, two-core audio or signal cables 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:

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

RECOMMENDED CABLE TYPES/MANUFACTURERS

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.**

TABLE 2.   RECOMMENDED CABLES

TYPE	PAIRS	ZΩ*	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.

Solder resistors across pins 2 & 3, and 4 & 5
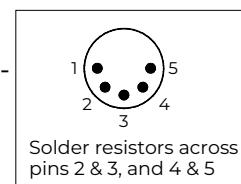
NOTE: A male termination connector is available as an accessory from Vari-Lite.

HANGING THE FIXTURE

The VL2600 can be hung horizontally or 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.

Mega Claw Truss Hook (not provided)

Mount Bracket

Truss Hook Hardware (not provided)

⚠ **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.
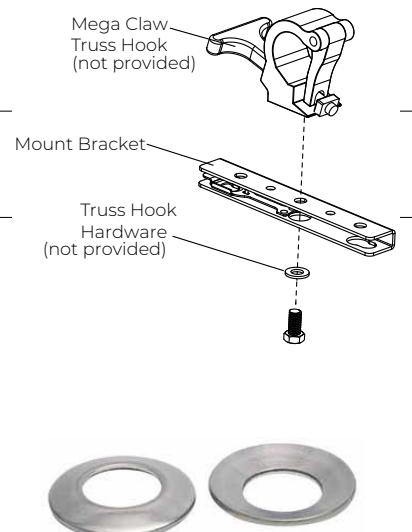
TRUSS HOOK HARDWARE (BY OTHERS)

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 tight-

Example Truss Hook and Mounting Hardware (not included, sold separately)

Mount Bracket
Fit bracket's keyed hole and locking mechanism over raised mounting buttons and slide forward to lock.

Locking Mechanism

Mount Bracket

Keyed Hole

BRACKET ORIENTATION

Locking Mechanism　　　Locked

Press up to install or release
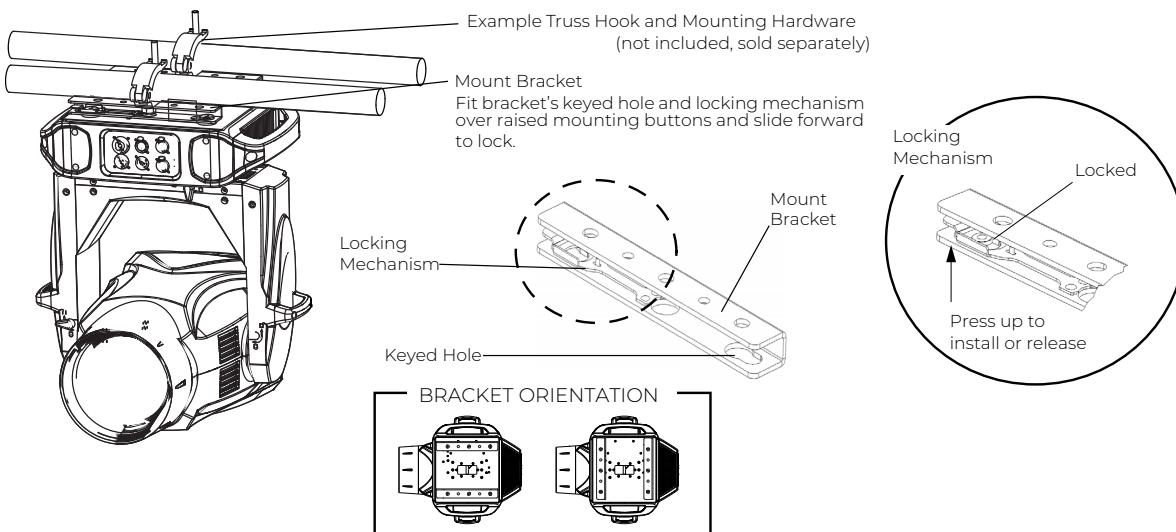
ened and that luminaire is fully supported.

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 > PAN/TILT > SIDE HANG > ENABLE.

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 the luminaire is powered up for the first time, the default setting is enabled and the lamp will remain off. When AC power is applied, the luminaire will immediately begin a calibration sequence that steps it through full pan and tilt movements. 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

Data In ———   ——— Data Thru ———   ——— Data Thru ———
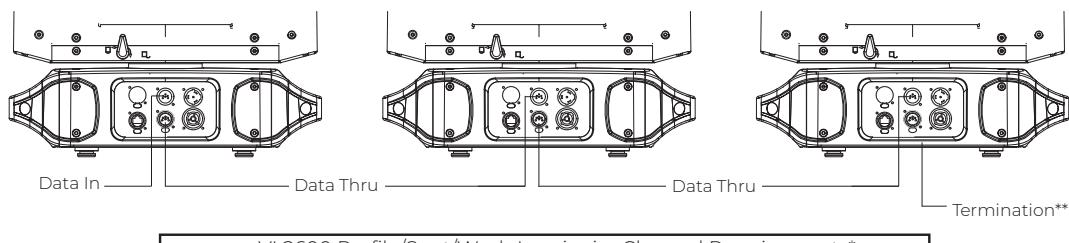
Termination**

VL2600 Profile/Spot/Wash Luminaire Channel Requirements*		
DMX512 Channels	**Description**	**Menu Display**
23 Channels	16-Bit Mode (default)	16

**DMX terminator required for last fixture on DMX line.

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 will automatically step through calibration and stop 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 [ESC].

Step 2.   Press [Up] / [Down] arrows until Address appears. Press [OK].

Step 3.   Use [Left] and [Right] arrow buttons to scroll through all digits.

Step 4.   Once at desired digit, use [Up] and [Down] arrows to change highlighted digit.

Step 5.   Once digit is set, use [Left] and [Right] arrow buttons to set other digits in DMX address.

Step 6.   Once all digits are set in DMX address, press [OK] to set.

Step 7.   DMX will display and is saved.

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.

Program starting address without calibrating luminaire:

· While powering up luminaire, press and hold [ESC].

· When display changes from "Starting" to the DMX address, 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, press [OK] and [ESC] together. The LCD screen will come on. Address the fixture as described above. The LCD screen will shut off after one minute of inactivity.

2 OPERATION

COLOR CONTROL & GOBOS

COLOR WHEEL

VL2600 Profile, VL2600 Spot, VL2600 Wash

VL2600 Series fixed color wheel holds 7 color filters and has one open space. Note that the open space will not accommodate a filter.

CAUTION: VL2600 Series accept glass gobos only. Use of metal gobos in these luminaires may damage gobo assembly and will void the luminaire warranty.
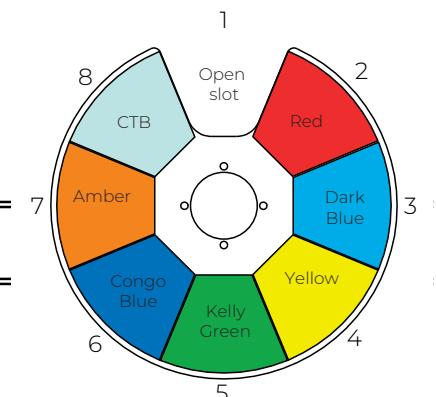
GOBO WHEELS

VL2600 Profile

This rotating gobo wheel offers seven rotatable, indexable gobo positions and one open position.
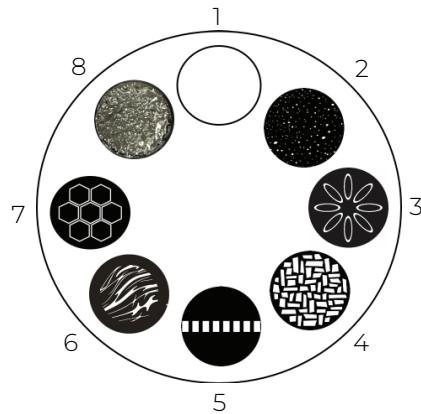
WHEEL 1

1	Open slot
2	Night sky
3	Circle of ovals
4	Bricked out
5	Punch card
6	Swirl
7	Honeycomb reverse
8	On the rocks*

*glass gag

This fixed gobo wheel offers 8 gobo positions and one open position.
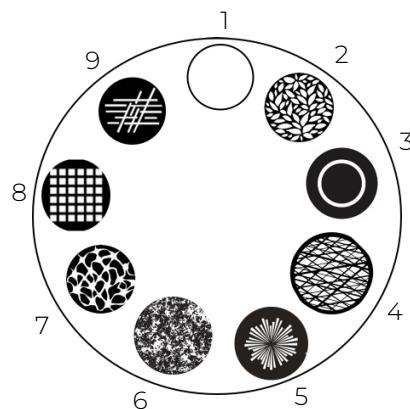
WHEEL 2

1	Open slot
2	Leafy breakup
3	Medium circle
4	Lattice
5	Radial breakup
6	Dust breakup
7	Neurons
8	Grid
9	Cross bars

VL2600 Spot

This rotating gobo wheel offers seven rotatable, indexable gobo positions and one open position.
This rotating gobo wheel offers seven rotatable, indexable gobo positions and one open position.
This fixed gobo wheel offers 8 gobo positions and one open position.
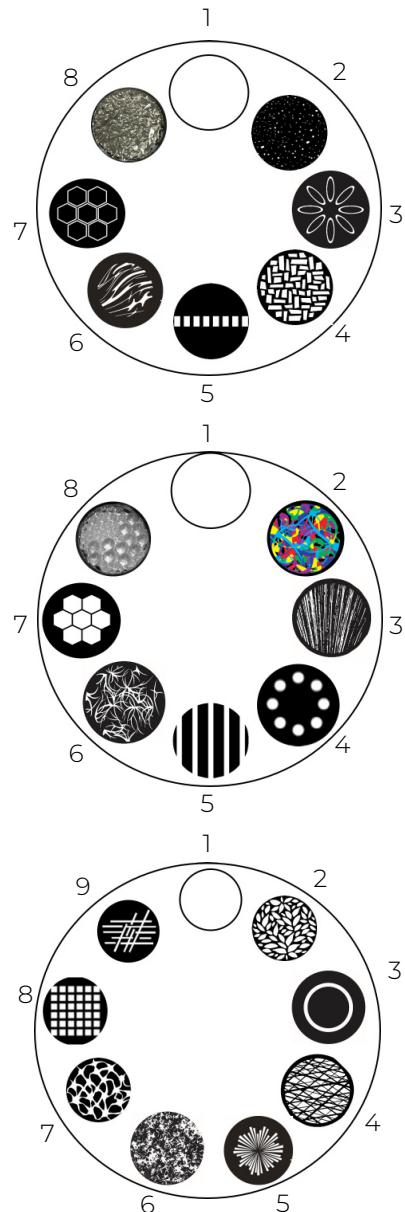
WHEEL 1

1	Open slot
2	Night sky
3	Circle of ovals
4	Bricked out
5	Punch card
6	Swirl
7	Honeycomb reverse
8	On the rocks*

* Glass Gag

WHEEL 2

1	Open slot
2	DichroFusion
3	Alpha rays
4	Circle of holes
5	Vertical bars V2
6	Tribal
7	Honeycomb
8	Droplets*

WHEEL 3

1	Open slot
2	Leafy breakup
3	Medium circle
4	Lattice
5	Radial breakup
6	Dust
7	Neurons
8	Grid
9	Crossbars

GOBO INFORMATION

GOBO	MATERIAL	REFLECTION	THICKNESS	OUTER SIZE	IMAGE SIZE	CARRIER
Rotating or Fixed Gobo Black and White	Borofloat 33	Min 93%	1.1mm +/- 0.1	27mm +0/-0.2	17mm	Yes
Rotating Gobo - Glass Gag	high temp glass	none	3.3mm +/- 0.2	27mm +0/-0.2	27mm	Yes
Rotating or Fixed Gobo Color	Bororfloat 33 + dichroic	N/A	1.1mm +/-0.1	27mm +0/-0.2	17.5mm	Yes

INSTALL OR REPLACE GOBOS

WARNING: Remove power from luminaires before performing maintenance. Gobos may be HOT after opertion. Allow to cool before handling.

To replace a rotating gobo:

Step 1.   Remove power from luminaire.

Step 2.   Remove top and bottom head cover by loosening four crossed Slot screws to access the gobo wheel.

gobo wheel

crossed slot screw
(2 per head cover)
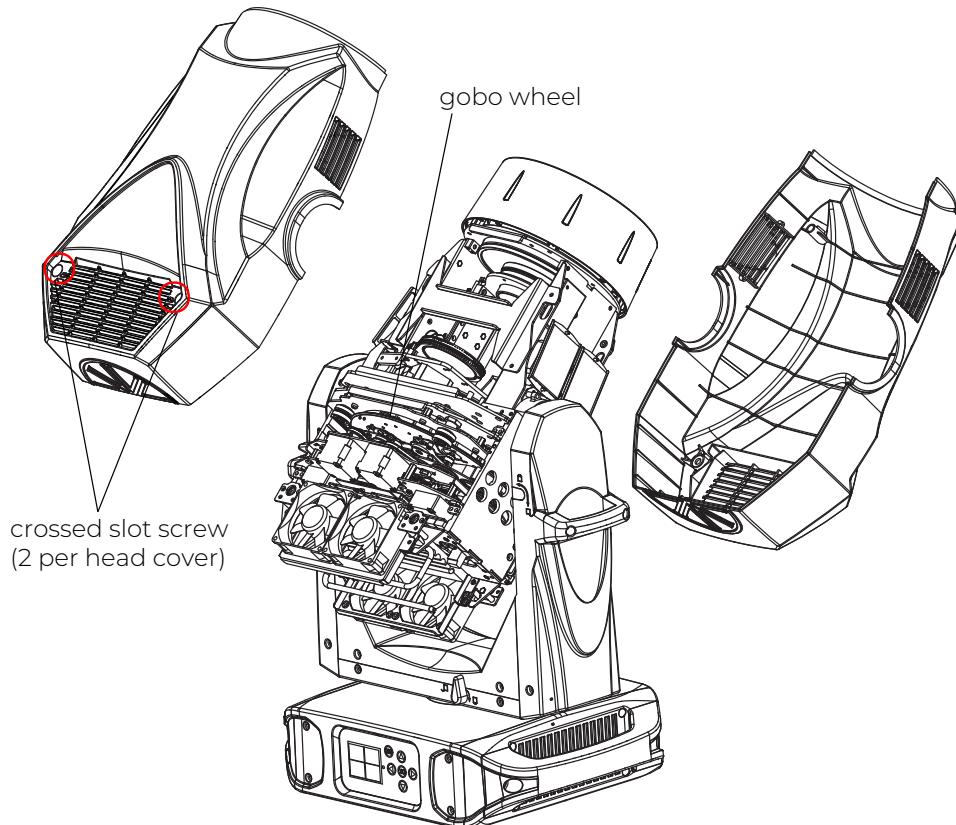
Step 3.   If removing gobos via bottom of head assembly, undo fan tray assembly with thumb screw to access.

Step 4.   Rotate desired gobo wheel until required gobo position is accessible.

CAUTION: Do not push on gobo glass. Press on gobo carrier only.

CAUTION: Do not touch gobos with bare fingers. Wear cotton gloves or other covering while replacing. To clean, refer to **CARE AND MAINTENANCE ON PAGE 55**.

Rotating GoboWheel

Press From This Side

Gobo Assembly

Carrier

Front of luminaire

Step 5.   Remove current gobo by carefully pressing on edges of gobo carrier with fingers, pressing gobo toward front end of luminaire (toward lens), and out of wheel.

Step 6.   Install new gobo as follows:

     a.   Place the gobo holder on a clean, flat work surface with the teeth facing upwards. The gobo is held in place in the gobo holder by a spring. Taking care to avoid scratching or applying pressure to the gobo, lever the end of the spring out, remove the spring and then lift the gobo out of the gobo holder.
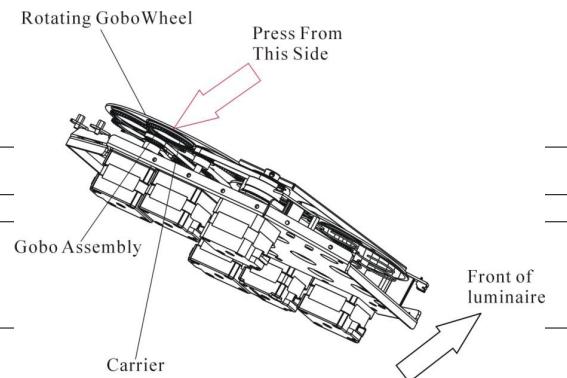
b. Hold the gobo with the dark side facing upwards towards the teeth in the gobo holder. Match up the alignment marks (arrowed) in the gobo and gobo holder. Lay the new gobo flat in the gobo holder.

c. Insert gobo carrier into wheel, ensuring that carrier snaps into place.

Step 7.   Rotate desired gobo wheel until required gobo position is accessible.

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.

> **WARNING:** Inserting framing shutters on the **SE** models beyond a certain point in the beam, with the intensity above a certain level, can cause damage to the coating on the framing shutters. To prevent this, please follow the guidelines below;

TIME	SHUTTER	INSERTION (%-DMX)	DIMMER LEVEL (% - DMX)	MODE
≥30 MIN	ALL	25% GATE- DMX 065 OR ABOVE	≤80% - 205	STANDARD
			≤90% - 230	STUDIO

25% of gate
065 DMX Decimal

TABLE 1.   VL2600 PROFILE 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity High	0	0-65535	16 Bit control of Dimming
2	Intensity Low			
3	Pan High	32767	0-65535	540° Total Pan Rotation
4	Pan Low			
5	Tilt High	32767	0-65535	270° Total Tilt
6	Tilt Low			
7	Focus High	32767	0-65535	Focus control Default value 50% Focus range
8	Focus Low			
9	Zoom High	32767	0-65535	Zoom control Default value 50% zoom range
10	Zoom Low			
11	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
12	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
13	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
14	CTO	0	0 - 255	CTO Color correction Control 0-100% saturation
15	Color Wheel	0	0 - 255	8-bit control of Color Wheel. (spin speed slow to fast from control channel)
			0 - 15	OPEN (centred at 0)
			16 - 47	Color 1 RED (centred at 32)
			48 - 79	Color 2 Dark Blue (centred at 64)
			80 - 111	Color 3 Yellow (centred at 96)
			112 - 143	Color 4 Kelly Green (centred at 128)
			144 - 175	Color 5 Congo Blue (centred at 160)
			176 - 207	Color 6 Amber (centred at 192)
			208 - 240	Color 7 CTB (centred at 224)
			241 -255	Open
16	Color Wheel Control	0	0 - 255	
			0 - 5	Linear Movement using shortest (quickest) path.
			6 - 10	Linear Movement using normal (longest) path.
			11 - 15	Wheel Spin CW (Forward)
			16 - 20	Wheel Spin STOP
			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
17	Gobo Wheel 1	0	0 - 255	8-bit control of Gobo Wheel 1. See Channel 20 for control options.
			0 - 5	Open - No Gobo
			6 - 10	Gobo 1 (Night Sky) Index
			11 - 15	Gobo 2 (Circle of Ovals) Index

TABLE 1.   VL2600 PROFILE 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
17	Gobo Wheel 1 continued	0	16 - 20	Gobo 3 (Bricked Out) Index
			21 - 25	Gobo 4 (Punchcard) Index
			26 - 30	Gobo 5 (Swirl) Index
			31 - 35	Gobo 6 (Honeycomb Reverse) Index
			36 - 40	Gobo 7 (On the Rock) Index
			41 - 45	Open - No Gobo
			46 - 50	Gobo 1 (Night Sky) Rotate
			51 - 55	Gobo 2 (Circle of Ovals) Rotate
			56 - 60	Gobo 3 (Bricked Out) Rotate
			61 - 65	Gobo 4 (Punchcard) Rotate
			66 - 70	Gobo 5 (Swirl) Rotate
			71 - 75	Gobo 6 (Honeycomb Reverse) Rotate
			76 - 80	Gobo 7 (On the Rock) Rotate
			81 - 85	Open - No Gobo
			86 - 90	Gobo 1 (Night Sky) Rotate with Mega Stepping
			91 - 95	Gobo 2 (Circle of Ovals) Rotate with Mega Stepping
			96 - 100	Gobo 3 (Bricked Out) Rotate with Mega Stepping
			101 - 105	Gobo 4 (Punchcard) Rotate with Mega Stepping
			106 - 110	Gobo 5 (Swirl) Rotate with Mega Stepping
			111 - 115	Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping
			116 - 120	Gobo 7 (On the Rock) Rotate with Mega Stepping
			121 - 255	Reserved Values
18	Gobo 1 Rot/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 1.
			0 - 32756	Rotate Fast to Slow <<<
19	Gobo 1 Rot/Index Low Byte		32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
20	Gobo Wheel 1 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 1 (Channel 17)
			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
			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	Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0

TABLE 1.   VL2600 PROFILE 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
20	Gobo Wheel 1 Control continued	0	181 - 210	Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0
			211 - 255	Reserved Values
21	Gobo Wheel 2 (Fixed)	0	0-255	8-bit control of Gobo Wheel for movement options see channel 22
			0 - 5	Open - No Gobo
			6 - 10	6-10 Gobo 1 (Leafy Breakup)
			11 - 15	11-15 Gobo 2 (Medium Circle)
			16 - 20	16-20 Gobo 3 Swirl (Lattice)
			21 - 25	21-25 Gobo 4 (Radial Breakup)
			26 - 30	26-30 Gobo 5 (Dust)
			31 - 35	31-35 Gobo 6 (Neurons)
			36 - 40	36-40 Gobo 7 (Grid)
			41 - 45	41-45 Gobo 8 (Cross bars)
			46 - 255	Reserved
22	Gobo Wheel 2 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 2 (Channel 21)
			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
			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
23	Iris	0	0-255	Iris size control
			0 - 200	Iris beam size open to closed
			201 - 255	Iris pulse slow to fast **For future use**
24	Frame 1A	0	0 - 255	Controls Framing Shutter 1A from Open (DMX 0) to Full (DMX 255).
25	Frame 1B	0	0 - 255	Controls Framing Shutter 1B from Open (DMX 0) to Full (DMX 255).
26	Frame 2A	0	0 - 255	Controls Framing Shutter 2A from Open (DMX 0) to Full (DMX 255).
27	Frame 2B	0	0 - 255	Controls Framing Shutter 2B from Open (DMX 0) to Full (DMX 255).
28	Frame 3A	0	0 - 255	Controls Framing Shutter 3A from Open (DMX 0) to Full (DMX 255).

TABLE 1.   VL2600 PROFILE 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
29	Frame 3B	0	0 - 255	Controls Framing Shutter 3B from Open (DMX 0) to Full (DMX 255).
30	Frame 4A	0	0 - 255	Controls Framing Shutter 4A from Open (DMX 0) to Full (DMX 255).
31	Frame 4B	0	0 - 255	Controls Framing Shutter 4B from Open (DMX 0) to Full (DMX 255).
32	Frame Rotate	128	0 - 255	Controls Framing Shutter mechanism from +/- 90°
33	Triangular Prism	0 - 255	0 - 255	Controls Prism mechanism with following values.
			0 - 5	Open
			6 - 10	Index
			11 - 15	Rotate Normal
			16 - 20	Rotate with Mega Stepping
			21 - 255	Reserved Values
34	Prism Index/Rot High Byte		0 - 65535	16-bit control of prism rotation and index.
35	Prism Index/Rot Low Byte	32767	0 - 32756	Rotate Fast to Slow <<<
			32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
36	Frost	0	0-255	Linear control of frost mechanism from out (DMX 0) to full in (DMX 255)
37	Strobe Speed	0	0 - 255	Controls strobe rate from slowest (DMX 0) to fastest (DMX 255) 0.5hz to 30hz
38	Strobe Control	0 - 255	0 - 255	Control Channel for strobing functions. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle).
			0 - 5	Open
			6 - 10	Closed
			11 - 15	Normal Strobe
			16 - 20	Random Strobe
			21 - 25	Random Sync
			26 - 255	Reserved Values
39	Programmers Channel	0	0-255	*do not require 3 second Dam rule mode will change once DMX level I reached **Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Macro action. For this a time greater then 3 second may be required (6s)
			0 - 40	Idle
			41 - 80	Linear**
			81 -120	S-Curve**
			121 -160	Square Curve (Default)**
			161 - 180	PL Curve **
			181 - 200	For Future Use
			201 - 210	Auto CTB ON (Default)**
			211 - 220	Auto CTB off **
			221 - 225	Edge Tracking OFF**

TABLE 1.   VL2600 PROFILE 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
39	Programmers Channel continued	0	226 - 230	Edge Tracking ON**
			231 - 235	Soft Zoom start ON**
			236 - 240	Soft Zoom start OFF**
			241 - 245	Dimmer Snap On* (Default)
			246 - 250	Dimmer Snap Off*
40	Fan Control	0	0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . .
			0-4	Automatic fan/output adjustment (Default)
			05 - 255	Linear control of fan speed and LED max output* DMX 5 =Highest Constant Fan Speed DMX 255 = Lowest Constant Fan Speed * Standard mode only
41	Optical Style	0 - 30	0 - 255	Hybrid - full zoom range no restrictions (default)
			31 - 60	Spot Projection - 6%-100% Zoom Range No other restrictions besides zoom range
			61 - 90	Open Beam - Open Beam locked in at 2% zoom - Edge 0% (Hard Edged) - Iris 0% - Beam/Iris/edge functions not operational- Prism Fully functional
			91 - 120	Shaft - Open Beam locked in at 0% zoom-Edge 0%- Iris limited Range of 26%-100% (iris never completely leaves beam to keep hard edge)- Gobo Functionality disabled. Prism Fully functional
42	Luminaire Control	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 5	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also Used to Wake fixture up from shutdown
			11 - 15	Reserved Values
			16 - 20	Reserved Values
			21 - 25	Fixture Shutdown
			26 - 30	Display - Menu ON
			31 - 35	Display - Menu OFF
			36 - 40	ReCal Position
			41 - 45	ReCal Color
			46 - 50	ReCal Gobo
			51 - 55	ReCal Beam
			56 - 60	ReCal Optics
			61 - 65	Reserved Values
			66 - 70	Reset Fixture to Defaults
			71 - 75	Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters.
			76 - 80	Fixture Status On/Off. This command will enable the display to show fixture status for 5 min. After this time, displays will return to default configuration. Repeating this command in less than 5 minutes will behave as a toggle.

For future use

For future use

TABLE 1.   VL2600 PROFILE 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
42	Luminare Control Continued	0	81 - 85	Standard Mode - Fixture operates at maximum output (Default)
			86 - 90	Studio Mode - Reduced output with lower fan settings
			91 - 100	Side Hang Disable (Default)
			101 - 110	Side Hang Enable
			111 - 115	Reserved Values
			116	900Hz
			117	1500Hz
			118	3000Hz
			119	5000Hz
			120	10kHz
			121	15kHz
			122	20kHz
			123	25kHz
			124 - 255	Reserved Values

TABLE 2.   VL2600 PROFILE 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity High	0	0-65535	16-bit control of Dimming
2	Intensity Low			
3	Pan High	32767	0-65535	540° Total Pan Rotation
4	Pan Low			
5	Tilt High	32767	0-65535	270° Total Tilt
6	Tilt Low			
7	Focus High	32767	0-65535	Focus control Default value 50% Focus range
8	Focus Low			
9	Zoom High	32767	0-65535	Zoom control Default value 50% zoom range
10	Zoom Low			
11	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
12	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
13	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
14	CTO	0	0 - 255	CTO Color correction Control 0-100% saturation
15	Color Wheel	0	0 - 255	8-bit control of Color Wheel. (spin speed slow to fast from control channel)
			0 - 15	OPEN (centred at 0)
			16 - 47	Color 1 RED (centred at 32)
			48 - 79	Color 2 Dark Blue (centred at 64)
			80 - 111	Color 3 Yellow (centred at 96)
			112 - 143	Color 4 Kelly Green (centred at 128)
			144 - 175	Color 5 Congo Blue (centred at 160)
			176 - 207	Color 6 Amber (centred at 192)
			208 - 240	Color 7 CTB (centred at 224)
			241 -255	Open
16	Color Wheel Control	0	0 - 255	
			0 - 5	Linear Movement using shortest (quickest) path.
			6 - 10	Linear Movement using normal (longest) path.
			11 - 15	Wheel Spin CW (Forward)
			16 - 20	Wheel Spin STOP
			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
17	Gobo Wheel 1	0	0 - 255	8-bit control of Gobo Wheel 1. See Channel 20 for control options.
			0 - 5	Open - No Gobo
			6 - 10	Gobo 1 (Night Sky) Index
			11 - 15	Gobo 2 (Circle of Ovals) Index
			16 - 20	Gobo 3 (Bricked Out) Index

TABLE 2.   VL2600 PROFILE 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
17	Gobo Wheel 1 continued	0	21 - 25	Gobo 4 (Punchcard) Index
			26 - 30	Gobo 5 (Swirl) Index
			31 - 35	Gobo 6 (Honeycomb Reverse) Index
			36 - 40	Gobo 7 (On the Rock) Index
			41 - 45	Open - No Gobo
			46 - 50	Gobo 1 (Night Sky) Rotate
			51 - 55	Gobo 2 (Circle of Ovals) Rotate
			56 - 60	Gobo 3 (Bricked Out) Rotate
			61 - 65	Gobo 4 (Punchcard) Rotate
			66 - 70	Gobo 5 (Swirl) Rotate
			71 - 75	Gobo 6 (Honeycomb Reverse) Rotate
			76 - 80	Gobo 7 (On the Rock) Rotate
			81 - 85	Open - No Gobo
			86 - 90	Gobo 1 (Night Sky) Rotate with Mega Stepping
			91 - 95	Gobo 2 (Circle of Ovals) Rotate with Mega Stepping
			96 - 100	Gobo 3 (Bricked Out) Rotate with Mega Stepping
			101 - 105	Gobo 4 (Punchcard) Rotate with Mega Stepping
			106 - 110	Gobo 5 (Swirl) Rotate with Mega Stepping
			111 - 115	Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping
			116 - 120	Gobo 7 (On the Rock) Rotate with Mega Stepping
			121 - 255	Reserved Values
18	Gobo 1 Rot/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 1.
			0 - 32756	Rotate Fast to Slow <<<
19	Gobo 1 Rot/Index Low Byte		32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
20	Gobo Wheel 1 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 1 (Channel 17)
			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
			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	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

TABLE 2.   VL2600 PROFILE 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
21	Gobo Wheel 2 (Fixed)	0	0-255	8-bit control of Gobo Wheel for movement options see channel 22
			0 - 5	Open - No Gobo
			6 - 10	6-10 Gobo 1 (Leafy Breakup)
			11 - 15	11-15 Gobo 2 (Medium Circle)
			16 - 20	16-20 Gobo 3 Swirl (Lattice)
			21 - 25	21-25 Gobo 4 (Radial Breakup)
			26 - 30	26-30 Gobo 5 (Dust)
			31 - 35	31-35 Gobo 6 (Neurons)
			36 - 40	36-40 Gobo 7 (Grid)
			41 - 45	41-45 Gobo 8 (Cross bars)
			46 - 255	Reserved
22	Gobo Wheel 2 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 2 (Channel 21)
			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
			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
23	Iris	0	0-255	Iris size control
			0 - 200	Iris beam size open to closed
			201 - 255	Iris pulse slow to fast **For future use**
24	Frame 1A	0	0 - 255	Controls Framing Shutter 1A from Open (0) to Full (255).
25	Frame 1B	0	0 - 255	Controls Framing Shutter 1B from Open (0) to Full (255).
26	Frame 2A	0	0 - 255	Controls Framing Shutter 2A from Open (0) to Full (255).
27	Frame 2B	0	0 - 255	Controls Framing Shutter 2B from Open (0) to Full (255).
28	Frame 3A	0	0 - 255	Controls Framing Shutter 3A from Open (0) to Full (255).
29	Frame 3B	0	0 - 255	Controls Framing Shutter 3B fromOpen (0) to Full (255).
30	Frame 4A	0	0 - 255	Controls Framing Shutter 4A from Open (0) to Full (255).
31	Frame 4B	0	0 - 255	Controls Framing Shutter 4B from Open (0) to Full (255).
32	Frame Rotate	128	0 - 255	Controls Framing Shutter mechanism from +/- 90°
33	Triangular Prism	0	0 - 255	Controls Prism mechanism with following values.
			0 - 5	Open
			6 - 10	Index

TABLE 2.   VL2600 PROFILE 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
33	Triangluar Prism continued	0	11 - 15	Rotate Normal
			16 - 20	Rotate with Mega Stepping
			21 - 255	Reserved Values
34	Prism Index/Rot High Byte		0 - 65535	16-bit control of prism rotation and index.
35	Prism Index/Rot Low Byte	32767	0 - 32756	Rotate Fast to Slow <<<
			32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
36	Frost	0	0-255	Linear control of frost mechanism from out (DMX 0) to full in (DMX 255)
37	Strobe Speed	0	0 - 255	Controls strobe rate from slowest (DMX 0) to fastest (DMX 255) 0.5hz to 30hz
38	Strobe Control	0	0 - 255	Control Channel for strobing functions. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle).
			0 - 5	Open
			6 - 10	Closed
			11 - 15	Normal Strobe
			16 - 20	Random Strobe
			21 - 25	Random Sync
			26 - 255	Reserved Values
39	Programmers Channel	0	0-255	*do not require 3 second Dam rule mode will change once DMX level I reached **Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Macro action. For this a time greater then 3 second may be required (6s)
			0 - 40	Idle
			41 - 80	Linear**
			81 -120	S-Curve**
			121 -160	Square Curve (Default)**
			161 - 180	PL Curve **
			181 - 200	For Future Use
			201 - 210	Auto CTB ON (Default)**
			211 - 220	Auto CTB off **
			221 - 225	Edge Tracking OFF** **For future use**
			226 - 230	Edge Tracking ON**
			231 - 235	Soft Zoom start ON**
			236 - 240	Soft Zoom start OFF**
			241 - 245	Dimmer Snap On* (Default)
			246 - 250	Dimmer Snap Off*
40	Focus Timing	255	0 - 255	Adjustment of fixture timing to control Pan/Tilt mechanisms. See Timing Channel Chart in User Manual
41	Optics Timing	255	0 - 255	Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Chart in User Manual

TABLE 2.   VL2600 PROFILE 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
42	Color Timing	255	0 - 255	Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Chart in User Manual
43	Beam Timing	255	0 - 255	Adjustment of fixture timing to control beam shaping mechanisms. See Timing Channel Chart in User Manual
44	Gobo Timing	255	0 - 255	Adjustment of fixture timing to control gobo mechanisms. See Timing Channel Chart in User Manual
45	Fan Control	0	0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . .
			0 - 4	Automatic fan/output adjustment (Default)
			05 - 255	Linear control of fan speed and LED max output* DMX 5 = Highest Constant Fan Speed DMX 255 = Lowest Constant Fan Speed * Standard mode only
46	Optical Style	0 - 30	0 - 255	Hybrid - full zoom range no restrictions (default)
			31 - 60	Spot Projection - 6%-100% Zoom Range No other restrictions besides zoom range
			61 - 90	Open Beam - Open Beam locked in at 2% zoom - Edge 0% (Hard Edged) - Iris Out Beam/Iris/edge functions not operational- Prism Fully functional
			91 - 120	Shaft - Open Beam locked in at 0% zoom-Edge 0%- Iris limited Range of 26%-100% (iris never completely leaves beam to keep hard edge)- Gobo Functionality disabled. Prism Fully functional
47	Luminaire Control	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 5	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also Used to Wake fixture up from shutdown
			11 - 15	Reserved Values
			16 - 20	Reserved Values
			21 - 25	Fixture Shutdown
			26 - 30	Display - Menu ON
			31 - 35	Display - Menu OFF
			36 - 40	ReCal Position
			41 - 45	ReCal Color
			46 - 50	ReCal Gobo
			51 - 55	ReCal Beam
			56 - 60	ReCal Optics
			61 - 65	Reserved Values
			66 - 70	Reset Fixture to Defaults
			71 - 75	Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters.
			76 - 80	Fixture Status On/Off. This command will enable the display to show fixture status for 5 min. After this time, displays will return to default configuration. Repeating this command in less than 5 minutes will behave as a toggle.

For future use (watermark over Optical Style row)

TABLE 2.   VL2600 PROFILE 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
47	Luminaire Control continued	0	81 - 85	Standard Mode - Fixture operates at maximum output (Default)
			86 - 90	Studio Mode - Reduced output with lower fan settings
			91 - 100	Side Hang Disable (Default)
			101 - 110	Side Hang Enable
			111 - 115	Reserved Values
			116	900Hz
			117	1500Hz
			118	3000Hz
			119	5000Hz
			120	10kHz
			121	15kHz
			122	20kHz
			123	25kHz
			124 - 255	Reserved Values

TABLE 3.   VL2600 SPOT 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity High	0	0-65535	16 Bit control of Dimming
2	Intensity Low			
3	Pan High	32767	0-65535	540° Total Pan Rotation
4	Pan Low			
5	Tilt High	32767	0-65535	270° Total Tilt
6	Tilt Low			
7	Focus High	32767	0-65535	Focus control Default value 50% Focus range
8	Focus Low			
9	Zoom High	32767	0-65535	Zoom control Default value 50% zoom range
10	Zoom Low			
11	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
12	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
13	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
14	CTO	0	0 - 255	CTO Color correction Control 0-100% saturation
15	Color Wheel	0	0 - 255	8-bit control of Color Wheel. (spin speed slow to fast from control channel)
			0 - 15	OPEN (centred at 0)
			16 - 47	Color 1 RED (centred at 32)
			48 - 79	Color 2 Dark Blue (centred at 64)
			80 - 111	Color 3 Yellow (centred at 96)
			112 - 143	Color 4 Kelly Green (centred at 128)
			144 - 175	Color 5 Congo Blue (centred at 160)
			176 - 207	Color 6 Amber (centred at 192)
			208 - 240	Color 7 CTB (centred at 224)
			241 -255	Open
16	Color Wheel Control	0	0 - 255	
			0 - 5	Linear Movement using shortest (quickest) path.
			6 - 10	Linear Movement using normal (longest) path.
			11 - 15	Wheel Spin CW (Forward)
			16 - 20	Wheel Spin STOP
			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
17	Gobo Wheel 1	0	0 - 255	8-bit control of Gobo Wheel 1. See Channel 20 for control options.
			0 - 5	Open - No Gobo
			6 - 10	Gobo 1 (Night Sky) Index
			11 - 15	Gobo 2 (Circle of Ovals) Index
			16 - 20	Gobo 3 (Bricked Out) Index

TABLE 3.   VL2600 SPOT 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
17	Gobo Wheel 1 continued	0	21 - 25	Gobo 4 (Punchcard) Index
			26 - 30	Gobo 5 (Swirl) Index
			31 - 35	Gobo 6 (Honeycomb Reverse) Index
			36 - 40	Gobo 7 (On the Rock) Index
			41 - 45	Open - No Gobo
			46 - 50	Gobo 1 (Night Sky) Rotate
			51 - 55	Gobo 2 (Circle of Ovals) Rotate
			56 - 60	Gobo 3 (Bricked Out) Rotate
			61 - 65	Gobo 4 (Punchcard) Rotate
			66 - 70	Gobo 5 (Swirl) Rotate
			71 - 75	Gobo 6 (Honeycomb Reverse) Rotate
			76 - 80	Gobo 7 (On the Rock) Rotate
			81 - 85	Open - No Gobo
			86 - 90	Gobo 1 (Night Sky) Rotate with Mega Stepping
			91 - 95	Gobo 2 (Circle of Ovals) Rotate with Mega Stepping
			96 - 100	Gobo 3 (Bricked Out) Rotate with Mega Stepping
			101 - 105	Gobo 4 (Punchcard) Rotate with Mega Stepping
			106 - 110	Gobo 5 (Swirl) Rotate with Mega Stepping
			111 - 115	Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping
			116 - 120	Gobo 7 (On the Rock) Rotate with Mega Stepping
			121 - 255	Reserved Values
18	Gobo 1 Rot/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 1.
			0 - 32756	Rotate Fast to Slow <<<
19	Gobo 1 Rot/Index Low Byte		32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
20	Gobo Wheel 1 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 1 (Channel 17)
			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
			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	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

TABLE 3.   VL2600 SPOT 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
21	Gobo Wheel 2	0	0-255	8-bit control of Gobo Wheel for movement options see channel 24
			0 - 5	Open - No Gobo
			6 - 10	Gobo 1 (Dichrofusion) Index
			11 - 15	Gobo 2 (Alpha Rays) Index
			16 - 20	Gobo 3 (Circle of holes) Index
			21 - 25	Gobo 4 (Vertical Bars) Index
			26 - 30	Gobo 5 (Tribal) Index
			31 - 35	Gobo 6 (Honeycomb) Index
			36 - 40	Gobo 7 (Droplets) Index
			41 - 45	Open - No Gobo
			46 - 50	Gobo 1 (Dichrofusion) Rotate
			51 - 55	Gobo 2 (Alpha Rays) Rotate
			56 - 60	Gobo 3 (Circle of holes) Rotate
			61 - 65	Gobo 4 (Vertical Bars) Rotate
			66 - 70	Gobo 5 (Tribal) Rotate
			71 - 75	Gobo 6 (Honeycomb) Rotate
			76 - 80	Gobo 7 (Droplets) Rotate
			81 - 85	Open - No Gobo
			86 - 90	Gobo 1 (Dichrofusion) Rotate with Mega Stepping
			91 - 95	Gobo 2 (Alpha Rays) Rotate with Mega Stepping
			96 - 100	Gobo 3 (Circle of holes) Rotate with Mega Stepping
			101 - 105	Gobo 4 (Vertical Bars) Rotate with Mega Stepping
			106 - 110	Gobo 5 (Tribal) Rotate with Mega Stepping
			111 - 115	Gobo 6 (Honeycomb) Rotate with Mega Stepping
			116 - 120	Gobo 7 (Droplets) Rotate with Mega Stepping
			121 - 255	Reserved Values
22	Gobo 2 Rot /Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 1.
23	Gobo 2 Rot /Index Low Byte		0 - 32756	Rotate Fast to Slow <<<
			32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
24	Gobo Wheel 2 Control	0	0-255	Iris size control
			0 - 5	Gobo Selection using shortest (quickest) path.
			6 - 10	Gobo Selection using normal (longest) path.
			11 - 20	Reserved Values
			21 - 50	Wheel Spin Forward (Fast to Slow)
			51 - 60	Wheel Spin STOP
			61 - 90	Wheel Spin 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

TABLE 3.   VL2600 SPOT 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
24	Gobo Wheel 2 Control continued	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
25	Gobo Wheel 3 Fixed	0	0-255	8-bit control of Gobo Wheel 3. for movement options see channel 26
			0 - 5	Open - No Gobo
			6 - 10	6-10 Gobo 1 (Leafy Breakup)
			11 - 15	11-15 Gobo 2 (Medium Circle)
			16 - 20	16-20 Gobo 3 Swirl (Lattice)
			21 - 25	21-25 Gobo 4 (Radial Breakup)
			26 - 30	26-30 Gobo 5 (Dust)
			31 - 35	31-35 Gobo 6 (Neurons)
			36 - 40	36-40 Gobo 7 (Grid)
			41 - 45	41-45 Gobo 8 (Cross bars)
			46 - 255	Reserved
26	Gobo Wheel 3 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 3 (Channel 25).
			0 - 5	Gobo Selection using shortest (quickest) path.
			6 - 10	Gobo Selection using normal (longest) path.
			11 - 20	Reserved Values
			21 - 50	Wheel Spin Forward (Fast to Slow)
			51 - 60	Wheel Spin STOP
			61 - 90	Wheel Spin 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
27	Iris	0	0-255	Iris size control
			0 - 200	Iris beam size open to closed
			201 - 255	Iris pulse slow to fast **For future use**
28	Triangular Prism	0	0 - 255	Controls Prism mechanism with following values.
			0 - 5	Open
			6 - 10	Index
			11 - 15	Rotate Normal
			16 - 20	Rotate with Mega Stepping
			21 - 255	Reserved Values
29	Prism Index/Rot High Byte	32767	0 - 65535	16-bit control of prism rotation and index.
			0 - 32756	Rotate Fast to Slow <<<

TABLE 3.   VL2600 SPOT 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
30	Prism Index/Rot Low Byte		32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
31	Frost	0	0-255	Linear control of frost mechanism from out (DMX 0) to full in (DMX 255)
32	Strobe Speed	0	0 - 255	Controls strobe rate from slowest (DMX 0) to fastest (DMX 255) 0.5Hz to 30Hz
33	Strobe Control	0	0 - 255	Control Channel for strobing functions.
			0 - 5	Open
			6 - 10	Closed
			11 - 15	Normal Strobe
			16 - 20	Random Strobe
			21 - 25	Random Sync
34	Programmers Channel	0	0-255	*do not require 3 second Dam rule mode will change once DMX level I reached **Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 40	Idle
			41 - 80	Linear**
			81 -120	S-Curve**
			121 -160	Square Curve (Default)**
			161 - 180	PL Curve **
			181 - 200	For Future Use
			201 - 210	Auto CTB ON (Default)**
			211 - 220	Auto CTB off **
			221 - 225	Edge Tracking OFF**
			226 - 230	Edge Tracking ON**
			231 - 235	Soft Zoom start ON**
			236 - 240	Soft Zoom start OFF**
			241 - 245	Dimmer Snap On* (Default)
			246 - 250	Dimmer Snap Off*
35	Fan Control	0	0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . .
			0-4	Automatic fan/output adjustment (Default)
				Linear control of fan speed and LED max output.
			5-255	DMX 4 = Highest Constant Fan Speed
				DMX 255 = Lowest Constant Fan Speed
36	Optical Style	0	0 - 255	Hybrid - full zoom range no restrictions (default)
			31 - 60	Spot Projection - 6%-100% Zoom Range No other restrictions besides zoom range
			61 - 90	Open Beam - Open Beam locked in at 2% zoom - Edge 0% (Hard Edged) - Iris 0% Beam/Iris/edge functions not operational- Prism Fully functional
			91 - 120	Shaft - Open Beam locked in at 0% zoom-Edge 0%- Iris limited Range of 26%-100% (iris never completely leaves beam to keep hard edge)- Gobo Functionality disabled. Prism Fully functional

For future use

For future use

TABLE 3.   VL2600 SPOT 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
37	Luminaire Control	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 5	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also Used to Wake fixture up from shutdown
			11 - 15	Reserved Values
			16 - 20	Reserved Values
			21 - 25	Fixture Shutdown
			26 - 30	Display - Menu ON
			31 - 35	Display - Menu OFF
			36 - 40	ReCal Position
			41 - 45	ReCal Color
			46 - 50	ReCal Gobo
			51 - 55	ReCal Beam
			56 - 60	ReCal Optics
			61 - 65	Reserved Values
			66 - 70	Reset Fixture to Defaults
			71 - 75	Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters.
			76 - 80	Fixture Status On/Off. This command will enable the display to show fixture status for 5 min. After this time, displays will return to default configuration. Repeating this command in less than 5 minutes will behave as a toggle.
			81 - 85	Standard Mode - Fixture operates at maximum output (Default)
			86 - 90	Studio Mode - Reduced output with lower fan settings
			91 - 100	Side Hang Disable (Default)
			101 - 110	Side Hang Enable
			111 - 115	Reserved Values
			116	900Hz
			117	1500Hz
			118	3000Hz
			119	5000Hz
			120	10kHz
			121	15kHz
			122	20kHz
			123	25kHz
			124 - 255	Reserved Values

TABLE 4. VL2600 SPOT 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity High	0	0-65535	16 Bit control of Dimming
2	Intensity Low			
3	Pan High	32767	0-65535	540° Total Pan Rotation
4	Pan Low			
5	Tilt High	32767	0-65535	270° Total Tilt
6	Tilt Low			
7	Focus High	32767	0-65535	Focus control Default value 50% Focus range
8	Focus Low			
9	Zoom High	32767	0-65535	Zoom control
10	Zoom Low			Default value 50% zoom range
11	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
12	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
13	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
14	CTO	0	0 - 255	CTO Color correction Control 0-100% saturation
15	Color Wheel	0	0 - 255	8-bit control of Color Wheel. (spin speed slow to fast from control channel)
			0 - 15	OPEN (centred at 0)
			16 - 47	Color 1 RED (centred at 32)
			48 - 79	Color 2 Dark Blue (centred at 64)
			80 - 111	Color 3 Yellow (centred at 96)
			112 - 143	Color 4 Kelly Green (centred at 128)
			144 - 175	Color 5 Congo Blue (centred at 160)
			176 - 207	Color 6 Amber (centred at 192)
			208 - 240	Color 7 CTB (centred at 224)
			241 -255	Open
16	Color Wheel Control	0	0 - 255	
			0 - 5	Linear Movement using shortest (quickest) path.
			6 - 10	Linear Movement using normal (longest) path.
			11 - 15	Wheel Spin CW (Forward)
			16 - 20	Wheel Spin STOP
			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
17	Gobo Wheel 1	0	0 - 255	8-bit control of Gobo Wheel 1. See Channel 21 for control options.
			0 - 5	Open - No Gobo
			6 - 10	Gobo 1 (Night Sky) Index
			11 - 15	Gobo 2 (Circle of Ovals) Index

TABLE 4.   VL2600 SPOT 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
17	Gobo Wheel 1 continued	0	16 - 20	Gobo 3 (Bricked Out) Index
			21 - 25	Gobo 4 (Punchcard) Index
			26 - 30	Gobo 5 (Swirl) Index
			31 - 35	Gobo 6 (Honeycomb Reverse) Index
			36 - 40	Gobo 7 (On the Rock) Index
			41 - 45	Open - No Gobo
			46 - 50	Gobo 1 (Night Sky) Rotate
			51 - 55	Gobo 2 (Circle of Ovals) Rotate
			56 - 60	Gobo 3 (Bricked Out) Rotate
			61 - 65	Gobo 4 (Punchcard) Rotate
			66 - 70	Gobo 5 (Swirl) Rotate
			71 - 75	Gobo 6 (Honeycomb Reverse) Rotate
			76 - 80	Gobo 7 (On the Rock) Rotate
			81 - 85	Open - No Gobo
			86 - 90	Gobo 1 (Night Sky) Rotate with Mega Stepping
			91 - 95	Gobo 2 (Circle of Ovals) Rotate with Mega Stepping
			96 - 100	Gobo 3 (Bricked Out) Rotate with Mega Stepping
			101 - 105	Gobo 4 (Punchcard) Rotate with Mega Stepping
			106 - 110	Gobo 5 (Swirl) Rotate with Mega Stepping
			111 - 115	Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping
			116 - 120	Gobo 7 (On the Rock) Rotate with Mega Stepping
			121 - 255	Reserved Values
18	Gobo 1 Rot/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 1.
19	Gobo 1 Rot/Index Low Byte		0 - 32756	Rotate Fast to Slow <<<
			32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
20	Gobo Wheel 1 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 1 (Channel 17).
			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
			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	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

TABLE 4.   VL2600 SPOT 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
21	Gobo Wheel 2	0	0 - 255	8-bit control of Gobo Wheel 2. See Channel 24 for control options.
			0 - 5	Open - No Gobo
			6 - 10	Gobo 1 (Dichrofusion) Index
			11 - 15	Gobo 2 (Alpha Rays) Index
			16 - 20	Gobo 3 (Circle of holes) Index
			21 - 25	Gobo 4 (Vertical Bars) Index
			26 - 30	Gobo 5 (Tribal) Index
			31 - 35	Gobo 6 (Honeycomb) Index
			36 - 40	Gobo 7 (Droplets) Index
			41 - 45	Open - No Gobo
			46 - 50	Gobo 1 (Dichrofusion) Rotate
			51 - 55	Gobo 2 (Alpha Rays) Rotate
			56 - 60	Gobo 3 (Circle of holes) Rotate
			61 - 65	Gobo 4 (Vertical Bars) Rotate
			66 - 70	Gobo 5 (Tribal) Rotate
			71 - 75	Gobo 6 (Honeycomb) Rotate
			76 - 80	Gobo 7 (Droplets) Rotate
			81 - 85	Open - No Gobo
			86 - 90	Gobo 1 (Dichrofusion) Rotate with Mega Stepping
			91 - 95	Gobo 2 (Alpha Rays) Rotate with Mega Stepping
			96 - 100	Gobo 3 (Circle of holes) Rotate with Mega Stepping
			101 - 105	Gobo 4 (Vertical Bars) Rotate with Mega Stepping
			106 - 110	Gobo 5 (Tribal) Rotate with Mega Stepping
			111 - 115	Gobo 6 (Honeycomb) Rotate with Mega Stepping
			116 - 120	Gobo 7 (Droplets) Rotate with Mega Stepping
			121 - 255	Reserved Values
22	Gobo 2 Rot/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 1.
23	Gobo 2 Rot/Index Low Byte		0 - 32756	Rotate Fast to Slow <<<
			32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
24	Gobo Wheel 2 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 2 (Channel 21).
			0 - 5	Gobo Selection using shortest (quickest) path.
			6 - 10	Gobo Selection using normal (longest) path.
			11 - 20	Reserved Values
			21 - 50	Wheel Spin Forward (Fast to Slow)
			51 - 60	Wheel Spin STOP
			61 - 90	Wheel Spin Reverse (Slow to Fast)
			91 - 120	Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0

TABLE 4. VL2600 SPOT 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
24	Gobo Wheel 2 Control continued	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
25	Gobo Wheel 3 (Fixed)	0	0-255	8-bit control of Gobo Wheel 3. for movement options see channel 26
			0 - 5	Open - No Gobo
			6 - 10	6-10 Gobo 1 (Leafy Breakup)
			11 - 15	11-15 Gobo 2 (Medium Circle)
			16 - 20	16-20 Gobo 3 Swirl (Lattice)
			21 - 25	21-25 Gobo 4 (Radial Breakup)
			26 - 30	26-30 Gobo 5 (Dust)
			31 - 35	31-35 Gobo 6 (Neurons)
			36 - 40	36-40 Gobo 7 (Grid)
			41 - 45	41-45 Gobo 8 (Cross bars)
			46 - 255	Reserved
26	Gobo Wheel 3 Control	0	0 - 255	Used as a control channel for different movement options for Gobo Wheel 3 (Channel 25).
			0 - 5	Gobo Selection using shortest (quickest) path.
			6 - 10	Gobo Selection using normal (longest) path.
			11 - 20	Reserved Values
			21 - 50	Wheel Spin Forward (Fast to Slow)
			51 - 60	Wheel Spin STOP
			61 - 90	Wheel Spin 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
27	Iris	0	0-255	Iris size control
			0 - 200	Iris beam size open to closed
			201 - 255	Iris pulse slow to fast **For future use**
28	Triangular Prism	0	0 - 255	Controls Prism mechanism with following values.
			0 - 5	Open
			6 - 10	Index
			11 - 15	Rotate Normal
			16 - 20	Rotate with Mega Stepping
			21 - 255	Reserved Values

TABLE 4.   VL2600 SPOT 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
29	Prism Index/Rot High Byte	32767	0-65535	16-bit control of prism rotation and index.
30	Prism Index/Rot Low Byte		0 - 32756	Rotate Fast to Slow <<<
			32757 - 32780	Rotation STOP
			32781 - 65535	Rotate Slow to Fast >>>
31	Frost	0	0-255	Linear control of frost mechanism from out (DMX 0) to full in (DMX 255)
32	Strobe Speed	0	0 - 255	Controls strobe rate from slowest (DMX 0) to fastest (DMX 255) 0.5Hz to 30Hz
33	Strobe Control	0	0 - 255	Control Channel for strobing functions.
			0 - 5	Open
			6 - 10	Closed
			11 - 15	Normal Strobe
			16 - 20	Random Strobe
			21 - 25	Random Sync
			26 - 255	Reserved Values
34	Programmers Channel	0	0-255	*do not require 3 second Dam rule mode will change once DMX level I reached **Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 40	Idle
			41 - 80	Linear**
			81 -120	S-Curve**
			121 -160	Square Curve (Default)**
			161 - 180	PL Curve **
			181 - 200	For Future Use
			201 - 210	Auto CTB ON (Default)**
			211 - 220	Auto CTB off **
			221 - 225	Edge Tracking OFF**
			226 - 230	Edge Tracking ON**
			231 - 235	Soft Zoom start ON**
			236 - 240	Soft Zoom start OFF**
			241 - 245	Dimmer Snap On* (Default)
			246 - 250	Dimmer Snap Off*
35	Focus Timing	255	0 - 255	Adjustment of fixture timing to control Pan/Tilt mechanisms. See Timing Channel Chart in User Manual
36	Optics Timing	255	0 - 255	Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Chart in User Manual
37	Color Timing	255	0 - 255	Adjustment of fixture timing to control color mechanisms. See Timing Channel Chart in User Manual
38	Beam Timing	255	0 - 255	Adjustment of fixture timing to control beam shaping mechanisms. See Timing Channel Chart in User Manual
39	Gobo Timing	255	0 - 255	Adjustment of fixture timing to control gobo mechanisms. See Timing Channel Chart in User Manual

For future use

TABLE 4.   VL2600 SPOT 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
40	Fan Control	0	0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . .
			0-4	Automatic fan/output adjustment (Default)
			5-255	Linear control of fan speed and LED max output.
				DMX 4 =Highest Constant Fan Speed
				DMX 255 = Lowest Constant Fan Speed
41	Optical Style	0	0 - 255	Hybrid - full zoom range no restrictions (default)
			31 - 60	Spot Projection - 6%-100% Zoom Range No other restrictions besides zoom range
			61 - 90	Open Beam - Open Beam locked in at 2% zoom - Edge 0% (Hard Edged) - Iris 0% - Beam/Iris/edge functions not operational- Prism Fully functional
			91 - 120	Shaft - Open Beam locked in at 0% zoom-Edge 0%- Iris limited Range of 26%-100% (iris never completely leaves beam to keep hard edge)- Gobo Functionality disabled. Prism Fully functional
42	Luminaire Control	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 5	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also Used to Wake fixture up from shutdown
			11 - 15	Reserved Values
			16 - 20	Reserved Values
			21 - 25	Fixture Shutdown
			26 - 30	Display - Menu ON
			31 - 35	Display - Menu OFF
			36 - 40	ReCal Position
			41 - 45	ReCal Color
			46 - 50	ReCal Gobo
			51 - 55	ReCal Beam
			56 - 60	ReCal Optics
			61 - 65	Reserved Values
			66 - 70	Reset Fixture to Defaults
			71 - 75	Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters.
			76 - 80	Fixture Status On/Off. This command will enable the display to show fixture status for 5 min. After this time, displays will return to default configuration. Repeating this command in less than 5 minutes will behave as a toggle.
			81 - 85	Standard Mode - Fixture operates at maximum output (Default)
			86 - 90	Studio Mode - Reduced output with lower fan settings
			91 - 100	Side Hang Disable (Default)
			101 - 110	Side Hang Enable
			111 - 225	Reserved Values

For future use

TABLE 4.   VL2600 SPOT 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
42	Lumianire Control continued	0	116	900Hz
			117	1500Hz
			118	3000Hz
			119	5000Hz
			120	10kHz
			121	15kHz
			122	20kHz
			123	25kHz
			124 - 255	Reserved Values

TABLE 5.   VL2600 WASH 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity High	0	0-65535	16 Bit control of Dimming
2	Intensity Low			
3	Pan High	32767	0-65535	540° Total Pan Rotation
4	Pan Low			
5	Tilt High	32767	0-65535	270° Total Tilt
6	Tilt Low			
7	Zoom High	32767	0-65535	Zoom control
8	Zoom Low			Default value 50% zoom range
9	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
10	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
11	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
12	CTO	0	0 - 255	CTO Color correction Control 0-100% saturation
13	Color Wheel	0	0 - 255	8-bit control of Color Wheel. (spin speed slow to fast from control channel)
			0 - 15	OPEN (centred at 0)
			16 - 47	Color 1 RED (centred at 32)
			48 - 79	Color 2 Dark Blue (centred at 64)
			80 - 111	Color 3 Yellow (centred at 96)
			112 - 143	Color 4 Kelly Green (centred at 128)
			144 - 175	Color 5 Congo Blue (centred at 160)
			176 - 207	Color 6 Amber (centred at 192)
			208 - 240	Color 7 CTB (centred at 224)
			241 -255	Open
14	Color Wheel Control	0	0 - 255	
			0 - 5	Linear Movement using shortest (quickest) path.
			6 - 10	Linear Movement using normal (longest) path.
			11 - 15	Wheel Spin CW (Forward)
			16 - 20	Wheel Spin STOP
			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
15	Frame 1A	0	0-255	Controls Framing Shutter 1A from Open (0) to Full (255).
16	Frame 1B	0	0 - 255	Controls Framing Shutter 1B from Open (0) to Full (255).
17	Frame 2A	0	0 - 255	Controls Framing Shutter 2A from Open (0) to Full (255).
18	Frame 2B	0	0 - 255	Controls Framing Shutter 2B from Open (0) to Full (255).
19	Frame 3A	0	0 - 255	Controls Framing Shutter 3A from Open (0) to Full (255).
20	Frame 3B	0	0 - 255	Controls Framing Shutter 3B from Open (0) to Full (255).
21	Frame 4A	0	0 - 255	Controls Framing Shutter 4A from Open (0) to Full (255).

TABLE 5.   VL2600 WASH 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
22	Frame 4B	0	0 - 255	Controls Framing Shutter 4B fromOpen (0) to Full (255).
23	Frame Rotate	128	0 - 255	Controls Framing Shutter mechanism from +/- 90°
24	Beam softening	0	0-255	Linear control of frost mechanism from out (0) to full in (255)
25	Strobe Speed	0	0 - 255	Controls strobe rate from slowest (0) to fastest (255) 0.5Hz to 30Hz
26	Strobe Control	0	0 - 255	Control Channel for strobing functions.
			0 - 5	Open
			6 - 10	Closed
			11 - 15	Normal Strobe
			16 - 20	Random Strobe
			21 - 25	Random Sync
			26 - 255	Reserved Values
27	Programmers Channel	0	0-255	*do not require 3 second Dam rule mode will change once DMX level I reached **Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 40	Idle
			41 - 80	Linear**
			81 -120	S-Curve**
			121 -160	Square Curve (Default)**
			161 - 180	PL Curve **
			181 - 200	For Future Use
			201 - 210	Auto CTB ON (Default)**
			211 - 220	Auto CTB off **
			221 - 225	Edge Tracking OFF**
			226 - 230	Edge Tracking ON**
			231 - 235	Soft Zoom start ON**
			235 - 240	Soft Zoom start OFF**
			241 - 245	Dimmer Snap On* (Default)
			246 - 250	Dimmer Snap Off*
28	Fan Control	0	0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . . Automatic fan/output adjustment (Default) Linear control of fan speed and LED max output. DMX 4 =Highest Constant Fan Speed DMX 255 = Lowest Constant Fan Speed
29	Luminaire Control	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 5	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also Used to Wake fixture up from shutdown

For future use (annotation near Edge Tracking rows)

25

TABLE 5.   VL2600 WASH 16-BIT MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
			11 - 15	Reserved Values
			16 - 20	Reserved Values
			21 - 25	Fixture Shutdown
			26 - 30	Display - Menu ON
			31 - 35	Display - Menu OFF
			36 - 40	ReCal Position
			41 - 45	ReCal Color
			46 - 50	Reserved Values
			51 - 55	ReCal Beam
			56 - 60	ReCal Optics
			61 - 65	Reserved Values
			66 - 70	Reset Fixture to Defaults
			71 - 75	Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters.
29	Luminaire Control continued	0	76 - 80	Fixture Status On/Off. This command will enable the display to show fixture status for 5 min. After this time, displays will return to default configuration. Repeating this command in less than 5 minutes will behave as a toggle.
			81 - 85	Standard Mode - Fixture operates at maximum output (Default)
			86 - 90	Studio Mode - Reduced output with lower fan settings
			91 - 100	Side Hang Disable (Default)
			101 - 110	Side Hang Enable
			111 - 225	Reserved Values
			116	900Hz
			117	1500Hz
			118	3000Hz
			119	5000Hz
			120	10kHz
			121	15kHz
			122	20kHz
			123	25kHz
			124 - 255	Reserved Values

TABLE 6. VL2600 WASH 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity High	0	0-65535	16 Bit control of Dimming
2	Intensity Low			
3	Pan High	32767	0-65535	540° Total Pan Rotation
4	Pan Low			
5	Tilt High	32767	0-65535	270° Total Tilt
6	Tilt Low			
7	Zoom High	32767	0-65535	Zoom control
8	Zoom Low			Default value 50% zoom range
9	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
10	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
11	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
12	CTO	0	0 - 255	CTO Color correction Control 0-100% saturation
13	Color Wheel	0	0 - 255	8-bit control of Color Wheel.
				(spin speed slow to fast from control channel)
			0 - 15	OPEN (centred at 0)
			16 - 47	Color 1 RED (centred at 32)
			48 - 79	Color 2 Dark Blue (centred at 64)
			80 - 111	Color 3 Yellow (centred at 96)
			112 - 143	Color 4 Kelly Green (centred at 128)
			144 - 175	Color 5 Congo Blue (centred at 160)
			176 - 207	Color 6 Amber (centred at 192)
			208 - 240	Color 7 CTB (centred at 224)
			241 -255	Open
14	Color Wheel Control	0	0 - 255	
			0 - 5	Linear Movement using shortest (quickest) path.
			6 - 10	Linear Movement using normal (longest) path.
			11 - 15	Wheel Spin CW (Forward)
			16 - 20	Wheel Spin STOP
			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
15	Frame 1A	0	0-255	Controls Framing Shutter 1A from Open (0) to Full (255).
16	Frame 1B	0	0 - 255	Controls Framing Shutter 1B from Open (0) to Full (255).
17	Frame 2A	0	0 - 255	Controls Framing Shutter 2A from Open (0) to Full (255).
18	Frame 2B	0	0 - 255	Controls Framing Shutter 2B from Open (0) to Full (255).
19	Frame 3A	0	0 - 255	Controls Framing Shutter 3A from Open (0) to Full (255).
20	Frame 3B	0	0 - 255	Controls Framing Shutter 3B from Open (0) to Full (255).
21	Frame 4A	0	0 - 255	Controls Framing Shutter 4A from Open (0) to Full (255).

TABLE 6.   VL2600 WASH 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
22	Frame 4B	0	0 - 255	Controls Framing Shutter 4B fromOpen (0) to Full (255).
23	Frame Rotate	128	0 - 255	Controls Framing Shutter mechanism from +/- 90°
24	Beam softening	0	0-255	Linear control of frost mechanism from out (0) to full in (255)
25	Strobe Speed	0	0 - 255	Controls strobe rate from slowest (0) to fastest (255) 0.5Hz to 30Hz
26	Strobe Control	0	0 - 255	Control Channel for strobing functions.
			0 - 5	Open
			6 - 10	Closed
			11 - 15	Normal Strobe
			16 - 20	Random Strobe
			21 - 25	Random Sync
			26 - 255	Reserved Values
27	Programmers Channel	0	0-255	*do not require 3 second Dam rule mode will change once DMX level I reached **Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 40	Idle
			41 - 80	Linear**
			81 -120	S-Curve**
			121 -160	Square Curve (Default)**
			161 - 180	PL Curve **
			181 - 200	For Future Use
			201 - 210	Auto CTB ON (Default)**
			211 - 220	Auto CTB off **
			221 - 225	Edge Tracking OFF**
			226 - 230	Edge Tracking ON**
			231 - 235	Soft Zoom start ON** **For future use**
			235 - 240	Soft Zoom start OFF**
			241 - 245	Dimmer Snap On* (Default)
			246 - 250	Dimmer Snap Off*
28	Focus Timing	255	0 - 255	Adjustment of fixture timing to control Pan/Tilt mechanisms. See Timing Channel Chart in User Manual
29	Optics Timing	255	0 - 255	Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Chart in User Manual
30	Color Timing	255	0 - 255	Adjustment of fixture timing to control color mechanisms. See Timing Channel Chart in User Manual
31	Fan Control	0	0 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . . Automatic fan/output adjustment (Default) Linear control of fan speed and LED max output. DMX 4 =Highest Constant Fan Speed DMX 255 = Lowest Constant Fan Speed

TABLE 6.   VL2600 WASH 16-BIT MODE ENHANCED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
32	Luminaire Control	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s)
			0 - 5	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also Used to Wake fixture up from shutdown
			11 - 15	Reserved Values
			16 - 20	Reserved Values
			21 - 25	Fixture Shutdown
			26 - 30	Display - Menu ON
			31 - 35	Display - Menu OFF
			36 - 40	ReCal Position
			41 - 45	ReCal Color
			46 - 50	Reserved Values
			51 - 55	ReCal Beam
			56 - 60	ReCal Optics
			61 - 65	Reserved Values
			66 - 70	Reset Fixture to Defaults
			71 - 75	Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters.
			76 - 80	Fixture Status On/Off. This command will enable the display to show fixture status for 5 min. After this time, displays will return to default configuration. Repeating this command in less than 5 minutes will behave as a toggle.
			81 - 85	Standard Mode - Fixture operates at maximum output (Default)
			86 - 90	Studio Mode - Reduced output with lower fan settings
			91 - 100	Side Hang Disable (Default)
			101 - 110	Side Hang Enable
			111 - 225	Reserved Values
			116	900Hz
			117	1500Hz
			118	3000Hz
			119	5000Hz
			120	10kHz
			121	15kHz
			122	20kHz
			123	25kHz
			124 - 255	Reserved Values

GET ALLOWED	SET ALLOWED	RDM PARAMETER IDS	VALUE	COMMENT	ESTA STANDARD	REQUIRED / IMPLEMENTED	DMX / UI DESCIPTION
Category - Network Management							
		DISC_UNIQUE_BRANCH	0x0001		X	X	
		DISC_MUTE	0x0002		X	X	
		DISC_UN_MUTE	0x0003		X	X	
X		PROXIED_DEVICES	0x0010				
X		PROXIED_DEVICES_COUNT	0x0011				
X	X	COMMS_STATUS	0x0015				
Category - Status Collection							
X		QUEUED_MESSAGE	0x0020				
X		STATUS_MESSAGES	0x0030			X	Status
X		STATUS_ID_DESCRIPTION	0x0031			X	
	X	CLEAR_STATUS_ID	0x0032				
X	X	SUB_DEVICE_STATUS_REPORT_THRESHOLD	0x0033				
Category - RDM Information							
X		SUPPORTED_PARAMETERS	0x0050		X	X	
X		PARAMETER_DESCRIPTION	0x0051		X	X	
Category - Product Information							
X		DEVICE_INFO	0x0060		X	X	
X		PRODUCT_DETAIL_ID_LIST	0x0070				
X		DEVICE_MODEL_DESCRIPTION	0x0080			X	
X		MANUFACTURER_LABEL	0x0081			X	
X	X	DEVICE_LABEL	0x0082			X	
X	X	FACTORY_DEFAULTS	0x0090			X	Reset Defaults
X		LANGUAGE_CAPABILITIES	0x00A0				
X	X	LANGUAGE	0x00B0				
X		SOFTWARE_VERSION_LABEL	0x00C0		X	X	Version
X		BOOT_SOFTWARE_VERSION_ID	0x00C1				
X		BOOT_SOFTWARE_VERSION_LABEL	0x00C2				
Category - DMX512 Setup							
X	X	DMX_PERSONALITY	0x00E0			X	DMX Mode
X		DMX_PERSONALITY_DESCRIPTION	0x00E1			X	
X	X	DMX_START_ADDRESS	0x00F0		X	X	Address
X		SLOT_INFO	0x0120			X	
X		SLOT_DESCRIPTION	0x0121			X	
X		DEFAULT_SLOT_VALUE	0x0122			X	
Category – Sensors 0x02xx USE							
X		SENSOR_DEFINITION	0x0200			X	

GET ALLOWED	SET ALLOWED	RDM PARAMETER IDS	VALUE	COMMENT	ESTA STANDARD	REQUIRED / IMPLEMENTED	DMX / UI DESCIPTION
X	X	SENSOR_VALUE	0x0201	Fan Speed and Temperatures		X	Diagnostics
	X	RECORD_SENSORS	0x0202				
Category - Dimmer Settings 0x03xx - FUTURE USE							
X	X	Dimmer Curve	0x0343			X	
X		Dimmer Curve Description	0x0344			X	
X	X	Modulation Frequency	0x0347			X	
X		Modulation Frequency Description	0x0348			X	
Category - Power / Lamp Settings 0x04xx							
X	X	DEVICE_HOURS	0x0400			X	Fixture Hours
X	X	LAMP_HOURS	0x0401				
X	X	LAMP_STRIKES	0x0402				
X	X	LAMP_STATE	0x0403				
X	X	LAMP_ON_MODE	0x0404				
X	X	DEVICE_POWER_CYCLES	0x0405				
Category - Display Settings 0x05xx							
X	X	DISPLAY_INVERT	0x0500				
X	X	DISPLAY_LEVEL	0x0501				
		Category - Configuration 0x06xx					
X	X	PAN_INVERT	0x0600				
X	X	TILT_INVERT	0x0601				
X	X	PAN_TILT_SWAP	0x0602				
X	X	REAL_TIME_CLOCK	0x0603				
Category - Control 0x10xx							
X	X	IDENTIFY_DEVICE	0x1000		X	X	
	X	RESET_DEVICE	0x1001			X	
X	X	POWER_STATE	0x1010				
X	X	PERFORM_SELFTEST	0x1020	All Test, Pan/Tilt, Encoder			
X		SELF_TEST_DESCRIPTION	0x1021				
	X	CAPTURE PRESET	0x1030	See E1-20_2010a			
X	X	PRESET PLAYBACK	0x1031	Table A-7 defines			
		ESTA Reserved Future RDM	0x7FE0-0x7FFF				
		Manufacturer-Specific PIDs	0x8000-0xFFDF				
X	X	Output Power Mode	0x8A97	Value range depends on options (Standard, Studio, etc)		X	LED Output Mode
X	X	Pan/Tilt Feedback (On/Off)	0x8AD3				

GET ALLOWED	SET ALLOWED	RDM PARAMETER IDS	VALUE	COMMENT	ESTA STANDARD	REQUIRED / IMPLEMENTED	DMX / UI DESCIPTION
X	X	Display On Time	0x8AA0	Value range depends on options		X	Display On Time
X	X	LED Dimmer Curve	0x8AA1	Value range depends on options			LED Dimming Curve
X	X	Pan Tilt Movement (On/Off)	0x8AA2				
X	X	Head Motor Movement (On/Off)	0x8AA3				
X	X	Auto Shutdown Mode	0x8AA4	Value range depends on options			
X	X	LED Hours	0x8AA5				
X	X	Dim Snap (On/Off)	0x8AA6				
X	X	Color Snap (On/Off)	0x8AA7				
X	X	Auto Fan Mode (On/Off)	0x8AA8				LED Fan Mode
X	X	Gamma Shift	0x8AA9	Value range depends on options			
X	X	Tungsten Dimming (On/Off)	0x8AAA				
X	X	CTB Correction (On/Off)	0x8AAB				
X	X	LED Refresh Rate	0x8AAC	Value range depends on options			LED Refresh Rate
X	X	Side Hang (On/Off)	0x8AAD				
X	X	Focus Track (On/Off)	0x8AAE				
	X	Control Signel select DMX only/ARtNET (On/Off)	0x8AAF				
	X	Recalibrate Fixture (Level)	0x8AB0	different levels (all, position, color, etc)			
X	X	DMX Fail (Hold, Blackout, GOTO Preset)	0x8AB1				DMX Fail
X	X	ArtNet Universe	0x8AB2				
X	X	ArtNet Net	0x8AB3				
X	X	ArtNet Sub-Net	0x8AB4				
X	X	ArtNet Ethernet IP	0x8AB5				
X	X	ArtNet Ethernet Sub-Net Mask	0x8AB6				
X	X	Manual PRESET Playback Power Up Preset	0x8AB7				
X	X	Manual PRESET Playback Preset Intensity	0x8AB8				
X	X	Manual PRESET Playback Priority	0x8AB9				
X	X	Manual PRESET Playback Power Up?	0x8ABA				
X	X	LED Color Calibration (On/Off)	0x8ABB			X	LED Color Calibration

3 OPERATION

MENU FUNCTIONS

Press the MENU button to select any functions, until the required function is shown in the display. Select the LCD Display and Menu System

The VL2600 Luminaire's LCD 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.
- 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.

OK

OK (Enter) Button
To Select or Change a
Setting or Data Value

Arrow Keys (Up/Down/Left/Right)
Menu Navigation / Data Selection

LCD Display
Displays all Data and
Luminaire Settings

ESC

ESC (Escape)
Used to Access Main Menu Parameters,
Exit, or Return to Previous Menu Item

```
Address ──────── Address ──────────────────────────────────────────────
Configure ─────── Pan / Tilt ─────────────── Movement ──────────── Enable
                                                     └──────────── Disable
                                             └─ Degrees of Pan ───── 540 Degree
                                                                   └─ 630 Degree
                  Head Motors ─────────────── Movement ──────────── Enable
                                                     └──────────── Disable
                  Display ─────────────────── Orientation ───────── Auto
                                                             ├────── Up
                                                             └────── Down
                                             └─ On Time ─────────── 30 Sec
                                                              ├───── 5 Min
                                                              ├───── 10 Min
                                                              └───── On
                  Reset Defaults ──────────── Are you sure? ──────── (reset settings)
                  Auto Shutdown ───────────── No Auto
                                            ├─ 2 Hr
                                            ├─ 4 Hr
                                            └─ 8 Hr
                  Change Luminaire ID──────── (Display ID and edit) ──── ?
                  IP Settings ─────────────── IP Address
                                            ├─ Net
                                            ├─ Subnet
                                            ├─ Universe
                                            └─ Protocol Priority
Fixture ───────── Status ──────────────────── (Display calibration errors cycle through)

                  Recalibrate fixture ──────── Are you sure? ──────── If OK?  Recalibrate motors

                  Reset Fixture ────────────── Are You Sure? ──────── If OK? Reset all boards
                  Luminaire ID ─────────────── (display ID, don't edit)
                  Software Version ─────────── (Display version date/time)
                  Fixture Hours ────────────── (Display hours)
                  Crossload Software ───────── Send?                 Sending version xx/xx/xx xx:xx
                                                                     (Display Crossload Complete
                  Temperature Info                                   when done)
                  Fan Info
                  IPInfo
DMX ──────────── Data ─────────────────────── Ch 1– Intensity High Byte
                                              ….
                                              (Display all channels)
                  Pan / Tilt ───────────────── Swap Pan / Tilt ───── Off
                                                              └────── On
                                              ├─ Invert Pan──────── Off
                                              │                └──── On
                                              └─ Invert Tilt ─────── Off
                                                              └────── On
                  DMX Map ──────────────────── 16-bit enhanced
                                             └─ 16-bit              (TIME CHAN = 255)
Manual ───────── Intensity ────────────────── Value ─────────────── (Make sure no DMX)
                  … (all functions)
Test ──────────── All Test ──────────────────── Running All Test
                  Pan / Tilt ──────────────────── Running Pan Tilt Test
                  Pan ─────────────────────────── Running Pan Test
                  Tilt ────────────────────────── Running Tilt Test
                  Intensity ────────────────────── Running Intensity Test
                  Color Flag Test ──────────────── Running Color Flag Test
                  Colorwheel 1 Test ────────────── Running CW 1 Test
                  Colorwheel 2 Test ────────────── Running CW 2 Test
                  Colorwheel 3 Test ────────────── Running CW 3 Test
                  …                                 …
```

MENU SYSTEM

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 the menu items. When the desired menu item is reached, press the desired Menu Button to display the menu options and to navigate and configure the menu options as required.

To navigate and access menu settings/selections:

Step 1.   Make sure unit is powered and turned on.

Step 2.   Press [ESC] to access menu categories.

Step 3.   Use four Arrow (◄ ▲ ▼ ►) buttons to navigate through the various options and settings.

Step 4.   Once menu item is reached, press [OK] to access the menu item parameters.

Step 5.   Make changes to parameters as desired.

Step 6.   Press OK [Enter] button to accept changes.

DMX ADDRESS

To set, edit, and save a DMX address:

Step 1.   Press [ESC].

Step 2.   Press [Up] / [Down] arrows until Address appears. Press [OK].

Step 3.   Use [Left] and [Right] arrow buttons to scroll through all digits.

Step 4.   Once at desired digit, use [Up] and [Down] arrows to change highlighted digit.

Step 5.   Once digit is set, use [Left] and [Right] arrow buttons to set other digits in DMX address.

Step 6.   Once all digits are set in DMX address, press [OK] to set.

Step 7.   DMX address will display and is saved.

OTHER LCD DISPLAY FEATURES

LCD MENU BATTERY OPERATION

The LCD 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:

Step 1.   Press and hold [ESC] and [OK] for two seconds.

Step 2.   Once enabled, the menu will function as normal.

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

Step 3.   To exit battery mode, press and hold [ESC] and [OK] for two seconds. Note, luminaire will automatically exit this mode after one minute of inactivity.

STATUS BAR

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

- LAMP – indicates current lamp state - ON or OFF.
- SHDN – indicates shutdown time in hours NO indicates NO shutdown time.
- ERRORS – 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.
- 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.

LCD MENU PROXIMITY SENSOR

The LCD menu system uses a proximity sensor to automatically enable the menu display (turn on the backlight) as you reach for the front panel. If the display is off, it will turn on when your hand is within a few inches of the display.

⚠️ **NOTE:** When the luminaire is not connected to power and the LCD menu is operating on battery, this proximity sensor is disabled.

SELF TESTS

RUNNING PARAMETER TESTS

The luminaire is capable of running self tests by using the TEST menu functions.

When running tests on multiple luminaires, a DMX termination connector is required at the last luminaire in the link.

To run tests:

Step 1.   Press [ESC].

Step 2.   Press [Up] / [Down] arrows until Test appears. Press [OK].

Step 3.   Use [Up] / [Down] arrows to select a parameter to test.

Step 4.   Press [OK] to run test.

Step 5.   Press [ESC] to stop test at any time.

⚠️ **NOTE:** Connected luminaires may not respond on the first action (may delay) of the master luminaire.

MOVEMENT DISABLE

The Movement option allows pan and tilt to be disabled so that the luminaire can be placed in any position for testing without movement occurring. In order to regain full control of the luminaire, Movement will need to be enabled after testing.

⚠️ **NOTE:** When using the Movement option, pan and tilt will be disabled for all the luminaires that are linked.

To set movement option:

Step 1.   Press [ESC].

Step 2.   Press [Up] /[Down] arrows until Config appears. Press [OK].

Step 3.   Press [Up] / [Down] arrows until Pan/Tilt appears. Press [OK].

Step 4.   Movement will be displayed. Press [OK].

Step 5.   Use [Up] / [Down] arrows to select Enable or Disable. Press OK] to select.

DIAGNOSTIC TESTS

The following diagnostic tests are available in the test menu. Press [Menu] at anytime to stop test.

TEST NAME	DISPLAY
ALL Test	Running 'ALL TEST'
Pan/Tilt	Running 'PAN TILT TEST'
Pan.....................	Running 'PAN TEST'
Tilt.......................	Running 'TILT TEST'
Intensity	Running 'INTENSITY TEST'
Color Flag Test	Running 'COLOR FLAG TEST'
Color Wheel 1	Running 'CW 1 TEST'
Color Wheel 2	Running 'CW 2 TEST'
Color Wheel 3	Running 'CW 3 TEST'

APPENDIX A
CARE AND MAINTENANCE

TROUBLESHOOTING

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, and reflector 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.
- REFLECTOR: Use Acetone or Isopropyl Alcohol along with a soft, lint-free cloth to clean the reflector.

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

TECHNICAL SUPPORT

GLOBAL 24HR TECHNICAL SUPPORT:

Call: +1 214 647 7880

entertainment.service@signify.com

NORTH AMERICA SUPPORT:

Call: 877-VARI-LITE (877-827-4583)

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VL2600 PROFILE PROFILE, SPOT, WASH USER MANUAL

DOCUMENT NUMBER: 64508-001

VERSION DATE: JUNE 18 2025