

## VARI米LTIE

VL2600 SERIES

USER MANUAL

VL2600 PROFILE

## 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).
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## ABOUT THIS DOCUMENT

Read all instructions before installing or using this product. Retain this user manual for future reference. Additional product information and descriptions may be found on the product data sheet(s) which can be downloaded from the Vari-Lite website at WWW.VARI-LITE.COM.
This user manual provides necessary information regarding safety, installation, operation and routine maintenance for Vari-Lite 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 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


## 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 ${ }^{\circledR}$ and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel. Caution Against Direct Sunlight Through Front Lens Assembly

## CAUTION AGAINST DIRECT SUNLIGHT THROUGH FRONT LENS ASSEMBLY

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

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


## CAUTION AGAINST POWERING LUMINAIRES FROM DIMMER CIRCUITS

It is not recommended to power any Vari-Lite LLC luminaire from a dimmer - even in 'NONDIM' mode. Dimmer and non-dim modules are not suitable sources of power because their output modifies the AC wave form. This may work for a short time, but eventually results in power problems, luminaire mis-operation and/or failure.

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


## CAUTION AGAINST THE USE OF THIRD PARTY PARTS OR ACCESSORIES

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


## TRANSPORTING LUMINAIRES

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

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

## TRANSPORTATION AND SHIPPING CASE REQUIREMENTS

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

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


## COMPLIANCE NOTICE

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

## FCC 47CFR 15B 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\# $\qquad$ )
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 ${ }^{\circledR}$ powerCON ${ }^{\circledR}$ Truel connector is supplied; however, you will need to purchase or construct a cable appropriate for your application.

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

| WIRE* $^{*}$ | CONNECTION |
| :--- | :--- |
| Green/yellow | AC ground |
| Blue | AC neutral |
| Brown | AC line |

* International (Harmonized) Standard

WARNING: DO NOT connect to three-phase service in countries with 240V power.

For single-phase power at 240 volts RMS:


| CONNECTION | PIN |
| :--- | :---: |
| AC neutral | Y |
| AC line | G |
| Ground (earth) |  |

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 and non-dim modules are not suitable sources of power because their output modifies the AC wave form. This may work for a short time, but will eventually result in power problems, luminaire misoperation and/or failure and may void the luminaire's warranty.

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

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

## 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 ( 300 m )
- 22 AWG min. gauge for runs up to 1640 feet ( 500 m )

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 | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Data In Cable Pinout |
| Male Conn. | Foil \& Braided Shield | 1st conductor of 1st twisted pair <br> Data (-) | 2nd conductor of 1st twisted pair <br> Data (+) | 1st conductor of 2nd twisted pair <br> Data (-) | 2nd conductor of 2 nd twisted pair <br> Data (+) | 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 | Z $\Omega^{*}$ | JACKET | AWG | USE | TEMP ( ${ }^{\circ} \mathrm{F}$ ) | TEMP ( ${ }^{\circ} \mathrm{C}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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:


Solder resistors across pins 2 \& 3, and 4 \& 5

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

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

## 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.

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 $13-25 \mathrm{~mm}$ ( $0.5-$ 1.0 in ) diameter. Belleville washers are available in various thicknesses and any of the following thicknesses are acceptable for the application described: $0.9 . \mathrm{mm}, 1.0 \mathrm{~mm}, 1.3 \mathrm{~mm}, 1.9 \mathrm{~mm}$ ( $0.035-$ 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 25 mm ( 1 inch ) minimum can be used in conjunction with a suitable split lock washer situated between the bolt head and flat washer.
Step 2. Determine required configuration of bracket installation. Brackets may be installed in many different orientations.
Step 3. While pulling up on locking mechanism release, fit keyed holes onto raised mounting buttons at bottom of enclosure. Slide forward and release locking mechanism to lock in place. Ensure brackets are locked securely.

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


## Installing in Truss:

Step 1. Using two people, lift luminaire into mounting position.
Step 2. Secure in place with truss hook. Ensure truss hook hardware that locks hook in place (e.g. wing bolt) is properly tightened and that luminaire is fully supported.

Step 3. Attach safety cable (as required) as follows:
a. Loop safety cable at least once around safety cable anchor point rod.
b. Loop safety cable at least once around truss/pipe and secure around pipe.

Step 4. Make sure tilt and pan locks are disengaged so luminaire moves freely.
Step 5. Connect power and data cables.
When the fixture is mounted in a side hanging orientation, you must enable side hang in the menu for proper operation. To enable side hang, press MENU. Select CONFIG > 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


**DMX terminator required for last fixture on DMX line.
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 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 lumi－ naire warranty．

## GOBO WHEELS



## VL2600 Profile



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 rotating gobo wheel offers seven rotatable，indexable 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 |

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

| LUMINAIRE | GOBO DIAMETER | IMAGE AREA DIAMETER | GLASS THICKNESS | CARRIER REQUIRED？ |
| :---: | :---: | :---: | :---: | :---: |
| VL2600 Profile | 27 mm | 17.5 mm | 1.1 mm | Yes |

## VL2600 Spot



WHEEL 1

| 13 | 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 rotating gobo wheel offers seven rotatable, indexable gobo positions and one open position.


WHEEL 2

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

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


WHEEL 3

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

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

| LUMINAIRE | GOBO DIAMETER | IMAGE AREA DIAMETER | GLASS THICKNESS | CARRIER REQUIRED? |
| :---: | :---: | :---: | :---: | :---: |
| VL2600 Spot | 27 mm | 17.5 mm | 1.1 mm | No |

## 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.


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 53.


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.

TABLE 1. VL2600 PROFILE 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DM | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Intensity High | 0 | 0-65535 | 16 Bit control of Dimming |
| 2 | Intensity Low |  |  |  |
| 3 | Pan High | 32767 | O-65535 | $540^{\circ}$ Total Pan Rotation |
| 4 | Pan Low |  |  |  |
| 5 | Tilt High | 32767 | 0-65535 | $270^{\circ}$ 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 <br> 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 | $\begin{gathered} 0-255 \\ 0-15 \\ 16-47 \\ 48-79 \\ 80-111 \\ 112-143 \\ 144-175 \\ 176-207 \\ 208-240 \\ 241-255 \end{gathered}$ | 8-bit control of Color Wheel. (spin speed slow to fast from control channel) <br> OPEN (centred at O) <br> Color 1 RED (centred at 32) <br> Color 2 Dark Blue (centred at 64) <br> Color 3 Yellow (centred at 96) <br> Color 4 Kelly Green (centred at 128) <br> Color 5 Congo Blue (centred at 160) <br> Color 6 Amber (centred at 192) <br> Color 7 CTB (centred at 224) <br> Open |
| 16 | Color Wheel Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-56 \\ 57-87 \\ 88-255 \end{gathered}$ | Linear Movement using shortest (quickest) path. <br> Linear Movement using normal (longest) path. <br> Wheel Spin CW (Forward) <br> Wheel Spin STOP <br> Wheel Spin CCW (Reverse) <br> Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0 <br> Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0 <br> Reserved Values |
| 17 | Gobo Wheel 1 | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \end{gathered}$ | 8-bit control of Gobo Wheel 1. See Channel 20 for control <br> Open - No Gobo <br> Gobo 1 (Night Sky) Index <br> Gobo 2 (Circle of Ovals) Index <br> Gobo 3 (Bricked Out) Index <br> Gobo 4 (Punchcard) Index <br> Gobo 5 (Swirl) Index <br> Gobo 6 (Honeycomb Reverse) Index <br> Gobo 7 (On the Rock) Index <br> Open - No Gobo |

TABLE 1. VL2600 PROFILE 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 17 | Gobo Wheel 1 continued | 0 | $\begin{gathered} 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-95 \\ 96-100 \\ 101-105 \\ 106-110 \\ 111-115 \\ 116-120 \\ 121-255 \end{gathered}$ | Gobo 1 (Night Sky) Rotate <br> Gobo 2 (Circle of Ovals) Rotate <br> Gobo 3 (Bricked Out) Rotate <br> Gobo 4 (Punchcard) Rotate <br> Gobo 5 (Swirl) Rotate <br> Gobo 6 (Honeycomb Reverse) Rotate <br> Gobo 7 (On the Rock) Rotate <br> Open - No Gobo <br> Gobo 1 (Night Sky) Rotate with Mega Stepping <br> Gobo 2 (Circle of Ovals) Rotate with Mega Stepping <br> Gobo 3 (Bricked Out) Rotate with Mega Stepping <br> Gobo 4 (Punchcard) Rotate with Mega Stepping <br> Gobo 5 (Swirl) Rotate with Mega Stepping <br> Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping <br> Gobo 7 (On the Rock) Rotate with Mega Stepping Reserved Values |
| 18 | Gobo 1 Rot/Index High Byte | 32767 | $\begin{aligned} & 0-65535 \\ & 0-32756 \end{aligned}$ | 16-bit control of index and rotation of gobo wheel 1 . Rotate Fast to Slow <<< |
| 19 | Gobo 1 Rot/Index Low Byte |  | $\begin{aligned} & 32757-32780 \\ & 32781-65535 \end{aligned}$ | Rotation STOP <br> Rotate Slow to Fast >>> |
| 20 | Gobo Wheel 1 Control | 0 | $\begin{gathered} \text { 0-255 } \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for <br> Gobo Wheel 1 (Channel 17) <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin CW Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin CCW Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Reserved Values |

TABLE 1. VL2600 PROFILE 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 21 | Gobo Wheel 2 (Fixed) | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-255 \end{gathered}$ | 8-bit control of Gobo Wheel for movement options see channel 22 <br> Open - No Gobo <br> 6-10 Gobo 1 (Leafy Breakup) <br> 11-15 Gobo 2 (Medium Circle) <br> 16-20 Gobo 3 Swirl (Lattice) <br> 21-25 Gobo 4 (Radial Breakup) <br> 26-30 Gobo 5 (Dust) <br> 31-35 Gobo 6 (Neurons) <br> 36-40 Gobo 7 (Grid) <br> 41-45 Gobo 8 (Cross bars) <br> Reserved |
| 22 | Gobo Wheel 2 Control | 0 | $\begin{gathered} \text { 0-255 } \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for <br> Gobo Wheel 2 (Channel 21) <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin CW Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin CCW Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Reserved Values <br> Reserved Values <br> Reserved Values |
| 23 | Iris | 0 | $\begin{gathered} 0-255 \\ 0-200 \\ 201-255 \end{gathered}$ | Iris size control <br> Iris beam size open to closed 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 O) 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 O) to Full (DMX 255). |
| 28 | Frame 3A | 0 | 0-255 | Controls Framing Shutter 3A from Open (DMX 0) to Full (DMX 255). |
| 29 | Frame 3B | 0 | O-255 | Controls Framing Shutter 3B from Open (DMX 0) to Full (DMX 255). |
| 30 | Frame 4A | 0 | O-255 | Controls Framing Shutter 4A from Open (DMX O) to Full (DMX 255). |
| 31 | Frame 4B | 0 | O-255 | Controls Framing Shutter 4B from Open (DMX O) to Full (DMX 255). |
| 32 | Frame Rotate | 128 | 0-255 | Controls Framing Shutter mechanism from $+/-90^{\circ}$ |

TABLE 1. VL2600 PROFILE 16-BIT MODE


TABLE 1. VL2600 PROFILE 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 40 | Fan Control |  | $\begin{gathered} 0-255 \\ 0-4 \\ 05-255 \end{gathered}$ | Dynamically control fan speed vs LED Output operation. Control values as follows... <br> Automatic fan/output adjustment (Default) <br> Linear control of fan speed and LED max output* <br> DMX 5 =Highest Constant Fan Speed <br> DMX 255 = Lowest Constant Fan Speed <br> * Standard mode only |
| 41 | Optical Style | 0-30 | $\begin{aligned} & 0-255 \\ & 31-60 \\ & 61-90 \\ & 91-120 \end{aligned}$ | Hybrid - full zoom range no restrictions (default) <br> Spot Projection-6\%-100\% Zoom Range No other restrictions besides zoom range <br> Open Beam-opeopean lockedinat 2\% zoom - Edge 0\% (Hard Edged) -His $5 /$ (Troam/Iris/edge functions not operational- Prism Fully fumbitone <br> Shaft - Open Beam locked in at 0\% zoom-Edge 0\%-1 is limited Range of $26 \%-100 \%$ (iris never completely leaves beam to keep hard edge)- Gobo Functionality disabled. Prism Fully functional |
| 42 | Luminaire Control | 0 | $\begin{gathered} \text { 0-255 } \\ \text { 0-5 } \\ \text { 6-10 } \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ \hline 71-85 \\ 86-90 \\ 91-100 \\ 101-110 \\ 111-225 \end{gathered}$ | 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) <br> Idle (Default) <br> Full Luminaire ReCal - Also Used to Wake fixture up from shutdown <br> Reserved Values <br> Reserved Values <br> Fixture Shutdown <br> Display - Menu ON <br> Display - Menu OFF <br> ReCal Position <br> ReCal Color <br> ReCal Gobo <br> ReCal Beam <br> ReCal Optics <br> Reserved Values <br> Reset Fixture to Defaults <br> Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters. <br> 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. <br> Standard Mode - Fixture operates at maximum output (Default) <br> Studio Mode - Reduced output with lower fan settings <br> Side Hang Disable (Default) <br> Side Hang Enable <br> 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 | $540^{\circ}$ Total Pan Rotation |
| 4 | Pan Low |  |  |  |
| 5 | Tilt High | 32767 | 0-65535 | $270^{\circ}$ 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 <br> 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 O-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 | $\begin{gathered} 0-255 \\ 0-15 \\ 16-47 \\ 48-79 \\ 80-111 \\ 112-143 \\ 144-175 \\ 176-207 \\ 208-240 \\ 241-255 \end{gathered}$ | 8 -bit control of Color Wheel. (spin speed slow to fast from control channel) <br> OPEN (centred at 0) <br> Color 1 RED (centred at 32) <br> Color 2 Dark Blue (centred at 64) <br> Color 3 Yellow (centred at 96) <br> Color 4 Kelly Green (centred at 128) <br> Color 5 Congo Blue (centred at 160) <br> Color 6 Amber (centred at 192) <br> Color 7 CTB (centred at 224) <br> Open |
| 16 | Color Wheel Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-56 \\ 57-87 \\ 88-255 \end{gathered}$ | Linear Movement using shortest (quickest) path. <br> Linear Movement using normal (longest) path. <br> Wheel Spin CW (Forward) <br> Wheel Spin STOP <br> Wheel Spin CCW (Reverse) <br> Color Shake Quickest Path (Slow to Fast) For fastest shake <br> set color timing to 0 <br> Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0 <br> Reserved Values |
| 17 | Gobo Wheel 1 | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \end{gathered}$ | 8-bit control of Gobo Wheel 1. See Channel 20 for control <br> Open - No Gobo <br> Gobo 1 (Night Sky) Index <br> Gobo 2 (Circle of Ovals) Index <br> Gobo 3 (Bricked Out) Index <br> Gobo 4 (Punchcard) Index <br> Gobo 5 (Swirl) Index <br> Gobo 6 (Honeycomb Reverse) Index <br> Gobo 7 (On the Rock) Index <br> Open - No Gobo |

TABLE 2. VL2600 PROFILE 16-BIT MODE ENHANCED

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 17 | Gobo Wheel 1 continued | 0 | $\begin{gathered} 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-95 \\ 96-100 \\ 101-105 \\ 106-110 \\ 111-115 \\ 116-120 \\ 121-255 \end{gathered}$ | Gobo 1 (Night Sky) Rotate <br> Gobo 2 (Circle of Ovals) Rotate <br> Gobo 3 (Bricked Out) Rotate <br> Gobo 4 (Punchcard) Rotate <br> Gobo 5 (Swirl) Rotate <br> Gobo 6 (Honeycomb Reverse) Rotate <br> Gobo 7 (On the Rock) Rotate <br> Open - No Gobo <br> Gobo 1 (Night Sky) Rotate with Mega Stepping <br> Gobo 2 (Circle of Ovals) Rotate with Mega Stepping <br> Gobo 3 (Bricked Out) Rotate with Mega Stepping <br> Gobo 4 (Punchcard) Rotate with Mega Stepping <br> Gobo 5 (Swirl) Rotate with Mega Stepping <br> Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping <br> Gobo 7 (On the Rock) Rotate with Mega Stepping <br> Reserved Values |
| 18 19 | Gobo 1 Rot/Index High Byte <br> Gobo 1 Rot/Index Low Byte | 32767 | $\begin{gathered} 0-65535 \\ 0-32756 \\ 32757-32780 \\ 32781-65535 \end{gathered}$ | 16-bit control of index and rotation of gobo wheel 1 . <br> Rotate Fast to Slow <<< <br> Rotation STOP <br> Rotate Slow to Fast >>> |
| 20 | Gobo Wheel 1 Control | 0 | $\begin{gathered} \text { 0-255 } \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for Gobo Wheel 1 (Channel 17) <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin CW Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin CCW Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Reserved Values |

TABLE 2. VL2600 PROFILE 16-BIT MODE ENHANCED

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 21 | Gobo Wheel 2 (Fixed) | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-255 \end{gathered}$ | 8-bit control of Gobo Wheel for movement options see channel 22 <br> Open - No Gobo <br> 6-10 Gobo 1 (Leafy Breakup) <br> 11-15 Gobo 2 (Medium Circle) <br> 16-20 Gobo 3 Swirl (Lattice) <br> 21-25 Gobo 4 (Radial Breakup) <br> 26-30 Gobo 5 (Dust) <br> 31-35 Gobo 6 (Neurons) <br> 36-40 Gobo 7 (Grid) <br> 41-45 Gobo 8 (Cross bars) <br> Reserved |
| 22 | Gobo Wheel 2 Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for <br> Gobo Wheel 2 (Channel 21) <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin CW Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin CCW Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Reserved Values <br> Reserved Values <br> Reserved Values |
| 23 | Iris | 0 | $\begin{gathered} 0-255 \\ 0-200 \\ 201-255 \end{gathered}$ | Iris size control <br> Iris beam size open to closed <br> 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 | O-255 | Controls Framing Shutter 4B from Open (0) to Full (255). |
| 32 | Frame Rotate | 128 | 0-255 | Controls Framing Shutter mechanism from $+/-90^{\circ}$ |
| 33 | Triangular Prism | 0-255 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-255 \end{gathered}$ | Controls Prism mechanism with following values. <br> Open <br> Index <br> Rotate Normal <br> Rotate with Mega Stepping <br> Reserved Values |

TABLE 2. VL2600 PROFILE 16-BIT MODE ENHANCED


TABLE 2. VL2600 PROFILE 16-BIT MODE ENHANCED

| DMX <br> CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 45 | Fan Control | 0 | $\begin{gathered} 0-255 \\ 0-4 \\ 05-255 \end{gathered}$ | Dynamically control fan speed vs LED Output operation. Control values as follows... <br> Automatic fan/output adjustment (Default) <br> Linear control of fan speed and LED max output* <br> DMX 5 = Highest Constant Fan Speed <br> DMX 255 = Lowest Constant Fan Speed <br> * Standard mode only |
| 46 | Optical Style | 0-30 | $\begin{aligned} & 0-255 \\ & 31-60 \\ & 61-90 \\ & 91-120 \end{aligned}$ | Hybrid - full zoom range no restrictions (default) <br> Spot Projection-6\%-100\% Zoom Range No other restrictions besides zoom range <br> Open Beam-qpen Ofarclockedinat 2\% zoom - Edge $0 \%$ (Hard Edged) - Tris 0\% / Keam/Iris/edge functions not operational- Prism Fully functionás <br> Shaft - Open Beam locked in at 0\% zoom? tage 0\%- Iris limited Range of $26 \%-100 \%$ (iris never completety leaves beam to keep hard edge)- Gobo Functionality disabled. Prism Fully functional |
| 47 | Luminaire Control | 0 | $\begin{gathered} \text { 0-255 } \\ \text { 0-5 } \\ \text { 6-10 } \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-100 \\ 101-110 \\ 111-225 \end{gathered}$ | 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) <br> Idle (Default) <br> Full Luminaire ReCal - Also Used to Wake fixture up from shutdown <br> Reserved Values <br> Reserved Values <br> Fixture Shutdown <br> Display - Menu ON <br> Display - Menu OFF <br> ReCal Position <br> ReCal Color <br> ReCal Gobo <br> ReCal Beam <br> ReCal Optics <br> Reserved Values <br> Reset Fixture to Defaults <br> Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters. <br> 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. <br> Standard Mode - Fixture operates at maximum output (Default) <br> Studio Mode - Reduced output with lower fan settings <br> Side Hang Disable (Default) <br> Side Hang Enable <br> Reserved Values |

TABLE 3. VL2600 SPOT 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DM | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Intensity High | 0 | 0-65535 | 16 Bit control of Dimming |
| 2 | Intensity Low |  |  |  |
| 3 | Pan High | 32767 | 0-65535 | $540^{\circ}$ Total Pan Rotation |
| 4 | Pan Low |  |  |  |
| 5 | Tilt High | 32767 | O-65535 | $270^{\circ}$ Total Tilt |
| 6 | Tilt Low |  |  |  |
| 7 | Focus High | 32767 | 0-65535 | Focus control <br> 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 | $\begin{gathered} 0-255 \\ 0-15 \\ 16-47 \\ 48-79 \\ 80-111 \\ 112-143 \\ 144-175 \\ 176-207 \\ 208-240 \\ 241-255 \end{gathered}$ | 8-bit control of Color Wheel. (spin speed slow to fast from control channel) <br> OPEN (centred at O) <br> Color 1 RED (centred at 32) <br> Color 2 Dark Blue (centred at 64) <br> Color 3 Yellow (centred at 96) <br> Color 4 Kelly Green (centred at 128) <br> Color 5 Congo Blue (centred at 160) <br> Color 6 Amber (centred at 192) <br> Color 7 CTB (centred at 224) <br> Open |
| 16 | Color Wheel Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-56 \\ 57-87 \\ 88-255 \end{gathered}$ | Linear Movement using shortest (quickest) path. <br> Linear Movement using normal (longest) path. <br> Wheel Spin CW (Forward) <br> Wheel Spin STOP <br> Wheel Spin CCW (Reverse) <br> Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0 <br> Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0 <br> Reserved Values |
| 17 | Gobo Wheel 1 | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \end{gathered}$ | 8-bit control of Gobo Wheel 1. See Channel 20 for control <br> Open - No Gobo <br> Gobo 1 (Night Sky) Index <br> Gobo 2 (Circle of Ovals) Index <br> Gobo 3 (Bricked Out) Index <br> Gobo 4 (Punchcard) Index <br> Gobo 5 (Swirl) Index <br> Gobo 6 (Honeycomb Reverse) Index <br> Gobo 7 (On the Rock) Index <br> Open - No Gobo |

TABLE 3. VL2600 SPOT 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 17 | Gobo Wheel 1 continued | 0 | $\begin{gathered} 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-95 \\ 96-100 \\ 101-105 \\ 106-110 \\ 111-115 \\ 116-120 \\ 121-255 \end{gathered}$ | Gobo 1 (Night Sky) Rotate <br> Gobo 2 (Circle of Ovals) Rotate <br> Gobo 3 (Bricked Out) Rotate <br> Gobo 4 (Punchcard) Rotate <br> Gobo 5 (Swirl) Rotate <br> Gobo 6 (Honeycomb Reverse) Rotate <br> Gobo 7 (On the Rock) Rotate <br> Open - No Gobo <br> Gobo 1 (Night Sky) Rotate with Mega Stepping <br> Gobo 2 (Circle of Ovals) Rotate with Mega Stepping <br> Gobo 3 (Bricked Out) Rotate with Mega Stepping <br> Gobo 4 (Punchcard) Rotate with Mega Stepping <br> Gobo 5 (Swirl) Rotate with Mega Stepping <br> Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping <br> Gobo 7 (On the Rock) Rotate with Mega Stepping <br> Reserved Values |
| 18 | Gobo 1 Rot/Index High Byte | 32767 | $\begin{aligned} & 0-65535 \\ & 0-32756 \end{aligned}$ | 16-bit control of index and rotation of gobo wheel 1 . Rotate Fast to Slow <<< |
| 19 | Gobo 1 Rot/Index Low Byte |  | $\begin{aligned} & 32757-32780 \\ & 32781-65535 \end{aligned}$ | Rotation STOP <br> Rotate Slow to Fast >>> |
| 20 | Gobo Wheel 1 Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for <br> Gobo Wheel 1 (Channel 17) <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin CW Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin CCW Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Reserved Values |

TABLE 3. VL2600 SPOT 16-BIT MODE

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

TABLE 3. VL2600 SPOT 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DM | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 24 | Gobo Wheel 2 Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Iris size control <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Reserved Values |
| 25 | Gobo Wheel 3 Fixed | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-255 \end{gathered}$ | 8-bit control of Gobo Wheel 3. for movement options see channel 26 <br> Open - No Gobo <br> 6-10 Gobo 1 (Leafy Breakup) <br> 11-15 Gobo 2 (Medium Circle) <br> 16-20 Gobo 3 Swirl (Lattice) <br> 21-25 Gobo 4 (Radial Breakup) <br> 26-30 Gobo 5 (Dust) <br> 31-35 Gobo 6 (Neurons) <br> 36-40 Gobo 7 (Grid) <br> 41-45 Gobo 8 (Cross bars) <br> Reserved |
| 26 | Gobo Wheel 3 Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for Gobo Wheel 3 (Channel 25). <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Reserved Values <br> Reserved Values <br> Reserved Values |
| 27 | Iris | 0 | $\begin{gathered} 0-255 \\ 0-200 \\ 201-255 \end{gathered}$ | Iris size control <br> Iris beam size open to closed <br> Iris pulse slow to fast For future use |

TABLE 3. VL2600 SPOT 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 28 | Triangular Prism | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-255 \end{gathered}$ | Controls Prism mechanism with following values. <br> Open <br> Index <br> Rotate Normal <br> Rotate with Mega Stepping <br> Reserved Values |
| 29 | Prism Index/Rot High Byte | 0-65535 | $\begin{aligned} & 0-65535 \\ & 0-32756 \end{aligned}$ | 16-bit control of prism rotation and index. <br> Rotate Fast to Slow <<< <br> Rotation STOP <br> Rotate Slow to Fast >>> |
| 30 | Prism Index/Rot Low Byte |  | $\begin{aligned} & 32757-32780 \\ & 32781-65535 \end{aligned}$ |  |
| 31 | Frost | 0 | 0-255 | Linear control of frost mechanism from out (DMX O) to full in (DMX 255) |
| 32 | Strobe Speed | 0-255 | 0-255 | Controls strobe rate from slowest (DMX 0) to fastest (DMX 255) 0.5 Hz to 30 Hz |
| 33 | Strobe Control | 0-255 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \end{gathered}$ | Control Channel for strobing functions. <br> Open <br> Closed <br> Normal Strobe <br> Random Strobe <br> Random Sync |
| 34 | Programmers Channel | 0 | $\begin{gathered} 0-255 \\ 0-40 \\ 41-80 \\ 81-120 \\ 121-160 \\ 161-180 \\ 181-200 \\ 201-210 \\ 211-220 \\ 221-225 \\ 226-230 \\ 231-235 \\ 236-240 \\ 241-245 \\ 246-250 \end{gathered}$ | *do not require 3 second Dam rule mode will change once DMX level I reached <br> ${ }^{* *}$ 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) <br> Idle <br> Linear** <br> S-Curve** <br> Square Curve (Default)** <br> PL Curve ** <br> For Future Use <br> Auto CTB ON (Default)** <br> Auto CTB off ** <br> Edge Tracking OFF** <br> Edge Tracking ON** <br> Soft Zoom start ON** <br> Soft Zoom start OFF** <br> For future use <br> Dimmer Snap On* (Default) <br> Dimmer Snap Off* |
| 35 | Fan Control | 0 | $\begin{gathered} 0-255 \\ 0-4 \\ 5-255 \end{gathered}$ | Dynamically control fan speed vs LED Output operation. Control values as follows... <br> Automatic fan/output adjustment (Default) <br> Linear control of fan speed and LED max output. <br> DMX 4 = Highest Constant Fan Speed <br> DMX 255 = Lowest Constant Fan Speed |

TABLE 3. VL2600 SPOT 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 36 | Optical Style | 0 | $\begin{aligned} & 0-255 \\ & 31-60 \\ & 61-90 \\ & 91-120 \end{aligned}$ | Hybrid - full zoom range no restrictions (default) <br> Spot Projection - $6 \%-100 \%$ Zoom Range No other restrictions besides zodm range <br> Open Beam - Oper Beathockedin at $2 \%$ zoom - Edge O\% (Hard Edged) - Iris Q \% = Cloam/Iris operational- Prism Fully functionaluse <br> Shaft - Open Beam locked in at 0\%zoom-Edge O\%-Iris limited Range of $26 \%-100 \%$ (iris never completely leaves beam to keep hard edge)- Gobo Functionality disabled. Prism Fully functional |
| 37 | Luminaire Control | 0 | $\begin{gathered} \text { 0-255 } \\ \text { 0-5 } \\ \text { 6-10 } \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-100 \\ 101-110 \\ 111-225 \end{gathered}$ | 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) <br> Idle (Default) <br> Full Luminaire ReCal - Also Used to Wake fixture up from shutdown <br> Reserved Values <br> Reserved Values <br> Fixture Shutdown <br> Display - Menu ON <br> Display - Menu OFF <br> ReCal Position <br> ReCal Color <br> ReCal Gobo <br> ReCal Beam <br> ReCal Optics <br> Reserved Values <br> Reset Fixture to Defaults <br> Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters. <br> 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. <br> Standard Mode - Fixture operates at maximum output (Default) <br> Studio Mode - Reduced output with lower fan settings <br> Side Hang Disable (Default) <br> Side Hang Enable <br> 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 | $540^{\circ}$ Total Pan Rotation |
| 4 | Pan Low |  |  |  |
| 5 | Tilt High | 32767 | 0-65535 | $270^{\circ}$ Total Tilt |
| 6 | Tilt Low |  |  |  |
| 7 | Focus High | 32767 | 0-65535 | Focus control <br> 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 | $\begin{aligned} & 0-255 \\ & 0-255 \end{aligned}$ | Magenta Color Control 0-100\% saturation <br> CTO Color correction Control 0-100\% saturation |
| 14 | Сто | 0 |  |  |
| 15 | Color Wheel | 0 | $\begin{gathered} 0-255 \\ 0-15 \\ 16-47 \\ 48-79 \\ 80-111 \\ 112-143 \\ 144-175 \\ 176-207 \\ 208-240 \\ 241-255 \end{gathered}$ | 8-bit control of Color Wheel. <br> (spin speed slow to fast from control <br> OPEN (centred at O) <br> Color 1 RED (centred at 32) <br> Color 2 Dark Blue (centred at 64) <br> Color 3 Yellow (centred at 96) <br> Color 4 Kelly Green (centred at 128) <br> Color 5 Congo Blue (centred at 160) <br> Color 6 Amber (centred at 192) <br> Color 7 CTB (centred at 224) <br> Open |
| 16 | Color Wheel Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-56 \\ 57-87 \\ 88-255 \end{gathered}$ | Linear Movement using shortest (quickest) path. <br> Linear Movement using normal (longest) path. <br> Wheel Spin CW (Forward) <br> Wheel Spin STOP <br> Wheel Spin CCW (Reverse) <br> Color Shake Quickest Path (Slow to Fast) For fastest shake <br> Color Shake Normal Path (Slow to Fast) For fastest shake set <br> Reserved Values |
| 17 | Gobo Wheel 1 | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \end{gathered}$ | 8 -bit control of Gobo Wheel 1. See Channel 21 for control <br> Open - No Gobo <br> Gobo 1 (Night Sky) Index <br> Gobo 2 (Circle of Ovals) Index <br> Gobo 3 (Bricked Out) Index <br> Gobo 4 (Punchcard) Index <br> Gobo 5 (Swirl) Index <br> Gobo 6 (Honeycomb Reverse) Index <br> Gobo 7 (On the Rock) Index <br> Open - No Gobo |

TABLE 4. VL2600 SPOT 16-BIT MODE ENHANCED

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 17 | Gobo Wheel 1 continued | 0 | $\begin{gathered} 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-95 \\ 96-100 \\ 101-105 \\ 106-110 \\ 111-115 \\ 116-120 \\ 121-255 \end{gathered}$ | Gobo 1 (Night Sky) Rotate <br> Gobo 2 (Circle of Ovals) Rotate <br> Gobo 3 (Bricked Out) Rotate <br> Gobo 4 (Punchcard) Rotate <br> Gobo 5 (Swirl) Rotate <br> Gobo 6 (Honeycomb Reverse) Rotate <br> Gobo 7 (On the Rock) Rotate <br> Open - No Gobo <br> Gobo 1 (Night Sky) Rotate with Mega Stepping <br> Gobo 2 (Circle of Ovals) Rotate with Mega Stepping <br> Gobo 3 (Bricked Out) Rotate with Mega Stepping <br> Gobo 4 (Punchcard) Rotate with Mega Stepping <br> Gobo 5 (Swirl) Rotate with Mega Stepping <br> Gobo 6 (Honeycomb Reverse) Rotate with Mega Stepping <br> Gobo 7 (On the Rock) Rotate with Mega Stepping <br> Reserved Values |
| 18 19 | Gobo 1 Rot/Index High Byte <br> Gobo 1 Rot/Index Low Byte | 32767 | $\begin{gathered} 0-65535 \\ 0-32756 \\ 32757-32780 \\ 32781-65535 \end{gathered}$ | 16-bit control of index and rotation of gobo wheel 1 . <br> Rotate Fast to Slow <<< <br> Rotation STOP <br> Rotate Slow to Fast >>> |
| 20 | Gobo Wheel 1 Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for Gobo Wheel 1 (Channel 17). <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin CW Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin CCW Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Reserved Values |
| 21 | Gobo Wheel 2 | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-30 \\ 31-35 \end{gathered}$ | 8-bit control of Gobo Wheel 2. See Channel 24 for control options. <br> Open - No Gobo <br> Gobo 1 (Dichrofusion) Index <br> Gobo 2 (Alpha Rays) Index <br> Gobo 3 (Circle of holes) Index <br> Gobo 4 (Vertical Bars) Index <br> Gobo 5 (Tribal) Index <br> Gobo 6 (Honeycomb) Index |

TABLE 4. VL2600 SPOT 16-BIT MODE ENHANCED

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 21 | Gobo Wheel 2 continued | 0 | $\begin{gathered} 36-40 \\ 41-45 \\ 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-95 \\ 96-100 \\ 101-105 \\ 106-110 \\ 111-115 \\ 116-120 \\ 121-255 \end{gathered}$ | Gobo 7 (Droplets) Index <br> Open - No Gobo <br> Gobo 1 (Dichrofusion) Rotate <br> Gobo 2 (Alpha Rays) Rotate <br> Gobo 3 (Circle of holes) Rotate <br> Gobo 4 (Vertical Bars) Rotate <br> Gobo 5 (Tribal) Rotate <br> Gobo 6 (Honeycomb) Rotate <br> Gobo 7 (Droplets) Rotate <br> Open - No Gobo <br> Gobo 1 (Dichrofusion) Rotate with Mega Stepping <br> Gobo 2 (Alpha Rays) Rotate with Mega Stepping <br> Gobo 3 (Circle of holes) Rotate with Mega Stepping <br> Gobo 4 (Vertical Bars) Rotate with Mega Stepping <br> Gobo 5 (Tribal) Rotate with Mega Stepping <br> Gobo 6 (Honeycomb) Rotate with Mega Stepping <br> Gobo 7 (Droplets) Rotate with Mega Stepping <br> 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 |  | $\begin{gathered} 0-32756 \\ 32757-32780 \end{gathered}$ | Rotate Fast to Slow <<< <br> Rotation STOP |
|  |  |  | 32781-65535 | Rotate Slow to Fast >>> |
| 24 | Gobo Wheel 2 Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-20 \\ 21-50 \\ 51-60 \\ 61-90 \\ 91-120 \\ 121-150 \\ 151-180 \\ 181-210 \\ 211-255 \end{gathered}$ | Used as a control channel for different movement options for Gobo Wheel 2 (Channel 21). <br> Gobo Selection using shortest (quickest) path. <br> Gobo Selection using normal (longest) path. <br> Reserved Values <br> Wheel Spin Forward (Fast to Slow) <br> Wheel Spin STOP <br> Wheel Spin Reverse (Slow to Fast) <br> Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to $O$ <br> Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 <br> Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 <br> Reserved Values |
| 25 | Gobo Wheel 3 (Fixed) | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \end{gathered}$ | 8-bit control of Gobo Wheel 3. for movement options see channel 26 <br> Open - No Gobo <br> 6-10 Gobo 1 (Leafy Breakup) <br> 11-15 Gobo 2 (Medium Circle) <br> 16-20 Gobo 3 Swirl (Lattice) |

TABLE 4. VL2600 SPOT 16-BIT MODE ENHANCED


TABLE 4. VL2600 SPOT 16-BIT MODE ENHANCED

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 34 | Programmers Channel | 0 | $\begin{gathered} \text { 0-255 } \\ \text { 0-40 } \\ 41-80 \\ 81-120 \\ 121-160 \\ 161-180 \\ 181-200 \\ 201-210 \\ 211-220 \\ 221-225 \\ 226-230 \\ 231-235 \\ 236-240 \\ 241-245 \\ 246-250 \end{gathered}$ | *do not require 3 second Dam rule mode will change once DMX level I reached <br> **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) <br> Idle <br> Linear** <br> S-Curve** <br> Square Curve (Default)** <br> PL Curve ** <br> For Future Use <br> Auto CTB ON (Default)** <br> Auto CTB off ** <br> Edge Tracking OFF** <br> Edge Tracking ON** <br> Soft Zoom start ON** <br> Soft Zoom start OFF** <br> For future use <br> Dimmer Snap On* (Default) <br> Dimmer Snap Off* |
| 35 | Focus Timing | 255 | O-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 | O-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 | O-255 | Adjustment of fixture timing to control gobo mechanisms. See Timing Channel Chart in User Manual |
| 40 | Fan Control | 0 | $\begin{gathered} 0-255 \\ 0-4 \\ 5-255 \end{gathered}$ | Dynamically control fan speed vs LED Output operation. Control values as follows... <br> Automatic fan/output adjustment (Default) <br> Linear control of fan speed and LED max output. <br> DMX 4 =Highest Constant Fan Speed <br> DMX 255 = Lowest Constant Fan Speed |
| 41 | Optical Style | 0 | $\begin{aligned} & \text { 0-255 } \\ & 31-60 \\ & 61-90 \\ & 91-120 \end{aligned}$ | Hybrid - full zoom range no restrictions (default) <br> Spot Proje tion-6\%-100\% Zoom Range No other restrictions besides zoom range <br> Open Beam - Opeñopan locked in at $2 \%$ zoom - Edge <br>  operational- Prism Fuly functienal <br> Shaft - Open Beam locked in ato\% Soom-Edge 0\%-Iris limited Range of $26 \%-100 \%$ (iris nevercompletely leaves beam to keep hard edge)- Gobo Functionarity disabled. Prism Fully functional |

TABLE 4. VL2600 SPOT 16-BIT MODE ENHANCED


TABLE 5. VL2600 WASH 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DM | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Intensity High | 0 | 0-65535 | 16 Bit control of Dimming |
| 2 | Intensity Low |  |  |  |
| 3 | Pan High | 32767 | O-65535 | $540^{\circ}$ Total Pan Rotation |
| 4 | Pan Low |  |  |  |
| 5 | Tilt High | 32767 | O-65535 | $270^{\circ}$ Total Tilt |
| 6 | Tilt Low |  |  |  |
| 7 | Zoom High | 32767 | O-65535 | Zoom control <br> Default value 50\% zoom range |
| 8 | Zoom Low |  |  |  |
| 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 | $\begin{gathered} 0-255 \\ 0-15 \\ 16-47 \\ 48-79 \\ 80-111 \\ 112-143 \\ 144-175 \\ 176-207 \\ 208-240 \\ 241-255 \end{gathered}$ | 8-bit control of Color Wheel. <br> (spin speed slow to fast from control channel) <br> OPEN (centred at O) <br> Color 1 RED (centred at 32) <br> Color 2 Dark Blue (centred at 64) <br> Color 3 Yellow (centred at 96) <br> Color 4 Kelly Green (centred at 128) <br> Color 5 Congo Blue (centred at 160) <br> Color 6 Amber (centred at 192) <br> Color 7 CTB (centred at 224) <br> Open |
| 14 | Color Wheel Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-56 \\ 57-87 \\ 88-255 \end{gathered}$ | Linear Movement using shortest (quickest) path. <br> Linear Movement using normal (longest) path. <br> Wheel Spin CW (Forward) <br> Wheel Spin STOP <br> Wheel Spin CCW (Reverse) <br> Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0 <br> Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0 <br> 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). |
| 22 | Frame 4B |  |  | 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) 0.5 Hz to 30 Hz |

TABLE 5. VL2600 WASH 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 26 | Strobe Control | $0-255$ $0-5$ $6-10$ $11-15$ $16-20$ $21-25$ $26-255$ | 0-255 | Control Channel for strobing functions. <br> Open <br> Closed <br> Normal Strobe <br> Random Strobe <br> Random Sync <br> Reserved Values |
| 27 | Programmers Channel | 0 | $\begin{gathered} 0-255 \\ 0-40 \\ 41-80 \\ 81-120 \\ 121-160 \\ 161-180 \\ 181-200 \\ 201-210 \\ 211-220 \\ 221-225 \\ 226-230 \\ 231-235 \\ 235-240 \\ 241-245 \\ 246-250 \end{gathered}$ | *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) <br> Idle <br> Linear** <br> S-Curve** <br> Square Curve (Default)** <br> PL Curve ** <br> For Future Use <br> Auto CTB ON (Default)** <br> Auto CTB off ** <br> Edge Tracking OFF** <br> Edge Tracking ON** <br> Soft Zoom start ON** <br> Soft Zoom start OFF** <br> For future use <br> Dimmer Snap On* (Default) <br> 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. <br> DMX 4 =Highest Constant Fan Speed <br> DMX 255 = Lowest Constant Fan Speed |
| 29 | Luminaire Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \end{gathered}$ | 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 ( 6 s ) <br> Idle (Default) <br> Full Luminaire ReCal - Also Used to Wake fixture up from shutdown <br> Reserved Values <br> Reserved Values <br> Fixture Shutdown |

TABLE 5. VL2600 WASH 16-BIT MODE

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DM | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 29 | Luminaire Control continued | 0 | $\begin{gathered} 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-100 \\ 101-110 \\ 111-225 \end{gathered}$ | Display - Menu ON <br> Display - Menu OFF <br> ReCal Position <br> ReCal Color <br> Reserved Values <br> ReCal Beam <br> ReCal Optics <br> Reserved Values <br> Reset Fixture to Defaults <br> Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters. <br> 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. <br> Standard Mode - Fixture operates at maximum output (Default) <br> Studio Mode - Reduced output with lower fan settings <br> Side Hang Disable (Default) <br> Side Hang Enable <br> 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 | O-65535 | $540^{\circ}$ Total Pan Rotation |
| 4 | Pan Low |  |  |  |
| 5 | Tilt High | 32767 | O-65535 | $270^{\circ}$ Total Tilt |
| 6 | Tilt Low |  |  |  |
| 7 | Zoom High | 32767 | 0-65535 | Zoom control <br> Default value 50\% zoom range |
| 8 | Zoom Low |  |  |  |
| 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 | $\begin{gathered} 0-255 \\ 0-15 \\ 16-47 \\ 48-79 \\ 80-111 \\ 112-143 \\ 144-175 \\ 176-207 \\ 208-240 \\ 241-255 \end{gathered}$ | 8-bit control of Color Wheel. <br> (spin speed slow to fast from control channel) <br> OPEN (centred at O) <br> Color 1 RED (centred at 32) <br> Color 2 Dark Blue (centred at 64) <br> Color 3 Yellow (centred at 96) <br> Color 4 Kelly Green (centred at 128) <br> Color 5 Congo Blue (centred at 160) <br> Color 6 Amber (centred at 192) <br> Color 7 CTB (centred at 224) <br> Open |
| 14 | Color Wheel Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \\ 26-56 \\ 57-87 \\ 88-255 \end{gathered}$ | Linear Movement using shortest (quickest) path. <br> Linear Movement using normal (longest) path. <br> Wheel Spin CW (Forward) <br> Wheel Spin STOP <br> Wheel Spin CCW (Reverse) <br> Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0 <br> Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0 <br> 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). |
| 22 | Frame 4B |  |  | 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) 0.5 Hz to 30 Hz |

TABLE 6. VL2600 WASH 16-BIT MODE ENHANCED

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DMX | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 26 | Strobe Control | 0-255 $0-5$ $6-10$ $11-15$ $16-20$ $21-25$ $26-255$ | O-255 | Control Channel for strobing functions. <br> Open <br> Closed <br> Normal Strobe <br> Random Strobe <br> Random Sync <br> Reserved Values |
| 27 | Programmers Channel | 0 | $\begin{gathered} \text { 0-255 } \\ \text { 0-40 } \\ 41-80 \\ 81-120 \\ 121-160 \\ 161-180 \\ 181-200 \\ 201-210 \\ 211-220 \\ 221-225 \\ 226-230 \\ 231-235 \\ 235-240 \\ 241-245 \\ 246-250 \end{gathered}$ | *do not require 3 second Dam rule mode will change once DMX level I reached <br> **Set discrete value of desired effect, wait >3 seconds, then set value to O (Idle). Note some consoles have a delay in their channel Marco action. For this a time greater then 3 second may be required (6s) <br> Idle <br> Linear** <br> S-Curve** <br> Square Curve (Default)** <br> PL Curve ** <br> For Future Use <br> Auto CTB ON (Default)** <br> Auto CTB off ** <br> Edge Tracking OFF** <br> Edge Tracking ON** <br> Soft Zoom start ON** <br> For future use <br> Soft Zoom start OFF** <br> Dimmer Snap On* (Default) <br> 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 | O-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. <br> DMX 4 =Highest Constant Fan Speed <br> DMX 255 = Lowest Constant Fan Speed |
| 32 | Luminaire Control | 0 | $\begin{gathered} 0-255 \\ 0-5 \\ 6-10 \\ 11-15 \\ 16-20 \\ 21-25 \end{gathered}$ | 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) <br> Idle (Default) <br> Full Luminaire ReCal - Also Used to Wake fixture up from shutdown <br> Reserved Values <br> Reserved Values <br> Fixture Shutdown |

TABLE 6. VL2600 WASH 16-BIT MODE ENHANCED

| DMX CHANNEL | PARAMETER | DEFAULTS | RANGE DI | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |
| 32 | Luminaire Control continued | 0 | $\begin{gathered} 26-30 \\ 31-35 \\ 36-40 \\ 41-45 \\ 46-50 \\ 51-55 \\ 56-60 \\ 61-65 \\ 66-70 \\ 71-75 \\ 76-80 \\ 81-85 \\ 86-90 \\ 91-100 \\ 101-110 \\ 111-225 \end{gathered}$ | Display - Menu ON <br> Display - Menu OFF <br> ReCal Position <br> ReCal Color <br> Reserved Values <br> ReCal Beam <br> ReCal Optics <br> Reserved Values <br> Reset Fixture to Defaults <br> Full Luminaire Reboot. This command will douse lamp and reset all processors in fixture, then ReCal all parameters. <br> 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. <br> Standard Mode - Fixture operates at maximum output (Default) <br> Studio Mode - Reduced output with lower fan settings <br> Side Hang Disable (Default) <br> Side Hang Enable <br> Reserved Values |


| GET ALLOWED |  | RDM PARAMETER IDS | VALUE | COMMENT | ESTA STANDARD | REQUIRED / IMPLEMENTED | DMX / UI DESCIPTION |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Category - Network Management |  |  |  |  |  |  |  |
|  |  | DISC_UNIQUE_BRANCH | $0 \times 0001$ |  |  |  |  |
|  |  | DISC_MUTE | $0 \times 0002$ |  |  |  |  |
|  |  | DISC_UN_MUTE | $0 \times 0003$ |  |  |  |  |
|  |  | PROXIED_DEVICES | $0 \times 0010$ |  |  |  |  |
|  |  | PROXIED_DEVICES_COUNT | $0 \times 0011$ |  |  |  |  |
|  |  | COMMS_STATUS | $0 \times 0015$ |  |  |  |  |
| Category - Status Collection |  |  |  |  |  |  |  |
|  |  | QUEUED_MESSAGE | $0 \times 0020$ |  |  | $x$ |  |
| $x$ |  | STATUS_MESSAGES | $0 \times 0030$ |  |  | $x$ | Status |
| X |  | STATUS_ID_DESCRIPTION | $0 \times 0031$ |  |  | X |  |
|  | x | CLEAR_STATUS_ID | $0 \times 0032$ |  |  | $\times$ |  |
|  |  | SUB_DEVICE_STATUS_REPORT_THRESHOLD | $0 \times 0033$ |  |  |  |  |
| Category - RDM Information |  |  |  |  |  |  |  |
|  |  | SUPPORTED_PARAMETERS | $0 \times 0050$ | Support required only if supporting parameters beyond the minimum required set. |  | X |  |
| $x$ |  | PARAMETER_DESCRIPTION | $0 \times 0051$ | Support required for Manufacturerspecific PIDs exposed in SUPPORTED_ PARAMETERS message. |  | $x$ |  |
| Category - Product Information |  |  |  |  |  |  |  |
| X |  | DEVICE_INFO | $0 \times 0060$ |  |  | x |  |
|  |  | PRODUCT_DETAIL_ID_LIST | $0 \times 0070$ |  |  |  |  |
| x |  | DEVICE_MODEL_DESCRIPTION | $0 \times 0080$ |  |  | x |  |


| GET ALLOWED | $\begin{array}{r} \mathrm{SET} \\ \mathrm{ALLOV} \end{array}$ | RDM PARAMETER IDS | VALUE | COMMENT | ESTA STANDARD | REQUIRED / IMPLEMENTED | DMX / UI DESCIPTION |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $x$ |  | MANUFACTURER_LABEL | 0x0081 |  |  | x |  |
| $\times$ | x | DEVICE_LABEL | 0x0082 |  |  | x |  |
|  |  | FACTORY_DEFAULTS | 0x0090 |  |  |  | Reset Defaults |
|  |  | LANGUAGE_CAPABILITIES | Ox00aO |  |  |  |  |
|  |  | LANGUAGE | Oхоово |  |  |  |  |
| $x$ |  | SOFTWARE_VERSION_LABEL | 0x00co |  |  | x | Version |
| x |  | BOOT_SOFTWARE_VERSION_ID | 0x00C1 |  |  |  |  |
| $x$ |  | BOOT_SOFTWARE_VERSION_LABEL | Ox00c2 |  |  |  |  |
| Category - DMX512 Setup |  |  |  |  |  |  |  |
| $x$ | x | DMX_PERSONALITY | OxOOEO |  |  | $x$ | DMX Mode |
| $\times$ |  | DMX_PERSONALITY_DESCRIPTION | Ox00E1 |  |  | x |  |
| x | x | DMX_START_ADDRESS | Ox00FO |  |  | x | Address |
| x |  | SLOT_INFO | 0x0120 |  |  | x |  |
| x |  | SLOT_DESCRIPTION | 0x0121 |  |  | X |  |
| $x$ |  | DEFAULT_SLOT_VALUE | Ox0122 |  |  | x |  |
| Category - Sensors 0x02xx USE |  |  |  |  |  |  |  |
|  |  | SENSOR_DEFINITION | 0x0200 |  |  |  |  |
|  |  | SENSOR_VALUE | 0x0201 |  |  |  |  |
|  |  | RECORD_SENSORS | 0x0202 |  |  |  |  |
| Category - Dimmer Settings 0x03xx - FUTURE USE |  |  |  |  |  |  |  |
|  |  | Dimmer Curve | 0×0343 |  |  |  |  |
|  |  | Dimmer Curve Description | 0x0344 |  |  |  |  |
|  |  | Modulation Frequency | $0 \times 0347$ |  |  |  |  |
|  |  | Modulation Frequency Description | $0 \times 0348$ |  |  |  |  |
| Category - Power / Lamp Settings 0x04xx |  |  |  |  |  |  |  |
| x |  | DEVICE_HOURS | Ox0400 |  |  | $x$ | Fixture Hours |
| x |  | LAMP_HOURS | 0x0401 |  |  | x |  |
| x |  | LAMP_STRIKES | 0x0402 |  |  | x |  |
| x | x | LAMP_STATE | 0x0403 |  |  | x |  |
| x | x | LAMP_ON_MODE | 0×0404 |  |  | x |  |
| X |  | DEVICE_POWER_CYCLES | 0×0405 |  |  | X |  |


| GET ALLOWED | $\begin{gathered} \text { SET } \\ \text { ALLOWED } \end{gathered}$ | RDM PARAMETER IDS | VALUE | COMMENT | $\begin{aligned} & \text { ESTA } \\ & \text { STANDARD } \end{aligned}$ | REQUIRED / IMPLEMENTED | DMX / UI DESCIPTION |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Category - Display Settings 0x05xx |  |  |  |  |  |  |  |
| x | x | DISPLAY_INVERT | 0x0500 |  |  | x |  |
| $\times$ | x | DISPLAY_LEVEL | 0x0501 |  |  | x |  |
| Category - Configuration 0x06xx |  |  |  |  |  |  |  |
| $\times$ | $x$ | PAN_INVERT | 0x0600 |  |  | x |  |
| x | x | TILT_INVERT | 0x0601 |  |  | x |  |
| x | x | PAN_TILT_SWAP | 0x0602 |  |  | x |  |
|  |  | REAL_TIME_CLOCK | $0 \times 0603$ |  |  |  |  |
| Category - Control 0x10xx |  |  |  |  |  |  |  |
|  | $\times$ | IDENTIFY_DEVICE | 0x1000 |  |  | x |  |
|  | x | RESET_DEVICE | 0x1001 |  |  | x |  |
|  |  | POWER_STATE | 0x1010 |  |  |  |  |
|  |  | PERFORM_SELFTEST | 0x1020 |  |  |  |  |
|  |  | SELF_TEST_DESCRIPTION | 0x1021 |  |  |  |  |

## 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 ( $\boldsymbol{\Delta} \boldsymbol{\nabla} \boldsymbol{\nabla}$ ) buttons.


## 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 ( $\langle\boldsymbol{\Delta} \boldsymbol{\nabla} \boldsymbol{*}$ ) 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 $1 \ldots . . . . . .$. | Running 'CW 1 TEST' |
| Color Wheel $2 \ldots . . . . .$. | Running 'CW 2 TEST' |
| Color Wheel $3 \ldots . . . . .$. | $R u n n i n g ~ ' C W ~$ |
| 3 | TEST' |

## USB LOGGING

The VL2600 Luminaire stores error messages in a log file within the luminaire. This information along with specific luminaire settings can be saved as a .csv (comma-separated values) file to a USB flash drive connected to the USB port.

## To save the current log file to a USB Flash Drive:

Step 1. Insert a USB flash drive (not supplied, by others) into luminaire's USB port.
Step 2. Step 2. Press [ESC].
Step 3. Press [UP] / [DOWN] arrows until Fixture appears. Press [OK].
Step 4. Press [UP] / [DOWN] arrows until USB appears. Press [OK].
Step 5. Press [UP] / [DOWN] arrows until USB Log appears. Press [OK].
Step 6. Press [UP] / [DOWN] arrows until DOWNLOAD appears. Press [OK].
Step 7. Once the download is complete, the display will read "Reset Current Lum error lognfile?" Press [OK] to reset or [ESC] to exit.
Step 8. Press [OK] to clear the current log file in the luminaire or [ESC] to keep it.
The .csv log file on the USB Flash Drive can be read via any computer system. The file name will be as follows: 26KSxxxxx.csv (the xxxxx will be the unique luminaire ID of the fixture). Each log file contains labels and values as shown below.

| PARAMETER | EXAMPLE |  |
| :--- | :--- | :--- |
| Model | VL2600 luminaire | The fixture model |
| Fixture Hours | 142 | The total of number of hours the fixture has been operating |
| DMX Address | 1 | Current DMX address of the fixture as set by the user |
| RDM UID | $56: 4 \mathrm{c}: 2 \mathrm{f}:$ :0:7:2a | Refer to RDM PARAMETERS ON PAGE 45 |
| Luminaire ID | 1834 | Current luminaire identification number |
| Software Version | $1 / 6 / 2015$ | Current software version loaded in the fixture |
| DMX Map | $16-$ bit | Current DMX mode setting (16 bit ) |
| Swap Pan/Tilt | No | Current pan and tilt setting |
| Invert Pan | No | Current pan operation setting |
| Invert Tilt | No | Current tilt operation setting |
| Lamp Power Up | Lamp off | Current Lamp Power Up option setting (Lamp Off, Lamp ON, or Cal On) |
| Lamp Level | Standard | Current operating mode of the fixture (Standard) |
| Lamp Strikes | 518 | Total number of lamp strikes initiated by the fixture |
| Lamp Hours | 140 | Total number of lamp hours since the last lamp hour reset |
| Fixture Hour | Error Type(s) | Lists any errors and their associated fixtures hour (in example shown, a |
| 138 | Pan no sensor | pan error occurred at fixture hour 138) |

## APPENDIX A CARE AND MAINTENANCE

## TROUBLESHOOTING

The following are a few common problems that may occur during operation.
The unit does not work; light and fan do not turn on

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


## Not responding to DMX controller

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


## CLEANING

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

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

CLEANING OPTICS, FILTERS AND GOBOS
WARNING: Remove power from luminaires before performing maintenance.
WARNING: Acetone is a harsh cleaning agent and solvent. Acetone is very flammable.
Handle acetone according to manufacturer's safety instructions and precautions.
The front lens, optics/color filters, 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:

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