Volero Wave
User Menu

04/2023

USER MENU GUIDE

Note: Default parameters Highlighted in grey.

SETUP MENU

Main Menu	Level 1	Level 2	Level 3	Choices / Values
SETUP	Basic Engine	Mode	→	Standard Shape
		Source	→	DMX Art-net sACN
		Universe	→	0 - 255
		DMX Address	→	1 - 512
	Pixels Engine	Mode	→	Disabled RGB RGBW
		Source	→	DMX Art-net sACN
		Universe	→	0 - 255
		DMX Address	→	1 - 512
	Repeat on DMX	Enablement	→	Disabled Enabled on primary
		Universe	→	0 - 255
	Ethernet Interface	Ethernet Mode	→	Disabled Enabled on IP 2.x.x.x Enabled on IP 10.x.x.x Enabled on Custom IP DHCP
		Custom IP Addr	IP address byte 1	0 - 255
			IP address byte 1	0 - 255
			IP address byte 1	0 - 255
			IP address byte 1	0 - 255
		Custom IP Mask	IP mask byte 1	0 - 255
			IP mask byte 1	0 - 255
			IP mask byte 1	0 - 255
			IP mask byte 1	0 - 255
	Fixture ID	→	→	0 - 255

OPTION MENU

Main Menu	Level 1	Level 2	Level 3	Choices / Values
OPTIONS	Invert Tilt	→	→	Off / On
	Tilt Smoothness Mode	→	→	Smooth Fast
	Reverse Mapping	→	→	Off / On
	Reverse Heads	→	→	Off / On
	Dimmer curve	→	→	Curve 1 Curve 2
	CTO Mode	→	→	Calibrated White Raw
	Led Calibration Mode			Factory Custom
	Display	→	→	Off / On
	Setting	Default Preset	→	Reset to Default Go Back
		User Preset 1	→	Load preset 1 Save to preset 1
		User Preset 2	→	Load preset 2 Save to preset 2
		User Preset 3	→	Load preset 3 Save to preset 3

INFORMATION MENU

Main Menu	Level 1	Level 2	Level 3	Choices / Values
INFORMATION	System Errors	→	→	Read / Reset
	Fixture Hours	Total Hours	→	Read
		Partial Hours	→	Read / Reset
	LED Hours	Total Hours	→	Read
		Partial Hours	→	Read / Reset
	System Version	CPU	→	FW version
		CPU HW Ver		
		Boot FW	→	FW version
		Drv uC1 fw	→	FW version
		Drv uC2 fw	→	FW version
		Drv uC3 fw	→	FW version
		Drv uC4 fw	→	FW version
		Boot Drv 1		
		Boot Drv 2		
		Boot Drv 3		
		Boot Drv 4		
		CPU SN	→	Serial Number
	Driver Diagnostic	LED Temperature	LED 1	Temperature
			LED 2	Temperature
			…	Temperature
			LED 7	Temperature
			LED 8	Temperature
		Sensor Status	TILT 1	Status (ON/OFF)
			TILT 2	Status (ON/OFF)
			…	Status (ON/OFF)
			TILT 7	Status (ON/OFF)
			TILT 8	Status (ON/OFF)
		Fans Monitor	Head 1	Speed (RPM)
			Head 2	Speed (RPM)
			…	Speed (RPM)
			Head 7	Speed (RPM)
			Head 8	Speed (RPM)
			Base R	Speed (RPM)
			Base L	Speed (RPM)
	DMX Monitor	Basic Channels	→	*Value / Percentage*
		Pixel Channels	→	*Value / Percentage*
	RDM Unique ID	→	→	RDM UID: *4350-XXXXXXXX*
	Network parameters	→	→	IP Address
		→	→	IP Mask
		→	→	MAC Address
	sACN Information	→	→	Multicast Group IP
	Serial Number	→	→	Serial Number

Volero Wave
User Menu

04/2023

MANUAL CONTROL

Main Menu	Level 1	Level 2	Level 3	Choices / Values
MANUAL CONTROL	Reset	→	→	Yes / No
	Channels	→	→	Value / Percentage

ADVANCED MENU

Main Menu	Level 1	Level 2	Level 3	Choices / Values
ADVANCED	Firmware Upload	→	→	Yes / No
	Calibration	TILT Selection (1-8)	→	Tilt 0 - 255
		Reset to Default TILT Calibration (128)	→	

SET UP MENU

For greater programming ease using the DMX control unit and Media-server Art-net, channel mapping is divided into BASIC ENGINE and PIXEL ENGINE (see details in Channel Function).

Setup – Basic Engine - MODE

This lets you select the projector operating mode for BASIC ENGINE, selecting one of the two available modes:

- **Standard** (see channel mapping)
- **Shape** (see channel mapping)

Setup – Basic Engine - SOURCE

It lets you assign the input source the projector receives signals from dedicated to BASIC ENGINE. One of the two available sources can be selected:

- **DMX**
- **Art-net**
- **sACN**

Setup – Basic Engine - UNIVERSE

It lets you set “DMX Universe” for BASIC ENGINE mode to assign values between 000 and 255 to a series of projectors (This option is valid only if Source= Art-net or Source= sACN*).

*note that in case of sACN the universe setted here set also the multicast group IP on wich the fixture will listen for data.

Setup – Basic Engine – DMX ADDRESS

It lets you select the address (DMX Address) for the control signal by BASIC ENGINE. A DMX address between 001 and 512 can be selected. NOTE: Without the DMX input signal, the displayed address (DMX Address) blinks.

Setup – Pixel Engine – MODE

This lets you select the projector operating mode for PIXELS ENGINE, selecting one of the three available modes:

- **Disabled**
- **RGB** (see channel mapping in Channel Function)
- **RGBW** (see channel mapping in Channel Function)

Setup – Pixel Engine – SOURCE

It lets you assign the input source the projector receives signals from dedicated to PIXELS ENGINE. One of the three available sources can be selected:

- **DMX**
- **Art-net**
- **sACN**

Setup – Pixel Engine – UNIVERSE

It lets you set “DMX Universe” for PIXELS ENGINE mode to assign values between 000 and 255 to a series of projectors (This option is valid only if Source= Art-net or Source= sACN*).

*note that in case of sACN the universe setted here set also the multicast group IP on wich the fixture will listen for data

SET UP MENU

Setup – Pixel Engine – DMX ADDRESS

It lets you select the address (DMX Address) for the control signal by PIXELS ENGINE. A DMX address between 001 and 512 can be selected.

Setup – Repeat on DMX - ENABLEMENT

It lets you enable/disable the transmission of the Ethernet protocol by DMX signal to all the connected projectors.

- **Disabled**: DMX transmission disabled.
- **Enabled on primary**: DMX transmission enabled.

Setup – Repeat on DMX - UNIVERSE

It lets you set the "DMX Universe" to assign values between 000 and 255 to a series of projectors. In this case it refers to an Art-net input not read by the projector and re-transmitted to other projectors.

Setup - ETHERNET INTERFACE

It lets you set Ethernet settings to be assigned to the projector as indicated below:

ETHERNET MODE

It lets you select the IP type to be assigned according to the control unit used; the options available are the following:

- **Disabled**
- **Enabled on IP 2**
- **Enabled on IP 10**
- **Enabled on Custom IP**
- **DHCP** (IP addresses assigned by DHCP server)

If the **Ethernet Interface** option is set on **Disabled**, when an **IP** address (**IP2**, **IP10** or **IP Custom**) is selected, the projector immediately initializes the **IP** address that was just selected.
If the **Ethernet Interface** option is enabled (**IP2**, **IP10** or **IP Custom**) and a new one is selected that is different from the previous one, the projector must be restarted so that it will be correctly initialized.

CUSTOM IP ADDRESS

It lets you to set the select the "IP Address" Art-net to be assigned, according to the control unit used, with values between 000 and 255.

CUSTOM IP MASK

It lets you to set the select the "IP Mask" Art-net to be assigned, according to the control unit used, with values between 000 and 255.

CONTROL PROTOCOL

It lets you select the control protocol that the fixture will use to receive dmx data over ethernet interface; the options available are the following:

- **Art-net**
- **sACN**

If the **Ethernet Interface** option is enabled (**IP2**, **IP10** or **DHCP**) and the control protocol is switched (eg. From Art-net to sACN), the projector must be restarted so that it will be correctly initialized.

Setup - FIXTURE ID

It lets you set the "Fixture ID" to be assigned to the projector. An "ID" between 000 and 255 can be assigned.

OPTION MENU

Option

INVERT TILT

It lets you enable (ON) Tilt reverse movement. Select OFF to turn off or disable this option.

TILT SPEED MODE

It lets you set the Tilt Speed Mode.

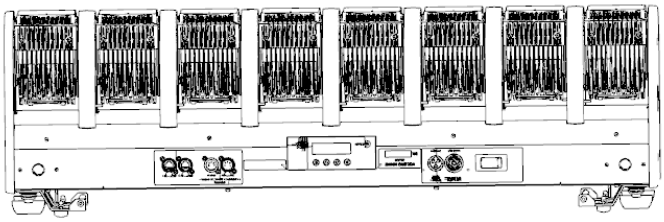
- **Smooth**: Tilt parameters and filters are set to perform smooth and slow movements
- **Fast**: Tilt parameters and filters are set to perform ultra-fast movement

REVERSE HEADS

It allows you to enable (ON) or disable (OFF) the reversal of the Heads

OFF
HEAD 1

ON
HEAD 1

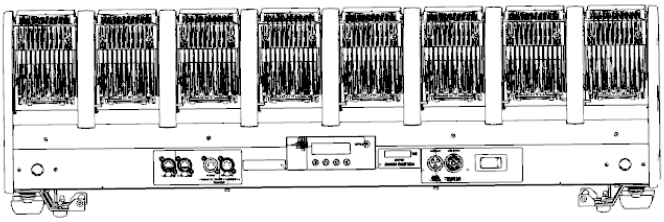


REVERSE MAPPING

It allows you to enable (ON) or disable (OFF) the reversal of the direction of the LEDs.

OFF
LED 1

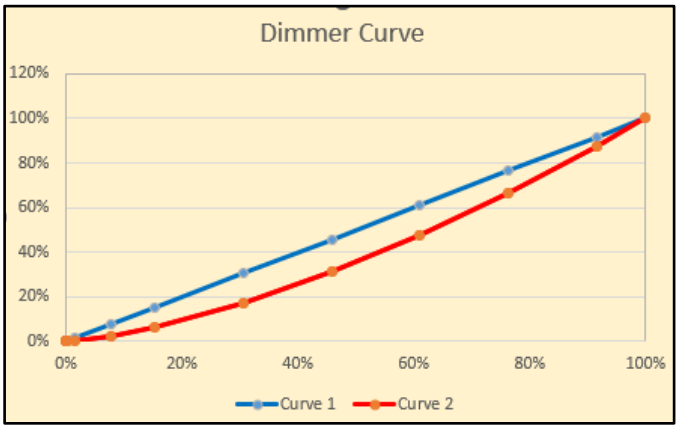
ON
LED 1



DIMMER CURVE

Let you select two different Dimmer curves:

- **Curve 1**
- **Curve 2**



OPTION MENU

CTO Mode

Let you select two different behaviors of the CTO channel (see details below):

- **Calibrated White**: CTO is always active, throughout all CTO channel range (0 = 8000K, 255 = 2500K)
- **Raw**: CTO is deactivated when the relative channel value is below 10. 10 is the starting point of CTO range (10 = 8000K, 255 = 2500K)

LED Calibration Mode

Let you select the two different LED calibration setting

- **Factory** → Is the led calibration from the factory.
- **Custom** → Is the led calibration set by the users.

DISPLAY ON

Turning function “On” turns off display backlight after 30 seconds of disuse. Press any key to turn back on. Select “Off” to disable this option.

SETTING

Used to save 3 different settings of the items in the option menu and relevant submenus.

- Default preset (*)
- User preset 1
- User preset 2
- User Preset 3

Load preset 'X’ is used to recall a previously stored configuration.
Save to preset ‘X’ is used to save the current configuration.

(*) DEFAULT PRESET
It lets you restore default values on all option menu items and relevant submenus.

INFORMATION MENU

Information - SYSTEM ERRORS
It displays a list of errors that occurred when the projector was turned on. To reset the SYSTEM ERRORS list, press OK. A confirmation message appears (Are you sure you want to clear error list?). Select YES to confirm reset.
Information - FIXTURE HOURS
It lets you view projector working hours (total and partial). **Total counter** It counts the number of projectors working life hours (from construction to date). **Partial counter** It counts the number of projector partial working life hours from the last reset to date. Press OK to reset the partial counter. A confirmation message appears on the display (Are you sure?). Select YES to confirm reset.
Information - LED HOURS
Let you view total LED working hours (total and partial Watts/hour): • **Total**: Total LED working hours from construction to date. • **Partial**: LED working hours from last reset to date. Press OK to reset the partial counter. A confirmation message appears on the display (Are you sure?). Select YES to confirm reset.
Information - SYSTEM VERSION
It lets you view the hardware and software versions for each electronic board in the projector: • CPU fw (CPU board) • Boot (CPU Bootloader) • Driver uC1 (Driver 1 left side Microcontroller version) • Driver uC2 (Driver 1 right side Microcontroller version) • Driver uC3 (Driver 2 left side Microcontroller version) • Driver uC4 (Driver 2 right side Microcontroller version) • CPU SN (CPU Serial Number)

INFORMATION MENU

Information - DRIVER DIAGNOSTIC

LED Temperature

Use to view real-time LED working temperature of each 8 Leds.

Sensor Status

It lets you check the correct operations of each "sensor" installed in the projector, each channel is associated with one of the following three parameters:

- n.a.= sensor not available (it could be that are not used sensor on that effect)
- ON= Sensor reading (It means the magnet is positioned on the sensor)
- OFF= Sensor is not reading (It means the magnet is not positioned on the sensor)

Fans Monitor

It lets you view the speed of each fan installed in the projector:

- Head x (RPM for each 8 head's fan)
- Base L (RPM of left side fan in the base)
- Base R (RPM of right-side fan in the base)

Information - DMX MONITOR

It lets you view the level of projector DMX channels in bit (Val) and in percentage.

Information – RDM Unique ID

It lets you view the level of projector RDM UID (format -> ID: 4350-XXXXXXXX)

Information – NETWORK PARAMS

Let you view the projector "Network" parameters meaning:

- **IP address:** Internet Protocol address (two projectors must not have the same IP address)
- **IP mask:** 255.0.0.0
- **Mac address:** Media Access Control; the projector's Ethernet Address.

Information – sACN INFORMATION

Let you view the projector "sACN" parameters:

- **Multicast Group IP:** IP Address of the multicast group joined by fixture

MANUAL CONTROL MENU

Manual Control - RESET
It lets you reset the projector from the projector control panel.
Manual Control - CHANNEL
It lets you set the channel DMX levels from the projector control panel (value between 0 and 255 bit or between 0% and 100%).

ADVANCED MENU

To open the “Advanced Menu”, enter the code (1234).
Advanced – FIRMWARE UPLOAD
It lets you transfer "firmware" from one projector to all other connected projectors. A confirmation message appears on the display (Are you sure?) Select YES to confirm or NO to abort this operation.
Advanced - CALIBRATION
It lets you make small mechanical adjustments on each tilt. **Factory default** It lets you restore default "Calibration” values (128 bit) on all channels.