





# Vaya Control Module

# User Guide

Rev 1.2





## Getting Started with Vaya Control Module

Vaya Control Module is an (IP66) outdoor rated data supply for Philips Vaya direct view fixtures. The slim housing takes 24V DC power and combines it with either KiNet or DMX512 control data, to two separate, fuse-protected, outputs ports. Twist-lock (CE/CQC version) Snap-lock (Global version) panel mount connectors ensure a secure / fast and reliable connection to the Vaya Leader-Jumper cables and fixtures.

Unscrew the lid using a 2.5mm hex key.



\*Recommended to use Cat5e cable or higher, not exceeding Ø 4~8mm/0.15~0.3in





Connect either to the KiNet or DMX port via standard Cat5e or higher Ethernet cable, and wire the 24V DC constant voltage supply to the 2pin terminal block as indicated in the image above.



### Typical Vaya Control Module Installation

A typical installation includes one or more Vaya Control Modules connected to a control server – e.g. Philips Color Kinetics Light System Manager (KiNet) / Philips Color Kinetics iPlayer 3 (DMX) or any 3<sup>rd</sup> party DMX controller. Multiple Vaya Control Modules are connected in a star configuration via network switches (KiNet) or opto-splitters (DMX):





# **Determine Fixture Run Lengths**

Use the Vaya Configuration Calculator from the website to determine the maximum run length of fixture types <u>per port</u>: <u>http://www.colorkinetics.com/vaya/Configuration-Calculator/</u>

🔜 Vaya Configuration Calculator				
File				
VAYA	Fixture	Vaya Tube	Reset	Calculate Maximum Run
Professional Lighting Solutions	Model	RGB, 1.2m (4ft)		Length
	Version	Global Version (Ethernet &		Total Fixture Run Length
	Voltage Input	320W 24V Power Supply 💌	For Use with Control Module	per Port 10 fixtures
	Circuit Breaker (Assume ABB S200)	N/A 💌	Derated to	
	Leader Cable Length	Standard 15m (50ft)	? m (? ft ) AWG14	Export Report
	Jumper Cable Length	No jumper 💌	? m (? ft ) AWG14	Run Length report saved as *.csv file in root directory

You can run a basic functional check on your setup by pressing the test Vaya Control Module.







\* After completing the test cycle, reset the button to avoid conflicting data with the another data source on the Ethernet / DMX input ports





#### Configuration

Download the latest version of QuickPlay Pro (v1.5.1 or higher) from the Philips Color Kinetics website to configure the Vaya Control Module: <u>http://www.colorkinetics.com/support/addressing/</u>



# Ethernet Mode Configuration (KiNet)

Set your computer's IP address to 10.x.x.x, and subnet mask 255.0.0.0.

Internet Protocol Version 4 (TCP/IPv4) Properties				
General				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
O Obtain an IP address automatical	lly			
• Use the following IP address:		1		
IP address:	10 . 1 . 3 . 20			
Subnet mask:	255.0.0.0			
Default gateway:				
-				
□ Use the following DNS server add	dresses:	1		
Preferred DNS server:				
<u>A</u> lternate DNS server:				
🔲 Validate settings upon exit	Ad <u>v</u> anced	]		
	OK Cancel			





Connect an open ended RJ45 cable between your computer's Ethernetport and the Vaya Control Module's KiNet port (there is no need to strip the wires, the tooth clamps will pierce the wire jackets upon closing)



When configuring multiple units, connect the computer to the master network switch, and wire in the same way as above to the individual Control Modules.

QuickPlay Pro will automatically detect all connected units and display them in the "Controller" dropdown menu with their IP address.

🔇 QuickPlay Pro			
File Tools Help			
Controller(1): Vaya Controller Module IP: 10.70.24.204	<u> </u>		More Info
Port: T All	Channels: 1 📩 to 24 📩		SFT-000232-00V7
Fixed Color			7
Color Wash			
Streak			
Test Channels			
PDS Configuration			
Fixture Configuration		p	
Address Fixtures			
Import / Export SN			
			100
R:	163	Hue:	157
G:		Sat:	36
В:	220		Log Color
Connecting to Vaya Controller Module IP: 10.70.24.204			E
			11





Under PDS Configuration, you can read back and set the input mode, node count (per port), pixel resolution, start address etc:

	Could Play         Pro           File         Tools         Help           Controller(1):         Vaya Controller Mod           Port:         1         I		More Info	Port Number	Node Count 8 0
	Fixed Color	Name:         Vaya Controller Module         Set         Serial #: 3903003A           IP Address:         10.70.24.204         Set         MAC Addr: 00:0A:CS:46:18:CC			
	Color Wash	KNET Universe: 0 - Set Node Count Protocol: KINET v2			
	Streak	PDS-60ca DMX/Ethernet PDS-60ca DMX Data Enabler Pro Vaya Control Module iColor Player PDS-60ca Other		Discover cor	nected
	Test Channels	Current: Program To:		number of ir	
PDS Configuration tab	PDS Configuration	Input Mode: 8-bit 3-bit		controllable	
C C	Fixture Configuration	Nodes / Port 1: 0 Fuse Ok		(150mm/6in	
	Address Fixtures	Nodes / Port 2:         0         Fuse Ok           Pixel Resolution:         150MM / 6IN         150MM / 6IN		per port	500010110
	Import / Export SN	Startup Red: 10 10 -			
		Startup Green:         10         42           Startup Bike:         30         10         42           (DMG) Start Address #:         1         1         42		NB: A "node" ı physical 150m section, irresp	nm/6in
		Read Program Program Al Discovered Vaya Control Modules		pixel resolution fixture, i.e. alw	n set for the
		Read back		Fixture Length	Node Count
		current settings		0.3m (1ft)	2
		eur ent settings		1.2m (4ft)	8



#### Changed Name of Control Module



Field	Description	Remark	
Name	Show / Edit the active Control Module's name	Rename the Control Module to a meaningful description for easy identification in case of follow-ups or trouble-shooting	
IP Address	Show / Edit the active Control Module's IP address	The fields to the right also show the device's Serial Number, MAC Address and Protocol version	
KiNet Universe	Show / Edit the active Control Module's KiNet universe numbers	This should be "0" in most cases, please only change this setting under consultation from your local System Expert	
Node Count	Discover connected number of individually controllable nodes (150mm/6in sections) on both ports of the Control Module	Refers to the total number of phyically controllable nodes per chain on Port 1 / Port 2 and does not distinguish the physical length of the connected fixtures or its "Pixel Resolution" setting;	
		E.g. the above shown "8 Nodes" could be either 1x 1.2m/4ft fixture or 4x 0.3m/1ft fixtures	
Input Mode	Color Resolution of Input Data	Default is set to 8-bit	
Nodes / Port 1 & Port 2	Manually set the total number of individually controllable nodes per port	Only required if "Node Count" functionality is not available (e.g. when in DMX mode) or incorrect	
Fuse Status / Port 1 & Port 2	Indicates the status of each port's output fuse inside the Control Module	Should read "Fuse OK" – otherwise, replace fuse (8A 125V)	
Pixel Resolution	Set length of individually controllable pixel (minimum 150mm/6in)	Not recommended to change from default 150mm/6in resolution setting when final control protocol is Kinet!	
		(Kinet-based software not yet updated to manage lower resolution settings on Vaya Tube).	
Startup Red / Green / Blue	Set startup values (0-255) for each channel upon power-up without data connection	Default setting is 10 / 10 / 10	
(DMX) Start Address #	Set DMX start address of the active Control Module (Port 1)	Only applies when final control signal is DMX (in Kinet mode automatically resets to start address "1"):	
		Set in increments of 3 (for both RGB and White/Mono versions)	
Read	Read back current settings		
Program	Write settings to Control Module		
Program All Discovered Vaya Control Modules	Write simultaneously to all connected Control Modules		

You can now test and commission your Vaya Tube installation by using the Test Channel or fixture tabs Fixed Color / Color Wash / Streak.

Repeat above steps per Control Module / Network Switch cluster as needed per site.





#### DMX Mode Configuration (DMX512)

Connect your computer's USB port to the Control Module via SmartJack Pro (Item Number: 103-000024-00 / 12NC: 910503700582)



Connect an open ended RJ45 cable between the SmartJack Pro and the Vaya Control Module's DMX port (there is no need to strip the wires, the tooth clamps will pierce the wire jackets upon closing)



When configuring multiple units, connect the SmartJack Pro to the DMX splitter, and wire in the same way as above to the individual Control Modules. Only applicable if all connected Control Modules are set to the same configuration.

**Note:** When using the Philips Color Kinetics SmartJack Pro to configure the Vaya Control Module, remember to switch the Orange/White (CK RJ45's Data-) and Orange (CK RJ45's Data+) wires. The Vaya Control Module shows ESTA standard wire coding.

K RJ45 P	Pinouts		ESTA RJ	45 Pinouts	
RJ45 Pin #	CK DMX Signal	Wire Color	RJ45 Pin #	DMX512-A Signal	Wire Col
1 [	DMX_DATA-	Orange / White	1	DMX_DATA+	Orange /\
2 [	DMX_DATA+	Orange	2	DMX_DATA-	Orange
3 (	GND	Green / White	7	GND	Brown / V
6 (	GND	Green	8	GND	Brown





QuickPlay Pro will automatically detect the connected SmartJack Pro unit and display it in the "Controller" drop-down menu with its SN number.

iickPlay Pro Tools Help				
Controller: SmartJack Pro SN: 02091195		े	REAL	More Info
Port: 1 🗾 🗖 All	Channels: 1 * to 24 *			SmartJack Pro v2
Fixed Color				-
Color Wash				
Streak				
Test Channels				
PDS Configuration				
Fixture Configuration		0		
Address Fixtures				
Import / Export SN				
				100
R:	[63 [255	Hue: — Sat: —	<u>}</u>	36
в: ——		_		130
				Log Colo

Under **PDS Configuration**, you can set the node count (per port), pixel resolution, startup color and start address of the Vaya Control Module.

	🔇 QuickPlay Pro		
	File Tools Help		
	Controller: SmartJack Pro SN: 0	091195 C More Info	
	Port: 1 🔽 🗖 All	Channels: 1 🛨 to 24 🛨	
	Fixed Color	Name:         Smartlack Pro SN: 02091195         Set         Serial #: 45€:02091195	
	Color Wash	IP Address: not applicable Set MAC Addr: not applicable	
	Streak	KNET Universe:         0         2         Set         Node Count         Protocol: not applicable           PDS-60xa DMV/Ethemet         PDS-60xa DMV/Ethemet         PDS-60xa DMV/Ethemet         PDS-60xa DMV/Ethemet         PDS-60xa DMV/Ethemet	Set node count, pixel
	Test Channels	Pro-suce universities in the second s	resolution, default startup color and DMX
PDS Configuration tab	PDS Configuration Fixture Configuration	Nodes / Port 1:	start address of the units connected to this
	Address Fixtures	Nodes / Part 2:         0         ⊡           Pixel Resolution:         150MM / 61N         ▼	Control Module
	Import / Export SN	Startup Green: 10 =	
		Startup Blue:         10         421           (DWO) Start Address #:         1         421	NB: A "node" refers to the physical 150mm/6in
			section, irrespective of the
		Program	pixel resolution set for the
			fixture, i.e. always:
		Program	Fixture Length Node Count
		configuration settings	0.3m (1ft) 2
			1.2m (4ft) 8





Field	Description	Remark
Name	Refers to the connected SmartJack Pro device	N/A in DMX mode
IP Address / MAC Address / KiNet Protocol version	N/A	N/A in DMX mode
KiNet Universe	N/A	N/A in DMX mode
Node Count	N/A	N/A in DMX mode
Nodes / Port 1 & Port 2	Manually set the total number of individually controllable nodes per port	Refers to the total number of controllable nodes per chain on Port 1 / Port 2 and does not distinguish the physical length of the connected fixtures.
		E.g. A 1x 1.2m/4ft fixture or 4x 0.3m/1ft fixtures configurations would both be shown as "8 Nodes" (see illustration)
Pixel Resolution	Set length of individually controllable pixel (minimum 150mm/6in)	In DMX mode, this setting helps reduce the number of physically required DMX channels.
		One resolution setting for the entire Control Module (Port 1 & Port 2).
Startup Red / Green / Blue	Set startup values (0-255) for each channel upon power-up without data connection	Default setting is 10 / 10 / 10
(DMX) Start Address #	Set DMX start address of the active Control Module (Port 1)	Set in increments of 3 (for both RGB and White/Mono versions)
Program	Write settings to Control Module	



You can now test and commission your Vaya Tube installation by using the Test Channel or fixture tabs Fixed Color / Color Wash / Streak.

Repeat above steps per Control Module / Network Switch cluster as needed per site.





After configurig the Vaya Control Module, it is recommended to note the configuration details on the device, for easy referencing during installation.

Removable serial number labels are provided on the device as additional reference option.



Notes: