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> PureEdge Lighting Unity 2 Gateway

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### Installation Instructions for Unity 2 DMX Gateway IP Interface

### **GENERAL INFORMATION**

- This instruction shows a typical installation.
   Unity 2 DMX must be used with Luca Downlight DMX
- controller. Refer to the instructions provided with the Luca Downlight to complete the installation.

### SAVE THESE INSTRUCTIONS!



### Install the Interface





### **Unity 2 & Luca Connectivity**



### **Fixture Wiring**



UNITY2 RJ-45	XLR CONNECTOR	STD RJ-45 DMX*		
PIN 1 (485+)	PIN 3	RJ-45 PIN 1		
PIN 2 (485-)	PIN 2	RJ-45 PIN 2		
PIN 7 (GND)	PIN 1	RJ-45 PIN 7		
(ALL OTHER PINS)	N/C	*STD WIRING		

\* USE STANDARD (STRAIGHT) CAT 5 CABLE

### Section Two: Software Setup

Commissioning Requires the Unity 2/DMX embedded Web Pilot application (not traditional PC standalone application)

#### New uPnP Discovery Mechanism



	Unity 2 Network Parameters:				
Unity	5: Click Ethernet.				
e-Node DMX Lutron Integration	J Unity e-Node DMX Lutron Integration Properties SETTING SETTING ETHERNET IND Properties ETHERNET				
<b>6:</b> By default the Unity 2 is set to DHCP ENABLED. To change to a Static IP address, select the e-Node tab and enter a static IP address under STATIC_IP. Then, enter gateway IP address under GATEWAY_ADD. Next, select DHCP DISABLE and hit Restart to reboot the Unity 2 to establish the new parameters.	ED				

Unity	7: Click firmware version to check for updates. Follow the instructions on the screen.
e-Node DMX Lutron Integration	Unity Ba e-Node DMX Lutron Integration
a: Select the DMX tab.	DMX Fixture 1     Settings Presets     Properties DMX Fixture 1
<b>b:</b> Click the + button to discover connected devices.	UID 101 ALIAS DMX Fixture 1 ADDRESS 2.1.1
Select PROFILE and select PureEdge LUCA 14W or 19W.	PROFILE PULEdge LUCA 14W Y (9) NOTIFY AUTO CHANNELS 5
Rename the fixture (name accordingly to easily find the fixture).	ASSIGN CH 1 (1) RED ASSIGN CH 2 (2) GREEN ASSIGN CH 3 (3) BLUE ASSIGN CH 4 (4) WARM
L: Set starting DMX address (every address will use 5 channels).	

Settings P	resets				
Properties DMX Fixture 1					
NOTIFY	BOTH	-			
CHANNELS	4				
BASE DMX CH	10				
ASSIGN CH 1 (10)	RED (12				
ASSIGN CH 2 (11)	OFF				
ASSIGN CH 3 (12)	OFF				
ASSIGN CH 4 (13)	OFF				
DISSOLVE 1	0				
DISSOLVE 2	3				
DISSOLVE 3	6				
SEQRATE	4				

#### Assign Z/G/N Address:

- **13:** Enter a discrete Zone/Group/Node address for each DMX Controller identified within Step 8. For more information on addressing, review the Instruction Manual or applicable Integration Note.
- **14:** The factory default for the first DMX Controller is 2.1.1. The second DMX controller is set to 2.2.1. You may change these as appropriate. Standard feedback (if NOTIFY is Enabled - see Step 6) will occur from any unit whose address exactly matches the output command (i.e. 2.1.1 will respond to a command given to 2.1.1).

#### Wildcard Addresses:

**15:** Within your control system. If you select an address with a "0" in one of the Z/G/N fields, all fixtures with the other two Z/G/N fields identical will operate as a group. When a wildcard "0" is issued in a command (i.e. 2.1.0), feedback will occur but only from a unity present with a "1" in the wildcard field (i.e. 2).

#### **DMX Function Mapping Entries:**

**12:** For each channel assigned, an ASSIGN CH # entry will appear. Right click under each entry and select an applicable Variable (V) or Binary (B) Operation.

RED (V)	Std for 3 or 4-color devices which provide Red as control name
GREEN (V)	Std for 3 or 4-color devices which provide Green as control name
BLUE (V)	Std for 3- & 4-color devices which provide Blue as control name
WHITE (V)	Std for 4-color devices which provide White as control name
MONO (V)	Std for Monochrome (1-Channel) devices (don't use White here)
FULL (B)	Use this to set channel to full <b>ON</b> (if device has dimming channel)
OFF (B)	Use this to set channel to full <b>OFF</b> (use for channels bypassed)



### **Communication Testing**



## Section Three: Integration Lutron

Unity	E-NODE MkIII
e-Node DMX Lutron Integration	e-Node (31X Lutron
Devices Trace	5
Settings     Table       Properties     Disconnected       SYSTEM     NOIS       ADAPTOR_IP     255.253.253.255       COMECTION     OSSABLE       VLOGIN     PASSWORD       QSX SYNC     ENABLE	Devices       Telnet         + Q         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2         1/2
	Devices Tevet + Q $\hat{\square}$ 23 Device ID 23 $\hat{\square}$ 22 Device ID 22 $\hat{\square}$ 6 Device ID 25 $\hat{\square}$ 25 Device ID 25
1: Click Lutron Tab.	
2: Under the Lutron/ Settings tab below, enter the (Lutron) Ad	dapter IP.
3: Enter an available Telnet Login and Password available from	n Lutron.
4: Click Connection: ENABLE.	
5: Click Restart. The Disconnected Message should shortly sw	ritch to Connected.
<b>6:</b> Under Lutron/Devices above, either add an activated Lutron a valid Lutron DID number, or depress an operational butto selecting the magnifying glass.	n Device ID (DID) by selecting the + mark and manually typing in on on an assigned Lutron device and auto discover that DID by

7: If seen the DID (number) should appear in the device window.



# **Lutron Integration Alert**

Revision 2/6/2025

## Important Information Regarding Lutron Designer v25.1 and later

### Immediate Action Required

### Background/LEAP Partner

Converging Systems has been an important integration partner of Lutron for over twenty years and continues to invest significant engineering and marketing resources toward this partnership in the future. Over our integration history with Lutron, Converging Systems' customers have been able to broaden the range of supported motor and lighting products (projection screen, motorized LED lifts, WI-FI ceiling fans, landscape lighting and a variety of complementary luminaries manufactured both by Converging Systems as well as its OEMs and 3<sup>rd</sup> party partners) *natively supported* by Lutron's residential and commercial offerings including the Lutron App by virtue of Converging Systems' forty years of engineering innovations in the control of motor/color output and network expertise.

Over the last three years, Converging Systems was also selected as an important *Lutron LEAP protocol* partner that has enabled newer Lutron hardware platforms including RadioRA3/Homeworks<sup>®</sup> QSX/ and Athena to also remain compatible with Converging Systems hardware offerings sold both under Converging Systems' own brand names as well as under a number of its OEM customers' brand names. Of note, these partners include some of the largest and well-known players in the industry!

### The Existing Ability to Control Color/Tunable White and Fan Operation

Over the past few years, Lutron has advanced its User Interface (UI) for the control of color and tunable white fixtures through an important User Interface which is native within the Lutron App (for RR3, HWQSX and Athena).



For those customers unable or not certified to offer the Lutron Ketra offering in the early days of its launch (or for RadioRA3 dealers who wished to offer color prior to CEDIA 2024), Converging Systems enabled those dealers to embrace and experiment with the control of color through our offerings. Overtime with that experience under their belt, more and more Lutron dealers have now become certified as an approved Ketra reseller (or were able to adopt the Lumaris RGBW solutions in late 2024)



after it was launched for RadioRA3 as well). However, during that transition period (prior to CEDIA 2024 and prior to a HWQSX dealer becoming Ketra approved), we have enabled a wide swath of Lutron dealers to learn about full spectrum and Tunable White offerings by leveraging off of the above Lutron User Interface (shown above) and combining that with Converging Systems' products **that they have been able to purchase** from us (or from our partners) **for the past three years**. For those new to our offerings, we have until now been able to provide full compatibility from Lutron Ketra/ Lumaris User Interface for the control of our products, even if the targeted Lutron Digital Luminaire (Ketra or Lumaris) product was not available or not installed with the Lutron project! Interestingly, we also have been able to allow full integration of Moden Form Fans with its built-in LED light source using this Ketra User Interface even through there was not Ketra or Lumaris product on site!

# Next Steps for Existing Projects—Prior to Release of Designer V 25.1 scheduled for February 14, 2025

Starting with the next version of Lutron Designer (v25.1), the offerings will include some minor changes in the Lutron hardware platform's operation that will eliminate the operation of any phantom Ketra/Lumaris load(s), otherwise known as an "un-activated" device. This change relates only for new projects (not upgrades of existing projects) that are initially started as a new project using Designer v25.1 or later.

### Joint Lutron/Converging Systems Statement:

"Please note that Lutron is dedicated to protecting/grandfathering the operation of all cloud-based Lutron Designer project files that contain any un-activated Ketra or Lumaris objects currently used with Converging Systems devices (i.e., phantom Ketra or phantom Lumaris devices) that have been created with Designer versions prior to v25.1 regardless if these Designer projects are subsequently upgraded (manually or automatically) in the future (i.e., to version 25.1 or later)."

### **Possible Action Required**

Today, simply make sure that any newly ordered products from either Converging Systems or any of our OEMs partners are integrated into a new Designer project prior to the release of v25.1 (expected on or around February 14, 2025) with the proper type of phantom Ketra or Lumaris objects and are properly Link Assigned (for HWQSX and Athena) to a real or phantom Type X gateway (in you Lutron project) prior to February 14, 2025 or the release of Designer v25.1. This will insure that even if you do not have a Ketra or Lumaris object in a particular room where one of our controllers is located, that the phantom Ketra or Lumaris User Interface will continue to control our devices with all the capabilities and color technology that is available today within our products.

If you are planning on utilizing an activated Ketra or Lumaris within your project to which a Converging Systems object will be "tracking," this upcoming Lutron modification will have no bearing on you and requires no action.



# New Directive for New Projects to be initially created with Designer v25.1 scheduled for February 14, 2025 or thereabout.

Even though the existence of only the **phantom** Ketra or Lumaris will transition away within Designer v25.1, acceptable solutions and methodologies will continue to exist that should satisfy most users <u>because Converging Systems will continue to be LEAP protocol partner with Lutron</u>. See separate <u>Appendix</u> (following) for various alternatives.

# Appendix 1

**Option 1.** For each zone or location where you wish to place a Converging Systems' device to operate, simply add an appropriate **activated** Lutron Digital Light (Ketra or Lumaris) as the **activated** device or "**Leader**" to control our operation (in addition of course to the control of the Lutron Leader device. The User Interface on the Lutron APP (see below) will continue to operate activated Lutron Leader (devices) while enabling the transmission of 128-bit encrypted data to our system in order that our units can mirror the operation of the Lutron Leader (device).



See below for types of UI available (related to type of device activated):

Full Color/ Full Correlated Color Temperature (TW) Device. Specifically, if you have a full color/full CCT (TW) luminaire device being controlled by our technology, simply add a Ketra device and activate it.

Fixture $_{\theta}$	Description 👌	Product Type	θ	Load Type	L (
Fixture 001 a20 bulb		A20 Lamp		Ketra (Color, Intensity, Vibrancy)	
e: If you are	using RadioRA	3, add the Lumari	s RGBW	/ object	



<u>Tunable White Device</u>. Or, if you have a Correlated Color Temperature (TW) device being controlled by our technology, simply add an appropriate Lumaris for the approximate range of CCT that is being supported.

	Fixture 029	Lumaris Tunable White	Lumaris Soft White	
Ot	her Steps within Lutron	)		
	-For HWQSX and Ath	ena, link assign the <u>LEADE</u>	<u>R</u> above to the appropriation	ate Type X device.
	-Active the Leader lo	ad as per Lutron instructio	ns (it must be activated t	to work here).
Ot	her Steps within the e-I	Node 4x00 Web page/Lutr	on Tab	
	-Use the <u>Leader</u> as th	ne tracking surrogate. Use t	he <b>SET</b> command to ena	abling tracking (mirroring
	data from that Lead	er device to flow to the ap	olicable <b>Z</b> one/ <b>G</b> roup/No	de address (2.1.1) for
	our devices. Here th	e Lutron Device ID for the	Leader is 9191, and it is	being mirrored on our
	device with ZGN of 2	2.1.1 with the command SE	: <b>T</b> . ↓	
		2.1.1 LED	SET	

**Option 2.** Lutron buttons on Seetouch, Palladiom, Sunnata and even the 5/10/and 15 buttton Desktop keypad buttons remain a very popular means to control **activated** Ketra and Lumaris devices. In addition, in this case, Lutron occupancy sensor and timeclocks can also be programmed within Designer to trigger activated Ketra and Lumaris devices as well. And as with <u>Option 1</u>, any of those activated Ketra and Lumaris devices can then be used as the <u>LEADER</u> to trigger matching events on connected Converging Systems supported products by using the same logic described in Option 1 by using the <u>SET</u> command to track or follow that activated Ketra or Lumaris object (and connect it to a relevant ZGN object).

**Option 3.** Option 3 is a unique case (but related to button press scenarios described in <u>Option 2</u>) but where **there is not a Ketra or Lumaris load** but control of a Converging Systems lighting element is still desired. Where Lutron gives discrete (not duplicated) output from a button operation, we can track that button operation and map it to a custom operation within our product. Therefore, not all button operation currently operate within this Option 3. In those cases, you must follow the steps in <u>Option 2</u> in order to continue to use those outlier button operation. See the table below for more information:





CONVERGING SYSTEMS	
which we can	Alternatively, in this case, a single button press (#3) of this same button might be
monitor.	be useful to trigger a RECALL of a color state from Register #1.
	C Lutron ID Address Device Command Value
	□ 0 □ 5555,3 2.1.1 LED RECALL,1 1
Toggle	Toggle only is useful for turning a light off and back on from the state where it originally started before an OFF command was received. In order to use Toggle within Option 3, it is required that an initial state button press is utilized at which point the TOGGLE command will turn it off (and then back on to that same state, etc.) However, if an initial state is not set, TOGGLE will not work. Toggle works perfectly in <u>Option 2</u> though.
Sequence Logic	Sequence Logic works perfectly with an activated Ketra or Lumaris, but in an environment where there is no activated Ketra or Lumaris, this operation cannot be deciphered by us for there is no discrete data stream present on each subsequent button press. Try to add an activated Ketra or Lumaris and pursue <u>Option 2</u> .

\*See this <u>document</u> for reference of colors (page 8).

<u>Option 4.</u> Option 4 is a unique case (which provides alternative functionality to that provided in <u>Option</u> <u>1</u>) but where **there is not a Ketra or Lumaris load**, but control of a Converging Systems lighting element is still desired. Option 4 continues to operate as a surrogate for the more refined Ketra or Lumaris User Interface which enjoys a history of over 10 years of support since the first Lutron App came to market (long before Ketra and Lumaris). Here, phantom dimmers can be created which can be assigned to any variable that needs controlling (i.e., Hue, Saturation, Color Temperature are typical) but where an activated Lumaris or Ketra is not possible. See the images below for more information on these basic phantom dimmers can be used to control a full color or full CCT device but where there is not a Ketra or Lumaris load.





#### **Steps within Lutron Designer**

-Within Design Loads, add one or more phantom loads for required controls. For Zone Names, we have listed them as **Hue**, **Saturation** and **Brightness** and **CCT**. Place them in the room of choice.

Loads HVAC Zones							
Zone Name 0	Lighting Layer	Zone Description	Fixture Type	Feed Circuit	Assigned To	Prod	
Hue	Ambient	Hue	Undefined		• Output 3	-	
Sat	Ambient	Sat	Undefined		• Output 2	-	
Brightness	Ambient	Brightness	Undefined		• Output 4	-	
сст	Ambient	сст	Undefined		I Output 1	-	

**Note**: Since these are traditional phantom loads, they do not have to be activated but their name as assigned above will be helpful in controlling their functionality. These will appear in the Lutron app and although not state-of-the-art, will provide some level of control where a Ketra or Lumaris is not present. See below for the logic on how these sliders will operate



**Saturation**: When set to the bottom or OFF, the color is fully desaturated or WHITE, when set to the top or 100% the color is full saturated (or without any white component).



**Hue**: When set to the bottom or RED, and as the slider moves upward the hue shifts around the color wheel. Interestingly, since we are trying to represent a circular color space with a linear slider, Red will appear two times—one at the bottom and another at the top.



**CCT (Color Temp)**: When set to the bottom, the color temperature is typically at the warmest possible with the targeted fixture (i.e., typically 1700K). When set to the top setting, the CCT is typically at the coolest possible with the fixture (7000K or 8000K).



### Steps within the e-Node Web page/Lutron Tab

-Determine the Lutron ID for the phantom slider (from either the Integration Report for from our pulldown within the Lutron tab). Enter that Lutron ID (you will recognize it with a "0" in lieu of a "3", "4", "5" or "6" after the ID. The from the pulldown select the ZGN address and select under Command the appropriate operator as shown below. Enter nothing within the Value column.

Set	tings (	Table						
Т	īrack	Command						
G	Lutron ID	Address	Device	Command	Value			
首切								
1 🖻 🖸	234,0	2.1.1	LED	HUE				
ΰÔ	244,0	2.1.1	LED	SAT				
ΰÔ	354,0	2.1.1	LED	SET				
ΰÔ	454,0	2.1.1	LED	CCT				

Q							
	Setti	ngs (Ta	able				
	Т	rack			Command		
	G	Lutron ID	Address	Device	Command	Value	
	<u>ش</u> (C)	23,2,3	2.1.1	LED	RGBW	65.240.0.0	
<ul> <li>8: Under the Lutron/Table above, for each desired mapping of a Lutron button push to a resulting DMX action, enter all fields</li> <li>(a) Lutron ID* (DID, button #), and type) (b) ZGN Address or DMX, (c) Device* (type), (d) Command*, and (e) Value (if required for Recalls, Stores, etc.) line by line.</li> </ul>							
*For these fields, right click an Lutron" guide at <u>https://www</u>	nd select	: from avai lingsystem	ilable/valid	l choices.	For more infor all library.php	mation consult t	he Unity 2 Interfacing with

## Section Four: Integration to All Others

R Unity	1: Select the Integration Tab and follow instructions to your control systems.
2: Click on the desired Integration Platform and follow	S Select Integration Partner - AMX - Controld - Controll - Controld - Controld - Controll - Co
instructions.	