INSTALLATION & FUNCTIONAL INSTRUCTION
DMX LED CONTROLLER – 10 CHANNELS
A2C10-10

SAFETY INSTRUCTION

IMPORTANT: NEVER attempt any work without shutting off the electricity.

- Always turn off power at fuse box prior to installation to prevent electrical shock.
- Intended for indoor use. Dry and damp locations.
- Install in accordance with national electric code, and local regulations.
- Consult with local inspector to assure compliance.
- Do not submerge, or install within 5 feet of a swimming pool.
- Do not connect the unit directly to 120V AC Line

CAUTION – TO REDUCE RISK OF FIRE AND ELECTRICAL SHOCK

- Read all instructions before installing.
- Handle product with care.
- To reduce the risk of overheating and potential fire risk, make sure all connections are tight.
- Do not modify or disassemble product beyond instructions or warranty will be void.
- Failure to follow safety warnings, and installation instruction will void the warranty

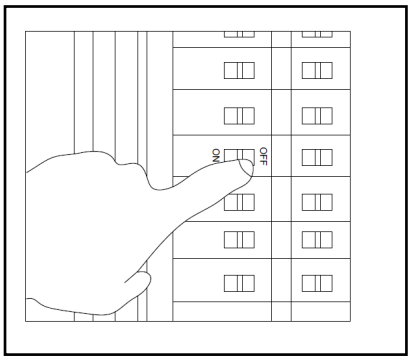
ATTENTION - AFIN DE RÉDUIRE LES RISQUES D'INCENDIE ET DE CHOC ÉLECTRIQUE

- Lire toutes les instructions avant d'installer.
- Manipuler le produit avec soin.
- Afin de réduire le risque de surchauffe et d'incendie potentiel, s'assurer que toutes les connexions sont bien serrées.
- Ne pas modifier ou démonter le produit au-delà des instructions sous peine d'annuler la guarantie.
- Ne pas respecter les avertissements de sécurité et des instructions d'installation annulera la garantie.

WIRING AND INSTALLATION:

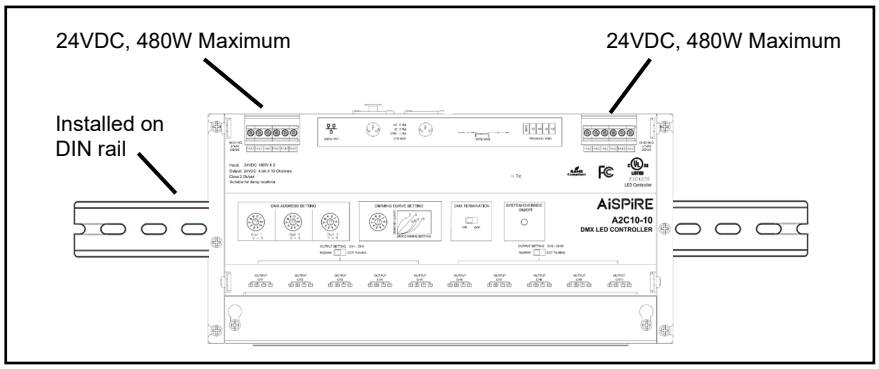
1. Turn Power off at circuit breaker (See FIG. 1)

FIG. 1



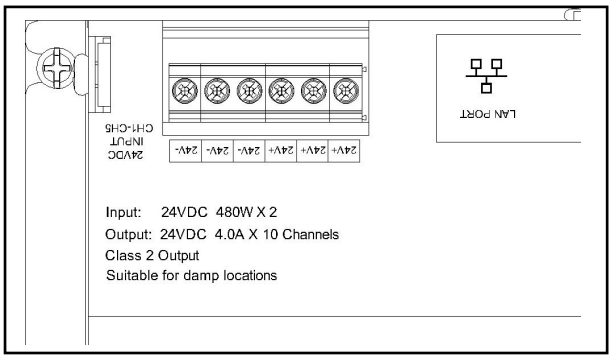
2. DMX LED Controller has 2 input power terminals on the top of both sides. Each input terminal can be linked with 24VDC, 480W maximum. Total power input power is 960W. Controller to be installed on TS-35/7.5 or TS-35/15 mounting rails (See FIG. 2)

FIG. 2



3. Mounting 24VDC remote power supply and AiSPiRE DMX LED Controller at desired location and wire the power to DMX LED Controller. Pay attention to voltage polarity. Each positive and negative polarity has 3 terminal positions. (See FIG. 3)

FIG. 3



For wiring between DMX LED Controller to the linear or light sheets products, please refer to an instruction sheet of those light products.

AiSPiRE.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Ave
Ontario, CA 91761

4. POWER FEEDING & OUTPUT CHANNEL RELATION

All output CH1-CH5 channels received power from the top left power feeding location as shown on FIG. 4. Power feeding less than 480W could result in lower light output or power supply tripping as a result of over current protection. The same applies to output CH6-CH10 channels. CH6-10 Output channels receive power feeding from top right corner location as shown on FIG. 5

FIG. 4

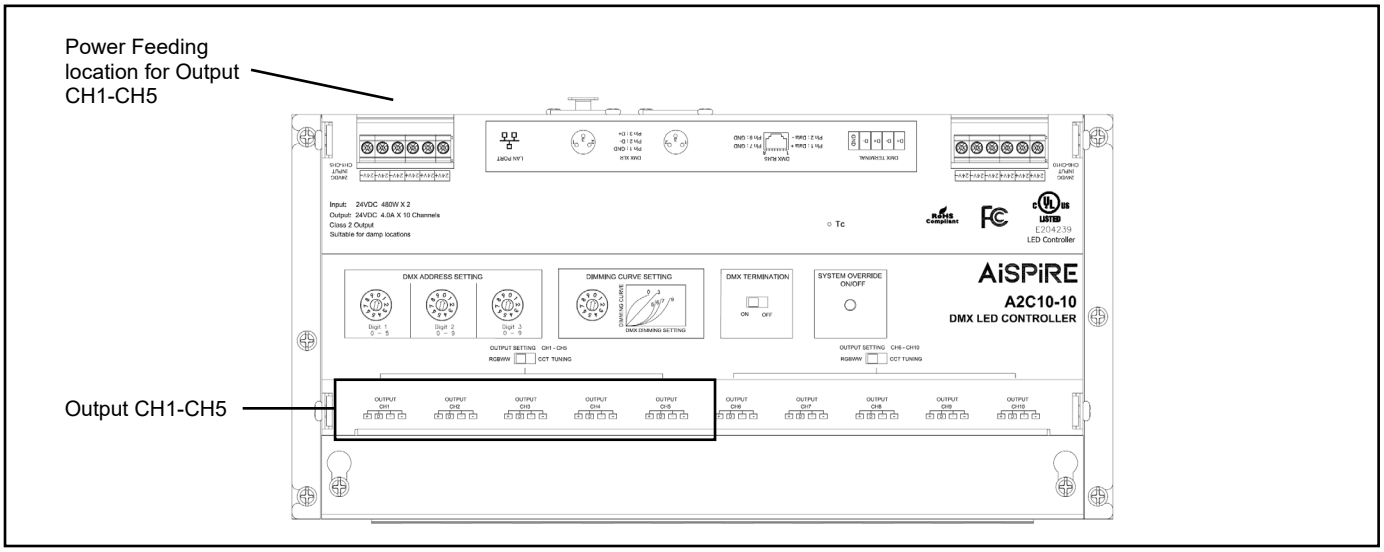
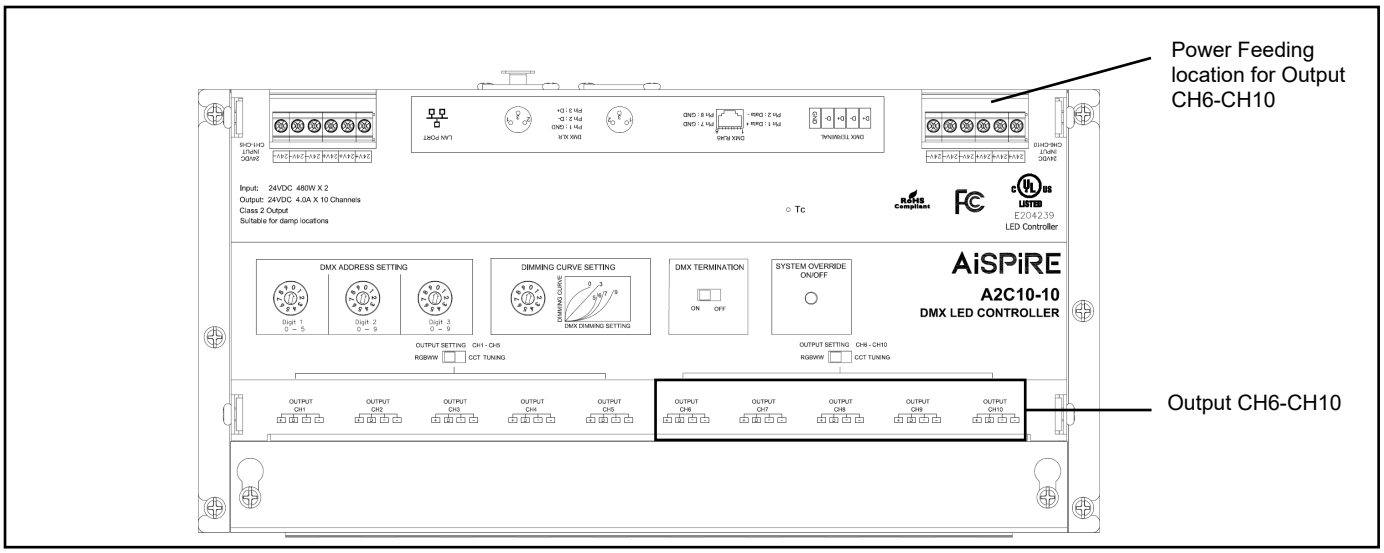


FIG. 5



5. OUTPUT POWER PER CHANNEL

Each output channel is limited at 96W maximum as defined by UL regulation. Please refer to product specs sheet of tape and light sheet for maximum run, power consumption, light output, CRI, etc…

FUNCTIONAL INSTRUCTION:

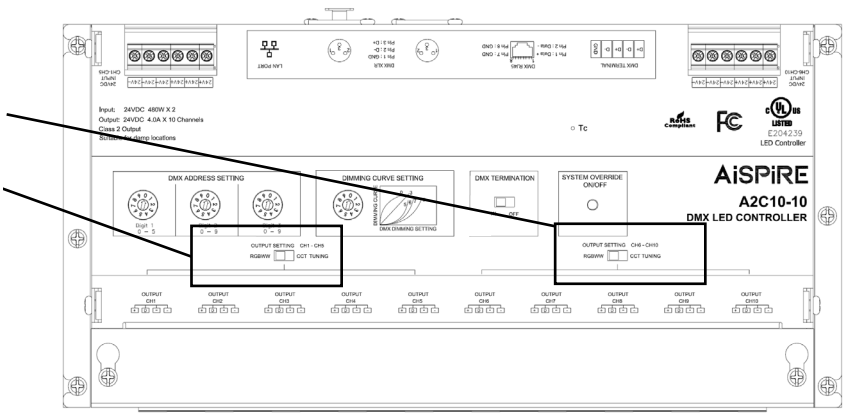
1. RELATIVE PRODUCT SELECTION

Either RGBWW or TUNABLE WHITE (CCT Tuning) can be selected by toggle the switch. (See FIG. 6)
All 5 output channels (CH1-CH5) will either associated with RGBWW or Tunable White products according to left hand side switch. There is no option to select some output to be associated with RGBWW or Tunable White products.
All 5 output channels (CH6-CH10) will either associated with RGBWW or Tunable White products according to right hand side switch.

FIG. 6

Toggle switch for relative product selection

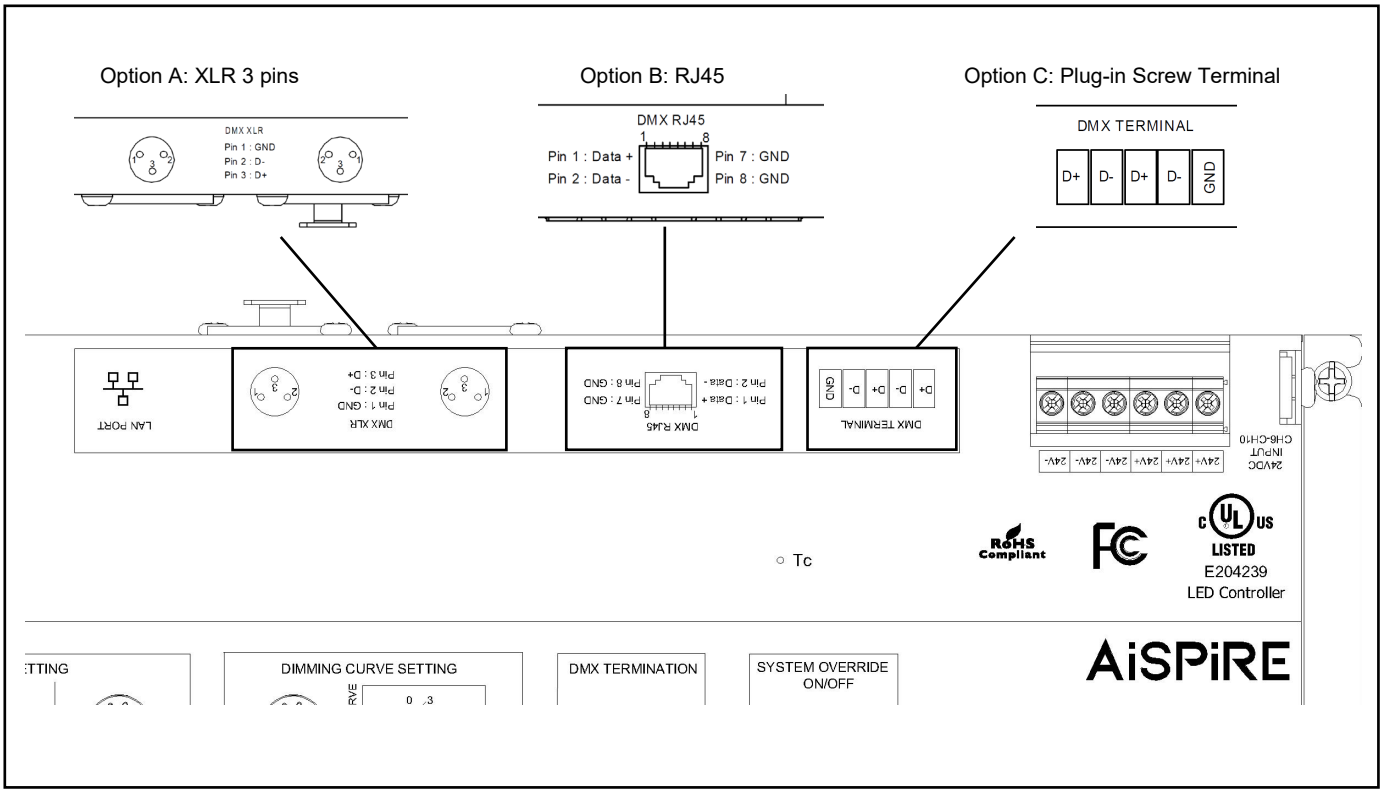
The shown example picture on the right shown the RGBWW product selection for both switches, all 10 outputs will be linked with RGBWW.



2. DMX INPUT

Three alternative options have been allowed for DMX input insertion. (See Fig. 7)
Option A: XLR 3 pins
Option B: RJ45
Option C: Plug-in screw terminal

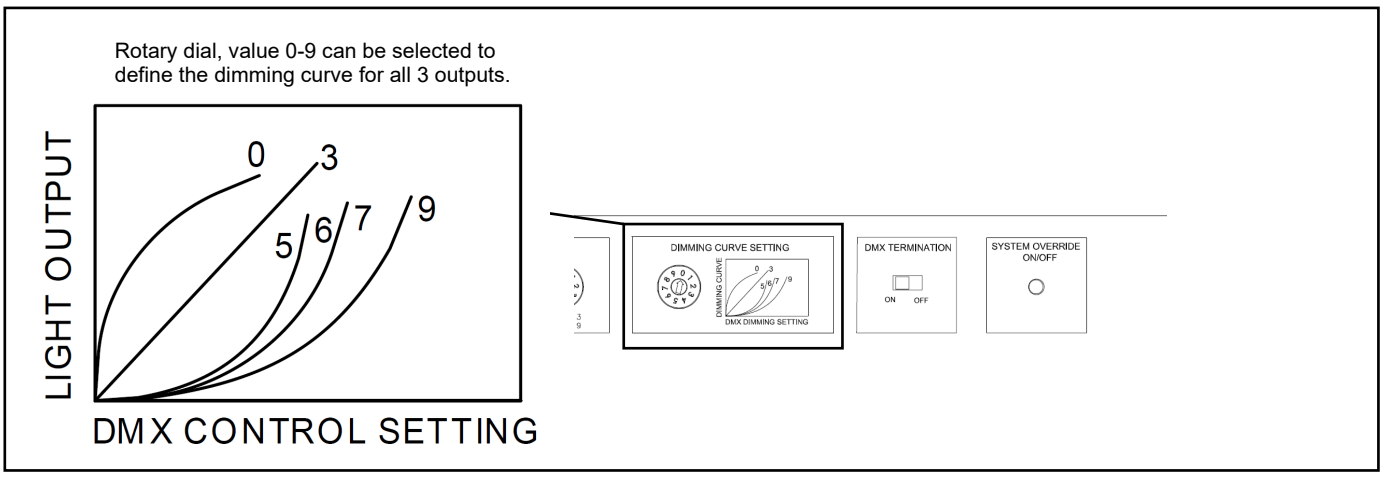
FIG. 7



3. DIMMING CURVE ADJUSTMENT

The rotary dial value ranging from 0 to 9 can be selected to define the dimming curve for all 10 outputs. (See Fig. 8)

FIG. 8



4. DMX DECODER ADDRESS SETTING

There are 10 outputs of this DMX controller. DMX starting address of the first output channel can be set by using flat head screw driver to rotate a rotary dial. (See Fig. 9 & 10)

FIG. 9

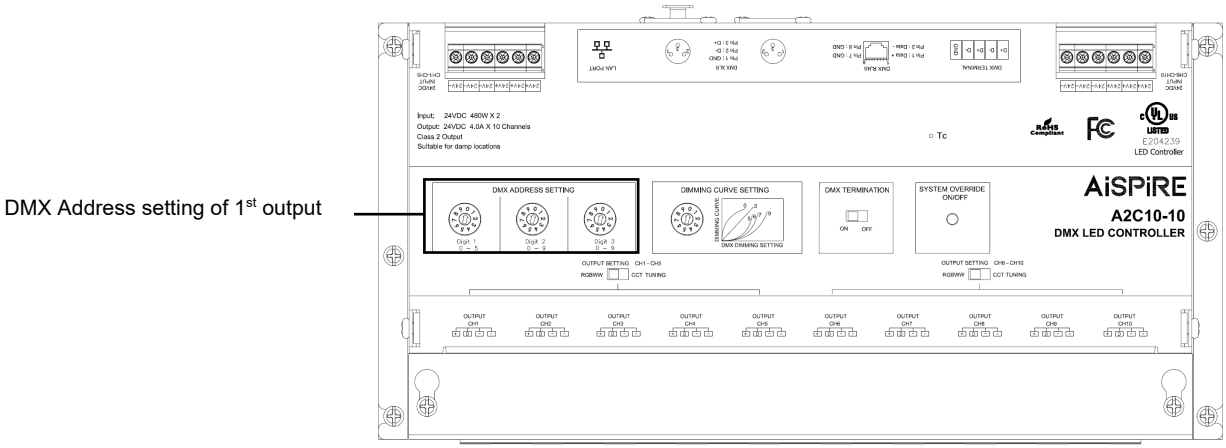
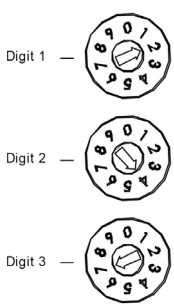


FIG. 10



DMX Address Setting:

For example: DMX Address 247

- Set Digit 1: 2
- Set Digit 2: 4
- Set Digit 3: 7

RGBWW Mode Control:
Address 247: RED
Address 248: GREEN
Address 249: BLUE
Address 250: 2700K
Address 251: 5000K
Address 252: R/G/B Brightness Level
Address 253: 2700K/5000K Brightness Level

CCT Tuning (Tunable White) Mode Control:
Address 247: 1800K
Address 248: 2700K
Address 249: 5000K
Address 250: 18/27/50 Brightness Level

5. DMX CHANNEL LINE UP

DMX Channels will be arranged in consequentially from the first DMX channel. Also, DMX Controller has the following DMX channel lineup for different product mode selection

RGBWW Mode: Each output will have 7 DMX channel lineup consequently from RED/GREEN/BLUE/2700K/5000K/RGB Brightness Level/2700-5000K Brightness level.

Tunable White (CCT Tuning) Mode: Each output will have 4 DMX channel lineup consequently from 1800K/2700K/5000K/1800K-2700K-5000K Brightness level.

DMX Channel lineup example are shown in Table 1-4 below:

Table 1: RGBWW (LEFT SWITCH) & RGBWW (RIGHT SWITCH)

	Output 1: Set DMX address 025			Output 6	
Output 1: Set DMX address 025	Address: 025	RED	Output 6	Address: 060	RED
	Address: 026	GREEN		Address: 061	GREEN
	Address: 027	BLUE		Address: 062	BLUE
	Address: 028	2700K		Address: 063	2700K
	Address: 029	5000K		Address: 064	5000K
	Address: 030	R/G/B Brightness Level		Address: 065	R/G/B Brightness Level
	Address: 031	2700K/5000K Brightness Level		Address: 066	2700K/5000K Brightness Level
	Output 2			Output 7	
Output 2	Address: 032	RED	Output 7	Address: 067	RED
	Address: 033	GREEN		Address: 068	GREEN
	Address: 034	BLUE		Address: 069	BLUE
	Address: 035	2700K		Address: 070	2700K
	Address: 036	5000K		Address: 071	5000K
	Address: 037	R/G/B Brightness Level		Address: 072	R/G/B Brightness Level
	Address: 038	2700K/5000K Brightness Level		Address: 073	2700K/5000K Brightness Level
	Output 3			Output 8	
Output 3	Address: 039	RED	Output 8	Address: 074	RED
	Address: 040	GREEN		Address: 075	GREEN
	Address: 041	BLUE		Address: 076	BLUE
	Address: 042	2700K		Address: 077	2700K
	Address: 043	5000K		Address: 078	5000K
	Address: 044	R/G/B Brightness Level		Address: 079	R/G/B Brightness Level
	Address: 045	2700K/5000K Brightness Level		Address: 080	2700K/5000K Brightness Level
	Output 4			Output 9	
Output 4	Address: 046	RED	Output 9	Address: 081	RED
	Address: 047	GREEN		Address: 082	GREEN
	Address: 048	BLUE		Address: 083	BLUE
	Address: 049	2700K		Address: 084	2700K
	Address: 050	5000K		Address: 085	5000K
	Address: 051	R/G/B Brightness Level		Address: 086	R/G/B Brightness Level
	Address: 052	2700K/5000K Brightness Level		Address: 087	2700K/5000K Brightness Level
	Output 5			Output 10	
Output 4	Address: 053	RED	Output 10	Address: 088	RED
	Address: 054	GREEN		Address: 089	GREEN
	Address: 055	BLUE		Address: 090	BLUE
	Address: 056	2700K		Address: 091	2700K
	Address: 057	5000K		Address: 092	5000K
	Address: 058	R/G/B Brightness Level		Address: 093	R/G/B Brightness Level
	Address: 059	2700K/5000K Brightness Level		Address: 094	2700K/5000K Brightness Level

Table 2: RGBWW (LEFT SWITCH) & TUNABLE WHITE (RIGHT SWITCH)

	Output 1: Set DMX address 025			Output 6	
Output 1: Set DMX address 025	Address: 025	RED	Output 6	Address: 060	1800K
	Address: 026	GREEN		Address: 061	2700K
	Address: 027	BLUE		Address: 062	5000K
	Address: 028	2700K		Address: 063	1800K/2700K/5000K Brightness Level
	Address: 029	5000K			
	Address: 030	R/G/B Brightness Level			
	Address: 031	2700K/5000K Brightness Level			
	Output 2			Output 7	
Output 2	Address: 032	RED	Output 7	Address: 064	1800K
	Address: 033	GREEN		Address: 065	2700K
	Address: 034	BLUE		Address: 066	5000K
	Address: 035	2700K		Address: 067	1800K/2700K/5000K Brightness Level
	Address: 036	5000K			
	Address: 037	R/G/B Brightness Level			
	Address: 038	2700K/5000K Brightness Level			
	Output 3			Output 8	
Output 3	Address: 039	RED	Output 8	Address: 068	1800K
	Address: 040	GREEN		Address: 069	2700K
	Address: 041	BLUE		Address: 070	5000K
	Address: 042	2700K		Address: 071	1800K/2700K/5000K Brightness Level
	Address: 043	5000K			
	Address: 044	R/G/B Brightness Level			
	Address: 045	2700K/5000K Brightness Level			
	Output 4			Output 9	
Output 4	Address: 046	RED	Output 9	Address: 072	1800K
	Address: 047	GREEN		Address: 073	2700K
	Address: 048	BLUE		Address: 074	5000K
	Address: 049	2700K		Address: 075	1800K/2700K/5000K Brightness Level
	Address: 050	5000K			
	Address: 051	R/G/B Brightness Level			
	Address: 052	2700K/5000K Brightness Level			
	Output 5			Output 10	
Output 4	Address: 053	RED	Output 10	Address: 076	1800K
	Address: 054	GREEN		Address: 077	2700K
	Address: 055	BLUE		Address: 078	5000K
	Address: 056	2700K		Address: 079	1800K/2700K/5000K Brightness Level
	Address: 057	5000K			
	Address: 058	R/G/B Brightness Level			
	Address: 059	2700K/5000K Brightness Level			

IMPORTANT NOTE:

Either RGB or 2700K/5000K can be on the same time. The DMX controller prevents from turning all RGB and white lights on at the same time due to thermal limitation.
RGB Brightness level has a higher priority than 2700K/5000K Brightness level. In this example, it means that Address: 030 has higher priority than address: 031. So if 2700K/5000K white light is need from RGBWW mode, The DMX value of RGB brightness level address:030 must be zero. Otherwise, RGB will continue to remain on as long as DMX value of address 030 greater or equal than one regarless of DMX address 031 value.

ONLY TWO CCTs can be on at the same time. The DMX controller prevents from turning all three CCTs on at the same time due to thermal. 1800K has highest priority. So if 2700K and 5000K color mixing is need, DMX address: 025, 1800K, value must be zero. Otherwise, 1800K and 2700K color will be mixed instead of 5000K because the DMX address: 025,1800K, has the highest priority.
The priority is set as follows: 1800K > 2700K > 5000K.
The 1800K/2700K/5000K DMX address is used to control brightness of all channels at the same time. As such, the light output CCT setting will remain the same even the light output goes up and down.

Table 3: TUNABLE WHITE (LEFT SWITCH) & RGBWW (RIGHT SWITCH)

	Output 1: Set DMX address 025				Output 6	
Output 1: Set DMX address 025	Address: 025	1800K		Output 6	Address: 045	RED
	Address: 026	2700K			Address: 046	GREEN
	Address: 027	5000K			Address: 047	BLUE
	Address: 028	1800K/2700K/5000K Brightness Level			Address: 048	2700K
					Address: 049	5000K
					Address: 050	R/G/B Brightness Level
					Address: 051	2700K/5000K Brightness Level
	Output 2				**Output 7**	
Output 2	Address: 029	1800K		Output 7	Address: 052	RED
	Address: 030	2700K			Address: 053	GREEN
	Address: 031	5000K			Address: 054	BLUE
	Address: 032	1800K/2700K/5000K Brightness Level			Address: 055	2700K
					Address: 056	5000K
					Address: 057	R/G/B Brightness Level
					Address: 058	2700K/5000K Brightness Level
	Output 3				**Output 8**	
Output 3	Address: 033	1800K		Output 8	Address: 059	RED
	Address: 034	2700K			Address: 060	GREEN
	Address: 035	5000K			Address: 061	BLUE
	Address: 036	1800K/2700K/5000K Brightness Level			Address: 062	2700K
					Address: 063	5000K
					Address: 064	R/G/B Brightness Level
					Address: 065	2700K/5000K Brightness Level
	Output 4				**Output 9**	
Output 4	Address: 037	1800K		Output 9	Address: 066	RED
	Address: 038	2700K			Address: 067	GREEN
	Address: 039	5000K			Address: 068	BLUE
	Address: 040	1800K/2700K/5000K Brightness Level			Address: 069	2700K
					Address: 070	5000K
					Address: 071	R/G/B Brightness Level
					Address: 072	2700K/5000K Brightness Level
	Output 5				**Output 10**	
Output 4	Address: 041	1800K		Output 10	Address: 073	RED
	Address: 042	2700K			Address: 074	GREEN
	Address: 043	5000K			Address: 075	BLUE
	Address: 044	1800K/2700K/5000K Brightness Level			Address: 076	2700K
					Address: 077	5000K
					Address: 078	R/G/B Brightness Level
					Address: 079	2700K/5000K Brightness Level

Table 4: TUNABLE WHITE (LEFT SWITCH) & TUNABLE WHITE (RIGHT SWITCH)

	Output 1: Set DMX address 025				Output 6	
Output 1: Set DMX address 025	Address: 025	1800K		Output 6	Address: 045	1800K
	Address: 026	2700K			Address: 046	2700K
	Address: 027	5000K			Address: 047	5000K
	Address: 028	1800K/2700K/5000K Brightness Level			Address: 048	1800K/2700K/5000K Brightness Level
	Output 2				**Output 7**	
Output 2	Address: 029	1800K		Output 7	Address: 049	1800K
	Address: 030	2700K			Address: 050	2700K
	Address: 031	5000K			Address: 051	5000K
	Address: 032	1800K/2700K/5000K Brightness Level			Address: 052	1800K/2700K/5000K Brightness Level
	Output 3				**Output 8**	
Output 3	Address: 033	1800K		Output 8	Address: 053	1800K
	Address: 034	2700K			Address: 054	2700K
	Address: 035	5000K			Address: 055	5000K
	Address: 036	1800K/2700K/5000K Brightness Level			Address: 056	1800K/2700K/5000K Brightness Level
	Output 4				**Output 9**	
Output 4	Address: 037	1800K		Output 9	Address: 057	1800K
	Address: 038	2700K			Address: 058	2700K
	Address: 039	5000K			Address: 059	5000K
	Address: 040	1800K/2700K/5000K Brightness Level			Address: 060	1800K/2700K/5000K Brightness Level
	Output 5				**Output 10**	
Output 4	Address: 041	1800K		Output 10	Address: 061	1800K
	Address: 042	2700K			Address: 062	2700K
	Address: 043	5000K			Address: 063	5000K
	Address: 044	1800K/2700K/5000K Brightness Level			Address: 064	1800K/2700K/5000K Brightness Level

6. REMOTE DEVICE MANAGEMENT (RDM) SUPPORT

This DMX LED Controller support RDM protocol. It can be remotely set DMX starting address along with DMX controller of each channel.

Once you connected to RDM controller and set the DMX address, this will override the hardware setting of DMX address setting through rotary dial. As long as rotary dial DMX address does not change, RDM controller remains in control.

During RDM control mode, if rotary dial setting of DMX address has been changed, the DMX address setting will be assigned through rotary dial again and RMD controller lose the control.

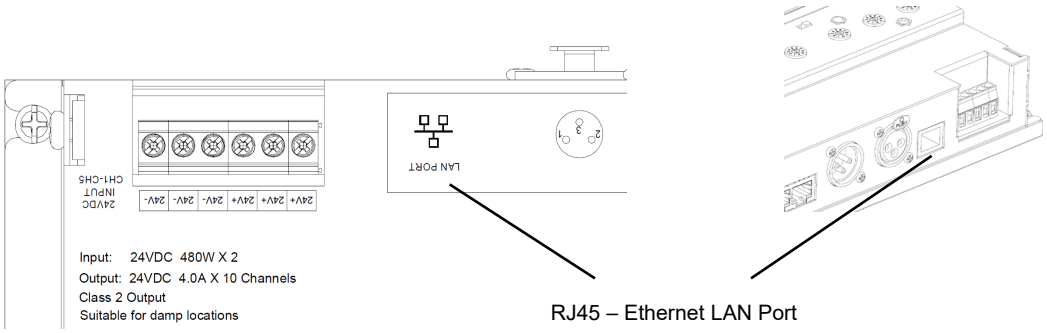
During RDM Mode, RDM controller can set the command to setup only one DMX address. As such, DMX LED controller will line up all addresses in sequence as shown above in Table 1-4.

7. SOFTWARE/FIRMWARE UPDATE

Newer software/firmware can be over the air (OTA) upgraded through web browsers if need.

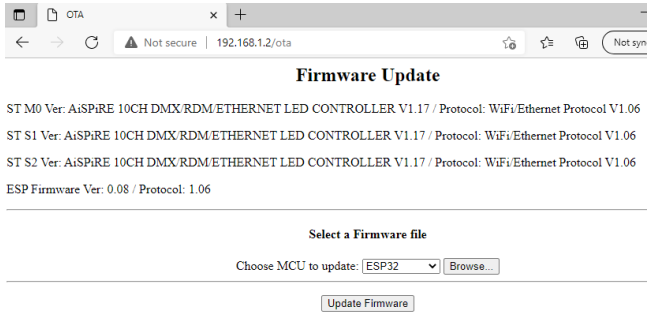
7.1) Connect LAN port with Ethernet Cable to your WIFI/ETHERNET router, (See Fig. 11)

FIG. 11



7.2) Typing: http://[IP address]/ota
IP scanner software may be used to help determine device IP address. IP address will be determined by your network router.
If Control4 is used primarily to control. Under driver properties section, IP address should have already been shown.
In this example, assume that IP address is 192.168.1.2
OTA webpage should show up as below example in FIG. 12

FIG. 12



7.3) Click Browse to select a new firmware file with associated micro chip that needs to be updated.
7.4) Click Update Firmware button and wait until a pop-up window shows up that it's been completed.

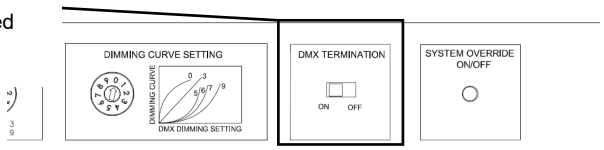
8. DMX TERMINATION SWITCH

DMX should always be daisy chained from one device to another device. DMX should be terminated at the end of the line with a 120 Ohm resistor between the data + and data – connections. A2C10-10 provides this function by move the switch to "ON" position, 120 Ohm resistor between the data + and data – connections will be terminated. If the switch is at "OFF" position, DMX data line is not terminated as shown in Fig. 13

FIG. 13

In this example:

OFF position: 120 Ohms resistor is not connected between DMX line.



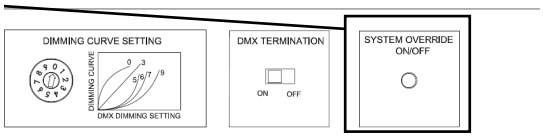
9. SYSTEM OVERRIDE ON/OFF BUTTON

In a normal circumstance when a DMX Universe controller failed to send/response DMX command, light control is affected by this even a simple light on/off still can't be done.
A2C10-10 provides a system override ON/OFF button that will be able to turn on/off all lights connected with the unit at 3000K full brightness white light. Whenever your DMX universe controller regain the control and sending DMX signal to A2C10-10 again, light output will automatically reflect to a new DMX command signal.

FIG. 13

This System Override ON/OFF button can turn on/off the light to 3000K at full brightness.

Whenever, DMX command is received again, light will revert back and follow DMX command.



10. CONTROL4 INTEGRATION SUPPORT

There are two ways to control A2C10-10 using Control4 platform. One of them is through direct IP integration. Another way is through ABiCUS A1G10-DMX.

10.1 Direct IP Integration

A. A2C10-10 can be controlled by Control4 platform directly through Ethernet LAN port. Please see section 7.1 or Fig. 11 for LAN port connection.

B. In order to seamlessly control A2C10-10 with Control4 platform, driver software under Control4 Composer is need. AiSPiRE provides 3 different Control4 driver files for A2C10-10

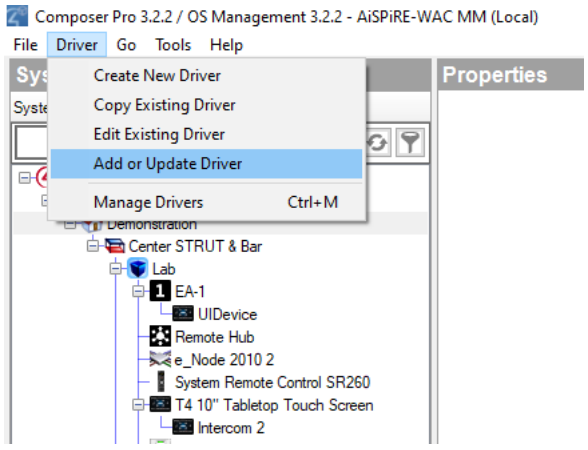
Item	Driver File Name	Purpose
1	AiSPiRE_A2C10_10.c4z	To control A2C10-10 DMX LED Controller unit through Control4 platform
2	AiSPiRE_RGBWW.c4z	To control both Linear / DPI RGBWW products
3	AiSPiRE_Tunable_White.c4z	To control both Linear / DPI Tunable White products

Please download it from AiSPiRE website product page for any new driver files.

Note: Whenever Control4 update driver is need, file name has to be matched with original file name. Any changes regarding file name will create an error on Control4 platform during driver update.

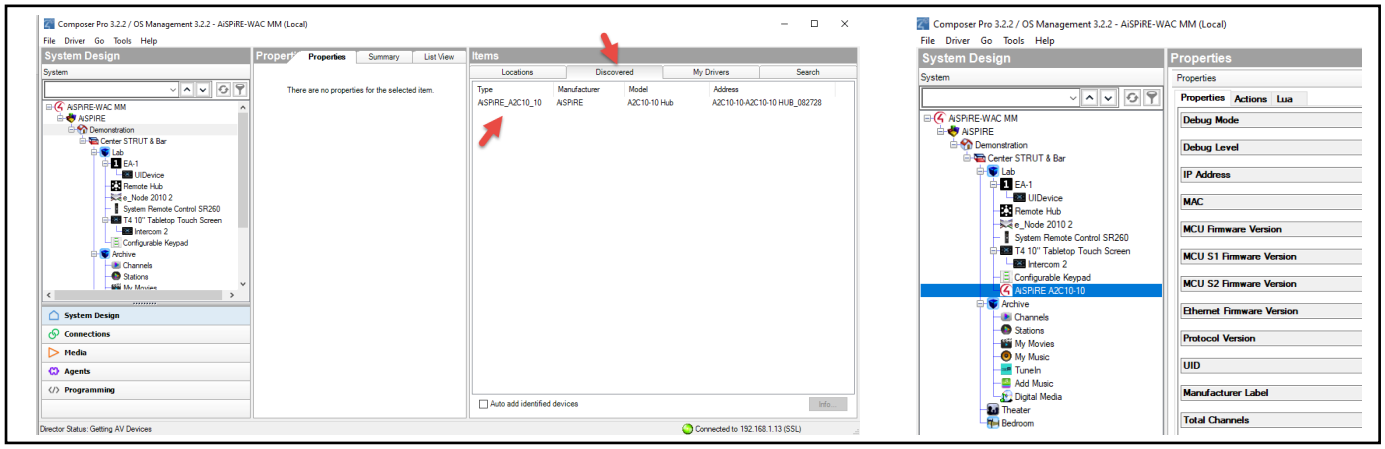
C. Go to Control4 Composer Pro, Driver → Add or Update Driver → Select **AiSPiRE_A2C10_10.c4z** file to add driver as shown in Fig. 13

FIG. 13



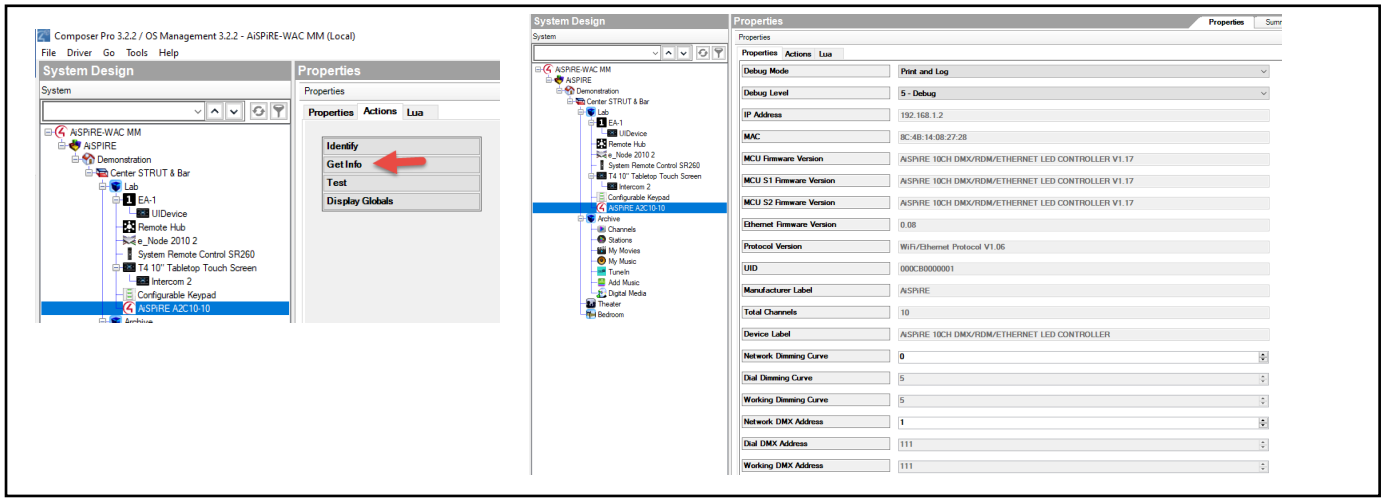
D. Under discovered section, AiSPiRE A2C10-10 device should show up. Double click it to add into Composer Pro as shown in FIG. 14

FIG. 14



E. If there is no data of A2C10-10 under properties page, please go to Actions tab and click Get Info as shown in Fig. 14. Data should show up below in Fig. 14.

FIG. 14



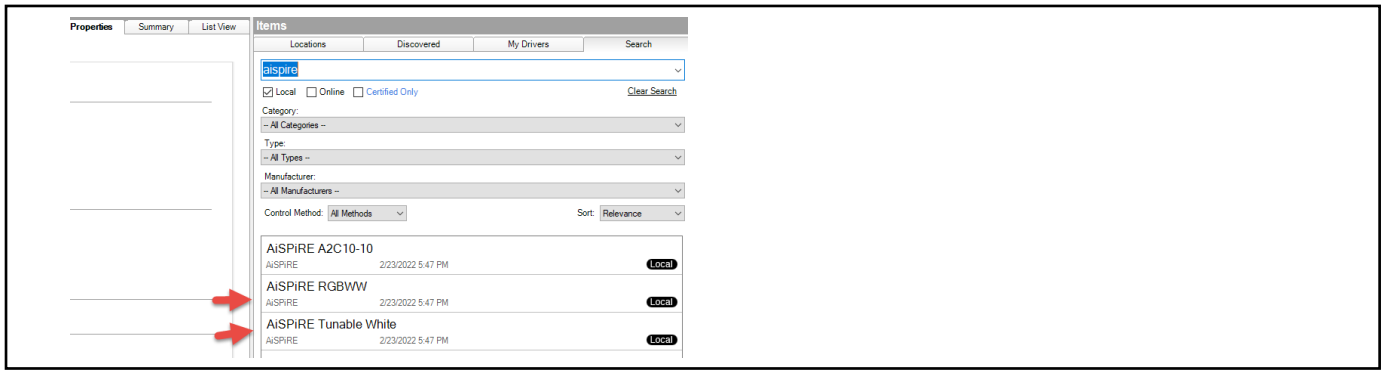
F. Dimming curve adjustment can be done through Control4 Composer as well by changing number under Network Dimming Curve. As long as control4 is used to control all lights, dimming curve will follow Network Dimming Curve.

G. Go to Control4 Composer Pro, Driver → Add or Update Driver → Select **AiSPiRE_RGBWW.c4z** file to add driver as shown in Fig. 13

H. Go to Control4 Composer Pro, Driver → Add or Update Driver → Select **AiSPiRE_Tunable_White.c4z** file to add driver as shown in Fig. 13

I. Under Search section, type “AiSPiRE”. It should show both RGBWW/Tunable White driver under it as shown in Fig. 15

FIG. 15

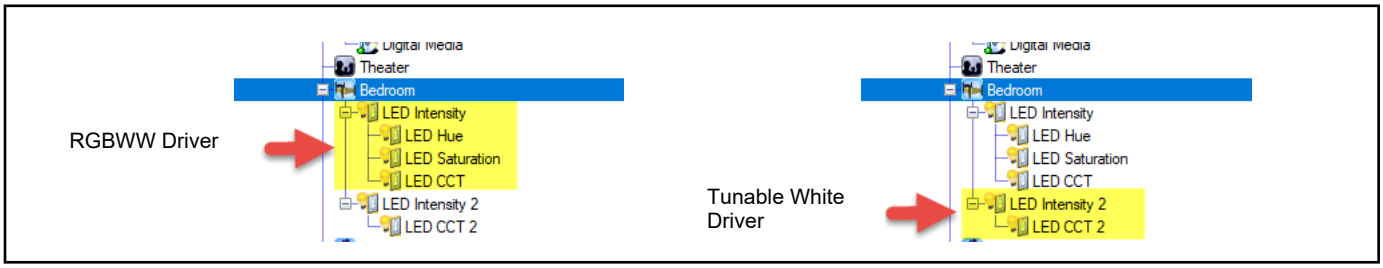


J. Choose the room that driver would need to add.
In this example shown in Fig. 16, 2 different sections of Linear tape RGBWW and 3 different sections of Linear Tape Tunable White are installed in Bedroom.

If grouping of light is intended for all, only one driver of each type is need for Bedroom.
If independent light control is preferred, multiple drivers need to be added into the Bedroom.
In this example, grouping of light will be exemplified.

→ Select Bedroom under System Design
→ Select AiSPiRE RGBWW under Items → Double clicks it to add into Bedroom
→ Select AiSPiRE Tunable Whitte under Items → Double clicks it to add into Bedroom

FIG. 16



Note: Recommend to rename to different names if possible for easier identification once you add more lights into the room.

K. Setup Output Channels
In this example shown in Fig 17, Output 6 and 10 are connected with Linear RGBWW tape that wired to Bedroom. So type in “6, 10” to control these RGBWW tape light altogether.
Output 1, 2 and 3 are connected with Linear Tunable White tape that wired to Bedroom. So type in “1, 2, 3” under Output Channels section as shown in Fig 18.

FIG. 17: RGBWW Output Channels setup

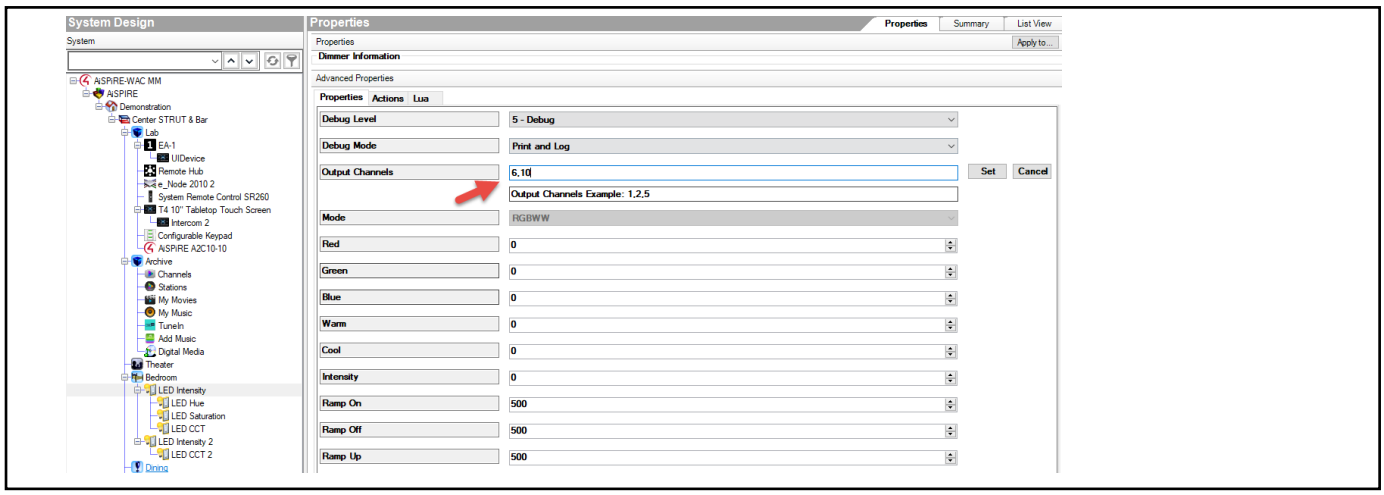
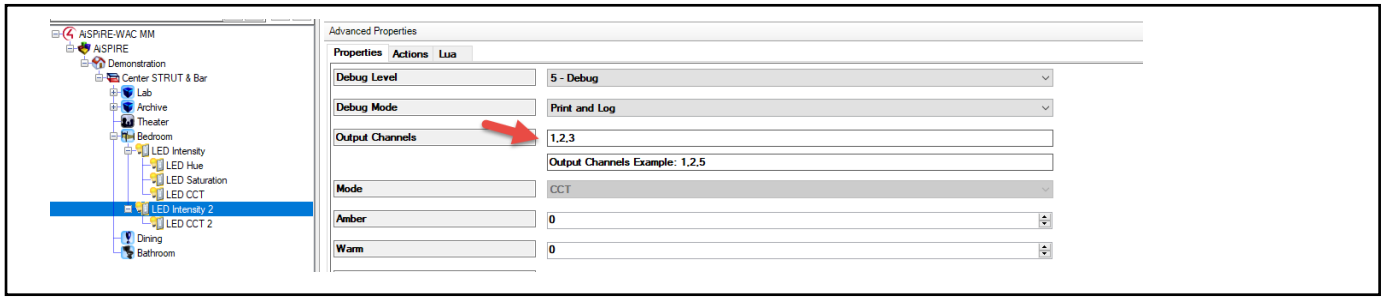


FIG. 18: Tunable White Output Channels setup



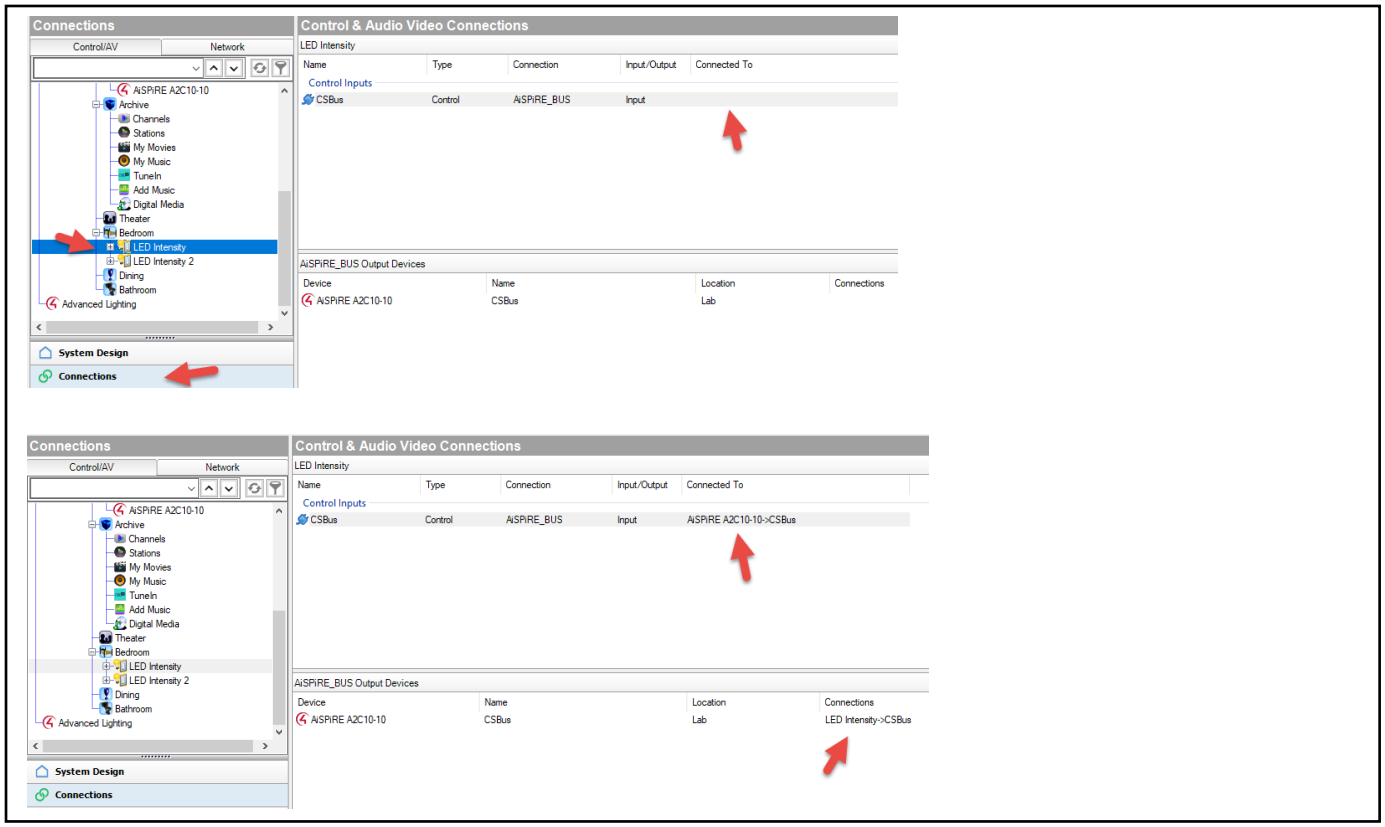
Note: comma (“,”) is need between numbers in output channels section. Please make sure that RGBWW/Tunable White hardware switch is properly set on the A2C10-10 device.

L. Connections

Please make sure that new drivers are properly connected to A2C10-10 under AiSPiRE Bus by dragging control inputs from the top to A2C10-10 at the bottom section as shown in Fig. 19

Do the same connection for both RGBWW/Tunable White drivers to A2C10-10.

FIG. 19



After connections has been made, light controls should be able to function from properties box and from other control devices.

Important Note:

RGBWW: Both RGB and WW (white lights) can't be on at the same time due to thermal protection. The firmware has been set in a way that if Hue or Saturation value has been changed, light output will be converted from white light to RGB light immediately. If CCT value is changed, white light will react immediately and shut off all RGB lights.

Tunable White: When using with Control4 platform control, driver already determine how to change the CCT based on percentage.

M. Control Parameters

RGBWW			Tunable White	
Properties	Explanation		Properties	Explanation
Output Channels	Define output channels that this driver control. Grouping can be done by add multiple numbers of channels.		Output Channels	Define output channels that this driver control. Grouping can be done by add multiple numbers of channels.
Mode	RGBWW (Determined by installed driver)		Mode	CCT (Determined by installed driver)
Red	0-255 (8 bits Data)		Amber	0-255 (Amber light is 1800K)
Green	0-255		Warm	0-255 (Warm light is 2700K)
Blue	0-255		Cool	0-255 (Cool light is 6500K)
Warm	0-255 (Warm light is 2700K)		Intensity	0-100 (Percentage)
Cool	0-255 (Cool light is 5000K)		Ramp On	0-5000 (ms)
Intensity	0-100 (Percentage)		Ramp Off	0-5000 (ms)
Ramp On	0-5000 (ms) – Intensity starts from 0 to any values.		Ramp Up	0-5000 (ms)
Ramp Off	0-5000 (ms) – Intensity starts from any value to 0		Ramp Down	0-5000 (ms)

Ramp Up	0-5000 (ms) – Intensity rises up from any value but not zero (0)		Auto Off	After light turns on for certain period, it shuts off.
Ramp Down	0-5000 (ms) – Intensity falls down to any value but not zero (0)		CCT	Color Temperature (1800K-5000K) at the moment (Determined by installed driver)
Auto Off	After light turns on for certain period, it shuts off.			
Hue	N/A			
Sat	N/A			
CCT	Color Temperature (2700K-5000K) at the moment (Determined by installed driver)			

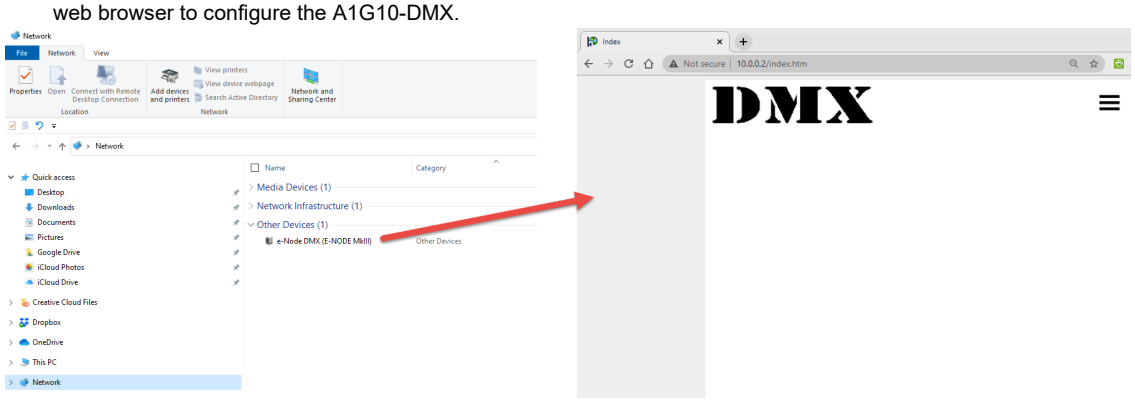
10.2 Using A1G10-DMX ABICUS

In order to allow Control4 platform to control our A2C10-10, A1G10-DMX is needed to communicate with Control4 Composer software and send proper DMX value to A2C10-10 to control either Linear/DPI RGBWW/Tunable White.

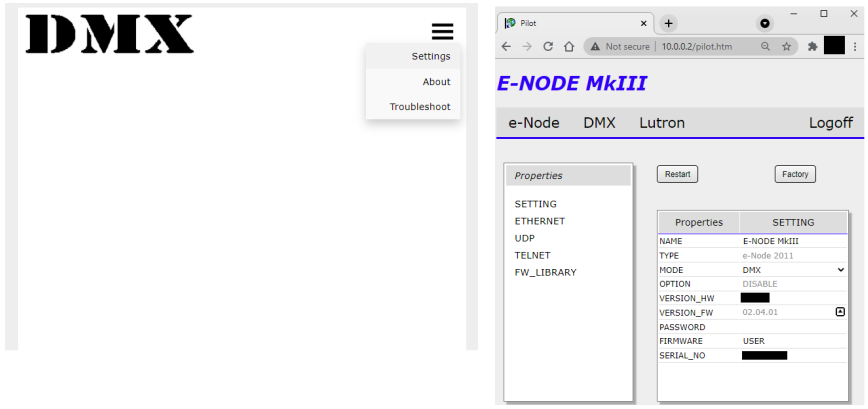
A1G10-DMX (E-node) Configuration

Following check points are necessary to ensure proper and correct connections:

- Connect A1G10-DMX to an Internet router through Ethernet cable.
- Connect DMX output from A1G10-DMX RJ45 port to DMX input port of A2C10-10
- Power up the A1G10-DMX with DC power supply that falls between 12-26VDC
- Open up the Network connection in Windows, e-Node DMX (E-NODE MkIII) should show up, double click on it, it should open up an internet web browser to configure the A1G10-DMX.

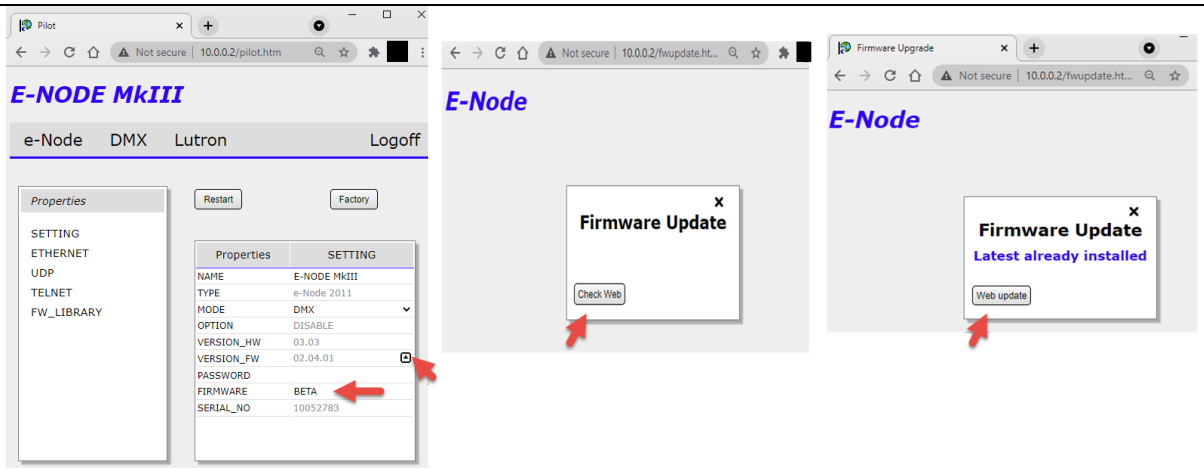


- Click the Menu icon and click setting



- Make sure that Version_FW is 02.04.01 or older. If it's an older firmware, update is need by doing follow steps:
  - type in "BETA" under FIRMWARE row
  - Click arrow up button under VERSION_FW row
  - Click Check Web
  - Click Web update

  A1G10-DMX should take few minutes to update to latest firmware

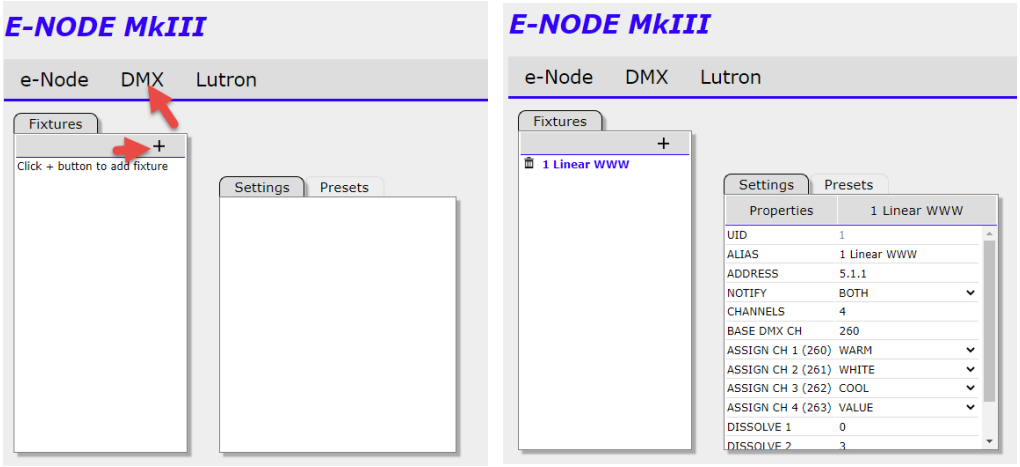


- Make sure that Mode is set as DMX
- If need, Ethernet configuration can be set through the left-hand side menu under e-Node main menu
- Click DMX on the main menu and click "+" to add a fixture

For **Tunable White** Linear/DPI products:

- Rename fixture name under ALIAS row to any preference name
- Key in an address in the format of X.X.X (Zone:Group:Node)
    - First digit represents for Zone (Maximum number is 255)
    - Second digit represents for Group (Maximum number is 255)
    - Last digit represents for Node (Maximum number is 255)

Record the address number as it would need to be filled in Control Composer Software to ensure a right connection to that fixture. In an example below, 5.1.1 is used to define an address of this light fixture (Linear WWW)

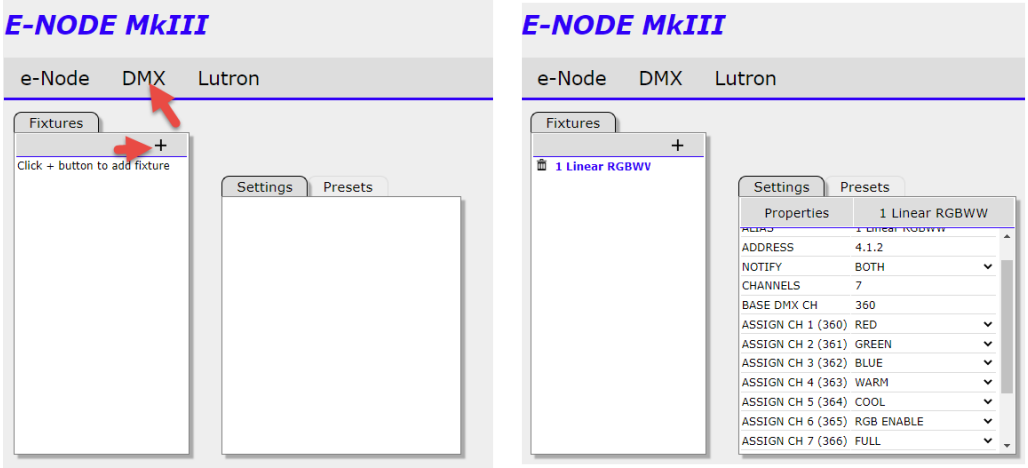


- Key in "4" in the CHANNELS row, this number indicates total DMX channels that this light fixture used. In this case, Tunable White product use 4 DMX channels which are 1800K, 2700K, 5000K, 1800K/2700K/5000K Brightness Level
- Key in DMX starting value of that light fixture as defined through a dial knob on A2C10-10. In this example, DMX starting value for this light fixture is 260
- Choose "WARM" for ASSIGN CH 1.
- Choose "WHITE" for ASSIGN CH 2.
- Choose "COOL" for ASSIGN CH 3.
- Choose "VALUE" for ASSIGN CH 4.

For **RGBWW** Linear/DPI products:

- Rename fixture name under ALIAS row to any preference name
- Key in an address in the format of X.X.X (Zone:Group:Node)
    - First digit represents for Zone (Maximum number is 255)
    - Second digit represents for Group (Maximum number is 255)
    - Last digit represents for Node (Maximum number is 255)

Record the address number as it would need to be filled in Control Composer Software to ensure a right connection to that fixture. In an example below, 4.1.2 is used to define an address of this light fixture (Linear RGBWW)

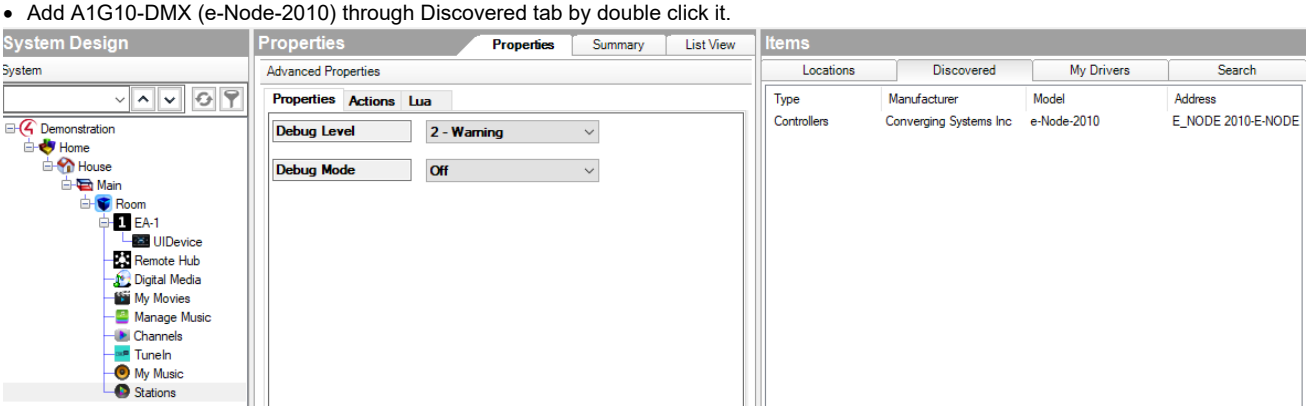


- Key in “7” in the CHANNELS row, this number indicates total DMX channels that this light fixture used. In this case, Tunable White product use 7 DMX channels which are RED, GREEN, BLUE, 2700K, 5000K, R/G/B Brightness Level, 1800K/2700K Brightness Level
- Key in DMX starting value of that light fixture as defined through a dial knob on A2C10-3. In this example, DMX starting value for this light fixture is 360
- Choose “RED” for ASSIGN CH 1.
- Choose “GREEN” for ASSIGN CH 2.
- Choose “BLUE” for ASSIGN CH 3.
- Choose “WARM” for ASSIGN CH 4.
- Choose “COOL” for ASSIGN CH 5.
- Choose “RGB ENABLE” for ASSIGN CH 6.
- Choose “FULL” for ASSIGN CH 7.

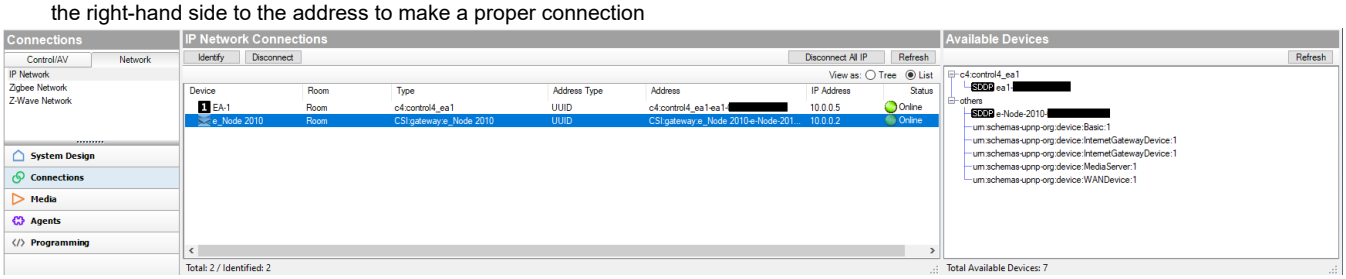
In Control4 Composer Pro Software

CONTROL4: Composer Pro Software Configuration

- Add A1G10-DMX (e-Node-2010) through Discovered tab by double click it.



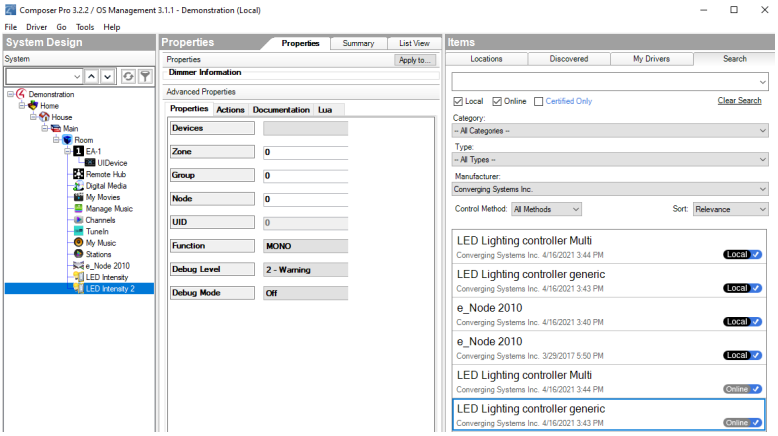
- Make sure that e_Node 2010 status is online under connection-network. If not, drag IP address configuration from SDDP e-Node-2010- on the right-hand side to the address to make a proper connection



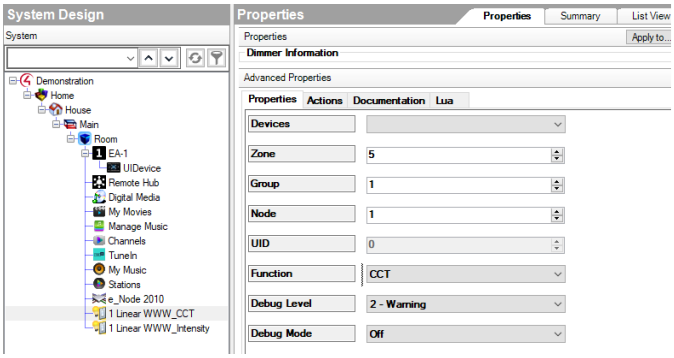
For **Tunable White** Linear/DPI products:

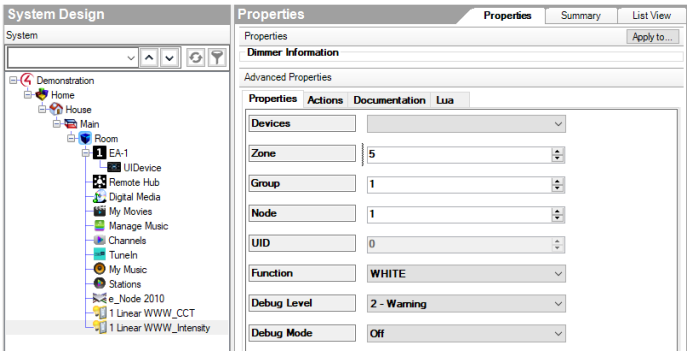
- Click the Search tab, choosing “Converging Systems Inc.” under Manufacturer
- Select “LED Lighting controller generic” with 4/16/2021 update. Double click on it to install this driver into control4.

- Double Click again on “LED Lighting controller generic” with 4/16/2021 update to install additional driver. Your screen should show two drivers as shown below:

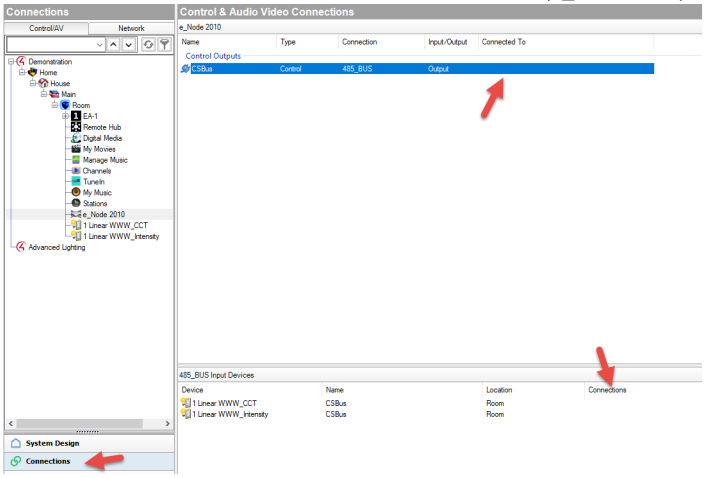


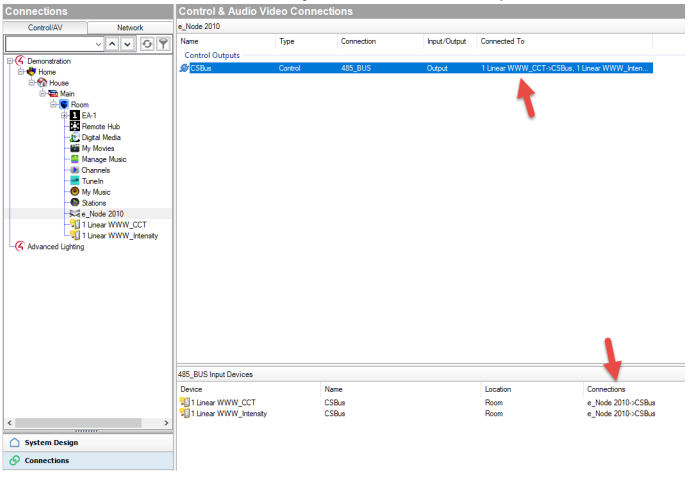
- Rename both drivers to associated with CCT and Intensity control. In this example below, one of driver will be renamed to be “1 Linear WWW_CCT”. Another driver will be renamed to be “1 Linear WWW_Intensity”
- Under CCT driver control (1 Linear WWW_CCT)
  - fill in Zone, Group, and Node number as specified in A1G10-DMX light fixture setting. In this example, address 5.1.1 is specified in light fixture setting under A1G10-DMX (E-node).
  - Select “CCT” under Function row
- Under Intensity driver control (1 Linear WWW_Intensity)
  - fill in Zone, Group, and Node number as specified in A1G10-DMX light fixture setting. In this example, address 5.1.1 is specified in light fixture setting under A1G10-DMX (E-node).
  - Select “WHITE” under Function row





- Under Connections, make sure that A1G10-DMX (e_Node 2010) connects to both CCT and Intensity drivers as an example shown below:





- At this point, you should be able to control On/Off, light intensity and CCT from 1800K-5000K from Control4 Navigator

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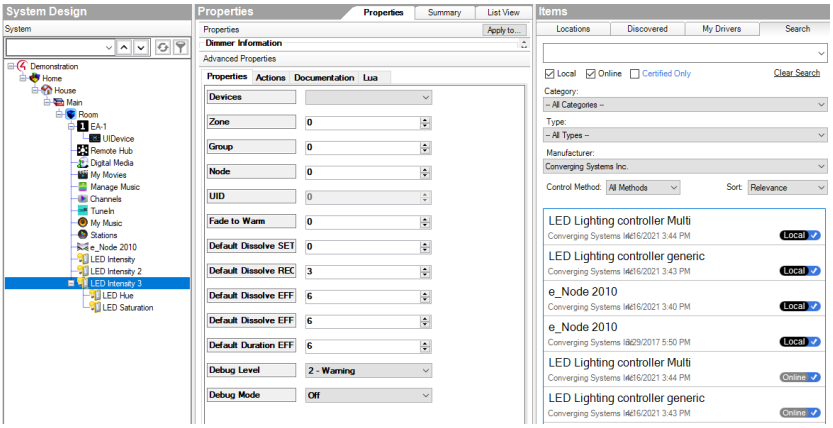
For **RGBWW** Linear/DPI products:

- Click the Search tab, choosing “Converging Systems Inc.” under Manufacturer
- Select “LED Lighting controller generic” with 4/16/2021 update. Double click on it to install this driver into control4.
- Double Click again on “LED Lighting controller generic” with 4/16/2021 update to install additional driver.

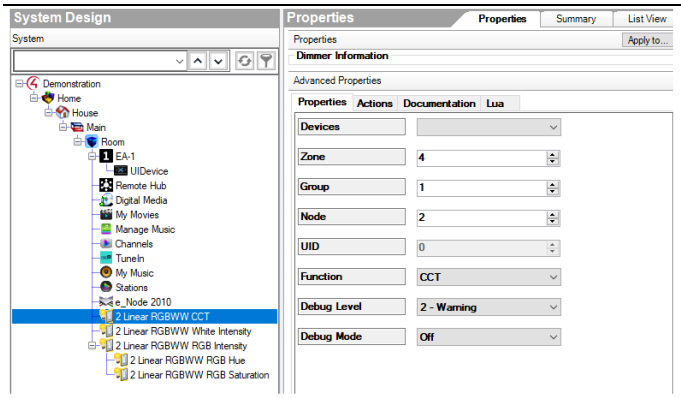
- Select “LED Lighting Controller Multi” with 4/16/2021 update. Double click on it to install this driver into control4. Your screen should show three drivers as shown below:

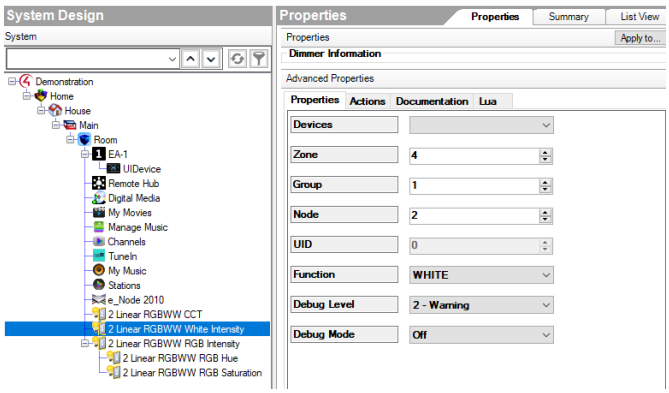


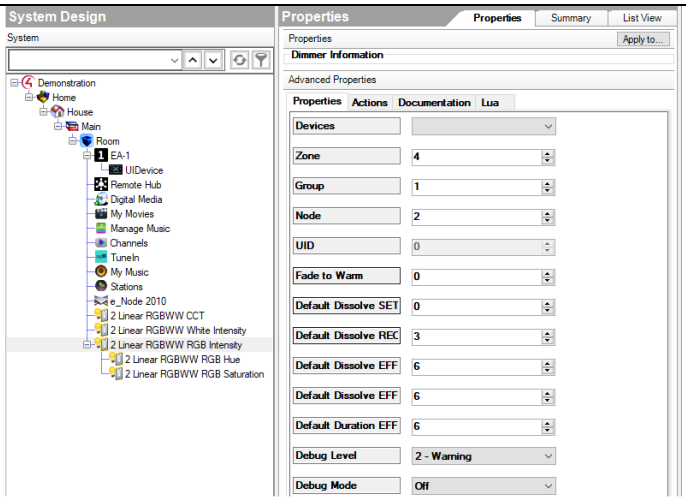
- Please note that this RGBWW Linear/DPI products can control both white lights using pure dedicate white LEDs and RGB light. But both neither white (WW) or RGB can be altogether at the same time. As such there will be two light intensity controls. One is for dedicated white light LEDs (WW). Another one is for RGB light.
- Rename all three drivers to associated with CCT, White Intensity, Hue, Saturation, RGB Intensity control.
  In this example below, five parameters of RGBWW Linear/DPI product will be name as follows:

Default Name	Rename to	Driver
LED Intensity	2 Linear RGBWW CCT	LED Lighting controller generic
LED Intensity 2	2 Linear RGBWW White Intensity	LED Lighting controller generic
LED Intensity 3	2 Linear RGBWW RGB Intensity	LED Lighting controller Multi
-LED Hue	-2 Linear RGBWW RGB Hue	LED Lighting controller Multi
-LED Saturation	-2 Linear RGBWW RGB Saturation	LED Lighting controller Multi

- Under RGBWW CCT driver control (2 Linear RGBWW CCT)
  - fill in Zone, Group, and Node number as specified in A1G10-DMX light fixture setting. In this example, address 4.1.2 is specified in light fixture setting under A1G10-DMX (E-node).
  - Select “CCT” under Function row
- Under RGBWW White Intensity driver control (2 Linear RGBWW White Intensity)
  - fill in Zone, Group, and Node number as specified in A1G10-DMX light fixture setting. In this example, address 4.1.2 is specified in light fixture setting under A1G10-DMX (E-node).
  - Select “WHITE” under Function row
- Under RGBWW RGB Intensity driver control (2 Linear RGBWW RGB Intensity)
  - fill in Zone, Group, and Node number as specified in A1G10-DMX light fixture setting. In this example, address 4.1.2 is specified in light fixture setting under A1G10-DMX (E-node).
  - Leave Hue and Saturation setup as it is.







- At this point, you should be able to control On/Off, both RGB & white light intensity and CCT from 2700K-5000K from Control4 Navigator

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Important Notes:

- Name of the fixture does not need to be the same between A1G10-DMX (E-node) or one specified in Control4 Composer Software
- DMX Value is specified under A1G10-DMX (E-node) configuration through web browser only. There is no need to specify DMX value in Control4 Composer Software.
- Control4 Composer Software use address (X.X.X) on driver, to identify the light fixture in the A1G10-DMX (E-node) setup. Therefore, address of the light fixture under E-node setup and drivers under Control4 Composer Software needs to be the same.
- For advance setup and programming, please contact AiSPiRE technical support or Sales.

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