

CHT – LED Controller NS Series Family

User Manual (Preliminary)

CHT-P24V084ME4

Warranty

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship within the warranty period. If the product has any failure problem within the warranty period, Seller will repair or replace the product at its sole discretion according to the failure situation.

This warranty does not apply to normal wear or to damage resulting from improper installation, operation, usage, maintenance or irresistible force (i.e. war, fire, natural disaster, etc.), and this warranty expressly excludes all incidental and consequential damages.

Maintenance service for a fee is provide for any damage out of the warranty period. If any maintenance is required, please directly contact the supplier or Seller.



WARNING!

The individual user should take care to determine prior to use whether the environment and the load characteristic are suitable, adequate or safe for the installation and the usage of this product. The User Manual must be carefully following. Seller makes no representation or warranty as to the suitability or fitness of this product for any specific application.

1 : Important Safety Instructions

This product had designed with full consideration of safety. Incorrect usage of the product may result in fire, electric shock, or other serious damages. Observe the following precautions.

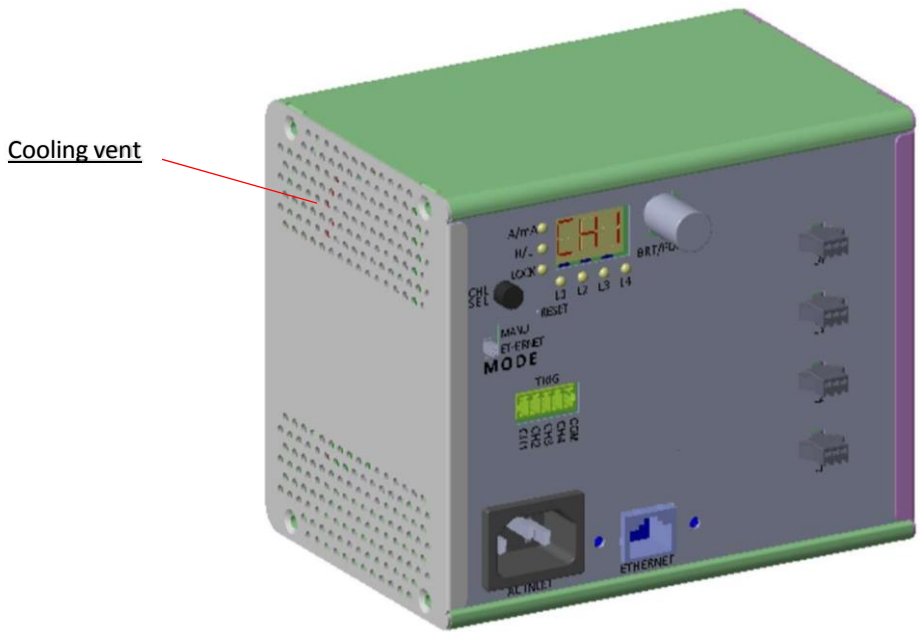
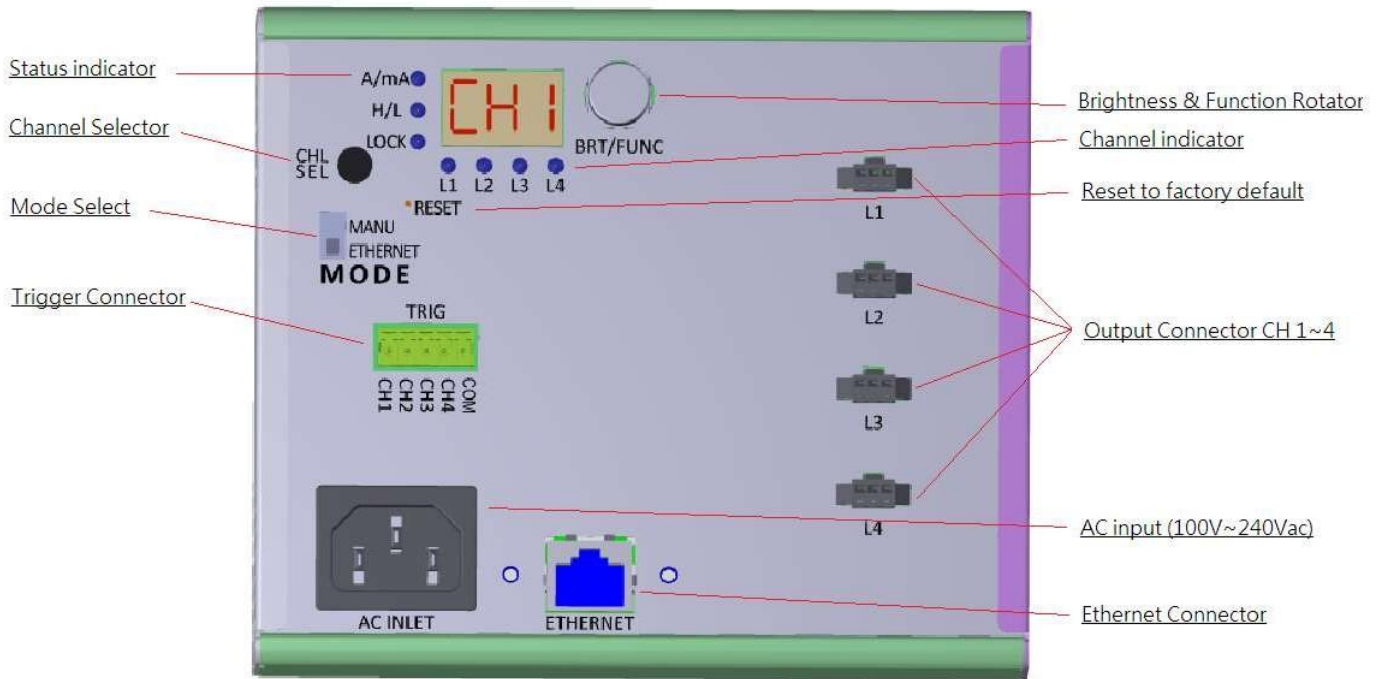
The following symbols used in this instruction guide to indicate and classify the relative importance of warnings and cautions.

WARNING	
Do not disassemble or modify the Control Unit. Doing so may result in fire or electric shock.	
Do not touch the plugs or switches with wet hands. Doing so may result in electric shock.	
Make sure that the Control Unit is free of moisture or any liquid. Doing so may result in fire or electric shock.	
Before connecting or disconnecting cables, make sure that the power source is turn OFF. Not doing so may result in fire or electric shock.	
Do not touch the power cords during lightning. This may result in electric shock.	
If an abnormal condition occurs, such as fuming, heat, smell, or noise, stop using the Control Unit immediately, turn OFF the power source and unplug the power cord. Not doing so may result in fire or electric shock.	
To prevent eye injury, it is not allow to Looking straight the Lighting in any condition	

CAUTION	
PROHIBITED	INSTRUCTED
Do not use user-made branch cables. Doing so may cause Control Unit failure.	Always use one of the following power cords. 100 to 120 V range: SVT or SJT, AWG18, length: 3 m max., dielectric strength: 125 V min. 200 to 240 V range: H05VV-F, AWG18, length: 3 m max., dielectric strength: 250 V min.
Do not place the Control Unit in direct sunlight or in a high-humidity environment. Doing so may result in fire due to internal temperature rise	Plug the power cord directly into an AC outlet. Using a power strip or connecting many loads from one electrical outlet may cause fire or electric shock.
Always place the Control Unit on a stable and flat location. Not doing so may result in the Control Unit falling or toppling, which may cause malfunction, accidents, or bodily injury	Do not bundle Control Unit cables with high-voltage lines or power lines. Allow leeway when installing the cables.
Do not drop the Control Unit or subject it to impact. Doing so may cause Control Unit failure.	Always ground the power cord. Not doing so may cause Control Unit failure due to static electricity destroying electrical components including those in the Light Unit.
Do not bend cables or jam them between objects when wiring. Doing so may cause Control Unit failure.	Use Light Units that are suitable for the Control Unit ratings. Exceeding the ratings may cause Control Unit failure.
Do not intentionally short-circuit the positive and negative output terminals.	Use a standard Extension Cable that is manufactured by CHT Electronics, Inc... However, if the cable is too long, the light intensity will decrease due to voltage drop caused by the DC resistance of the cable.
Do not wipe the Control Unit with volatiles such as paint thinner or benzene. Discoloration or deterioration of the Control Unit surfaces may occur.	Do not disconnect the power cord or disassemble the Control Unit during operation. Pulling on the cable may damage the cable and result in fire or electric shock.
Use a dry cloth to remove dust or other foreign matter from the electrodes. Failure to do so may result in fire.	Before moving the Control Unit, disconnect all connection cables. Damaging the cables may result in fire or electric shock.
	When mounting the Control Units in system racks or cases, do not insert the screws more than 5 mm. Doing so may cause short-circuits in internal components.

2 : PART DESCRIPTION

CHT-P24V084ME4

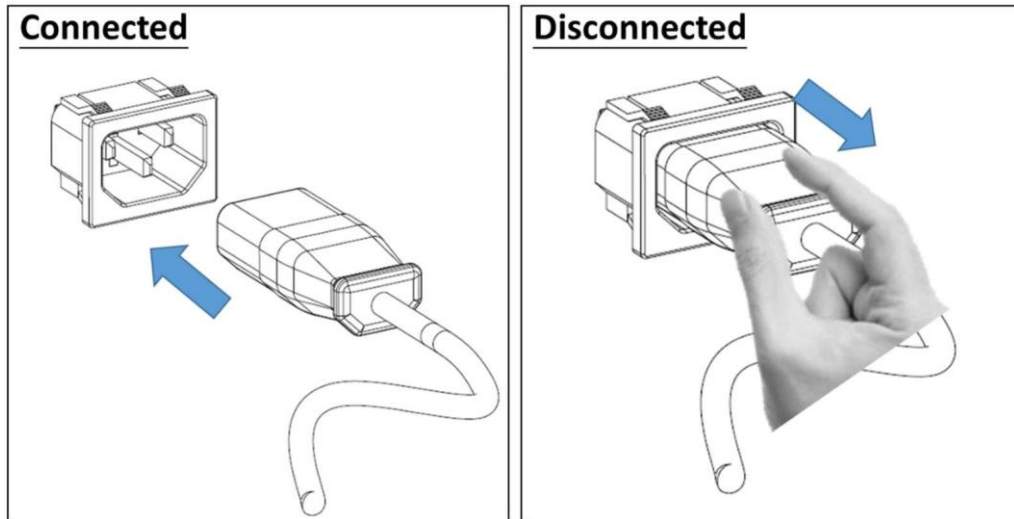


3 : CABLE CONNECTED

AC Power Cord:

Connected the AC power cord to the Unit and the AC inlet.

Not pull on Wire, please grab the socket when disconnected the AC power cord from AC inlet,



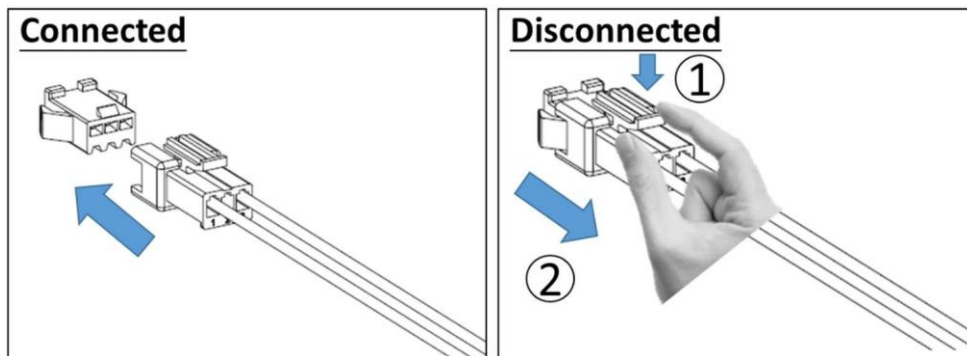
Cable of light source:

Connected the cable from light source to the Controller, it is aligned hook side of connector.

Disconnected the cable:

Step 1. Press the Hook on Housing.

Step 2. Removing the cable, and pull on housing.



External Trigger-in Cable (TRIG IN):

Connected Trigger-in cable:

Connected the cable

Step 1. Insert the cable and fixed by screw with flat head.

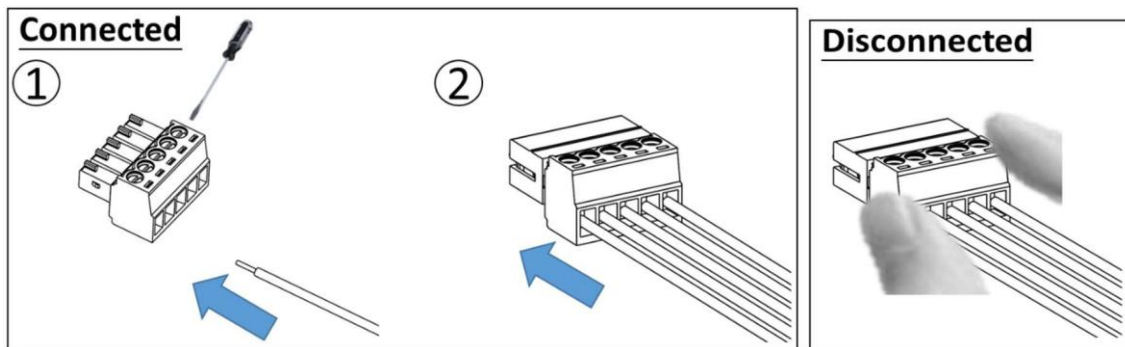
Note: 1.Screw Torque: 0.19 N. m.

2. Wire spec: #28~14AWG.

3.Length of wire strip: 6~7 mm.

Step 2. Connect the cable

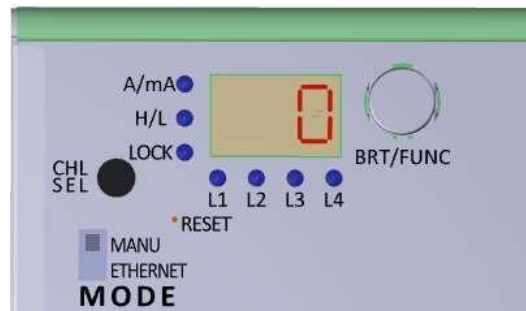
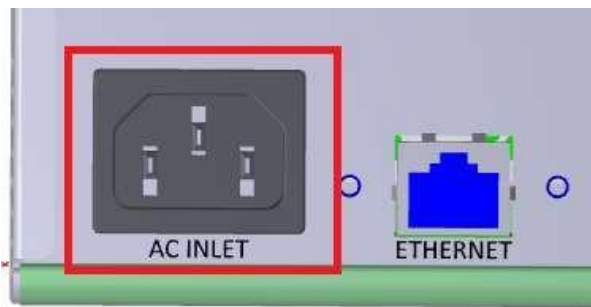
Disconnect the cable; do not pull out by wires.



4 : Manual Control

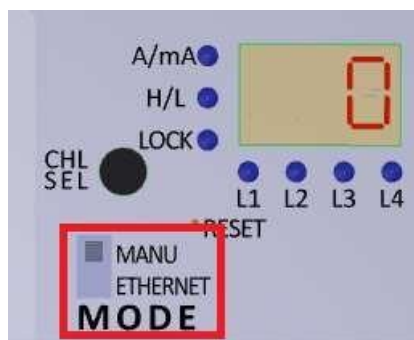
DC Connector

AC input to LED Controller

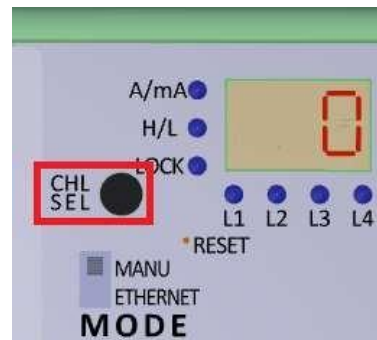


Operation Mode Select:

- Switch Mode to Manu / RS232 (Ethernet) for Operation Mode select. (Fig 1)
- (BRT Display will show IP Address when Ethernet connected in Ethernet Mode)



(Fig 1)



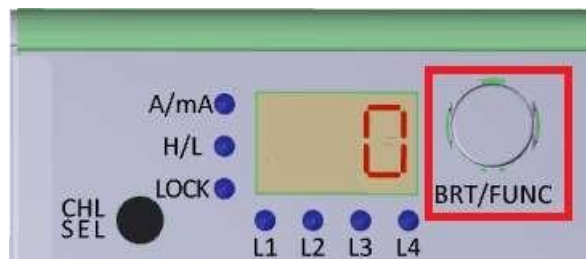
(Fig 2)

Selected the Channel:

- Press "CHL SEL" to select channel in right side. L1 L2 L3 L4 L1 (Fig 2)

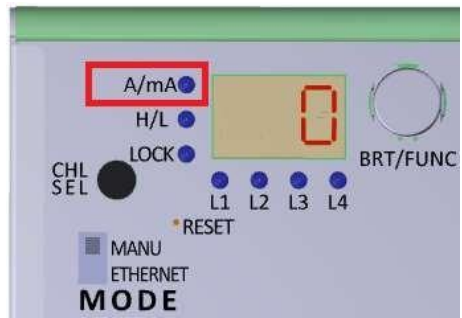
Light intensity adjustment: (Reality current setting & display function)

- Rotate the "BRT" Rotator Clock wise to increase intensity of light.
- Rotate the "BRT" Rotator Counter clock wise to reduce intensity of light.
- Press** Rotate "BRT" for 2second or longer can lock the Manual Key, to release Lock by same way. The Lock Indicator bright when Lock Mode was setting.



(Fig 3)

- Current unit & display: Brightness Display was defined in current (A) directly.
- Current < 1A **A/mA** indicator will mute Resolution of current is **5mA/Step**.
- Current > 1A **A/mA** indicator will Bright Resolution of current is **10mA/Step**.



(Fig 4)

Trigger Mode:



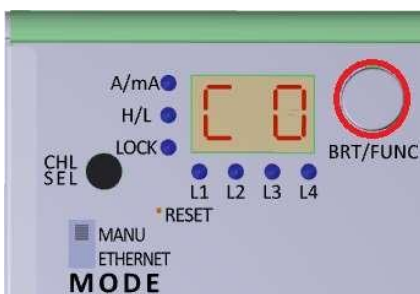
(Fig 5)



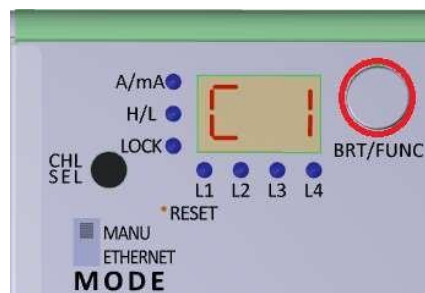
(Fig 6).

-Trigger H/L Setting: Press the “BRT” Button & Rotate the “BRT” to Select TRIG HI (P H) or TRIG Low (P L)

Strobe mode:



(Fig7)



(Fig 8)

-Strobe Time Setting: Press the “BRT” Button & Rotate the “BRT” to Select Strobe Time (C00~C10)

C00	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10
No STB	100uS	200uS	400uS	1mS	2mS	4ms	10ms	20ms	40ms	100ms

Strobe Timing Table

Output Current limit setting:

We provide the **ALID** (Analog Lighting Identify function), if the lighting source support this function.

User no need to setup the current limit, if **ALID** lighting used.

(Contact your **Agent or service person** to know detail ALID Lighting support information).

Except ALID, Product provide 2ways to setting up the Output current limit, (**Current Mode / Power Mode**)

User can setup the current limit manually as instruction

Model name description :

CHT-P24V084ME4

X: A (Analog Lighting Identify; ALID)

B (Lighting Identify; LID) **TBD**

-Current Mode: This function is suitable to who already knew the maximum current of lighting.

-Power Mode: In situation that you only know the maximum wattage of lighting but not current, Controller can transfer watt to current after our auto transfer test.

-Step 1 .How to enter **output current limit mode:**

-Keep press **FUNC** Button & **CHLSEL** Key together over four second. (Fig 9)

LED of Channel indicator will flash rapid until exit current limit mod.

-Press **FUNC** Button for enter current limit mode (Fig 10)

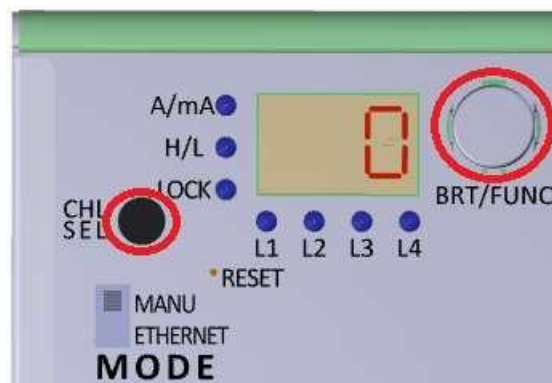


Fig 9

-STEP 2 How to select current limit mode: (**Current Mode / Power Mode**)

-After enter current limit mode, the display show Current mode as Fig 10

-Rotate the Knob to Select Current Mode / Power mode (Fig 11)

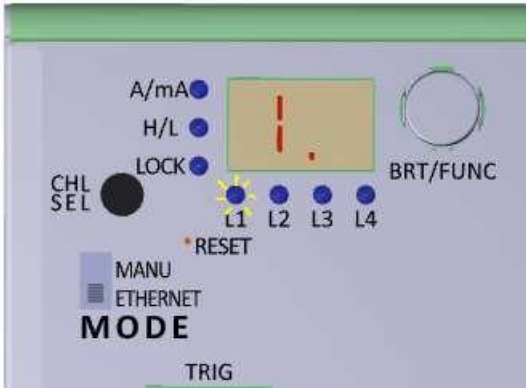


Fig 10

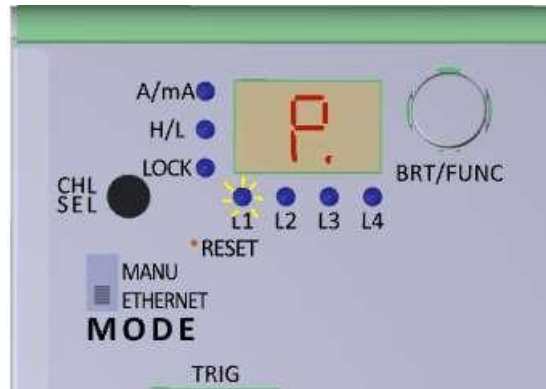


Fig 11

-Step 3. Press **FUNC** key to enter the Mode setting: (Fig 12/Fig 13)

Current Mode:

- The CH indicator is still flash
- Clock wise the **FUNC knob** to increase the Current.
- Counter clockwise **FUNC knob** to decrease the Current
(5mA/step@<1A; 10mA/Step@>1A; Range: 0~ 1.25A)
- The current setting will implement once **FUNC** key press.

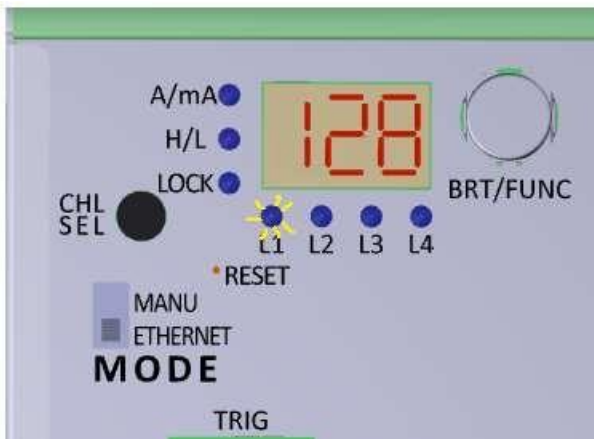


Fig.12

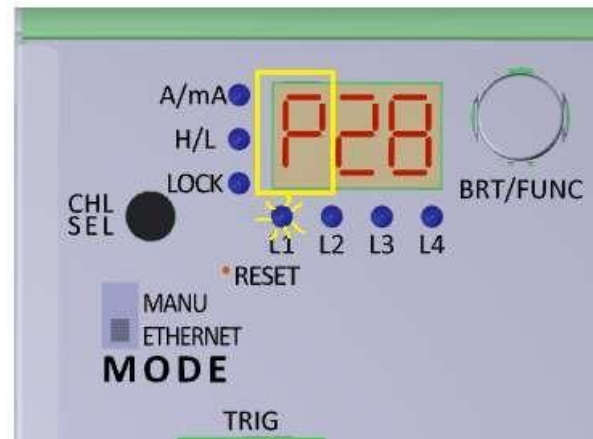


Fig.13

Power Mode:

- The CH indicator is still flash / Display show PXX (Fig 13)
 - Clock wise the **FUNC knob** to increase the Power.
 - Counter clockwise **FUNC knob** to decrease the Power
(0.1W/step@<10W; 1W/Step@>10W; Range: P0.0~P30)
 - Prepare & connecting the lighting to controller in your select channel.
 - Power limit test will start once **FUNC** key press.
 - Controller will lite-on & increase current to test the wattage for a while.
 - The current limit value will be showed on Display by 3~5 second flash. (Fig 14)
- !!! Do not stray the lighting source during Power setting test to avoid eye injury by strong light.**

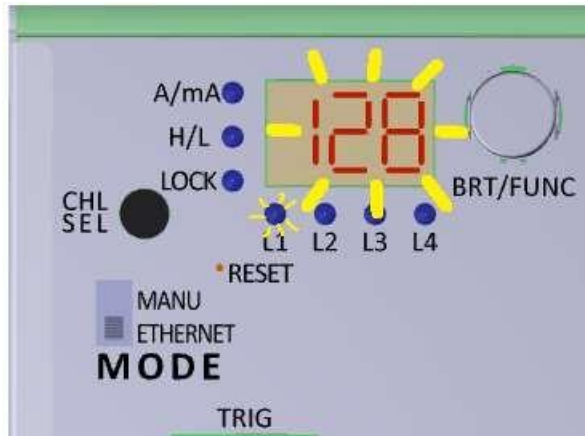


Fig 14. Power limit will transfer to current & display after Power test procedure.

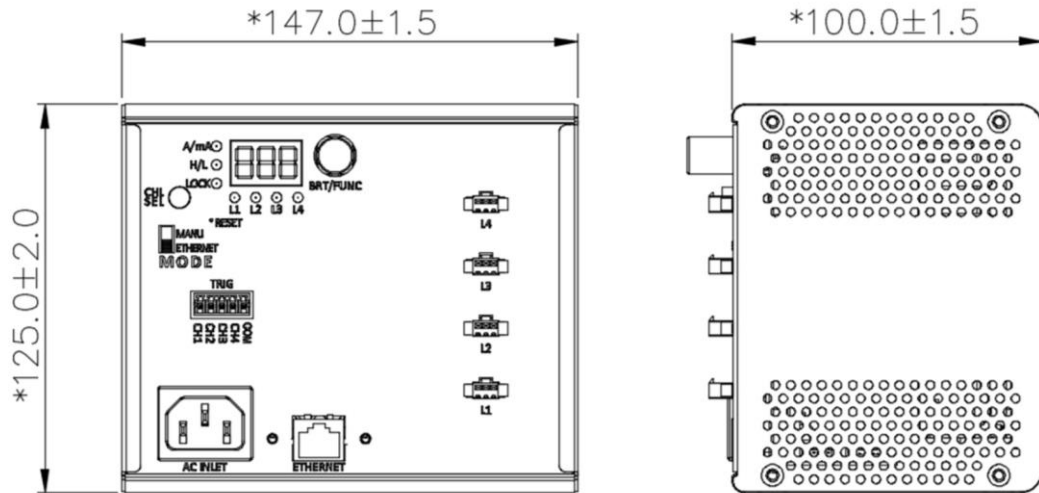
Initialize setting:

- Insert the $\varnothing 1.0$ pin to hole of "RESET", the Unit would be reset Manual to Default.
(Press reset key can also reset IP Address to default, 192.168.1.2)

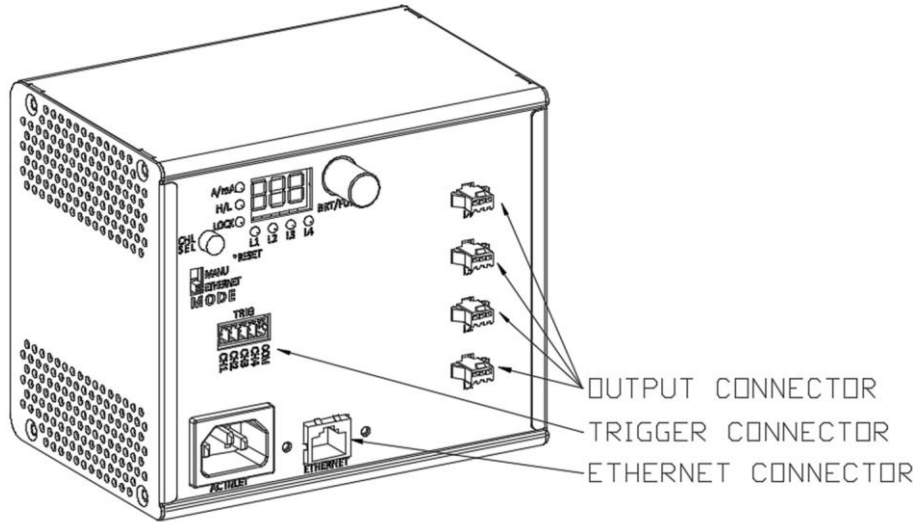


5: Dimension

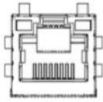
Dimension: 125.0 x 147.0 x 100.0mm



6 : Connector Layout



Ethernet Connector



DELTA P/N: 307206298R
VENDOR: CKM
VENDOR P/N: 5933-13-14100

Pin NO.	Pin Define
1	TX+
2	TX-
3	RX+
4	NC
5	NC
6	RX-
7	NC
8	NC

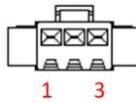
Trigger Connector



Pin Define:

Pin NO.	Pin Define
1	COM
2	CH4
3	CH3
4	CH2
5	CH1

Output Connector



Pin NO.	Pin Define
1	LED(+)
2	LID
3	LED(-)

7 : External Control

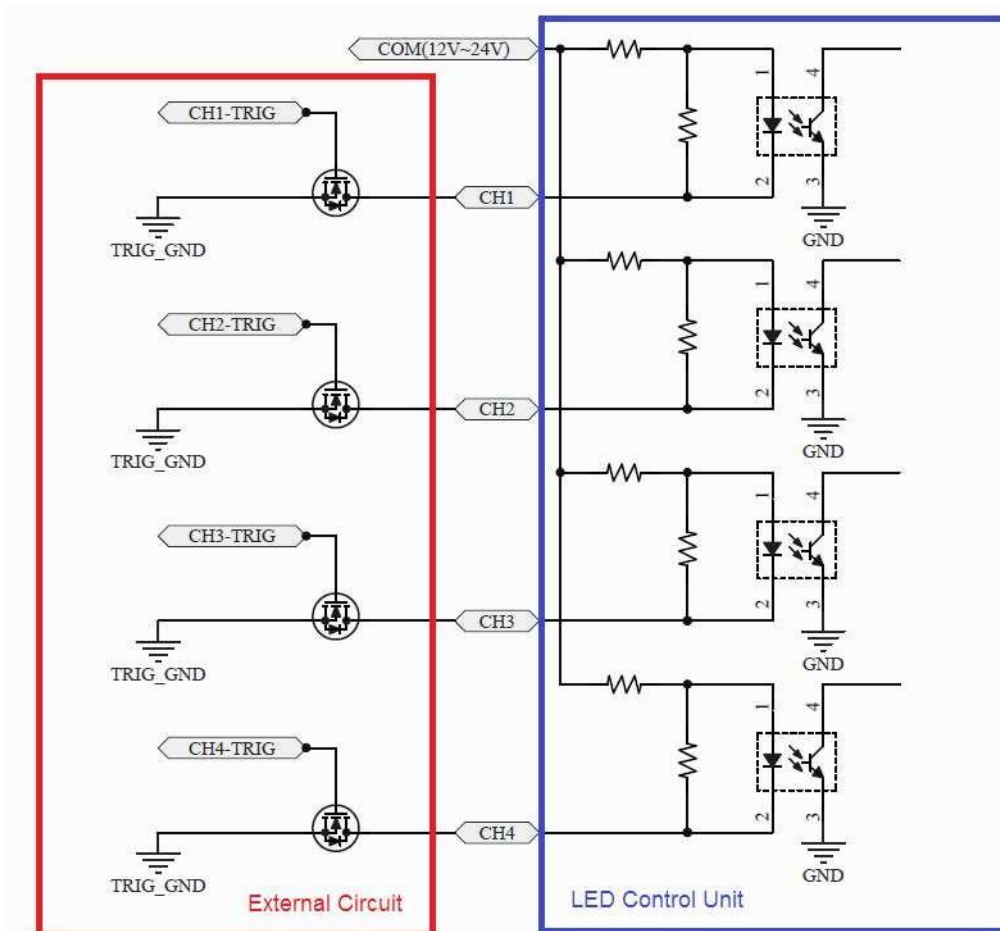
■ Trigger Signal and photocopier

The input signal from the external trigger input connector could be used to controller the photo couple inside the Unit to turn the LED light Unit ON and OFF

The operation depends on the setting of the trigger logic switch

■ External Trigger Signal Connection Example

Trigger voltage range: COM: (12V~24V)



8 : Communication format

RS232 Setup (MV—P X X V 0 8 4 C R 2 X X Series)

Baud rate (bps): **9600**

Parity: **N**

Data Length: **8**

Stop bit: **1**

Ethernet Setup (MV—P X X V 8 4 C M E X X Series)

Default IP: **192.168.1.2**

HTTP Port: **8080**

TELNET Port: **23**

RS232 / Ethernet command format

No.	Command	Model	Action	Function
1	CHx:yyyy	VR/ME	Set	Set the brightness command of channel x (x = 1~4 , yyyy = 0 , 10~1250) (Unit =mA)
2	RESET	VR/ME	Set	Back to the Factory Default (RS232 & LAN Mode)
3	CHx?	VR/ME	Read	Read the brightness command of channel x (x = 1~4)
4	VERSION?	VR/ME	Read	Read the firmware Version.
5	STBSx:yyyyy	VR/ME	Set	Set the Strobe time command of channel x (x = 1~4 , yyyyy = 100~100000 (Unit =uS))
6	STBSx?	VR/ME	Read	Read the Strobe setting of channel x (x = 1~4)
7	TRGx:y	VR/ME	Set	Set the Trig H/L command of channel x (x = 1~4 , y = 0 or 1 ("0"= Low , "1"=High)
8	TRGx?	VR/ME	Read	Set the Trig H/L command of channel x (x = 1~4)
9	LSD?	VR/ME	Read	Lighting Status Diagnostic function To Read L1~L4 Lighting Current /Voltage /Power Return data format: CH1:x1_x2_x3<CR><LF> CH2:x1_x2_x3<CR><LF> CH3:x1_x2_x3<CR><LF> CH4:x1_x2_x3<CR><LF>

				x1: Voltage(V) x2: Current(A) x3: Consumption(W) " _ " is Space.
10	ILEDx:yyyyy	VR/ME	Set	Set the Output Current Limit command of channel x (x = 1~4 , yyyyy = 10~1250 (Unit =mA))
11	ILEDx?	VR/ME	Read	Read the Output Current Limit of channel x (x = 1~4)
12	PLEDx:yyy	VR/ME	Set	Set the Output Power Limit (x = 1~4 , yyyy = 0.1 ~ 30 (Unit =W))

Note: Every command end need press, "ENTER" for End command.

For Example, (CH1:255+ Enter) Set CH1 Brightness 255.

9 : Ethernet Setup (Ethernet Model only)

IP Address:

1) Fix IP address Mode:

When using a fixed IP address, you must ensure that you use an IP address that not be used by any other device on the network. It is usual to keep the first three number of the IP address the same as other device and to change only the last number, for example if you have a network consisting of a PC (IP address: 192.168.1.1) and The Controller can be allocated address on 192.168.1.2.

IP address will show on LED controller front panel 3-digital display by scroll.

(Example (192_168_1_2) IP = 192.168.1.2)

2) DHCP Mode :

Most networks use a DHCP server, if there is a PC on the network, you may be able to find out whether a PC on the same network uses DHCP as follows.

2.1).Go to the **Control Panel**

2.2).Select **Network connections**.

2.3).Right click on **Local Area Connection**. Select **Properties**.

2.4).From the list, select **Internet Protocol (TCP/IP)**, Press **Properties**.

If “obtain an IP address automatically” is set, then DHCP is probably used.

However, there may be an alternative fixed IP address on the **Alternative Configuration** tab,

Or You can find out what IP address used by LED controller Front panel display scroll.

(Example (192_168_1_2) IP = 192.168.1.2)

3) Web Page Settings:

Key in the IP address of LED Controller on your Internet explorer to connection Web Page function.



3.1).Controller Info Page:

To display all Internet networks information & LED controller information.

Controller Info	
Controller Info	
LED Controller	
LID data	
LAN Settings	

Model Name	MV-P24V084CME4_A
LAN Status	
IP address	192.168.1.2
Subnet mask	255.255.255.0
Default gateway	0.0.0.0
DNS Server	0.0.0.0
MAC address	00:18:23:00:00:00
Version	
LAN Version	NS-MHD1
F/W Version	S00E00
S/N	-----

3.2).LED Controller Page

Controller Info

LED Controller

LID data

LAN Settings

BRT/STROB/TRIG Settings

CH1

Mode	Continue ▾	Set
Brightness	0	mA ▾
Strobe	0	us ▾
Trigger	Low ▾	
Set CH1		

CH2

Mode	Continue ▾	Set
Brightness	0	mA ▾
Strobe	0	us ▾
Trigger	Low ▾	
Set CH2		

CH3

Mode	Continue ▾	Set
Brightness	0	mA ▾
Strobe	0	us ▾
Trigger	Low ▾	
Set CH3		

CH4

Mode	Continue ▾	Set
Brightness	0	mA ▾
Strobe	0	us ▾
Trigger	Low ▾	
Set CH4		

Lighting Status Diagnostic

LSD

CH1	
CH2	
CH3	
CH4	

CH1	
CH2	
CH3	
CH4	

Status

CH1	LID	Current Limit	1150
CH2	Normal	Current Limit	1250
CH3	Normal	Current Limit	1150
CH4	Normal	Current Limit	1250

3.2.1). BRT / STROB/TRIG Setting

- (1). **Select Mode** (Continue / Strobe) then Press **SET** button to apply.
 - Continue mode:** No Strobe needed, continue current application.
 - Strobe Mode:** Strobe function /Strobe time can be setup.
- (2). Fill the Brightness **0~1.25A** then Press the **Set CHx** to apply on LED controller.
 - Current input resolution, **1mA/Step**.
- (3). Fill the Strobe **2~32000** (Unit: uS) then Press the SET to apply on LED Controller.
 - (Continue mode cannot setup the strobe time).
- (4). Fill the Trigger High or Low for Setting Trigger Logic
- (5). All setting need Press the **“SET CHx”** button to apply on LED controller.

BRT/STROB/TRIG Settings

CH1		
Mode	Continue	Set
Brightness	600	mA
Strobe	0	us
Trigger	Low	
Set CH1		

CH2		
Mode	Continue	Set
Brightness	0	mA
Strobe	0	us
Trigger	Low	
Set CH2		

CH3		
Mode	Continue	Set
Brightness	0	mA
Strobe	0	us
Trigger	Low	
Set CH3		

CH4		
Mode	Continue	Set
Brightness	0	mA
Strobe	0	us
Trigger	Low	
Set CH4		

3.2.2). Lightning Status Diagnostic

(1).Connection the Lighting to controller, & Press LSD button for request lighting information

(2). Example:

<1> CH1: 24V 0.20A 4.79W Diagnostic Voltage / Current /Wattage in CH1.

<2> CH4: OVER LOAD CH4 Lightning Device > 1.25A.

(3). The Status accuracy might affect by setup environment or others

(Ex. Input Voltage range /Lighting Device /Installation Environment).

(4). The Lighting status information is depend on the Brightness current setup.

(5)..Caution: The Device flash the strong light in LSD duration, Prevent to watch the light device to avoid the eye injury.

Lighting Status Diagnostic

		LSD	
CH1	17.1V 0.997A 17.00W	CH2	0.1V 0.000A 0.00W
CH3	0.1V 0.000A 0.00W	CH4	0.1V 0.000A 0.00W

3.2.3). Lightning Status Diagnostic (For Model: A)

To display all the channel working status,

Open: indicate the lighting might circuit open

LID: With lighting ALID function, prevent the lighting over driver or miss-operation.

Current Limit: Indicator the maximum current limit (mA). By manually or ALID function.

Status

CH1	LID	Current Limit	1150
CH2	Normal	Current Limit	1250
CH3	Normal	Current Limit	1150
CH4	Normal	Current Limit	1250

3.3) **LID Data:** To prevent Lighting damage by Miss-operation & To suitable for each lighting source , This setup page provide current limit setting manually & ALID information.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 20%;"> <p style="background-color: #00AEEF; color: white; padding: 2px; margin: 0;">Controller Info</p> <p style="background-color: #00AEEF; color: white; padding: 2px; margin: 0;">LED Controller</p> <p style="background-color: #00AEEF; color: white; padding: 2px; margin: 0;">LID data</p> <p style="background-color: #00AEEF; color: white; padding: 2px; margin: 0;">LAN Settings</p> </div> <div style="width: 80%; text-align: center;"> <h2 style="margin: 0;">Current Limit Settings</h2> </div> </div>																								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH1</th></tr> <tr><td>Current</td><td>1250 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH1			Current	1250 mA	Set	Power	0 (W)	Set	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH2</th></tr> <tr><td>Current</td><td>1250 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH2			Current	1250 mA	Set	Power	0 (W)	Set				
CH1																								
Current	1250 mA	Set																						
Power	0 (W)	Set																						
CH2																								
Current	1250 mA	Set																						
Power	0 (W)	Set																						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH3</th></tr> <tr><td>Current</td><td>1250 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH3			Current	1250 mA	Set	Power	0 (W)	Set	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH4</th></tr> <tr><td>Current</td><td>1250 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH4			Current	1250 mA	Set	Power	0 (W)	Set				
CH3																								
Current	1250 mA	Set																						
Power	0 (W)	Set																						
CH4																								
Current	1250 mA	Set																						
Power	0 (W)	Set																						
<h3>LID Status</h3>																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20px; text-align: center;">Get</td><td colspan="3"></td></tr> <tr><td rowspan="5" style="width: 40px; text-align: center; vertical-align: middle;">ALID</td><td style="width: 40px; text-align: center;">a</td><td style="width: 40px; text-align: center;">b</td><td style="width: 40px; text-align: center;">c</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td style="text-align: center;">d</td><td style="text-align: center;">e</td><td style="text-align: center;">f</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td>Strobe time limit</td><td colspan="2">IDEF</td><td> </td></tr> </table>				Get				ALID	a	b	c				d	e	f				Strobe time limit	IDEF		
Get																								
ALID	a	b	c																					
	d	e	f																					
	Strobe time limit	IDEF																						

3.3.1).Current Limit Settings:

Setup the current limit by 2 methods: (Current / Power)

-**Current:** Fill 5~1250(mA) (5mA/Step) to setting the current limit.

- **Power:** Fill the Power (Wattage) & install the Lighting on controller

, After Press SET button, lighting will start to diagnostic the current by lite-on the lighting gradually strengthen until reach setup power. The watt will transfer to Current directly, & Show on

To avoid the eye injury that prevent to watch the lighting in duration.

*Current limit setting function will become invalid when the ALID/LID were detected

Current Limit Settings

	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH1</th></tr> <tr><td>Current</td><td>100 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH1			Current	100 mA	Set	Power	0 (W)	Set	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH2</th></tr> <tr><td>Current</td><td>1250 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH2			Current	1250 mA	Set	Power	0 (W)	Set	
CH1																					
Current	100 mA	Set																			
Power	0 (W)	Set																			
CH2																					
Current	1250 mA	Set																			
Power	0 (W)	Set																			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH3</th></tr> <tr><td>Current</td><td>1150 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH3			Current	1150 mA	Set	Power	0 (W)	Set	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="3">CH4</th></tr> <tr><td>Current</td><td>1250 mA</td><td>Set</td></tr> <tr><td>Power</td><td>0 (W)</td><td>Set</td></tr> </table>	CH4			Current	1250 mA	Set	Power	0 (W)	Set	
CH3																					
Current	1150 mA	Set																			
Power	0 (W)	Set																			
CH4																					
Current	1250 mA	Set																			
Power	0 (W)	Set																			

3.3.2).Current Limit Settings: (For model A)

LID Status: To indicate which ALID are implement on your Controller.

There are 7 parameter that define lighting current limit curve on controller.

For well know that which Lighting was support by controller, contact your agent or service person for detail. (Press **Get** button to get ALID 7 parameter (a ~ f / Strobe time limit) on table).

LID Status

Get			
ALID	a	b	c
	d	e	f
	Strobe time limit	!DEF	

3.4).LAN Settings page

To configuration the IP or DHCP by user:

If select DHCP mode, the IP will be assigned by DHCP server.

(IP is show in display of controller when it connect to Ethernet.)

Controller Info							
LED Contorller							
LAN Settings							
DHCP		<input type="checkbox"/> Enable					
IP address	192	.	168	.	1	.	2
Subnet mask	255	.	255	.	255	.	0
Default gateway	0	.	0	.	0	.	0
DNS Server	0	.	0	.	0	.	0
Set							

10 : Specification

Model	CHT-P24V084CM24		CHT-P24V084ME4	
	X=A ALID model ; B LID Model		X=A ALID model ; B LID Model	
Input voltage	100~240Vac			
Power consumption (Input)	120W(TYP)		125W(TYP)	
Driver method	Constant-Current system			
Intensity control method	Manu (10mA~1.25A) (>1A / 10mA Step ; < 1A / 5mA Step)			
	Current Limit / ALID function			
	Communication / (>1000Step) ; Manu / (225 Step)			
Communication port	RS-232		100/10 Mbps Ethernet(TCP/UDP IP) DHCP / Web Page Setup	
No. of Channels	4			
Trigger response	<50uS			
Protection	Over current / Short circuit / Over temperature Protection /Current Limit Circuit (Build in Error Status display) / LID current limit (Model B only)			
Lighting information	Build in LSD function (Light status diagnostic) / Lighting Identify (Option)			
Output voltage (rate)	8V~24Vdc			
Maximum output current(A)	1.25			
Rated Power (Total power of all channel)	84W			
ON/OFF TRIG Setting	12V~24V External ON/OFF Trigger with High / Low active select switch			
Operation temperature & Humidity	Temperature : 0°C~40°C ; Humidity : 20%~85% RH (With no condensation)			
Storage temperature & Humidity	Temperature : -20°C~60°C ; Humidity : 20%~85% RH (With no condensation)			
Weight	850g (max)			
Weight-Shipping	1100g (max)			
Accessories	AC in Cable /Trigger connector.			
Dimension(LxWxH) (mm)	100.0x140.0x125.0 mm			
Dimension- Shipping (LxWxH)	TBD			
EMS /EMC Regulation	Safety standard : EN61010-1 compliant			
	EMC standard: EN61326-1 Class A compliant			

11 : Trouble Shooting

Caution / Error message.

1. If the consumption current of Light Unit exceed max rated current, the over current protection operates and stop the output, below error code will be displayed on the Digital display. (For detail, refer below Error code list :)
2. For use on high reliability, 80% rated was recommend.
3. Recovery all of Error code by abnormal condition remove then AC off > 3 seconds.
4. To avoid the lighting & controller damage, it is prohibit to Plug in or out the lighting connector, when AC is active.
5. Contact your LED lighting manufacturer for detail operating rating range to avoid Lighting / Controller damage or endurance.

Error code list:

1. E16 : Over temperature
2. E32: Internal power error.