CHT – LED Controller NB Series Family

User Manual

CHT-P24V050CVR2

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 also expressly excludes all incidental and consequential damages.

Maintenance service for a fee is provided 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 followed. 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 has been 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.

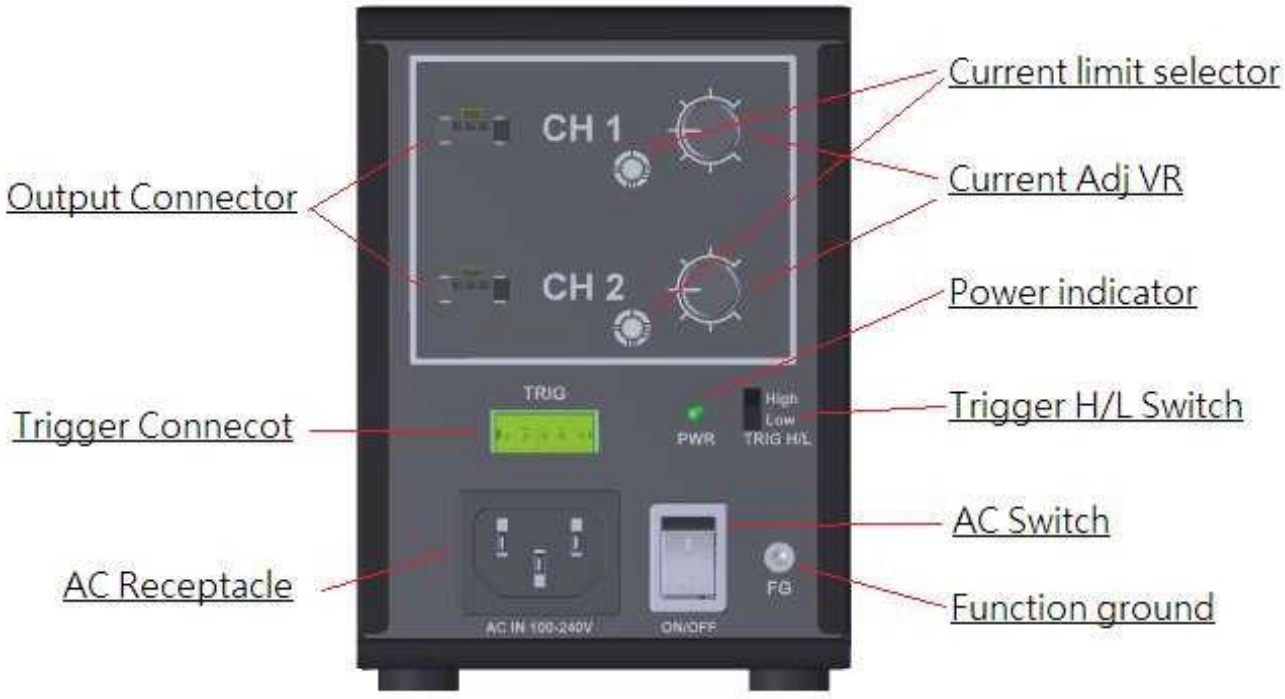
The following symbols are used in this instruction guide to indicate and classify the relative importance of warnings and cautions.

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 turned 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. However, if the cable is too long, the light intensitywill 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-P24V050CVR2



3 : INSTALLATION

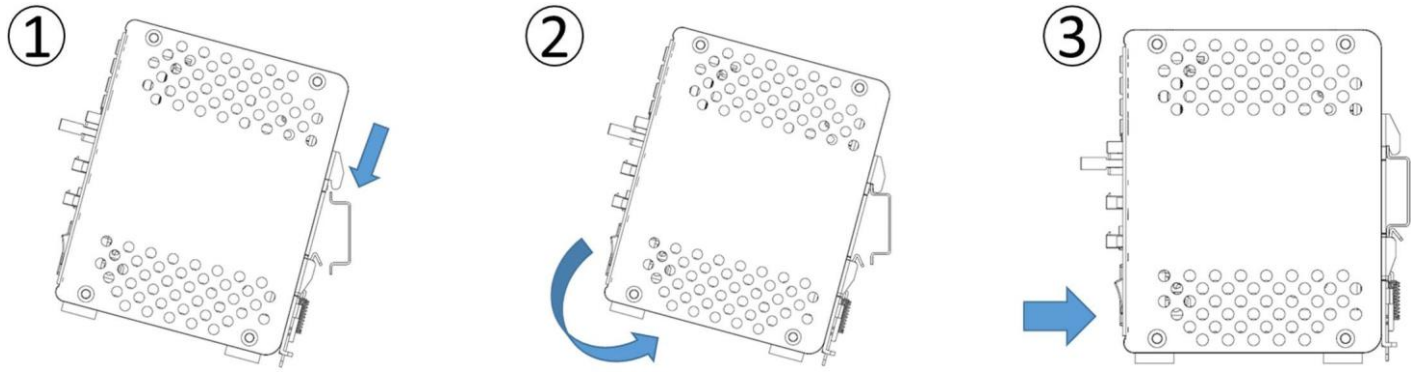
Mounting the Unit on DIN Rail

Fix to DIN rail

Step 1. Hook on the upper DIN-rail by bracket of rail.

Step 2. Release the Unit

Step 3. Press the Unit to fix on DIN-rail until “click”.



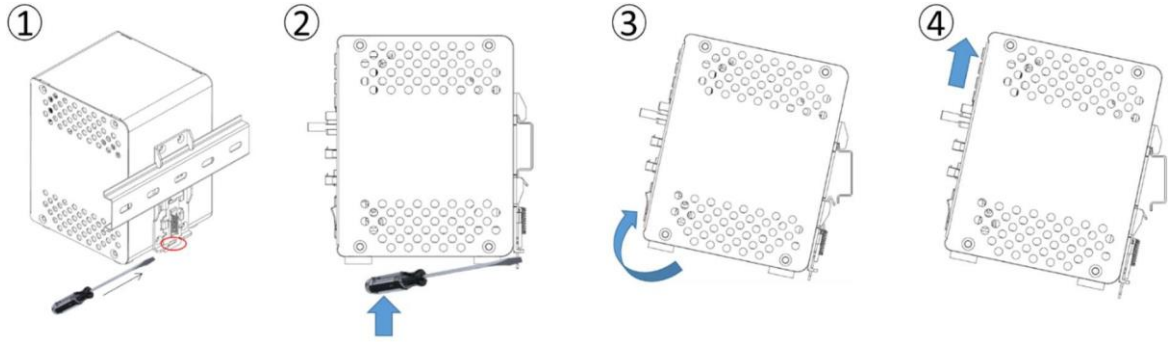
Removing from DIN rail

Step 1. Insert the hole of rail bracket by screwdriver with flat head.

Step 2. Bend the screwdriver along arrow direction.

Step 3. Rotated the Unit along clockwise.

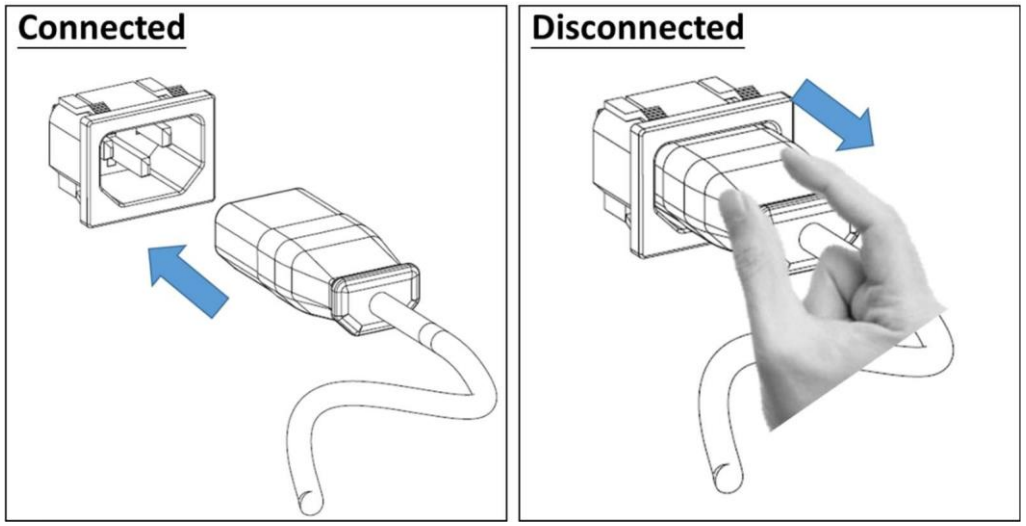
Step 4. Removing the Unit from DIN-rail.



4 : CABLE CONNECTED

AC Power Cord:

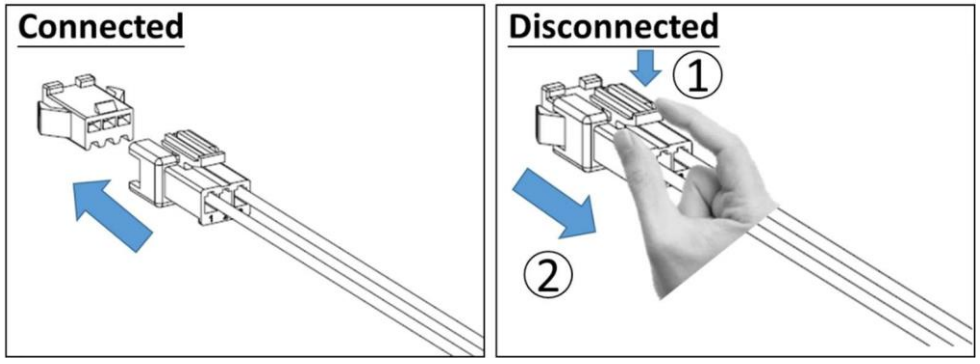
Connected the AC power cord to the Unit and the AC inlet.
Not pull on Wire, please grab the socket when disconnected the AC power cord from AC inlet,



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.

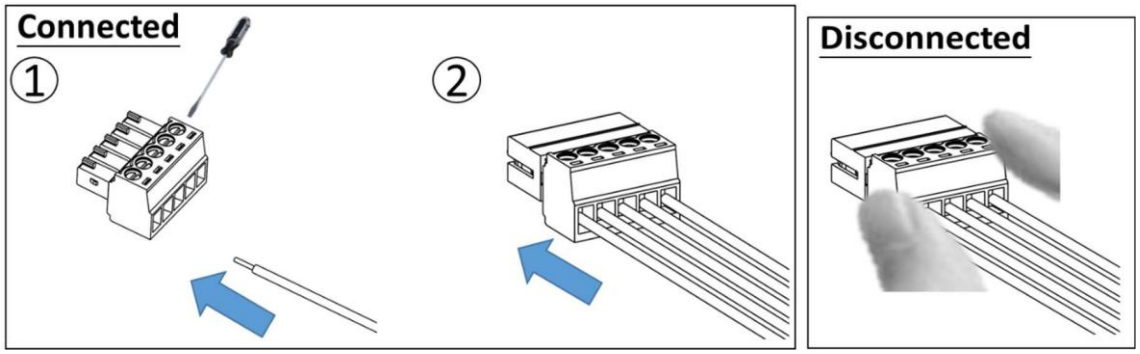
Note：1.Screw Torque：0.19 N． m.

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.



5 : Manual Control

AC Switch

-Install the AC power core and turn on AC switch, The PWR LED will indicating the AC status.

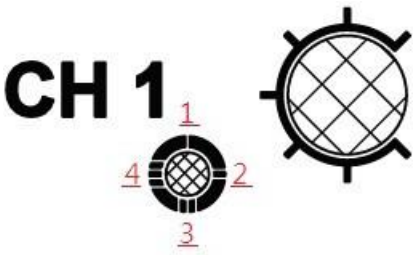
Output Current Limit selector

-Prevent the lighting controller output current to damage the LED lighting ,to setup a proper current limit by selector is strong recommend.

-Setting the current limit selector before turn on AC switch in first time use.

4-segment current limit select range as below

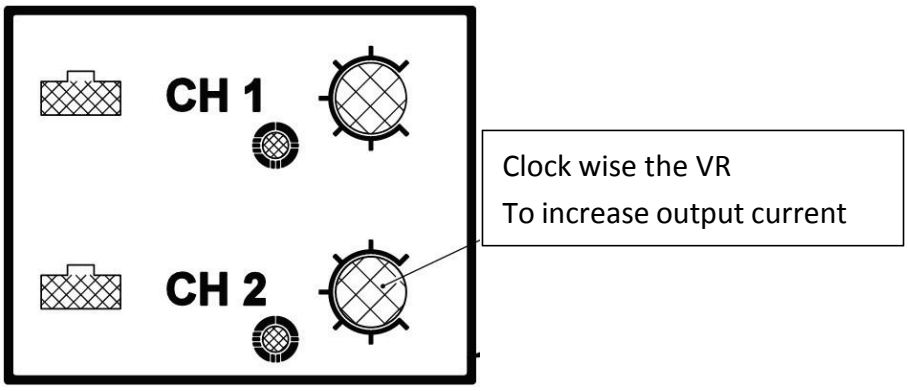
Location	Current Limit
4	0.3A
3	0.6A
2	0.9A
1	1.25A



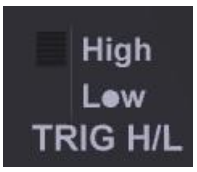
Lightning Intensity Adjust:

-Clock wise the VR to increase output current

-Counter clock wise the VR to decrease output current.



Trigger mode:

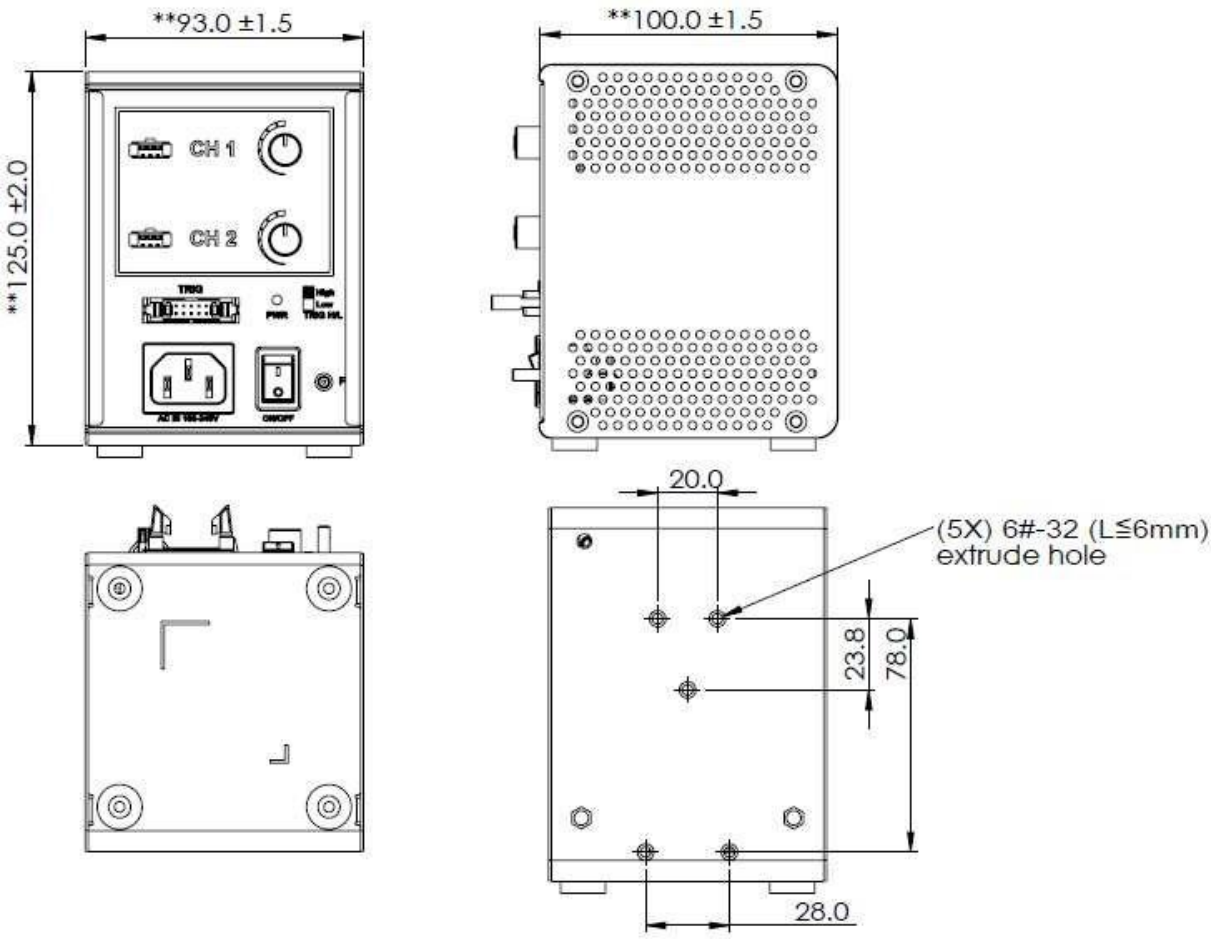


-Trigger H/L Setting： Switch TRIG H/L to select TRIG High or TRIG Low

-Always ON: Lighting will always Lite-on when Trig Connector is floating & TRIG is setting on" LOW".

6 : Dimension

CHT-P24V050CVR2



7 : Connector Layout

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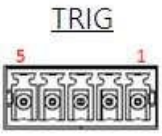
■ Output Connector / Trigger Connector Layout

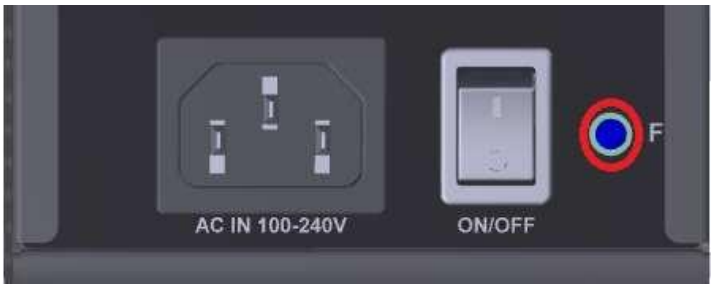
Pin NO.	Pin Define
1	24V (+)
2	NC
3	24V (-)



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

■ Function Ground

To prevent interference noise from installation environment, The Function ground screw installation is recommend.



8 : External Control

■ Trigger Signal and photocopier

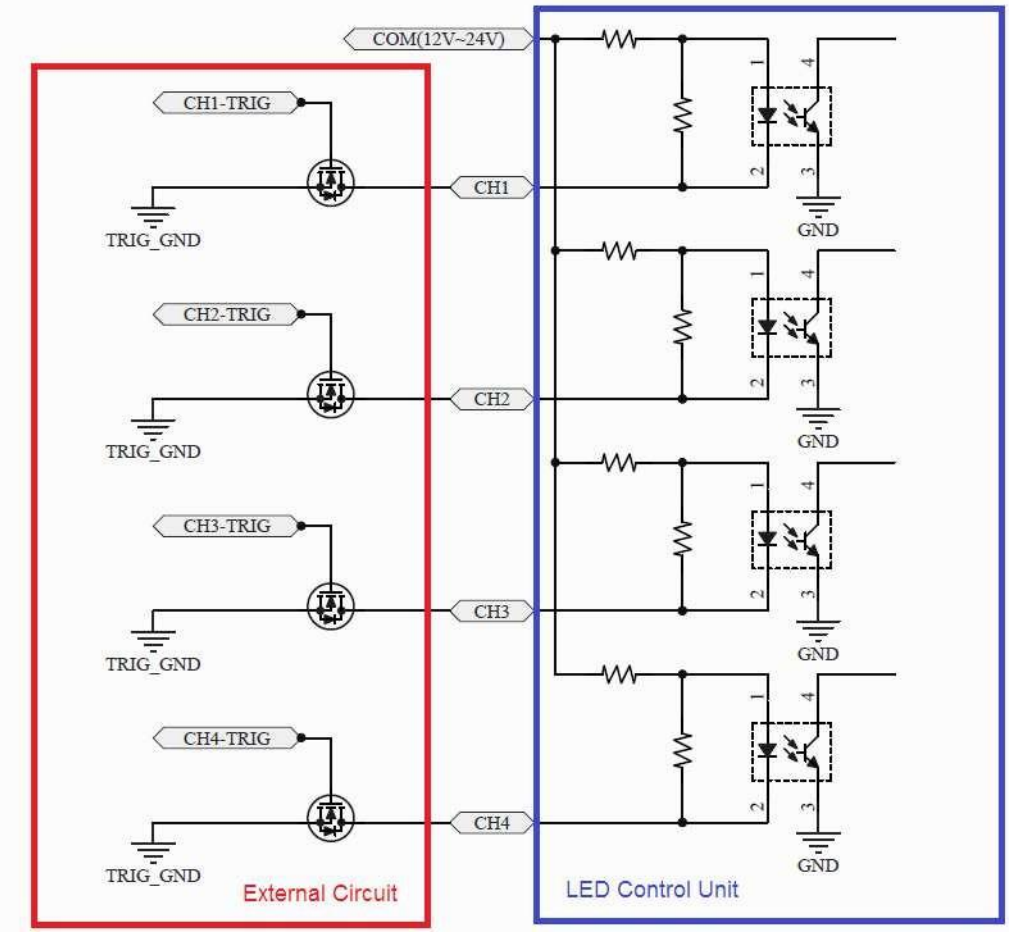
The input signal from the external trigger input connector can be used to controller the photo couple inside the Unit to turn the LED light Unit ON and OFF

The operation depends on the setting of the trigger logic switch

TRIG H/L Switch	Input signal		Light ON/OFF
High	HIGH		Light Unit ON
	LOW		Light Unit OFF
Low	LOW		Light Unit ON
	HIGH		Light Unit OFF

■ External Trigger Signal Connection Example

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



9 : Specification

Model	MV-P24V050CVR2 A
Input voltage	100~240Vac
Power consumption	65W(TYP)
Driver method	Constant-Current system
Intensity control method	Independent 2CH VR Controll
No. of Channels	2
Trigger Freq	1Khz Max
Trigger Response	<50us is possible
Protection	Short circuit / Over temperature Protection.
Output voltage (rate)	10mA~1.25A (@8V~24V) / Turn off current @ VR min.
Maximum output current(A)	1.25A
Ripple current(A)	<10%@ 24V/1.25A
Rated Power (Total power of all channel)	30W/CH ; 50W/Total @24V
ON/OFF TRIG Setting	12V~24V External ON/OFF Trigger with High / Low active select switch
Operation temperature & Humidity	Temperature : 0℃~40℃ ; Humidity : 20%~85% RH (With no condensation)
Storage temperature & Humidity	Temperature : -20℃~60℃ ; Humidity : 20%~85% RH (With no condensation)
Weight	650g (max)
Weight-Shipping	1000g (max)
Accessories	1).AC Power cord 2).DC Trig connector
Dimension(L×W×H) (mm)	100.0×93.0×125.0 mm
Dimension- Shipping (L×W×H)	160.0×125.0×158.0 mm
EMS /EMC Regulation	Safety standard : EN61010-1 compliant
	EMC standard: EN61326-1 Class A compliant

10 : Trouble Shooting

1. If the consumption current of Light Unit exceed max rated current, the over current protection operates and limit the output
2. For use on high reliability, 80% rated was recommend.
3. All of Protection can recovery after abnormal condition remove and Turn AC switch off 3 seconds.
4. Please keep >5cm space in controller cooling vent on both side for good coolin