

# Instruction Manual for Adjustable Pulse Power Supply for LED Lights OPP W -50-4 ( 50W Power supply )

**is V: knob is turned by hand. H: adjusts using a screwdriver.**

## 1 . Product outline

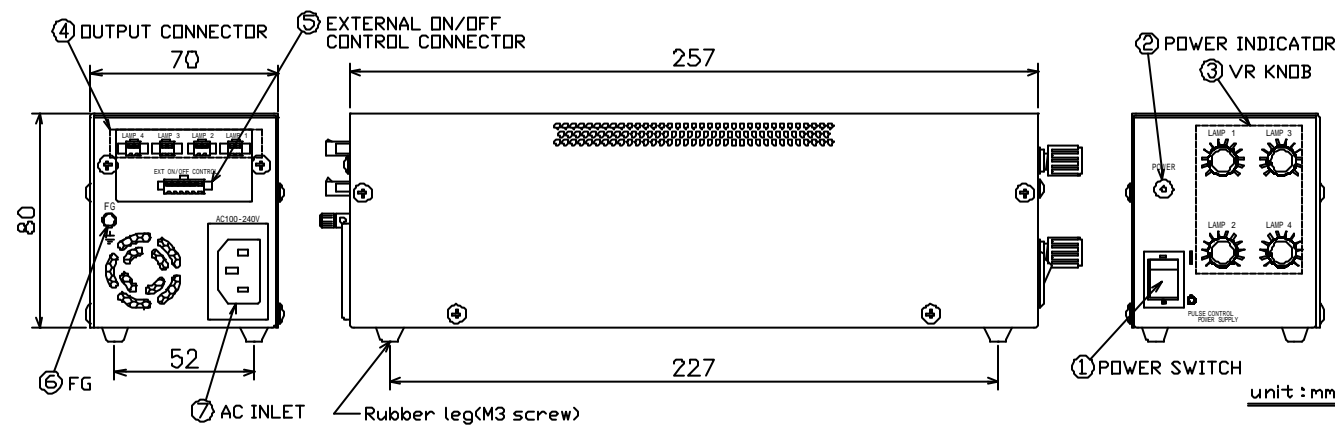
- This product is an adjustable power supply only for LED Lights. Please do not use it in addition to our company's LED Lights.
- The LED Light brightness can be adjusted by PWM. (Pulse oscillation: approx. 60KHz)
- This product operates under AC100V - 240V.
- LED Light can be turn on/off with an external control connector. (EXT CONT, 6 pin connector ) .

## 2 . Accessories and appearance

- |             |   |         |
|-------------|---|---------|
| Accessories | : External control connector set (6pin connector) | 1 set   |
|             | : Power Cable (only AC100V)                       | 1 piece |
|             | : Instruction Manual ( this sheet )               | 1 piece |

**Note : If you operate this product for input voltage exceeding AC100V, please prepare a suitable power cable by yourself**

Appearance : OPPW-50-4V



## 3 . Safety

Warning	
(1)	Do not open the cover of a unit. There is a portion of high voltage inside of a power supply, and there is a possibility of receiving an electric shock in it.
(2)	Connect directly the plug of a power supply to a wall socket. There is a cause of fire when you use an extension cable.
(3)	Do not touch a power supply plug by the wet hand. There is a possibility of receiving an electric shock.
(4)	Use a power supply, grounding it. When not grounded, there is a possibility of receiving an electric shock.
(5)	When abnormalities to which a main part gets hot, a strange smell and/or smoke comes out arise, stop use immediately, shut off a power supply and pull out a power supply plug from a wall socket.
(6)	Do not look at LED Light directly, it may have bad influence on your eyes .

Cautions	
(1)	Make connection of AC input cable and a LED Light cable after turning off the switch of a power supply unit.
(2)	Do not place any objects on a power supply.
(3)	Do not expose a power supply unit to sunlight or humidity directly.
(4)	When not used for a long period of time, pull out a power supply plug from the unit.
(5)	LED Light should be used at the strength of light at least in a half, when you use the constant light always, since a life will become short if used in the environment of a high temperature.
(6)	When abnormalities happen at a power supply unit, stop use immediately and contact to our company. Do not repair by the customer. (A product cannot be guaranteed, when a customer has an inside of a power supply changed or repaired.)

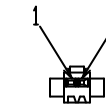
### Product warranties

- If it should break down within the term of a guarantee(delivery-of-goods day for 12 months) under a customer's normal use condition based on notes, such as this handling description, or when initial [poor] accepts, We will carry out repair and exchange of a failure part gratuitously.
- However, We cannot guarantee on condition that external factors [ , such as strong shock / natural disaster / water, steam oil, acid, radiation, etc. ], such as an error on use / use of the lighting equipment of those other than our company / unjust decomposition, and reconstruction / fall, etc.

## 4 . Specifications

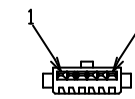
- Input and output voltage
  - Input voltage : AC100V - 240V 1.3A/100V 0.7A/200V (MAX)
  - Frequency of operation : 47 ~ 440Hz
  - Rated output : DC12V 4.17A 50W(MAX) (30W× 1ch , 25W× 2ch , 16W× 3ch , 12.5W× 4ch )
- Control of brightness
  - Method of control : Approx.60KHz PWM Control
  - System of control : Control the brightness by the VR knob ( )
  - Range of control : 0 ~ 100% ( At the environmental within the limits of operational condition )  
Since the scale position does not correspond to the adjusted bright level, please use a scale as a reference.
  - External on/off control : EXT ON/OFF CONTROL can control ON/OFF with the open collector or the relay contact
- Environment of operation
  - Circumferential temperature : -10 ~ +40
  - Circumferential humidity : 20 ~ 70%RH ( Don't dew )
- Connectors
  - Output connector ( LAMP 1 ~ 4 ) : SM connector SMP-02V-BC (Made by JST)

Pin No.	12V output type
1	Output+ (+ 12V)
2	Output-



- External on/off control connector ( EXT ON/OFF CONTROL ) : SM connector SMP-06V-BC (Made by JST)

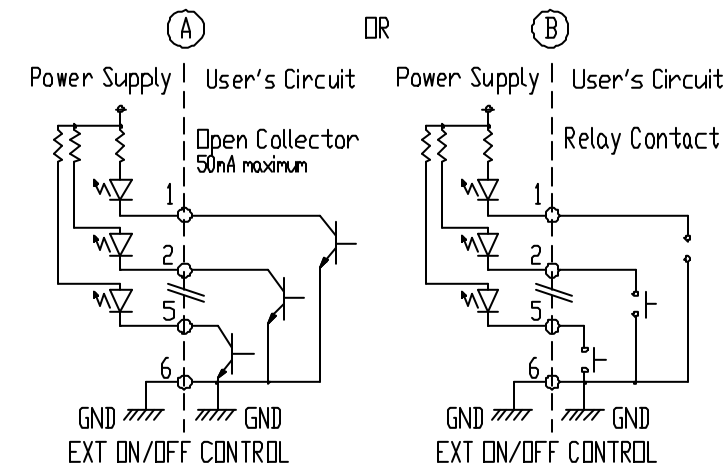
Pin No.	Signal	Color of option cable
1	LAMP 1 ON/OFF	white
2	LAMP 2 ON/OFF	yellow
3	LAMP 3 ON/OFF	brown
4	LAMP 4 ON/OFF	green
5	External control change	red
6	GND	black



"OP-ECB4- " ( is length [m] ) should be used for an option cable.

- The method of external on/off control (EXT ON/OFF CONTROL)  
In order to work the external control function, short pin #5 and pin #6 circuit. ( LED putting out lights )  
Under the above condition, when short the pin #1 and pin #6 circuit, LED Light (connected to ch1) will light on.  
Furthermore, when short pin #2 and pin #6 circuit, the LED Light (connected to ch2) will light on.  
(The INT/EXT control performs all channels simultaneously.)

Recommendation circuit



There are approx. 10mA current from pin#1,2... to pin #6 .  
Please see a margin and use the open collector circuit with the current capacity of about 50mA.