

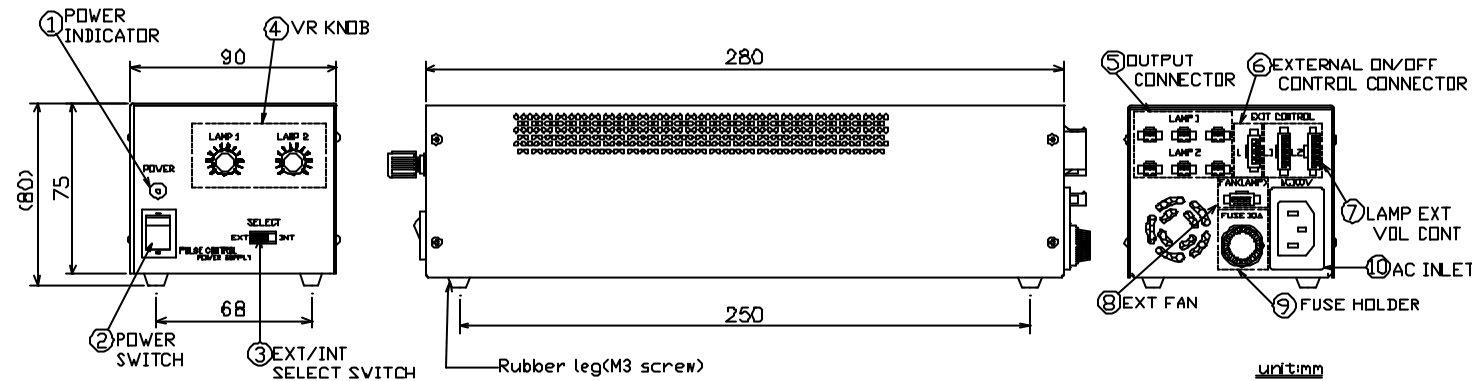
Instruction Manual for Adjustable Pulse Power Supply for LED Lights OPPT-100 (100W Power supply)

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. 50KHz)
- This product operates under AC100V - 115V.
- LED Light can be turn on/off with an external control connector. (EXT CONT, 4 pin connector)
- With an external voltage control connector (from 0 to 5V), the brightness can be adjusted from 0 to 100%. (EXT VOL CONT)

2 . Appearance and accessories

Appearance



- Accessories :
- External on/off control connector set (4 pin connector) 1 set
 - External voltage control connector set (5 pin connector) 2 sets
 - Power Cable (Only AC100V) 1 piece
 - Instruction Manual (this sheet) 1 piece

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

- 1 . 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.
- 2 . 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

- 4 - 1 Input-and-output voltage
- Input voltage : AC100V - 115V 2.5A (MAX)
 - Frequency of operation : 50/60Hz
 - Rated output : DC12V 8.5A
- 4 - 2 Control of brightness
- Method of control : Approx. 50KHz PWM Control
 - System of control : Control the brightness by the VR knob (LAMP 1,LAMP 2) or by the External voltage. (0 ~ 5V,EXT VOL CONT)
 - 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 : L can control ON/OFF with the open collector or the relay contact.
- 4 - 3 Environment of operation
- Circumference temperature : -10 ~ +40
 - Circumference humidity : 20 ~ 70%RH (Don't dew)

4 - 4 Connectors

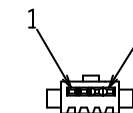
- Output connector (LAMP 1,LAMP 2) : SM connector SMP-02V-BC (Made by JST)

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



- External on/off control connector (L) :SM connector SMP-04V-BC (Made by JST)

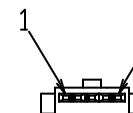
Pin No.	Signal	Color of option cable
1	LAMP 1 ON/OFF	White
2	LAMP 2 ON/OFF	Green
3	External control change	Red
4	GND	Black



"OP-ECB2- " (is length[m]) should be used for an option cable.

- External voltage control connector (L1 L2) :SM connector SMP-05V-BC (Made by JST)

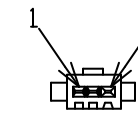
Pin No.	Signal	Color of option cable
1	+5V out	White
2	EXT. VOLTAGE in	Red
3	0V	Black
4	NC	N/A
5	NC	N/A



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

- External FAN connector (FAN (LAMP)) : SM connector SMP-03V-BC (Made by JST)

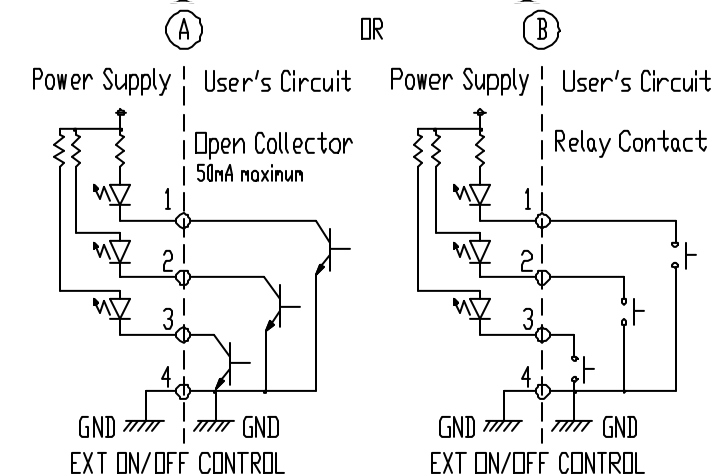
Pin No.	Signal
1	+12V out
2	NC
3	GND(0V)



4 - 5 The method of external on/off control (L)

In order to work the external control function, short pin #3 and pin #4 circuit. (LED putting out lights)
Under the above condition, when short the pin #1 and pin #4 circuit, LED Light (connected to ch1) will light on.
Furthermore, when short pin #2 and pin #4 circuit, the LED Light (connected to ch2) will light on.
(The INT/EXT control perform 2ch simultaneously).

Recommendation circuit



There are approx. 10mA current from pin #1,2,... to pin #4. Please see a margin and use the open collector circuit with the current capacity of about 50mA.