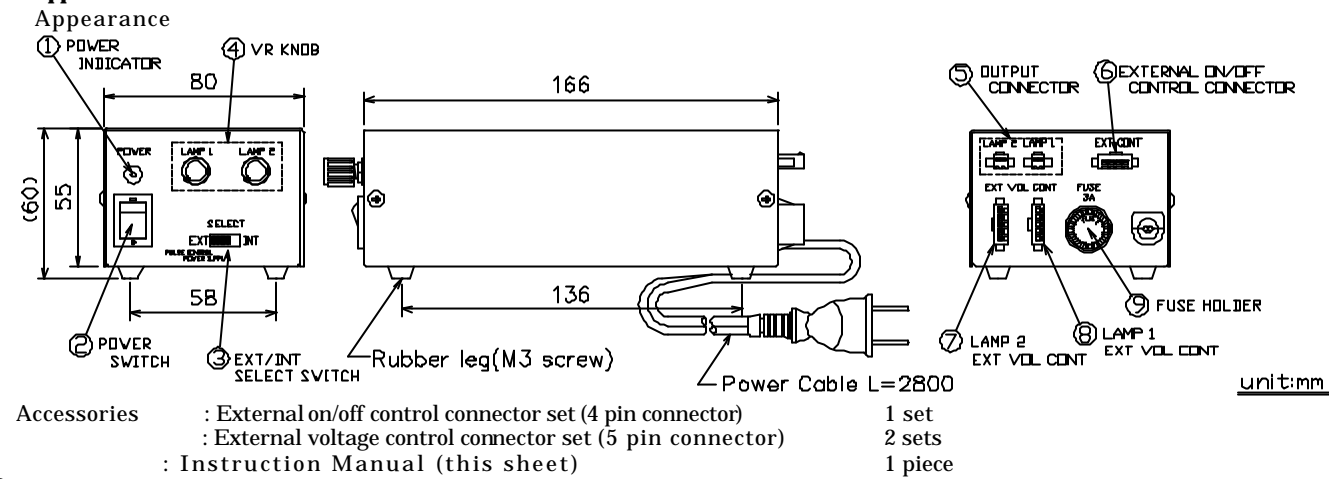


# Instruction Manual for Adjustable Pulse Power Supply for LED Lights OPPT-30 (30W Power supply)

## 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



## 3 . Safety

<b>Warning</b>	
( 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.	

<b>Cautions</b>	
( 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 0.9A (MAX)  
 Frequency of operation : 50/60Hz  
 Rated output : DC12V 2.5A
- 4 - 2 Control of brightness  
 Method of control : Approx. 50KHz PWM Control  
 System of control : Control the brightness by the VR knob (LAMP 1,2 )  
 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.

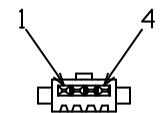
- 4 - 3 Environment of operation  
 Circumference temperature : -10 ~ +40  
 Circumference humidity : 20 ~ 70%RH (Don't dew)
- 4 - 4 Connectors  
 • Output connector ( LAMP 1,LAMP 2 ) : SM connector SMP-02V-BC (Made by JST)

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



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

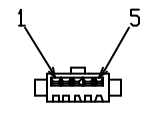
Pin No.	Signal	Color of option cable
1	LAMP 1 ON/OFF	White
2	LAMP 2 ON/OFF	Green
3	External control change	Red
4	GND	Black



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

- External voltage control connector ( EXT VOL CONT ) : SM connector SMP-05V-BC (Made by JST)

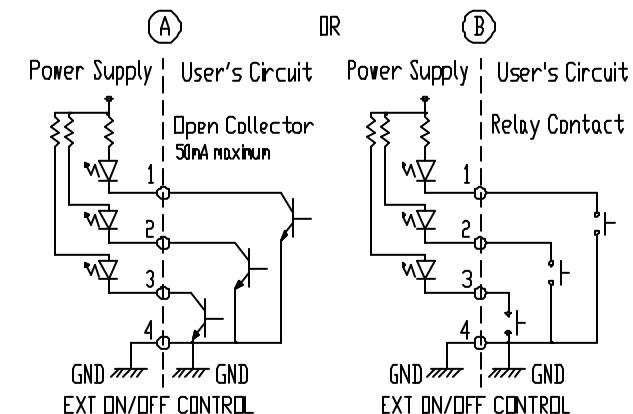
Pin No	Signal	Color of option cable
1	+5V out	White
2	EXT. VOLTAGE in	Red
3	0V	Black
4	NC	N/A
5	NC	N/A



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

- 4 - 5 The method of external on/off control (EXT CONT )  
 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 form pin #1,2,... to pin #4. Please see a margin and use the open collector circuit with the current capacity of about 50mA.