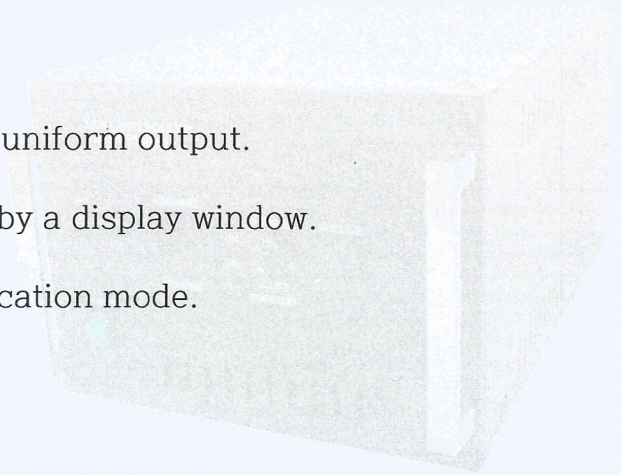


LED Controller Spec & Manual

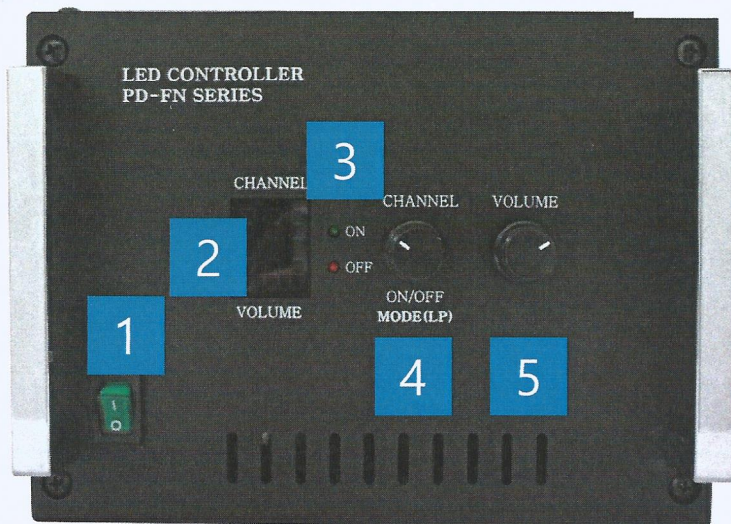
PD-FN300(RC)-13CH

1. Controller feature

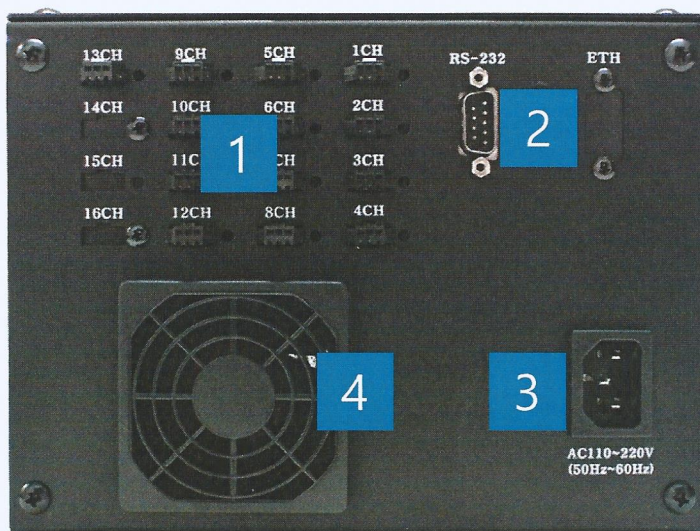
- Digital controller.
- This Controller Support 1~13CH..
- Current control method. It maintain the uniform output.
- It can check easily the output condition by a display window.
- It can control through RS-232 communication mode.



2. Controller composition

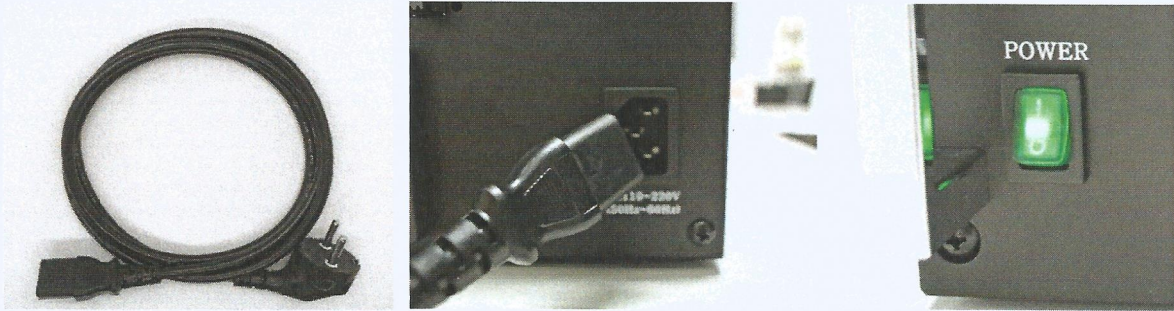


- ① Power
- ② Display window
- ③ LED On/Off lamp
- ④ Channel setting knob
- ⑤ Brightness adjust knob



- ① LED light connecting port
- ② RS-232 communication connecting port
- ③ Power connecting port
- ④ Cooling fan

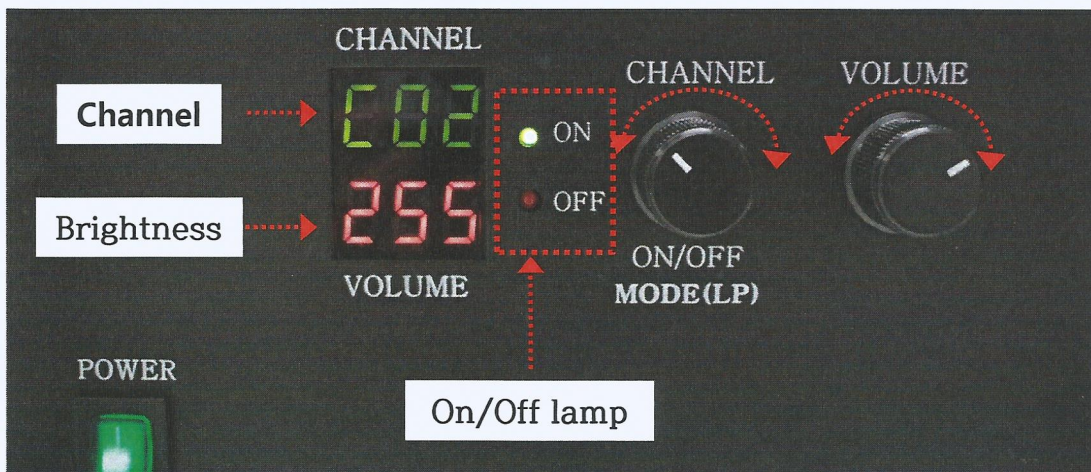
3. How to use a Controller



- Connect the power cable. Push the power switch on.



- Connect the power cable. Push the power switch on.



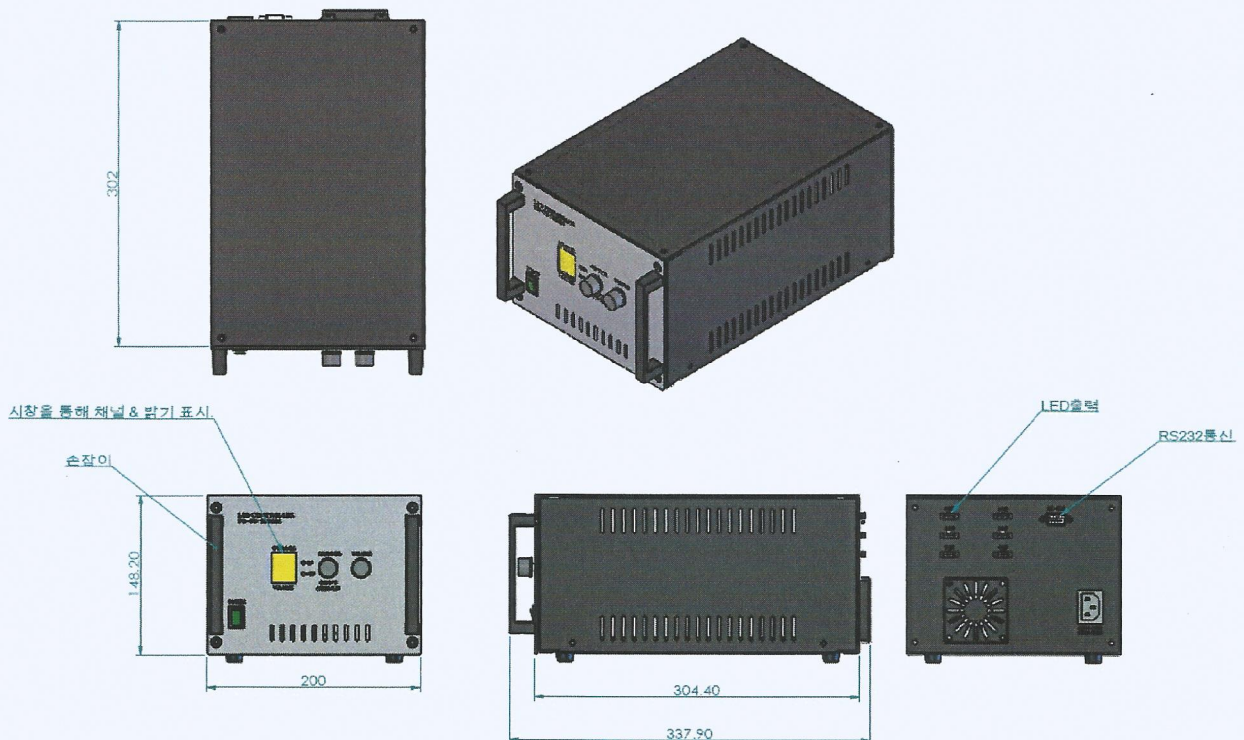
- Change the channel by turning the channel knob to the left and right.
- Adjust the brightness by turning the volume knob to the left and right.
- For unused channels, push the channel knob to change off setting.

PD-FN300(RC)-13CH

4. Controller SPEC

MODEL.	PD-FN300(RC)-13CH
Channel	13
LED OUT	13
MODE	Current Control
LED Volt Range	2V~5V
LED Current Range	0~1200mA.
Control Function	Manual & RS232, Bright 0~255 Step, ON/OFF Control.
Input Voltage	AC110~220V(50Hz/60Hz)
MAX POWER	300W
Communication mode	RS-232
OUT CONNECTOR	SMP-03V-BC(JST) 1: LED+ 2: LED-, 3: N.C
SIZE	200 X 170 X 340

5. Dimension diagrams



6. LED out pin_map

(1) Pin_map (LED Controller out)

LED OUT	
1	LED 1+
2	LED 1-
3	N.C

(2) Pin_map (LED Guide cable)

- Connector : “SMR-03V-BC” to “SMP-02V-BC”
- Cable length : 3M

SMR-03V-BC	
1	LED+
2	LED-
3	N.C

to

SMP-02V-BC	
1	LED+
2	LED-

7. RS232 Protocol

(1) Protocol

*RS-232 PIN_MAP (DSUB 9PIN-MALE)	*UART(RS232) SPEC.								
<pre> graph LR L2[2.RX] --> R3[3.TX] R3 --> L2 L3[3.TX] --> R2[2.RX] R2 --> L3 L5[5.GND] --> R5[5.GND] </pre>	<table border="1"> <tr> <td>Baud Rate</td> <td>9600bps</td> </tr> <tr> <td>DATA BIT</td> <td>8BIT(ASCII)</td> </tr> <tr> <td>STOP Bit</td> <td>1Bit</td> </tr> <tr> <td>Parity Bit</td> <td>None Parity Bit</td> </tr> </table>	Baud Rate	9600bps	DATA BIT	8BIT(ASCII)	STOP Bit	1Bit	Parity Bit	None Parity Bit
Baud Rate	9600bps								
DATA BIT	8BIT(ASCII)								
STOP Bit	1Bit								
Parity Bit	None Parity Bit								

(2) PC → LED Controller

1) Channel data control

C	n1	n2	n3	CR	LF
---	----	----	----	----	----

- C: Command
- n1 : 1~9, A~G(10~16) Channel number, T → All channel
- n2 : Send data high nibble(0~F)
- n3 : Send data low nibble(0~F)
- Ex) Control each channel brightness → C1FF[CR][LF]
Control all channel brightness → CTFF[CR][LF]

✓ Return

R	n1	n2	n3	CR	LF
---	----	----	----	----	----

- Ex) R1FF[CR][LF], RTFF[CR][LF]

2) Channel On/Off

H	n1	n2	n3	CR	LF
---	----	----	----	----	----

- H : command
- n1 : 1~9, A~G(10~16) Channel number
- n2,n3 : "ON", "OF"
- Ex) Control On/Off each channel → H1ON[CR][LF], H1OF[CR][LF]
Control On/Off all channel → HTON[CR][LF], HTOF[CR][LF]

✓ Return

R	n1	n2	n3	CR	LF
---	----	----	----	----	----

- Ex) R1OK[CR][LF], R1ER[CR][LF]

3) Confirmation of the condition

S	n1	n2	n3	CR	LF
---	----	----	----	----	----

- S : Command.
- n1: 1~9, A~G(10~16) Channel number.
- n2, n3 : "00" => Check brightness, "01" => ON/OFF Check, "02" => Check error
- Ex) Brightness → S100[CR][LF]
ON/OFF → S101[CR][LF]
Error → S102[CR][LF]

✓ Return

R	n1	n2	n3	CR	LF
---	----	----	----	----	----

- Ex) Brightness → R1FF[CR][LF]
ON/OFF → R1ON[CR][LF], R1OF[CR][LF]
ERROR → R1OK[CR][LF], R1ER[CR][LF]

(4) LED Controller  PC

1) Data or On/Off

R	n1	n2	n3	CR	LF
---	----	----	----	----	----

Data control

- n1 : 1~9, A~G(10~16) Channel number
- n2 : High data nibble(0~F)
- n3 : Low data nibble(0~F)
- Ex) R100[CR][LF], R1FF[CR][LF]

On/Off control

- n2, n3 : ON/OF
- Ex) R1ON[CR][LF], R1OF[CR][LF]

2) LED Error (Normality → Error)

R	n1	E	R	CR	LF
---	----	---	---	----	----

- n1 : 1 ~ 9, A~G(10~16) Channel number
- Ex) R1ER[CR][LF]

3) LED Error (Error → Normality)

R	n1	O	K	CR	LF
---	----	---	---	----	----

- n1 : 1~9, A~G(10~16) Channel number
- Ex) R1OK[CR][LF]