DLP/E Series
Instruction Manual

BEFORE USING THE POWER SUPPLY UNIT

Pay attention to all warnings and cautions before using the unit. Incorrect usage could lead to an electrical shock, damage to the unit or a fire hazard.

- **Warning Symbols**

CAUTION	
. DO NOT MODIFY, DISASSEMBLE THE POWER SUPPLY.	
. HOT SURFACE	
. READ INSTRUCTION MANUAL BEFORE CONNECTING TO MAINS.	
. ELECTRIC SHOCK HAZARDOUS ON THE CONNECTOR SECTION	

NOTICE:

Installing/Storage Environment

1. Store the product with ambient temperature -30 to +85°C, and relative humidity 10 to 95% (No Dewdrop)
2. Never operate the unit under over current or shorted conditions for 30 seconds or more and out of Input Voltage Range in specification which could result in damage or insulation failure or smoking or burning.
3. Confirm connections to input/output terminals are correct as indicated in the instruction manual
4. Use the product where the relative humidity is 30 to 90% (No Dewdrop)
5. Avoid places where the product is subjected to direct sun light.
6. Avoid penetration of metal chips when processing mounting holes.
7. Avoid places where the products are subjected to penetration of liquid, foreign substance, or corrosive gas
8. Avoid places subject to shock or vibration. A device such as a contact breaker may be a vibration source Set the Power Supply as far as possible from possible sources of shock or vibration.
9. If the Power Supply is used in an area with excessive electronic noise, be sure to separate the Power Supply as far as possible from the noise sources.

Precautions in using the product:

When the product is used under the circumstance or environment below, ensure adherence to limitations of the ratings and functions. Also take countermeasures for safety precautions such as fail-safe installations.

1. Under the circumstances or environment which are not described in the instruction manual
2. For nuclear power control, railway, aircraft, vehicle, incinerator, medical equipment, entertainment equipment, safety device etc
3. For applications where death or serious property damage is possible and extensive safety precautions are required.
4. Terminal block covers are necessary to be used when connecting the input and output wire
5. Don't recommend using input power source with large inductance, which may cause power supply operate unstably
6. DLP240-24-1/E are capable of providing hazardous energy output (240VA), the end equipment manufacturer must provide protection to service personal against inadvertent contact with output terminals. These terminals must not be user accessible.

Note: CE MARKING

CE Marking, when applied to a product covered by this handbook indicates compliance with the low voltage directive (73/23/EEC) as modified by the CE Marking Directive (93/68/EEC) in that it is complies with EN60950.

- Meet EN50178 over voltage Category III(Primary) Over voltage Category II (Secondary)
- Radio Interference Suppression Test is not performed.

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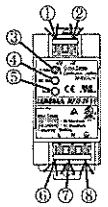
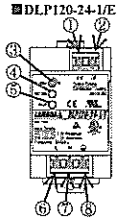
INSTRUCTION MANUAL

1. Terminal Explanation

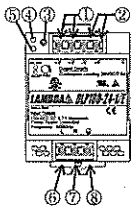
■DLP75-24-1/E



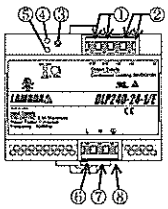
■DLP100-24-1/E
■DLP120-24-1/E



■DLP180-24-1/E



■DLP240-24-1/E



(1) +V: +Output terminal

(2) -V: - Output terminal

(3) V.ADJ: Output voltage adjust trimmer
The output voltage rises when a trimmer is turned clockwise.

(4) DC ON: DC ON indicator (Green LED)

(5) ALM: Alarm Indicator (Red LED)

(6) L: AC Input terminal
Live line (fuse in line)

(7) N: AC Input terminal
Neutral line

(8) FG: Input terminal FG
Safety earth (Frame Ground)
Connect to safety ground of apparatus or equipment.

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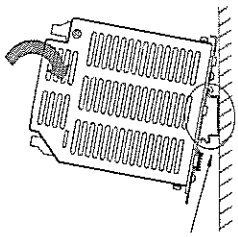
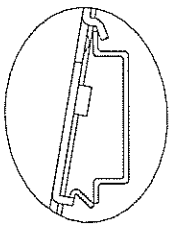
2. Power supply attachment and removal method

2-1. Power supply mounting on DIN RAIL (TS35 or equivalent)

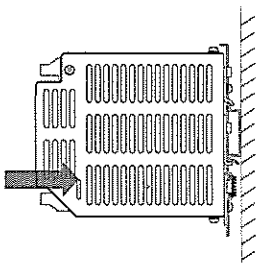
(1) Tilt the unit slightly rearwards, fit the unit over top hat rail.



(2) Slide it downward until it hits the stop.



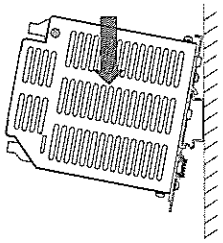
(3) Press against the bottom front side for locking. Shake the unit slightly to check the locking action.

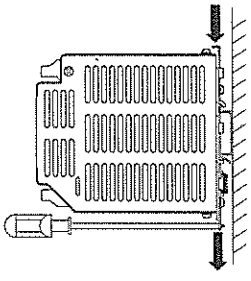


(4) In order to tighten the unit mounting, the Din rail stopper attached on both sides of the unit is recommended.

2-2. Power supply removal from DIN RAIL

Switch main power off and disconnect your system from the supply network. Push the button on the rear upper edge of the unit or move the removal hole on the rear down edge downwards by screw driver. Gently lift lower front edge of the unit (tipping) and remove it.





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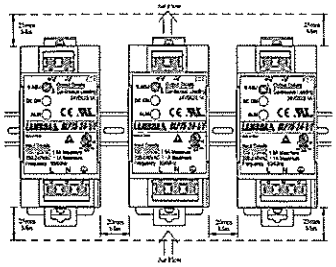
3. Mounting Directions

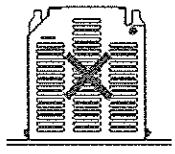
Output Derating according to the Mounting Directions

Recommended standard mounting method is (A). Please do not use installation method (B). Refer to the derating below. Do not exceed the load deratings.

Normal mounting (A)

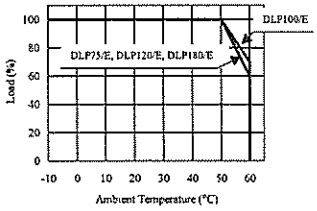


Back Down Mounting (B)

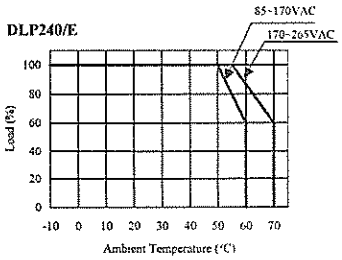


Output Derating

DLP75/E, DLP100/E, DLP120/E, DLP180/E



DLP240/E



4. Wiring Method

- The output load line and input line shall be separated and twisted to improve noise sensitivity
- Use all lines as thick and short as possible to make lower impedance.
- Noise can be eliminated by attaching a capacitor to the load terminals.
- EMI reduction performance by winding the cable around the toroidal ferrite core several times. Use any appropriate commecially available ferrite core from local vendor
- For safety and EMI considerations, connect FG terminal of input connector and mountable FG to ground terminal of equipment.
- Recommended screw torque is 0.49N.m
- Recommended wire type: solid and stranded, AWG12~20 (wire strip length: 6mm)

5. External Fuse Rating

Refer to the following fuse rating when selecting the external fuses that are to be used on input line. Surge current flows when line turns on. Use slow-blow fuse or time-lag type fuse. Do not use fast-blow fuse. Fuse rating is specified by in-rush current value at line turn-on. Do not select the fuse according to input current (rms.) values under the actual load condition

DLP75/E	5A
DLP100/E	5A
DLP120/E	5A
DLP180/E	5A
DLP240/E	6.3A