

LEPRECON®
PRO LIGHTING EQUIPMENT

**THE LD-360A AND LD-360A-HP
USER AND SERVICE MANUAL**

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Leprecon LD-360 Installation and Service Manual

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POWER HANDLING CAPACITY LD-340 AND LD-360

1) STANDARD POWER CAPACITY – 1800 WATTS

The LD-340 and 360 dimmer packs are unique in that up to 1800 watts (15 amps) load can be drawn from any single channel or combination of channels on a pack AS LONG AS THE TOTAL PACK CAPACITY IS NOT EXCEEDED. This means that a stock pack with a 15 amp capacity (1800 watts) can control up to 300 watts on each of 6 channels (1800 watts total), 600 watts on each of two, plus 150 watts on the remaining four, 450 watts on each of four channels, etc.

Use of the pack to control more power will exceed the current capacity of the U-ground power outlet into which it is plugged and will blow its fuse or breaker. It is unsafe and a violation of electrical code to power a parallel blade U-ground outlet with a circuit of over 15 amps. Please DO NOT DO IT.

2) INCREASING POWER TO 2400 WATTS

The LD-340 and 360 can, with a properly rated power plug attached in place of the U-ground plug, safely control 20 amps, or a total pack load of 2400 watts MAXIMUM. A 20 amp stage plug, a NEMA 5-20P “tee blade”, or a NEMA L5-20P “twist lock” plug could be attached to the cord in place of the U-ground plug. Then, the pack could control 1000 watts on each of 2 channels, 400 watts on each of 6 channels, or 500 watts on each of 4 channels, etc. Note that you still should not pull over 15 amps from any ONE of the U-ground outlets on the pack.

3) NOTE!

These are NOT 4 x 2000 watt or 6 x 2000 watt or even 6 x 1000 watt dimmers! Even though any one individual channel can handle a load up to 1800 watts, this DOES NOT mean that all 4 or 6 channels can do it simultaneously. The power cord and internal wiring cannot handle this excessive current, nor can the filter inductor, and the chassis could not dissipate the heat that would result.

The circuit breaker will trip under pack overload conditions. It is not built to provide this protection on a continually recurring basis, so use of 340's and 360's with loads totaling more than the rated pack load will void the warranty, and damage resulting from frequent or long term overload conditions will not be covered by warranty.

SUGGESTED PLUGS

NEMA 5-20P type: 5364VY Hubbel
5366C Hubbel

NEMA L5-20P type: 2311VY Hubbel
2311 Hubbel

MATING SOCKETS

NEMA 5-20S type: 5369VY Hubbel
5369C Hubbel

NEMA L5-20S type: 2313VY Hubbel
2313 Hubbel

CONTROL AND POWER WIRING

1) CONTROL INPUT WIRING

The 340 and 360 require a control signal of 0 to +10 volts to vary the output from 0 to 100%. The impedance of each input is 33K ohms, and the control common is not connected to ground. An 8 pin female connector is included with the pack. Pin 7 of the connector is supplied with 12 volts from the pack to power passive controllers. **DO NOT USE THIS PIN.**

Pin 1	Channel 1	Pin 5	Channel 5
Pin 2	Channel 2	Pin 6	Channel 6
Pin 3	Channel 3	Pin 7	No connections (12 volts)
Pin 4	Channel 4	Pin 8	Control common

2) POWER CABLES

Heavy-duty extension cords are recommended for power extensions to the LD-340 and 360. 12 gauge 3 conductor cords with good quality plugs and sockets would be an EXCELLENT investment. Heavy-duty cords such as those sold for use with power tools are good- or you can make your own with #12-3 SJO or 12-3-SO cable and plugs and sockets. Please take care to provide adequate power to your lighting system, and don't operate dimmers on the same outlet or circuit as audio equipment if you can avoid it. Although the filtering in our dimmers is excellent, lights draw a lot of power and can affect other equipment on their line no matter how good the filtering is.

WARRANTY AND SERVICE

SERVICE:

If your unit requires service, please carefully check to see that the pack itself is at fault – and not control cables or power cords or lamps or controller.

Return the unit to your dealer with a description of the problem, and they will repair it or return it to us for repair. If you do not have a convenient dealer or service center, return it to the factory for service.

FACTORY SERVICE:

Please keep your packing material. If your pack needs service, first call the factory service department and get a return authorization number. Please carefully repack the dimmer, enclosing a note describing the problem and your name and address and phone number and ship it to us with the R.A. number clearly marked on the label. We will repair it and return it within one week, via UPS prepaid, if it is warranty work. Please return equipment clean and in serviceable condition!

NON-WARRANTY FACTORY WORK:

If we judge the repair to be non-warranty, we will send you a card describing required repairs and charges. When you return the card with payment we will repair and return you unit.

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LIMITED WARRANTY

Registration card must be returned within 15 days of purchase, to validate warranty.

CAE, Inc. guarantees our lighting control equipment to be free from defects in materials and workmanship for a period of one year from date of purchase. This warranty does not cover wear acquired in normal use or damage from Misuse. Judgements as to suitability for specific applications, auxiliary equipment and materials, and safety precautions necessary with CAE equipment are the sole responsibility of the owner.

CAE, Inc. will not be responsible for any damage to or destruction of other equipment consequential to our equipment failure. CAE Inc.'s liability is strictly limited to the repair or replacement (at the manufacturer's discretion) of defective products, which have been returned to the factory or a service center prepaid, in the original carton and packing material. Any damage incurred in shipment not in original packing shall be the responsibility of the owner. Warranty repairs will be returned to the owner prepaid, via UPS or truck, within the continental USA only.

PARTS LIST – LD-360

DESCRIPTION	PART	CAE ORDER NUMBER
Resistor, 1/4W 5%	R 26, R 27, R 29, R 31, R 32, R 34,	01-0049
100Ω	R 36, R 37, R 39, R 41, R 42, R 44, R 46, R 47, R 49, R 51, R 52, R 54	
160Ω	R 4	01-0054
560	R 56, R 57, R 58, R 59, R 60, R 61	01-0067
750Ω	R 63	01-0070
1.5K	R 24, R 10	01-0077
1.6	R 3	01-0078
2.2K	R 5	01-0081
8.2K	R 15, R 16	01-0095
10K	R 2	01-0097
18K	R 9	01-0103
100K	R 2, R 12	01-0121
200K	R 18, R 19, R 20, R 21, R 22, R 23	01-0128
330K	R 13, R 14	01-0133
56K	R 28, R 30, R 33, R 35, R 38, R 40 R 43, R 45, R 48, R 50, R 53, R 55	01-0115
200 Ω 3 watt	R 17	01-9014
10K Trimpot	R 6, R 8	08-1006
Resistor, network 7 x 33K	R 62	01-9013

PART	DESCRIPTION	CAE ORDER NUMBER
C 1, C 13, C 14, C 15, C 16, C 17, C 18, C 7, C 8, C 9, C 10, C 11, C 12	Capacitor, .1uf 250 volt	02-1001
C 2	1000 uf 35V electrolytic	02-2040
C 3	1.0 uf 35V tantalum	02-2026
C 4	1.0 uf 50V aluminum	02-0002
C 5	120 pf disc	02-0015
C 6	.015 uf Mylar	02-1006
D 1	Bridge rectifier 1A, 50 V	03-0013
D 2, D 3, D 4, D 5, D 6, D 7, D 8, D 9, D 10, D 11, D 12, D 13, D 14, D 15, D 16, D 17	Diode, IN 4005	03-0012
D 18	13V Zener	03-2004
Q 1	Transistor, 2N3904	04-0011
Q 2, Q 3, Q 4, Q 5, Q 6, Q 7, Q 8, Q 9, Q 10, Q 11, Q 12, Q 13	SCR, 20A Isolated	03-3002

PART	DESCRIPTION	CAE ORDER NUMBER
IC 1	LM 317T	06-0057
IC 2	LM 324	06-0001
IC 3, IC 4, IC 5, IC 6, IC 7, IC 8, IC 9	Opto triac, MOC 3010	03-3007
T 1	Transformer, ST 4-28	10-0017
P 1	2 pin header	07-4002
P 2	Terminal Block	07-1130
P 4	10 pin header	07-1019
P 4, P 5, P 6, P 7, P 8, P 9, P 10, P 11	Leviton 15A duplex U-ground outlet	07-3017
Fuse	¼ amp AGC ¼	15-4030
MOV	140V	15-9005
Fuseclip		15-4022
Wire for U-ground		19-0032
SCR terminal		07-2009
SCR bracket		20-0143
6-32 screw for SCR		16-2903
#6 lockwasher		16-2800
6 pin IC socket		15-2018
14 pin IC socket		15-2002
Breaker		70-05-0003A
Cordset with strain relief		19-9007
Inductor		50-03-0001
Control in PCB		90-03-0666
Front panel		20-0132
Bottom		20-0133
Plastic panel nut		16-9003
5/16 bolt for panel nut		16-5005
Yoke		20-0142
Rubber Bumper		18-3003
Mating connector 8 pin female		07-1089
6-32 panhead screw		16-2012

