



# AS40L

## 4 X 600W COMPACT DIMMER

### OWNER'S MANUAL

Version 1.1  
02/25/2022

AS40L COMPACT DIMMER

DESCRIPTION

The AS40L is a compact 4 channel light dimmer. It has a maximum capacity of 600 Watts per channel and a maximum TOTAL load capacity of 2400 Watts. It is supplied with an input power cord which may be connected to a 120 VAC, 20 Amp power circuit. The AS40L is intended for INDOOR USE ONLY. The AS40L is compatible with the industry standard 3 wire multiplex control signal protocol (LMX). The AS40L may be operated in a relay (non-dim) mode. The unit will also function as a stand-alone chaser and has eight preset chase patterns which may be used.

INSTALLATION

**LOCATION:** Locate the unit vertically with control signal connectors on the bottom in a well ventilated area away from moisture and heat. Two 1/2" holes are provided on one end of the dimmer to install a lighting bar pipe clamp and suitable safety cables.

**POWER CONNECTIONS:** Extending from the chassis is a 20 amp line cord for connection to a 120 VAC, 20 Amp, grounded service. Total capacity of the AS40L is 2400 watts.

**LOAD CONNECTIONS:** There is one Edison Plug connector provided for each AS40L output channel. They are located along the left and right edges of the unit. The markings on the cover indicate the channel numbers for each connection. The maximum capacity of each channel is 600 watts.

**CONTROL SIGNAL CONNECTIONS:** The male three pin "XLR" connector on the end of the unit connects to your lighting console. The female "XLR" connector is used to connect to other dimmers.

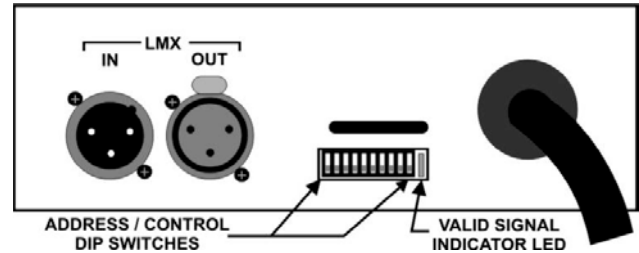
**CONTROL CABLE WIRING:** The XLR multiplex connector pins are wired as follows:

Pin #	Signal
1	Common
2	Console Power (+15vdc)
3	LMX (multiplex) signal

OPERATION

NORMAL MODE (non-chaser)

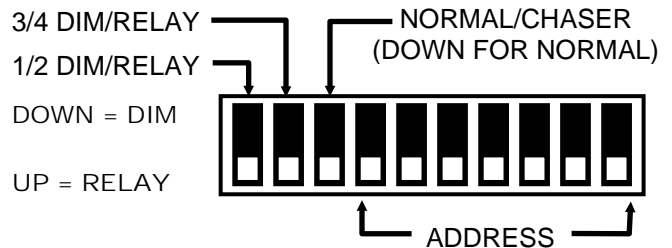
CHASSIS END VIEW



A green LED in the end panel will indicate that a valid control signal (LMX) is applied to the unit. A DIP switch block on the end panel selects the starting channel number of the dimmer. The 7 right hand switches (numbered 4 -10) control this function. For example, if all switch positions are down - the dimmer will respond to console channels 1-4. Moving the switch position on the far right to up will set the dimmer to respond to channels 5-8. A complete table of channel assignments is provided at the end of this manual.

**RELAY MODE:** Pairs of channels (1/2 and/or 3/4) may be switched into the relay mode. In this mode the output of these channels will be either off or full on depending on the control console channel setting. The trip point for turn on is approx. 50%. The 2 left hand switches on the DIP switch block control relay mode channel selection.

NORMAL MODE SWITCH FUNCTIONS



CHASER MODE

When operating in the chaser mode the AS40L becomes independent of the control console and other dimmers. The green LED indicator is OUT when in the chaser mode. Chaser mode is turned

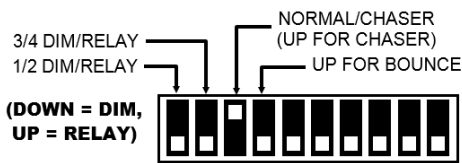
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on and off by one of the DIP switches on the end of the unit. A diagram on the unit cover shows the switch settings for controlling chaser operation.

Eight different chaser patterns are available. A "bounce" condition may be imposed on several of the chase patterns by setting one of the DIP switches. The bounce condition causes the chase pattern to run in alternating directions.

The chase step time may be controlled for up to 64 seconds per step. Step fade time is proportional to the step time. If a channel is in the relay mode during chaser operation - it will "snap" on and off (zero fade time). The tables below show the details of chaser settings.

CHASER MODE SWITCH FUNCTIONS



SWITCHES	PATTERN	SWITCHES	STEP TIME (Duration)
↓ ↓ ↓ ↓	4 channel sequence	↓ ↓ ↓ ↓	0.5 seconds
↓ ↓ ↓ ↑	4 channel build	↓ ↓ ↓ ↑	1.0 seconds
↓ ↑ ↓ ↓	4 channel build/unbuild	↓ ↑ ↓ ↓	2 seconds
↓ ↑ ↑ ↓	4 channel random	↓ ↑ ↑ ↓	4 seconds
↑ ↓ ↓ ↓	3 channel sequence +	↑ ↓ ↓ ↓	8 seconds
↑ ↓ ↓ ↑	3 channel build	↑ ↓ ↓ ↑	16 seconds
↑ ↑ ↓ ↓	3 channel build/unbuild	↑ ↑ ↓ ↓	32 seconds
↑ ↑ ↑ ↓	2 channel alternating	↑ ↑ ↑ ↓	64 seconds

MAINTENANCE AND REPAIR

TROUBLESHOOTING

- Check that you have power applied to the dimmer.
- Check that all light fixtures are functional.
- Check the fuses.
- Check the LMX control cable.
- Check the settings of the dimmer DIP switches.
- Check the console setup for correct patching

REPAIR

The only AS-40L user serviceable parts are externally accessible fuses. Replace fuses ONLY with 5 Amp, 250VAC, fast blow fuses. Internal service on the unit by other than Lightronics authorized agents will void the warranty. If service is required, contact the dealer from whom you purchased the dimmer, or Lightronics Service Department, 509 Central Drive, Virginia Beach, VA 23454. Tel: 757 486 3588.

WARRANTY INFORMATION AND REGISTRATION - CLICK LINK BELOW

[www.lightronics.com/warranty.html](http://www.lightronics.com/warranty.html)

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LMX CHANNEL ASSIGNMENT SETTINGS

The DIP Switch Setting column shows the positions of the DIP switches on the dimmer. The Start Channel column shows the resulting channel assignment for the first channel of the dimmer

All Lightronics products using DIP switches for LMX address assignments conform to this table.

EXAMPLE: If an LMX dimmer's DIP switches are set to  $\downarrow\downarrow\downarrow\uparrow\downarrow\uparrow\uparrow$  then the first channel of the dimmer will respond to LMX channel 45. The remaining dimmer channels will respond to LMX channels 46, 47, 48 ...etc.

DIP Switch Setting		Start Channel	DIP Switch Setting		Start Channel	DIP Switch Setting		Start Channel	DIP Switch Setting		Start Channel																
4	5		6	7		8	9		10	4		5	6	7	8	9	10	4	5	6	7	8	9	10	4	5	6
$\downarrow\downarrow\downarrow\downarrow\downarrow\downarrow\downarrow$		1	$\downarrow\downarrow\downarrow\uparrow\downarrow\downarrow\downarrow$		33	$\downarrow\downarrow\uparrow\downarrow\downarrow\downarrow\downarrow$		65	$\downarrow\downarrow\uparrow\uparrow\downarrow\downarrow\downarrow$		97																
$\downarrow\downarrow\downarrow\downarrow\downarrow\downarrow\uparrow$		5	$\downarrow\downarrow\downarrow\uparrow\downarrow\downarrow\uparrow$		37	$\downarrow\downarrow\uparrow\downarrow\downarrow\downarrow\uparrow$		69	$\downarrow\downarrow\uparrow\uparrow\downarrow\downarrow\uparrow$		101																
$\downarrow\downarrow\downarrow\downarrow\downarrow\uparrow\downarrow$		9	$\downarrow\downarrow\downarrow\uparrow\downarrow\uparrow\downarrow$		41	$\downarrow\downarrow\uparrow\downarrow\downarrow\uparrow\downarrow$		73	$\downarrow\downarrow\uparrow\uparrow\downarrow\uparrow\downarrow$		105																
$\downarrow\downarrow\downarrow\downarrow\downarrow\uparrow\uparrow$		13	$\downarrow\downarrow\downarrow\uparrow\downarrow\uparrow\uparrow$		45	$\downarrow\downarrow\uparrow\downarrow\downarrow\uparrow\uparrow$		77	$\downarrow\downarrow\uparrow\uparrow\downarrow\uparrow\uparrow$		109																
$\downarrow\downarrow\downarrow\downarrow\uparrow\downarrow\downarrow$		17	$\downarrow\downarrow\downarrow\uparrow\uparrow\downarrow\downarrow$		49	$\downarrow\downarrow\uparrow\downarrow\uparrow\downarrow\downarrow$		81	$\downarrow\downarrow\uparrow\uparrow\uparrow\downarrow\downarrow$		113																
$\downarrow\downarrow\downarrow\downarrow\uparrow\downarrow\uparrow$		21	$\downarrow\downarrow\downarrow\uparrow\uparrow\downarrow\uparrow$		53	$\downarrow\downarrow\uparrow\downarrow\uparrow\downarrow\uparrow$		85	$\downarrow\downarrow\uparrow\uparrow\uparrow\downarrow\uparrow$		117																
$\downarrow\downarrow\downarrow\downarrow\uparrow\uparrow\downarrow$		25	$\downarrow\downarrow\downarrow\uparrow\uparrow\uparrow\downarrow$		57	$\downarrow\downarrow\uparrow\downarrow\uparrow\uparrow\downarrow$		89	$\downarrow\downarrow\uparrow\uparrow\uparrow\uparrow\downarrow$		121																
$\downarrow\downarrow\downarrow\downarrow\uparrow\uparrow\uparrow$		29	$\downarrow\downarrow\downarrow\uparrow\uparrow\uparrow\uparrow$		61	$\downarrow\downarrow\uparrow\downarrow\uparrow\uparrow\uparrow$		93	$\downarrow\downarrow\uparrow\uparrow\uparrow\uparrow\uparrow$		125																