



# AS40D 4 x 600W COMPACT DMX DIMMER OWNER'S MANUAL

Version 2.2 02/25/2022

Lightronics Inc.



Version 2.1

## AS40D COMPACT DMX DIMMER

OWNER'S MANUAL

02/25/2022

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## DESCRIPTION

The AS40D 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 AS40D is intended for INDOOR USE ONLY. The unit operates using the USITT DMX-512 protocol. The AS40D may be operated in a relay (non-dim) mode. The unit will also function as a stand-alone chaser and has eight primary 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 ½" 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 AS40D is 2400 watts.

### LOAD CONNECTIONS:

There is one Edison Plug connector provided for each AS40D 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.

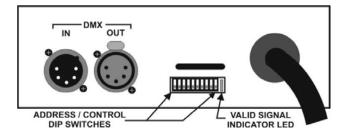
#### CONTROL SIGNAL CONNECTIONS:

The male five pin XLR connector on the unit end panel connects to the control console. The female connector is for connection to additional dimmers. The AS40D dimmer is compatible with the USITT DMX-512 protocol.

Note that the DMX standard does not provide for console power via the dimmer chain. Therefore the DMX console used with AS40D dimmers must be powered by other means.

Wiring information for the DMX control signal connectors is shown on the unit top cover.

#### **CHASSIS END VIEW**



## OPERATION

## NORMAL MODE (non-chaser)

A green LED in the end panel will indicate that a valid control signal (DMX) 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 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. You can address up to 512 channels using DMX control.

RELAY MODE: Pairs of channels (1/2 and/or 3/4) may be switched into 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 approximately 50%. The 2 left hand switches on the DIP switch block control relay mode channel selection.

## NORMAL MODE SWITCH FUNCTIONS

3/4 DIM/RELAY 1/2 DIM/RELAY	NORMAL/CHASER	
UP = RELAY		
DOWN = DIM	<u></u>	
	ADDRESS	

#### CHASER MODE

When operating in the chaser mode, the AS40D becomes independent of the control console and other dimmers. The green LED indicator is OUT when in the chaser mode. Chaser mode is turned 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.

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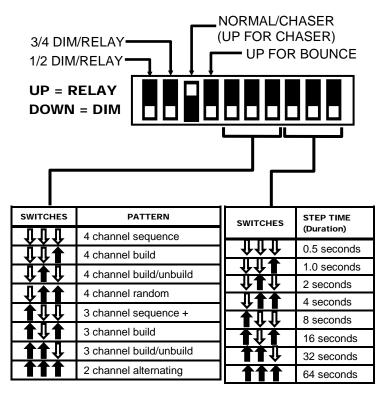
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Eight different chaser patterns are available. A "bounce" condition may be imposed on several of the chase patterns by setting one of the DIP switches. The bounce condition causes the chase pattern to run in alternating directions.

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 on the next page show the details of chaser settings.

## CHASER MODE SWITCH FUNCTIONS



## 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 DMX control cable
- Check the settings of the dimmer DIP switches.
- Check the console setup for correct patching.

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## REPAIR

The only AS40D 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

## AS40D COMPACT DMX DIMMER

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## 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 DMX-512 address assignments conform to this table.

NOTE: Some control consoles can be programmed or "patched" to alter their channel order. You may get unexpected results if you are not aware of the console patch condition when you assign channels at a dimmer.

DIP Switch	Start	DIP Switch	Start	DIP Switch	Start	DIP Switch	Start
Setting	Channel	Setting	Channel	Setting	Channel	Setting	Channel
<u> </u>	1	Ŷ <b>IJ</b> ŶŶŶŶŶ	129	0000000	257	0000000	385
000000 <b>0</b>	5	Ŷ <b>IJ</b> ŶŶŶŶŶ <b>IJ</b>	133	<b>U</b> ÛÛÛÛÛÛ	261	<b>UU</b> ÛÛÛÛ	389
0000000	9	Ŷ <b>IJ</b> ŶŶŶŶŶŶ	137	<b>U</b> ÛÛÛÛÛÛÛ	265	<b>UU</b> ÛÛÛÛÛ	393
ûûûûû <b>00</b>	13	Ŷ <b>IJ</b> ŶŶŶŶ <b>IJ</b>	141	<b>U</b> ÛÛÛÛÛ <b>U</b> Û	269	0000000	397
ÛÛÛÛÛÛ	17	<b>0000000</b> 000	145	<b>U</b> ÛÛÛÛÛÛÛ	273	<b>UU</b> ÛÛÛÛÛ	401
ûûûûûû	21	Ŷ <b>IJ</b> ŶŶŶŶŶŶ	149	<b>U</b> ÛÛÛÛÛÛ	277	<b>UU</b> ÛÛÛÛ	405
ûûûû <b>Uû</b> û	25	Φ <b>θ</b> ΦΦ <b>θθ</b> Φ	153	<b>U</b> ÛÛÛÛÛÛÛ	281	<b>UU</b> ÛÛ <b>U</b> Û	409
ûûûû <b>000</b>	29	0000000	157	000000	285	000000	413
000 <b>0</b> 000	33	<b>00000000</b>	161	<b>U</b> ÛÛÛÛÛÛÛ	289	<b>UU</b> ÛÛÛÛÛ	417
<b>ûûûûûû</b>	37	Ŷ <b>IJ</b> ŶŊŶŶŶŊ	165	<b>U</b> ÛÛÛÛÛÛ	293	00000000	421
<b>ûûûûûû</b> û	41	Ŷ <b>IJ</b> ŶIJŶIJŶ	169	<b>U</b> ÛÛÛÛÛÛÛ	297	<b>UU</b> ûûûûû	425
$\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}$	45	Ŷ <b>IJ</b> ŶIJŶIJŊ	173	0000000	301	0000000	429
000000	49	0000000	177	<b>U</b> ÛÛ <b>UU</b> ÛÛ	305	<b>UU</b> ûûûû	433
$\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}$	53	Ŷ <b>IJ</b> Ŷ <b>IJ</b> Ŷ	181	<b>U</b> ÛÛ <b>U</b> ÛÛ	309	0000000	437
$\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}$	57	Φ <b>θΦθθΦ</b> Φ	185	<b>U</b> ÛÛ <b>UU</b> Û	313	<b>00</b> 0000	441
000000	61	000000	189	00000	317	000000	445
0000000	65	0 <b>00</b> 0000	193	<b>U</b> ÛUÛÛÛÛ	321	<b>UUU</b> ÛÛÛÛ	449
<b>ûû0ûûû</b> 0	69	Ŷ <b>ŮŮ</b> ŶŶŶ <b>Ů</b>	197	<b>U</b> ÛUÛÛÛÛ	325	0000000	453
<b>ûûUûûûû</b>	73	<b>1000000</b> 00	201	0000000	329	0000000	457
<b>ÛÛÛÛÛ</b> Û	77	Ŷ <b>IJIJ</b> ŶŶ <b>IJIJ</b>	205	<b>U</b> ÛUÛÛÛ	333	00000000	461
<b>ûû0ûûû</b>	81	Φ <b>ΟΟ</b> ΦΦΦΦ	209	<b>U</b> ÛUÛÛÛÛ	337	<b>UUU</b> ûûû	465
$\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}$	85	Ŷ <b>IJIJ</b> Ŷ	213	0000000	341	00000000	469
$\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}\hat{U}$	89	Δ <b>ΟΟ</b> ΦΟΦΦ	217	<b>U</b> ûUûUû	345	<b>000</b> 0000	473
<b>Ϋ́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́</b>	93	<b>₽00₽000</b>	221	0000000	349	0000000	477
00 <b>0</b> 000	97	Φ <b>θθθ</b> ΦΦΦΦ	225	<b>U</b> Û <b>UU</b> ÛÛÛ	353	<b>0000</b> ûûû	481
ŶŶ <b>IJIJ</b> ŶŶ <b>IJ</b>	101	Φ <b>θθθ</b> ΦΦΦ	229	<b>U</b> ÛUUÛÛU	357	0000ûû0	485
ÛÛ <b>UÛ</b> ÛÛ	105	<b>Δθθθ</b> ΦΦ	233	0000000	361	<b>0000</b> 00	489
ŶŶ <b>IJIJ</b> Ŷ <b>IJ</b>	109	<b>Û000Û00</b>	237	0000000	365	0000000	493
000000	113	000000	241	$0^{0}000^{0}$	369	0000000	497
<b>ŶŶθθθ</b> Ŷ	117	<b>Û0000û0</b>	245	0000000	373	00000000	501
ŶŶ <b>ŨŨŬ</b> Ŷ	121	<b>Δ00000</b> Φ	249	000000	377	000000₽	505
0.00000	125	<b>000000</b>	253	000000	381	0000000	509