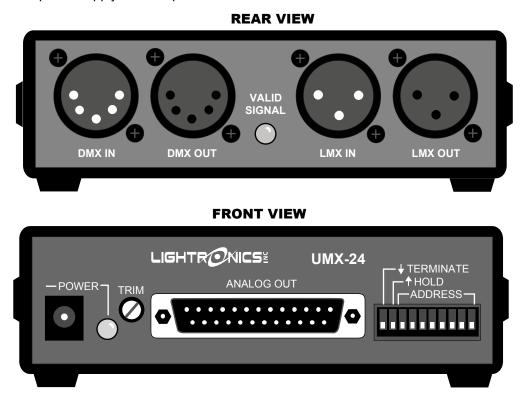


## DESCRIPTION

The UMX-24 is a very compact lighting protocol translator which receives a USITT DMX-512 signal or a LMX-128 multiplex signal from a lighting console. The unit converts the incoming signal, and transmits it as 24 channels of 0–10 volt analog signals. A "passthrough" DMX and LMX connector are provided. The unit is powered by an external 13VAC power supply which is provided.



## **FACTORY CONFIGURATION OPTIONS**

The unit can optionally be supplied to output 0 to +15 VDC analog or 0 to +20 VDC analog.

## CONNECTIONS

#### DMX INPUT CONNECTIONS

Connect the output of the console to the 5 pin male XLR connector on the rear of the UMX-24. The female 5 pin XLR connector on the rear of the unit is a "passthrough" connector to connect the DMX signal to other equipment.

#### DMX TERMINATION

The left most DIP switch on the front of the unit applies a DMX termination when in the down position. A DMX line should be terminated at the last DMX device (and ONLY the last DMX device) on the chain.

## LMX INPUT CONNECTIONS

Connect the output of the console to the 3 pin male XLR connector on the rear of the UMX-24. The female 3 pin XLR connector on the rear of the unit is a "passthrough" connector to connect the LMX signal to other equipment.

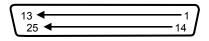


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## ANALOG OUTPUT CONNECTIONS

The 25 pin (DB-25) D connector on the front of the unit is for the analog output signals which are to be connected to the analog dimmers or other analog compatible lighting devices. Pin 1 of the DB-25 connector is the channel 1 output signal. Channels 2 through 24 follow in sequence (pin# = channel#). Pin 25 is the common or signal ground.

#### **Analog Output Connector Pin Locations**



## **OPERATION**

The red LED indicator on the front panel lights when power is applied to the unit. The green LED on the rear of the unit is lighted when a valid input signal is present.

The unit may be set to operate any range of 24 channels up to 512 by setting DIP switches on the front of the unit. A table at the back of this manual shows DIP switch address settings.

The 2nd from the left DIP switch operates a hold function. If this switch is set to UP and the incoming signal is removed – the unit will continue to send the last valid channel information to the dimmers.

If both DMX and LMX input signals are present, the DMX signal will be used and the LMX signal will be ignored. The UMX-24 will not convert DMX to LMX or convert LMX to DMX.

#### **TRIM ADJUSTMENT**

A output level trim adjustment is accessible via a hole in the front panel. If you connect a dc voltmeter to any of the analog outputs - you can then adjust the output level. The adjustment is applied to all channel outputs.

## **EXTERNAL POWER SUPPLY INFORMATION**

Input Voltage:	120VAC
Output Voltage:	13.5 VAC
Output Current:	800 Milliamps
Connector:	2.1mm female connector

The UMX-24 will operate using an alternative external power supply which can provide anywhere from 13 to 24 Volts AC or DC. The supply must be rated at 600 ma. If a DC supply is used, the center pin of the connector MUST BE THE NEGATIVE output terminal of the supply.

#### MAINTENANCE

#### TROUBLESHOOTING

- Check the connections and integrity of the associated cables (a very common source of problems). ~
- Ensure that the dimmers are on and operating. Verify that the dimmers addressing is correctly set.
- Check the address settings on the UMX-24.  $\checkmark$

#### REPAIR

There are no user serviceable parts in the unit. Service by other than Lightronics authorized agents will void the warranty. If service is required, contact the dealer from whom you purchased the unit or contact Lightronics.



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### ADDRESS SETTINGS TABLE

The DIP Switch Setting column shows the positions of the DIP switches on the UMX-24. The Start Channel column shows the resulting DMX/LMX channel assignment for the first analog output channel (channel 1). The left end two DIP switches are not included in the table since they do not affect the address settings.

NOTE: Some control consoles and dimmers can be programmed or "patched" to alter their channel order. You may get unexpected results if you are not aware of the patch condition when you set the address switches.

EXAMPLE: If the UMX-24 DIP switches are set to  $\Im \Im \Omega \Im \Omega \Im \Omega \Im \Omega \Im$ : the first channel of the dimmer will respond to console channel 87. The remaining dimmer channels will respond to console channels 88, 89, 90, ... etc.

DIP Switch #	Start	DIP Switch #	Start	DIP Switch #	Start	DIP Switch #	Start
and Setting 3 4 5 6 7 8 9 10	Chan	and Setting 3 4 5 6 7 8 9 10	Chan	and Setting 3 4 5 6 7 8 9 10	Chan	and Setting 3 4 5 6 7 8 9 10	Chan
<u> </u>	1	<u> </u>	65	Ŷ <b>Ů</b> ŶŶŶŶŶŶŶ	129	Ŷ <b>ŨŨ</b> ŶŶŶŶŶ	193
<u> </u>	3	<u> </u>	67	Ŷ <b>Û</b> ÛÛÛÛÛÛ	131	Ŷ <b>ŎŎ</b> ŶŶŶŶŎ	195
<u> </u>	5	ŶŶ <b>Ŏ</b> ŶŶŶŶŶŶ	69	00000000	133	00000000	197
<u> </u>	7	ŶŶ <b>Ŏ</b> ŶŶŶ <b>ŎŎ</b>	71	0000000	135	Ŷ <b>ŎŎ</b> ŶŶŶ <b>ŎŎ</b>	199
<u> </u>	9	<u> </u>	73	Ŷ <b>IJ</b> ŶŶŶŶŶŶŶ	137	Ŷ <b>IJIJ</b> ŶŶ <b>IJ</b> ŶŶ	201
<b>ûûûûûûû</b>	11	ŶŶ <b>IJ</b> ŶŶ <b>IJ</b> ŶŶ	75	Ŷ <b>IJ</b> ŶŶŶŶŶŶŶ	139	Ŷ <b>IJIJ</b> ŶŶ <b>IJ</b> ŶŶ	203
<b>ûûûûû</b> Ûû	13	<b>ŶŶŎŶŶŎŎŶ</b>	77	<b>ŶŮŶŶŶŮŮŶ</b>	141	Ŷ <b>IJIJ</b> ŶŶ <b>IJ</b> ŶŶ	205
<b>ûûûûû</b> 000	15	ŶŶ <b>IJ</b> ŶŶ <b>IJIJ</b>	79	000000000	143	00000000	207
<b>ûûûûûûû</b>	17	<b>ŶŶ<b>IJ</b>Ŷ<b>IJ</b>ŶŶŶ</b>	81	Ŷ <b>IJ</b> ŶŶŶŶŶŶ	145	Ŷ <b>IJIJ</b> Ŷ <b>IJ</b> ŶŶŶŶ	209
<b>ŶŶŶŶŶŶŶŶŶ</b>	19	ŶŶ <b>IJ</b> ŶŮŶŶÛ	83	00000000	147	Ŷ <b>IJIJ</b> ŶŨŶŶŨ	211
ŶŶŶŶ <b>Ů</b> Ŷ <b>Ů</b> Ŷ	21	<b>Ϋ́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́</b>	85	00000000	149	00000000	213
ŶŶŶŶ <b>Ů</b> Ŷ <b>ŬŬ</b>	23	ŶŶ <b>IJ</b> ŶŨŶŨŶŨŨ	87	00000000	151	Ŷ <b>IJŨŶŨŶŨŨ</b>	215
<b>ŶŶŶŶŶŮŮ</b> ŶŶ	25	ŶŶ <b>IJ</b> Ŷ <b>IJ</b> ŶŶ	89	Ŷ <b>IJ</b> ŶŶ <b>IJIJ</b> ŶŶ	153	00000000	217
ŶŶŶŶ <b>ŮŮ</b> Ŷ <b>Ů</b>	27	ŶŶ <b>IJ</b> Ŷ <b>IJ</b> Ŷ Û	91	00000000	155	00000000	219
ŶŶŶŶ <b>ŬŬŬ</b> Ŷ	29	ŶŶ <b>IJ</b> Ŷ <b>IJIJ</b> Ŷ	93	0000000	157	10010001	221
<b>ŶŶŶŶŶŮŮŮŮ</b>	31	000000000000000000000000000000000000	95	0000000	159	<b>0000000</b>	223
<b>ŶŶŶŮŶŶŶŶ</b>	33	<b>ÛÛUU</b> ÛÛÛ	97	Ŷ <b>IJ</b> ŶŮŶŶŶŶ	161	Ŷ <b>IJIJIJ</b> ŶŶŶŶ	225
<b>ŶŶŶŮŶŶŶŮ</b>	35	ŶŶ <b>IJIJ</b> ŶŶŶ <b>IJ</b>	99	Ŷ <b>IJ</b> ŶŮŶŶŶÛ	163	000000000	227
<b>ŶŶŶŮŶŶŮ</b> Ŷ	37	ŶŶ <b>IJIJ</b> ŶŶ <b>IJ</b> Ŷ	101	Ŷ <b>IJ</b> ŶŮŶŮŶŮŶ	165	00000000	229
<b>ŶŶŶŮŶŶŨŨ</b>	39	<b>ΥΥΟΟΥΥΟΟ</b>	103	Ŷ <b>IJ</b> ŶŨŶÛŶÛÛ	167	Ŷ <b>000</b> ŶŶ <b>00</b>	231
<b>ŶŶŶŮŶŮŶŶ</b>	41	<b>ŶŶŬŬŶŬŶŶ</b>	105	00000000	169	00000000	233
<b>ŶŶŶŮŶŮŶŮ</b>	43	<b>ΥΥΟΟΥΟΥΟ</b>	107	00000000	171	Ŷ <b>000</b> Ŷ <b>0</b> Ŷ <b>0</b>	235
<b>ŶŶŶŮŶŮŮŶ</b>	45	<b>ΥΥΟΟΥΟΟΥ</b>	109	00000000	173	10001001	237
ŶŶŶ <b>Ů</b> Ŷ <b>Ů</b> Ŏ	47	<b>ŶŶOO</b> Ŷ <b>OOO</b>	111	00000000	175	<b>00000000</b>	239
<b>Ϋ́Ϋ́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́</b>	49	ŶŶ <b>IJIJŬ</b> ŶŶ	113	<b>ΔΟΔΟΟΔΦ</b> Ω	177	00000000	241
<b>Ϋ́Ϋ́́Ϋ́́́́́́́́́́́́́́́́́́́́́́́́́́́́́</b>	51	ŶŶ <b>ŨŨŬ</b> ŶŶ <b>Ũ</b>	115	00000000	179	00000000	243
<b>Ϋ́Ϋ́Ϋ́Ϋ́Ϋ́Ϋ́Ύ́Ύ́Ύ́Ύ́Ύ́Ύ́Ύ́Υ</b>	53	<b>Ϋ́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́́</b>	117	0000000	181	OOOOOOO	245
ŶŶŶ <b>ŬŬŶŬŬ</b>	55	<b>ŶŶOOO</b> Ŷ <b>OO</b>	119	Ŷ <b>O</b> Ŷ <b>OO</b> Ŷ <b>OO</b>	183	<b>00000000</b>	247
<b>ΥΥΥΥΟΟΟ</b> ΥΥ	57	ŶŶ <b>ŬŬŬŬ</b> ŶŶ	121	Ŷ <b>U</b> Ŷ <b>UUU</b> ŶŶ	185	Ŷ <b>θθθθ</b> θŶ	249
<b>ŶŶŶŬŨŬŶÛ</b>	59	<b>ŶŶ0000</b> Ŷ0	123	0000000	187	<b>ΨΟΟΟΟΦΟ</b>	251
<b>ŶŶŶ<b>ŬŬŬŬ</b></b>	61	<b>ŶŶOOOO</b> Ŷ	125	000000	189	OOOOOO	253
<b>ŶŶŶ00000</b>	63	0.000000	127	0000000	191	<b>0000000</b>	255

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## ADDRESS SETTINGS TABLE (CONTINUED)

DIP Switch # and Setting	Start Chan	DIP Switch # and Setting	Start Chan	DIP Switch # and Setting	Start Chan	DIP Switch # and Setting	Start Chan
3 4 5 6 7 8 9 10	onan	3 4 5 6 7 8 9 10	onan	3 4 5 6 7 8 9 10	onan	3 4 5 6 7 8 9 10	onan
<b>U</b> ÛÛÛÛÛÛÛÛ	257	<b>U</b> ÛUÛÛÛÛÛ	321	000000000	385	000000000	449
<b>U</b> ÛÛÛÛÛÛÛÛ	259	<b>U</b> ÛUÛÛÛÛÛ	323	000000000	387	000000000	451
<b>U</b> ÛÛÛÛÛÛÛÛ	261	<b>U</b> ÛUÛÛÛÛÛ	325	000000000	389	000000000	453
00000000	263	<b>0</b>	327	00000000	391	000000000	455
00000000	265	<b>U</b> ÛUÛÛÛÛÛ	329	000000000	393	00000000	457
00000000	267	<b>U</b> ÛUÛÛÛÛÛ	331	000000000	395	00000000	459
00000000	269	<b>U</b> ÛUÛÛÛÛÛÛ	333	00000000	397	00000000	461
0000000	271	00000000	335	00000000	399	00000000	463
00000000	273	<b>U</b> ÛUÛÛÛÛÛ	337	000000000	401	000000000	465
00000000	275	000000000	339	000000000	403	0000000000	467
00000000	277	00000000	341	00000000	405	00000000	469
00000000	279	00000000	343	00000000	407	000000000	471
<b>U</b> ÛÛÛÛÛÛÛÛ	281	$U^{\uparrow}U^{\downarrow}U^{\downarrow}U^{\downarrow}U^{\downarrow}U^{\downarrow}U^{\downarrow}U^{\downarrow}U^{\downarrow$	345	00000000	409	00000000	473
0000000	283	00000000	347	00000000	411	00000000	475
<b>U</b> ÛÛÛÛ <b>UU</b> Û	285	<b>U</b> ÛUÛÛÛÛÛÛ	349	0000000	413	0000000	477
0000000	287	0000000	351	00000000	415	00000000	479
<b>U</b> ÛÛÛÛÛÛÛÛ	289	<b>U</b> Û <b>UU</b> ÛÛÛÛ	353	000000000	417	000000000	481
<b>U</b> ÛÛÛÛÛÛÛ	291	<b>U</b> ÛUUÛÛÛU	355	000000000	419	000000000	483
<b>U</b> ÛÛÛÛÛÛÛÛ	293	00000000	357	00000000	421	00000000	485
000000000	295	00000000	359	000000000	423	000000000	487
<b>U</b> ÛÛÛÛÛÛÛÛ	297	$U \uparrow U U U \uparrow U \uparrow U \uparrow$	361	00000000	425	00000000	489
00000000	299	00000000	363	000000000	427	000000000	491
00000000	301	<b>U</b> Û <b>U</b> ÛÛÛÛÛ	365	00000000	429	00000000	493
000000000	303	00000000	367	00000000	431	00000000	495
<b>U</b> ÛÛ <b>UU</b> ÛÛÛ	305	<b>U</b> Û <b>UUU</b> ÛÛÛ	369	00000000	433	000000000	497
00000000	307	00000000	371	000000000	435	0000000000	499
00000000	309	0000000	373	00000000	437	00000000	501
00000000	311	00000000	375	00000000	439	000000000	503
0000000	313	0000000	377	00000000	441	00000000	505
00000000	315	00000000	379	00000000	443	000000000	507
000000	317	0000000	381	0000000	445	0000000	509
000000	319	0000000	383	0000000	447	0000000	511

-	
-	
	Lightronics products are warranted for a period of TWO/FIVE YEARS from the date of chase against defects in materials and workmanship.
	This warranty is subject to the following restrictions and conditions:
A)	If service is required, you may be asked to provide proof of purchase from an authorized Lightronics dealer.
B)	The FIVE YEAR WARRANTY is only valid if the warranty card is returned to Lightronics accompanied with a copy of the original receipt of purchase within 30 DAYS of the purchase date, if not then the TWO YEAR WARRANTY applies. Warranty is valid only for the original purchaser of the unit.
C)	This warranty does not apply to damage resulting from abuse, misuse, accidents, shipping, and repairs or modifications by anyone other than an authorized Lightronics service representative.
D)	This warranty is void if the serial number is removed, altered or defaced.
E)	This warranty does not cover loss or damage, direct or indirect arising from the use or inability to use this product.
F)	Lightronics reserves the right to make any changes, modifications, or updates as deemed appropriate by Lightronics to products returned for service. Such changes may be made without prior notification to the user and without incurring any responsibility or liability for modifications or changes to equipment previously supplied. Lightronics is not responsible for supplying new equipment in accordance with any earlier specifications.
G)	This warranty is the only warranty either expressed, implied, or statutory, upon which the equipment is purchased. No representatives, dealers or any of their agents are authorized to make any warranties, guarantees, or representations other than expressly stated herein.
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I)	Lightronics Inc. reserves the right to make changes as deemed necessary to this warranty without prior notification.
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