

I Intelligent M Marquee S Systems

IMS MK2 Simple Universe Drive



Operation Manual

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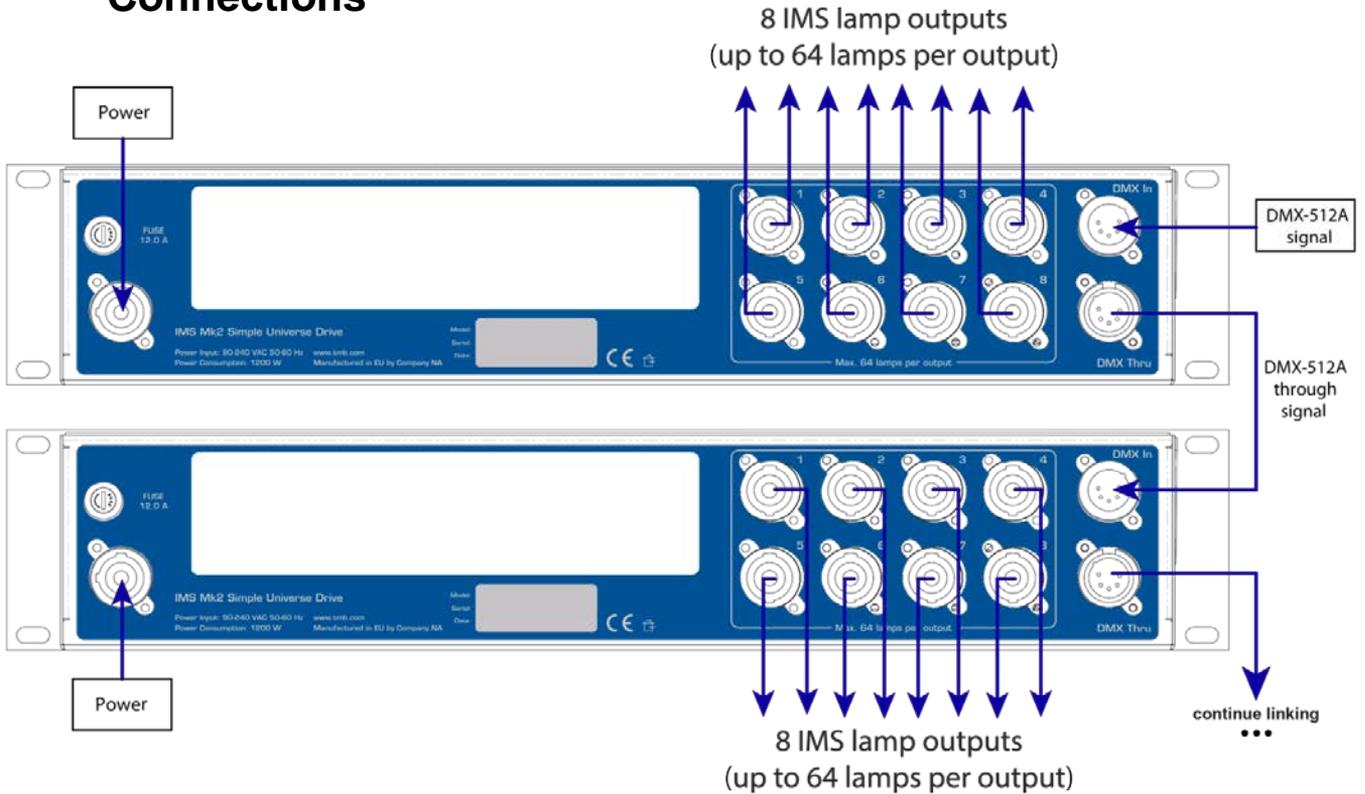
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Product Description

The IMS Mk2 Simple Universe Drive (SUD) is an 8-output, 2U rackmount, 1-universe power supply specifically designed for IMS Mk2 systems. The IMS Mk2 SUD has DMX IN and THRU. Each output can power a maximum of 64 lamps for a maximum of 512. Each output uses the same signal from the DMX input to control the attached IMS Mk2 Lamps.

Connections



Lamp control

Each of the IMS lamps can be controlled separately. To set the DMX address for each lamp, it is necessary to patch lamps using the ProPlex Hand Held Programmer. After DMX addresses for the lamps have been set, the lamps must be placed in the correct order in the lamp chain.

RGB + White lamp channels overview

Channel	Value	Function
1	000 ↔ 255	RED intensity 0% - 100%
2	000 ↔ 255	GREEN intensity 0% - 100%
3	000 ↔ 255	BLUE intensity 0% - 100%
4	000 ↔ 255	WHITE intensity 0% - 100%

Filament lamp channels overview

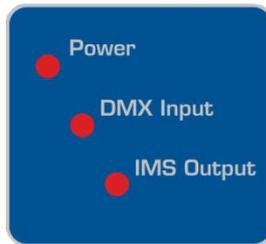
Channel	Value	Function
1	000 ↔ 255	WHITE intensity 0% - 100%

Filament lamp channels overview

Channel	Value	Function
1	000 ↔ 255	WARM WHITE intensity 0% - 100%
2	000 ↔ 255	COLD WHITE intensity 0% - 100%

The IMS Mk2 Simple Universe Drive has 8 outputs. Up to 64 lamps may be connected to each output for a maximum of 512 lamps for each Universe Drive.

Front Panel



The **POWER** LED has two states: ON and OFF.

- ON: Unit is receiving power.
- OFF: Unit is not receiving power.

The **DMX INPUT** LED has two states: OFF and BLINKING.

- OFF: DMX input signal is not present.
- BLINKING: DMX input signal is present.

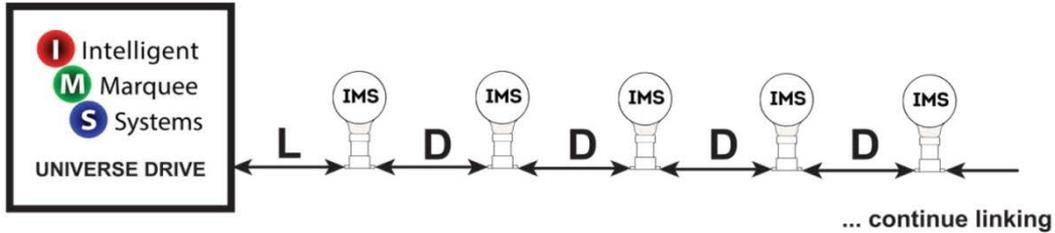
The **IMS OUTPUT** LED has two states: OFF and Blinking.

- OFF: Universe Drive is outputting signal.
- BLINKING: Universe Drive is not outputting signal.

Cable Length / Lamp Spacing

The following settings are recommended using IMS122CL3 cable.

Note: Settings may vary depending on cable type, IMS control data transfer rate, and other conditions. The settings below are examples of different scenarios and their tested results.



if $D = 15\text{cm}$

Cable setting	L	Max.
Short	1m	64
Medium	5m	64
Long cable	20m	64
Short with transcoding	5m	64
Medium with transcoding	25m	64
Long with transcoding	55m	64

if $D = 30\text{cm}$

Cable setting	L	Max.
Short	1m	51
Medium	5m	64
Long cable	10m	64
Short with transcoding	5m	64
Medium with transcoding	20m	64
Long with transcoding	50m	64

if $D = 50\text{cm}$

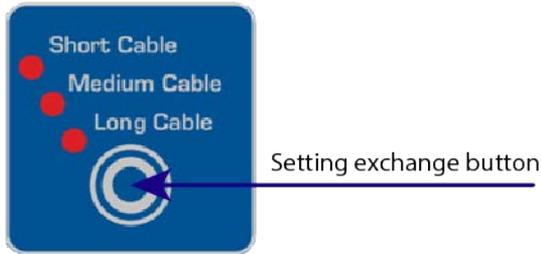
Cable setting	L	Max.
Short	1m	41
Medium	1m	64
Long cable	10m	64
Short with transcoding	1m	62
Medium with transcoding	15m	64
Long with transcoding	45m	64

if $D = 100\text{cm}$

Cable setting	L	Max.
Short	1m	30
Medium	1m	46
Long cable	1m	64
Short with transcoding	1m	45
Medium with transcoding	1m	64
Long with transcoding	40m	64

- IMS lamp
Max. - Max. number of working lamps
L - Length of cable between Universe Drive and first lamp
D - Distance between lamps

Changing Cable Length Setting



- SETTING NOT ACTIVE
 - SETTING ACTIVE
 - * SETTING WITH TRANSCODING ACTIVE
- *blinking

To ensure correct and safe data transfer, there is additional setting (which changes the DMX data controlling mode) which has to be changed based on the length of the cable used in the IMS lamp chain system.

There are six available settings:

- 1) Short cables
- 2) Short cables with transcoding
- 3) Medium length cables
- 4) Medium length cables with transcoding
- 5) Long cables
- 6) Long cables with transcoding

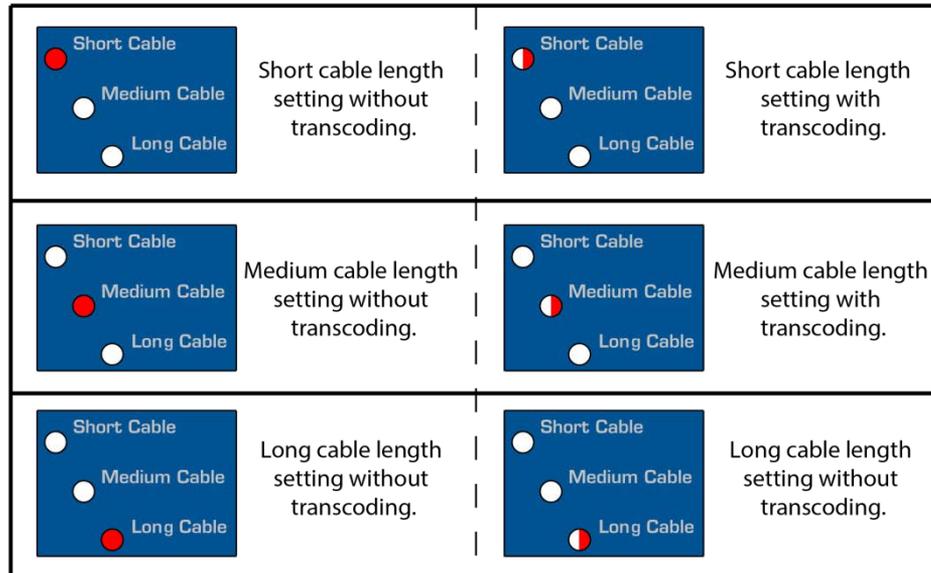
When the IMS Mk2 Simple Universe Drive is powered ON, the last active cable length setting will be used. To change the cable length setting, press and hold the "Setting Exchange Button." Two of the LEDs will start blinking at 50% intensity.

Setting exchange mode is now activated. IMS cable length settings may be changed. By pressing the "**Setting Exchange Button**", the current setting will be replaced with the next setting. For example, if the current setting is "short cable" and the user wants to change it to the "medium cable," press the "setting exchange button" once:



Transcoding Setting Activation

Transcoding settings can be distinguished by a blinking LED instead of a solid light in full intensity.



○ SETTING NOT ACTIVE

● SETTING ACTIVE

◐* SETTING WITH TRANSCODING ACTIVE

*blinking

When the correct setting has been selected, wait a few seconds, the two side LEDs will stop blinking and the chosen setting is locked in.

Note:

- 1) If one of the cable length setting LEDs is lit at full intensity and blinking, that means a setting with transcoding is selected.
- 2) If one of the cable length setting LEDs is lit at full intensity (not blinking), that means a setting without transcoding is selected.
- 3) If LEDs are OFF, that means that setting is locked. To change the setting, press and hold the order to change the "setting exchange button."

Frequently Asked Questions

How many lamps can be used per output?

It is possible to use 64 lamps per output x two outputs = 128 lamps per Universe Drive IP65. However, the maximum lamps possible may vary depending length and type of cable. Please refer to the "Cable Length" diagram in this guide.

What is the transcoding setting and what does it do?

Signal Transcoding is an option to allow for longer cable runs either by longer lead-ins, longer socketed lengths, or a greater number of lamps. Transcoding changes the dimming resolution from 8-bit (256 steps of dimming) to 6-bit (64 steps of dimming). The Transcoding Setting is best when IMS lamps are being used for quick color changes that do not require a long, smooth crossfade. Always try and use the standard option as it performs best in most situations. Choose the transcoding option as a means to troubleshoot why a string isn't working correctly.

When not to use transcoding:

The standard, non-transcoding setting has a higher bit-rate and makes for smoother dimming in situations where cable length and/or lamp quantity per string are secondary concerns. Always try to use the standard option if possible. If IMS is being used for applications such as low resolution video type effects, choosing the standard setting will produce better results.

Standard color fade. Transcoding will have more steps during this crossfade:



Scenario where transcoding will work as desired:



How can I patch the DMX addresses into the IMS Mk2 lamps?

In order to set the DMX addresses for lamps, a ProPlex IMS Mk2 HHP (Hand held Programmer) is required. The HHP makes it possible to set the required DMX address for each IMS lamp, test individual lamps, and test lamps strings attached to the IMS Universe Drive without the need for a DMX console.

Appendix

RDM Functionality

Below are the RDM functions available in these devices. TMB has many options for RDM control of your devices: ProPlex RDMigo and IQ RDM Manager Software; ProPlex Striker; and ProPlex MasterFade. Additionally, ProPlex RDM Opto-Splitters and the ProPlex IQ product range offer many means of RDM over DMX data distribution.

Main
Mode
DMX address
RDM version
Software version
DMX Offset

Limited Warranty

IMS Mk2 components are warranted by TMB against defective materials or workmanship for a period of two (2) years from the date of original sale by TMB.

TMB's warranty shall be restricted to the repair or replacement of any part that proves to be defective and for which a claim is submitted to TMB before the expiration of the applicable warranty periods.

This Limited Warranty is void if the defects of the Product are the result of:

- Opening the casing, repair, or adjustment by anyone other than TMB or persons specifically authorized by TMB
- Accident, physical abuse, mishandling, or misapplication of the product.
- Damage due to lightning, earthquake, flood, terrorism, war, or act of God.

TMB will not assume responsibility for any labor expended, or materials used, to replace and/or repair the Product without TMB's prior written authorization. Any repair of the Product in the field, and any associated labor charges, must be authorized in advance by TMB. Freight costs on warranty repairs are split 50/50: Customer pays to ship defective product to TMB; TMB pays to ship repaired product, ground freight, back to Customer.

This warranty does not cover consequential damages or costs of any kind.

A Return Merchandise Authorization (RMA) Number must be obtained from TMB prior to return of any defective merchandise for warranty or non-warranty repair. For all repairs please contact TMB Tech Support Repair using the contact information below or email TechSupportRepairNA@tmb.com.

US

527 Park Ave.
San Fernando, CA 91340
Tel: +1 818.899.8818
Fax: +1 818.899.8813

UK

21 Armstrong Way
Southall, UB2 4SD England
Tel: +44 (0)20.8574.9700
Fax: +44 (0)20.8574.9701

Return Procedure

Please send returned merchandise prepaid and in the original packing. Freight call tags will not be issued for shipping the product to TMB, but TMB will pay the freight for return to the customer. Clearly label package with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will delay service. Please contact TMB and request an RMA # prior to shipping the unit. Be prepared to provide the model number, serial number, and a brief description of the cause for the return. Be sure to properly pack the unit; any shipping damage resulting from inadequate packaging is the customer's responsibility. TMB reserves the right to use its own discretion to repair or replace product(s). Proper UPS packing or double-boxing will better ensure product integrity when shipped.

Note: If you are given an RMA #, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) The RMA #
- 5) A brief description of the symptoms

Technical Specifications

WEIGHT & DIMENSIONS

WIDTH.....	19 IN / 483 MM
DEPTH.....	12 IN / 304 MM
HEIGHT.....	3.5 IN / 88 MM
WEIGHT.....	16.3 LB / 7.4 KG

POWER

OPERATING VOLTAGE.....	90-260 VAC, 50-60HZ
POWER CONSUMPTION.....	1200 W MAX
OUTPUT VOLTAGE.....	24 VDC

THERMAL

OPERATING TEMPERATURE.....	-20 TO +40°C
COOLING	FAN COOLED

CONNECTIONS / CONTROL

NUMBER OF OUTPUTS	8
NUMBER OF UNIVERSES	1
POWER INPUT	NEUTRIK POWERCON NAC3MPA-1
POWER THRU	N/A
DATA INPUT	NEUTRIK XLR 5-PIN
DATA THRU.....	NEUTRIK XLR 5-PIN
POWER / DATA OUTPUTS.....	8x NEUTRIK SPEAKON NL2 2-POLE
MAX CABLE LENGTH	246 FT / 75 MTR TO LAST LAMP (14 AWG / 2.5MM2 FESTOON CABLE)

