emp designs

LV966 User Guide

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PREPARED BY
Oliver Jeffery

Contents

IMPORTANT SAFETY NOTICE

Read this user guide in full before you attempt to use the LV966.

On receipt of the LV966, check no damage has occurred whilst in transit. If you suspect any damage, do not use the controller until you have discussed the issue with EMP Designs Ltd.

If you do not fully understand anything contained in the user guide, contact the manufacturer by email before use (info@empdesigns.co.uk).

Ensure that all electrical connections and interconnections between external LED's are properly made in accordance with the manufacturers' instructions and no short circuits between channels are made.

All external wiring remains the responsibility of the user.

Whilst EMP Designs Ltd. has made every effort to ensure the LV966 is safe to use and meets the client's specification, the client, prior to each application, should always complete on-site testing.

All external connections should only be made while the power is turned off.

Do not attempt to disassemble the controller in any way. Please return the controller to EMP Designs Ltd. if any servicing is required.

Damage may occur if the controller outputs are continually overloaded or short circuited.

Damage may occur if the power in polarity is incorrect.

Ensure a fuse is fitted to the input supply of the controller.

Avoid places subject to extremely high temperatures or humidity.

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Specification

Specification	
Operating Voltage	12-24V
Output Channels	96 Low Power 6 High Power
Communication	Wired DMX (RJ45) Wireless DMX (CRMX)

Maximum Current Ratings

Maximum Current Ratings	
Low Power Outputs	96 x 25 mA
High Power Outputs	6 x 4 A *

*** Please Note:**

There are two '12-24V Out' positions for supplying the high power outputs.

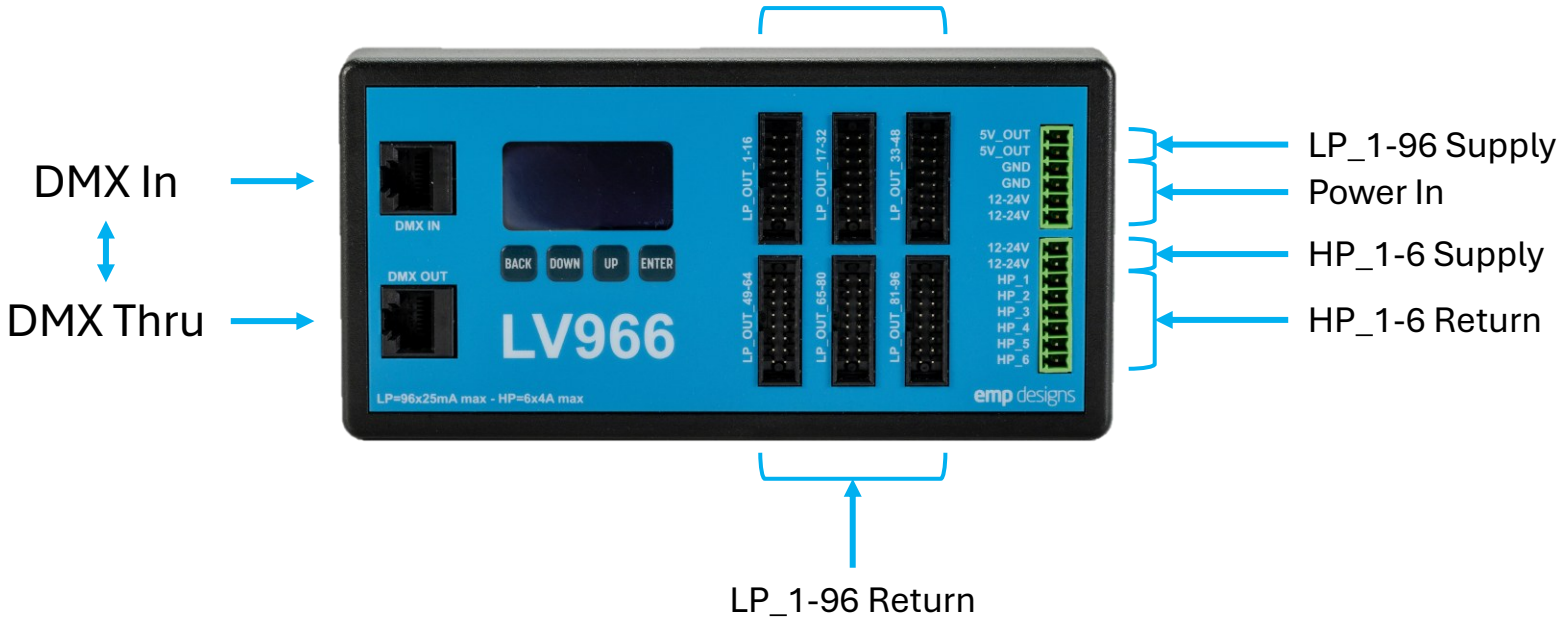
Each can supply up to a maximum of 8 amps. Therefore:

- When using one position, the total current drawn by all six high power outputs should not exceed 8 amps.
- When using both positions, the total current drawn by all six high power outputs should not exceed 16 amps.

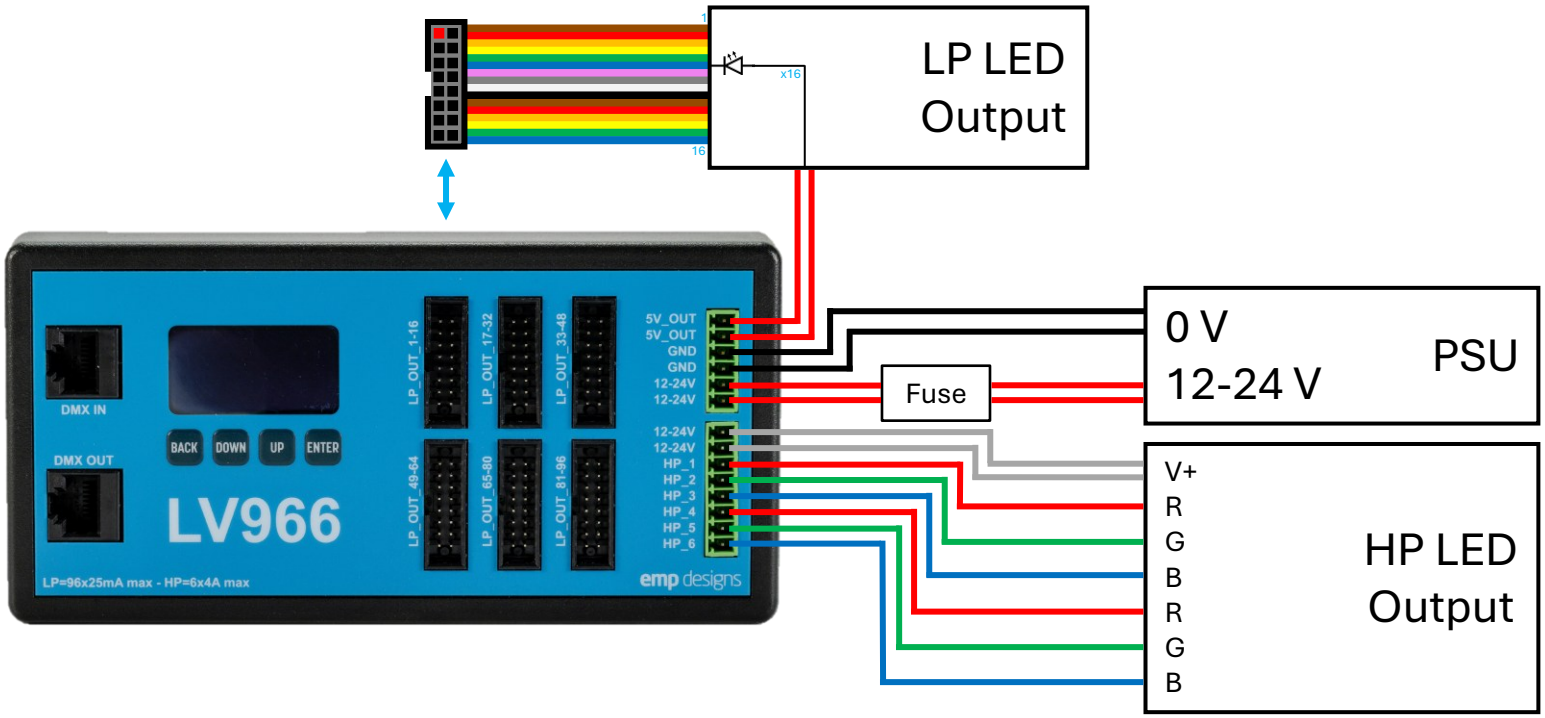
In the same way, the two '12-24V In' and two 'GND' Power In positions are also limited to 8 amps per position:

- When using one 12-24V In and one GND, the total current drawn by both the high and low power outputs should not exceed 8 amps.
- When using both 12-24V In and both GND positions, the total current drawn by both the high and low power outputs should not exceed 16 amps.

Connection Guide

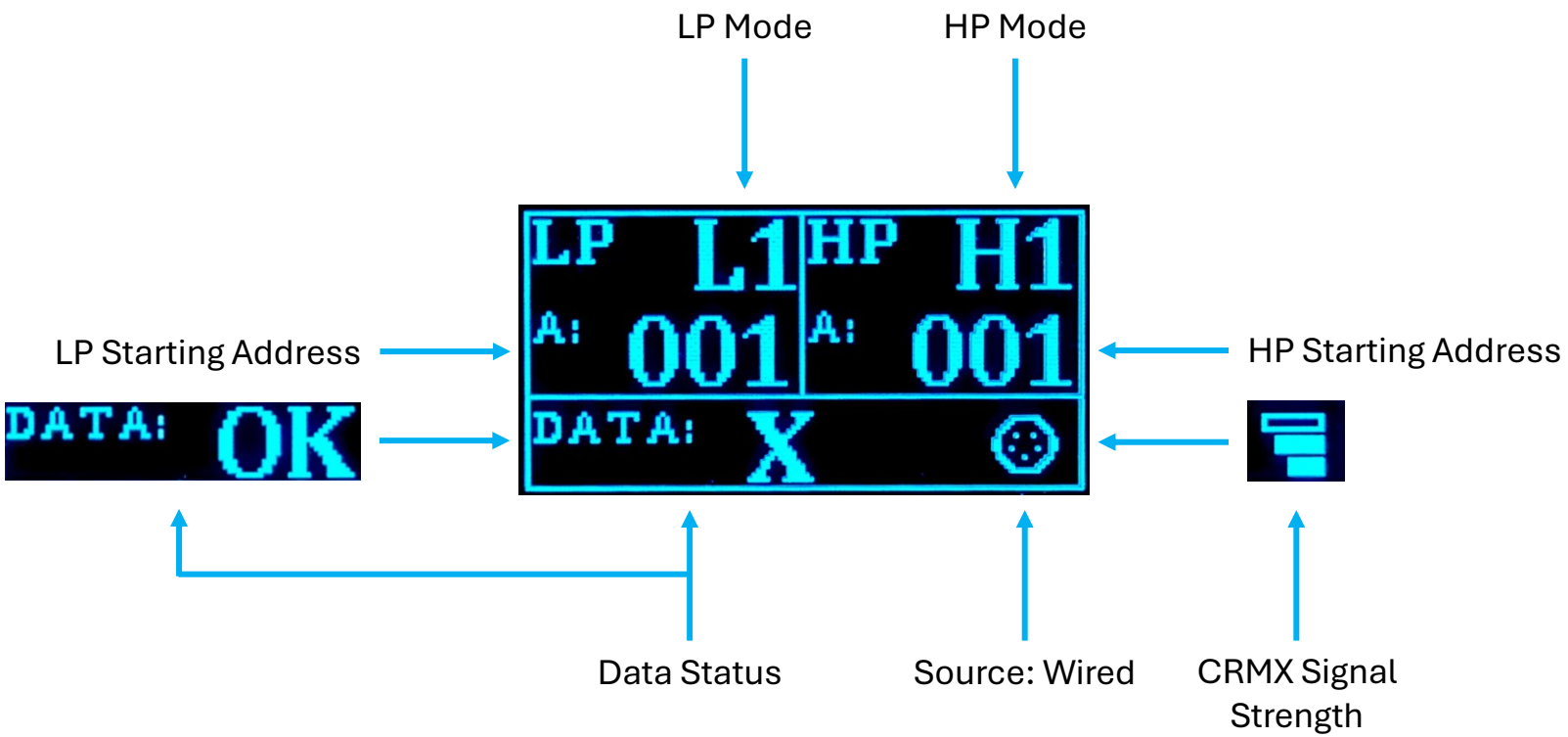


Wiring Diagram



Please Note: Each of the 96 LP Outputs are fitted with an internal 330 Ω current-limiting resistor.

Home Screen Info



DMX Addresses

Separate DMX addresses (1-512) can be assigned for the LP and HP outputs. The address set in the menus and displayed on the home screen will apply for the first channel of that output and each subsequent channel will follow consecutively.

To change the DMX address:

1. Navigate to and select LP ADD or HP ADD using the keypad buttons.
2. Enter the desired address for channel 1 of that output:
    - Using the enter and back buttons, individual digits can be highlighted and edited.
    - Rolling a digit down past 0 or up past 9 will increment the prior or subsequent digits accordingly.
3. Press enter while the last digit is highlighted to save the address and return to the home screen.

Using CRMX

The built-in CRMX receiver allows for wireless control of all DMX channels for both the LP and HP outputs of the LV966. The CRMX status can be viewed directly from the home screen or by navigating to the CRMX Status page in the menus.

The following states are indicated on the home screen:

No CRMX link

CRMX linked but transmitter off or out of range

CRMX linked but transmitter not sending data

CRMX linked and receiving data

To link CRMX:

1. Unlink any existing CRMX link.
2. Press SYNC/LINK on the transmitter.

To unlink CRMX:

1. Navigate to the ‘UNLINK RADIO?’ page through the menus
2. Press ENTER.

Operating Modes

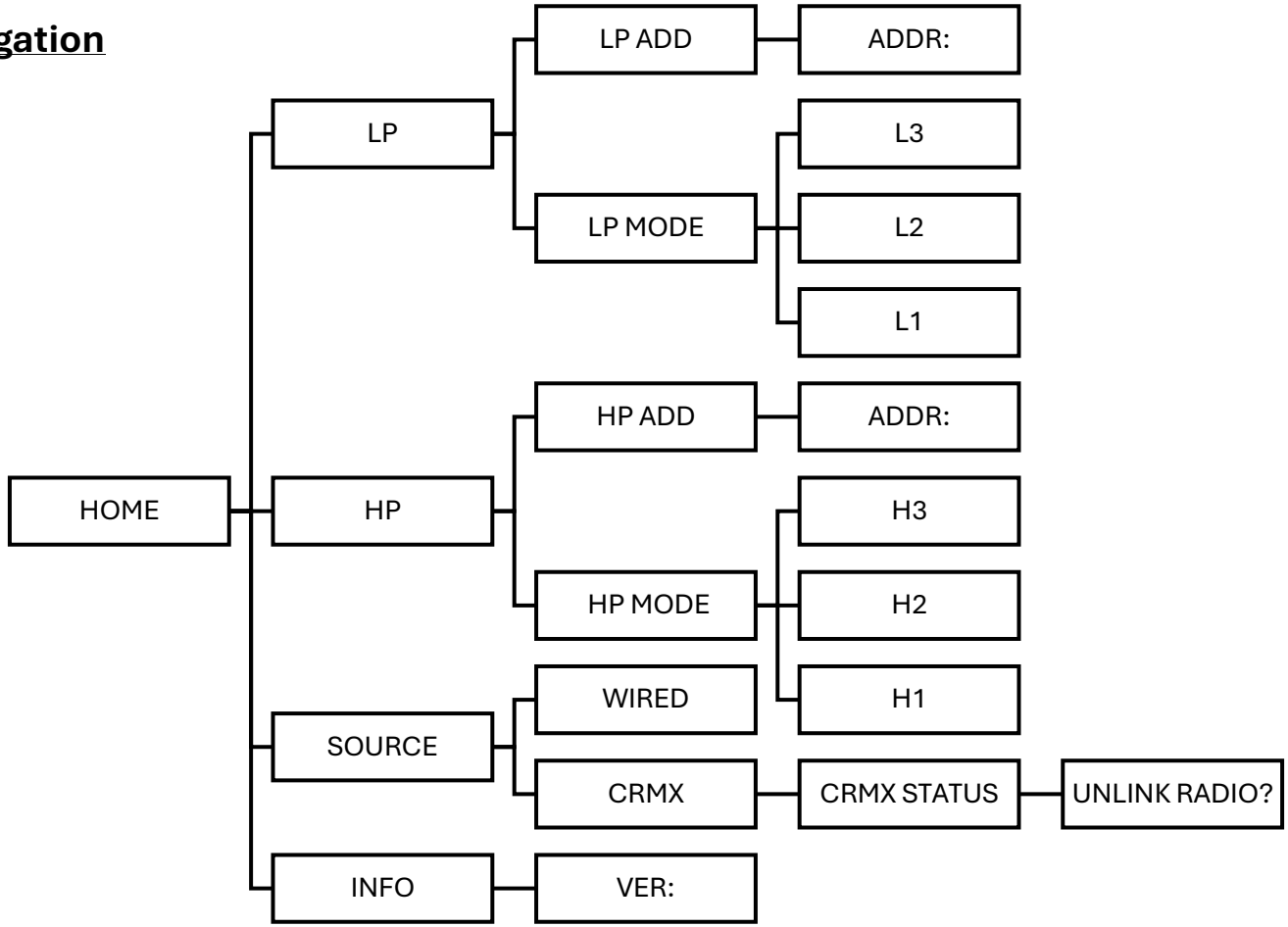
Low Power Outputs

Mode	Description	No. of DMX Channels Used
L1 Individual	Individual control of 96 LP outputs	96
L2 Banks of 16	Control of 6 banks of 16 LP outputs	16
L3 Test	Sequentially turns on output 1 through 96 and repeats	0

High Power Outputs

Mode	Description	No. of DMX Channels Used
H1 Individual	Individual control of 6 HP outputs	6
H2 Bicolour Pairs	Control of 3 bicolour pairs Two channels per pair: The first controls intensity, and the second controls colour temperature	6
H3 Test	Ramps all channels up to 50% and then resets and repeats.	0

Menu Navigation



Factory Reset

Resetting the LV966 will return it to its initial configuration:

- LP and HP modes will be returned to L1 and H1.
- LP and HP addresses will be returned to 001.
- Source will be returned to wired.
- CRMX will be unlinked.

To reset the LV966:

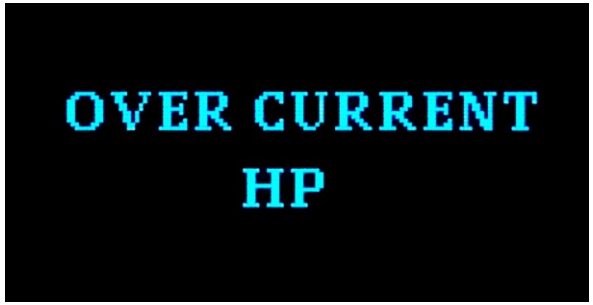
1. Turn off or disconnect the power supply to the LV966.
2. Press and hold the UP and ENTER buttons.
3. Switch on or reconnect the power supply to the LV966.
4. After the standard startup screen, ‘Clearing Settings’ will display at which point the UP and ENTER buttons can be released.

The LV966 will now boot up to the home screen as normal with all settings returned to default.

Fault Indication

Although care must be taken to prevent short circuits between channel outputs and supply, if the current limit is exceeded on a High Power output the LV966 will turn off all HP outputs, and a fault message will flash on screen.

There is no overcurrent safety feature on the Low Power outputs; overloading the LP outputs will damage the LV966.



Get In Touch

If you require further support, don't hesitate to get touch.

Address

EMP Designs Ltd
Unit 15 Camberley Business Centre
Bracebridge
Camberley
Surrey
GU15 3DP

Phone

01252 514477

E-mail

info@empdesigns.co.uk
sales@empdesigns.co.uk

Website

https://www.empdesigns.co.uk/

Social Media


https://www.instagram.com/empdesignsltd/


https://www.facebook.com/ukempdesigns


https://www.linkedin.com/company/10971529/admin/dashboard/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