Level plus SERIES

User Instructions

WARNING

If a portable or temporary three phase mains supply is used to power this desk,

we recommend that the power supply unit is unplugged from the mains supply before connecting or disconnecting the mains supply.

SERIOUS DAMAGE will occur if the power supply is connected across two phases.

This equipment is designed for use as a lighting control desk only, and is unsuitable for any other purpose. It should only be used by, or under the supervision of, an appropriately qualified or trained person.

Zero 88 Lighting Ltd. reserves the right to make changes to the equipment described in this manual without prior notice. E & OE.

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This Manual

This manual describes the operation of the Level Plus series of lighting desks (Level 12 Plus, Level 18 Plus and Level 24 Plus). It contains a general description of the desk, the front panel controls, turning on the desk, desk operation and technical specification of the desk.

Throughout this manual, references to controls, buttons and lights on the front panel appear in capital letters (eg GRAND MASTER, FADE TIME A, EXT. PSU light).

Where the manual refers to outputs, it means analogue and/or DMX outputs, depending on the actual setup of the desk.

The Level Plus Lighting Desk

The Level Plus Lighting desk is a manual two preset desk with separate fade time controls for the A and B presets, and the ability to flash individual channels.

The Level 12 Plus, Level 18 Plus and Level 24 Plus desks have 12, 18 and 24 control channels respectively.

A DMX Output Kit is available which can be fitted to analogue only desks.

On all desks with DMX Outputs, the DMX data is transmitted on DMX channels 1 - 24. However on the 12 and 18 channel desks the first 12 and 18 channels respectively have lighting data, the remaining channels are always transmitted as zero.

Controls and Displays

PRESETS A AND B

The PRESET A faders control the output levels of the individual channels in association with the A MASTER and GRAND MASTER faders.

The PRESET B faders control the output levels of the individual channels in association with the B MASTER and GRAND MASTER faders.

A MASTER AND B MASTER

The A MASTER is used to control the maximum output level from the PRESET A faders.

The B MASTER is used to control the maximum output level from the PRESET B faders.

The B MASTER fader is reversed (100% at the bottom of its travel) to facilitate crossfades when moving the A MASTER and B MASTER in tandem (i.e. in the same physical direction).

GRAND MASTER

The GRAND MASTER fader is used to control of the maximum output levels from all channels of the desk.

FLASH ON/OFF

The FLASH ON/OFF button is used to enable/disable the CHANNEL FLASH buttons. When the FLASH FUNCTION is active, the red light in the button is illuminated and the CHANNEL FLASH buttons are enabled.

CHANNEL FLASH BUTTONS

The CHANNEL FLASH buttons are used to flash the corresponding channels to the level on the GRAND MASTER.

FADE TIME A and FADE TIME B

The FADE TIME A control is used to set the time taken to fade in/out the scene on the PRESET A faders when the A MASTER is moved from zero to full or vice versa.

The FADE TIME B control is used to set the time taken to fade in/out the scene on the PRESET B faders when the B MASTER is moved from zero to full or vice versa.

Both FADE TIME controls can be set independently to values between 0 (manual) and the maximum fade time indicated on the front panel.

POWER Input Lights

The red lights labelled EXT. PSU and RACKS indicate which power source(s) are being used.

Turning on the Desk

1. If using DMX outputs, connect the DMX cable to the socket at the back of the desk.
2. If an external power supply is used to power the desk, connect the power supply unit to the desk
3. If the desk is being powered by the dimmer(s),with the dimmers turned off connect the control cable(s) to the analogue output socket(s) at the back of the desk.
4. Set the GRAND MASTER fader to full.
5. Set the A and B MASTER faders, FADE TIME A and FADE TIME B controls to zero.
6. Turn on the External Power supply or the Racks
7. The EXT. PSU light or the RACKS light will illuminate. The desk is now ready to operate.

Desk Operation

Separate scenes are set up on PRESET A and PRESET B using the individual channel faders. The A MASTER and B MASTER faders are used to crossfade between scenes. The two FADE TIME controls determine the A and B fade times independently. Overall output is under the control of the GRAND MASTER.

To Output a Scene from Preset A Only

1 Set the A MASTER and B MASTER to zero (0%), and the GRAND MASTER to full (100%).

2 Set the required levels for each channel on the PRESET A faders.

3 Set FADE TIME A control to the required value.

4 Move the A MASTER to full. The scene set up on PRESET A fades up in the specified time.

To Output a Scene from Preset B Only

1 Set the A MASTER and B MASTER to zero (0%), and the GRAND MASTER to full (100%).

2 Set the required levels for each channel on the PRESET B faders.

3 Set FADE TIME B control to the required value.

4 Move the B MASTER to full. The scene set up on PRESET B fades up in the specified time.

Manual Fading between Scenes

1 Ensure that the FADE TIME A and FADE TIME B controls are both set to 0.

2 Set the A MASTER and B MASTER to zero (0%).

3 Set up a scene using the PRESET A faders.

4 Set up a different scene on the PRESET B faders.

5 Set the A MASTER to full. The scene set on the PRESET A faders will be output.

6 To crossfade to the scene set up on PRESET B, simultaneously move A MASTER to zero and B MASTER to full. The operator has direct control over the speed of the scene change. As the master faders are moved in tandem the scene set up on PRESET B will fade in and the scene set on PRESET A will fade out. The crossfade is dipless.

7 A new scene can then be set up on PRESET A without affecting the outputs.

8 To crossfade to the new scene on PRESET A, simultaneously move the A MASTER to full and the B MASTER to zero. As the master faders are moved in tandem the scene set up on PRESET B will fade out and the scene set on PRESET A will fade in. The crossfade is dipless.

Timed Crossfades between Scenes

1 Set the A MASTER and B MASTER to zero, and the GRAND MASTER to full.

2 Set up a scene using the PRESET A faders.

3 Set up a different scene on the PRESET B faders.

4 Set the FADE TIME A and FADE TIME B controls to the times required.

5 Quickly move the A MASTER to full. The scene on the PRESET A faders will fade in and be output live. (The time taken for the fade to complete is determined by the value set on the FADE TIME A control).

6 To crossfade to the scene on PRESET B, quickly move the A MASTER to zero and the B MASTER to full. The scene on PRESET B will fade in and the scene on PRESET A will fade out in the selected times.

7 A new scene can then be set up on PRESET A without affecting the outputs. Adjust FADE TIME A if required.

8 To crossfade to the scene on PRESET A, quickly move the A MASTER to full and the B MASTER to zero. The scene on PRESET A will fade in and the scene on PRESET B will fade out in the selected times.

Flashing Channels

1 Ensure that the FLASH FUNCTION is active (the light in the FLASH ON/OFF button is on).

2 Press and hold down an individual CHANNEL FLASH button. The channel is added to the scene at the level set on the GRAND MASTER.

3 Release the CHANNEL FLASH button. The channel returns to its previous level.

Power supply

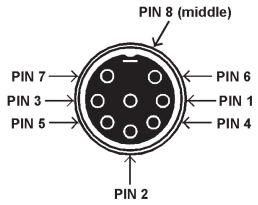
Level Plus desks can either be powered from an External Power supply or from the Power Supply from a Dimmer. One Zero 88 Beta pack supplies enough power for a Level 24 Plus. Power supplied from a dimmer via the Analogue connection will also power the DMX output. Power from an External Power Supply will power the Analogue and DMX Outputs.

Options Available:

External Power Supply UK	Stock No 00-104-11
External Power Supply Schuko	Stock No 00-104-21
Level Plus DMX Output Kit	Stock No 00-616-00

Analogue Output:

0 to +10V via 8 pin ring locking DIN (6 channels per DIN connector)
Short circuit proof.
All channels capable of 5mA,
Diode output.



Analogue connector
Viewed from the rear of the desk

Pins 1 to 6 = channels 1 to 6
Pin 7 = Power in, +20 Volts @ 200mA
Pin 8 = 0V signal ground

External Power Supply Unit:

Separate plug mounted transformer with 4 pin locking DIN connector

Mains voltage 230V -18% to +10% (190V - 253V)

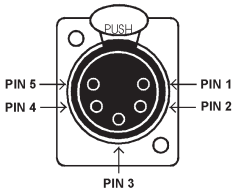
External PSU Connector:

Pin 1 = +9V DC (Unused on Level Plus desks)
Pin 2 = 0V
Pin 3 = +20V DC @ 200mA (used to power desk)
Pin 4 = not used

External Power Supply Connector.
Viewed from the rear of the desk.

DMX Output:

5 pin XLR, not isolated, with voltage protection.



DMX connector
Viewed from the rear of the desk

Pin 1 = 0V Signal ground
Pin 2 = 1- DMX drive compliment
Pin 3 = 1+ DMX drive true
Pin 4 & 5 = Not connected