INSTALL 6 USER GUIDE

zero88

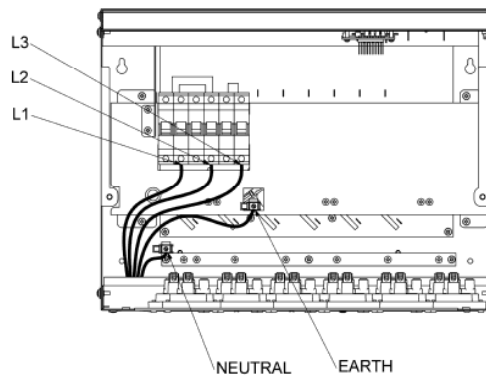<div style="border: 2px solid red; color: red; text-align: center;">

WARNING!
DO NOT OPEN THE COVERS WITHOUT FIRST
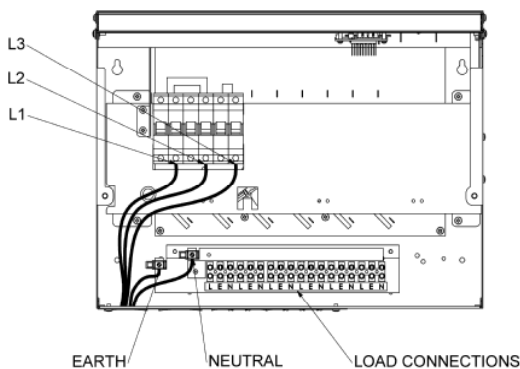**COMPLETELY DISCONNECTING THE INSTALL 6 FROM**
THE MAINS SUPPLY

</div>

To Open The Cover:

Isolate and disconnect the Install 6 from the mains supply.
The mains supply terminals are located under the lower front cover.
Remove the four screws on the front to open the front covers (one extra screw must be removed from either side of hardwired dimmer lower cover to remove it).
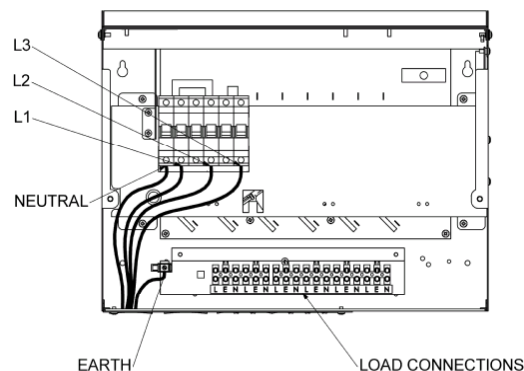
Connecting The Mains:

Supply Wiring – Socketed Variants

Supply Wiring – Hardwired Single Pole   **Supply Wiring – Hardwired Neutral Disconnect**

The dimmers are supplied with a selection of knockouts on the top and bottom for cable entry. These knockouts should be removed by pushing them from inside the case. Appropriate cable glands or grommets should be fitted to the knockout holes to protect the cables from damage.

Install 6 dimmers are designed to run on a nominal 230V AC, 50Hz 3 phase supply. Connection details are shown above. Supply phase connections can be linked together for single-phase operation.

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Load Connections (Hardwired variant only)

Load cables are connected to screw terminal blocks located on the rear panel of the unit. The terminals are labelled L1, E, N1, L2, E, N2, etc. Each will accept a 6mm² cable and should be connected as follows:

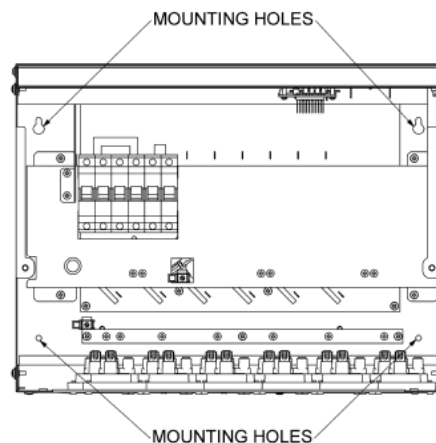L1 – Load Circuit 1 – Live   L2 – Load Circuit 2 – Live
E – Load Circuit 1 – Earth   E – Load Circuit 2 – Earth
N1 – Load Circuit 1 – Neutral   N2 – Load Circuit 2 – Neutral

…continue for all 6 load circuits.

Warning – Do not use common Neutrals for multiple loads.

Mounting/Installation:

Mounting Hole Positions

The dimmer is provided with four 6mm diameter holes for wall mounting. The mounting holes can be accessed by undoing the screws on the front, lowering the lower cover and raising the upper cover.

The unit should be installed in a dry, ventilated location, where ambient temperature and humidity are within the operating range of the unit (see technical specifications).

Recommended minimum clearance on all sides of the dimmer is 100mm.

Ventilation:

The Install 6 is fan cooled with the air flowing through the unit from side to side.
In order to prevent the unit from overheating, DO NOT block the vents located on either side of the unit.

If two or more Install 6 dimmers are installed side by side, recommended clearance between their sides is **300mm**, to ensure that warm air isn't taken in through the fan inlet.

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Specification Overview:
The Install 6 is a 6-channel installation dimmer, each channel capable of driving up to 10 Amp loads.
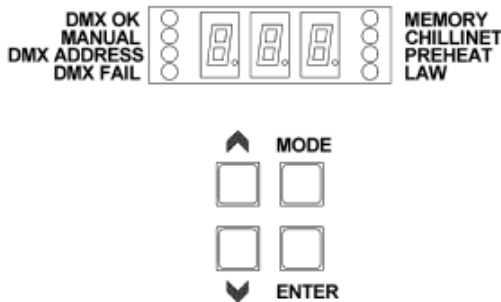
The dimmer is well specified, featuring breakers as standard, preheats per channel, 3 dimmer laws selectable per channel and 12 memories for standalone operation. Remote operation is possible by DMX or Chillinet.

Control Interface

The main display consists of three seven-segment displays; the data displayed is dependent on the set-up mode of the dimmer. Around the outside of these displays are eight LED's. Seven of which indicate the current set-up mode of the dimmer, the eighth is used for DMX indication.

The dimmer has a default mode, for operation. In this mode non of the set-up mode LED's will be lit, the main display will show the DMX address and if it has been terminated a small dot will be shown in the bottom right of the third display.

Mode Button:
The Mode button is used to cycle through the different set-up modes. They are;

- Manual
- DMX address
- DMX fail
- Memory
- Chillinet
- Preheat
- Law
- Default

Enter Button:
The Enter button is used to confirm actions.

Up & Down Buttons:
These are used to adjust the values shown in the main display. Pressing both buttons together will reset the display to the default values.

Set-up Modes:

Manual Control:
The Manual Control Mode allows the user to set-up a look on the dimmer without the need of an external controller.

Select '**Manual**' mode using the 'Mode' button. The display will show C.LL, where C is the channel number and LL is the level. Select the channel you require or 'A' for all channels, using the 'Up & Down' Arrows and press 'Enter'. Now set the level you require using the 'Up & Down' Arrows and press 'Enter' again to confirm and move back to the channel selection.

DMX Address:
The Install 6 uses a start or block address, which can be set from 001 – 507.

Select '**DMX ADDRESS**' using the 'Mode' button, the display will show the current DMX address. Select the required address using the 'Up & Down' Arrows.

DMX Fail:
There are three DMX fail modes available – 'fade to black', 'hold DMX' and 'fade to memory'.

Select '**DMX Fail**' using the 'Mode' button. Using the 'Up & Down' Arrows select your preferred choice from the list below;

Fail Mode	Main Display
Hold Last State	Hld
Fade to Zero	F00
Fade to Memory 1 - 12	F01 - F12

Memories:
The Install 6 will store 12 memories for stand alone operation, these can only be re-called if there is no DMX present.

1. Set-up the scene using the '**Manual**' control function or a DMX controller.

2. Select '**Memory**' using the 'Mode' button.

Using the 'Up & Down' Arrows select the required memory number and press the 'Enter' button to confirm. A 'p' should appear next to the memory to signify that it has been programmed.

Holding both the 'Up & Down' Arrows for 1 second will clear the selected memory. If these buttons are held for 5 seconds, ALL memories will be cleared.

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Chillinet:

Remote control of the Install 6 is possible using the Chillinet connectors mounted on the front panel. Each dimmer on a Chillinet system must have a unique dimmer number.

To enable Chillinet and set the dimmer number, Select **'Chillinet'** using the 'Mode' button.

Set the dimmer number using the 'Up & Down' Arrows and press 'Enter', to confirm. The display will flash the dimmer number while it is checked against other dimmers on the network.

If the dimmer number is found to be unique, then the display will return to being steady. If the dimmer number already exists on the network, the display will show '---'.

'---' indicates that Chillinet is disabled. To disable Chillinet, hold down the 'Up & Down' Arrows together.

Memory selection from Chillinet is only possible when a DMX control signal is not present.

The Chillinet network incorporates an 'Alarm' feature. If an Alarm message is received from another dimmer on the network, then the Install 6 will fade all outputs to 80%, and the display will show 'ALA'. In this state, all other control (INCLUDING OVER TEMPERATURE SHUTDOWN) is disabled.

Preheats:

Preheats can be selected on a per channel or all channel basis. The preheat level is preset to 5% and cannot be adjusted.

Select **'Preheat'** by cycling through the modes using the 'Mode' button.

Select required channel or 'A' for all channels, using the 'Up & Down' Arrows and press 'Enter', to confirm.

Now select on/off using the 'Up & Down' Arrows. Press 'Enter' to confirm and return to the channel selection.

Dimmer Laws:

Three dimmer laws are available, which can be selected per channel.

Select **'Law'** mode using the 'Mode' button. Using the 'Up & Down' Arrows select the channel required, or 'A' for all channels. Press 'Enter' to confirm. Now select the law you require, again using the 'Up & Down' Arrows and press 'Enter' to confirm and return to the channel selection.

Output Law	Main Display
Normal	n
Switch	S
Linear	L

Super User:

The dimmer has a number of hidden functions, located in the Super User Menu. The super user menu's can only be accessed from the **Default** mode (No LEDS Lit). To enter Super User press and hold the 'Up & Down' Arrows together and press and hold the 'Mode' button for 5 seconds. All the mode LED's will flash to indicate the dimmer is in super user mode.

The 'Up & Down' Arrows are used to cycle through the various super user functions. Pressing the 'Mode' button at any point will revert to normal operation. If no buttons are pressed after 20 seconds the unit will automatically revert to normal operation.

Dimmer Lock/Unlock

Press the 'Up & Down' Arrows until the display shows **"LOC".** Press 'Enter' to confirm this action. The dimmer will revert to the Default mode. Pressing the 'Mode' button now will only cycle between **Manual Control** and **Default** Mode.

If Super User is entered when the dimmer is locked, only the unlock function will be available. The display will show **"UNL".** To unlock the dimmer, press and hold the 'Enter' button for 5 seconds. The dimmer will unlock and exit super user returning to the Default mode.

DMX Termination:

Press the 'Up & Down' Arrows until the display shows **"ter"**. If the dimmer is terminated a dot will appear at the bottom of the last segment. Pressing the 'Enter' button will toggle between the two states.

Resetting The Dimmer:

Press the 'Up & Down' Arrows until the display shows **"rst"**. Press 'Enter' to confirm. The display will flash briefly to confirm this action. The dimmer will be reset to its default settings, shown in the table below:

Set Up Parameter	State
Manual Control Levels	All Off
DMX Address	1
DMX Fail Mode	Hold Last State
Memory	Memory Cleared
Preheat	Off (0%) for all channels
Law	Normal law for all channels
Chillinet	Disabled
DMX termination	Disabled

Firmware Version:

To identify which version of firmware is loaded in the dimmer, press the 'Up & Down' Arrows until the firmware version is shown in the display **(e.g. 1.03)** The 'Enter' button has no use here. (The firmware version will also be shown briefly on start up).

Internal Temperature:

Press the 'Up & Down' Arrows until the temperature is shown in the display, shown as **xxC**, where xx is the temperature in Centigrade. The 'Enter' button has no function in this mode.

Servicing Functions:

Versions of firmware prior to 1.03 include other functions within Super User, which are used for servicing and maintenance purposes. It is strongly recommended that these are only accessed by Zero 88 staff or an appointed Zero 88 dealer. From firmware version 1.03 onwards, these functions are hidden in normal operation.

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Technical:

> **WARNING – DO NOT OPEN THE FRONT COVER WITHOUT FIRST COMPLETELY DISCONNECTING THE INSTALL 6 FROM THE MAINS SUPPLY.**

Electrical:

The Install 6 range is designed to operate on 230v at 50Hz. The pack may not operate satisfactorily outside this specification.

- Mains Supply Voltage: 230V +/- 10%
- Single or 3 Phase (Star Only)
- Frequency: 45 – 65 Hz Tracking
- Channel Rating: 10A
- Rise Time: 80uS

Mechanical:

- Height: 334mm
- Width: 459mm
- Depth: 158mm
- Weight: 11.0kg (24lb)

DMX Connections

One male and one female 5 pin XLR connector. Pin assignment is:

Pin 1   0V
Pin 2   DMX- (RS485 B line)
Pin 3   DMX+ (RS485 A line)
Pin 4   Reserved
Pin 5   Reserved

DMX Indication:

On	DMX dimmer data (start byte of 00) being received OK.
Flash Fast	DMX data being received, but not dimmer data (start byte of 00)
Flash Slow	DMX data errors occurring.
Off	No DMX data being received.

Chillinet Connections:

Twin RJ12 connectors. Pin assignment is:

Pin 1   !! Factory use only. Do not connect !!
Pin 2   +12V
Pin 3   CAN-L
Pin 4   CAN-H
Pin 5   0V
Pin 6   !! Factory use only. Do not connect !!

Cooling:

Ambient Temperature: 0 to 40 Degrees Centigrade.

The Install 6 is fitted with a Fan for cooling, which is always on.

An internal temperature sensor monitors the temperature. If the temperature rises above the normal operating level the outputs are first reduced, then switched off altogether until the temperature falls back to a safe level.

The table below shows how the dimmer will react under these conditions. (Note: The temperature shown on the dimmer will be the actual temperature not the rounded figures given below)

Temperature	Output Levels (% of control)	Main display
<75C	100%	normal
75C-80C	100%	"75c"
80C-85C	80%	"80c"
85C-90C	60%	"85c"
90C-95C	40%	"90c"
>95C	0%	"hot"
sensor fault	100%	"err"

Notes:

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

This equipment is designed for professional stage lighting control, and is unsuitable for any other purpose.

It should be used by, or under the supervision of, an appropriately qualified or trained person.

E&OE. Zero88 Lighting Ltd reserves the right to change the specification without prior notice.

Manual Stock Number: 73-874-00

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