Chilli Pro

Today’s performance installations demand that lighting control intelligence can operate building wide. Chilli Pro have been designed from the start with this in mind and can deliver outstanding performance dimming.

Chilli Pro is a range of high density wall mounted convection cooled power switching and dimming cabinets. Quick to install and set up, easy to operate and maintain; Chilli Pros are the workhorse of any hard working professional venue.

Chilli Pros are available in 12 and 24 channel packages featuring 10 or 16 Amp load capacities with optional RCD protection, relay channels, bypass switches and RCBOs, contained in a slim line wall mounting enclosure.

The user interface and backlit LCD screen on each dimmer ensure simple convenient set up for DMX patching, preheat, topset and dimmer curves and for peace of mind, the user interface and all breakers are also protected by a lockable breaker cover.

A choice of responses to DMX failure, backup memories, built in chases and an alarm input trigger complete the versatile Chilli dimming package.

Please read this manual before use, especially the Warnings & Safety section.

Introduction

Thank you

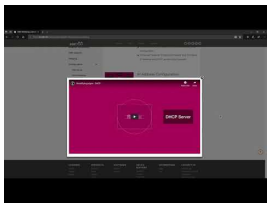
Thank you for choosing Chilli Pro by Zero 88 to fulfil your lighting dimming and power needs. We sincerely hope that your new unit will bring you years of trouble free service. We make great efforts to build in reliability and serviceability at every stage of our development and production processes and include a three-year limited warranty - giving you peace of mind for your investment.

Our extensive dealer network can also provide you with technical service and sales support in your local language no matter where you are in the world. If you have any questions, comments or problems our contact details can be found at zero88.com/support

Once again, thank you for choosing Zero 88.

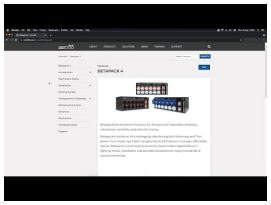
This manual

This online manual describes the operation of Chilli Pro installation power switching and dimming units.



https://youtu.be/gvNuwCChcrg

For an overview of the Zero 88 Online Manuals, take a look at this video.



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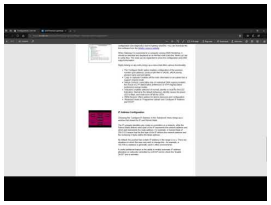
For detailed information on each function, the manual has been divided into chapters - one for each major area, which can be navigated using the menu on the left-hand side. You can also search the manual using the search bar top right.



https://youtu.be/7BZsxnBjcno

Each section or whole chapters can be exported to PDF by tapping "PDF", found just below the search bar. The whole manual can be exported as a PDF, by tapping "PDF" at the top page of the manual.

Zero 88 online manuals are updated regularly to ensure you have all the relevant information and useful tips. Check out the Revisions section to see what has been added. If you see something that doesn't look right, or have suggestions, please send us an email to support@zero88.com.

Conventions

Throughout this manual the following conventions are used:

References to physical front panel controls and buttons appear within a solid border, for example:

ENT ESC

References to fields which appear on the LCD screen are shown in italics, for example:

Manual Control, *Set Chan Level*

References to the screens shown on the LCD are displayed as follows:

```
DMX: 1

Temp: OK
```

Revisions

- Jan 2022 - ChilliNet videos embedded - ES
- Mar 2021 - Manual compiled - ES
- Jan 2021 - Manual created - ES

Chilli Pro Versions

Chilli Pro dimmers are known in the industry for being quick to install & set up, and easy to operate & maintain. Over the years, Chilli Pro has been updated to continue to improve the design. The latest version of Chilli Pro dimmers is MK3, and is the version this manual is written for.

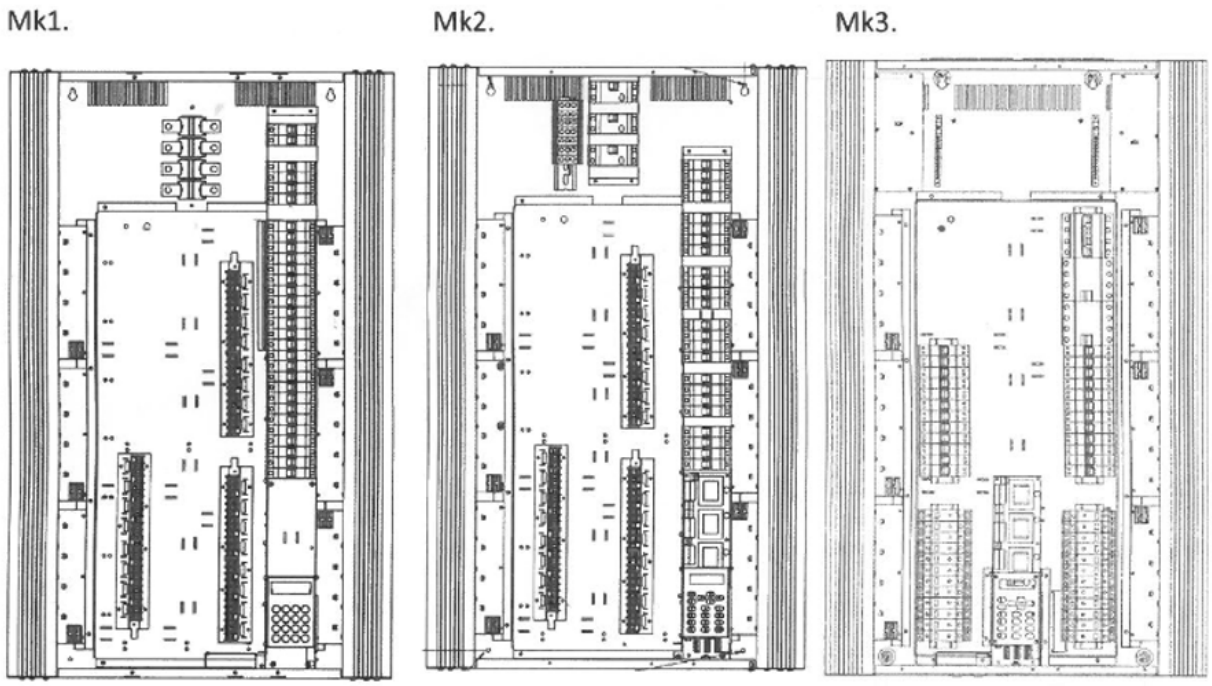
For more information on the latest Chilli Pro MK3 dimmers, click here.

For information on the legacy Chilli Pro MK1 and MK2 dimmers, click here.

Over the years, where possible, core parts were kept the same, and the MK1 and MK2 dimmer parts were completely interchangeable. However changes to the keypad/power PCB kits and output PCB on the MK3 are unique to this version.

Identifying Chilli Pro 24 versions

The simplest way to identify the dimmer type is by the configuration of the breakers as shown below:



MK1 & MK2

Visually there is little difference between the MK1 and MK2 versions. Both have a single metal door on the right-hand side that covers the breakers. It is only the configuration of the breakers that tells them apart. The MK1 has a single stack of 24 breakers, whereas the MK2 has the breakers split into groups of four.

MK3

The MK3 version is visually different to the MK1 & MK2. This has a door that covers the whole of the dimmer front panel and a lock on the left-hand side of the door. Breakers are then configured into two stacks of 12. The bypass variant will also have two stacks of 12 button switches below the breakers.

Warnings & Safety

- Do not remove the covers without first completely disconnecting Chilli Pro from the mains supply.
- This product must be earthed.
- 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.
- Airflow should not be impeded by covering the ventilation openings with items such as curtains, costumes, cabling etc.
- No naked flame sources, such as lighted candles or pyrotechnics, should be placed on or near the apparatus
- Chilli Pro should not be exposed to dripping or splashing, and no objects filled with liquids, such as vases or drinks, should be placed on the apparatus.

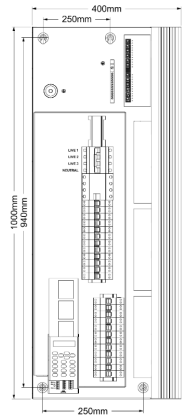
Installation

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

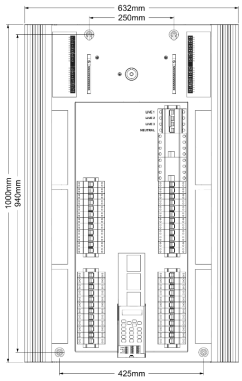
The units have ventilation slots / heatsink on all sides to allow convection cooling and under no circumstances should these be blocked.

Recommended minimum clearance around the units is 100mm each side of the unit and 50mm above and below the unit if trunking with a depth greater than 50mm is used.

The dimmer is provided with four 6mm diameter fixing holes for wall mounting. The mounting holes can be accessed by undoing the screws on the front cover and removing it.



Fixing whole positions on Chilli Pro 12. Click the image to enlarge.



Fixing whole positions on Chilli Pro 24. Click the image to enlarge.

Connecting the mains

Chilli Pro 12 & 24 are designed to run on a nominal 230V 50Hz 3-phase supply, with a maximum 100A per phase. However, all variants of Chilli Pro without RCDs can be converted to single phase operation. This results in a total 100A maximum input. A secure mains earth is required. Phase to neutral voltage must not exceed 255V.

The units are supplied with a selection of knockouts on the top of the unit for mains cable entry.

The Chilli Pro 12 has the following knockouts:

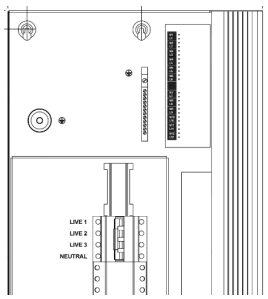
- Top 2 x Ø50.0mm,1 x Ø32.0mm
- Bottom 2 x Ø25.5mm

The Chilli Pro 24 has the following knockouts:

- Top 4 x Ø50.0mm, 2 x Ø32.0mm
- Bottom 2 x Ø25.5mm

Appropriate cable glands should be fitted to the knockout holes provided to protect the mains cables from damage.

Ensure that all the mains connections are fully tightened and lock washers are used where supplied.



Mains supply will come in from the top of the dimmer, with phases and neutral being wired to the isolator input terminals. Input terminals will accept a maximum 35mm^2 cable.

The Earth should be connected to the main Earth stud on the chassis of the dimmer.

RCD versions of Chilli Pro cannot be operated or powered from a single phase supply.

Connecting channel outputs

Chilli Pro 12

The Chilli Pro 12 has the following knockouts:

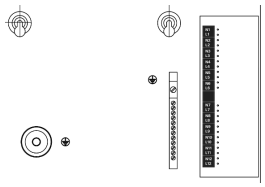
- Top 2 x Ø50.0mm,1 x Ø32.0mm
- Bottom 2 x Ø25.5mm

Appropriate cable glands should be fitted to the knockout holes provided to protect the mains cables from damage.

The channel (load) cables are connected to the terminal strips located on the top right of the unit. The outputs will accept a maximum 6mm^2 cable. Based on the variant you have; the channel loads will be protected by either MCB or RCBO.

- Phase 1 (brown*): Channels 1, 4, 7, 10
- Phase 2 (black*): Channels 2, 5, 8, 11
- Phase 3 (grey*): Channels 3, 6, 9, 12

*IEC Standard wiring colour codes



There is a dedicated terminal for the live and neutral of each output circuit. A shared Earth bus bar is mounted on the chassis of the dimmer.

Chilli Pro 24

The Chilli Pro 24 has the following knockouts:

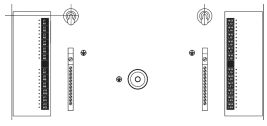
- Top 4 x Ø50.0mm, 2 x Ø32.0mm
- Bottom 2 x Ø25.5mm

Appropriate cable glands should be fitted to the knockout holes provided to protect the mains cables from damage.

The channel (load) cables are connected to the terminal strips. Channels 1 – 12 are located on the left hand side of the unit, and Channels 13 – 24 are located on the right hand side of the unit. The outputs will accept a maximum 6mm ^{2} cable. Based on the variant you have; the channel loads will be protected by either MCB or RCBO.

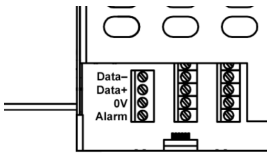
- Phase 1 (brown*): Channels 1, 4, 7, 10, 13, 16, 19, 22
- Phase 2 (black*): Channels 2, 5, 8, 11, 14, 17, 20, 23
- Phase 3 (grey*): Channels 3, 6, 9, 12, 15, 18, 21, 24

*IEC Standard wiring colour codes



There is a dedicated terminal for the live and neutral of each output circuit. Channels 1 to 12 are on the left hand side, and channels 13 to 24 are on the right hand side. A shared Earth bus bar is mounted on the chassis of the dimmer for channels 1-12, and a separate bus bar for 13-24.

Connecting DMX



DMX input is connected through a 4-way screw terminal block located on the control PCB.

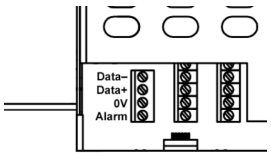
To loop through to another dimmer, simply connect both sets of wires into the same terminal block.

The terminals to be used are labelled RS485-, RS485+ and 0V.

If a Chilli Pro is the last device on the DMX line, the termination switch should be set to "Terminated".

If a Chilli Pro is NOT the last device on the DMX line, the termination switch must be off.

Alarm input



The Alarm Input is connected through a 4-way screw terminal block located on the control PCB (Figure 2-15).

The terminals to be used for the Alarm Input are labelled 0V and AL.

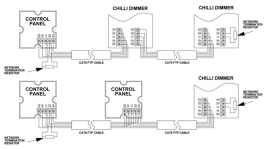
Any connection to the Alarm Input must be volt free and have a cable length of less than 50 metres. Cabling for this input should be segregated from power wiring.

The connector is in two parts and the screw terminal part may be removed from the PCB to ease making the connections. If removed for wiring, ensure that the orientation is correct when replacing the connector.

Connecting ChilliNet

Chilli Pro dimmers can be connected to Chilli Control Panels over ChilliNet. Other legacy ChilliNet devices are also compatible.

Each ChilliNet device has a set of network terminals or an RJ12 socket provided for connection to the Chilli network. The cable used to connect the various devices in the network must be CAT 5 (100MHz) FTP cable.



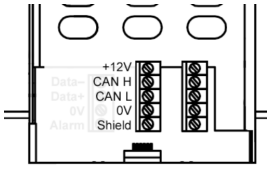
This is an example ChilliNet system, featuring Chilli Control Panels and Chilli Pro dimmers.

Network Connection

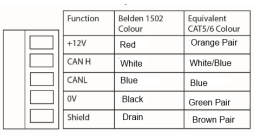
All network and control cables should enter the dimmer through the segregated route at the bottom of the dimmer. Segregation between control data cabling and power wiring should be maintained for reasons of safety and noise immunity.

Control data cabling should be run in separate or divided metal trunking or conduits. Where cables are run outside trunking or conduits there should be 300mm separation between them and where they cross they should do so at right angles. All devices in the Chilli network must be connected in serial. The devices in the network can be wired in any order.

ChilliNet Terminals



Inside the dimmer, the terminals for network connections use two-part connectors. Pull the connector from the PCB, connect the wires from the CAT 5 cable and push the connector back onto the PCB, ensuring correct orientation.



Function	Belden 1502 Colour	Equivalent CAT5/6 Colour
+12V	Red	Orange Pair
CAN H	White	White/Blue
CANL	Blue	Blue
0V	Black	Green Pair
Shield	Drain	Brown Pair

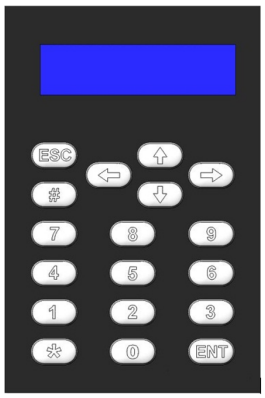
The Chilli Net terminals are labelled with the recommended colours of the pairs in CAT5 cable, however Belden 1502 cabling may be used.

Termination Resistors

At the two ends of the Chilli network, a network termination resistor must be fitted. Each Chilli Dimmer is supplied with a termination resistor fitted. This resistor is 120 ohms, 0.25 Watt and is connected between the CAN-H and CAN-L terminals.

This resistor must be **removed**, unless the dimmer is at either end of the Chilli network.

User Interface



This chapter describes all the various dimmer functions, which can be adjusted using the user interface buttons, with settings and information displayed on the LCD. If ChilliNet is enabled, the LCD will be in ChilliNet mode and will display different information.

LCD

The LCD comprises two lines of 16 characters, and shows various screens and information.

Numeric Keys

The numeric keys (0 - 9) are used for entering numerical data (e.g. channel number, manual levels, DMX addresses etc.)

Star Key

The function of the star key [*] is not yet defined.

Hash Key

The Hash key [#] is used to toggle the channel level between 0% and 100% in Manual Control or Edit memory.

Cursor Keys

The cursor keys are used to scroll across menus, select options from a defined range, or increase or decrease the value in a selected field.

The Up and Right keys are functionally identical. The Down and Left keys are functionally identical.

Enter Key

The Enter key [ENT] is used to confirm numeric data entry, move down menu structures, confirm operations etc.

Escape Key

The Escape key [ESC] is used to escape from the current menu to the menu level above.

Default Screens

Shortly after the dimmer is powered up, and after a period of 30 seconds of the user interface not being used, the default screen is shown on the LCD.

There are three different default screens that will be shown, depending on the current mode and state of the dimmer. These are Standard Mode, ChilliNet Mode, and Alarm State, and are described as follows:

Standard Mode

In standard mode, the LCD will show the DMX field on the top row, and the temperature status on the bottom row:

```
DMX: 1
Temp: OK
```

ChilliNet Mode

In ChilliNet mode, the LCD will show the DMX field on the top row, and the ChilliNet field on the bottom row:

```
DMX: 1
Chilli Net: 12
```

Alarm State

If the alarm state is active, the LCD will show:

```
DIMMER LOCKED
*ALARM ACTIVE*
```

These default screens contain three different fields; DMX, Temp and ChilliNet. These are described as follows:

DMX Field in the Default Screens

The DMX field in the default screen will show the status of the DMX input signal.

Receiving valid DMX dimmer data:

- “DMX: xxx” (DMX start address), or
- “DMX: Patched”

Receiving invalid DMX data:

- “NOT DIMMER”

DMX errors are occurring:

- “DATA ERROR”

No DMX data being received:

- “NO DATA"

DMX input disabled:

- “DMX: DISABLED”

Temp Field in the Default Screens

The Temp field in the default screen will show the status of the temperature sensor. During startup the text “Temp: No Val” is shown briefly whilst the dimmer is reading the sensor. This is normal behaviour.

Internal temperature sensor fault:

- “Temp: No Val”

Normal operating temperature (<80 C):

- “Temp: OK”

Hot (80 - 90 C):

- “Temp: HOT”

Overheat shutdown (> 95 C)

- “Temp: FAIL”

ChilliNet Field in the Default Screens

If the dimmer is operating in ChilliNet mode, the second line of the screen shows “Chilli Net: xx”, where xx is the dimmer number.

If the dimmer is in ‘dumb’ mode as a result of conflicting dimmer numbers on the network, the screen shows: “Chilli Net: CON”.

Menu Structure

From the Main Screen, press the ENT key to enter the menu structure. The menu structure is cyclic and the cursor keys are used for navigation.

After selecting a top level menu option, press the ENT key to enter the corresponding sub-menu. Hitting the ESC key on a screen generally returns to the menu level above the current one, except where specifically stated in this manual.

The top-level menu options are:

- Manual Control
- Memories
- Sequences
- Preheat
- Dimmer Laws
- Topset
- Reset Dimmer
- DMX Controls
- Security
- ChilliNet
- Area Control

When there are other menu options available at the same level < and > symbols will appear at the left and right hand sides of the screen. For example:

```
<Manual Control>
```

Manual Control

Select the *Manual Control* option from the top level menu options, and press the ENT key to enter the *Manual Control* menu. The following options are available:

- Set Chan Level
- Set All Chans

Use the cursor keys to scroll between the options. Press the ENT key to enter the menu for the selected option.

Set Channel Level

This option allows you to set up a manual control level between 0 - 100% for each of the dimmer channels.

Select the *Set Chan Level* option from the menu, and press the ENT key to enter the menu.

Standard mode

When operating in Standard mode, the screen shows:

```
Channel: xx
Level: xxx
```

The cursor is shown in the *Channel* field.

ChilliNet mode

When operating in ChilliNet mode, the screen shows:

```
A (xx) Channel: xx
Level: xxx
```

The cursor is shown in the *Channel* field.

The area number A(xx) shows the area that the dimmer channel is assigned to and is for information only.

In both Standard and ChilliNet modes, individual channel levels can then be adjusted using the numeric keypad or cursor keys. Press the ENT key to move between the *Channel* and *Level* fields.

The # key can be used as a quick method of setting the manual control levels to full or off. The first push will take it 100%, the second push will take it 0% etc.

Set All Channels

Standard Mode

In Standard mode, you can set a manual control level for all the channels on the dimmer in a single operation.

Select the *Set All Chans* option from the menu, and press the ENT key. The screen shows:

```
All Channels
Level: 0
```

ChilliNet Mode

In ChilliNet mode you can set a manual control level for all the channels in a specified area on the dimmer in a single operation.

Select the *Set All Chans* option from the menu, and press the ENT key. The screen shows:

Area: 1

Level: 0

The cursor is in the *Area* field. Press the ENT key to move between the *Area* and *Level* fields. The area number must be valid (i.e. the dimmer has one or more channels assigned to that area) to adjust the *Level* field.

Memories

The Chilli Dimmer can be programmed with up to 12 memories. The memories are programmed by grabbing the current outputs. The programmed memories can then be played back, when required. The channel levels and fade times for programmed memories can be edited.

In ChilliNet mode, memories are recorded, played back, edited and cleared on an area basis.

Select the *Memories* option from the top level options menu, and press the ENT key to enter the Memories menu.

Click the available options to find out more...

- Record Memory
- Play Memory
- Clear Memories
- Edit Memory

Record Memory

https://youtu.be/J48xAqBwtMY

Watch this video to find out about recording memories using DMX input.

https://youtu.be/l2BUpR3uTgg

Watch this video to find out about recording memories manually.

Standard Mode

In standard mode, recording memories allows you to store the current output levels in one of the 12 memories in the dimmer.

The fade time can also be adjusted, if required, during this operation.

It is recommended that when recording memories, the topset level for all channels is set to 100%.

Select the *Record Memory* option from the Memories menu, and press the ENT key. The screen shows:

```
Record Memory

xx
```

The cursor appears in the memory number field (xx). Unprogrammed memories are indicated by an '*' next to the memory number.

Use the numeric keypad or cursor keys to select the required memory (1 - 12).

Press the ENT key to confirm the memory selection. The screen shows:

```
Memory: xx

Fade Time: xx
```

The *Memory* field is for information only and is not editable. The cursor appears in the *Fade Time* field.

Use the numeric keypad or cursor keys to adjust the fade time as required (1 - 60 seconds).

Press the ENT key to save the fade time to the memory.

The dimmer will then grab the current output levels and store them in the selected memory.

The screen will briefly show a confirmation, and then return to the *Record Memory* screen.

ChilliNet Mode

In ChilliNet mode, recording memories allows you to store the current output levels in one of the 12 memories in the dimmer. Only the levels of the dimmer channels assigned to the specified area are recorded into the memory.

The fade time can also be adjusted, if required during this operation.

It is recommended that when recording memories, the topset level for all channels is set to 100%.

Select the *Record Memory* option from the Memories menu, and press the ENT key. The screen shows:

Area: 1

Memory: xx

The cursor is in the *Area* field. Enter the required area number using the numeric keypad or cursor keys, then press the ENT key. If the area is valid, the cursor moves to the Memory field.

Use the numeric keypad or cursor keys to select the required memory (1 - 12).

Unprogrammed memories have an '*' next to the memory number.

Press the ENT key to confirm the memory selection. The screen shows:

Area xx Mem xx

Fade Time: xx

The *Area* and *Mem* fields are for information only. The cursor appears in the *Fade Time* field.

Use the numeric keypad or cursor keys to adjust the fade time as required (1 - 60 seconds).

Press the ENT key to save the fade time to the memory.

The dimmer will then grab the current output levels for the selected area and store them in the selected memory.

The screen will briefly show a confirmation, and then return to the *Record Memory* screen.

Play Memory

https://youtu.be/I99mUjXXT70

Watch this video to find out about playing memories.

Standard Mode

In standard mode, this option allows you to playback (output) one of the 12 memories programmed in the dimmer.

Select the *Play Memory* option from the Memories menu, and press the ENT key. The screen shows:

Playback Memory

xx

The cursor appears in the memory number field (xx). If a memory is currently being output, then that number is shown in the field.

Use the numeric keypad or cursor keys to select a memory to be output (0 - 12).

Press the ENT key to confirm the memory number selection. The dimmer performs the following:

- **Memory Zero** - The outputs fade to zero in 3 seconds, and replace any previous memory or sequence being output.
- **Programmed Memory** - The outputs fade to those in the selected memory in the memory's fade time, and replace any previous memory or sequence being output.
- **Unprogrammed Memory** – * is displayed and the outputs do not change.

The screen returns to the *Play Memory* screen.

Memory Zero is a fixed, non-editable memory, with a fade time of 3 seconds and all channels programmed at 0%.

In standard mode, a dimmer can only play back one memory at a time.

ChilliNet Mode

This option allows you to playback (output) one of the 12 memories programmed in the dimmer, or any other dimmer on the network, on an area basis.

Select the *Play Memory* option from the Memories menu, and press the ENT key. The screen shows:

```
Area: 1

Memory: xx
```

The cursor is in the Area field. Enter the required area number using the numeric keypad or cursor keys, then pressthe ENT key.

If the area number is valid, the cursor moves to the Memory field.

If a memory for the selected area is currently being output from the dimmer, then that number is shown.

Use the numeric keypad or cursor keys to select a memory to be output (0 - 12).

Press the ENT key to confirm the memory number selection.

The dimmer sends out the corresponding Play Memory / Area message onto the network.

If the dimmer has one or more channels assigned to the specified area it performs the following:

- **Memory Zero** - The outputs fade to zero in 3 seconds, and replace any previous memory or sequence being output for the **selected area**.
- **Programmed Memory** - The outputs fade to those in the selected memory in the memories fade time, and replace any previous memory or sequence being output for the **selected area**.
- **Unprogrammed Memory** – * is displayed and the outputs do not change.

The screen returns to the *Play Memory* screen.

In ChilliNet mode, a dimmer can only play back one memory per area at a time, but may play back up to ten different memories if they are all in different areas.

Clear Memories

Standard Mode

This option allows you to clear all the 12 memories in the dimmer.

Select the *Clear Memories* option from the Memories menu, and press the ENT key. The screen shows:

```
Press ENT key to
clear memories
```

Press the ENT key to clear all the memories and any programmed sequences in the dimmer.

The screen returns to the *Memories* screen.

ChilliNet Mode

This option allows you to clear all the 12 memories for a specified area in the dimmer.

Select the *Clear Memories* option from the Memories menu, and press the ENT key. The screen shows:

Area: 1

ENT to clear

The cursor appears in the Area field. Use the numeric or cursor keys to select the required area number (0-10), then press the ENT key.

Area 0: This is a special case. The dimmer will clear all stored memories for all areas, and all programmed sequences on the dimmer.

Area 1 -10: The dimmer will clear all the stored memories for the selected area, and any programmed sequences for the selected area on the dimmer.

The screen returns to the *Memories* screen.

Edit Memory

https://youtu.be/eYAcLonjnsI

Watch this video to find out about editing memories.

Standard Mode

This option allows you to edit the channel values and fade time of a programmed memory stored on the dimmer.

Select the *Edit Memory* option from the Memories menu, and press the ENT key. The screen shows:

Edit Memory

xx

If the memory is **unprogrammed** - a star (*) is shown next to the memory number and the memory cannot be edited.

Use the numeric keypad or cursor keys to select the required memory (1-12), then press the ENT key to confirm.

If the memory is **programmed** - the dimmer **outputs** the selected memory and the screen shows:

Channel: 1

Level: xxx

The cursor is shown in the *Channel* field. The *Level* field shows the programmed value for the channel.

Adjust the level of each channel as required. This operation uses the same user interface as the *Set Channel Level* function in *Manual Control*.

Press the ESC key. The screen shows:

```
Memory: xx
Fade Time: xx
```

The *Memory* field is for information only. The cursor appears in the *Fade Time* field.

Use the numeric keypad or cursor keys to adjust the fade time as required (1 - 60 seconds).

Press the ENT key to save the fade time and the channel levels into the memory. The screen briefly shows a confirmation, and then returns to the *Edit Memory* screen.

The memory is removed from the outputs.

ChilliNet Mode

This option allows you to edit the channel values and fade time of a programmed memory for a selected area stored on the dimmer.

Select the *Edit Memory* option from the Memories menu, and press the ENT key. The screen shows:

```
Area: 1
Memory: xx
```

If the memory for the chosen area is **unprogrammed** - a star (*) is shown next to the memory number and the memory cannot be edited.

The cursor appears in the *Area* field. Enter the required area number using the numeric keypad or cursor keys, then press the ENT key.

If the area number is **valid**, the cursor moves to the *Memory* field.

Use the numeric keypad or cursor keys to select the required memory (1 - 12), then press the ENT key to confirm.

If the memory for the chosen area is **programmed** - the dimmer **outputs** the selected memory and the screen shows:

```
A(xx) Channel: 1
Level: xxx
```

The area number field A(xx) is for information only. The cursor is shown in the *Channel* field.

The *Level* field shows the programmed value for that channel in the memory.

Adjust the level of each channel as required. This operation uses the same user interface as the *Set Channel Level* function in *Manual Control*.

Only those channels which are assigned to the specified area may be selected and edited.

Press the ESC key. The screen shows:

```
Area xx Mem xx

Fade Time: xx
```

The Area and Memory fields are for information only and are not editable.

The cursor appears in the Fade Time field.

Use the numeric keypad or cursor keys to adjust the fade time as required (1 - 60 seconds).

Press the ENT key to save the fade time and the channel levels into the memory.

The screen will briefly show a confirmation, and then return to the *Edit Memory* screen.

The memory is removed from the outputs.

Sequences

The Chilli Dimmer can be programmed with up to 3 different sequences, each containing a maximum of 12 steps.

In Standard mode, each step in a sequence is a reference to one of the **programmed** memories in the dimmer.

In ChilliNet mode, each sequence is associated with a specific area. Each step in a sequence is a reference to a memory in that area, but the memory does **not** have to be programmed in the dimmer itself.

Each sequence also has a cross-fade and dwell time which determines how the sequence runs:

- X-Fade Time - The cross-fade time is the time it takes to fade between two steps in a sequence. The default crossfade time is 1 second.
- Dwell Time - The dwell time is the time that the outputs remain on the values in the current step of the sequence before fading to the next step. The default dwell time is 1 second.

Select the *Sequences* option from the top level options menu, and press the ENT key to enter the Sequences menu.

Click the available options to find out more...

Program Sequence

Standard Mode

This option allows you to program one of the three sequences, using the programmed memories in the dimmer.

Select the *Program Sequence* option from the Sequences menu, and press the ENT key, the screen shows:

```
Select

Sequence: 1
```

Use the numeric or cursor keys to select the required sequence number, then press the ENT key. The screen shows:

```
Seq 1 Step: 1

Memory: xx
```

The cursor appears in the *Step* field.

The *Memory* field shows the contents of the step, if programmed, or “xx” if the step is not programmed.

Select the **first** step in the sequence, then press the ENT key. The cursor moves to the *Memory* field.

Use the cursor keys to select one of the **programmed** memories in the dimmer. Press the ENT key to assign the memory to the selected step. The cursor returns to the *Step* field.

Use the cursor keys to select the **next** step in the sequence, then press the ENT key. The cursor moves to the *Memory* field.

Use the cursor keys to select one of the **programmed** memories in the dimmer. Press the ENT key to assign the memory to the selected step. The cursor returns to the *Step* field.

Repeat the above process until all the steps in the sequence have been programmed (maximum of 12 steps).

ChilliNet Mode

This option allows you to program any of the three sequences in the dimmer with memories for a specific area.

Select the Program Sequence option from the Sequences menu, and press the ENT key. The screen shows:

```
Sequence: 1 (Axx)

Area: 1
```

The cursor appears in the *Sequence* field. Use the numeric or cursor keys to select the required sequence number.

Press the ENT key. The cursor moves to the *Area* field. Use the numeric or cursor keys to select the required area. Press the ENT key. The screen shows:

```
Seq 1 Step: 1 (Axx)

Memory: xx
```

The cursor appears in the *Step* field. The *Memory* field shows the contents of the step, if programmed, or “xx” if not programmed.

Select the **first** step in the sequence, then press the ENT key. The cursor moves to the *Memory* field.

Use the cursor keys to select the required memory number (1 - 12). Press the ENT key to assign the memory to the selected step. The cursor returns to the *Step* field.

Use the cursor keys to select the **next** step in the sequence, then press the ENT key. The cursor moves to the *Memory* field.

Use the cursor keys to select the required memory number (1 - 12). Press the ENT key to assign the memory to the selected step. The cursor returns to the *Step* field.

Repeat the above process until all the steps in the sequence have been programmed (maximum of 12 steps).

Playback Sequence

Standard Mode

This option allows you to playback any of the three programmed sequences, and start and stop sequences running. Only one sequence can be running at a time.

Select the *Playback Sequence* option from the Sequences menu, and press the ENT key. If there is no sequence currently running in the dimmer, the screen shows:

Sequence: 1

ENT to start

If sequence X is currently running in the dimmer, the screen shows:

Sequence: X

ENT to stop

Use the cursor keys to select the required sequence.

The second line of the screen shows the current state of the selected sequence.

Starting a Sequence

Select the required sequence using the cursor keys, then press the ENT key.

The sequence will start running and replace any memory or sequence which was previously being output.

Stopping a Sequence

Select the sequence that is currently running in the dimmer using the cursor keys, then press the ENT key.

The sequence will stop running.

ChilliNet Mode

This option allows you to playback any of the three programmed sequences, and start and stop sequences running. Only one sequence can be running at a time.

Select the *Playback Sequence* option from the Sequences menu, and press the ENT key. If there is no sequence currently running in the dimmer, the screen shows:

Sequence: 1

ENT to start

If sequence X is currently running in the dimmer, the screen shows:

Sequence: X

ENT to stop

Use the cursor keys to select the required sequence.

The second line of the screen shows the current state of the selected sequence.

Starting a Sequence

Select the required sequence using the cursor keys, then press the ENT key.

The sequence will start running. The dimmer sends out a start sequence message onto the network, and then play memory / area messages at the appropriate times.

Starting a sequence in an area will replace any memory or sequence for that area currently being output by the dimmer.

Stopping a Sequence

Select the sequence that is currently running in the dimmer using the cursor keys, then press the ENT key.

The sequence will stop running. The dimmer sends out a stop sequence message onto the network.

Sequence Options

This option allows you to adjust the crossfade and dwell times for the sequences in the dimmer.

These times are global and apply to all three sequences in the dimmer.

Select the *Sequence Options* option from the Sequences menu, and press the ENT key, the screen shows:

X-Fade Time: xx

Dwell Time: xxx

The cursor appears in the *X-Fade Time* field. Use the numeric keypad or cursor keys to adjust the fade time as required (range 1 - 60 seconds).

Press the ENT key to confirm the crossfade time. The cursor moves to the *Dwell Time* field.

Use the numeric keypad or cursor keys to adjust the dwell time as required (range 1 - 600 seconds).

Press the ENT key to confirm the dwell time. The cursor moves to the *X-Fade Time* field.

Clear Sequence

This option allows you to clear any of the sequences in the dimmer.

Select the *Clear Sequence* option from the Sequences menu, and press the ENT key, the screen shows:

```
Select
Sequence: 1
```

Use the numeric keypad or cursor keys to select the required sequence, then press the ENT key, the screen shows:

```
Push ENT key to
clear sequence
```

Press the ENT key. The screen returns to the

Clear Sequence screen.

Preheat

Select the *Preheat* option from the top level menu options, and press the ENT key to enter the Preheat menu. The following two options are available:

- Set Preheat
- Clear Preheats

Set Preheat

This option allows you to set up a preheat level (between 0 - 20%) for **each** of the dimmer channels.

Select the Set *Preheat* option from the menu, and press the ENT key. The screen shows:

Channel: xx

Level: xx

The cursor is shown in the *Channel* field. Press the ENT key to move between the *Channel* and *Level* fields, and adjust the values using the numeric keypad or cursor keys.

Clear Preheats

This option allows you to clear the preheat levels for **all** of the dimmer channels to 0%.

Select the *Clear Preheats* option from the menu, and press the ENT key. The screen shows:

Push ENT key to

Clear Preheats

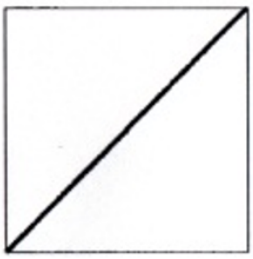
Press the ENT key to set all the channel preheat levels to 0%.

Dimmer Laws

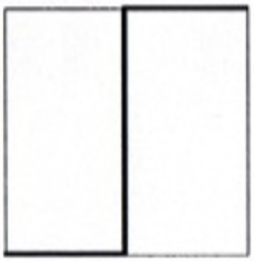
You can choose a dimmer law for **each** of the Triac dimmer channels. The dimmer laws determine the relationship between the control value and the output value supplied to the lamp. The following two options are available:

- Set Laws
- Reset Laws

Normal - The standard output of the dimmer.



Linear - Suitable for most live or theatrical situations.



Switch - Output switches from zero to full when the input reaches 50% (DMX slot value of 128).

Square - For use with video cameras.

Non-dimmable loads should NOT be connected to Chilli Pro dimmer channel outputs, without the use of the bypass switch being pressed on bypass variants. Feeding non-dimmable loads off a dimmer channel may cause damage to both the load device and Chilli Pro.

The Switch dimmer law is not a relay, and should only be used to switch dimmable loads.

Set Laws

This option allows you to set up the dimmer law for each of the Triac dimmer channels.

Select the *Dimmer Laws* option from the top level menu options, and press the ENT key to enter the Dimmer Laws menu.

Select the *Set Laws* option from the menu, and press the ENT key. The screen shows:

Channel: xx

Law: xxxxxx

The cursor is shown in the *Channel* field.

The channel is selected using the numeric keypad or cursor keys. Press the ENT key to move between the *Channel* and *Law* fields.

When the cursor is in the *Law* field, the cursor keys cycle through the laws.

The currently selected law for the channel is indicated by a '*', for example:

```
Channel: 10

Law: Normal*
```

Reset Laws

This option allows you to reset the dimmer laws for all dimmer channels.

Select the *Dimmer Laws* option from the top level menu options, and press the ENT key to enter the Dimmer Laws menu.

Select the *Reset Laws* option from the menu, and press the ENT key. The screen shows:

```
Push ENT key to

reset all laws
```

Press the ENT key to set the state of all Triac laws to normal, and Relay Laws to Switched. The screen will briefly show a confirmation, and then return to the *Dimmer Laws* screen.

Topset

The Topset function is used to apply a scaling factor to the **final output level** of a channel, such that the input control range gets compressed into a smaller output range.

For example - If the input level of a channel is 80% and the Topset level of the channel is 50%, the output level will be 80% x 50% = 40%.

Select the *Topset* option from the top level menu options, and press the ENT key to enter the Topset menu. The following two options are available:

- Set Topset
- Clear Topsets

Set Topset

This option allows you to set up a topset level (between 0 - 100%) for each of the dimmer channels.

Select the *Set Topset* option from the menu, and press the ENT key. The screen shows:

```
Channel: xx
Level: xx
```

The cursor is shown in the *Channel* field. Press the ENT key to move between the *Channel* and *Level* fields, and adjust the values using the numeric keypad or cursor keys.

Clear Topsets

This option allows you to clear (reset) the topset levels for all the dimmer channels to 100%.

Select the *Clear Topsets* option from the menu, and press the ENT key. The screen shows:

```
Push ENT key to
Clear Topsets
```

Press the ENT key to set all the topset levels to 100%.

Reset Dimmer

This option allows you to reset the dimmer to its default settings which are defined as follows:

- All Triac dimming laws set to Normal.
- All Relay dimming laws set to Switched.
- Preheat for all channels off (0%).
- All memories cleared.
- All memory fade times reset to 3s.
- All sequences cleared.
- Sequence crossfade reset to 1s.
- Sequence dwell time reset to 1s.
- DMX Fail mode - Fade to Black.
- DMX Address set to 1.
- DMX Input Mode - HTP Mix.
- RDM set to enabled.
- All Manual Control levels set to 0%.
- All Topset levels set to 100%.
- ChilliNet set to disabled.
- All channels assigned to Area 1.

Select the *Reset Dimmer* option from the top level options menu, and press the ENT key. The screen shows:

```
Push ENT key to
Reset Dimmer
```

Press the ENT key. The screen shows:

```
Press ENT key to
Confirm Reset
```

Press the ENT key to reset the dimmer as described above. The screen returns to the main screen.

DMX Controls

This option allows you to set the DMX start address for the dimmer, patch individual channels to the DMX, or reset the DMX patch to default.

This option also allows you to decide how the DMX input signal is processed by the dimmer and set the DMX fail mode, where applicable.

Select the *DMX Controls* option from the top level menu options, and press the ENT key to enter the DMX Controls menu.

Click the available options to find out more...

Set Start Address

This option allows you to set a DMX start address for the dimmer.

The dimmer channels are then patched automatically as a contiguous block starting at the specified address.

Select the *Set Start Address* option from the menu, and press the ENT key. The screen shows:

```
DMX Address

xxx
```

Enter the DMX address using the numeric keypad or cursor keys, then press the ENT key.

This sets the start address for the dimmer. The screen pauses briefly and then returns to the *DMX Controls* screen.

Valid DMX Start Addresses

- 12 channel dimmer: 1 - 501
- 24 channel dimmer: 1 - 489

Set DMX Patch

This option allows you to set an individual DMX address (1 - 512) for **each channel** of the dimmer.

Select the *Set DMX Patch* option from the menu, and press the ENT key. The screen shows:

```
Channel: xx

DMX: xxx
```

The cursor appears in the *Channel* field. Press the ENT key to move between the *Channel* and *DMX* fields, and adjust the values using the numeric keypad or cursor keys.

Reset DMX Patch

This option allows you to reset the start DMX address for the dimmer to DMX channel 1.

Select the *Reset DMX Patch* option from the menu, and press the ENT key. The screen shows:

```
Push ENT key to
Reset DMX Patch
```

Press the ENT key to reset the DMX patch. The screen returns to the *Reset DMX Patch* screen.

DMX Input

This option allows you to enable or disable the DMX input signal to the dimmer without having to physically disconnect the DMX cable.

When the DMX input is enabled, you can choose between two modes of operation - HTP mixing or DMX takes precedence.

If the dimmer is in ChilliNet mode, you can also turn the selected DMX Input mode for the dimmer, on or off for each area defined on the dimmer.

If the DMX Input is enabled, you can select the DMX Fail Mode, that is, choose what happens to the dimmer outputs if the DMX input signal fails (Hold DMX, Fade to Black or Fade to Memory).

When the DMX Input is disabled, any DMX input signal is ignored.

DMX Disabled

Any DMX Input is ignored by the dimmer. The outputs are determined by the manual control and memory or sequence levels only, which are HTP mixed together.

DMX HTP Mix

The DMX Input signal is mixed on a HTP (highest takes precedence) basis with the manual control and memory or sequence levels to give the final output levels.

DMX Takes Precedence

When the DMX Input signal is **available**, it takes precedence over the manual control and memory/sequence levels - the outputs go to the DMX Input levels.

When the DMX Input signal is **not available**, the outputs are determined by the manual control and memory or sequence levels which are HTP mixed.

DMX Input - Standard Mode

Select the *DMX Input* option from the menu, and press the ENT key. The screen shows the current setting for the dimmer, for example:

```
< DMX DISABLED >
```

Use the cursor keys to set the DMX input to the required option (DMX DISABLED, DMX HTP MIX, or DMX PRECEDENCE).

Press the ENT key to confirm the DMX Input selection.

If DMX DISABLED was selected, the screen returns to the *DMX Input* screen, otherwise the screen shows:

DMX FAIL MODE

< Hold DMX >

Select the required DMX fail Mode as follows:

- **Hold DMX** - Use cursor keys to select this option. Press the ENT key.
- **Fade to Black** - Use cursor keys to select this option. Press the ENT key.
- **Fade to Memory** - Use cursor keys to select this option. The screen shows:

DMX FAIL MODE

<Fade to Mem:xx>

Use the numeric keypad to enter the required memory number, then press the ENT key.

After selecting the required fail mode and pressing the ENT key, the screen returns to the *DMX Input* screen.

DMX Input - ChilliNet Mode

Select the *DMX Input* option from the menu, and press the ENT key. The screen shows the current setting for the dimmer, for example:

< DMX DISABLED >

Use the cursor keys to set the DMX input to the required option (DMX DISABLED, DMX HTP MIX or DMX PRECEDENCE).

Press the ENT key to confirm the DMX Input selection.

If DMX DISABLED was selected, the screen returns to the *DMX Input* screen, otherwise the screen shows:

Area: 1

DMX: ON

This screen allows you to turn the selected DMX Input Mode on or off for each area defined on the dimmer.

The cursor is shown in the *Area* field. Use the numeric keypad or cursor keys to select an area, then press the ENT key.

If the selected area is valid, the cursor moves to the *DMX* field.

Use the cursor keys to select On or Off as required. Press the ENT key. The cursor returns to the *Area* field.

Repeat the operation for each area defined on the dimmer.

Press the ESC key to move on to the DMX Fail Mode screen:

```
DMX FAIL MODE

< Hold DMX >
```

This screen allows you to set the DMX Fail Mode for the dimmer.

Select the required DMX Fail Mode for the area as follows:

- **Hold DMX** - Use cursor keys to select this option. Press the ENT key.
- **Fade to Black** - Use cursor keys to select this option. Press the ENT key.
- **Fade to Memory** - Use cursor keys to select this option. The screen shows:

```
DMX FAIL MODE

<Fade to Mem:xx>
```

Use the numeric keypad to enter the required memory number, then press the ENT key.

After selecting the fail mode, the screen returns to the *DMX Input* screen.

DMX Fail Modes

Hold DMX

In HTP Mix mode, the last DMX input levels are held in the dimmer and mixed in as normal.

In DMX Precedence mode, the DMX inputs are removed from the output calculations.

Fade To Black

The DMX Input values and any memory or sequence being output are faded to black (0%) over 3 seconds.

Fade To Memory

If the dimmer is not outputting a memory or sequence, the outputs fade to the specified backup memory. If the dimmer is outputting the backup memory, the outputs fade to that memory. If the dimmer is outputting a **different** memory or sequence, the outputs will fade or snap to the memory or sequence.

In Standard mode the above statements apply to all dimmer channels.

In ChilliNet mode the above statements are applied to the channels on an area basis, since each area could be outputting a different memory or sequence at the time of DMX failure.

RDM

Select the *RDM* option from the menu, and press the ENT key. The screen shows the current setting for the dimmer, for example:

```
< RDM Control >

RDM is On
```

Use the cursor keys to alter this setting between *On* and *Off*, to enable or disable the DMX RDM (Remote Device Management) functionality of the Chilli Dimmer.

RDM Support

The first 5 digits of the part number are used for the Device Model ID., e.g. 01105 (0x0451) for the Chilli Pro 1210.

Supported Parameters:

- DMX_START_ADDRESS,
- SENSOR_DEFINITION,
- SENSOR_VALUE,
- DEVICE_LABEL,
- MANUFACTURER_LABEL,
- DEVICE_MODEL_DESCRIPTION

Sub Devices:

- One per channel

Security

This option allows you to lock the dimmer, disabling all menu access. The dimmer is locked and unlocked manually by entering a four digit code.

Global Unlock Code

There is a global unlock code which will unlock the Chilli Dimmer. If the code to unlock the dimmer has been forgotten, contact Zero 88 or your dealer for further information.

Networked Dimmers

A networked dimmer can be locked locally as described in this section.

This will **not** prevent the dimmer from being controlled from a Chilli Master Controller or Chilli control panels connected to the network.

A networked dimmer can also be locked and unlocked from a Chilli Master Controller.

Locking the Dimmer

Select the *Security* option from the top level options menu, and press the ENT key. The screen shows:

Lock Dimmer

Code: xxxx

Use the numeric keypad to enter a 4 digit code and then press the ENT key. The screen shows:

Confirm Code

Code: xxxx

Re-enter the same 4 digit code and then press the ENT key to confirm.

If the codes match - the dimmer is locked, the screen returns to the main screen, and all menu access is disabled.

If the codes do not match - an error message is briefly shown, and the screen returns to the *Lock Dimmer* screen above.

Unlocking the Dimmer

If the dimmer is locked, the main screen will be shown, and all menu access will be disabled.

If the ENT key is pushed in order to gain access to the menus, the screen shows:

Dimmer Locked

Code: xxxx

Enter the 4 digit code using the numeric keypad, and then press the ENT key.

If the correct code is entered - the dimmer is unlocked, and the screen shows the first screen in the top level menu structure (Manual Control).

If an incorrect code is entered - an error message is briefly shown and the screen returns to the main screen.

ChilliNet

https://youtu.be/Qz6gTDPSBe4

Watch this video to find out about enabling ChilliNet.

This option puts the dimmer into ChilliNet mode so that it can be controlled remotely by other ChilliNet devices. The main ChilliNet devices used to control Chilli dimmers are Chilli wall control panels, however other ChilliNet devices may include other Chilli Dimmers on the network, or the legacy Chilli Master Controller, all via ChilliNet messages.

For the network to function correctly each dimmer on the network must have a **unique** dimmer number.

Select the *Chilli Net* option from the top level options menu, and press the ENT key. The screen shows:

State: Disabled

Dimmer No: xxx

The cursor is in the *State* field. Use the cursor keys to select Enabled. Press the ENT key to move the cursor to the *Dimmer No* field:

State: Enabled

Dimmer No: xxx

Enter the dimmer number using the numeric keypad or cursor keys. Press the ENT key to confirm.

The dimmer number is checked against other dimmers on the network. The screen shows:

Verifying

Dimmer No

If the dimmer number is valid, the screen will briefly show:

Dimmer No

Accepted

If the dimmer number is already used on the network, the screen will briefly show:

Dimmer No

Already Used

Area Control

https://youtu.be/vH8pOu9ChS0

Watch this video to find out about configuring ChilliNet areas.

This option is only available when the dimmer is in ChilliNet mode.

This option allows you to assign each of the dimmer channels to an Area (1 - 10).

Select the *Area Control* option from the top level menu options, and press the ENT key to enter the Area Control menu.

The following options are available:

- Set Chan Area
- Set All Chans

Set Channel Area

This option allows you to assign an area to each of the dimmer channels individually.

Select the *Set Chan Area* option from the menu, and press the ENT key. The screen shows:

Channel: 1

Area: 1

The cursor is in the *Channel* field. Press the ENT key to move between the *Channel* and *Area* fields, and adjust the values using the cursor keys and numeric keypad.

Repeat operation for each channel.

Set All Channels

This option allows you to assign an area to all the channels on the dimmer in a single operation.

Select the *Set All Chans* option from the menu, and press the ENT key. The screen shows:

```
All Channels
Area: 1
```

Use the numeric keypad or cursor keys to enter the required area number (1-10) and then press the ENT key.

Alarm Input

The Chilli Dimmer has an alarm input, which when activated, causes it to enter an alarm state.

If the dimmer is connected to ChilliNet, it will also send out alarm messages to ensure that all other devices on the network also enter the alarm state.

Alarm Input Active

When the dimmer's Alarm Input is **activated**, the following will occur:

- The dimmer enters the Alarm State.
- All channel output levels fade to 80% over a period of 1s.
- All menu access via the control panel is disabled.
- The screen shows:

```
DIMMER LOCKED
* ALARM ACTIVE *
```

- If the dimmer is in ChilliNet mode it sends out an Alarm On message.
- The Alarm On message is repeated every 5 seconds while the Alarm Input remains active.

Alarm Input Inactive

When the dimmer's Alarm Input changes from **active to inactive**, the following will occur:

- The dimmer exits the Alarm State.
- All output channels fade to their normal levels over a period of 1s.
- All menu access via the control panel is enabled.
- The screen shows the main screen.
- If the dimmer is in Network Mode it sends out an Alarm Off message.

Alarm On Message

When a networked dimmer receives an Alarm On message, the following will occur:

- The dimmer enters the Alarm State.
- All channel output levels fade to 80% over a period of 1s.
- All menu access via the control panel is disabled.
- The screen shows:

```
DIMMER LOCKED

* ALARM ACTIVE *
```

Alarm Off Message

When a networked dimmer receives an Alarm Off message and its Alarm Input is not active, the following will occur:

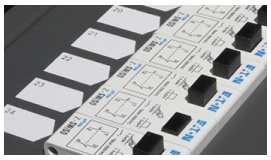
- The dimmer exits the Alarm State.
- All output channels fade to their normal levels over a period of 1s.
- All menu access via the control panel is enabled.
- The screen shows the main screen.

Alarm State

When the dimmer is in the Alarm State, the output levels are subject to topset, but not temperature shutdown. Manual control levels, memories, sequences, preheat and DMX inputs do not have any contribution to the final output levels.

On power up, the alarm state of the dimmer is determined by the alarm input only, ie it does not remember any alarm messages previously received.

Bypass Switches



Chilli Pro dimmers are available in variants with bypass switches per channel. With bypass variants, a dedicated bypass switch per channel is provided on the front of the Chilli Pro.

When a bypass switch is pressed in for a channel, the supply to the channel output bypasses the dimming circuitry, and is fed from the mains supply. This therefore allows you to connect non-dimmable loads to this channel's output, such as moving lights or LED fixtures.

Non-dimmable loads should NOT be connected without the bypass switch being activated. Powering non-dimmable loads directly from the dimming circuitry can cause damage to both the load device and Chilli Pro.

Relay Cards

Chilli Pro can have dimmer channels replaced with relays, by fitting a relay card. Relay cards are 4 channel boards, which can be used to replace blocks of 4 dimming channels with relays. These relays can then be controlled by DMX, to switch the connected load.

Relay cards are available as a primary and secondary board. The primary card includes a PSU, and so a single primary card can be added to give 4 relay channels. Additional secondary cards can then be added and powered off the primary, to give more relays.

Chilli Pro 12 can have a single primary card, with a pair of secondary cards powered from the primary, to provide all 12 channels as relays.

Chilli Pro 24 can have a pair of primary cards, and a pair of secondary cards powered from each primary, to provide all 24 channels as relays.

When using relays channels, the channels must be configured to use a "Switch" dimmer law in the dimmer settings. Click here for more information.

Click here for fitting instructions.

Relay Card Fitting Instructions

Introduction

Chilli dimmers can have blocks of 4 dimmer channels replaced with relays. Chilli Pro MK3 support six cards (2 primary and up to 4 secondary). The secondary cards must be placed directly above or below a primary card. Chilli MK1 & MK2 support three cards (1 primary, and up to 2 secondary).

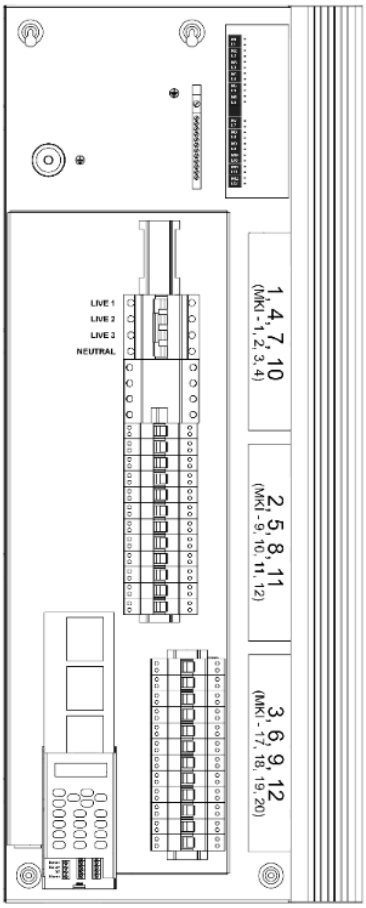
These instructions are for the following upgrade kits:

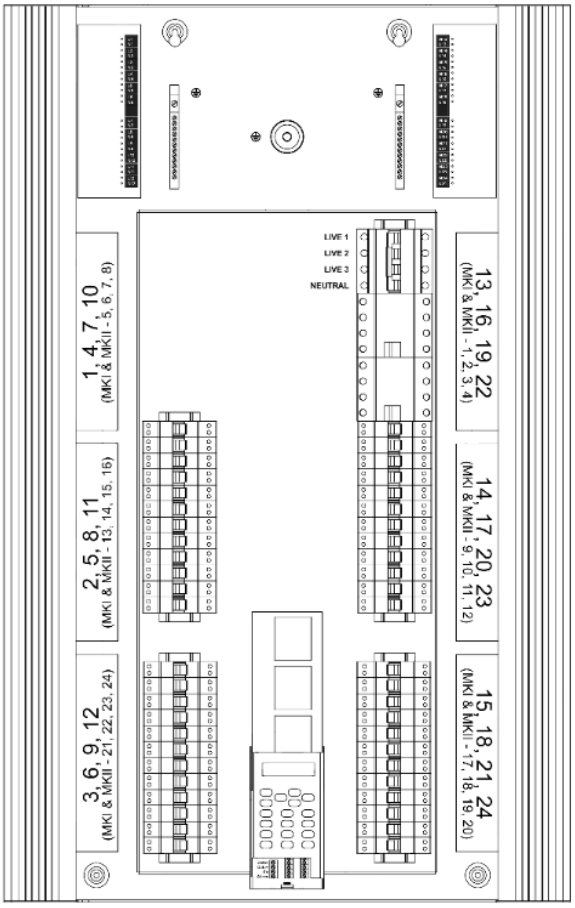
- 0095-000108-00 - Primary Relay Card & PSU Kit
- 0095-000109-00 - Secondary Relay Card Kit

To confirm your version of Chilli dimmer, see the link below...

https://zero88.com/manuals/chillipro/introduction-105/chilli-pro-versions

Chilli Channel Outputs





Ensure the power supply to the dimmer is isolated before commencing this procedure.

Observe precautions for handling Electrostatic Sensitive Devices

Instructions for Chilli Pro MK3

Configure Relay Channels

1 . Prior to fitting the relay cards, configure the channels you wish to convert to relays in the dimmer settings. Usingthe User Interface:

1. Press Enter to get to the Menu
2. Use the Up/Down Arrows to select Dimmer Laws
3. Press Enter
4. Use the Up/Down Arrows to get to Set Laws
5. Press Enter
6. Use the Up/Down Arrows to Select the Channel
7. Press Enter to confirm
8. Use the Up/Down Arrows to Select the law [Switch]
9. Press Enter to confirm and repeat for all necessary channels.

2 . Remove the front cover(s) by removing the screws on the front of the unit.

Retain all screws as they will be required for reassembly.

3 . Before assembling it to the unit, fit the following wires to the power supply of the Primary Card:

1. Fit the brown Live wire to Live PSU terminal.
2. Fit blue Neutral wire to Neutral PSU terminal.
3. Fit terminated end of black wire on the long DC supply cable to a – terminal on the PSU
4. Fit terminated end of red wire on the long DC supply cable to a + terminal on the PSU

4 . For non-bypass variants, the PSU can be fitted at the top of the DIN rail where the Bypass switches would be fitted.

5 . Screw the other end of the brown Live wire into the first circuit breaker. Screw the other end of the blue Neutral wire into the first circuit breaker.

Removal of Triac Boards

6 . Unscrew the Triac connectors on the boards to be replaced from the unit.

7 . Working through each individual channel to be replaced, cut the cable ties on the Live and Load wires. Disconnect each wire, untangle any wires that are twisted together (as you may need the length later) and mark up where the wire came from.

8 . Disconnect the ribbon cable(s) attached to the Triac Board and remove the PCB by unscrewing the 3 screws. Slide the board away from the Triacs then lift out.

9 . Lift the Triac Clip and slide out the Triac. With the Triac removed the clip is no longer tensioned and can be removed.

Fitting Relay Cards

10 . If a relay card is to be assembled at the middle position, then the thermal sensor is required. If a relay card is to be assembled to the top or bottom position, then the thermal sensor must be removed from the board by cutting its pins.

11 . Slide the Relay Board into position ensuring the side of the PCB is located in the retaining slot and insert the screws but do not fully tighten.

12 . Apply pressure to the (screw) side of the PCB to ensure that it is fully located in the slot and while maintaining the pressure, tighten the screws (if you don’t do this it can pop out of the slot when you are pushing the connectors on).

13 . If the central board has been replaced, then you must fit the Triac clip to the thermal sensor.

14 . Fit the coil wires first, running them around each side of the relay, then the Live and Load wires. Note: The coil connections are not electrically connected to the circuit, they are physically connected to the PCB, and are there to secure the wires only.

15 . Fit the DC supply cable to the furthest/lowest board closest to the PCB and use the link wires to connect the others.

Reassembly

16 . Refit all covers, reusing the screws that have been retained.

If you hear a relay buzzing, the channel dimmer law hasn't been set to Switch. See step 1.

Instructions for Chilli MK1 & MK2

Configure Relay Channels

1 . Prior to fitting the relay cards, configure the channels you wish to convert to relays in the dimmer settings. Using the User Interface:

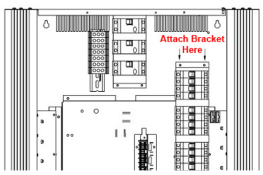
1. Press Enter to get to the Menu
2. Use the Up/Down Arrows to select Dimmer Laws
3. Press Enter
4. Use the Up/Down Arrows to get to Set Laws
5. Press Enter
6. Use the Up/Down Arrows to Select the Channel
7. Press Enter to confirm
8. Use the Up/Down Arrows to Select the law [Switch]
9. Press Enter to confirm and repeat for all necessary channels.

2 . Remove the front cover(s) by removing the screws on the front of the unit.

Retain all screws as they will be required for reassembly.

3 . Before assembling it to the unit, fit the following wires to the power supply of the Primary Card:

1. Fit the brown Live wire to Live PSU terminal.
2. Fit blue Neutral wire to Neutral PSU terminal.
3. Fit terminated end of black wire on the long DC supply cable to a – terminal on the PSU
4. Fit terminated end of red wire on the long DC supply cable to a + terminal on the PSU



4 . Assemble the metal bracket to the unit in the position shown. Do this by removing the two screws holding the circuit breaker bracket to the enclosure, putting the metal bracket into position and refitting the screws. Once the bracket is in place clip the power supply to the metal bracket such that the N and L terminals are facing to the right.

5 . Screw the other end of the brown Live wire into the first circuit breaker. Screw the other end of the blue Neutral wire into:

1. One of the Neutral DIN terminal blocks if a non-RCD version Chilli
2. The phase one RCD if the Chilli has RCDs fitted

Removal of Triac Boards

6 . Unscrew the Triac connectors on the boards to be replaced from the left-hand side of the unit.

7 . Working through each individual channel to be replaced, cut the cable ties on the Live and Load wires. Disconnect each wire, untangle any wires that are twisted together (as you may need the length later) and mark up where the wire came from.

8 . Disconnect the ribbon cable(s) attached to the Triac Board and remove the PCB by unscrewing the 3 screws. Slide the board away from the Triacs then lift out.

9 . Lift the Triac Clip and slide out the Triac. With the Triac removed the clip is no longer tensioned and can be removed.

Fitting Relay Cards

10 . Relay cards are to be assembled to the left-hand side of the enclosure only.

- If a relay card is to be assembled at the middle position, then the thermal sensor is required.
- If a relay card is to be assembled to the top or bottom position, then the thermal sensor must be removed from the board by cutting its pins.

11 . Slide the Relay Board into position ensuring the side of the PCB is located in the retaining slot and insert the screws but do not fully tighten.

12 . Apply pressure to the (screw) side of the PCB to ensure that it is fully located in the slot and while maintaining the pressure, tighten the screws (if you don’t do this it can pop out of the slot when you are pushing the connectors on).

13 . If the central board has been replaced, then you must fit the Triac clip to the thermal sensor.

14 . Fit the coil wires first, running them around each side of the relay, then the Live and Load wires. Note: The coil connections are not electrically connected to the circuit, they are physically connected to the PCB, and are there to secure the wires only.

15 . Fit the DC supply cable to the furthest/lowest board closest to the PCB and use the link wires to connect theothers.

Reassembly

16 . Refit all covers, reusing the screws that have been retained.

If you hear a relay buzzing, the channel dimmer law hasn't been set to Switch. See step 1.

Doc. No. 9850-000377-00 (Version 2)

Technical Specification

Electrical

Supply Voltage:

- 230V +10% / -15%

Supply Frequency:

- 45 to 65Hz

Maximum Supply Current:

- 12 Channel 10A: 120A / 40A per phase 3 phase star
- 12 Channel 16A: 192A / 64A per phase 3 phase star
- 24 Channel 10A: 240A / 80A per phase 3 phase star
- 24 Channel 16A: 384A / 128A per phase 3 phase star

Channel Capacity

- Minimum: 0.1A
- Maximum: 10A / 16A

Rise Time

- 10A: 80uS
- 16A: 120uS

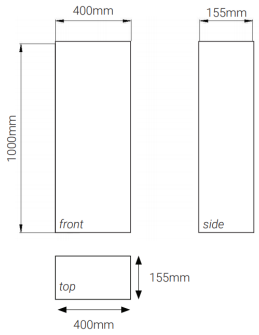
Channel Protection

10A / 16A, type C, neutral disconnect thermal magnetic circuit breaker per channel, breaking capacity 6000A.

DMX

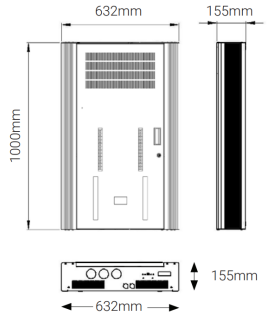
- USITT DMX512/1990
- Ground referenced receiver
- Internal switchable termination

Mechanical



Chilli Pro 12

- Height: 1000mm
- Width: 400mm
- Depth: 155mm
- Weight: 24kg (max)
- IP Rating: IP2X (indoor use only)



Chilli Pro 24

- Height: 1000mm
- Width: 632mm
- Depth: 155mm
- Weight: 50kg (max)
- IP Rating: IP2X (indoor use only)

Environmental

- Operating Temperature Range: +5°C to +40°C
- Operating Relative Humidity: 5% to 95% Non-condensing

Always observe the operating environment information. If this environment is exceeded, it is likely that damage will occur to Chilli Pro.

EMC

Emissions:

- EN55015 : 2000
- +A1 : 2001
- +A2 : 2002

Immunity:

- EN61000-6-1 : 2001
- EN61000-6-3 : 2001

Electrical Safety:

- EN60950-1 : 2002

Support

Support requests can be submitted via email to support@zero88.com or through our support forum at zero88.com/forum

For more urgent requests, please contact Zero 88 by telephone on +44 (0)1633 838088 – 24 hour answer service available.