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Spice 1210i is a tough, supply tolerant, 19" 3U rack mounting dimmer designed to offer a professional range of features whilst retaining simplicity, reliability and affordability. Units are supplied complete and ready to use with either Harting or Socapex connectors and a CEEform 32 Amp 3 phase connector and cable fitted.

Spice dimmers are found hard at work in the demanding environment of production and touring dimming as well as theatre, television and conference applications. When used in permanent installations the ChilliNet connectivity is an added bonus allowing the dimmers to be integrated as part of the architectural control system.

[Please read this manual before use, especially the Warnings & Safety section.](#)

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

Introduction

Thank you

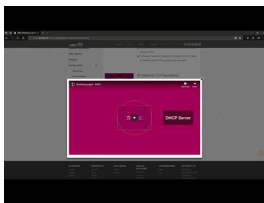
Thank you for choosing Spice by Zero 88 to fulfil your lighting power needs. We sincerely hope that your new unit will bring you years of trouble free service. We make great efforts to build in reliability and serviceability at every stage of our development and production processes and include a three-year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

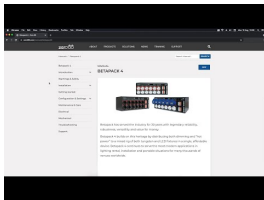
This manual

This online manual describes the operation of Spice dimmers.



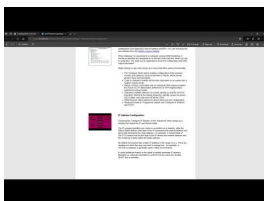
<https://youtu.be/gvNuwCChcrg>

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



https://youtu.be/Turfy1Ar_Kg

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

- Feb 2021 - Manual created - ES

Overview

Variants

The Spice dimmer is a 12 channel 3U high 19" rack mountable dimmer and is available in the following variants:

- 12 x10 Amp Socapex
- 12 x10 Amp Harting

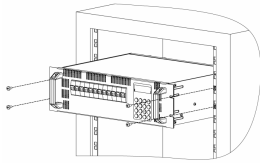
Features

- The channels may be patched as a block or individually to the DMX.
- Each channel has a manually adjustable output level.
- Each channel can be set to follow one of four different dimming laws.
- Preheat for individual channels can be set to between 0% and 20%.
- Each channel can be topset to limit its maximum output level.
- Twelve programmable memories using an output grab method.
- Individual memories can be played back, when required.
- Editable memory fade times and channel levels.
- Three programmable sequences using the programmed memories.
- DMX fail mode (DMX Hold, Fade to Black or Fade to Memory).
- Reset Dimmer function.
- DMX status indication.
- Overheat indication and shutdown.
- Stand alone or network modes.
- Alarm state indication (if networked).
- Areas assignable to channels in network mode, allowing memory and sequence playback on an area basis.
- Lock function to prevent menu access.

Warnings & Safety

- Do not remove the covers without first completely disconnecting Spice 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
- Spice 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

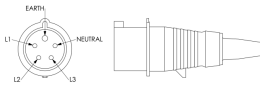


The Spice dimmer is 3U high and is designed to be rack mounted into a standard 19" cabinet using 4 x M6 Cage Nuts and 4 x M6 x16mm screws.

Ventilation must be provided in the rack such that the dimmer can freely draw air from its rear ventilation slots.

Insufficient airflow will cause overheating and the dimmer will shut down.

Mains Connection



The mains supply to the dimmer is via a 32 Amp 5 pin CEE17 connector.

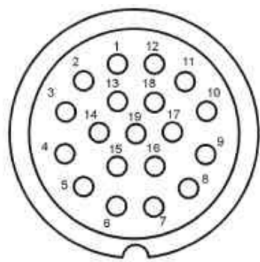
Channel Outputs

Socapex Connectors

Two Socapex fixed sockets are provided on the rear of the dimmer.



The left hand socket is wired for channels 1 - 6; the right hand socket for channels 7 - 12.



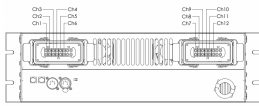
Socapex connector pin numbers.

Channel	Live	Neutral	Earth
1 (7)	1	2	13
2 (8)	3	4	14
3 (9)	5	6	15
4 (10)	7	8	16
5 (11)	9	10	17
6 (12)	11	12	18

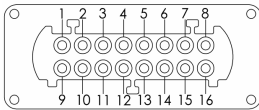
This table shows the pin connections of the Socapex connector. Note - Pin 19 is not connected.

Harting Connectors

Two Harting fixed sockets are provided on the rear of the dimmer.



The left hand socket is wired for channels 1 - 6; the right hand socket for channels 7 - 12.

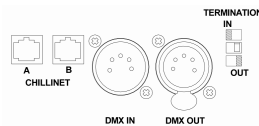


Harting connector pin numbers.

Channel	Live	Neutral	Earth
1 (7)	1	9	ET
2 (8)	2	10	ET
3 (9)	3	11	ET
4 (10)	4	12	ET
5 (11)	5	13	ET
6 (12)	6	14	ET

This table shows the pin connections of the Harting connector. ET = Earth Terminal.

Data Connections



Spice can be controlled by DMX and ChilliNet control protocols, using the appropriate data connection on the rear of the dimmer.

DMX Connections

DMX input is through a 5 pin XLR connector.

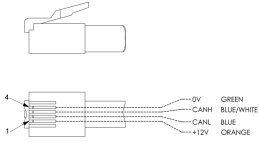
DMX output is through a 5 pin XLR connector.

If DMX termination is required set the Termination switch to the IN position

ChilliNet

Spice dimmers can be connected to Chilli Control Panels over ChilliNet. Other [legacy ChilliNet devices](#) are also compatible. Each device has a set of network terminals or an RJ11 socket provided for connection to the Chillinetwork. The cable used to connect the various devices in the network must be CAT 5 (100MHz) FTP cable. All devices in the Chilli network must be connected in serial. The devices in the network can be wired in any order. A network termination resistor must be fitted at the two ends of the Chilli network.

ChilliNet Connections



Two RJ11 sockets are provided on the Spice dimmer for connection to the ChilliNet network.

This diagram shows the wiring details for the RJ11 connector. Note that only the central four pins should be connected as shown.

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 Display

The LCD Display comprises two lines of 16 characters. For example:


DMX: 1

Temp: OK

Numeric Keys

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



Star Key

The Star key  is used to toggle the back light on and off when the Main Screen is displayed.

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

Enter Key

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

Escape Key

The Escape key  is used to escape from memory structures.

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.

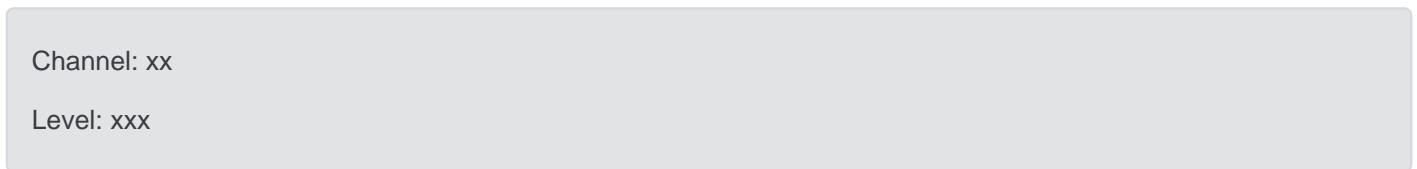
Set Channel Level

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

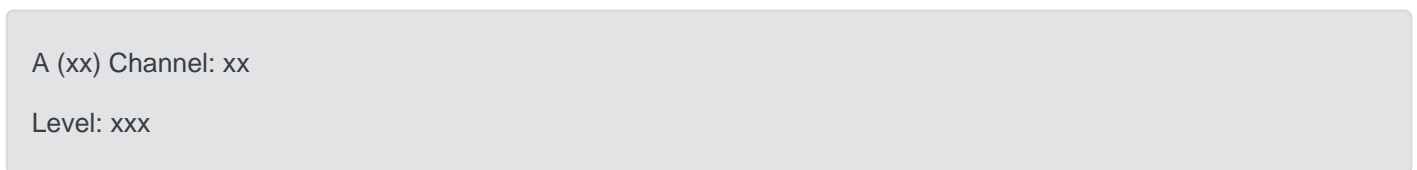
When operating in Standard mode, the screen shows:



The cursor is shown in the *Channel* field. The channel number defaults to 1.

ChilliNet mode

When operating in ChilliNet mode, the screen shows:



The cursor is shown in the *Channel* field. The channel number defaults to 1.

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

Level Adjustment

In both Standard and ChilliNet modes, individual channel levels can then be adjusted using the numeric keypad or cursor keys. When the cursor is in the Channel field, enter the channel number using the numeric keys then press the **ENT** key. The manual control level for the channel is shown in the Level field and the cursor moves to the Level field. When cursor is in the Level field, enter the required level (0 – 100) using the numeric keys then press the **ENT** key. The output of the dimmer channel matches the level entered, the cursor returns to the Channel field.

The **A>** key can be used to increase the field value by 1, and the **B<** key can be used to decrease the field value by 1.

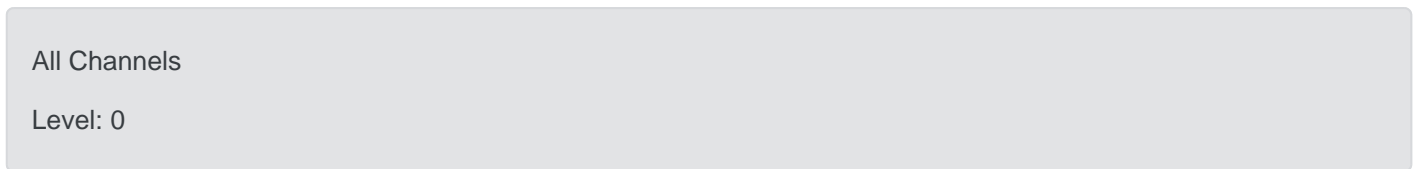
The **#** key can be used as a quick method of setting the manual control levels to full or off. The first push will take it 100%, the second push will take it 0% etc.

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.

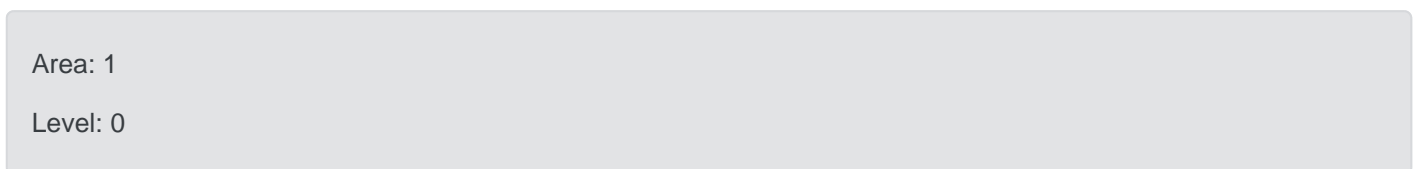
Select the *Set All Chans* option from the menu, and press the **ENT** key. The screen shows:



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:



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.

Level Adjustment

In both Standard and ChilliNet modes, when the cursor is in the *Level* field you can enter the required level (0 – 100) using the numeric keys then press the **ENT** key. The output of the dimmer channels matches the level entered.

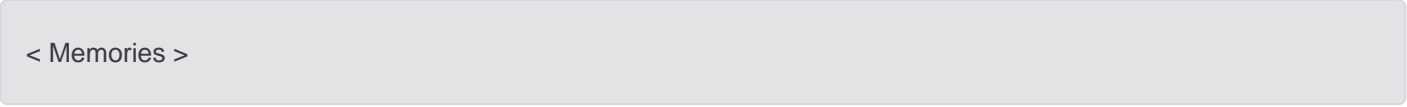
The **A>** key can be used to increase the field value by 1, and the **B<** key can be used to decrease the field value by 1.

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.

Memories

The Spice rack 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. A Clear Memories function is also provided under this menu option. 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:



< Memories >

Press the **ENT** key to enter the Memories menu. Use the cursor keys to scroll between the options, then press the **ENT** key to enter the selected option.

Click the available options to find out more...

- [Record Memory](#)
- [Play Memory](#)
- [Clear Memories](#)
- [Edit Memory](#)

Record Memory

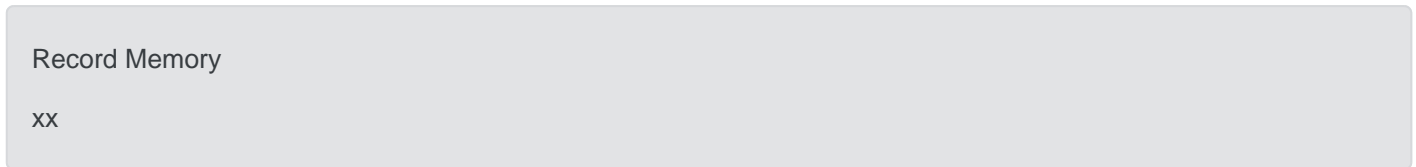
Standard Mode

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%.

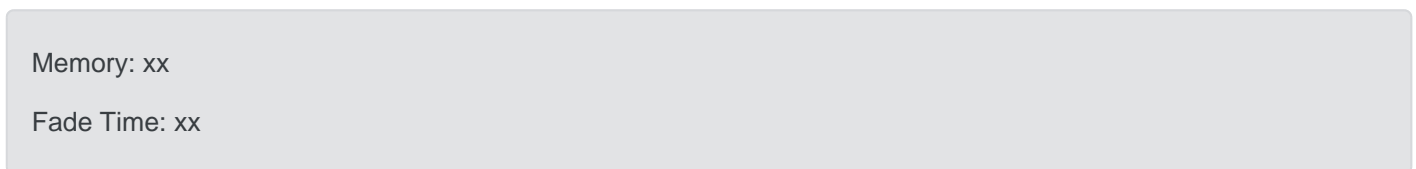
Select the *Record Memory* option from the Memories menu, and press the **ENT** key. The screen shows:



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:



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.

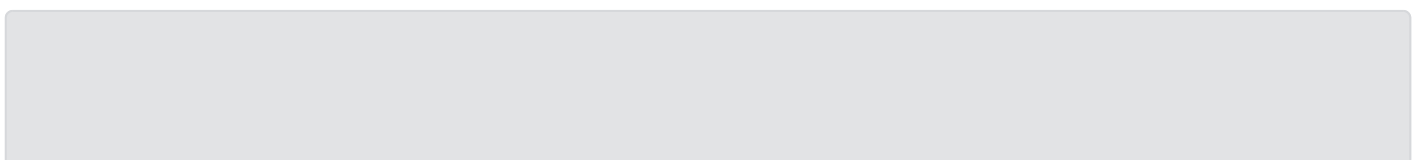
ChilliNet Mode

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

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 press the **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

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

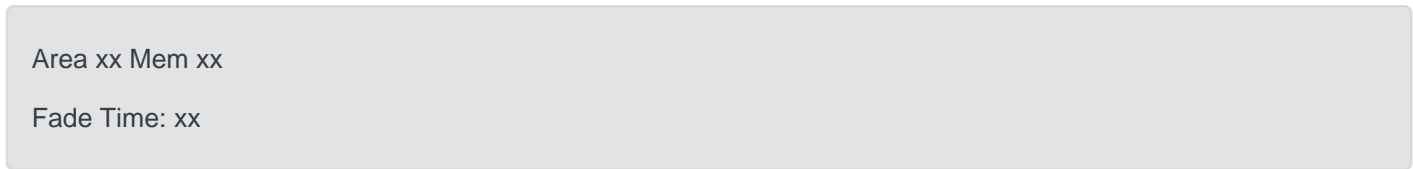
The area number field A(xx) is for information only. The cursor is shown in the *Channel* field.

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:



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 Spice dimmer can be programmed with up to 3 different sequences, each containing a maximum of 12 steps.

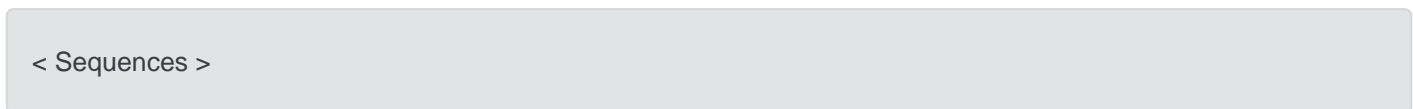
In Standard mode, each step in a sequence is a reference to one of the **programmed** memories in the dimmer.

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 by pressing **ENT**



Click the available options to find out more...

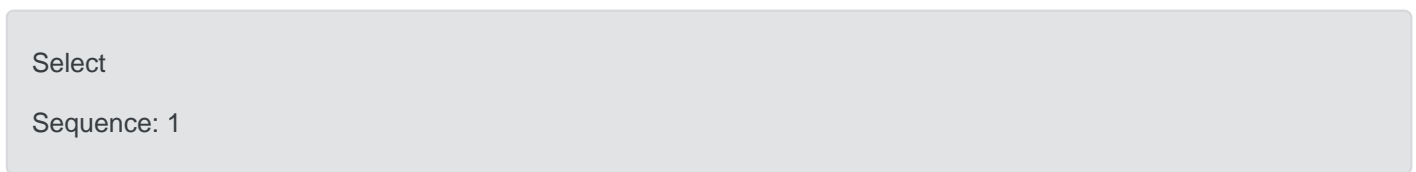
- [Program Sequence](#)
- [Playback Sequence](#)
- [Sequence Options](#)
- [Clear Sequence](#)

Program Sequence

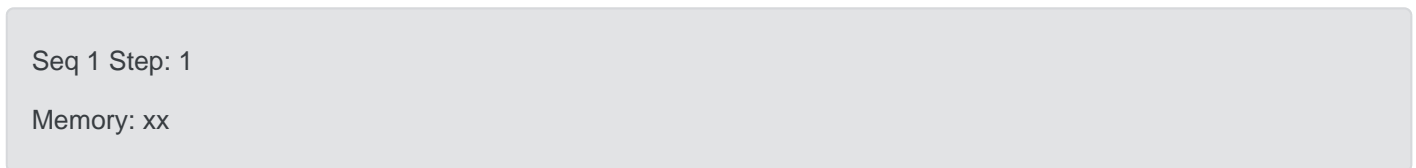
Standard Mode

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:



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



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.

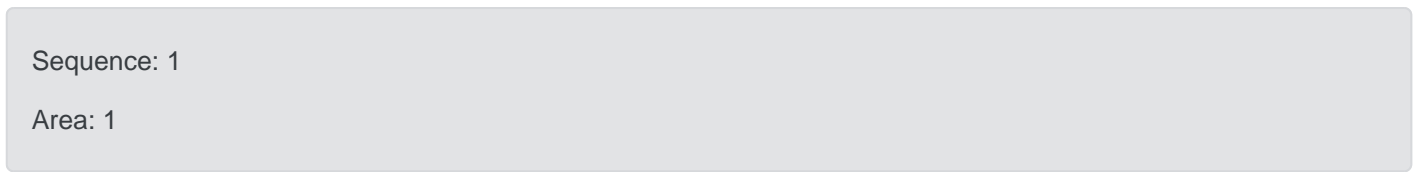
Repeat the above process until all the steps in the sequence have been programmed (maximum of 12 steps).

Press the **ESC** key to return to the Select Sequence screen.

ChilliNet Mode

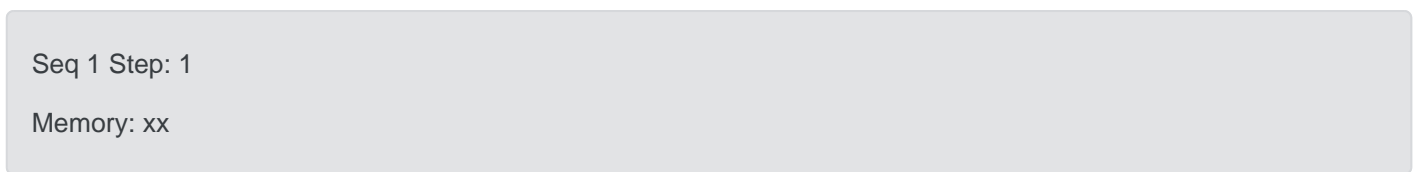
This option allows you to program any of the three sequences in the dimmer with memories for a specific area.

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



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:



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.

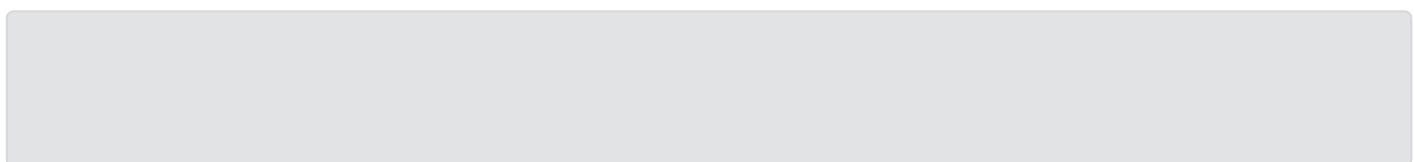
Repeat the above process until all the steps in the sequence have been programmed (maximum of 12 steps).

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.

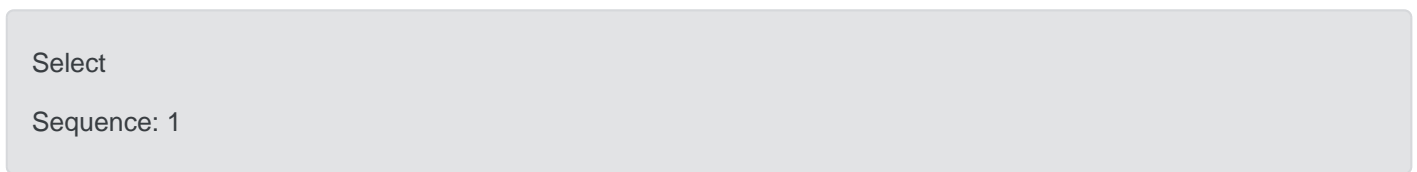
Use the numeric keypad or cursor keys to adjust the dwell time as required (range 1 - 600 seconds).

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

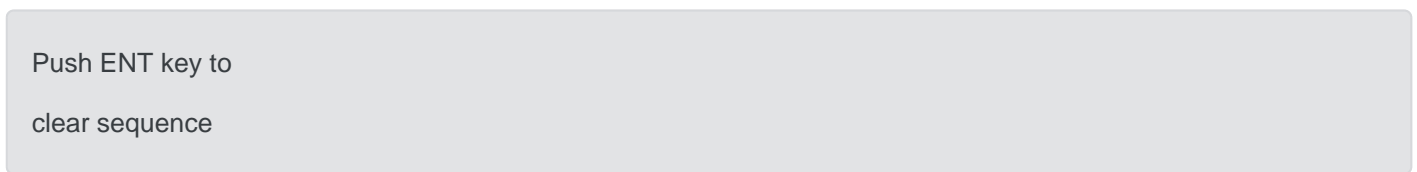
Clear Sequence

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:



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



Press the ENT key. The screen returns to the *Clear Sequence* screen.

Preheat

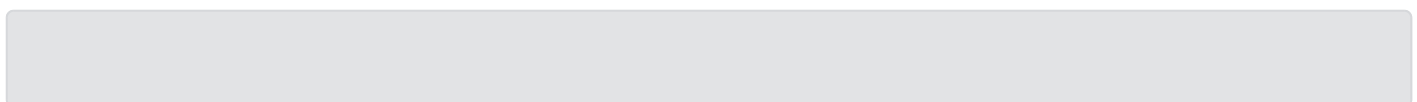
Select the *Preheat* option from the top level menu options, and press the **ENT** key to enter the Preheat menu. The following two options are available:

- [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

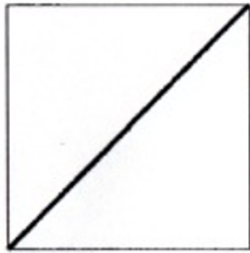
You can choose a dimmer law for **each** of the dimmer channels. The dimmer laws determine the relationship between the control value and the output value supplied to the lamp. The following two options are available:

- [Set Laws](#)
- [Reset Laws](#)

Available Dimmer 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 Spice dimmer channel outputs. Feeding non-dimmable loads off a dimmer channel may cause damage to both the load device and Spice.

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 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 dimmer laws to normal. The screen will briefly show a confirmation, and then return to the *Dimmer Laws* screen.

Pressing the **ESC** key at any point will return the screen to the top level Dimmer Laws screen and leave the dimmer laws unchanged.

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 $80\% \times 50\% = 40\%$.

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. The channel number defaults to 1. 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

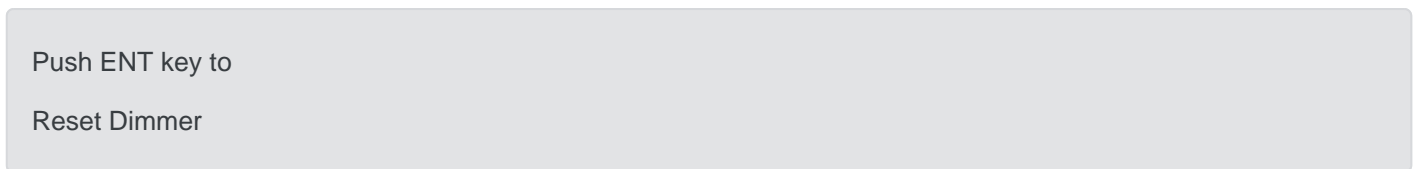
Press the **ENT** key to set all the topset levels to 100%.

Reset Dimmer

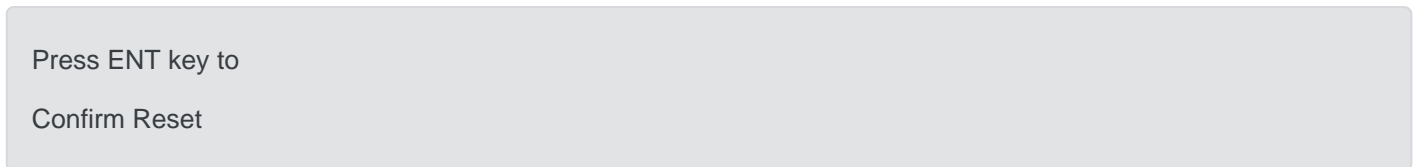
This option allows you to reset the dimmer to its default settings which are defined as follows:

- All dimming laws set to Normal.
- 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.
- 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:



Press the **ENT** key. The screen shows:



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](#)
- [Set DMX Patch](#)
- [Reset DMX Patch](#)
- [DMX Input](#)

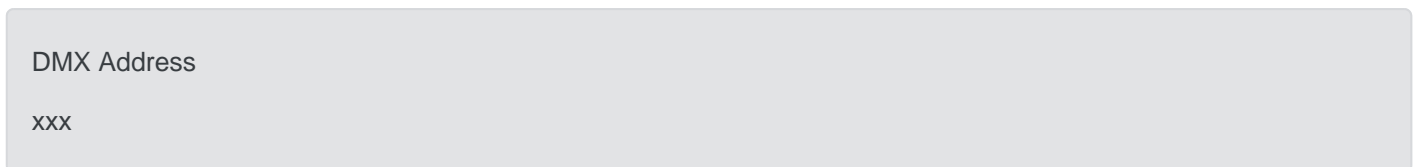
Set Start Address

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

The range for the DMX start address for the Spice dimmer is 1 - 501.

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.

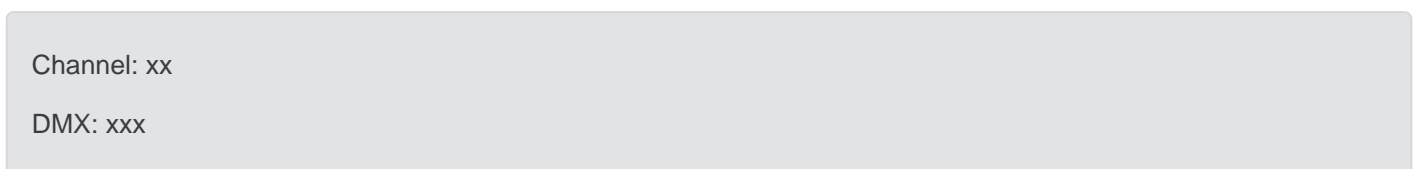
This sets the start address for the dimmer. The screen pauses briefly and then returns to the *DMX Controls* screen.

Pressing **ESC** on this screen leaves the current DMX address unchanged and return to the *DMX Controls* screen.

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:



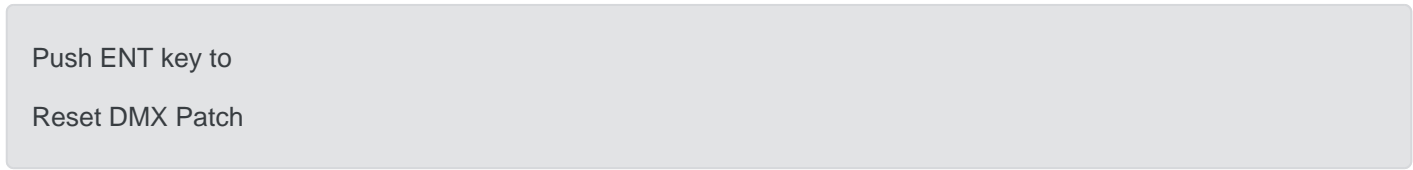
Channel: xx
DMX: xxx

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:



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

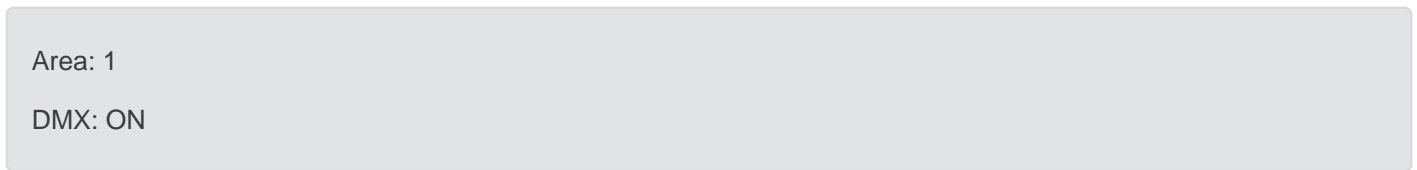
Select the *DMX Input* option from the menu, and press the **ENT** key. The screen shows the current setting for the dimmer, for example:

< 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:



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

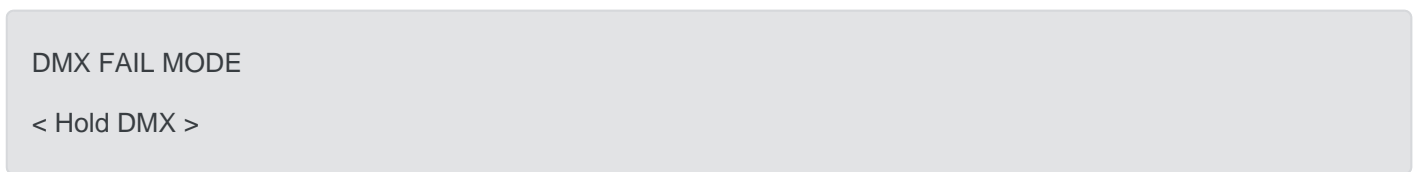
The cursor is shown in the *Area* field. Use the numeric keypad or cursor keys to select an area, then press the **ENT** key.

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.

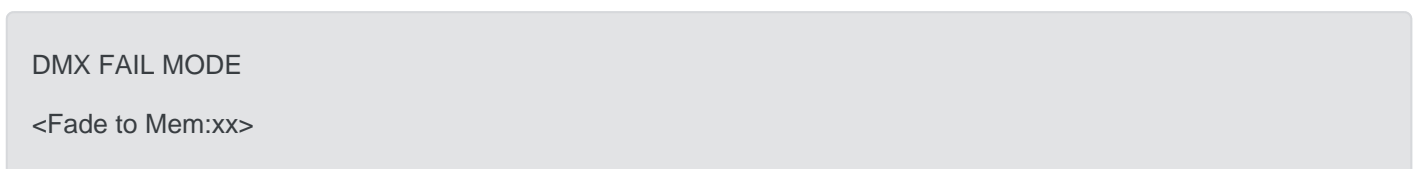
Press the **ESC** key to move on to the DMX Fail Mode screen:



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:



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.

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

This option puts the dimmer into ChilliNet mode so that it can be controlled remotely by other ChilliNet devices on the network, such as Chilli wall control panels, other ChilliNet Dimmers, and other legacy ChilliNet devices, 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

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).

Dimmer channels may be assigned individually or all the dimmer channels may be assigned to the same area. This allows you to playback memories and sequences across the network on an area basis.

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 Messages

If the Spice dimmer is in ChilliNet mode, it will respond to Alarm messages received via the network.

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.

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, 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.

Technical Specification

- [Electrical](#)
- [DMX](#)
- [Mechanical](#)
- [Environmental](#)
- [EMC](#)

Electrical

Supply Voltage:

- 190V - 255V

Supply Frequency:

- 40 to 70 Hz auto-sensing and auto-tracking

Total Dimmer Capacity:

- 120 A (40A per phase, limited to 32A per phase by mains connector)

Channel Capacity

- Minimum: 0.1A
- Maximum: 10A

Rise Time

- 80uS

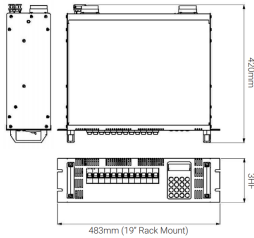
Channel Protection

10A neutral disconnect thermal magnetic circuit breaker per channel, breaking capacity 6000A.

DMX

- USITT DMX512/1990
- External switchable termination

Mechanical



- Height: 132mm - 3 Rack Units
- Width: 483mm - 19" Rack Mount
- Depth: 420mm
- Weight: 14.5kg
- IP Rating: IP2X (indoor use only)

Environmental

- Operating Temperature Range: +2°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 Spice.

EMC

Low Voltage:

- EN60439-1 1994
- EN60950

Emissions:

- EN55022
- EN55015:2000
- EN61000-3-2

Immunity:

- EN61000-4-3
- EN61000-4-4
- EN61000-4-5
- EN61000-4-6
- EN61000-4-11AC

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.