
SPICE RACK DIMMER OPERATING MANUAL



zero[®]88





SPICE RACK DIMMER OPERATING MANUAL

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

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WARNING

**DISCONNECT THE
DIMMER FROM THE
MAINS SUPPLY BEFORE
REMOVING ANY COVERS.**

Issue 2 - December 2004

Manual Stock No. 73 - 854 - 00

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Figure 1 - 1: The Spice Rack Dimmer

This Manual

This manual describes the operation of the Spice rack dimmer.

This chapter contains a general overview of the unit followed by a brief description of the front panel controls and displays.

The Installation chapter provides information on installing the dimmer and connecting up the mains, loads, DMX and Chilli network.

The User Interface chapter describes all the various functions of the dimmer which can be set up and operated via the front panel controls.

The manual concludes with a chapter on the technical specification of the dimmer.

Conventions

Throughout this manual the following conventions are used.

References to front panel controls, appear in capital letters, for example:

ENT key, ESC key.

References to the LCD screen on the control panel are shown as follows:

DMX:	1
Temp:	OK

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

Manual Control, Set Chan Level etc.

Overview

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

- 12 x10 Amp Socapex
- 12 x10 Amp Harting

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 topsetted 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.



Figure 1 - 2: Control Panel

Front Panel Controls

The control panel provides the user interface to the Spice rack dimmer.

The following sections summarise the front panel controls and displays.

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 (A> and B<) 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 (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 memory structures.



Figure 2 - 1: The Spice Rack 12 Channel Dimmer

Introduction

This chapter deals with installing the Spice rack dimmer and includes the following sections:

- Mounting the Dimmer
- Mains Connection
- Socapex Connections
- Harting Connections
- DMX Connection
- Chilli Network (Chillinet)
- Network Connections

Mounting the Dimmer

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 (Figure 2-2). Rear support brackets are available on request.

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

WARNING
INSUFFICIENT AIRFLOW
WILL CAUSE
OVERHEATING AND THE
DIMMER WILL SHUT
DOWN.

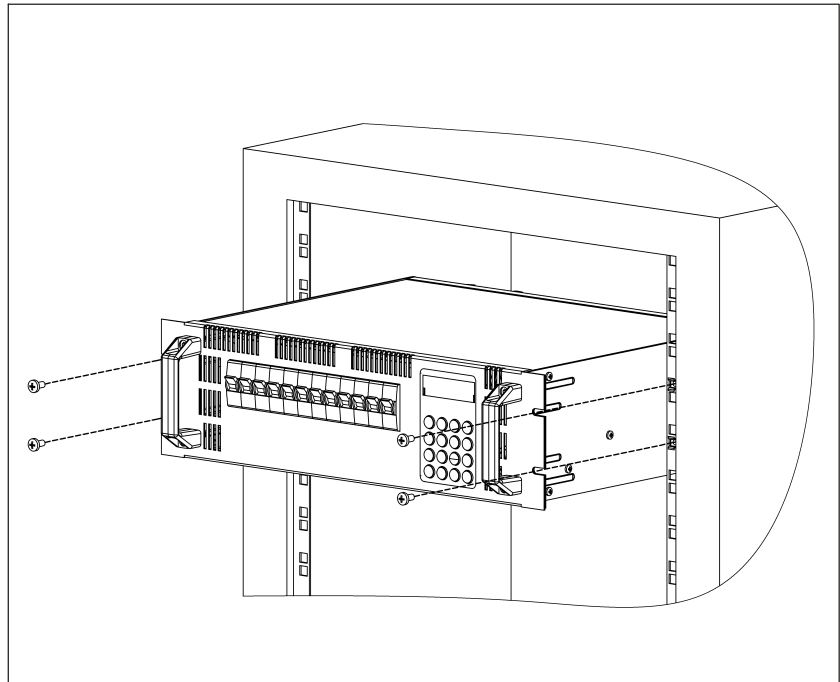


Figure 2- 2: Rack Mounting the Dimmer

Mains Connection

The mains supply to the dimmer is via a 32 Amp 5 pin CEE17 connector (see Figure 2 - 3)

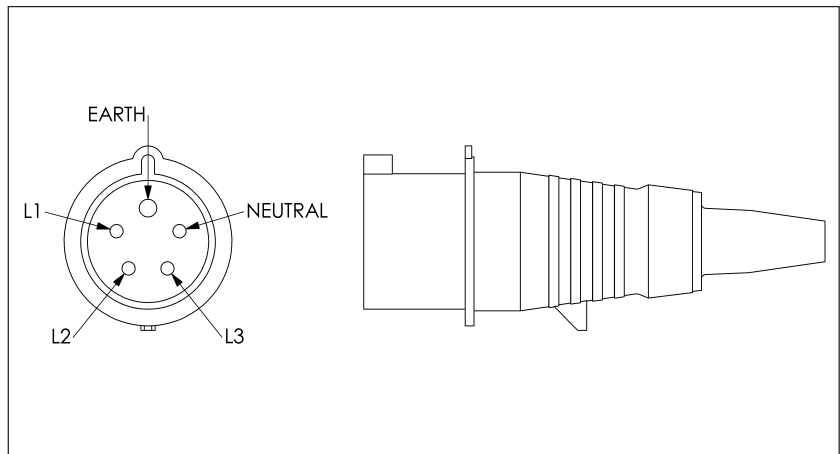


Figure 2- 3: Mains Connector

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 (see figure 2 - 4).

For details of the pin numbers on the Socapex connector see figure 2 - 5.

The following table shows the pin connections of the Socapex connector.

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

Note - Pin 19 is not connected.

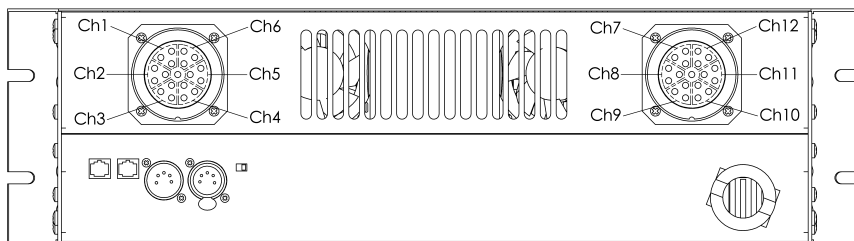


Figure 2 - 4: Rear Panel with Socapex Connectors

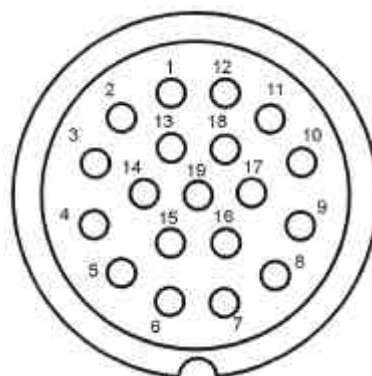


Figure 2 - 5: Socapex Connector Detail

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 (see figure 2 - 6).

For details of the pin numbers on the Harting connector see figure 2 - 7.

The following table shows the pin connections of the Harting connector.

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

ET = Earth Terminal

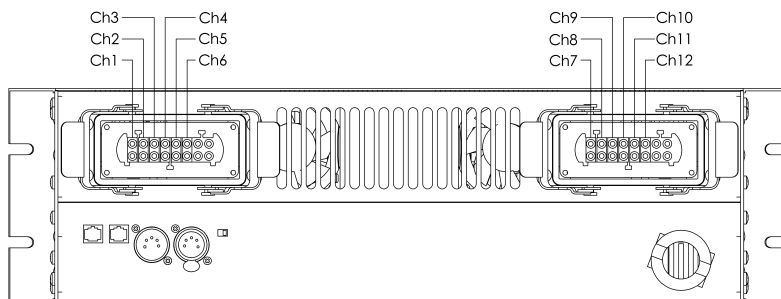


Figure 2 - 6: Rear Panel with Harting Connectors

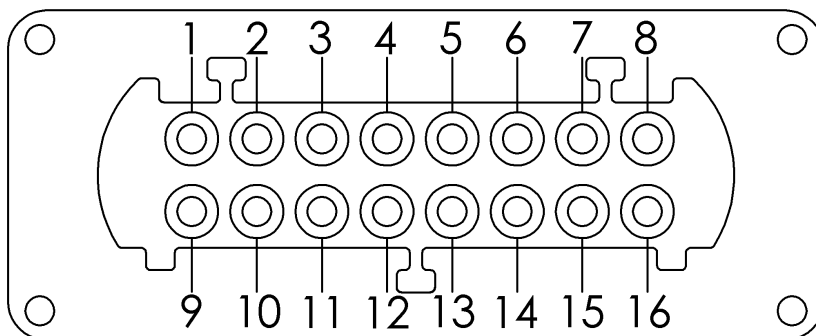


Figure 2 - 7: Harting Connector Detail

DMX Connections

DMX input is through a 5 pin XLR connector (Figure 2-8).

DMX output is through a 5 pin XLR connector (Figure 2-8).

If DMX termination is required set the Termination switch to the IN position (Figure 2-8).

Chilli Network (Chillinet)

The following devices can be connected to a Chilli Network system:

- Chilli Pro Dimmer
- Chilli Control Panel
- Chilli Master Controller
- Chilli Netlink (hub)
- Spice Rack Dimmer
- Frog Box

Each device has a set of network terminals or an RJ11 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.

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.

Network Connections

Two RJ11 sockets are provided on the Spice dimmer for connection to the Chilli network (see Figure 2-8).

Wiring details for the RJ11 connector are shown in Figure 2-9.

Note that only the central four pins should be connected as shown.

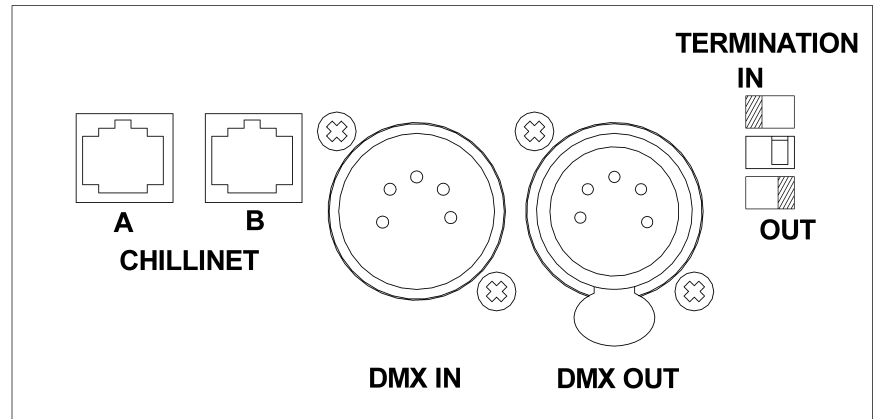


Figure 2 - 8: Chilli Network and DMX Connectors

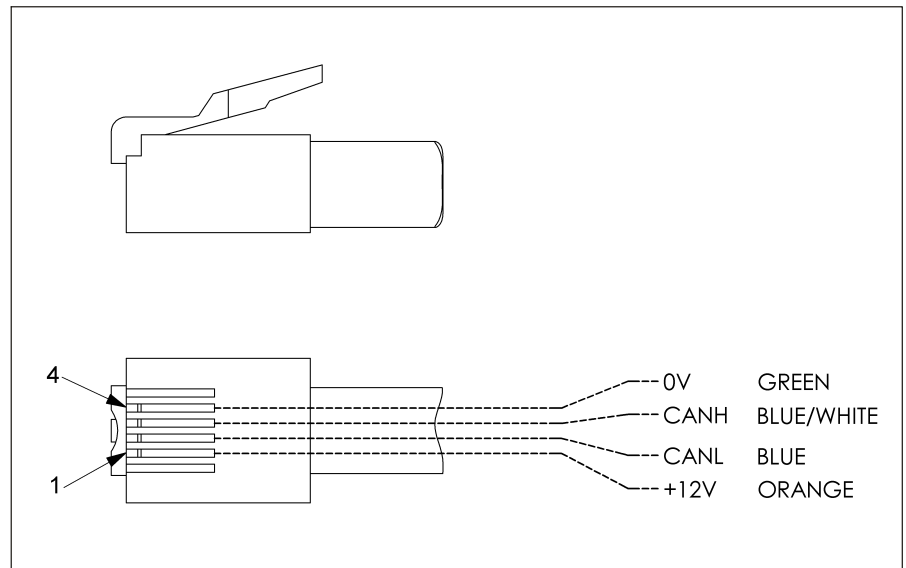


Figure 2 - 9: RJ11 Connections



Figure 3 - 1:Control Panel

Introduction

This chapter describes all the various dimmer functions.

There are certain variations in menu options and LCD displays between stand alone and network modes.

Main Screen

The main screen is shown on the LCD shortly after the dimmer is powered up, and also if the user interface is not used for a period of 30 seconds.

The data displayed on the main screen depends on the operating mode and state of the dimmer as follows:

In **Stand Alone Mode** - the screen shows the *DMX* and *Temp* fields:

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

In **Network Mode** - the screen shows the *DMX* and *Chilli Net* fields:

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

In the **Alarm State** - the screen shows the following:

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

DMX Field

The *DMX* field shows the status of the DMX input signal as follows.

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

The *Temp* field shows the temperature sensor state as follows:

Internal temperature sensor fault:
 "Temp: No Val" (see note).

Normal operating temperature (<80 C)
 "Temp: OK".

Hot (80 - 90 C):
 "Temp: HOT".

Overheat shutdown (> 95 C)
 "Temp: FAIL".

Chilli Net Field

If the dimmer is operating in network mode, the second line of the LCD 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 LCD will show: "Chilli Net: CON".

Note

Temperature Field at Startup

The text "Temp: No Val" is displayed briefly at startup as the dimmer is reading the sensor. This is normal behaviour.

User Interface

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*
- *Chilli Net*
- *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 LCD. For example:

```
<Manual Control>
```

Manual Control

Select the *Manual Control* option from the top level menu options:

```
<Manual Control>
```

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.

Press the ESC key to return to the *Manual Control* screen.

Set Channel Level

This option allows the user 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:

```
<Set Chan Level>
```

Press the ENT key to enter the menu.

Stand Alone Mode - the LCD shows:

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

On entering this screen, a cursor is shown in the *Channel* field.

The channel number defaults to 1.

Network Mode - the LCD shows:

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

On entering this screen, a cursor is shown in the *Channel* field.

The channel number defaults to 1.

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

In Stand Alone or Network Mode, individual channel levels can then be adjusted using the numeric keypad or cursor keys as follows:

Numeric Keypad

When 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.

Cursor Keys

When cursor is in the *Channel* field, press the A> key to increase the channel number by 1, press the B< key to decrease the channel number by 1.

As the channel number changes, the corresponding manual control level is shown in the *Level* field.

Press the ENT key. The cursor moves to the *Level* field which shows the corresponding manual control level.

When the cursor is in the *Level* field, pressing the A> key increases the level by 1%, pressing the B< key decreases it by 1%.

As the value in the *Level* field changes, the output of the dimmer follows.

Pressing the ENT key will return the cursor to the *Channel* field.

Pushing the ESC key at any point on this screen will return the screen to the *Set Chan Level*.

Note - Using the # Key

The # key can be used as a quick method of setting the manual control levels to full or off.

With the cursor in the Channel field, the # key acts as a channel level toggle. The first push will take it 100%, the second push will take it 0% etc. The Level field shows the current value (0% or 100%), but the cursor remains in the Channel field.

With the cursor in the Level field, the # key acts as a channel level toggle. The first push will take it 100% , the second push will take it 0% etc.

Set All Channels

Stand Alone Mode - Allows the user to 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:

```
<Set All Chans >
```

Press the ENT key. The LCD changes to the following, with the cursor in the *Level* field:

```
All Channels
Level: 0
```

Numeric Keypad

Enter the required level (0 - 100%) using the numeric keys and then press the ENT key.

The outputs of all dimmer channels matches the level entered.

The cursor remains in the *Level* field.

Cursor Keys

Press the A> key to increase the level by 1%; press the B< to decrease the level by 1%.

As the value in the *Level* field changes, the output of all the dimmer channels will change accordingly.

Press the ESC key to return to the *Set All Chans* screen.

Set All Channels

Network Mode - allows the user to 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:

```
<Set All Chans >
```

Press the ENT key. The LCD changes to the following, with the cursor in the *Area* field:

```
Area: 1
Level: 0
```

Numeric Keypad

When the cursor is in the *Area* field, enter the area number using the numeric keys and press ENT key.

If the area number is valid (ie the dimmer has one or more channels assigned to that area) the cursor moves to the *Level* field.

When the cursor is in the *Level* field, enter the required level (0 - 100%) using the numeric keys and then press the ENT key.

The outputs of all relevant dimmer channels matches the level entered. The cursor returns to the *Area* field.

Cursor Keys

Use the cursor keys to select the area required.

Press the ENT key. The cursor moves to the *Level* field.

Press the A> key to increase the level by 1%; press the B< to decrease the level by 1%.

As the value in the *Level* field changes, the output of all the relevant dimmer channels will change accordingly.

Press the ENT key to return the cursor to the *Area* field.

Press the ESC key to return to the *Set Area Chans* screen.

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 **Network Mode** - memories are recorded, played back, edited and cleared on an area basis.

Memory Options

Select the *Memories* option from the top level options menu:

```
<  Memories  >
```

Press the ENT key to enter the Memories menu.

The following options are available:

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

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

Record Memory

Stand Alone Mode - This option allows the user 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. The LCD shows:

```
< Record Memory >
```

Press the ENT key, the LCD 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 keys or cursor keys to select the required memory (1 - 12).

Press the ENT key to confirm the memory selection. The LCD will show the following:

```
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 LCD screen will show the following message for 1 second, and then return to the *Record Memory* screen.

```
Memory xx  
Saved
```

Record Memory

Network Mode - This option allows the user 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. The LCD shows:

```
< Record Memory >
```

Press the ENT key. The LCD shows the following with the cursor in the Area field:

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

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

Use the numeric keys 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 LCD 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 LCD screen will show the following message for 1 second, and then return to the *Record Memory* screen.

```
Area xx Mem xx  
Saved
```

Play Memory

Stand Alone Mode - This option allows the user to playback (output) one of the 12 memories programmed in the dimmer.

Select the *Play Memory* option from the Memories menu. The LCD shows:

```
< Play Memory >
```

Press the ENT key, the LCD shows:

```
Playback Memory
      xx
```

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

Use the numeric keys 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 those in memory 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 - The outputs do not change.

The LCD returns to the Play Memory screen.

Note - Memory Zero

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

Note - Memory Playback

Stand Alone Mode - A dimmer can only play back one memory at a time.

Network 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.

Play Memory

Network Mode - This option allows the user 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. The LCD shows:

```
< Play Memory >
```

Press the ENT key. The LCD shows the following with the cursor in the Area field:

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

Enter the required area number using the numeric keys 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 displayed.

Use the numeric keys 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 memory's fade time, and replace any previous memory or sequence being output for the selected area.

Unprogrammed Memory - The outputs do not change.

The LCD returns to the Play Memory screen.

Clear Memories

Stand Alone Mode - This option allows the user to clear all the 12 memories in the dimmer.

Select the *Clear Memories* option from the Memories menu. The LCD shows:

```
<Clear Memories>
```

Press the ENT key, the LCD shows:

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

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

The LCD returns to the *Memories* screen.

Clear Memories

Network Mode - This option allows the user to clear all the 12 memories for a specified area in the dimmer.

Select the *Clear Memories* option from the Memories menu. The LCD shows:

```
<Clear Memories>
```

Press the ENT key, the LCD 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 LCD returns to the *Memories* screen.

Edit Memory

Stand Alone Mode - This option allows the user 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. The LCD shows:

```
< Edit Memory >
```

Press the ENT key, the LCD shows:

```
Edit Memory  
XX
```

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

Use the numeric keys 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 LCD shows the following:

```
Channel: 1  
Level: xxx
```

The cursor is displayed 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 LCD 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 LCD screen shows the following message for 1 second, and then return to the *Edit Memory* screen.

```
Memory xx  
Saved
```

The memory is removed from the outputs.

Edit Memory

Network Mode - This option allows the user 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. The LCD shows:

```
< Edit Memory >
```

Press the ENT key, the LCD shows:

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

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

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

Use the numeric keys 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 LCD shows the following:

```
(Axx) Channel: 1  
Level: xxx
```

The area number field (Axx) is for information only. The cursor is displayed 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*.

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

Press the **ESC** key. The LCD 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 LCD screen will show the following message for 1 second, and then return to the *Edit Memory* screen.

```
Area xx Mem xx  
Saved
```

The memory is removed from the outputs.

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

Sequences

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

In **Stand Alone Mode** - Each step in a sequence is a reference to one of the programmed memories in the dimmer.

In **Network 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.

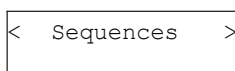
Each sequence also has a cross-fade and dwell time which determines how the sequence runs:

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.

Sequence Menu Options

Select the *Sequences* option from the top level options menu:



Press the ENT key to enter the Sequences menu. The following options are available:

- *Program Sequence*
- *Playback Sequence*
- *Sequence Options*
- *Clear Sequence*

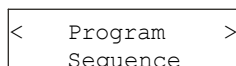
Use the cursor keys to scroll between the options.

Press the ENT key to enter the selected option.

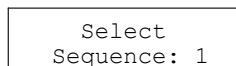
Program Sequence

Stand Alone Mode - This option allows the user to program one of the three sequences, using the programmed memories in the dimmer.

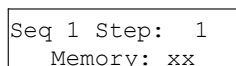
Select the *Program Sequence* option from the Sequences menu. The LCD shows:



Press the ENT key, the LCD shows:



The cursor appears in the sequence number field. Use the numeric or cursor keys to select the required sequence number, then press the ENT key. The LCD 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.

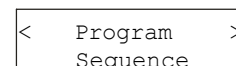
Repeat the above process until all the steps in the sequence have been programmed (maximum of 12 steps).

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

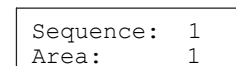
Program Sequence

Network Mode - This option allows the user 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. The LCD shows:

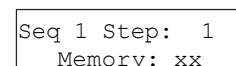


Press the ENT key, the LCD shows:



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 LCD 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).

Press the ESC key to return to the Sequence/Area screen.

Playback Sequence

Stand Alone Mode - This option allows the user to playback any of the three programmed sequences.

This option is used to start and stop sequences running. Only one sequence can be running at a time.

Select the *Playback Sequence* option from the Sequences menu. The LCD shows the following:

```
< Playback >
  Sequence
```

Press the ENT key. If there is no sequence currently running in the dimmer, the LCD shows:

```
Sequence: 1
ENT to start
```

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

```
Sequence: X
ENT to stop
```

A cursor appears in the *Sequence* field. Use the cursor keys to select the required sequence.

The second line of the LCD changes automatically to show 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.

Playback Sequence

Network Mode - This option allows the user to playback any of the three programmed sequences.

This option is used to start and stop sequences running. Only one sequence can be running at a time.

Select the *Playback Sequence* option from the Sequences menu. The LCD shows the following:

```
< Playback >
  Sequence
```

Press the ENT key. If there is no sequence currently running in the dimmer, the LCD shows:

```
Sequence: 1
ENT to start
```

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

```
Sequence: X
ENT to stop
```

A cursor appears in the *Sequence* field. Use the cursor keys to select the required sequence.

The second line of the LCD changes automatically to show 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.

If a different sequence was running in the dimmer it will be stopped and replaced by the new one.

Starting a sequence in an area will also replace any memory 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 the user 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. The LCD shows:

```
< Sequence >
  Options
```

Press the ENT key, the LCD 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.

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

Clear Sequence

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

Select the *Clear Sequence* option from the Sequences menu. The LCD shows:

```
< Clear >
  Sequence
```

Press the ENT key, the LCD shows:

```
Select
Sequence: 1
```

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

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

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

Preheat

Select the *Preheat* option from the top level menu options:

```
< Preheat >
```

Press the ENT key to enter the Preheat menu. The following two options are available:

- *Set Preheat*
- *Clear Preheats*

Set Preheat

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

Select the *Set Preheat* option from the menu:

```
< Set Preheat >
```

Press the ENT key. The LCD changes to the following:

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

On entering this screen, a cursor is shown in the *Channel* field. The channel number defaults to 1.

There are 2 methods of operation available on this screen :

Keypad Entry

When the cursor is in the *Channel* field enter the channel number using the numeric keys. Press the ENT key.

The preheat level for the selected channel is shown in the *Level* field and the cursor moves to the *Level* field.

When the cursor is in the *Level* field, enter the required level using the numeric keys. Press the ENT key. The cursor returns to the *Channel* field.

Cursor Keys

When the cursor is in the *Channel* field, press the A> key to increase the channel number by 1, press the B< key to decrease the channel number by 1.

As the channel number changes, the corresponding preheat level is shown in the *Level* field.

Press the ENT key. The cursor moves to the *Level* field which shows the preheat level.

When the cursor is in the *Level* field, pressing the A> key increases the level by 1%, pressing the B< key decreases it by 1%.

The minimum preheat value is 0%, the maximum value is 20%.

Pressing the ENT key will return the cursor to the *Channel* field.

Pushing the **ESC** key at any point on this screen will return the LCD to the *Set Preheat* screen.

Clear Preheats

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

Select the *Clear Preheats* option from the menu:

```
<Clear Preheats>
```

Press the ENT key. The LCD changes to the following:

```
Push ENT key to  
Clear Preheats
```

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

Dimmer Laws

The user 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.

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%.

Square - For use with video cameras.

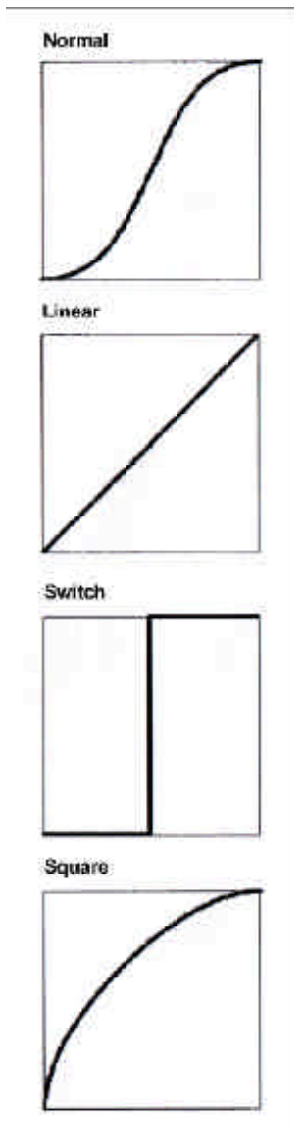


Figure 3 - 2: Dimmer Laws

Set Laws

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

Select the *Dimmer Laws* option from the top level menu options:

```
< Dimmer Laws >
```

Press the ENT key to enter the Dimmer Laws menu.

Select the *Set Laws* option from the menu:

```
< Set Laws >
```

Press the ENT key. The LCD changes to the following:

```
Channel: xx  
Law: xxxxxx
```

On entering this screen, a cursor is shown in the *Channel* field. The channel number defaults to 1.

The channel is selected using the numeric keypad or cursor keys:

Channel Selection - Keypad Entry

Enter the required channel number using the numeric keys, then press the ENT key.

The law for the selected channel is shown in the *Law* field and the cursor moves to the *Law* field.

Channel Selection - Cursor Keys

Press the A> key to increase the channel number by 1, press the B< key to decrease the channel number by 1.

As the channel number changes, the law for the channel is shown in the *Law* field.

Press the ENT key. The cursor moves to the *Law* field.

Law Field

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*
```

Pressing the ENT whilst in the *Law* field returns the cursor to the *Channel* field, and changes the law as shown.

Pressing the ESC key at any point on this screen will return the LCD to the *Set Laws* screen.

Reset Laws

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

Select the *Dimmer Laws* option from the top level menu options:

```
< Dimmer Laws >
```

Press the ENT key to enter the Dimmer Laws menu.

Select the *Reset Laws* option from the menu:

```
< Reset Laws >
```

Press the ENT key. The LCD changes to the following:

```
Push ENT key to  
reset all laws
```

Press the ENT key to set the state of all laws to normal. The following screen will be shown for 1 second as a confirmation.

```
Dimmer laws  
reset to normal
```

The screen then returns to the top level *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 $80\% \times 50\% = 40\%$.

Topset Menu Options

Select the *Topset* option from the top level menu options:

```
< Topset >
```

Press the ENT key to enter the Topset menu. The following two options are available:

- *Set Topset*
- *Clear Topsets*

Set Topset

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

Select the *Set Topset* option from the menu:

```
< Set Topset >
```

Press the ENT key. The LCD changes to the following:

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

On entering this screen, a cursor is shown in the *Channel* field. The channel number defaults to 1.

There are 2 methods of operation available on this screen :

Keypad Entry

When the cursor is in the *Channel* field, enter the channel number using the numeric keys. Press the ENT key.

The topset level for the selected channel is shown in the *Level* field and the cursor moves to the *Level* field.

When the cursor is in the *Level* field, enter the required level using the numeric keys. Press the ENT key. The cursor returns to the *Channel* field.

Cursor Keys

When the cursor is in the *Channel* field, pressing the A> key increments the channel number, pressing the B< key decrements the channel number.

As the channel number changes, the topset level is shown in the *Level* field.

Press the ENT key. The cursor moves to the *Level* field which shows the current topset level.

When the cursor is in the *Level* field, pressing the A> key increases the level by 1%, pressing the B< key decreases it by 1%.

Pressing the ENT key will return the cursor to the *Channel* field.

Pushing the ESC key at any point on this screen will return the LCD to the *Set Topset* screen.

Clear Topsets

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

Select the *Clear Topsets* option from the menu:

```
<Clear Topsets >
```

Press the ENT key. The LCD changes to the following:

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

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

Reset Dimmer

This option allows the user 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:

```
< Reset Dimmer >
```

Press the ENT key. The LCD shows:

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

Press the ENT key. The LCD shows:

```
Push ENT key to  
Confirm Reset
```

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

Pressing the ESC key on either of the above two screens will return to the top level menu *Reset Dimmer* screen.

DMX Controls

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

DMX Controls Menu Options

Select the *DMX Controls* option from the top level menu options:

```
< DMX Controls >
```

Press the ENT key to enter the DMX Controls menu. The following options are available:

- *Set Start Address*
- *Set DMX Patch*
- *Reset DMX Patch*
- *DMX Input*

Set Start Address

This option allows the user 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:

```
< Set Start  
Address >
```

Press the ENT key. The LCD shows the following with the cursor displayed in the address field.

```
DMX Address  
xxx
```

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

This sets the start address for the dimmer. The LCD screen pauses for approximately 1 second 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 the user to set an individual DMX address (1 - 512) for each channel of the dimmer.

Select the *Set DMX Patch* option from the menu:

```
<Set DMX Patch >
```

Press the ENT key. The LCD shows:

```
Channel: xx
DMX: xxx
```

The cursor appears in the *Channel* field, which defaults to channel 1.

The corresponding DMX address appears in the *DMX* field.

Keypad Entry

When the cursor is in the *Channel* field, enter the channel number using the numeric keys. Press the ENT key.

The DMX address for the channel is shown in the *DMX* field; the cursor moves to the *DMX field*.

When the cursor is in the *DMX* field, enter the required address using the numeric keys. Press the ENT key.

The dimmer channel is now patched to the DMX address and the cursor returns to the *Channel* field.

Cursor Keys

When the cursor is in the *Channel* field, use the cursor keys to increase or decrease the channel number.

Press the ENT key. The cursor moves to the *DMX* field which shows the current DMX address.

When the cursor is in the *DMX* field, use the cursor keys to increase or decrease the address, then press the ENT key to patch the channel and return the cursor to the *Channel* field.

Pushing the ESC key at any point on this screen will return the LCD to the *Set DMX Patch* screen.

Reset DMX Patch

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

Select the *Reset DMX Patch* option from the menu:

```
< Reset DMX >
Patch
```

Press the ENT key. The LCD shows:

```
Push ENT Key to
Reset DMX Patch
```

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

DMX Input Modes

This option allows the user 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, the user can choose between two modes of operation - HTP mixing or DMX takes precedence.

If the dimmer is in Network Mode, the user 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, the user 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.

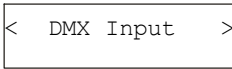
DMX Takes Precedence

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 - Stand Alone

Select the *DMX Input* option from the menu:



Press the ENT key. The LCD shows the current setting for the dimmer, for example:



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 LCD returns to the DMX Input screen, otherwise the LCD shows:

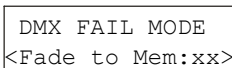


Select the required DMX fail Mode as follows:

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 LCD shows:

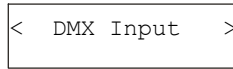


Use the numeric keys to enter the required memory number, then press the ENT key.

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

DMX Input - Network Mode

Select the *DMX Input* option from the menu:



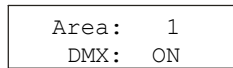
Press the ENT key. The LCD shows the current setting for the dimmer, for example:



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 LCD returns to the DMX Input screen, otherwise the LCD shows:



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

The cursor is displayed in the Area field. Use the numeric keys 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:



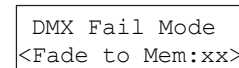
This screen allows the user to set the DMX Fail Mode for the dimmer.

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 LCD shows:



The cursor appears in the memory number field. Use the numeric keys to enter the required memory number, then press the ENT key.

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

Notes - 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.

Stand Alone Mode - the above statements apply to all dimmer channels.

Network 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 the user 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 also a global unlock code which will unlock the Spice dimmer.

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 master controller or control panels connected to the network.

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

Locking the Dimmer

Select the *Security* option from the top level options menu:

```
< Security >
```

Press the ENT key. The LCD shows the following screen, with the cursor in the *Code* field:

```
Lock Dimmer  
Code: xxxx
```

Use the numeric keypad to enter a 4 digit code (eg 2312) and then press the ENT key. The following screen is displayed on the LCD:

```
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 LCD returns to the main screen, and all menu access is disabled.

If the codes do not match - an error message is displayed on the LCD for one second, and then returns to the *Lock Dimmer* screen above.

Pressing the ESC key at any time in the above menu structure returns the LCD to the *Security* screen.

Unlocking the Dimmer

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

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

```
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 LCD displays the first screen in the top level menu structure (*Manual Control*).

If an incorrect code is entered - an error message is displayed for two seconds and then the LCD returns to the main screen.

Pushing the ESC key at any time in the above screens will return the LCD to the main screen.

Note - Unlocking the Dimmer

If the code to unlock the dimmer has been forgotten, contact Zero 88 Technical Support who will supply a master unlock code.

Chilli Net

This option puts the dimmer into Network Mode so that it can be controlled remotely by a Chilli Master Controller, Chilli Control Panels or other Chilli Pro or Spice dimmers on the network via Chilli Net 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:

```
< Chilli Net >
```

Press the ENT key. The LCD shows the following screen, with the cursor in the *State* field:

```
State: Disabled  
Dimmer No: xxx
```

Use the scroll 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 directly using the numeric keys or adjust the number using the scroll keys. Press the ENT key to confirm.

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

```
Verifying  
Dimmer No
```

If the dimmer number is valid, the LCD will show the following message before returning to the Chilli Net screen:

```
Dimmer No  
Accepted
```

If the dimmer number is already used on the network, the LCD will show the following message before returning to state and dimmer number screen:

```
Dimmer No  
Already Used
```

Area Control

This option is only available when the dimmer is in **Network Mode**.

This option allows the user 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 the user to playback memories and sequences across the network on an area basis.

Area Control Menu Options

Select the *Area Control* option from the top level menu options:

```
< Area Control >
```

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 the user to assign an area to each of the dimmer channels individually.

Select the *Set Chan Area* option from the menu:

```
<Set Chan Area >
```

Press the ENT key. The LCD shows:

```
Channel: 1  
Area: 1
```

On entering this screen, a cursor is shown in the *Channel* field. The channel number defaults to 1.

Numeric Keypad

When cursor is in the *Channel* field, enter the channel number using the numeric keys then press the ENT key.

The area assigned to the channel is shown in the *Area* field and the cursor moves to the *Area* field.

When cursor is in the *Area* field, enter the required area (1 – 10) using the numeric keys then press the ENT key.

The area is assigned and the cursor returns to the *Channel* field.

Repeat operation for each channel.

Cursor Keys

When cursor is in the *Channel* field, press the A> key to increase the channel number by 1, press the B< key to decrease the channel number by 1.

As the channel number changes, the area assigned to the channel is displayed in the *Area* field.

Press the ENT key. The cursor moves to the *Area* field.

When the cursor is in the *Area* field, use the cursor keys to select the required area for the channel.

Press the ENT key to return the cursor to the *Channel* field.

Repeat operation for each channel.

After completing the channel to area assignments, press the **ESC** key to return to the *Set Chan Area* screen.

Set All Channels

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

Select the *Set All Chans* option from the menu:

```
<Set All Chans >
```

Press the ENT key. The LCD changes to the following, with the cursor in the Area field:

```
All Channels  
Area: 1
```

Numeric Keypad

Enter the required area number (1-10) using the numeric keys and then press the ENT key.

The LCD returns to the Set All Chans screen.

Cursor Keys

Press the A> key to increase the area number by 1 press the B< to decrease the area number by 1.

Use the cursor keys to select the required area number, then press the ENT key. The LCD returns to the Set All Chans screen.

Alarm Messages

If the Spice dimmer is in Network Mode it will respond to Alarm messages received via the network.

Alarm On Message

When a networked dimmer receives an Alarm On message:

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

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

Alarm Off Message

When a networked dimmer receives an Alarm Off message:

- 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 LCD shows the main screen.

Notes

Alarm State - Output Levels

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.



Figure 4 - 1: The Spice Rack 12 Channel Dimmer

Introduction

This chapter provides the electrical, mechanical, environmental and EMC specifications for the Spice rack dimmer.

Technical Specification

Electrical

Supply Voltage:

190V - 255V

Supply Frequency:

40 to 70 Hz

Maximum Supply Current:

40A 3 phase star

Maximum Load per Channel

10A Max.

DMX Input:

USITT DMX512/1990

External switchable termination

Mechanical

Size:

482 x 420 x 132 mm.

Weight:

13 kg.

Environmental

Operating Temperature Range:

2 to 40 °C

Humidity:

5 to 95% Non condensing

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





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