

# CHILLI MASTER CONTROLLER OPERATING MANUAL



zero<sup>®</sup>88





# CHILLI MASTER CONTROLLER

## OPERATING MANUAL

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

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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Figure 1 - 1: The Chilli Master Controller

## This Manual

This manual describes the operation of the Chilli Master Controller.

The **Introduction** 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 controller and connecting it to a power supply and Chilli network.

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

The manual concludes with a chapter on the **Technical Specification** of the Master Controller.

## 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:

```
Chilli Net
Status: OK
```

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

*Manual Control, Set Chan Level etc.*

## Overview

The Chilli Master Controller is used to set up and control a number of Chilli Pro and/or Spice rack dimmers on a Chilli network.

The dimmers must be set up to operate in network mode and be given unique dimmer numbers, before the Master Controller can remotely access and control them.

The Master Controller interrogates the network to determine what dimmers are connected.

Using the Auto Assign function, the master controller maps its master channels to the physical channels on each of the dimmers on the network.

By using the concept of master channels, the network effectively becomes one big dimmer which can be controlled from the Master Controller.

Each channel can also be assigned to one of ten areas by the user.

The Master Controller uses similar menu structure and methods of navigation and selection as found on the control panels of the Chilli Pro and Spice rack dimmers themselves.

Many of the functions on the Master Controller are the same or very similar to those found on an individual Chilli Pro or Spice rack dimmer.

Certain functions (supply status and output voltage calibration) are only applicable to Spice rack dimmers.

The Master Controller has a security feature which allows the user to set a lock level which determines which menu options are accessible.

## Main Functions

The main functions of the Chilli Master Controller are listed below:

- The master channels may be patched to the DMX as a complete block, smaller blocks or individually.
- Each master channel can be assigned to one of ten areas.
- Each master channel has a manually adjustable output level.
- Each master channel can be set to one of four different dimming laws.
- The Preheat level for master channels can be adjusted between 0% and 20%.
- Each master channel can be topsetted, if required, to limit its maximum output level.
- The network can be programmed with up to 12 memories per area.
- Each networked dimmer grabs its own outputs and stores them internally, when instructed.
- Individual memories can be played back on an area basis.
- The network can be programmed with up to three sequences per area, comprising the memories.
- Individual sequences can be played back, when required, with adjustable cross fade and dwell times.
- DMX Input and DMX fail Modes can be specified for the dimmers on the network.
- Reset function to reset the master controller and networked dimmers.
- The Master Controller can be programmed with up to 99 timed events.
- Alarm state indication.
- Supply status monitoring (Spice).
- Output voltage calibration (Spice).
- Diagnostics to monitor and display network, dimmer and DMX faults.
- The networked dimmers and control panels can be locked to prevent unauthorised access.

## Front Panel Controls

This section summarises the front panel controls and displays.

### LCD Display

The LCD Display comprises two lines of 16 characters. In this manual the LCD is shown as follows:

```
Chilli Net
Status: OK
```

### Numeric Keys

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

### Star Key

The star key (\*) is used to display the dimmer number and channel number corresponding to a master channel number in various menu options.

It also toggles the backlight on and off when displaying the Main Screen.

### 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.

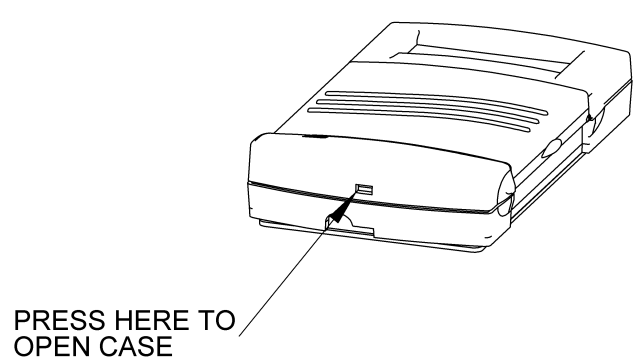


Figure 2 - 1

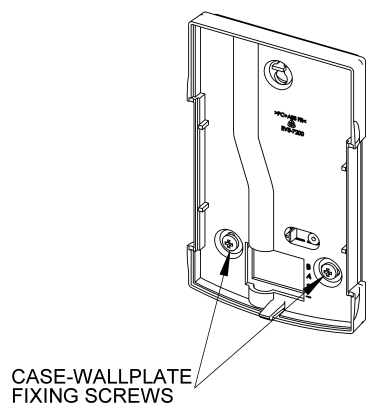


Figure 2 - 2

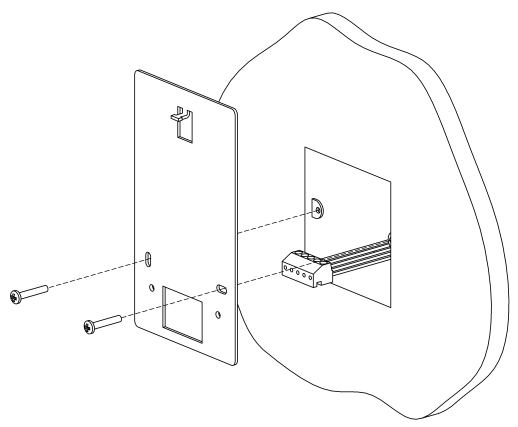


Figure 2 - 3

## Introduction

This chapter deals with installing the Chilli Master Controller and connecting it to the Chilli network.

## Installation

Open the case by pressing the latch at the bottom of the case with a screwdriver (see Figure 2-1).

Unscrew the two screws fixing the wallplate to the case (see Figure 2-2).

Fix the wallplate to a standard 47mm single gang backbox with the two M3.5 screws provided. Poke the Chilli network cable through the hole in the wallplate (see Figure 2-3).

Hook the rear of the case over the hook in the wallplate and refix the case to the wallplate with the screws removed earlier (see Figure 2-4).

Connect the Chilli network cable to the 5-pin header on the PCB, ensuring correct orientation (see Figure 2-5).

Refit the front part of the unit by pushing the hinges into the top of the rear case and rotating on the hinge until the latch at the bottom of the case snaps closed (see Figure 2-6).

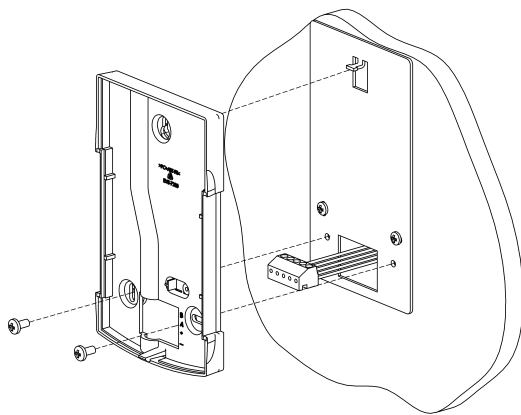


Figure 2 - 4

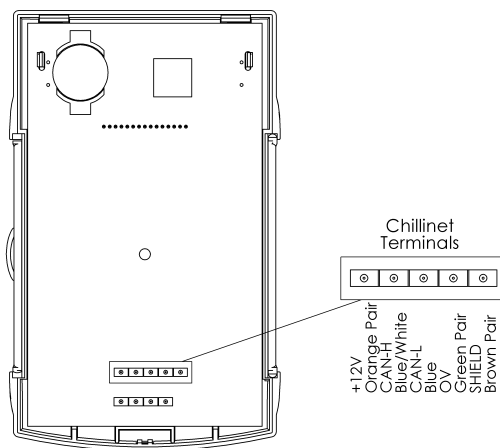


Figure 2 - 5

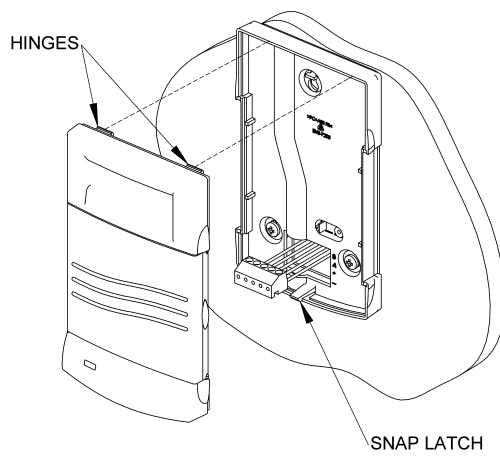


Figure 2 - 6



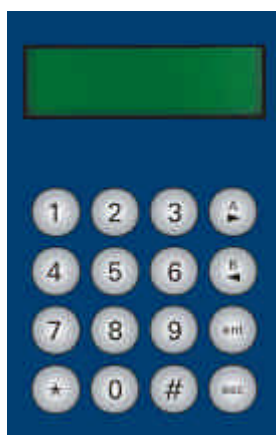


Figure 3 - 1:Control Panel

## Introduction

This chapter describes all the various Master Controller functions.

## Main Screen

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

When the master controller, network and dimmers are all working correctly, the LCD will show the following:

```
Chilli Net
Status: OK
```

If any errors are detected, the second line changes to one of the following:

**Network Fault** - Network errors have been detected by the Master Controller.

**DMX Fault** - One or more of the dimmers has reported a DMX fault.

**Dimmer Fault** - One or more of the networked dimmers has reported a non DMX fault (eg temperature overheat).

**New Dimmer** - The master controller has detected a new dimmer added to the network.

**Missing Dimmer** - One or more of the networked dimmers is not responding.

Further details of the above faults can be obtained via the *Diagnostics* menu.

## Menu Structure

If the Master Controller is in the alarm state, all menu access will be disabled.

In normal operation when the LCD is displaying the Main Screen, press the ENT key to enter the menu structure.

The current lock level on the Master Controller determines which of the menu options can be accessed.

Only those menu options which are accessible will be displayed.

The menu structure is cyclic and the cursor keys are used for navigation.

After selection, press the ENT key to enter the corresponding sub-menu.

Hitting the ESC key generally returns to the menu level above, except where stated otherwise.

The top level menu options are:

- *Dimmer Control*
- *Timed Events*
- *Memories*
- *Sequences*
- *Security*

If there are menu options available at the same level < and > symbols appear at the left and right hand sides of the LCD. For example:

```
<Dimmer Control>
```

## Dimmer Control

This option is only available when the lock level is set to zero.

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

```
<Dimmer Control>
```

Press the ENT key to enter the Dimmer Control sub-menu.

The following menu options are available:

- *Manual Control*
- *Preheat*
- *Dimmer Laws*
- *Topset*
- *Reset*
- *DMX Controls*
- *Chilli Net*
- *Supply Status*
- *Output Cal*
- *Diagnostics*
- *Area Control*

Use the cursor keys to select the required menu option.

Press the ENT key to enter the corresponding sub-menu.

## Manual Control

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

```
<Manual Control>
```

Press the ENT key to enter the Manual Control sub-menu.

The following menu options are available:

- *Set Chan Level*
- *Set All Chans*
- *Set Area Chans*

## Set Channel Level

This option allows the user to set up a manual control level for each of the master channels. The minimum manual control level is 0%, the maximum level is 100%.

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

```
<Set Chan Level>
```

Press the ENT key. The LCD shows:

```
(A01) Channel: xx  
Level: xxx
```

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

### When the cursor is displayed in the *Channel* field:

**Keypad** - Enter the channel number using the numeric keys then press the ENT key. The cursor moves to the *Level* field.

**Cursor Keys** - Use the cursor keys to select the channel number. 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

### When the cursor is displayed in the *Level* field:

**Keypad** - Enter the required channel level (0 - 100) using the numeric keys then press the ENT key.

**Cursor Keys** - Use the cursor keys to adjust the level, then press the ENT key.

The output of the master channel matches the level entered, and the cursor returns to the *Channel* field.

The # key can also be used to toggle the manual control level between 0% and 100% - see notes.

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

## Set All Channels

This option allows the user to set a manual control level for all the master channels 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:

```
All Channels
Level: 0
```

The cursor appears in the *Level* field.

**Keypad** - Enter the required channel level (0 - 100) using the numeric keys and then press the ENT key. The outputs of all dimmer channels matches the level entered.

**Cursor Keys** - Use the cursor keys to adjust the channel level as required. As the value in the *Level* field changes, the output of all the master channels will change.

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

## Set Area Channels

This option allows the user to set up a manual control level for each of the master channels in a specified area.

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

```
<Set Area Chans>
```

Press the ENT key. The LCD shows:

```
Area:   xx
Level:  xxx
```

A cursor is shown in the *Area* field. The area number defaults to 1.

**When the cursor is displayed in the Area field:**

**Keypad** - Enter the area number using the numeric keys. Press the ENT key. The cursor moves to the *Level* field.

**Cursor Keys** - Use the cursor keys to select the area number. As the area number changes, the corresponding manual control level is shown in the *Level* field. Press the ENT key. The cursor moves to the *Level* field

**When the cursor is displayed in the Level field:**

**Keypad** - Enter the required channel level (0 - 100) using the numeric keys then press the ENT key.

**Cursor Keys** - Use the cursor keys to adjust the level. Press the ENT key.

The output of the master channels matches the level entered, and the cursor returns to the *Area* field.

The # key can also be used to toggle the manual control level between 0% and 100% - see notes.

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

## Notes

### Using the # Key

The # key can be used as a quick method of turning the master channels to full (100%) or off (0%) as follows:

When the cursor is in the *Channel* or *Area* field, the # key acts as a channel level toggle. The first push will take the level to 100% (regardless of it's current level), the second push will take it 0% etc. The *Level* field shows the current value (0% or 100%), but the cursor remains in the same field.

When the cursor is in the *Level* field, the # key acts as a channel level toggle. The first push will take the level to 100% (regardless of it's current level), the second push will take it 0% etc.

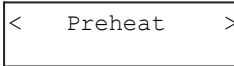
### Mixing Manual Control Levels, Preheat and DMX Input.

When the *DMX Input Mode* is set to *HTP Mix*, the manual control levels are mixed on a highest takes precedence (*HTP*) basis with the incoming *DMX* signal and the channel preheat levels.

When the *DMX Input Mode* is set to *DMX Takes Precedence*, the manual levels, preheat, topset etc are ignored.

## Preheat

Select the *Preheat* option from the *Dimmer Control* menu options:



Press the ENT key to enter the Preheat sub-menu.

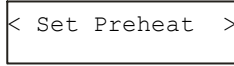
The following menu options are available:

- *Set Preheat*
- *Clear Preheats*

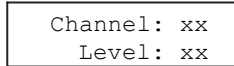
## Set Preheat

This option allows the user to set up a preheat level for each of the master channels, as required.

Select the *Set Preheat* option from the menu:



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



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 (0-9), then 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 (0-9), then 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 corresponding preheat level is shown in the *Level* field.

Press the ENT key. The cursor moves to the *Level* field which shows the current 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 value is 0%, the maximum value is 20%.

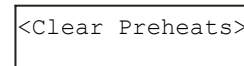
Pressing the ENT key will return the cursor to the *Channel* field.

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

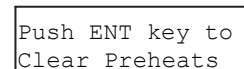
## Clear Preheats

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

Select the *Clear Preheats* option from the menu:



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



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

## Dimmer Laws

The user can choose a dimmer law for each of the master channels. The dimmer laws determine the relationship between the control value and the output value supplied to the lamp.

The laws are characterised for TRIAC dimmers only. On the Chilli HF ballast controller, the results obtained may be different from those shown below, depending on the ballast used.

**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.

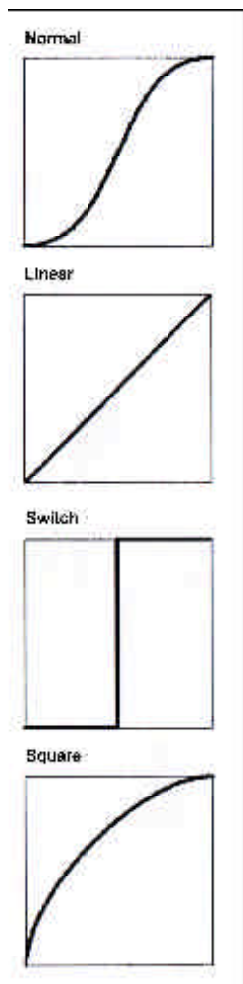


Figure 3 - 2: Dimmer Laws

## Set Laws

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

Select the *Dimmer Laws* option from the *Dimmer Control* menu options:

```
< Dimmer Laws >
```

Press the ENT key to enter the Dimmer Laws sub-menu.

Select the *Set Laws* option from the menu:

```
< Set Laws >
```

Press the ENT key. The LCD shows:

```
Channel: 1
Law: xxxxxx
```

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

### Channel Field

Select the required channel using the numeric or cursor keys as follows:

### Keypad Entry

Enter the required channel number using the numeric keys (0 - 9), 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.

### 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 corresponding 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, either of the cursor keys will cycle through the available laws.

The currently selected law for the channel is indicated by an '\*', eg:

```
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 master channels.

Select the *Dimmer Laws* option from the *Dimmer Control* menu options:

```
< Dimmer Laws >
```

Press the ENT key to enter the Dimmer Laws sub-menu. Select the *Reset Laws* option from the menu:

```
< Reset Laws >
```

Press the ENT key. The LCD shows:

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

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

```
Dimmer laws
reset to normal
```

The screen then returns to the *Dimmer Laws* screen.

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

## Topset

The Topset function is used to apply a scaling factor to the final output level of a dimmer 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 *Dimmer Control* menu options:

```
< Topset >
```

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

- *Set Topset*
- *Clear Topsets*

## Set Topset

This option allows the user to set up a topset level for each of the master channels, as required.

Select the *Set Topset* option from the menu:

```
< Set Topset >
```

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

```
Channel: 1  
Level:100
```

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 (0 - 9) then 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 (0 - 9), then 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.

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 value is 0%, the maximum value is 100%.

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 master channels to 100%.

Select the *Clear Topsets* option from the menu:

```
<Clear Topsets >
```

Press the ENT key. The LCD shows:

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

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

## Reset

This option allows the user to reset the entire network, ie the master controller and all the networked dimmers to their default settings.

The Reset function performs the following operations:

- All manual control levels to zero.
- Preheat for all channels to zero.
- All dimming laws set to Normal.
- All Topset levels set to 100%.
- All channels assigned to area 1.
- All timed events are disabled.
- 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 patch reset 1:1 with master channels.
- DMX Input Mode set to HTP Mix.
- DMX Fail mode - Fade to Black.
- Output Calibration Off (Spice).
- Overheat Shutdown On (Spice).
- User interface backlight on (Spice).

Select the *Reset* option from the *Dimmer Control* options menu:

```
<  Reset  >
```

Press the ENT key. The LCD shows:

```
Push ENT key to
Reset
```

Press the ENT key. The LCD shows:

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

Press the ENT key to reset the network. The LCD screen returns to the main screen.

Pressing the ESC key on either of the above two screens will return to the *Resetscreen*.

### Reset and DMX Patch

Resetting the network from the master controller results in a different DMX patch to resetting each of the individual dimmers.

## DMX Controls

This option allows the user to set the DMX start address for the entire network, patch individual or blocks of channels to the DMX and reset the DMX patch.

The user can also set the DMX input mode and DMX fail modes for all the networked dimmers.

Select the *DMX Controls* option from the *Dimmer Control* menu options:

```
<  DMX Controls  >
```

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

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

## Set Start Address

This option allows the user to patch all the master channels in the network in a single operation by specifying a DMX start address.

Select the *Set Start Address* option from the menu:

```
<  Set Start
  Address  >
```

Press the ENT key. The LCD shows:

```
DMX Address
xxx
```

The cursor is placed in the address field (xxx) and becomes active.

Enter the DMX address using the numeric keys or adjust using the cursor keys. Press the ENT key.

This sets the start address for the network. The LCD screen displays "*Configuring Dimmers*" for approximately 1 second and then returns to the *DMX Controls* screen.

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

## Channel Patch

This option allows the user to set a DMX address for each individual master channel in the network.

Select the *Channel Patch* option from the menu:

```
< Channel Patch >
```

Press the ENT key. The LCD shows:

```
Channel:  1  
DMX:    1
```

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

There are two methods of operation for this screen:

### Keypad Entry

When the cursor is in the *Channel* field, enter the channel number using the numeric keys (0 - 9), then 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 address using the numeric keys (0 - 9) then press the ENT key.

The master 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 master 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 DMX 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.

## Block Patch

This option allows the user to patch a block of master channels to the DMX in a single operation.

Select the *Block Patch* option from the menu:

```
< Block Patch >
```

Press the ENT key. The LCD shows:

```
Start Chan:  xxx  
No of Chans: xxx
```

Use the numeric or cursor keys to set the required start channel number. Press the ENT key to move the cursor to the *No of Chans* field.

Use the numeric or cursor keys to set the required number of channels. Press the ENT key. The LCD shows:

```
DMX Address  
xxx
```

Use the numeric or cursor keys to set the required DMX start address. Press the ENT key to complete the operation.

The LCD displays "*Configuring Dimmers*" for approximately 2 seconds and then returns to the *Block Patch* screen.

## Reset DMX Patch

This option resets the DMX patch for the network (ie the master channels are patched 1:1 with the DMX).

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

This option allows the user to enable or disable the DMX input signal to the networked dimmers.

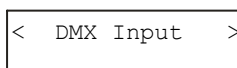
### When DMX Input is enabled

- The user can choose between HTP mixing or DMX takes precedence.
- The DMX input may be turned off for individual areas, if required.
- The user can select the DMX Fail Mode for the networked dimmers.
- The Master Controller sets all the networked dimmers to the same DMX Input and DMX Fail Modes.

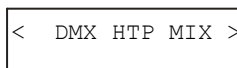
### When DMX Input is disabled:

- Any DMX input to the dimmers is ignored.

Select the *DMX Input* option from the *DMX Controls* menu:



Press the ENT key. The LCD shows the current DMX Input setting for the dimmers, for example:



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

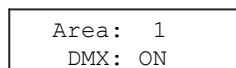
Press the ENT key to save the DMX Input state.

If DMX DISABLED was selected the LCD returns to the *DMX Input* screen.

If DMX HTP MIX was selected the LCD goes to the *DMX Area* screen.

If DMX PRECEDENCE was selected the LCD goes to the *DMX Area* screen.

### The DMX Area screen:



The cursor is displayed in the *Area* field, which defaults to Area 1.

Select the required area using the numeric or cursor keys, then press the ENT key. The cursor moves to the DMX field.

Use the cursor keys to select ON or OFF. Press the ENT key to confirm. The cursor returns to the Area field.

Repeat for each area as required.

Press the **ESC** key to move to the *DMX Fail Modes* screen.

### The DMX Fail Mode screen:

This screen shows the current DMX Fail mode, for example:

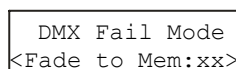


Select the required DMX Fail Mode as follows:

**Hold DMX** - use the cursor keys to select the *Hold DMX* option. Press the ENT key. The LCD returns to the *DMX Input* screen.

**Fade to Black** - use the cursor keys to select the *Fade to Black* option. Press the ENT key. The LCD returns to the *DMX Input* screen.

**Fade to Memory** - use the cursor keys to select the *Fade to Memory* option. The LCD shows:



The cursor is displayed in the memory number field and defaults to 1.

Enter the required memory number using the numeric keys and press the ENT key to confirm. The LCD returns to the *DMX Input* screen.

### Notes - DMX Fail Modes

#### Hold DMX

*With HTP Mix* - The last DMX signal will be held. The manual control and memory levels are HTP mixed with the last DMX input levels.

*With DMX Precedence* - The DMX Input is ignored. The outputs are determined by manual control and memory levels only.

#### Fade to Black

All DMX input levels and any memory being output will fade to black (0%) in 3 seconds.

DMX is regarded as being zero. Outputs are determined by manual control levels only.

#### Fade to Memory

The following statements will be applied to the channels on an area basis, since the channels in each area could be doing different things when the DMX fails.

*If the dimmer is not outputting a memory or sequence* - The outputs will fade to the selected backup memory levels in the memory's fade time. When DMX input is re-established, the backup memory is removed from the outputs.

*If the dimmer is outputting the backup memory* - The outputs will fade to the selected backup memory levels in the memory's fade time. When DMX input is re-established, the backup memory will remain on the outputs.

*If the dimmer is outputting a different memory* - The outputs will fade to the current memory levels in the memory's fade time. When DMX input is re-established, the current memory will remain on the outputs.

*If the dimmer is outputting a sequence* - the outputs snap to the sequence levels and the sequence continues running. When DMX input is re-established, the sequence will remain on the outputs

## Chilli Net

This option allows the user to set up the dimmers on the network, add a new dimmer into the network, adjust the master channel start number, and view various network information.

Select the *Chilli Net* option from the *Dimmer Control* menu options:

```
< Chilli Net >
```

Press the ENT key to enter the Chilli Net sub-menu. The following options are available:

- *Auto Assign*
- *Add Dimmer*
- *Channel Start*
- *Network Info*

## Auto Assign

The Auto Assign function is used to set up the master controller to control all the dimmers in the network.

The master controller interrogates the network to find out what dimmers are connected, their type and numbers.

The dimmers are sorted by dimmer number and the physical dimmer channels mapped to the master channels on the master controller.

Select the *Auto Assign* option from the *Chilli Net* menu:

```
< Auto Assign >
```

Press the ENT key; the LCD shows:

```
Push ENT key to  
Confirm Assign
```

Press the ENT key to confirm the operation. While the operation is being carried out, the LCD shows:

```
Auto Assign  
in progress
```

On completion, the LCD will show the following message before returning to the *Chilli Net* screen:

```
Auto Assign  
Complete
```

## Add Dimmer

The Add Dimmer function is used when a new dimmer is added into an existing Chilli network.

After validation, the master controller will add the dimmer into its network map, by assigning the next available master channel numbers to the physical channels on the dimmer.

The new dimmer can then be controlled from the master controller.

Select the *Add Dimmer* option from the Chilli Net menu:

```
< Add Dimmer >
```

Press the ENT key; the LCD shows:

```
Dimmer Number  
xxx
```

Enter the new dimmer number using the numeric or cursor keys, then press the ENT key. The LCD shows:

```
Searching for  
new dimmer
```

When the new dimmer is added successfully into the network, the LCD will show the following message before returning to the *Add Dimmer* screen.

```
Dimmer Added
```

If an incorrect dimmer number was entered, the LCD displays an error message before returning to the *Add Dimmer* screen.

### Notes

#### Adding a Dimmer to the Network

When a new dimmer is added to an existing Chilli network, the dimmer must be put into network mode and given a unique dimmer number before performing the Add Dimmer function on the master controller.

Refer to the *Chilli Pro Dimmer* or *Spice Rack Dimmer Operating Manuals* for further details.

## Channel Start

This function allows the user to specify a different start number for the master channels, if required.

The default channel start number is 1.

The maximum channel start number is dependant on the total number of dimmer channels in the network.

Select the *Channel Start* option from the *Chilli Net* menu:

```
<Channel Start >
```

Press the ENT key; the LCD shows:

```
Channel Start No
    xxx
```

Enter the required start number using the numeric or cursor keys. Press the ENT key to confirm the operation. The LCD returns to the *Channel Start* screen.

## Network Info

This option provides the user with various information on the dimmers connected to the Chilli network.

Select the *Network Info* option from the *Chilli Net* menu:

```
< Network Info >
```

Press the ENT key. The LCD shows an information screen with data on the first dimmer on the network:

```
Num Chans Start
001 12 001
```

The information displayed on this screen is as follows:

**Num** - The dimmer number (001-128).

**Chans** - The number of physical channels on the dimmer (4, 12, or 24).

**Start** - The Master Channel number assigned to the first physical channel on the dimmer.

Use the cursor keys to display information on each of the dimmers on the Chilli network.

Press the ENT or ESC key to return to the *Network Info* screen.

## Supply Status

This menu option allows the user to view the voltage and frequency for each phase of the supply on networked Spice dimmers.

This data is not available from Chilli Pro dimmers.

Select the *Supply Status* option from the *Dimmer Control* menu options:

```
<Supply Status >
```

Press the ENT key. The LCD shows the following screen:

```
Dimmer Number  
XX
```

Use the numeric keys or cursor keys to select the required dimmer number, then press the ENT key.

If the selected dimmer is a Spice dimmer, the LCD shows the following:

```
Dim: 1 PH: 1  
240V 50 Hz
```

A cursor is displayed in the phase field. Use the numeric keys or cursor keys to select a phase (1-3).

The corresponding voltage and frequency for the selected phase of the dimmer is displayed on the LCD.

If the frequency is < 40 Hz the frequency field shows "Low"; if the frequency is > 70 Hz the frequency field shows "High".

If the selected dimmer is a Chilli Pro dimmer, the LCD shows the following:

```
Supply Status  
Not Available
```

Press the ESC key to return to the *Supply Status* screen.

## Output Calibration

This menu option allows the user to limit the maximum output voltage on networked Spice dimmers.

This function is not available on Chilli Pro dimmers.

Select the *Output Cal* option from the *Dimmer Control* menu options:

```
< Output Cal >
```

Press the ENT key. The LCD shows the following screen:

```
Dimmer Number  
XX
```

Use the numeric keys or cursor keys to select the required dimmer number, then press the ENT key.

If the selected dimmer is a Spice dimmer, the LCD shows the following:

```
State : OFF  
Voltage : 220
```

A cursor is displayed in the *State* field.

Use the cursor keys to set the *State* to *On*, then press the ENT key to move the cursor to the *Voltage* field.

Use the numeric or cursor keys to set the required voltage (190 - 240V).

Press the ENT key to confirm and return to the *Output Cal* screen.

If the selected dimmer is a Chilli Pro dimmer, the LCD shows the following:

```
Output Cal  
Not Available
```

Press the ESC key to return to the *Output Cal* screen.

## Diagnostics

This option allows the user to investigate network, device or DMX faults with the dimmers on the network.

Select the *Diagnostics* option from the *Dimmer Control* menu options:

```
< Diagnostics >
```

Press the ENT key. The LCD shows the following screen with data on the first dimmer on the Chilli network:

```
Num Temp DMX Net  
001 0 1 0
```

The information displayed on this screen is as follows:

**Num** - The dimmer number (001-128).

**Temp** - The temperature status of the dimmer (0 = OK, 1 = fault).

**DMX** - The DMX status of the dimmer (0 = OK, 1 = fault).

**Net** - The network status of the dimmer (0 = OK, 1 = fault).

Use the cursor keys to view diagnostic information on each of the dimmers on the Chilli network.

Press the ENT or ESC key to return to the *Diagnostics* screen.

## Area Control

Each dimmer channel in the network is assigned to an area.

Initially, or after a Reset operation, all channels are assigned to area 1.

This option allows the user to assign dimmer channels to any of the 10 areas, or to assign all channels to a specified area.

Select the *Area Control* option from the *Dimmer Control* menu options:

```
< Area Control >
```

Press the ENT key to enter the Area Control sub-menu.

The following menu options are available:

- *Set Chan Area*
- *Set All Chans Area*
- *Get Area Chans*

Use the cursor keys to select the required menu option.

Press the ENT key to enter the corresponding sub-menu.

## Set Channel Area

This option allows the user to assign an area to individual master channels.

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

```
<Set Chan Area >
```

Press the ENT key. The LCD shows:

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

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

### When the cursor is displayed in the *Channel* field:

**Keypad** - Enter the channel number using the numeric keys then press the ENT key. The cursor moves to the *Area* field.

**Cursor Keys** - Use the cursor keys to select the channel number. As the channel number changes, the corresponding area is shown in the *Area* field. Press the ENT key. The cursor moves to the *Area* field.

### When the cursor is displayed in the *Area* field:

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

**Cursor Keys** - Use the cursor keys to select the area number, then press the ENT key.

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

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

## Set All Channels to Area

This option allows the user to assign an area to all the master channels.

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

```
<Set All Chans >
Area
```

Press the ENT key. The LCD shows:

```
All Channels
Area : 1
```

A cursor is displayed in the *Area* field which defaults to Area 1.

Use the numeric or cursor keys to enter the required area number, then press the ENT key.

The LCD shows the following for 3 seconds before returning to the *Set All Chans Area* screen:

```
All Channels
Saved
```

Pressing the ESC key on the above screen will return to the *Set All Chans Area* screen, losing any changes.

## Get Area Channels

This option is used to interrogate the channels in the network to determine which area they are assigned to.

Select the *Get Area Chans* option from the menu:

```
<Get Area Chans>
```

Press the ENT key. The LCD shows:

```
Press ENT to get
Areas from Dimm.
```

Press the ENT key. The LCD shows:

```
Collecting Area
Channel Data xx
```

After all the channels have been interrogated, the LCD shows the following for 3 seconds before returning to the *Get Area Chans* screen.

```
Get Area Channel
Complete
```

## Timed Events

This option is only available when the lock level is set to zero or one.

The Master Controller can be programmed with up to 99 separate timed events.

A timed event is a play memory or play sequence message that is sent out from the Master Controller.

Timed events are either exact events, ie a specified time on a particular date (eg 21:00 on 23 December 2004) or daily events, ie a specified time on particular days of the week (eg 7:30 am every Monday, Wednesday, Friday and Sunday).

Select the *Timed Event* option from the top level menu options:

```
< Timed Event >
```

Press the ENT key to enter the Timed Event sub-menu.

The following menu options are available:

- *Display Date and Time*
- *Set Time*
- *Set Date*
- *Event*

Use the cursor keys to select the required menu option.

Press the ENT key to enter the corresponding sub-menu.

## Display Date and Time

This option allows the user to display the current date and time held in the Master Controller.

Select the *Display Date and Time* option:

```
< Display Date >  
and Time
```

Press the ENT key to enter the Display Date and Time sub-menu. The LCD shows:

```
Date: Fri 10 Sep  
Time: 15:36
```

Press the ESC key to return to the *Display Date and Time* screen.

## Set Time

This option allows the user to set the time held in the Master Controller.

Select the *Set Time* option:

```
< Set Time >
```

Press the ENT key to enter the Set Time sub-menu. The LCD shows:

```
Enter Time  
hh:mm:ss
```

The current time is displayed on the LCD in the format hh:mm:ss.

The cursor is displayed on the first digit of the hours field.

Use the numeric keys to enter the time in hours, minutes and seconds as a six digit number. For example, 123456 will set the time to 12:34:56.

Press the ENT key to set the time in the Master Controller. The LCD shows the following for three seconds before returning to the Set Time screen:

```
Time Entry  
Saved
```

## Set Date

This option allows the user to change the date held in the Master Controller.

Select the *Set Date* option:

```
< Set Date >
```

Press the ENT key to enter the Set Date sub-menu. The LCD shows:

```
Enter Date  
dd:mm:yy
```

The current date is displayed on the LCD in the format dd:mm:yy.

The cursor is displayed on the first digit of the days field.

Use the numeric keys to enter the date as date, month and year as a six digit number. For example, 231204 will set the date to 23 December 2004.

Press the ENT key to set the date in the Master Controller. The LCD shows the following for three seconds before returning to the Set Date screen:

```
Date Entry  
Saved
```

## Event

The options provided in the *Event* menu allow the user to examine, set up and enable/disable timed events in the Master Controller.

Select the *Event* option from the menu:

```
<   Event   >
```

Press the ENT key to enter the Event sub-menu. The LCD shows one of the timed events.

Example 1 - Exact Event. Event No 1, Memory 1 Area 10, 12:30 on 25.12.04, Enabled:

```
A10 12:30 Ev.01E
25.12.04      M01
```

Example 2 - Daily Event. Event No 2, Memory 3 Area 5, 15:30 on Fridays, Saturdays and Sundays, Disabled:

```
A05 15:30 Ev.02D
SxxxxFS      M03
```

Example 3 - Event No 3, Unprogrammed:

```
A01      Ev.03D
Unprogrammed
```

The cursor is displayed in the Event number field. Use the cursor keys to select the required event number. The current status of the event is displayed on the screen (see above examples).

Press the ENT key to drop down to the next level of menu options:

- *Event Area*
- *Event Time*
- *Event Date*
- *Event Action*
- *Event Enable/Disable*

Use the cursor keys to select the required option.

Press the ENT key to enter the selected menu option.

## Event Area

This option allows the user to set the area number for the selected event.

Select the *Event Area* option:

```
<   Event Area   >
```

Press the ENT key. The LCD shows:

```
Set Area  Ev xx
Area xx
```

The cursor is displayed in the Area field and defaults to area 1.

Use the numeric or cursor keys to set the area number. Press the ENT key to save the data and return to the *Event Area* screen.

Pressing the ESC key will quit the operation and return to the *Event Area* screen.

## Event Time

This option allows the user to set the time for the selected event.

Select the *Event Time* option:

```
<   Event Time   >
```

Press the ENT key. The LCD shows:

```
Enter Event Time
00:00
```

The cursor is displayed on the first digit of the time field.

Use the numeric keys to enter the required time, in hours and minutes, as a four digit number (eg 1230 sets the time to 12:30).

Press the ENT key to save the data. The LCD displays the following for 3 seconds before returning to the Event Time screen:

```
Event Time
Saved
```

## Event Date

This option allows the user to set the date for the selected event.

Select the *Event Date* option:

```
<   Event Date   >
```

Press the ENT key to enter the sub-menu which contains the following options:

- *Exact Event*
- *Daily Event*

## Exact Event

This option allows the user to set the exact date for the selected event.

Select the *Exact Event* option:

```
<   Exact Event   >
```

Press the ENT key. The LCD shows the following:

```
Enter Event Date
01:03:04
```

The cursor is displayed on the first digit of the date field.

Use the numeric keys to enter the required date, in dd:mm:yy format as a six digit number (eg 231204 sets the date to 23 December 2004).

Press the ENT key to save the data. The LCD displays the following for 3 seconds before returning to the Exact Event screen:

```
Exact Date
Saved
```

## Daily Event

This option allows the user to set the day(s) of the week that the selected event will be triggered (eg every Monday or every Friday, Saturday and Sunday).

Select the *Daily Event* option:

```
< Daily Event >
```

Press the ENT key. The LCD shows the following:

```
SuMoTuWeThFrSa
N N N N N N N
```

The top line of the LCD shows the days of the week from Sunday (Su) through to Saturday (Sa).

The bottom line of the LCD indicates whether the day is enabled (Y) or disabled (N).

The cursor is displayed on the character under Sunday.

Use the cursor keys to move along the bottom line of the LCD to select a day.

Press the '1' key to enable the day, or press the '0' key to disable the day.

Set each day to enabled or disabled as required, then press the ENT key to save the data.

The LCD displays the following for 3 seconds before returning to the Daily Event screen:

```
Daily Event
Saved
```

## Event Action

This option allows the user to set the action for the selected event.

The action can be either Play Memory or Play Sequence.

Select the *Event Action* option:

```
< Event Action >
```

Press the ENT key to enter the sub-menu which contains the following options:

- *Action Memory*
- *Action Sequence*

### Action Memory

This option allows the user to set a memory action for the selected event.

Select the *Action Memory* option:

```
< Action Memory >
```

Press the ENT key. The LCD shows:

```
Area:xx Ev:xx
Memory:xx
```

The top line of the LCD displays the area number and event number for information only.

The cursor is displayed in the Memory field.

Use the numeric or cursor keys to select the required memory (0 - 12).

Press the ENT key to save the data. The LCD displays the following for 3 seconds before returning to the *Action Memory* screen:

```
Memory Action
Saved
```

## Action Sequence

This option allows the user to set a sequence action for the selected event.

Select the *Action Seq* option:

```
< Action Seq >
```

Press the ENT key. The LCD shows:

```
Area:xx Ev:xx
Sequence:x
```

The top line of the LCD displays the area number and event number for information only.

The cursor is displayed in the Sequence number field.

Use the numeric or cursor keys to select the required sequence(0 - 3). Sequence 0 is used to stop playing a sequence.

Press the ENT key to save the data. The LCD displays the following for 3 seconds before returning to the *Action Sequence* screen:

```
Sequence Action
Saved
```

### Event Enable/Disable

This option allows the user to enable or disable the selected event.

Select the *Event Enable Disable* option:

```
< Event Enable >
Disable
```

Press the ENT key. The LCD shows:

```
Event No:xx
Disabled
```

Use the cursor keys to toggle between Enabled and Disabled.

Press the ENT key to save the data.



## Memories

The Chilli Master Controller can be used to programme up to 12 memories for each of the areas.

A memory is programmed by grabbing the appropriate output levels on each networked dimmer and storing the values in the dimmers themselves.

The memories can then be played back on an area basis, when required, from the Master Controller.

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

```
<  Memories  >
```

Press the ENT key to enter the Memories sub-menu. The following options are available:

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

Use the cursor keys to scroll between the various options.

Press the ENT key to enter the menu for the selected option.

Press the ESC key to return to the Memories screen.

## Record Memory

This option allows the user to store the output levels of the appropriate channels from the dimmers in the network into one of the 12 memories.

Each of the networked dimmers will store its own output values in the selected memory.

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

Select the *Record Memory* option from the menu options. The LCD shows:

```
< Record Memory >
```

Press the ENT key, the LCD shows:

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

The cursor appears in the Area field, which defaults to Area 1.

Use the numeric or cursor keys to enter the required area number (1-10).

Press the ENT key. The cursor moves to the Memory field, which defaults to memory 1.

Use the numeric or cursor keys to enter the required memory number (1-12). An unprogrammed memory is indicated by an '\*'.

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

```
Area xx Mem xx
Fade Time: xx
```

The Area and Mem fields on the top line are for information only. The cursor is displayed in the Fade Time field.

Use the numeric or cursor keys to adjust the memory fade time as required (1 - 60 seconds), then press the ENT key to save the data.

The networked dimmers will grab their own current output levels for those channels assigned to the specified area and store them in their memories.

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

```
Memory xx
  Stored
```

## Play Memory

This option allows the user to playback (output) any of the 12 memories previously programmed for an area.

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

```
< Play Memory >
```

Press the ENT key, the LCD shows:

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

The cursor appears in the Area field and defaults to area 1.

Use the numeric or cursor keys to select the required area, then press the ENT key. The cursor moves to the Memory field.

If a memory for the selected area is currently being output, then that number is displayed in the Memory field, otherwise "XX" is displayed.

Use the numeric or cursor keys to select a memory to be output (0 - 12). Unprogrammed memories for the area are indicated by a '\*'.

Press the ENT key to confirm the memory choice.

The Master Controller sends out the corresponding Play Memory/Area messages to the networked dimmers.

Each dimmer which has one or more channels assigned to the area will output the selected memory.

The output levels are faded up in the memory's fade time.

### Note - Memory Zero

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

## Clear Memories

This option allows the user to clear all of the 12 memories.

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 programmed memories and sequences.

The LCD returns to the *Memories* screen.

## Edit Memory

This option allows the user to edit the channel values and fade time of a memory for a selected area.

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 which defaults to area 1.

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

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

If the area is not valid, the Memory field displays "N/A" and the cursor remains in the Area field.

When the cursor is displayed in the Memory field - use the numeric or cursor keys to select the required memory number.

Unprogrammed memories are indicated by a "\*" next to the memory number and cannot be edited.

Press the ENT key to confirm the memory selection.

Assuming the selected memory is programmed, the networked dimmers output the selected memory and the LCD shows the following:

```
(A01)Channel: 1  
Level: xxx
```

The cursor is displayed in the *Channel* field. The channel number defaults to the first channel in the selected area.

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

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

Press the **ESC** key to move to the memory fade time screen:

```
Area xx Mem xx  
Fade Time: xx
```

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

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

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

The LCD shows the following screen for approximately one second before returning to the *Edit Memory* screen.

```
Area xx Mem xx  
Saved
```

On exiting edit mode - the memory is removed from the dimmer outputs.

## Sequences

The Chilli Master Controller can be programmed with 3 sequences per area (ie a total of 30 sequences).

Each sequence contains up to a maximum of 12 steps. Each step in a sequence is a reference to one of the programmed memories in the area.

When playing a sequence from the Master Controller, it sends out play memory/area messages to the networked dimmers, which then respond accordingly.

The Master Controller can play up to 10 different sequences simultaneously, provided that each sequence is in a different area.

A memory and sequence in the same area cannot be output simultaneously

## Sequences - Menu Options

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

```
< Sequences >
```

Press the ENT key to enter the Sequences sub-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 menu for the selected option.

Press the ESC key to return to the *Sequences* screen.

## Program Sequence

This option allows the user to program a sequence in the Master Controller.

Select the *Program Sequence* option. The LCD shows the following:

```
< Program >
Sequence
```

Press the ENT key, the LCD shows:

```
Sequence: 1
Area: 1
```

The cursor appears in the *Sequence* field which defaults to sequence 1.

Use the numeric or cursor keys to select the required sequence number (1 - 3) then press the ENT key.

The cursor moves to the *Area* field which defaults to area 1.

Use the numeric or cursor keys to select the required area (1 - 10) then press the ENT key. The LCD shows:

```
Seq 1 Step: 1
Memory: xx
```

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

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

Use the numeric or cursor keys to select a memory number. Press the ENT key to assign the memory to the sequence 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 numeric or cursor keys to select a memory number. 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 required steps in the sequence have been programmed (max. 12 steps).

## Playback Sequence

This option allows the user to playback (output) any of the sequences programmed in the Master Controller.

This option is used to start and stop sequences running.

Only one sequence per area can be running at a time.

Select the *Playback Sequence* option. The LCD shows:

```
< Playback >
Sequence
```

Press the ENT key. The LCD shows:

```
Play Sequence
Area No: xx
```

The cursor is displayed in the *Area No* field and defaults to area 1.

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

If there is no sequence running in the selected area, the LCD shows:

```
Sequence:1 (Axx)
ENT to start
```

If there is a sequence currently running in the selected area, the LCD shows:

```
Sequence:X (Axx)
ENT to stop
```

The cursor appears in the *Sequence* field. Use the cursor keys to select the required sequence. The second line of the LCD changes accordingly.

### 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 was previously output in that area.

### Stopping a Sequence

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

The sequence will stop running.

## Sequence Options

This option allows the user to adjust the crossfade and dwell times for the programmed sequences in the Master Controller.

Each sequence has its own cross fade and dwell time. The times may be adjusted while the sequence is running.

Select the *Sequence Options* option. The LCD shows:

```
< Sequence >
  Options
```

Press the ENT key, the LCD shows:

```
Area No:   xx
Sequence No: x
```

The cursor appears in the *Area* field which defaults to area 1.

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

The cursor moves to the *Sequence* field which defaults to sequence 1.

Use the numeric or cursor keys to select the required sequence (1 - 3) then 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 programmed sequences in the Master Controller.

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

```
< Clear >
  Sequence
```

Press the ENT key, the LCD shows:

```
Area No:   1
Sequence:  1
```

The cursor appears in the *Area No* field which defaults to area 1.

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

The cursor moves to the *Sequence* field which defaults to sequence 1.

Use the numeric or cursor keys to select the required sequence (1 - 3) then press the ENT key. The LCD shows the following:

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

Press the ENT key. The sequence is cleared and the LCD returns to the *Clear Sequence* screen.

### Notes - Sequence Options

*Adjusting the sequence crossfade or dwell times will be applied to the sequence if it is currently running, when the ENT key is pressed.*

**X-Fade Time** - is the time it takes to fade between two steps in a sequence. The default crossfade time is 1 second.

**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.

## Security

The *Security* menu option is always available regardless of the current lock level of the Master Controller.

It is necessary to enter the correct four digit lock code to gain access to the *Security* menu options.

Setting the lock level determines which of the main menu options will be accessible on the Master Controller (see Figure 3 - 3 for further details).

Setting the lock level also sends out security messages onto the network which result in the networked dimmers and control panels being locked or unlocked as shown in the table below:

Lock Level	Dimmers	Control Panels
0	Unlocked	Unlocked
1	Locked	Unlocked
2	Locked	Unlocked
3	Locked	Unlocked
4	Locked	Locked

There is also an option under *Security* which allows the user to change the lock code.

### Networked Dimmers

Networked dimmers may also be locked locally to prevent menu access.

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

### Control Panels

Ten button Chilli control panels on the network can also be locked locally to prevent memory and sequence playback, if required.

Lock Level	Dimmer Control	Timed Events	Memories	Sequences	Security
0	Yes	Yes	Yes	Yes	Yes
1	No	Yes	Yes	Yes	Yes
2	No	No	Yes	Yes	Yes
3	No	No	Play Memory Only	Play Sequence Only	Yes
4	No	No	No	No	Yes

Figure 3 - 3: Security: Accessible Menu Options

## Security - Menu Options

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

```
< Security >
```

Press the ENT key. The LCD shows:

```
Network Security  
Code: xxxx
```

Use the numeric keypad to enter the current 4 digit lock code and then press the ENT key.

If the correct code is entered the LCD moves to the Security sub-menu which has the following options:

- *Lock Level*
- *Security Code*

Use the cursor keys to select the required option, then press the ENT key to enter the sub-menu.

If an incorrect code is entered, the following error message is displayed on the LCD before returning to the Main Screen:

```
Incorrect Code
```

## Lock Level

This option allows the user to set the lock level of the Master Controller.

This determines what menu options are then available (see Figure 3 - 3).

Select the *Lock Level* option from the Security sub-menu:

```
< Lock Level >
```

Press the ENT key. The LCD shows:

```
Lock Level: X >
```

The current lock level is displayed.

Use the numeric or cursor keys to set the required lock level (0 - 4).

Press the ENT key. The LCD returns to the Security screen

## Security Code

This option allows the user to change the lock code on the Master Controller.

Select the *Security Code* option from the Security sub-menu:

```
<Security Code >
```

Press the ENT key. The LCD shows:

```
Enter New Code  
Code: xxxx
```

Use the numeric keys to enter the new 4 digit code (eg 2312). Press the ENT key. The LCD shows:

```
Confirm Code  
Code: xxxx
```

Use the numeric keys to re-enter the same 4 digit code (eg 2312). Press the ENT key.

If the codes match - the new lock code is accepted and the LCD returns to the *Security* screen.

If the codes do not match the following error message is displayed before returning to the Security screen:

```
Codes do  
Not match
```

## Alarm State

The Chilli Master Controller responds to alarm messages received over the network from Chilli Pro dimmers.

## Alarm On Message

When the Master Controller receives an Alarm On message:

- The Master Controller enters the Alarm State.
- All menu access via the control panel is **disabled**.
- The main screen on the LCD shows the following message:

```
PANEL LOCKED
* ALARM ACTIVE *
```

## Alarm Off Message

When the Master Controller receives an Alarm Off message:

- The Master Controller exits the Alarm State.
- Menu access via the control panel is returned to normal.
- The LCD shows the main screen.



Figure 4 - 1: The Chilli Master Controller

## Introduction

This chapter provides the electrical, mechanical, environmental and EMC specifications for the master controller.

## Electrical

### Power Supply:

12V DC supplied from network.

### Bus Speed:

20 kBaud

### Recommended Cable:

CAT 5

### Devices per Network

Maximum of 50.

### Network Connections:

5-way 2 part rising clamp screw terminal connector, with the following pin configuration:

Pin 1	+12V	Orange pair
Pin 2	CAN-H	Blue/White
Pin 3	CAN-L	Blue
Pin 4	0V	Green pair
Pin 5	Shield	Brown pair

## Mechanical

### Size:

150 x 92 x 31 mm

### Maximum Weight:

0.35 kg

## Environmental

### Operating Temperature Range:

0 to 40 °C

### Humidity:

0 to 90% Non condensing

## EMC

### Emissions:

EN50 081 –1

### Susceptibility:

EN50 082 –1

### LVD:

BS EN 61010









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