FROG - BOX
OPERATING MANUAL

zero®88

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If a portable or temporary three phase mains supply is used to power this unit, we recommend that the unit mains plug is removed before connecting or disconnecting the supply. Serious damage will occur if the unit is connected across two phases.

This equipment is designed for use as a lighting controller 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.

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

Federal Communications Commission

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 Frog-Box Replay Unit

This Manual

This manual describes the operation of the Frog-Box replay unit.

This chapter contains a general overview of the unit followed by a brief description of the front panel controls and displays, and details of the main LCD user interface.

The quickstart tutorial chapter is provided to help you get the unit up and running quickly and lead you through the basic load and playback functions.

For detailed descriptions of the main functions of the unit refer to the relevant chapter(s) in the manual.

The manual concludes with chapters on the Super User functions, other features (eg locking the unit, monitor screens) and technical specification.

Conventions

Throughout this manual the following conventions are used.

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

GO/ENTER button.

References to the LCD screen are shown as follows:

```
Current:   1 s
Next:     <2 *>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

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

Current, Next, Fade Up, Fade Down.

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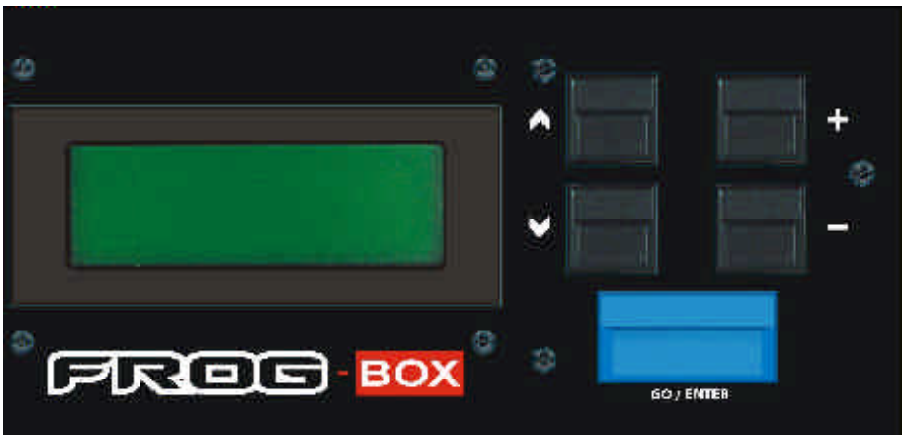

Figure 1 - 2: LCD and Front Panel Controls

Frog-Box Overview

The Frog-Box is a 19” rack mountable unit designed to play back a show recorded on any of the Frog series of lighting control desks (Frog, Fat Frog, Leap Frog, Bull Frog or Mambo Frog).

The following sections provide a summary of the main functions of the Frog-Box replay unit.

User Interface

The unit provides feedback for all operations via the front panel mounted LCD screen.

Four navigation buttons and a GO/ENTER button allow all operator functions to be carried out.

The Frog-Box uses the same LCD and navigation buttons as the Frog Series of lighting control desks, to provide a consistent and simple interface for setting up and operation of the unit.

Show Files

Show files are transferred to and from the Frog-Box via an integral 3.5” floppy disk drive on the front panel.

Memory Editing

Once a show has been loaded into the Frog-Box, the fade times, LTP actions, dwell time and trigger may be edited as required using the front panel controls.

Memory triggers may be set to real, SMPTE or MIDI times, or to automatic, so that a show may run automatically without further operator intervention.

Jumps may be programmed into the memory stack allowing sections of the stack to be repeated, or skipped over, as required.

Playback

The loaded show may be played back manually using the front panel controls, remote switches or Frog Screen control panel; automatically by utilising timed and automatic triggers, using SMPTE or MIDI timecode, or by messages via Chillinet or iCANnet.

Super User

Super User functions are provided for setting up the unit, saving and loading shows via floppy disk, resetting the unit, LCD illumination, setting the date and time, display of information, resetting the DMX outputs and setting CAN mode.

Lock Function

A front panel key switch is provided to prevent unauthorised editing of show data.

Output Channels

The Frog-Box can control up to 1024 separate channels, over two DMX universes.

The channels are output via DMX 512.

Monitor Displays

The Frog-Box can also provide visual feedback of its operation via an external monitor, if connected.

External Keyboard

An external keyboard may be connected to the unit via the mini DIN connector on the rear panel.

This allows numeric data to be entered in the appropriate fields on the main LCD screen (see chapter 5 for details).

Front Panel Controls

This section describes the controls and displays on the front panel of the Frog-Box replay unit.

- LCD DISPLAY

The LCD display, together with the navigation and GO/ENTER buttons, provides the main user interface to the unit for setting up, editing and running the show.

The brightness and contrast of the LCD display can be adjusted as required in Super User (see chapter 4).

- UP / DOWN CURSOR BUTTONS

These 2 buttons are used to move the cursor up and down the LCD display.

- + / - BUTTONS

These 2 buttons are used to adjust the value in the selected field on the LCD display.

- GO/ENTER BUTTON

This button is used as a GO button when playing back a show manually, and as an ENTER button when selecting menu options and soft buttons on the LCD screens.

- LOCK SWITCH

The key switch is used to lock and unlock the Frog-Box replay unit.

- DMX INPUT

The function of the DMX input still has to be defined.

- FLOPPY DISK DRIVE

This is used for transferring show files to and from the Frog-Box unit and also for operating software upgrades.

Main LCD User Interface

The LCD display, together with the front panel buttons, provides the main user interface to the unit and is used in setup, editing and running the show.

The size of the main LCD is 4 x 20 characters.

Most of the LCD screens consist of a title, editable fields and soft buttons.

Some LCD screens contain error messages, warnings, instructions or information.

Editable Fields

On the LCD display, editable fields are indicated by angled brackets (<…>).

The value of a field can only be edited, using the + and - keys, when it is highlighted (ie. the angled brackets are displayed as flashing).

In this manual, the highlighted field on the LCD is shown in **bold text**.

The up and down arrow keys are used to move through the editable fields, options and soft buttons on the LCD.

It is possible to move from the last item on the LCD screen to the first and vice versa using the up and down arrow keys.

Example - Memories screen:

```
Current:   1   s
Next:    <  2   s>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

The *Current* field is not editable. The *Next, Fade Up* and *Fade Down* fields are editable.

The *Next* field is highlighted (flashing), so the + and - keys will adjust the next memory number.

Pressing the down arrow key will move the cursor to the *Fade Up* field.

Editing Fade Times

Fade times are displayed on the LCD in minutes, seconds and tenths (mm:ss.t).

Each field within the fade time is editable using the + and - keys, or using an external keyboard, if fitted.

The minutes and seconds fields rollover automatically when adjusting the seconds and tenths.

The up and down arrow keys move the flashing cursor between the fields.

For example, the flashing cursor is on the minutes field of the *Fade Up* time:

```
Current:   1   s
Next:    <  2   s>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

Press the down arrow key to select the seconds field in the *Fade Up* time:

```
Current:   1   s
Next:    <  2   s>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

Press the down arrow key to select the tenths field in the *Fade Up* time:

```
Current:   1   s
Next:    <  2   s>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

NOTE

External Keyboard

Numeric data may also be entered directly via an external keyboard (see chapter 5).

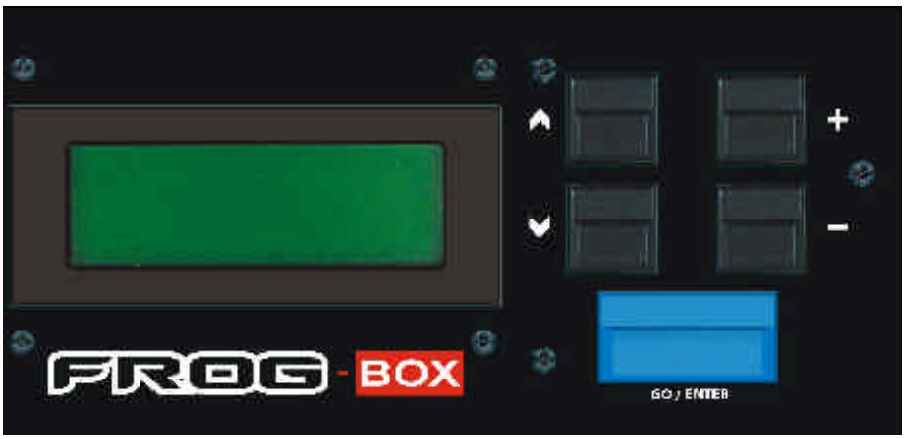

Figure 1 - 3: LCD, Navigation and Go/Enter Buttons

Soft Buttons

Soft buttons are indicated on the LCD using square brackets ([…]) and curly brackets ({…}).

Where a display contains more than one soft button (eg *OK* and *CANCEL*), the default button is indicated by square brackets. A selected button is highlighted (ie flashing).

The up and down arrow keys are used to select the required soft button.

The selected soft button on the LCD is actioned by pressing the GO/ENTER button on the front panel.

Example - a warning message with two soft buttons (*OK* and *CANCEL*):

```
***** WARNING ******
Setup modified
Save changes ?
[OK]  {CANCEL}
```

The *OK* button is the default button and also the currently selected button. Pressing the GO/ENTER key on the front panel will activate the *OK* button.

```
***** WARNING ******
Setup modified
Save changes ?
[OK]  {CANCEL}
```

In the above display, the *CANCEL* button is selected. Pressing the GO/ENTER key will activate the *CANCEL* button.

Long Lists

On several of the LCD screens, there are more editable options and/or soft buttons than will fit on the four lines of the LCD display.

In these situations, up and down arrow characters are displayed on the right hand side of the LCD screen to show there are further options available.

The up and down arrow characters are shown as '^' and 'v' respectively in this manual.

When the up and down arrow keys are used to scroll up and down the list of options and buttons, the screen title remains displayed on line 1 of the LCD and Lines 2 – 4 on the LCD will change accordingly.

For example - The LCD screen below contains a title, six editable options and an *Exit* button.

```
*** SCREEN TITLE ***
Option 1: <100%>
Option 2: <100%>
Option 3: <100%>   v
```

The 'v' indicates that there are one or more options below *Option 3*.

Pressing the down arrow key 3 times will select *Option 4* and the LCD will show the following:

```
*** SCREEN TITLE ***
Option 2: <100%>   ^
Option 3: <100%>
Option 4: <100%>   v
```

The '^' indicates that there is one or more options above *Option 2*. The 'v' indicates that there are one or more options below *Option 4*.

Pressing the down arrow key 3 times will select the *Exit* button and the LCD will show the following:

```
*** SCREEN TITLE ***
Option 5: <100%>   ^
Option 6: <100%>
[Exit]
```

The '^' indicates that there is one or more options above *Option 5*. The *Exit* button is the last option in the list.

Figure 2 - 1: The Frog-Box Replay Unit

Introduction

This chapter enables you to get the Frog-Box unit up and running quickly, and to load and playback a show.

This tutorial assumes that a suitable show has been programmed on one of the Frog series of lighting desks and saved onto a floppy disk .

It also assumes that a lighting rig has been set up with dimmers, luminaires and moving light fixtures (if applicable), which are controlled by a standard DMX signal.

Turning on the Frog-Box

Connect the DMX cable(s) to the socket(s) on the rear panel of the unit.

Connect the power supply to the unit and switch on at the mains.

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Loading a Show

Insert a floppy disk containing a show file into the floppy disk drive

Press and hold down the + and - keys on the front panel together, and then press the GO/ENTER key. The LCD shows the Super User screen:

```
**** SUPER USER ****
{Desk Setup}
{Floppy Disk}
{Clear/Reset}      v
```

Select the *Floppy Disk* option and press the GO/ENTER key. The Floppy Disk screen is shown on the LCD:

```
**** FLOPPY DISK ***
{Load Show}
{Save Show}
{Format Disk}v
```

Select the *Load Show* option and press the GO/ENTER key. The unit reads the floppy disk. The LCD shows:

```
***** LOAD SHOW ****
<    Show01.isf    >
<  10KB 5/2/2001   >
  [Load[   {Cancel}
```

If the floppy disk contains several show files, use the + and - keys to select the required show.

Press the GO/ENTER key to load the selected show onto the unit. While the show is loading, the LCD shows:

```
 Loading Show01
  Please Wait …
    xx% Done.
     [Cancel]
```

When the show is loaded successfully, the LCD shows:

```
  show01 Loaded

       [OK]
```

Press the GO/ENTER key to return to the Floppy Disk screen.

Select the *Exit* option from the Floppy Disk screen. Press the GO/ENTER key. The LCD returns to the Super User screen.

Select the *Exit Super User* option from the Super User screen. Press the GO/ENTER key. The LCD returns to the Memories screen.

Editing the Show

Any of the editable parameters on the Memories screen (eg. Fade Up time) may be adjusted, if required.

Editing a Memory

Use the up and down arrow keys to select the *Next* memory field (if not already selected).

Use the + and - keys to select the required memory to edit.

Use the up or down arrow keys to select the *Fade Up* or *Fade Down* time on the Memories screen.

```
Current:   1   s
Next:   <  2   s>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

Use the + and - keys to adjust the fade time, as required.

Use the up and down arrow keys to select the *LTP Fade* time. Use the + and - keys to adjust the time.

Use the up and down arrow keys to select one of the LTP actions (*Colour*, *Beamshape* or *Position*). Use the + and - keys to adjust the value.

Use the up and down arrow keys to select the *Dwell* time field. Use the + and - keys to adjust the time.

Use the up and down arrow keys to select the *Trigger* field. Use the + and - keys to adjust the value as required.

If the memory *Trigger* is set to Real Time or Timecode, use the up and down keys to select the *Time* field. Use the + and - keys to adjust the time or timecode as required.

Programming Jumps

To program, edit or delete jumps in the memory stack - refer to chapter 3.

Playing Back the Show

The programmed memories in the show are played back in numerical order using the GO/ENTER button on the front panel. The Memories screen is displayed on the LCD.

```
Current:   1 s
Next:     <2 >
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

Select memory number 1 or the first programmed memory using the + and - keys on the front panel.

Press the GO/ENTER button. The outputs will fade from their current levels to those programmed into the selected memory, using the transition times for that memory.

The *Current* and *Next* memories are incremented automatically.

To output the next programmed memory, press the GO/ENTER button.

Repeat until the end of the memory stack is reached. Pressing the GO/ENTER button will then return to the first programmed memory.

Remote Switches

To play back the show using remote switches refer to chapter 3. To enable and configure the remote switches refer to chapter 4.

Frog Screen Control Panel

To play back the show using a Frog Screen refer to chapter 3. To enable and configure the Frog Screen refer to chapter 4.

SMPTE & MIDI Timecode

To play back the show using SMPTE or MIDI timecode refer to chapter 3. To setup the Frog Box to process SMPTE or MIDI timecode refer to chapter 4.

Chillinet & iCANnet

To play back the show using network messages via Chillinet or iCANnet refer to chapter 3. To setup the Frog Box to process network messages refer to chapter 4.

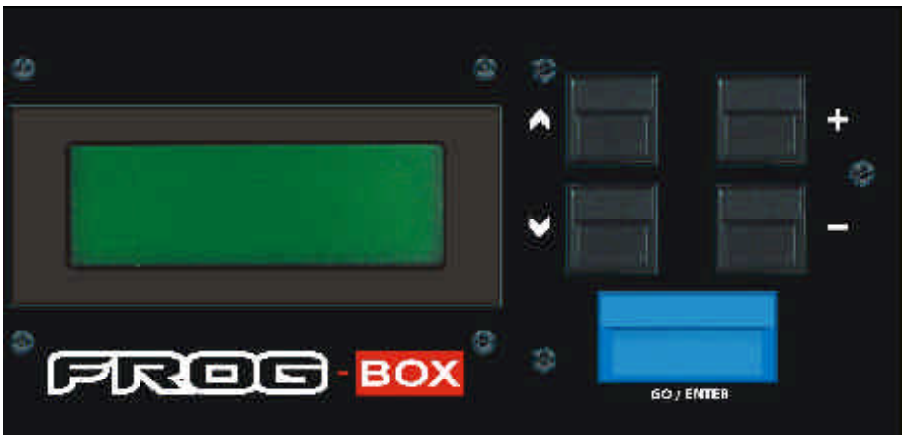

Figure 3 - 1:Front Panel Controls

Introduction

This chapter begins by describing the format of the memory data stored in shows produced by the Frog series of lighting desks.

It then continues by showing how the memories are displayed on the LCD, and the memory parameters that may be edited on the Frog-Box.

Finally, it describes how the memories may be played back using the front panel controls, remote switches, Frog Screen control panel, SMPTE or MIDI timecode or network messages via Chillinet or iCANnet.

Memory Numbers

Memory numbers can be whole numbers (1, 2, 3..) or numbers with a decimal point (eg 1.1, 1.2).

The possible range of memory numbers in the show is 0.1 to 999.9.

Memory Zero

Memory Zero is a special programmed scene memory. It is displayed on the Memories screen as memory "—".

All generic channels are set to zero.

All fixture brightness channels are set to zero.

All fixture colour, beamshape and position channels are set to their home (default) values.

Memory Zero can be selected and output like any other memory, but it cannot be edited.

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Memory Types

The Frog series of lighting desks provide two types of memories - scenes and chases.

Common Memory Data

All memories have a memory number, memory type, fade up, fade down and dwell times which is stored as part of the memory data.

All memories have an LTP fade time, and Colour, Beamshape and Position actions (snap or fade) which determine how the fixture parameters behave when the memory is played back.

All memories have a Trigger which can be set to Go, Auto, Real Time or Timecode.

All fade and dwell times are in the range 00:00.0 to 99:59.9 with a resolution to 1/10 second.

The fade times and actions define the transition from the current memory to the incoming memory.

The Fade Up and Fade Down times affect the generic channels and the fixture brightness channels.

The LTP Fade time affects the fixture colour, beamshape and position channels, if applicable.

The Dwell Time determines how long the current memory is output for, after completing its fade.

The Trigger determines if the memory requires a GO button press, runs automatically, or is triggered at a specific real time or SMPTE or MIDI timecode.

All memories also have a Jump parameter (normally set to *None*), which allows the user to repeat sections of the memory stack, or skip memories, if required.

Scene Memories

A scene memory contains a set of channel data for all 96 generic channels and all assigned fixtures.

The fixture channel data includes brightness, colour, beamshape and position data.

Chase Memories

A chase memory consists of a number of steps (maximum 99).

Each step contains a set of channel data for all 96 generic channels and all assigned fixtures.

The fixture channel data includes brightness, colour, beamshape and position data.

Chase Modifiers

A chase memory also contains the following modifiers:

Direction – the order in which the chase steps are output - Forwards (>), Backwards (<), or Bounce (<>).

Attack – the transition between steps - Snap, Slow Attack, Slow Decay or Crossfade. This applies to generic and fixture brightness channels only.

Colour Action - the transition between steps of the colour fixture channels - *Snap* or *Fade.*

Beamshape Action - the transition between steps of the beamshape fixture channels - *Snap* or *Fade.*

Position Action - the transition between steps of the fixture position channels - *Snap* or *Fade.*

Drive – the method by which the steps are triggered when the chase is output (Auto, Bass, Vari or Manual).

Speed – defines the basic speed of the chase (approx. 1 - 600 beats/minute).

Movement Effects

Memories that have been programmed on the Fat Frog, Leap Frog, Bull Frog or Mambo Frog desks may also contain movement effect data.

LCD Display – Memories

When a show has been loaded into the Frog-Box, the Memories screen is displayed on the LCD. For example:

```
Current:   1   s
Next:    <  2   s>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

The up and down arrow keys move the flashing cursor (**< >**) through the editable fields on the screen.

The + and - keys are used to modify the data in the field indicated by the flashing cursor.

Memories Screen Data

Current - The current memory on the Playback X, together with a status character (s = scene, c = chase). This field is not editable.

Next - The next memory on the Playback X, together with a status character (s = scene, c = chase).

Fade Up - the fade up time for the *Next* memory.

Fade Down - the fade down time for the *Next* memory.

LTP Fade - The LTP fade time for the *Next* memory.

Colour - The action of the colour fixture channels for the *Next* memory.

Beamshape - The action of the beamshape fixture channels for the *Next* memory.

Position - The action of the position fixture channels for the *Next* memory.

Dwell - The dwell time for the *Next* memory.

Trigger - The trigger for the *Next* memory (*Go*, *Auto*, *Real Time* or *Timecode*).

Time - The time at which the *Next* memory will be triggered. (This field only applies if the memory Trigger is set to *Real Time or Timecode*).

Jump - The memory number to jump to on completion of the *Next* memory. This is normally set to *None*.

Editing Memories

Any of the editable parameters on the Memories screen (eg. Fade Up time) can be adjusted, if required.

Editing a Memory

1. Use the up and down arrow keys to select the *Next* memory field.
2. Use the + and - keys to select the memory to be edited.
3. Use the up or down arrow keys to select the *Fade Up* or *Fade Down* time on the Memories screen.

```
Current:   1   s
Next:   <  2   s>
Fade Up:  <00:03.0>
Fade Down:<00:03.0>v
```

4. Use the + and - keys to adjust the fade time, as required.
5. Use the up and down arrow keys to select the LTP Fade Time or one of the LTP actions (*Colour*, *Beamshape* or *Position*). Use the + and - keys to adjust the value as required.
6. Use the up and down arrow keys to select the *Dwell* or *Trigger* field. Use the + and - keys to adjust the value as required.
7. If the *Trigger* field is set to *Real Time* or *Timecode*, use the up and down keys to select the *Time* field. Use the + and - keys to adjust the time as required.

The Memory Stack

The **Memory Stack** is defined as the list of programmed memories in increasing numerical order.

Normally, when the memory stack is played back via the Go button, or automatically, the memories are output in numerical order.

Jumps

The Jump function provides the facility to jump to a specific memory on completion of the current memory.

Jumps can be backwards, enabling sections of the memory stack to be repeated, or forwards, enabling memories to be skipped over.

The Frog-Box allows the user to program, edit or delete jumps in the memory stack.

Adding a Jump

1. Move the cursor to the *Next* memory field on the Memories screen.
2. Use the + and - keys to select the memory to jump from.
3. Use the up or down arrow keys to move the cursor to the *Jump* field.
4. Use the + and - keys to select the memory number to jump to.

Editing a Jump

1. Move the cursor to the *Next* memory field on the Memories screen.
2. Use the + and - keys to select the memory containing the jump.
3. Use the up or down arrow keys to move the cursor to the *Jump* field.
4. Use the + and - keys to adjust the memory number to jump to.

Removing a Jump

1. Move the cursor to the *Next* memory field on the Memories screen.
2. Use the + and - keys to select the memory containing the jump.
3. Use the up or down arrow keys to move the cursor to the *Jump* field.
4. Use the + and - keys to set the field to *None*.

Playback of Memories

The following sections describe how to play back the programmed memories in the show using the front panel controls, remote switches, SMPTE or MIDI timecodes or network messages via Chillinet or iCANnet.

Playback - Front Panel

The memories can be output in ascending numerical order using the GO/ENTER button, or a particular memory can be selected and then output, if required.

1. Use the up and down arrow keys to move the flashing cursor (**<>**) onto the *Next* memory field:

```
Current:    1 s
Next:      <2 s>
Fade Up:   <00:03.0>
Fade Down: <00:03.0>
```

2. Use the + and - keys to select the first programmed memory in the show.
3. Press the GO/ENTER button. The outputs fade to the next memory according to its programmed fade times and LTP actions. The *Current* and *Next* memories are incremented automatically.
4. To output the *Next* memory, as indicated on the Memories screen, press the GO/ENTER button again.

   This initiates a crossfade to the *Next* memory. The *Current* and *Next* memories are incremented automatically.

Playback - Remote Switches

The remote switches socket on the rear panel allows up to six remote switches to be connected to the unit.

The remote switches provide a method of playing back the current show in the Frog-Box remotely.

The remote switches are enabled and configured in the Desk Setup section of Super User - see chapter 4.

The default configuration of the remote switches is as follows:

Switch 1	Go
Switch 2	Not Assigned
Switch 3	Not Assigned
Switch 4	Not Assigned
Switch 5	Not Assigned
Switch 6	Not Assigned

Playback - Frog Screen

The Frog Screen control panel provides a method of playing back the current show in the Frog-Box remotely.

The Frog Screen soft buttons are enabled and configured in the Desk Setup section of Super User. (see chapter 4 for details)

Playback - SMPTE & MIDI

The SMPTE or MIDI input must be enabled and the input frame rate set in the Desk Setup section of Super User (see chapter 4 for details).

Memories with Timecode triggers will then be triggered when the incoming SMPTE or MIDI timecode signal passes the specified start time.

Memories with Timecode triggers may also be triggered manually by selecting the memory and pressing the GO/ENTER button on the front panel.

Playback - Chillinet

The Frog Box must be set up to receive Chillinet messages using the Set CAN Mode function in Super User (see chapter 4 for details).

The appropriate Chillinet messages can then be used to trigger memory numbers 0 - 15 inclusive.

Playback - iCANnet

The Frog Box must be set up to receive iCANnet messages using the Set CAN Mode function in Super User (see chapter 4 for details).

The appropriate iCANnet messages can then be used to trigger memory numbers 0 - 128 inclusive.

NOTES

Memories Screen

The Memories screen on the LCD only shows the programmed memories in the show.

Selecting Memories

When using the + and - keys to select the Next memory, any unprogrammed memories are automatically skipped over.

When the cursor is on the Next field on the Memories screen, pressing the + and - keys together will select the first programmed memory in the show.

Remote Switches

If any of the remote switches are pressed, and the corresponding switch is not assigned, then no action is carried out.

Chillinet Messages

If the memory number specified in a Chillinet message is not programmed in the show, then no action is carried out.

The "All Off" button on a Chilli control panel will result in Memory Zero being triggered.

Start sequence 1, 2 or 3 messages from a Chilli control panel will result in memories 13, 14 or 15 being triggered respectively.

iCANnet Messages

If the memory number specified in an iCANnet message is not programmed in the show, then no action is carried out.

Any fade time specified in an iCAN message is ignored by the Frog Box. Once the memory has been triggered by the iCAN message, the outputs will fade according to the fade times and LTP actions programmed in the memory.

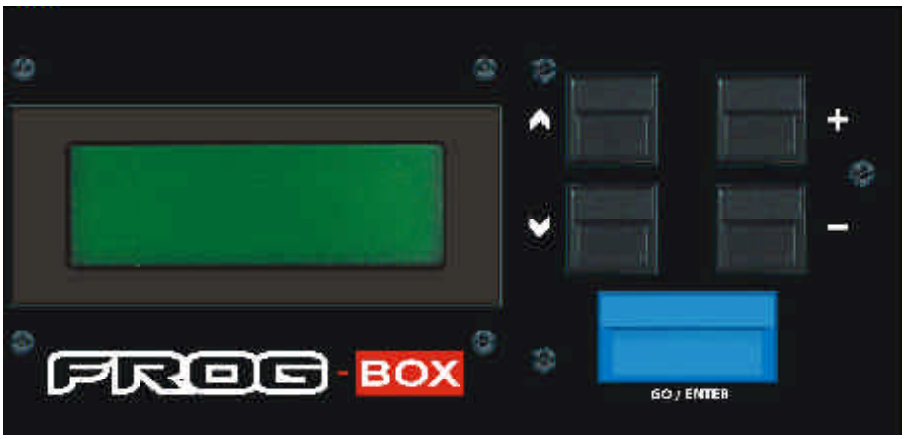

Figure 4 - 1: Frog-Box Front Panel Controls

Introduction

In Super User mode, the unit provides a number of functions for setting up, loading and saving show data to disk, clearing data etc.

Entering Super User

Press and hold down the + and - keys on the front panel together, and then press the GO/ENTER key. The LCD shows the Super User screen:

```
**** SUPER USER ****
{Desk Setup}
{Floppy Disk}
{Clear/Reset}      v
```

The Super User screen contains the following options:

- *Desk Setup*
- *Floppy Disk*
- *Clear/Reset*
- *Illumination*
- *Set Date & Time*
- *Desk Information*
- *Reset DMX Outputs*
- *Set CAN Mode*
- *Exit Super User*

Use the up and down arrow keys to select an option, then press the GO/ENTER key to display the screen for that option.

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Desk Setup

Select the *Desk Setup* option from the Super User screen and press the GO/ENTER key. The Desk Setup screen is shown on the LCD:

```
**** DESK SETUP ****
{Desk Defaults}
{Remote Switches}
{Frog Screen}
```

The Desk Setup options are:

- *Desk Defaults*
- *Remote Switches*
- *Frog Screen*
- *Timecode Setup*
- *Exit Desk Setup*

Use the up and down arrow keys to select the required option, then press the GO/ENTER key to activate that option.

Each of the Desk Setup options are described in the following sections.

Desk Defaults

This function allows the user to enable/disable the remote switches.

1. Select the *Desk Defaults* option from the Desk Setup screen and press the GO/ENTER key. The Desk Defaults screen is displayed on the LCD, for example:

```
** DESK DEFAULTS ***
Remote Switch: <On >
[Exit]
```

2. Use the up and down arrow keys to move the cursor through the editable fields.
3. Use the + and - keys adjust the value in the selected field.
4. Press the GO/ENTER key to exit the Desk Defaults screen and return to the Desk Setup screen.

Remote Switches

This function allows the user to configure each of the remote switches.

Each remote switch may be configured to be a Go button (*Go)*, to Go to a specified memory (*Go Mem*), or have no action (*None*).

1. Select the *Remote Switches* option from the Desk Setup screen and press the GO/ENTER key. The Remote Switches screen is displayed on the LCD:

```
*  REMOTE SWITCHES *
Switch No: <  2   >
Action:    <Go Mem>
Memory:    <123.4 >
```

2. Use the up and down arrow keys to move the cursor through the editable fields.
3. Use the + and - keys adjust the value in the selected field.
4. Press the GO/ENTER key to exit the Remote Switches screen and return to the Desk Setup screen.

Frog Screen Buttons

This function allows the user to configure each of the 130 soft buttons on the Frog Screen control panel.

Each soft button may be configured to be a Go button (*Go)*, to Go to a specified memory (*Go Mem*), or have no action (*None*).

1. Select the *Frog Screen* option from the Desk Setup screen and press the GO/ENTER key. The Frog Screen is displayed:

```
FROG SCREEN BUTTONS
Button No: <  1   >
Action:    <Go Mem>
Memory:    <123.4 >
```

2. Use the up and down arrow keys to move the cursor through the editable fields.
3. Use the + and - keys adjust the value in the selected field.
4. Press the GO/ENTER key to exit the Frog Screen Buttons screen and return to the Desk Setup screen.

Timecode Setup

This function allows the user to set up the SMPTE or MIDI timecode source and frame rate for the Frog Box.

1. Select the *Timecode Setup* option from the Desk Setup screen and press the GO/ENTER key. The Timecode Setup screen is displayed on the LCD:

```
** TIMECODE SETUP **
Status:    <Enabled>
Source:    < SMPTE >
Frames/Sec:<  25   >
```

2. Use the up and down arrow keys to move the cursor through the editable fields.
3. Use the + and - keys to select the required options in the *Status, Source* and *Frames/Sec* fields.
4. Press the GO/ENTER key to exit the Timecode Setup screen and return to the Desk Setup screen.

Exit Desk Setup

1. Select the *Exit Desk Setup* option from the Desk Setup screen.
2. If any changes have been made to the desk setup, a warning message is displayed on the LCD:

```
***** WARNING ******
Desk Setup Modified
Save Changes ?
    [OK] {Cancel}
```

3. Press the GO/ENTER key to save the changes, or select the *Cancel* button and press GO/ENTER to lose the changes. The LCD returns to the Super User screen.

   If no changes have been made to the desk setup, the LCD returns straight to the Super User screen.

Floppy Disk Functions

Select the *Floppy Disk* option from the Super User screen and press the GO/ENTER key. The Floppy Disk screen is shown on the LCD:

```
**** FLOPPY DISK ***
{Load Show}
{Save Show}
{Format Disk}v
```

The Floppy Disk options are:

- *Load Show*
- *Save Show*
- *Format Disk*
- *Exit.*

Use the up and down arrow keys to select the required option. Press the GO/ENTER key to activate that option.

Load Show

This function loads a show onto the Frog-Box unit from a floppy disk.

1. Ensure that a disk containing show files is inserted into the floppy disk drive.
2. Select the *Load Show* option from the Floppy Disk screen. The unit reads the floppy disk for valid show files. The LCD shows:

```
***** LOAD SHOW ****
<    Show01.isf    >
<  10KB 5/2/2001   >
  [Load[   {Cancel}
```

   If the disk contains several shows, use the + and - keys to select the required show.
3. Press the GO/ENTER key to load the show onto the unit. While the show is loading, the LCD shows:

```
 Loading Show01
  Please Wait …
    xx% Done.
     [Cancel]
```

4. When the show is loaded successfully, the LCD shows:

```
   show01 Loaded

        [OK]
```

5. Press the GO/ENTER key to return to the Floppy Disk screen.

Save Show

This function allows the user to save the current show onto a floppy disk.

The shows are identified by number only and are stored on the floppy disk as “Show01”, “Show02” etc..

1. Ensure that a formatted disk is inserted into the floppy disk drive.
2. Select the *Save Show* option from the Floppy Disk screen. The LCD shows the following:

```
***** SAVE SHOW ****

Show No: < 1*>
  [SAVE]   {Cancel}
```

   An asterisk (*) is displayed next to the show number if the file does not exist on the floppy disk. The *Show No* defaults to the first available show on the disk.
3. Use the + and - keys to select the required show number (01 - 99).
4. Press the GO/ENTER key to save the show to floppy disk.
5. If the show already exists on the floppy disk, a warning is displayed on the LCD:

```
Show already exists
  Overwrite file ?

  [OK]   {Cancel}
```

6. Press the GO/ENTER key to overwrite the file.
7. While the unit is saving the show to floppy disk the LCD shows:

```
  Saving Show01
  Please Wait …
    xx% Done.
     [Cancel]
```

8. When the show is loaded successfully, the LCD shows:

```
   Show01 Saved

        [OK]
```

9. Press the GO/ENTER key to return to the Floppy Disk screen.

Format Disk

1. Ensure that a floppy disk is inserted into the disk drive.
2. Select the *Format Disk* option from the Floppy Disk screen. The LCD shows the following:

```
   FORMAT DISK
  Are you sure ?

 [OK]  {Cancel}
```

3. Press the GO/ENTER key. The LCD shows:

```
  Formatting Disk
  Please Wait …
     xx% Done.
     [Cancel]
```

4. When the formatting is complete, the LCD will show:

```
  Disk Formatted.

        [OK]
```

5. Press the GO/ENTER key to return to the Floppy Disk screen.

Exit Floppy Disk Functions

1. Select the *Exit* option from the Floppy Disk screen.
2. Press the Go/ENTER key. The LCD returns to the Super User screen.

NOTES

Load Show

If there is no disk in the drive, no showfiles on the disk, or the load fails for any reason, an error message is displayed on the LCD.

Save Show and Format Disk

If there is no disk in the drive, the disk is write protected, or the operation fails, an error message is displayed on the LCD.

Clear/Reset Functions

Select the *Clear/Reset* option from the Super User screen and press the GO/ENTER key. The LCD shows:

```
** CLEAR/RESET FNS *
{Clear to Default}
{Exit}
```

Use the up and down arrow keys to select the required option, then press the ENTER key to activate that option.

Clear to Default

This function clears the current show in the Frog Box and resets all the setup options to their default settings.

1. Select the *Clear to Default* option from the Clear/Reset screen, then press the GO/ENTER key. The LCD shows the following:

```
CLEAR TO DEFAULT
Are you sure ?

[OK] {Cancel}
```

2. Press the GO/ENTER key to confirm the operation.

Exit Clear/Reset Functions

1. Select the *Exit* option from the Clear/Reset screen, then press the GO/ENTER key. The LCD returns to the Super User screen.

Illumination

This function adjusts the brightness and contrast of the main LCD.

1. Select the *Illumination* option from the Super User screen and press the GO/ENTER key. The LCD screen shows the following:

```
*** ILLUMINATION ***
Main LCD B: <100%>
Main LCD C: <100%>
[Exit]
```

2. Use the up and down arrow keys to select the required option.
3. Use the + and - keys to adjust the level as required (0 – 100%).
4. To exit, press the GO/ENTER key. The LCD returns to the Super User screen.

Set Date & Time

This function allows the user to set the date and time on the Frog-Box.

1. Select the *Set Date & Time* option from the Super User screen, then press the GO/ENTER key. The LCD shows the following:

```
** SET DATE & TIME *
Date: <dd:mm:yyyy>
Time: <hh:mm:ss>
[SET] {CANCEL}
```

2. Use the up and down arrow keys to select the field to adjust.

   The *Date* consists of three fields (day, month, year).

   The *Time* consists of three fields (hours, minutes, seconds).
3. Use the + and - keys to adjust the selected field.
4. Press the GO/ENTER key to set the date and time to the values shown on the LCD. The LCD returns to the Super User screen.

Desk Information

This Super User function provides the following information on the LCD:

Serial Number - The full serial number of the Frog-Box unit.

Software Version - The version of the operating system software.

BIOS Version - The version number of the BIOS in the unit.

Battery Status - The status of the internal battery.

Current Show - The number and date of the show loaded from floppy disk.

Reading the Information

1. Select the *Information* option from the Super User screen and press the GO/ENTER key. The LCD shows the following:

```
* DESK INFORMATION *
Serial Number      ^
xxxxxxx xxxxxxxx   v
[EXIT]
```

2. Use the up or down arrow keys to cycle through the various options.
3. Press the GO/ENTER key to exit the Information screen and return to the Super User screen.

Reset DMX Outputs

This function resets the DMX outputs for a few seconds, then returns them to their previous output values.

Resetting the DMX

1. Select the *Reset DMX* option from the Super User screen and press the GO/ENTER key. The LCD shows the following:

```
***** RESET DMX ****
Do you wish to
reset the DMX?
   {OK} {Cancel}
```

2. Press the GO/ENTER key to reset the DMX, or select the *Cancel* button and press the GO/ENTER key to cancel. The LCD returns to the Super User screen.

Set CAN Mode

This function allows the user to set up the Frog Box to receive network messages via Chillinet or iCANnet.

1. Select the *Set CAN Mode* option from the Super User screen, then press the GO/ENTER key. The LCD shows the following:

```
*** SET CAN MODE ***
Mode:   <Chillinet>

[EXIT]
```

2. Use the up and down arrow keys to select the *Mode* field.
3. Use the + and - keys to set the Mode to *Chillinet*, *iCANnet* or *Disabled*, as required.
4. Press the GO/ENTER key to return to the Super User screen.

Exiting Super User

Select the *Exit Super User* option from the Super User screen:

```
**** SUPER USER ****
{Illumination}     ^
{Set Date & Time}
{Exit Super User}
```

Press the GO/ENTER key. The LCD returns to the Memories screen.

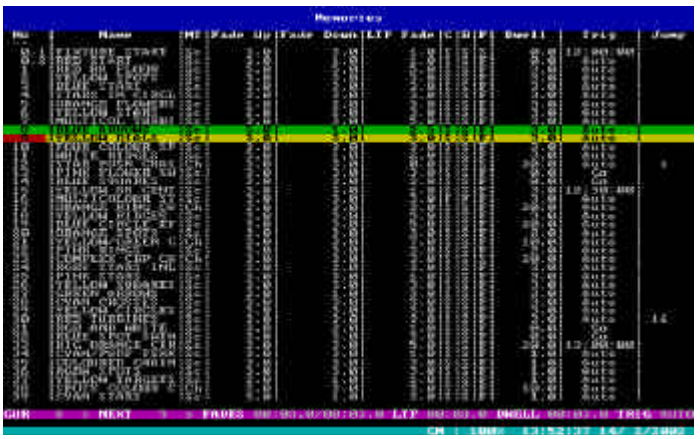

Figure 5 - 1 : Memories Screen (Monitor)

Introduction

This chapter covers the following features which are on the Frog-Box:

- Monitor Screens
- External Keyboard
- Lock Function
- Upgrading Software

Monitor Screens

The Frog-Box has a video output socket fitted in the rear panel allowing visual feedback of its operation via an external monitor.

The monitor display is text only and has a resolution of 80 characters wide by 50 lines high.

The monitor is for the display of information only; the operational software is driven and controlled by the controls on the front panel.

The default screen on the monitor display is the Memories Screen.

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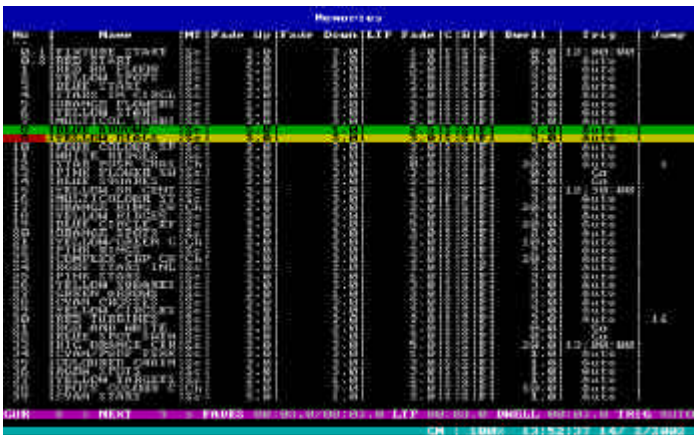

Figure 5 - 2: Memories Screen (Monitor)

Memories Screen

The Memories screen shows a section of the memory stack (approximately 35 memories).

Each line of the monitor display shows the data for a single memory (number, name, type, fade times etc.).

The *Current* memory is highlighted in green and the *Next* memory is highlighted in yellow.

The Memories screen on the monitor "follows" the *Next* memory as shown on the front panel LCD.

Playback Status and Information (PSI)

The bottom section of the monitor screen is called Playback Status and Information and shows the following:

Playback X - The *Current* and *Next* memories, plus the fade times, dwell time and trigger for the *Next* memory.

Lock Status - If the Frog Box is locked, the text "LOCKED" is displayed on the second line of the PSI.

Timecode Input - The SMPTE or MIDI timecode and incoming frame rate. If the timecode input is disabled, this field is displayed in red.

Grand Master - The current level of the GRAND MASTER (fixed at 100%).

Clock - The current date and time.

Super User Screens

When the Frog Box is in Super User mode, the monitor display 'follows' the LCD on the front panel and displays the corresponding information in a popup window in the centre of the screen.

Where a screen is not defined for a particular section within Super User, the monitor screen displays the same data as the LCD on the front panel.

Remote Switches Screen

This screen is displayed on the monitor when in the *Remote Switches* section of *Desk Setup*.

The screen shows the assignment of each of the six remote switches.

Frog Screen Buttons Screen

This screen is displayed on the monitor when in the *Frog Screen* section of *Desk Setup*.

The screen shows the assignment of each of the Frog Screen buttons.

Load Show Screen

This screen is displayed on the monitor when doing a *Load Show* operation.

The screen shows a list of valid show files found on the floppy disk, together with their size (in kBytes) and dates.

Save Show Screen

This screen is displayed on the monitor when doing a *Save Show* operation.

The screen shows a list of valid show files found on the floppy disk, together with their size (in kBytes) and dates.

Illumination Screen

This screen is displayed on the monitor when the user is in the *Illumination* section of Super User.

This screen shows the current brightness and contrast levels of the LCD on the front panel.

Information Screen

This screen is displayed on the monitor when the user is in the *Information* section of Super User.

This screen shows the serial number, operating software and BIOS versions, battery status and the current show loaded on the Frog Box.

External Keyboard

The up and down cursor keys mimic the up and down arrow keys on the front panel.

The right and left cursor keys mimic the + and - keys on the front panel.

The carriage return and Enter keys mimic the GO/ENTER key.

Numeric Entry

The external keyboard can be used to enter numeric data providing that the cursor is on an editable numeric field on the Main LCD. The following general rules apply for numeric entry:

- Either set of numeric keys on the external keyboard may be used.
- The backspace key deletes the last digit entered.
- All numeric entry must be completed by pressing the Enter or Carriage Return key.
- The '.' key is used to separate values in multi-part numeric fields (eg fade times).
- Invalid numbers will be ignored; the LCD returns to its original value.
- Keyboard input is ignored if the cursor is moved off the field.
- The Esc key aborts numeric entry; the numeric field on the LCD returns to its original value.

Fade Times

On the Main LCD fade times are divided into three separate sections (minutes, seconds, tenths).

If the cursor is on any of the three sections, a time can be entered from the external keyboard.

Fade times may be entered in seconds only, seconds and tenths, or minutes, seconds and tenths, as required.

Examples:

0.5 Enter	0.5 seconds
3 Enter	3.0 seconds
12.8 Enter	12.8 seconds
1.30.0	1 min 30 seconds
25.0.0	25 minutes

Real Times

On the Main LCD real times are divided into three separate sections (hours, minutes, seconds).

If the cursor is on any of the three sections, a time can be entered from the external keyboard.

Real times use the 24 hour clock and are entered in hours, minutes and seconds.

Examples:

7.30.0 Enter	7:30 am
12.0.0 Enter	12:00 noon
16.45.0 Enter	4:45 pm
0.0.0	12:00 midnight

Timecode Times

On the Main LCD timecodes are divided into four separate sections (hours, minutes, seconds and frames).

If the cursor is on any of the four sections, a timecode can be entered from the external keyboard.

Timecodes use the 24 hour clock and are entered in hours, minutes, seconds and frames.

Examples:

8.30.0.0 Enter	8:30 am
12.0.0.0 Enter	12:00 noon
17.45.0.0 Enter	5:45 pm
0.0.0.0	12:00 midnight

Lock Function

The Frog Box has a front panel key switch which allows the user to 'lock' the unit.

When the unit is locked, the memory editing facilities are disabled and the setup data cannot be modified.

It is not possible to load shows from floppy disk or set the date and time when the unit is locked.

The programmed memories in the current show can still be played back as normal, using the front panel buttons, remote switches, SMPTE or MIDI timecode, or network messages via Chillinet or iCANnet.

The memory editing and file facilities can only be enabled by unlocking the unit using the key switch.

Upgrading Software

Upgrades to the operating system software are provided on floppy disk.

Full instructions on how to upgrade the software in the unit will be provided with the upgrade disk.

Figure 6 - 1: Frog-Box Rear Panel

Introduction

This chapter provides a summary of the various connectors and ports on the rear panel of the Frog-Box:

- Power Supply
- Parallel Port
- Video Output
- Keyboard
- Mouse
- Audio Input
- SMPTE
- MIDI
- Remote Switches
- DMX Output
- Network

Power Supply

An inline external power supply unit is used to power the unit.

Mains Voltage:

230V +10%, -17% (190V - 253V)
120V +10%, -17% (100V - 132V)

Supply 5V @ 5A and 12V @ 1A

Parallel Port

A 25 pin D type female connector.

Video Output

15 pin D type SVGA connector.

Keyboard

PC standard UK keyboard via PS/2 connector.

Mouse

PS/2 or compatible mouse via mini DIN (PS/2) connector.

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Audio Input

Stereo ¼" jack socket.
Input >10 k , 100mV to 10V

Connections:

Tip	Left Channel
Ring	Right Channel
Sleeve	0V Signal Ground

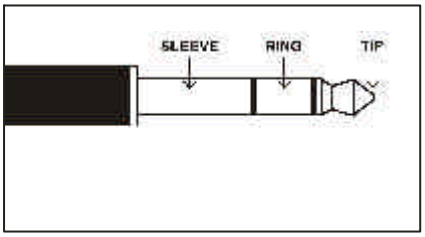

Figure 6 - 2: Stereo Jack Plug

SMPTE

3 pin male XLR input and output.
Output 0 dBm
Input 0 dBm +/- 10 dBm
47 kOhm input impedance
maximum 50V RMS.

Connections:

Pin 1	Signal Ground
Pin 2	Output
Pin 3	Input

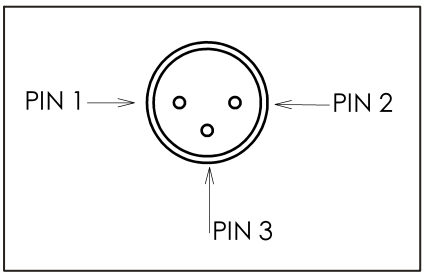

Figure 6 - 3: SMPTE Connector

MIDI

MIDI Input: 5 pin DIN

Pin 1	Not Used
Pin 2	Not Used
Pin 3	Not Used
Pin 4	Opto Isolated Input
Pin 5	Opto Isolated Input

MIDI Thru: 5 pin DIN

Pin 1	Not Used
Pin 2	Signal Ground
Pin 3	Not Used
Pin 4	Output
Pin 5	Output

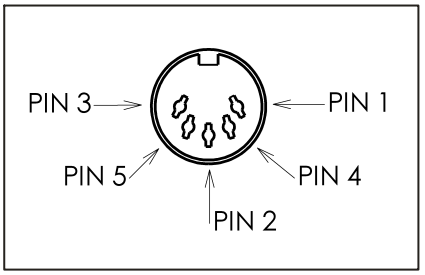

Figure 6 - 4: MIDI Connector

Remote Switches

An 8 pin DIN connector providing six remote switch inputs.

Connections:

Pin 1	Remote Switch 6
Pin 2	Remote Switch 1
Pin 3	Remote Switch 2
Pin 4	Remote Switch 3
Pin 5	Remote Switch 4
Pin 6	Remote Switch 5
Pin 7	Undefined - do not connect
Pin 8	0V Common Ground

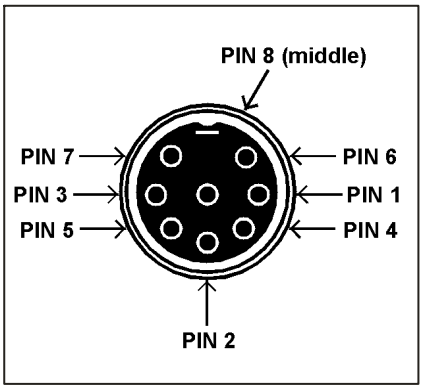

Figure 6 - 5: Remote Switches

DMX Output

Double 5 pin XLR, isolated, with voltage protection and data output indicators . Data on channels 1 - 512.

Socket 1 - Universe A
Socket 2 - Universe B.

Connections:

Pin 1	Signal Ground (0V)
Pin 2	DMX Drive Complement (1-)
Pin 3	DMX Drive True (1+)
Pin 4	Not Connected
Pin 5	Not Connected

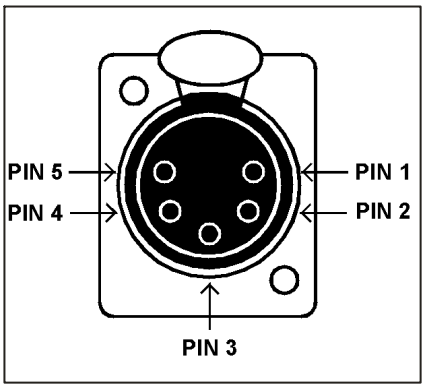

Figure 6 - 6: DMX Connector

Network

ICAN port supporting Chillinet and iCANnet. RJ12 twin connectors.

Pin 1	Do NOT connect
Pin 2	+ 12V
Pin 3	CAN-L
Pin 4	CAN-H
Pin 5	0V
Pin 6	Do NOT connect.

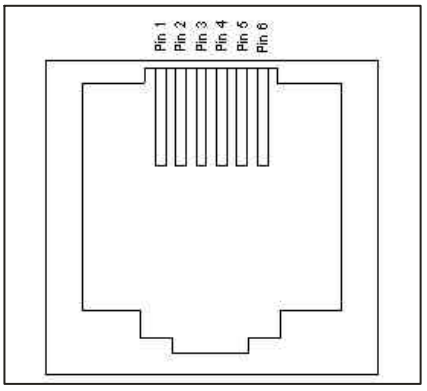

Figure 6 - 7: RJ12 Connector

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