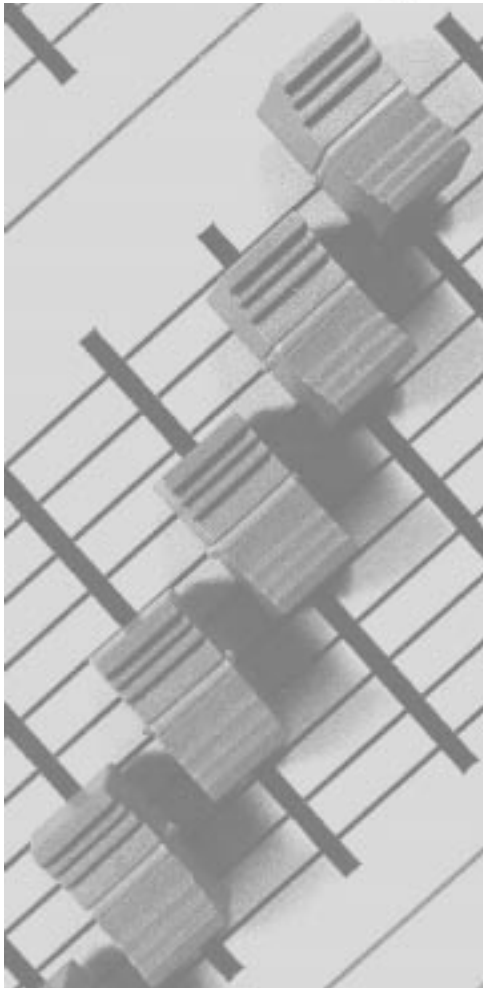


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INFORMATION

pack



Sirius 24
and
Sirius 48
Manual

zero88
A touch of Brilliance

Sirius 24 and Sirius 48 Manual

Warning

When using a Sirius on portable or temporary three phase supplies, **ALWAYS** unplug the desk before connecting or disconnecting the supply.

Edition 3 - May 1999

Stock No 73-570-00

For desks fitted with DMX and Analogue output.

(Software versions 4322, 4422, 4522 or 4323, 4423, 4523.)

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

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

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Contents

Introduction			
This Manual	4	Outputting a Manual Master	11
The Desk	4	Previewing a Manual Master	11
The Memory Card	4		
Master Controls		Autofade Programming	
Master Controls	5	Autofade Times	12
Presets Only Operation		Autofade Controls	12
Preset Controls	6	Setting Up the Desk	13
Turning on the Desk	7	Programming Fade Up Times	13
Setting Up Presets Only	7	Programming Fade Down Times	13
Fading Between Scenes	7	Autofade Operation	
Flashing a Channel	7	Operating Controls	14
Soloing to a Channel	7	Setting Up Memory Store	15
Flash/Solo For Whole Presets	7	Using the 'Go' Button	15
		Overriding Fade Times	15
Programming The Memory		Advanced Memory Features	
The Memory Store	8	Edit	16
Programming	8	Blind	16
Programming Controls	8	Level Match	16
Setting Up the Desk for Programming	9	Insert	16
Programming a Memory	9	Level Topset	16
Clearing a Memory	9	Manual Master to Memory Store	16
		Edit a channel in memory	17
Manual Memory Operation		Blind Programming	17
Operating the Manual Memories	10	Using Level Match	17
Manual Master Controls	10	Inserting a New Point Memory	17
Transferring a Memory to a Manual Master	11	Removing a Point Memory	17
		Using Level Topset	17
		Transferring Manual Masters to Memory Store	17
		Effects Section Programming	
		Chaser Programming	18
		Audio Effect Programming	18
		Programming controls	18
		Programming a Chase	19
		An Alternative Programming Method	19
		Previewing a Chase	19
		Editing a Chase Step	19
		Deleting a Chase Step or Entire Chase	19
		Programming an Audio Effect	19
		Previewing an Audio Effect	19
		Editing an Audio Effect	19
		Deleting an Audio Effect	19
		Effects Operation	
		Effect Operating Controls	20
		Selecting and modifying a chase	21
		Selecting and modifying an Audio Effect	21
		Transferring to Outputs	21
		Operating Live	21

Advanced Effects Operation

Effect to Memory Store	22
Manual Master to Effects	22
Effect to Manual Master (via Memory Store)	22
Inserting a Effect into the Store	23
Transferring a Manual Master to an Effect memory.	23
Using Level Match with the Chaser	23
Clearing an Effect from Memory Store	23

Super User Operation - Main Options

Introduction	24
To access Super User:	24
Slave Operation of Desks	24
Memory Card Operation on Slaved Desks	24
Send To Card	24
Read In Card	24
Verify Card	24
Output Patch	24
Slave Off	24
Clear All	24
Other Things	24
To Program The DMX Output Patch	24
High Speed DMX Transmission	24

Super User Operation - Other Things

No Recovery / Recovery On	26
Clic Trac	26
No Analog In / Analog In On	26
Analog Flash / Analog Only	26
Channel On / Channel Off	26
Channel Flash / Channel Override	26
Dipless Off / Dipless On	26
True Dipless / Pile Add	26
Baud Rate Lo / Hi / IP / OP	26
Test DIN Input	26
Test Card	26
Test IPL	26
Finished	26

Error Messages - Super User 28

Error Messages - Memory and Effects

Memory Section	29
Effects Section	29
Inter Processor Link	29

Internal Connections and Adjustments

To remove the bottom covers:	30
Selecting different Analogue Output Voltage	30
Sirius Main Board	30
Remote Masters Board	30
DMX Desks Slaved	31
Controlling Dimmers	31
DMX Cable Detail	31
DMX Card Link Settings	31
Fitting an Analogue Output Conn Kit - Sirius 24	32
Fitting an Analogue Output Conn Kit - Sirius 48	32
Changing the Mains Fuse and Supply Voltage	32
Fitting a Remote Masters Circuit Board	32
Fitting Other Printed Circuit Boards	32
Slave Cable Connections using 8 Pin DIN Plugs	32
DIN Pin Connections	32
<u>Technical Specification</u>	
Standard Outputs	33
Mains Input	33
Audio Input	33
To change the Mains Fuse	33
WARNING - Mains Supplies	33
Options and Accessories	33
Complementary Products	33

Introduction



This Manual

This manual describes the operation and programming of a Sirius 24 or a Sirius 48.

It begins with simple two preset operation, and progresses in easy stages to running complete, complex shows.

Each section begins with a basic description of controls and functions, followed by a step by step, diagrammatic guide, provided to give the first time user a "hands-on" approach.

Notes are included in each explanatory section to provide more detailed information on some of the desk's features, together with Hints giving suggestions as to possible applications.

There is no difference in the operation of the two Sirius desks.

The Desk

The desk is divided into five distinct sections: Master controls, Presets, a Memory section, an Effects section, and the Super User function. These sections can be used to control the output channels in a variety of ways.

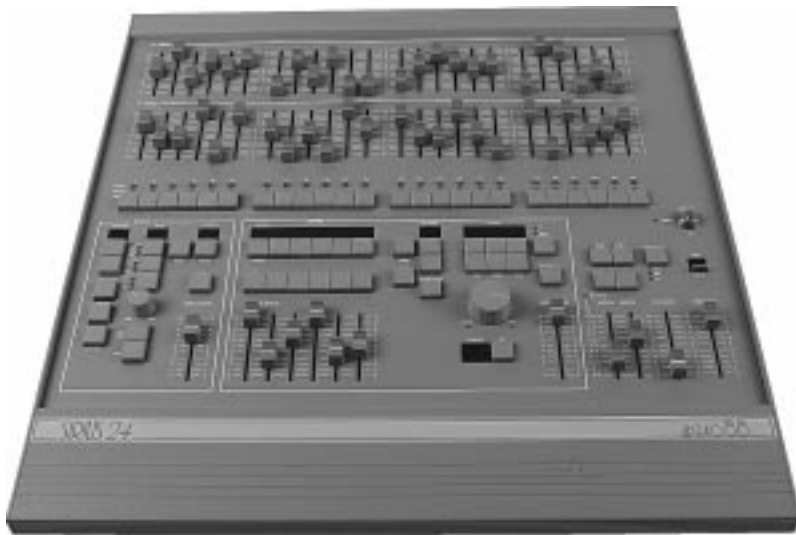
- * The Master controls provide overall control of the entire desk.
- * The Presets offer manual control of individual channels.
- * The Memory section allows storage and retrieval of lighting scenes.
- * The Effects section allows storage and retrieval of chase and audio effects.
- * The Super User functions allow protected access to functions that affect the overall desk operation including Memory Card saving and loading.

The Memory Card

A Zero 88 Memory Card will store all the memories of a Sirius 24 or Sirius 48.

A memory card which has been used to store the memories of a Sirius 24 may be loaded into a Sirius 48 but will affect only Channels 13 through to 36.

Linked desks may also save their memory onto separate memory cards but the link must be disconnected when this is in progress.



These controls set the general operating conditions for the entire desk. The Master functions determine the mode of operation, the functions of buttons throughout the desk, and the maximum output level for any channel.

Master Controls

ON/OFF SWITCH:

Supplies power to the desk. (Back panel)

KEYSWITCH:

Selects preset, run, or program mode.

GRAND MASTER :

Sets maximum level for all outputs.

FLASH MASTER:

Sets maximum flash level for channel and memory buttons in flash mode.

D.B.O.:

Dead Black-Out, kills all desk outputs. *The letters 'dbo' appear in the Autofade display.*

FLASH FUNCTION:

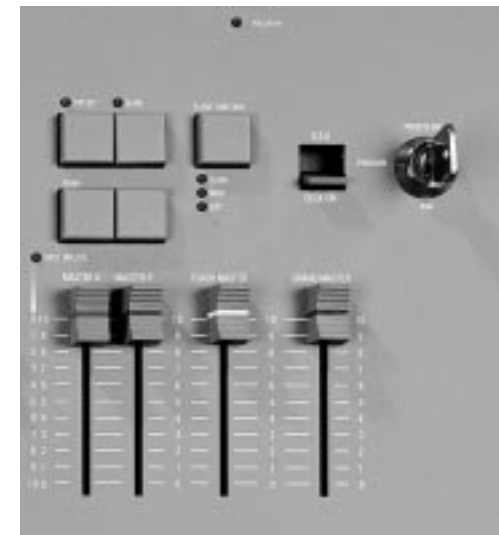
Determines the function of flash buttons.

TOP SET:

Enables individual channel inhibit control.

BLIND:

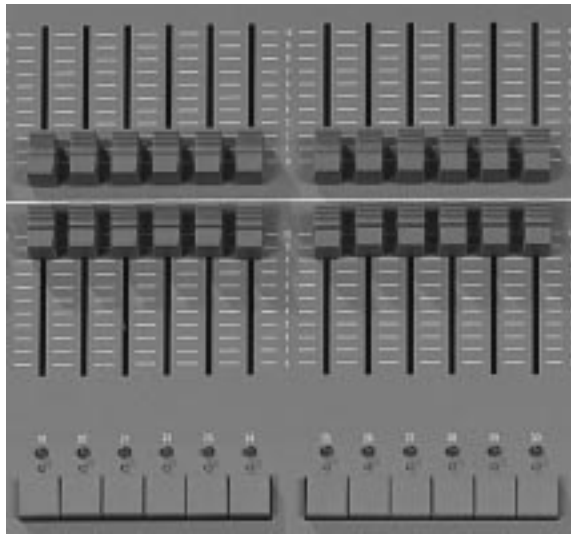
Allows programming/editing without affecting outputs.



NOTES

- * **Turn On Delay**
After the desk is switched on there may be a delay of up to ten seconds before the desk is fully operational, this is normal.
- * **Keyswitch**
The key is removable, except in the Program position. This stops the desk being tampered with whilst the operator is away.
- * **Flash Function**
When set to Flash, pressing a flash button will cause the channel, memory or effect to be mixed in to the current outputs, at a level determined by the Flash Master setting. When set to Solo, pressing a flash button will cause the channel, memory or effect to be output at the level of the Flash Master, with all other outputs suppressed.
Note, when Edit mode is selected, Flash Function, and all Master Flash buttons are disabled.
- * **Use as a Slave Desk**
The Manual Master Flash buttons should not be used while either or both Master A Flash and/or Master B Flash buttons are being used.

Presets Only Operation



In Presets Only, all effect and memory functions are disabled, offering a completely manual system.

A scene can be set up on Preset A or B using the individual channel faders. The A and B master faders can then be used to manually crossfade between scenes while still under overall control of the Grand Master.

The green channel lights always show the actual output of each channel (i.e. the signal sent to the dimmers, and hence to the lanterns).

Preset Controls

PRESET A/B:

Two sets of faders controlling individual channels.

MASTER A/B:

Sets the maximum level of Preset A/B.

MASTER A/B FLASH:

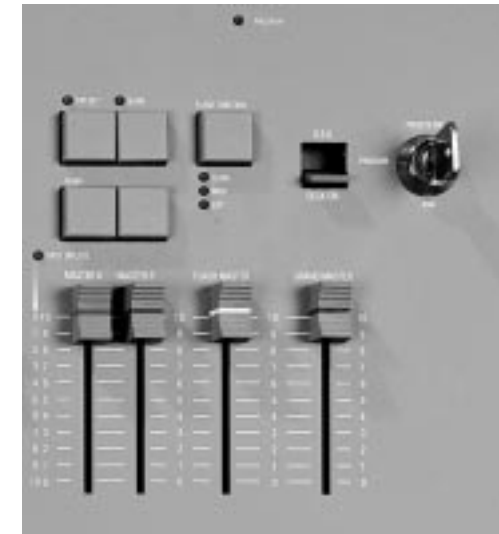
Flashes Preset A/B to the level of the Flash and Grand Masters (see Notes).

CHANNEL FLASH:

Whilst pressed, individual channels are flashed. These buttons may be disabled within Super User.

OUTPUT LIGHTS:

Brightness indicates current channel output.



NOTES

- * **Master A Inversion (Split Dipless Crossfade)**
An option in Super User offers the possibility of inverting the action of the Master A fader. Full on is at the bottom of the scale, crossfades are now achieved by moving the A and B faders in tandem. A red light next to the Master A fader indicates whether this inversion has been selected. For further details see page 26.
- * **Master Fader Levels**
For each channel the level of the output is determined by the channel fader, and the Master A (or B) fader, and the Grand Master. i.e. with all three set to 50%, the total effect is $0.5 \times 0.5 \times 0.5$, so that the channel will be output at 12.5% .
- * **Master A/B Faders**
With Master A/B faders up, the levels on Presets A/B will be output from the desk directly. This applies whatever the position of the keyswitch.
- * **Disabling the Channel Flash / Solo Buttons**
An option in Super User allows these buttons to be disabled
- * **Channel Flash Override**
The Channel Flash option can be modified by changing a Super User option- see page 26.

Turning on the Desk

- 1 Switch on the desk using the mains switch on the back panel.
- 2 Ensure the **D.B.O.** switch is also on.
- 3 Set the **Grand Master** fader full on (UP).
- 4 Set the **Flash Master, Master A** and **Master B** faders to zero (DOWN).

Setting Up Presets Only

- 1 Turn the keyswitch to select **Presets Only**. The Memory Display shows 'Presets Only'.
 - * NOTE: Turning on the desk and selecting 'Presets Only' is referred to throughout this manual as 'Setting up the desk'.
- 2 Set up one scene, by setting the required levels for each channel on the **Preset A** faders, and a different scene on **Preset B**.

Fading Between Scenes

- 1 Slowly fade up **Master A**. *The green output lights correspond to the desk output.*
- 2 To manually fade into the next scene, simultaneously push **Master B** up to full, and pull **Master A** down to off. You have direct control over the speed of the scene change.

Flashing a Channel

- 1 Press **Flash Function** to select **Flash**.
- 2 Set **Flash Master** to full.
- 3 Press and HOLD an individual channel **Flash** button. This channel has been added into the scene at the level set by the **Flash Master**.
- 4 Vary the level set by the **Flash Master** to see the effect.

Soloing to a Channel

- 1 Change the **Flash Function** to **Solo**.
- 2 Press and HOLD an individual channel **Flash** button. This time the channel has come on to the level set by the **Flash Master**, with all other outputs killed.
- 3 Release the **Flash** button to return the desk to its previous state.

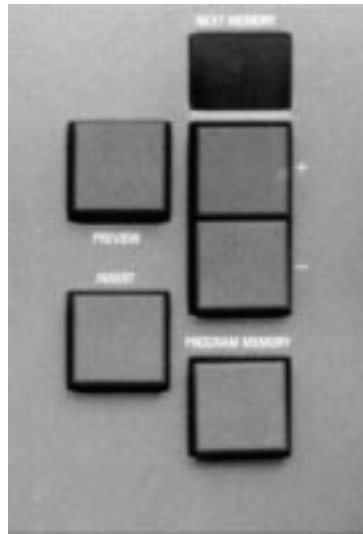
Flash/Solo For Whole Presets

- 1 Press **Flash Function** to select **Flash**.
- 2 Set **Flash Master** to full.
- 3 Set **Master A** down to off and push **Master B** up to full.
- 4 Press the **Master A Flash** button to see the effect of flashing a complete preset/scene.
- 5 Change the **Flash Function** to **Solo**.
- 6 Press and HOLD the **Master A Flash** button. This time the complete preset/scene has come on to the level set by the **Flash Master**, with all other outputs killed.

HINTS

- * **Grand Master Fader**
The Grand Master fader is usually set to full on during normal desk operation.
- * **Solo**
The action of Solo can be particularly useful for creating a sudden dramatic change, such as a lightning flash or explosion effect.
- * **Use as a Slave Desk**
During Slave operation, we recommend that the individual **Preset** channel **Flash** buttons are not used with the **Flash Function** set to **Solo**.

Programming The Memory



The Memory Store

The Memory Store is a cue list for 99 programmed memories, which may be given individually specified fade up and down times. It provides an easy way of recording 99 scenes, which would otherwise have to be set up manually on Presets A/B. The store may contain scenes, and/or up to 200 effects (see Advanced Effects section), and acts as the core of the Memory desk. A further 90 Insert Memories are also available (see Advanced Memory Features section). A scene may be previewed (*indicated by the display flashing*), before it is transferred to the outputs.

Programming

The scene to be recorded is set up on the B Presets. Any number of channels at any level may be assigned to each memory. Pressing the Program Memory button, assigns the Preset B levels to the chosen memory. The preview lights

will come on to verify the data has been recorded. An empty memory in the Store is indicated by a dot shown in the bottom right corner of the 'Next Memory' display. Previewing is locked on when in Program, and the action of Preview buttons determines whether the Memory Store or Effects patterns are displayed on the yellow preview lights, and hence which can be programmed.

Programming Controls

+ / - :

Selects memory to be programmed

MEMORY PROGRAM:

Transfers Preset B levels to memory

PREVIEW:

Enables Memory Store previewing and programming

MASTER B:

Sets maximum channel level within memory

PRESET B:

Sets individual channel levels for programming

BLIND:

Disconnects B Preset from the desk outputs

NOTES

* The Blank Memory

The blank memory "- -" cannot be programmed. This memory is selected automatically at turn-on, or by pressing both + and - buttons together.

* Error Message -??-

Error messages are listed on page 29.

* Preset A

Programming is not possible using Preset A

Setting Up the Desk for Programming

- 1 Set up presets only with ALL faders at zero (except **Grand Master**).
- 2 Turn the keyswitch to **Program**.
Program light will illuminate.
- 3 Push the **Master B** fader to full, and ensure **Blind** is off.
- 4 Check the memory store is currently being previewed (*i.e. the Next Memory display is flashing*), if not press Preview.

Programming a Memory

- 1 Select an available memory number (**Next Memory**) to be programmed using the '+' and '-' controls.
- 2 Set up a scene on preset B.
- 3 Briefly press **Program Memory** button to transfer the **Preset B** levels to memory.
The new memory is immediately displayed on the yellow preview leds, to verify that this information has been recorded.
- 4 Repeat steps 1 to 3 to program additional memories.

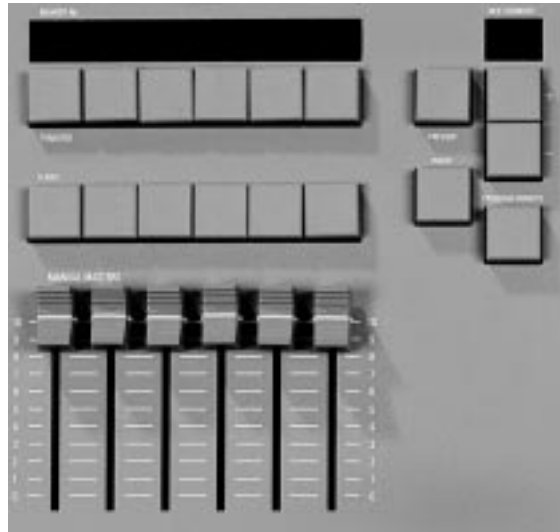
Clearing a Memory

- 1 Ensure **Blind** is off and set **Master B** down to zero.
- 2 Briefly press **Program Memory** to create a blank memory (*ie a memory with no channel levels store so the preview lights are off*).
- 3 Press and hold **Program Memory** for 1 second to clear the memory from the store, and create an empty memory (*a dot appears in the display*).

HINTS

- * **Programming Appears Not To Work**
Check that Master B is up to full, since with Master B at zero, a blank memory will be programmed. This will result in the dot disappearing from the corner of the Next Memory display, but nothing appearing on the preview lights. Simply fade up Master B and reprogram the memory.
- * **Blind Programming**
Selecting Blind disconnects the B Presets from the outputs (see Advanced Memory Section).
- * **Reprogramming a Memory**
If the memory chosen is not empty, pressing the Program button will overwrite any previous information with the current settings of Preset B; the old memory will be lost.

Manual Memory Operation



Memories from the Memory Store may be assigned to Manual Masters in both Run and Program. Each Manual Master then manually controls the output level of a complete memory, which can be faded in and out, flashed or solo'd.

Operating the Manual Memories

In both Run and Program, the Manual Master faders offer direct manual control over the memory output level. The Manual Master Flash buttons will Flash or Solo complete memories (Run only). In Program, the Flash/Solo functions are disabled; the Channel Flash buttons are now used for editing individual channels within memories (see Advanced Memory Section).

Manual Master Controls

+ / - :

Selects Next Memory. Both pressed selects " - - "

TRANSFER:

Allocates Next Memory to the selected Manual Master

MANUAL MASTERS:

Set the maximum channel level for each memory

FLASH:

Run only. Flashes/solos the Manual Master memory

PREVIEW:

Memory displayed on preview lights (see notes)

NOTES

- * **Previewing In Run**
Preview may be locked on by holding the Preview button for two seconds. To turn off, press again briefly.
- * **Error Er -NP-**
Error messages are listed on page 29.
- * **Auto-Increment**
In Run mode (but not Program), when transferring a memory to a Manual Master, the next memory selected is automatically advanced. Hence pressing each transfer button in turn will automatically assign consecutive memories to the Manual Masters. In this way the entire cue list may be run through manually, in sequence, via the Manual Masters.

Transferring a Memory to a Manual Master

- 1 Set up presets only.
- 2 Select **Run**.
- 3 Select a programmed memory number in the **Next Memory** display to be assigned to the manual master using the '+' and '-' buttons.
- 4 Press the **Transfer** button. The memory number now appears in the section of the **Memory No** display above the **Transfer** button.

Note that the Next Memory has been advanced to the next programmed memory in the store (does not occur in Program).

Outputting a Manual Master

- 1 Repeat steps 3 and 4 above to transfer further memories from the Memory Store to the **Manual Masters**.
- 2 Output a **Manual Master**, either by fading up the **Manual Master** fader, or by using the **Flash** button (**Run** mode only, ensure the **Flash Master** is up!).

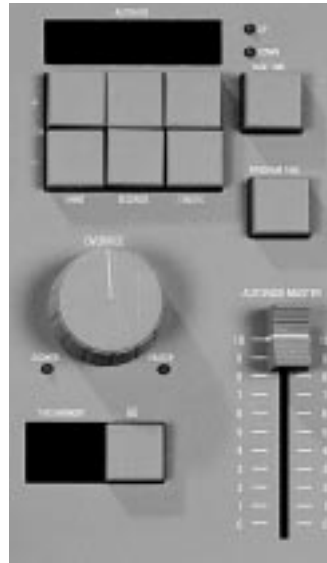
Previewing a Manual Master

- 1 Press and hold the **Preview** button, while holding it press the transfer button of the **Manual Master** to be previewed (*the display of the previewed Manual Master will flash*). Alternatively preview the memory direct from the Memory Store.

HINTS

- * **Cancelling Manual Master Output**
A manual master may be temporarily cleared from the outputs by pulling the Manual Master down to off. Setting the Flash Master to zero and pressing Flash will also work if the desk is set up for Channel Override (see page 26).
- * **Emptying a Manual Master**
To permanently empty a Manual Master, simply select the blank pattern " - - " in the Memory Store (by pressing + and - together), and transfer it to the Manual Master.
- * **Transfer to two Manual Masters**
Pressing two transfer buttons at the same time will transfer the same memory to both Manual Masters.
- * **Overwriting a Manual Master**
Transferring a new memory to a Manual Master will clear out the old memory regardless of the position of the Manual Master Fader.

Autofade Programming



Memories from the Memory Store may be output automatically through the GO button. GO provides automatic sequencing of memories in a single action.

Scenes are automatically faded in and out at speeds determined by their pre programmed fade times.

Autofade Times

Separate up and down fade times can be programmed for any memory in Memory Store, including Insert Memories and Effects.

Times can vary from instantaneous, up to a maximum of ten minutes, in tenth of a second intervals.

Autofade Controls

PREVIEW:

Enables Memory Store previewing and programming

+ / - :

Next Memory select

FADE TIME:

Enables programming of up / down fade times

MINS/SECONDS/TENTHS:

Used to select required fade times

PROGRAM TIME:

Enters fade time into memory store data

NOTES

* **Blank Memories**

A memory with all channel levels programmed to be zero, is a blank memory. Such a memory may be assigned up/down fade times as normal. These are often used where a fade to blackout is required within a sequence.

Setting Up the Desk

- 1 Set up presets only.
- 2 Turn the keyswitch to **Program**.
- 3 Check that the Memory Section is being previewed (*i.e. Next Memory display flashing; , if not, press memory **Preview***).

Programming Fade Up Times

- 1 Select the memory to which fade times are to be assigned.
- 2 The **up light is on**, so fade up time programming is selected using the '+' and '-' buttons.
- 3 Adjust the minutes, seconds, and tenths until the required fade up time is shown on the **Autofade** display.
- 4 Press **Program Time**, to record this time into the memory store data. *The up light will stop flashing to verify that the time has been recorded. The down light will automatically come on.*

Programming Fade Down Times

- 1 Adjust the minutes, seconds, and tenths until the required fade down time is shown on the **Autofade** display.
- 2 Press **Program Time**, to record this time into the memory store data. *The down light will stop flashing to verify that the time has been recorded, the up light will come on automatically and the **Autofade** display will show the up time.*

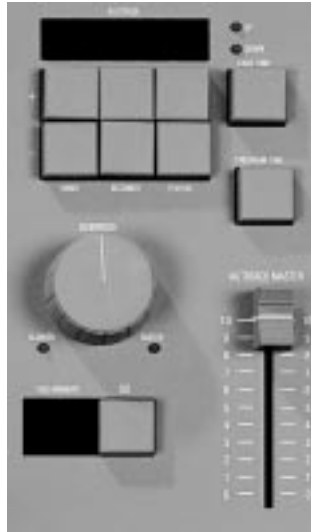
Note: Pressing the **Fade Time** button changes from up to down time programming and vice versa.

HINTS

* Default Fade Times

A memory which has no fade time programmed will automatically be assigned a zero fade up, and down time. Hence Go can be used without programming any times, but in this case, each scene change will be instantaneous.

Autofade Operation



The action of GO is to advance the desk outputs to the Next Memory, in the specified fade times, and to automatically select the next programmed memory in the store as the Next Memory.

Provision is made for direct override of both memory order and fade times.

Throughout a crossfade, the times displayed represent the time remaining before the outputs reach their recorded level.

Operating Controls

+ / - :

Next Memory select. Both pressed selects “ - - ”

GO:

Initiates transfer of next memory to outputs

FADE TIME:

Displays residual fade up / down times

OVERRIDE:

Modifies speed of current fades

AUTOFADE MASTER:

Sets maximum channel output level

PREVIEW:

Previews Next Memory channel levels and fade times

NOTES

* Fade Time Display

In Run, the Autofade display will automatically show the fade up time when a new memory is transferred to the outputs through Go.

* Previewing Fade Times

Fade Times associated with the Next Memory are flashed while preview is held.

* Override - Instantaneous to Static

Turning the override fully anticlockwise, will temporarily freeze any fades in progress. Turning fully clockwise will cause an instantaneous change over.

Setting Up Memory Store

- 1 Set up presets only.
- 2 Turn the keyswitch to **Program**.
- 3 Fade the **Autofade Master** up to full.
- 4 Program two consecutive memories to have fade up and down times of a few seconds (*see Autofade Programming*)
- 5 Ensure that the first of these is displayed in the **Next Memory** window.
- 6 Turn keyswitch to **Run**.
- 7 Press and hold the memory **Preview** button to lock preview on. The memory fade time will be shown on the **Autofade** display.
- 8 Press **Fade Time** to select up or down fade times to be viewed.

Using the 'Go' Button

- 1 Press the **GO** button.
- 2 The **Autofade** display shows the time remaining until the outputs reach their recorded level (the **up** time).
- 3 Press **GO** again to initiate the crossfade to the next memory. *There are now two fades in progress, select **up** to watch the fade up time of the second memory, select **down**, to watch the time remaining until the previous memory has faded to zero.*

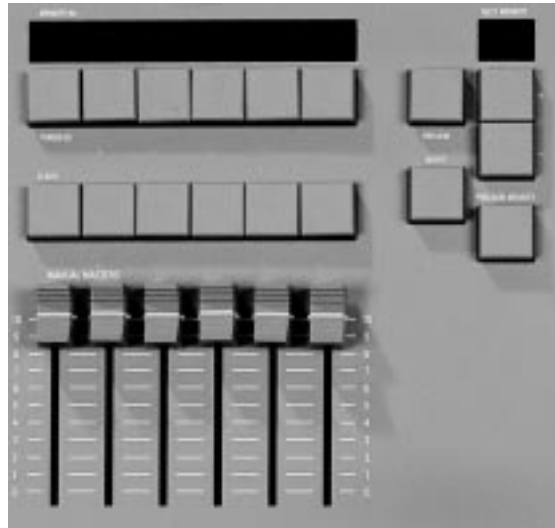
Overriding Fade Times

- 1 Turn the **Override** anticlockwise. The fade is slowed. Fully anticlockwise stops the fade.
- 2 Turn the **Override** clockwise to speed up the fades, fully clockwise gives an instantaneous change over.

HINTS

- * **Cancelling Outputs**
The memory store output may be cancelled, either by pulling the memory master to zero, or selecting "—" as Next Pattern, and pressing GO.
- * **Fading in one cue on top of another**
In order to fade in a memory, and leave it set while further scenes are faded in and out, simply fade in the first memory using Autofade as normal. Then transfer this memory to a Manual Master before fading in any other scenes.
- * **Override Action**
Operation of the Override control causes both up and down times to be changed simultaneously. If the times are of different lengths, then Override will only affect the longer of the two times when the shorter is complete.
- * **Equal Fade Times**
When the fade down time of one memory is equal to the fade up time of the next, the crossfade is dipless.

Advanced Memory Features



Edit

Edit mode is automatically selected when the desk is in Program mode. Channel flash buttons are now used to edit individual channels within any memory

Blind

Memories may be programmed either “live” or “blind”. In “blind” mode the B Preset levels do not affect the desk outputs, allowing for memories to be updated during use. When programming blind, B Master is effectively set to full up, and hence does not affect the overall level of the memory being programmed.

Level Match

Level Match enables a programmed memory to be recreated on the B Presets exactly as it was recorded. It operates in Run only and makes detailed memory editing very easy.

Insert

In Program the Insert feature allows the addition of an extra memory or memories between two adjacent memories. For example, if memories 16 and 17 are already programmed, Insert will add a new memory between them. These are called Point Memories and are programmed in the normal way.

Each point memory number is unique and can only be inserted once. The number of the Point Memory is allocated by the desk in strict numerical sequence beginning at 0.1 and ending at 9.9. This allows an additional 90 memories anywhere in the memory store.

Point Memories which have been added but not programmed will not appear in Run mode.

A deleted Point Memory will not be available for reinsertion until all other Point Memories in numerical sequence have been used.

Level Topset

Level Topset enables the faders on Preset A to be used to set the maximum output level for each channel. This level will not be exceeded by any other desk function. This is particularly useful for adjusting the output of a channel, without affecting the programmed information, e.g. when a lamp is knocked during a show, it can easily be turned off until it has been repositioned.

IMPORTANT: Always ensure that the Master A fader is at zero before Topset is turned on or off.

Manual Master to Memory Store

Any combination of Manual Master memories (not including effects) can be added together into a single memory in the Memory Store (Program only). Thus two or more memories can be added together to create a new memory.

Edit a channel in memory

- 1 Set up presets only.
- 2 Fade **Master B** full up.
- 3 Select **Program** and the memory to be edited for live editing.
- 4 If required, transfer the memory to a **Manual Master** and fade it to full.
- 5 To edit an individual channel, move the **Preset B** fader to the required level and press the channel **Flash** button to record the new channel level into memory.

Blind Programming

- 1 Turn the keyswitch to **Program**.
- 2 Turn **Blind** on.
- 3 Select memory (**Next Memory**) to be programmed.
- 4 Set up a scene on **Preset B**. Note that the **Master B** fader has no effect on the desk outputs
- 5 Press the **Program Memory** button to transfer the preset B levels to the memory as before.

Using Level Match

- 1 Turn the keyswitch to **Run**
- 2 Set **Master B** to zero
- 3 Press and hold memory **Preview** to lock preview on. Press **Blind** once. The channel **Preview** lights will flash *quickly* on any channels where the channel level on **Preset B** needs to be *decreased* to match the programmed level. The channel **Preview** lights will flash *slowly* on any channel where the channel level on **Preset B** needs to be *increased* to match the programmed level.

- 4 Adjust all the **Preset B** faders until all the channel **Preview** lights are on continuously.

Preset B now matches the previously programmed level for all channels. Fade up **Master B** and turn the keyswitch to **Program** to edit and reprogram the channels in the usual way.

Inserting a New Point Memory

- 1 Turn the keyswitch to **Program**
- 2 Select memory (**Next Memory**) after which the insert memory is to be inserted using the '+' and '-' controls.
- 3 Press the **Insert** button and hold it down for at least one second. *A new Point Memory number will be displayed in the Next Memory display.*
- 4 Program this new memory in the normal manner

Removing a Point Memory

- 1 Using the '+' and '-' controls, select the Point Memory that is to be removed on the **Next Memory** display
- 2 Ensure **Blind** is off and **Preset Master B** is at zero.
- 3 Press and hold down **Program Memory**. The point memory will become a Blank Memory
- 4 Press and hold down **Program Memory** again, The memory will be removed completely.

Using Level Topset

- 1 Set **Master A** to zero and all **Preset A** faders up to full.
- 2 Press and HOLD the **Top Set** button for at least one second until the light comes on.

- 3 Set the level of the **Preset A** faders to represent the maximum output level for each channel.

Note: When **Top Set** is on, pressing and holding it on until the associated light goes out, will switch **Top Set** off. Preset A reverts to normal operation.

Transferring Manual Masters to Memory Store

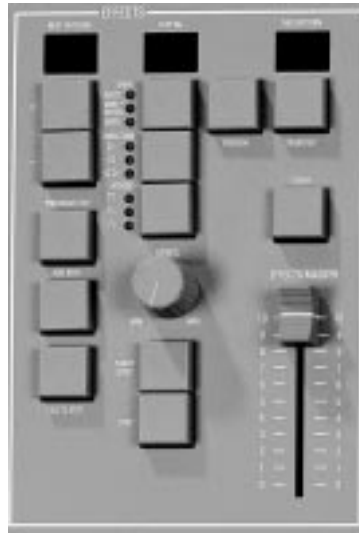
- 1 Set keyswitch to **Program**.
- 2 Set the **Manual Masters** to the required levels.
- 3 Select the memory to be programmed.
- 4 Press and hold **Program Memory**. While holding **Program Memory**, press the transfer buttons of all the **Manual Masters** to be added together into the memory.

Note: **Master B** must be at zero if it is not required to add the settings of preset B to memory also.

NOTES and HINTS

- * Error LS
Error messages are listed on page 29.
- * Channel level information
Level Match provides an easy way of determining the recorded level of an individual channel in memory, without transferring the memory to the outputs.
- * Use Preset A as Level Topset all the time
If the whole show can be run from memory, this allows the operator to instantly adjust the maximum output level of any channel.
- * For Users New To Memory Desks
Use the Insert Memories should the Director change his/her mind after all the scenes have been recorded!
Should even more memories be needed, remember that a one step static chase is a scene and may be inserted anywhere in the Memory Store (See Advanced Effects Operation).

Effects Section Programming



The effects section consists of a chaser which can hold nine patterns, each having up to 99 steps (subject to a combined total of 250 steps), and up to nine audio effects.

Each chase may be run manually using the Step button and/or automatically by the three drives available: Bass, Varispeed, and Autochase. The speed, direction and attack of the chase may be varied as required.

Each Audio Effect consists of four pre-programmed scenes, the intensity of each scene being modulated by a sound frequency band.

Chaser Programming

A chase is a set of up to 99 level memories, each of which is called a step. Thus any number of channels, at any level, may be recorded as one step. Steps are usually programmed using the

B Preset or may be transferred from the Manual Masters (see Advanced Effects Section).

Audio Effect Programming

An Audio Effect is a set of four special memories. The overall level of each special memory in the set is modulated according to the sound level in four harmonic bands (Bass, Low Mid, High Mid, Treble).

Any number of channels at any level may be recorded into any special memory.

The special memories are usually programmed using the B Preset or may be transferred from the Manual Masters (see Advanced Effects Section).

Programming controls

+ / - :

Effect select. Both pressed selects effect " - - ". Repeated pressing of + cycles the Next Pattern display through the 9 chases followed by the 9 Audio Effects. Unprogrammed effects are not shown in Run Mode.

PRESET B:

Sets individual channel levels for programming.

PROGRAM STEP:

Records all Preset B levels at once as an effects memory.

ADD STEP:

Advances step number for programming.

DELETE STEP:

Deletes displayed step number from chase.

PREVIEW:

Enables previewing and programming of the effects.

START/STOP:

Starts/stops the chase running.

STEP:

Steps through a stopped chase sequence; in Program, selects the harmonic band to be programmed.

CHANNEL FLASH:

Edits an individual channel within an effect memory.

Programming a Chase

- 1 Set up presets only with **Master B** set to full.
- 2 Turn the keyswitch to **Program**.
- 3 Press chaser **Preview** to enable chaser programming.
- 4 Select chase (**Next Pattern**) to be programmed.
- 5 Set up channel levels to be recorded into step on preset B.
- 6 Press **Program Step** to record the first chase step.
- 7 Continue adding steps (99 maximum), by pressing **Add Step**, and then repeating steps 5 and 6 above.

An Alternative Programming Method

A quick method of programming a chase can be used if all channel levels are to be full on or off. This uses the edit mode of the chaser.

- 1 Repeat steps 1 to 4 above.
- 2 Set all **Preset B** faders to full.
- 3 Press the channel **Flash** buttons of those channels which are required in the chase step.
- 4 Press **Add Step** ONLY if another step is required.

Note: Do not press **Program Step**!

Previewing a Chase

- 1 Press the **Start/Stop** button. *The word **GO** appears in the **Step No** display to indicate the chase is running and the chase can be seen running on the **preview** lights.*
- 2 Press **Start/Stop** again to stop the chase. Press **Step** to step through the chase manually.

Editing a Chase Step

- 1 Check that the chaser is being previewed.
- 2 Select the pattern, and step to be edited.
- 3 Move the **Preset B** fader to the required position.
- 4 Press the channel **Flash** button to edit the channel level.

Deleting a Chase Step or Entire Chase

- 1 Check that the chaser is being previewed.
- 2 Select the pattern and step to be deleted.
- 3 Press **Delete Step** to remove the step from the pattern. Holding Delete Step down will quickly delete an entire chase.

Programming an Audio Effect

- 1 Set up Presets only with **Master B** set to full
- 2 Turn the keyswitch to **Program**
- 3 Press effects **Preview** to enable effects programming
- 4 Press the Effects **+** control until an **A** appears in the **Next Pattern** display; **1** will appear in the **Step No** display. Repeated pressing of **+** will advance through **A 2**, **A 3** and so on. Select **A 4** for example.
- 5 Press **Step** to select the harmonic band to be used. **A 4.1** will appear in the **Step No** display, followed by **A 4.2**, **A 4.3**, **A 4.4**, and **A 4** if the **Step** button is pressed repeatedly (4.1 is Bass, 4.2 Low Mid, 4.3 High Mid, and 4.4 Treble). Select **4.1** - Bass
- 6 Set up the channel levels on preset B and press **Program Step** to recorded them into the special memory .
- 7 Press **Step** to move to **A 4.2**, then set up preset B **Program Step** as before.

- 8 Repeat for **A 4.3** and **A 4.4** if these are also required.

Previewing an Audio Effect

In Program Mode, only static preview is possible of those channels with levels programmed into the special memories.

Using the above example for Audio Effect No. 4:

- 1 Press **Step** to move to A 4; the *yellow Preview lights will show ALL channels with levels programmed into the special memories*
- 2 Press **Step** to move to **A 4.1**; the *yellow Preview lights will show ONLY the channels with levels programmed into the Bass driven special memory.*
- 3 Repeat for **A 4.2**, **A 4.3**, and **A 4.4**.

Editing an Audio Effect

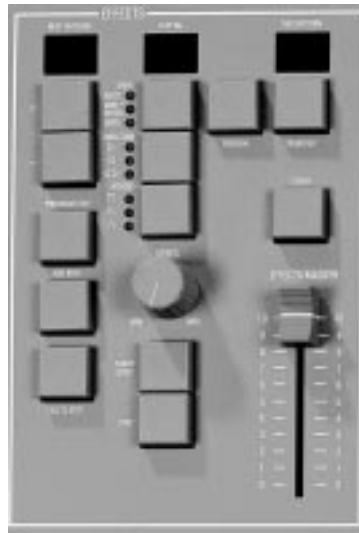
- 1 Check that the Audio Effect number required is being previewed.
- 2 Select the Audio effect the special memory to be edited.
- 3 Move the **Preset B** fader to the required position.
- 4 Press the channel **Flash** button to edit the channel level.

Deleting an Audio Effect

- 1 Check that the effect section is being previewed and that the desk is in **Program**.
- 2 Select either the whole Audio Effect (eg **A 4**) or one special memory (eg **A 4.3**) to be deleted.
- 3 Press **Delete Step** to remove either the whole Audio Effect or one special memory.

NOTES and HINTS are on the next page

Effects Operation



An effect may be output directly via the effect controls, or transferred to the memory store, and output through a Manual Master or the GO button (see Advanced Effects Section).

The speed, direction, and attack of a chase pattern may be decided before the chase sequence is transferred to the outputs, or modified directly in 'live' mode.

Effect Operating Controls

+ / - :

Selects one of the chases or Audio Effects. Both pressed selects pattern " - "

EFFECT :

Selects auto, varispeed, or bass chase.

DIRECTION :

Modifies direction of step sequence within chase

ATTACK :

Determines type of crossfade between steps of a chase or the type of Audio Effect.

SPEED:

Sets the speed of the chase sequence or the rate of attack of an Audio Effect

EFFECTS MASTER:

Sets maximum output level for an effect.

PREVIEW :

Displays effect on preview leds

TRANSFER:

Transfers an effect to the outputs

START/STOP:

Starts/stops automatic chase sequence output

STEP:

Outputs next step of stopped chase sequence

FLASH:

Flashes/solos the effect.

NOTES

* Auto / Varispeed/Bass Chase

Auto chase requires no sound input, with chase speed determined directly by the speed control. Varispeed speeds up and slows the chase according to the tempo of the music on the audio input, with the speed control used to set a basic speed. Bass chase will step through the pattern on a bass beat giving a Sound to Light effect.

* Attack

Three types of crossfade are available:

Switch on / switch off

Switch on / fade off

Fade on / fade off.

Switch on/fade off is particularly useful for PAR cans.

* Direction

A chase sequence may be output in sequential step order, reverse step order, or repeatedly forwards, then backwards.

Selecting and modifying a chase

- 1 Set up presets only with **Effects Master** set to full and select **Run**.
- 2 Select the chase to be output.
- 3 Change the type of chase by pressing the **Effects** button if required (bass chase requires an audio input).
- 4 Modify the **Speed**, **Direction**, and **Attack** if needed.
- 5 Press the chaser **Preview** button to display the chase on the channel **Preview** lights.
- 6 Press **Start/Stop** to run or stop the chase.

Selecting and modifying an Audio Effect

- 1 Set up presets only with **Effects Master** set to full and select **Run**.
- 2 Select the Audio Effect to be output.
- 3 Change the **Attack** if required and the rate of attack using the **Speed** control.
- 4 Press the effects **Preview** button to display the effect on the channel **Preview** lights.

Transferring to Outputs

- 1 Press the effects **Transfer** button to transfer the chase to the outputs.

Note: With this effect running, another can be chosen, modified, and previewed by following the steps above. This will not affect the output until Transfer is pressed.

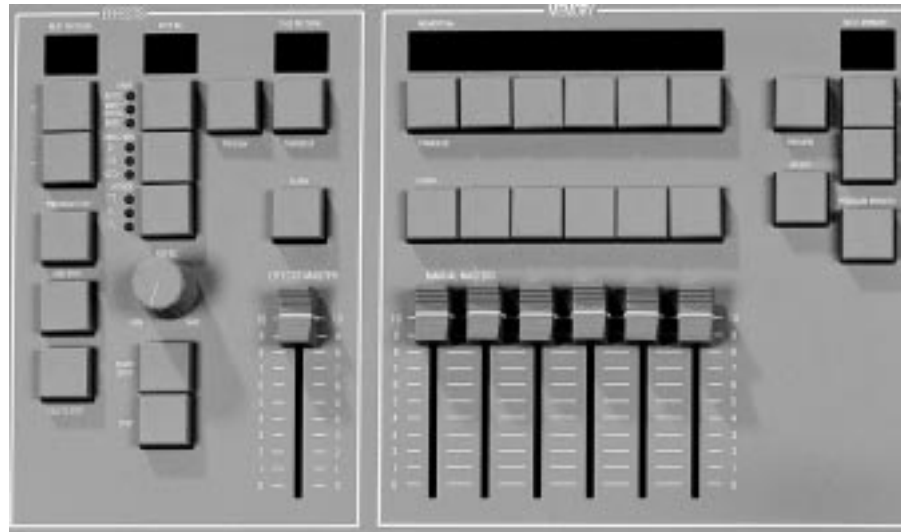
Operating Live

- 1 Press and hold the effects **Transfer** button for one second to lock on live operation. An **L** is shown in the **This Pattern** display. This allows direct, automatic transfer of selected patterns and modifications.
The live effect can be modified by the operator whilst in operation using the normal procedure.
- 2 To exit Live mode, press chaser **Transfer** again briefly.

HINTS and NOTES

- * **Effects as part of the memory store**
Any effect can be inserted between memories in the Memory Store. Hence a chase with a single step can be used as an extra static memory (see Advanced Effects Section).
- * **Manual Masters to Effect Memories**
Manual Master memories can be copied into effect memories directly (see Advanced Effects Section).
- * **Cancelling Effects**
Effects output can be cancelled by either pulling the Effects Master to zero, or selecting the blank pattern and pressing Transfer.
- * **Add Step**
Pressing Add Step immediately inserts a blank step into a chase. To enter channel level information into this step, either Program, or a Channel Flash button must be pressed.
- * **Manual Step Selection**
When manually stepping through a chase sequence, use Direction to step forwards or backwards as required.
- * **Quick Access to the Audio Effects**
Select the effects blank pattern '—'. Pressing - directly selects A 9, press again for A 8 and so on.
- * **Experiment!**
The Audio Effects are very powerful lighting design tools - Try programming Audio Effect 2 (for example) with all the red channels on A 2.1, all the yellows on A 2.2 and so on. Experimenting with these effects will show their true versatility.
- * **Blackouts**
Program a chase with one step and no level information. Transfer this to the Memory Store wherever a blackout is needed.
- * **Errors -FU- -NF- -NS- -LP-**
Error messages are listed on page 29.

Advanced Effects Operation



Effect to Memory Store

Any effect may be inserted between memories in the memory store as an extra cue. The effect modifiers (attack, speed / rate, chase direction) are recorded in addition to channel and level data.

Fade times may then be assigned to the effect as for any other memory in the store.

Pressing Go will then fade in the chase sequence as it is running. Chase 1 in the Memory Store is indicated by C1 in the Next memory display, chase 2 by C2,...,chase 9 by C9, Audio Effect 1 by A1 and so on.

Manual Master to Effects

In Program mode, any combination of Manual Master memories may be added together into one step of a chase sequence or one of the Audio Effect special memories.

If the chase step or Audio Effect special memory has already been programmed, the original data is overwritten.

Effect to Manual Master (via Memory Store)

An entire effect may be assigned to a Manual Master by first transferring it from the Effects section to the Memory Store (in Program mode only), and from there to the Manual Master (Run and Program). An effect on a Manual Master will be running permanently, and can be flashed/solo'd and faded in and out as for a static memory.

NOTES

- * **Previewing a Chase in the Memory Store**
Selecting a Chase in the Store as Next Memory, and Pressing Transfer (in the Memory Store Section), will display the chase on the preview lights, with the Next Memory display flashing. GO will be flashing in the Step No. display, along with the effect, attack and direction lights, as they were recorded into the store.
- * **Transferring Memories Blind**
It is not possible to transfer memories blind.
- * **Warning: B Preset**
Turning Blind on when transferring memories will cause the levels set on Preset B to be copied into the memory during transfer.

Inserting a Effect into the Store

- 1 Set up presets only.
- 2 Select **Program**.
- 3 Select the effect for transfer, and set the modifiers as required.
- 4 Select the memory in the store, after which the effect is to be inserted.
- 5 Whilst pressing **Insert**, press the Effect **Transfer** button.

Transferring a Manual Master to an Effect memory.

- 1 Press effect **Preview**.
- 2 Select chase pattern and step or Audio Effect special memory into which data is to be transferred.
- 3 Set the **Manual Master** fader levels.
- 4 Set **Master B** to zero (stops transfer of preset B levels into the step).
- 5 Press and hold **Program Step** and press the **Transfer** buttons of the **Manual Masters** to be added into the effects memory.

Using Level Match with the Chaser

- 1 Turn the keyswitch to **Run**.
- 2 Stop the chaser.
- 3 Use the manual **Step** button to advance it to the required chase step.
- 4 Press and hold effects **Preview** to lock preview on. Press the **Blind** button once. The channel **Preview** lights will flash quickly if the channel level needs to be reduced, slowly if it needs to be increased.
- 5 Adjust each Preset B fader, until all of the lights have stopped flashing, in order to recreate the step.

Clearing an Effect from Memory Store

- 1 Turn the keyswitch to **Program**
- 2 Ensure **Blind** is off and set **Master B** down to zero.
- 3 Select the chase to be cleared using the memory '+' and '-' buttons.
- 4 Press and hold **Program Memory** for 1 second to clear the effect from the store (*the preceding effect or memory number appears in the display*).

HINTS

- * Chases as extra Static Memories
A single step chase can be inserted into the store as an extra memory. Ensure the attack is switch on/off for this, as using a faded attack produces a pulsed effect.

Super User Operation - Main Options

Introduction

The Sirius 24 and 48 desks have an extensive range of options which are accessed in Super User mode.

Presets A and B work normally; the memory is disabled.

The principal options are:

- * Memory Card Storage
- * DMX Output Patch
- * Resetting a Sirius after Slave use
- * Clearing all the memories
- * Other Things- namely:
 - Desk Recovery after a power fail
 - Use of 'Clic Trac' feature
 - Use of Remote Masters feature
 - Disabling of the Channel Flash/Solo feature
 - Reversal of the direction of operation of the Preset Master A to give a dipless crossfade action
 - Setting up the desk serial communications
 - Testing of the communications connector
 - Memory Card testing
 - Inter Processor Link (IPL) testing

To access Super User:

- 1 Turn keyswitch to **Presets Only**
- 2 Press and hold down the Effects + and - buttons, then turn the keyswitch to **Program**; release both buttons.

The **Memory No** display shows

`SUPER USER`;

the **Autofade** display shows the software version number.

Slave Operation of Desks

Introduction

A Slave Cable (Stock No 00-298-00) is all that is required to connect two Sirius desks together. On the desk designated as 'Slave', the keyswitch is ignored except to allow the desk to be put into Superuser; only the channel **Presets** and **Flash** buttons are usable.

Connection

Plug the end of the cable marked 'Slave' into **External Control** DIN socket of the desk that is to be the Slave, then the other end into the Master. Turn the slave desk power Off then On again. 'Slave Only' will be shown in the **Memory No** display. Select Super User on the Master and perform the 'Clear All' operation. This will clear all the memories in both desks.

*To find out if a desk was last used as a 'Slave', remove any Slave cable and turn on the desk. A desk that was previously 'Slave' has the message 'Slave' permanently displayed in the **Memory No** display.*

Separation

Unplug the Slave cable from both desks and switch both off and on again. Go into Super User on the desk that was the Slave and perform 'Slave Off' followed by 'Clear All'. Repeat the 'Clear All' on the Master.

Memory Card Operation on Slaved Desks

Remove the Slave cable from both desks, turn the power **Off**, then **On** again on the Slave desk. Select Super User on the Master Desk; Save to the card and then Verify in the normal way. Repeat for the Slave desk. Turn both desks' power off, plug the Slave cable back in and turn the power on again on both desks. Mark each card 'Master' or 'Slave' - do not mix them up!

The Zero 88 Memory Card may be inserted at any time in the slot at the rear of the desk to the left of the gooseneck light (viewed from the front). The Card will store all the memories of a Sirius 24 or Sirius 48.

Send To Card

This stores the entire desk contents to a Memory Card and moves to the "Verify card" option.

Read In Card

Loads into the desk the memories that were previously recorded on the card.

For emergency use a 24 channel card may be loaded into a Sirius 48. If this is done, a 'Clear all' should be performed first as the contents of memories that affect channels 1 to 12 and 37 to 48 will not be overwritten during the read process and may therefore contain spurious data.

Verify Card

Compares the contents of a card with the existing memories in the desk to confirm to the user that these are the same. If not, the message 'Different' will be displayed.

Output Patch

The default DMX output patch is desk channel 1 to DMX channel 1, 2 to 2, 3 to 3, up to 48: 48.

It is possible to alter the patch see page 25.

Slave Off

Only if the desk was last used as a Slave, will the 'Slave Off' function appear. This is used to reset the desk after Slave operation.

Clear All

Resets ALL memories, fade times and effects to blank or zero and all options to default settings.

Other things

Accesses a large number of subsidiary controls, described on the next page (see page 28 for a full description of error messages that could occur when using the card).

Super User Operation - Main Options

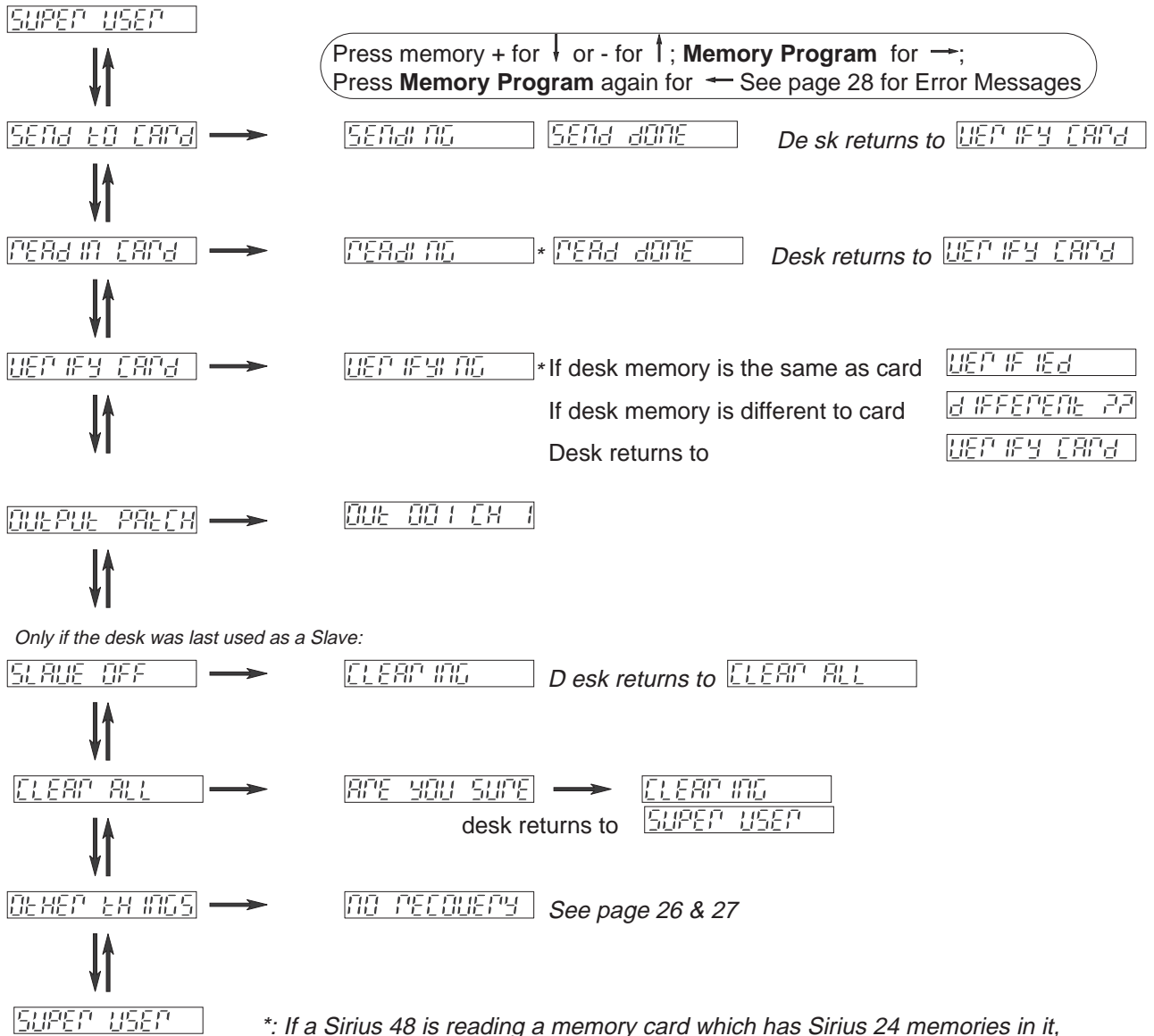
To program the DMX Output Patch

- 1 Select "Output Patch" from Super User.
Note: If the DMX card is not fitted the option is not available.
 Press Memory Program button to select this option; the display shows "Out 001 ch 01"
 This means that DMX output channel 001 is being driven by desk channel 1.
- 2 To select the desk channel which drives the DMX output channel, press the channel Flash button for the appropriate channel. For example, pressing channel 9 Flash button sets "Out 001 ch 09". This means DMX output channel 001 is driven by desk channel 9.
 Pressing the Memory + / - buttons will cycle through the DMX channels 001 to 512. Each of these outputs can be patched to any desk channel by simply pressing the appropriate Channel Flash button.

Whenever a change is made to the output patch the DMX outputs are **re-routed instantaneously**.

- 3 To turn a DMX channel off:
 press the Channel Flash button again. For example, pressing Channel 9 Flash button again sets "Out 001 ch —". This means that DMX output channel 001 is now turned off permanently.
- 4 When the Patch is complete Press the memory Program button to return to the "Output Patch" option in Super User.

High speed DMX Transmission.
 The desk only transmits up to the last DMX output channel that has been programmed. By keeping Programmed channels within a small number range, and unused channels turned off, the fastest possible refresh rate will be achieved.
 See page 31 for DMX card linking options.



*: If a Sirius 48 is reading a memory card which has Sirius 24 memories in it, the figures '24' will appear with these messages.

Super User Operation - Other Things

No Recovery / Recovery On

With 'Recovery On' set, any interruption in the power supply to the desk whilst it is in Run mode will **not** reset the desk when the power is restored; all the operating memories will be as they were when the power was lost.

With the 'No Recovery' option set, the desk is reset at switch on and '— —' appears in all the displays.

No Clic Trac / Clic Trac On

Clic Trac On should be set for use with Audio Visual equipment. When set, every tone in the band 100Hz to 150Hz received at the audio input will simulate one press of the 'Go' button.

To prevent spurious steps occurring, mix in a constant 2Khz tone to keep the desk's AGC gain down.

No Analog In / Analog In On

Analog In On enables 6 remote inputs which duplicate or replace the six manual masters. No Analogue In disables these inputs.

A Sirius Remote Masters Kit, Stock No 00-290-00 is available - see page 33.

Analog Flash / Analog Only

When Analog In On is set, the option Analog Flash / Analog Only appears.

With Analog Flash set, the input from the external masters is mixed with the level of the desk manual masters on a highest wins basis. With Analog Only set, the desk manual masters are completely disabled.

Remote operation needs a Remote Masters Kit, Zero 88 Stock No 00-290-00. Setting Analog In On when a kit is not fitted and connected may lead to unreliable manual master operation.

Channel On / Channel Off

The 'Channels Off' setting disables all the channel flash buttons from operation in both the 'Flash' and 'Solo' functions. With 'Channels Off' set, the 'Channel Flash/Channel Override' option will appear.

Channel Flash / Channel Override

When 'Channel Flash' is set, 'Flash to Level' will flash each channel/memory output to the level set by the flash master; if any output is already higher than this new level, it will be unaffected. On 'Channel Override', pressing the Flash button will take the affected channel outputs to the level set by the flash master even if this is lower than an existing level.

Dipless Off / Dipless On

'Dipless On' reverses the operation of master A so that Full On is when the fader is down. Crossfades are now achieved by moving preset Masters A and B in tandem. The red split dipless light next to Master A is lit when this option is selected. 'Dipless On' cannot be selected if the Grand Master is up. If it is up when the Program button is pressed, the message 'Fader is Up' will show in the display; move the Grand Master to zero and press Program again.

True Dipless / Pile Add

When 'Dipless On' is selected, the option 'True Dipless / Pile Add' will be displayed. In operation there is no apparent difference between these two options if the preset Master faders A and B are moved in tandem.

In 'True Dipless', the channel outputs will never exceed the level of the highest channel fader whatever the position of the preset Master faders.

Baud Rate Lo / Hi / IP / OP

Baud rate should be set to Lo for normal Slave operation; the other settings are used for other communication options.

Test DIN Input

Provides diagnostic information for service use; press Program to give the input band and voltage.

Test Card

In 'Test Card', press Program to show in the Memory No display:

An 'L' in the first character when the desk recognises that a card is loaded.

A 'P' in the second character if the card has the Protect switch set (a small sliding switch located on the back edge of the card).

The next characters show 'S=32' representing the size of the Memory Card.

The last characters show 'B=n.n' where n.n is the card battery voltage.

The normal voltage is between 2.7 and 3.3 volts; low voltage is 2.6 volts; below this the card will not work.

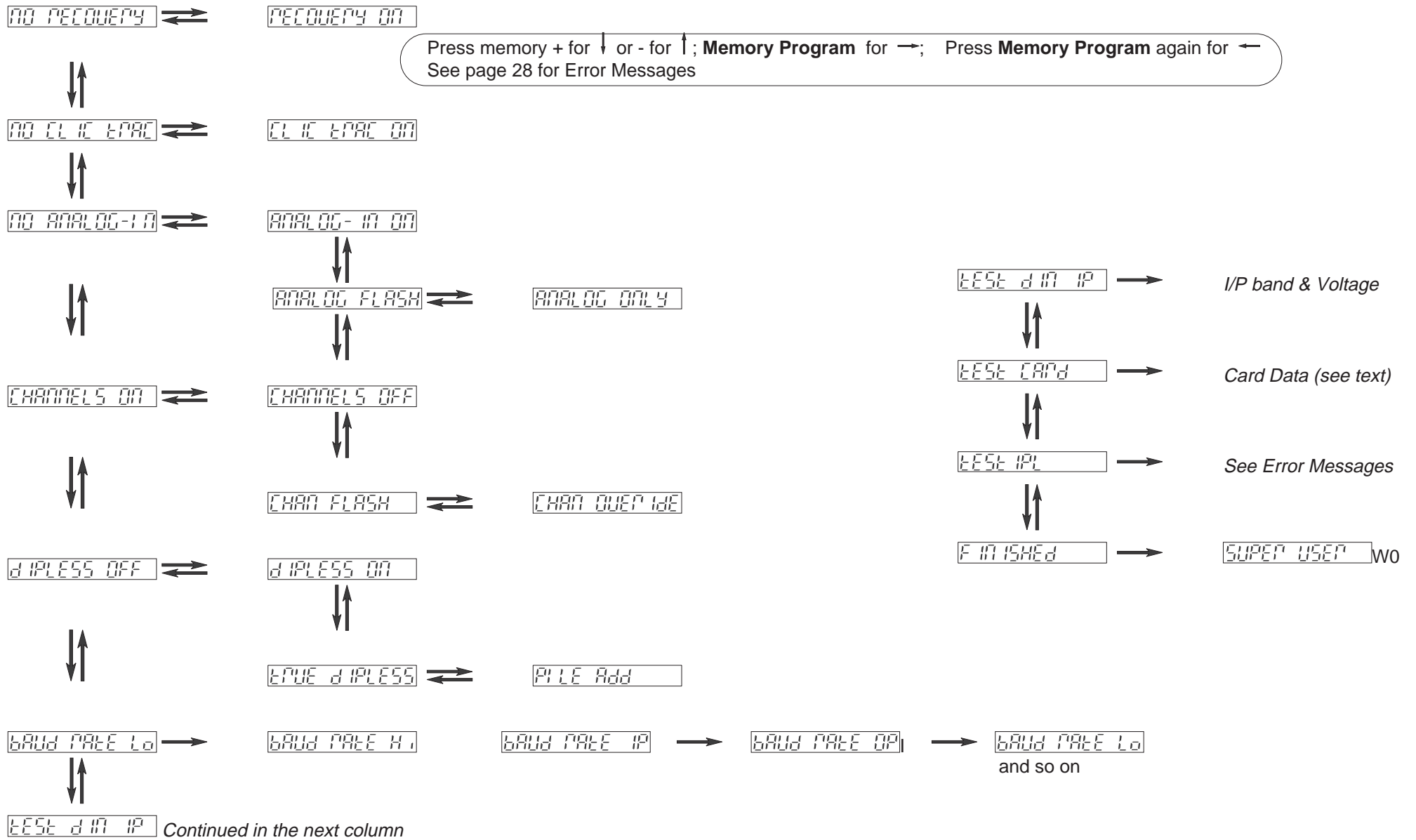
Test IPL

Provides diagnostic information for service use. Press Program to view any error message.

Finished

Pressing the 'Memory Program' button when 'Finished' is showing will return the display to Super User

Super User Operation - Other Things



Error Messages - Super User

ACCESS ERROR

Desk cannot access Memory Card

BATTERY LO

Memory Card battery is low. See Test Card on page 26

CORRUPT CARD

Memory Card is corrupt. Retry and mark as 'dead' if this happens more than once.

FADER IS UP

The Grand Master fader is not at zero whilst trying to select 'Dipless On' / 'Dipless Off'.

FOUND ERROR

Unable to find the Memory Card. It may have been removed during a Send, Read or Verify operation. Alternatively the card battery voltage may be low or fluctuating.

INSERT CARD

The Memory Card is not present or has not been inserted properly.

IPL FAULT

Inter Processor Link Fault (Sirius 48 only)

IPL FAULTY

Inter Processor Link Faulty - The desk may only have 'lost' channels 1 to 12 and 37 to 48 (Sirius 48 only).

IPL RUNNING

Inter Processor Link running normally (Sirius 48 only).

NOT A SIRIUS

The Memory Card that is plugged in was last used with another controller.

NO SEND DONE

Memory Card has no information on it - No send has been done to store the data.

PROTECTED

The Memory Card protect switch on the back edge of the card is set 'On'.

READ ERROR

Desk unable to read the Memory Card - check that the card is properly inserted.

SEND ERROR

Desk unable to send to the Memory Card - Try again and ensure that the card is properly inserted.


SLAVE LOST

Shows on a desk set up as a Slave if communications with the Master desk are not working properly. Turn off both desks, remove and reconnect the slave cable, and switch both desks back on again.

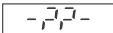
UNAVAILABLE

Indicates that there is only one processor board in a Sirius 24 when the Test IPL function is run.

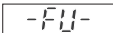
Memory Section

All Error Messages listed here have an  message in the **Next Memory** display.

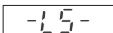
There are also the the following messages that can appear in the **Autofade** display:



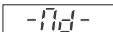
Desk puzzled! - a general button push error.
Hint. Check that the Memory Section of the desk is being previewed before programming a memory



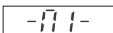
Full - the memory store is full.



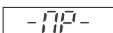
Lost Store - memory corrupted at turn-on; any cues in the Memory Store will have been lost, and all fade times will have been reset to zero. To restore the “—” display select Program, and with LS in the Next Memory display, hold Program on the Memory Section for 1 second.



No Delete - cannot delete memory



No Inserts - The maximum number of insert memories has been reached.



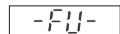
Not Programmed - an attempt has been made

whilst in program to transfer an unprogrammed memory to a Manual Master.

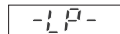
Effects Section

All Error Messages listed here have an  message in the **Step No** display.

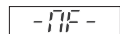
There are also the the following messages that can appear in the **Autofade** display:



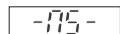
Full - the chaser is full. An attempt may have been made to add a hundredth step to a chase.



Lost Pattern - indicates that the chase has been lost and will have to be reprogrammed.



No Frames - indicates that the overall number of chase steps exceeds the maximum of 250.

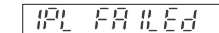


Not Stopped - appears if a chase has not been stopped before an attempt is made to edit or program it.

Inter Processor Link

The error message below can appear in the **Memory No** Display of a Sirius 48 only.

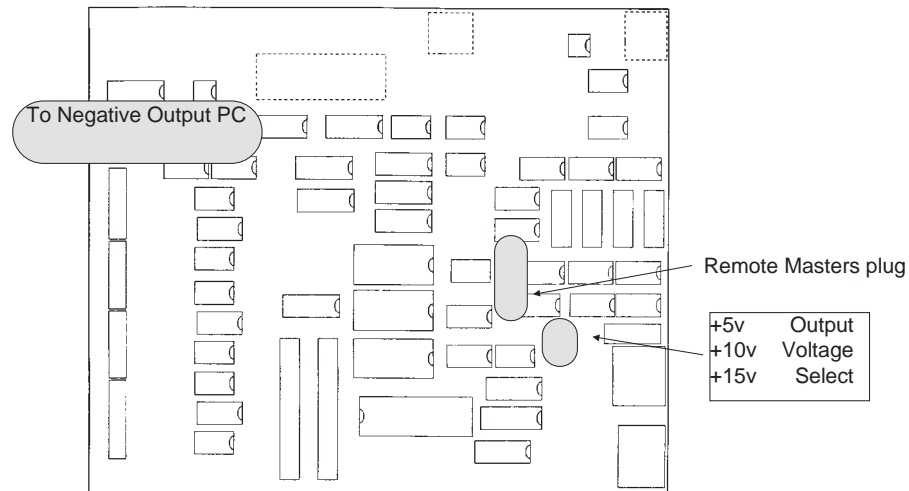
It will overwrite any information that is already there:



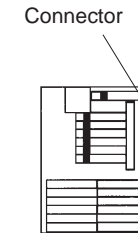
Inter Processor Link Failed - The desk may only have 'lost' channels 1 to 12 and 37 to 48.

Internal Connections and Adjustments

Sirius Main Board



Remote Masters Board



There are five internal connections and/or adjustments that may be made to the desk:

- Addition of an Output connector.
- Change of Mains Supply Voltage
- Change of Output Voltage
- Configuration of the DMX card.
- Addition of a Remote Masters Board.

All of these require the bottom cover assembly to be removed. Some require access to the Main Board (Sirius 48 has two Main Boards). A layout of this is shown above highlighting the components involved.

To remove the bottom covers:

- 1 Switch off the desk.
- 2 Remove the mains lead.
- 3 Remove the key.
- 4 Carefully turn the desk over with the outputs away from you.

- 5 Remove the four screws in the large bottom panel that are nearest you.
 - 6 Remove the four screws (two in each side plate) that secure the wide rear plate containing the rubber foot.
 - 7 Remove the bottom panel assembly.
- REASSEMBLE IN THE REVERSE ORDER.

Selecting different Analogue Output Voltages

The desk is supplied as standard with the **Output Voltage Select** links set to 0v to +10 volt. There are three link positions:

- 0v to + 5v
- 0v to + 10v
- 0v to + 15v

Repositioning these links changes the output voltage. ENSURE THAT THE LINK IS HORIZONTAL or the desk will not have any output voltage!

The Sirius 24 and 48 now come complete with DMX output as standard.

Unfortunately when adding this option as standard the fixing positions for the two other options have now been used.

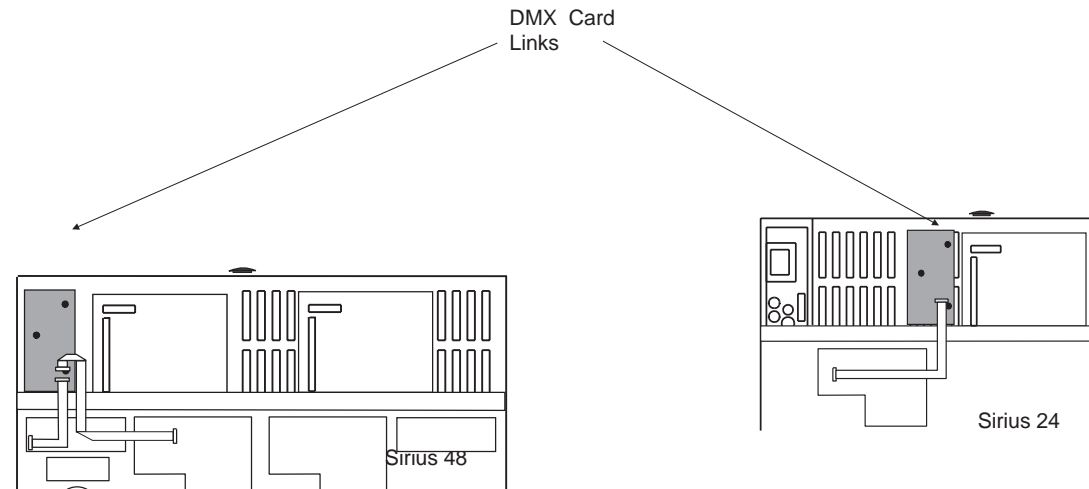
At present it is not possible to fit the Negative Output kit (00-291-00) or the Remote Master kit (00-290-00) to this desk as described.

They can however be fitted as described if the DMX card is removed first. If the DMX is not removed there is room to fit the extra options of a little ingenuity is used. We do however recommend that these modifications are carried out by your Agent or by a competent Service Engineer.

The normal warranty of items will not be affected by this modification if done competently by suitably trained or experienced technician.

Internal Connections and Adjustments

DMX Card Positions



DMX Desks Slaved

Where two desks (24 and/or 48) are being used in a Master and Slave configuration one DMX card is needed for each desk, with each one connected independently to its own demultiplexor.

Controlling the Dimmers

The DMX output from the Desk will normally be connected either directly to DMX 512 input dimmers or to 0 to 10v input dimmers using one or more Zero 88 demultiplexers. If required, both the DMX512 and 0 to 10v desk outputs may be used simultaneously.

DMX Cable Details

The maximum cable length between desk and dimmer / demultiplexer will depend on several factors including:

- Type of cable used
- Number of demultiplexers connected
- The electrical environment

Zero 88 recommend that shielded twisted pair cable approved for RS 422/485 (e.g. Belden 9841 or Alpha 5271) is used.

Communication over one hundred meters should normally be possible without problem, however for longer cable runs it may be necessary to fit a DMX termination plug (stock number 00-269-00) to the last Demultiplexer in order to ensure completely error free data transmission.

Substitution of microphone or other types of cable may be possible, but data transmission errors are more likely, particularly over long distances.

DMX XLR 5 Connections

XLR 5	DMX board
Pin 1 Yellow	0v signal common
Pin 2	1- Dimmer drive complement
Pin 3	1+ Dimmer drive true
Pin 4 Spare	2- Extra dimmer drive complement
Pin 5 Spare	2+ Extra dimmer drive true

DMX Card Links

Sirius 48	48	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	24	Sirius 24
1990 DMX	8 μ S	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	4 μ S	Old DMX
Send 512 Ch	1	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	A	Send Prog Ch
Factory Test	2	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	B	Normal Open
Unused	3	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	C	Unused

Link settings are shown at default, except link 1 desk size.

DMX Card Link Settings.

Link 1:

Selects Sirius 48 / Sirius 24

Link 2:

Selects the Pre 1990 DMX standard or the later 1990 DMX standard. (The 4 / 8 μ S refers to the timing between the Break and the first transmitted Character and is actually either 4 or 8 microseconds).

Link 3:

Selects whether all 512 channels of DMX data are sent or whether programmed channels only are sent.

Link 4:

Selects Factory Test.

Link 5:

Currently unused.

Internal Connections and Adjustments

Fitting an Analogue Output Connector Kit - Sirius 24

- 1 Remove the appropriate plastic plug(s) from the rear panel.
- 2 Fit the connector(s) in the holes using the screws and nuts supplied.
- 3 Wire the leads from each connector on the Main Board to the terminal block following the instructions supplied with the kit, or to your own requirements.

Fitting an Analogue Output Connector Kit - Sirius 48

- 1 Assemble the kit of connector(s) onto the new panel supplied.
- 2 Remove the blank part of the desk panel and fit the new panel complete with connectors.
- 3 Wire the leads from each connector to the terminal block on the Main Board following the instructions supplied with the kit, or to your own requirements. The left hand Board controls channels 1 - 12 and 37 - 48; the right hand Board controls channels 13 - 36.

Changing the Mains Fuse and Supply Voltage

The fuse is located on the power supply pcb at the top left corner of the desk, next to the mains input connector (**Sirius 24**), or at the bottom left of the desk (**Sirius 48**).

The position of the mains fuse in one of two fuse clips is used to select 110V or 240V operation. The desk will work on 50 or 60 Hz without adjustment.

IMPORTANT:

- 1 The desk must have only ONE fuse fitted, in EITHER the 110V OR the 240V position.
- 2 For **Sirius 24**, the fuse value depends on the supply voltage:
For 200 - 250v use a 100mA T (Anti Surge) fuse
For 100 - 120v use a 250mA T (Anti Surge) fuse

For **Sirius 48** use a 250mA T (Anti Surge) fuse for either supply voltage setting.

Fitting a Remote Masters Board

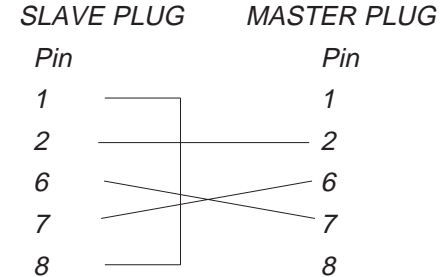
Identify the Sirius Main Board (the right hand board in a Sirius 48)

Hold the Remote Masters Board with the components to the right and plug the connector onto the plug in the position shown opposite.

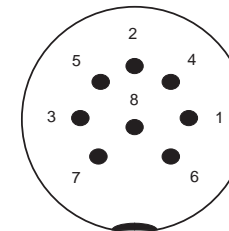
Fitting other additional Printed Circuit Boards

Follow the instructions enclosed with the circuit board.

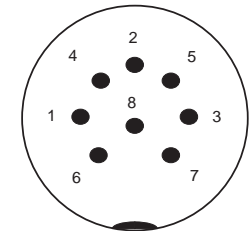
Slave Cable Connections using 8 Pin DIN Plugs



DIN Pin Connections



8 Pin DIN Plug
View of PINS



External
Control Socket

Note: Remote 'GO' Operation

An external contact closure (switch or relay) which shorts pin 1 to pin 8 on the External Control Socket will duplicate the operation of the 'GO' button.

Neither Pin should be connected to any external voltage or earth

Standard Outputs

0 to +5, +10V, or +15V (internally selectable)
DMX 512 1990, (Pre 1990 option selectable)

Mains Input

200 to 260V, or 100 to 130V (internally selectable) 50 or 60Hz

Audio Input

Stereo, greater than 30mV.
Input impedance 22K Ohms

To change the Mains Fuse

The position of the mains fuse in one of two fuse clips in the Sirius is used to select 110V or 240V operation. To change the fuse or its position,

Switch the desk off and remove the mains plug, remove the key, and carefully turn the desk upside down. Unscrew the base panel (ten screws), and remove by lifting the rear edge, and gently pulling back from the front mounting. Remove the four screws in the side panel of the Sirius, and lift off the smaller back base panel. The fuse is situated in the back corner of the desk. Simply pull out and replace. Reassemble the desk in the reverse order.

IMPORTANT:

The desk must have only ONE AntiSurge (T) fuse fitted, in EITHER the 110V OR the 240V position. See previous page for the value.
DO NOT USE THE WRONG VALUE OR TYPE.

WARNING - Mains Supplies:

If the Sirius' memory is frequently being corrupted, it is probably due to a "dirty" mains supply. Zero 88 have designed a Mains Conditioning Unit (Part No 00-140-00), which can be installed to solve this problem and also prevent high voltage spikes on the mains supply causing damage.

Options and Accessories

For the **Sirius 24**:

- 00-294-00 Socapex Output Kit
 - 00-490-00 Ring Locking DIN Kit
FOUR required for each Sirius
 - 00-492-00 XLR7 Output Kit
FOUR required for each Sirius
 - 00-493-00 Bleecon Output Kit
FOUR required for each Sirius
 - 00-299-00 Flight Case for 24 ch Sirius + MCU
- For the **Sirius 48**:
- 00-303-00 8 x Bleecon Output Kit
 - 00-304-00 Twin Socapex Output Kit
 - 00-305-00 8 x XLR7 Output Kit
 - 00-306-00 8 x Ring Locking DIN Kit
 - 00-289-00 Flight Case for Sirius 48 + MCU

For **both** Sirius Desks:

- 00-290-00 Remote Masters Kit
This provides the necessary cables, pcb and connectors to enable the Manual Masters to be remotely duplicated by a fader panel or a simple switch or touchpad.
- 00-291-00 Negative Output Kit:
This provides a second set of negative output voltages at the same level as the positive outputs. ie if the Sirius is set to +5v output, the negative kit will give a -5v output.
(TWO are required for a Sirius 48)
- 00-292-00 32kb Memory Card
- 00-293-00 Gooseneck Light
- 00-298-00 1m 8way DIN Cable for linking Desks

Options and Accessories (Continued)

00-140-00 Mains Conditioning Unit (MCU)
This prevents very noisy mains supplies from corrupting the Sirius' memories. Limited mains conditioning is built into the desk as standard

Complementary Products

Alpha Pack

A 3 channel power controller with local control and remote control input.

Betapack

Rack/Wall mounting dimmer pack with 6 channels x 10A

Betapack Plus

Rack/Wall mounting dimmer pack with 6 channels x 10A and Local Control

Contour

Rack mount 12 Channer Digital dimmer 10, 16 or 25 Amp Output.

ID 1216 or ID 625

Ready to go portable digital dimmer 12 x16 Amp or 6 x 25 Amp.

The Memory Card (00-292-00) uses a BR2325 battery. This is easily available from Radio Shack/Tandy as their Cat. No. 23-168

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