KALEIDOSCOPE ™

Effects & Colour Control
Software for GENIUS

Operator's Manual

Strand Lighting

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Introduction 1

Kaleidoscope is an additional software package for Strand Lighting's GSX/LBX consoles and is part of the **Genius** range of lighting software. Once installed, it will allow you to:-

- Use Colour Scrollers controlled by frame number, independant of the Grand Master setting.

- Use a sophisticated range of special effects to enhance your productions.

About this Manual

This manual is part of the **Genius** range of software and should be used only in conjunction with Strand Lighting's **Genius** software range and relevant lighting consoles.

The other Operator manuals in the series are as follows:-

- GENIUS   Lighting Software

- COMMUNIQUÉ   Communications Software

The manuals form an integral part of the product, please ensure they are kept in a safe place, preferably with the console.

Registering Your Software

Please ensure you complete the supplied registration card and return it to your nearest Strand Lighting office.

Registration information and how to load Application software is covered in the Genius Operator's Manual, Chapter 3 **Software Installation.**

Notes

Colour Channels

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Colour scrollers can easily be used with GSX and LBX consoles. In colour mode Channel Control settings specify the colour frame number required, as opposed to light levels. Channels can be allocated either as intensity or colour but not both.
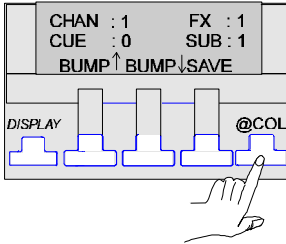
In order to differentiate between selecting light levels, as in intensity channels, and colour frames, the @COL key is used instead of the @ key.

> *It is not possible to have a channel sharing both colour and intensity levels at the same time.*

Scrollers must first of all be assigned to channels in the PATCH screen. The setting of the number of frames is done here also.

> *Frame numbers start at 0. For 11 frame scrollers, the console can be configured in SINGLE and DOUBLE DIGIT modes. For scrollers that use more than 11 frames, the console must be configured in DOUBLE DIGIT mode only.*

Patching Colour Scrollers

Go to the PATCH screen.
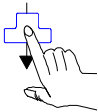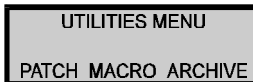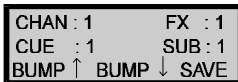
The DIM number (mux address) becomes the actual colour scroller number. The scroller then needs to be assigned to a channel (see your scrollers handbook on how to set the mux address on your unit). For instance if you had 3 scrollers they could be assigned as in the following examples. **(* must always be pressed in this screen)**

25 @COL 25 < * >
Assigns scroller 25 to channel 25

```
PATCH : 25 @FRAME 25

Set Patch for Level, Colour and Non-Dim channels
```
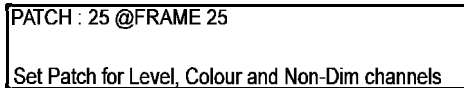
PATCH SCREEN COMMAND LINE SECTION

> *On the VDU the **@COL** key is always displayed as @FRAME whilst the normal @ key is displayed as @PATCH.*

26 @COL 26 < * >
Assigns scroller 26 to channel 26.

27 @COL 27 < * >
Assigns scroller 27 to channel 27.

The patch screen shows colour channels in **grey.**

```
09:00:00  01 / 08 / 93              PATCH           195 Free cues        GM = FL

DIM   1     2     3     4     5     6     7     8     9     10    11    12
CHN   10    10    11    11    11    11    11    11    11    12    13    14
      100%  70%  100%  100% 100% 100%  100% 100%  100% 100% 100% 100%
DIM   13    14    15    16    17    18    19    20    21    22    23    24
CHN   13    14    15    15    15    15    19    20    21    22    23    24
      80N   50N   80N   80N   80N   80N   80N  100% 100% 100% 100% 100%
DIM   25    26    27    28    29    30    31    32    33    34    35    36
CHN   25    26    27    28    29    30    31    32    33    34    35    36
      10    10    10   100% 100% 100% 100% 100% 100% 100% 100% 100%
```

SCROLLER NUMBER (mux address)
ASSIGNED CHANNEL
MAX. FRAME SETTING

Once colour channels are patched they will also appear in **grey** on the OUTPUT screen.

Setting Frames

> *0 is always the first frame. Ensure the maximum frame setting is the correct one for your particular scroller or erratic scrolling may occur.*

11 frame scrollers or less

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

11 FRAME SCROLLER

The default maximum frame number is 10, this caters for the common 11 frame scrollers and no further setting up is required.

Scrollers with more than 11 frames

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

15 FRAME SCROLLER

To set the maximum frame number for a 15 frame scroller you must first of all **ensure you are in Double Digit mode.** Then, in the PATCH screen key in:-

25 @COL @COL 14 < * >
Sets scroller 25 to a maximum number of 15.

```
┌─────────────────────────────────────────────────┐
│ PATCH : 25 @FRAME   @FRAME 9                      │
│                                                   │
│ Set Patch for Level, Colour and Non-Dim channels │
└─────────────────────────────────────────────────┘
```

25 THRU 27 @COL @COL 14 < * >
Sets all three scrollers to a 15 frame maximum setting.

> *If you are not in double digit mode, frames above 11 cannot be entered in the OUTPUT screen.*

Unpatching

Any scroller patched to Channel 0 will become unpatched, or alternatively:-

25 @ < * >
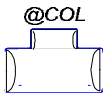Will unpatch dimmer 25.

25 @COL < * >
Will also unpatch scroller 25.

Any dimmer that is already patched and gets re-patched to a new channel will be automatically de-patched from the old channel without warning.

Colour Keys

The function of these keys are as follows:-

@COL

Channels 25 to 27 have been patched as colour channels and SINGLE DIGIT format is enabled. In the OUTPUT screen, set channels to:-

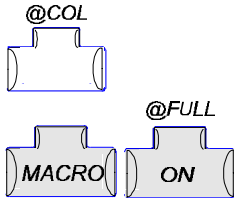|	
25 @COL 5 *	Sets the scroller on channel 25 to colour frame 5.
26 @COL 4 *	Sets the scroller on channel 26 to colour frame 4.
27 @COL 0 *	Sets the scroller on channel 27 to colour frame 0 (the first frame).
25 THRU 27 @COL 2 *	Sets all scrollers to colour frame 2.

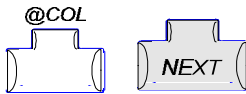> *@COL has no effect if used with intensity channels.*

@COL @FULL

@COL

MACRO

@FULL

ON

In either digit mode, this combination of keys, act as a quick way to access the last, or final, frame in the scroller.

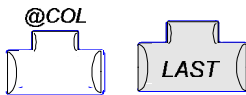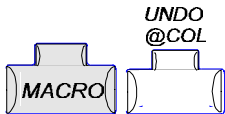**25 @COL @ FULL (MACRO ON) *** Sets scroller on channel 25 to its last frame.

@COL NEXT

@COL

NEXT

Selects the next colour frame in sequence.

@COL LAST

@COL

LAST

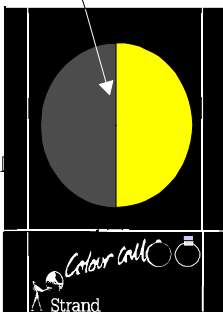Selects the previous frame in the sequence.

UNDO @COL
(MACRO @COL)

MACRO

UNDO
@COL

Restores all colour channels to their previous states, that is the ones they were in before the @COL key was last used on this current selection.


Part Scrolling

SPLIT FRAME EFFECT

When in the OUTPUT screen, once a frame has been selected it is possible to move to another frame by using the wheel, this allows for part scrolling. This is useful for special effects or aligning frames that may be slightly out of sync.

Colour Call
Strand

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Advanced Effects

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Up to 30 effect memories may be stored, three of which may be active and run simultaneously. Instructions to set up and run effects are given in the Genius Operator Manual Chapter 10 **Basic Effects.**

Effect Types

Six effect types are available, a summary of their functions is given below.
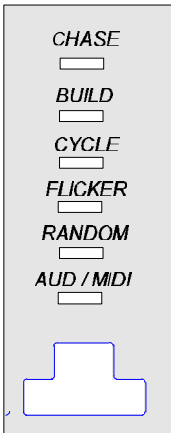
- **Chase:** Each step is played back in sequence. Only one step is on at a time.

- **Build**: Similar to Chase, only each step remains on as the sequence advances. After the final step all steps are switched off and the Build repeats.

- **Cycle**: Similar to Chase, except that each step is performed as a dipless crossfade and not a straight on/off action.

- **Flicker:** Random steps are selected and played back at a random output level. Only one step is on at a time.

- **Random**: Random steps are selected and played back at full level. Only one step is on at a time.

- **Audio/Midi**: This is similar to a chase but each step is triggered by an external Audio or Midi timing signal. External sources for these signals are required to be connected to the rear of the console using the AUDIO or MIDI sockets.
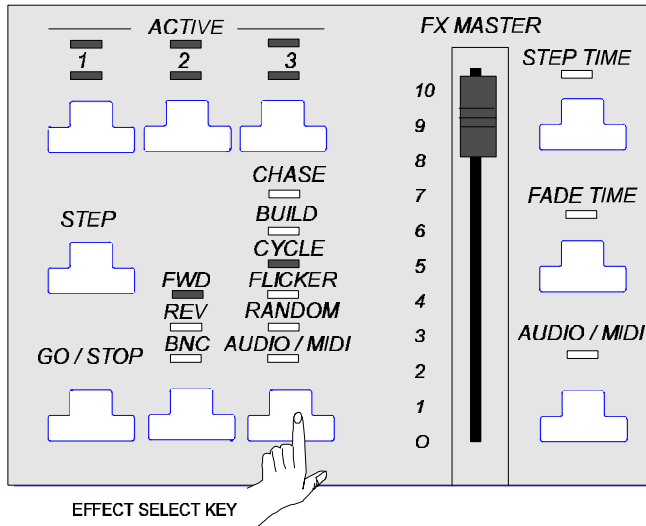
EFFECT SELECT KEY

Once your effects are loaded into the Playback the effect select key can be used to change the effect type. This can be done after loading or when the effect is running. Changes done in this way are temporary and the original effect type programmed will apply if the effect is reloaded.

Audio Midi

The AUDIO/MIDI effect is dependant on external sources, the first uses AUDIO frequencies and the second uses MIDI timing pulses. these are selected in the SETUP menu.

**For Audio equipment:-**

AI 5 pin DIN sockets
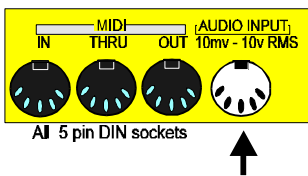
1. Connect the output of the sound device to the audio socket. The pin connections are shown in **Appendix B** of the Genius Operator Manual.

2. Go to the SETUP screen and set the **Effect Trigger** to AUDIO BASS BEAT.

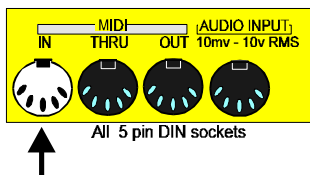| SETUP	
Console	
Channel Control Mode	DIRECT 2 DIGITS
Effect Trigger	AUDIO BASS BEAT
DMX IN Mode	OFF
Submaster Fade times	MANUAL
External Subs. Scale %	100
C/D Mode	72 x 1 SCENE 24 SUB

3. Return to the EFFECTS PREVIEW screen, set up effect steps as required and set **Type** field to:- AU/MI

FX Step	Type	Dir	Fade T	Step T
1.1	AU/MI	FWD	5/5	0.1
1.2	AU/MI	FWD	5/5	0.1
1.3	AU/MI	FWD	5/5	0.1
1.4	AU/MI	FWD	5/5	0.1
1.5	AU/MI	FWD	5/5	0.1
1.6	AU/MI	FWD	5/5	0.1

4. Go to the OUTPUT screen and load effect into the Playback.

5. Play the audio device.

6. Press **GO** to start the effect running.

7. Hold down the AUDIO/MIDI key and move the wheel to adjust the trigger level.
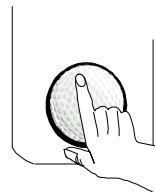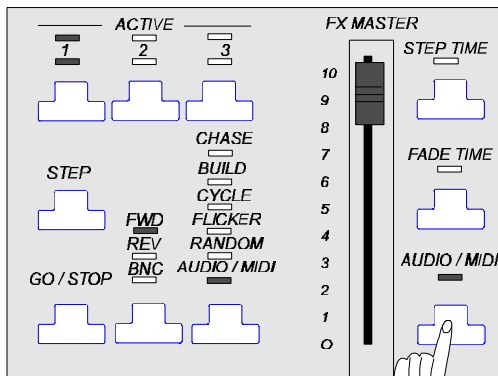
For Midi equipment

All 5 pin DIN sockets

1. Connect from the MIDI OUT of the device to the MIDI IN of the console.

2. Go to SETUP screen, set the **Effect Trigger** field **t**o MIDI TRIGGER.

```
                        SETUP
                       Console
Channel Control Mode        DIRECT 2 DIGITS
  Effect Trigger            MIDI TRIGGER
DMX IN Mode                 OFF
Submaster Fade times        MANUAL
External Subs. Scale %      100
C/D Mode                    72 x 1 SCENE 24 SUB
```

3. Return to the EFFECTS PREVIEW screen, set up effect steps as required and set **Type** field to:- AU/MI

.

```
                    Effects Sheet
FX Step       Type      Dir     Fade T     Step T
  1.1        AU/MI      FWD      5/5         0.1
  1.2        AU/MI      FWD      5/5         0.1
  1.3        AU/MI      FWD      5/5         0.1
  1.4        AU/MI      FWD      5/5         0.1
  1.5        AU/MI      FWD      5/5         0.1
  1.6        AU/MI      FWD      5/5         0.1
```

4. Go to the OUTPUT screen and load effect into the Playback.

5. Play the Midi device, pulses will be sent known as Midi Timing bytes. These pulses can be altered by modifying the tempo of the piece being played. The effect will speed up or slow down with this tempo.

6. Press **GO** to start the effect running.

5. Hold down the AUDIO/MIDI key and move the wheel to fine tune the effect step rate with the tempo.
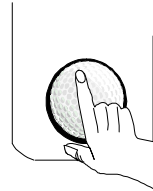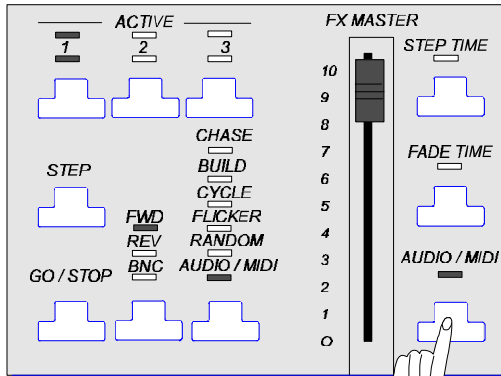
Full Midi implementation on GSX/LBX is given in the COMMUNIQUÉ package.

Notes

Sound to Light Submaster

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Within the Kaleidoscope package there is also the facility to have the channels assigned in a Submaster mastered by an audio signal. In this case all the channels in that Submaster will vary in level according to the volume of the sound.

The Submaster fader masters the final Submaster output.

To set up this feature:-

1. Go to the **Submasters** screen and assign required channels. The levels you set them at will not be exceeded by the audio signal.

2. In the **Function** field set the Submaster to S/LIGHT.

```
┌─────────────────────────────────────────────────┐
│                   Submasters                     │
├─────────────────────────────────────────────────┤
│ SUB:  In/Out  Function  Macro  Inhibitive  SUB:  In/Out │
│  1    0 / 0   [ S/LIGHT ]  OFF    NO        13   0 / 0   │
│  2    0 / 0     LOCAL     OFF    NO        14   0 / 0   │
│  3    0 / 0     LOCAL     OFF    NO        15   0 / 0   │
│  4    0 / 0     LOCAL     OFF    NO        16   0 / 0   │
└─────────────────────────────────────────────────┘
```

3. Connect the output of your audio device to the console's audio input.

4. Play the device and adjust the Submaster fader between 0 and full to master the sound to light effect.