



## **Anycolour IR Memory Unit : Installation Guide**

The Anycolour IR memory unit is controlled from an Anycolour IR remote control and emulates the operation of either a CD01 or CD02 ColourDesk. It has 56 memories which can store all the front panel and internal settings of a ColourDesk, subsequently reproducing the corresponding ColourDesk DMX outputs at the touch of a button.

The memory unit should be powered from +5 Volts supplied via by a Category 5 cable with RJ45 connector (as supplied) which also carries the DMX signals. This is simply accomplished by connecting the RJ45 cable to the memory port provided on an Anycolour DMX to DFB interface, or to an Anycolour light fitting with an internal DMX interface. The DMX addressing on interfaces or fittings should be set as appropriate for a CD01 or CD02 (see manuals, or page 3). Only one memory unit should be used in any DMX installation.

### **Initial installation procedure overview**

1. Check Sw1 on PCB is ON for CD01 or OFF for CD02 emulation as required.
2. Set Sw 3 Off for 3 colour (RGB) fittings or On for four colour (RGBY) fittings.
3. Use supplied RJ45 cable to connect to +5 Volt supply and DMX data line.  
(If being used with Anycolour DMX to DFB Interface, connect to memory port)
4. Set DMX addressing on any DMX light fittings and on DMX to DFB interface unit (if used) for correct RGBY CD01/02 output addressing.

### **DMX to DFB interface settings :-**

Both the MFL and FCL potentiometers on the interface should be set fully counter clockwise to zero.

In CD01 emulation, set the DMX address to 13 and DIL switches 1,2 and 3 to ON

In CD02 emulation, set the DMX address to 193 or above and Interface DIL switches 1 and 2 to OFF with switch 3 ON.

ANYtronics Ltd  
Units 5/6,  
Hillside Industrial Estate  
London Road  
HORNDEAN  
Hants  
PO8 0BL UK

Tel : +44 (0) 2392 599410 Fax : +44 (0) 2392 598723

Email : [sales@anycolour.com](mailto:sales@anycolour.com) / [sales@anytronics.com](mailto:sales@anytronics.com)

Web : [www.anycolour.com](http://www.anycolour.com) / [www.anytronics.com](http://www.anytronics.com)

## **Anycolour IR Memory Unit** : One page 'At a glance' operational guide

### **Recall Preset Memory**

Press and release appropriate memory button on remote.  
Blue IR LED flashes to show that the command has been actioned.  
Yellow data LED flashes to show transfer of data from memory.  
(This flash is shorter than the blue flash if this memory data was already in use.)

### **Sequence playback**

There are eight recorded sequences, each of up to 31 memorised cycles. Multiple occurrences and immediate repeats of memory numbers can be programmed into sequences.  
Select sequence number by first selecting memory 1-8.  
Then press and release Auto button on remote to start sequence playback.  
Blue IR LED flashes to show that the command has been actioned.  
Red LED comes on to show in Auto.  
Yellow data LED flashes to show each transfer of data from memory during sequence. (Shorter flash if memory is immediately repeated in sequence.)  
Blackout and changes in Master level can be commanded during sequence playback. They will stay in force throughout the sequence.  
Sequence playback will repeat until a Preset memory is recalled from the remote, when the corresponding memorised cycle will be recalled and the red LED extinguished.

### **Blackout**

Toggled on/off with the Blackout button on the Anycolour IR remote.  
The blue IR LED flashes to show that the command has been actioned.  
Can be commanded during playback of one cycle or during playback of a sequence of cycles.  
Memory unit toggles back from Blackout (ie lights back on) when a new memorised cycle is recalled.  
NB Colour cycles programmed from a ColourDesk whilst in Blackout will not be in Blackout during playback. Blackout is now a function of the remote not of the programming ColourDesk.

### **Master level changes**

Up and Down Master level changes can be commanded from Anycolour IR remote.  
Normally a short repeated flashing on the blue IR LED shows commands have been actioned.  
If blue IR flashes only on first pressing the up/down button, the level is already full up or full down so the command cannot be actioned further.  
Level change commands stay in force throughout cycle or sequence playback until a new memorised cycle is manually recalled via the remote, or the level is changed from the remote.

### **Sequence programme mode**

Select sequence number to be programmed by first selecting memory 1-8.  
Then press and hold down Auto button on remote until red LED pulses (takes 1-2 sec).  
(Pressing Auto button again cancels programming without erasing the previous sequence.)  
Press the remote buttons to command the sequence of memorised cycles required.  
Red LED continues pulsing whilst recording this sequence.  
Blue IR LED and yellow data LED flash to show each new cycle programmed into sequence.  
(Shorter flash on yellow when a memory is immediately repeated in a sequence.)  
End recorded sequence by pressing Auto button again. The red pulsing LED goes off.  
If sequence length reaches the 31 memory limit during programming, the red LED goes off as the unit leaves the sequence programming mode.



### **Installation : DMX Output addressing**

The DMX output of the memory unit is identical to the DMX output of the ColourDesk that is being emulated. Correct DMX address setting is vital to the operation of the installation. If a ColourDesk drives the light fittings correctly via DMX connection, then so will the memory unit when in the equivalent emulation mode. Details of the DMX addressing are reproduced below from the relevant ColourDesk manuals.

#### **ColourDesk 1 : DMX data output addressing**

channels 1 - 4 : R,G,B,Y linear output data (for LEDs etc)  
channels 5 - 8 : R,G,B,Y linear power data (for incandescents)  
channels 9-12 : R,G,B,Y cold cathode data (for neon / argon etc)  
channels 13-16 : R,G,B,Y fluorescent data

#### **ColourDesk 2 : DMX data output addressing**

channels 1 - 64 : R,G,B,Y linear output data (for LEDs etc)  
channels 65 -128 : R,G,B,Y linear power data (for incandescents)  
channels 129 -192 : R,G,B,Y cold cathode data (for neon / argon etc)  
channels 193 -256 : R,G,B,Y fluorescent data

with the channel addressing organised as 16 sets of RGBY data (A to P) thus :-

	A	B	C	D	E	F	G	H
Linear data	1 - 4	5 - 8	9 -12	13 - 16	17 - 20	21 - 24	25 - 28	29 - 32
Linear Power	65 - 68	69 -72	73 -76	77 - 80	81 - 84	85 - 88	89 - 92	93 - 96
Cold Cathode	129 -132	133 -136	137 -140	141 -144	145 -148	149 -152	153 -156	157 -160
Fluorescent	193 -196	197 -200	201 -204	205 -208	209 -212	213 -216	217 -220	221 -224
	I	J	K	L	M	N	O	P
Linear data	33 - 36	37 - 40	41 - 44	45 - 48	49 - 52	53 - 56	57 - 60	61 - 64
Linear Power	97 -100	101 -104	105 -108	109 -112	113 -116	117 -120	121 -124	125 -128
Cold Cathode	161 -164	165 -168	169 -172	173 -176	177 -180	181 -184	185 -188	189 -192
Fluorescent	225 -228	229 -232	233 -236	237 -240	241 -244	245 -248	249 -252	253 -256

Four colour fluorescent light fittings (such as Anycolour DFBs) should be set with addresses at 193, 197, 201 etc through to 253, in order to use the RGBY fluorescent compatible information for each fitting.

Three colour light fittings such as RGB LED fittings should be set with addresses 1, 5, 9, 13 etc to 61 to use only the first three channels of data (RGB) from each set of four channel (RGBY) data.

To use the CD02 split phase lighting feature, fittings should be addressed symmetrically around fitting H and I for an even number of fittings, or symmetrically around fitting I for an odd number of fittings, and the appropriate jumper setting for an odd or even number of fittings must also be made on the programming CD02. (See CD02 manual) This setting will then be programmed into the memory unit.



## **Anycolour IR Memory Unit : USER GUIDE**

### **1.0 Memory Unit Overview**

The Anycolour infra red memory unit is controlled from an Anycolour remote control. This has 28 buttons labelled 1-28 for saving and recalling colour cycles programmed into the unit from a ColourDesk. There are also Blackout (Off), Auto, and Master level Up and Down buttons on the remote control.

The front panel of the memory unit has four LED indicators and an infra red receiver port. The green power LED shows when the unit is powered up, whilst the yellow data LED indicates that the unit is receiving suitable programming data from a ColourDesk when on, or that a memory recall operation is being executed. The blue LED indicates the acceptance and execution of an IR command from the remote control, whilst the red LED indicates that the unit is playing through one of a sequence of preset memories

On the rear of the PCB is an 8 way DIL switch used to select different operational modes. Usually all of these will be set to 'Off'. The function of each of these switches is described in the table below.

Switch	Off	On
1	CD02 emulation	CD01 emulation
2	Memory unprotected	Memory Protected
3	Access memories 1-28	Access memories 29-56
4	Master level adjust	Speed adjust
5	T8 and T5 HE fittings	T5 HO fittings
6	Normal DMX output	Simple DMX output
7	Normal operation	T5 HO simulation of HE
8	Normal operation	Restore Factory settings

Sw1 should be set for CD02 emulation (Off) or for CD01 emulation (On) before proceeding any further.

### **2.0 Guide to Operation**

#### **2.1 Overview**

By connecting the memory unit to the DMX output of a ColourDesk, the memory unit can be used to store 56 different front panel setups (colour cycles) from the ColourDesk. This is best done whilst the ColourDesk is also connected to the target lighting system so that the desired effects can be seen as they are being programmed into the memory unit.

If the ColourDesk is then disconnected, the DMX output of the memory unit will take over and will match the DMX output of the ColourDesk, producing the colour cycles stored in its memories as if they came from the ColourDesk.

#### **2.2 Recalling Preset Memories**

With the power applied, the memory unit will power up and, if no DMX data is detected within 2 seconds, it will start to output a colourcycle as DMX data from the most recently accessed memory. After the equipment has been powered down, the last manually selected preset memory will be automatically reselected on powering up again. In this way the same preset colour cycle can be used if



required day in, day out, and will be automatically reselected on powering up after a power failure.

Preset memories can be recalled by depressing the appropriate button on the remote. The blue IR LED will flash indicating that a command has been received, and the yellow LED will flash to indicate that the corresponding memory contents have been recalled. Note that the remote control has only 28 memory buttons, whilst the memory unit has 56 memories which are accessed in two banks 1-28 and 29-56 as selected by switch 3 on the memory unit DIL switch. As supplied, the lower memory bank is programmed with three colour cycles and the upper memory bank with four colour cycles (see table at the back of these notes).

The 'Off' button on the remote provides a Blackout facility which will toggle the lights on and off. If a memory is recalled whilst in Blackout, the Blackout status is toggled off and the lights will come on again according to the memory contents.

### **2.3 Parameter adjustment**

At any time, the overall illumination level can be temporarily adjusted by using the Master 'Up' and 'Down' buttons (on the top right of the remote) to increase and decrease the setting of the Master level control. Note that these altered settings are not saved so that the selection of a new preset memory from the remote will download the memorised preset Master level to override these temporary adjustments. The blue LED on the front panel will flash whilst the Up or Down buttons on the remote control are depressed but will stop responding to the remote inputs once the Master level is full up or down.

By switching DIL switch 4 to ON, these controls can be used instead to alter the speed of a memorised cycle, and again any adjustments are lost when the next memory is recalled.

### **2.4 Re-programming Presets**

The Anycolour memory unit is supplied with pre-programmed preset memories for both three and four colour cycles as described in the table at the back of these notes. All of these preset memories can be easily reprogrammed from an Anycolour ColourDesk, but before any such reprogramming will be possible, the memory protect switch (DIL Sw2) on the memory unit must be set to Off.

Use a ColourDesk 1 or 2 for re-programming the presets according to the selected emulation mode of the Memory unit. The DMX output of the ColourDesk should be connected to the DMX output of the memory unit (eg by connecting both to the data ports of an Anycolour DMX to DFB converter). Provided that the emulation mode of the memory unit matches the ColourDesk (ie CD01 or CD02) and the memory protection is disabled, both the Power and Data LEDs of the memory unit should be lit, the yellow data LED indicating the presence of suitable programming DMX data.

Disconnecting the ColourDesk will extinguish the Data light on the memory unit. After two seconds, the memory unit will automatically take over control of the DMX line, with the same colour cycle being output from the memory unit as was being output from the ColourDesk. The memory unit has retained the ColourDesk settings as an emergency backup option, but these settings will be lost when powered down, when a preset memory is selected, or when the ColourDesk is reconnected to the DMX line



With the ColourDesk reconnected and the presence of the DMX output from the ColourDesk indicated by the lit yellow LED on the memory unit, the preset memories can be reprogrammed. Adjust the ColourDesk controls to achieve the desired lighting effect, then press a preset memory button on the remote control to save the data for the current colour cycle to the required memory. The blue IR command LED should flash once and the yellow Data LED on the memory unit flash off twice to indicate that the preset memory has been reprogrammed. This process can be repeated for all of the 56 preset memories (using both positions of DIL switch 3) in any order, any number of times until the installer is satisfied with all the contents of the preset memories. Only the data last entered into each memory will be remembered.

All the internal settings of the ColourDesk are transferred into each preset memory, and can therefore be set differently for each preset if required. These settings include the MFL and FCL potentiometer settings and jumper settings such as slow/normal clock and odd/even ballast number. (see ColourDesk manuals)

Presets can be reprogrammed at any time in this way, but cannot be overwritten whilst the ColourDesk is disconnected from the DMX line, (or while DIL switch 2 is in the On position for memory protection). This means that the ColourDesk can be used as a programming tool and that the programmed memories are completely secure once the ColourDesk has been disconnected.

### **2.5 Recovering original Factory Presets and sequences**

If required, it is possible to recover the original factory set memory contents. Disconnect the memory unit RJ45 cable and switch DIL switch 2 (Memory Protect) to Off and switch 8 (Restore) to the On position. Reconnect the RJ45 so that the memory unit is receiving data from a ColourDesk as it powers up. The data LED on the Memory unit will extinguish after a few seconds when the data recovery operation is complete, and DIL switch 8 should then be returned to the Off position to resume normal operation.

### **2.6 Programming from another Memory unit**

In the above instructions, another Anycolour memory unit can be substituted for the ColourDesk data source so that the preset memory contents can be copied from one memory unit to another. Note that only one data source should be present in the system at a time, but that several receiving units can be programmed from the same source. Connectors to facilitate this are available from Anytronics.

Copying data from one memory unit to another is most simply done by plugging the source memory unit into the ColourDesk port of a powered Ancolour DMX to DFB interface. (To keep its memory contents secure, make sure that DIL switch 2 is On.) The memory unit to be programmed should then be plugged into the Memory port of the interface using an RJ45 cable (and with memory protect switch 2 in the Off position). Its yellow data light should light to show that it is receiving valid programming data (check the CD01/02 selection on both units and reconnect units in sequence again if it is not ). The memory unit connected first will be the source of the data, any other memory units connected should remain in receive mode with their Data LEDs lit.

Select the required presets in turn on the source unit saving each into the receiving unit memories. Note that the same remote control can be used to control



both memory units, but should only be used to control one at a time. If both memory units receive IR data at the same time confusion is bound to result.

In most applications, preset memory contents will probably be copied straight across to the same preset number in the receiving unit, but it is possible to alter the order or numbering of presets as required into the receiving unit. It is also possible to merge data from selected preset memories of two or more memory units one at a time into the presets of a further memory unit.

## **2.7 Cycle Sequencing**

Each preset memory in the memory unit contains information defining a colour cycle. It is possible to programme sequences of these memorised cycles in any required order. The Anycolour memory unit can then work its way through the programmed sequence of up to 31 preset memories, spending one complete colour cycle in each preset. Eight such cycle sequences can be stored in a memory unit.

NOTE that any preset memory which has been programmed for a very long colour cycle will hold up this sequence in that slow cycle for a correspondingly long period. Presets programmed from a ColourDesk in 'freeze' will have a static colour output, but the timing will still be set by the stored 'Period' value.

Enter the cycle sequence mode by pressing one of the memory buttons 1-8 before pressing the Auto button to select the numbered sequence. The red Auto LED will then be illuminated to show that the unit is in 'cycle sequence' mode, and the programmed sequence of colour cycles will be repeated. In this mode the 'up' and 'down' buttons on the remote can be used to raise and lower the Master level as in normal operation, and this adjusted setting will be held whilst in 'cycle sequence' mode, overriding the Master levels stored in the preset memories. Alternatively if DIL switch 4 is set to On, the 'up' and 'down' buttons control the speed of each recalled colour cycle. Each colour cycle will adopt the speed which has been set by these controls instead of the speed memorised for that cycle. The speed of colour cycling will be the same for each recalled memory in the sequence, but can be controlled from the remote.

This cycle sequencing mode can be terminated at any time by pressing the Auto button again, or by pressing any of the preset memory buttons to recall a preset memory. If the unit is connected to a source of DMX data, the cycle sequence will also be stopped. If the memory unit was in one of the cycle sequences when powered down, it will power up in the same sequence, beginning with the cycle that starts the cycle sequence.

## **2.8 Programming Cycle Sequences**

To programme such a sequence of colour cycles, first press one of the memory buttons 1-8 to select which of the eight sequences to programme. Then hold down the Auto button on the remote for a second or so until the blue LED stops flashing and the red LED starts pulsing to indicate cycle sequence programme mode. [Pressing the Auto button again at this stage will leave cycle sequence programme mode without overwriting the existing programmed cycle sequence.] Now press the preset memory buttons in the required order to programme the correct sequence of memorised colour cycles. This sequence can



include memories from 1-56 (adjusting DIL switch 3 accordingly) and immediate repeats of memories for several passes through a colour cycle as required.

When a sequence of cycles has been fully defined, sequence programme mode can be left by pressing the Auto button on the remote again when the red Auto Led will be extinguished. The sequence programme mode is terminated automatically and the pulsing red LED is extinguished if the maximum of 31 memory numbers have been defined in a sequence.

### **3.0 Switch Options**

A table showing the memory unit DIL switch options is shown on page 4.

Switch 1 : Select ColourDesk 1 or 2

The DMX output from this memory unit can emulate the DMX output from either a ColourDesk 1 or 2. Switch 1 selects the mode of emulation. Tables explaining the DMX output addressing of these two units are included on page 3.

Switch 2 : Memory Protection

With this switch set to Off neither the preset cycles nor the cycle sequences are memory protected. With this switch set to On all the memory contents are protected and it will not be possible to programme either preset cycles from a ColourDesk, or sequences of stored cycles from the remote.

Switch 3 : Upper / Lower Memory Bank access

The memory unit has 56 cycle memories, but the remote control has only 28 cycle memory buttons. With the switch Off, the remote will access memories 1-28, with the switch On, the remote will access memories 29-56. As supplied the lower bank is pre-programmed with three colour cycles and the upper memory bank with four colour cycles.

Using a general purpose programmable remote control it should be possible to access all 56 memories directly. Under these conditions of use switch 3 should be left in the Off position.

Switch 4 : Master / Speed control

The Up and Down buttons on the remote may be used to override the memorised settings and control either the Master level or the Period of a recalled colour cycle. Switch 4 sets which of these parameters will be adjusted by the Up / Down buttons.

Switch 5 : HE / HO fluorescent select

Different fluorescent lamps have different dimming characteristics. If using fluorescent colour change fittings, this switch should be set for the type of fitting in use. For T8 and T5 HE fittings set the switch Off. For T5 HO fittings set the switch On.

Switch 6 : Normal / Simple DMX setting

The DMX output of the memory unit contains information for programming further memory units. Many imported LED fittings currently cannot handle this data correctly and typically exhibit a regular flashing to full on. If you experience this problem, disable this programming output by switching switch 6 to On.



Switch 7 : Normal / HO simulation of HE lamps

T5 HE lamps have not always proved very reliable in colour changing applications. A T5 HO lamp fitting will emulate the output levels associated with HE lamps when driven from the memory unit with switch 7 On.

Switch 8 : Restore Factory Memory contents

With switch 8 On, the original memory contents set at the factory can be restored if the memory unit is powered up whilst connected to a ColourDesk 1 or 2. Note that switch 1 must be set for the correct ColourDesk model and switch 2 (Memory Protect) set to Off for this to work. See section 2.5.

LED option.

Normally these switch settings can be used independently of each other to produce the desired combination of effects as explained above. However there is one exception, if both switch 5 and 7 are set to On, the DMX output is changed just to address the LED fittings as outlined on page 3, and the Period range is changed for a faster range of 2.5 to 45 seconds.

When programming from a ColourDesk, the range will be the normal slower range, but when the ColourDesk is disconnected and the Memory Unit takes over control of the DMX, the cycle will speed up to this faster range when both switches are set to On. This shorter Period can still be controlled from the remote Up and Down buttons as normal with switch 4 in the On position.

#### 4.0 Trouble shooting suggestions

Problem Description	Suggestions
<b>Normal Operation</b>	
Unit does not appear to respond to remote	Unit not connected, is power LED on? DMX connection incorrect, is DMX output OK? Wrong remote or remote batteries flat or inserted poorly IR port swamped by sunlight or other IR source Another connected DMX source has control Master level has been set to zero from remote
Blackout, Auto and Up/Down buttons don't work	Another connected DMX source has control
Up/Down buttons flash IR LED but no action	Check setting of DIL switch 4 for Master or Speed Control action at limit check both Up and Down buttons
<b>Programming</b>	
ColourDesk connected but Data light is off	Check DIL switch 1 setting matches ColourDesk 1 or 2 Check DMX and power connections are correct
Data light lit, but doesn't flash on programming	Check DIL switch 2 not in memory protect position
Unit won't enter sequence programme mode	ColourDesk still connected - disconnect Check DIL switch 2 not in memory protect position



## 5.0 Specifications

### IR Remote

- Supply** : two AA alkaline cells (included)
- Controls** : 28 preset select buttons,  
Blackout (Off), Auto and Master level up and down buttons
- Data format** : rc5 IR codes with system code 30
- Range** : maximum 10-15m dependent on battery state
- Dimensions** : 185 x 55 x 22 mm
- Weight** : Gross including batteries and packaging 0.25 kg, Net 0.13 kg

### Memory Unit

- Supply** : 5 Vdc ~20mA, via Category 5 DMX cable
- In/Outputs** : DMX input/output via RJ45 connector.

- Memorised Data** : Red, Green, Blue, Yellow/Neutral colour level settings,  
colour cycle depth, period and phase and Master level  
set from ColourDesk, with ranges as for ColourDesk

All levels and cycle depth (0-100%),  
cycle period (10 seconds - 24 hours),  
cycle channel phase separation (0-25%).

Also set from ColourDesk :-

- Sequence select : three (RGB) and four (RGBY) colour cycles
- Waveform select : Ramp, Sine and Peak modulation waveforms
- Direction select : Forward, Reverse and Freeze control of colour cycle
- Phase sign select : Positive or negative phase shift select
- Linear/split phase : Selects linear phase shift or phase split from centre
- Blackout : blackout all outputs
- MFL : minimum fluorescent level in range 1-25%
- FCO : level below which fluorescents will cut out (1-25%)

- Connecting Leads Supplied** : 5m RJ45 Category 5 data and supply cable  
maximum length of cable recommended : 50m  
use a Cat 5 shielded cable in noisy environments

**Temperature:** Recommended ambient in range 0 - 40°C

**Dimensions** : 86 x 86 x 30 mm, the unit is designed to mount in a standard  
UK single gang box (which can be supplied on request)  
recommended minimum patress internal depth : 25 mm

**Weight** : Gross inc 5m cable and packaging 0.5 kg Net 0.3 kg

**Compliance** : EN55103-2 , EN55103-3



**6.0 Pre-programmed Memory settings**      **lower memory bank 1-28**      (Three colour cycles)

Remote button	Mem No	Cycle Description	R	G	B	Y	Dep	Per	Ph	Master	Seq	Wave	unmod
1		static White	100	100	100	0	0	20	-	100	-	-	-
2		100% RGB 100% depth ramp wash	100	100	100	0	100	30	2	100	RGB	Ramp	Y
3		50% RGB 100% depth sine wash	50	50	50	0	100	30	5	100	RGB	Sine	Y
4		50% RGB 100% depth slow sine wash	50	50	50	0	100	90	7	100	RBG	Sine	Y
5		static Red	100	0	0	0	0	20	-	100	-	-	-
6		100% RG 100% alternate ramp wash	100	100	0	0	100	30	2	100	RYGB	Ramp	B Y
7		100% R 25% GB 75% ramp wash	100	25	25	0	75	30	2	100	RGB	Ramp	Y
8		100% RG 25% B 75% ramp wash	100	100	25	0	75	30	5	100	RBG	Ramp	Y
9		static Green	0	100	0	0	0	20	-	100	-	-	-
10		100% GB 100% alternate ramp wash	0	100	100	0	100	30	2	100	RGYB	Ramp	R Y
11		100% G 25% RB 75% ramp wash	25	100	25	0	75	30	2	100	RGB	Ramp	Y
12		100% GB 25% R 75% ramp wash	25	100	100	0	75	30	5	100	RBG	Ramp	Y
13		static Blue	0	0	100	0	0	20	-	100	-	-	-
14		100% RB 100% alternate ramp wash	100	0	100	0	100	30	2	100	RGBY	Ramp	G Y
15		100% B 25% RG 75% ramp wash	25	25	100	0	75	30	2	100	RGB	Ramp	Y
16		100% RB 25% G 75% ramp wash	100	25	100	0	75	30	5	100	RBG	Ramp	Y
17		static Red / Green	100	100	0	0	0	20	-	100	-	-	-
18		50% RG 100% depth alternate sine wash	50	50	0	0	100	30	5	100	RYGB	Sine	B Y
19		50% RG 100% 3 sine wash	50	50	0	0	100	30	5	100	RGB	Sine	Y
20		50% RG 75% 3 sine wash	50	50	0	0	75	30	2	100	RBG	Sine	Y
21		static Green / Blue	0	100	100	0	0	20	-	100	-	-	-
22		50% GB 100% depth alternate sine wash	0	50	50	0	100	30	5	100	RGYB	Sine	R Y
23		50% GB 100% 3 sine wash	0	50	50	0	100	30	5	100	RGB	Sine	Y
24		50% GB 75% 3 sine wash	0	50	50	0	75	30	2	100	RBG	Sine	Y
25		static Red / Blue	100	0	100	0	0	20	-	100	-	-	-
26		50% RB 100% depth alternate sine wash	50	0	50	0	100	30	5	100	RGBY	Sine	G Y
27		50% RB 100% 3 sine wash	50	0	50	0	100	30	5	100	RGB	Sine	Y
28		50% RB 75% 3 sine wash	50	0	50	0	75	30	2	100	RBG	Sine	Y

Period in seconds, all other values expressed as percentage level (ie percentage of linear travel on ColourDesk slider)



**upper memory bank 29-56** ( four colour cycles )

Remote button	Mem No	Cycle Description	R	G	B	Y	Dep	Per	Ph	Master	Seq	Wave	unmod
1	29	static White	100	100	100	0	0	20	-	100	-	-	-
2	30	100% RGBY 100% depth ramp wash	100	100	100	100	100	30	2	100	RGBY	Ramp	-
3	31	50% RGBY 100% depth sine wash	50	50	50	50	100	30	5	100	RGBY	Sine	-
4	32	50% RGBY 100% depth slow sine wash	50	50	50	50	100	90	7	100	RYBG	Sine	-
5	33	static Red	100	0	0	0	0	20	-	100	-	-	-
6	34	100% RY 100% alternate ramp wash	100	0	0	100	100	30	0	100	RYGB	Ramp	G B
7	35	100% R 25% GBY 75% ramp wash	100	25	25	25	75	30	2	100	RGBY	Ramp	-
8	36	100% RG 25% BY 75% ramp wash	100	100	25	25	75	30	5	100	RYBG	Ramp	-
9	37	static Green	0	100	0	0	0	20	-	100	-	-	-
10	38	100% GY 100% alternate ramp wash	0	100	0	100	100	30	0	100	RGBY	Ramp	R B
11	39	100% G 25% RBY 75% ramp wash	25	100	25	25	75	30	2	100	RGBY	Ramp	-
12	40	100% GB 25% RY 75% ramp wash	25	100	100	25	75	30	5	100	RYBG	Ramp	-
13	41	static Blue	0	0	100	0	0	20	-	100	-	-	-
14	42	100% BY 100% alternate ramp wash	0	0	100	100	100	30	0	100	RYGB	Ramp	R G
15	43	100% B 25% RG 75% ramp wash	25	25	100	25	75	30	2	100	RGBY	Ramp	-
16	44	100% RB 25% G 75% ramp wash	100	25	100	25	75	30	5	100	RYBG	Ramp	-
17	45	static Red / Green	100	100	0	0	0	20	-	100	-	-	-
18	46	50% RY 100% depth alternate sine wash	50	0	0	50	100	30	5	100	RGYB	Sine	B Y
19	47	50% RG 100% 4 sine wash	50	50	0	0	100	30	5	100	RYGB	Sine	-
20	48	50% RG 75% 4 sine wash	50	50	0	0	75	30	2	100	RYBG	Sine	-
21	49	static Green / Blue	0	100	100	0	0	20	-	100	-	-	-
22	50	50% GY 100% depth alternate sine wash	0	50	0	50	100	30	5	100	RGBY	Sine	R B
23	51	50% GB 100% 3 sine wash	0	50	50	0	100	30	5	100	RGBY	Sine	-
24	52	50% GB 75% 3 sine wash	0	50	50	0	75	30	2	100	RYBG	Sine	-
25	53	static Red / Blue	100	0	100	0	0	20	-	100	-	-	-
26	54	50% BY 100% depth alternate sine wash	50	0	50	0	100	30	5	100	RYGB	Sine	R G
27	55	50% RB 100% 3 sine wash	50	0	50	0	100	30	5	100	RGBY	Sine	-
28	56	50% RB 75% 3 sine wash	50	0	50	0	75	30	2	100	RYBG	Sine	-

Period in seconds, all other values expressed as percentage level (ie percentage of linear travel on ColourDesk slider)

