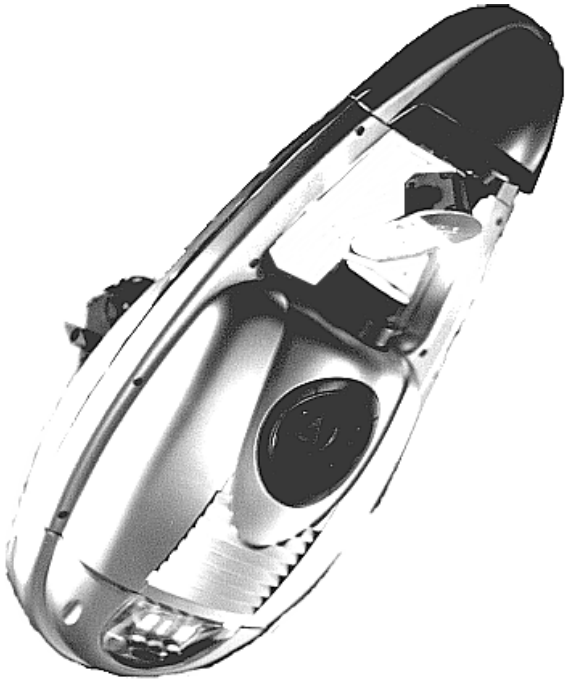


VR8 - VR8R

2000 edition

VR Instruction Manual - Issue 1.2: May 2000
Written for Abstract Design to Light by Sabre Technology Ltd: 01482 831031

Gobo rotation - Channel 5 - CE mode OFF

Gobo	DMX
Stop	0-11
Fast anticlockwise	12 ->
Slow anticlockwise	112
Stop	113-140
Slow clockwise	141->
Fast clockwise	244
Stop	245-255

Rotation speed is continuously variable between fast and slow limits.

Shutter - Channel 6 - CE mode OFF

Gobo	DMX
Blackout	0-5
Fade	6-7
Open	8 ->
Slow strobe	224 ->
Fast strobe	255

Strobe speed is variable (8 speeds) between fast and slow limits.

If you snap the shutter to/from zero, the unit will snap to black/open. If you fade the shutter, the unit will fade in or out. Fade speed is fixed.

Specifications

Beam movement: 170° (pan) x 100° (tilt)
Microstepping: 0.1125° resolution
Colours: White + 11 dichroic + multicolour
Gobos: 11 + open (VR8)
8 rotating (VR8R)
Shutter: Variable speed strobe
Lamp: 150W Arcstream 5000K
DMX: Receive on 1-508
Transmit on 1-16 (stand alone mode - non-standard DMX)
Audio: Electret mic with AGC
Power consumption: 300W approx.
Electronics fuse: T3.15A

Introduction

Welcome to the Abstract VR, the unit which is putting the passion back into lighting.

The VR is a state-of-the art intelligent lighting product, offering many advanced features and making use of the latest technology.

The VR has the following features:

- Attractive sculpted plastic housing
- LED function display for easy setup
- Smoothly microstepped movements with automatic speed sensing
- 12 vivid dichroic colours
- 12 stylish gobos (VR8)
- 8 rotating gobos (VR8-R)
- Microstepped colour and gobo wheel with smooth crossfading
- 'Snap' option for colour and gobo functions
- Colour scrolling function
- Variable speed strobe up to 10 flashes per second
- Separate strobe/blackout shutter (VR8-R)
- Pan and tilt invert and swap options
- Controlled by standard DMX512, any channel 1-508
- Built in 8-position memory for unattended operation
- CE-range compatible mode
- Automatic switch to 'stand-alone' mode when DMX disconnected
- Sophisticated 4-channel automatic light show - no controller required (compatible with Abstract CE range products)
- VR8 - Powerful 150W discharge lamp with 6000 hour life
- Resettable lamp timer, non-resettable unit hours timer
- Self test routine and motor reset function built in
- DMX interface protected against surges and interference
- Function display has blanking and lock functions to prevent tampering

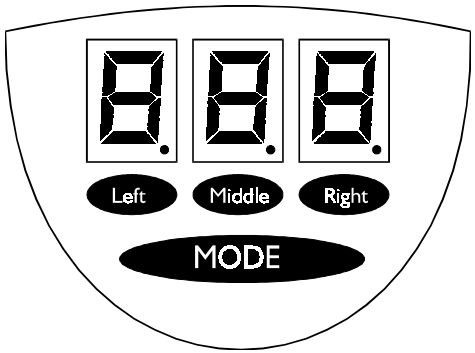
Connections and controls

The VR has a connection panel located at the bottom rear side of the unit.

3-pin XLR connectors are provided for DMX connections. The wiring is pin 3 cold, pin 2 hot, pin 1 grounded. If you are using a controller with a 5-pin DMX output, you will need to use a 5 to 3 pin adaptor with pins 2 and 3 swapped.

DMX connections can be made to either XLR connector. The last VR in the line should have a terminating plug fitted to the vacant connector.

The mains inlet is also on this panel and is an IEC plug with integral fuse.



The VR has a user-friendly control panel which has a 3-digit display and 4 buttons.

All the features of the VR are controlled from this display panel.

The large button is the MODE button, used for selecting which option is to be set. Hold down the MODE button to change options. The other three buttons are used to change the option settings. The function of the button varies depending on the option being changed.

The display can be set to blank after a period of time by setting the "DBL" option to ON.

The keypad can be locked to prevent tampering by holding down the mode button while you turn on the power. You unlock it by repeating this procedure.

Control indicators

The "dots" on the display indicate what is controlling the VR. If the right hand dot is lit, a DMX control signal is being received. If the left hand dot is lit, another VR is sending a light show to this unit. If the middle dot is flashing, the VR is running from sound triggers.

VR8R - Gobo/shutter/rotate channel 4 - CE mode ON

Gobo	DMX CE-off (centre value in brackets)	CE controller gobo number
Blackout	0-7 (0)	16 (blackout)
Open	8-32 (24)	1
Gobo2 rot ccw*	33-38 (36)	
Gobo2 static	39-46 (40)	2
Gobo2 rot cw	47-64 (56)	3
Gobo3 rot ccw*	65-70 (68)	
Gobo3 static	71--78 (72)	4
Gobo3 rot cw	79-96 (88)	5
Gobo4 rot ccw*	97-102 (100)	
Gobo4 static	103-110 (104)	6
Gobo4 rot cw	111-128 (120)	7
Gobo5 rot ccw*	129-134 (132)	
Gobo5 static	135-142 (136)	8
Gobo5 rot cw	143-160 (152)	9
Gobo6 rot ccw*	161-166 (164)	
Gobo6 static	167-174 (168)	10
Gobo6 rot cw*	175-178 (176)	
Gobo7rot ccw*	179-182 (180)	
Gobo7 static	183-190 (184)	11
Gobo7 rot cw*	191-194 (192)	
Gobo8 rot ccw*	195-198 (196)	
Gobo8 static	199-206 (200)	12
Gobo8 rot cw	207-223 (210)	13
Strobe varispeed	224-255	15

Always snaps to full gobos. Rotation speed is fixed in this mode.

NB: it is not possible to select these settings on the compact controller. On the CE controller in-between values can be selected by pressing Gobo and using the Value slider.

The unit will fade to black if a value of 6-7 is sent, or snap to black if a value of 0-5 is sent. When opening the shutter, the unit will fade if the start value was 6-7 or snap if the starting value was 0-5. See below for notes on fade mode.

VR8 Gobo - Channel 4

Gobo	DMX (VR mode)	DMX (CE mode)
Blackout	0	0
Open	16	24
Laser	32	40
Star	48	56
Slice	64	72
Tunnel	80	88
Heart	96	104
Eurostars	112	120
Sunburst	128	136
Triangle	144	152
Slash	160	168
Bubbles	176	184
Segment	192	200
Slowest strobe	242	226
Strobe 2	244	230
Strobe 3	246	234
Strobe 4	248	238
Strobe 5	250	242
Strobe 6	252	246
Fastest strobe	254	254

NB: Intermediate values will give mixed gobos if GSN (Gobo snap) is set to OFF.

VR8R Gobo - Channel 4 - CE mode off

Gobo	DMX CE-off
Open	0-31
Dot line	32-63
Bars	64-95
Tunnel	96-127
Star circle	128-159
Triangle	160-191
Slash	192-223
Bubbles	224-255

Always snaps to full gobos.

When you turn the VR on

When you connect the power, the display will show ---, then ABSTRACT UP will scroll across. The display will show INI until the VR has completed its initialisation sequence, which takes about 10 seconds. You may hear some bumping noises as the VR checks the limits of movement on the motors.

The VR8 lamp will take about 60 seconds from turn-on before it reaches full brightness..

If you turn the VR8 off, you should leave it for about 15 minutes to allow the lamp to cool before turning it on again. The discharge lamp will not restrike while it is hot.

Positioning note for the VR8

Although the VR8 can be positioned in any orientation, the Arcstream lamp is intended to be used pointing upwards, so you should try to have the mirror at the top of the unit. The lamp emits a yellower light when it is pointed downwards.

Maintenance of your VR

The VR has a usage timer which can help you determine when it needs servicing. The VR should only require external cleaning. Ensure that all ventilation grilles are kept free of dust and fluff to keep the fan cooling working efficiently. The VR has an internal thermal trip which may cut out if the cooling vents are obstructed.

To change the lamp in the unit, first disconnect the mains cable and remove any DMX connections. Remove the back housing (the part with the display on) by taking out the two hex-head bolts at the edges of the back moulding. The lamp can be withdrawn by removing the two outer screws from the circular plate in the internal metal panel. The VR8 has another three screws in the circular plate which are for aligning the lamp in the reflector. You should not need to adjust these unless you change the lamp.

You should not attempt to dismantle any other part of the VR.

Using the VR

You can use the VR in three ways:

- DMX controlled mode, where you connect a controller such as the Abstract CE controller or a standard DMX lighting desk to the VR and control its movements yourself. This mode is best for live performance, or if you want to have full control over the effects produced.
- Light show mode, where the VR listens to the music and generates its own complex lightshow. This mode is good when you want a quick and impressive show, or if you don't have time to program or operate the light show. If you have more than one VR, or if you have some Abstract CE-range products, you can connect the VRs together to give a synchronised show.
- Run mode, where you can program up to 8 positions for the VR to run through automatically. No external equipment is required for this mode.

DMX controlled mode

DMX is a digital control system where all the control channels are sent to all the units. Each VR picks out 4 channels and responds only to those channels. You can tell each VR which channels to respond to by setting the DMX channel using the display. (See Options section for how to set the DMX channel).

Connecting the VR up for DMX control

All VRs are connected to the controller in a daisy-chain, one after the other, using standard XLR microphone cables (twisted 2 core screened). The output of the controller is connected to the first VR. The spare DMX connector on the first VR is connected to the second VR, and so on.

The last VR in the line should have a terminating plug fitted in its spare DMX connector. (The terminating plug has a 220 ohm resistor connected between pins 2 & 3, and prevents data corruption on the line).

If you want independent control of your VR's, you should set the DMX channels to different values on each unit. Set the first VR to 001, the second to 005, the third to 009, the fourth to 013, and so on.

DMX values

Mirror Pan - Channel 1

DMX	Result
0	Left
128	Central
255	Right

Mirror Tilt - Channel 2

DMX	Result
0	Top
128	Central
255	Bottom

Colour - Channel 3

Colour	DMX (VR mode)	DMX (CE mode)
White	0	10
Red	16	26
Blue	32	43
Green	48	59
Yellow	64	75
Cyan	80	91
Orange	96	108
Magenta	112	124
Neon Green	128	140
Pink	144	156
UV Blue	160	173
Aqua	176	189
Slow colour scroll	242	246
Colour scroll 2	248	254
Colour scroll 3	250	-
Fast colour scroll	254	-

NB: Intermediate values will give mixed colours if CSN (Colour snap) is set to OFF.

Option list

These are the options on the VR, in order of appearance. The default setting is shown.

display	default	option name
CHA	001	Set DMX channel
I-P	OFF	Pan invert
I-t	OFF	Tilt invert
P-t	OFF	Pan-tilt swap
CSN	OFF	Colour snap to half positions
GSN	ON	Gobo snap to full positions
CE	ON	CE compatibility mode
dbL	OFF	Display blanking mode
LSG	1	Light show group number
LSE	ON	Light show enable
SLO	OFF	Light show slow mode
StR	ON	Light show strobe enable
SOU	ON	Light show sound enable
ELS	OFF	Enhanced light show
rSt	-	Soft-reset (reinitialise motors)
OPC	-	Option Clear (reset options to defaults)
tSt	-	Self test mode
run	-	Run mode options

Operating the VR

The VR uses up to six DMX channels as follows:

1: Mirror Pan (left-right movement)
2: Mirror Tilt (up-down movement)
3: Colour select
4: VR8 - Gobo / strobe select | VR8R - Gobo select
5: VR8R only - gobo rotation
6: VR8R only - shutter / strobe

If the VR8R is set to CE mode "ON" it willoperate in a condensed 4 channel mode.

Pan/tilt

The mirror pan and tilt functions are proportional with automatic speed sensing - if you move the control fast, the mirror will move fast; if you move the control slowly, the VR will follow slowly and smoothly. The VR has options which allow you to reverse the movement of the pan or tilt controls, and also to swap over the pan and tilt channels.

Colour

The colour function is also proportional; this allows you to perform smooth crossfades between adjacent colours. You need to send the exact values to obtain full colours. Alternatively you can turn on option CSN which makes the VR "snap" to the nearest half-colour. This can help you set colours if you are using a controller with sliders. However, you cannot perform colour crossfades in colour snap mode.

At the top end of the colour control, you can set the VR to scroll continuously through the colours at variable speed.

Gobo

By default, the VR8 'snaps' to the nearest gobo. If you move the control slowly, nothing will happen until the VR senses you are near the next gobo position, when it will jump to the next gobo. Alternatively you can turn off the Gobo Snap function if you want to scroll smoothly through the gobos, but you will then have to send exact values to position the gobos properly.

The VR8-R always snaps to gobos.

If you move the control to the top end of its range (about 90%) you will enter the 'strobe zone'. The VR will strobe slowly (about one flash per second) at 90%, up to full speed strobe (about 10 flashes per second) at 100%. If you move the control to zero, the VR will black out.

VR control values

The DMX values you need to send are listed at the end of the manual. If you are wanting to control the VR with a CE controller, or with CE range heads, read the section "Using the VR with Abstract CE equipment".

Light Show mode

Abstract products have a sophisticated built-in lightshow, which is compatible across the whole range of products - you can connect any mix of units together and a fascinating synchronised lightshow will be produced.

The VR range has 4 groups of light show information. Each head can be set to respond to any of the 4 groups. This produces a show of immense variety.

Connecting the VR up for light show

If you have more than one VR, you can link them together with XLR microphone cables to give a much more exciting synchronised light show. It does not matter what order the units are connected in, as long as they are all linked together.

Note: If you plug a DMX controller into the DMX line, the VRs will automatically switch to DMX controlled mode until the controller is disconnected again.

Using light show

If the VR does not detect DMX control and the LSE (light show enable) option is set to On, it will listen to the music and automatically start to generate a light show. If you have several VRs connected together, the one with the lowest DMX address will automatically become the Controller, controlling the show, and the others will become slaves.

The Controller VR will display C 1 (where 1 is the Light Show Group number) and flash a dot on the middle display in time to the music. The slave VRs will display L 1 and follow the Controller VR.

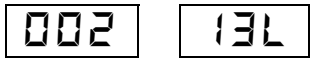
Lamp timer, unit timer and operation counter

The VR has three performance indicators to show you how much it has been used. This can be useful for deciding when the unit needs servicing or needs a new lamp.

These functions work in normal operation mode (i.e. not setup mode). Pressing any button while the timer is displayed returns the display to normal.

Lamp timer

Press the left hand button to see the Lamp timer. This is a 5 digit hours counter showing how long the lamp has been running (0 - 99999 hours). The time is shown by flashing 2 groups of 3 digits, the "units" digit is followed by "L" (Lamp hours).

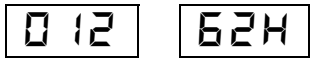


This display indicates the lamp has been used for 00213 hours.

The lamp timer may be reset by holding down the left and right buttons while turning on the power (the display will show RST). You should reset the lamp timer when you fit a new lamp to the unit.

Unit on-time timer

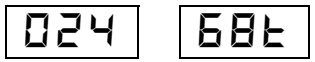
Pressing the middle button shows the VR on-time. This is a 5 digit hours counter showing how long the VR has been running since manufacture. (0 - 99999 hours). The time is shown as for the lamp timer.



This display indicates the VR has been run for 01262 hours. The unit timer cannot be reset.

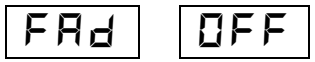
Operation counter

Pressing the right button shows the operation counter. This shows how many times the VR has been turned on, which can be useful for determining how heavily the unit has been used.



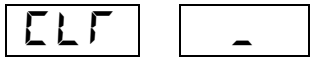
This display indicates the VR has been turned on 02468 times. The operation counter cannot be reset.

Fade mode



Allows you to set "fade" mode where the VR moves more slowly between steps. The option swaps between On and Off when you press any of the buttons.

Program clear



Press the middle button to clear all programmed positions.

If you have 4 VRs, you should set one to each of the 4 groups for the best light show. You can change the Light Show Group using the LSG option. Experiment with the group number settings to obtain the best results. You will find that the best settings vary depending on how the VRs are positioned.

If you want a particular VR to always control the light show, set the LSE option to On for that VR, and to Off for all the others.

The VR's microphone has an automatic volume control which copes with a wide variety of sound levels. The microphone is most sensitive to bass frequencies, allowing it to sense the beat of the music. Quiet or high pitched sounds will not trigger it.

Light show options

There are a number of options which you can set on the Controller VR to affect how the light show is produced. These include Slow mode, Strobe inhibit and Sound Off. The Colour and Gobo snap functions also affect light show mode.

Light shows with VRs and CE-range units

If you are using CE-range heads with VRs in light show mode, make sure that a VR is controlling the light show by putting it first in the DMX line. Remember that CE range units can only be set to Group 1 or Group 2 by turning dip switch 10 off or on.

If you have a CE-range head in control, then Groups 3 and 4 will not be transmitted. Any VR heads set to group 3 or 4 will not do anything.

You don't need to change the CE-mode option on the VR, as it automatically senses that it is receiving CE light show information, and uses the correct values.

If you are using "Light Show" on the CE controller, read the section "Using the VR with Abstract CE equipment" for more information.

Other manufacturers' units

In light show mode, the VR sends out non-standard commands to the slave VR's or CE range products. If you connect other manufacturers' units to the DMX line, they may respond incorrectly or not at all.

Run mode

The VR has an internal memory which allows you to store up to 8 positions, colours and gobos and replay them as a sequence without the need for a controller.

Connecting the VR up for Run mode

Just connect mains power to the VR. When in run mode, it neither receives nor transmits DMX. The VR8-R operates in condensed 4-channel mode when used in Run mode.

Using Run mode

Run mode is started from the options menu. Refer to the options section for details on how to use it. If you turn off the VR while it is in Run mode, it will start up in Run mode next time it is turned on. This is ideal for unattended operation.

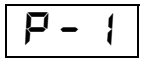
Using the VR with Abstract CE equipment

The VR uses different DMX control values to the Abstract CE range units. This is to allow for features in the VR range which the CE range does not have.

If you are running the VR units in stand-alone mode with CE range units, you don't need to change any options. The VR units automatically use CE range values. See the Light Show section for more information on this.

However, if you are using a controller for manual control, the VR has an option which allows you to make it behave like a CE range unit. You will find this useful if you are controlling it with a CE controller or if you are using CE range heads with VR heads.

To make the VR8 behave exactly like a CE unit, set the "GSN" (gobo snap) option to "ON" and the "CE" option to "ON". (The Gobo Snap option is only important if you are going to use the CE controller's Light Show mode).



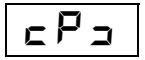
The VR is ready for position 1.

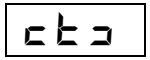
To program the position for a step, you can either set a position by DMX, or set the position using the buttons.

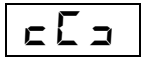
To grab the current DMX position, hold down the middle button. The VR will move to the current DMX position and display

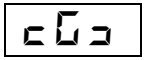
You can now use a DMX controller to set the positions. Press any button to save the position.

To set the position using the buttons, press the middle button briefly to select Pan, Tilt, Colour or Gobo.









Press or hold down the left or right button to set the pan, tilt, colour and gobo. If you have Gobo Snap or Colour Snap turned on, the gobo and colour will snap as you pass through the values, otherwise they will scroll slowly. Press MODE to go back when all positions are set.

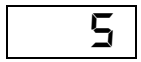
On the VR8-R gobos, the control values move through rotating and non-rotating positions. See the DMX table at the end for details.

You can amend steps you have already programmed using this method.

To move on to the next step, press MODE briefly.

If you don't want to use all 8 steps, leave the other steps unprogrammed by pressing MODE briefly for each step until you get back to the menu, or holding down MODE.

Speed



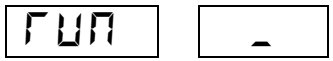
Use the left and right buttons to set the speed (0-9) of the playback (i.e. the time each step is displayed for). Speed 9 is fastest.

Using Run mode

The VR can be programmed internally with an 8 position sequence which can then be run without the need for a controller. This can be useful for demonstration or display applications.

When the VR is in Run mode, it does not respond to or output DMX, except when you are programming the positions.

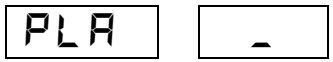
Run mode menu



Press the middle button to enter Run mode.

The following sub-menu is then available. Press the MODE button to scroll through the options, press any other button to select the option.

Play



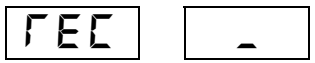
Press the middle button to start playback mode. The VR will play back the programmed positions at the speed you have set. If no positions have been set the VR will ignore the command.

While the VR is in playback mode the display will show "RUN". Press any key to end the playback.

The other options on the VR (invert, snap, CE mode) will affect the playback positions, so you should make sure the options are set correctly (the same as they were set when you saved the positions) before starting playback.

If you turn the VR off while it is in Run mode, it will come back on in Run mode next time you turn it on. The stored sequence is remembered until you use the CLR option.

Record



Press the middle button to enter record mode. You can then program the 8 positions:

If you have problems

The world of intelligent lighting can sometimes be confusing. You may at times wonder if the lighting is more intelligent than you are. The next section lists a few common problems you may encounter, with solutions.

No light from the VR

Check the 'Power on' (red) LED is lit and the fan is running. If not, there is no mains supply. Check that the IEC socket is firmly pushed into the plug on the back of the unit (this is also a common cause of intermittent operation). Check your mains wiring and the fuse in the back panel.

Check if the lamp is alight. You should be able to see some light escaping through the fan. If you have just turned the VR8 off and on again, the lamp will not restrike until it has cooled down. On the VR4 the lamp will be off if all control channels are zero.

If the lamp is alight, check that the VR is not in "blackout". If you are using a controller, change the setting. If in stand alone mode, tap the microphone.

VR not responding to DMX

Check if the DMX indicator dot (right hand dot) is lit. If not, check that your DMX cables are connected properly and are wired correctly (the VR is wired with pin 2 'hot'; some controllers may have pin 3 'hot').

If the DMX indicator dot is lit, the VR is definitely receiving DMX but is probably not responding to the channel you think it is. Check that the channel set on the VR matches the controller's settings. Also check that you have got pins 2 and 3 of the DMX the right way round, as the VR can sometimes be confused by upside-down DMX and turn on the DMX indicator dot.

If you have intermittent DMX problems, one 'leg' of the DMX may be disconnected in your wiring. The DMX may continue to work intermittently using the mains earth as a 'common'.

Try using a different DMX source (controller or another scan) to check if that is the problem.

If you've tried all these and the DMX still doesn't work, you may have interference problems. Check where your DMX cables run - if they are near or run alongside high voltage cables, power lines, or neon, you may experience problems. The VR has protection circuitry on its DMX inputs and may temporarily disconnect itself from the line if it detects high voltages or interference. Try running a short DMX cable directly from the controller to the VR.

Colours or gobos do not match the controller or other VR's

Check the "CE" option. If this option is On, the VR uses different control values.

Mirror moves incorrectly; part colours or gobos displayed

Check the mirror invert options and the colour and gobo snap options. If the unit is behaving strangely, you (or someone else) may have accidentally changed some of the options. You can set all the options back to "normal" by selecting the OPC option, then holding down the middle button.

Display sticks on "---" or shows "LIN ERR" at startup

Try turning the unit off and on again. This display indicates that the electronics modules have not started up properly for some reason. This can be caused by noisy mains or electrical interference in the area of the scan.

If the display shows other codes, or does not come on, this indicates a fault in the display board.

If still you cannot resolve the problem, it may be that the VR has a fault. You should contact your Abstract dealer for assistance. If you have Internet access you can go to the Abstract web site:

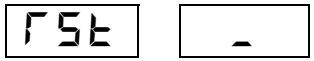
http:\\www.abstract-lighting.co.uk

which has a technical help page.

Using control functions

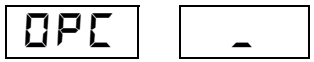
Control functions allow you to start the Reset and Test functions which are built in to the VR.

VR soft reset



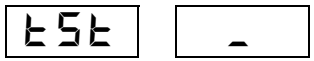
Hold down the middle button for 3 seconds to reset the VR (this reinitialises all the motor positions). The VR will display "INI" while it resets. This does not reset the software - you should power off the unit to do this.

Option clear



Hold down the middle button for 3 seconds to clear all options back to default states. The VR displays "EEI" while resetting the options. This does not affect the timers or operation counter.

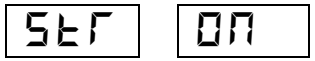
Function test routine



Press the middle button to start the test routine, which operates all the motors to test for correct operation. The unit cannot detect correct operation, it is up to the user to observe the test. The unit pans fast, then slowly, tilts fast then slowly, then operates the colour and gobo wheels. Only full colours and full gobos should be displayed if the unit is operating correctly.

At the end of the test, the VR will remain with the beam exactly centred in open white until you press a button. This can be useful for physically aligning the VR when rigging a show.

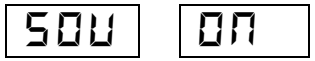
Strobe mode



When On, the light show may use strobing. When Off, strobing is disabled in light show mode. (If SLO mode is on, strobing is also disabled).

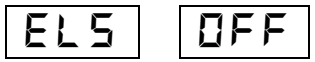
This option only has any effect on the "Controller" VR in light show mode. It has no effect when the VR is controlled by DMX or when it is a light show slave.

Sound mode



When On, light show is triggered by sound. When Off, it is triggered by a timer. This option only has any effect on the "Controller" VR in light show mode. It can be useful to demonstrate the VR, or if used with "SLO" mode, to provide a relaxing slow-changing light show, especially if Colour Snap and Gobo Snap are set to Off.

Enhanced Light Show mode



When Off, the VR restricts the light show patterns it uses to those which look good on only 2 heads (this avoids both heads going to blackout at the same time). If you have 3 or more heads set to different light show groups, turning this option on will produce a more dynamic light show. This option only has any effect on the "Controller" VR in light show mode.

Setting feature options

Hold the "MODE" button for 3 seconds to enter setup mode (this is to prevent accidental option changes). Press MODE briefly to step through options. A long press of the MODE button while you are in the setup mode will exit setup and go back to normal.

The setup mode times out if you don't press a key for about 3 minutes. If the display blank option is turned on, the display will turn off before this, but you can carry on setting options by pressing a button to redisplay the current option.

If the display is blanked, the first keypress turns the display back on, but has no other effect.

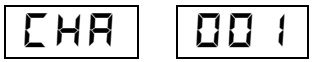
The display settings shown below are the factory default settings.

Locking the keypad

If the VR is located in a position where people could tamper with the settings, you can lock the keypad. Hold down the MODE button while turning the power on. The display will show LOC. If you press any of the buttons the display will show LOC and the button will not have any effect.

The keypad will remain locked until you unlock it by holding down the MODE button while turning the power on. The display will then show UNL.

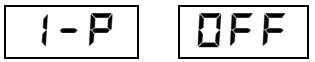
DMX Channel set



Press Left button to set 100's, middle button to set 10's and right button to set 1's. The new channel setting will not take effect until you press the MODE button. The VR will exit setup mode automatically when you have finished setting the DMX channel.

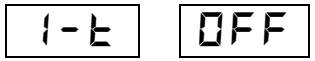
If you try to set an invalid channel, the VR will display ERR.

Mirror pan invert



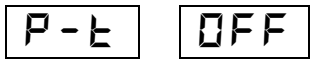
Press any of the small buttons to change the option. When this option is On, the left-right movement of the mirror is inverted.

Mirror tilt invert



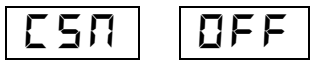
When this option is On, the up-down movement of the mirror is inverted.

Mirror pan/tilt swap



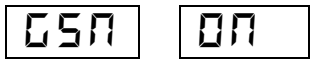
When this option is On, the up-down and left-right movements of the mirror are swapped over. In other words, channel 1 controls tilt and channel 2 controls pan.

Colour snap mode



When On, the VR snaps to half colours. When off, the VR allows free positioning of colours and crossfading between colours.

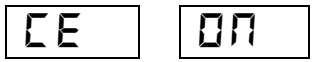
Gobo snap mode



VR8: When On, the VR snaps to full gobos. When Off, the VR allows free positioning of gobos and crossfading between gobos.

VR8-R: When On, the VR8R blacks out the gobo while it is changing. When Off, the gobo changing is visible to the user.

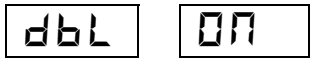
CE compatibility mode



VR8: When Off, the VR behaves as a VR with all the VR features. When On, the VR behaves as a CE-range head. Some VR features are not available in CE compatible mode, but it does allow you to use the CE controller. For true CE compatibility, Gobo Snap should also be turned on.

VR8-R: When On, condenses the 6 channel operation into 4 channels and uses the CE-range control values. When Off, the unit operates in 6 channel VR mode.

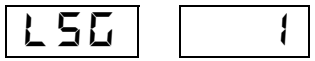
Display blanking mode



When On, the display blanks after about 30sec if no buttons are pressed (DMX or Light Show indicators remain lit). When Off, the display shows the DMX channel all the time (or light show group if in light show mode). If the display is blanked, it will light up when the VR's status changes.

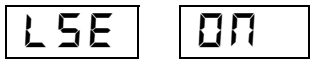
Setting light show options

Light show group



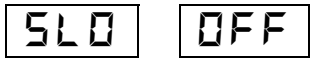
The VR has a complex automatic light show facility which allows you to group the lights for greater effect. This lets you set which of the 4 groups of lights the VR will be part of. Press the right-hand button to change the light show group.

Light show enable



When On, the VR will attempt to generate a light show when no DMX is detected. (The VR with the lowest DMX channel number will become the "Controller" VR in command of the light show, the others will automatically slave to it). When Off, the VR will maintain its last DMX position if DMX is lost. If you want a particular VR to control the light show, set the other VR's to LSE Off.

Slow mode



When On, the light show operates in "slow scan" mode. This option only has any effect on the "Controller" VR in light show mode. It has no effect when the VR is controlled by DMX or when it is a light show slave.