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Club 16 Instruction Manual - Issue 1.0: June 00  
Written for Abstract Design to Light by Sabre Technology Ltd: 01482 879229



## ClubShow (Club16) controller

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Use these grids to write down the names of the programs in the controller.

	0-	1-	2-	3-	4-
-0					
-1					
-2					
-3					
-4					
-5					
-6					
-7					
-8					
-9					

	5-	6-	7-	8-	9-
-0					
-1					
-2					
-3					
-4					
-5					
-6					
-7					
-8					
-9					

Example:

	0-	1-	2-
-0	00 White scan	10 Stroby	20 Searching
-1	01 Red dots	11 Blue wave	21 Colourful

## Abstract ClubShow (Club16) controller

### Quick guide

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The ClubShow controller is a downloadable playback controller.

- Supplied pre-programmed with 100 exciting programs for you to use with your Abstract lighting.
- Abstract Supersound™ automatic light show included.
- Manual override of speed, sound mode, crossfade mode, strobing
- Four output zones allowing selection of different groups of lighting units, with auto zone selection.
- 10 "Play lists" give timed playback of different programs
- The ClubShow controller may be controlled by PC software (included), allowing you to set up and download new programs directly from your PC using the built-in serial link. The PC software acts as a basic controller, using the ClubShow unit as a DMX interface, allowing you to set up the positions of the lights, save the programs, then download them to the ClubShow unit.
- New programs may also be made available on the Abstract web site from time to time. Programs are loaded into the Clubshow controller using a PC with a serial cable.
- The controller remembers the mode it was in, and the last program used, so when you turn it back on it carries on doing what you last told it to do. This is useful for unattended operation.
- Programs are stored in FLASH memory and settings are stored in EEPROM memory, this means that the controller remembers its settings without needing a battery.
- Abstract "Roadie" footswitch may be connected for hands-free operation.
- MIDI control of all functions is provided.

## Connecting up the controller

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The controller requires a mains power supply. The operating voltage of the controller is set internally to 240V or 110V.

The RS232 port is for connecting the link to the PC.

The Footswitch socket allows you to connect an Abstract Roadie footswitch using a stereo jack cable. This allows you to blackout the lights and select new programs by foot control.

The Audio In socket allows you to connect an external sound source. The controller has its own internal microphone and normally this will work fine, but if it is in a control room away from the sound it might need an external source. The socket is designed for a line level input.

The MIDI IN/THRU sockets allow you to control the unit from a MIDI source. The THRU socket allows you to continue the MIDI loop to other equipment.

The DMX output connects to all the lighting units which you want to operate. Connect a balanced XLR cable from the controller to the first lighting unit, then from the first to the second, then the second to the third, and so on, until all units are chained together.

## Setting dip switches on the lights

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You need to set the dip switches on the lights to determine which head number and which Zone they are going to use. If you are using VR8 lights, you need to set the channel numbers given in the last table.

**Select the Zone:** You can set your lighting units to operate on one of the four "zone" buttons by setting dip switches 5 and 6 on the lighting units.

	Zone 1	Zone 2	Zone 3	Zone 4
Switch 5	OFF	ON	OFF	ON
Switch 6	OFF	OFF	ON	ON

**Select the Head number:** Dip switches 3 and 4 set the head number within the zone. You can control 4 heads separately in each zone.

	Head 1	Head 2	Head 3	Head 4
Switch 3	OFF	ON	OFF	ON
Switch 4	OFF	OFF	ON	ON

## Upgrading software

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You can upgrade the internal software in the Clubshow controller by selecting the "Clubshow | Upgrade software" menu selection. If you do not have the software upgrade file, the system will not allow you to continue. Do not play around with this command unless you are really upgrading the software, as you could wipe the existing software from the controller which would prevent it from running.

If the upgrade is interrupted for any reason, the controller might not operate any more (try turning the power off and on). You can start the hardware boot loader to reload the software as follows:

- turn off the power
- open the case
- fit the 3 jumpers on the main board J4, J5, J6.
- turn on the power
- download the "Boot loader" program from the Abstract web site and run it
- turn off the power
- remove the 3 jumpers (fit them on one pin only)
- turn on the power
- restart the "upgrade software" procedure

## Running a playlist

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The controller can store 10 playlists. These allow you to run a preset sequence of programs, with each program starting at a specific time.

Select “Run playlists” mode by clicking on the Run Playlists option button.

Select the playlist number using the + - buttons, then click Run. The playlist will start. The display shows you which program is being played, and the other options which are set.

## Changing a playlist

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Select “Change playlists” mode by clicking on the Change Playlists option button.

You can either change a playlist in real time, by selecting programs as the playlist runs and clicking “save step” when you want the new program to start, or you can edit it step by step. If you save the playlist in real time you can edit the times later.

To change the playlist in real time: Select the playlist number using the + - buttons. Select the first program using the program + - buttons, and click Save Step (the first program always starts at time=0). Click Go to start the playlist. Select the next program you want, and set any options you want (zones, speed etc). When the time comes for the new program, click Save Step. If you have finished the playlist click Set End.

To edit the playlist, select the step you want to edit using the Step < > buttons. You can now change the program to be run for that step using the program + - buttons, select the time at which you want the step to start by clicking on the Time window, or set the sound, crossfade, and group options. If Sound mode is Off, you can set the speed of the chase by tapping the “tap” button.

You can't change the time of the first step, it is always 00:00.00

**The playlists are selected on the controller by selecting “P0” to “P9” on the display.**

**Select the Head type:** Dip switches 1 and 2 should be set according to the type of the lighting unit. All units except Twister4 and ClubColour use the Normal setting.

	Normal	Twister4	ClubColour
Switch 1	ON	OFF	ON
Switch 2	OFF	ON	ON

Channel settings for VR8's

	Zone 1	Zone 2	Zone 3	Zone 4
Head 1	001	017	033	049
Head 2	005	021	037	053
Head 3	009	025	041	057
Head 4	013	029	045	061

The four zones allow you to run parts of a larger lighting rig selectively, so for example you might have ClubScans on zone 1 and ClubRevolutions on zone 2. Using the zone buttons on the controller you can turn the zones on or off, giving a more varied light show which does not use all the lights all the time. The controller also has an “auto-zone” facility to turn the zones on and off at random.

## Selecting a program to run

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Use the +10 and +1 buttons to **select the program number** you want. The display will flash while you are doing this. To **start** the new program, press Enter. If you change the number but don't press Enter, the display will go back to the old program number after about 1 minute.

You can **step onto the next program** by just pressing the Enter button on its own.

You can tell the controller to **automatically change the program** by pressing the +1 button until 'A' appears in the display, then press Enter. When the display shows 0A, 1A, 2A etc this means it will automatically run through the 10 programs in that range. For example if you select 0A, the controller will run through programs 00 to 09; if you select 2A the controller will run through programs 20 to 29. Each program will run for a random time, usually between ½ -3 minutes.

You can tell the controller to run through all 100 programs by pressing the +10 button until the display shows A-, then pressing Enter.

## Playlists

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The controller has 10 real-time sequences of programs, called Playlists, which you can select (if you connect a PC you can program your own playlists). These are selected by pressing the +10 button until the display shows "P", then pressing the +1 button to select P0 to P9.

A playlist is a timed sequence of programs, e.g. at 0 mins 0 secs play program 02, at 0 mins 30 secs play program 09, etc. Each step of the playlist can have output zones turned on or off, and sound or crossfade mode turned on or off. A different speed can be set for each step.

## Playback options

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Sound trigger: To play back in time to music beats, the light above the "sound" button needs to be lit. If it is not lit, hold down the sound button until it comes on.

Fixed speed: To play back at a preset speed, hold down the sound button until the light is off. You can set the speed by tapping the Sound button in time with the music beats. The button blinks at the current speed.

To set crossfade mode, press the Xfade button.

To strobe the lights, press the Strobe button. The lights will strobe while the button is held down.

To black out the output, press Blackout. All the controls continue to operate in blackout mode, so you can "preset" a new program number while in blackout.

## Playback zones

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The controller outputs the DMX control information into 4 zones which you can turn on or off using the Zone buttons. This allows you to select different parts of your rig, depending how you've set the dip switches on the lights.

If you want the controller to automatically (randomly) select a zone, hold the zone button down for a couple of seconds. The light above the button will flash. If the light is mostly on, with short "off" flashes then the zone is currently on. If the light is mostly off, with short "on" flashes then the zone is currently off. If you want to turn a zone on or off when it is in automatic mode, press the

You can invert the motion of the heads by right-clicking on the head, then selecting "invert pan" or "invert tilt" from the menu which pops up.

## Playing back a program

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Select "Run programs" mode by clicking on the Run Programs option button.

Select the program number using the + - buttons.

Press "Run" to start the program.

You can set the speed, crossfade, sound activation and output group (1-2-3-4) of the program using the options. Remember that these settings are *not* saved with the program. The "tap" button allows you to set the speed by clicking the button in time with the music.

If you select a new program while one is already running, the new program will take over from the old one when you click Run.

## Changing a program

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Select "Change programs" mode by clicking on the Change Programs option button.

Select the program number to save using the + - buttons. If you are editing a step of an existing program, select the step using the < > buttons.

Set the lights up how you want them (see Controlling the heads). You can program the Zones to turn on or off for each step.

Click "Record Step" (or press R for fast programming).

Repeat for as many steps as you want in the program.

You can copy steps from this or another program by going to the step you want to copy and using the "edit->copy" command. Then go to the position you want the step to end up in and use the "edit->paste" command.

To help you identify programs when you are editing them, you can save a name with the program.

You can override the speed, xfade and sound settings of a program by ticking the "Override" box. The speed, xfade and sound options you set will be saved with the program. If the override box is not ticked, the controller will continue to use the settings it had for the previous program.

## Creating new programs or editing existing ones

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You cannot write individual programs from the PC into the Clubshow controller, you have to write them all in one go. If you want to change or add an individual program, you first need to read in the programs from the Clubshow controller's memory, then amend the ones you want to change, then write them all back out.

If you are creating a completely new set of programs, you don't need to do this.

You can also load a set of programs from disk and edit them or upload them to the controller.

## Reading programs from the controller (only available if controller connected)

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On the "Clubshow" menu select "Read programs from Clubshow". The programs will download (this may take a minute or so).

To write the programs back when you have finished, select "Write programs to Clubshow".

If you interrupt the reading or writing process by unplugging a lead or something, or if the transfer doesn't work properly, you might need to reset the Clubshow controller by turning the power off and on again, then select PC mode again.

## Saving to disk

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On the "File" menu select "Save to disk". The programs will be saved.

To load programs from disk, select "Load from disk".

## Controlling the heads

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To control the heads, you need to select one or more heads. Click the head icon, or use one of the selection buttons at the bottom of the simulator window.

To turn on the heads you have selected at a central position, click "Locate".

To move the beams, drag the mouse pointer in the simulator window.

To set a colour or gobo, click one of the buttons at the left of the screen. The "multicolour" setting is shown by a light grey colour on the simulator and is not available on some types of lighting unit.

button briefly. You can put the zone back in manual control by holding down the button for a couple of seconds.

If you are playing a program which has Zone information programmed into it, or if you are playing a Playlist, the zones will turn on and off as they are programmed.

## Light show mode

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The controller has the Abstract Supersound light show built in. Hold down the Enter button to start the light show (the display shows "LS"). All controls continue to operate in Light Show mode, except Xfade.

## MIDI

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Programs, playlists and functions may be selected by sending MIDI note on commands. Note Off commands and all other MIDI commands are ignored. The velocity of the keypress is used for some functions.

The table below shows the function of the MIDI notes. Note names may vary depending on the sequencer or keyboard you are using (here Note 0 = C0)

Note number	Note name	Function
36-45	C3 - A3	program 0-9 in current page
46	A#3	auto program xA
47-56	B3 - G#4	pages 0x to 9x
57	A4	full auto
58-67	A#4 - G5	Playlists 0-9
68-71	G#5-B5	Zone control (velocity < 64=off, > 64=on, 127=auto)
72	C6	Trig (step on one step)
73	C#6	Set speed (Velocity sets speed)
74	D6	Light show mode (velocity < 64=off, > 64=on)
75	D#6	Sound mode (velocity < 64=off, > 64=on)
76	E6	Xfade mode (velocity < 64=off, > 64=on)
77	F6	Blackout (velocity < 64=off, > 64=on)
78	F#6	Strobe (while note held on)

Midi commands will update the front panel lights to show the current mode. Front panel buttons may be used to override the midi triggered settings.

## Setting the MIDI receive channel

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You can set the MIDI channel on which the controller will receive commands. There are 16 possible MIDI channels. You can also set channel 00, which will make the controller receive on any channel (Omni). For channels 01-16, the controller will ignore MIDI commands on other channels.

To set the channel, hold down the Blackout button until the display shows "PC", then press the +10 or +1 button. The display will now show "01" alternating with "CH". Press the +1 button to set the desired channel, then press Enter to store the channel, then press any other button to get back to normal.

## The PC software

### Installing the software

To install the software, run the "setup.exe" file provided on the first disk. If you have downloaded the software from the internet, you need to unzip the file using Winzip or another decompression program, then run "setup.exe".

### Linking the controller to the pc

The controller is connected to the PC using a 9-way serial lead. Connect the lead to COM1 or COM2 on the PC, and to the "RS232" socket on the controller.

Put the controller into "PC" mode by holding down the blackout button. (Press any key on the controller except +1 or +10 to get out of PC mode)

When you start the software on the PC, it will automatically determine which COM port the controller is connected to. If the PC software cannot find the controller, make sure that no other programs are using the COM port you have chosen.

You can use the PC software "off line" (with no controller connected) and save the changes to disk for later downloading to the controller.

The system has full help information in the program; just click the button you are interested in, then press F1. For menu commands, highlight the command using the arrow keys and press F1.

## The display

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The display shows a simulation of the heads on the controller. It assumes that you have 4 Clubscans in a row. While this may not be the case in real life, it should give you a good enough guide to what is happening so you are able to program shows.

At the top of the screen are details of the programs in the controller. Down the left side are the colours and gobos that you can select.