

# Sound Sculpture 4 specification

Release date September 2004  
Revised July 2008



## Overview

Sound Sculpture is a stand-alone midi controller developed for use in music making and lighting / video control in theatre, education and music making workshops.

A range of movement sensors can be used to control a synthesiser or other midi compatible device. The primary mode of use is with the built-in ultrasonic distance sensor. Moving towards or away from the sensor is similar to playing up or down a piano keyboard. This sensor has a user definable range and sensitivity.

Other sensors with an analogue voltage output in the range 0 to 5 Volts can be used simultaneously, to control any midi parameter such as pitch bend, program-change, vibrato, etc.

Very simple to use, and with a comprehensive programmability for those who need it. 200 sound patches (non-volatile user memories) each with 40 parameter variables.

## Controls and Indicators

- Large backlit 32 character LCD display ( display area 100 X 25, character size 8 X 4 millimetres)

Displays the user selected sound patch and the values of the *range*, *width* and *speed* controls. And displays the parameter values during patch editing.

- 4 large control knobs for the physical aspects of the ultrasonic sensor  
*Near*, *Far* define the nearest and farthest reach of the ultrasonic sensor  
*Width*; defines the width of each note on the virtual keyboard (4mm up to 1000mm)  
*Speed* sets the speed of the internal metronome. (note; sound sculpture timing can also be derived externally from a microphone, midi keyboard or sequencer).

- 4 pushbutton pads to select the required sound patch and to navigate the menus for editing the sound patches if required.

## Inputs

- Analogue input 0 – 5 Volt can be assigned to any midi parameter including note value, all standard variables or user defined. Sensitivity and range adjustable via pushbutton pad.
- Ultrasonic range finder. Range and sensitivity adjustable via control knobs. maximum range 10 metres.
- Midi input used to select sound patches via program change messages and can be used to define the rhythm and timing of notes from a sequencer or external midi keyboard.
- External keypad input. Used to connect to specialised external keypad to enable those with less digital dexterity to select and edit sound patches.



- Memory card input. Enables load / save of sound patches
- Serial input Enables connection to computer for remote control and loading saving sound patches. (Note this feature is not fully supported at present, expected to beta test December 2008)

## Outputs

- Midi out connects to any midi compatible hardware e.g. synthesiser, sampler, lighting controller, video controller such as Archaos™

## Power requirements

9Volt d.c. 300mA (UL approved adapter supplied)

## Size, weight, construction

230 X 145 X 45 millimetres 750grammes  
Stainless steel case, plastic laminated membrane front panel

## More info

[www.soundsculpturedesign.co.uk/midi](http://www.soundsculpturedesign.co.uk/midi)