

FIRST EDITION
Spring 1989

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Introduction

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CONCEPT

SDS 2000

The SDS2000 is a 5 piece drum kit, comprising bass, snare, and 3 tom-toms. The SDS2000 has eight preset drum kits derived from the SDX sound library. Further kits can be added by sound cards. Ten user kits enable you to select drums, tunings, reverb and midi settings to your own preferences.

The sensitivity section allows you to adjust the triggering parameters to your own style. The SDS2000 can analyse the pad dynamics and compute the optimum settings for triggering both internal drums and midi.

A midi interface enables you to set the midi note and channel for triggering other instruments or to play the SDS2000 from trigger devices (e.g. The Portakit) and sequencers.

An optional digital reverb lets you play your selected kit in a variety of room simulations, ranging from a cupboard to an auditorium. The reverb includes dry, live, reversed and gated simulations.

Welcome to the SDS2000, access to the ultimate sounds at an affordable cost.



PACKING LIST

SUPPLIED

After unpacking your SDS2000, check that you have been supplied with the following components :

1	SDS2000 Rack Console
1	Bass Pad
4	Small Pads
5	Mono Jack Cables
1	Mains Lead
1	SDS2000 User Manual

OPTIONAL

The following options are available for the SDS2000 and can be supplied by your Simmons Dealer :

Simmons Piezo Pads	SPM1
Up/Down footswitch	DFS2
Standard drum Rack	SDR1B
Leads	



BEFORE YOU START

SELECTING THE CORRECT VOLTAGE

Before you do anything check that the voltage selector, located near the mains socket inlet indicates that the correct voltage setting has been selected for your area.



240V - UK, Europe & Australia
120V - USA, Canada & Japan

The current Voltage setting is shown on the body of the selector. If it is incorrect for your area it can be changed as follows ...

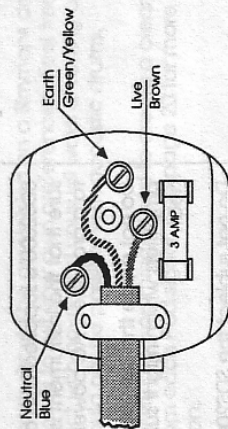
- Insert a small, screwdriver or coin in the slot of the selector.
- Rotate the selector until the slot points to the correct voltage.

CONNECTING TO THE MAINS

European Mains voltages

Connect an appropriate mains plug to the mains cable according to the following colour code.

Brown - Live
Blue - Neutral
Green/Yellow - Earth (Ground)



CHANGING THE FUSE

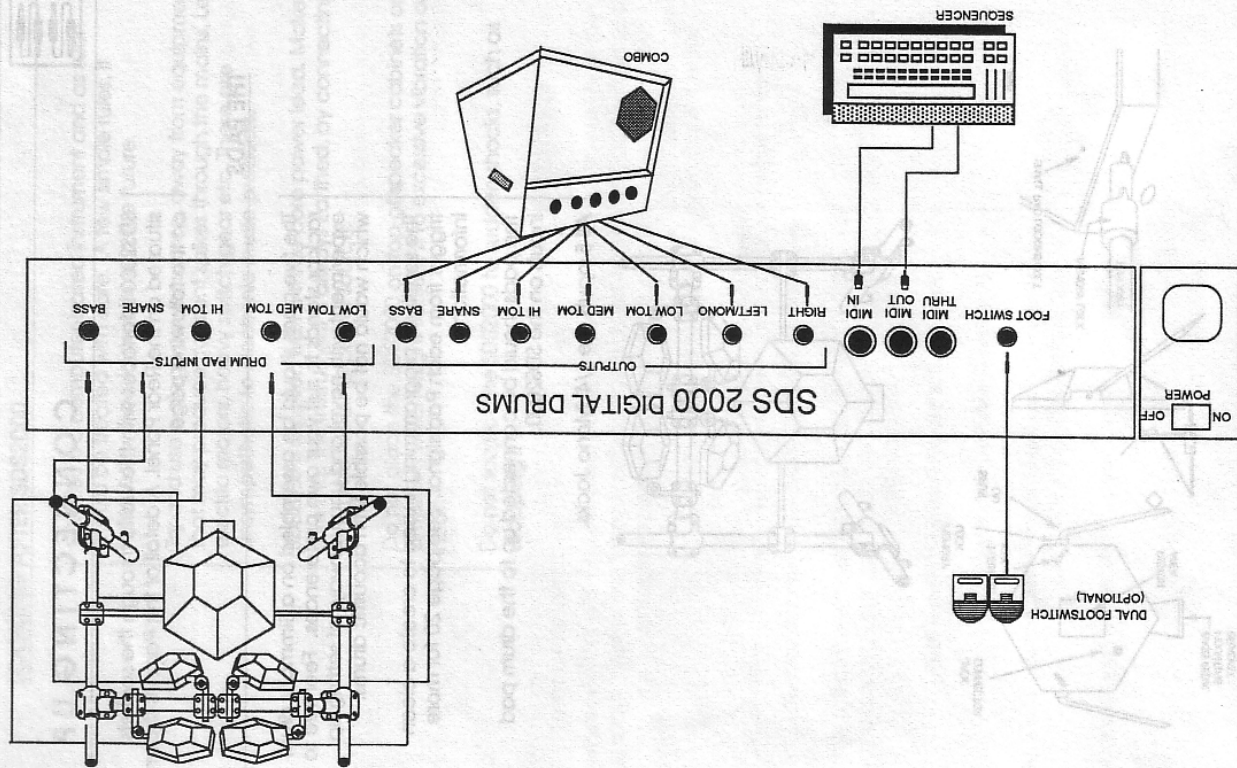
The Fuse is located in a holder under the IEC connector. If you have to replace the Fuse for any reason, make sure that you replace it with the correct rating.

500mA(T) Anti-Surge

Replace the Fuse as follows ...

- Remove the IEC mains lead from the socket.
- Insert a small, flat-bladed screwdriver into the slot between the socket cavity and the Fuseholder and lever the Fuseholder free.
- Replace the blown Fuse with a new one.
- Push the Fuseholder fully home.
- Make sure that the Voltage selector switch indicates the correct setting for your area.

If the Fuse blows repeatedly, refer the unit to your local Simmons Service Centre.



OUTPUTS

INDIVIDUAL OUTS

Each pad input has its respective pad output. This enables channels to be mixed or equalised individually. All outputs are 1/4" mono jack.

MIX OUTPUTS

Stereo output is available from the two sockets left and right. Connecting to the left output only provides a mono mix. When another jack is inserted into the right output individual left and right signals are produced. Both outputs are 1/4" mono jack.

MIDI

MIDI IN

Connecting a MIDI instrument to MIDI In allows the SDS2000's Drums to be triggered from MIDI Notes. SDS2000's Kits will also be selected when Program Changes are received.

MIDI OUT

When any of the Drums are triggered a MIDI Note is transmitted from this socket. When Kits are selected MIDI Program Changes are transmitted.

MIDI THRU

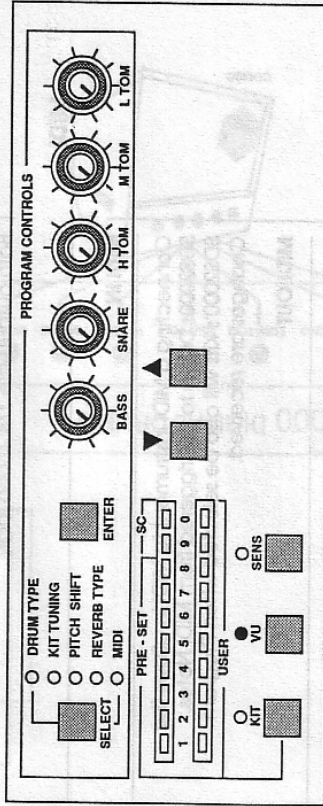
MIDI Thru provides a buffered version of the MIDI in data, allowing SDS2000 to be connected in a chain of MIDI instruments, all receiving data from one master unit.



GETTING STARTED

POWER UP

Once you have connected up your Pad Inputs and the individual or stereo outs, connect SDS2000 to the mains and power-up. All of the leds in the Control Panel should come on for a short period, then go off leaving two leds on, one in each bar. These indicate the SDS2000's Software Version and will go out, leaving only the VU led on, after another short delay.



USER CONTROLS

BAR-GRAPH

The two Bar-graph displays are used as level indicators for Left and Right channels or to show all numeric information in Kit, VU, sensitivity or programming modes.

The current mode is displayed by a single led above each switch. We are currently in VU Meter mode, indicated by the lit VU led. In this mode the display acts like a cassette deck meter, indicating the output level of the Left and Right channels. The upper bar shows the Right-hand channel while the lower bar shows the Left-hand channel.

When in kit mode the Bar-graphs display the selected kit. The lower Bar-graph displays user kits 1 to 10 and the upper Bar-graph displays preset kits 1-8 and Sound-card kits 1 and 2.

When Sensitivity or Programming modes are selected the Bar-graphs are used to display numbers from 1 to 99. To make up a two digit number, the lower bar shows the units digit from 1 to 9, while the upper bar shows the tens digit from 1 to 9. Therefore any number from 1 to 99 can be represented by one led on in each bar.

	1	2	3	4	5	6	7	8	9	0
Tens										
Units										

DRUM LEDS

Each drum has a red led above its volume slider that shows two states. When in programming or sensitivity mode the drum that is being modified is indicated by a dimly lit led.

A drum being triggered will be shown by it's led being brightly lit for a short period of time.

FUNCTION LEDS

When programming a user kit the function selected is shown by one of a group of function leds being lit.

BUTTONS

Seven buttons allow access to all of SDS2000's functions..



KIT

Allows the current Kit to be viewed and a new kit selected. Any one of the 8 presets, 2 sound cards or 10 user kits can be selected.



VU

Enables the display of the stereo level meter.



SENSITIVITY

Enables the dynamics of one of the 5 pad inputs to be programmed.



SELECT

Pressing Select cycles round the programming options available to set up the user kits. These options are shown by the function LEDs. The Select auto repeats if you hold the button down for more than a second.



UP/DOWN

The two buttons by the side of the Bar-graphs are the Up and Down buttons. These are used for numeric entry and channel selection in Kit, Sensitivity and Programming modes. They auto repeat if you hold either button down for more than a second.



FRONT PANEL CONTROLS



VOLUME SLIDERS

The level of the individual drums in the stereo mix output can be set by their respective volume sliders



MASTER LEFT & RIGHT

The overall Stereo output is controlled by the Master Left and Right sliders.



REVERB LEVEL

Stereo Reverb can be added using the Reverb Level control. This is a stereo control adjusting the Left and Right outputs of the Reverb together.



HEADPHONE LEVEL

The Headphone volume can be adjusted using headphone level control. This is a stereo control adjusting the Left and Right channels together.



PHONES

Stereo Headphones can be connected to this socket allowing you to listen to the SDS2000 without external amplification. High impedance (600Ω) headphones such as those found on "Walkmans" are recommended. Ideally use Headphones designed for Digital or CD reproduction.

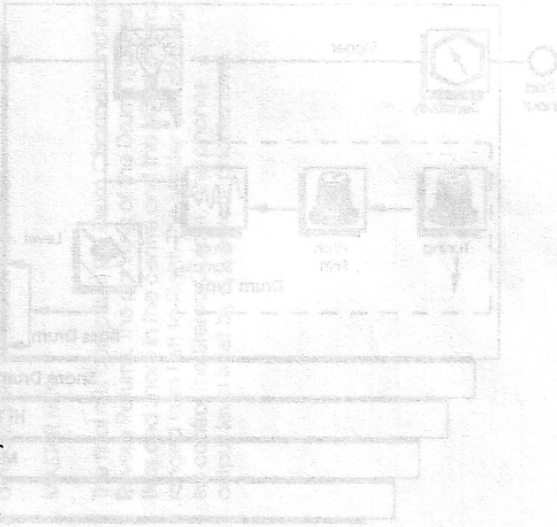


PROGRAM CONTROLS

Once the drum function is selected (by the Select button and displayed by the function LEDs) it's value can be varied by the Program Controls. The Program Controls have a 'dead' area before they are activated.

MEMORY CARD

A slot below the Program Controls allows a Memory Card to be inserted into SDS2000. Memory Cards are a convenient, yet robust way of storing Digital sounds. Each Memory Card can hold up to 10 Drum Samples, allowing up to two Kit setups. SDS2000 will recognise when a Card has been inserted and allow the additional Kits to be selected in Kit mode. Contact your Simmons Dealer for the latest details about the SDS2000 Memory Card library.



SDS2000 OVERVIEW

The diagram opposite provides a graphic overview of the SDS2000. The five Drum channels are functionally identical and therefore only one, the Bass Drum, is shown in detail.

DRUM COMPONENTS

A drum sample is selected from the internal or sound card drums. This sample is then programmed with its tuning and pitch shift.

The sample is triggered from a pad input which has had its sensitivity set. The pad input also lights the Drum led, indicating a trigger.

The sample is sent to the individual out.

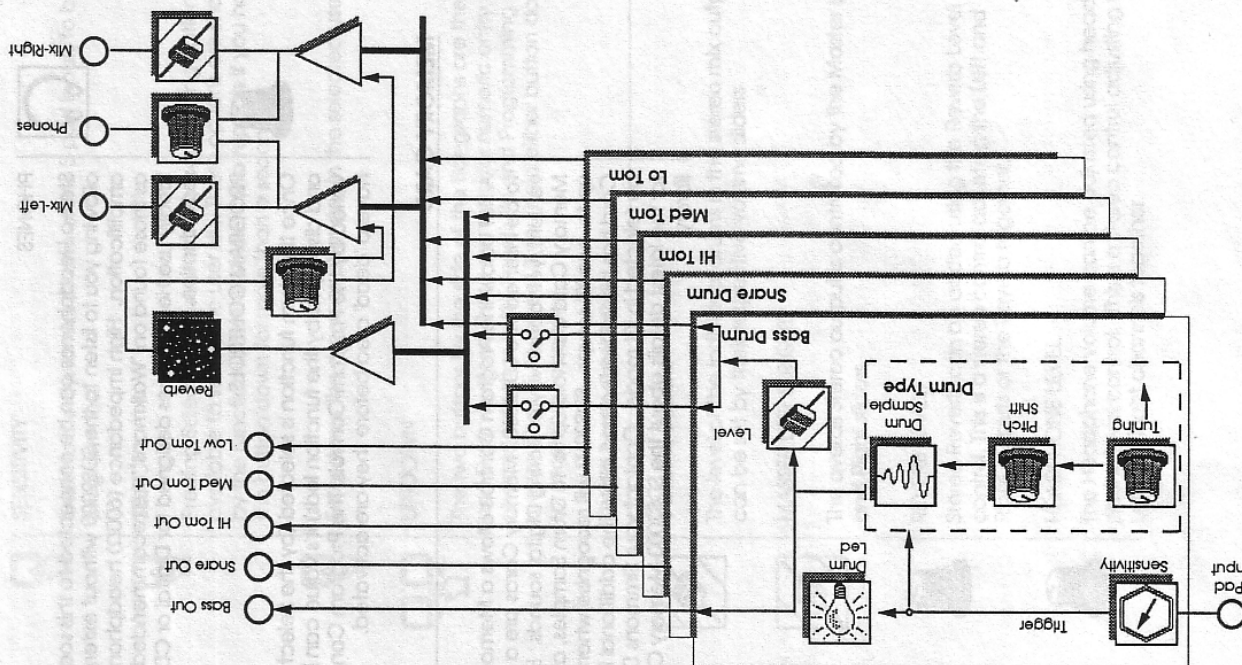
REVERB

The reverb input is a mix of the bass, snare and tom drums. The bass and snare drums can be switched in or out of the reverb image.

The reverb program is selected for each kit. The reverb amount is set by the level control.

MASTER MIX

The final mix comprises the Drum Channels and Internal Reverb Returns. The panning of the Drums is preset with Bass and Snare in the centre and the Hi to Lo Toms arranged from Left to Right. The Master Left and Right sliders control the Stereo Output. The phones level output level is set by a separate phones level.





USING KITS

The SDS2000 has eight Preset Kits, ten User Kits, and up to two kits in a sound card.

A kit is a collection of digital samples and tunings for each of the five drums, a reverb program and midi data. All these parameters are individually programmable in the User Kits.

The kits can be selected by a midi patch change command and the following patch changes are recognised.

- | | |
|---------|-----------------|
| 1 - 8 | Preset Kits |
| 9 - 10 | Sound Card Kits |
| 11 - 20 | User Kits |

If the sound card is not present the midi patch change will not be recognised.

The kits can be selected by an external up/down footswitch.

The footswitch and midi patch changes only operate in the KIT, VU and SENS modes.

The Preset kit types are shown on the front panel and are:

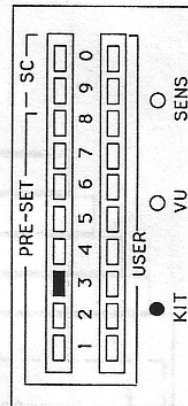
- | | |
|-----------|--------------|
| 1. ROCK 1 | 5. AMBIENT |
| 2. ROCK 2 | 6. STUDIO |
| 3. JAZZ | 7. LIVE |
| 4. ELECT | 8. HIP - HOP |

SELECTING KITS



Kit

To activate kit mode, press the Kit button



The LED lights indicating Kit mode and the current Kit is displayed, in this case Preset Kit 3. SDS2000 always retains the current kit on power-down.



Pressing the Up or Down buttons will select the next kit. The kit selection cycles from Preset to sound card to User kits. If no Sound Card is present the kit select jumps from Preset to user (or vice versa).

The Up/Down footswitches operate in exactly the same manner as the Up/Down buttons.

SOUND CARD KITS

SDS2000 detects the presence of a Sound Card when a kit is changed. The number of kits within a Sound Card is detected and loaded during kit changes.

If a new User kit requires drums from a Sound Card which is not present the appropriate drum for kit 1 is always used.

AUTO-TRIGGER

If you wish to trigger the 5 Drums in each Kit, without playing them, you can use SDS2000's AutoTrigger facility. This can be useful when setting up the SDS2000 in a live situation, since you can hear what the mix sounds like in front of the PA.



Press and hold the VU button then press Up and Down together. The AutoTrigger will start to Trigger each drum in turn at a preset rate.

In VU, KIT and SENS modes the rate of the autotrigger can be varied by the bass programming control.

Repeating the VU/Up/Down combination will switch off the AutoTrigger.



USING SENSITIVITY

The SDS2000 is set with typical sensitivity levels before leaving the factory. These sensitivity levels will probably require changing to match your playing style.

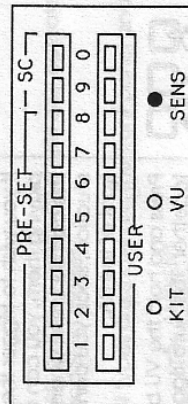
The SDS2000 automatically computes a set of parameters that give optimum triggering for your playing style. These computations result in maximising the dynamic range of your playing and minimising retriggering and cross-talk.

Setting the sensitivity of the pads is independent of the kits selected.

Note you can see which pad you're playing by watching for the trigger leds.

Sens

To activate the Sensitivity processor, press the Sens button.



The led above the Sens button lights indicating sensitivity mode and the current Drum led is lit (dimly, indicating the drum being modified). Note that no sound will be generated and no midi is transmitted while a trigger is being processed.



SELECTING THE DRUM CHANNEL

When the Sens button is first pressed you can select the Drum Channel you wish to process.

Press the Up or Down buttons to step to the required Drum from 1 to 5.

SETTING THE SENSITIVITY

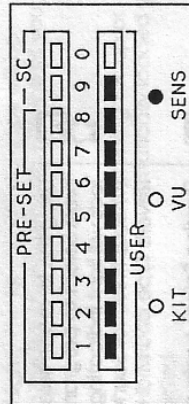
Once you have selected the Drum Channel you can process the trigger.

Sens

When the Sens button is pressed a second time the sensitivity is armed. Pressing any of the other buttons will abort the Sens if you wish.

The sensitivity LED flashes indicating that SDS2000 is waiting for a trigger input to process.

When a hit is received from the selected Drum, the Sensitivity processing is activated.



If the hit was good all of the green LEDs on the lower bar-graph will light while the sensitivity of the hit is analysed and re-constructed numerically. This takes around 1 second.

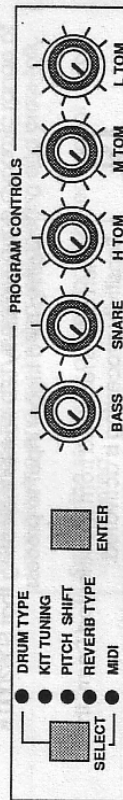
Once the computation has finished the display will clear.

Repeat the Sensitivity process for each of the Pad inputs you have connected.



PROGRAMMING KITS

The User can program the reverb and midi data for the Preset and Sound Card kits. Unlike User kits the settings remain the same for all Preset and Sound Card kits. In addition there are ten User kits where the drum types and tunings can also be programmed.



Using the kit mode select the kit you wish to edit. Then press Select to program this kit. One of the five Program leds will light indicating which edit option is selected. When a Preset or Sound Card kit is selected only the Reverb Type and Midi edit options are allowed.



Pressing Select again cycles round the edit options. Holding Select down will auto repeat after a second.



The programming mode can be exited at any time by pressing the Kit, VU or Sens buttons.

When an edit option is selected using the Select button the drum being edited is shown by a Drum led being dimly lit.



Pressing the Up or Down buttons selects the drum you wish to edit. The data for that drum and edit option is displayed on the Bar-graph. This feature enables you to preview what data is programmed in the kit without changing it.



Data is modified by the Program Controls. Each drum has a Program Control assigned to it. Changing a Program Control automatically selects its drum and that new data is displayed. The range of the Program Control automatically adjusts itself to the edit option selected.

STORING KIT EDITS



Once you have made the edits you require they can be stored by pressing the Enter button. All the program leds will light for a second while the kit parameters are stored.

The edits made will be kept until another kit is selected. If you do not wish to save the edits made go to kit mode and select another kit.

COPYING KITS



Using kit mode select the kit you wish to edit. Press and hold down the Select button. After a second the copy kit mode will be activated. All the Program leds and the kit mode will light. The kit you wish to copy will be displayed on the Bar-graphs, starting with the kit you wish to edit.



Select the kit you wish to copy by pressing the up or down buttons. The kit data is automatically loaded when the kit is selected.



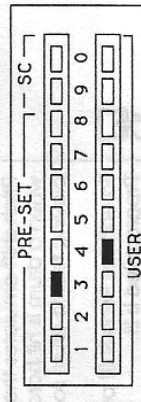
Press Select if you wish to make further edits to the kit that has been copied.

EDITING DRUM TYPE



To edit the Drum Type press Select until the Drum Type Program led is lit.

The Drum Type is any one of the drums in the eight Preset Kits or Sound Card Kits. The upper Bar-graph displays the kit and the lower Bar-graph the drum.



The above Bar-graph shows Preset Kit 3, med tom is selected.

The Drum Type always allows the Sound Card kits to be selected. If a Sound Card is not inserted (or Sound Card kit 2 is selected when there is only 1 kit in the card), the appropriate drum for kit 1 is always used.



Moving a Program Control selects its drum to be edited and selects one of the Drum Types to be used and displayed.

EDITING KIT TUNING



To edit the Kit Tuning press Select until the Kit tuning program led is lit.

The pitch of each drum can be increased or decreased by up to seven semitones, or a fifth.

The tuning is shown on the Bar-graph. The upper Bar-graph shows increased pitch in the range 1 to 9 and the bottom Bar-graph shows decreased pitch in the range 1 to 9.

Increasing pitch



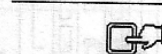
Decreasing pitch



The above Bar-graph shows an increase in pitch of 6.

Moving the Program Control selects its drum to be edited and sets the tune amount.

EDITING PITCH SHIFT



Pitch shift emulates the variation in pitch that occurs when a drum is hit harder or softer and gives a realistic playing feel to drum sounds.

To edit the Pitch Shift press Select until the Pitch Shift Program led is lit.

The pitch of each drum can be shifted by up to seven semitones, or a fifth. The Pitch Shift is dependent on the dynamic of the drum trigger. A full dynamic hit gives the programmed pitch shift.

Pitch shift is displayed in the same manner as kit Tuning.

Moving the Program Control selects its drum to be edited and sets the Pitch Shift amount.



EDITING REVERB AMOUNT

See section Using Reverb.

EDITING MIDI

There are two modes in editing midi. Changing the Midi note is shown by the Program led on and changing midi channel is shown by the program led flashing.

See section Using Midi.



USING REVERB

SDS2000 has an optional internal Digital Reverb unit allowing you to add room simulation and other stereo effects to your Digital Drums. A 16 bit DSP circuit provides this Reverb with a range of 30 high-quality effects.

A mono mix of all the Drum Channels is connected to the Reverb input. The bass and snare drums can optionally be selected in or out of the reverb image.

The Stereo output of the reverb is connected to the final mix via the Reverb Depth control. This ganged control adjusts the amount of reverb added to the final mix.

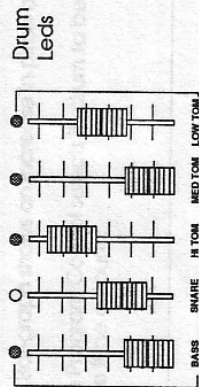
Each kit has its own Reverb Type.

If the Reverb is not fitted the SDS2000 will still allow the settings to be programmed.

SELECTING THE REVERB TYPE



In kit mode select the kit which you wish to program and press Select until the Reverb Type Program led is lit.

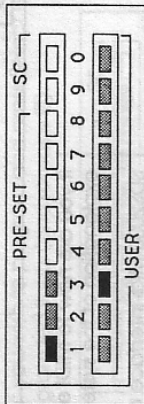


The Drum leds show which drums are selected into the Reverb image. A drum selected is shown by a dimly lit led. The options available are :
bass, snare and toms
snare and toms
bass and toms
toms only

In the above case Bass and Toms are selected.



The required Reverb Type is selected by any one of the Program Controls.



The Reverb Type is displayed on the Bar-graph. Reverb Type 13 is shown above. Adjusting any one of the Program Controls will set and display the new Reverb Type.

Here is a description of the 30 types.....

Small Room	Large Hall
1 500ms Decay	16 15.0 Sec Decay
2 800ms Decay	17 20.0 Sec Decay
3 1 Sec Decay	Reverse
4 1.2 Sec Decay	
Medium Room	
5 1.6 Sec Decay	18 100ms Yaced
6 1.8 Sec Decay	19 150ms Yaced
7 2.2 Sec Decay	20 300ms Yaced
8 2.8 Sec Decay	21 400ms Yaced
	22 600ms Yaced
Large Room	Gated
9 3.0 Sec Decay	23 100ms Gate
10 4.0 Sec Decay	24 150ms Gate
11 6.0 Sec Decay	25 200ms Gate
12 10.0 Sec Decay	26 250ms Gate
	27 200ms Gate
	28 350ms Gate
	29 450ms Gate
	30 500ms Gate
Live Room	
13 4.0 Sec Decay	
14 6.0 Sec Decay	
15 10.0 Sec Decay	

To hear the effect of the Stereo Reverb adjust the Reverb depth until the desired level is achieved.





USING MIDI

If you are new to MIDI equipment you will find a simple explanation of the system in the Appendix - What is MIDI?

SDS2000 Midi interface allows Midi controllers to trigger SDS2000's drums or other Midi voices to be triggered by the SDS2000. Each kit within the SDS2000 can have its own setting of midi notes and channels.

MIDI INPUT

All Midi input is connected to the Midi Thru socket. This allows SDS2000 to be part of a Midi chain with several instruments receiving information from one master unit.

Midi notes are the same for input and output : midi channels can be different if necessary. Omni mode can be programmed on if the input Midi channel should be ignored.

SDS2000 kits can also be selected by incoming Midi Program Changes. All other midi data is ignored.

MIDI OUTPUT

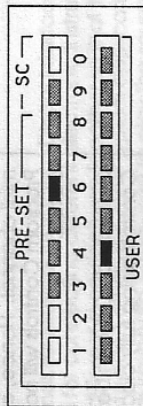
A Midi note will be transmitted when any of the drums are triggered. Each drum within a kit has its own midi note and channel assigned.

A Midi program Change will be transmitted when SDS2000's kit is changed. The program change is transmitted on all midi channels within the new kit.

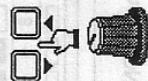
MIDI NOTE



Select the kit you wish to program and press Select until the midi Program led lights (and remains lit).



The Drum leds show which drum is being edited and the current midi note is displayed on the Bar-graph (in this case note 64).

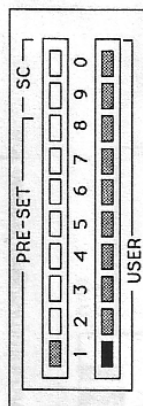


Pressing the up or down buttons changes the drum being edited and displays the Midi note for this drum.

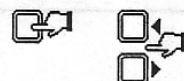
Adjusting one of the program controls assigns the drum being edited and changes the midi note. The range of notes that can be programmed is Midi note 36 to 96.

MIDI CHANNEL

Select the kit you wish to program and press Select until the midi program led is flashing.



The Drum leds show which drum is being edited and the current midi channel is displayed on the Bar-graph (in this case channel 1).



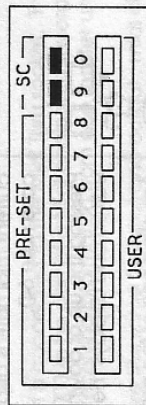
Pressing the Up or Down buttons changes the drum being edited. If the up button is pressed with low tom selected all the Drum leds light (dimly). This shows that input midi channel is selected. Once input midi channel is selected the only way of changing a drum output midi channel is by using the Down button.



Adjusting the program Control assigns the drum being edited and changes the Midi channel. The range of midi channels that can be set is 1 to 16.

If input midi channel is selected (all the channel leads dimly lit) any of the program controls will program the midi channel. Hence, once input midi is selected the Program Controls will not assign a new drum to be edited.

Omni mode ON can be selected by the Program Controls being fully clockwise when input Midi channel is selected. This is shown by the Sound Card Bar-graph leads being lit.



The above display shows Midi Omni mode ON selected.

EASY MIDI ASSIGN

When programming the Midi note or channel a new note or channel can be set by incoming Midi. The new note or channel will be displayed. This allows a quick and easy way of programming midi.



APPENDIX

WHAT IS MIDI ?

M.I.D.I. stands for Musical Instrument Digital Interface and is a system for connecting different electronic instruments made by different manufacturers together so that they may 'talk' to each other. The most typical application of this is a Midi keyboard being used to play the sounds of another instrument, but it is also used to link together equipment like drum machines and sequencers.

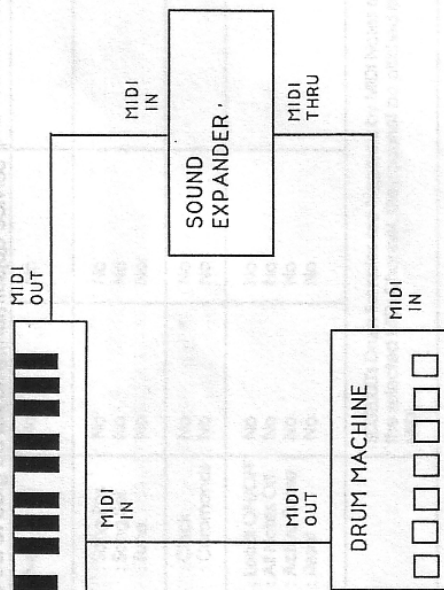
Your instrument will be equipped with one or all of the following connections :

MIDI IN : receives Midi information from other instruments

MIDI OUT : transmits Midi information from your equipment to other Midi equipment

MIDI THRU : allows equipment to be chained together, the Thru socket carries a copy of the information on the Midi in socket so that it may be used by another instrument.

A typical Midi setup might look like this :



The information sent on Midi tells other instruments what notes to play and the information is directed to a particular destination (e.g. a particular instrument in a chain) by means of Midi Channel.

The notes transmitted by a piece of Midi equipment are assigned to a particular Midi Channel and any other equipment is assigned Midi Channel(s) on which to receive. If the two are the same, the equipment should respond.

Keyboards will respond by playing the current sound at the pitch decided by the Midi note number transmitted.

Electronic drum kits / drum machines will only respond if a drum sound has been assigned to that Midi Note number.

Most instruments nowadays also send and receive information showing how hard the note was played which is called velocity information. In addition they usually send Patch Change information which will change which keyboard sound or drum kit is being played on the receiving instrument.

In addition to these simpler functions there are other uses of the Midi system too complex to mention here. If you are interested, there are several good books you can read on the subject :

Should you run into any problems using Midi with your SIMMONS equipment please contact our Customer Service department who will be glad to be of assistance.

Date : Feb 1989
Version : 1.0

MIDI Implementation Chart

MODEL : Simmons SDS2000

Function...	Transmitted	Recognized	Remarks
Basic Channel	Default Channel	Omni 1 to 16.	
Mode	Default Messages Altered	Omni No Poly	Receive Channel can be Omni or 1 to 16.
Note Number	True Voice	36 to 96. N/A.	Notes received are also used for easy MIDI Assignment.
Velocity	Note ON Note OFF	Yes Yes, Note ON velocity 0. No	Note OFF sent after preset Duration.
After Touch	Key's Ch's	No No	
Pitch Bender		No	
Control Change		No	
Prog Change	True #	0 to 7 Preset kits 1 to 8 8 to 9 Sound Card kits 1 to 2 10 to 19 User kits 1 to 10.	Program change is transmitted on all midi channels of the new kit
System Exclusive		No	
System Common	: Song Pos : Song Sel : Tune	No No No	
System Real Time	: Clock : Commands	No No	
Aux Messages	: Local ON/OFF : All Notes Off : Active Sense : Reset	No No No No	
Notes		SDS2000's Drum Samples are triggered by MIDI Notes on the selected MIDI Channel, they cannot be pitched from MIDI.	



DEMONSTRATION SEQUENCES

When SDS2000 is supplied from the Simmons factory it should have the following default settings ...

Kit	1	Rock 1
Sensitivity		Simmons Piezo Pads Medium Dynamics
Edit Channel		Bass
All kits set to :		
Reverb	3	Small Room 1 Sec
MIDI Notes	Bass Snare Hi tom Med tom Low tom	36 (C1) 38 (D1) 48 (C2) 47 (B1) 45 (A1)
MIDI Channel	1	
Omni Mode	On	
INITIALISING SDS2000		

You can reset SDS2000 to its default values if you wish as follows ...

- Power down the unit.
- Press and hold the Sens button.
- Power up with the Sens button still down.
- Wait until all LEDs light.
- Release the Sens button to start in Meter mode.

Note that this will lose all of your stored MIDI, Sensitivity and User kit parameters.



SPECIFICATION

SDS 2000 CONSOLE	2U rack-mount unit 5 inputs for Bass, Snare, hi/med/lo tom pads automatic sensitivity control for setting trigger dynamics MIDI in Up/down footswitch for kit select
OUTPUTS	5 individual drum channel outputs Master left/right outputs (left=Mono when right not used) Headphones output MIDI out/thru
CONTROLS	5 individual channels with trigger LED and output level slider Master left/right output level slider Internal reverb amount Stereo headphone/monitor level 5 kit edit controls
	PROGRAMMING
KIT	Select internal Preset kits 1-8 (Rock 1, Rock 2, jazz, Electronic, Ambient, Studio, Live, Hip-Hop) Sound Card kits 1 or 2 User kits 1 - 10
VU	Switches display to VU meter mode
SENSITIVITY	Adjust parameters for trigger inputs
SELECT	Selects editing of a user kit. Edit functions are : drum select; tuning; pitch shift; MIDI note; MIDI channel; kit reverb.
REVERB	Optional integral reverb with 30 reverb settings. Drums are selectable to reverb as bass+snare+toms, snare+toms, bass + toms and toms only.
DIMENSIONS	430 x 250 x 88 (excluding rack mount)
POWER	switchable 115V/230V AC 50-60Hz
OPTIONAL ACCESSORIES	Sound Cards Simmons Drum Rack Dual footswitch