

TRIOS

Composed 1971. First performed at the Cheltenham Festival, 1971, the composer taking the VCS3 part, and Messrs John and Robert Cary (the composer's sons) the turntable parts.

Preamble

As the name implies, a piece for three players. Trios is in the plural because every performance produces a new trio. Methods are, however, described below for performing duet or solo versions.

One player performs the score which follows on a Synthi VCS3 Synthesizer and DK1 Keyboard. The piece can also be played on the Synthi 'A' synthesizer with DK1. All this equipment is obtainable from Electronic Music Studios (London) Ltd., 49 Deodar Road, London S.W.15, or EMS of England, Inc., 140 E.80th St., New York 10021. The other two players each take one of the discs in this package, one with the BLUE label uppermost, and the other with the BLACK. It will be seen that each side has 16 bands, divided into groups of 4. Each turntable player has a box of three dice, numbered 1 to 6 in the usual way. The three dice yield 16 possible numbers.

In performance the two turntable players make their first throw as soon as they take their places on the platform, and cue their pick-ups ready over the beginning of the band selected. It is a good idea to paste a paper strip on the front edge of the record player reading 18 17 16 15 | 14 13 12 11 | 10 9 8 7 | 6 5 4 3. This helps to locate a band quickly - the idea of using discs is to provide a rapid access to any event - impossible if tape had to be wound.

The VCS3 player (who is leader) begins playing his first cue (all controls have of course been preset for Event 1, levels checked, etc), and as soon as the turntable players hear a sound from the speakers they begin their first events. When these have begun playing they make their next throw and mentally note where the pick-ups will go next time. Each cue should be faded in and out by the turntable players, so that no unwanted noises occur (see note below on equipment). The VCS3 player continues his events, and the piece proceeds.

There is no fixed macrostructure. Only a finishing cue is needed. All 48 events are based on the same set of relationships in the synthesizer and are therefore a 'family'. In each performance the interaction between different events will be different, but a family consistency will always obtain. Because not all numbers have equal chances (the middle numbers will occur more often - a Gaussian distribution) the commoner events are simpler, and a

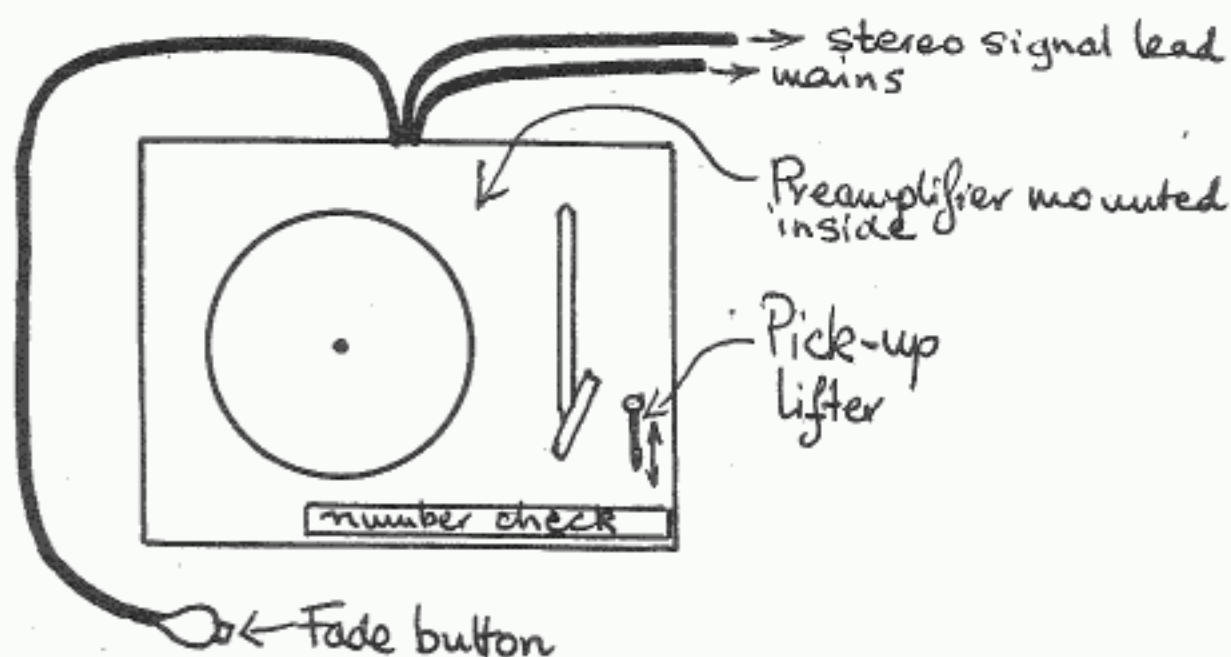
very complex event (e.g. both turntables on particularly high or low numbers) will occur only rarely. The events are of different durations, so it will not be often that neither turntable is playing.

The performance can finish at any time, such as when the VCS3 player has completed his 16 events, but he can if he likes return to Event 1 and continue. In general a performance should last nine minutes or more to give a reasonable chance of complex events occurring, and a good length is about fifteen minutes. However it is part of the nature of the piece that some performances will be more tranquil than others.

When the VCS3 player decides that the piece is over, he cues the turntable players to stop at the end of the event each is playing at the time, and finishes his own event either before or after the turntable players. After a few rehearsals the VCS3 player will find that he can manipulate his events to suit the feeling of the performance.

Required Equipment

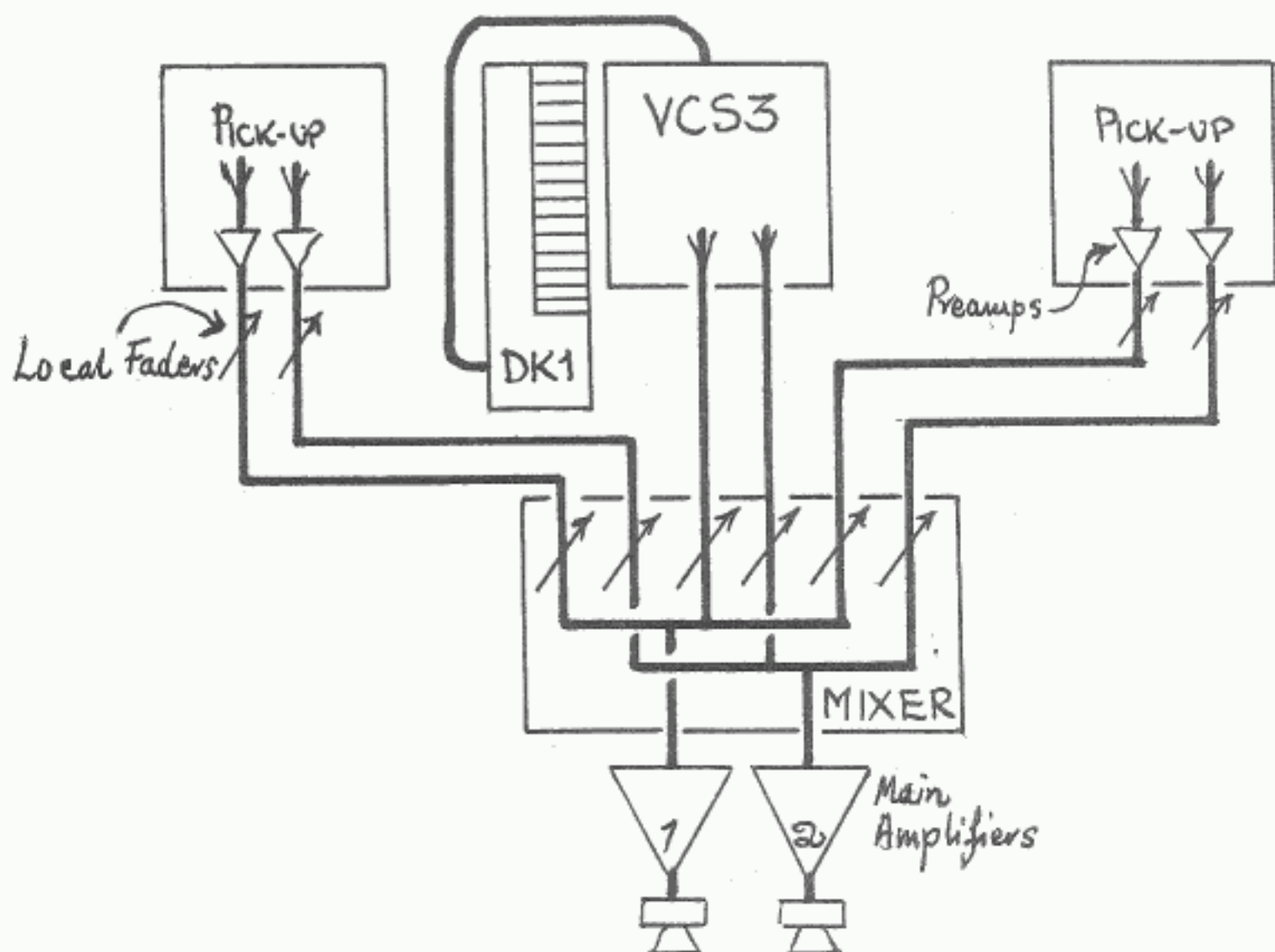
1. One VCS3 Synthesizer and DK1 Keyboard. If Synthi 'A' is used, the score must be to some extent redrawn (see below).
2. Two stereo 33 1/3 r.p.m. non-automatic turntables, with automatic stop (if any) inoperative, and preferably a lifting device for the pick-up. Because at least 4 metres of lead (mains and signal) will be needed to give separation on the stage, preamplifiers must be fitted in the record players, and this is necessary for fading as well. Do not try to fade the unamplified output of the pick-up or take the low level signal along the cable - it will be unsatisfactory. The best method is to instal preamplifiers and arrange a fade button on a lead - press to fade out, release to fade in, each in about 1". A simple FET circuit can be arranged to cut off in this way. A button on the end of a flying lead ensures that the turntable is not jogged when faded.



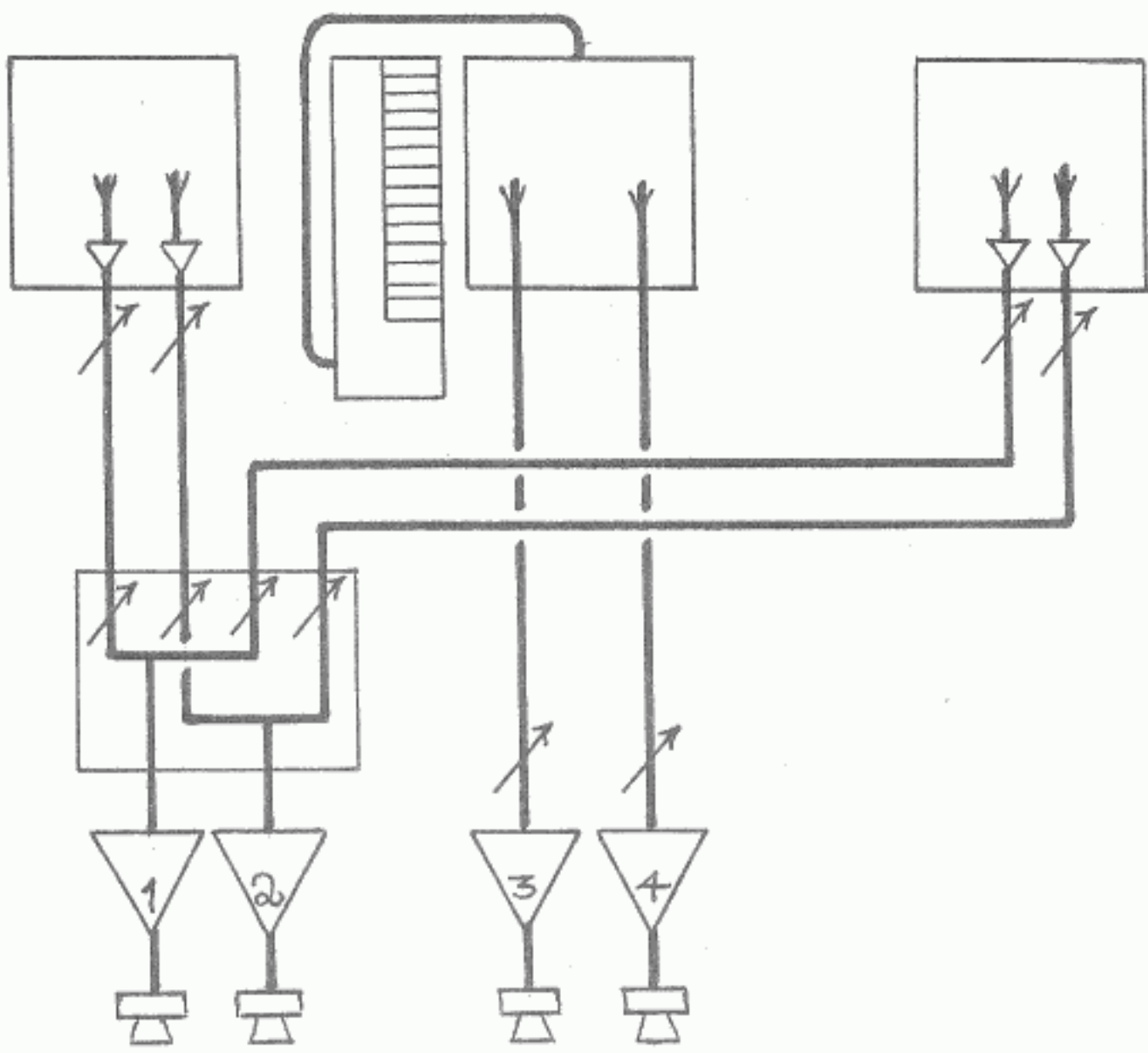
3. Two dice boxes, each with three dice. Open dice can be used, but can roll away and get lost in performance. A good idea is to enclose dice in a Perspex cylindrical box, padded at the flat ends and fitted with a handle so that merely turning the box over throws the dice. The ones I use are of 6" (15.2cm) diameter tube, and the dice are made of hollow polythene child's play bricks about 1½" (3.2cm) across, with paper dots held in place by polyurethane varnish. There are also short bars protruding from the inside walls to make sure the dice are turned as they fall. But all sorts of methods can be used.
- 4A. (Two track performance) Six-channel mixer (3 x stereo) into two outputs.
OR
4B. (Four track performance) One four-channel mixer into two outputs and one two-channel stereo preamplifier (no mixing needed).
- 5A. (Two track) Two power amplifiers and speakers.
OR
5B. (Four track) Four power amplifiers and speakers.

Performance Set-up

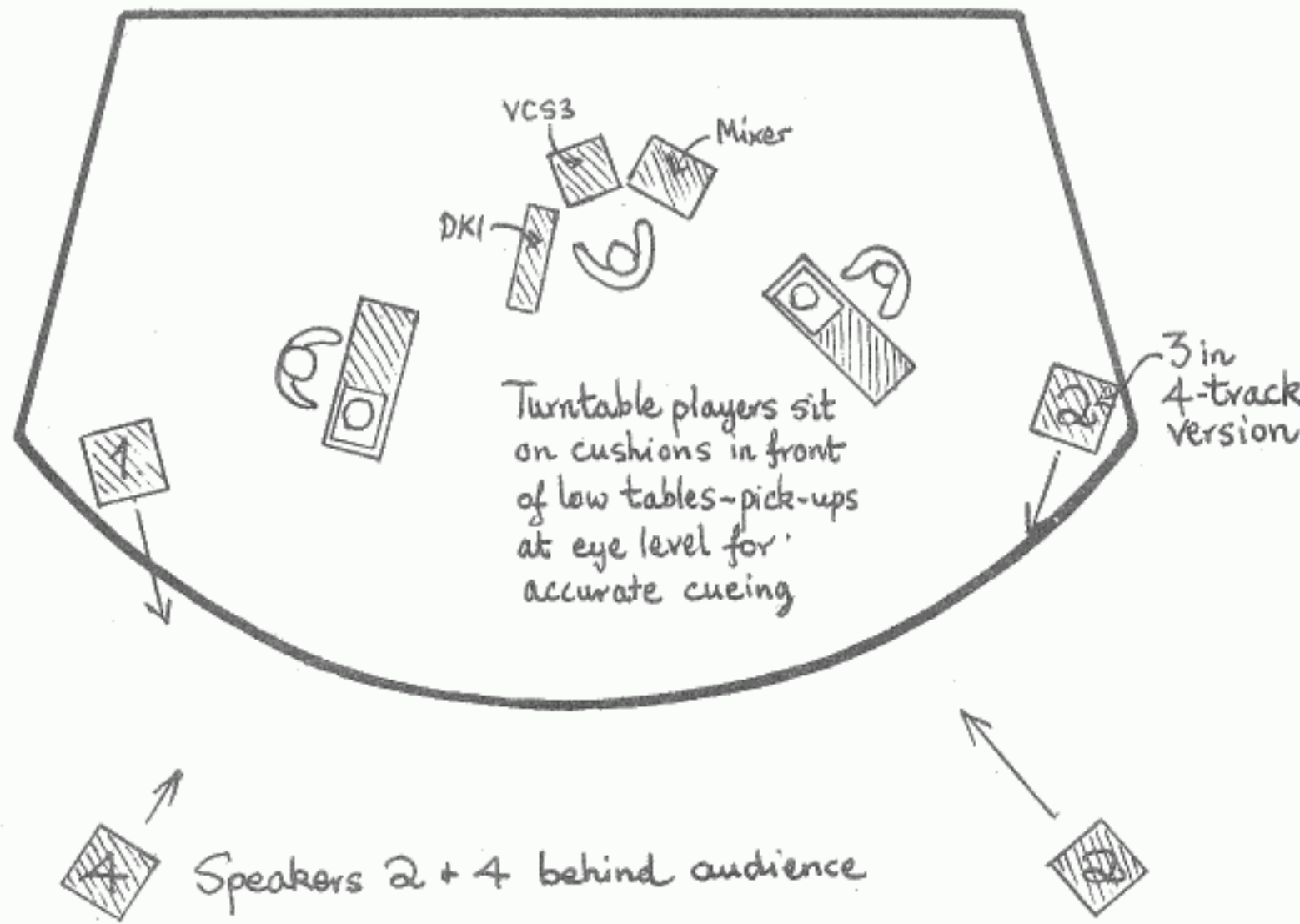
The two track equipment hook-up is as follows:



For four track working, the equipment should be arranged like this:



A good platform arrangement is shown in the following sketch:



PROJECT/NAME/DATE "TRIOS" -----

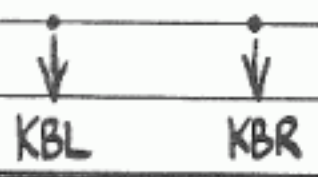
LIVE EVENT NO:

PERFORMANCE / RECORDING NOTES

11

SET-UP: 13 → 10; 14 → 10; 17 → 6; 19 → 10;
23 → 2; 34 → BOTTOM R; (P11 OUT TILL
START)

PERIPHERALS



OSC 1				RM	FILTER/OSC		
5					3	6	
1	2	3	4	5	6	7	8
OSC 2				ENVELOPE			
5				10	10	6	10
9	10	11	12	13	14	15	16
OSC 3				REVERB			
6		10	6			2	
17	18	19	20	21	22	23	24
NOISE		INPUT		OUT. FILTERS		31	
						C S	

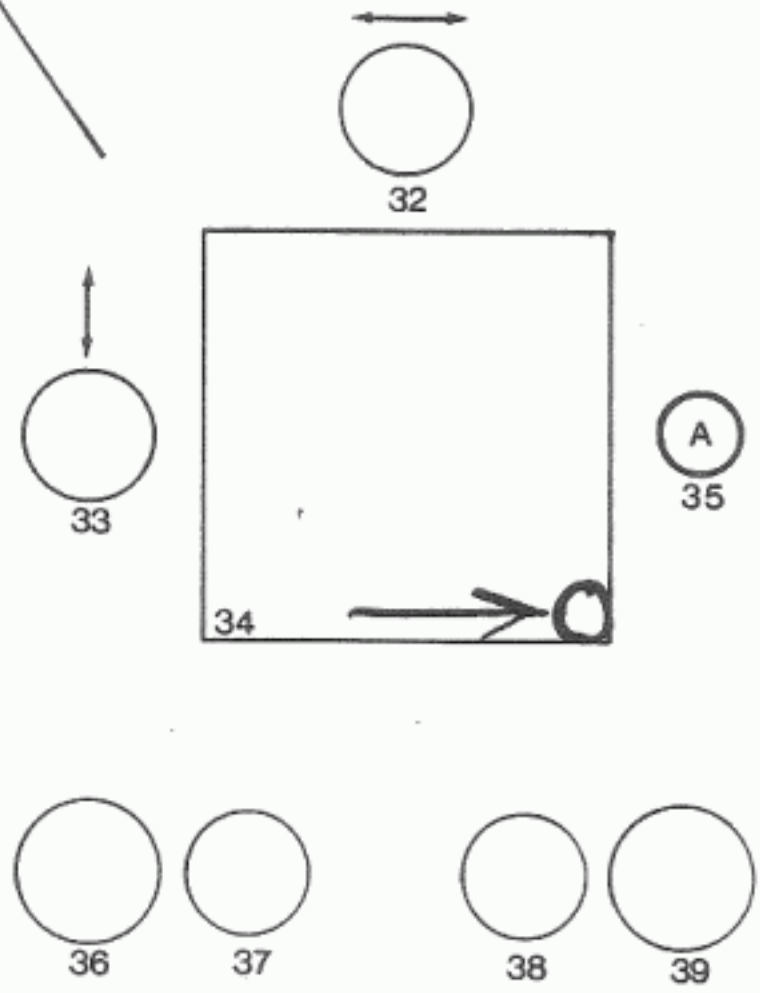
CONTROL CHANGES

1-8
9-16
17-24
25-31
32-39

NUMBERS ARE DOPE SHEET REFERENCES, NOT PIN BOARD NUMBERS

SIGNALS						CONTROLS									
METER	OUT AMPS		ENVEL		RING MOD	REVERB	FILTER	OSC. FREQ			DECAY	REVERB	FILTER	OUT AMPS	
	1	2		A	B			1	2	3				1	2

OSC 1	~															1	
OSC 2	~															2	
OSC 3	~															3	
NOISE																4	
INPUT 1																5	
AMPS 2																6	
FILTER																7	
TRAPEZ																8	
ENV SIG																9	
RING MOD																10	
REVERB																11	
STICK	↔															12	
	↕															13	
																14	
																15	
																16	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P



START:

36 → 4½

Play →



(no need to hold it down)

P11 → IN

39 → 2½

Very slow. Wait for high sound on right to appear, then press another note, wait for long low note and its following high sound, play another note, etc

Confine the range to:



Do not move joystick

FINISH:

Hold down any note

39 → 0

P11 → OUT

36 → 0

