SOUND DATA BOOK

DIGITAL SYNTHESIZER CZ SERIES

CASIO
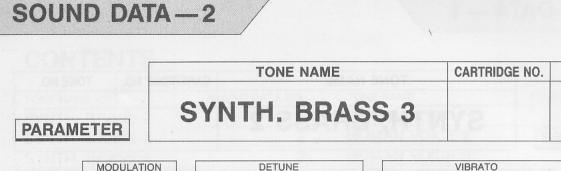
CONTENTS

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. BRASS 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	OFF	OFF	+	0	00	07	1	60	50	08	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)								
STEP	1	2	3	4	5	6	7	8
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END							

DCW 1

KEY FOLLOW
0
(0~9)

E N V (WAVE)								
STEP	1	2	3	4	5	6	7	8
RATE	63	27	18	49	77	43			(0~99)
LEVEL	81	65	50	64	50	00			(0~99)
SUS/END					SUS	END		

DCA 1

KEY FOLLOW
0
(0~9)

E N V (AMP)								
STEP	1	2	3	4	5	6	7	8
RATE	83	36							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)								
STEP	1	2	3	4	5	6	7	8
RATE	99	68							(0~99)
LEVEL	60	00							(0~99)
SUS/END		END						

DCW 2

KEY FOLLOW
2
(0~9)

E N V (WAVE)								
STEP	1	2	3	4	5	6	7	8
RATE	76	55	33	39					(0~99)
LEVEL	99	96	57	00					(0~99)
SUS/END			SUS	END				

DCA 2

KEY FOLLOW
2
(0~9)

E N V (AMP)								
STEP	1	2	3	4	5	6	7	8
RATE	71	32	50	32					(0~99)
LEVEL	99	91	59	00					(0~99)
SUS/END		SUS		END				

COMMENT   Bright sound.

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. BRASS 3		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	00	07	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	68							(0~99)
LEVEL	33	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
3	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	66	47	47	58					(0~99)
LEVEL	78	88	24	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	82	36	79	34					(0~99)
LEVEL	99	91	59	00					(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Subdued sound.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SYNTH. BRASS 4**		

	MODULATION		DETUNE				VIBRATO				OCTAVE	
LINE SELECT	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1′	OFF	OFF	+	0	00	07	1	00	50	00	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	68							(0~99)
LEVEL	33	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	71	47	37	58					(0~99)
LEVEL	99	96	52	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	82	36	65	55					(0~99)
LEVEL	99	91	59	00					(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Strong attack.

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. BRASS 5		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	0	00	05	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	73	68							(0~99)
LEVEL	33	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW
0
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	46	37	26					(0~99)
LEVEL	98	72	73	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW
9
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	82	87	80	55					(0~99)
LEVEL	99	98	79	00					(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   WAH added by RING MODULATION and slight DETUNE.

PARAMETER	TONE NAME	CARTRIDGE NO.	TONE NO.
	STRING ENSEMBLE 3		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	00	07	1	11	51	18	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
2	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	40							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	72	38							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Bright string ensemble.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**STRING ENSEMBLE 4**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	00	12	1	11	51	18	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
7	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	40							(0~99)
LEVEL	95	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	60	30	31						(0~99)
LEVEL	99	93	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Similar to a string quartet.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SYNTH. STRINGS 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	00	10	1	07	53	18	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	83	37	41					(0~99)
LEVEL	99	96	83	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	93	39							(0~99)
LEVEL	87	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Synthesized string sound often used in modern music.

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	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SOFT ORGAN**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	3	00	00	1	00	50	00	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

ENV (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
8	(0~9)

ENV (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	67	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

ENV (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	83	59							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

ENV (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
4	(0~9)

ENV (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	67	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
0	(0~9)

ENV (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	84	59							(0~99)
LEVEL	56	00							(0~99)
SUS/END	SUS	END							

COMMENT   Simple, soft reverberated organ composed of harmonics.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**ELECTRIC ORGAN 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	OFF	OFF	+	2	00	00	1	00	61	26	+	0
(1,2,1÷2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

ENV (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	57	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW
9 (0~9)

ENV (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	73	00	50					(0~99)
LEVEL	53	00	23	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW
9 (0~9)

ENV (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

ENV (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	57	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW
9 (0~9)

ENV (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	73	00	50					(0~99)
LEVEL	53	00	23	00					(0~99)
SUS/END			SUS	END					

DCA 2

KEY FOLLOW
9 (0~9)

ENV (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	84	00							(0~99)
SUS/END	SUS	END							

COMMENT Electric organ with "click" added using pitch envelope.

TONE NAME	CARTRIDGE NO.	TONE NO.
ELECTRIC ORGAN 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2′	OFF	OFF	+	0	00	08	1	00	50	00	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	66	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	12	70	00	50					(0~99)
LEVEL	19	00	23	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	65							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	57	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	73	00	50					(0~99)
LEVEL	53	00	23	00					(0~99)
SUS/END			SUS	END					

DCA 2

KEY FOLLOW	
9	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	65							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

COMMENT Electric organ with attack effect using pitch envelope.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**PIPE ORGAN**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	2	00	00	1	01	10	04	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	2
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
5	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	78	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	75	45	25						(0~99)
LEVEL	99	75	00						(0~99)
SUS/END	SUS		END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	8
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
5	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	25	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	75	59	34						(0~99)
LEVEL	99	75	00						(0~99)
SUS/END	SUS		END						

COMMENT   Bright pipe organ with beautiful reverberation.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. ORGAN		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 1'	OFF	OFF	+	0	00	07	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	8
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	95							(0~99)
LEVEL	73	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99	10	10	10	10	10	01	(0~99)
LEVEL	90	20	15	20	15	20	15	00	(0~99)
SUS/END							SUS	END	

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	65	70	30	65				(0~99)
LEVEL	99	90	65	00	00				(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Pitch envelope used for distinctive click. Suitable for quick adlibs.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**PIANO**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 1'	OFF	OFF	+	0	00	01	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
8	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	20	37						(0~99)
LEVEL	70	44	00						(0~99)
SUS/END		SUS	END						

DCA 1

KEY FOLLOW	
3	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	90	30	25	50					(0~99)
LEVEL	99	80	02	00					(0~99)
SUS/END			SUS	END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Subdued piano. When tone mix selected, the timbre is suited for solo performances.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**FANTASTIC PIANO 1**		

	MODULATION	
LINE SELECT	RING	NOISE
1 + 2'	OFF	OFF
(1,2,1+2',1+1')	(ON/OFF)	

DETUNE			
+/−	OCTAVE	NOTE	FINE
+	2	11	00
(+/−)	(0~3)	(0~11)	(0~60)

VIBRATO			
WAVE	DELAY	RATE	DEPTH
1	00	50	00
(1~4)	(0~99)	(0~99)	(0~99)

OCTAVE	
+/−	RANGE
+	1
(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
1	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	73	49	49	49	39	50		(0~99)
LEVEL	84	43	67	24	61	00	00		(0~99)
SUS/END	SUS					END			

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	27	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	45							(0~99)
LEVEL	90	00							(0~99)
SUS/END		END							

COMMENT Echo effect using DCA 1 after envelope for fantasy sound.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**FANTASTIC PIANO 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	ON	OFF	+	3	00	00	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	14	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	98	30							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
4	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	44	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	49							(0~99)
LEVEL	63	00							(0~99)
SUS/END		END							

COMMENT   Vibraphone-like clear reverberation.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**HARPSICHORD 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1＋1′	OFF	OFF	−	1	00	00	1	00	50	00	＋	1
(1,2,1＋2′,1＋1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
2	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	96	17							(0~99)
LEVEL	96	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
1	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	84	35	46						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Bright reverberation.

PARAMETER

	TONE NAME	CARTRIDGE NO.	TONE NO.
	HARPSICHORD 2		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	−	1	00	00	1	00	50	00	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
4	6
(1~8)	(0~8)

STEP	1	2	3	4	5	6	7	8	E N V (PITCH)
RATE	99	96							(0~99)
LEVEL	66	00							(0~99)
SUS/END	SUS	END							

DCW 1

KEY FOLLOW	
2	(0~9)

STEP	1	2	3	4	5	6	7	8	E N V (WAVE)
RATE	96	94	37	99					(0~99)
LEVEL	80	70	56	00					(0~99)
SUS/END	SUS			END					

DCA 1

KEY FOLLOW	
5	(0~9)

STEP	1	2	3	4	5	6	7	8	E N V (AMP)
RATE	90	30	62						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

STEP	1	2	3	4	5	6	7	8	E N V (PITCH)
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

STEP	1	2	3	4	5	6	7	8	E N V (WAVE)
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

STEP	1	2	3	4	5	6	7	8	E N V (AMP)
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Realistic harpsichord with metallic reverberation.

PARAMETER

TONE NAME

FUNKY CLAVI.

CARTRIDGE NO.

TONE NO.

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	1	00	06	1	00	50	00	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	7
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	66	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	50	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	33	57	99					(0~99)
LEVEL	90	16	00	00					(0~99)
SUS/END			SUS	END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
3	7
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	50	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	94	58	44	90				(0~99)
LEVEL	01	99	90	00	00				(0~99)
SUS/END				SUS	END				

COMMENT Combination of waveform and resonance waveform for funky effect.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. CLAVI. 1		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	ON	OFF	+	2	02	00	1	00	23	02	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
4	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	95	26	50						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	25							(0~99)
LEVEL	86	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	95	23							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

COMMENT Selecting waveforms 3 and 4 for DCO 1 and adding DCO 2 RING MODU-LATION.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SYNTH. CLAVI. 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	ON	OFF	+	3	00	11	1	00	23	02	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
1	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	24	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
6	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	95	26	45						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
4	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	42							(0~99)
LEVEL	89	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
5	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	95	23							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

COMMENT   Non-integral harmonics enhanced in attack.

PARAMETER	TONE NAME	CARTRIDGE NO.	TONE NO.
	XYLOPHONE 1		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	3	04	00	1	52	50	14	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	55	52						(0~99)
LEVEL	99	89	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	62							(0~99)
LEVEL	16	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	49							(0~99)
LEVEL	79	00							(0~99)
SUS/END		END							

COMMENT   Comparatively hard mallet effect.

TONE NAME	CARTRIDGE NO.	TONE NO.
XYLOPHONE 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	OFF	OFF	+	2	00	00	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	58							(0~99)
LEVEL	05	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	83	85	49					(0~99)
LEVEL	69	33	62	00					(0~99)
SUS/END				END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	59							(0~99)
LEVEL	10	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
2	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	57	54						(0~99)
LEVEL	99	60	00						(0~99)
SUS/END			END						

COMMENT Comparatively soft mallet.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**BELL-LYRA**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2′	ON	OFF	+	1	08	27	1	00	50	00	+	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	80	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	48							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	75	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	54							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

COMMENT   RING MODULATION used for metallic vibration.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
TRUMPET 2		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	0	00	00	1	53	52	09	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
4	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	73	53	50						(0~99)
LEVEL	99	88	00						(0~99)
SUS/END		SUS	END						

DCA 1

KEY FOLLOW	
1	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	83	55							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	53	50						(0~99)
LEVEL	99	88	00						(0~99)
SUS/END		SUS	END						

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	83	55							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

COMMENT Strong attack, crisp trumpet.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**TRUMPET 3**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	ON	OFF	−	0	00	03	1	51	54	05	+	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	73	68							(0~99)
LEVEL	33	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	79	45	37	26					(0~99)
LEVEL	99	72	73	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	82	87	60	55					(0~99)
LEVEL	44	93	79	00					(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	73	68							(0~99)
LEVEL	33	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	45	37	26					(0~99)
LEVEL	99	72	73	00					(0~99)
SUS/END			SUS	END					

DCA 2

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	82	87	60	55					(0~99)
LEVEL	99	98	92	00					(0~99)
SUS/END		SUS		END					

COMMENT   RING MODULATION and slight DETUNE applied.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SAXOPHONE 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 1′	OFF	OFF	+	0	00	00	1	50	60	11	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	64	50						(0~99)
LEVEL	29	00	00						(0~99)
SUS/END		SUS	END						

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	74	50							(0~99)
LEVEL	93	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
1	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	73	64							(0~99)
LEVEL	93	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Rather bright timbre.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SAXOPHONE 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	00	00	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	3
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
5	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	83	32						(0~99)
LEVEL	89	84	00						(0~99)
SUS/END		SUS	END						

DCA 1

KEY FOLLOW	
1	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	91	62	89						(0~99)
LEVEL	63	93	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Rather dark timbre.

TONE NAME	CARTRIDGE NO.	TONE NO.
SAXOPHONE 3		

PARAMETER

LINE SELECT	MODULATION	
	RING	NOISE
1+2′	OFF	ON
(1,2,1+2′,1+1′)	(ON/OFF)	

DETUNE			
+/−	OCTAVE	NOTE	FINE
+	0	00	00
(+/−)	(0~3)	(0~11)	(0~60)

VIBRATO			
WAVE	DELAY	RATE	DEPTH
1	00	50	00
(1~4)	(0~99)	(0~99)	(0~99)

OCTAVE	
+/−	RANGE
+	0
(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	3
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
7	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	76	32							(0~99)
LEVEL	84	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	91	62	89						(0~99)
LEVEL	69	99	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	3
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
5	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	76	83	32						(0~99)
LEVEL	77	84	00						(0~99)
SUS/END		SUS	END						

DCA 2

KEY FOLLOW	
1	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	84	62	89						(0~99)
LEVEL	41	07	00						(0~99)
SUS/END		SUS	END						

COMMENT Using NOISE MODULATION at attack causes sound of breath being blown.

TONE NAME	CARTRIDGE NO.	TONE NO.
BLUES HARMONICA 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	OFF	OFF	+	0	00	02	2	50	58	04	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	97	45							(0~99)
LEVEL	72	00							(0~99)
SUS/END	SUS	END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	98	24							(0~99)
LEVEL	28	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	24	70						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	97	45	00						(0~99)
LEVEL	72	66	00						(0~99)
SUS/END	SUS		END						

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	24	87						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END			END						

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	24	70						(0~99)
LEVEL	87	00	00						(0~99)
SUS/END			END						

COMMENT Simple timbre.

	TONE NAME	CARTRIDGE NO.	TONE NO.
	CELLO		

PARAMETER

LINE SELECT	MODULATION RING	MODULATION NOISE	DETUNE +/−	DETUNE OCTAVE	DETUNE NOTE	DETUNE FINE	VIBRATO WAVE	VIBRATO DELAY	VIBRATO RATE	VIBRATO DEPTH	OCTAVE +/−	OCTAVE RANGE
1	OFF	OFF	+	0	00	00	1	50	53	12	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM FIRST	WAVE FORM SECOND
1	4
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW
0
(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	83	59	31	85	50				(0~99)
LEVEL	99	66	48	00	00				(0~99)
SUS/END		SUS		END					

DCA 1

KEY FOLLOW
2
(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	62	34	25	50					(0~99)
LEVEL	68	99	70	00					(0~99)
SUS/END			SUS	END					

2

DCO 2

WAVE FORM FIRST	WAVE FORM SECOND
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Slow attack produces bowing effect.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**WOOD BASS**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	ON	OFF	−	1	00	00	1	31	50	29	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	92	44	47						(0~99)
LEVEL	80	62	00						(0~99)
SUS/END			END						

DCA 1

KEY FOLLOW	
3	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	33	42						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	00	00							(0~99)
LEVEL	02	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	92	44							(0~99)
LEVEL	80	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
3	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	33	86						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END			END						

COMMENT   Jazz-like timbre.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**GUITAR**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	1	07	01	1	69	54	05	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)	STEP	1	2	3	4	5	6	7	8	
	RATE	99	85							(0~99)
	LEVEL	74	00							(0~99)
	SUS/END		END							

DCW 1

KEY FOLLOW	
3	(0~9)

E N V (WAVE)	STEP	1	2	3	4	5	6	7	8	
	RATE	95	99	99	28					(0~99)
	LEVEL	99	25	50	00					(0~99)
	SUS/END				END					

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)	STEP	1	2	3	4	5	6	7	8	
	RATE	90	25	72						(0~99)
	LEVEL	99	00	00						(0~99)
	SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)	STEP	1	2	3	4	5	6	7	8	
	RATE									(0~99)
	LEVEL									(0~99)
	SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)	STEP	1	2	3	4	5	6	7	8	
	RATE									(0~99)
	LEVEL									(0~99)
	SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)	STEP	1	2	3	4	5	6	7	8	
	RATE									(0~99)
	LEVEL									(0~99)
	SUS/END									

COMMENT   Suitable for slow, classical selections.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**ELEC. GUITAR 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 1'	OFF	OFF	+	0	00	00	1	65	52	15	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	93	93	93	93	93	93	93	93	(0~99)
LEVEL	66	00	66	00	66	00	66	00	(0~99)
SUS/END								END	

DCW 1

KEY FOLLOW	
6	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	82	99	82	99	23	50		(0~99)
LEVEL	70	99	70	99	85	00	00		(0~99)
SUS/END						END			

DCA 1

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	95	99	80	20	58	65		(0~99)
LEVEL	62	99	82	99	75	51	00		(0~99)
SUS/END					SUS		END		

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Picking effect produced by pitch envelope.

PARAMETER

TONE NAME

ELEC. GUITAR 3

CARTRIDGE NO. | **TONE NO.**

LINE SELECT	MODULATION	
	RING	NOISE
1 + 2′	OFF	OFF
(1,2,1+2′,1+1′)	(ON/OFF)	

DETUNE			
+/−	OCTAVE	NOTE	FINE
−	1	00	03
(+/−)	(0~3)	(0~11)	(0~60)

VIBRATO			
WAVE	DELAY	RATE	DEPTH
1	00	50	00
(1~4)	(0~99)	(0~99)	(0~99)

OCTAVE	
+/−	RANGE
+	1
(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
4	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	82	95							(0~99)
LEVEL	69	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	92	26							(0~99)
LEVEL	91	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	27	73						(0~99)
LEVEL	99	27	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
4	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	71	71							(0~99)
LEVEL	64	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	88	38							(0~99)
LEVEL	82	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	39	99						(0~99)
LEVEL	99	92	00						(0~99)
SUS/END		SUS	END						

COMMENT Realistic feedback sound.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
ELEC. BASS 1		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	0	07	04	1	33	55	23	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	3
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
7	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	97	43	50	52					(0~99)
LEVEL	99	79	74	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	21	61						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Hard timbre.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**ELEC. BASS 2**		

	MODULATION		DETUNE				VIBRATO				OCTAVE	
LINE SELECT	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	00	02	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	70	99	00					(0~99)
LEVEL	66	00	66	00					(0~99)
SUS/END		SUS		END					

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	65	99	70					(0~99)
LEVEL	99	45	99	00					(0~99)
SUS/END		SUS		END					

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	76	99	65					(0~99)
LEVEL	99	70	99	00					(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Sound 1 octave higher generated when keyboard released. Chopper bass easily produced.

PARAMETER	TONE NAME	CARTRIDGE NO.	TONE NO.
	SYNTH. BASS 2		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1′	ON	OFF	+	1	07	05	1	33	23	06	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	97	47	53	50					(0~99)
LEVEL	99	84	00	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	19	56						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Deep reverberation.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. BASS 3		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	00	00	1	54	50	20	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)
STEP	1	2	3	4	5	6	7	8	
RATE	99	55							(0~99)
LEVEL	64	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW
9	(0~9)

E N V (WAVE)
STEP	1	2	3	4	5	6	7	8	
RATE	91	62	45	58					(0~99)
LEVEL	81	78	24	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW
9	(0~9)

E N V (AMP)
STEP	1	2	3	4	5	6	7	8	
RATE	99	36	52						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
	(0~9)

E N V (WAVE)
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
	(0~9)

E N V (AMP)
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Envelope similar to that of wood bass.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SITAR 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	1	00	07	1	00	03	04	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	8
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	03	45	40						(0~99)
LEVEL	01	20	00						(0~99)
SUS/END			END						

DCW 1

KEY FOLLOW	
2	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	97	35	13					(0~99)
LEVEL	99	30	99	00					(0~99)
SUS/END				END					

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	30	20						(0~99)
LEVEL	99	80	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Hard timbre. Pitch varies when key is held down.

TONE NAME	CARTRIDGE NO.	TONE NO.
SITAR 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 1'	OFF	OFF	+	0	00	09	1	00	03	04	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	8
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	03	45	40						(0~99)
LEVEL	01	20	00						(0~99)
SUS/END			END						

DCW 1

KEY FOLLOW	
2	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	97	35	13					(0~99)
LEVEL	99	30	99	00					(0~99)
SUS/END				END					

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	30	20						(0~99)
LEVEL	99	80	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Softer than SITAR 1. Continuing to press key changes pitch.

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. SHAMISEN		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	1	09	00	1	22	53	15	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	4
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	73	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	10	10						(0~99)
LEVEL	15	20	00						(0~99)
SUS/END			END						

DCA 1

KEY FOLLOW	
3	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	65	46						(0~99)
LEVEL	99	90	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Comical touch.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SYNTH. KOTO**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1′	ON	OFF	+	1	00	05	1	45	50	07	+	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	61	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
3	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	80	35						(0~99)
LEVEL	99	90	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   RING MODULATION applied for reverberated sound of silk strings.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**HUMAN VOICE 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	1	00	10	1	24	54	20	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	40	00						(0~99)
LEVEL	65	66	00						(0~99)
SUS/END		SUS	END						

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	59	21	31	60					(0~99)
LEVEL	99	74	75	00					(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
4	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	46	35	54						(0~99)
LEVEL	65	20	00						(0~99)
SUS/END		SUS	END						

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	67	21	12	35					(0~99)
LEVEL	90	77	90	00					(0~99)
SUS/END			SUS	END					

COMMENT   Transparent human voice covering all ranges.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**HUMAN VOICE 3**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	0	00	01	1	40	60	39	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
8	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	60	00	50						(0~99)
LEVEL	66	00	00						(0~99)
SUS/END	SUS		END						

DCW 1

KEY FOLLOW	
6	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	70	00	50						(0~99)
LEVEL	24	00	00						(0~99)
SUS/END	SUS		END						

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	85	80	40	50					(0~99)
LEVEL	99	40	00	00					(0~99)
SUS/END	SUS			END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
6	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	60	50							(0~99)
LEVEL	66	00							(0~99)
SUS/END	SUS	END							

DCW 2

KEY FOLLOW	
5	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	70	00							(0~99)
LEVEL	28	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	85	80	50						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END	SUS		END						

COMMENT Electrically modified human voice.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**HUMAN VOICE 4**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	0	00	02	1	50	55	25	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
8	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	00	00	00	00	00	00	00	00	(0~99)
LEVEL	02	00	02	00	02	00	02	00	(0~99)
SUS/END								END	

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	32	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	80	50						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END	SUS		END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
7	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	38	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	80	50						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END	SUS		END						

COMMENT   Men's chorus from bass to tenor.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**MUSIC BOX**		

LINE SELECT	MODULATION RING	NOISE	DETUNE +/−	OCTAVE	NOTE	FINE	VIBRATO WAVE	DELAY	RATE	DEPTH	OCTAVE +/−	RANGE
1 + 2′	OFF	OFF	+	3	10	03	1	51	52	05	+	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	66	00							(0~99)
SUS/END	SUS	END							

DCW 1

KEY FOLLOW
0 (0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW
5 (0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	94	21	37						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW
4 (0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	24							(0~99)
LEVEL	76	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW
3 (0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	56	38	46					(0~99)
LEVEL	74	28	00	00					(0~99)
SUS/END			SUS	END					

COMMENT Turning NOISE MODULATION on produces toy music box effect.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SYNTH. BLOCKS**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	ON	OFF	+	0	08	30	1	00	50	00	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	89							(0~99)
LEVEL	42	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	57							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	89							(0~99)
LEVEL	42	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	57							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

COMMENT RING MODULATION produces effect of reverberated wood blocks.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**GLASS SOUND 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2′	ON	OFF	+	2	02	45	1	35	50	11	+	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
1	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	12	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	95	36							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
1	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	98	38							(0~99)
LEVEL	65	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

COMMENT   Hitting glasses filled with water.

TONE NAME	CARTRIDGE NO.	TONE NO.
GLASS SOUND 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	1	00	00	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00							(0~99)
LEVEL	66	00							(0~99)
SUS/END	SUS	END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	63							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	37							(0~99)
LEVEL	84	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Brighter than GLASS SOUND 1.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**AFRO-PERCUSSION 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1	OFF	OFF	+	0	00	00	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	90	90							(0~99)
LEVEL	76	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	15	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	49							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT "Click" added using pitch envelope, attack effect produced.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**AFRO-PERCUSSION 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	ON	OFF	+	2	00	00	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	14	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	95	39							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	44	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	88	42							(0~99)
LEVEL	63	00							(0~99)
SUS/END		END							

COMMENT   Softer touch.

TONE NAME	CARTRIDGE NO.	TONE NO.
AFRO-PERCUSSION 3		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1	OFF	OFF	+	0	00	00	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
7	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	63							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
7	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	39							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Strong attack (hard sound).

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**STEEL DRUM 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	2	03	08	1	0	38	15	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	76							(0~99)
LEVEL	62	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW
0
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	51							(0~99)
LEVEL	83	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW
2
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	52							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Reverberate short and small steel drum sound.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**STEEL DRUM 3**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	ON	OFF	+	0	00	18	1	00	23	02	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
1	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	12	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	39							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
1	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	98	38							(0~99)
LEVEL	65	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	89	23							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

COMMENT   RING MODULATION and DETUNE setting produce resonant sound.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SYNTH. DRUMS 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2'	OFF	ON	+	0	10	00	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	42							(0~99)
LEVEL	70	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	53							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99	13						(0~99)
LEVEL	99	53	00						(0~99)
SUS/END		SUS	END						

DCW 2

KEY FOLLOW	
8	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50	52						(0~99)
LEVEL	92	00	00						(0~99)
SUS/END		SUS	END						

COMMENT Quick attack envelope and noise modulation produce percussive timbre.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SYNTH. DRUMS 3**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2′	OFF	OFF	+	0	08	01	1	00	50	00	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	42							(0~99)
LEVEL	70	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	43	50						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	42							(0~99)
LEVEL	66	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
8	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	47	52						(0~99)
LEVEL	92	00	00						(0~99)
SUS/END		SUS	END						

COMMENT Pitch envelope makes pitch drop after strike.

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. DRUMS 4		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	ON	+	0	10	00	3	00	55	80	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	05	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	51							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	88							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
8	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	75							(0~99)
LEVEL	82	00							(0~99)
SUS/END		END							

COMMENT   Heavy drum effect.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
TABLA		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	0	10	06	1	10	54	07	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	33	54	38						(0~99)
LEVEL	03	27	00						(0~99)
SUS/END			END						

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
9	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	52	40						(0~99)
LEVEL	99	00	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Indian musical instrument.
Volume envelope differs in accordance with how long keys are pressed.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**TAMBOURINE**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	ON	+	0	00	00	1	00	50	00	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	18							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW
0
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	28							(0~99)
LEVEL	24	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW
0
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	94	56							(0~99)
LEVEL	94	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Press as many keys as possible.

TONE NAME	CARTRIDGE NO.	TONE NO.
SCRATCH SOUND		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	ON	+	0	00	06	2	00	67	99	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	5
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	63	76	67						(0~99)
LEVEL	81	69	00						(0~99)
SUS/END		SUS	END						

DCW 1

KEY FOLLOW	
4	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	55	41							(0~99)
LEVEL	59	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
5	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	68	47	66	88					(0~99)
LEVEL	99	87	00	00					(0~99)
SUS/END			SUS	END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Currently popular scratch sound.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**SOUTHERN WING**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1′	OFF	OFF	+	0	00	07	1	00	50	00	+	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
3	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	47	68	60						(0~99)
LEVEL	44	00	00						(0~99)
SUS/END		SUS	END						

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	68	37						(0~99)
LEVEL	81	99	00						(0~99)
SUS/END		SUS	END						

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	62	33						(0~99)
LEVEL	87	75	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Southeast Asia flavor.

TONE NAME	CARTRIDGE NO.	TONE NO.
SYNTH. HARP		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2′	ON	OFF	+	0	00	05	1	51	52	05	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
5	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	50	00	50					(0~99)
LEVEL	99	30	99	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	90	30							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
4	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	82	46	50	00				(0~99)
LEVEL	99	85	60	00	00				(0~99)
SUS/END				SUS	END				

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	89	50	50					(0~99)
LEVEL	99	70	80	00					(0~99)
SUS/END			SUS	END					

COMMENT   Sound sustained when keys held down.

TONE NAME	CARTRIDGE NO.	TONE NO.
GLASS HARMONICA		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	+	2	00	00	1	00	50	00	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	51	32	36						(0~99)
LEVEL	95	57	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   The sound produced when the rim of a glass is rubbed.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**FANTASTIC SOUND 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1	OFF	OFF	+	0	00	00	1	30	47	3	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
1	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	75	49	49	49	49	39		(0~99)
LEVEL	99	84	43	67	24	61	00		(0~99)
SUS/END		SUS					END		

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Fantasy timbre with echo effect when key is released.

TONE NAME	CARTRIDGE NO.	TONE NO.
FANTASTIC SOUND 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1	OFF	OFF	+	0	00	00	1	71	40	39	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	64	64	64	00					(0~99)
LEVEL	64	65	66	00					(0~99)
SUS/END			SUS	END					

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	20	28	00						(0~99)
LEVEL	46	00	00						(0~99)
SUS/END			END						

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	84	38	70	44	73	47	73	29	(0~99)
LEVEL	99	34	76	38	83	38	87	00	(0~99)
SUS/END	SUS							END	

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Complex movement after keys are released.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**FANTASTIC SOUND 3**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	0	00	06	1	00	50	00	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	90							(0~99)
LEVEL	46	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50	50	50	50	50	50	50	(0~99)
LEVEL	99	35	85	35	70	35	55	00	(0~99)
SUS/END	SUS							END	

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	90							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50	50	50	50	50	50	50	(0~99)
LEVEL	55	35	80	35	70	35	55	00	(0~99)
SUS/END	SUS							END	

COMMENT   Fantasy sound with characteristic attack and release.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**FANTASTIC SOUND 4**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	OFF	ON	+	2	00	02	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	97	37							(0~99)
LEVEL	99	00							(0~99)
SUS/END	SUS	END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
3	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	44	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	49							(0~99)
LEVEL	63	00							(0~99)
SUS/END		END							

COMMENT Fantasy sound using NOISE MODULATION.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
OLD-FASHIONED SOUND		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 1'	OFF	OFF	+	1	07	00	1	00	50	00	−	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	8
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	99	95							(0~99)
LEVEL	73	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	25	25	25	25	25	25	01	(0~99)
LEVEL	15	20	15	20	15	20	15	00	(0~99)
SUS/END							SUS	END	

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	65	30						(0~99)
LEVEL	99	90	00						(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT

TONE NAME	CARTRIDGE NO.	TONE NO.
CAVERNOUS SOUND		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	−	3	03	26	2	00	89	38	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	3
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50	40	30					(0~99)
LEVEL	99	94	75	00					(0~99)
SUS/END				END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Sound just like playing in cavern.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**DANGEROUS SOUND 1**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	+	3	07	03	2	60	52	73	+	0
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	3
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	00	55	40	28					(0~99)
LEVEL	01	99	70	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	94	55	35						(0~99)
LEVEL	99	90	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99	99							(0~99)
LEVEL	40	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
3	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	56	38						(0~99)
LEVEL	44	28	00						(0~99)
SUS/END		SUS	END						

COMMENT   Nothing special as each is pressed. But try holding a keys down.

TONE NAME	CARTRIDGE NO.	TONE NO.
DANGEROUS SOUND 2		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	ON	OFF	+	2	09	45	4	69	83	99	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
1	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	12							(0~99)
LEVEL	12	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
4	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	95	17							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
1	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	98	17							(0~99)
LEVEL	65	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

COMMENT   Rectangular vibrato waveform for characteristic sound.

TONE NAME	CARTRIDGE NO.	TONE NO.

PARAMETER

LASER GUN 1

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	0	01	06	1	36	66	46	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	3
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	55	54	00						(0~99)
LEVEL	82	39	00						(0~99)
SUS/END	SUS		END						

DCW 1

KEY FOLLOW	
4	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	82	26	00						(0~99)
LEVEL	92	45	00						(0~99)
SUS/END	SUS		END						

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	62	37	45						(0~99)
LEVEL	99	68	00						(0~99)
SUS/END	SUS		END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**LASER GUN 2**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	0	00	07	4	00	81	99	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	91							(0~99)
LEVEL	72	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	76							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	55	50	25	60				(0~99)
LEVEL	99	90	60	00	00				(0~99)
SUS/END		SUS			END				

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Like sound used in TV games.

TONE NAME	CARTRIDGE NO.	TONE NO.
ANIMATION SOUND		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	+	2	11	00	1	00	41	88	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
4	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	99								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCA 1

KEY FOLLOW	
1	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	58							(0~99)
LEVEL	99	00							(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Animated effect for sound that has many applications.

PARAMETER	TONE NAME	CARTRIDGE NO.	TONE NO.
	MOTORCYCLE SOUND		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2′	OFF	OFF	−	1	00	00	1	92	08	56	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	4
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	25	40	35	40	03				(0~99)
LEVEL	70	20	79	70	00				(0~99)
SUS/END				SUS	END				

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	76	32							(0~99)
LEVEL	49	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	70	62	30						(0~99)
LEVEL	69	94	00						(0~99)
SUS/END		SUS	END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	4
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	25	40	35	40	03				(0~99)
LEVEL	70	20	79	70	00				(0~99)
SUS/END				SUS	END				

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	76	32							(0~99)
LEVEL	84	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
2	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	70	62	30						(0~99)
LEVEL	69	99	00						(0~99)
SUS/END		SUS	END						

COMMENT Pressing various keys at different timing sounds like motorcycle race.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**EXPLOSION SOUND**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2′	OFF	ON	−	2	00	00	4	00	50	20	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	83	32						(0~99)
LEVEL	84	55	00						(0~99)
SUS/END			END						

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	97	54						(0~99)
LEVEL	53	70	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	42							(0~99)
LEVEL	84	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	95	97	25	30					(0~99)
LEVEL	69	99	90	00					(0~99)
SUS/END				END					

COMMENT   Hitting the mid-range keys produces explosion sound.

PARAMETER

TONE NAME	CARTRIDGE NO.	TONE NO.
TELEPHONE CALL		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	ON	OFF	−	3	11	24	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
4	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE	96	55							(0~99)
LEVEL	54	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE	99	03	70	29	99	03	70		(0~99)
LEVEL	99	97	00	01	99	97	00		(0~99)
SUS/END							END		

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)

STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Pressing any key from E_4 through A_4 produces two telephone rings.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**COMPUTER GAME SOUND**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+2'	OFF	OFF	+	0	00	01	4	50	64	99	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	99	10	99	10	99	00		(0~99)
LEVEL	01	32	33	59	58	66	00		(0~99)
SUS/END						SUS	END		

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	70	00							(0~99)
SUS/END	SUS	END							

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	15	33	50					(0~99)
LEVEL	99	98	50	00					(0~99)
SUS/END			SUS	END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	00	99	10	99	10	99	00		(0~99)
LEVEL	01	32	33	59	58	00	00		(0~99)
SUS/END						SUS	END		

DCW 2

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	70	00							(0~99)
SUS/END	SUS	END							

DCA 2

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	00	99	50					(0~99)
LEVEL	99	98	90	00					(0~99)
SUS/END			SUS	END					

COMMENT   Comical, computer game sound.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**'70's SYNTHESIZER SOUND**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1+1'	OFF	OFF	−	1	00	00	1	00	50	00	+	0
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
1	6
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	50								(0~99)
LEVEL	00								(0~99)
SUS/END	END								

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	35	29	24	26					(0~99)
LEVEL	62	41	30	00					(0~99)
SUS/END			SUS	END					

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	70	28	79	40					(0~99)
LEVEL	99	91	59	00					(0~99)
SUS/END		SUS		END					

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT   Resembles analog synthesizer of 1970's.

TONE NAME	CARTRIDGE NO.	TONE NO.
THUNDER SOUND		

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 2′	OFF	ON	−	2	00	00	4	00	50	20	−	1
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	4
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	50							(0~99)
LEVEL	70	00							(0~99)
SUS/END		END							

DCW 1

KEY FOLLOW	
9	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	72	32						(0~99)
LEVEL	84	55	00						(0~99)
SUS/END			END						

DCA 1

KEY FOLLOW	
2	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	60	54						(0~99)
LEVEL	90	80	00						(0~99)
SUS/END			END						

2

DCO 2

WAVE FORM	
FIRST	SECOND
2	3
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	97	45							(0~99)
LEVEL	63	00							(0~99)
SUS/END		END							

DCW 2

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	76	42							(0~99)
LEVEL	84	00							(0~99)
SUS/END		END							

DCA 2

KEY FOLLOW	
3	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	95	97	25	30					(0~99)
LEVEL	69	99	90	00					(0~99)
SUS/END				END					

COMMENT Press multiple keys.

	TONE NAME	CARTRIDGE NO.	TONE NO.
PARAMETER	**MEOW**		

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
1 + 1'	OFF	OFF	+	0	00	00	1	00	50	00	+	1
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
7	0
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE	00	20	70	50					(0~99)
LEVEL	01	20	00	00					(0~99)
SUS/END				END					

DCW 1

KEY FOLLOW	
0	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE	99	47	32	40	50				(0~99)
LEVEL	60	36	30	00	00				(0~99)
SUS/END				END					

DCA 1

KEY FOLLOW	
0	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE	75	25	50						(0~99)
LEVEL	90	99	00						(0~99)
SUS/END		END							

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW	
	(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW	
	(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT Sound of cat crying. Differs according to how long keys are pressed.

SOUND DATA —
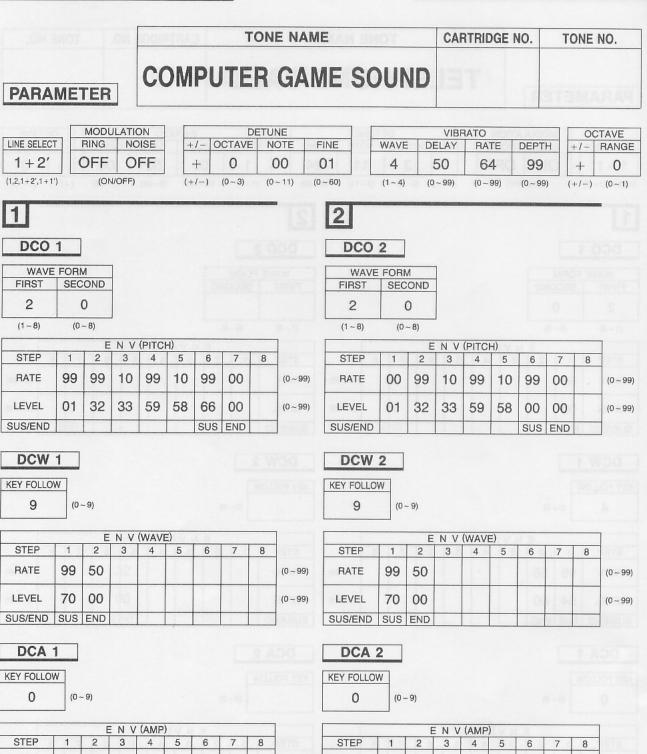
<table>
<tr><td></td><td colspan="2">TONE NAME</td><td>CARTRIDGE NO.</td><td>TONE NO.</td></tr>
<tr><td>PARAMETER</td><td colspan="2"></td><td></td><td></td></tr>
</table>

	MODULATION		DETUNE				VIBRATO				OCTAVE	
LINE SELECT	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
(1,2,1+2′,1+1′)	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 1

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 1

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT

SOUND DATA—

TONE NAME		CARTRIDGE NO.	TONE NO.

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM

FIRST	SECOND
(1~8)	(0~8)

ENV (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 1

KEY FOLLOW

	(0~9)

ENV (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 1

KEY FOLLOW

	(0~9)

ENV (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

2

DCO 2

WAVE FORM

FIRST	SECOND
(1~8)	(0~8)

ENV (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW

	(0~9)

ENV (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW

	(0~9)

ENV (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT

SOUND DATA—

TONE NAME	CARTRIDGE NO.	TONE NO.

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 1

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 1

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT

SOUND DATA—

TONE NAME	CARTRIDGE NO.	TONE NO.

PARAMETER

LINE SELECT	MODULATION		DETUNE				VIBRATO				OCTAVE	
	RING	NOISE	+/−	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/−	RANGE
(1,2,1+2',1+1')	(ON/OFF)		(+/−)	(0~3)	(0~11)	(0~60)	(1~4)	(0~99)	(0~99)	(0~99)	(+/−)	(0~1)

1

DCO 1

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 1

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 1

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

2

DCO 2

WAVE FORM	
FIRST	SECOND
(1~8)	(0~8)

E N V (PITCH)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCW 2

KEY FOLLOW
(0~9)

E N V (WAVE)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

DCA 2

KEY FOLLOW
(0~9)

E N V (AMP)									
STEP	1	2	3	4	5	6	7	8	
RATE									(0~99)
LEVEL									(0~99)
SUS/END									

COMMENT

CASIO.