```
SOURCE FILE: PHSRMIDI.SCO
SOURCE FILE: PHSRMIDI.SC1
0000:
                 1 ; PHASOR MIDI IN TONE GENERATOR
0000:
                 2 ;
---- NEXT OBJECT FILE NAME IS PHSRMIDI.OBJ
6000:
                                                ORG $6000
                 4;
6000:
6400:
                 5 PITCHLO
                                EQU
                                        $6400
                                                          ;LOAD MIDI NOTE # TO P
ITCH MAP HERE
                                          $6480
6480:
                 6 PITCHHI
                                EQU
C000:
                 7 APPLEKBD EQU $C000
C010:
                 8 KBDSTROB EQU $C010
                 9;
6000:
6000:
                10 ; PASSPORT MIDI CONFIGURED FOR SLOT 2
6000:
                11;
C0A8:
                12 PPMIDICR EQU $C0A8
                                                    ; CONTROL REGISTER
C0A9:
                13 PPMIDIDR EQU $C0A9
                                                    : DATA REGISTER
6000:
                14;
6000:
                15; PHASOR CONFIGURED FOR SLOT 4:
6000:
                16;
                                                              ; INIT
COCD:
                17 PHTRIG
                                          EQU $C0CD
C493:
                18 PHRES1
                                          EQU $C493
                                                              ; RESET 1
                                                              ; RESET 2
C492:
                19 PHRES2
                                          EQU $C492
                20 CHIPAC
                                          EQU $C411
C411:
                                                              ; CHIP A CONTROL R
EGISTER
C410:
                21 CHIPAD
                                          EQU $C410
                                                              ; CHIP A DATA REGI
STER
C481:
                22 CHIPBC
                                          EOU $C481
                                                              : CHIP B CONTROL R
EGISTER
C480:
                23 CHIPBD
                                         EQU $C480
                                                              ; CHIP B DATA REGI
STER
6000:
                24;
6000:4C 8B 60
                25
                                                JMP MAIN
6003:4C D9 62
                26
                                                JMP CHKMIDI
                                                                   ;SET MIDITES
T BYTE BELOW
6006:4C B9 60
                27
                                                JMP PANIC
                28
6009:4C 92 60
                                                JMP TSTNOTON
                                                                   ; FOR TESTING
PHASOR NOTE ALLOCATION DIRECTLY
600C:4C 9B 60
                29
                                                JMP TSTNOTOF
                30 ;
600F:
600F:FF
                31 MIDITEST DFB $FF
                                                      ;FF = USE PASSPORT MIDI, E
LSE TEST 1 MIDI BYTE
                                        DFB $00
6010:00
                32 KBDCMD
                                                              FOR APPLESOFT TO
READ KEYPRESS UPON EXIT
6011:00
                33 SOLOCHNL DFB $00
                                                      ;HI BIT = YES, ELSE NO. LO
W 4 BITS = CHNL
                34;
6012:
                                        $00,$00,$00,$00,$00,$00,$00,$00,$0
6012:00 00 00
                35 NOTESON
                                DFB
0,$00,$00
6015:00 00 00
6018:00 00 00
601B:00 00 00
                                                ; WHICH MIDI NOTES ARE ON FOR EA
601E:
                36;
CH VOICE
601E:
601E:00 00 00
                6021:00 00 00
6024:00 00 00
6027:00 00 00
                                                ; VELOCITIES FOR EACH VOICE PLAY
602A:
                39 ;
ING
                40;
602A:
602A:
                41 ; INTERNAL VARIABLES - NOT FOR EXTERNAL USE
602A:FF
                42 MIDIPHAS DFB $FF
                                                      ;STATE MACHINE PHASE. FF=A
```

WAITING COMMAND						
	43	MIDISTS		DFB	\$90	
		MIDIDAT1	DFB	\$3C	•	
602D:40	45	MIDIDAT2	DFB	\$40		
602E:00	46	FREESLOT	DFB	\$00		;FIRST FREE ELEMENT IN NOT
ESON AND NOTEVELS	S					
	47	;				
	48	CHIPNUM		DFB	\$01,\$0	1,\$01,\$02,\$02,\$02,\$03,\$03,\$03,\$0
4,\$04,\$04						
6032:02 02 02						
6035:03 03 03						
6038:04 04 04 603B:08 09 0A	4 O	VOFFSET		DFB	¢00 ¢0	9,\$0A,\$08,\$09,\$0A,\$08,\$09,\$0A,\$0
8,\$09,\$0A	4 7	VOFFSEI		ргь	\$00 , \$0	79,50A,500,509,50A,500,509,50A,50
603E:08 09 0A						
6041:08 09 0A						
6044:08 09 0A						
	50	NOFFSET		DFB	\$00,\$0	2,\$04,\$00,\$02,\$04,\$00,\$02,\$04,\$0
0,\$02,\$04					•	
604A:00 02 04						
604D:00 02 04						
6050:00 02 04						
	51					
	52	;				; PHASOR SOUND REGISTER DATA FOR
EACH CHIP	- 2	GUITD 1 DDM	DED	¢=4 ¢00 ¢4	71 000	¢*2 ¢00 ¢00 ¢20 ¢00 ¢00 ¢00
	53	CHIPIPRM	DFB	\$F4,\$00,\$0	1,500,	\$A3,\$00,\$00,\$38,\$00,\$00,\$00,\$00,
\$00,\$00 6056:00 A3 00						
6059:00 38 00						
605C:00 00 00						
605F:00 00						
	54	CHIP2PRM	DFB	\$F4,\$00,\$0	C1.\$00.	\$A3,\$00,\$00,\$38,\$00,\$00,\$00,\$00,
\$00,\$00	_			1/1/1	,,,	
6064:00 A3 00						
6067:00 38 00						
606A:00 00 00						
606D:00 00						
	55	CHIP3PRM	DFB	\$F4,\$00,\$0	C1,\$00,	\$A3,\$00,\$00,\$38,\$00,\$00,\$00,\$00,
\$00,\$00						
6072:00 A3 00						
6075:00 38 00 6078:00 00 00						
607B:00 00 00						
	56	CHTP4PRM	DFB	\$F4_\$00_\$0	31.800.	\$A3,\$00,\$00,\$38,\$00,\$00,\$00,\$00,
\$00,\$00	-	OHILI HING	בבב	71 1/400/4	51,400,	4113 , 400 , 400 , 400 , 400 , 400 , 400 ,
6080:00 A3 00						
6083:00 38 00						
6086:00 00 00						
6089:00 00						
	57					
		MAIN			JSR	INITPHSR
	59					JSR_INITMIDI
	60					RTS
	61	; mamamaman	TDV	МТРТРА Ш1		
	62 63	TSTNOTON	пηχ	MIDIDATI		LDY MIDIDAT2
	64					JMP NOTEON
	65	•				OIII MOIDON
		'TSTNOTOF	L'DX	МТОТОАТ1		
	67					JMP NOTEOFF
	68	;				· · · · · · · ·
	69	, INITPHSR	BIT	PHTRIG		; INIT AND RESET
	70					LDA #\$FF
	71					STA PHRES1
	72					STA PHRES2
60AC:20 3A 61	73					JSR PHPLAY1 ; INIT ALL S

OUND REGISTERS				
60AF:20 59 61	74		JSR PHPLAY2	
60B2:20 78 61	75		JSR PHPLAY3	
60B5:20 97 61	76		JSR PHPLAY4	
60B8:60	77		RTS	
60B9:	78 ;			
60B9:20 49 61	79 PANIC		JSR PHSTOP1	;STOP ALL SOUNDS
60BC:20 68 61	80		JSR PHSTOP2	
60BF:20 87 61	81		JSR PHSTOP3	
60C2:20 A6 61	82		JSR PHSTOP4	
60C5:60	83		RTS	
60C6:	84 ;	ms/ 3		THIR 1. V - DEGLOWED
60C6:8A Y=DATA	85 PHSROUT1	TXA	; (CHIP 1: X = REGISTER
60C7:8D 11 C4	86		STA CHIPAC	
60CA:A9 OF	87		LDA #\$0F	
60CC:8D 10 C4	88		STA CHIPAD	
60CF:A9 0C	89		LDA #\$0C	
60D1:8D 10 C4	90		STA CHIPAD	
60D4:98	91		TYA	
60D5:8D 11 C4	92		STA CHIPAC	
60D8:A9 0E	93		LDA #\$0E	
60DA:8D 10 C4	94		STA CHIPAD	
60DD:A9 0C	95		LDA #\$0C	
60DF:8D 10 C4	96		STA CHIPAD	
60E2:60	97		RTS	_
60E3:8A	98 PHSROUT2	TXA	; (CHIP 2: X = REGISTER
Y=DATA	0.0			
60E4:8D 11 C4	99		STA CHIPAC	
60E7:A9 17	100		LDA #\$17	
60E9:8D 10 C4 60EC:A9 14	101 102		STA CHIPAD LDA #\$14	
60EE:8D 10 C4	102		STA CHIPAD	
60F1:98	104		TYA	
60F2:8D 11 C4	105		STA CHIPAC	
60F5:A9 16	106		LDA #\$16	
60F7:8D 10 C4	107		STA CHIPAD	
60FA:A9 14	108		LDA #\$14	
60FC:8D 10 C4	109		STA CHIPAD	
60FF:60	110		RTS	
6100:8A	111 PHSROUT3	S TXA	•	CHIP 3
6101:8D 81 C4	112		STA CHIPBC	
6104:A9 OF	113		LDA #\$0F	
6106:8D 80 C4	114		STA CHIPBD	
6109:A9 0C	115		LDA #\$0C	
610B:8D 80 C4 610E:98	116 117		STA CHIPBD TYA	
610E:98 610F:8D 81 C4	117		STA CHIPBC	
6112:A9 0E	119		LDA #\$0E	
6114:8D 80 C4	120		STA CHIPBD	
6117:A9 0C	121		LDA #\$0C	
6119:8D 80 C4	122		STA CHIPBD	
611C:60	123		RTS	
611D:8A	124 PHSROUT4	TXA		CHIP 4
611E:8D 81 C4	125		STA CHIPBC	
6121:A9 17	126		LDA #\$17	
6123:8D 80 C4	127		STA CHIPBD	
6126:A9 14	128		LDA #\$14	
6128:8D 80 C4	129		STA CHIPBD	
612B:98	130		TYA	
612C:8D 81 C4	131		STA CHIPBC	
612F:A9 16	132 133		LDA #\$16 STA CHIPBD	
6131:8D 80 C4 6134:A9 14	134		LDA #\$14	
6134:A9 14 6136:8D 80 C4	135		STA CHIPBD	
6139:60	136		RTS	
0107.00	100		KID	

613A:			137	•				
613A:A2	00			, PHPLAY1		LDX	#\$00	
613C:BD	53	60	139	PARMOUT1	LDA	CHIP1PRM,	X	
613F:A8			140					TAY
6140:20	C6	60	141					JSR PHSROUT1
6143:E8	_		142					INX
	0E		143					CPX #\$0E
	F4		144					BCC PARMOUT1
6148:60	0.0		145	DIIGEOD 1		TDV	#¢00	RTS
6149:A2			$\begin{array}{c} 146 \\ 147 \end{array}$	PHSTOP1		LDX	#\$08	T DV #¢00
614B:A0 614D:20	00 C6	60	147					LDY #\$00 JSR PHSROUT1
6150:E8	Co	00	149					INX
6151:20	C6	60	150					JSR PHSROUT1
6154:E8	00		151					INX
6155:20	C6	60	152					JSR PHSROUT1
6158:60			153					RTS
6159:			154	;				
6159:A2	00		155	PHPLAY2		LDX	#\$00	
	61	60		PARMOUT2	LDA	CHIP2PRM,	X	
615E:A8			157					TAY
615F:20	E3	60	158					JSR PHSROUT2
6162:E8			159					INX
	0E		160					CPX #\$0E
	F4		161					BCC PARMOUT2
6167:60 6168:A2	۸٥		162	DUCMOD2		TDV	#¢no	RTS
	08		163 164	PHSTOP2		LDX	#\$08	LDY #\$00
	E3	60	165					JSR PHSROUT2
616F:E8	ЦЭ	00	166					INX
	E3	60	167					JSR PHSROUT2
6173:E8			168					INX
	E3	60	169					JSR PHSROUT2
6177:60			170					RTS
6178:			171	;				
	00			PHPLAY3		LDX	#\$00	
617A:BD	6F	60		PARMOUT3	LDA	CHIP3PRM,	X	
617D:A8			174					TAY
	00	61	175					JSR PHSROUT3
6181:E8	ΛE		176					INX
6182:E0 6184:90	0E F4		177 178					CPX #\$0E BCC PARMOUT3
6186:60	Г4		179					RTS
	08			PHSTOP3		LDX	#\$08	KID
6189:A0	00		181	11101013		ших	<i>"</i> 700	LDY #\$00
618B:20	00	61	182					JSR PHSROUT3
618E:E8			183					INX
618F:20	00	61	184					JSR PHSROUT3
6192 : E8			185					INX
6193:20	00	61	186					JSR PHSROUT3
6196:60			187					RTS
6197:				;				
6197:A2				PHPLAY4		LDX	#\$00	
6199:BD	7D	60		PARMOUT4	LDA	CHIP4PRM,	X	ma
619C:A8	1 D	61	191					TAY
	1D	0.1	192					JSR PHSROUT4
61A0:E8 61A1:E0	0E		193 194					INX CPX #\$0E
	F4		194					BCC PARMOUT4
61A5:60	1 7		196					RTS
	08			PHSTOP4		LDX	#\$08	1110
61A8:A0	00		198				,	LDY #\$00
61AA:20		61	199					JSR PHSROUT4
61AD:E8			200					INX
-	1D	61	201					JSR PHSROUT4
61B1:E8			202					INX

61B2:20 1D 61 203	JSR PHSROUT4	
61B5:60 204	RTS	
61B6: 205;		
61B6:8A 206 NOTE	CEOFF TXA ; X=MIDI NOTE NUMBER	
61B7:A8 207	TAY	
61B8:A2 0B 208	LDX #\$0B	
61BA:DD 12 60 209 FINI		
61BD:F0 03 210	BEQ FOUNDN	
61BF:CA 211	DEX	
61C0:10 F8 212	BPL FINDNOTE	
61C2:A9 00 213 FOUR	JNDN LDA #\$00	
61C4:9D 12 60 214	STA NOTESON, X	
61C7:9D 1E 60 215	STA NOTEVELS, X	
61CA:BD 2F 60 216	LDA CHIPNUM, X	
61CD:A8 217	TAY ;SELECT	CHI
P THEN ZERO OUT VOLUME	REGISTER	
61CE:BD 3B 60 218	LDA VOFFSET,X	
61D1:AA 219	TAX ;X=REGIS	STER
8, 9, OR A		
61D2:C0 01 220	CPY #\$01	
61D4:D0 05 221	BNE OFFCHIP2	
61D6:A0 00 222	LDY #\$00	
61D8:4C C6 60 223	JMP PHSROUT1	
61DB:C0 02 224 OFFO 61DD:D0 05 225	CHIP2 CPY #\$02	
61DD:D0 05 225	BNE OFFCHIP3	
61DF:A0 00 226	LDY #\$00	
61E1:4C E3 60 227	JMP PHSROUT2	
61E4:C0 03 228 OFFO	CHIP3 CPY #\$03	
61E4:C0 03 228 OFFO	BNE OFFCHIP4	
61E8:A0 00 230	LDY #\$00	
61EA:4C 00 61 231	JMP PHSROUT3	
61ED:4C 1D 61 232 OFF	CHIP4 JMP PHSROUT4	
61F0: 233 ;		
/1	I = I = I = I = I = I = I = I = I = I =	
61F0:98 234 NOTE	YEON TYA ; X=MIDI NOTE NUMBER Y=1	IDI
VELOCITY (0-127)		IDI
VELOCITY (0-127) 61F1:F0 C3 235	BEQ NOTEOFF	MIDI
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236	BEQ NOTEOFF AND #\$7F	MIDI
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237	BEQ NOTEOFF AND #\$7F LSR A	MIDI
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238	BEQ NOTEOFF AND #\$7F LSR A LSR A	MIDI
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A	
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0-	
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA;CONVERT VEL TO 0-	-15
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0-	-15
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT; FF IS ST	-15
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT; FF IS STA	-15
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT; FF IS ST	-15
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS STA LDX #\$0B	-15 IGNA
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS STA LDX #\$0B NOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO	-15 IGNA
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS S: TXA LDX #\$0B NOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO	-15 IGNA
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS STA TXA LDX #\$0B NOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS STA LDX #\$0B KNOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS STA TXA LDX #\$0B KNOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ;CHECK IN	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS STA LDX #\$0B KNOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ;CHECK IN IOTE BNE NOTFREE	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ; FF IS STA TXA LDX #\$0B KNOTE CMP NOTESON, X BEQ NOTEXIT ; DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ; CHECK IN IOTE BNE NOTFREE STX FREESLOT	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTE	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS S: TXA LDX #\$0B NOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ;CHECK IN IOTE BNE NOTFREE STX FREESLOT TYA	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTE	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ; FF IS S: TXA LDX #\$0B NOTE CMP NOTESON, X BEQ NOTEXIT ; DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ; CHECK II OTE BNE NOTFREE STX FREESLOT TYA DEX	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTH 6210:CA 252 6211:10 EE 253	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS S: TXA LDX #\$0B CNOTE CMP NOTESON, X BEQ NOTEXIT ;DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ;CHECK II STA FREESLOT TYA DEX BPL CHKNOTE ;AFTER LO	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTH 6210:CA 252 6211:10 EE 253 WE KNOW WE HAVE A GOOD	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ; FF IS S: TXA LDX #\$0B ANOTE CMP NOTESON, X BEQ NOTEXIT ; DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ; CHECK II FREE STX FREESLOT TYA DEX BPL CHKNOTE ; AFTER LOT O NOTE #	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTE 6210:CA 252 6211:10 EE 253 WE KNOW WE HAVE A GOOD 6213:AE 2E 60 254	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS S: TXA LDX #\$0B NOTESON, X BEQ NOTEXIT ; DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ; CHECK IN STATES TO THE STATE	-15 IGNA DRE
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTE 6210:CA 252 6211:10 EE 253 WE KNOW WE HAVE A GOOD 6213:AE 2E 60 254 6216:E0 FF 255	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A LSR A PHA ; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ; FF IS S: TXA LDX #\$0B NOTESON, X BEQ NOTEXIT ; DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ; CHECK II STA FREESLOT TYA DEX BPL CHKNOTE ; AFTER LOT CPX #\$FF	-15 IGNA ORE F SL
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTE 6210:CA 252 6211:10 EE 253 WE KNOW WE HAVE A GOOD 6213:AE 2E 60 254 6216:E0 FF 255 6218:F0 46 256	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ; FF IS S: TXA LDX #\$0B NOTESON, X BEQ NOTEXIT ; DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ; CHECK II OTE BNE NOTFREE STX FREESLOT FREE TYA DEX BPL CHKNOTE ; AFTER LO CPX #\$FF BEQ NOTEXIT ; ALL VOICE	-15 IGNA ORE F SL
VELOCITY (0-127) 61F1:F0 C3 235 61F3:29 7F 236 61F5:4A 237 61F6:4A 238 61F7:4A 239 61F8:48 240 61F9:A9 FF 241 61FB:8D 2E 60 242 L FOR NO FREE SLOTS 61FE:8A 243 61FF:A2 0B 244 6201:DD 12 60 245 CHKN 6204:F0 5A 246 NOTE IF ALREADY PLAYING 6206:A8 247 6207:BD 1E 60 248 OT IS FREE FOR A NEW NO 620A:D0 03 249 620C:8E 2E 60 250 620F:98 251 NOTE 6210:CA 252 6211:10 EE 253 WE KNOW WE HAVE A GOOD 6213:AE 2E 60 254 6216:E0 FF 255 6218:F0 46 256 FULL, SUPPRESS ADDITION	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ; CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ; FF IS S: TXA LDX #\$0B NOTESON,X BEQ NOTEXIT ; DONT STO IG ON ANY CHNL TAY LDA NOTEVELS,X ; CHECK II IOTE BNE NOTFREE STX FREESLOT FREE TYA DEX BPL CHKNOTE ; AFTER LO ONAL NOTES	-15 IGNA ORE F SL
VELOCITY (0-127) 61F1:F0 C3	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS S: TXA LDX #\$0B CNOTE CMP NOTESON,X BEQ NOTEXIT ;DONT STO IG ON ANY CHNL TAY LDA NOTEVELS,X ;CHECK II STA FREESLOT FREE STX FREESLOT FREE STX FREESLOT CPX #\$FF BEQ NOTEXIT ;ALL VOICE STA NOTESON,X	-15 IGNA ORE F SL
VELOCITY (0-127) 61F1:F0 C3	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS SI TXA LDX #\$0B NOTESON, X BEQ NOTEXIT ;DONT STO IG ON ANY CHNL TAY LDA NOTEVELS, X ;CHECK II BNE NOTFREE STX FREESLOT FFREE TYA DEX BPL CHKNOTE ;AFTER LO ONAL NOTES STA NOTESON, X PLA	-15 IGNA ORE F SL
VELOCITY (0-127) 61F1:F0 C3	BEQ NOTEOFF AND #\$7F LSR A LSR A LSR A PHA ;CONVERT VEL TO 0- LDA #\$FF STA FREESLOT ;FF IS S: TXA LDX #\$0B CNOTE CMP NOTESON,X BEQ NOTEXIT ;DONT STO IG ON ANY CHNL TAY LDA NOTEVELS,X ;CHECK II STA FREESLOT FREE STX FREESLOT FREE STX FREESLOT CPX #\$FF BEQ NOTEXIT ;ALL VOICE STA NOTESON,X	-15 IGNA ORE F SL

S2221BD 3B 60 261
TERN NUMBER FOR VOLUME C226:180 12 60 263
March Marc
ET NUMBER IN Y 6229:A8 264
6229; AB 8 6 4 265 HI 6220; PO 25 26 6227; 48 267 PNOTZERO PHA 6230; BD 06 4 268 LDA PITCHLO,Y ; PUSH PITCH C233; 48 269 6234; BD 47 60 270 6233; 48 271 6238; BD 27 60 272 6238; AB 273 PTEN POKE THE NOTE AND VOL REGISTERS 6236; CD 01 274 6238; AB 273 PTEN POKE THE NOTE AND VOL REGISTERS 6236; CD 01 274 6238; AB 277 6242; CB 275 6240; CB 276 6241; AA 2777 6242; CB 277 6244; AB 279 6244; AB 283 6244; AB 283 6244; AB 283 6244; AB 286 6249; AB 288 6244; AB 286 6249; AB 288 6244; AB 286 6249; AB 288 6249; AB 288 6244; AB 286 6249; AB 288 6248; AB 288 6248; AB 28
ACCES BOR CAR 265 BEQ CHEZERO
BEQ CHKZERO 6220:F0 25
BEQ CHKZERO 6220:F0 25
622F:48 267 PNOTZERO PHA 6230:B9 00 64 268 C234:B0 47 60 270 ER NUMBER FOR VOICE WITHIN CHIP IN X 6231:A8 271 6238:B0 27 60 272 6238:B0 27 60 272 6238:B0 27 60 273 P THEN POKE THE NOTE AND VOL REGISTERS 623C:C0 10 274 6238:B0 27 60 273 P THEN POKE THE NOTE AND VOL REGISTERS 6241:AA 277 6240:68 276 6241:AA 277 6242:68 278 6241:AA 277 6242:68 278 6241:AA 277 6242:68 278 6244:AB 283 6244:AB 283 6244:AB 283 6244:AB 285 6248:BA 286 6248:BA 286 6251:AC 66 0 284 6251:AC 66 0 284 6251:AC 66 0 284 6251:AC 66 0 284 6251:AC 66 0 287 6251:AC 66 0 297 6251:AC 66 0 297 6251:AC 66 0 297 6251:AC 67 67 297 6251:AC 70 70 70 70 70 70 70 70 70 70 70 70 70
622F.48
ACCOUNT CONTRIBUTE CONTRI
C233:48
PEA C234:BD 47 60 270
E234:BD 47 60 270 ER NUMBER FOR VOLCE WITHIN CHIP IN X 6237:48
ER NUMBER FOR VOICE WITHIN CHIP IN X 6237:48 271 6238:BD 2F 60 272 6238:BD 2F 60 272 6238:BD 2F 60 272 6238:BD 2F 60 273 7 THEN POKE THE NOTE AND VOL REGISTERS 623C:CO 01 274 623E:DO 22 275 6240:68 276 6241:AA 277 6242:68 278 6243:AB 279 6244:20 C6 60 280 6247:AB 283 6244:20 C6 60 284 6249:AB 283 6244:20 C6 60 284 6249:AB 283 6244:AB 286 6249:AB 283 6249:AB 283 6249:AB 283 6249:BB 283 6251:AC C6 60 284 6249:BB 285 6251:AC C6 60 284 6250:AB 288 6251:AC C6 60 288 6251:AC C6 60 289 6251:BB 288 6251:AC C7 BP 27 6251:BB 288 6251:AC C7 BP 27 6251:BB 288 6251:AC C7 BP 27 6262:AC C7 BP
6237:48
C238:BB
TAY SELECT CHI
P THEN POKE THE NOTE AND VOL REGISTERS 6230:C0 01 274 CPY #\$01 6230:D0 22 275 BNE ONCHIP2 6240:68 276 PLA 6241:AA 277 TAX 6242:68 278 PLA 6243:A8 279 TAY 6242:68 281 JSR PHSROUT1 6247:E8 281 INX 6248:68 282 PLA 6249:AB 283 TAY 6249:AB 283 TAY 6249:AB 285 PLA 6249:AB 285 PLA 6249:AB 285 PLA 6249:AB 286 TAX 624F:68 287 PLA 6250:AB 288 TAY 6260:AB 289 TAY 6260:AB 280
623E:00 01 274 623E:D0 22 275 6240:68 276 6241:AA 277 TAX 6241:AA 277 TAX 6241:AB 278 6244:20 C6 60 280 JSR PHSROUT1 6247:E8 281 INX 6248:68 282 PLA 6249:A8 283 TAY 6244:20 C6 60 284 JSR PHSROUT1 6247:68 285 PLA 6249:A8 283 TAY 6244:20 C6 60 284 JSR PHSROUT1 6247:68 285 PLA 6249:AB 285 PLA 6249:AB 286 TAX 6249:AB 286 TAX 6249:AB 287 PLA 6250:AB 288 TAY 6250:AB 289 JMP PHSROUT1 6259:B9 80 64 290 CHKZERO LDA PITCHLO,Y ;DONT STORE PITCH IF U NUSED PART OF PITCH MAP 6257:F0 60 291 BEQ ZEROEXIT 6259:B9 80 64 292 LDA PITCHHI,Y 6250:AC 290 Z91 DAP PITCHHI,Y 6260:GB 294 ZEROEXIT PLA TACK 6260:GB 295 NOTEXIT PLA TACK 6260:GB 295 NOTEXIT PLA TACK 6260:GB 296 RTS 6262:C0 02 297 ONCHIP2 CPY 6264:D0 14 298 BNE ONCHIP3 6266:GB 300 TAX 6268:GB 301 TAX 6268:GB 301 TAX 6268:GB 300 TAX 6266:AB 300 TAX 6266:AB 300 TAX 6270:AB 300 TAX 6271:AC 300 TAX 627
623E:D0 22 275 6240:68 276 6240:68 276 6241:AA 277 6242:68 278 6242:68 278 6243:A8 279 6244:20 C6 60 280 6247:E8 281 6248:68 282 6249:A8 283 6249:A8 283 6249:A8 283 6249:A8 283 6249:A8 285 6249:A8 285 6249:A8 286 6249:A8 286 6249:A8 286 6249:A8 287 6250:A8 288 6249:A8 288 6250:A8 299 6250:A8 299 6260:A8 299 6260:A8 299 6264:D0 14 298 6266:A8 301 6266:A8 301 6266:A8 301 6266:A8 301 6266:A8 301 6266:A8 302 6260:B8 304 6260:B8 305 6260:B8 306 6274:AA 309 6275:68 310 6274:AA 309 6275:68 310 6271:AC 28 60 312 6277:AC 28 60 312
6241:AA 277 6241:AA 277 6241:AA 277 6242:68 278 PLA 6243:AB 279 TAY 6244:20 C6 60 280 JSR PHSROUT1 6247:BB 281 INX 6248:68 282 PLA 6249:AB 283 TAY 6249:AB 283 TAY 6240:C6 60 284 JSR PHSROUT1 6240:C6 285 PLA 6241:C0 C6 60 284 JSR PHSROUT1 6240:C6 285 PLA 6241:C0 C6 60 284 JSR PHSROUT1 6240:C6 285 PLA 6241:C0 C6 60 284 JSR PHSROUT1 6240:C6 287 PLA 6250:AB 288 TAX 6250:AB 288 TAX 6250:AB 289 JMP PHSROUT1 6251:C0 C6 60 289 JMP PHSROUT1 6257:F0 06 291 LDA 6257:F0 06 291 BEQ ZEROEXIT 6257:F0 06 291 BEQ ZEROEXIT 6259:B9 80 64 292 JMP PHSROUT1 6259:B9 80 64 292 JMP PHSROUT2 6256:C4C 2F 62 293 JMP PHOTZERO 6261:C6 296 RTS 6261:C6 297 ONCHIP2 CPY 6264:D0 14 298 6266:C6 297 ONCHIP2 CPY 6264:D0 14 298 6267:AA 300 TAX 6268:C6 301 TAX 6268:C6 301 TAX 6268:C6 301 TAX 6269:AB 302 TAY 6260:C6 303 TAX 6260:C6 303 TAX 6260:C6 303 TAX 6261:C6 304 TAX 6261:C6 305 TAX 6261:C6 307 JSR PHSROUT2 6271:AB 306 TAX 6271:AB 307 JSR PHSROUT2 6271:AB 308 PLA 6271:AB 309 TAX 6271:AB 301 PLA 6271:AB 301 PLA 6271:AB 301 TAX
6241:68
6242:68
6243:A8
G2447:E8
6247:E8
6248:68
6249:A8 283 TAY 624A:20 C6 60 284 JSR PHSROUT1 624D:68 285 PLA 624E:AA 286 TAX 624F:68 287 PLA 6250:A8 288 TAY 6251:4C C6 60 289 JMP PHSROUT1 6254:B9 00 64 290 CHKZERO LDA PITCHLO,Y ;DONT STORE PITCH IF U NUSED PART OF PITCH MAP 6257:F0 06 291 BEQ ZEROEXIT 6259:B9 80 64 292 JMP PNOTZERO 625F:68 294 ZEROEXIT PLA TACK 6260:68 295 NOTEXIT PLA ;REMOVE BYTE THAT WAS PUSHED BEFORE RTS 6261:60 296 RTS 6262:C0 02 297 ONCHIP2 CPY #\$02 6264:D0 14 298 BNE ONCHIP3 6266:68 299 PLA 6267:AA 300 TAX 6268:68 301 PLA 6269:A8 302 TAY 6260:E8 304 INX 6260:E8 304 INX 6260:E8 305 PLA 6267:C0 02 303 JSR PHSROUT2 6267:AB 306 TAY 6273:68 308 PLA 6275:68 310 PLA 6277:4C E3 60 312 JMP PHSROUT2
624A:20 C6 60 284 624D:68 285 624E:AA 286 624F:68 287 6250:A8 288 6251:4C C6 60 289 6251:6C C7 60 291 6257:F0 06 291 6257:68 294 ZEROEXIT PLA FINCH FI
624D:68
624E:AA 286 TAX 624F:68 287 PLA 6250:A8 288 TAY 6250:A8 288 JMP PHSROUT1 6254:B9 00 64 290 CHKZERO LDA PITCHLO,Y ;DONT STORE PITCH IF U NUSED PART OF PITCH MAP 6257:F0 06 291 BEQ ZEROEXIT 6259:B9 80 64 292 LDA PITCHHI,Y 6257:68 294 ZEROEXIT PLA ;REMOVE 2 BYTES FROM S TACK 6260:68 295 NOTEXIT PLA ;REMOVE BYTE THAT WAS PUSHED BEFORE RTS 6261:60 296 RTS 6262:C0 02 297 ONCHIP2 CPY #\$02 6264:D0 14 298 BNE ONCHIP3 6266:68 299 PLA 6267:AA 300 TAX 6268:68 301 PLA 6260:E8 304 TAY 6260:E8 304 TAY 6260:E8 305 PLA 6260:E8 305 PLA 6261:68 305 PLA 6261:68 305 PLA 6261:68 305 PLA 6261:68 305 PLA 6262:C0 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6275:68 310 PLA 6275:40 E3 60 312 JMP PHSROUT2
624F:68
6250:A8
G251:4C C6 60 289
Comparison
NUSED PART OF PITCH MAP 6257:F0 06
6257:F0 06 291 6259:B9 80 64 292 625C:4C 2F 62 293 625F:68 294 ZEROEXIT PLA ;REMOVE 2 BYTES FROM S TACK 6260:68 295 NOTEXIT PLA ;REMOVE BYTE THAT WAS PUSHED BEFORE RTS 6261:60 296 RTS 6262:CO 02 297 ONCHIP2 CPY #\$02 6264:D0 14 298 BNE ONCHIP3 6266:68 299 PLA 6267:AA 300 TAX 6268:68 301 PLA 6269:A8 302 TAY 6268:68 300 303 JSR PHSROUT2 626A:20 E3 60 303 JSR PLA 626F:AB 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6275:68 310 PLA 6275:68 310 PLA 6275:68 310 PLA 6277:4C E3 60 312 JMP PHSROUT2
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TACK 6260:68
TACK 6260:68
6260:68 295 NOTEXIT PLA ;REMOVE BYTE THAT WAS PUSHED BEFORE RTS RTS 6261:60 296 RTS 6262:C0 02 297 ONCHIP2 CPY #\$02 6264:D0 14 298 BNE ONCHIP3 6266:68 299 PLA 6267:AA 300 TAX 6269:A8 301 PLA 6269:A8 302 TAY 626D:E8 304 INX 626E:68 305 PLA 626F:A8 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6277:4C E3 60 312 JMP PHSROUT2
WAS PUSHED BEFORE RTS 6261:60
6261:60 296 RTS 6262:C0 02 297 ONCHIP2 CPY #\$02 6264:D0 14 298 BNE ONCHIP3 6266:68 299 PLA 6267:AA 300 TAX 6268:68 301 PLA 6269:A8 302 TAY 626A:20 E3 60 303 JSR PHSROUT2 626D:E8 304 INX 626E:68 305 PLA 626F:A8 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6276:A8 311 TAY 6277:4C E3 60 312 JMP PHSROUT2
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6264:D0 14 298 BNE ONCHIP3 6266:68 299 PLA 6267:AA 300 TAX 6268:68 301 PLA 6269:A8 302 TAY 626A:20 E3 60 303 JSR PHSROUT2 626D:E8 304 INX 626E:68 305 PLA 626F:A8 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6276:A8 311 TAY 6277:4C E3 60 312 JMP PHSROUT2
6266:68 299 PLA 6267:AA 300 TAX 6268:68 301 PLA 6269:A8 302 TAY 626A:20 E3 60 303 JSR PHSROUT2 626D:E8 304 INX 626E:68 305 PLA 626F:A8 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6276:A8 311 TAY 6277:4C E3 60 312 JMP PHSROUT2
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6269:A8 302 TAY 626A:20 E3 60 303 JSR PHSROUT2 626D:E8 304 INX 626E:68 305 PLA 626F:A8 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6276:A8 311 TAY 6277:4C E3 60 312 JMP PHSROUT2
626A:20 E3 60 303 JSR PHSROUT2 626D:E8 304 INX 626E:68 305 PLA 626F:A8 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6276:A8 311 TAY 6277:4C E3 60 312 JMP PHSROUT2
626D:E8 304 INX 626E:68 305 PLA 626F:A8 306 TAY 6270:20 E3 60 307 JSR PHSROUT2 6273:68 308 PLA 6274:AA 309 TAX 6275:68 310 PLA 6276:A8 311 TAY 6277:4C E3 60 312 JMP PHSROUT2
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6277:4C E3 60 312 JMP PHSROUT2
62/A:CU U3 313 ONCHIP3 CPY #SO3
·
627C:D0 14 314 BNE ONCHIP4
627E:68 315 PLA
627F:AA 316 TAX

6280:68	317			PLA	
6281:A8	318			TAY	
6282:20 00 61				JSR PHSROUT3	
6285 : E8	320			INX	
6286:68	321			PLA	
6287 : A8	322			TAY	
6288:20 00 61	323			JSR PHSROUT3	
628B:68	324			PLA	
628C:AA	325			TAX	
628D:68	326			\mathtt{PLA}	
628E:A8	327			TAY	
628F:4C 00 61	328			JMP PHSROUT3	
6292 : 68		ONCHIP4		PLA	
6293:AA	330			TAX	
6294:68	331			PLA	
6295:A8	332			TAY	
6296:20 1D 61				JSR PHSROUT4	
6299:E8	334			INX	
629A:68	335			PLA	
629B:A8 629C:20 1D 61	336 337			TAY	
629F:68	338			JSR PHSROUT4	
62A0:AA	339			PLA TAX	
62AU:AA 62A1:68	340			PLA	
62A1:08	341			TAY	
62A3:4C 1D 61				JMP PHSROUT4	
62A6:	343	•		011 111010014	
62A6:	344	′		CHN PHSRMIDI.	.SC1
62A6:		: PHASOR MIDI	TN TONE	GENERATOR - SOURCE	
62A6:	2	;			_
62A6:A9 13	3	, INITMIDI LDA	#\$13		
62A8:8D A8 C0	4		•	STA PPMIDICR	
62AB:A9 11	5			LDA #\$11	
62AD:8D A8 C0	6			STA PPMIDICR	
62B0:A9 FF	7			LDA #\$FF	
62B2:8D 2A 60	8			STA MIDIPHAS	; INITIAL PH
ASE = WAITING		A MIDI COMMAND)		
62B5:60	9		WTD.T	RTS	
62B6:AD 0F 60	10	PSPTMIDI LDA	MIDITEST	; $F \cdot F = REAL$	TIME PLAYBACK, ELSE
TEST 1 BYTE	11			CMD #CEE	
62B9:C9 FF 62BB:F0 01	11 12			CMP #\$FF	
62BD:60	13			BEQ PSPTMID1 RTS	
62BE:AD A8 C0		PSPTMID1 LDA	DDMTDTCD	KID	
62C1:29 01	15	FOFIMIDI LDA	FFMIDICK	AND #\$01	; WAIT FOR R
ECEIVE DATA RI		ER FIII.T.		11ND # 401	, while for it
62C3:F0 F9	16			BEQ PSPTMID1	
62C5:AD A9 C0	17			LDA PPMIDIDR	
62C8:C9 F8	18			CMP #\$F8	; IGNORE REAL
TIME MESSAGES		ACTIVE SENSIN	G		•
62CA:B0 F2	19			BCS PSPTMID1	
62CC:60	20			RTS	
62CD:AD 00 C0		LOOPBACK LDA	APPLEKBD		
62D0:10 07	22			BPL CHKMIDI	
62D2:8D 10 60	23			STA KBDCMD	
62D5:2C 10 C0	24			BIT KBDSTROB	
62D8:60	25			RTS	
62D9:AD 0F 60		CHKMIDI	LDA	MIDITEST	
62DC:C9 FF	27			CMP #\$FF	
62DE:D0 06	28			BNE GETMIDI	
62E0:20 E6 62	29			JSR GETMIDI	
62E3:4C CD 62 62E6:AD 2A 60	30	CEMMINI	T D A	JMP LOOPBACK	
62E6:AD 2A 60 62E9:C9 91	31	GETMIDI	LDA	MIDIPHAS CMP #\$91	
62EB:F0 30	33			BEQ GETDAT1	;GET FIRST D
		NT.		PPA GEIDAII	GEI FIRSI D
ATA BYTE OF NO), i, H. (),				

62ED • CO 01	34				CIAT	#¢01		
62ED:C9 81						9 #\$81		.CEM DIDCM D
62EF:F0 2C	35				BEÇ	GETDAT1		GET FIRST D
ATA BYTE OF NOT		F. F.			a			
62F1:C9 92	36					9 #\$92 		
62F3:F0 34	37				BEÇ	GETDAT2		GET 2ND DAT
A BYTE OF NOTE	ON (OR NOTE OF	FF M	ESSAGE				
62F5:C9 90	38				CME	P #\$90		
62F7:D0 06	39				BNE	GETMIDI1		; PROCESS STA
TUS BYTE WHEN N	OT :	RUNNING ST	CATU	S				
62F9:AD 2B 60	40				LDA	MIDISTS		;PHASE 90 -
CHECK MIDI BYTE	l I							•
62FC:4C 02 63	41				TMT	SKIPMIDI		
62FF:20 B6 62		GETMIDI1	TSR	PSPTMIDI		PHASE FF -	СЕТ МТ	DT BVTF
6302:C9 80		SKIPMIDI			,-	IIIIOD II	ODI III	DI DIIL
6304:90 C7	44	DKITHIDI	CHI	#¥00	P.C.C	LOOPBACK		
6304:90 C7								
	45					* #\$A0		
6308:B0 C3						LOOPBACK		
630A:8D 2B 60	47					MIDISTS		
630D:C9 90	48					P #\$90		
630F:B0 06	49					SETPH91		
6311 : A9 81	50					A #\$81		
6313:8D 2A 60	51				STA	MIDIPHAS		
6316:60	52				RI	'S		
6317:A9 91	53	SETPH91		LDA	#\$91			
6319:8D 2A 60	54				-	MIDIPHAS		
631C:60	55				RI			
631D:20 B6 62		GETDAT1		JSR	PSPTMIDI	. •		
6320:8D 2C 60	57	OLIDIIII		ODIC		MIDIDAT1		
6323:A9 92	58					#\$92		
6325:8D 2A 60	59					MIDIPHAS		
6328:60	60				RI			
		CEMPAMO		TCD		. 5		
6329:20 B6 62		GETDAT2		JSR	PSPTMIDI	MIDIDAMO		
632C:8D 2D 60	62					MIDIDAT2		
632F:A9 FF	63					A #\$FF		
6331:8D 2A 60	64					MIDIPHAS		
6334:AD 2D 60	65					MIDIDAT2		
6337 : F0 13	66				-	DONOTOFF		
6339:AD 2B 60	67					MIDISTS		
633C:C9 90	68				CME	° #\$90		
633E:90 OC	69				BCC	DONOTOFF		
6340:	70	;						
6340:AE 2C 60	71	DONOTEON	LDX	MIDIDAT1				
6343:AC 2D 60	72				LDY	MIDIDAT2		
6346:20 F0 61	73					R NOTEON		
6349:4C 52 63	74					NEXTBYTE		
634C:AE 2C 60		DONOTOFF	צח.ד	мтртраф1	OIII	MENTETTE		
634F:20 B6 61	76	DONOTOFF	при	HIDIDAII	TCE	R NOTEOFF		
		MEVMDVME	TCD	DCDMMTDT	Jar	NOIEUFF		
6352:20 B6 62		NEXTBYTE	JSR	PSPTMIDI	DDI	a m m n i i i i i i i i i i i i i i i i i		
6355:10 OB	78					SETRUNNG		
6357:8D 2B 60	79					MIDISTS		
635A:A9 90	80					A #\$90		
					STP	MIDIPHAS		
635C:8D 2A 60	81							
635C:8D 2A 60 635F:4C CD 62	81 82				JME	LOOPBACK		
635C:8D 2A 60 635F:4C CD 62 6362:8D 2C 60	81 82 83	SETRUNNG	STA	MIDIDAT1				
635C:8D 2A 60 635F:4C CD 62	81 82	SETRUNNG	STA	MIDIDAT1		LOOPBACK 4 #\$92		
635C:8D 2A 60 635F:4C CD 62 6362:8D 2C 60	81 82 83	SETRUNNG	STA	MIDIDAT1	LDA			
635C:8D 2A 60 635F:4C CD 62 6362:8D 2C 60 6365:A9 92	81 82 83 84	SETRUNNG	STA	MIDIDAT1	LDA STA	A #\$92		
635C:8D 2A 60 635F:4C CD 62 6362:8D 2C 60 6365:A9 92 6367:8D 2A 60	81 82 83 84 85		STA	MIDIDAT1	LDA STA	A #\$92 A MIDIPHAS		

^{***} SUCCESSFUL ASSEMBLY: NO ERRORS

C000	APPLEKBD	6053	CHIP1PRM	6061	CHIP2PRM	606F	CHIP3PRM
607D	CHIP4PRM	C411	CHIPAC	C410	CHIPAD	C481	CHIPBC
C480	CHIPBD	602F	CHIPNUM	62D9	CHKMIDI	6201	CHKNOTE
6254	CHKZERO	?6340	DONOTEON	634C	DONOTOFF	61BA	FINDNOTE
61C2	FOUNDN	602E	FREESLOT	631D	GETDAT1	6329	GETDAT2
62E6	GETMIDI	62FF	GETMIDI1	62A6	INITMIDI	60A1	INITPHSR
6010	KBDCMD	C010	KBDSTROB	62CD	LOOPBACK	608B	MAIN
602C	MIDIDAT1	602D	MIDIDAT2	602A	MIDIPHAS	602B	MIDISTS
600F	MIDITEST	6352	NEXTBYTE	6047	NOFFSET	61B6	NOTEOFF
61F0	NOTEON	6012	NOTESON	601E	NOTEVELS	6260	NOTEXIT
620F	NOTFREE	61DB	OFFCHIP2	61E4	OFFCHIP3	61ED	OFFCHIP4
6262	ONCHIP2	627A	ONCHIP3	6292	ONCHIP4	60B9	PANIC
613C	PARMOUT1	615B	PARMOUT2	617A	PARMOUT3	6199	PARMOUT4
613A	PHPLAY1	6159	PHPLAY2	6178	PHPLAY3	6197	PHPLAY4
C493	PHRES1	C492	PHRES2	60C6	PHSROUT1	60E3	PHSROUT2
6100	PHSROUT3	611D	PHSROUT4	6149	PHSTOP1	6168	PHSTOP2
6187	PHSTOP3	61A6	PHSTOP4	COCD	PHTRIG	6480	PITCHHI
6400	PITCHLO	622F	PNOTZERO	C0A8	PPMIDICR	C0A9	PPMIDIDR
62BE	PSPTMID1	62B6	PSPTMIDI	6317	SETPH91	6362	SETRUNNG
6302	SKIPMIDI	?6011	SOLOCHNL	609B	TSTNOTOF	6092	TSTNOTON
603B	VOFFSET	625F	ZEROEXIT				

				600F	MIDITEST	6010	KBDCMD
?6011	SOLOCHNL	6012	NOTESON				
601E	NOTEVELS	602A	MIDIPHAS	602B	MIDISTS	602C	MIDIDAT1
602D	MIDIDAT2	602E	FREESLOT	602F	CHIPNUM	603B	VOFFSET
6047	NOFFSET	6053	CHIP1PRM	6061	CHIP2PRM	606F	CHIP3PRM
607D	CHIP4PRM	608B	MAIN	6092	TSTNOTON	609B	TSTNOTOF
60A1	INITPHSR	60B9	PANIC	60C6	PHSROUT1	60E3	PHSROUT2
6100	PHSROUT3	611D	PHSROUT4	613A	PHPLAY1	613C	PARMOUT1
6149	PHSTOP1	6159	PHPLAY2	615B	PARMOUT2	6168	PHSTOP2
6178	PHPLAY3	617A	PARMOUT3	6187	PHSTOP3	6197	PHPLAY4
6199	PARMOUT4	61A6	PHSTOP4	61B6	NOTEOFF	61BA	FINDNOTE
61C2	FOUNDN	61DB	OFFCHIP2	61E4	OFFCHIP3	61ED	OFFCHIP4
61F0	NOTEON	6201	CHKNOTE	620F	NOTFREE	622F	PNOTZERO
6254	CHKZERO	625F	ZEROEXIT	6260	NOTEXIT	6262	ONCHIP2
627A	ONCHIP3	6292	ONCHIP4	62A6	INITMIDI	62B6	PSPTMIDI
62BE	PSPTMID1	62CD	LOOPBACK	62D9	CHKMIDI	62E6	GETMIDI
62FF	GETMIDI1	6302	SKIPMIDI	6317	SETPH91	631D	GETDAT1
6329	GETDAT2	?6340	DONOTEON	634C	DONOTOFF	6352	NEXTBYTE
6362	SETRUNNG	6400	PITCHLO	6480	PITCHHI	C000	APPLEKBD
C010	KBDSTROB	C0A8	PPMIDICR	COA9	PPMIDIDR	COCD	PHTRIG
C410	CHIPAD	C411	CHIPAC	C480	CHIPBD	C481	CHIPBC
C492	PHRES2	C493	PHRES1				