PAGE 02 DAI FIRM	MWARE 1EE	OB-1EF	FF V1.0	Rev.1	
064 EE49 C3E5D6		JMP	:D6E5	Via D6E5 to 1EE4C	
065 066 EE4C C5 067 EE4D D5	* L1E248	PUSH	B D	Save length array	
069 EE4E CDA8CB		CALL	:CBAB	Erase stringreference in heap and symtab	
070 EE51 2B 071 EE52 2B		DCX	H H		
072 EE53 D1		POP	D		
073 EE54 E5		PUSH	н		
074 EE55 1A		LDAX	D		
075 EE56 CD8BD1 076 EE59 E5		PUSH	:D18B H	Get place in heap for string	
077 EE5A CD72D1			:,D172	Transfer string into heap	
078 EESD C1		POP B			
079 EE5E E1		POP	H) }	
080 EESF 71 081 EE60 23		MOV	M,C H) Length into heap at) begin of string	
082 EE61 70		MOV	M,B) begin or scring	
083 EE62 23		INX	H	,	
084 EE63 C1		POP	B	Get length array	
085 EE64 OB		DCX	В) Update it	
086 EE65 OB		DCX	В)	
087 EE66 78		MOV	A, B		
088 EE67 B1		DRA	C		
089 EE68 C24CEE		JNZ	:EE4C	Next string if not ready	
090 EEAB C32FEE		JMP	:EE2F	Stop reading, select ROM bank 0; abort	
091 092	*			Dank O, abbi c	
093					
094	* ===				
094 095	70		ULE ***		
	*** 500		ULE ***		
095 096 097	*** SOU * ===	ND MOD	ULE ***		
095 096 097 098	*** SOU * === * *	ND MOD	ULE *** ===	Count CCD	
095 096 097 098 099 EE6E 0E00	*** SOU * ===	MVI	ULE *** 	Count SCB	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201	*** SOU * === * * TEMPO	MVI LXI	ULE *** === C,:00 H,:01C2	Addr sound control block 0	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5	*** SOU * === * *	MVI LXI FUSH	C,:00 H,:01C2	Addr sound control block 0 Preserve addr SCB	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201	*** SOU * === * * TEMPO	MVI LXI	ULE *** === C,:00 H,:01C2	Addr sound control block 0	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E	*** SOU * === * * TEMPO	MVI LXI PUSH MOV	C.:00 H.:01C2 H.A.M	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE	*** SOU * === * * TEMPO	MVI LXI PUSH MOV CPI JZ	C,:00 H,:01C2 H A,M :FE :EE7E	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever)	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF	*** SOU * === * * TEMPO	MVI LXI PUSH MOV CPI	C,:00 H,:01C2 H A,M :FE	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE	*** SOU * === * * TEMPO	MVI LXI PUSH MOV CPI JZ	C,:00 H,:01C2 H A,M :FE :EE7E	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF	*** SOU * === * * TEMPO	MVI LXI PUSH MOV CPI JZ JNC INR INR	ULE *** === C,:00 H,:01C2 H A,M :FE :EE7E :EF9D M A	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume)	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JZ JNC INR INR PUSH	ULE *** C.:00 H.:01C2 H A.M :FE :EE7E :EF9D M A	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JZ JNC INR INR PUSH MOV	ULE *** C.:00 H.:01C2 H A.M :FE :EE7E EF9D M A H B,A	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume)	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23	*** SOU * === * * TEMPO L1E250	MVI LXI FUSH MOV CPI JZ JNC INR INR PUSH MOV INX	ULE *** C.:00 H.:01C2 H A.M :FE :EE7E :EF9D M A H B,A H	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JZ JNC INR INR PUSH MOV INX MOV	C.:00 H.:01C2 H A.M :FE :EE7E :EF9D M A H B.A H E,M	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JX JNC INR INR PUSH MOV INX MOV INX	ULE *** C.:00 H.:01C2 H A.M :FE :EE7E EF9D M A H B,A H B,A H E,M H	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JZ JNC INR INR PUSH MOV INX MOV INX	C.:00 H.:01C2 H. A.M :FE :EE7E :EF9D M. A. H. B.A. H. B.A. H. B.A. H. B.A. H. D.M.	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE)	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56 116 EE85 1A	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JZ JNC INR INR PUSH MOV INX MOV INX MOV LDAX	ULE *** C.:00 H.:01C2 H A.M :FE :EE7E EF9D M A H B,A H B,A H E,M H	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE) Get envelope duration count	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JZ JNC INR INR PUSH MOV INX MOV INX	C.:00 H.:01C2 H A.M :FE :EE7E :EF9D M A H B.A H B.A H D,M	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE)	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56 116 EE85 1A 117 EE86 B8 118 EE87 D2B8EE 119	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JNC INR PUSH MOV INX MOV INX MOV LDAX CMP JNC	C.:00 H.:01C2 H.A.M :FE :EE7E :EF9D M A H B,A H D,M D B :EEBB	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE) Get envelope duration count Comp with volume count	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56 116 EE85 1A 117 EE86 B8 118 EE87 D2B8EE 119 120	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JNC INR PUSH MOV INX MOV INX MOV LDAX CMP JNC	C,:00 H,:01C2 H A,M :FE :EE7E :EF9D M A H B,A H B,A H D,M D	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE) Get envelope duration count Comp with volume count	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56 116 EE85 1A 117 EE86 B8 118 EE87 D2B8EE 119 120 121	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JNC INR PUSH MOV INX MOV INX MOV LDAX CMP JNC	C.:00 H.:01C2 H.A.M :FE :EE7E :EF9D M A H B,A H D,M D B :EEBB	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE) Get envelope duration count Comp with volume count	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56 116 EE85 1A 117 EE86 B8 118 EE87 D2B8EE 119 120	*** SOU * === * * TEMPO L1E250	MVI LXI PUSH MOV CPI JX JNC INR INR PUSH MOV INX MOV INX MOV LDAX CMP JNC	C.:00 H.:01C2 H.A.M :FE :EE7E :EF9D M A H B,A H D,M D B :EEBB	Addr sound control block O Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE) Get envelope duration count Comp with volume count	
095 096 097 098 099 EE6E 0E00 100 EE70 21C201 101 EE73 E5 102 EE74 7E 103 EE75 FEFE 104 EE77 CA7EEE 105 106 EE7A D29DEF 107 108 EE7D 34 109 EE7E 3C 110 EE7F E5 111 EE80 47 112 EE81 23 113 EE82 5E 114 EE83 23 115 EE84 56 116 EE85 1A 117 EE86 B8 118 EE87 D2B8EE 119 120 121 122 EE8A EB	*** SOU * === * * TEMPO L1E250	MVI LXI FUSH MOV CPI JX JNC INR INR PUSH MOV INX MOV MOV INX MOV MOV INX MOV INX MOV INX MOV INX MOV INX MOV INX MOV MOV MOV MOV MOV MOV MOV MOV MOV MOV	C.:00 H.:01C2 H.A.M :FE :EE7E :EF9D M A H B,A H D,M D B :EEBB	Addr sound control block 0 Preserve addr SCB Get value of volume counter If FE: No increment (sound forever) If FF: Goto next block (sound off)) Incr duration count volume) Preserve addr SCB Save incr duration count) Get pntr envelope count) in DE) Get envelope duration count Comp with volume count Jump if env. not counted out	

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PAGE 03 DAI FIRMWARE 1EE0B-1EFFF V1.0 Rev.1
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```
H
126 EE8E E1
                              POP
                                               Get pntr to env.table
127 EEBF 23
                              INX
                                    н
                                               +1
                                    A,M
128 EE90 7E
                              MOY
                                               Get next env. duration
129 EE91 B7
                                               Is it FF ?
                              ORA
                                    Α
130 EE92 FC93EF
                                    : EF93
                                               Then restart envelope
                              CM
131 EE95 47
                                               Env duration in B
                              MOV
                                    B.A
132 EE96 23
                              INX
                                              Pnts to next pos env table
                                    н
133 EE97 7E
                              MOV
                                    A.M
                                              Value in A
134 EE98 EB
                              XCHG
135 EE99 72
                             MOV
                                    M.D
                                              ) Set env pointer in SCB
136 EE9A 2B
                             DCX
                                    Н
                                               ) to new time field
137 EE9B 73
                             MOV
                                    M.E
138 EE9C 23
                              INX
                                    н
139 EE9D 23
                              INX
                                    Н
140 EE9E 23
                              INX
                                    н
141 EE9F 23
                              INX
                                              HL pnts to vol.multiplier
                                    н
142 EEAO E5
                             PUSH
                                    H
                                              Sound volume *8 in L
143 EEA1 6E
                             MOV
                                    L.M
144 EEA2 2600
                             MVI
                                    H.:00
145 EEA4 29
                             DAD
                                    H
                                               *16 in HL
146 EEA5 EB
                              XCHG
                                              Multiplier in DE
147 EEA6 218000
                             LXI
                                    H.:0080
                                              Init. value
                                              Decr. envelope duration
148 EEA9 05
                     L1E252
                              DCR
                                    В
149 EEAA FABIEE
                              JM
                                    :EEB1
                                              Jump if ready
150 EEAD 19
                              DAD
                                              Add multiplier
151 EEAE C3A9EE
                              JMP
                                    : EEA9
                                              Again
152 EEB1 44
                     L1E253
                              MOV
                                    B,H
                                              New eff. volume in B
                              POP
                                    H
153 EEB2 E1
154 EEB3 23
                              INX
                                    н
155 EEB4 70
                              MOV
                                    M. B
                                              Set new basic volume
156 EEB5 C3BDEE
                              JMP'
                                    : EEBD
157
158
                     * If envelope not counted out:
159
                     L1E254
160 EEB8 D1
                             POP
                                    D
161 EEB9 23
                              INX
                                    H
                                    H
162 EEBA 23
                              INX
                                    H
163 EEBB 23
                              INX
                                    H
164 EEBC 23
                              INX
165
166
                     * Handle tremolo:
167
168 EEBD 46
                     L1E255
                             MOV
                                    B.M
                                              Get basic volume in B
169 EEBE 23
                              INX
                                    H
170 EEBF 7E
                              MOV
                                    A.M
                                              Get tremolo count
171 EECO B7
                             ORA
                                    A
172 EEC1 CAEBEE
                              JZ
                                    : EEEB
                                              Jump if no tremolo adj.
173 EEC4 C601
                             ADI
                                    :01
                                              )
174 EEC6 CE00
                             ACI
                                    :00
                                              ) Incr tremolo count
175 EEC8 77
                             MOV
                                    M. A
176 EEC9 1F
                             RAR
177 EECA 1F
                             RAR
178 EECB 1F
                             RAR
179 EECC D2DCEE
                             JNC
                                    : EEDC
                                              No adj. if bit 2 of
                                              <T> is 0
180
181 EECF 04
                              INR
                                    B
182 EED0 04
                                    B
                                              ) Else add 4 units to
                              INR
183 EED1 04
                                    B
                              INR
                                              ) basic volume
184 EED2 04
                              INR
                                    B
185 EED3 1F
                             RAR
186 EED4 00
                             NOP
187 EED5 DADCEE
                                              No adjust if bit 2 of
                             JC
                                    : EEDC
```

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PAGE 04
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```
\langle T \rangle = 0
188
                               MOV
                                     A.B
189 EED8 78
                                                 Else: basic vol. -2 units
190 EED9 D608
                               SUI
                                     :08
191 EEDB 47
                               MOV
                                     B.A
192
193 EEDC 00
                      L1E256
                               NOP
194 EEDD 78
                               MOV
                                     A.B
                                                 Get updated basic volume
195 EEDE 0600
                               MVI
                                     B.: 00
196 EEEO B7
                               DRA
197 EEE1 FAEBEE
                               JM
                                      : EEEB
                                                 Jump if B1-FF
                                     B, : OF
198 EEE4 060F
                               MVI
199 EEE6 BB
                               CMP
                                     B
200 EEE7 D2EBEE
                               JNC
                                                 Jump if >=OF (max.value)
                                     : EEEB
201 EEEA 47
                               MOV
                                     B.A
202
                      L1E257
203 EEEB 23
                               INX
                                                 Pots to actual volume
                                     H
                               MOV
204 EEEC 78
                                                 Get new basic volume
                                     A.B
205 EEED 96
                               SUB
                                                 Minus actual volume
206 EEEE 07
                               RLC
207 EEEF 1F
                               RAR
208 EEF0 3F
                               CMC
                                                   New actual volume is
209 EEF1 CE00
                               ACI
                                     :00
                                                   old one + 0.5
                                                   (difference +/- 1)
210 EEF3 07
                               RLC
211 EEF4 1F
                               RAR
212 EEF5 1F
                                                 >
                               RAR
213 EEF6 86
                               ADD
                                     M
                                                 Store in SCB
214 EEF7 77
                               MOV
                                     M.A
215 EEF8 47
                               MOV
                                     B.A
                                                 and in B
216 EEF9 E5
                               FUSH
                                     н
                               PUSH
217 EEFA C5
                                     B
                                     D.:0294
                                                 Addr POROM
218 EEFB 119402
                               LXI
219 EEFE 2104FD
                                                 Addr PORO
                               LXI
                                     H.:FD04
                                                 Get SCB count
                               MOV
                                     A.C
220 EF01 79
                               MVI
                                     C.: FO
                                                 Mask for vol. SCBO, SCB2
221 EF02 0EF0
222 EF04 OF
                               RRC
223 EF05 D212EF
                                      :EF12
                                                 Jump if SCBO, SCB2
                               JNC
                               MVI
                                     C,: OF
                                                 Mask for vol. SCB1, NCB
224 EF08 0E0F
225 EFOA F5
                               PUSH
                                     PSW
                               MOV
226 EFOB 78
                                     A.B
227 EFOC 87
                               ADD
                                                 ) Actual volume into
                                                 ) hinibble for SCB1
228 EFOD 87
                               ADD
229 EFOE 87
                                                   and NCB
                               ADD
                                     A
                                                 )
230 EFOF 87
                               ADD
                                     A
                                                 )
                                                 )
231 EF10 47
                               MOV
                                     B.A
                                     PSW
232 EF11 F1
                               POP
233 EF12 1F
                      L1E258
                               RAR
234 EF13 D218EF
                               JNC
                                     :EF18
                                                 Jump if SCBO, SCB1
235 EF16 13
                               INX
                                     D
                                                 ) POROM+1,PORO+1
236 EF17 23
                               INX
                                     Н
                                                 ) for SCB2, NCB
                      L1E259
237 EF18 1A
                                                 Get POROM. POR1M
                               LDAX
                                     D
238 EF19 A1
                               ANA
                                     C
                                                 Only read volume
239 EF1A BO
                               DRA
                                     B
                                                 Update it
240 EF1B 12
                               STAX
                                     D
                                                 Back in POROM, PORIM
241 EF1C 77
                                     M, A
                               MOV
                                                 and in PORO, POR1
242 EF1D C1
                               POP
                                     B
243 EF1E E1
                              POP
                                     H
244 EF1F OC
                                     C
                               INR
                                                SCB count +1
245 EF20 79
                               MOV
                                     A, C
246 EF21 FE04
                               CPI
                                     : 04
247 EF23 CAA4EF
                                                Ready if block was NCB
                               JZ
                                     :EFA4
```

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250
                              INX
                                     H
251 EF26 23
                              MOV
                                     A.M
                                                Get glissando flag
252 EF27 7E
253 EF28 3D
                              DCR
                                     A
254 EF29 FA8BEF
                              JM
                                     :EFBB
                                                Ready if end period
                                               reached
255
256 EF2C 23
                              INX
                                     н
257 EF2D 5E
                              MOV
                                     E.M
                                                ) Get current period of
258 EF2E 23
                              INX
                                                ) output in DE
                              MOV
                                                )
259 EF2F 56
                                     D.M
                              PUSH
                                     H
260 EF30 E5
                              INX
261 EF31 23
                                     н
                              MOV
                                                ) Get regd final period
262 EF32 7E
                                     A.M
                                     H
                                               ) in HL
                              INX
263 EF33 23
                                     H, M
                              MOV
264 EF34 66
                              MOV
265 EF35 6F
                                     L,A
266 EF36 C23BEF
                                     :EF3B
                                                Jump if end period not
                              JNZ
267
                                                reached
                              MOV
                                                ) HL=DE if 'set freq'
268 EF39 54
                                     D.H
269 EF3A 5D
                              MOV
                                     E.L
                                                )
                     L1E260
                              CALL
                                     : DE14
                                                Compare HL-DE
270 EF3B CD14DE
271 EF3E F5
                              PUSH
                                     PSW
                              PUSH
272 EF3F D5
                                     D
                              JNC
                                     : EF 44
                                                Jump if final period >=
273 EF40 D244EF
                                                current period
274
                              XCHG
                                                Else exchange values
275 EF43 EB
                              CALL
                                     : DEIA
                                                Calc difference in HL
276 EF44 CD1ADE
                     L1E261
277 EF47 D1
                              POP
                                     D
                              PUSH
                                     D
278 EF48 D5
                              PUSH
279 EF49 E5
280 EF4A EB
                              XCHG
                                     E,:40
                                                >
281 EF4B 1E40
                              MVI
                     L1E262
                                                )
282 EF4D 7D
                              MOV
                                     A.L
283 EF4E 17
                              RAL
                                                )
                              MOV
                                                )
284 EF4F 6F
                                     L.A
285 EF50 7C
                              MOV
                                     A,H
                                                )
286 EF51 17
                              RAL
                                                ) HL = HL SHL 6
287 EF52 67
                              MOV
                                                )
                                     H, A
288 EF53 7B
                              MOV
                                     A,E
                                                )
289 EF54 17
                                                )
                              RAL
290 EF55 5F
                              MOV
                                     E,A
291 EF56 D24DEF
                              JNC
                                     :EF4D
292 EF59 6C
                              MOV
                                                ) HL = 1/64 orig. value
                                     L,H
293 EF5A 63
                              MOV
                                     H,E
294 EF5B 7C
                              MOV
                                     A.H
295 EF5C B5
                              DRA
296 EF5D C261EF
                                    :EF61
                              JNZ
297 EF60 23
                              INX
                                     H
298 EF61 D1
                     L1E263
                              POP
                                     D
299 EF62 CD14DE
                              CALL
                                     : DE14
                                                Compare HL-DE
300 EF45 0602
                              MVI
                                     B,:02
301 EF67 DA6DEF
                              JC
                                     :EF6D
                                                Jump if DE > HL
302 EF6A 0600
                              MVI
                                     B,:00
303 EF6C EB
                              XCHG
304 EF6D D1
                     L1E264
                              POP
                                     D
305 EF6E F1
                              POP
                                     PSW
306 EF6F D275EF
                              JNC
                                     : EF75
307 EF72 CD26DE
                                                HL is its 2-compl.
                              CALL
                                     : DE26
30B EF75 19
                     L1E265
                              DAD
309 EF76 EB
                              XCHG
                              POP
310 EF77 E1
                                     н
```

MOV

M. D

) Set new current period

311 EF78 72

```
DAI FIRMWARE 1EEOB-1EFFF V1.0
PAGE 06
                                               Rev. 1
312 EF79 2B
                              DCX
                                     Н
                                                >
                                     M,E
313 EF7A 73
                              MOV
                                                )
                              DCX
                                     H
314 EF7B 2B
                                     M.B
315 EF7C 70
                              MOV
                                                Set glissando flag
316 EF7D C5
                              PUSH
                                     B
317 EF7E 79
                              MOV
                                     A.C
318 EF7F 3D
                              DCR
                                                ) Calc offset for oscill.
                                     A
319 EF80 87
                              ADD
                                     A
                                                  address
320 EF81 4F
                              MOV
                                     C.A
                                                )
321 EF82 0600
                              MVI
                                     B.:00
322 EF84 2100FC
                              LXI
                                     H.: FC00
                                                Addr osc. channel O
323 EF87 09
                              DAD
                                     B
                                                HL = addr current osc
324 EF88 73
                              MOV
                                     M.E
                                                ) Load oscillator
325 EF89 72
                              MOV
                                     M, D
326 EF8A C1
                              POP
                                     B
327
                      * Block done:
328
329
                      L1E266
                              LXI
330 EFBB 110E00
                                     D.:000E
331 EF8E E1
                              POP
                                     H
                                                Get startadr prev. block
332 EF8F 19
                              DAD
                                     D
                                                HL pnts to next block
333 EF90 C373EE
                              JMP
                                     :EE73
                                                Run next block
334
335
                      * RESTART ENVELOPE:
336
337
                        Gets 1st volume of envelope.
338
339
                       Entry: DE: Points to 2nd byte of envelope pointer
340
                                    of a SCB.
341
                      * Exit:
                               A:
                                    Volume.
342
                      *
                               HL: Address volume field in envelope.
                      *
343
                               BCDEF preserved.
344
345 EF93 D5
                     L1E267
                              PUSH
                                     D
                                                Save pntr
346 EF94 13
                                     D
                              INX
347 EF95 1A
                              LDAX
                                     D
                                                Get lobyte env pntr
348 EF96 6F
                              MOV
                                     L,A
                                                in L
349 EF97 13
                              INX
                                     D
350 EF98 1A
                              LDAX
                                     D
                                                Get hibyte env pntr
351 EF99 67
                              MOV
                                     H.A
                                                in H
352 EF9A D1
                              POP
                                     D
                                                Restore pntr
353 EF9B 7E
                              MOV
                                     A.M
                                                Get volume in A
354 EF9C C9
                              RET
355
                      * IF SOUND OF BLOCK IS 'OFF': GOTO NEXT BLOCK:
356
357
358 EF9D OC
                                     C
                     L1E268
                              INR
                                               Update SCB count
359 EF9E 79
                              YOM
                                     A.C
360 EF9F FE04
                              CPI
                                     : 04
                                                All blocks done ?
361 EFA1 C28BEF
                              JNZ
                                     : EF8B
                                                Next block if not
362 EFA4 E1
                     L1E269
                              POP
                                     H
363 EFA5 C9
                              RET
364
365
                      ******
                      * BANK RETURN *
366
                      ***********
367
368
                     * Goto RDM bank O.
369
370
371
                     * Entry: A: Current POROM.
372
```

POP

B

BRET

373 EFA6 C1

435 EFE5 FF

```
: 3F
374 EFA7 E63F
                             ANI
                                              Select ROM bank 0
375 EFA9 C308DB
                             JMP
                                    : DB08
                                              Load PDRO/PDROM
376
377 EFAC FF
                             DATA
                                    : FF
378 EFAD FF
                             DATA
                                    :FF
379 EFAE FF
                             DATA
                                    :FF
380 EFAF FF
                             DATA
                                   :FF
381 EFBO FF
                             DATA
                                    :FF
382 EFB1 FF
                             DATA
                                    :FF
383 EFB2 FF
                             DATA
                                    :FF
384 EFB3 FF
                             DATA
                                    :FF
385 EFB4 FF
                             DATA
                                    :FF
386
387
                     *********************
388
                     * LOADA: READ VARIABLE TYPE FROM TAPE *
389
                     *****************
390
391
                     * Reads 1 byte from tape.
392
393
                     * Exit: A: Variable type.
394
                             DEHL preserved.
395
                     *
396 EFB5 E5
                     RIBB
                             PUSH
                                    Н
397 EFB6 D5
                             PUSH
                                   D
39B EFB7 213E01
                             LXI
                                   H,:013E
                                              Startaddr EBUF
399 EFBA 113F01
                             LXI
                                    D.:013F
                                              Next addr
400 EFBD CDD102
                             CALL
                                    : 02D1
                                              Read type from tape
401 EFC0 D2B3D2
                                              Evt run 'LOADING ERROR ...'
                             JNC
                                    : D2B3
402 EFC3 3A3E01
                             LDA
                                    :013E
                                              Get var.type in A
403 EFC6 D1
                             POP
                                   D
404 EFC7 E1
                             POP
                                   H
405 EFC8 C9
                             RET
406
407 EFC9 FF
                             DATA
                                    :FF
408 EFCA FF
                             DATA
                                   :FF
409 EFCB FF
                             DATA
                                    :FF
410 EFCC FF
                             DATA
                                    :FF
411 EFCD FF
                             DATA
                                   :FF
412 EFCE FF
                             DATA
                                    :FF
413 EFCF FF
                             DATA
                                   :FF
414 EFDO FF
                             DATA
                                   :FF
415 EFD1 FF
                             DATA
                                   :FF
416 EFD2 FF
                             DATA
                                    :FF
417 EFD3 FF
                             DATA
                                   :FF
                                    :FF
418 EFD4 FF
                             DATA
419 EFD5 FF
                             DATA
                                   :FF
420 EFD6 FF
                             DATA
                                    :FF
                             DATA
421 EFD7 FF
                                   :FF
422 EFD8 FF
                             DATA
                                   :FF
423 EFD9 FF
                             DATA
                                   1FF
424 EFDA FF
                             DATA
                                    :FF
425 EFDB FF
                             DATA
                                   :FF
426 EFDC FF
                             DATA
                                   :FF
427 EFDD FF
                             DATA
                                   :FF
                                   :FF
428 EFDE FF
                             DATA
429 EFDF FF
                             DATA
                                   :FF
430 EFEO FF
                             DATA
                                   :FF
431 EFE1 FF
                             DATA
                                    :FF
432 EFE2 FF
                             DATA
                                    :FF
433 EFE3 FF
                             DATA
                                    :FF
434 EFE4 FF
                             DATA
                                    :FF
```

DATA

:FF

```
436 EFE6 FF
                             DATA
                                  :FF
437 EFE7 FF
                             DATA
                                   :FF
438 EFE8 FF
                                   :FF
                             DATA
439 EFE9 FF
                                   :FF
                             DATA
440 EFEA FF
                             DATA
                                   : FF
441 EFEB FF
                             DATA
                                  :FF
442 EFEC FF
                            DATA
                                   :FF
443 EFED FF
                            DATA
                                   :FF
444 EFEE FF
                            DATA
                                   :FF
445 EFEF FF
                            DATA
                                   :FF
446 EFFO FF
                            DATA
                                   :FF
447 EFF1 FF
                                   :FF
                            DATA
448 EFF2 FF
                                   :FF
                            DATA
449 EFF3 FF
                            DATA
                                  1FF
450 EFF4 FF
                            DATA
                                   :FF
451 EFF5 FF
                            DATA
                                   :FF
452 EFF6 FF
                            DATA
                                   :FF
453 EFF7 FF
                            DATA
                                  :FF
454 EFFB FF
                            DATA
                                  :FF
455
456
                    ***************
457
                    * part of 'EXP' (1E667) *
458
                    ********
459
460 EFF9 B4
                    L1E272
                            DRA
461 EFFA F2B8E6
                            JP
                                   :E6B8
462 EFFD CSADE6
                            JMP
                                   : E6AD
463
464
465
466 F000
                            END
```


BRET	EFA6	L1E245	EEOB	L1E246	EE2F	L1E247	EE38
L1E248	EE4C	L1E250	EE73	L1E251	EE7E	L1E252	EEA9
L1E253	EEB1	L1E254	EEB8	L1E255	EEBD	L1E256	EEDC
L1E257	EEEB	L1E258	EF12	L1E259	EF18	L1E260	EF3B
L1E261	EF44	L1E262	EF4D	L1E263	EF61	L1E264	EF6D
L1E265	EF75	L1E266	EF8B	L1E267	EF93	L1E268	EF9D
L1E269	EFA4	L1E272	EFF9	L1E273	EEOF	R1BB	EFB5
TEMPO	FEAF						