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0000 ;
0000 ;
0000 ; This file is generated by The Interactive Disassembler (IDA)
0000 ; Licensed to: Unknown User ;-
0000 ; Copyright (c) 1999 by DataRescue sa/nv, <ida@datarescue.com>
0000 ;
0000 ;
0000 ;
0000 ; File Name : D:\markm\pace\pacedev.net\sw\dev\platform\galaga\xevious\sub2.bin
0000 ; Format : Binary File
0000 ; Base Address: 0000h Range: 0000h - 1000h Loaded length: 1000h
0000 ;
0000 ; Processor: z80
0000 ; Target assembler: Table Driven Assembler (TASM) by Speech Technology Inc.
0000 ;
0000 ;
0000 ; Segment type: Pure code
0000 ; segment 'seg000'
0000
0000 RESET:
0000 31 00 A3 ld sp, 0A300h
0003 C3 7F 00 jp START
0003 ;
0006 00 00 .db 0, 0
0008 ;
0008 ; SUBROUTINE
0008 ;
0008 HL_plus_equals_2A: ; CODE XREF: sub_0_248+3D|p
0008 87 ; sub_0_28B+74|p ...
0008 add a, a
0009 30 05 jr nc, HL_plus_equals_A
000B 24 inc h
000C 18 02 jr HL_plus_equals_A
000C ; End of function HL_plus_equals_2A
000C ;
000E 00 00 .db 0, 0
0010 ;
0010 ; SUBROUTINE
0010 ;
0010 HL_plus_equals_A: ; CODE XREF: HL_plus_equals_2A+1|j
0010 85 ; HL_plus_equals_2A+4|j ...
0010 add a, l
0011 6F ld l, a
0012 D0 ret nc
0013 24 inc h
0014 C9 ret
0014 ; End of function HL_plus_equals_A
0014 ;
0015 00 00 00 .db 0, 0, 0
0018 ;
0018 ; SUBROUTINE
0018 ;
0018 memset_HL_A_B: ; CODE XREF: memset_HL_A_B+2|j
0018 77 ; sub_0_214+27|p ...
0018 ld (hl), a ; store A
0019 23 inc hl ; next address
001A 10 FC djnz memset_HL_A_B
001C C9 ret
001C ; End of function memset_HL_A_B
001C ;
001D 00 00 00 .db 0, 0, 0
0020 ;
0020 ; SUBROUTINE
0020 ;
0020 get_volume_channel_A: ; CODE XREF: sub_0_307+24|p
0020 3A 98 A0 ; sub_0_307+84|p
0020 ld a, (channel)
0023 A7 and a
0024 28 0B jr z, loc_0_31
0026 3D dec a
0027 28 04 jr z, loc_0_2D
0029 21 90 A0 ld hl, R_Ch2_vol
002C C9 ret
002D ;
002D loc_0_2D: ; CODE XREF: get_volume_channel_A+7|j
002D 21 8B A0 ld hl, R_ch1_vol
0030 C9 ret
0031 ;
0031 loc_0_31: ; CODE XREF: get_volume_channel_A+4|j
0031 21 86 A0 ld hl, R_ch0_vol
0034 C9 ret
0034 ; End of function get_volume_channel_A
0034 ;
0035 00 00 00 00+ .db 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
0035 00 00 00 00+ .db 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
0035 00 00 00 00+ .db 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
0066 ;
0066 NMI:
0066 F5 push af
0067 3A 80 A0 ld a, (R_busy_in_NMI)
006A A7 and a ; busy?
006B 28 03 jr z, loc_0_70 ; no, continue
006D F1 pop af
006E ED 45 retn
0070 ;
0070 loc_0_70: ; CODE XREF: 0000:006B|j
0070 3E 01 ld a, 1 ; flag busy in NMI
0072 32 80 A0 ld (R_busy_in_NMI), a
0075 32 22 68 ld (6822h), a ; sub2 IRQ disable
0078 AF xor a
0079 32 22 68 ld (6822h), a ; sub2 IRQ enable

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007C C3 9A 00      jp      process_NMI
007F
007F
007F
007F 3E 01      START:      ld      a, 1      ; CODE XREF: 0000:0003↑j
0081 32 22 68      ld      (6822h), a      ; sub2 IRQ disable
0084 CD 53 0A      call    calc_rom_checksum
0087 21 00 A0      ld      hl, 0A000h
008A 36 00      ld      (hl), 0
008C 11 01 A0      ld      de, 0A001h
008F 01 FF 00      ld      bc, 0FFh
0092 ED B0      ldir
0094 AF      xor      a      ; clear A000-A0FF
0095 32 22 68      ld      (6822h), a      ; sub2 IRQ enable
0098
0098 18 FE      loc_0_98:      jr      loc_0_98      ; CODE XREF: 0000:0098↑j
009A      ;
009A
009A      process_NMI:      ; CODE XREF: 0000:007C↑j
009A 21 81 A0      ld      hl, R_ch0_freq_hi
009D 36 00      ld      (hl), 0
009F 11 82 A0      ld      de, R_ch0_freq
00A2 01 0F 00      ld      bc, 0Fh
00A5 ED B0      ldir      ; clear all channel freq,vol
00A7 3A 94 A0      ld      a, (unk_0_A094)
00AA A7      and      a
00AB 28 0B      jr      z, loc_0_B8
00AD 21 00 A0      ld      hl, 0A000h
00B0 86      add      a, (hl)
00B1 77      ld      (hl), a
00B2 AF      xor      a
00B3 32 94 A0      ld      (unk_0_A094), a
00B6 18 16      jr      loc_0_CE
00B8
00B8
00B8      loc_0_B8:      ; CODE XREF: 0000:00AB↑j
00B8 3A 28 80      ld      a, (8028h)
00BB A7      and      a
00BC 28 10      jr      z, loc_0_CE
00BE 21 01 A0      ld      hl, 0A001h
00C1 36 00      ld      (hl), 0
00C3 11 02 A0      ld      de, 0A002h
00C6 01 26 00      ld      bc, 26h ; '&'
00C9 ED B0      ldir      ; clear A001-A027
00CB C3 D2 01      jp      loc_0_1D2
00CE
00CE
00CE      loc_0_CE:      ; CODE XREF: 0000:00B6↑j
00CE 3A 02 A0      ld      a, (unk_0_A002) ; 0000:00BC↑j
00CE      and      a
00D1 A7      and      a
00D2 28 0B      jr      z, loc_0_DF
00D4 21 95 A0      ld      hl, 0A095h
00D7 36 02      ld      (hl), 2
00D9 CD 8B 02      call    sub_0_28B
00DC C3 D2 01      jp      loc_0_1D2
00DF
00DF
00DF      loc_0_DF:      ; CODE XREF: 0000:00D2↑j
00DF 3A 03 A0      ld      a, (unk_0_A003)
00E2 A7      and      a
00E3 28 0B      jr      z, loc_0_F0
00E5 21 95 A0      ld      hl, 0A095h
00E8 36 03      ld      (hl), 3
00EA CD 8B 02      call    sub_0_28B
00ED C3 D2 01      jp      loc_0_1D2
00F0
00F0
00F0      loc_0_F0:      ; CODE XREF: 0000:00E3↑j
00F0 3A 04 A0      ld      a, (unk_0_A004)
00F3 A7      and      a
00F4 28 0B      jr      z, loc_0_101
00F6 21 95 A0      ld      hl, 0A095h
00F9 36 04      ld      (hl), 4
00FB CD 8B 02      call    sub_0_28B
00FE C3 D2 01      jp      loc_0_1D2
0101
0101
0101      loc_0_101:      ; CODE XREF: 0000:00F4↑j
0101 3A 0E A0      ld      a, (unk_0_A00E)
0104 A7      and      a
0105 28 08      jr      z, loc_0_10F
0107 21 95 A0      ld      hl, 0A095h
010A 36 0E      ld      (hl), 0Eh
010C CD 8B 02      call    sub_0_28B
010F
010F
010F      loc_0_10F:      ; CODE XREF: 0000:0105↑j
010F 3A 0D A0      ld      a, (unk_0_A00D)
0112 A7      and      a
0113 28 08      jr      z, loc_0_11D
0115 21 95 A0      ld      hl, 0A095h
0118 36 0D      ld      (hl), 0Dh
011A CD 8B 02      call    sub_0_28B
011D
011D      loc_0_11D:      ; CODE XREF: 0000:0113↑j
011D 21 95 A0      ld      hl, 0A095h
0120 36 05      ld      (hl), 5
0122 3A 05 A0      ld      a, (unk_0_A005)
0125 A7      and      a
0126 28 09      jr      z, loc_0_131
0128 AF      xor      a
0129 32 05 A0      ld      (unk_0_A005), a
012C CD 14 02      call    sub_0_214
012F 18 0A      jr      loc_0_13B
0131
0131
0131      loc_0_131:      ; CODE XREF: 0000:0126↑j
0131 3A 19 A0      ld      a, (unk_0_A019)
0134 A7      and      a
0135 CA 3B 01      jp      z, loc_0_13B
0138 CD 48 02      call    sub_0_248
013B
013B      loc_0_13B:      ; CODE XREF: 0000:012F↑j
013B 3A 06 A0      ld      a, (unk_0_A006) ; 0000:0135↑j
013B

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013E A7          and      a
013F 28 0A      jr      z, loc_0_14B
0141 21 95 A0   ld      hl, 0A095h
0144 36 06      ld      (hl), 6
0146 CD 8B 02   call    sub_0_28B
0149 18 2E      jr      loc_0_179
014B
014B
014B
loc_0_14B:      ld      a, (unk_0_A007) ; CODE XREF: 0000:013F↑j
014E A7          and      a
014F 28 0A      jr      z, loc_0_15B
0151 21 95 A0   ld      hl, 0A095h
0154 36 07      ld      (hl), 7
0156 CD 8B 02   call    sub_0_28B
0159 18 1E      jr      loc_0_179
015B
015B
015B
loc_0_15B:      ld      a, (unk_0_A008) ; CODE XREF: 0000:014F↑j
015E A7          and      a
015F 28 0A      jr      z, loc_0_16B
0161 21 95 A0   ld      hl, 0A095h
0164 36 08      ld      (hl), 8
0166 CD 8B 02   call    sub_0_28B
0169 18 0E      jr      loc_0_179
016B
016B
016B
loc_0_16B:      ld      a, (unk_0_A009) ; CODE XREF: 0000:015F↑j
016E A7          and      a
016F 28 08      jr      z, loc_0_179
0171 21 95 A0   ld      hl, 0A095h
0174 36 09      ld      (hl), 9
0176 CD 8B 02   call    sub_0_28B
0179
0179
loc_0_179:      ; CODE XREF: 0000:0149↑j
                    ; 0000:0159↑j ...
0179 21 95 A0   ld      hl, 0A095h
017C 36 0A      ld      (hl), 0Ah
017E 3A 0A A0   ld      a, (unk_0_A00A)
0181 A7          and      a
0182 28 09      jr      z, loc_0_18D
0184 AF          xor      a
0185 32 0A A0   ld      (unk_0_A00A), a
0188 CD 14 02   call    sub_0_214
018B 18 28      jr      loc_0_1B5
018D
018D
018D
loc_0_18D:      ld      a, (unk_0_A01E) ; CODE XREF: 0000:0182↑j
018D 3A 1E A0   ld      a, (unk_0_A01E)
0190 A7          and      a
0191 28 05      jr      z, loc_0_198
0193 CD 48 02   call    sub_0_248
0196 18 1D      jr      loc_0_1B5
0198
0198
0198
loc_0_198:      ; CODE XREF: 0000:0191↑j
0198 21 95 A0   ld      hl, 0A095h
019B 36 0B      ld      (hl), 0Bh
019D 3A 0B A0   ld      a, (unk_0_A00B)
01A0 A7          and      a
01A1 28 09      jr      z, loc_0_1AC
01A3 AF          xor      a
01A4 32 0B A0   ld      (unk_0_A00B), a
01A7 CD 14 02   call    sub_0_214
01AA 18 26      jr      loc_0_1D2
01AC
01AC
01AC
loc_0_1AC:      ld      a, (unk_0_A01F) ; CODE XREF: 0000:01A1↑j
01AF A7          and      a
01B0 28 03      jr      z, loc_0_1B5
01B2 CD 48 02   call    sub_0_248
01B5
loc_0_1B5:      ; CODE XREF: 0000:018B↑j
                    ; 0000:0196↑j ...
01B5 21 95 A0   ld      hl, 0A095h
01B8 36 0C      ld      (hl), 0Ch
01BA 3A 0C A0   ld      a, (unk_0_A00C)
01BD A7          and      a
01BE 28 09      jr      z, loc_0_1C9
01C0 AF          xor      a
01C1 32 0C A0   ld      (unk_0_A00C), a
01C4 CD 14 02   call    sub_0_214
01C7 18 09      jr      loc_0_1D2
01C9
01C9
01C9
loc_0_1C9:      ld      a, (unk_0_A020) ; CODE XREF: 0000:01BE↑j
01C9 3A 20 A0   ld      a, (unk_0_A020)
01CC A7          and      a
01CD 28 03      jr      z, loc_0_1D2
01CF CD 48 02   call    sub_0_248
01D2
loc_0_1D2:      ; CODE XREF: 0000:00CB↑j
                    ; 0000:00DC↑j ...
01D2 3A 00 A0   ld      a, (ram_a000)
01D5 A7          and      a
01D6 28 0A      jr      z, loc_0_1E2
01D8 21 95 A0   ld      hl, 0A095h
01DB 36 00      ld      (hl), 0
01DD CD 8B 02   call    sub_0_28B
01E0 18 0E      jr      loc_0_1F0
01E2
01E2
01E2
loc_0_1E2:      ld      a, (unk_0_A001) ; CODE XREF: 0000:01D6↑j
01E2 3A 01 A0   ld      a, (unk_0_A001)
01E5 A7          and      a
01E6 28 08      jr      z, loc_0_1F0
01E8 21 95 A0   ld      hl, 0A095h
01EB 36 01      ld      (hl), 1
01ED CD 8B 02   call    sub_0_28B
01F0
loc_0_1F0:      ; CODE XREF: 0000:01E0↑j
                    ; 0000:01E6↑j
01F0 21 81 A0   ld      hl, R_ch0_freq_hi

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01F3 11 10 68      ld      de, ch0_freq_hi ; frequency/volume bytes
01F6 01 10 00      ld      bc, 10h          ; length
01F9 ED B0         ldir                     ; set sound registers from RAM
01FB 3A 91 A0      ld      a, (R_ch_0_wavform)
01FE 32 05 68      ld      (ch_0_waveform), a
0201 3A 92 A0      ld      a, (R_ch_1_wavform)
0204 32 0A 68      ld      (ch_1_waveform), a
0207 3A 93 A0      ld      a, (R_ch_2_wavform)
020A 32 0F 68      ld      (ch_2_waveform), a
020D AF           xor      a          ; clear busy flag
020E 32 80 A0      ld      (R_busy_in_NMI), a
0211 F1           pop      af
0212 ED 45         retn
0214
0214 ; ██████████ S U B R O U T I N E ██████████
0214
0214 sub_0_214:      ; CODE XREF: 0000:012C↑p
0214 21 14 A0      ; 0000:0188↑p ...
0217 3A 95 A0      ld      hl, 0A014h
021A D7           ld      a, (unk_0_A095)
021B 34           rst      10h          ; HL += A
021C 21 95 A0      inc     (hl)
021F 7E           ld      hl, 0A095h
0220 87           ld      a, (hl)
0221 86           add     a, a          ; A = 2A
0222 21 C0 04      add     a, (hl)      ; A = 3A
0225 D7           ld      hl, 4C0h      ; table of triplets
0226 11 96 A0      rst      10h          ; HL += A
0229 01 03 00      ld      de, 0A096h
022C ED B0         ld      bc, 3
022E 21 97 A0      ldir
0231 46           ld      hl, 0A097h
0232 48           ld      b, (hl)
0233 21 54 A0      ld      c, b
0236 3A 96 A0      ld      hl, 0A054h
0239 D7           ld      a, (unk_0_A096)
023A AF           rst      10h          ; HL += A
023B DF           xor      a
023C 41           rst      18h          ; memset(HL,A,B)
023D 21 28 A0      ld      b, c
0240 3A 96 A0      ld      hl, 0A028h
0243 D7           ld      a, (unk_0_A096)
0244 AF           rst      10h          ; HL += A
0245 DF           xor      a
0246 18 12         rst      18h          ; memset(HL,A,B)
0246             jr      loc_0_25A
0246 ; End of function sub_0_214
0248
0248 ; ██████████ S U B R O U T I N E ██████████
0248
0248 sub_0_248:      ; CODE XREF: 0000:0138↑p
0248 21 95 A0      ; 0000:0193↑p ...
024B 7E           ld      hl, 0A095h
024C 87           ld      a, (hl)
024D 86           add     a, a          ; A = 2A
024E 21 C0 04      add     a, (hl)      ; A = 3A
0251 D7           ld      hl, 4C0h      ; table of triplets
0252 11 96 A0      rst      10h          ; HL += A
0255 01 03 00      ld      de, 0A096h
0258 ED B0         ld      bc, 3
025A
025A loc_0_25A:      ; CODE XREF: sub_0_214+32↑j
025A CD 07 03      ; sub_0_248+23↑j
025A             call    sub_0_307
025D 21 97 A0      ld      hl, 0A097h
0260 35           dec     (hl)
0261 28 0A         jr      z, loc_0_26D
0263 21 96 A0      ld      hl, 0A096h
0266 34           inc     (hl)
0267 21 98 A0      ld      hl, 0A098h
026A 34           inc     (hl)
026B 18 ED         jr      loc_0_25A
026D
026D
026D loc_0_26D:      ; CODE XREF: sub_0_248+19↑j
026D 3A 99 A0      ld      a, (unk_0_A099)
0270 A7           and     a
0271 C8           ret      z
0272 AF           xor      a
0273 32 99 A0      ld      (unk_0_A099), a
0276 21 14 A0      ld      hl, 0A014h
0279 3A 95 A0      ld      a, (unk_0_A095)
027C D7           rst      10h          ; HL += A
027D 36 00         ld      (hl), 0
027F 21 33 04      ld      hl, 433h          ; jump table
0282 3A 95 A0      ld      a, (unk_0_A095)
0285 CF           rst      8           ; HL += 2A (get table entry)
0286 5E           ld      e, (hl)
0287 23           inc     hl
0288 56           ld      d, (hl)      ; get jump address
0289 EB           ex      de, hl
028A E9           jp      (hl)          ; go
028A ; End of function sub_0_248
028B
028B ; ██████████ S U B R O U T I N E ██████████
028B
028B sub_0_28B:      ; CODE XREF: 0000:00D9↑p
028B 21 95 A0      ; 0000:00EA↑p ...
028B 7E           ld      hl, 0A095h
028E 7E           ld      a, (hl)
028F 87           add     a, a          ; A = 2A
0290 86           add     a, (hl)      ; A = 3A
0291 21 C0 04      ld      hl, 4C0h      ; table of triplets
0294 D7           rst      10h          ; HL += A
0295 11 96 A0      ld      de, 0A096h
0298 01 03 00      ld      bc, 3          ; length
029B ED B0         ldir                     ; copy triplet to RAM
029D 21 14 A0      ld      hl, 0A014h
02A0 3A 95 A0      ld      a, (unk_0_A095)
02A3 D7           rst      10h          ; HL += A

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02A4 7E          ld      a, (hl)
02A5 A7          and      a
02A6 20 19       jr      nz, loc_0_2C1
02A8 34          inc      (hl)
02A9 21 97 A0    ld      hl, 0A097h
02AC 46          ld      b, (hl)
02AD 48          ld      c, b
02AE 21 54 A0    ld      hl, 0A054h
02B1 3A 96 A0    ld      a, (unk_0_A096)
02B4 D7          rst      10h          ; HL += A
02B5 AF          xor      a
02B6 DF          rst      18h          ; memset(HL,A,B)
02B7 41          ld      b, c
02B8 21 28 A0    ld      hl, 0A028h
02BB 3A 96 A0    ld      a, (unk_0_A096)
02BE D7          rst      10h          ; HL += A
02BF AF          xor      a
02C0 DF          rst      18h          ; memset(HL,A,B)
02C1
02C1             loc_0_2C1:          ; CODE XREF: sub_0_28B+1B↑j
02C1 CD 07 03    ; sub_0_28B+47↑j
02C1             call     sub_0_307
02C4 21 97 A0    ld      hl, 0A097h
02C7 35          dec      (hl)
02C8 28 0A       jr      z, loc_0_2D4
02CA 21 96 A0    ld      hl, 0A096h
02CD 34          inc      (hl)
02CE 21 98 A0    ld      hl, 0A098h
02D1 34          inc      (hl)
02D2 18 ED       jr      loc_0_2C1
02D4
02D4             ;
02D4             loc_0_2D4:          ; CODE XREF: sub_0_28B+3D↑j
02D4 3A 99 A0    ld      a, (unk_0_A099)
02D7 A7          and      a
02D8 C8          ret      z
02D9 AF          xor      a
02DA 32 99 A0    ld      (unk_0_A099), a
02DD 21 14 A0    ld      hl, 0A014h
02E0 3A 95 A0    ld      a, (unk_0_A095)
02E3 D7          rst      10h
02E4 36 00       ld      (hl), 0
02E6 21 00 A0    ld      hl, 0A000h
02E9 3A 95 A0    ld      a, (unk_0_A095)
02EC D7          rst      10h
02ED 3A 95 A0    ld      a, (unk_0_A095)
02F0 A7          and      a
02F1 28 12       jr      z, loc_0_305
02F3 FE 14       cp      14h
02F5 28 0E       jr      z, loc_0_305
02F7 36 00       ld      (hl), 0
02F9 21 33 04    ld      hl, 433h          ; jump table
02FC 3A 95 A0    ld      a, (unk_0_A095)
02FF CF          rst      8          ; HL += 2A (get entry address)
0300 5E          ld      e, (hl)
0301 23          inc      hl
0302 56          ld      d, (hl)          ; DE = jump address
0303 EB          ex      de, hl
0304 E9          jp      (hl)          ; go
0305
0305             loc_0_305:          ; CODE XREF: sub_0_28B+66↑j
0305 35             ; sub_0_28B+6A↑j
0305             dec      (hl)
0306 C9          ret
0306             ; End of function sub_0_28B
0307
0307             ; ██████████ S U B R O U T I N E ██████████
0307
0307             sub_0_307:          ; CODE XREF: sub_0_248+12↑p
0307 21 28 A0    ; sub_0_28B+36↑p
0307             ld      hl, 0A028h
030A 3A 96 A0    ld      a, (unk_0_A096)
030D D7          rst      10h          ; HL += A
030E 34          inc      (hl)
030F 3A 96 A0    ld      a, (unk_0_A096)
0312 21 8A 04    ld      hl, 48Ah          ; data table
0315 CF          rst      8          ; HL += 2A
0316 5E          ld      e, (hl)
0317 23          inc      hl
0318 56          ld      d, (hl)          ; DE = data address
0319 21 54 A0    ld      hl, 0A054h
031C 3A 96 A0    ld      a, (unk_0_A096)
031F D7          rst      10h          ; HL += A
0320 7E          ld      a, (hl)
0321 EB          ex      de, hl
0322 D7          rst      10h          ; HL += A
0323 22 9A A0    ld      (unk_0_A09A), hl
0326 7E          ld      a, (hl)
0327 3C          inc      a
0328 C2 34 03    jp      nz, loc_0_334
032B E7          rst      20h
032C 36 00       ld      (hl), 0
032E 3E 01       ld      a, 1
0330 32 99 A0    ld      (unk_0_A099), a
0333 C9          ret
0334
0334             loc_0_334:          ; CODE XREF: sub_0_307+21↑j
0334 21 FC 04    ; table of triplets
0337 3A 96 A0    ld      a, (unk_0_A096)
033A D7          rst      10h          ; HL += A
033B 7E          ld      a, (hl)
033C A7          and      a
033D 28 05       jr      z, loc_0_344
033F 11 82 05    ld      de, 582h
0342 18 03       jr      loc_0_347
0344
0344             loc_0_344:          ; CODE XREF: sub_0_307+36↑j
0344 11 68 05    ld      de, 568h
0347
0347             loc_0_347:          ; CODE XREF: sub_0_307+3B↑j
0347 2A 9A A0    ld      hl, (unk_0_A09A)

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034A 7E          ld      a, (hl)
034B 0F          rrca
034C 0F          rrca
034D 0F          rrca
034E 0F          rrca
034F E6 0F      and     0Fh          ; high nibble
0351 EB          ex      de, hl
0352 CF          rst      8          ; HL += 2A
0353 4E          ld      c, (hl)
0354 23          inc     hl
0355 46          ld      b, (hl)
0356 EB          ex      de, hl
0357 7E          ld      a, (hl)
0358 E6 0F      and     0Fh          ; low nibble
035A 28 07      jr      z, loc_0_363
035C
035C          loc_0_35C:          ; CODE XREF: sub_0_307+5A|j
035C CB 38      srl      b
035E CB 19      rr      c          ; BC >>= 1
0360 3D          dec     a
0361 20 F9      jr      nz, loc_0_35C ; BC >>= A
0363
0363          loc_0_363:          ; CODE XREF: sub_0_307+53|j
0363 3A 98 A0      ld      a, (channel)
0366 A7          and     a          ; channel 0?
0367 28 0D      jr      z, loc_0_376 ; yes, branch
0369 3D          dec     a          ; channel 1?
036A 28 05      jr      z, loc_0_371 ; yes, branch
036C 21 8C A0      ld      hl, R_ch2_freq
036F 18 08      jr      loc_0_379
0371
0371          ; _____
0371          loc_0_371:          ; CODE XREF: sub_0_307+63|j
0371 21 87 A0      ld      hl, 0A087h
0374 18 03      jr      loc_0_379
0376
0376          ; _____
0376          loc_0_376:          ; CODE XREF: sub_0_307+60|j
0376 21 82 A0      ld      hl, R_ch0_freq
0379
0379          loc_0_379:          ; CODE XREF: sub_0_307+68|j
0379 71          ; sub_0_307+6D|j
0379          ld      (hl), c
037A 7E          ld      a, (hl)
037B 0F          rrca
037C 0F          rrca
037D 0F          rrca
037E 0F          rrca
037F 23          inc     hl
0380 77          ld      (hl), a
0381 23          inc     hl
0382 70          ld      (hl), b
0383 7E          ld      a, (hl)
0384 0F          rrca
0385 0F          rrca
0386 0F          rrca
0387 0F          rrca
0388 23          inc     hl
0389 77          ld      (hl), a
038A EB          ex      de, hl
038B E7          rst      20h          ; get volume channel A
038C EB          ex      de, hl
038D 2A 9A A0      ld      hl, (unk_0_A09A)
0390 7E          ld      a, (hl)
0391 D6 C0          sub     0C0h ; 'L'
0393 28 4A          jr      z, loc_0_3DF
0395 3A 96 A0      ld      a, (unk_0_A096)
0398 21 32 05      ld      hl, 532h
039B D7          rst      10h          ; HL += A
039C A7          and     a
039D 28 21          jr      z, loc_0_3C0
039F 3D          dec     a
03A0 28 0F          jr      z, loc_0_3B1
03A2 21 28 A0      ld      hl, 0A028h
03A5 3A 96 A0      ld      a, (unk_0_A096)
03A8 D7          rst      10h          ; HL += A
03A9 7E          ld      a, (hl)
03AA FE 06          cp      6
03AC 30 12          jr      nc, loc_0_3C0
03AE 2F          cpl
03AF 18 33          jr      loc_0_3E4
03B1
03B1          ; _____
03B1          loc_0_3B1:          ; CODE XREF: sub_0_307+99|j
03B1 21 28 A0      ld      hl, 0A028h
03B4 3A 96 A0      ld      a, (unk_0_A096)
03B7 D7          rst      10h          ; HL += A
03B8 7E          ld      a, (hl)
03B9 FE 08          cp      8
03BB 30 03          jr      nc, loc_0_3C0
03BD 87          add     a, a
03BE 18 24          jr      loc_0_3E4
03C0
03C0          ; _____
03C0          loc_0_3C0:          ; CODE XREF: sub_0_307+96|j
03C0 21 4D 05      ; sub_0_307+A5|j ...
03C0          ld      hl, 54Dh
03C3 3A 96 A0      ld      a, (unk_0_A096)
03C6 D7          rst      10h          ; HL += A
03C7 7E          ld      a, (hl)
03C8 A7          and     a
03C9 28 17          jr      z, loc_0_3E2
03CB 47          ld      b, a
03CC 21 28 A0      ld      hl, 0A028h
03CF 3A 96 A0      ld      a, (unk_0_A096)
03D2 D7          rst      10h          ; HL += A
03D3 7E          ld      a, (hl)
03D4 90          sub     b
03D5 38 0B          jr      c, loc_0_3E2
03D7 D6 0A          sub     0Ah
03D9 30 04          jr      nc, loc_0_3DF
03DB ED 44          neg     loc_0_3E4
03DD 18 05          jr      loc_0_3E4
03DF
03DF          ; _____
03DF          loc_0_3DF:          ; CODE XREF: sub_0_307+8C|j

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```

03DF AF                                ; sub_0_307+D2↑j
03DF                                xor     a
03E0 18 02                            jr     loc_0_3E4
03E2                                ;
03E2                                ;
03E2                                loc_0_3E2:                                ; CODE XREF: sub_0_307+C2↑j
03E2 3E 0A                            ld     a, 0Ah                                ; sub_0_307+CE↑j
03E4                                ;
03E4                                loc_0_3E4:                                ; CODE XREF: sub_0_307+A8↑j
03E4 12                                ; sub_0_307+B7↑j ...
03E4                                ld     (de), a
03E5 21 91 A0                        ld     hl, R_ch_0_wavrform
03E8 3A 98 A0                        ld     a, (channel)
03EB D7                                rst     10h                                ; HL += A
03EC EB                                ex      de, hl                                ; DE = channel <n> waveform (RAM copy)
03ED 21 17 05                        ld     hl, 517h                                ; table of waveform triplets
03F0 3A 96 A0                        ld     a, (unk_0_A096)
03F3 D7                                rst     10h                                ; HL += A
03F4 ED A0                        ldi
03F6 21 ED 04                        ld     hl, 4EDh
03F9 3A 95 A0                        ld     a, (unk_0_A095)
03FC D7                                rst     10h                                ; HL += A
03FD 7E                                ld     a, (hl)
03FE 2A 9A A0                        ld     hl, (unk_0_A09A)
0401 23                                inc     hl
0402 5E                                ld     e, (hl)
0403 16 00                        ld     d, 0
0405 21 00 00                        ld     hl, 0
0408 06 08                        ld     b, 8
040A                                ;
040A                                loc_0_40A:                                ; CODE XREF: sub_0_307+10C↑j
040A CB 3F                        srl     a
040C 30 01                        jr     nc, loc_0_40F
040E 19                        add     hl, de
040F                                ;
040F                                loc_0_40F:                                ; CODE XREF: sub_0_307+105↑j
040F CB 23                        sla     e
0411 CB 12                        rl      d
0413 10 F5                        djnz    loc_0_40A
0415 45                        ld     b, 1
0416 21 28 A0                        ld     hl, 0A028h
0419 3A 96 A0                        ld     a, (unk_0_A096)
041C D7                                rst     10h                                ; HL += A
041D 78                        ld     a, b
041E BE                        cp      (hl)
041F C0                        ret     nz
0420 21 54 A0                        ld     hl, 0A054h
0423 3A 96 A0                        ld     a, (unk_0_A096)
0426 D7                                rst     10h                                ; HL += A
0427 34                        inc     (hl)
0428 34                        inc     (hl)
0429 21 28 A0                        ld     hl, 0A028h
042C 3A 96 A0                        ld     a, (unk_0_A096)
042F D7                                rst     10h                                ; HL += A
0430 36 00                        ld     (hl), 0
0432 C9                        ret
0432                                ; End of function sub_0_307
0432                                ;
0432                                ;
0433 6F 04                        .dw clear_A005_A019
0435 6F 04                        .dw clear_A005_A019
0437 51 04                        .dw null_routine
0439 51 04                        .dw null_routine
043B 6F 04                        .dw clear_A005_A019
043D 51 04                        .dw null_routine
043F 51 04                        .dw null_routine
0441 60 04                        .dw loc_0_460
0443 51 04                        .dw null_routine
0445 51 04                        .dw null_routine
0447 67 04                        .dw loc_0_467
0449 51 04                        .dw null_routine
044B 51 04                        .dw null_routine
044D 52 04                        .dw loc_0_452
044F 51 04                        .dw null_routine
0451                                ;
0451                                ;
0451                                null_routine:                                ; DATA XREF: 0000:0437↑o
0451 C9                                ; 0000:0439↑o ...
0451                                ret
0452                                ;
0452                                ;
0452                                loc_0_452:                                ; DATA XREF: 0000:044D↑o
0452 AF                                xor     a
0453 32 05 A0                        ld     (unk_0_A005), a
0456 32 19 A0                        ld     (unk_0_A019), a
0459 AF                                xor     a
045A 32 09 A0                        ld     (unk_0_A009), a
045D 32 1D A0                        ld     (unk_0_A01D), a
0460                                ;
0460                                loc_0_460:                                ; DATA XREF: 0000:0441↑o
0460 AF                                xor     a
0461 32 0C A0                        ld     (unk_0_A00C), a
0464 32 20 A0                        ld     (unk_0_A020), a
0467                                ;
0467                                loc_0_467:                                ; DATA XREF: 0000:0447↑o
0467 AF                                xor     a
0468 32 0B A0                        ld     (unk_0_A00B), a
046B 32 1F A0                        ld     (unk_0_A01F), a
046E C9                        ret
046F                                ;
046F                                ;
046F                                clear_A005_A019:                                ; DATA XREF: 0000:0433↑o
046F 21 05 A0                                ; 0000:0435↑o ...
046F                                ld     hl, 0A005h
0472 11 06 A0                        ld     de, 0A006h
0475 01 09 00                        ld     bc, 9
0478 36 00                        ld     (hl), 0
047A ED B0                        ldir                                ; clear A005-A00E
047C 21 19 A0                        ld     hl, 0A019h
047F 11 1A A0                        ld     de, 0A01Ah
0482 01 09 00                        ld     bc, 9
0485 36 00                        ld     (hl), 0                                ; clear A019-A022
0487 ED B0                        ldir
0489 C9                        ret
0489                                ;

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```
048A 9C 05      .dw 59Ch      ; data table
048C DD 05      .dw 5DDh
048E 1E 06      .dw 61Eh
0490 65 06      .dw 665h
0492 AC 06      .dw 6ACh
0494 F5 06      .dw 6F5h
0496 38 07      .dw 738h
0498 6B 07      .dw 76Bh
049A 9E 07      .dw 79Eh
049C DF 07      .dw 7DFh
049E 20 08      .dw 820h
04A0 D9 09      .dw 9D9h
04A2 DB 09      .dw 9DBh
04A4 DD 09      .dw 9DDh
04A6 B3 08      .dw 8B3h
04A8 B9 08      .dw 8B9h
04AA BF 08      .dw 8BFh
04AC 3D 09      .dw 93Dh
04AE E1 08      .dw 8E1h
04B0 9E 09      .dw 99Eh
04B2 C8 08      .dw 8C8h
04B4 38 09      .dw 938h
04B6 3A 09      .dw 93Ah
04B8 47 08      .dw 847h
04BA 58 08      .dw 858h
04BC EC 09      .dw 9ECh
04BE 11 0A      .dw 0A11h
04C0 00 02 00    .db 0, 2, 0
04C3 02 03 00    .db 2, 3, 0
04C6 05 03 00    .db 5, 3, 0
04C9 08 03 00    .db 8, 3, 0
04CC 0C 03 00    .db 0Ch, 3, 0
04CF 0E 03 00    .db 0Eh, 3, 0
04D2 11 01 01    .db 11h, 1, 1
04D5 12 01 01    .db 12h, 1, 1
04D8 13 01 02    .db 13h, 1, 2
04DB 14 01 02    .db 14h, 1, 2
04DE 15 02 00    .db 15h, 2, 0
04E1 17 01 00    .db 17h, 1, 0
04E4 18 01 01    .db 18h, 1, 1
04E7 19 01 00    .db 19h, 1, 0
04EA 1A 01 00    .db 1Ah, 1, 0
04ED 02 10 0A    .db 2, 10h, 0Ah
04F0 0C 10 06    .db 0Ch, 10h, 6
04F3 01 05 01    .db 1, 5, 1
04F6 01 06 01    .db 1, 6, 1
04F9 02 04 0C    .db 2, 4, 0Ch
04FC 00 00 00    .db 0, 0, 0
04FF 00 00 00    .db 0, 0, 0
0502 00 00 00    .db 0, 0, 0
0505 00 00 00    .db 0, 0, 0
0508 01 00 00    .db 1, 0, 0
050B 00 00 00    .db 0, 0, 0
050E 00 00 03    .db 0, 0, 3
0511 00 01 00    .db 0, 1, 0
0514 00 00 00    .db 0, 0, 0
0517 02 02 05    .db 2, 2, 5
051A 04 03 07    .db 4, 3, 7
051D 05 05 05    .db 5, 5, 5
0520 05 06 01    .db 5, 6, 1
0523 01 01 01    .db 1, 1, 1
0526 05 07 03    .db 5, 7, 3
0529 03 01 06    .db 3, 1, 6
052C 01 01 04    .db 1, 1, 4
052F 01 00 00    .db 1, 0, 0
0532 02 02 02    .db 2, 2, 2
0535 00 00 02    .db 0, 0, 2
0538 00 00 02    .db 0, 0, 2
053B 02 00 02    .db 2, 0, 2
053E 02 02 00    .db 2, 2, 0
0541 00 00 02    .db 0, 0, 2
0544 00 02 02    .db 0, 2, 2
0547 02 02 02    .db 2, 2, 2
054A 02 00 00    .db 2, 0, 0
054D 00 00 00    .db 0, 0, 0
0550 00 02 04    .db 0, 2, 4
0553 04 04 04    .db 4, 4, 4
0556 04 00 00    .db 4, 0, 0
0559 00 00 00    .db 0, 0, 0
055C 00 00 00    .db 0, 0, 0
055F 00 00 00    .db 0, 0, 0
0562 04 04 00    .db 4, 4, 0
0565 00 00 00    .db 0, 0, 0
0568 D0          .db 0D0h ; ð
0569 5A          .db 5Ah ; Z
056A 37          .db 37h ; 7
056B 60          .db 60h ; `
056C EF          .db 0EFh ; ´
056D 65          .db 65h ; e
056E FF          .db 0FFh ;
056F 6B          .db 6Bh ; k
0570 6B          .db 6Bh ; k
0571 72          .db 72h ; r
0572 39          .db 39h ; 9
0573 79          .db 79h ; y
0574 6E          .db 6Eh ; n
0575 80          .db 80h ; Ç
0576 11          .db 11h ;
0577 88          .db 88h ; ê
0578 29          .db 29h ; )
0579 90          .db 90h ; É
057A BC          .db 0BCh ; ¢
057B 98          .db 98h ; ŷ
057C D0          .db 0D0h ; ð
057D A1          .db 0A1h ; i
057E 70          .db 70h ; p
057F AB          .db 0ABh ; ½
0580 00          .db 0 ;
0581 00          .db 0 ;
0582 11          .db 11h ;
0583 5C          .db 5Ch ; \
0584 8B          .db 8Bh ; i
0585 61          .db 61h ; a
0586 58          .db 58h ; X
0587 67          .db 67h ; g
0588 7D          .db 7Dh ; }
```



```
.db 6Dh ; m
0589 6D
058A 00 .db 0 ;
058B 74 .db 74h ; t
058C E6 .db 0E6h ; µ
058D 7A .db 7Ah ; z
058E 35 .db 35h ; 5
058F 82 .db 82h ; é
0590 F2 .db 0F2h ;
0591 89 .db 89h ; ë
0592 27 .db 27h ; '
0593 92 .db 92h ; æ
0594 D8 .db 0D8h ; ÿ
0595 9A .db 9Ah ; ü
0596 0C .db 0Ch ;
0597 A4 .db 0A4h ; ñ
0598 CE .db 0CEh ; º
0599 AD .db 0ADh ; ï
059A 00 .db 0 ;
059B 00 .db 0 ;
059C 79 01 69 01+ .db 79h, 1, 69h, 1, 59h, 1, 49h, 1, 39h, 1, 29h, 1, 19h
059C 59 01 49 01+ .db 1, 9, 1, 78h, 1, 68h, 1, 58h, 1, 48h, 1, 38h, 1, 28h
059C 39 01 29 01+ .db 1, 18h, 1, 8, 1, 77h, 1, 67h, 1, 57h, 1, 47h, 1, 37h
059C 19 01 09 01+ .db 1, 52h, 1, 17h, 1, 7, 1, 76h, 1, 66h, 1, 56h, 1, 46h
059C 78 01 68 01+ .db 1, 36h, 1, 26h, 1, 16h, 1, 6, 1, 0FFh
05DD 89 01 79 01+ .db 89h, 1, 79h, 1, 69h, 1, 59h, 1, 49h, 1, 39h, 1, 29h
05DD 69 01 59 01+ .db 1, 19h, 1, 88h, 1, 78h, 1, 68h, 1, 58h, 1, 48h, 1
05DD 49 01 39 01+ .db 38h, 1, 28h, 1, 18h, 1, 87h, 1, 77h, 1, 67h, 1, 57h
05DD 29 01 19 01+ .db 1, 47h, 1, 32h, 1, 27h, 1, 17h, 1, 86h, 1, 76h, 1
05DD 88 01 78 01+ .db 66h, 1, 56h, 1, 46h, 1, 36h, 1, 26h, 1, 16h, 1, 0FFh
061E 56 04 C0 01+ .db 56h, 4, 0C0h, 1, 6, 1, 56h, 1, 96h, 1, 5, 1, 96h, 1
061E 06 01 56 01+ .db 0C0h, 1, 56h, 1, 76h, 1, 0C0h, 1, 76h, 1, 76h, 1, 0C0h
061E 96 01 05 01+ .db 1, 26h, 2, 0C0h, 1, 76h, 1, 56h, 1, 0C0h, 1, 46h, 1
061E 96 01 C0 01+ .db 56h, 4, 0C0h, 1, 6, 1, 56h, 1, 96h, 1, 5, 1, 96h, 1
061E 56 01 76 01+ .db 0C0h, 1, 56h, 1, 66h, 1, 0C0h, 1, 66h, 1, 66h, 1, 0C0h
061E C0 01 76 01+ .db 1, 56h, 7, 0FFh
0665 97 04 C0 01+ .db 97h, 4, 0C0h, 1, 97h, 1, 97h, 1, 6, 1, 56h, 1, 6, 1
0665 97 01 97 01+ .db 0C0h, 1, 97h, 1, 0A7h, 1, 0C0h, 1, 0A7h, 1, 0A7h, 1
0665 06 01 56 01+ .db 0C0h, 1, 0A7h, 2, 0C0h, 1, 0A7h, 1, 0A7h, 1, 0C0h
0665 06 01 C0 01+ .db 1, 0A7h, 1, 97h, 4, 0C0h, 1, 97h, 1, 97h, 1, 97h, 1
0665 97 01 A7 01+ .db 97h, 1, 97h, 1, 0C0h, 1, 97h, 1, 0A7h, 1, 0C0h, 1
0665 C0 01 A7 01+ .db 0A7h, 1, 0A7h, 1, 0C0h, 1, 97h, 7, 0FFh
06AC 59 01 59 01+ .db 59h, 1, 59h, 1, 59h, 1, 59h, 1, 0C0h, 2, 59h, 1, 59h
06AC 59 01 59 01+ .db 1, 59h, 1, 59h, 1, 0C0h, 2, 59h, 1, 59h, 1, 59h, 1
06AC C0 02 59 01+ .db 59h, 1, 0C0h, 2, 59h, 1, 59h, 1, 59h, 1, 59h, 1, 0C0h
06AC 59 01 59 01+ .db 2, 59h, 1, 59h, 1, 59h, 1, 59h, 1, 0C0h, 2, 59h, 1
06AC 59 01 C0 02+ .db 59h, 1, 59h, 1, 59h, 1, 0C0h, 2, 59h, 1, 59h, 1, 59h
06AC 59 01 59 01+ .db 1, 59h, 1, 0C0h, 1, 59h, 7, 0FFh
06F5 07 01 07 01+ .db 7, 1, 7, 1, 7, 2, 7, 2, 7, 2, 7, 2, 7, 2, 27h
06F5 07 02 07 02+ .db 2, 47h, 2, 57h, 2, 57h, 2, 57h, 2, 57h, 2, 57h, 2
06F5 07 02 07 02+ .db 97h, 2, 77h, 2, 57h, 2, 77h, 2, 77h, 2, 77h, 2, 77h
06F5 07 02 07 02+ .db 2, 77h, 2, 26h, 2, 6, 2, 0A7h, 2, 97h, 2, 97h, 2, 97h
06F5 27 02 47 02+ .db 2, 97h, 2, 97h, 2, 0A7h, 2, 6, 2, 0FFh
0738 C0 02 A8 02+ .db 0C0h, 2, 0A8h, 2, 0A8h, 2, 0C0h, 4, 0A8h, 2, 0A8h
0738 A8 02 C0 04+ .db 2, 0C0h, 4, 98h, 2, 98h, 2, 0C0h, 4, 98h, 2, 98h, 2
0738 A8 02 A8 02+ .db 0C0h, 4, 0A8h, 2, 0A8h, 2, 0C0h, 4, 0A8h, 2, 0A8h
0738 C0 04 98 02+ .db 2, 0C0h, 4, 98h, 2, 98h, 2, 0C0h, 4, 98h, 2, 98h, 2
0738 98 02 C0 04+ .db 0C0h, 2, 0FFh
076B C0 02 08 02+ .db 0C0h, 2, 8, 2, 8, 2, 0C0h, 4, 8, 2, 8, 2, 0C0h, 4
076B 08 02 C0 04+ .db 58h, 2, 58h, 2, 0C0h, 4, 58h, 2, 58h, 2, 0C0h, 4, 8
076B 08 02 08 02+ .db 2, 8, 2, 0C0h, 4, 8, 2, 8, 2, 0C0h, 4, 58h, 2, 58h
076B C0 04 58 02+ .db 2, 0C0h, 4, 58h, 2, 58h, 2, 0C0h, 2, 0FFh
079E 96 04 96 04+ .db 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h
079E 96 04 96 04+ .db 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4
079E 96 04 96 04+ .db 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h
079E 96 04 96 04+ .db 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4
079E 96 04 96 04+ .db 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 96h, 4, 0FFh
07DF 56 04 56 04+ .db 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h
07DF 56 04 56 04+ .db 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4
07DF 56 04 56 04+ .db 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h
07DF 56 04 56 04+ .db 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4
07DF 56 04 56 04+ .db 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 56h, 4, 0FFh
0820 58 01 07 01+ .db 58h, 1, 7, 1, 46h, 0Dh, 26h, 1, 16h, 3, 46h, 1, 26h
0820 46 0D 26 01+ .db 0Ch, 58h, 1, 7, 1, 36h, 0Dh, 26h, 1, 36h, 3, 56h, 1
0820 16 03 46 01+ .db 76h, 3, 56h, 1, 36h, 3, 26h, 1, 6, 3, 26h, 1, 0FFh
0847 69 01 64 01+ .db 69h, 1, 64h, 1, 79h, 1, 14h, 1, 89h, 1, 85h, 1, 99h
0847 79 01 14 01+ .db 1, 35h, 1, 0FFh
0858 06 01 16 01+ .db 6, 1, 16h, 1, 26h, 1, 36h, 1, 46h, 1, 36h, 1, 26h
0858 26 01 36 01+ .db 1, 16h, 1, 6, 1, 0B7h, 1, 0A7h, 1, 97h, 1, 87h, 1
0858 46 01 36 01+ .db 77h, 1, 67h, 1, 57h, 1, 47h, 1, 37h, 1, 27h, 1, 17h
0858 26 01 16 01+ .db 1, 7, 1, 0B8h, 1, 0A8h, 1, 98h, 1, 88h, 1, 78h, 1
0858 06 01 B7 01+ .db 68h, 1, 58h, 1, 48h, 1, 38h, 1, 28h, 1, 18h, 1, 8
0858 A7 01 97 01+ .db 1, 0B9h, 1, 0A9h, 1, 99h, 1, 89h, 1, 79h, 1, 69h, 1
0858 87 01 77 01+ .db 59h, 1, 49h, 1, 39h, 1, 29h, 1, 19h, 1, 9, 1, 0FFh
08B3 04 01 74 01+ .db 4, 1, 74h, 1, 24h, 1
08B9 94 01 44 01+ .db 94h, 1, 44h, 1, 0B4h, 1
08BF 64 01 14 01+ .db 64h, 1, 14h, 1, 84h, 1, 34h, 1, 0FFh
08C8 0A 01 19 01+ .db 0Ah, 1, 19h, 1, 0Ah, 1, 19h, 1, 25h, 1, 34h, 1, 25h
08C8 0A 01 19 01+ .db 1, 34h, 1, 43h, 1, 52h, 1, 43h, 1, 52h, 1, 0FFh
08E1 09 01 19 01+ .db 9, 1, 19h, 1, 9, 1, 29h, 1, 9, 1, 39h, 1, 9, 1, 49h
08E1 09 01 29 01+ .db 1, 9, 1, 39h, 1, 9, 1, 29h, 1, 9, 1, 19h, 1, 9, 1
08E1 09 01 39 01+ .db 19h, 1, 9, 1, 29h, 1, 9, 1, 39h, 1, 9, 1, 49h, 1, 9
08E1 09 01 49 01+ .db 1, 39h, 1, 9, 1, 29h, 1, 9, 1, 19h, 1, 9, 1, 19h, 1
08E1 09 01 39 01+ .db 9, 1, 29h, 1, 9, 1, 39h, 1, 9, 1, 49h, 1, 9, 1, 39h
08E1 09 01 29 01+ .db 1, 9, 1, 29h, 1, 9, 1, 19h, 1, 9, 1, 0FFh
0938 05 01 .db 5, 1
093A 15 05 FF .db 15h, 5, 0FFh
093D 04 01 29 01+ .db 4, 1, 29h, 1, 14h, 1, 29h, 1, 4, 1, 39h, 1, 14h, 1
093D 14 01 29 01+ .db 39h, 1, 4, 1, 49h, 1, 14h, 1, 49h, 1, 4, 1, 59h, 1
093D 04 01 39 01+ .db 14h, 1, 59h, 1, 4, 1, 29h, 1, 14h, 1, 29h, 1, 4, 1
093D 14 01 39 01+ .db 39h, 1, 14h, 1, 39h, 1, 4, 1, 49h, 1, 14h, 1, 49h
093D 04 01 49 01+ .db 1, 4, 1, 59h, 1, 14h, 1, 59h, 1, 4, 1, 29h, 1, 14h
093D 14 01 49 01+ .db 1, 29h, 1, 4, 1, 39h, 1, 14h, 1, 39h, 1, 4, 1, 49h
093D 04 01 59 01+ .db 1, 14h, 1, 49h, 1, 4, 1, 59h, 1, 14h, 1, 59h, 1, 0FFh
099E 05 01 15 01+ .db 5, 1, 15h, 1, 35h, 1, 65h, 1, 0A5h, 1, 65h, 1, 35h
099E 35 01 65 01+ .db 1, 25h, 2, 15h, 2, 5, 3, 6, 3, 7, 4, 8, 4, 9, 8, 0Ah
099E A5 01 65 01+ .db 8, 9, 8, 0Ah, 8, 9, 8, 0Ah, 8, 9, 8, 0Ah, 8, 9, 8
099E 35 01 25 02+ .db 0Ah, 8, 9, 8, 0Ah, 8, 9, 8, 0Ah, 8, 9, 8, 0Ah, 8, 0FFh
09D9 05 01 .db 5, 1
09DB 76 01 .db 76h, 1
09DD 46 01 06 01+ .db 46h, 1, 6, 1, 77h, 1, 6, 1, 46h, 1, 76h, 1, 5, 1, 0FFh
09EC 26 01 56 01+ .db 26h, 1, 56h, 1, 76h, 1, 96h, 1, 5, 1, 25h, 1, 26h
09EC 76 01 96 01+ .db 1, 56h, 1, 76h, 1, 96h, 1, 5, 1, 25h, 1, 26h, 1, 56h
09EC 05 01 25 01+ .db 1, 76h, 1, 96h, 1, 5, 1, 25h, 1, 0FFh
0A11 06 01 05 01+ .db 6, 1, 5, 1, 0B6h, 1, 5, 1, 45h, 1, 5, 1, 0B6h, 1, 5
0A11 B6 01 05 01+ .db 1, 6, 1, 5, 1, 0A6h, 1, 5, 1, 45h, 1, 5, 1, 0A6h, 1
0A11 45 01 05 01+ .db 5, 1, 6, 1, 5, 1, 96h, 1, 5, 1, 45h, 1, 5, 1, 96h
```


[illegible]

```
A011 ??                .block 1
A012 ??                .block 1
A013 ??                .block 1
A014 ??                .block 1
A015 ??                .block 1
A016 ??                .block 1
A017 ??                .block 1
A018 ??                .block 1
A019 ??                .block 1
A01A ??                .block 1
A01B ??                .block 1
A01C ??                .block 1
A01D ??                .block 1
A01E ??                .block 1
A01F ??                .block 1
A020 ??                .block 1
A021 ??                .block 1
A022 ??                .block 1
A023 ??                .block 1
A024 ??                .block 1
A025 ??                .block 1
A026 ??                .block 1
A027 ??                .block 1
A028 ??                .block 1
A029 ??                .block 1
A02A ??                .block 1
A02B ??                .block 1
A02C ??                .block 1
A02D ??                .block 1
A02E ??                .block 1
A02F ??                .block 1
A030 ??                .block 1
A031 ??                .block 1
A032 ??                .block 1
A033 ??                .block 1
A034 ??                .block 1
A035 ??                .block 1
A036 ??                .block 1
A037 ??                .block 1
A038 ??                .block 1
A039 ??                .block 1
A03A ??                .block 1
A03B ??                .block 1
A03C ??                .block 1
A03D ??                .block 1
A03E ??                .block 1
A03F ??                .block 1
A040 ??                .block 1
A041 ??                .block 1
A042 ??                .block 1
A043 ??                .block 1
A044 ??                .block 1
A045 ??                .block 1
A046 ??                .block 1
A047 ??                .block 1
A048 ??                .block 1
A049 ??                .block 1
A04A ??                .block 1
A04B ??                .block 1
A04C ??                .block 1
A04D ??                .block 1
A04E ??                .block 1
A04F ??                .block 1
A050 ??                .block 1
A051 ??                .block 1
A052 ??                .block 1
A053 ??                .block 1
A054 ??                .block 1
A055 ??                .block 1
A056 ??                .block 1
A057 ??                .block 1
A058 ??                .block 1
A059 ??                .block 1
A05A ??                .block 1
A05B ??                .block 1
A05C ??                .block 1
A05D ??                .block 1
A05E ??                .block 1
A05F ??                .block 1
A060 ??                .block 1
A061 ??                .block 1
A062 ??                .block 1
A063 ??                .block 1
A064 ??                .block 1
A065 ??                .block 1
A066 ??                .block 1
A067 ??                .block 1
A068 ??                .block 1
A069 ??                .block 1
A06A ??                .block 1
A06B ??                .block 1
A06C ??                .block 1
A06D ??                .block 1
A06E ??                .block 1
A06F ??                .block 1
A070 ??                .block 1
A071 ??                .block 1
A072 ??                .block 1
A073 ??                .block 1
A074 ??                .block 1
A075 ??                .block 1
A076 ??                .block 1
A077 ??                .block 1
A078 ??                .block 1
A079 ??                .block 1
A07A ??                .block 1
A07B ??                .block 1
A07C ??                .block 1
A07D ??                .block 1
A07E ??                .block 1
A07F ??                .block 1
A080 ??                .block 1
A081 ??                .block 1
A082 ?? ?? ?? ?? R_busy_in_NMI:
A082 ??                .block 1
A082 ?? ?? ?? ?? R_ch0_freq_hi:
A082 ??                .block 4
A082 ??                .block 4
```

```
; DATA XREF: 0000:009A|o
; 0000:01F0|o
; DATA XREF: 0000:009F|o
; sub_0_307+6F|o
```

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A086 ??          R_ch0_vol:      .block 1          ; DATA XREF: get_volume_channel_A+11|o
A087 ?? ?? ?? ?? R_ch1_freq:    .block 4
A088 ??          R_ch1_vol:      .block 1          ; DATA XREF: get_volume_channel_A+D|o
A08C ?? ?? ?? ?? R_ch2_freq:    .block 4          ; DATA XREF: sub_0_307+65|o
A090 ??          R_ch2_vol:      .block 1          ; DATA XREF: get_volume_channel_A+9|o
A091 ??          R_ch_0_wavrform:.block 1          ; DATA XREF: 0000:01FB|r
A091                                     ; sub_0_307+DE|o
A092 ??          R_ch_1_waveform:.block 1
A093 ??          R_ch_2_waveform:.block 1
A094 ??          unk_0_A094:     .block 1
A095 ??          unk_0_A095:     .block 1
A096 ??          unk_0_A096:     .block 1
A097 ??          .block 1
A098 ??          channel:        .block 1          ; DATA XREF: get_volume_channel_A|r
A098                                     ; sub_0_307+5C|r...
A099 ??          unk_0_A099:     .block 1
A09A ??          unk_0_A09A:     .block 1
A09B ??          .block 1
A09C ??          .block 1
A09D ??          .block 1
A09E ??          .block 1
A09F ??          .block 1
A0A0 ??          .block 1
A0A1 ??          .block 1
A0A2 ??          .block 1
A0A3 ??          .block 1
A0A4 ??          .block 1
A0A5 ??          .block 1
A0A6 ??          .block 1
A0A7 ??          .block 1
A0A8 ??          .block 1
A0A9 ??          .block 1
A0AA ??          .block 1
A0AB ??          .block 1
A0AC ??          .block 1
A0AD ??          .block 1
A0AE ??          .block 1
A0AF ??          .block 1
A0B0 ??          .block 1
A0B1 ??          .block 1
A0B2 ??          .block 1
A0B3 ??          .block 1
A0B4 ??          .block 1
A0B5 ??          .block 1
A0B6 ??          .block 1
A0B7 ??          .block 1
A0B8 ??          .block 1
A0B9 ??          .block 1
A0BA ??          .block 1
A0BB ??          .block 1
A0BC ??          .block 1
A0BD ??          .block 1
A0BE ??          .block 1
A0BF ??          .block 1
A0C0 ??          .block 1
A0C1 ??          .block 1
A0C2 ??          .block 1
A0C3 ??          .block 1
A0C4 ??          .block 1
A0C5 ??          .block 1
A0C6 ??          .block 1
A0C7 ??          .block 1
A0C8 ??          .block 1
A0C9 ??          .block 1
A0CA ??          .block 1
A0CB ??          .block 1
A0CC ??          .block 1
A0CD ??          .block 1
A0CE ??          .block 1
A0CF ??          .block 1
A0D0 ??          .block 1
A0D1 ??          .block 1
A0D2 ??          .block 1
A0D3 ??          .block 1
A0D4 ??          .block 1
A0D5 ??          .block 1
A0D6 ??          .block 1
A0D7 ??          .block 1
A0D8 ??          .block 1
A0D9 ??          .block 1
A0DA ??          .block 1
A0DB ??          .block 1
A0DC ??          .block 1
A0DD ??          .block 1
A0DE ??          .block 1
A0DF ??          .block 1
A0E0 ??          .block 1
A0E1 ??          .block 1
A0E2 ??          .block 1
A0E3 ??          .block 1
A0E4 ??          .block 1
A0E5 ??          .block 1
A0E6 ??          .block 1
A0E7 ??          .block 1
A0E8 ??          .block 1
A0E9 ??          .block 1
A0EA ??          .block 1
A0EB ??          .block 1
A0EC ??          .block 1
A0ED ??          .block 1
A0EE ??          .block 1
A0EF ??          .block 1
A0F0 ??          .block 1
A0F1 ??          .block 1
A0F2 ??          .block 1
A0F3 ??          .block 1
A0F4 ??          .block 1
A0F5 ??          .block 1
A0F6 ??          .block 1
A0F7 ??          .block 1
A0F8 ??          .block 1
A0F9 ??          .block 1
A0FA ??          .block 1
A0FB ??          .block 1
A0FC ??          .block 1
A0FD ??          .block 1

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```
A0FE ??                .block 1
A0FF ??                .block 1
A100 ?? ?? ?? ?? ??+   .block 700h
A100 ?? ?? ?? ?? ??+; end of 'share4'
A100 ?? ?? ?? ?? ??+
A100 ?? ?? ?? ?? ??+
A100 ?? ?? ?? ?? ??+   .end
```