APPENDIX H
OS SUBROUTINE LIBRARY

NAME	INPUT REGISTERS									DESCRIPTION	SECTION
ACTIVATE	x	x						x		Adds object ... ... to TRAP	3.3.2.4
ADD16	x	x					x			Adds 4-byte signed (L) to 16-bit register (HL)→(HL)	9.1
BUFF_SCAN										Scans controller port data to RAM	6.4
DECLSB	x	x								Decrements least significant single pointed to by (HL)	9.2
DECMSB	x	x								Decrements most significant single pointed to by (HL)	6.3
DECODER	x	x								Calls user ...	6.3
ENLARGE	x	x	x	x	x	x	x		Changes the size of the original object	3.2.2.4
FILL_VRAM	x	x	x	x			x			Writes a specific value to VRAM	3.1.9
FREE_SIGNAL							x			Releases a timer to the free list in TIMER. RES	5.6
GET_VRAM	x	x	x	x		x		x	Saves VRAM table entry to RAM	3.2.1.2
INIT_SPR_ORDER							x			Initializes SPRITE_ORDER data area in RAM	3.2.3.1
INIT_TABLE	x	x				x			Initializes the VDP base address for given table	3.2.2.1
INIT_TIMER	x	x	x	x					Initializes timer data areas	5.4
INIT_WRITER	x	x				x			Initializes queue size, head and tail addresses for write queue	6.1
LOAD_ASCII									Writes ASCII generator set to pattern generator table	9.6
MODE_1									Sets VDP to graphics mode 1 and sprite size 0	3.2.6
MOVE_IN	x	x							(HL)→byte.MSB to (HL)→byte.LSB	9.8
PLAY_IT			x						Called to start a sound	7.3
PLAY_SONGS									Saves frequency and attenuation data to sound group	7.5
POLLER									Reads, decodes and debounces all active portions of both controllers	6.2
PUTOBJ			x			x			Changes an object's frame or location on the display	3.3.8
PUT_VRAM	x	x	x	x	x		x	Saves data from RAM to VRAM table	3.2.1.1
RAND_GEN									16-bit random number generator	9.5
READ_REGISTER									Reads and returns the contents of the VDP register	3.1.5
READ_VRAM	x	x	x	x	x			Reads from VRAM into buffer in RAM	3.1.1
REFLECT_HORIZONTAL	x	x	x	x	x	x		Reflection of generators about the horizontal axis	3.3.2.2
REFLECT_VERTICAL	x	x	x	x	x	x	x	Reflection of generator about the vertical axis	3.3.2.1
REQUEST_SIGNAL	x	x				x		Sets up a timer for the caller	5.6
ROTATE_90	x	x	x	x	x	x	x	90-degree clockwise rotation of generator	3.3.2.3
SOUND_INIT			x					Initializes various sound data areas	7.2
SOUND_MAN								Called every VDP interrupt, manages sound group here	7.4
TEST_SIGNAL					x			Tests for a time-out of a timer	5.7
TIME_MGR								Maintains all OS software timers	5.3
WAIT_SPINNER								Services controller spinner switch interrupt	6.3
WRITER								Performs deferred PUTOBJ operations	6.2
WRITE_REGISTER			x	x			Writes a value to a selected VDP register	3.1.4
WRITE_VRAM	x	x	x	x	x	x		Saves data from RAM to VRAM	3.2.3.2
WR_SPR_2_TBL					x		Saves local sprite data to VRAM sprite attribute table	3.2.3.2

APPENDIX H
OS SUBROUTINE LIBRARY

NAME	INPUT REGISTERS										DESCRIPTION	SECTION
	H	L	D	E	B	C	A	F	IX	IY		
ACTIVATE	X	X						X			Moves pattern and color generator to VRAM	3.3.3
ADD816	X	X					X				Adds 8-bit signed (A) to 16-bit unsigned (HL) → (HL)	9.1
CONT_SCAN											Saves controller port data to CRAM	6.4
DECLSN	X	X									Decrements least significant nibble pointed to by (HL)	9.2
DECMSN	X	X									Decrements most significant nibble pointed to by (HL)	9.3
DECODER	X	X									Calls COUNT_SCAN	6.3
ENLARGE	X	X	X	X	X	X	X				Double the size of the original object	3.2.2.4
FILL_VRAM	X	X	X	X			X				Writes a value DE times to VRAM	3.1.5
FREE_SIGNAL							X				Releases a timer to the free list based on SIGNAL_NUM	5.8
GET_VRAM	X	X	X	X			X			X	Copies VRAM table entry to CRAM	3.2.1.2
INIT_SPR_ORDER							X				Initializes SPRITE_ORDER data with zeros	3.2.3.1
INIT_TABLE	X	X					X				Initializes the VDP table address for given table	3.2.1.1
INIT_TIMER	X	X	X	X							Initializes timer data areas	5.4
INIT_WRITER	X	X					X				Initializes queue size, head and tail addresses to the beginning of the buffer, and head and tail to zero	4.1
LOAD_ASCII											Writes ASCII generator set to pattern generator table	9.6
MODE_1											Sets VDP to graphics mode 1 and sprite size 0	3.1.6
MSNTOLSN	X	X									(HL) → byte,MSN to (HL) → byte,LSN	9.4
PLAY_IT					X						Called to start a sound	7.3
PLAY_SONGS											Saves frequency and attenuation data to sound chip	7.5
POLLER											Reads, decodes and debounces all active portions of the controllers	6.2
PUTOBJ					X		X				Changes an object's frame or location on the display	3.3.4
PUT_VRAM	X	X	X	X			X			X	Saves data from CRAM to VRAM table	3.2.1.3
RAND_GEN											16-bit pseudo random number generator	9.5
READ_REGISTER											Reads and returns the contents of the VDP register	3.1.3
READ_VRAM	X	X	X	X	X	X					Reads from VRAM writes to buffer in CRAM	3.1.1
REFLECT_HORIZONTAL	X	X	X	X	X	X	X				Reflection of generators arround horizontal axis	3.2.2.2
REFLECT_VERTICAL	X	X	X	X	X	X	X				Reflection of generators arround vertical axis	3.2.2.1
REQUEST_SIGNAL	X	X					X				Sets up a timer for the caller	5.6
ROTATE_90	X	X	X	X	X	X	X				90~degree clockwise rotation of generators	3.2.2.3
SOUND_INIT					X						Initializes various sound data areas	7.2
SOUND_MAN											Called every VDP interrupt, manages sound data areas	7.4
TEST_SIGNAL							X				Tests for a time-out of a timer	5.7
TIME_MGR											Maintains all OS software timers	5.5
UPDATE_SPINNER											Processes controller spinner switch interrupts	6.5
WRITER											Performs deferred PUTOBJ operations	4.2
WRITE_REGISTER					X	X					Writes a value to a selected VDP register	3.1.4
WRITE_VRAM	X	X	X	X	X	X					Saves data from CRAM to VRAM	3.1.2
WR_SPR_NB_TBL							X				Saves local sprite data to VRAM sprite attribute table	3.2.3.2