SYDD - SYSTEM DEVIC DISK.DRIVER.CODE		• • • • • • • • • • • • • • • • • • • •		HEATH HBASM V1.4 01/20/78 PAGE 1 09:59:14 02-APR-80
			• • • • • • • • • • • • • • • • • • • •	
	4 ** 5 *	* SYDD	- SYSTEM DEVI	CE DRIVER.
	5. *. 6 *	J+G+	LETWIN, OCT 7	7
• • • • • • • • • • • • • • • • • • • •	7 *. 8 *	COPYF	RIGHT HEATH CO	*
••••	9 10			
• • • • • • • • • • • • • • • • • • • •	11 ** 12 *	× SYDD	- SYSTEM DEVI	CE DRIVER.
	12 * 13 *			DRIVER FOR THE SYSTEM DEVICE, AN H17 MINI/-FLOPPY.
	······································		.49.106.9494	DRIVER FOR THE STOTEN BEVICE, HE HIV HIRIZ-FLUFFT.
	15 **	*** ASSEM	IBLY CONSTANTS	
^^^ 77/	16			
000.376 000.012	17 MI 18 EA	COPI EQU PTONT EQU	376Q 10	CPI INSTRUCTION SOFT ERROR RETRY COUNT
000,000	<u>19</u> 20			
000.000	106	XTEXT		
000.000	i52	XTEXT	r ASCII	
	180	LON	C	
000.000	181	XTEXT	HOSDEF	
000.377	183X ** 184X * 185X		F - DEFINE HO	
000.377	187X	SCALL EQU	3770	SYSCALL INSTRUCTION
000.000	188X 189X	ORG	0	
·····	190X *	RESID	ENT FUNCTIONS	
000,000	191X 192X •E	XIT DS	1	EXIT (MUST BE FIRST)
000.001	193X .S		1	SCIN
000,002	194X •S		1	SCOUT
		RINT DS	1	PRINT
000.003	195X .P			
000.003 000.004	196X •R	EAD DS	·····	READ
000.003 000.004 000.005	196X .R 197X .W	EAD DS RITE DS	1	WRITE
000.003 000.004 000.005 000.006	196X •R 197X •W 198X •C	EAD DS PRITE DS CONSL DS	1 1 1	WRITE SET/CLEAR CONSOLE OPTIONS
000.003 000.004 000.005 000.006	196X .R 197X .W 198X .C 199X .C	EAD DS DRITE DS CONSL DS CLRCO DS	1 1 1	WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER
000.003 000.004 000.005 000.006	196X .R 197X .W 198X .C 199X .C 200X .S	EAD DS PRITE DS CONSL DS	1 1 1 1	WRITE SET/CLEAR CONSOLE OPTIONS
000.003 000.004 000.005 000.006	196X .R 197X .W 198X .C 199X .C	EAD DS RITE DS ONSL DS LRCO DS YSRES DS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT
000.003 000.004 000.005 000.006 000.007 000.010	196X .R 197X .W 198X .C 199X .C 200X .S 201X	EAD DS RITE DS ONSL DS LRCO DS YSRES DS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT
000.003 000.004 000.005 000.006	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X *	EAD DS RITE DS ONSL DS LRCO DS YSRES DS	1 1 1 1 1 1 	WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT
000.003 000.004 000.005 000.006 000.007 000.010	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X *	EAD DS RITE DS ONSL DS LRCO DS YSRES DS		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT
000.003 000.004 000.005 000.006 000.007 000.010	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X * 203X 204X 205X 206X .L	EAD DS RITE DS CONSL DS LRCO DS YSRES DS HOSOV		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT NS
000.003 000.004 000.005 000.007 000.010 000.040	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X * 203X 204X 205X 206X .L 207X .C	EAD DS RITE DS ONSL DS LRCO DS LRCO DS YSRES DS ORG ORG		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT
000.003 000.004 000.005 000.006 000.007 000.010 000.040 000.040 000.041 000.042	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X * 203X 204X 205X 206X .L 207X .C 208X .0	EAD DS RITE DS ONSL DS LRCO DS SYSRES DS ORG INK DS FENR DS		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT NS LINK (MUST BE FIRST) CTL-C
000.003 000.004 000.005 000.006 000.007 000.010 000.040 000.040 000.041 000.042 000.043	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X * 204X 204X 205X 206X .L 207X .C 208X .C 208X .C	EAD DS RITE DS CONSL DS LRCO DS LYSRES DS  HOSOV  ORG  INK DS FENW DS		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT NS LINK (MUST BE FIRST)
000.003 000.004 000.005 000.006 000.007 000.010 000.040 000.041 000.042 000.043 000.044	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X * 203X 204X 205X 206X .L 207X .C 208X .D 209X .D	EAD DS RITE DS CONSL DS LRCO DS LRCO DS YSRES DS ORG INK DS TLC DS FENW DS FENW DS		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT NS LINK (MUST BE FIRST) CTL-C OPENR
000.003 000.004 000.005 000.006 000.007 000.010 000.040 000.041 000.042 000.042 000.043 000.044 000.044	196X .R 197X .W 198X .0 199X .0 200X .9 201X 202X * 203X 204X 205X 206X .L 207X .C 208X .0 210X .0 211X .0	EAD DS RITE DS ONSL DS LRCO DS LRCO DS YSRES DS ORG INK DS TLC DS FENR DS FENW DS FENW DS FENC DS		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT NS LINK (MUST BE FIRST) CTL-C OPENR OPENW
000.003 000.004 000.005 000.006 000.007 000.010 000.040 000.041 000.042 000.043 000.044	196X .R 197X .W 198X .C 199X .C 200X .S 201X 202X * 203X 204X 205X 206X .L 207X .C 208X .D 209X .D	EAD DS RITE DS ONSL DS LRCO DS LRCO DS YSRES DS ORG INK DS TLC DS FENR DS FENW DS FENW DS FENC DS		WRITE SET/CLEAR CONSOLE OPTIONS CLEAR CONSOLE BUFFER PRECEDING FUNCTIONS ARE RESIDENT  NS  LINK (MUST BE FIRST) CTL-C OPENR OPENW OPENU

SYDD - SYSTEM DEVICE DISK DRIVER CODE			HEATH HBASM V1.4 01/20/78 HOSDEF 09:59:17 02-APR-80	FAGE 2
000.047	213X .POSIT DS	i	POSITION	
000.050	214X .DELET DS	ī	DELETE	
000.051	215X RENAM DS		RENAME	
000.052	216X .SETTP DS	1	SETTOP	
000.053	217X DECODE DS		NAME DECODE	
000.054	218X NAME DS	1	GET FILE NAME FROM CHANNEL	
000.055	219X .CLEAR DS	·····	CLEAR CHAN	
000.056	220X .CLEARA DS	†	CLEAR ALL CHANS	
000.057	221X ERROR DS		LOOKUP ERROR	
000.060	222X .CHFLG DS	1	CHANGE FLAGS	
000.061	223X DISMT DS	·····i	FLAG SYSTEM DISK DISMOUNTED	
000.062	224 XTEXT		LEND STOLEH DISK DISHOOKIED	
	AILA!	DINDER		
	226X ** DIREC	TORY ENTRY FORM	AT.	
	227X	_		
000.000	228X ORG	0	***************************************	
	229X			
	230X			
000.377	231X DF.EMP EQU	377Q	FLAGS ENTRY EMPTY	
000.376	232X DF.CLR EQU	376Q	FLAGS ENTRY EMPTY, REST OF DIR ALSO CLEAR	
	233X			
000.000	234X DIR.NAM DS	8	NAME	
000.010	235X DIR.EXT DS	8	EXTENSION	
000.013	236X DIR.PRO DS	1	PROJECT	
000.014	237X DIR.VER DS	ii	VERSION	
000.015	238X DIRIDL EQU	*	FILE IDENTIFICATION LENGTH	
	239X			
000.015	240X DIR.CLU DS	1	CLUSTER FACTOR	
000.016	241X DIR.FLG DS	1	FLAGS	
000.017	242X DS	ī	RESERVED	
000.020	243X DIR.FGN DS	• • • • • • • • • • • • • • • • • • • •	FIRST GROUP NUMBER	
000.021	244X DIR.LGN DS	ī	LAST GROUP NUMBER	
000.022	245X DIR.LSI DS	1	LAST SECTOR INDEX (IN LAST GROUP)	
000.023	246X DIR.CRD DS	5	CREATION DATE	
000.025	247X DIR.ALD DS	2	LAST ALTERATION DATE	
	248X	4-	witer Three Living Autor	
000.027	249X DIRELEN EQU	*	DIRECTORY ENTRY LENGTH	
000.027	250 XTEXT		PINEOTON ENTRY CEROTI	
		PEYDEF		
	252X ** DEVIC	E TABLE ENTRYS.		
	253X			
000.000	254X ORG	0		
	255X		·····	
000.000	256X DEV.NAM DS	2	DEVICE NAME	
000,002	257X DEV.RES DS	1	DRIVER RESIDENSE CODE	
000.001	258X DR.IM EQU	00000001B	DRIVER IN MEMORY	
000.002	259X DR.PR EQU	00000010B	DRIVER PERMINANTLY RESIDENT	• • • • • • • • • • • • • • • • • • • •
	260X			
000.003	261X DEV.JMP DS	1	JMP TO PROCESSOR	
000.004	262X DEV.DDA DS	5	DRIVER ADDRESS	
000.006	263X DEV.FLG DS	1	FLAG BYTE	
000,001	264X DT.DD EQU		· · · · · · · · · · · · · · · · · · ·	
		00000001B	DIRECTORY DEVICE	

					<del>-</del>		
SYDD - SYSTEM DEVIC	HTTT WALLESATIANALIANT		• • • • • • • • • • • • • • • • • • • •				
	E > DESICE DRIVER			BELL	HEATH HBASM V1.4 01/20/78	PAGE	3
OISK DRIVER CODE	***************************************	• • • • • • • • • • • • • • • • • • • •		DEV	09:59:19 02-APR-80	•••••	
000,002	265X DT.CR	EQU	00000010B	CAPABLE OF REA	ND OPERATION		
000.004	266X DT.CW		00000100B	CAPABLE OF WR			
	267X		4 9.4 9.4 4.4 9.4			• • • • • • • • • • • • • • • • • • • •	
000,007	268X DEV.G	RT DS	2	ADDRESS OF GR	OUP RESERVATION TABLE (IF DIR	ECTORY)	
000.011	269X DEV.S		1		ROUP THIS DEVICE		• • • • • • • •
000.012	270X DEV.M		õ	MOUNTED UNIT			
000.012	271X DEV.M		1	MAXIMUM NUMBE		• • • • • • • • • • • • • • • • • • • •	• • • • • • • •
000.013	272X DEV.D		2	DRIVER BYTE LI			
000.015	273X DEV.D		ii.		GROUP ADDRESS	• • • • • • • • • • • • • • • • • • • •	
000.016	274X DEV.D	IR DS	2		ST SECTOR ADDRESS		
000.020	275X DEV.G		2	"GRT SECTOR NO		*******	• • • • • • • •
	276X						
000.022	277X DEVEL	ĖN ĖQU	*	DEVICE TABLE	ENTRY LENGTH	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •
000.022	278	XTEXT	H17DEF				
	•						
	280X **	H17 C	ONTROL INFORMATIO	N.		••••••	
	281X		• • • • • • • • • • • • • • • • • • • •				
000.177	282X DP+DC	EQU	07FH	DISK CONTROL (	PORT		
	283X				***************************************		
000.001	284X DF.HD	EQU	00000001B	HOLE DETECT			
000.002	285X DF.TO	EQU	00000010B	TRACK O DETEC	ſ		
000.004	286X DF.WP	EQU	00000100B	WRITE PROTECT			
000.010	287X DF.SD	EQU	00001000B	SYNC DETECT			
	288X						
000.001	289X DF.WG	Edu	00000001B	WRITE GATE EN			
000.002	290X DF • DS		00000010B	DRIVE SELECT			
000.004	291X DF.DS		00000100B	DRIVE SELECT			
000.010	292X DF+DS		00001000B	DRIVE SELECT			
000.020	293X DF.MO	EQU	00010000B	MOTOR ON (BOTI			
000.040	294X DF.DI	EQU	00100000B	DIRECTION (0=0			
000.100	295X DF.ST	EQU	01000000B	STEP COMMAND			
000.200	296X DF+WR	EQU	10000000B	WRITE ENABLE	RAM		
	297X						
• • • • • • • • • • • • • • • • • • • •	298X						
	299X	D.T.C.E.	HART DODTE AND CO	NITEOL ELACO			
	300X ** 301X	hT2V.	UART FORTS AND CO	MIRUL FLAGS.			
000.174	302X UP.DP	EQU	07CH	DATA CODE			
000.175	303X UP.FC	EQU	07CH 07DH	DATA PORT			
000.175	304X UP+ST	EQU	07DH 07DH	FILL CHARACTER	•		
000.176	305X UP • SC	EQU	07EH	STATUS FLAGS	ZOUTBUTY		
000.176	304X UP+SR	EQU	07EH 07EH	SYN CHARACTER			
	307X	H.Y.P	Y/\fn	SYNC RESET (II	TUI7		
000.001	308X UF.RD	A EQU	0000001B	RECEIVE DATA	MIATI ADI E		
000.002	309X UF.RD		0000001B				
000.004	310X UF • RP		0000010B	RECEIVER OVERS			
000,100	311X UF.FC		01000000B	RECEIVER PARI		• • • • • • • • • • • • • • • • • • • •	
000.200	312X UF.TB		1000000B	TRANSMITTER BU			
	313X	·		ivenoutiles b	9.1.5N . 50F.13.		
	314X				***************************************		
	315X	CHADA	CTED DEFINITIONS				•
	316X **	cuerei	CTER DEFINITIONS.				
000.375	317X 318Y C. DSY	N EOU	VEUR	DEELA CANC O	ÍABACTEB		
	318X C.DSY	й∵EĠń…	OFDH	PREFIX SYNC C	IRKAL I EK		

DISK DRIVER CODE			HEATH H8ASH V1.4 01/20/78 H17 09:59:22 02-APR-80	PAGE 4
000,022	319	XTEXT ECDEF		
		XTEXT ECDEF		
	to to the second was also become an experience of	n na agai jaga nina agai an na haka aga dha aga aga aga s	·	
	321X ** 322X	ERROR CODE DEFINITIONS	<b>5</b> •	
000.000	323X	ORG	***************************************	
000.000	324X	DS 1	NO ERROR #0	
000.001	325X ECTEOF	DS 1	END OF FILE	
000.002	326X EC.EOM	DS 1	END OF MEDIA	
000.003	327X EC.ILC	DS i	ILLEGAL SYSCALL CODE	• • • • • • • • • • • • • • • • • • • •
000.004	328X EC.CNA	DS 1	CHANNEL NOT AVAILABLE	
000.005	329X EC. DNS	DS i	DEVICE NOT SUITABLE	• • • • • • • • • • • • • • • • • • • •
000.006	330X EC.IDN	DS 1	ILLEGAL DEVICE NAME	
000.007	331X EC.IFN		ILLEGAL FILE NAME	
000.010	332X EC.NRD	DS 1	NO ROOM FOR DEVICE DRIVER	
000.011	333X EC: FNO.	ns 1	CHANNEL NOT OFEN	
000.012	334X EC.ILR		ILLEGAL REQUEST	
000.013	335X ECTFUC	. ps	FILE USAGE CONFLICT	
000.014	336X EC+FNF		FILE NAME NOT FOUND	
000.015	337X EC.UND	bs i	ONKNOWN DEVICE	
000.016	338X EC.ICN	DS 1	ILLEGAL CHANNEL NUMBER	
000.017	339X EC.DIF		DIRECTORY FULL	
000+020	340X EC.IFC	DS 1	ILLEGAL FILE CONTENTS	
000.021	341X EC.NEM	DS i	NOT ENOUGH MEMORY	
000.022	342X EC+RF	DS 1	READ FAILURE	
000.023	343X EC.WF	DS 1	WRITE FAILURE	
000.024	344X EC.WFV	DS 1	WRITE PROTECTION VIOLATION	
000.025	345X EC.WP	DS 1	DISK WRITE PROTECTED	
000,026	346X EC.FAF.	. I/S 1	FILE ALREADY PRESENT	
000.027	347X EC.DDA	DS i	DEVICE DRIVER ABORT	
000,030	348X EC.FL	DS 1	FILE LOCKED	
000.031	349X EC.FAO		FILE ALREADY OPEN	
000.032	350X EC.IS 351X EC.UUN	DS 1	ILLEGAL SWITCH	
000.033		I/S I I/S 1	UNKNOWN UNIT NUMBER	
000+034	352X EC.FNR		FILE NAME REQUIRED	
000+036	353X EC.DIW	DS 1	DEVICE IS NOT WRITABLE (OR WRITE LOCKED)	
000.037	354X EC.UNA 355X ÉC.IÉV	ps i	UNIT NOT AVAILABLE	
000.040	356X EC.ILO		ILLEGAL VALUE	
000.041	350 <u>0</u>	DS 1 XTEXT DDDEF	ILLEGAL OPTION	
		bbber		
	The transfer of the second			
	359X **	DEVICE DRIVER COMMUNIC	CATION FLAGS.	
	360X *	***************************************	***************************************	
000 000	361X	or o		
000.000	362X`	0R6 0		
000 000	363X	7.0	p. pr. A. v.	
000,000	364X DC.REA		READ	
000.001	392X DC: MKI.		WRITE	
000,002	366X DC.RER	DS 1	READ REGARDLESS	
000.003	367X DC.OFR	DS i	OPEN FOR READ	
000,004	368X DC.OFW	DS 1	OPEN FOR WRITE	
000.005	369X DC.OPU		OPEN FOR UPDATE	
000.006	370X DC.CLO	DS 1	CLOSE	

	/ DEVICE DRIVER		·····	HEATH HBASM V1.4 01/20/78 DDDEF 09:59:24 02-APR-80	PAGE 5
	7740 50 455			······ <u>········</u>	
000.007	371X DC.ABT		1	ABORT	
	372X DC.MQU		<del>]</del> . <u> </u>	MOUNT DEVICE	
000.011	373	XTEXT	PICDEF		***************************************
			***************************************		••••••
• • • • • • • • • • • • • • • • • • • •	375X **	PIC FO	RMAT EQUIVALEN	ices.	•••••
	376X				
000.000	377X	ORG			
	378X	<u></u>		· · · · · · · · · · · · · · · · · · ·	
000.000	379X FIC. ID		1	3770 = BINARY FILE FLAG	
000.001	380X	DS		FILE TYPE (FT.PIC)	
000.002	381X PIC.LE		···2·····	LENGTH OF ENTIRE RECORD	• • • • • • • • • • • • • • • • • • • •
000.004	382X PIC.PT	R DS	2	INDEX OF START OF PIC TABLE	
	383X				********* ********************
000.006	384X PIC.CO		<b>O</b>	CODE STARTS HERE	
000.008	385	XTEXT	Hozedo		• • • • • • • • • • • • • • • • • • • •
			• • • • • • • • • • • • • • • • • • • •	·······	••••••
	707V 44	UDDC C		NOTE OF THE PROPERTY OF THE PR	••••••
•••••	387X **	HDO2 2	YSTEM EQUIVALE	NUES.	
	388X *				
	389X	··		***************************************	
024.000	390X S.GRT	EGU	24000A	SYSTEM AREA FOR GRTO	
025.000	391X.S.GRT1		25000A	SYSTEM AREA FOR GRT 1	
026.000	392X SECSCR		26000A	SYSTEM 512 BYTE SCRATCH AREA	• • • • • • • • • • • • • • • • • • • •
030,000	393X ROMBOO	( EQU	30000A	ROM BOOT ENTRY	
	394X				• • • • • • • • • • • • • • • • • • • •
040.100	395X	ORG	40100A	FREE SPACE FROM PAM-8	
	396X			***************************************	• • • • • • • • • • • • • • • • • • • •
040.100	397X	DS	<u>8</u> 	JUMP TO SYSTEM EXIT	
040.110	398X II.CON	ī'S	16	DISK CONSTANTS	• • • • • • • • • • • • • • • • • • • •
040.130	399X SYDD	EQU	*	SYSTEM DISK ENTRY POINT	
040.130	400X D.VEC	DS	24*3	SYSTEM ROM ENTRY VECTORS	********* *****************************
040,240	401X D.RAM	DS	31	SYSTEM ROM WORK AREA	
040.277	402X S.VAL	DS	31 	SYSTEM VALUES	
040,345	403X S.INT	DS	113	SYSTEM INTERNAL WORK AREAS	
041+126	404X	DS	16		• • • • • • • • • • • • • • • • • • • •
	405X S.SOVR	DS	2	STACK OVERFLOW WARNING	
041,146	406X	DS	42200A-*	SYSTEM STACK	• • • • • • • • • • • • • • • • • • • •
041,146			*-5.50VR	STACK SIZE	
	40/X STACKL			—	
041.150	407X STACKL		_	LWA+1 SYSTEM STACK	
041.150	408X	EQU	*		
041.150 001.032 042.200	408X 409X STACK	EQU	**************************************		
041.150 001.032 042.200 042.200	408X 409X STACK 410X USERFW	A EQU	* Firon	USER FWA	
041.150 001.032 042.200	408X 409X STACK		* EDCON		
041.150 001.032 042.200 042.200	408X 409X STACK 410X USERFW	A EQU			
041.150 001.032 042.200 042.200	408X 409X STACK 410X USERFW	A EQU	EDCON	USER FWA	
041.150 001.032 042.200 042.200 042.200	408X 409X STACK 410X USERFWI 411	A EQU XTEXT	EDCON	USER FWA	
041.150 001.032 042.200 042.200 042.200	408X 409X STACK 410X USERFW 411	A EQU XTEXT	EDCON	USER FWA	
041.150 001.032 042.200 042.200 042.200	408X 409X STACK 410X USERFW 411	A EQU XTEXT	EDCON	USER FWA	
041.150 001.032 042.200 042.200 042.200	408X 409X STACK 410X USERFWI 411	A EQU XTEXT	EDCON	USER FWA	
041.150 001.032 042.200 042.200 042.200	408X 409X STACK 410X USERFW 411	A EQU XTEXT	EDCON	USER FWA	

	413X *	* 5.00	V DETAILED EQUI	VALENCES.	•••••			
	414X *							
	415X *	HOSE	AN. MOST. BE. MODI	tfied when	THIS TABLE IS	MODIFIED.	• • • • • • • • • • • • • • • • • • • •	
	416X		<u></u> <u></u>				· · · · · · · · · · · · · · · · · · ·	
040.110	417X 418X	ÓRG	D+CON					
040.110		XITA DS	<u>2</u>	······································	YSTEM ROM FOR	NEEPETETTAN'	• • • • • • • • • • • • • • • • • • • •	
040.112		WRITA DS	1		MOTEN ROLL FOR	DESCRIPTION		
040,113	421X D	WRITE DS	·····i					
040.114		·WRITC DS						
040.115		MAIA DS	1					
040.116		LPSA DS	· · · · · · · <mark>1</mark>					
040.117 040.120		SDFA DS	1					
040.121	427X D				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
040.122	428X D		ī					
040.123	429X D	.WHDA DS	i	• • • • • • • • • • • • • • • • • • • •	***************************************			
040.124	430X II							
040.125	431X D 432X	.WSCA DS	1					
040.126		LERTS DS	2	TEAC	AND SECTOR OF	TX6T HTGETE	Banae	
040.130	434	XTEXT		TAHO	C AIRE OLOTOR OF	CHOI DION C	.KKOKS	
	436X * 437X * 438X * 438X *	SEE I	VECTORS FOR ROM					
	437X * 438X * 439X * 440X *	SEE I	DISK ROM FOR AD	DRESSES	HIS TABLE IS A	LTERED.		
040.130	437X * 438X * 439X * 440X * 441X	SEE I	DISK ROM FOR AD	DRESSES	HIS TABLE IS A	LTERED.		
	437X * 438X * 439X * 440X * 441X 442X 443X	SEE I HOSEG ORG	DISK ROM FOR AD BU MUST BE ALTE	DDRESSES ERED WHEN				
040.130 040.130 040.133	437X * 438X * 439X * 440X * 441X 442X 443X	SEE I HOSEG ORG	DISK ROM FOR AD RU MUST BE ALTE D.VEC 3	DDRESSES ERED WHEN JMP	R.SYDD (MUST B			
040.130	437X * 438X * 439X * 440X * 441X 442X 443X	SEE I HOSEG ORG SYDD DS	DISK ROM FOR AD BU MUST BE ALTE	DDRESSES RED WHEN JMP JMP	R.SYDD (MUST B			
040.130 040.133 040.136 040.141	437X * 438X * 439X * 440X * 441X 442X 443X 444X D 445X D 446X D 446X D	HOSEG ORG ORG SYDD DS MOUNT DS XOK DS ABORT DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC 3 3 3 3	DDRESSES  THE DOWNER  JMP JMP JMP JMP	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT			
040.130 040.133 040.136 040.141	437X * 438X * 439X * 440X * 441X 442X 443X 444X D 445X D 446X D 446X D 446X D	HOSEG ORG ORG SYDD DS MOUNT DS XOK DS ABORT DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC 3	DRESSES  HEAD WHEN  JMP JMP JMP JMP	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT			
040.130 040.133 040.136 040.141 040.144	437X * 438X * 439X * 440X * 441X 442X 443X 444X D 445X D 446X D 447X D 448X T	SEE I  HOSEG  ORG  SYDD DS MOUNT DS XOK DS ABORT DS ABORT DS XIT DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC 3 3 3 3 3 3	DDRESSES  JMP JMP JMP JMP JMP JMP	R.SYDD (MUST B R.MOUNT R.XÖK R.ABORT R.XIT R.KEAD			
040.130 040.133 040.136 040.141	437X * 438X * 439X * 440X * 441X 442X 443X 444X D 445X D 446X D 447X D 448X D 449X D	SEE I ORG ORG SYDD DS MOUNT DS XOK DS ABORT DS XIT DS READ DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC 3 3 3 3	JMP JMP JMP JMP JMP JMP JMP	R.SYDD (MUST B R.MOUNT R.XON R.ABORT R.XIT R.READ R.READR			
040.130 040.133 040.136 040.141 040.144 040.147	437X * 438X * 439X * 440X * 441X 442X 443X 444X D 445X D 446X D 447X D 448X D 449X D	HOSEG ORG ORG SYDD DS MOUNT DS XOK DS ABORT DS XIT DS XIT DS READ DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC 3 3 3 3 3 3	DDRESSES  JMP JMP JMP JMP JMP JMP	R.SYDD (MUST B R.MOUNT R.XÖK R.ABORT R.XIT R.KEAD			
040.130 040.133 040.136 040.141 040.144 040.147 040.152 040.155 040.160 040.163	437X * 438X * 439X * 440X * 441X 442X 443X 444X D 445X D 446X D 446X D 447X D 448X D 449X D 451X D 451X D 452X D	HOSEG ORG ORG SYDD DS MOUNT DS ABORT DS ABORT DS READ DS READ DS READ DS READ DS READ DS	DISK ROM FOR AD  DIVEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READ R.READR R.READR R.WRITE			
040.130 040.133 040.136 040.141 040.144 040.147 040.152 040.155 040.160 040.163	437X * 438X * 439X * 440X * 441X 442X 443X 444X D 445X D 446X D 447X D 446X D 447X D 450X D 451X D 451X D 453X D	HOSEG ORG ORG SYDD DS MOUNT DS ABORT DS AEAD DS READ DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC 3 3 3 3 3 3	DDRESSES  TRED WHEN  JMP  JMP  JMP  JMP  JMP  JMP  JMP  JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READ R.READR R.WRITE R.URITE R.CDE R.DTS R.SDT			
040.130 040.133 040.136 040.141 040.144 040.147 040.152 040.155 040.163 040.163	437X * 438X * 439X * 449X * 441X 442X 444X D 445X D 446X D 447X D 448X D 450X D 451X D 452X D 452X D	HOSEG ORG ORG SYDD DS MOUNT DS XOK DS ABORT DS XIT DS READ DS	DISK ROM FOR AD  D.VEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DDRESSES  TRED WHEN  JMP  JMP  JMP  JMP  JMP  JMP  JMP  JM	R.SYDD (MUST B R.MOUNT R.XON R.ABORT R.XIE R.READ R.READR R.WRITE R.CDE R.CDE R.SDT R.SDT R.MAI			
040.130 040.133 040.136 040.141 040.144 040.147 040.152 040.155 040.160 040.163 040.166 040.171	437X * 438X * 439X * 440X * 440X * 442X * 443X * 444X * 445X * 446X * 44	HOSEG ORG ORG SYDD DS MOUNT DS XOK DS ABORT DS XXIT DS READ DS	DISK ROM FOR AD  DIVEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READ R.READR R.WRITE R.CDE R.DTS R.STS R.MAI R.MAI			
040.130 040.133 040.136 040.141 040.144 040.147 040.155 040.160 040.163 040.166 040.171	437X * 438X * 439X * 440X * 440X * 442X 442X 443X D 446X D 446X D 446X D 446X D 450X D 451X D 452X D 453X D 455X D 455X D 455X D 455X D	HOSEG ORG ORG SYDD DS MOUNT DS XOK DS ABORT DS READ DS	DISK ROM FOR AD  RU MUST BE ALTE  D.VEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READ R.READR K.WRITE R.CDE R.ITS R.SDE R.SDE R.MAI R.MAI R.MAO R.LPS			
040.130 040.133 040.136 040.141 040.144 040.147 040.152 040.155 040.160 040.163 040.166 040.171 040.174 040.177 040.177	437X * 438X * 439X * 440X * 441X * 442X * 443X * 444X * 446X * 446X * 446X * 450X * 451X * 452X * 455X * 456X * 457X * 458X * 45	HOSEG  ORG  ORG  SYDU DS  MOUNT DS  XOK DS  ABORT DS  XIT DS  KEADR DS	DISK ROM FOR AD  D.VEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READ R.READR R.WRITE R.CDE R.UTS R.SDT R.MAI R.MAO R.LPS R.MAO R.LPS R.RDB R.SDP			
040.130 040.133 040.136 040.141 040.147 040.152 040.155 040.160 040.163 040.166 040.171 040.174 040.177 040.202 040.205 040.210	437X * 438X * 439X * 440X * 441X * 442X * 443X * 444X * 445X * 450X * 455X * 455X * 458X * 45	HOSEG  ORG  SYDU DS  MOUNT DS  XOK DS  ABORT DS  XIT DS  KEADE DS	DISK ROM FOR AD RU MUST BE ALTE DIVEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT K.READ R.READR R.WRITE R.CDE R.UTS R.SDT R.MAI R.MAO R.S.D.T R.MAO R.S.D.T R.MAO R.S.D.T R.S.D.T R.S.D.T R.S.D.T R.MAO R.S.D.T R.D.T			
040.130 040.133 040.136 040.141 040.144 040.155 040.160 040.163 040.163 040.164 040.171 040.171 040.174 040.177 040.202 040.205 040.215	437X * 438X * 439X * 440X * 440X * 442X 442X 443X D 446X D 446X D 446X D 446X D 450X D 451X D 451X D 452X D 453X D 456X D	HOSEG  ORG  SYDD DS  MOUNT DS  XOK DS  ABORT DS  XIT DS  READ DS  READ DS  WRITE DS  DTS DS  DTS DS  DTS DS  LPS DS  RAD DS  KRD DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READR R.READR R.WRITE R.CDE R.ITS R.DDE R.MAO R.LPS R.MAO R.LPS R.RDB R.SDP R.SDP R.STZ			
040.130 040.133 040.136 040.141 040.144 040.147 040.155 040.160 040.163 040.164 040.171 040.174 040.177 040.202 040.205 040.216	437X * 438X * 439X * 4437X * 440X * 442X * 442X * 444X * 445X * 446X * 446X * 446X * 446X * 447X * 446X * 450X * 451X * 452X * 453X * 454X * 456X * 457X * 458X * 461X * 462X * 4	### SEE I ###################################	DISK ROM FOR AD  RU MUST BE ALTE  D.VEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READR R.READR R.WRITE R.CDE R.ITS R.DDE R.MAI R.MAO R.LPS R.RDB R.SDP R.SDP R.STZ R.UDLY			
040.130 040.133 040.136 040.141 040.144 040.147 040.155 040.160 040.163 040.164 040.171 040.171 040.174 040.177 040.202 040.205 040.213	437X * 438X * 439X * 440X * 440X * 442X 442X 443X D 446X D 446X D 446X D 446X D 450X D 451X D 451X D 452X D 453X D 456X D	HOSEG ORG ORG ORG SYDD DS WOUNT DS WOUNT DS WASHED DS WRITE DS CDE DS SDT DS WRITE DS CDE DS SDT DS SDT DS SDT DS SDT DS WASH DS SDF DS	DISK ROM FOR AD RU MUST BE ALTE D.VEC  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DRESSES  JMP JMP JMP JMP JMP JMP JMP JMP JMP JM	R.SYDD (MUST B R.MOUNT R.XOK R.ABORT R.XIT R.READR R.READR R.WRITE R.CDE R.ITS R.DDE R.MAO R.LPS R.MAO R.LPS R.RDB R.SDP R.SDP R.STZ			

489X 040,251	K.DRIVER.CODE	••••			EDVEC	09:59:31 02-AFR-80	
040.243		A / / / / Po				•••••	*******
				3	JMP RIERRT		
APOX #   EDRAM - DISK RAM MORKAREA DEFINITION.						•••••	• • • • • • • • • • • • • • • • • • • •
471X * 472X * 47					••••••	······································	
472X   X   ZEROED UPON BOOTING UP.		470X **	EDRAM	- DISK RAM WOF	 KKAREA DEFINITION		
473X * HOSEQU HUST BE CHANGED WHEN THIS DECK IS CHANGED. 475X 476X 476X 476X 476X 476X 476X 476X 476			7.5505	D DESCRIPTION	135.		*** ***********************************
474X * HOSERU MUST BE CHANGED WHEN THIS DECK IS CHANGED. 475X 476X 040.240 479X 040 479X 040 479X 040 479X 040 479X 040 149X 040.241 480X 040.242 481X 040.243 482X 0, D.LTS DS 1 TARGET TRACK (CURRENT OPERATION) 040.243 483X 040.243 483X 0, D.LTND DS 1 DEVICE CONTROL BYTE 040.244 485X D.DLTND DS 1 MOTOR ON DELAY COUNT 040.244 485X D.DLTND DS 1 HEAD SETTLE DELAY COUNTER 040.245 487X D.TRKPT DS 2 ADDRESS IN D.DRVIB FOR TRACK NUMBER 040.242 489X D.VOLPT DS 2 ADDRESS IN D.DRVIB FOR TRACK NUMBER 040.245 497X D.TRKPT DS 2 ADDRESS IN D.DRVIB FOR TRACK NUMBER 040.247 489X D.VOLPT DS 2 ADDRESS IN D.DRVIB FOR TRACK NUMBER 040.251 497X D.HECHT DS 1 HAAD ERROR COUNT 040.262 493X D.SECHT DS 2 SOFT ERROR COUNT 040.263 493X D.SECHT DS 2 SOFT ERROR COUNT 040.264 494X D.GECHT DS 1 HAAD ERROR COUNT 040.265 495X D.E.ROR DS 1 OPERATION ERROR COUNT 040.265 495X D.E.ROR DS 1 OPERATION ERROR COUNT 040.265 495X D.E.ROR DS 1 MISSING DATA SYNC 040.265 495X D.E.ROR DS 1 MISSING DATA SYNC 040.265 495X D.E.ROR DS 1 MISSING DATA SYNC 040.267 501X D.E.CHK DS 1 DATA CHECKSUM 040.267 501X D.E.CHK DS 1 MISSING HAADER SYNC 040.273 505X D.E.CHK DS 1 MISSING HAADER SYNC 040.277 510X D.E.CHK	• • • • • • • • • • • • • • • • • • • •		ZERUE.	n nunk konitke	UF •		
475X   476X   076			HOSEO	I MUST BE CHANG	SED WHEN THIS DEC	Y IS CHANGED.	
476X   477X   0RG   D.RAH					where three beco		
478X   479X   6.717   DS   1   TARGET TRACK (CURRENT OPERATION)							
040:240	040.240	477X	ORG	D.RAM			
040;241							
481X   482X   1, 10 CTL   15				1			
949,242	040+241		ISDS	1	TARGET SECTO	R (CURRENT OPERATION)	• • • • • • • • • • • • • • • • • • • •
483X   0.40,243   483X   0.40,244   485X   0.40,245   485X   0.40,245   485X   0.40,245   485X   0.40,245   485X   0.40,247   485X   0.40,251   490X   0.40,261   492X   0.40,261	040 040		DUOTI DO				
949.243	.949.242		nACIT na		DEATCE CONTR	OF BALE	
040-244	040.243		DLYMO DS	1	אחדתה מא הבו	AY COUNT	
486X				····	· · · · · · · · · · · · · · · · · · ·		• • • • • • • • • • • • • • • • • • • •
040,245 040,247 040,247 040,247 040,247 040,247 040,251 040,251 040,251 040,261 040,261 040,261 040,262 040,264 040,264 040,264 040,264 040,264 040,265 040,266 050,00, E, HSY, DS, 1 01, MISSIND DATA SYNC 040,265 040,266 050,00, E, HSY, DS, 1 040,267 040,267 040,267 0501X D, E, CHK DS, 1 040,270 040,270 0502X D, E, HCK DS, 1 040,271 0502X D, E, HCK DS, 1 040,272 0504X D, E, HSY, DS, 1 040,273 0505X D, E, HSY, DS, 1 040,273 0505X D, E, HSY, DS, 1 040,273 0505X D, E, HSY, DS, 1 0605X D, HSY, DS, DS, DS, DS, DS, DS, DS, DS, DS, DS			DE1110 DO		HEND SETTEE	DEEN COURTER	
489X	040.245		TRKPT DS	2	ADDRESS IN D	DAVTB FOR TRACK NUMBER	••• ••••••
A99	040,.247	488X.D+	VOLET DS	2	ADDRESS IN D	DRVTB FOR VOLUME NUMBER	
040,261							•••
040.261	.040,251		ORYTH DS	2*4	TRACK NUMBER	AND VOLUME NUMBER FOR 4 DRIVES	
040.262	0.40.074						
040,264							
496X				2			
496X *   GLOBAL DISK ERROR COUNTERS   497X   497X   498X   0.5   0   0.5   0	.9791297		aeciai Tia	· · · · <del>!</del> · · · · · · · · · · · · · · · · · · ·	UPERALIUN ER	RUR CUUNT	
497X 040.265			GLOBA	DISK FREDR CO	HINTERS		
040.265					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·
040.265	.040,265	498X D.	ERR DS	. 0	BEGINNING OF	ERROR BLOCK	
040.267	040.265			1			*** ***
040.270	.040+266	500X II.	E.HŞY.DŞ	1	MISSING HEAD	ER SYNC	
040.271				1	DATA CHECKSU	M	
040.272				<del>]</del>			
040.273				1			
506X 507X * I/O DPERATION COUNTS 508X 040.273							
507X * 1/0 OPERATION COUNTS 508X 040.273 509X D.OPR DS 2 040.275 510X D.OPW DS 2 511X 000.037 512X D.RAML EQU *-D.RAM 040.277 513 XTEXT ESVAL	0.1012.10		INNE DO	. •	CINII OF ENN	OK COURTERS	
040,273 509X D.OPR DS 2 040,275 510X D.OPW DS 2 511X 000,037 512X D.RAML EQU *-D.RAM 040,277 513 XTEXT ESVAL			1/0 0	ERATION COUNTS	· · · · · · · · · · · · · · · · · · ·	***************************************	• • • • • • • • • • • • • • • • • • • •
040,275 510X D.DFW DS 2 511X 000,037 512X D.RAML EQU *-D.RAM 040,277 513 XTEXT ESVAL		508X					
511X 000.037 512X D.RAML EQU *-D.RAM 040.277 513 XTEXT ESVAL		509X D.	OPR DS	2		***************************************	
000,037 512X D.RAML EQU *-D.RAM 040.277 513 XTEXT ESVAL	.949,275		DPWDS	2		***************************************	
040.277 513 XTEXT ESVAL	000 077			ميد سي سيد			
				ESVAL.			
	·····	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •
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SYOD - SYSTEM DEVICE / DEV	ICE DR	RIVER			HEATH H8ASM V1.4 01/20/78 PAGE 8
DISK DRIVER CODE					ESVAL 09:59:34 02-APR-80
	515X	**	S.VAL -	SYSTEM VALUE DEF	INTIONS.
	516X		nawa sama ain na a	aran kalangan kangangan kangangan kangan	
	517X 518X		THESE VA	ALUES ARE SET ANI	MAINTAINED BY THE SYSTEM.
	5192.		THE DECK	C HOSEDO MIGT RE	MODIFIED WHEN THIS IS MODIFIED.
	520X			THOUSENDS IN DE	HODE, LED WHEN THIS IS HOPE, IED.
	521X			•••••••	
040,277	522X		ORG	S.VAL	
040.277	**************************************	S.DATE	n.c	9	OVOTEN TATE (TV ACOTT)
040.310		SIDATE		. <del>)</del>	SYSTEM DATE (IN ASCII)
040.312			DS	4	TIME FROM MIDNIGHT (IN TICS)
040.316		S.HIMEM		. <u></u>	HARDWARE HIGH MEMORY ADRESS+1
	528X				THE THE TENENT APPLEAGE
040.320	529X	SISYSM	DS	. 2	FWA RESIDENT SYSTEM
	530X			• • • • • • • • • • • • • • • • • • • •	
040.322		SIUSRM	DS	2	LWA USER MEMORY
040+324	<u>532X</u> .	8.8585	. NA	. <u> </u>	WWW. BALBERT TO STREET TO THE TOTAL BALL.
0401324	534X	S.OMAX	មុខ	2	MAX OVERLAY SIZE FOR SYSTEM
***************************************	535X	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •		
	536X	**	THE FOLI	OWING FIVE CELLS	SHOULD BE MODIFIED/READ ONLY VIA THE .CONSL SYSCALL
	537X		aaaan daare		Stages TE HORT TEP NEAR ONE TAR THE TOURSE STOCKED
000,200		CSL.ECH		10000000B	SUPPRESS ECHO
000.002		CSL.WRF		00000010B	WRAP LINES AT WIDTH
000,001		CSL . CHR	EQU	00000001B	OPERATE IN CHARACTER MODE
000 000	541X	T 004 VE	***	_	
000,000 040,326	542X	I.CSLMD	. F.G.		S.CSLMD IS FIRST BYTE CONSOLE MODE
0-10+320	544X	O + COCCID	T <sub>1</sub> D	1	CONSULE MODE
000,200		CTF.BKS	EQU	10000000В	TERMINAL PROCESSES BACKSPACES
000.040		CTP.MLI		00100000B	MAP LOWER CASE TO UPPER ON INPUT
000.020	547X	CTP.MLO	EQU	00010000B	MAP LOWER CASE TO UPPER ON OUTPUT
000,010		CTF 2SB		00001000B	TERMINAL NEEDS TWO STOP BITS
000.002		CTF.BKM		00000010B	MAP BKSP (UPON INPUT) TO RUBOUT
000.001		CTF . TAB	EQU	00000001B	TERMINAL SUPPORTS TAB CHARACTERS
000.001	551X	I.CONTY	FOU	1	C CONTY TO ONE DATE
000.000	553X	. 1.19911.1.	ERRNZ	*-S.CSLMD-I.CONT	S.CONTY IS 2ND BYTE
040.327		S.CONTY		1	CONSOLE TYPE FLAGS
000.002		I.CUSOR		2	S.CUSOR IS 3RD BYTE
000.000	556X		ERRNZ	*-S.CSLMD-I.CUSC	
040.330		S.CUSOR		1	CURRENT CURSOR POSITION
000.003		I.COMMI		.3	S.CONWI IS 4TH BYTE
000.000	559X	A CONT.	ERRNZ	*-S.CSLMD-I.CON	
040+331	560X 561X	S.CONWI	.µs	.1	CONSOLE WIDTH
000.001		CO.FLG,	FOU	00000001B	CTL-0 FLAG
000.200			EQU	10000000В	CTL-S FLAG
	564X				Orac Octains
000.004	565X	TICONFL	ÉĞÜ	· 4	S.CONFL IS 5TH BYTE
000,000	.566X		ERRNZ	*-S.CSLMD-I.CONF	
040.332		S.CONFL	DS	1	CONSOLE FLAGS
040.333	568X.				
040.333 040.335		S.CAADR		2	ADDRESS FOR ABORT PROCESSING (>256 IF VALID)
MANAGAG	97.48	S.CCTAB	.05	. <del>.</del>	ADDR FOR CTL-A, CTL-B, CTL-C PROCESSING

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DD - SYSTEM DEVIC SK.DRIVER CODE		,		HEATH HBASM V1.4 01/20/78 PAGE ESVAL 09:59:36 02-APR-80
	50 ×			
040.343	571	XTEXT	ESINT	
	••••••	· · · · · · · · · · · · · · · · · · ·		÷
	573X **	S.INT	- SYSTEM INTERNAL	WORKAREA DEFINITIONS.
	574X *			
	575X * 576X *	MUST T	HEREFORE RESIDE II	CED BY OVERLAYS AND MAIN CODE, AND Y FIXED LOW MEMORY.
	577X 578X			
040,345	579X	ORG	S.INT	
	580X 581X **	CONSOL	E STATUS FLAGS	
	582X			•••••••••••••••••••••••••••••••••••••••
040.345	583X S,CDB		1	CONSOLE DESCRIPTOR BYTE
000.000	584X CDB.H85 585X CDB.H84		00000000B	=0 IF H8-5, =1 IF H8-4
040.346	586X S.BAUD		2	[0-14] H8-4 BAUD RATE, =0 IF H8-5
• • • • • • • • • • • • • • • • • • • •	587X *			[15] =1 IF BAUD RATE => 2 STOP BITS
	588X 589X **	TABLE	ADDRESS WORDS	
	590X		***************************************	
040.350	591X S.DLINK		2	ADDRESS OF DATA IN HDOS CODE
040.352 040.354	592X S.CFWA		2	FWA CHANNEL TABLE FWA DEVICE TABLE
040.356	594X S.RFWA	I/S		FWA RESIDENT HOOS CODE
	595X			
	596X ** 597X	DEVICE	DRIVER DELAYED LO	JAD FLAGS
040.360	598X S.DDLDA	DS		DRIVER LOAD ADDRESS (HIGH BYTE=O IF NO LOAD FENDING)
040.362	599X S.DDLEN	DS	2	CODE LENGTH IN BYTES
040.364	600X S.DDGRF		1	GROUP NUMBER FOR DRIVER
040.365	601X 602X *S∙DDSE	DS		HOLD PLACE
040.366	603X S.DDDTA		DS 2	SECTOR NUMBER FOR DRIVER ( * OBSOLETE ! * ) DEVICE'S ADDRESS IN DEVLST +DEV.RES
040.370	604X S.DDOPC		1	OPEN OPCODE PENDEDING
· · · · · · · · · · · · · · · · · · ·	605X			
	606X ** 607X	OVERLA	Y MANAGEMENT FLAGS	
000.001	WITTAD X809	EQU	00000001B	IN MEMORY
000.002	609X OVL, RES		00000010B	PERMINANTLY RESIDENT
000.200	610X DVL.UCS	EQU	1000000B	USER CODE SWAPPED FOR OVERLAY
040.371	611X 612X S.OVLFL	DS	1	OVERLAY FLAG
040,372	613X S.UCSF		2	FWA SWAPPED USER CODE
040.374	614X S.UCSL	DS	2	LENGTH SWAPPED USER CODE
040.376	615X S.OVLS		2	SIZE OF OVERLAY CODE
041.000	616X S.OVLE 617X	DS	2	ENTRY FOINT OF OVERLAY CODE
041.002	618X S.SSN	DS		SWAP AREA SECTOR NUMBER
041.004	619X S.OSN	DŞ	2	OVERLAY SECTOR NUMBER
	620X	Aven	المراجع	
	621X * 622X	SYSCAL	L PROCESSING WORK	AREAS
041.006	623X S+CACC	ns	1	(ACC) UPON SYSCALL

SYDD - SYSTEM DEVICE / DISK DRIVER CODE			HEATH HBASH V1.4 01/20/78 ESINT 09:59:37 02-APR-80	PAGE 10
		• • • • • • • • • • • • • • • • • • • •	······································	
041.007	624X S.CODE DS	i	SYSCALL INDEX IN PROGRESS	
	625X		SIGGREE TAREY IN LUGBESS	
		TO ROUTINES IN	RESIDENT HDOS CODE	
041.010	627X 628X S.JUMPS DS	·····	START OF DUMP VECTORS	
041.010	629X S.SDD DS	3	JUMP TO STAND-IN DEVICE DRIVER	
041.013	630X S.FASER DS	······ 3	JUMP TO FATSERR (FATAL SYSTEM ERROR)	• • • • • • • • • • • • • • • • • • • •
041.016	631X S.DIREA DS	3	JUMP TO DIREAD (DISK FILE READ)	
041+021	632X S.FCI DS	3	JUMP TO FCI (FETCH CHANNEL INFO)	
041.024	633X S.SCI DS	3	JUMP TO SCI (STORE CHANNEL INFO)	
041.027	634X S.MOUNT DS	1	OO IF THE SYSTEM DISK IS MOUNTED	
041.030	635X S.DCS DS	<b>1</b>	DEFAULT CLUSTER SIZE-1	
	636X			
041.031	637X IS	1	UNUSED	
	638X			
	639X * STACK	VALUE SAVED FOR	OVERLAY SYSCALLS	
041.032		2	HALLE OF CO. HOOM CVCCALLO DOTHO OFFICEAN	
	641X S.OVSTK DS 642X	2	VALUE OF SF UPON SYSCALLS USING OVERLAY	
		E DEPENDANT VALU	FC FOD CY1+	
	644X	C. DECEMBER! YHLO	ES FUR SII+	
041.034	645X S.SIDIS DS	2	DIRECTORY SECTOR	
041.036	646X S.SIGRT DS	·····5	GRT SECTOR	
	647X			
	648X			
	649X ** ACTIV	E I/O AREA.		
	650X *			
	651X * THE A	IO.XXX AREA CONT	AINS INFORMATION ABOUT THE I/O OPERATION	
	652X * CURRE	NTLY BEING PERFO	RMED. THE INFORMATION IS OBTAINED FROM	
		HANNEL TABLE, AN	D WILL BE RESTORED THERE WHEN DONE,	
	654X *			
	655X * NORMA	LLY, THE ALO.XXX	INFORMATION WOULD BE OBTAINED DIRECTLY	
	656X * FROM 657X * 8080	VARIOUS SYSIEM I	ABLES VIA POINTER REGISTERS, SINCE THE	
	658X * COPIE	HHS NO GOOD INDE	XED ADDRESSING, THE DATA IS MANUALLY XX CELLS BEFORE PROCESSING, AND	
	659X * BACKI	ATED ACTED DOOCE	SSING.	
	660X	With Hiley Lynce	331KU+	
041.040	661X AIO.VEC DS	3	JUMP INSTRUCTION	
041.041	662X AIO.DDA EQU	*-2	DEVICE DRIVER ADDRESS	• • • • • • • • • • • • • • • • • • • •
041.043	663X AIO.FLG DS	1	FLAG BYTE	
041.044	664X AID.GRT DS	2	ADDRESS OF GROUP RESERV TABLE	
041.046	665X AIO.SFG DS	1	SECTORS PER GROUP	
041.047	666X AID.CGN DS	1	CURRENT GROUP NUMBER	
041.050	667X AIO+CSI DS	1	CURRENT SECTOR INDEX	
041.051	668X AIO.LGN DS	1.	LAST GROUP NUMBER	
041.052	669X AID.LSI DS		LAST SECTOR INDEX	
041.053	670X AIO.DTA DS	2	DEVICE TABLE ADDRESS	
041.055	671X AIO,DES DS	<u>Z</u>	DIRECTORY SECTOR	
041.057 041.061	672X AIO.DEV DS 673X AIO.UNI DS	£.	DEVICE CODE	
V41+A01	674X HIU, UNI US		UNIT NUMBER (0-9)	
041.062	674X 675X AIO.DIR DS	TITEEL EN	DISCOTOS CALES	
YJ#4YM#	979A.HIQ+DIK.DS	DIRELEN	DIRECTORY ENTRY	
041.111	677X AIO.CNT DS	1	SECTOR COUNT	
041.112	678X AIO.EOM DS	1	END OF MEDIA FLAG	

SYDD - SYSTEM DEVICE DISK DRIVER CODE	/ DEVICE DRIVER		ESINT	HEATH HBASM V1.4 01/20/78 09:59:38 02-AFR-80	PAGE 11
041.114 	680X AIO.TFP DS 681X AIO.CHA DS	2 2	TEMP FILE P ADDRESS OF	GINTERS CHANNEL BLOCK (IOC.DDA)	
					······································
			· · · · · · · · · · · · · · · · · · ·		
	······································			······································	
					•••••
					• • • • • • • • • • • • • • • • • • • •
			•••••••		
					•••••

ENTRY POINTS	• • • • • • • • • • • • • • • • • • • •					09:59:39 02-APR-80
		684				
		685				
030.000		989.		<b>ዕ</b> ጵቼ · · · ·	30000A	
0007050		687 688		JMP	BOOT	BOOT CODE
					6001	BOUT CARE
				*************		
	•, • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		· · · · · · · · · · · · · · · · · · ·		
		690	**	MEMORY	DIAGNOSTIC.	
		691 692	*			
030.003	041 300 377	693		LXI	н,-64	
030.006	071	694			::SP	(HL) = END
030.007		695		XUHG		(DE) = END+1
030.010	041 100 040	696		LXI	H+40100A	(HL) = START
030.013	100	697 698		HLT		PAUSE FOR ADJUSTMENT
		699				
		700	*	(HL) =	START	
		701	*	(DE) =	END	
		702				
		703 704	*	ZERO T	EST AREA	
030,014	042 076 040	205		SHLD	40100A-2	
	066 000		MEM1	MVI	M+0	
030.021		707		INX	н	
030.022	315 216 030	708		CALL	\$CDEHL	
030,025	302 017 030	709		JNE	MEM1	
•••••		710 711	*	TAATS	TESTING MEMOR	Y. INCREMENT EACH BYTE IN TURN, AND COMPARE
		712		THAT R	ESULT TO THE	EXPECTED VALUE
		713	• • • • • • • • • • • • • •			
030.030	. 006 000	714	**********	MVI	B • O	(B) = EXPECTED VALUE
030+035	052 076 040		MEM2	LHLD	40100A-2	
		716 717		INF	<u>B</u>	·
030+036	064		MEM3	INE	M .	
030.037	176	719		MÓV	A,M	(A) = VALUE
030,040.	270	<u>720</u>		CMP	В	
030+041	312 046 030	721		JE	MEM4	IS OK
	• • • • • • • • • • • • • • • • • • • •	722°. 723	*	HAUF	RENET 7015 -	ADDRESS OF BYTE IN ERROR
		724	**		:	HANNESS OF BITE IN CHARK
030.044		725		HLT		
030.045	.000	726		NOP		
030 044	047	727	MEMA			
030.046 030.047		728 729	MEM4	INX	#CDEHL	
030.052	302 036 030	730		JNE	MEM3	NOT AT END OF PASS
030.055	303 035 030	731		ÜMP	MEM2	AT END OF PASS
• • • • • • • • • • • • • • • • • • • •						
			• • • • • • • • • • • • •			

COMMON DECKS	VICE DRIVER			HEATH H8ASM V1.4 01/20/78 09:59:39 02-APR-80	PAGE 13
030.060	734	XTEXT	COMP		
······	••••••				• • • • • • • • • • • • • • • • • • • •
				•••••	
***************************************	736X **	\$COMP -	COMPARE TWO CHARACTER STRINGS.		
	737X * 738X *	SCOMP (	OMPARES TWO BYTE STRINGS.		
•••••	739X *			••••••	
• • • • • • • • • • • • • • • • • • • •	740X *	ENTRY	(C) = COMPARE COUNT		
	741X * 742X *		(DE) = FWA OF STRING #1 (HL) = FWA OF STRING #2		
•••••	743X *	EXIT	'Z' CLEAR, IS MIS-MATCH		• • • • • • • • • • • • • • • • • • • •
	744X *		(C) = LENGTH REMAINING		
	745X *		(DE) = ADDRESS OF MISMATCH IN	STRING#1	
	746X * 747X *		(HL) = ADDRESS OF MISMATCH IN	STRING #2	
	748X *		(C) = 0		
	749X *		(DE) = (DE) + (OC)	***************************************	• • • • • • • • • • • • • • • • • • • •
•••••	750X *	USES	(HL) = (HL) + (OC) A;F;C;D;E;H;L	·····	
	751X * 752X	USES	HIPICIDIEINIL		
	753X	• • • • • • • • • • • • • • • • • • • •			•••
030.060 032	754X \$COMP	LDAX	D		
030.061 276	755X	CMP	M COMPARE		
030.062 300 030.063 023	756X 757X	RNE INX	NO MATCH		
030.064 043	758X	INX			
030.065 015	759X	DCR	<del>H</del>	•••••	• • • • • • • • • • • • • • • • • • • •
030.066 302 060 030	760X	JNZ	\$COMP TRY SOME MORE	· · · · · · · · · · · · · · · · · · ·	••••
030.071 311 030.072	761X 762	RÉT XTEXT	DADA HAVE MATCH		
			***************************************	••••••	• • • • • • • • • • • • • • • • • • • •
•••••			•••••		
	764X **	STIATIA -	FERFORM (H,L) = (H,L) + (0,A)		• • • • • • • • • • • • • • • • • • • •
	765X *				
		ENTRY	(H,L) = BEFORE VALUE		
	766X *	ERIKI	•		••••
	767X *		(A) = BEFORE VALUE	·····	•••••
	767X *	EXIT	(A) = BEFORE VALUE (H,L) = (H,L) + (0,A)	······································	•••••
	767X *		(A) = BEFORE VALUE (H,L) = (H,L) + (0,A) 'C' SET IF OVERFLOW	······································	
	767X * 768X * 769X * 770X * 771X	EXIT	(A) = BEFORE VALUE (H,L) = (H,L) + (0,A)		
030 072 725	767X * 768X * 769X * 770X * 771X 772X	EXIT USES	(A) = BEFORE VALUE (H+L) = (H+L) + (O+A) 'C' SET IF OVERFLOW F+H+L		
030,072 325 030,073 137	767X *	EXIT USES PUSH	(A) = BEFORE VALUE (H+L) = (H+L) + (0+A) 'C' SET IF OVERFLOW F+H+L		
030.073 137 030.074 026 000	767X * 768X * 769X * 770X * 771X 772X	EXIT USES PUSH	(A) = BEFORE VALUE (H+L) = (H+L) + (0+A) 'C' SET IF OVERFLOW F+H+L		
030.073 137 030.074 026 000 030.076 031	767X * 768X * 769X * 770X * 771X 772X 772X 773X \$BADA 774X 775X 776X	EXIT USES PUSH MOV MVI DAD	(A) = BEFORE VALUE (H,L) = (H,L) + (0,A) 'C' SET IF OVERFLOW F,H,L  D E,A D,O		
030.073 137 030.074 026 000 030.076 031 030.077 321	767X * 768X * 769X * 770X * 771X 772X 773X \$DADA 774X 775X 776X 7777	EXIT USES  PUSH MOV MVI DAD POP	(A) = BEFORE VALUE  (H+L) = (H+L) + (O+A)  'C' SET IF OVERFLOW  F+H+L  D E+A D+O D D		
030.073 137 030.074 026 000 030.076 031 030.077 321 030.100 311	767X * 768X * 769X * 770X * 770X * 771X 772X 773X \$DADA 774X 775X 776X 777X 778X	EXIT USES PUSH MOV MVI DAD POP RET	(A) = BEFORE VALUE  (H+L) = (H+L) + (0+A)  'C' SET IF OVERFLOW  F+H+L  D E-A D-O D EXIT		
030.073 137 030.074 026 000 030.076 031 030.077 321	767X * 768X * 769X * 770X * 771X 772X 773X \$DADA 774X 775X 776X 7777	EXIT USES  PUSH MOV MVI DAD POP	(A) = BEFORE VALUE  (H+L) = (H+L) + (O+A)  'C' SET IF OVERFLOW  F+H+L  D E+A D+O D D		
030.073 137 030.074 026 000 030.076 031 030.077 321 030.100 311	767X * 768X * 769X * 770X * 770X * 771X 772X 773X \$DADA 774X 775X 776X 777X 778X	EXIT USES PUSH MOV MVI DAD POP RET	(A) = BEFORE VALUE  (H+L) = (H+L) + (0+A)  'C' SET IF OVERFLOW  F+H+L  D E-A D-O D EXIT		
030.073 137 030.074 026 000 030.076 031 030.077 321 030.100 311	767X * 768X * 769X * 770X * 770X * 771X 772X 773X \$DADA 774X 775X 776X 777X 778X	EXIT USES PUSH MOV MVI DAD POP RET	(A) = BEFORE VALUE  (H+L) = (H+L) + (0+A)  'C' SET IF OVERFLOW  F+H+L  D E-A D-O D EXIT		
030.073 137 030.074 026 000 030.076 031 030.077 321 030.100 311	767X * 768X * 769X * 770X * 770X * 771X 772X 773X \$DADA 774X 775X 776X 777X 778X	EXIT USES PUSH MOV MVI DAD POP RET	(A) = BEFORE VALUE  (H+L) = (H+L) + (0+A)  'C' SET IF OVERFLOW  F+H+L  D E-A D-O D EXIT		

COMMON DECKS	i 		• • • • • • • • • • • • • • • • • • • •		\$DADA	HEATH HBASM V1.4 0 09:59:40 02-APR-80		PAGE 14
		781X **	\$DADA.	- ADD (0,A) T	O (H+L)			
		782X *		* * * * * * * * * * * * * * * * * * *				
		7838 *	ENTRY	NONE				
· · · · · · · · · · · · · · · · · · ·		784X * 785X *	EXIT	(HL) = (HL)	+ (0A)			
		786X	USES	AyFyHyL				
		<u>/87</u> 2				* * * * * * * * * * * * * * * * * * * *		
030.101	205	788X \$DA	TIA ATITI					
030.102	155	··· 789X··*	DA ADD MOV	L.,A				
030.103		790X	RNC	L. 7 F1				
030.104		··· ŹŚĬŔ·····	·····ink	····				
030,105		792X	RET	11				
030,106		··· / / 25 ·····	·····XTEXT	Iuge				
	· · · · · · · · · · · · · · · · · · ·							
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			•••••				
		795X **.	\$DU66	- UNSIGNED 16	/ 16 DIVIDE.			
		797X *	(HI) ~	(BC)/(DE)				
							****************	
		799X *	ENTRY	(BC), (DE) P	DECET			
			EXIT	(HL) = RESUL				
		801X *	LATI	(DE) = REMAI				
		802X * · ·	USES	ALL STREET	HAPEK			
		803X	3020	· 1 ton ton				
		804X	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
030.106	172	805X \$DU	66 MOV	Α,D	TWOS COMPLEMEN	I (DE)		
030.107	057	806X	CMA		. WOO COM ELNER	F. N. APALL Z.		
030.110	127	807X	MOV	D,A				
030.111	173	808X	MOV	AyE				• • • • • • • • • • • • • • • • • • • •
030.112	057	809X	CMA					
030.113	137	810x	Ϋ́OM	É,A				
030.114	023	811X	INX	D				
030.115	172	812X	YOM	ΑγĎ				
030.116	263	813X	ORA	E				
030.117	312 205 030	814X	JZ	DU665	if bivibe by o			
030.122	257	815X	XRA	A				
		816X						
		817X *	SHIFT	(DE) LEFT UNTI	L:			
		818X *				************************	• • • • • • • • • • • • • • • • • • • •	
	*******	819X *	1) DE	> BL				
		820X *	2) OVE		••••			·····
<u> </u>		821X						
030.123		822X DU6		Нур				
030.124		823X	VOM	L,E				
030.125		824X	DAD	B		***************************************		
	322 143 030	825X	JNC	DU662	IS TOO LARGE			
030.131		826X	INR	``À	COUNT SHIFT			************************
030.132		827X	MOV	H • D				
030:133		828X	MBV	L'Æ		• • • • • • • • • • • • • • • • • • • •		
030.134	.051	829X	DAD	H				
030.135	353	830X	XCHG		(DE) = (DE)*2	• • • • • • • • • • • • • • • • • • • •		*******************
030.136	332 123 630	831X	,,JC	DU661	IF NOT OVERFLO	J		
		832X					************	
		833X *	(DE) OS	PERFLOWED. PUT	IT BACK.			

OMMON, DECKS	3					\$IJU66	HEATH H8ASM V1.4 01/2 09159:41 02-APR-80	20/78 PAGE	15
			834X					• • • • • • • • • • • • • • • • • • • •	
0.30. 1.41.	353		. 835X	ХСНВ		•			
030.142	075		836X	DCR	A	REMOVE EXTRA COL	NT	• • • • • • • • • • • • • • • • • • • •	
			837X	2-27.		THE TENTON			
			838X *	READY	TO START SUBT	RACTING. (A) = LOOP (	TAUC	*******************	
			839X						
030.143	140		840X DU662	MOV	H•B	(H,L) = WORKING	VALU	***********	
030.144			841X	MOV	L,C				
030.145	001	000 000	842X	LXI	B • O	(BC) = RESULT			
030,150	365		843X DU663	PUSH	PSW	SAVE (A)			
030.151			844X	DAD	D				• • • • • • •
930,152	332.	163 030	845X	nc	DU664	IF SUBTRACT OK			
030.155	175		846X	MOV	A+L	ADD BACK IN			
030,156			847X	SUB	E		• • • • • • • • • • • • • • • • • • • •		
030.157			848X	MOV	L+A				
030.160	174 232		849X 850X	NOV	<u>A.t.H</u>				
030.161			851X	MOV	HyA				
030.163			852X DU664	MOV		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
030.164			853X	RAL	FT 7 G/				
030.165	117		854X	MOV	C,A	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	
030,166			855X	MOV	A+B				
030.167			856X	RAL	!%: #i	***************************************			
030,170	107		857X	MOV	B,A				
			858X				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
				RIGHT	SHFT (DE)				
			860X						
070 171	0.77								
030.171			861X	STC					
030.172	172		861X 862X	MOV	A, II				
030.172 030.173	172 037		861X 862X 863X	MOV RAR					
030.172 030.173 030.174	172 037 127		861X 862X 863X 864X	MOV RAR MOV	D,A				
030.172 030.173 030.174 030.175	172 037 127 173		861X 862X 863X 864X 865X	MOV RAR MOV MOV					
030.172 030.173 030.174 030.175 030.176	172 037 127 173 037		861X 862X 863X 864X 865X 866X	MOV RAR MOV MOV RAR	П•А А•Е				
030.172 030.173 030.174 030.175 030.176 030.177	172 037 127 173 037 137		861X 862X 863X 865X 865X 866X 866X	MOV RAR MOV MOV RAR MOV	D,A A,E E,A				
030.172 030.173 030.174 030.175 030.176 030.177	172 037 127 173 037 137 361		861X 862X 863X 864X 865X 866X 867X 868X	MOV RAR MOV MOV RAR MOV POP	D,A A,E E,A FSW				
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201	172 037 127 173 037 137 361 075	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X	MOV RAR MOV MOV RAR MOV	D,A A,E E,A	IF NOT DONE			
030.172 030.173 030.174 030.175 030.176 030.200 030.201 030.201 030.202 030.205	172 037 127 173 037 137 361 075 362 353	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X	MOV RAR MOV MOV RAR MOV POP DCR	D,A A,E E,A PSW A	IF NOT DONE (D,E) = REMAINDE	R		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206	172 037 127 173 037 137 361 075 362 353	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X IUG65	MOV RAR MOV MOV RAR MOV POP DCR JP XCHG MOV	D,A A,E E,A FSW A DU663	IF NOT DONE (D.E) = REMAINDE (HL) = RESULT	Б		
030.172 030.173 030.175 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X DU665 872X 873X	MOV RAR MOV RAR MOV POP DCR JP XCHG MOV	D,A A,E E,A PSW A DU663	(D+E) = REMAINDE	<i>R</i>		
030.172 030.173 030.175 030.175 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X IU665 872X 873X 873X	MOV RAR MOV KAR MOV POP UCR UP XCHG MOV RET	D,A A,E E,A PSW A DU663 H,B L,C	(D+E) = REMAINDE	R.		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X DU665 872X 873X	MOV RAR MOV RAR MOV POP DCR JP XCHG MOV	D,A A,E E,A FSW A DU663	(D+E) = REMAINDE	Б		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X IU665 872X 873X 873X	MOV RAR MOV KAR MOV POP UCR UP XCHG MOV RET	D,A A,E E,A PSW A DU663 H,B L,C	(D+E) = REMAINDE	Б		
030.172 030.173 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X IU665 872X 873X 873X	MOV RAR MOV KAR MOV POP UCR UP XCHG MOV RET	D,A A,E E,A PSW A DU663 H,B L,C	(D+E) = REMAINDE	R.		
030.172 030.173 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X IU665 872X 873X 873X	MOV RAR MOV KAR MOV POP UCR UP XCHG MOV RET	D,A A,E E,A PSW A DU663 H,B L,C	(D+E) = REMAINDE	R.		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X IU665 872X 873X 873X	MOV RAR MOV RAR MOV POP UCR UP XCHG MOV MOV RET XTEXT	D,A A,E E,A PSW A DU663 H,B L,C	(D+E) = REMAINDE	B		
030.172 030.173 030.174 030.175 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 865X 865X 866X 867X 869X 869X 871X DU665 872X 871X BU665 872X 873X	MOV RAR MOV RAR MOV POP ICR JP XCHG MOV MOV RET XTEXT	D,A A,E E,A FSW A DU663 H,B L,C HLIHL	(D:E) = REMAINDE (HL) = RESULT	R		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 870X 871X IU665 872X 873X 874X 875	MOV RAR MOV RAR MOV POP ICR JP XCHG MOV MOV RET XTEXT	D,A A,E E,A PSW A DU663 H,B L,C	(D:E) = REMAINDE (HL) = RESULT	в.		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 871X IU665 872X 873X 874X 875	MOV RAR MOV RAR MOV RAR MOV POP DCR JP XCHG MOV MOV RET XTEXT	D,A A,E E,A FSW A DU663 H,B L,C HLIHL - LOAD HL IN	(D:E) = REMAINDE (HL) = RESULT	S		
030.172 030.173 030.174 030.175 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 869X 870X 871X IU665 872X 873X 873X 875 877X ** 878X * 879X * 879X * 879X * 880X *	MOV RAR MOV RAR MOV RAR MOV POP ICR JP XCHG MOV MOV RET XTEXT  \$HLIHL (HL) =	D,A A,E E,A PSW A DU663 H,B L,C HLIHL - LOAD HL IN	(D:E) = REMAINDE (HL) = RESULT	Б		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 871X IU665 872X 873X 874X 875 875 874X 875 875 878 * 881X * 881X * 882X *	MOV RAR MOV RAR MOV POP JP JP XCHG MOV MOV RET XTEXT \$HLIHL (HL) =	D,A A,E E,A PSW A DU663 H,B L,C HLIHL - LOAD HL IN ((HL)) NONE NONE	(D:E) = REMAINDE (HL) = RESULT	R.		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 362 353 140 151	150 030	861X 862X 863X 864X 865X 866X 867X 869X 870X 871X JU665 872X 873X 874X 875 877X ** 878X * 879X * 879X * 881X * 881X * 882X *	MOV RAR MOV RAR MOV RAR MOV POP ICR JP XCHG MOV MOV RET XTEXT  \$HLIHL (HL) =	D,A A,E E,A PSW A DU663 H,B L,C HLIHL - LOAD HL IN	(D:E) = REMAINDE (HL) = RESULT	B		
030.172 030.173 030.174 030.175 030.177 030.200 030.201 030.205 030.205 030.207 030.210 030.211	172 037 127 173 037 137 361 075 362 353 140 151 311	150 030	861X 862X 863X 864X 865X 866X 867X 868X 869X 871X DU665 871X DU665 872X 873X 874X 875 874X 875	MOV RAR MOV RAR MOV RAR MOV POP DOR JF XCHG MOV RET XTEXT  \$HLIHL (HL) = ENTRY USES	D,A A,E E,A PSW A DU663 H,B L,C HLIHL - LOAD HL IN ((HL)) NONE NONE A,H,L	(D:E) = REMAINDE (HL) = RESULT	в.		
030.172 030.173 030.174 030.175 030.176 030.177 030.200 030.201 030.202 030.205 030.206 030.207	172 037 127 173 037 137 361 075 363 140 151 311	150 030	861X 862X 863X 864X 865X 866X 867X 869X 870X 871X JU665 872X 873X 874X 875 877X ** 878X * 879X * 879X * 881X * 881X * 882X *	MOV RAR MOV RAR MOV RAR MOV POP DOR JF XCHG MOV RET XTEXT  \$HLIHL (HL) = ENTRY USES	D,A A,E E,A PSW A DU663 H,B L,C HLIHL - LOAD HL IN ((HL)) NONE NONE	(D:E) = REMAINDE (HL) = RESULT	R		

	M DEVICE V DEVI	CÉ DRÍVER				HEATH H8ASM V1.4 01/20/78 PAGE 16
COMMON DECKS	` `				\$HLIHL	09:59:42 02-APR-80
030.213		8840 · · · · · · · · · · · · · · · · · · ·		,		
030.213		887X 888X	MOV	H+M		
030.215		889X	MOV RET	L•A		· ·
030.216		890	XTEXT	CDEHL		
		***************************************		CBEHL		
				•••••		
		892X **	*CDEHL	- COMPARE (DE) TO	(AL)	
		893X *				
		894X *	\$CDEHL	COMPARES (DE) TO	(HL) FOR EQUAL	ITY.
		895X *				
		896X *	ENTRY	NONE		
• • • • • • • • • • • • • • • • • • • •		897X *	EXIT	(Z <u>(</u> .SET.IF.(DE)	=(HL)	
		898X *	USES	A,F		
		899X 900X				
030.216		901X \$CBEHL	MOV	A-F		
030.217		902X	XRA	A,E L		
030.220		903X	RNZ		TE TITEEBENT	
030.221	· ·   · · · · · · · · · · · · · · · · ·	904X		A,D	IF DIFFERENT	
030,222		905X	XRA	H		
030.223		906X	RET			
030,224		907	XTEXT	CHL	COMPLEMENT (HL	)
	***************************************					á
		909X **	\$CHL -	COMPLEMENT (HL).		
		910X *				
		911X *	(HL) =	(HL)	TWO'S COMPLEME	NT
		912X *	······································	Newse		
		913X *	ENTRY	NONE		
		914X * 915X *	.EXIT	NONE A,F,H,L		
		916X	OULU	HYT YHYL		
		917X		• • • • • • • • • • • • • • • • • • • •		
030,224		918X \$CHL	YOM	A,H		
030.225		919X	CMA	***************************************		
030.226	147	920X	MOV	H+A		
030.227		921X	MOV	A,L		
030,230		922X	CMA			
030.231		923X	MOV	L•A		
930,232		924X	ΙΝΧ	H	******	
030.233		925X	RET			
030+234		926	XTEXT	INDL	INDEXED LOAD	
						,
	• • • • • • • • • • • • • • • • • • • •					
• • • • • • • • • • • • • • • • • • • •						
***************************************						
		• • • • • • • • • • • • • • • • • • • •				
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		<b></b>				

SYDD - SYSTEM DEVICE / COMMON DECKS			\$INDL	HEATH HBASM V1.4 01/20/78 09:59:44 02-APR-80	PAGE 17
			***************************************		
	928X ** 929X *	\$INDL - INDEXED LO	DAD.		
	₹₹₹₹₩ 930X ₩	SINDL LOADS DE WIT	TH THE TWO BYTES AT	(HL)+DISELACMENT	•••••
	931X.*			The Practical Control of the Practical Control	
	932X *	THIS ACTS AS AN IN	NDEXED FULL WORD LO	)AD.	*************************
•••••	933X * 934X *	(DE) = ( (HL) + DS	TO ACCMENT \		
	935X *	(DE) = ( (AL) + DS	SPLACEMENT )		
	936X *	ENTRY ((RET)) =	DISPLACMENT (FULL	WORD)	
	937X.*	(HL) = TAE	BLE ADDRESS		
	938X * 939X *	EXIT TO (RET+2)	)		
***************************************	7⊴7∆* 940X	USES A,F,D,E	• • • • • • • • • • • • • • • • • • • •		
	941X				
030.234 343	942X \$INDL	XTHL	(HL) = RET,	((SP)) = TBL ADDRESS	• • • • • • • • • • • • • • • • • • • •
030,235 136	943X	MOVE+M			
030.236 043 030.237 126	944X 945X	INX H MOV D+M	(DE) = DISPL	ACCHENT	
	946X			HUENEN	
030,240 043	947X	INX H			
030.241 343	948X	XTHL	((SP)) = RET	• (HL) = TBL ADDRESS	**** *************************
030.242353	949X	XCHG	(DE) = TBL 4	DDRESS, (HL) = DISPLACEMENT	
030.243 031 030.244 176	950X 951X	DAD D MOV A,M	(HL) = TARGE	1 ADDRESS	
030.245 043	952X	INX H	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •
030.246146	953X				
030.247 157	954X	MOV L.A	(HL) = ((HL)		
030,250 353	955X	хсно	(DE) = VALUE	• (HL) = TABLE ADDRESS	• • • • • • • • • • • • • • • • • • • •
030.251 311	956X	RET		,	
030.251 311	956X	KE I			•••••
030.251 311			4 * 4		
030.251 311	958 <b>*</b> *	\$MOVE - MOVE DATA			
030.251 311	958 ** 959 *	\$MOVE - MOVE DATA	TK OF BYTES TO A NE	TH MEMORY ADDRESS	
030.251 311	958 <b>*</b> *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC  IF THE MOVE IS TO	CK OF BYTES TO A NE A LOWER ADDRESS, I	W MEMORY ADDRESS. HE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC  IF THE MOVE IS TO	CK OF BYTES TO A NE A LOWER ADDRESS, T	W MEMORY ADDRESS. HE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.	A LOWER ADDRESS, 1	HE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO	A LOWER ADDRESS, 1	W MEMORY ADDRESS. HE BYTES ARE MOVED FROM THE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 *	\$MOVE - MOVE DATA  \$MOVE MOVES A PLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.	A LOWER ADDRESS, 1	HE BYTES ARE MOVED FROM THE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 *	\$MOVE - MOVE DATA  \$MOVE MOVES A PLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.	A LOWER ADDRESS, 1	HE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 967 * 968 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.	A LOWER ADDRESS, 1 A HIGHER ADDRESS,	HE BYTES ARE MOVED FROM THE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 967 * 968 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO THE	A LOWER ADDRESS, 1 A HIGHER ADDRESS, HAT AN OVERLAPED MO	HE BYTES ARE MOVED FROM THE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 966 * 968 * 969 * 970 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH  ENTRY (BC) = COL (DE) = FRC	A LOWER ADDRESS, 1 A HIGHER ADDRESS, HAT AN OVERLAPED MO	HE BYTES ARE MOVED FROM THE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 967 * 968 * 969 * 970 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH  ENTRY (BC) = COL (DE) = FRC (HL) = TO	A LOWER ADDRESS, 1 A HIGHER ADDRESS, HAT AN OVERLAPED MO	HE BYTES ARE MOVED FROM THE BYTES ARE MOVED FROM	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 966 * 967 * 968 * 970 * 971 * 972 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH ENTRY (BC) = COL	A LOWER ADDRESS, T A HIGHER ADDRESS, HAT AN OVERLAPED MO DNT DRESS OF NEXT FROM	HE BYTES ARE MOVED FROM  THE BYTES ARE MOVED FROM  OVE WILL NOT 'RIPPLE'.  BYTE	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 967 * 968 * 970 * 971 * 972 * 973 * 974 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH ENTRY (BC) = COL (DE) = FRC (HL) = TO EXIT MOVED (DE) = ADI (HL) = ADI (HL) = ADI	A LOWER ADDRESS, T A HIGHER ADDRESS, HAT AN OVERLAPED MO DNT DRESS OF NEXT FROM	HE BYTES ARE MOVED FROM  THE BYTES ARE MOVED FROM  OVE WILL NOT 'RIPPLE'.	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 967 * 968 * 969 * 970 * 971 * 972 * 973 * 974 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH  ENTRY (BC) = COL (DE) = FRC (HL) = TO EXIT MOVED (DE) = ADI (HL) = ADI 'C' CLEAR	A LOWER ADDRESS, T A HIGHER ADDRESS, HAT AN OVERLAPED MO DNT DRESS OF NEXT FROM	HE BYTES ARE MOVED FROM  THE BYTES ARE MOVED FROM  OVE WILL NOT 'RIPPLE'.  BYTE	
030.251 311	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 967 * 968 * 970 * 971 * 972 * 973 * 974 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH ENTRY (BC) = COL (DE) = FRC (HL) = TO EXIT MOVED (DE) = ADI (HL) = ADI (HL) = ADI	A LOWER ADDRESS, T A HIGHER ADDRESS, HAT AN OVERLAPED MO DNT DRESS OF NEXT FROM	HE BYTES ARE MOVED FROM  THE BYTES ARE MOVED FROM  OVE WILL NOT 'RIPPLE'.  BYTE	
	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 966 * 968 * 969 * 970 * 971 * 972 * 973 * 974 * 975 * 976 * 977 * 978	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH ENTRY (BC) = COL (DE) = FRC (HL) = TO EXIT MOVED (DE) = ADI (HL) = ADI 'C' CLEAR USES ALL	A LOWER ADDRESS, T A HIGHER ADDRESS, HAT AN OVERLAPED MO DNT DRESS OF NEXT FROM	HE BYTES ARE MOVED FROM  THE BYTES ARE MOVED FROM  OVE WILL NOT 'RIPPLE'.  BYTE	
030.251 311  030.252 030.252 030.252 170	958 ** 959 * 960 * 961 * 962 * 963 * 964 * 965 * 966 * 966 * 968 * 970 * 971 * 972 * 973 * 974 * 975 * 976 *	\$MOVE - MOVE DATA  \$MOVE MOVES A BLOC IF THE MOVE IS TO FIRST TO LAST.  IF THE MOVE IS TO LAST TO FIRST.  THIS IS DONE SO TH  ENTRY (BC) = COL (DE) = FRC (HL) = TO EXIT MOVED (DE) = ADI (HL) = ADI 'C' CLEAR	A LOWER ADDRESS, T A HIGHER ADDRESS, HAT AN OVERLAPED MO DNT DRESS OF NEXT FROM	HE BYTES ARE MOVED FROM  THE BYTES ARE MOVED FROM  OVE WILL NOT 'RIPPLE'.  BYTE	

				HEATH H8ASM V1.4 01/20/78 FAGE 18 \$MOVE 09:59:44 02-APR-80
;				•••••••••••••••••••••••••••••••••••••••
61	981	ORA	С	NOVE TO VOLE
10	982	RZ		NONE TO MOVE
75	983	MOV	A,L	COMPARE *FROM* TO *TO*
94				<u></u>
32 311 030		7C	MOV2	IS MOVE DOWN (TO LOWER ADDRESSES)
			nnenzekintekoekin	CARLANDER.
		* 15 MUVE	OF CLO HIGHER &	ADDRESSES)
				and a second second
				(HL) = *TO* LWA
			н	SAVE *TO* LIMIT
			<u></u>	
				(HL) = *FROM* LWA
<del>.4</del> 7		PUSH	H	SAVE *FROM* LIMIT
~~ <i>,</i>		MMII4 CMII		VALUE TO THE
/ <u>6</u>				MOVE BYTE
				INCREMENT *TO* ADDRESS
				INCREMENT *FROM* ADDRESS
				DECREMENT COUNT
			A,B	
			<del>A</del>	
				MORE TO GO
			Þ	(DE) = *FROM* LIMIT
	1007	POP	H	(HL) = *TO* LIMIT
		INX	. D	
		INX	H	
11	1010	RET		DONE
	1012	* IS MOVE	DOWN (TO LOWER	ADDRESSES)
	1014	MOV2 LDAX	D.	MOVE BYTE
	1015	MOV	M+A	
43	1016	INX	Н	INCREMENT *FROM*
23	1017	INX	D	INCREMENT *TO*
13	1018	DCX	B	DECREMENT COUNT
	1019	MOV	A,B	
		ORA	C	
02 311 030	1021	JNZ	MOV2	IF NOT DONE
11	1,022	RET		DONE
	1023	XTEXT	MU10	
	23 74 74 32 311 030  13 11 45 53 11 45 62 23 13 70 47 23 43 11 23 43 11 32 67 43 23 13 70 61 02 311 030 11	23	23	984 SUB E 74 985 MOV A+H 32 986 SBB D 32 311 030 987 JC MOV2 988  989 * IS MOVE UF (TO HIGHER A 990 13 991 DCX B 11 992 DAD B 45 993 FUSH H 53 994 XCHG 11 995 DAD B 45 996 FUSH H 65 997 STAX D 66 998 MOV1 MOV A+M 67 1003 MOV A+B 67 1004 ANA A 68 272 030 1005 JF MOV1 68 1007 POP H 69 1013 NON DCX D 1013 NON DCX D 1013 NON DCX D 1014 NON A+B 1015 NON DCX 1016 POP D 1017 NON DCX 1018 DCX 1018 DCX 1019 MOV MA 11 1010 RET 1011 NON H 11 1010 RET 1013 NON DCX D 1013 NON DCX D 1013 NON DCX 1014 NON DCX 1015 MOV DCX 1017 NON DCX 1018 DCX 1019 MOV A+B 1010 RET 1011 NON H 1011 NON H 1012 TO DCX 1013 NON DCX 1014 NOV DCX 1015 MOV M+A 1016 INX H 1017 NON DCX 1018 DCX B 1019 MOV A+B 1010 NON DCX 1011 NON DCX 1012 TO DCX 1013 NON DCX 1014 NOV DCX 1015 MOV M+A 1016 INX H 1017 INX D 1018 DCX B 1009 NOV DCX 1019 MOV A+B 1010 DCX 1019 MOV A+B 1010 DCX 1010 DCX 1011 NON DCX 1011 NON DCX 1012 NON DCX 1013 NON DCX 1014 NOV DCX 1015 MOV M+A 1016 INX D 1017 INX D 1018 DCX B 1019 MOV A+B 1010 DCX 1011 NOV DCX 1012 NOV DCX 1013 NOV DCX 1014 NOV DCX 1015 NOV DCX 1015 NOV DCX 1017 INX D 1018 DCX 1019 MOV A+B

		M DEVICE /				\$MU1.Q	HEATH HBASM V1.4 01/20/78 09:59:45 02-APR-80	PAGE	19
			1034X						
			1035X						
	030.324	353	1036X \$M	U10 XCHG		(HL) = MULTI	PLIER		
	.030.325.		1037X	DAD	Н	(HL) = X*2		<b>.</b>	
	030.326	330	1038X	RC					
	030.327	124	1039X	MOV	D,H				
• • • • • • • • • • • •	030.330	135	1040X	MOV	E,L				
	030.331	051	1041X	DAD	Н	(HL) = X*4			
	030.332	330	1042X	RC				,	
	030.333	051	1043X	DAD	Н	(HL) = X*8			
	030.334		1044X	RC					
	030.335	031	1045X	DAD	D	(HL) = X*10			
	030.336		1046X	RET					
	030,337		1047	XTEXT	MU66				
				<b></b>					
						. na earla o nicolo da sua especia a 107 i 111			
			1049X **	\$MU66	- UNSIGNED I	6X16 MULTIPLY.			
			1050X *	<u> </u>					
			1051X *	ENTRY		TIPLICAND			
			1052X *		(DE) = MUL (HL) = RES	TIPLIER			
			1053X *	EXIT	(HL) = RES	BULT			
<b>.</b>			1054X *			T NOT OVERFLO₩			
			1055X *	ÚSÉS	ALL				
			1056X						
			1057X						
	030337	257	1058X \$M	1966XRA	<u>.</u>				
	030,340		1059X	PUSH	P'SW	SAVE OVERFLO			
	030,341	041 000 00		FXI	H • O	(HL) = RESUL	T ACCUMULATOR		
			1061X						
			1062X MU		A,B				
	030.345	037	1063X	RAR					
	030.346	107	1064X	MOV	BrA				
	030.347	171	1065X	MOV	A,C				
	030,350	037	1066X	RAR					
	030.351	117	1067X	MOV	C+A				
	030.352	322 364 03	0 1068X	JŅĊ	MU662	IF.BIT.CLEAR			
	030.355	031	1069X	DAD	I)				
	030.356	322 364 03	0 1070X	JŅÇ	MU662	IF_NOT_OVERF	'LOW		
	030.361	361	1071X	POP	₽S₩				
	030.362	074	1072X	INR	<del>.</del>				
	030.363	365	1073X	PUSH	₽S₩				
	030364	1 7.0	1074X.ML		A • .B				
	030.365	261	1075X	ORA	С	SEE IF MULT:	(PLIER O		
		. 312 005 03			MU.66.3		DONE		
	030.371	353	1077X	XCHG					
	030.372	051	1078X	DAD	<del></del>	(₽,€) = (₽€)	*2		
	030.373	353	1079X	XCHG		,			
	030.374	. 322 344 03		JNC	MU661	IF NOT OVER	LOW		
	030.377	361	1081X	POP	PSW				
	031.000	074	1082X	INR	A				
	031,001	365	1083X	FUSH	F'SW	FLAG OVERFLO			
	031.002	. 303.344.03	01084X	JMP	MU.66.1	PROCESS.NEXT	T.BIT	· · · · · · · · · · · · · · · · · · ·	
			1085X						
			10000						

......

COMMON DECKS	M DEVICE / DE				\$MU66	HEATH H8ASM V1.4 01/20/78 09:59:46 02-APR-80	PAGE 20
031.006	311	1087X	RET	• • • • • • • • • • • • • • • • • • • •			
031.007		1088	XTEXT	MU86			
			*******		• • • • • • • • • • • • • • • • • • • •		••••••
	*** *** *** * * * * * * * * * * * * * *	1090X **	SMUSA -	MULTIPLY 8X1	A LINSTENET		
		1091X *	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,.oc. (2) E1 O/(1	O OROIORED.		
		1092X *	~\$MU88 M	ULTIPLIES A 1	6 BIT VALUE BY A	8	
		1093X *	BIT VAL	UE•			
		1094X * 1095X *	ENTRY				
	• • • • • • • • • • • • • • • • • • • •	1096X *	ENIKI	(A) = MULTIF (DE) = MULTI			
		1097X *	EXIT	(HL) = RESUL			
		1098X *		Z' SET IF N			• • • • • • • • • • • • • • • • • • • •
		1099X *	USES	A,F,H,L			
		1100X	,				
031,007	041 000 000	. 1101X	LXI				
031.012		1102X #11088	PUSH	H,0 B	(HL) = KESUL	T ACCUMULATOR	
031.013	104	1104X	MOV	ВэН	(B) = OVERFLO	TW FLAG	
031.014	267	1105X MU860	ORA	.A	CLEAR CARRY	arer I due I Par	
071 015	A = 7 = 3	1106X				***************************************	
031.015	-037 -322 026 031	1107X MU861	RAR				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
031.010		1100X 1109X	JNC DAD	MU862 D	IF NOT TO ADI	)	
	322 026 031	1110X	JNC	.Mu842	NOT OVERFLOW		
031.025	004	1111X	INR		HOT OVERTICON		
031.026	267	1112X MU862	ORA	. <u>B</u>			• • • • • • • • • • • • • • • • • • • •
	312 044 031		JZ	MU863	IF DONE		
031.032	353 051	1114X	XCHG				
031.034	. 353	1115X 1116X	DAD XCHG	. <u>H</u>			
031.035			JNC	MU861	LOOP IF NOT O	DIEBE! OU	
031.040	004	1118X	INR			JACKL COM	
031.041	303 014 031		JMP	MU860			
071 044	270	1120X				***************************************	
031.044		.1121X MU863 -1122X	ORA POP	. <u>B</u>	SET *Z* FLAG.	IF NOT OVERFLOW	
031.046		1123X	RET	D	RESTORE (BC)		
031.047		1124	XTEXT	SAVALL	• • • • • • • • • • • • • • • • • • • •		
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·					
		3					
	• • • • • • • • • • • • • • • • • • • •	1126X **	\$RSTALL	- RESTORE ALI	* REGISTEDS		
		1127X *	+1357 I Film La	NESTONE MEL	- NEUTOICKO+		
		1128X *	\$RSTALL	RESTORES ALL	THE REGISTERS OF	F THE STACK, AND	
		1129X *	RETURNS	TO THE PREVIO	OUS CALLER.		
		1130X *					
	• • • • • • • • • • • • • • • • • • • •	.1131X * .1132X *	ENIRY	(SP) = PSW		***************************************	
		1133X *		(SF+2) = BC (SF+4) = DE			
		1134X *	• • • • • • • • • • • • • • • • • • • •	(SP+6) = HL		•••••	
		1135X *		(SP+8) = RET			
		1136X *	EXIT		SISTERS RESTORED	••••••	*******************
		.1137X.*	USES	ALL		***************************************	
							• • • • • • • • • • • • • • • • • • • •

(DD - SYSTEM DEVICE / DE OMMON DECKS			•	\$RSTALL	HEATH H8ASM V1.4 01/20/78 09:59:46 02-APR-80	PAGE 21
	1138X	• • • • • • • • • • • • • • • • • • • •				• • • • • • • • • • • • • • • • • • • •
	1139X					
031.047 361	1140X \$RSTALL		FSW			
031.050 301	1141X	POP	B			
031.051 321	1142X	POP				
031.052 341	1143X	POP				
031.053 311	1144X	RET				
•••••			••••••	• • • • • • • • • • • • • • • • • • • •	••••••	
	1146X **	\$SAVALL	- SAVE ALL REG	(STERS ON STAC	ж.	
	1147X *					
• • • • • • • • • • • • • • • • • • • •	1148X *	\$SAVALL	SAVES ALL THE F	REGISTERS ON 1	HE STACK.	****
	1149X *					
***************************************	1150X *	ENTRY	NONE		***************************************	••••••
	1151X *	EXIT	(SP) = PSW			
• • • • • • • • • • • • • • • • • • • •	···1152x *·····	<del></del> Ω÷	``(SP+2)``=`BC````		• • • • • • • • • • • • • • • • • • • •	
	1153X *		(SP+4) = DE			
• • • • • • • • • • • • • • • • • • • •	1154X *		(SP+6) = HL			
	1155X *	Here				
• • • • • • • • • • • • • • • • • • • •	1156X	USES	.H,L			
	1157X			606000000000000		
031.054 343	1158X \$SAVALL		T.	ruan na (nu.	= RETURN ADDRESS	
031.055 325	1159X	PUSH	. B		***************************************	
031.056 305	1160X	PUSH				
031.057 365	1161X	PUSH	PSW		<u></u>	
031.060 351	1162X	PCHL	•	RETURN TO CA	ALLER	
031.061	1163	XTEXT	TJMF			
					•••••	
•••••			***************************************			
	1165% **		TABLE JUMP.			
		*TJMP'-				
	```1165X`**					
	1165X ** 1166X * 1167X *	*TJMP'-				
	1165X ** 1166X * 1167X * 1168X *	STJMP -	TABLE JUMP.	(A) = INDEX		
	1165X ** 1166X * 1167X * 1168X *	STJMP - USAGE CALL	TABLE JUMP.	(A) = INDEX INDEX = 0		
	1165X ** 1166X * 1167X * 1168X * 1169X * 1169X *	≸TJMP - USAGE CALL DW	TABLE JUMP.	(A) = INDEX INDEX = 0		
	1165% ** 1166% * 1167% * 1168% * 1169% * 1170% *	\$TJMF - USAGE CALL DW	TABLE JUMP.			
	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X *	≸TJMP - USAGE CALL DW	TABLE JUMP.			
	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X *	\$TJMP - USAGE CALL DW	TABLE JUMP. \$TJMP ADDR1	INDEX = 0		
	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X * 1173X * 1174X *	\$TJMF - USAGE CALL DW	TABLE JUMP.			
	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X * 1173X * 1173X *	\$TJMP USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1	INDEX = 0		
	1165X ** 1166X * 1167X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1174X * 1175X * 1176X *	\$TJMP - USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX	INDEX = 0		
	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X * 1173X * 1174X * 1175X * 1176X * 1177X *	\$TJMP USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR	INDEX = 0		
	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X * 1173X * 1174X * 1175X * 1176X * 1176X *	\$TJMP USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2	INDEX = 0		
	1165X ** 1166X * 1167X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1174X * 1175X * 1176X * 1177X * 1177X * 1177X * 1177X *	\$TJMP - USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR	INDEX = 0		
	1165X ** 1166X * 1167X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 1177X * 1177X * 1179X * 1179X * 1179X *	\$TJMP USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2	INDEX = 0		
	1165X ** 1166X * 1166X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 1176X * 1177X * 1178X * 1179X * 1179X * 1180X 1181X	\$TJMP - USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2	INDEX = 0  INDEX = N-1		
031.061 007	1165X ** 1166X * 1167X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 1177X * 1177X * 1179X * 1179X * 1179X *	\$TJMP - USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2	INDEX = 0	k2	
031.061 007	1165X ** 1166X * 1166X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 1176X * 1177X * 1178X * 1179X * 1179X * 1180X 1181X	\$TJMP USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2	INDEX = 0  INDEX = N-1	r <u>2</u>	
031.062	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X * 1175X * 1175X * 1176X * 1176X * 1179X * 1179X * 1180X 1181X 1182X \$TJMF 1183X	\$TJMP USAGE CALL DW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2	INDEX = 0  INDEX = N-1	k2	
031.061 007 031.062 031.062	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 11778X * 11778X * 1179X * 1179X * 1179X * 1180X 1181X 1182X \$TJMF 1183X 1184X \$TJMF	\$TJMP USAGE CALL DW DW ENTRY EXIT USES RLC EQU	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2	INDEX = 0  INDEX = N-1  (A) = INDEX		
031.062 031.062 343	1165X ** 1166X * 1167X * 1168X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 1177X * 1177X * 1178X * 1179X * 1180X 1181X 1182X \$TJMF 1183X 1184X \$TJMF.	STJMP USAGE CALL IW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2 A*F	INDEX = 0  INDEX = N-1  (A) = INDEX  (HL) = TABLE	AUDRESS	
031.062 031.062 343 031.063 365	1165X ** 1166X * 1166X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 1176X * 1179X * 1179X * 1180X 1181X 1182X \$TJMF 1183X 1184X \$TJMF 1185X 1186X	\$TJMP - USAGE CALL DW	*TABLE JUMP.  *TJMP ADDR1  ADDRN  (A) = INDEX TO PROCESSOR  (A) = INDEX*2 A.F	INDEX = 0  INDEX = N-1  (A) = INDEX	AUDRESS	
031.062 031.062 343	1165X ** 1166X * 1166X * 1169X * 1169X * 1170X * 1171X * 1172X * 1173X * 1175X * 1176X * 1176X * 1179X * 1179X * 1180X 1181X 1182X \$TJMF 1183X 1184X \$TJMF 1185X 1186X	STJMP USAGE CALL IW	TABLE JUMP.  \$TJMP ADDR1 ADDRN (A) = INDEX TO PROCESSOR (A) = INDEX*2 A*F	INDEX = 0  INDEX = N-1  (A) = INDEX  (HL) = TABLE	AUDRESS	

SYDD - SYSTEM DEVICE / ) COMMON DECKS				\$TJMF.	HEATH H8ASM 01.4 01/20/78 PAGE 22 09:59:48 02-APR-80
031.070 043	1189X	INX	Н		
031.071 146	1190X	MOV	H•M		
031.072 157	1191X	MOV	LjA		
031.073 361	1192X	POP	F'SW	(A) = INDEX*2	
031.074 343 031.075 311	1193X	XTHL		ADDRESS ON STA	
031.076	1194X 1195	RET		JUMP TP PROCESS	50R
		XTEXT	TBRA		
	1197X **		- BRANCH RELAT	VE THOUGH TABLE.	
	1198X *	· · · · · · · · · · · · · · · · · · ·		VE THOOGH TREEL	
	1199X *	\$TBRA	USES THE SUPPLE	ED INDEX TO SELECT	T A RYTE FROM THE
	1200X *	JÚMP T	ABLE. THE CONTE	NTS OF THIS BYTE	ARE ADDED TO THE
	1201X *	ADDRES	S OF THE BYTE,	YEILDING THE PROCE	SSOR ADDRESS.
	1202X *				
	1203X *	CALL	\$TBRA		
	1204X *	DB	LABI-*	INDEX = 0 FOR L	.AB1
	1205X *	DB	LAB2-*	INDEX = 1 FOR L	_AB2
	1206X *	DB	LABN-*	INDEX = N-1 FOR	₹ LABN
	1207X *	<u></u>			
	1208X *	ENTRY	(A) = INDEX		
·····	1209X *		(RET) = TABLE		
	1210X *	EXIT	TO COMPUTED A	DDRESS	
• • • • • • • • • • • • • • • • • • • •	1211X * 1212X	USES	F,H,L		
031.076	1213X 1214X ≇†BRA	EQU			
031.076 343	1215X	XTHL	•	(HI) - TABLE AV	phoree
031.077 325		PUSH	<u>r</u> j	(HL) = TABLE AI	DECENDANCE OF THE PROPERTY OF
031.100 137	1217X	MOV	E,A		
031.101 026 000	1218X	MVI			
031.103 031	1219X	DAD	D	(HL) = ADDRESS	OF FLEMENT
031.104 136	1220X	ΜάV····	Ē,M	Franklinds	Of Machings
031.105 031	1221X	DAD		(HL) = PROCESSO	OR ADDRESS
031.106 321	1222X	POP	<u>D</u>		
031.107 343	1223X	XTHL			
031,110 311	1224X	RÉT			
	1226 **	\$TBLS	- TABLE SEARCH		
	1227 *				***************************************
	1228 *	IABLE	FORMAT		
	1229 *	TiT:	Demographical a		
	1230 *	····pB	KEY1, VAL1,		
	1231 * 1232 *	•	•		
	1232 * 1233 * *	p.b	· · · · · · · · · · · · · · · · · · ·		***************************************
	1234 *		KEYN J VALN		
	1235 *	DB	0		***************************************
	1236 * 1236 *	ENTEV	(A) - DATTER		
	‡438 <b>1</b> 1237 *	ENTRY	(A) = FATTERN (H,L) = TABLE		
			・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	r wet	
	1238 *	EXIT	(A) = PATTERN		

						\$TBLS	09:59:48 02-APR-80		
		1239			'''Z'''SET'IF''FOUN	ช			
		1240		USES	ArFrHaL	•			
		1241				• • • • • • • • • • • • • • • • • • • •		***************************************	
		1242							
031.111	305	1243	*TBLS	'PUSH'''				• • • • • • • • • • • • • • • • • • • •	
031.112	107	1244		MOV	B,A				
031.113	176		*TBL1	VOK		··('A)'' = 'CHARACTE	<u> </u>		
031.114	270	1246		CMP	B	<b> </b>			
	.312.133.031.			.JZ	*TBL2	"IF MATC"			
031.120		1248	<i></i>	ANA	<del>.</del>				
031.121		1249		INX	H	OWID DAGE			
031.122	. 043	1250		INX	H	SKIP PAST	* \$ 745 f 745		
031.123				JNZ	\$TBL1	"IF NOT END OF "	IABLE		
031.126		1252		DCX	н я				
031-127	053	1253 1254		DCX	H H	CLEAR 'Z'			
. 931.130		1255		ORA MVI	<u>A</u> ,0	SET (A) = O FO	R. 101 TO 115FRS	• • • • • • • • • • • • • • • • • • • •	
031+131	0/0 000	1256		1101	H70	SET (H) - O TO	CLL COLICO		
		···1257	··*·······	DONE				• • • • • • • • • • • • • • • • • • • •	
		1258	·						
031.133	301		"\$TBL2""	POP	в				• • • • • • • • • • • • • • • • • • • •
031.134		1260		INX	н				
031.135	311	1261		RET				• • • • • • • • • • • • • • • • • • • •	
		1263	**	\$TYPTX	- TYPE TEXT.				• • • • • • • • • • • • • • • • • • • •
		1264 1265	· *			E A BLOCK OF TE	XT ON THE SYSTEM CONSOL	E•	•••••
		1264 1265 1266	*	\$TYPTX	IS CALLED TO TYP			E•	
		1264 1265 1266 1267	* * * *	\$TYPTX	IS CALLED TO TYPED ZERO BYTES IND	ICATE A CARRIAG	E RETURN LINE FEED,	E•	
		1264 1265 1266 1267 1268	* * * *	\$TYPTX	IS CALLED TO TYPED ZERO BYTES IND	ICATE A CARRIAG		E•	
		1264 1265 1266 1267 1268 1269	* * * *	\$TYPTX IMBEDDE A BYTE	IS CALLED TO TYPED ZERO BYTES IND	ICATE A CARRIAG	E RETURN LINE FEED,	E•	
		1264 1265 1266 1267 1268 1269 1270	* * * * *	\$TYPTX IMBEDDE A BYTE ENTRY	IS CALLED TO TYPED ZERO BYTES IND WITH THE 2000 FI	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED,	E•	
		1264 1265 1266 1267 1268 1269 1270 1271	* * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT	IS CALLED TO TYPED ZERO BYTES IND WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED,	Ε•	
		1264 1265 1266 1267 1268 1269 1270 1271 1272	* * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY	IS CALLED TO TYPED ZERO BYTES IND WITH THE 2000 FI	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED,	Ε.	
		1264 1265 1266 1267 1268 1269 1270 1271	* * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT	IS CALLED TO TYPED ZERO BYTES IND WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED,	E•	
031.136	343	1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274	* * * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT	IS CALLED TO TYPED ZERO BYTES IND WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.136 031.137	343 315 144 031	1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275	* * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES	IS CALLED TO TYPED ZERO BYTES IND WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε,	
031.137	315 144 031 343	1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275	* * * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL	IS CALLED TO TYPE  ED ZERO BYTES INT  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
	315 144 031 343	1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276	* * * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL	IS CALLED TO TYPE  ED ZERO BYTES INT  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.137 031.142 031.143	315 144 031 343 311	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1278	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET	IS CALLED TO TYPE  ED ZERO BYTES INI  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε•	
031.137 031.142 031.143	315 144 031 343 311	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1278	* * * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET MOV	IS CALLED TO TYPE  ED ZERO BYTES INI  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A>F  \$TYPTX.	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.137 031.142 031.143 031.144 031.145	315 144 031 343 311 176 346 177	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1278 1278 1279 1280	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI	IS CALLED TO TYFED ZERO BYTES INI WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX.	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.137 031.142 031.143 031.144 031.145 031.147	315 144 031 343 311 176 346 177 377 002	1264 1265 1266 1267 1268 1269 1270 1272 1273 1274 1275 1276 1277 1278 1279 1281 1281	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DB	IS CALLED TO TYFED ZERO BYTES INI WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX.	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	E.	
031.137 031.142 031.143 031.144 031.145 031.147 031.151	315 144 031 343 311 176 346 177 377 002 276	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DE CMP	IS CALLED TO TYPE  ED ZERO BYTES INI  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX.  A,M  1,70  SYSCALL, SCOUT  M	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	E•	
031.137 031.142 031.143 031.144 031.145 031.147 031.151 031.152	315 144 031 343 311 176 346 177 377 002 276 043	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1280 1281 1282 1283 1284	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DE CMP INX	IS CALLED TO TYPE  ED ZERO BYTES INI  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX.  A,M  1770  SYSCALL, SCOUT M H	ICATE A CARRIAGI T SET IS THE LAY (HL) = TEXT AD TYPE IT	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.137 031.142 031.143 031.144 031.145 031.147 031.151 031.152 031.153	315 144 031 343 311 176 346 177 377 002 276 043 312 144 031	1264 1265 1266 1267 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1281 1282 1283 1284 1284	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DB CMP INX JE	IS CALLED TO TYPE  ED ZERO BYTES INI  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX.  A,M  1,70  SYSCALL, SCOUT  M	ICATE A CARRIAG T SET IS THE LA	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε•	
031.137 031.142 031.143 031.145 031.147 031.147 031.151 031.152 031.153	315 144 031 343 311 176 346 177 377 002 276 043 312 144 031	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1281 1281 1282 1283 1284 1285	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DB CMP INX JE RET	IS CALLED TO TYPED ZERO BYTES INI WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX,  A,M  1770  SYSCALL,,SCOUT M H \$TYPTX,	ICATE A CARRIAGI T SET IS THE LAY (HL) = TEXT AD TYPE IT	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.137 031.142 031.143 031.144 031.145 031.147 031.151 031.152 031.153	315 144 031 343 311 176 346 177 377 002 276 043 312 144 031	1264 1265 1266 1267 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1281 1282 1283 1284 1284	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DB CMP INX JE	IS CALLED TO TYPE  ED ZERO BYTES INI  WITH THE 2000 BI  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX.  A,M  1770  SYSCALL, SCOUT M H	ICATE A CARRIAGI T SET IS THE LAY (HL) = TEXT AD TYPE IT	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.137 031.142 031.143 031.145 031.147 031.147 031.151 031.152 031.153	315 144 031 343 311 176 346 177 377 002 276 043 312 144 031	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1281 1281 1282 1283 1284 1285	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DB CMP INX JE RET	IS CALLED TO TYPED ZERO BYTES INI WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX,  A,M  1770  SYSCALL,,SCOUT M H \$TYPTX,	ICATE A CARRIAGI T SET IS THE LAY (HL) = TEXT AD TYPE IT	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	
031.137 031.142 031.143 031.145 031.147 031.147 031.151 031.152 031.153	315 144 031 343 311 176 346 177 377 002 276 043 312 144 031	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1281 1281 1282 1283 1284 1285	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DB CMP INX JE RET	IS CALLED TO TYPED ZERO BYTES INI WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX,  A,M  1770  SYSCALL,,SCOUT M H \$TYPTX,	ICATE A CARRIAGI T SET IS THE LAY (HL) = TEXT AD TYPE IT	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	E.	
031.137 031.142 031.143 031.145 031.147 031.147 031.151 031.152 031.153	315 144 031 343 311 176 346 177 377 002 276 043 312 144 031	1264 1265 1266 1267 1268 1270 1271 1272 1273 1274 1275 1276 1277 1281 1281 1282 1283 1284 1285	* * * * * * * * * * * * * * * * * * *	\$TYPTX IMBEDDE A BYTE ENTRY EXIT USES  XTHL CALL XTHL RET  MOV ANI DB CMP INX JE RET	IS CALLED TO TYPED ZERO BYTES INI WITH THE 2000 BY  (RET) = TEXT  TO (RET+LENGTH)  A,F  \$TYPTX,  A,M  1770  SYSCALL,,SCOUT M H \$TYPTX,	ICATE A CARRIAGI T SET IS THE LAY (HL) = TEXT AD TYPE IT	E RETURN LINE FEED, ST BYTE IN THE MESSAGE.	Ε.	

MON DECKS	• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •	HEATH H8ASM V1.4 01/20/78 PAGE 24 \$UDD 09:59:49 02-AFR-80
		, <u>.</u>			
		1289X		\$UDD -	- UNPACK DECIMAL DIGITS.
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	1290X 1291X		1100061266	AMMESTS 137 TERESTRIANCE VOGET TABLES DE CONTRETE DE
		1291X		DECIMA	ONVERTS A 16 BIT VALUE INTO A SPECIFIED NUMBER OF
• • • • • • • • • • • • • • • • • • • •		1293X		NECTION	AL DIGITS. THE RESULT IS ZERO FILLED.
		1294X		ENTRY	(B,C) = ADDRESS VALUE
		1295X			(A) = DIGIT COUNT
		1296X			(H,L) = MEMORY ADDRESS
		1297X		EXIT	(HL) = (HL) + (A)
		.1298X		USES	ALL
		1299X			
		1300X			*
031.157	715 070 070	1301X		EQU	
031.162	315 072 030	1302X 1303X		CALL PUSH	\$DADA H SAUF FINAL (H.L.) UALLE
001.102	340	1303X		FUSH	H SAVE FINAL (H,L) VALUE
031.163	365	1305X		FUSH	PSW
031.164		1306X		PUSH	H
031.165	021 012 000			LXI	F,10
	315 106 030	1308X		CALL	\$DU66 (H,L) = VALUE/10
031.173		1309X		```FUSH```	Н
	301	1310X		FOF	B (B,C) = REMAINDER H
	341	1311X		FOF	Н
031-176		1312X		MVI	A+'0'
031.200	203	1313X		ADD	E ADD REMAINDER
031,201	. 053	1314X		DCX	H
	361	1315X		MOV	M;A STORE DIGIT
031,204		1316X 1317X		POP DCR	PSW
	302 163 031			JNZ	A UDD1 IF MORE TO GO
031.210	341	1319X			UDD1 IF MORE TO GO  H RESTORE H
031.211		1320X		RET	RETURN
031.212		1321		XTEXT	ZERO
	••••••	• • • • • • • • • • • • • • • • • • • •			
		.1323X	·**	\$ZERO.:	- ZERO MEMORY
		1324X 1325X		47E00	TEDOC A BLOCK OF MEMORY
		1326X		<b>₽4</b> CNU	ZEROS A BLOCK OF MEMORY.
		1327X		ENTRY	(HL) = ADDRESS
	*******************************	1328X			(B) = COUNT
		1329X		EXIT	(A) = 0
		1330X		USES	A,B,F,H,L
		1331X			
		1332X			
.031.212	.257		\$ZERO	XRA	<u>.</u>
031.213		1334X		MOV	M+A
031,214 031,215		1335X		XX	Н
	005	1336X		DCR	B
	302 213 031 311	.1337X .1338X		.JNZ ŘEŤ	ZEO1 IF MORE
0011241	UII	10001		RE.	
	· · · · · <b>· · · · · · · · · · · · · ·</b> · · · ·				

SYDD - SYSTEM DEVICE / DEV COMMON DECKS			\$WDR	HEATH H8ASM V1.4 01/20/78 09:59:50 02-APR-80	PAGE 25
	1340 **	\$WDR - WRITE D	ISABLE RAM.		**************************
	1341 *	\$WIR IS CALLET	TO DISABLE THE WR	TARTITTY OF THE	• • • • • • • • • • • • • • • • • • • •
•••••	1343 *	H17 CONTROLLER		THOUSE THE	
•	1344 *	CALTEN MOME			
	_1345 * 1346 *	ENTRY NONE EXIT NONE		•••••	
	1347 *	USES NONE			
	1348				
031,222 365	1349 1350 \$WDR	PUSH PSW	• • • • • • • • • • • • • • • • • • • •		
	1351	DI			
031.224 072 242 040	1352	LDA D.DVCT		• • • • • • • • • • • • • • • • • • • •	•••••
031.227 346 177 031.231 062 242 040	1353 1354 \$WDR1	ANI 3770-I			
031.231 082 242 040	1355	OUT DF.DC			
031,236 373	1356	ΕÏ	• • • • • • • • • • • • • • • • • • • •	•••••••••••••••••••••••••••••••••••••••	
031.237 361 031.240 311	.1357 .1358	POP PSW			•••
031+240 311	1300	NE I			
				••••••	
	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			
	1360 **	\$WER - WRITE E	NABLE RAM.		
***************************************	1361 *			• • • • • • • • • • • • • • • • • • • •	••••••
	.1362*	. #WER IS CALLEI	TO ENABLE WRITTING	TO THE HIT CONTROLLERS RAM AREA.	
	1363 * 1364 *	ENTRY NONE			
•••••	1365 *	EXIT NONE	•••••		•••••
	1366 *	USES NONE			
	1367 1368				
031.241 365	1369 \$WER	PUSH PSW			•••••
031.242 363	1370	DI	*		<i></i>
031.243 072 242 040	1371	LDA D.DVCT	L.		
031.246 366 200 031.250 303 231 031	1372	ORI DF.WR JMP \$WDR1			• • • • • • • • • • • • • • • • • • • •
					••••••
•••••	• • • • • • • • • • • • • • • • • • • •				•• • • • • • • • • • • • • • • • • • • •
	1375 **	D.DISK - DEVIC	E DRIVER READ CODE		
	1376 *				•• • • • • • • • • • • • • • • • • • • •
	1377 * 1378 *	tNIKY(BC) =	COUNT (IN SECTORS) ADDRESS		
	1379 *		SECTOR		
	1380 *	EXIT 'C' CL	EAR IF OK, EXIT TO	CALLER	
•••••	1381 * 1382 *	<u>ç</u> şe	T. IF ERROR		
	1382 * 1383 *		FASER (FATAL /SYSTEM LLER. IF. OTHER UNIT.		
	1384 *	(A)	= ERROR CODE		
• • • • • • • • • • • • • • • • • • • •	.1385 .1386			- 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 -	
031,253 076 001		MYIAXDQ.W	uri T		
031.255 376	1388	DB MI.CPI	SKIP NEXT		
031,256 257	.1389 DREAD.	XRAA	SET READ		
•••••					

YDD - SYSTEM IMMON DECKS	•••••		• • • • • • • • • • • • • • • • • • • •			D.DISK	HEATH HBASM V1.4 01/20/78 09:59:51 02-APR-80	PAGE	
• • • • • • • • • • • • • • • • • • • •		1390			• • • • • • • • • • • • • • • • • • • •				
000.000		1391		ERRNZ	DC.REA				
	315 130 040			CALL	SYDD	CALL DEVICE DRI	I VER		
031.262	320	1393		RNC		IF OK			
031.263		1394		PUSH	PSW	SAVE CODE			
	272 061 041	1395		LDA	A10.UNI				
031+267	247	1396		ANA	A CACED	TO 01/04			
031.273	314 013 041	1397		CZ PDF	S.FASER PSW	IS SYO:			
031.274		1399		RET	rsw	SETUDAL BITTO DAT	D MEHO		
		<del>.</del> 9				RETURN WITH BAI	D MEWO		
	••••	1401	**	SREAD -	- READ FROM SYSTE	M DISK.			
		1402			The state of the s				
	• • • • • • • • • • • • • • • • • • • •	1403				• • • • • • • • • • • • • • • • • • • •	***************************************		
		1404	<b>*</b>	ENTRY	(BC) = COUNT (1	(N SECTORS)			
		1405	*		(DE) = ADDRESS				• •
		1406	*		(HL) = SECTOR				
		1407		EXIT	TO CALLER IF OF				-
		1408	*		TO S.FASER (FA)	AL SYSTEM ERROR	) IF ERROR		
		1409							
	072 061 041	1410	· · · · · · · · · · · · · · · · · · ·						٠
031.300		1411	SREAD	LDA PUSH	AIO.UNI PSW	CAUE CUDEENT IN	urr		
031.301		1413		XRA		SAVE CURRENT U	NT I		
000.000	ii iil 7	1414		ERRNZ	DC.REA				
	062 061 041	1415	• • • • • • • • • • • • •	STA	AIO,UNI	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	
	315 130 040		SREAD1	CALL	SYDD				
031.310	334 013 041	1417		cc	S.FASER	READ ERROR	***************************************		
031,313		1418		FOF	PSW				
	062 061 041	1419		STA	AIO.UNI				
031.317	311	1420		RET					
		1421							
		1422	**	CONSTA	NT ZEROS				
A-14		1423							•
931.320(	000.000.000	. 1424.	ZEROS	DB	0,0,0,0,0,0,0,0,0	) 			
	•••••							• • • • • • • • • • • • • • • • • • • •	
		1426		SWRITE	- WRITE TO SYSTE	M DISK.			
	• • • • • • • • • • • • • • • • • • • •	1427.							
		1428		CHTCH	7.75.75 (2.751.13.12)	r va - en en en novembro en en en			
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	1429		ENTRY	(BC) = COUNT (1 (DE) = ADDRESS	(M. SECTURS)			
		1430	*						
	· · · · · · · · · · · · · · · · · · ·	1432		EXIT	(HL) = SECTOR TO CALLER IF ON				٠.
		1433		EVI		TAL SYSTEM ERROR	) IE EDDOD		
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	1434				THE STATISTICS ENDING	e ar salvinger		
		1435							
031.330	372 781 7841 <sup></sup>	1436	SWEITE	LDA	AIO.UNI				
031.333		1437		PUSH	PSW	SAVE OLD UNIT	<b>+</b>		
	57	1438		XRA	· · <i>·</i> · · · · · · · · · · · · · · · ·		7	• • • • • • • • • • • • • • • • • • • •	• •
							_		
031.335	062 061 041	1439		STA	AIO.UNI	- SET SYSTEM UNII	Ţ		

SYDD - SYSTEM COMMON DECKS		EVICE DRIVER					PAGE 27
000.000 931.340 931.341	074 303 305 031		INR	. A SREAD1			
•••••							•••••
			**************	• • • • • • • • • • • • • • • • • • • •		••••••	
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SYDD - SYS HDOS CODE							ERR,FN0 09:59:53 02-APR-80
			1446	**	ERRIFNO	) - ERROR: FILE N	OT OPEN
031.34	4	076 011	1447 1448	ÉRRIFNO	MUT	AFEC FNO	FILE NOT OPEN
031.34 031.34	<u>6</u>	067 311	1449		STC		ERROR CODE
							- ERRON CODE
			1452	**	ERRTILR	- ERROR: ILLEGA	L REQUEST
		076 012	1453	'ÉRŔ√ILŔ'		AVECTION	THE EDAL DEGUEET
031.35			1455	E.U.V.+ T.F.W.	STC	HIEGILK	ILLEGAL REQUEST
031.35	.3	311	1456		RET		
					: ::::::::::::::::::::::::::::::::::::		
	: 		1458	** *	.CFFC	CHAIN FREE BLOCK	TO FILE.
			1460 1461		CFF UNC	HAINS A FREE BLO	CK FROM THE FREE LIST, AND CHAINS
					סדאס דג	THE END OF THE	ACTIVE FILE.
			1462. 1463.		ENTRY	(HL) = ADDRESS	IN GROUP TABLE OF THE GROUP IN QUESTION.
			1464			(E) = INDEX OF	PREVIOUS GROUP IN LIST
			1465 1466	*	EXIT	AIO.XXX SETUP	
	• • • •			·^		$AIO \cdot LGN = (L) (AIO \cdot LSI = 0)$	ALENIKI)
		· · · · · · · · · · · · · · · · · · ·	1468		USES	A,F,D,H,L	
			1469				
031.35	4	176	1470.		MOV	A • M	(A) = NEXT FREE
		066,000	1472		MVI	M+0	NEW BLOCK IS END OF CHAIN FOR FILE
031.35 031.36			1473		MOV ·	II.L	(D) = NEW INDEX
			1474.		 MOV	L,E M,A	(HL) = ADDRESS OF PREVIOUS BLOCK UNCHAIN FROM FREE CHAIN
		072 051 04			LDA	AIO.LGN	(A) = LAST GROUP #
031+36	5	157	1477		MOV	L.A	(HL) = ADDRESS OF FILE LAST GROUP
031.36		162 041 051 04	1478		. MOV	M.D	LINK TO NEW LAST BLOCK
031.37			1480		MOA	H,AIO,LGN M,D	SET NEW LGN
000.00	ó	······································	1481		ERRNZ	AIO.LSI-AIO.LGA	SET NEW LGN -1
031.37	3	043	1482		INX	.н	
031.37 031.37		066 000	1483 1484		MUI	M+0	CLEAR LSI
V01+3/	Ω	orr	1404.		RET		
			1486 1487	*		ETERMINE CONTIGU	
			1488				OW MANY OF THE SECTORS WHICH ARE TO BE
	<i>.</i> .		1489		READ AR	E CONTIGUOUS.	
			1490 1491	*	ENTRY	(B) = SECTORS E	ECTOET:
		• • • • • • • • • • • • • • • • • • • •	1492		- FINITE	AIO.XXX SETUP	LOINER
			1493		EXIT	(B) = SECTORS-A	10.CNT

HDOS CODE	EM DEVICE / DE	ATCE I	ILT AC'L			DCA 09:59:53 02-APR-80
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	• • • • • • • • • • • • • • • • • • • •					
		1494			AIO.CNT = SECTOR	KS WHICH ARE CONTIGUOUS
		1495	*		AIO.EOF = EC.EOF	**2+1 IF EOF
		1496	*		`AIO`,TFP`'=''SETUP'	WITH GROUP AND INDEX OF START OF AREA
			* L	JSES	ALL	
		1498	· · · · · · · · · · · · · · · · · · ·			
		1499				
031.377	315 205 032	1500	mbcai mo	ALL	'FFL'	FOLLOW FORWARD LINK
		1501				· · · · · · · · · · · · · · · ·
032.002	052 047 041	1502	DCA	AUD	AID:CGN	THY = CURRENT GP FY (L) = CUR SECT INDEX
000,000		1503		RRNZ	AIO.CSI-AIO.CGN-	-1
032.005	042 114 041	1504		ALD		TEMP FILE POINTER
032.010				ALL		TEST FOR EOF
032.013				TA	AIO,EOF	SET FLAG
032.016				STA		
032.021		1508		E	HIU+CNI	SET CNT=0 IF EOF
032.021		1509		DA	A10 CC1	TS EOF
032.025		1510		10V	AIO.CSI H;A	(A) = CURRENT SECTOR INDEX
032.026		1511		.DA		
032.031		1512		MF	AIO.SPG	Action of the Control
					H	SEE IF GROUP EXHAUSTED
	312 377 031			IE	DCA1	WAS POINTING AT END OF GROUP
		1514				
		1515	* S	SEE IF A	10RE NEEDED.	
		1516				
032,035		1517		10V	A, B	
032.036	247	1518	Ä	NA	`A```	
032+037	310	1519	R	Z		NO MORE SECTORS TO CHECK
		1520				
		1521	* 5	SEE HOW	MANY SECTORS ARE	E LEFT IN THIS GROUP
		1522	· · · · · · · · · · · · · · · · · · ·		• • • • • • • • • • • • • • • • • • • •	
032.040	052 051 041	1523	. L	HLD	AIO.LGN	$(L) = AIO_*LGN_*$ $(H) = AIO_*LSI$
000.000		1524		RENZ	AID.LSY-AID.LGN-	
032.043	072 047 041	1525		.DA	AIO.CGN	
032,046		1526		MF		SEE IF WE ARE FOINTED AT LAST GROUP
032.047	312 055 032			ΙE		WE ARE
	052 045 041			HLD		~~
032.055		1529		USH		
032.056		1530		Dan		SAVE STATUS
032.061		1531		A SUB		(A) = CURRENT SECTOR INDEX
032.062		1532		MA	.n	(A) = -SECTORS LEFT IN GROUP
032.062		1532			•	
032.064		1534		NR WE	· 自 · 最 · · · · · · · · · · · · · · · · · ·	(A) = +SECTORS LEFT IN GROUP
				MF	B	
032,065		1535		IC		NEED STILL MORE
032.070		1536		ίον		DONT TAKE MORE THAN WE NEED
032.071		1537		lov	C,A	(C) = AMOUNT TO TAKE
032.072				ΧÏ	H,AIO.CSI	
032.075		1539		DD	M	UPDATE CSI TO INDICATE NUMBER TO BE READ
032.076		1540	M	ίον	M,A	
032.077	<del></del>	1541	M	iov	A+C	(A) = NUMBER TO BE READ
032.100		1542	π	ΧÏ	H,AID.CNT	
032.103		1543	A	DD		ADD TO COUNT
032.104		1544	M	ίον·····	MA	
032.105		1545		iov		(A) = AMOUNT NEEDED
032.106	··· 221	1546		ÜB	C	THE STATE OF THE PARTY OF THE P
032,107		1547		iον	B,A	
QQ2;+107						
	361	1548	E)	11 De'	PSH	
032.110 032.111		1548 1549		OF E	PSW	WAS ON LAST TRACK: AM DONE

HDOS CODE	M DEVICE / DE					.DCA	HEATH H8ASM V1.4 01 09:59:55 02-AFR-80			30 
									1	
032-112		1550		MOV	A,B					
032.113		1551		ANA	.A		. , , , , , <u>, , , , , , , , , , , , , ,</u>			
V32+114	310	1552 1553		RZ		NO MORE NEEDED:	AM DONE			
		1554	**	USET LIE	THIS BLOCK, LINK	TO THE NEXT	• • • • • • • • • • • • • • • • • • • •			
		1555		IF NOT (	CONTIGUOUS, STOP	HERE				
		1556			· · · · · · · · · · · · · · · · · · ·	**************************************				
	072 047 041	1557		ĻDA	AIO.CGN					
032.120		1558		INR	-A					• • • •
032+121		1559 1560		PUSH CALL		SAVE NEXT CONTI				
032,125		1561		CALL POP	PSW	FOLLOW FILE LIN	X.			
032.126	275	1562		CMP	L	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			· · · · ·
		1563		JE.		GOTIT, WAS CONT	16000S			
032.132	311	1564		RET		STOP HERE				
	••••••••									
		1566			TAIR PROFESSIONS					
		1567	*	F.F.R. T. F.	IND FREE BLOCK			• • • • • • • • • • • • • • • • • • • •		
		1568		FFB IS (	CALLED TO LOCATE	A FREE BLOCK IN	THE GRT'S			
		1569	*	FREE CHA	·NI					
		1570			* * * * * * * * * * * * * * * * * * * *	, . ,				
		1571	*	FFB WILL	_ ATTEMPT TO GET	A 'PREFERED BLO	CK'. IF FOSSIBLE.			
		.1572 .1573	·.*	THE THE F	REFERED BLOCK IS	NOT AVAILABLE.	FFB WILL (OFTIONALLY)	)P.Q		
		1574			TLE FOR ANYTHING		, IF POSSIBLE, THEN			
		1575	*	9991 <b>S</b> E.	THE TON HITTING	······································				
		1576	*	ENTRY	(D) = PREFERED B	SLOCK NUMBER (O	IF NONE)			
		1577	*		(C) = PREFERED F	LAG (=0, WILL T	AKE SOMETHING ELSE,			
		1578	*			SOM MUST I	HAYE, PREFERED, BLOCK, ()	OR NOTHING).		
		1579 1580	* 1	EXIT	'C' SET, EOM ON	DEVICE				
	• • • • • • • • • • • • • • • • • • • •	1581	<u>?</u>		/C/ CLEAR, NOT E	OM TAIT OUT DOUBLES	D BLOCK (ONLY IF (C)<			
		1582	*		Z CLEHR, COOL			O UN ENTRY		
		1583	*			OF BLOCK IN GR				• • • •
			*		(E) = INDEX OF	FREE BLOCK BEFO	DRE THE FOUND ONE			
		1585	*	USES	A,F,E,H,L					
		.1586								
032.132	052 044 041	1587 1588	FFB	LHLD	ATO GET					
032+136		1589		rmrn	AIO.GRT	(A) = FIRST FREE	T DI DON			
032,137		1590		ANA	À	VEN - LINDI LKFF	E PLUCK			
032-140	067	1591		STC	*******************	ASSUME EOM				
032,141	310	.1592	<i>.</i>	RZ		END OF MEDIA				
		1593								
		.1594	. <b>*</b>	NOT END	OF MEDIA, TRY TO	) FIND THE CONTI	BUOUS BLOCK IN THE FRE	E LIST.		
032,142	1 75	1595 1596		MOV						
032.143		1597		MUY INR	E.L.	(E) = INDEX OF F	TREVIOUS BYTE			
032.144		1598		MOV		FLAG CHANGE IN C	apr			
032,145		1599		40V	L,A	.SCH.SUMPRE.IN.S (HL) = ADDRESS (	OF NEXT BYTE IN FREE (	HATN		
032,146		1600.		CMP:	D.	and the second of the second o	and the state of t	21 OF 415		
032.147		1601	ſ	RE		GOT THE ONE WE !	yeed:		• • • • • • • • • • • • • • • • • • • •	
	プロウ オノオーヘッコー	1602		JNC	FF85	GONE TOO FAR		•		

pos cope	M DEVICE / DE					FFB	05	EATH H8ASM V1 8}59:\$502-A	FR-80		PAGE	31
032.153		1603		MOV	E.L	SAUF TH	HIS BLOCK IN	JTCY				
032 (154)	176	1.604.			A.x.M	W*************************************				********		
032.155 032.156	- 247 302.145.032	1605 1606		CHALL	A FFB4							
	- Maria de Los Comercia.	1607						••••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
		1608		COULTN	NT FIND CONTIG	30005 BLOCK.	THIS MEANS	A BREAK IN				
		1610		IF WE	NUITY, IF WE H HAVE NOTHING	YET, TRY TO	• RETURN WI FIND A VIRE	OTH IT. SIN CLUSTER.			•••••	
070 474		1611				.17.17		7411	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
032,161 032,162	171 247	1612	FFB5	MOV ANA	<u>A•C</u>							
032+163	300	1614		RNZ.	P1	ои таим	T CONTINUE					
032.164		1615		MOV	L,A	(HL) = (	(AIO.GRT)		• • • • • • • • • • • • • • • • • • • •	••••	• • • • • • • • • • • • • • • • • • • •	
032,165 032,166	135 156	1616 1617	EFB6	VQV	E,L	(E) = I)	NDEX. OF PRE	:ATON2''YODE'''				
032,167	072 077 041	1618		LDA	AIO.DIR+DIR							
032,172 032,173	245 310	1619 1620		ANA RZ			START OF CL					•••••
032+174	176	1621	•••••	<u>r.4</u>	AyM	901 5140	GIN CLUSTER					
032.175	247	1622		ANA	<u>A</u>							
032+176	302 165 032	1623		JNZ	FFB6	TRY AGAI	IN				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
······		1625	*	CANT F	FIND VIRGIN CL	LUSTER. WILL	TAKE WHATEV	ER WE CAN GE	†······			
032,201	157	1626 1627		····MOV·····	L,A							
032,202	.1.35	1628		MOV	E.L	(E) = I'	NDEX OF PRE	บากแร พกกร				
032,203	156	1629 1630	***********	MOV RET	L, M	(HL) = A	ADDRESS OF WITH 'Z': 6	FIRST FREE BI	LOCK BYTE	••••••	• • • • • • • • • • • • • • • • • • • •	•••••
•••••							,					·····
	••••••	1632		FFL - /	FOLLOW FORWAR	RD LINK.						
	***************************************	1634	*	FFL LI	INKS AIO.CGN T	O THE NEXT OF	ROUP			• • • • • • • • • • • • • • • • • • • •		
		1635	<u>*</u>	ENTRY								
		1637	<del>*</del>	EXIT		LINK(AIO.CGN).						
		1638	*		$AIO \cdot CSI = 0$	0			•••••••		•••••	• • • • • • • • • • • • • • • • • • • •
• • • • • • • • • • • • • • • • • • • •		1639 1640	<u>*</u>	USES	(L) = AIO+C(	GN						*************
		1641			F1/1 / 11/2 mm							
032.205	.052.044.041	1642	CCI	LULT	ATO COT	***************************************					• • • • • • • • •	
032.210	072 047 041	1644	. f.t L	LDA	AIO.GRT AIO.CGN	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •		
932,213	.157	1,645			L+A							
032,214 032,215	.046.000	1646 1647		MOV MVI	L+M H+O	(L) = LI	INK					
032,217	042 047 041	1648		SHLD	AIO.CGN	SELF CGN,	<ul> <li>CLEAR CST</li> </ul>					
000,000		.1649 1650		ERRNZ	AIQ.CSI-AIQ	CGN-1						
		•	****	• • • • • • • • • • • • • • • • • • • •	************				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	

SYDD - SYSTEM HDOS CODE	DENICE N DEN	ICE DRIVER			LDD	HEATH H8ASM V1.4 09:59:56 02-APF		PAGE	32
		<u></u>	,	#1 <b>W</b> +W#11EW#++####	<u></u>				
		1652 ** 1653 *	LDD - LO	DAD DEVICE DRIV	ER.				
••••••		1654 *	cppia	CALLED TO PERFO	RM THE SUSPENDED I	OAD OF A DEVICE	DRIVER.		
		1655 * 1656 *	TE SOME	TOUT COME WINDS	S TO LOAD A DEVICE	DETUCE. IT WHE			· • • • • • • • • • • • • • • • • • • •
		1657 <b>*</b>			INCE THE DEVICE DE				
		1658 *	OVL CODE	E. AFTER THE OV	L CODE EXITS, THE	RESIDENT CODE WI	LL CALL		
		1659 * 1660 *	LDD TO F	PERFORM THE ACT	UAL LOAD, OVER THE	E DYL.			
		1661 *	ENTRY	DD.IOC = POINT	FR TO TOC.DDA				
************		1662 *		DD.LDA = LOAD			• • • • • • • • • • • • • • • • • • • •		
• • • • • • • • • • • • • • • • • • • •		1663 *		DD.LEN = LOAD	LENGTH				
		1664 * 1665 *			R INDEX ON SYSTEM	DEVICE			
•••••		1666 *		DD.DTA = DEV.R	CODE (DC.OPR, DC.O	DEN. DC.OEU			
		1667 *	EXIT	OVL CODE DESTR		DIAT DUTUICI			
		1668 *	ÜSES	NONE					
040.364		1669 1670 S.DDSEC	Fall	S.DDGRP	REFERENCE TO MAI	KE ACCEMBLE OF			
		1671	L.GO	O + E E O KI	NEI ENLINEE TO THE	NE MOSEMBLE ON			
032.223	315 054 031		CALL	\$SAVALL	SAVE REGS			***************************************	
		1673	· · Ali Ali Ali Al						
		1674 * 1675	CLEAR U	VL RESIDENT FLA	6				
	241 371 040	1676	·······iXi	H,S,OVLFL					• • • • • • • • • • • • • • • • • • • •
032.231 1		1677	MOV	A+M					
032,232 3 032,234 1		1678 1679	ANI	3770-0VL.IN	CLEAR THELAC				
		1686	MOV	M+A	CLEAR IN FLAG				· · · • · · · · · · · · · · · ·
		1681 *	LOAD OVE	ERLAY					
A70 075 /		1682	1 411 %	# T.T. # 11					
		1683 1684	LHLD	S.DDLEN B.H	(HL) = LENGTH	• • • • • • • • • • • • • • • • • • • •			
032,241 1	115	1685	MOV	C,L	(BC) = LENGTH				
		1686	LHLD	S.DDLDA	(HL) = LOAD ADD	RESS			••••••
032,245 032,246		1687 1688	PUSH	.H	SAYE FOR LATER				
		1689	XCHG LXI	H.SECSCR+255	EUBUE MEM DISK I	READ RIGHT AWAY			
		1690				MARKINERUU, NWMI			
		1691 *	LOAD BI	NARY					
032.252		1692 1693 LDD2	CALL	LDD8	FIND NEXT BYTE				
032,255 i		1694		A+M	(A) = NEXT BYTE				
032+256	022	1695	STAX	D	COFY				
032.257 (		1696	INX	I)					
	170 170	1697 1698	. BCX 'NOV	B A,B					
032,262 2	261	1699	ORA	C					
032,263		1700	JNZ	LDD2	MORE TO GO				* * * * * * * * * * * * *
		1701 1702 *			X+6. ++				
		1703 *	COLUE ACI	. сонович кецОС	H1E. 11				
032.266	301	1704	FOF	. B	(BC) = REL FACTO	OR			
032+267 0		1705	.DCR	. <b>R</b>		******			
032,270 ( UF 376,000		1706 1702	DCR	B CM CM COOC	A CONTRACT OF CONTRACTOR OF CONTRACTOR	ITEN - OAAAA			
		1707	· EWWY. · · ·	Threws-50009	ASSUME DRIVER E	M.KJE.2999A			

DOS CODE	M DEVICE / D					LDD	HEATH H8ASM V1,4 01/20/78 09:59:56 02-APR-80	FAGE	33
								• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
072 271	315 362 032		LDD3	CALL	LDDS				
032.271		1709	EDDS	MOV	E • M				
032.275	315 362 032		• • • • • • • • • • • • • • • • • • • •	CALL	LDDS				
032,300		1711		MOV	D•M	(DE) - DEI	ADDRESS OF HOSE TO SELECTIF		
032.301		1712	• • • • • • • • • • • •	MOV	A , I)		ADDRESS OF WORD TO RELOCATE		
032.302	263	1713		ORA	E				
	312 323 032		• • • • • • • • • • • • •	JZ	LDD4	ALE DONE			
032.306	353	1715		XCHG	C. L. J.		ADDRESS OF WORD TO RELOCATE		
032.307	011	1716		DAD	B		'ADDRESS' OF 'WORD' TO RELOCATE		
032.310	176	1717		MOV	A+M		The state of the s		
032.311	201	1718		TADD	c	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	
032.312	167	1719		MOV	MAA				
032.313	043	1720		INX	н		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
032.314	176	1721		MOV	A,M				
032.315	210	1722		ALC	В	***************	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • •	
	167	1723		MOV	M+A				
032.317	353	1724		XCHG		····RESTORE CH	L)		
032+320	303 271 032			JMF	LDD3				
		1726						• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
		1727	*	SETUP	ENTRY ADDRESSES	IN TABLES			
		1728						• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • •
	052 360 040		LDD4	LHLD	S.DDLDA				
032.326		1730		XCHG		(DE) = ENTI			
032+327	052 366 040	1731		LHLD	S.DDDTA	(HL) = ADD	RESS OF DEVLST ENTRY		
	176	1732		NOV	A M				
032+333		1733		ORI	DR.IM	SET IN MEM	DRY		
032.335	167	1734		vov	MyA				
032 • 336	043	1735		INX	··. H				
032.337	043	1736		INX	H				
	163	1737 1738		ERRNZ	DEV.DDA-DEV.RI	:.S-2			
032.340	043	1739		NOV	M+E				
032.342	162	1740		YOV	H 	The first the second of the second expenses of	Martin Arting of the Arting and Artin and Arti		
032.343	353	1741		XCHG	117.0	SET ADDRESS			
032.344		1742		XRA	···· <u>አ</u> ······	(UL) - ENI	RY FOINT ADDRESS		
032.345	062 361 040			STA	S.DDLDA+1	CLEAR LOAD	ELAC		
032.350	072 370 040		• • • • • • • • • • • • • • • • • • • •	LDA	S.DDOFC	(A) = OFEN			
032.353	315 361 032			CALL	PCHL.	CALL CODE	CODE		
032.356	303 047 031	1746		JMP	\$RSTALL	RESTORE REC	STETERS		
		1747				THE WATER THE TELEVISION OF TH	J. O. I. C. I. O.		
032.361	35 i	1748	· FCHL	TPCHLTT		• • • • • • • • • • • • • • • • • • • •	············	• • • • • • • • • • • • • • • • • • • •	<i></i>
		1749	100						
			• • • • • • • • • • • • • • • • • • • •					• • • • • • • • • • • • • • • • • • • •	
		1751		LDD8 -	- READ A BYTE FRO	OM THE FILE.			
		1752							
		1753		ENTRY	(HL) = SECSCR	POINTER OF C	JRRENT BYTE	• • • • • • • • • • • • • • • • • • • •	
		1754	*		S.DDESC = SEC	TOR NUMBER OF	NEXT SECTOR		
		1755	*	EXIT	(HL) = ADDRESS	OF NEXT BYTE			
		1756	. <i></i>	USES			· · · · · · · · · · · · · · · · · · ·		
		1757							
032,362		1758				er er en gegegen gegen er sam er en er	w.,		
		1759	L'DD8	INR	<b>L</b>	POINT TO NE	EXT BYTE		
VJ£+3DJ	300	1760		. RNZ		GOT IT			
		1761	<b>.</b>	MHOT F	DEATH ANDTHER				
	···········	1762			READ ANOTHER				. <b></b>

ji.

17. CAN DESCRIPTION	DEVICE / DE					HEATH H8ASM V1.4 01/20/78 PAGE 34 LDD8. 09:59:57 02-AFR-80
mooone.						
070 7/4	705	1763		F01011	ν.	
032.364 032.365	305 325	1764 1765		PUSH PUSH		
032.366		1766		PUSH	H	
	.9.73 .353	1767		XCHG		(DE) = ADDRESS
	001 000 001			LXI	B,256	VIET - HEAVEDO
	052 364 040			LHLD	S.DDSEC	(HL) = SECTOR NUMBER TO READ
032,376		1770		INX	Н	
	042 364 040			SHLD	S.DDSEC	(HL) = NEXT SECTOR NUMBER TO READ
033,002		1772		DCX	H	RESTORE (HL)
033.003	315 275 031	1773		CALL	SREAD	READ IT
033.006	3.41	1774		POP	<del>H</del>	
033.007		1775		POP	D	
033,010		.1.77.6		F0F		
033.011	311	1777		RET		
		1779	**	LDO - 1	OAD OVE CODE.	
		1780				
		1781		LDO IS	CALLED WHEN T	HE OVL OVERLAY MUST BE LOADED.
		1782				
	,,	1783		IF USE	R HIGH MEM IS	TOO HIGH, PART OF THE USER CODE WILL
		1784				THE SWAP AREA, BEFORE THE OVL CODE CAN BE
		1785		LOADED	<b>:</b>	
		1786				
		1787		ENTRY		
		1788		EXIT	NONE	
• • • • • • • • • • • • • • • • • • • •		1789	7		ӨХГХФХЬ	
		1791				
033.012	325	1792	LDO	FUSH		
033,013		1793		PUSH		
		1794	• • • • • • • • • • • • • • • • • • • •			
		1795	*	SEE IF	WILL HAVE TO	PAGE USER CODE
		1796				
	.052.376.040.				S.OVLS	(HL) = SIZE OF HDOSOVL
	315 224 030			CALL	\$CHL	COMPLEMENT (HL)
033022		1.799		XCHG	<u> </u>	(DE) = -SIZE
033.023	052 320 040	1800		LHLD	S.SYSM	(HL) = CURPENT FWA
033,026	.031 .042 372 040	1801		DAD	D	(HL) = NEW FWA WITH OVL
033.027	042 3/2 040	1802		SHLD	S.UCSF	SET USER SWAP (IN CASE IT IS SWAPPED)
	. <u>354</u> .052 322 040	1803		XCHG	S.USRM	
033.036		1804		MOV	AyL.	
	223	1806		SUB	E	
033+040		1807		MOV	L,A	
033,041		1808		MOV		
033.042	232	1809		SBB	Ti .	
033.043		1810		MOV	H+A	(HL) = AMOUNT TO SWAF
	332 073 033	1811		JC	LDOi	NO NEED TO SWAF
		1812	· · · · · · · · · · · · · · ·			
		.1813.	*	MUSTD	UMP. (HL) BYTES	OF USER CODE STARTING AT (DE)
		1814				
	325					SAVE ADDRESS

SYDD - SYSTEM DEVICE / DE HDOS CODE	VICE DRIVER			HEATH H8ASM V1.4 01/20/78 PAGE 35
033.050 042 374 040	1816	SHLD	S.UCSL	SET LENGTH OF DUMP
033.053 104		MOV		SEL CEMBER OF BOUR
033.054 115	1818	MOV	C+L	(BC) = COUNT
	.1819		S.SSN	(HL). #. SECTOR FOR SWAP (SET BY BOOT)
033.060 315 330 031		CALL	COMMITTEE ILL	7 TO THE COURT OF
033.063 041 371 040		rχi	H•S•OVLFL	
033.066 076 200 033.070 266	1822	MUI	A+OVL.UCS	
033.070 266 033.071 167	.1823 .1824	<u>ORA</u>	<u>М</u> МуА	SET USER CODE SWAPPED
033.072 321	1825	MOV	11717	
4	1826	FOF	D	(DE) = ADDRESS TO LOAD
	1827 *	AM REAL	OY TO LOAD OVE OV	IEGI AV
	1828 *	,	M. Ma. Fath. Ayh. Ay	goest;
	1829 *	(DE) =	ADDRESS	
	1830			
033.073 052 376 040	1831 LD01	LHLD	S.OVLS	
033.076 104	1832	MOV	В•Н	
033.077 115	1833	MOV	C,L	(BC) = SIZE OF OVERLAY
	1834	LHLD	0 1 0 0 14	
033.103 315 275 031 033.106 041 371 040	.1835	CALL	SREAD	READ IT
033,111 176		LXI	H,S.OVLFL	
033.112 366 001	.1837 .1838	MOV ORI	A+M	
033,114 167	1839	MOA	OVL,IN M:A	SET IT IN
***************************************	1840			
	1841 *	RELOCAT	E OVL	
	1842			
033,115 052 372 040	1843	LHLD	S.UCSF	(HL) = FWA OVERLAY LOAD
033,120 021 006 000		r×1	D.PIC.COD	7.7
033,123 104	1845	WOY	. B∍H	
033.124 115	1846	MOV	C,L	(BC) = OVL FWA
033.125 031 033.126 042 000 041	.1847	DAD	<u></u>	(HL) = ADDRESS OF ENTRY POINT
000.000	1848 1849	SHLD	S.OVLE	DELEKIKI KULKI
033.131 053	1850	DCX	H H	<del>+</del> 2
033.132 176	1851	MOV	. A.M.	
033.133 053	1852	DCX	<del>77.77</del>	
033.134 156	1853	MOV		
033.135 147	1854	MOV	HAA	(HL) = REL ADDRESS OF TABLE
033.136 011 033.137 315 175 033	1855			(HL) = ABS ADDRESS OF TABLE
	1856	CALL	REL.	RELOCATE OVL
	1857	· · · · · · · · · · · · · · · · · · ·		
033.142 301 033.143 321	1858	POP	В	
033,144 311	1859 1860	POP RET		
where was 1001 South dis	700V	U.C. 1		
	• • • • • • • • • • • • • • • • • • • •			
		• • • • • • • • • • • • • • • • • • • •		
	1862**	.EUI E	REPARE FOR DEVICE	E I/O
	1863 *			
***************************************	.1864 *	PAIPRE	PARES FOR PHYSICA	AL I/O, BY
	1865 *			
	.1866*	12EQME	UTING THE PHYSICA	AL ADDRESS
	1867 *	27 PREF	ARE THE COUNT	
***************************************	.1868*			
***************************************	• • • • • • • • • • • • • • • • • • • •			

UDDE CODE	4 DEVICE / DEV					HEATH HBASM V1.4 01/20/78 PAGE 36
```ԱՒՈԹ ԻԴԻՐ						PDI. 09:59:59 02-APR-80
		1869		ENTRY	AIO.XXX SETUP	
		1870	<b>*</b>	EXIT	(BC) = COUNT	
		1871	*		(HL) = SECTOR	
		1872	*		(A) = 0	
	_	1873	*	USES	A,F,B,C,H,L	
		1874				
	• *	1875				
033.145	052 114 041	1876	PDI	LHLD	AID.TFP	(L) = AIO.CGN, (H) = AIO.CSI
000.000		1877		ERRNZ	AIO.CSI-AIO.CGN	-1
033,150	072 046 041	1878		LDA		(A) = SECTORS PER GROUP
033.153	117	1879		MOV	C+A	
033.154	. 175	1880		MOV	.A.L	(A) = GROUP NUMBER
033.155	154	1881		MOV	.L. H	
033.156	.046.000	1882	<b>.</b>	MVI	.H.O	(HL) = (0,CSI)
033,160	104	1883		MOV	B•H	(BC) = (0.SPG)
		1884				
		1885	*	COMPUTE	SECTOR NUMBER B	Y ADDING SPG 'BLOCK NUMBER' TIMES.
		1886				
033.161			PDI1	DAD	B	ADD
033,162		1888		DCR	. <u>A.</u>	· <u>··········</u>
033.163	302 161 033	1889		JNZ	PDI1	MORE TO GO
	.072 111 041			.LDA	AIO.CNT	(A) = COUNT
033.171		1891	*	MOV	C,B	(C) = 0
033.172	107	1892		MOV	.B,A	(B) = SECTOR COUNT
033.173		1893		XRA	A	CLEAR A
033-174	311	1894	·	RET	:	
			**	REL - R	ELOCATE CODE.	
	•••	1896	40			
		1897				
		1897 1898	*	REL PRO	CESSES A RELOCAT	ION LIST.
		1897 1898 1899	* *			
		1897 1898 1899 1900	* *	REL PRO	(BC) = DISPLACE	MENT FROM ASSEMBLED ADDRESS
		1897 1898 1899 1900 1901	* * * *		(BC) = DISPLACE (DE) = RELOCATI	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS)
		1897 1898 1899 1900 1901 1902	* * * *	ENTRY	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
		1897 1898 1899 1900 1901 1902 1903	* * * * *	ENTRY	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
		1897 1898 1899 1900 1901 1902 1903 1904	* * * * *	ENTRY	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
		1897 1898 1899 1900 1901 1902 1903 1904 1905	* * * * *	ENTRY	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
		1897 1898 1899 1900 1901 1902 1903 1904 1905	* * * * * * * * * * * * * * * * * * * *	ENTRY EXIT USES	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
033.175		1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907	* * * * *	ENTRY EXIT USES	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
033.175 033.176		1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907	* * * * * * * * * *	ENTRY EXIT USES	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
033.176	131	1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909	* * * * * * * * * * *	EXIT USES MOV MOV	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL D:B	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR
033.176	131 325	1897 1898 1899 1900 1901 1902 1903 1904 1906 1907 1908 1909 1910	* * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV PUSH	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL DrB ErC	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST
033.176 033.177 033.200	131 325 136	1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1906 1908 1909 1910 1911	* * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV PUSH MOV	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL D.B. E.C	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR
033.176 033.177 033.200 033.201	325 136 043	1897 1898 1899 1900 1901 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912	* * * * * * * * * * *	ENTRY  EXIT USES  MOV. MOV  PUSH MOV INX	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL D:B E:C	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR
033.176 033.177 033.200 033.201 033.202	325 136 043	1897 1898 1899 1900 1901 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913	* * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV PUSH MOV INX MOV	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL  D.B E.C  D E.M H D.M	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR  SAVE RELOCATION FACTOR
033.176 033.177 033.200 033.201 033.202 033.202	131 325 136 043 126 043	1897 1898 1899 1900 1901 1902 1903 1904 1906 1906 1906 1908 1908 1910 1911 1911 1911 1911	* * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV  PUSH MOV INX	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL  D,B E,C  D E,M H D,M	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR
033.176 033.177 033.200 033.201 033.202 033.203 033.204	131 325 136 043 126 043 172	1897 1898 1898 1900 1901 1902 1903 1904 1905 1906 1907 1908 1912 1912 1913 1914 1915	* * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV  PUSH MOV INX MOV INX MOV INX	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL  D.B E.C  D E.M H D.M H A.D	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR  SAVE RELOCATION FACTOR
033.176 033.177 033.200 033.201 033.202 033.203 033.204 033.205	131 325 136 043 126 043 172 263	1897 1898 1898 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1911 1912 1913 1914 1915	* * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV PUSH MOV INX MOV INX MOV ORA	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL DrB ErC D ErM H DrM H A,D	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR  SAVE RELOCATION FACTOR  (DE) = REL ADDRESS OF WORD TO RELOCATE
033.176 033.177 033.200 033.201 033.202 033.203 033.204 033.205 033.206	131 325 136 043 126 043 172 263 302 213 033	1897 1898 1898 1900 1901 1902 1903 1904 1905 1906 1907 1910 1911 1912 1913 1914 1915 1916 1917	* * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV PUSH MOV INX MOV INX MOV INX MOV INX MOV INX MOV INX	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL  D.B E.C  D E.M H D.M H A.D E REL1	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR  SAVE RELOCATION FACTOR
033.176 033.177 033.200 033.201 033.202 033.203 033.204 033.205 033.206 033.211	131 325 136 043 126 043 172 263 302 213 033 321	1897 1898 1899 1900 1901 1902 1903 1904 1905 1905 1907 1910 1911 1914 1914 1916 1918	* * * * * * * * REL.	ENTRY  EXIT USES  MOV MOV PUSH MOV INX MOV INX MOV JNZ POP	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL DrB ErC D ErM H DrM H A,D	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR  SAVE RELOCATION FACTOR  (DE) = REL ADDRESS OF WORD TO RELOCATE  MORE TO TO
033.176 033.177 033.200 033.201 033.202 033.203 033.204 033.205 033.206	131 325 136 043 126 043 172 263 302 213 033 321	1897 1898 1899 1900 1902 1903 1904 1905 1906 1907 1910 1911 1914 1915 1916 1918 1918 1918	* * * * * * * * REL.	ENTRY  EXIT USES  MOV MOV PUSH MOV INX MOV INX MOV INX MOV INX MOV INX MOV INX	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL  D.B E.C  D E.M H D.M H A.D E REL1	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR  SAVE RELOCATION FACTOR  (DE) = REL ADDRESS OF WORD TO RELOCATE
033.176 033.177 033.200 033.201 033.202 033.203 033.204 033.205 033.206 033.211	131 325 136 043 126 043 172 263 302 213 033 321	1897 1898 1899 1900 1901 1902 1903 1904 1905 1905 1907 1910 1911 1914 1914 1916 1918	* * * * * * * * * * * * * * * * * * *	ENTRY  EXIT USES  MOV MOV PUSH MOV INX MOV ORA JNZ POP RET	(BC) = DISPLACE (DE) = RELOCATI (HL) = FWA RELO NONE ALL  D.B E.C  D E.M H D.M H A.D E REL1	MENT FROM ASSEMBLED ADDRESS ON FACTOR (FROM CURRENT ADDRESS) CATION LIST  ENTRY FOR CODE DISPLACE = REL FACTOR  SAVE RELOCATION FACTOR  (DE) = REL ADDRESS OF WORD TO RELOCATE  MORE TO TO

HDOS CODE	DENICE > DE			•••••	•••••	REL	HEATH HBASM V1.4 01/20/78 10:00:00 02-APR-80	PAGE 37
		1922	*	(HL) =	RELOCATION TABLE	ADDRESS		
		1923		(BC) =	CODE DISPLACEMENT	T FACTOR		
		1924	*	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	- CODE RELOCATION	N FACTOR	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
		1925						
033.213			RELI	XCHG				·····
033.214		1927		DAD	В	(HL) = ABS-ADDR	OF WORD TO REL	
033.215		1928		XCHG	• • • • • • • • • • • • • • • • • • • •	(DE) = ARS COME	ADDRESS, (HL) = REL TABLE ADDR	
	343	1929		XTHL		(HL) = CODE REL	FACTOR	
033.217	032	1430.		LINAX	····B······	OODE NEE	··········	
033.220	205	1931		ADD	Ë.	RELOCATE WORD O	ב רחזים	
033.221	022	1932		STAX	···· 🖟 · · · · · · · · · · · · · · · ·	KEEDOHIL WORD O		
033.222	023	1933		INX	D			
033.223	032	1934	• • • • • • • • • • • • •	LDAX	···· 💆······			
	214	1935		ADC	Ĥ			
	022	1439.		STAX	··· 🖟 · · · · · · · · · · · · · · · · ·	Section Cause & Caracter Control Control		
	353	1937			D	RELOCATE		*** ***********************************
033.227		1438.		XCHG	···· <b>H</b> ······	(DE) = RELOCATI	ON FACTOR	
033.230	303 177 033	1070				(HL) = RELUCATI	ON TABLE ENTRY ADDRESS	••• ••• • • • • • • • • • • • • • • • •
				JMP	REL	DO IT AGAIN		
						***************************************		
		1941		''TFE''	TEST FOR EOF	•••••		
		1942		- 1 1				
	• • • • • • • • • • • • • • • • • • • •	1943		TFF Tu	ECKS FOR AND END O	TO TO THE CONTRACTOR AND A TOTAL OF THE A TOTAL OF	CD . De	
		1944	*		LONG FOR MAD END	A LIFE & INDICAL	En Bi	••• •••••
		1945	··*······		AIO.CGN = AIO.LG		1	
			-		AIO.CSI = AIO.LS	61		• • • • • • • • • • • • • • • • • • • •
		1946						
		1947		ENTRY	NONE			• • • • • • • • • • • • • • • • • • • •
		.1948	*	EXIT	'Z' CLEAR IF NOT	EOF		
		1949			(A) = 0		***************************************	• • • • • • • • • • • • • • • • • • • •
		1950			'Z' SET IF EOF			
		1751	***************************************		,C,SET		***************************************	
		1952	*		(A) = EC.EOF			
		1953	<b>*</b>	. NSES	AFFHIL			
		1954						
		1955	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •			•••
033.233	052 051 041	1956	TFE	LHLD	AIO.LGN			***************************************
000.000		1957		ERRNZ	AIO.LSI-AIO.LGN-		***************************************	
033.236	072 047 041	1958		LDA	AIO.CGN	1		
	275	1959	• • • • • • • • • • • •	P	HIO+COM >		•••••	
033.242		1960		MVI	<u>-</u>			
	300	1761			A+0			
	072 050 041			RNE		NOT EOF		
	274	1962		LDA	AIO.CSI			
		1963		CMP	<del>Н</del>			••••••
	076 000	1964		MVI	A,0			
	300	1965		RNE		NOT EOF		
	076 003	1966		MVI	A,EC.EOF*2+1	SET EOF CODE		
033.256	311	1967		'RET'''		• • • • • • • • • • • • • • • • • • • •		
					• • • • • • • • • • • • • • • • • • • •			
•••••					• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
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			PRIVER			RUC.	10:00:00	SM V1.4 01/20/78 02-APR-80	PAGE	38
•••••	• • • • • • • • • • • • • • • • • • • •	1969	**	RUC - RI	STORE USER CODE	E.	••••••			
***************************************		1970	*							
		1971				PROGRAM CO	DE WHICH WAS SWAPF	ED		
•••••	• • • • • • • • • • • • • • • • • • • •	1972 1973		rukinc.	OVL CODE.	• • • • • • • • • • • • • • • • • • • •				
		1974		SINCE R	JC RESIDES IN TH	HE OVL ARE	A, IT MAY NOT RETU	JRN AFTER THE		
		1975		DISK I/O	CALL.					
•••••		. 1976 . 1977		ENTRY	NONE					
		1978	*	EXIT	NONE					
		1979	*	ÚSĖS	NONE					· · · · · · · ·
		1980 1981								
033.257	315 054 031		RUC	CALL	\$SAVALL	SAVE REG	ISTERS			
033.262	041 047 031	1983		LXI	H, \$RSTALL	<del>.</del>	ra : 878		,	
033.265	345 041 371 040	1984		PUSH	H	RETURN V	IA \$RSTALL			
033,271		1985 1986		MOV	H,S.OVLFL A,M					
033.272		1987	• • • • • • • • • • • • • • • • • • • •	ANA	A			• • • • • • • • • • • • • • • • • • • •		• • • • • • •
000.000		1988		ERRNZ	DVL.UCS-2000	<u> </u>	<u></u>			
033.273	360 346 176	1989		RP ANI	7770-0U UCC-0	NOT SWAP		REMOVE OVL		
033.276		1991		MÖŸ	MA	Y 1	realiane lasen come)		• • • • • • • • • • • • • • • • • • • •	
		1992								
		1993 1994	*	RESTORE	USER CODE					
033.277	052 374 040		• • • • • • • • • • • • • • • • • • • •	CHED	S.UCSL	• • • • • • • • • • • • • • • • • • • •				· • • • • • • •
033.302	104	1996		MOV	B,H					
033.303		1997		MOV	C,L	(BC) = C	דאטכ			
033.304	052 372 040 353	1999	• • • • • • • • • • • • • • • • • • • •	LHLD XCHG	S.UCSF	(DE) = A	nnpree			
	052 002 041			LHLD	S.SSN		ECTOR FOR SWAP			
033.313	303 275 031	2001		JMP	SREAD	READ AND	EXIT			
		• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •				• • • • • • •
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SYDD - SY MAIN ROU	YSTEM J.INE	DEVICE / DE	VICE D	RIVER			HEATH HBASH V1.4 01/20/78 PAGE 39 10:00:01 02-APR-80
******							
			2004		SYDD -	SYSTEM DISK DEV	ICE DRIVER.
***************************************			2005. 2006		SYDD IS	THE HOOS SYSTE	M H17 DEVICE DRIVER.
• • • • • • • • • • • • • • • • • • • •	· · · · · · · ·		2007.				
			2008	*	ENTRY	(A) = DC.XXX P	UNCTION CODE S SET AS NEEDED BY FUNCTION
			2010		EXIT	'C' CLEAR, OK	de del no recepe di rorditor
• • • • • • • • • • • • • • • • • • • •			2011.			REGISTERS SET	
			2012			(A) = ERROR C	
	• • • • • • •		2014		USES	ALL	MMM.
		• • • • • • • • • • • • • • • • • • • •	2015.				
033.	316		2016	R.SYDD	FOIL	*	
000.0		• • • • • • • • • • • • • • • • • • • •	2018	!\* 90 ( \$14	ERRNZ	DC.REA	
			. 2019.		. ANA	. A	
000.0		312 147 040	2020		JŻ ERRNZ	D.READ DC.WRI-1	
	322	075	2022	• • • • • • • • • • • • •	DCR	A	
		312155040			JZ	D.WRITE	
000.0 		075	2024 2025		ERRNZ DCR	DC.RER-2	
		312 152 040	2026		ĴŽ	D.READR	READ REGARDLESS
		376 005	2027.		CPI	DC.ABT-2	***************************************
		332 136 040			JC ERRNZ	D.XOK DC.MOU-DC.ABT-	IS NOT ABORT OR MOUNT; IGNORE
033.5	337	312 141 040	2030	• • • • • • • • • • • • • • • • • • • •	JE	D.ABORT	IS ABORT
	342	3.93 1.33 0.40	2031		.JMP	D.MOUNT	
	···;···		2033 2034 2035	*		MOUNT NEW DEVI	CE. DEPENDANT MOUNTING OF A NEW MEDIA:
			2035		HOURT F	MUCESSES DEVICE	DEFERDANT MOUNTING OF A NEW MEDIA.
			2037	*			EAD INTO THE VOLUME TABLE, AND
• • • • • • • • • • • • • • • • • • • •	• • • • • • •		. 2038 2039		THE HEA	DS ARE HOMED.	
			2037		ENTRY	(L) = VOLUME N	UMBER (IF ANY)
			2041				
033.3	 345	• • • • • • • • • • • • • • • • • • • •	2042.	R.MOUNT	F011	*	
0333	345	LQ5	.2044.		MOV	B,L	(B) = VOLUME SERIAL
		041 000 000	2045	,	LXI	H+0	SET SECTOR INDEX
		315.205.040. 315 213 040	. 2046 2047		CALL	D.SDF D.STZ	SET DEVICE PARAMETERS, SEEK TRACK ZERO
		252.247.040.			LHLD	D.VOLPT	SEEN TRHCK ZERO
·····	342		2049		MOV	M,B	SET , VOLUME NUMBER
033.3					JMF	D.XOK	EXIT WITH STUFF OK
033.3		303.136.040.	2050.		,		
033.3 033.3	343					the state of the s	
033.3	363		••••••			••••••	······································
033.3	363		••••••			••••••	······································
033.3	343;						
033.3	3.6.3						

		DEVICE /					10:00:01 02-APR-80
				3 ***	ABORT	- ABORT ANY ACT	IVE 170.
			205		********	SANNAHAR CANNOCHANIOC	RAFNETTATION TO SECURDATED.
			205		ABUKI	CAUSES ANT UN/-	GOING 1/0 TO BE ABORTED.
	• • • • • • • • • • • • • • • • • • • •		205				
0	33,366		205		EQU	*	
		315 205 0			CALL	D.SDP	SET DEVICE PARAMETERS
0	33,371	315,213,0	40 206		CALL	D.STZ	SEEK TRACK ZERO
0:	33.374		206		SET	K.XOK	IMPLICIT REFERENCE TO R.XOK  EXIT AS IF OK
			204	2*	JMP	D•XOK	EATT HO IF OK
		*	••••••	• • • • • • • • • • • • • • • • • • • •		•••••	
			20 <i>6</i> 20 <i>6</i>	4 ** 5	XOK -	EXIT WITH ALL C	K FLAG.
	33.374		206	6 R.XOK	XRA	Α	CAUE STATUS
	33,375	365	206		PUSH	PSW	SAVE STATUS
	33.376 34.001	072 244 0 247	40 206 206		LDA ANA	D.DLYHS A	
	34.002	302 376 0			JNZ	XITI	WAIT FOR HARDWARE DELAYS
	34.005		207		DI		LOCK OUT CLOCK
		072 242 0			LDA	D.DVCTL	
	34.011	346 220	20		ANI	DF.MO+DF.WR	REMOVE DEVICE SELECT
	34.013	323 177	20 40 20		STA	D.DVCTL	DESELECT MOTOR UPDATE BYTE
	34.015	062 242 0 052 110 0			LHLD	D.XITA	OF DATE DITE
		042 243 (			SHLD	D.DLYMO	SET 120/2 SECONDS OF MOTOR ON
Ö	00.000 34.026	,	20 20	8	ERRNZ POP	D.DEYHS-D.DEY PSW	PMO-1 SET 7*2 MILLISECONDS OF HEAD UNSETTLE
	34.027	373	20		ΕI		RESTORE INTERRUPTS
	34,030	311	20	9 <b>1</b> 	RET		
		•••••••	20	33 **	CLOCK	- PROCESS CLOCK	K INTERRUPTS.
			20				
			20				
	34.031	072 033 (	20 20 20		LDA	TICENT	
	)34.034		20		RRC		
	34.035	330	20	39	RC		NOT EVEN
	34.036		20		ANA	A	
	034.037	041 243			LXI	HTD.DLYMO CLOCK1	NOT HALE SECOND
	034.042 034.045	302.070.0 075	9 <u>3.420</u> 20		JNZ	A	NOT HALF SECOND (A) = -1
	034.045	206	20		ADD	M	SUBTRACT ONE
	034.047	322 070			JNC	CLOCK1	WAS 0
	034.052	167	20		MOV	M+A	UPDATE
	034.053	302 070			JNZ	CLOCK1	NOT TIME FOR MOTOR OFF
	034.056				LDA	D.DVCTL	REMOVE ALL BUT RAM/WRITE
	034.061	346 200 062 242	20 040 21		ANI STA	DF.WR D.DVCTL	VEHIOLE HEE BOL WHILM MUTIC
		323 177	21 21			DP.DC	OFF MOTOR
	034.070			02 CLOCK1		H	(HL) = \DLYHS
,		· · · · · · · · · · · · · · · ·			· · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	

SYDD - SYSTEM DEVI ABORT - ABORT ACTI	CE / DEVICE DRIVER VE I/O			CLOCK	HEATH H8ASM V1.4 01/20/78 FAGE 41 10:00:02 02-AFR-80
000.000 034.071 176 034.072 326 0	2103 2104	ERRNZ MOV	D.DLYHS-D.DLYMO A,M 1	-1 (A) = D.DLYHS	
034.072 326 0 034.074 330 034.075 167 034.076 311	01 2105 2106 2107 2108	SUI RC MOV RET	1 M•A	WAS 0	
	2100			•••••••••••••••••••••••	
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			. Time the second second	· , , "" - i	

SYDD - SYSTEM DEVICE / DEVICE READ - READ FROM DISK	DRIVER		HEATH H8ASM V1.4 01/20/78 READ 10:00:03 02-APR-80	PAGE 42
		READ - READ FROM DISK.		
2113		ENTRY (BC) = COUNT		
2115		(DE) = ADDRESS		
2116		(HL) = BLOCK #		
211.	<i>.</i>	INTERRUPTS ENAB		
		EXIT (DE) = NEXT UNU		
211° 212°	?* } *	INTERRUFTS DISA USES ALL	BLED	
212		DOES HEL		
212				• • • • • • • • • • • • • • • • • • • •
034,077 345 212		PUSH H	SAVE (HL)	
034.100 315 205 040 212		CALL D.SDF	SETUP DEVICE PARAMETERS	
034,103 052 273 040 212		HLD D.OFR		
034.106 043 2126		INX H	COUNT OFFICATION	
034,107 042 273 040 212 212	{	SHLD D.OFR	COUNT OPERATION	
		READ TO READ SECTOR.		
213			•••••••••••••••••••••••••••••••••••••••	
213	· *	(BC) = AMOUNT		
	2 *	(DE) = ADDRESS		
213		((SP)) = SECTOR NUMBER		
213		200 11	(UL) - CECTOR MUNDER	
034.112 341 213 034.113 325 213		POP H PUSH D	(HL) = SECTOR NUMBER SAVE ADDR	
034.114 171 213		10V A,C	ADJUST (B) SO THAT (B) = # OF WHOLE OR PARTIAL	
034.115 247 213		ANA A	SECTORS TO READ, (C) = BYTES OF LAST SECTOR	
034.116 312 122 034 213		JZ READ1.5	READ. (C)=0 IF TO READ ENTIRE LAST SECTOR	
034.121 004 214		INR B		
21.4		a		
214 214		* * NOTE * *		
		THIS CODE RUNS WITH INT	ERRUPTS DISABLED FROM HERE ON	
214				
034,122 305 214		PUSH B	SAVE COUNT	
034.123 315 163 040 214		CALL D.DTS	DECODE TRACK AND SECTOR	
034.126 076 001 214		MVI A,1	(A) = DELAY COUNT FOR START	
214		LOOK FOR RIGHT SECTOR.		
215		(A) = DELAY COUNT BEFOR	F SEARCH	
215	<i></i>	507.T.PEEDI.BUNKI.PETUT	Control Contro	
034.130 315 216 040 215		CALL D.UDLY	DELAY SOME MICROSECONDS	
034.133 315 177 040 215	4	CALL D.LPS	LOCATE PROPER SECTOR	
034.136 332 300 034 215		JCREAD7.	ERROR	
034.141 301 215		POP B	(BC) = COUNT	
034•142 341 215 215		POP H	(HL) = ADDRESS FOR DATA	
		CHECK AMOUNT TO READ		
216	,			
034.143 170 216	I READ3	MOV A,B		
034.144 261 216	2	ORA C		
034.145 312 315 034 216		JZ READ8	NO MORE TO READ	
034-150 345 216		FUSH H	CALLE COLLUT AND ADDRESS TO SAME OF COLOR	
034+151 305 216		PUSH B	SAVE COUNT AND ADDRESS IN CASE OF ERROR	
034.152 005 216 034.153 312 160 034 216		DCR B JZ READ3.5	SEE IF ON LAST (MAYBE PARTIAL) SECTOR ON LAST SECTOR, READ (C) COUNT	
	,	ひと ドドリカン・ラ	UN LAST SECTUR. REAU ? C.J. CUUNT	

SYDD - SYSTEM DE READ - READ FROM					HEATH HBASM V1.4 01/20/78 PAGE 43 READ 10:00:03 02-APR-80
					·
034-156 016		2168	MVI	C • O	WILL READ ALL 256 BYTES
934,160101.				B.C	(B) = # TO READ+1, (C) = # TO SKIP
034.161 315			CALL	D.WSC	WAIT SYNC CHARACTER
034.164332	AQX . UQM	2172	J¢	.READZ1	DIANT GET ONE
		2173 *	READ DA	TΑ	
• • • • • • • • • • • • • • • • • • • •	•••••••	2174			
034.167 315	202 040	2175 READ	4 CALL	D.RDB	READ BYTE
034,172 167	,	2176	MOV	M∗A	READ BYTE STORE
034,173 043		2177	INX	Н	
034,174 005		2178	DCR	В	
034,175 302	167 034	2179	JNZ	READ4	MORE TO GO
034,200 171		2180	MOV	A,C	
934,291 247		2181	AŅA	A	
034.202 312	214 034		JZ	READ6	NONE TO DISCARD
• • • • • • • • • • • • • • • • • • • •		2183			220200000000000000000000000000000000000
		2184 *	READ, C	HECKSUM, AND DIS	SCARD DATA
		2185 2186 RÉAD		**************************************	
034,205 315 034,210 014		2186 READ 2187		D.RDB C	
	205 034		INR JNZ	READS	······································
034.214 102					(B) = CDCCVCUX
034.215 315			CALL	B,D D.RDB	(B) = CHECKSUM
034.220 270		2191	CMP	B	
	272 034		JNE		CHECKSUM ERROR
OOTTIME OOL		2193	Orte.	TETIE / E	CITEGROOT ENTON
• • • • • • • • • • • • • • • • • • • •		2194 *	GOT GOO	D SECTOR	***************************************
		2195			
034,224 301		2196	POP	В	(BC) = OLD COUNT
034,225 005		2197	DCR	В	COUNT SECTOR READ
034.226 312	315 034	2198	JZ	READ8	JUST READ LAST ONE
		2199			
		2200 *	HAVE MC	RE TO READ	
		2201			
034,231 343		2202	XTHL		SAVE ADDRESS
034,232 305		2203	PUSH	<b>B</b>	SAVE COUNT
034.233 041			LXI	H.D.TS	
934+236964		2205	INR	M.,. <u>.</u>	COUNT SECTOR
	012	2206	MVI	A,10	
034,241 226 034,242 076	000	2207 2208	SUB NVI	<u>M</u>	
000.000	000	2208	ERRNZ	A+0	AAA TIME TO DELAY TA CHARACTERS
	130 034			30*64*2/15-1000 READ2.4	OA (A) = TIME TO DELAY 30 CHARACTERS
034.244 302		2210	MOV JNE		NOT AT END OF TRACK
000.000		2212	ERRNZ	M:A	SECTOR # = 0
034.250 053	(	2213	DCX	H H - 1 - 1	
034.251 064		2214	INR	П М	
034,252 373		2215	ÉI	••	RESTORE INTERRUPTS UNTIL *STS* CALLED
	166 040		CALL	D.SDT	SEEK DESIRED TRACK
034.256 303		2217	JMF	READ2	The state of the s
		2218			
		2219 *	CANIT G	ET DATA, HEADER	OR CHECKSUM PROBLEM
		2220			
	. 265 040	2221 READ	71LXI	H.D.E.MDS	MISSING DATA SYNC ERROR
034,261 041					· · · · · · · · · · · · · · · · · · ·
034,261 041 034,264 315 034,267 303	5 232 040		CALL JMP	D.ERRT	

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SYDD - SYSTEM DEVICE / DEVICE DRIVER READ - READ FROM DISK		HEATH H8ASM V1.4 01/20/78 READ 10:00:04 02-APR-80	PAGE 44
2224 034.272 041 267 040 2225 READ72 034.275 315 232 040 2226	LXI H,D,E,CHK CALL D,ERRT	CHECKSUM ERROR	
2227 034.300 315 160 040 2228 READ7 034.303 322 126 034 2229 034.306 301 2230	CALL D.CDE JNC READ2 POP B	COUNT DISK ERROR TRY AGAIN	
034.307 321 2231 034.310 076 022 2232 034.312 303 144 040 2233 2234	POP II MVI A,EC,RF JMP II,XIT	READ FAILURE TOO MANY ERRORS, TOO BAD	
2235 <b>*</b>	ENTIRE READ WAS OK		
034.315 341 2237 READ8 034.316 303 136 040 2238	POP H JMP D.XOK	CLEAN STACK EXIT OK	
	• • • • • • • • • • • • • • • • • • • •	••••••	
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SYDD - SYSTEM DEC READR - READ REGA	VICE / DEVICE DE ARDLESS.	RIVER	••••••	HEATH H8ASM V1.4 01/20/78 PAGE 45 10:00:05 02-APR-80	
	2241 2242 2243 2244 2245 2246	* * ENTRY *	(BC) = COUNT (DE) = ADDRE (HL) = BLOCK	EGARDLESS OF VOLUME PROTECTION.  TESS  TES	
034.325 041 034.330 042	2247 2248 2249 2250 205 040 2251 320 031 2252 247 040 2253	* USES  R.READR PUSH CALL LXI SHLD	H D.SDP H.ZEROS	SAVE (HL) SETUP DEVICE PARAMETERS	
034.333 303	112 034 2254	JMP	READ1	PROCESS AS REGULAR READ	
		······································			
	······································				

### WRITE - PROCESS DISK WRITE.    2008   ***   WRITE   PROCESS DISK WRITE.   2009   ***   WRITE   W	SYDD - SYSTEM DEVICE / DEV	TOF DETUFE		UEATH HOACK HY A ALVOAVOO BACE AV
255 *** WRITE - PROCESS DISK WRITE.  2250 * ENTRY (DC) = COUNT  2251 * COUNT  2251 * COUNT  2252 * EXIT (LINK) LAST BLOCK *  2263 * EXIT (LINK) LAST BLOCK *  2264 * UBES ALL  2265 * EXIT (LINK) LAST BLOCK *  2264 * UBES ALL  2265 * COUNT  2265 * COUNT  2265 * COUNT  2265 * COUNT  2267 * FURTH EBU *  234, 336 345 505 940 2265 CALL D.SBP SET DEVICE PRANHTERS  334, 337 315 705 940 2275 CALL D.SBP SET DEVICE PRANHTERS  334, 337 315 705 940 2277 SMLD D.OPW  334, 335 345 70 2275 CALL D.SBP SET DEVICE PRANHTERS  334, 345 347 2275 CALL D.SBP SET JEVICE PRANHTERS  334, 345 347 2277 SMLD D.OPW  334, 355 348 004 2274 ART DEVICE SEE, IF, DISK WRITE PROTECTED  334, 355 348 004 2277 ART DEVICE SEE, IF, DISK WRITE PROTECTED  334, 355 070 075 277 JNZ JRITES DISK IS WRITE PROTECTED  334, 356 070 075 277 JNZ JRITES DISK IS WRITE PROTECTED  334, 356 070 075 277 JNZ JRITES DISK IS WRITE PROTECTED  334, 356 070 075 277 JNZ JRITES SECTOR NUMBER  334, 356 070 075 277 JNZ JRITES SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 356 071 2280 * REARY TO, WRITE SECTOR NUMBER  334, 357 077 070 2287 WRITE PROTECTED DISABLED FROM THIS POINT ON  334, 356 071 2280 WRITE PROTECTED SANGE FROM THIS POINT ON  334, 375 076 071 2287 WRITE PROTECTED SANGE FROM THIS POINT ON  334, 377 375 076 071 2287 WRITE PROTECTED SECTOR NUMBER  335, 335 135 103 040 2287 WRITE PROTECTED SECTOR NUMBER  336, 337 137 040 2380 WRITE PROTECTED SECTOR NUMBER  337 137 137 137 137 040 2380 WRITE PROTECTED SECTOR NUMBER  338 138 177 040 2380 WRITE PROTECTED SECTOR NUMBER  339 100 070 070 070 070 070 070 070 070 070	WRITE - PROCESS DISK WRITE			HEATH H8ASM V1.4 01/20/78 PAGE 46
### EMTRY (NO) = COUNT   CR) = AUNTRESS		······································	• • • • • • • • • • • • • • • • • • • •	WALLE 10:00:03 02-APK-80
### ENTRY (*** CRUINT   CRUINT				
2240			WRITE - PROCESS D	ISK WRITE.
2261	***************************************		FNTRY (BC) = CO	HALT
226.2				
2243				
2244    USES   ALL				
2246	***************************************			
034,336				
034.333 345 226 PUSH H SAVE BLOCK NUMBER  034.337 315 205 040 2276 CALL D. SIPP SET DEVICE PRARMETERS  034.337 315 205 040 2270 LHLD D. OPW  034.337 315 205 275 040 2270 SHL D. OPW  034.343 313 313 177 04 222 SHL D. OPW  034.353 334 004 2274 SHL D. OPW  034.353 334 004 2275 SHL D. OPW  034.355 047 02 2275 STC  034.355 047 02 2275 STC  034.355 047 02 2275 NN J ALEC. WP  034.356 070 32 2276 NN J ALEC. WP  034.356 070 137 2277 NN J WRITES DISK IS WRITE PROTECTED  034.357 070 2277 NN J WRITES SECTOR  2260 * REDAY TO WRITE SECTOR  2291 * (RC) = COUNT  2292 * (RE) = ADDRESS  034.363 041 377 000 2285 LXI H.3770  034.363 041 2286 DA B  034.364 011 2286 DA B  034.367 104 2287 NOV BRH (B) = *.DF SECTORS, TO WRITE  034.370 341 2289 WRITE POP H (M). = *.DF SECTOR NUMBER  034.371 325 229 FUSH D SAVE ADDRESS  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  034.375 070 001 2297 WRITE POP H (M). = *.DF SECTOR NUMBER  035.002 303 105 170 040 200 CALL D. DDLY DELAY DOWN DEPTH PECTOR POP POP POP POP POP POP POP POP POP P		2266		
034,337   315   205   040   2276   CALL   D. SEP   SAVE BLOCK NUMBER		2267 R.WRIT	E EQU *	
034-347   315   205 040   2267   CALL   1-SPP   SET DEVICE PARAMETERS	034.336 345	2268		SAVE BLOCK NUMBER
034.342 052 275 040 2270	034,337 315 205 040	2269	CALL D.SDP	
034-345 045 275 040 272 SHLD DOW COUNT OPERATION 034-346 042 275 040 272 SHLD DOW SEE, IF DISK MRITE PROTECTED 034-353 348 0604 2274 ANT DF UP 034-355 050 2275 STLD DOW SEE, IF DISK MRITE PROTECTED 034-355 050 2275 STLD DOW SEE, IF DISK MRITE PROTECTED 034-356 050 2277 JMZ WRITER 034-360 302 132 035 2277 JMZ WRITER DISK IS WRITE PROTECTED 2278 READY TO WRITE SECTOR 2280 * (DE) = ADDRESS 2281 * (DE) = ADDRESS 2282 * (DE) = ADDRESS 2283 * (SP) = SECTOR NUMBER 034-355 041 377 000 2284 JM H 1,3770 034-356 011 377 000 2284 JM B B COUNT SECTOR SEC	034.342 052 275 040	2270		
034.346   042   275   040   2272   SHLD   B.OPW   COUNT OPERATION     034.353   346   004   274   ANT   DF.WF     034.353   346   004   274   ANT   DF.WF     034.353   346   004   274   ANT   DF.WF     034.354   305   025   025   275   JNZ   WRITER   DISK IS WRITE PROTECTED     034.360   302   132   035   2277   JNZ   WRITER   DISK IS WRITE PROTECTED     034.360   302   132   035   2277   JNZ   WRITER   DISK IS WRITE PROTECTED     2276   * REARY TO WRITE SECTOR     2280   * (BC) = COUNT     2281   * (BC) = COUNT     2282   * (DE) = ADDRESS     034.364   011   2294   DAD   B     034.364   011   2296   DAD   B     034.364   011   2296   DAD   B     034.367   104   2298   DAD   B     034.371   325   2299   WRITEL   FOP   H (FL) = SECTOR NUMBER     034.371   325   2299   WRITEL   FOP   H (FL) = SECTOR NUMBER     034.371   325   2299   WRITEL   FOP   H (FL) = SECTOR NUMBER     034.372   315   163   040   2296   EAD   SAVE ADDRE     034.375   076   001   2296   EAD   DIS   DETERMINE TRACK AND SECTOR     034.377   315   216   040   2296   WRITEL   DIST   DETERMINE TRACK AND SECTOR     034.377   315   216   040   2296   WRITEL   DIST   DETERMINE TRACK AND SECTOR     034.377   315   030	034.345 043	2271		
034.351 333 177 2278	034.346 042 275 040			COUNT OPERATION
0.34, 3.55   346   004   2274   ANI   Dr. WP     0.34, 3.55   0.76   0.25   2275   NIZ     0.34, 3.55   0.76   0.25   2275   NIZ   WRITES   DISK IS WRITE PROTECTED     0.34, 3.56   0.76   0.25   0.275   NIZ   WRITES     0.34, 3.56   0.76   0.25   0.275   NIZ   WRITES     0.276   ★	034.351 333 177		IN DF.DC	
034-356   076   025   2276   HU	034.353 346 004	2274		······································
034.340   302   132   035   2277	034.355 067			
2278   READY TO WRITE SECTOR   2280				
2278	034.360 302 132 035		JNZ WRITE8	DISK IS WRITE PROTECTED
2280				
2281			READY TO WRITE SE	CTOR
2283 ★ ((SF)) = SECTOR NUMBER  034.363 041 377 000 2285 LXI H:3770  034.366 011 2286 DAD B  034.367 104 2287 MOV B:H (B) = ★ QF SECTORS TO WRITE  2288				
2283 ★ ((SF)) = SECTOR NUMBER  034.363 041 377 000 2285 LXI H:3770  034.366 011 2286 DAD B  034.367 104 2287 MOV B:H (B) = ★ QF SECTORS TO WRITE  2288			(BC) = CO	UNT
2284				
034.363 041 377 000 2285			((SF)) =	SECTOR NUMBER
034,366   011   2286	A74 7/7 A44 777 AAA			
034.367	034.363 041 377 000			
2288				
034,370				(\$). = # UE SECTORS TO WRITE
034.371 325	034.370 341		ene u	(W) - CECTOR NUMBER
2291   2292				SAUE ATTO
2292 * * * * * * NOTE * * *  2293 * * THIS CODE RUNS WITH INTERRUPTS DISABLED FROM THIS POINT ON  2294 * THIS CODE RUNS WITH INTERRUPTS DISABLED FROM THIS POINT ON  2295				SHVE ABEN
2294   *   THIS CODE RUNS WITH INTERRUPTS DISABLED FROM THIS POINT ON			* * NOTE * *	
034,372 315 163 040 2296		2293 *		
034,372 315 163 040 2296			THIS CODE RUNS WI	TH INTERRUPTS DISABLED FROM THIS POINT ON
034.375 076 001 2297 WRITE2 MVI A,1 (A) = SHORT DELAY COUNT  2298 2299 * FIND RIGHT SECTOR 2300 * (A) = DELAY COUNT 2300 * (A) = DELAY COUNT 2301  034.377 315 216 040 2302 WRIT2.5 CALL D.UDLY DELAY SOME MICROSECONDS 035.002 305 2303 PUSH B SAVE COUNT 035.003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035.004 301 2305 POP B (BC) = COUNT 035.007 332 122 035 2306 JC WRITE7 CANT FIND IT 035.012 341 2307 POP H (HL) = ADDR 035.012 341 2307 POP H (HL) = ADDR 035.013 072 112 040 2308 LDA D.WRITEA (A) = GUARDBAND DELAY 035.017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITB 035.022 072 113 040 2311 LDA D.WRITB 035.025 177 2312 MOV C.A (C) = * DF 00 CHARACTERS				
2298 2299 * FIND RIGHT SECTOR 2300 * (A) = DELAY COUNT 2301  034.377 315 216 040 2302 WRIT2.5 CALL D.UDLY DELAY SOME MICROSECONDS 035.002 305 2303 PUSH B SAVE COUNT 035.003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035.006 301 2305 POP B (BC) = COUNT 035.007 332 122 035 2306 JC WRITE7 CANT FIND IT 035.012 341 2307 POP H (HL) = ADDR 035.013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITB 035.022 072 113 040 2311 LDA D.WRITB 035.025 117 2312 MOV C.A (C) = ‡ DF 00 CHARACTERS				
2299 * FIND RIGHT SECTOR 2300 * (A) = DELAY COUNT 2301  034.377 315 216 040 2302 WRIT2.5 CALL D.UDLY DELAY SOME MICROSECONDS 035.002 305 2303 PUSH B SAVE COUNT 035.003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035.006 301 2305 POP B (BC) = COUNT 035.007 332 122 035 2306 JC WRITE7 CANT FIND IT 035.012 341 2307 POP H (HL) = ADDR 035.013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 035.022 072 113 040 2311 LDA D.WRITB 035.022 072 113 040 2311 LDA D.WRITB			MYIA:1	(A) = SHORT DELAY COUNT
2300 * (A) = DELAY COUNT 2301  034.377 315 216 040 2302 WRIT2.5 CALL D.UDLY DELAY SOME MICROSECONDS 035.002 305 2303 PUSH B SAVE COUNT 035.003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035.004 301 2305 POP B (BC) = COUNT 035.007 332 122 035 2306 JC WRITE7 CANT FIND IT 035.012 341 2307 POP H (HL) = ADDR 035.013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITB 035.025 017 2312 MOV C.A (C) = # OF OO CHARACTERS			ETUE STOUT SESTEE	
2301  034.377 315 216 040 2302 WRIT2.5 CALL D.UDLY DELAY SOME MICROSECONDS 035.002 305 2303 PUSH B SAVE COUNT 035.003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035.006 301 2305 POP B (BC) = COUNT 035.007 332 122 035 2306 JC WRITE7 CANT FIND IT 035.012 341 2307 POP H (HL) = ADDR 035.013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITB 035.025 017 2312 MOV C.A (C) = # OF OO CHARACTERS	***************************************			
034,377 315 216 040 2302 WRIT2.5 CALL D.UDLY DELAY SOME MICROSECONDS 035,002 305 2303 PUSH B SAVE COUNT 035,003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035,006 301 2305 POP B (BC) = COUNT 035,007 332 122 035 2306 JC WRITE7 CANT FIND IT 035,007 332 122 035 2306 JC WRITE7 CANT FIND IT 035,012 341 2307 POP H (HL) = ADDR 035,013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035,016 075 2309 WRITE4 DCR A 035,017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035,022 072 113 040 2311 LDA D.WRITB 035,025 117 2312 MOV C.A (C) = ‡ OF OO CHARACTERS			(A) = DELAT COUNT	
035,002 305 2303 PUSH B SAVE COUNT 035,003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035,006 301 2305 POP B (BC) = COUNT 035,007 332 122 035 2306 JC WRITE7 CANT FIND IT 035,012 341 2307 POP H (HL) = ADDR 035,013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035,016 075 2309 WRITE4 DCR A 035,017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035,022 072 113 040 2311 LDA D.WRITB 035,025 117 2312 MOV C.A (C) = ‡ OF 00 CHARACTERS	034.377 315 214 040		S CALL TO LITE V	The state of the s
035,003 315 177 040 2304 CALL D.LPS LOCATE PROPER SECTOR 035,006 301 2305 POP B (BC) = COUNT 035,007 332 122 035 2306 JC WRITE7 CANT FIND IT 035,012 341 2307 POP H (HL) = ADDR 035,013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035,016 075 2309 WRITE4 DCR A 035,017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035,022 072 113 040 2311 LDA D.WRITB 035,025 117 2312 MOV C.A (C) = ‡ OF OO CHARACTERS				
035,006 301 2305 POP B (BC) = COUNT 035,007 332 122 035 2306 JC WRITE7 CANT FIND IT 035,012 341 2307 POP H (HL) = ADDR 035,013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035,016 075 2309 WRITE4 DCR A 035,017 302 016 035 2310 JNZ WRITE4 FAUSE OVER GUARDBAND 035,022 072 113 040 2311 LDA D.WRITB 035,025 117 2312 MOV C.A (C) = # OF OO CHARACTERS				LOCATE BENDEE SECTOR
035.007 332 122 035 2306 JC WRITE7 CANT FIND IT 035.012 341 2307 POP H (HL) = ADDR 035.013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITB 035.025 117 2312 MOV C.A (C) = ‡ OF OO CHARACTERS				
035.012 341 2307 POP H (HL) = ADDR 035.013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITE 035.025 117 2312 MOV C.A (C) = # OF 00 CHARACTERS				
035.013 072 112 040 2308 LDA D.WRITA (A) = GUARDBAND DELAY 035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 PAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITB 035.025 117 2312 MOV C.A (C) = ‡ OF OO CHARACTERS				
035.016 075 2309 WRITE4 DCR A 035.017 302 016 035 2310 JNZ WRITE4 FAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITB 035.025 117 2312 MOV C.A (C) = # OF OO CHARACTERS	035.013 072 112 040		* * * <b>* * * * * * * * * * * * * * * * </b>	
035.017 302 016 035 2310 JNZ WRITE4 FAUSE OVER GUARDBAND 035.022 072 113 040 2311 LDA D.WRITE 035.025 117 2312 MOV C.A (C) = # OF 00 CHARACTERS				CONTRACTOR DELETION
035,022 072 113 040 2311 LDA D.WRITE 035,025 117 2312 MOV C.A (C) = # OF 00 CHARACTERS				PAUSE OVER GUARTIRANTI
035.025 117 2312 MOV C+A (C) = # OF 00 CHARACTERS	035.022 072 113 040	2311		
A7E A07 A7D 444 A44 B74	035.025 117	2312		(C) = # OF OO CHARACTERS

.....

035.031 315 224 040 2314 CALL TILUSP WRITE SYNC PATTERN  035.034 176 2314 * ODT WITH THE DATA  2317 2317 2318 WRITES HOV A+H  035.035 176 237 040 2313 WRITES HOV A+H  035.041 015 237 040 2313 WRITES HOV A+H  035.041 015 237 040 2321 CCR C  035.042 302 034 035 2322 HOV A+H  035.041 015 2323 HOV A+H  035.042 302 034 035 2323 HOV A+H  035.043 175 277 040 2323 HOV A+H  035.043 175 277 040 2324 CALL D-WNN WRITE CHECKBYN  035.051 315 227 040 2326 CALL D-WNN WRITE CHECKBYN  035.052 315 227 040 2333 CALL D-WNN CHECKBYN  035.052 315 227 040 2333 CALL D-WNN CHECKBYN  035.052 315 227 040 2333 CALL D-WNN CHECKBYN CHECKB	WK1	D - SYSTE ITEPROD						• • • • • • • • • • • • • • • • • • • •		HEATH HBASM V1.4 01/20/78 WRITE 10:00:06 02-AFR-80	FAGE	47
2315 * OUT WITH THE DATA  2316 * OUT WITH THE DATA  2317 2318 WRITES MOV A-H  2318 WRITES MOV A-H  2319 2318 WRITES MOV A-H  2319 2319 DEX  2310 DEX  2319 DEX  2310 DEX  2310 DEX  2310 DEX  2310 DEX  2311 DEX  2311 DEX  2312 DEX  2313 MOV A-D (A) = CHECKSUH  2315 BERCH WRITE GATE OPEN FOR 3 CHARACTER TIMES  2319 HAWE DOME WRITE GATE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2320 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2320 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2320 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2320 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2320 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2320 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2321 DEX PROPERTY OF THE WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2322 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2324 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2325 F HAWE DOME WRITTIND LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2326 F HAWE DOME WRITE-GATE OF THE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2327 F HAWE DOME WRITE-GATE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2329 F HAWE DOME WRITE-GATE WRITE-GATE OPEN FOR 3 CHARACTER TIMES  2320 F HAWE DOME WRITE-GATE WRITE-GATE OPEN FOR THE WRITE-GATE WRITE		035.031	315	224	040	2314		CALL	D.WSP	WRITE SYNC PATTERN		
035.034   176   02317   02318   WRITES   MOU   A.H.						.23,15.				***************************************		
035.034 176 2318 MITES MOU A-M 035.034 040 043 2320 INX H 035.040 302 034 035 2322 JNZ WRITES NOT DONE YEY 035.045 127 040 2323 MOU A-M 035.046 315 227 040 2324 CALL D_WMB WRITE CHECKSYM 035.046 315 227 040 2324 CALL D_WMB WRITE CHECKSYM 035.046 315 227 040 2324 CALL D_WMB WRITE CHECKSYM 035.050 315 227 040 2324 CALL D_WMB WRITE GHECKSYM 035.051 315 227 040 2332 HADE DONE WRITING LEAVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES 035.051 315 227 040 2330 CALL D_WMB 035.057 315 227 040 2331 CALL D_WMB 035.057 315 227 040 2331 CALL D_WMB 035.050 315 227 040 2333 CALL D_WMB 035.050 315 227 040 2333 CALL D_WMB 035.050 37 315 227 040 2333 CALL D_WMB 035.050 37 315 237 040 2333 CALL D_WMB 035.050 2072 240 040 2333 CALL D_WMB 035.050 37 315 237 040 2333 CALL D_WMB 035.050 2072 240 040 2333 CALL D_WMB 035.050 2072 240 040 2333 CALL D_WMB 035.050 307 040 344 CALL D_WMB 035.070 040 2334 DCR 035.070 040 2334 DCR 035.070 040 2334 DCR 035.070 040 2335 JZ D.X D.X D.X ALL DOWE 035.070 040 2336 INN H 035.070 041 241 040 2337 LXI H.D.TS 035.070 040 2336 INN H 035.070 040 2344 ERRNZ 3084482/15-10004 (A) = CDUNT TO DELAY 36 CHARACTER TIMES 035.071 040 2350 INN H 040 INN BRITES INN BRITES INN BRITES INTERVIPES UNTIL \$1518 CAL							*	OUT WITE	THE DATA			
033,035   315 227 040   2319			4.73.4						-1			
035.040 043 2320 INX H 035.041 015 032 032 034 035 2322 JM2 WRITES NOT DONE YET 035.042 302 034 035 2322 JM2 WRITES 035.043 315 227 040 2324 CALL D. UNB WRITE CHECKSUM 035.043 315 227 040 2325 * HAVE DONE WRITTINS LEAVE WRITE-GATE OPEN FOR 3 CHARACTER YIHES 2326 * HAVE DONE WRITTINS LEAVE WRITE-GATE OPEN FOR 3 CHARACTER YIHES 2327 * TO FINISH TUNNEL ERASING.  035.051 315 227 040 2332 CALL D. WAR 035.053 315 227 040 2333 CALL D. WAR 035.054 315 227 040 2333 CALL D. WAR 035.057 315 227 040 2333 CALL D. WAR 035.057 315 227 040 2333 CALL D. WAR 035.057 035 323 177 2333 DUT DP. DC DFF DISK CONTROL 035.050 035.057 035 233 DEB D. WAR D				227	040		WKITE5					
035,041 015 2321 DCR C 035,042 307 034 035 2322 JNZ WRITES NOT BONE YEY 035,045 172 3233 HOU A,D (A) = CHECKSUM 035,046 315 227 040 2324 CALL D. UNB WRITE CHECKSYM  2326 * HAVE BONE WRITTING. LEAVE WRITE—GATE OPEN FOR 3 CHARACTER YIMES  2327 * TO FINTSH TUNNEL ERASING.  035,051, 315, 227, 040 2327  035,051, 315, 227, 040 2327  035,051, 315, 227, 040 2327  035,051, 315, 227, 040 2327  035,051, 315, 227, 040 2327  035,051, 315, 227, 040 2327  036,057, 312, 229, 040 2330 CALL D. UNB 035,057, 312, 229, 040, 2330 CALL D. UNB 035,057, 312, 229, 040, 2331 CALL D. UNB 035,057, 312, 229, 040, 2333 CALL D. UNB 035,057, 057, 127, 2334 CALL D. UNB 035,070, 312, 138, 040, 2334 CALL D. UNB 035,070, 312, 138, 040, 2335 JZ D. VOK ALL BONE 035,070, 312, 141, 040, 2335 JZ D. VOK ALL BONE 035,070, 312, 241, 040, 2335 JZ D. VOK ALL BONE 035,077, 044 CALL 241, 040, 2337 LXII H.D. TS SAVE ADDRESS 035,074, 041, 241, 040, 2337 LXII H.D. TS SAVE ADDRESS 035,074, 041, 241, 040, 2337 LXII H.D. TS 035,100, 076, 012, 2337 M. UNI H.D. TS 035,100, 076, 012, 2337 M. UNI H.D. TS 035,100, 076, 012, 2337 M. WILL 9,10 035,100, 076, 012, 2341 M. WILL 9,10 035,100, 076, 012, 2343 J. W.Y. WRITE-FIOON 035,100, 076, 012, 2344 M. W.	• • • • • • • • • • •			· <del>* /* / .</del> .	. Y. <del>4</del> Y	<b>.</b>	• • • • • • • • • • • • • • • • • • •					
035.042 302 034 035 232												
0.35.045 1.72 2323 MOV A.D. (A) = CHECKSUM 0.35.046 315 227 040 2324 CALL D. INB WRITE CHECKSYM 2.325 ** HAVE DONE WRITTING. LEAVE WRITE -GATE 'OPEN FOR' 3 CHARACTER 'TIMES 2.327 ** TO FINISH TUNNEL ERASING. 2.328 0.35.051 315 227 040 2329 CALL D. INB 0.35.054 315 227 040 2330 CALL D. INB 0.35.054 315 227 040 2331 CALL D. INB 0.35.055 315 227 040 2331 CALL D. INB 0.35.052 072 242 040 2331 CALL D. INB 0.35.052 072 242 040 2333 CALL D. INB 0.35.054 305 227 040 2333 CALL D. INB 0.35.054 070 070 070 070 070 070 070 070 070 07					035		• • • • • • • • • • • • • • • • • • • •			NOT DONE YET		
035.046   315 227 040   2324   CALL D.WB WRITE CHECKSYH				'								
2326				227	040			CALL			• • • • • • • • • • • • • • • • • • • •	
2326						2325						
0.35, 951   315   227   040   2329   CALL   D. WHE						2326	*	HAVE DO	VE WRITTING. LE	AVE WRITE-GATE OPEN FOR 3 CHARACTER TIMES	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · ·
0.35, 0.51   3.15   227   0.40   233.9   CALL   D.WNB     0.35, 0.54   3.15   227   0.40   233.1   CALL   D.WNB     0.35, 0.62   0.72   242   0.40   233.2   LDA   D.DUCTL     0.35, 0.65   0.05   2.34   0.40   233.2   LDA   D.DUCTL     0.35, 0.65   0.07   0.07   2.07   2.07   2.07   2.07     0.35, 0.67   0.05   0.05   0.05   0.05   0.05     0.35, 0.07   0.04   2.04   2.04   2.05   0.05   0.05     0.35, 0.07   0.04   2.04   0.04   2.03   0.05   0.05     0.35, 0.07   0.04   2.04   0.04   2.03   0.05     0.35, 0.07   0.04   2.04   0.04   2.03   0.05     0.35, 0.07   0.04   2.04   0.04   2.03   0.05     0.35, 0.07   0.04   2.04   0.04     0.35, 0.07   0.04   2.04   0.05     0.35, 1.00   0.76   0.12   0.05     0.35, 1.00   0.76   0.12   0.05     0.35, 1.00   2.06   2.04   0.05     0.35, 1.00   2.07   0.05     0.35, 1.00   2.07   0.05     0.35, 1.03   3.76   0.00   2.341     0.00   0.00   0.00   0.00     0.34   2.00   2.00     0.35, 1.05   3.02   3.77   0.34   3.34     0.35, 1.05   3.02   3.77   0.34   3.34     0.35, 1.10   1.07   2.348   MOV   M.A     0.35, 1.11   0.05   2.349   D.CX   H.A     0.35, 1.11   0.04   2.350   D.NR   H.A     0.35, 1.11   3.15   1.06   0.04   2.350   D.NR   H.A     0.35, 1.12   3.15   1.06   0.04   2.355   ERROR     0.35, 1.12   3.15   1.06   0.04   2.355   ERROR     0.35, 1.12   3.15   1.06   0.04   2.357   WRITE?   CALL   D.CDE   CDUNT DISK ERROR     0.35, 1.32   3.15   1.00   0.04   2.357   WRITE?   CALL   D.CDE   CDUNT DISK ERROR     0.35, 1.32   3.15   1.00   0.04   2.356   D.NC   WRITE?   TRY AGAIN     0.35, 1.32   3.15   0.06   0.04   2.357   WRITE?   CALL   D.CDE   CDUNT DISK ERROR     0.35, 1.32   3.15   0.06   0.04   2.357   WRITE?   D.CDE						.2327	*	TO FINIS	SH TUNNEL ERAS:	ING.		
035.054 315 227 040 2330												
035.057   315   227   040   2331   CALL   D. IMBR     035.042   072   242   040   2332   LDA   D. DUCTL     035.045   323   177   2333   DUT   DP. DC   DFF DISK CONTROL     035.046   035   0												
035.042 072 242 040 2332												
0.35, 0.45   3.23   1.77   2.333   DUT   DP.DC   DF DISK CONTROL	• • • • • • • • • • • • •											
035,067 095 2334 DCR B .035,070 312,136,040 2335 JZ D.XDK ALL DDNE  035,073 345 2336 PUSH H D.TS SAVE ADDRESS .035,074 041 241 040 2337 LXI H.D.TS .035,077 041 241 040 2337 LXI H.D.TS .035,107 064 2338 INR M .035,102 .076,012 2339 MVI A.10 .035,102 .26 2340 SUB M .035,103 .076,000 2341 MVI A.0 .000,000 2342 ERRNZ 30864*2/15-1000A (A) = COUNT TO DELAY 30 CHARACTER TIMES .035,105 .302 .377 .034 2343 JNZ WRIT2.5 NOT AT END OF TRACK .2344 .2345 * MOVE TO NEXT TRACK .2346 .000,000 2347 ERRNZ D.TS-D.TT-1 .035,110 .167 2348 MOV M.A CLEAR CURRENT SECTOR INDEX .035,111 .053 2349 DCX H .035,112 .054 2355 INR M .035,112 .054 2355 INR M .035,112 .054 2355 CALL D.SDT SEEK DESIRED TRACK .035,113 .373 2351 EI RESTORE INTERRUPTS UNTIL *STS* CALL .035,114 .315 166 040 2355 CALL D.SDT SEEK DESIRED TRACK .035,117 .303 .375 .034 2353 JMP WRITE2 .2354 .2355 * ERROR .2355 * ERROR .2355 * ERROR .2351 * ERROR .2351 * ERROR .2352 * ERROR .2353					V-10					OFF DICK CONTROL		
0.35,070, 312,136,040 2335		035.067	005	( /	• • • • • • •		• • • • • • • • • • • • • • • • • • • •			OLL DIBU COMIKOF		
035,073 345   2336				136	040					ALL TIONE		
0.35,074					. 4 4						• • • • • • • • • • • • • • •	
0.35, 107				241	040							
035.102 226 2340 SUB M 035.103 076 000 2341 MUI A,0 000.000 2342 ERRNZ 30*64*2/15-1000A (A) = CDUNT TO DELAY 30 CHARACTER TIMES 035.105 302 377 034 2343 JNZ WRIT2.5 NOT AT END OF TRACK 2344 2345 * MOVE TO NEXT TRACK 2346 000.000 2347 ERRNZ D.TS-D.TT-1 035.110 167 2348 MOV M.A CLEAR CURRENT SECTOR INDEX 035.111 053 2349 DCX H 035.112 064 2350 INR M 035.113 373 2351 EI RESTORE INTERRUPTS UNTIL *STS* CALL 035.114 315 166 040 2352 CALL D.SDT SEEK DESIRED TRACK 035.117 303 375 034 2353 JMP WRITE2 2356 035.122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR 035.123 322 375 034 2358 JNC WRITE2 TRY AGAIN 035.125 322 375 034 2358 JNC WRITE2 TRY AGAIN 035.132 341 2360 WRITES FOP H RESTORE STACK								INR	M		• • • • • • • • • • • • • • • • • • • •	
0.35,103		035.100.	07.6.	.01.2.		.2339.		MVI	A,10			
000.000 2342 ERRNZ 30*64*2/15-1000A (A) = CDUNT TO DELAY 30 CHARACTER TIMES 035.105 302 377 034 2343 JNZ WRIT2.5 NOT AT END OF TRACK 2344 2345 * MOVE TO NEXT TRACK  000.000 2347 ERRNZ D.TS-D.TT-1 035.110 167 2348 MOV M.A CLEAR CURRENT SECTOR INDEX 035.111 053 2349 DCX H 035.112 064 2350 INR M 035.113 373 2351 EI RESTORE INTERRUPTS UNTIL *STS* CALL 035.114 315 166 040 2352 CALL D.SDT SEEK DESIRED TRACK 035.117 303 375 034 2353 JMP WRITE2 2354 2355 * ERROR 2356 035.125 312 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR 035.125 322 375 034 2358 JNC WRITE2 TRY AGAIN 035.130 076 023 2359 MVI A.EC.WF WRITE FAILURE 035.130 076 023 2359 MVI A.EC.WF WRITE FAILURE									M			
0.35,105 302 377 034 2343			97.6 .	000.0								
2344 2345 * MOVE TO NEXT TRACK  2346  000.000 2347 ERRNZ D.TS-D.TT-1  035.110 167 2348 MOV M.A CLEAR CURRENT SECTOR INDEX  035.111 053 2349 DCX H  035.112 064 2350 INR M  035.113 373 2351 EI RESTORE INTERRUPTS UNTIL *STS* CALL  035.114 315 166 040 2352 CALL D.SDT SEEK DESIRED TRACK  035.117 303 375 034 2353 JMP WRITE2  2354 2355 * ERROR  2355 * ERROR  035.122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR  035.125 322 375 034 2358 JNC WRITE2 TRY AGATN  035.132 341 2360 WRITE8 FOP H RESTORE STACK											<u> </u>	
2345 * MOVE TO NEXT TRACK 2346  000.000 2347 ERRNZ D.TS-D.TT-1  035.110 167 2348 MOV M.A CLEAR CURRENT SECTOR INDEX  035.111 053 2349 DCX H  035.112 064 2350 INR M  035.113 373 2351 EI RESTORE INTERRUPTS UNTIL *STS* CALL  035.114 315 166 040 2352 CALL D.SDT SEEK DESTRED TRACK  035.117 303 375 034 2353 JMP WRITE2  2354  2355 * ERROR  2355 * ERROR  035.122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR  035.123 375 034 2358 JNC WRITE2 TRY AGAIN  035.130 076.023 2359 MNC WRITE2 TRY AGAIN  035.130 076.023 2359 MNC WRITE TRY AGAIN  035.132 341 2360 WRITE8 POP H RESTORE STACK	• • • • • • • • • • • • • • • • • • • •	935.195.	392.	. <i>411.</i> .	934		• • • • • • • • • • • • • • • • • • • •	YN4	WR112.5	NUT AT END OF TRACK		
2346							•	MOUE TO	NEVT TOACK			
000.000	• • • • • • • • • • •		• • • • • • •						MEYL LINER			
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035.111 053 2349 DCX H 035.112 064 2350 INR M 035.113 373 2351 EI RESTORE INTERRUPTS UNTIL *STS* CALL 035.114 315 166 040 2352 CALL D.SDT SEEK DESIRED TRACK 035.117 303 375 034 2353 JMP WRITE2 2354 2355 * ERROR 2356 035.122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR 035.125 322 375 034 2358 JNC WRITE2 TRY AGAIN 0.35.130 076 023 2359 MVI A.FEC.WF WRITE FAILURE 035.132 341 2360 WRITES FOP H RESTORE STACK			167		• • • • • • •				M.A	CLEAR CHERENT SECTOR INDEX	• • • • • • • • • • • • • • • • • • • •	
035.112 064 2350 INR M 0.35.113 373 2351 EI RESTORE INTERRUPTS UNTIL *STS* CALL 035.114 315 166 040 2352 CALL D.SDT SEEK DESIRED TRACK 0.35.117 30.3 375 0.34 2353 JMP WRITE2 2354 2355 * ERROR 2356 0.35.122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR 0.35.125 322 375 034 2358 JNC WRITE2 TRY AGAIN 0.35.130 0.76 0.23 2359 MVI A.EC.WF WRITE FAILURE 0.35.132 341 2360 WRITES POP H RESTORE STACK										CEETIN CONNECTION THEEX		
035.114 315 166 040 2352 CALL D.SDT SEEK DESIRED TRACK 035.117 303 375 034 2353 JMP WRITE2 2354 2355 * ERROR 235,122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR 035.125 322 375 034 2358 JNC WRITE2 TRY AGAIN 035.130 076 023 2359 MUI A.EC.WF WRITE FAILURE 035.132 341 2360 WRITE8 POP H RESTORE STACK										***************************************	• • • • • • • • • • • • • • • • • • • •	
035.114 315 166 040 2352 CALL D.SDT SEEK DESIRED TRACK  035.117 303 375 034 2353 JMP WRITE2  2354  2355 * ERROR  2356  035.122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR  035.125 322 375 034 2358 JNC WRITE2 TRY AGAIN  035.130 076 023 2359 MVI A.EC.WF WRITE FAILURE  035.132 341 2360 WRITEB PDP H RESTORE STACK						2351		ΕI		RESTORE INTERRUPTS UNTIL *STS* CALL		
2354 2355 * ERROR 2356 035,122 315 160 040 2357 WRITE7 CALL D.CDE COUNT DISK ERROR 035,125 322 375 034 2358 JNC WRITE2 TRY AGAIN 035,130 076 023 2359 MVI A.EC.WF WRITE FAILURE 035,132 341 2360 WRITE8 POP H RESTORE STACK		035.114	315	166	040			CALL	D.SDT	SEEK DESIRED TRACK		
2355 * ERROR 2356  035,122 315 160 040 2357 WRITEZ CALL D.CDE COUNT DISK ERROR 035,125 322 375 034 2358 JNC WRITEZ TRY ABAIN 035,130 076 023 2359 MVI A.EC.WF WRITE FAILURE 035,132 341 2360 WRITEB POP H RESTORE STACK		035117	303.	.375.	.03.4	.2353.		P	WRITE2			
2356												
	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·						ERROR				
035.125 322 375 034 2358		035.100	71 F	140	040		METTER	CALL	n cnc	COUNT DICK CODOS		
							WN4.1E./					
035.132 341 2360 WRITES POP H RESTORE STACK												
		035.132	341	.Y#.V.			WRITER		.m.x.e.e.e.w.c			
				144	040		*****					
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2345   **   CDE - COUNT DISK ERRORS.   2366   CDE - IS GALLET WHEN A DISK BORY ERROR DECORS. IF THERE HAVE   2346   CDE - IS GALLET WHEN A DISK BORY ERROR DECORS. IF THERE HAVE   2369   TO COUNTED TO SOFT ERRORS FOR THIS OPERATION, THEN A HARD ERROR   2370   CDE - IS SOFT ERRORS FOR THIS OPERATION, THEN A HARD ERROR   2371   CDE - IS SOFT ERROR FOR THIS OPERATION, THEN A HARD ERROR   2372   CDE - IS SOFT ERROR FOR THIS OPERATION, THEN A HARD ERROR   2374   CDE - IS SOFT ERROR FOR THE SOFT ERROR   2374   CDE - IS SOFT ERROR FOR THE SOFT E	BROUTINES	•••••	• • • • • • • •		••••••••		CDE 10:00:08 02-APR-80
2366   #   CDB IS CALLED WHEN A DISK SOFT ERROR OCCURS. IF THERE HAVE   2367   #   CDC URED 10 SOFT ERRORS FOR THIS OPERATION. THEN A HARD ERROR   2377   #   ENTY   NOME   2372   #   ENTY   NOME   2373   #   USES   AFFIH.		•••••				MONT TYCK FEED	96.
2367					OPE C	SOURT DISK ENKO	NO •
					CDE IS	CALLED WHEN A	DISK SOFT ERROR OCCURS, IF THERE HAVE
2370   X   2371   X   2371   X   2371   X   2371   X   2371   X   2372   X   2371   X   2373   X   2373   X   2373   X   2373   X   2373   X   2374   X   2374   X   2375   X   2375   X   2376   X   2377   X							
2371   X			2369	*	IS FLAC	GGED.	
2372				*			
2374   USES   AFF.H-L							
2374   STATE   STATE					EXIT	C' SET IF HA	RD ERROR
2375   2376   2376   2377   2378   2379   CALL   D.STZ   SEEK TRACK ZERO   235.132   315. 213. 040   2379   CALL   D.STZ   SEEK TRACK ZERO   235.142   315. 146 040   2379   CALL   D.STZ   SEEK DESIRED TRACK   260   235.142   315. 146 040   2379   CALL   D.STZ   SEEK DESIRED TRACK   260   235.142   315. 146 040   2362   CALL   D.STZ   SEEK DESIRED TRACK   260   235.142   247.042   2350   CALL   D.STZ   SEEK DESIRED TRACK   260   235.142   247.042   235.142   CALL   D.STZ   D.STZ   CALL   D.STZ   D.STZ   CALL   D.STZ   D.STZ   CALL   D.STZ   CALL   D.STZ   D.STZ   CALL   D.STZ   CALL   D.STZ   D.STZ   CALL					HOEO		SARLED
2376   2377   R.DE   ET				·. <del>*</del>	nara	AILINE	
335, 136   373   2377   R. CRE   ET   RESTORE INTERRUPTS     335, 134   315   213 040   2379   CALL   D. STT   SEEN TRACK ZERO     335, 142   315   146   040   2379   CALL   D. STT   SEEN ESSIRED TRACK     335, 145   247   2380   ANA   A   CLEAR CARRY     335, 146   052   242   040   2381   LHLD   B. SECHT     335, 155   042   242   040   2383   SHLD   D. SECHT   INCREMENT COUNT     335, 155   041   242   040   2384   LXT   H.D. SECHT   TINCREMENT COUNT     335, 155   041   242   040   2384   LXT   H.D. SECHT   TINCREMENT COUNT     335, 154   055   057   385   DCR   H. OT TOO MANY     335, 155   057   386   2387   DCX   H. OT TOO MANY     335, 154   053   053   2387   DCX   H. OT TOO MANY     335, 155   056   2389   ADD   H. OT REMOVE SOFT COUNT     335, 155   206   2389   ADD   H. OT REMOVE SOFT COUNT     335, 156   167   2390   HOU   H.A   REMOVE SOFT COUNT     335, 157   067   2393   STC   COUNT HARD ERROR     335, 157   067   2393   STC   EXIT WITH 'C' SET     2396   ** DIS DECODE TRACK AND SECTOR NUMBER FROM     335, 157   067   2393   STC   EXIT WITH 'C' SET     2397   ** THE SUPPLIED SECTOR INDEX     2400   ** THE SUPPLIED SECTOR INDEX     2401   ** ENTRY (H.L.) = SECTOR NUMBER     2402   ** INTERRUPTS BISABLED     2403   ** ENTRY (H.L.) = SECTOR NUMBER     335, 127   305   2406   STORT     335, 127   305   2409   R. DTS   PUSH   B SAUE (EC)     335, 127   307   2410   LXT   B+-10     335, 127   307   2411   MOU   A+B   (A) = 3770     335, 204   042   240   040   2415   STA   D. TT   SET TRACK NUMBER     335, 204   042   240   040   2415   STA   D. TT   SET TRACK NUMBER     335, 204   042   240   040   2415   STA   D. TT   SET TRACK NUMBER     335, 204   042   240   040   2415   STA   D. TT   SET TRACK NUMBER							
0.35, 137   315, 124, 040   2378   CALL   D. STZ   SEEK TRACK ZERO		 : 77		B.CDE	FT		RESTORE INTERRUPTS
335 142   315 146 040   2379   CALL   D.SDT   SEEK BESIKED TRACK				N, ODE		D.STZ	
0.35.145   247							
035.146   052   262   040   2381	035.145 2	47				A	
335.151 043	035.146 0	52 262 040	2381		LHLD	D.SECNT	
0.35, 155	035.151 0	43				Н	
035.160							
0.35, 141   360   2386   RP	. 035.155 . 0	41.264.040.				H.D.DECNT	(HL) = #OPERATION ERROR COUNT
OSS-1462   OSS-165   OSS						М	NOT TOO MANY
0.35.163   0.76   3.66   2.389							NUT TUU MANY
O35,165   206   2389							
035,166						M	REMOUE SOFT COUNT
OOO							MENOTE COLL COURT
035.167 064 2392 INR M COUNT HARD ERROR 035.170 067 2393 STC 035.171 311 2394 RET EXIT WITH 'C' SET  2396 ** DTS - DECODE TRACK AND SECTOR. 2397 * 2398 DTS DECODES THE TRACK AND SECTOR NUMBER FROM 2399 * THE SUPPLIED SECTOR INDEX. 2400 * 2400 * 2401 * ENTRY (HL) = SECTOR INDEX 2402 * INTERRUPTS ENBALED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED 2406 * USES AFF.H.L 2407 2408 035.173 001 366 377 2410 LXI BF-10 035.174 107 2411 MOV A-B (A) = 377D 035.175 074 2412 DTSI INR A 035.201 332 177 035 2414 JC DTSI 035.201 332 177 035 2415 ST D.TT SET TRACK NUMBER 035.201 175 2416 MOV A-L		·					NT-1
035.170 067 035.171 311 2394 RET EXIT WITH 'C' SET  2396 ** DTS - DECODE TRACK AND SECTOR, 2397 * 2398 DTS DECODES THE TRACK AND SECTOR NUMBER FROM 2399 * THE SUPPLIED SECTOR INDEX. 2400 * 2401 * ENTRY (HL) = SECTOR INDEX 2402 * INTERRUPTS ENABLED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED 2406 * USES A+F+H+L 2407 2408 035.172 305 2408 035.173 001 366 377 2410 LXI B+10 035.174 170 2411 MOV A+B (A) = 3770 035.175 074 2412 DTS1 INR A 035.204 042 240 040 2415 STA D.TT SET TRACK NUMBER 035.204 042 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A+L		64					
2394   RET	035,170	67					
2396	035.1713	31.1		· · · · · · · · · · · · · · · · · · ·	RET		EXIT WITH 'C' SET
2397 * 2398 * DTS DECODES THE TRACK AND SECTOR NUMBER FROM 2399 * THE SUPPLIED SECTOR INDEX.  2400 * 2401 * ENTRY (HL) = SECTOR INDEX  2402 * INTERRUFTS ENABLED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2404 * D.TT = TRACK 2405 * INTERRUFTS DISABLED 2406 * USES A.F.H.L 2407 2408 035.172 305 2409 R.DTS PUSH B SAVE (BC) 035.173 001 366 377 2410 LXI B10 035.174 170 2411 MOV A.B (A) = 3778 035.175 074 2412 DTSI INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTSI 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L	************						
2397 * 2398 * DTS DECODES THE TRACK AND SECTOR NUMBER FROM 2399 * THE SUPPLIED SECTOR INDEX.  2400 * 2401 * ENTRY (HL) = SECTOR INDEX  2402 * INTERRUFTS ENABLED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2404 * D.TT = TRACK 2405 * INTERRUFTS DISABLED 2406 * USES A.F.H.L 2407 2408 035.172 305 2409 R.DTS PUSH B SAVE (BC) 035.173 001 366 377 2410 LXI B10 035.174 170 2411 MOV A.B (A) = 3778 035.175 074 2412 DTSI INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTSI 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L							
2398 * DIS DECODES THE TRACK AND SECTOR NUMBER FROM 2399 * THE SUPPLIED SECTOR INDEX.  2400 * 2401 * ENTRY (HL) = SECTOR INDEX  2402 * INTERRUPTS ENABLED  2403 * EXIT D.TS = SECTOR NUMBER  2404 * D.TT = TRACK  2405 * INTERRUPTS DISABLED  2406 * USES A,F,H,L  2407  2408  035,172 305 2409 R.DIS PUSH B SAVE (BC)  035,173 001 366 377 2410 LXI B,-10  035,174 170 2411 MOV A,B (A) = 377Q  035,175 074 2412 DISI INR A  035,200 011 2413 DAB B  035,201 332 177 035 2414 JC DISI  035,204 062 240 040 2415 STA D,TT SET TRACK NUMBER  035,207 175 2416 MOV A,L			2396	**	DTS -	DECODE TRACK AN	D SECTOR.
2399 * THE SUPPLIED SECTOR INDEX. 2400 * 2401 * ENTRY (HL) = SECTOR INDEX 2402 * INTERRUPTS ENABLED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED 2406 * USES A.F.H.L 2407 2408 035.172 305 2409 R.DTS PUSH B SAVE (BC) 035.173 001 366 377 2410 LXI B.F-10 035.176 170 2411 MOV A.B (A) = 377Q 035.177 074 2412 BTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L			2397	*			
2400 * 2401 * ENTRY (HL) = SECTOR INDEX 2401 * ENTRY (HL) = SECTOR INDEX 2402 * INTERRUPTS ENABLED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED 2406 * USES A.F.H.L 2407 2408 035.172 305 2409 R.DTS FUSH B SAVE (BC) 035.173 001 366 377 2410 LXI B10 035.176 170 2411 MOV A.B (A) = 3770 035.177 074 2412 DTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L				*			
2401 * ENTRY (HL) = SECTOR INDEX 2402 * INTERRUPTS ENABLED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED 2406 * USES A.F.H.L 2407 2408 035.172 305 2409 R.DTS PUSH B SAVE (BC) 035.173 001 366 377 2410 LXI B10 035.176 170 2411 MOV A.B (A) = 377Q 035.177 074 2412 BTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L				*	THE SU	PPLIED SECTOR 1	NDEX.
2402 * INTERRUPTS ENABLED 2403 * EXIT D.TS = SECTOR NUMBER 2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED 2406 * USES A.F.H.L 2407 2408 035.172 305 2409 R.DTS PUSH B SAVE (BC) 035.173 001 366 377 2410 LXI B10 035.176 170 2411 MOV A.B (A) = 377Q 035.177 074 2412 DTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L	· · · · · · · · · · · · · · · · · · ·			*	C" \$ 1 TE 10. \$ 7	/III ) . OFOTO	TABLEY
2403 * EXIT D.TS = SECTOR NUMBER  2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED  2406 * USES A.F.H.L 2407  2408  0.35.172 3.05				<b>.*</b>	FULKY		
2404 * D.TT = TRACK 2405 * INTERRUPTS DISABLED 2406 * USES A,F,H,L 2407 2408 035,172 305 2409 R.DTS PUSH B SAVE (BC) 035,173 001 366 377 2410 LXI B,-10 035,176 170 2411 MOV A,B (A) = 3770 035,177 074 2412 DTS1 INR A 035,200 011 2413 DAD B 035,201 332 177 035 2414 JC DTS1 035,204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035,207 175 2416 MOV A,L	······································	••••		•		LIVICACUE LA EL	
2405 * INTERRUPTS DISABLED  2406 * USES A,F,H,L  2407  2408  035,172 305 2409 R.DTS PUSH B SAVE (BC)  035,173 001 366 377 2410 LXI B,-10  035,176 170 2411 MOV A,B (A) = 377Q  035,177 074 2412 DTS1 INR A  035,200 011 2413 DAD B  035,201 332 177 035 2414 JC DTS1  035,204 062 240 040 2415 STA D.TT SET TRACK NUMBER  035,207 175 2416 MOV A,L			2402	*	FYTT		
2406 * USES A,F,H,L 2407  2408  035,172 305 2409 R.DTS PUSH B SAVE (BC)  035,173 001 366 377 2410 LXI B,-10  035,176 170 2411 MOV A,B (A) = 377Q  035,177 074 2412 DTS1 INR A  035,200 011 2413 DAD B  035,201 332 177 035 2414 JC DTS1  035,204 062 240 040 2415 STA D,TT SET TRACK NUMBER  035,207 175 2416 MOV A,L	······································		2402 2403	* * *	EXIT	D.TS = SECTOR	
2407 2408 035,172 305 2409 R.DTS PUSH B SAVE (BC) 035,173 001 366 377 2410 LXI B,-10 035,176 170 2411 MOV A,B (A) = 3770 035,177 074 2412 DTS1 INR A 035,200 011 2413 DAD B 035,201 332 177 035 2414 JC DTS1 035,204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035,207 175 2416 MOV A,L			2402 2403 2404	*	EXIT	D.TS = SECTOR	NUMBER
2408 035.172 305 2409 R.DTS PUSH B SAVE (BC) 035.173 001 366 377 2410 LXI B10 035.176 170 2411 MOV A.B (A) = 377Q 035.177 074 2412 BTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L			2402 2403 2404 2405	*		D.TS = SECTOR D.TT = TRACK INTERRUPTS D	NUMBER
035.173 001 366 377 2410 LXI B,-10 035.176 170 2411 MOV A,B (A) = 3770 035.177 074 2412 BTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A,L			2402 2403 2404 2405 2406	*		D.TS = SECTOR D.TT = TRACK INTERRUPTS D	NUMBER
035.176 170 2411 MOV A.B (A) = 377Q 035.177 074 2412 BTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L			2402 2403 2404 2405 2406 2407 2408	* *	USES	D.TS = SECTOR D.TT = TRACK INTERRUPTS D	SABLED
035.177 074 2412 BTS1 INR A 035.200 011 2413 DAD B 035.201 332 177 035 2414 JC DTS1 035.204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035.207 175 2416 MOV A.L			2402 2403 2404 2405 2406 2407 2408 2409	* *	USES	D.TS = SECTOR D.TT = TRACK INTERRUPTS D: A,F,H,L	SABLED
035,200 011 2413 DAD B 035,201 332 177 035 2414 JC DTS1 035,204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035,207 175 2416 MOV A,L	035.173 (	001 366 377	2402 2403 2404 2405 2406 2407 2408 2409 2410	* *	USES PUSH LXI	D.TS = SECTOR D.TT = TRACK INTERRUPTS D: A,F,H,L B B,-10	SABLED SAVE (BC)
035,201 332 177 035 2414 JC DTS1 035,204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035,207 175 2416 MOV A,L	035.173 ( 035.176 1	001 366 377 170	2402 2403 2404 2405 2406 2407 2408 2409 2410 2411	* * * R.DTS	USES PUSH LXI MOV	D.TS = SECTOR D.TT = TRACK INTERRUPTS D: A,F,H,L  B B,-10 A,B	SABLED SAVE (BC)
035,204 062 240 040 2415 STA D.TT SET TRACK NUMBER 035,207 175 2416 MOV A,L	035.173 ( 035.176 1 035.177 (	001 366 377 170 074	2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412	* * * R.DTS	USES PUSH LXI MOV INR	D.TS = SECTOR D.TT = TRACK INTERRUPTS D A.F.H.L  B B,-10 A,B A	SABLED SAVE (BC)
035,207 175 2416 MOV A,L	035.173 ( 035.176 1 035.177 ( 035.200 (	001 366 377 170 074 011	2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413	* * * R.DTS	USES PUSH LXI MOV INR DAD	D.TS = SECTOR D.TT = TRACK INTERRUFTS D: A,F,H,L  B B,-10 A,B A B	SABLED SAVE (BC)
	035.173 ( 035.176 1 035.177 ( 035.200 ( 035.201	001 366 377 170 074 011 332 177 035	2402 2403 2404 2405 2406 2407 2408 2410 2411 2412 2413 2414	* * * R.DTS	USES PUSH LXI MOV INK DAD JC	D.TS = SECTOR D.TT = TRACK INTERRUPTS D. A,F,H,L  B B,-10 A,B A B DTS1	NUMBER SABLED SAVE (BC) (A) = 3770
	035.173 ( 035.176 1 035.177 ( 035.200 ( 035.201 0	001 366 377 170 074 011 332 177 035 062 240 040	2402 2403 2404 2405 2406 2407 2408 2409 2411 2412 2413 2414 2415	* * * R.DTS	USES PUSH LXI MOV INK DAD JC STA	D.TS = SECTOR D.TT = TRACK INTERRUPTS D: A,F,H,L  B B,-10 A,B A B DTS1 D.TT	NUMBER SABLED SAVE (BC) (A) = 3770

SYDD - SYSTEM SUBROUTINES.		, PCA.	I			••••••	DTS	HEATH H8ASM V1.4 01/20/78 10:00:09 02-APR-80	FAGE	49
· · · · · · <u>, , , , . · · · · · · · · · · · · · · · </u>					<u></u>	******************				
035.212 035.215	062 241 301	040	2418 2419		STA POP	D.TS	SET SECTOR		• • • • • • • • • • • • • • • • • • • •	
035.216	.303.225.	035	2420		JMP	B R√SDT	RESTORE (BC) SEEK DESTRED	roark		
							SEEN DESIRED	THEN		
									****************	
				**	SDT -	SEEK DESIRED TRA	ACK∙			******
			2423° 2424	*	SDT MO	VES THE DISK AR	M TO THE DESIRED	(D.TT) TRACK.		
			2425	*			1 The Filter Attention of the Control	A TOTAL TOTA	• • • • • • • • • • • • • • • • • • • •	
• • • • • • • • • • • • • • • • • • • •			2426. 2427.	**************************************	ENTRY	NONE NONE		***************************************		
			2428	*	USES	A,F,H,L				
• • • • • • • • • • • • • • • • • • • •			2429					•••••••		
			2430							
			2431	. <b>*</b>	WOVE AI	RM IN		***************************************	• • • • • • • • • • • • • • • • • • • •	
035,221			2432	**************************************	*********			***************************************		
	315 171		2433 2434	SDT3	INR	M TI MAT				
	91917.1		2435		CALL	D.MAI	• • • • • • • • • • • • • • • • • • • •			
			2436							
	052 245	040 2	2437	∵R.SDT	LHLD	DITEKPT			•••••	
	072 240		2438		LDA	II.TT				
035.233			2439		CMP	Ř		***************************************	•••••	
035.234 035.237	.312.210 362.221	.0402	2440. 2441		JE JF	D.STS SDT3	GOT_THERE			
033+23/	302 221		2442		JF	2013	MUST MOVE IN			
•••••••			2443	*	MOVE A	kw nut	• • • • • • • • • • • • • • • • • • • •			· · · · · · · · · · · · · · · · · · ·
		1	2444							
035,242			2445	SDTI	DCR	M	UPDATE TRACK N	(ÚMBER	•••••	
035.243	315 174	040 2	2446		CALL	D.MAO	MOVE ARM OUT	*.3.z.* · · · · · · · · · · · · · · · · · · ·		
030+246	303 225	030 3	2447		"UAMC"	R.SDT	SEE IF THERE'S	/ET		
									•••••	
	*************		2449	**	MAT - I	10VE DISK ARM IN	I ONE TRACK			• • • • • • • • • • • • • • • • • • • •
			2450		'.'! ! †'		4. OHE TIMEK.			· · · · · · · · · · · · · · · · · · ·
			2451	*	ENTRY	NONE				
			2452	*	ÉXÍT	NONE				
			2453	*	USES	A,F				
			2454 2455							
			2456 2456	**	MAO - 1	MOVE ARM OUT.				
			2457	*	11110	SEFE MAIN OUT				
			2458	*	USES	A+F			• • • • • • • • • • • • • • • • • • • •	
			2459				****************			
075 051	074 040		2460	F. V.+	WILT	A P.P. P			•••••	
035.251	.97.9949		2461 2462	R.MAI	MVI	A,DF,DI	SET DIRECTION			
035.253	376		2463		DB ·	MI.CPI	CUBBLE ADV THE	TEHETTON		
035.254	257		2464	R.MAO	XRA		GOBBLE XRA INS SET DIRECTION	TRUL LUR	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
			2465				WELL DINEGITOR			
	345		2466		FUSH	Н	***************************************		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
035.255										
035,255 035,256			2467		MOV	H•A				

SYDD - SYSTEM SUBROUTINES.				• • • • • • • • • • • • • • • • • • • •		MAI	HEATH H8ASM V1.4 01/20/78	FAGE	50
035.257 0	72 242 040	2468		LDA	D.DVCTL				
035,262 3	46 237	2469		ANI		ST			
035+264 2	64	2470		ORA	Н	SET DIRECTION			
035+265 3	23 177	2471		OUT	DF.DC				
035.267 3	41	2472		POP	Н	RESTORE (HL)	***************************************		
035.270 3	66. 100	2473		ORI	DF.ST				
	23 177	2474		OUT	DP.DC	START STEP			
035,274 3	56, 100	2475		XRI	DF.ST				
	23 177	2476		OUT	DP+DC	COMPLETE STEP			
	72 115 040	.2477.		LDA	I.MAIA	(A)=MS/2.FOF	R. TRACK TIMING		
035.303		2478	•	SET	R.DLY	SET REFERENCE			
	• • • • • • • • • • • • • • • • • • • •	. 2479.	*	JMF	D.DLY	DELAY.8.MS			
		2481 2482 2483	*	ENTRY	DELAY BY FRONT F	OND COUNT/2			
• • • • • • • • • • • • • • • • • • • •		2484 2485		EXIT	NONE				· · · · · · · · · · · · · · ·
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	. 2486. 2487		• • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •			
035.303 3	A5		R.DLY	PUSH	ш				
035.304	41 033 040	2480	!\t#\\	LXI	H, TICCNT				
035.307 2		2490		ADD					
035.310 2			DLYI	CMP			••••••		
	02.310.035		2	JNE					
	41	2493		POP	<del>Ү</del> Тэ. Г. А			• • • • • • • • • • • • • • • • • • • •	
	11	2494		RET	••				
								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
		2496		LFS -	LOCATE PROPER SE	CTUR.			
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	.2497 2498	₫	L Free Fre	ADO OUED OFOTOR				
				LES NE	HDS OVER SECTOR	HEADERS UNITE IN	HE PROPER SECTOR		
		.2499. 2500	? *		σ <i>ε</i> τ				
		2501		HEAN E	NTRY. THE ARM OF	OULD BE BOSTTON	NED DVER THE SECTOR.		
		2502		90, 90, 3	o.co.czzz <b></b>	AMEN' WE' LIBOY LYAI	TEM. MYER. THE DEUTUK		
		2503		D.TT =	DESIRED TRACK				
		2504	 *		DESIRED SECTOR		***************************************		
		2505		2.70					
		2506	*	ENTRY	NONE	• · · · · · · · · · · · · · · · · · · ·			
		2507	*		INTERRUPTS BIS	ABLETI			
		2508	*	<del></del> . : † .*	'C' SET IF ERR	OR	***************************************		• • • • • • • • • • • •
		2000		USES					
		2509	*			• • • • • • • • • • • • • • • • • • • •	••••••••••••••••		
			. <b>*</b>						
	• • • • • • • • • • • • • • • • • • • •	2509	. *						
035/316 3	15 210 040	2509 2510 2511	.# LPSO	CALL	Dists	SKIP THIS SECT			
035.316 3	15 210 040	2509 2510 2511		CALL	D.STS	SKIP THIS SECT	ror		
	15 210 040 72 116 040	2509 2510 2511 2512 2513		CALL	D.STS		• • • • • • • • • • • • • • • • • • • •		
035.321 0 035.324 1	72 116 040 07	2509 2510 2511 2512 2513	LPSO	LDA	D+LFSA	(A) = #OF TRYS	S FOR THIS SECTOR		
035.321 0 035.324 1 035.325 0	72 116 040 07 72 244 040	2509 2510 2511 2512 2513 2514	LPSO		D+LFSA	(A) = #OF TRYS	• • • • • • • • • • • • • • • • • • • •		
035.321 0 035.324 1	72 116 040 07 72 244 040	2509 2510 2511 2512 2513 2514 2515	LPSO	LDA MOV	D.LPSA B.A	(A) = #OF TRYS	S FOR THIS SECTOR		

SUBROUTINES		E			DRIVER		······	HEATH H8ASM V1.4 01/20/78 PAGE 51 LPS 10:00:10 02-APR-80
035.331	<u>495</u> .	714		2510		JNZ	LPSO	WAIT FOR HEADS TO SETTLE
030+331	302	310	033	2519		JIVZ	LFSV	WHI! FOR MEHDS TO SETTLE
035.334	363				LFS1	p.i		DISABLE INTERRUFTS
035.335		221	040	2521	12, 0, 1	CALL	D.WSC	WAIT SYNC CHARACTER
035.340				2522		JC	LPS3	NONE
035.343				2523		LHLD	D.VOLPT	None
035.346				2524		CALL	D.RDB	
035.351	276			2525		CMP	M	SEE IF PROPER VOLUME
035.352		032	.939	2526		JNE	LFS4	WRONG YOLUME
035.355	041	240	040	2527		LXI	H,D.TT	
035.360				2528		CALL	D.RDB	
035.363				2529		CMP	М	SEE IF PROPER TRACK
035,364		037	036	2530		JNE	LPS5	WRONG TRACK
000,000				2531		ERRNZ	D.TS-D.TT-1	***************************************
035.367	043			2532		INX		
035,370		202	040			CALL	D.RDB	
035.373	276			2534		CMP	······································	
035.374	302	014	036	2535		JNE	LPS2	WRONG SECTOR
				2536		· · · · · · · · · · · · · · · ·		
				2537	*	GOT RIG	HT SECTOR. READ	CHECKSUM
				2538				***************************************
035,377	142			2539		MOV	H • II	
036.000		202	040	2540		CALL	D.RDB	
036.003	274			2541		CMP	Н	
036.004	310			2542		RE		ALL OK
036,005	. 056	270		2543		MVI	L, #D, E, HCK	HEADER CHECKSUM ERROR
036.007				2544	LFS1.5	MVI	H,D,ERR/256	(HL) = ERROR BYTE ADDRESS
000.040				2545		SET	D.ERR/256	
000.000				2546		ERRNZ	D.ERRL/256	MUST BE IN SAME BANK
036.011	315.	.232	040	2547		CALL	D.ERRT	COUNT ERROR
				2548				
				2549	*	WRONG S	SECTOR OR BAD DA	TA. TRY SOME MORE
				2550				
036,014		.21.9.	.040		LPS2	CALL	D.STS	SKIP THIS SECTOR
036.017				2552		DCR	B	
036.020		.334	.035			JNZ	LPS1	TRY AGAIN
036,023				2554		STC		ENDUGH TRYS
036,024	311.			2555		RET	********	ERROR
07/ 005		5		2556				
036.025	956.	266.	·457		LPS3	MVI	L, #D, E, HSY	HEADER SYNC ERROR
030+027	303	007	საი	2558		JMF'	LPS1.5	
	·····			2559				
036.032			A7/		LPS4	MVI	L,#D.E.VOL	BAD VOLUME NUMBER
036.034	<u></u>	.99.7.	.V3.6			JMF.	LPS1.5	COUNT ERROR
036.037	054	272		2562	LDOE	MIIT	L AD C TOP	DAD TOACK MINETE
036.041			074	2564	LPS5	.MVI JMP	L, #D, E, TRK	BAD TRACK NUMBER
030+041	303	007	036	2004		JMP.	LPS1.5	
								***************************************
• • • • • • • • • • • • • • • • • • • •		• • • • • •			• • • • • • • • • • • • • • • • • • • •		**************************************	
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SUBROUTINES.	M.pEALCE.N.RE					RDB	HEATH H8ASM V1.4 01/20/78 10:00:12 02-AFR-80	FAGE 52
		2566	**	RDB - F	EAD BYTE FROM	DISK.	• • • • • • • • • • • • • • • • • • • •	
		2567		112.2.	control to the trickly	F. I. O. K.		
		~2588		RDB REA	ADS THE NEXT BY	YTE FROM THE DISK.		
		2569			Party Trial Practice and	TE THE DISK!		
		2570		ENTRY	(D) = CHECKSU	IM		
		2571	*	EXIT	(A) = BYTE			
		~2572	*		(D) UPDATED	***************************************	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
		2573	*	USES	A,F,II,E			
		2574						
	Company of the second of the s	2575						
036.044	333 175		RIRDB	IN	UPIST			
000.000		2577		ERRNZ	UF•RDA-1			
036.046		2578		RAR				
	322 044 036	2579		JŅC	R.RDB	NOT READY YET		
036.052		2580		IN	UP • DP	(A) = DATA		
036,054 036,055		2581		YQV	. <u>E</u> ,A		·	
036.056		2582		XRA	D	DIFFER		
036.057		2583 2584		RLC		SHIFT_LEFT		
036,060		2585		MOV	D,A	REPLACE		
		2586.		∴MOV RET	.A,E	(A) = CHAR EXIT		
0001001	011	2000		NE.		EXII		
		2590 2591	*				ТІМП	
		2591 2592 2593 2594	* * *	D.DVCTL D.TRKPT	= MOTOR ON, I = ADDRESS OF	DEVICE SELECT DEVICE TRACK NUMBE		
		2591 2592 2593 2594 2595	* * * *	D.DVCTL D.TRKPT ENTRY	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER		
		2591 2592 2593 2594 2595 2596	* * * *	D.DVCTL D.TRKPT ENTRY EXIT	= MOTOR ON, I = ADDRESS OF AIO.UNI = UN) (HL) = (D.TRM	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER		······
		2591 2592 2593 2594 2595 2596 2597	* * * *	D.DVCTL D.TRKPT ENTRY	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER		
		2591 2592 2593 2594 2595 2596 2597 2598	* * * *	D.DVCTL D.TRKPT ENTRY EXIT	= MOTOR ON, I = ADDRESS OF AIO.UNI = UN) (HL) = (D.TRM	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER		
036.062	076 012	2591 2593 2593 2594 2595 2596 2597 2598 2599	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRK A.F.H.L	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER		
036.064	062 264 040	2591 2593 2593 2594 2595 2596 2597 2598 2599	* * * *	D.DVCTL D.TRKPT ENTRY EXIT	= MOTOR ON, I = ADDRESS OF AIO.UNI = UN) (HL) = (D.TRM	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER (PT)	ER	
036.064 036.067	062 264 040 072 061 041	2591 2592 2593 2594 2595 2596 2597 2598 2599 2600	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRN A.F.H.L	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER (PT)		
036.064 036.067 036.072	062 264 040 072 061 041 365	2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRN A,F,H,L A,ERPICNI D.OECNI	PEVICE SELECT DEVICE TRACK NUMBE IT NUMBER (PT)	ER COUNT FOR OPERATION	
036.064 036.067 036.072 036.073	062 264 040 072 061 041 365 074	2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRN A.F.H.L A.ERFICNT I.OECNT AIO.UNI	PEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT) SET MAX ERROR (	ER  COUNT FOR OPERATION  ER	
036,064 036,067 036,072 036,073 036,074	062 264 040 072 061 041 365 074	2591 2592 2593 2594 2595 2597 2598 2599 2600 2601 2602 2603 2604 2605	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA PUSH INR ADD	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRN A,F,H,L A,ERPTCNT I.OECNT AIO.UNI PSW A	PEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT) SET MAX ERROR (	ER COUNT FOR OPERATION	
036.064 036.067 036.072 036.073 036.074 000.000	062 264 040 072 061 041 365 074	2591 2592 2593 2594 2595 2597 2599 2600 2601 2602 2604 2605 2606	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LUA PUSH INR ADD ERRNZ	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRN A,F,H,L A,ERPICNI D.OECNI AIO.UNI PSW A DF.DSO-2	PEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT) SET MAX ERROR (	ER  COUNT FOR OPERATION  ER	
036.064 036.067 036.072 036.073 036.074 000.000	062 264 040 072 061 041 365 074 207	2591 2592 2593 2594 2595 2596 2597 2598 2599 2601 2602 2603 2604 2606 2606 2606	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA PUSH INR ADD ERRNZ	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRN A,F,H,L A,ERPTCNT I.OECNT AIO.UNI PSW A	PEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBE (A) = 1 IF DEV	ER  COUNT FOR OPERATION  ER	
036.064 036.067 036.072 036.073 036.074 000.000 000.000 036.075	062 264 040 072 061 041 365 074 207	2591 2592 2593 2594 2595 2596 2597 2598 2599 2601 2602 2603 2604 2605 2606 2607 2608	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA PUSH INR ADD ERRNZ ERRNZ DI	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRK A.F.H.L  A.ERFICNT I.OECNT AIO.UNI FSW A DF.DSO-2 DF.DSO-2	PEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBE (A) = 1 IF DEV	COUNT FOR OPERATION  ER  O. 2 IF DEV 1	
036.064 036.067 036.072 036.073 036.074 000.000 000.000 036.075	062 264 040 072 061 041 365 074 207 363 041 242 040	2591 2592 2593 2594 2595 2596 2599 2600 2601 2603 2604 2606 2606 2607 2608 2608	* * * * * * *	N.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA PUSH INR ADD ERRNZ ERRNZ DI LXI	= MOTOR ON, I = ADDRESS OF AIO.UNI = UNI (HL) = (D.TRN A,F,H,L A,ERPICNI D.OECNI AIO.UNI PSW A DF.DSO-2	DEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBE (A) = 1 IF DEV  SELECT 0 OR 1	COUNT FOR OPERATION  ER  O. 2 IF DEV 1	
036.064 036.067 036.072 036.073 036.074 000.000 000.000 036.075 036.075	062 264 040 072 061 041 365 074 207 363 041 242 040	2591 2592 2593 2594 2595 2596 2597 2598 2600 2601 2602 2603 2604 2605 2606 2607 2609 2609	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA PUSH INR ADD ERRNZ ERR	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRN A,F,H,L  A,ERPTCNT I.OECNT AIO.UNI PSW A A DF.DSO-2 DF.DSO-2 H,D.DVCTL M	DEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBE (A) = 1 IF DEV  SELECT 0 OR 1	COUNT FOR OPERATION  ER  O. 2 IF DEV 1	
036.064 036.067 036.072 036.074 036.074 000.000 000.000 036.075 036.075 036.101	062 264 040 072 061 041 365 074 207 363 041 242 040 256 346 177	2591 2592 2593 2594 2595 2596 2597 2598 2599 2601 2602 2603 2603 2605 2606 2607 2608 2608 2609 2610 2611	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES  MVI STA LIA PUSH INR ADD ERRNZ ERRNZ ERRNZ LXI XRA ANI	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRK A.F.H.L  A.ERFICNT I.OECNT AIO.UNI FSW A DF.DSO-2 DF.DSO-2	PEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBE (A) = 1 IF DEV  SELECT 0 OR 1  INTERLOCK CLOCK	COUNT FOR OPERATION  ER  O, 2 IF DEV 1	
036.064 036.067 036.072 036.073 036.074 000.000 000.000 036.075 036.076 036.101	062 264 040 072 061 041 365 074 207 363 041 242 040 256 346 177	2591 2592 2593 2594 2595 2596 2599 2599 2601 2602 2603 2604 2606 2606 2606 2606 2611 2611 2611	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LUA PUSH INR ADD ERRNZ ERRNZ DI LXI XRA ANI XRA	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRK A.F.H.L  A.ERFICNT I.OECNT AIO.UNI PSW A A DF.DSO-2 DF.DS1-4  H.D.DVCTL M 377Q-DF.WR M	DEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBE (A) = 1 IF DEV  SELECT 0 OR 1  INTERLOCK CLOCK  MERGE WITH DF.	COUNT FOR OPERATION  ER  O, 2 IF DEV 1	
036.064 036.067 036.072 036.073 036.074 000.000 000.000 036.075 036.076 036.101 036.102 036.104	062 264 040 072 061 041 365 074 207 363 041 242 040 256 346 177 256 366 020	2591 2592 2593 2594 2595 2596 2599 2599 2601 2602 2603 2604 2605 2606 2606 2607 2608 2606 2611 2612 2613	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA PUSH INR ADD ERRNZ ERRNZ ERRNZ DI LXI XRA ANT XRA ORY	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRK A.F.H.L  A.ERFTCNT I.OECNT AIO.UNI FSW A DF.ISO-2 DF.ISO-2 DF.ISO-4  H.I.DVCTL M 3779-DF.WR M DF.MO	DEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBER (A) = 1 IF DEV  SELECT 0 OR 1  INTERLOCK CLOCK MERGE WITH DF.	COUNT FOR OPERATION  ER  O. 2 IF DEV 1	
036.064 036.067 036.072 036.074 000.000 000.000 036.075 036.075 036.101 036.102 036.104 036.105	062 264 040 072 061 041 365 074 207 363 041 242 040 256 346 177 256 366 020	2591 2592 2593 2594 2595 2596 2599 2600 2601 2602 2603 2604 2606 2606 2606 2611 2611 2611 2611 2614	* * * * * * *	N.DVCTL D.TRKPT ENTRY EXIT USES  MVI STA LIDA PUSH INR ADD ERRNZ ERRNZ DI LXI XRA ANI XRA ORI MOV	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRK A.F.H.L  A.ERFTCNT II.OECNT AIO.UNI FSW A.A.B.F.DSO-2 DF.DSO-2 DF.DS1-4  H.D.DVCTL M.3779-DF.WR M.DF.MO M.A	DEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (SET MAX ERROR ( SAVE UNIT NUMBER (A) = 1 IF DEV SELECT 0 OR 1 INTERLOCK CLOCK MERGE WITH DF. WERGE WER	ER  COUNT FOR OPERATION  ER  O. 2 IF DEV 1  K INTERRUPTS  JR BIT FROM D.DVCTL	
036.064 036.067 036.072 036.073 036.074 000.000 036.075 036.076 036.101 036.102 036.104 036.105 036.107	062 264 040 072 061 041 365 074 207 363 041 242 040 256 346 177 256 366 020 167 323 177	2591 2592 2593 2594 2595 2596 2597 2598 2500 2601 2602 2603 2603 2605 2606 2607 2606 2611 2611 2611 2611 2611 2611 2611	* * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LDA PUSH INR ADD ERRNZ ERRNZ ERRNZ DI LXI XRA ANT XRA ORY	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRK A.F.H.L  A.ERFTCNT I.OECNT AIO.UNI FSW A DF.ISO-2 DF.ISO-2 DF.ISO-4  H.I.DVCTL M 3779-DF.WR M DF.MO	DEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBER (A) = 1 IF DEV  SELECT 0 OR 1  INTERLOCK CLOCK MERGE WITH DF.	ER  COUNT FOR OPERATION  ER  O. 2 IF DEV 1  K INTERRUPTS  JR BIT FROM D.DVCTL	
036.064 036.067 036.072 036.074 000.000 000.000 036.075 036.101 036.101 036.104 036.104	062 264 040 072 061 041 365 074 207 363 041 242 040 256 346 177 256 366 020 167 323 177	2591 2592 2593 2595 2595 2596 2596 2596 2599 2601 2602 2603 2603 2606 2606 2606 2611 2612 2613 2614 2615 2616	* * * * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES MVI STA LUA PUSH INR ADD ERRNZ ERRNZ DI LXI XRA ANI XRA ORI MOV OUT	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRN A.F.H.L  A.ERFICNT D.OECNT AIO.UNI PSW A A DF.DSO-2 DF.DS1-4  H.D.DVCTL M 377Q-DF.WR M DF.MO M,A DF.DC	DEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (PT)  SET MAX ERROR ( SAVE UNIT NUMBE (A) = 1 IF DEV  SELECT 0 OR 1  INTERLOCK CLOCK  MERGE WITH DF.W  MOTOR ON UPDATE SELECT DRIVE, L	ER  COUNT FOR OPERATION  ER  O, 2 IF DEV 1  K INTERRUPTS  JR BIT FROM D.DVCTL	
036.064 036.067 036.072 036.073 036.074 000.000 036.075 036.076 036.101 036.102 036.104 036.105 036.107	062 264 040 072 061 041 365 074 207 363 041 242 040 256 346 177 256 366 020 167 323 177	2591 2592 2593 2594 2595 2596 2597 2598 2500 2601 2602 2603 2603 2605 2606 2607 2606 2611 2611 2611 2611 2611 2611 2611	* * * * * * * * *	D.DVCTL D.TRKPT ENTRY EXIT USES  MVI STA LDA PUSH INR ADD ERRNZ ERRNZ ERRNZ ERRNZ ERRNZ ORT XRA ANT XRA ORT MOV OUT SEE IF	= MOTOR ON, I = ADDRESS OF  AIO.UNI = UNI (HL) = (D.TRN A,F.H.L  A,ERPTCNT I.OECNT AIO.UNI PSW A A DF.DSO-2 DF.DSO-2 DF.DSI-4  H,D.DVCTL M 3770-DF.WR M M,A DF.MO M,A DF.DC HEADS HAVE BEE	PEVICE SELECT DEVICE TRACK NUMBER (T NUMBER (FT)  SET MAX ERROR ( SAVE UNIT NUMBER (A) = 1 IF DEV  SELECT 0 OR 1  INTERLOCK CLOCK  MERGE WITH DF. L  MOTOR ON UPDATE SELECT DRIVE, L  N UNLOADED LONG EN	ER  COUNT FOR OPERATION  ER  O, 2 IF DEV 1  K INTERRUPTS  WR BIT FROM D.DVCTL	

SYDD - SYSTEM DEVICE / DE SUBROUTINES.	······	•••••		HEATH HBASM V1.4 01/20/78 PAGE 53 SDP 10:00:12 02-APR-80
036.112 041 244 040	2619	LXI	H,D,DLYHS	
036,115 176	2620	MOV	A+M	(A) = FLAG SET BY XIT
036.116 247	2621	ANA	A	
036.117 066 000	2622	MVI	M+0	ASSUME NO RE-LOAD
036.121 302 130 036	2623	JNZ	SDF1	NO RE-LOAD
036.124 072 117 040	2624	LDA	D.SDPA	(A) = HEAD SETTLE WAIT TIME/4
036.127 167	2625	MOV	MyA	SET FOR CLOCK TIMER
036.130 053	2626 SDP1 2627	DCX	H	\$\f\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
036.131 176	2628	MOV	A+M	(A) = MOTOR ON DELAY
036.132 066 170	. 2629	MOI		60 SECONDS BEFORE TURN OFF AGAIN
036,134 247	2630	ANA	A	'Z' IF MOTOR TURNED OFF
036.135 043	2631	INX	·- н · · · · · · · · · · · · · · · · · ·	(HL) = #D,DLYHS
036.136 302 145 036	2632	JNZ	SDP2	MOTOR IS STILL ON
036,141 072 120 040	2633	LDA	D.SDPB	(A) = MOTOR WAIT TIME (MS/4)
036.144 167	2634	MOV	MyA	
036.145 373	~2635 ~ SDP2 ~ · ·	.EI		*** RESTORE TATERRUPTS
036.146 361	2636	POP	PSW	(A) = UNIT NUMBER
036.147 207	2637	ADD	``A`	(A) = 2*UNIT NUMBER
036.150 041 251 040	. 2638	LXI	H,D.DRVTB	
036.153 205	2639	ADD	L	
036.154 157	2640	MOV	L.A.	(HL) = ADDRESS OF TRACK ENTRY
036,155 042 245 040	2641	SHLD	DITRKET	*
036.160 043	. 2642 . 2643	INX SHLD	. H ∵D÷VOĽÞT·····	SET VOLUME NUMBER
030+101 042 247 040	2043		D+VULF I	SET VOLUME RUMBER .
036.164 311	2644	RET		······································
036.164 311	2646 **		KIP THIS SECTOR	••••••
036.164 311	2646 ** 2647 *	STS - S		
036.164 311	2646 ** 2647 * 2648 *	STS - S	CALLED TO SKIP	THE CURRENT SECTORY REGARDLESS OF WHERE
036.164 311	2646 ** 2647 * 2648 * 2649 *	STS - S		THE CURRENT SECTORY REGARDLESS OF WHERE
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 *	STS - S STS IS THE HEA	CALLED TO SKIP D IS POSITIONED	THE CURRENT SECTOR; REGARDLESS OF WHERE
036.164 311	2646 ** 2647 * 2648 * 2648 * 2650 * 2651 *	STS - S STS IS THE HEA	CALLED TO SKIP D IS POSITIONED	THE CURRENT SECTORY REGARDLESS OF WHERE
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 *	STS - S STS IS THE HEA STS WIL	CALLED TO SKIP D IS POSITIONED L EXIT AT THE B	THE CURRENT SECTOR, REGARDLESS OF WHERE  EGINNING OF THE NEXT SECTOR.
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 *	STS - S STS IS THE HEA STS WIL	CALLED TO SKIP  D IS POSITIONED  L EXIT AT THE B  HE HEAD IS NOT	THE CURRENT SECTOR, REGARDLESS OF WHERE  EGINNING OF THE NEXT SECTOR,  OVER A HOLE, WAIT 8 MS WHILE
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 *	STS - S STS IS THE HEA STS WIL 1. IF T	CALLED TO SKIP  D IS POSITIONED  L EXIT AT THE B  HE HEAD IS NOT I  CHECKING, IF N	THE CURRENT SECTOR, REGARDLESS OF WHERE  EGINNING OF THE NEXT SECTOR.  OVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 *	STS - S STS IS THE HEA STS WIL 1. IF T	CALLED TO SKIP  D IS POSITIONED  L EXIT AT THE B  HE HEAD IS NOT I  CHECKING, IF N	THE CURRENT SECTOR, REGARDLESS OF WHERE  EGINNING OF THE NEXT SECTOR,  OVER A HOLE, WAIT 8 MS WHILE
036.164 311	2646 ** 2647 * 2648 * 2648 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 *	STS - S STS IS THE HEA STS WIL 1. IF T HOLE A RE	CALLED TO SKIP  D IS POSITIONED  L EXIT AT THE B  HE HEAD IS NOT I  CHECKING, IF NI  GULAR GAP, WAIT	THE CURRENT SECTOR, REGARDLESS OF WHERE  EGINNING OF THE NEXT SECTOR.  OVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 *	STS - S STS IS THE HEA STS WIL 1. IF T HOLE A RE 2. IF T	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE B  HE HEAD IS NOT I  CHECKING, IF NI  GULAR GAP, WAIT  HE HEAD IS OVER	THE CURRENT SECTOR, REGARDLESS OF WHERE  EGINNING OF THE NEXT SECTOR.  OVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT.
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 *	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE B  HE HEAD IS NOT I  CHECKING, IF NI  GULAR GAP, WAIT  HE HEAD IS OVER  THEN WAIT FOR	THE CURRENT SECTOR, REGARDLESS OF WHERE  EGINNING OF THE NEXT SECTOR.  OVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN  FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 * 2658 * 2659 * 2660 *	STS - S STS IS THE HEA STS WIL 1. IF T HOLE A RE 2. IF T WAIT IN C	CALLED TO SKIP ID IS POSITIONED L EXIT AT THE B HE HEAD IS NOT CHECKING. IF N GULAR GAP. WAIT HE HEAD IS OVER THEN WAIT FOR ASE OF THE INDE	THE CURRENT SECTOR, REGARDLESS OF WHERE  GEGINNING OF THE NEXT SECTOR.  OVER A HOLE, WAIT 8 MS WHILE  O HOLE IN THIS TIME, WHEN WE ARE IN  FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS  THE HOLE TO PASS, WAIT 12 MILLISECONDS
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2657 * 2658 * 2659 * 2661 *	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT IN  GULAR GAP. WAIT  THE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE	THE CURRENT SECTOR, REGARDLESS OF WHERE  GEGINNING OF THE NEXT SECTOR.  COVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS  X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.164 311	2646 ** 2647 * 2648 * 2649 * 2651 * 2652 * 2653 * 2654 * 2656 * 2657 * 2658 * 2659 * 2660 * 2661 * 2662 *	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C ENTRY	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT TO  GULAR GAP. WAIT  HE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE  NONE  INTERRUPTS DIS	THE CURRENT SECTOR, REGARDLESS OF WHERE  GEGINNING OF THE NEXT SECTOR.  COVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS  X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 * 2658 * 2659 * 2660 * 2661 * 2662 * 2663 *	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT IN  GULAR GAP. WAIT  THE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE	THE CURRENT SECTOR, REGARDLESS OF WHERE  GEGINNING OF THE NEXT SECTOR.  COVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS  X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.164 311	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2652 * 2654 * 2655 * 2656 * 2657 * 2658 * 2659 * 2660 * 2661 * 2662 * 2663 * 2663 *	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C ENTRY	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT TO  GULAR GAP. WAIT  HE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE  NONE  INTERRUPTS DIS	THE CURRENT SECTOR, REGARDLESS OF WHERE  GEGINNING OF THE NEXT SECTOR.  COVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS  X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2655 * 2656 * 2657 * 2658 * 2658 * 2659 * 2660 * 2661 * 2662 * 2663 * 2663 * 2664 * 2665 *	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C ENTRY EXIT USES	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT TO  GULAR GAP. WAIT  HE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE  NONE  INTERRUPTS DIS	THE CURRENT SECTOR, REGARDLESS OF WHERE  GEGINNING OF THE NEXT SECTOR.  COVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS  X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.165 373	2646 ** 2647 * 2648 * 2649 * 2651 * 2652 * 2653 * 2654 * 2657 * 2658 * 2658 * 2658 * 2658 * 2658 * 2661 * 2661 * 2663 * 2664 * 2665 * 2666 R•STS	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C ENTRY EXIT USES	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT TO  GULAR GAP. WAIT  HE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE  NONE  INTERRUPTS DIS	THE CURRENT SECTOR, REGARDLESS OF WHERE  CHARLES WAIT 8 MS WHILE CHOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT. A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.165 373 036.166 305	2646 ** 2647 * 2648 * 2649 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 * 2658 * 2657 * 2660 * 2661 * 2662 * 2663 * 2663 * 2664 * 2665 * 2665 * 2666 * 2	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE 2. IF T WAIT IN C ENTRY EXIT USES	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT IN  GULAR GAP. WAIT  HE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE  NONE  INTERRUPTS DIS  A,F,H,L	THE CURRENT SECTOR, REGARDLESS OF WHERE  GEGINNING OF THE NEXT SECTOR.  COVER A HOLE, WAIT 8 MS WHILE O HOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT.  A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS  X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.165 373 036.166 305 036.167 333 177	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 * 2658 * 2659 * 2660 * 2661 * 2662 * 2663 * 2664 * 2665 R 2665 R 2667 2668	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C ENTRY EXIT USES  EI PUSH IN	CALLED TO SKIP ID IS POSITIONED L EXIT AT THE B HE HEAD IS NOT I CHECKING, IF NI GULAR GAP. WAIT HE HEAD IS OVER THEN WAIT FOR ASE OF THE INDE  NONE INTERRUPTS DIS A,F,H,L  B DP.DC	THE CURRENT SECTOR, REGARDLESS OF WHERE  CHARLES WAIT 8 MS WHILE CHOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT. A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.165 373 036.166 305 036.167 333 177 000.000	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 * 2658 * 2659 * 2660 * 2661 * 2662 * 2663 * 2663 * 2664 * 2665 * 2666 R·STS 2667 2666 R	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C ENTRY EXIT USES  EI PUSH IN ERRNZ	CALLED TO SKIP  ID IS POSITIONED  L EXIT AT THE BE  THE HEAD IS NOT IN  GULAR GAP. WAIT  HE HEAD IS OVER  THEN WAIT FOR  ASE OF THE INDE  NONE  INTERRUPTS DIS  A,F,H,L	THE CURRENT SECTOR, REGARDLESS OF WHERE  CHARLES WAIT 8 MS WHILE CHOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT. A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.
036.165 373 036.166 305 036.167 333 177	2646 ** 2647 * 2648 * 2649 * 2650 * 2651 * 2652 * 2653 * 2654 * 2655 * 2656 * 2657 * 2658 * 2659 * 2660 * 2661 * 2662 * 2663 * 2664 * 2665 R 2665 R 2667 2668	STS - S STS IS THE HEA STS WIL  1. IF T HOLE A RE  2. IF T WAIT IN C ENTRY EXIT USES  EI PUSH IN	CALLED TO SKIP ID IS POSITIONED L EXIT AT THE B HE HEAD IS NOT I CHECKING, IF NI GULAR GAP. WAIT HE HEAD IS OVER THEN WAIT FOR ASE OF THE INDE  NONE INTERRUPTS DIS A,F,H,L  B DP.DC	THE CURRENT SECTOR, REGARDLESS OF WHERE  CHARLES WAIT 8 MS WHILE CHOLE IN THIS TIME, WHEN WE ARE IN FOR THE NEXT HOLE AND EXIT. A HOLE, OR BECOMES SO DURING THE 8 MS THE HOLE TO PASS, WAIT 12 MILLISECONDS X HOLE, THEN WAIT FOR THE NEXT HOLE AND EXIT.

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	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •				STS 10:00:13 02-AFR-80
		2672	<b></b>			
		2673	*	אח אחני	YET. WATT 8	MS MIN (10 MAX) FOR HOLE TO
	• • • • • • • • • • • • • • • • • • • •	2674		APPEAR		10.1111 X10 110A. X 0X 110CE 110
		2675				
	041 033 040	2676		ĹXÍ	H, TICCNT	
036,200	106	. 2677		MOV	B•M	(B) = CURRENT TIME
036.201		2678	STS1	IN	DP.DC	
036.203		2679. 2680		RAR		
	. 332, 222, 036	2681		ERRNZ JC	DF.HD-1 STS2	GOT HOLE
036.207	072 121 040	2682	• • • • • • • • • • • •	LDA	D.STSA	(A) = DELAY COUNT
036.212		2683		ADD	B	10 MS MAX, 8 MS MIN
036.213		2684	• • • • • • • • • • • • • • • • • • • •	CMP	<del></del>	
036,214	302 201 036			JNE	STS1	8 MS NOT UP YET
036.217	303 233 036	2686		JMP	STS3	AM IN SECTOR GAP
		2687				
		2688	*	HAVE HO	DLE. SKIP IT A	ND WAIT 12 MS
036.222	315 271 036	2689 2690	STS2		WNH	HATT FOR AN HOLF
	072 122 040	2691	5152	CALL LDA	D.STSB	WAIT FOR NO HOLE
036.230		2692		CALL	D.DLY	(A) = COUNT (10 MS MIN, 12 MS MAX) WAIT
036.233		2693	STS3	POP	В	RESTORE (BC)
036.234		2694		DI	··· •• · · · · · · · · · · · · · · · ·	
					1.11.19%	HATT HOLE DETECT
			<b>*</b>	JMP	WHD	WAIT HOLE DETECT
		2697	**		VAIT HOLE DETE	
		2697 2698	**	WHD - U	√AIT HOLE DETE	ĊT•
		2697	** * *	WHD - U	√AIT HOLE DETE	CT. LE IS LOCATED.
		2697 2698 2699	** * * *	WHD - U	√AIT HOLE DETE	ĊT•
		2697 2698 2699 2700 2701 2702	** * * *	WHD - WHD WAS ENTRY EXIT	WAIT HOLE DETE ITS UNTIL A HO NONE NONE	CT. LE IS LOCATED.
		2697 2698 2699 2700 2701 2702 2703	** * * *	WHD - ( WHD WA) ENTRY	WAIT HOLE DETE ITS UNTIL A HO	CT. LE IS LOCATED.
		2697 2698 2699 2700 2701 2702 2703 2704	** * * *	WHD - WHD WAS ENTRY EXIT	WAIT HOLE DETE ITS UNTIL A HO NONE NONE	CT. LE IS LOCATED.
034. 275		2697 2698 2699 2700 2701 2702 2703 2704 2705	** * * * * * *	WHD - U WHD WAT ENTRY EXIT USES	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A,F	CT. LE IS LOCATED.
	333 177	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706	** * * * * * *	WHD - ( WHD WAI ENTRY EXIT USES	WAIT HOLE DETE TTS UNTIL A HO NONE NONE A,F DP.DC	CT. LE IS LOCATED.
000.000	333, 177	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707	** * * * * * *	WHD - WHD WAI ENTRY EXIT USES IN ERRNZ	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A,F	CT. LE IS LOCATED.
000.000 036.237	333 177 037	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708	** * * * * * *	WHD - WHD WAI ENTRY EXIT USES IN ERRNZ RAR	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A+F DP+DC DF+HD-1	CT. LE IS LOCATED.
000.000 036.237 036.240	333 177 037 322 235 036	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2706 2707 2708	** * * * * * *	WHD - WHD WATENTRY EXIT USES  IN ERRNZ RAR JNC	NAIT HOLE DETE ITS UNTIL A HO NONE NONE A,F DP.DC DF.HD-1	CT.  LE IS LOCATED.  WAIT UNTIL FOUND
000.000 036.237 036.240 036.243	333 177 037	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2706 2707 2708	** * * * * * *	WHD - WHD WAI ENTRY EXIT USES IN ERRNZ RAR	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A+F DP+DC DF+HD-1	CT. LE IS LOCATED.
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710	** * * * * * *	WHD - WHD WATENTRY EXIT USES IN ERRNZ RAR JNC LDA	WAIT HOLE DETE  ITS UNTIL A HO  NONE  A,F  DP.DC  DF.HD-1  WHD D.WHDA	CT.  LE IS LOCATED.  WAIT UNTIL FOUND
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710	** * * * * * *	WHD - WHD WATENTRY EXIT USES IN ERRNZ RAR JNC LDA	WAIT HOLE DETE  ITS UNTIL A HO  NONE  A,F  DP.DC  DF.HD-1  WHD D.WHDA	CT.  LE IS LOCATED.  WAIT UNTIL FOUND
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710	** * * * * *	WHD - WHD WATENTRY EXIT USES  IN ERRNZ RAR JNC LDA JMP	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A,F DP.DC DF.HD-1 WHD D.WHDA D.UDLY	CT.  LE IS LOCATED.  WAIT UNTIL FOUND  (A) = LOOP DELAY COUNT
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2711	**  *  *  *  *  *  *  *  *  *  *  *  *	WHD - WHD WATENTRY EXIT USES  IN ERRNZ RAR JNC LDA JMP	WAIT HOLE DETE  ITS UNTIL A HO  NONE  A,F  DP.DC  DF.HD-1  WHD D.WHDA	CT.  LE IS LOCATED.  WAIT UNTIL FOUND  (A) = LOOP DELAY COUNT
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710	**  *  *  *  *  *  *  *  *  *  *  *  *	WHD - WHD WAI ENTRY EXIT USES  IN ERRNZ RAR JNC LDA JMP	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A.F DP.DC DF.HD-1 WHD D.WHDA D.UDLY	CT.  LE IS LOCATED.  WAIT UNTIL FOUND (A) = LOOP DELAY COUNT
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711	**  *  *  *  *  *  *  *  *  *  *  *  *	WHD - WHD WAI ENTRY EXIT USES  IN ERRNZ RAR JNC LDA JMP	WAIT HOLE DETE  ITS UNTIL A HO  NONE  A+F  DP+DC  DF+HD-1  WHD  D+WHDA  D+UDLY  SEEK TRACK ZER	CT.  LE IS LOCATED.  WAIT UNTIL FOUND  (A) = LOOP DELAY COUNT
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2707 2708 2709 2710 2711	**  *  *  *  *  *  *  *  *  *  *  *  *	WHD - WHD WATERITY EXIT. USES  IN ERRNZ RAR JNC LDA JMP	WAIT HOLE DETE  ITS UNTIL A HO  NONE  A+F  DP+DC  DF+HD-1  WHD  D+WHDA  D+UDLY  SEEK TRACK ZER	CT.  LE IS LOCATED.  WAIT UNTIL FOUND (A) = LOOP DELAY COUNT
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2711 2713 2714 2715 2716 2717 2718	**  *  *  *  *  *  *  *  *  *  *  *  *	WHD - WHD WAD ENTRY EXIT USES  IN ERRNZ RAR JNC LDA JMP  STZ - S STZ SEE TRACK	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A,F DP.DC DF.HD-1 WHD D.WHDA D.UDLY SEEK TRACK ZER EKS THE SELECT ZERO.	CT.  LE IS LOCATED.  WAIT UNTIL FOUND (A) = LOOP DELAY COUNT
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2713 2714 2715 2716 2717 2718 2718 2719	**  *  *  *  *  *  *  *  *  *  *  *  *	WHD - WHD WAI ENTRY EXIT USES  IN ERRNZ RAR JNC LDA JMP  STZ - S STZ SEE TRACK I	WAIT HOLE DETE  ITS UNTIL A HO  NONE NONE A,F  DP.DC DF.HD-1  WHD D.WHDA D.UDLY  SEEK TRACK ZER EKS THE SELECT ZERO.	CT.  LE IS LOCATED.  WAIT UNTIL FOUND (A) = LOOP DELAY COUNT  O.  ED UNIT ARM OUTWARDS UNTIL IT REACHES  E IS THEN UPDATED TO O.
000.000 036.237 036.240 036.243	333 177 037 322 235 036 072 123 040	2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2713 2714 2715 2716 2717 2718 2717 2718	**  *  *  *  *  *  *  *  *  *  *  *  *	WHD - WHD WAI ENTRY EXIT USES  IN ERRNZ RAR JNC LDA JMP  STZ - S STZ SEE TRACK THE ARM	WAIT HOLE DETE ITS UNTIL A HO NONE NONE A,F DP.DC DF.HD-1 WHD D.WHDA D.UDLY SEEK TRACK ZER EKS THE SELECT ZERO.	CT.  LE IS LOCATED.  WAIT UNTIL FOUND (A) = LOOP DELAY COUNT  O.  ED UNIT ARM OUTWARDS UNTIL IT REACHES  E IS THEN UPDATED TO O.  NABLED

SUBR	OUTINES.	M DEVICE /						HEATH H8ASM V1.4 01/20/78 STZ	PAGE	55 
• • • • • • • • • • • • • • • • • • • •								······		
				2722 2723		USES	A,F,H,L			
				2/24						
• • • • • • • • • • • • • • • • • • • •	<b>036,251</b> .	31517.4Q	4Q	2725	.stzo	ÇALL	₽. <b>.</b> ₩AQ	MOVE.ARM.QUI		
	036.254	333 177		2726 2727	.R.STZ	IN	DP • DC			
	036.256	346 002		2728	.maia	ANI	TIT TA	••••••		
	036.260	312 251 0 052 245 0	36 .	2729		JZ	STZO	NOT TRACK, O. YET.		
		052 245 0- 066 000		2730		LHLD		257 77.20 72.20		
	036,270		• • • • • • • • • • • • • • • • • • • •	2731. 2732		MVI ŘET	M+Q	SET TRACK POINTER		
									• • • • • • • • • • • • • • • • • • • •	
	• • • • • • • • • • • • • • • • • • • •									
				2734 . 2735	**	₩₩Ħ <del>.</del> ৸	AIT FOR NO HO	LE.		
				2736	*	WNH WA	TS UNTIL THE	CURRENT HOLE IS PAST.		
					*					
		• • • • • • • • • • • • • • • • • • • •		2738. 2739.	₹ *	ENTRY	NONE NONE			
				2740		USES				
				2741					• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·
	036,271	. 333 . 155		2742 2743		İN	DP.DC			
	000.000	333 1//		2744	MIALI					
	036.273	037		2745		RAR				
	036.4274	.332.271.0	362	27.46.		J <u>C</u>	H/W	STILL HOLE (A) = DEBOUNCE COUNT	••••	
	036.302	072 124 0		2747 2748	4	LDA SET	D.WNHA R.UDLY			
	7.5.7.7. <del>7.</del> 7.				···?············ ·*	JMP	D.UDLY	WAIT A LITTLE	• • • • • • • • • • • • • • • • • • • •	
• • • • • • • • • • • • • • • • • • • •	•••••		• • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •				
				27. <b>51</b>			MICROSECOND D	ELAY.		
			2	2752	*					
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		2753 2754		. UDLY IS	CALLED (WITH	INTERRUPTS DISABLED)	• • • • • • • • • • • • • • • • • • • •	
				2754 2755		IO WALL	FUR A CERTAI	N NUMBER OF MICROSECUNDS.		
			2	2756	*	EACH TI	ME THROUGH TH	E DELAY LOOP CAUSES A PAUSE OF 15/2.048		
	• • • • • • • • • • • • • • • • • • • •			2757	. <b>*</b>	MICROSE	CONDS.			
				2758 2759	*					
				2760	*	FYTI	(A) = 0	OUNT (ZERO TAKEN AS 254)		
				27.61	<b>.*</b>	USES				
			_	2762						
	036.302	075		2763 2764	R.UDLY	DCR	A			
	036.303	302.302.03								
•	036,306	311		2766		RET				• • • • • • • • • • • • •
							• • • • • • • • • • • • • • • • • • • •			
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SUBROUTINES.	W DEALCE / DE	AIGE I				HEATH H8ASM V1.4 01/20/78 PAGE 56 WSC 10:00:15 02-APR-80
•••••••••		2768		WSC - I	WAIT SYNC CHAP	ACTER.
• • • • • • • • • • • • • • • • • • • •		2769. 2770		Het Hy	TTE EASTYLE A	PEARANCE OF A SYNC CHARACTER. THE DISK SHOULD BE
		2771	*	SELECTE	ED, MOVING, AN	ID THE HEAD SHOULD BE OVER THE PRE-SYNC
		2772	*	ZERO BA	AND.	
		. 2773				
		2774 2775		IF A S	ANC TO NOT DE	ECTED IN 25 CHARACTER TIMES, AN ERROR IS RETURNED.
		2776		··ENTRY ··	NONE	
		2777.		EXIT	'C' CLEAR IF	OK, SYNC CHARACTER READ
		``2778` 2779			(D) = 0 (C)	
	**	2780		USES	A,F,D	IO SYNC FOUND
		2781				
07/ 707	A7/ 77F	2782	5 4150	2417		
	076 375 323 176	2783	R.WSC	YX	A,C.DSYN UP.SC	SET SYNC CHARACTER
036.313	333 176	2785		IN	UP.SR	
	072 125 040	2786		LIA	D.WSCA	RESET SYNC SEARCH (A) = NUMBER OF LOOPS IN 25 CHARACTERS
036.320 036.321		2787	WSC1	MOV IN	D,A DP.DC	
	346 010	2789	A201	ANI		SEE IF SYNC
036.325	302 336 036	2790		JNZ	WSC2	GOT SYNC
036.330	.025 .302 321 036	. 2791		DCR	D	
036+331	302 321 036	2792 2793		JNZ	WSC1	TRY SOME MORE
****************		2794	*		T FIND SYNC	
<u></u>		2795		<b></b>		
036+33 <b>4</b> 036+335		2796		STC		CANT FIND IT
	.511	. 2797. 2798	• • • • • • • • • • • • • • • • • • • •			
			*	FOUND	I.T.	
074 774	777 174	2800	HCCO	T11		
036.336		2801. 2802	W\$C2	₩VI	D, O	GORBLE SYNC CHARACTER CLEAR CHECKSUM
036.342		2803		RET		SEERIC ONEOROGI
				*****		
		2805 2806		WSP - (	WRITE SYNC PAT	
		2807		WSP WRI	ITES A SYNC PA	TTERN OF ZEROS, FOLLOWED BY A SYNC
		2808	*	CHARACT		
		2809		ENTEN	/A\ THEFT	J. BELAY COUNTED
	••••••	. 2810. 2811		ENTRY		L DELAY COUNTER ERO BYTES TO WRITE
		2812		EXIT	(D) = CHECKS	
		2813			(C) = 0	
		2814 2815	···*	USES	A,F,C,D,E	
		2816				
036.343		2817	R.WSF	DCR	Α	
036.344	302.343.036.	.2818		Х <u>И</u> Х	R.WSP	DELAY
		2819				
		2820	*	DELAY	IS UP. ON WRIT	E CATE

	D - SYSTE ROUTINES.						•••••		HEATH HBASM V1.4 01/20/78 PAGE 57 WSP 10:00:16 02-APR-80
•••••					2821	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
	036.347	072	242	040	2821		LDA	D.DVCTL	
• • • • • • • • • •	000.000	Y/.#.	.47.4		2823		ERRNZ	DF.WG-1	
	036.352	074			2824		INR	Dr + WG1	CET HOLLE CATE
• • • • • • • • •	036.353			• • • • • • •	2825		TUO	DP.DC	SET WRITE GATE SET GATE
	<b>V</b> 001000	020	1//		2826		001	Dr + DC	SET ONTE
• • • • • • • • • • • •	• • • • • • • • • • • • • •	• • • • • •	• • • • • •		2827		∵iiden ze	ENTRY POINT BY	**************************************
					2828	T	OSED HS	CHIKI FOIRI DI	DUTHO
• • • • • • • • • •	~0367355		• • • • • • •	• • • • • •		WSP1	XRA	· A · · · · · · · · · · · · · · · · · ·	······
	036.356			040	2830		CALL	D. WNB	
• • • • • • • • • • • • • • • • • • • •	036.361			7.17	2831	• • • • • • • • • • • •	DCR	·· Ē · · · · · · · · · · · · · · · · ·	
	036.362		355	036	2832		JNZ	WSP1	DO MORE
	036.365			F	2833		YOY	A,C.DSYN	DO HONE
	036.367				2834		MOV	D,A	PRE-CLEAR CHECKSUM SO WNB EXITS WITH (D) = 0
• • • • • • • • • • •	038.370		227	ò'4ò'''		• • • • • • • • • • • • • • • • • • • •	JMP	D.WNB	WRITE NEXT BYTE
									WALL REAL BITE
			• • • • • • •			• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	
					2837	**	LIMB - LI	RITE NEXT BYTE.	
• • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • •		• • • • • • •	2838		with - w	WILL KEYL DILET	
					2839		LIND LIDT	TEC A DVTE TO TE	HE DISK, ASSUMEING THAT THE WRITE GATE
• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • •	• • • • • • •	2840		TE ALPE	ADY SELECTED.	TO DIONY HOSUNCING THAT THE WRITE GATE
					2841		TO HEKE	Whi Serecient	
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • •	•,•••••		2842		ENTRY	"(A)" = "CHARACTER	·
					2843			(D) = CHECKSUM	•
• • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	2844		EXIT	(D) = CHECKSUM	
					2845		USES	A,F,D,E	
• • • • • • • • • •		• • • • • • •	• • • • • •		2846				
					2847				
	.0381323.	``137		• • • • • •	2848	BIMNB	.MOV	.E.A	
	036.374					WNB1	IN	UP.ST	
	036.376	~247	• • • • • • •		2850			`A`	
	000.000				2851		ERRNZ	UF.TBM-2000	
	038:377		374	039	2852		∵JF∵∵	. MBI	NOT READY
	037.002				2853		MOV	A,E	
	037.003		174"	· · · · · ·	2854		. DOT	UP . DP	DUT DATA
	037,005				2855		XRA	I)	
	037.006				2856		RLC		
	037.007				2857		MOV	D,A	
	.032.010.	311			2858		. KEY		
					2859				
	037.011	107	053	123	2860		DB.	GHS	
			<i></i> .						
• • • • • • • • • •				• • • • • •				· · · · · · · · · · · · · · · · · · ·	
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### STOR - SYSTEM BEVICE DRIVEK   HEATH HEASH VI.4 01/20/75   FAGE 58   ### BOOT CODE   ### 10100116 02-AFR-600   ### 2843   #		1+2448+1	ies		UEATH HOARY HA A 700 770
28.3 ## BODY CODE. 28.4 * PHENED TO BODY DISK SYSTEM. 28.4 * CHIEFED TO BODY DISK SYSTEM. 28.5 BODY DI STATCK CLEAR STACK 3037.015 061 200 042 28.7 LXI B.BODYAL CLEAR STACK 3037.023 021 132 037 2871 LXI B.BODYAL 3037.023 021 132 037 2871 LXI B.BODYAL 3037.023 021 132 037 2871 LXI B.BODYAL 3037.024 041 104 2827 LXI B.BODYAL 3037.034 041 240 040 2872 LXI B.BODYAL 3037.034 041 240 040 2872 RVI B.B.BODYAL 3037.037 006 207 2873 RVI B.B.BODYAL 3037.037 006 207 2883 UDU DE.BC DESTRUCTION OFF BISK 3037.037 006 207 2883 SETURAL INTERRUPT VECTORS TO AM ELEKET SEDURNCE 2884 SETURAL INTERRUPT VECTORS TO AM ELEKET SEDURNCE 3037.035 041 037 040 2889 STA ALIUMIN REDUSTRED SEDURNCE 3037.035 041 037 040 2889 STA ALIUMIN REDUSTRED SEDURNCE 3037.045 040 037 2892 STA ALIUMIN REDUSTRED SEDURNCE 3037.055 041 037 040 2889 STA ALIUMIN REDUSTRED SEDURNCE 3037.050 043 037 040 2889 STA ALIUMIN REDUSTRED SEDURNCE 3037.050 043 037 040 2889 STA ALIUMIN REDUSTRED SEDURNCE 3037.050 043 037 040 2889 STA ALIUMIN REDUSTRED SEDURNCE 3037.050 043 037 040 2889 STA ALIUMIN REDUSTRED SEDURNCE 3037.050 043 037 0390 BODY2 RVI M.J.BODA SEDURNCE SEDURNCE 3037.050 043 037 0390 BODY2 RVI M.J.BODA SEDURNCE SEDURNCE SEDURNCE 3037.050 043 037 0390 BODY2 RVI M.J.BODA SEDURNCE SEDU		ICE BRIV	EK		HEATH HBASM V1.4 01/20/78 PAGE 58
2844 # ENTERED TO BOOT DISK SYSTEM.  2855 * ENTERED TO BOOT DISK SYSTEM.  287, 014 363 2866 FOOT DI WANT NO TROUBLES WITH INTERRUPTS!  287, 027, 028, 021, 120, 000 2870 LXI SP-STACK CLEAR STACK  287, 028, 028, 028, 028, 028, 028, 028, 028					10:00:16 02-AFK-80
2844 # ENTERED TO BOOT DISK SYSTEM.  2855 * ENTERED TO BOOT DISK SYSTEM.  287, 014 363 2866 FOOT DI WANT NO TROUBLES WITH INTERRUPTS!  287, 027, 028, 021, 120, 000 2870 LXI SP-STACK CLEAR STACK  287, 028, 028, 028, 028, 028, 028, 028, 028					
2845   2		2863 **	BOOT C	ODE.	
2846   2847   2848					
037,014 363 2668 BOOT DI			ENTERE	D TO BOOT DISK S	YSTEM.
037.014 363 20 042 2869 LXI SPISTACK CLEAR STACK 037.020 001 130 002 2870 LXI SPISTACK CLEAR STACK 037.020 001 130 002 2870 LXI SPISTACK CLEAR STACK 037.020 001 130 002 2870 LXI SPISTACK CLEAR STACK 037.024 041 10 040 2872 LXI SPISOTAL 037.034 011 215 252 030 2873 CALL SHOUGE HOVE IN CONSTANTS AND VECTORS  2874 22 2875 X ZERO WORK FIELD 037.034 041 240 040 2872 LXI SPISTACK 037.037 041 215 212 031 2879 CALL STAND CREATER STACK 037.034 041 210 040 2879 CALL STAND CREATER STACK 037.044 042 040 040 2879 CALL STAND CREATER STAND VECTORS OF STAND CREATER STAND VECTORS 037.044 042 040 040 2879 CALL STAND CREATER STAND CREATER STAND VECTORS OF STAND CREATER STAND VECTORS OF STAND CREATER STAND CREATER STAND VECTORS OF STAND CREATER STAND CREATER STAND VECTORS OF STAND CREATER STAND					
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037,028   001,130   000   2870   LXI					
037.024 041 10 040 2872					CLEHR STHUK
037,024 041 110 040 2872 LXI H.D.CON 037.031 315 252 030 2873 CALL \$400'VE HOVE IN CONSTANTS AND VECTORS  2875 2875 2876 2875 2876 2875 2875 2875 2875 2875 2875 2875 2875					
2874 2875 * ZERO WORK FIELD 2876  037,034 041 240 040 2877  LXI H.D.RAH  037,037,039,096,037 2878  037,041 315 212 031 2880  037,041 315 32 031 2880  037,041 315 312 031 2880  037,042 343 317 2880  037,043 343 317 2880  037,041 315 346 033 2979  037,042 041 031 031 031 031 031 031 031 031 031 03	037.026 041 110 040	2872	LXI	H,D.CON	
2875	037.031 315 252 030	2873	CALL	\$MOVE	MOVE IN CONSTANTS AND VECTORS
037.034	***************************************				
037.034 041 240 040 2877			ZERO W	ORK FIELD	
037,037 006 037 2878   MVI   B.D.RAPH.				···w··a··ava·····	
037.044 042 040 040 1915 289					
037,044 042 041 041 2880   STA   AIO.UNI					7E00 MEMORY
037.047   323 177   2881					ZERO HEHOR)
2883	037.047 323 177				OFF DISK
000.000   2884   2885   ERRNZ UG.CLK-1   (a) = UG.CLK   (b) = UG.CLK   (c) = UG.CLK   (c) = UG.CLK   (d) = UG		2882			
000.000 037.051 074 037.052 062 010 040 2887 037.055 041 037 040 2889 037.055 041 037 040 2889 037.050 042 043 2899 037.050 043 2890 BDDT2 MVI M 303Q 037.050 046 023 2890 BDDT2 MVI M 303Q 037.050 046 023 2891 INX H 037.053 046 027 2892 MVI M 4EIXIT 037.054 043 2893 INX H 037.050 043 2894 MVI M 1EIXIT/256 037.070 043 2895 INX H 037.071 207 2896 ADD A SETUP CLOCK INTERRUPTS 2899 SETUP CLOCK INTERRUPTS 037.075 041 031 034 2901 BDDT3 LXI H.CLOCK 037.075 041 031 034 2901 BDDT3 LXI H.CLOCK 037.103 373 2903 ET RESTORE INTERRUPTS 037.103 373 2903 ET RESTORE INTERRUPTS 037.104 315 366 033 2907 CALL R.ABORT RESET DISK 0 037.107 021 200 042 2908 LXI H.USERFWA 037.112 041 000 001 2909 LXI B.P%256 037.112 041 000 001 2909 LXI B.P%256 037.112 041 000 001 2909 LXI B.P%256 037.123 322 200 042 2911 CALL R.READ READ SYSTEM DISK BODT CODE 037.123 322 200 042 2911 CALL R.READ READ SYSTEM DISK BODT CODE 2914 * WAIT FOR HIM TO HIT A CHARACTER 037.126 166 2916 HLT			SETUP	ALL INTERRUPT VE	CTORS TO AN EI/RET SEQUENCE
037.051 074   2886					
037.052 042 010 040 2887   STA					(A) = 100 CLK
1037.055					(A) = UU.LLN DEDIECT CLOCK INTERMIDIC (*DI* CII) IN EFFCOI NOUL)
037.055	V37.V32 V32 V1V V4V		318	+ FIF LHO	REGOES! CLOCK INTERROPTS (*DI* STILL IN EFFECT NOW!)
037.060 086 303 2890 B0072 MUI M,3030 037.062 043 2891 INX H 037.063 086 027 2892 MUI M,≢EIXIT 037.065 043 2893 INX H 037.066 066 034 2894 MUI M,EIXIT/256 037.070 043 2895 INX H 037.070 043 2896 ADD A SHIFT /1/ IN (A) LEFT 1 037.072 362 060 037 2897 JP B0072 MORE TO GO 037.072 362 060 037 2897 JP B0072 MORE TO GO 037.075 041 031 034 2901 B0073 LXI H,€LOCK 037.075 041 031 034 2901 B0073 LXI H,€LOCK 037.100 042 040 040 2902 SHLD ,UIVEC+1 037.103 373 2903 EI RESTORE INTERRUPTS 2904 P040 P040 P040 P040 P040 P040 P040 P	037.055 041 037 040		LXI	H, UIVEC	(HL) = .UIVEC ADDRESS, (A) = 1
037.062 043 2891 INX H 037.065 043 026 027 2892 MUI M.#EIXIT 037.065 043 2893 INX H 037.066 066 034 2894 MVI M.EIXIT/256 037.070 043 2895 INX H 037.071 207 2896 ABD A SHIFT '1' IN (A) LEFT 1 037.072 362 060 037 2897 JP BOOT2 MORE TO GO 2898 2899 * SETUP CLOCK INTERRUPTS 2899 * SETUP CLOCK INTERRUPTS 2900 037.075 041 031 034 2901 BOOT3 LXI H.CLOCK 037.075 041 031 034 2901 BOOT3 LXI H.CLOCK 037.100 042 040 040 2902 SHLD .UIVEC+1 037.103 373 2903 EI RESTORE INTERRUPTS 2906 CONSTRUCTION OF THE RESTORE STATE OF T					
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037.071   207   2896   ADD   A SHIFT /1 / IN (A) LEFT 1   037.072   362 060 037   2897   JP   BODT2   MORE TO GO   2898   2899   * SETUP CLOCK INTERRUPTS   2900   2901   2902   SHLD   UIVEC+1   2037.100   042 040 040   2902   SHLD   UIVEC+1   2905   * READ BOOT CODE   2904   2906   2906   2906   2906   2906   2906   2907   2908   LXI   D-USERFWA   237.112   031 030   037.123   320 042   2908   LXI   D-USERFWA   237.120   315 077 034   2911   CALL   R.READ   READ SYSTEM DISK BOOT CODE   2913   2914   * WAIT FOR HIM TO HIT A CHARACTER   2915   2915   2915   2916   HLT					
037.072 362 060 037 2897				H	CUITET (14 TN (A) LEFT 4
2898	037,072 362 060 037			ROOTS	MARE TO GO
2899 * SETUP CLOCK INTERRUPTS 2900  037.075 041 031 034 2901 BOOT3 LXI H.CLOCK 037.100 042 040 040 2902 SHLD .UIVEC+1  037.103 373 2903 EI RESTORE INTERRUPTS 2905 * READ BOOT CODE 2906 2906  037.104 315 366 033 2907 CALL R.ABORT RESET DISK 0 037.107 021 200 042 2908 LXI D.USERFWA 037.112 001 000 011 2909 LXI B.9%256 037.115 041 000 000 2910 LXI H.O 037.120 315 077 034 2911 CALL R.READ READ SYSTEM DISK BOOT CODE 037.123 322 200 042 2912 JNC USERFWA IS ALL OK 2913 2914 * WAIT FOR HIM TO HIT A CHARACTER 037.126 166 2916 HLT	00/10/2 002 00/		J.	10012	HORE TO GO
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2913 2914 * WAIT FOR HIM TO HIT A CHARACTER 2915 037.126 166 2916 HLT	037.123 322 200 042		JŅC	USERFWA	IS ALL OK
2915 037.126 166 2916 HLT				A	
037.126 166 2916 HLT	••••••		WAIT F	UK HIM TO HIT A	CHARACTER
	037.124 144		шт		
				ROOT	ROOT AGAIN
	VO, 112, 000 VI4 V3/	-/1/	JITE	2001	POOT HORIK
	•••••••••••••••••••••••••••••••••••••		• • • • • • • • • • • • • • • • • • • •		

	EM DÉVICE / DE ITIALIZATION T	ABLES		во	HEATH H8ASM V1.4 01/20/78 FAGE 59 QTA 10:00:17 02-APR-80
					ASSESSMENT OF THE PROPERTY OF
•••••••		2923 **	DISK C	INSTANT AND VECTOR T	NITIALIZATION TABLE.
	• • • • • • • • • • • • • • • • • • • •	2924		TOTAL VEGICIE	MITTALIZATION TABLE:
037.132		2925 BOO	TA EQU	*	
		2926	<u> , ,</u>		
000.000	170 000	2927	ERRNZ	*-BOOTA+D.CON-D.XI	
	170 002	2928	DW	2*256+120 HE	AD UNSETTLE AND MOTOR ON TIMES
000.000	004	2929	ERRNZ	*-BOOTA+D.CON-D.WR	
037.134		2930	DB	20 GU	ARDBAND COUNT FOR WRITE
000.000		2931	ERRNZ	*-BOOTA+D.CON-D.WR	ITB
037.135	012	2932	DB	טא 10	MBER OF ZERO CHARACTERS AFTER HOLE EDGE
000.000		2933	ERRNZ	*-BOOTA+D.CON-D.WR	T†C
037 • 136	020	2934	DB	128/8 TW	O CHARACTER DELAY BEFORE WRITING
000.000		2935	ERRNZ	*-BOOTA+D.CON-D.MA	ĬÁ
037+137	017	. 2936	DB	15 TR	ACK-TO-TRACK STEP TIMES
000.000		2937	ERRNZ	*-ROO! U+TI*COM-TI*EL	SA
037 • 140		.2938	DB	20 NU	MBER OF TRYS FOR CORRECT SECTOR
000.000	0.004	2939	ERRNZ	*-RODIA+D.COM-D.SD	FA
037,141	21	2940	DB	70/4 70	MILLISECONDS WAIT FOR HEAD SETTLE
000.000		2941	ERRNZ	*-BOOTA+D.CON-D.SD	PB
037.142		2942	DB	1000/4 1	SECOND WAIT FOR MOTOR ON
000.000		2943	ERRNZ	*-BOOTA+D.CON-D.ST	SA
037.143	. 005	2944	DB		/2 TO WAIT FOR INDEX HOLE
000.000		2945	ERRNZ	*-BOOTA+D.CON-D.ST	SB
037.144	007	2946	DB		/2 TO WAIT PAST INDEX HOLE
000.000		2947	ERRNZ	~*-BOOTA+D.CON-D.WH	tia
037.145	024	2948	DB	20 UD	LY COUNT FOR HOLE DEBOUNCE
000.000		2949	ERRNZ	*-BOOTA+D.CON-D.WN	HÅ
037,146	024	2950	DB		LY COUNT FOR HOLE DEBOUNCE
000.000		2951	ERRNZ	*-BOOTA+D.CON-D.WS	CA
037.147	120	2952	DB		OP COUNT FOR 25 CHARACTERS
				***************************************	
		0054			
• • • • • • • • • • • • • • • • • • • •		2954 **	ERRT -	ERROR TEST LOOP	
		2955			
037.150	··^~	. 2956	aggarri engalerri i		
			RRT INR		UNT ERROR
A77.151		. 2958 . 2959	RET	EX	IT
037.151					
037.151			1345. 115.	W.W	
037,151		2960 *		TORS	
••••••	707 714 077	2960 * 2961			
037.152		2960 * 2961 2962	JMP	R.SYDD D.	SYDD (MUST BE FIRST)
037.152 037.155	303 345 033	2960 * 2961 2962 2963	JMP JMP	R.SYDD D.	MOUNT
037.152 037.155 037.160	303 345 033 303 374 033	2960 * 2961 2962 2963 2964	JMP JMP JMP	R.SYDD D. R.MOUNT D. R.XOK D.	
037-152 037-155 037-160 037-163	303 345 033 303 374 033 303 366 033	2960 * 2961 2962 2963 2964 2965	PMC PMC PMC PMC	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D.	MOUNT
037.152 037.155 037.160 037.163 037.166	303 345 033 303 374 033 303 366 033 303 375 033	2960 * 2961 2962 2963 2964 2965 2966	JMP JMP JMP JMP JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D.	MOUNT XOK ABORT XIT
037.152 037.155 037.160 037.163 037.166 037.171	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034	2960 * 2961 2962 2963 2964 2965 2966 2967	AMP JMP AMP JMP JMP JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D.	MOUNT XOK ABORT
037.152 037.155 037.160 037.163 037.166 037.171	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034 303 321 034	2960 * 2961 2962 2963 2964 2965 2966 2967 2968	JMP JMP JMP JMP JMP JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READ D.	MOUNT XOK ABORT XIT
037.152 037.155 037.160 037.163 037.166 037.171 037.174	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034 303 321 034 303 336 034	2960 * 2961 2962 2963 2964 2965 2966 2967 2966 2967 2968	JMP JMP JMP JMP JMP JMP JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READR D. R.WRITE D.	MOUNT XOK ABORT XIT READ
037.152 037.155 037.160 037.163 037.166 037.171 037.174 037.177	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034 303 321 034 303 336 034 303 136 035	2960 * 2961 2962 2963 2964 2965 2966 2967 2968 2969	JMP JMP JMP JMP JMP JMP JMP JMP JMP	R.SYDD D. R.MODNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READR D. R.WRITE D. R.CDE D.	MOUNT XOK ABORT XIT READ READR
037.152 037.155 037.160 037.163 037.166 037.171 037.174 037.177 037.202	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034 303 321 034 303 336 034 303 136 035 303 172 035	2960 * 2961 2962 2963 2964 2965 2966 2967 2968 2969 2970 2971	JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READR D. R.WRITE D. R.CDE D.	MOUNT XOK ABORT XIT READ READR WRITE
037.152 037.155 037.160 037.163 037.164 037.171 037.174 037.177 037.202 037.205	303 345 033 303 374 033 303 366 033 303 375 033 303 377 034 303 321 034 303 336 034 303 136 035 303 172 035 303 225 035	2960 * 2961 2962 2963 2964 2965 2966 2967 2968 2969 2970 2971 2972	JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READR D. R.READR D. R.CDE D. R.DTS D. R.SDT D.	MOUNT XOK ABORT XIT READ READR WRITE CDE
037.152 037.155 037.160 037.163 037.166 037.171 037.174 037.177 037.202 037.205 037.210	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034 303 321 034 303 336 034 303 136 035 303 172 035 303 225 035 303 251 035	2960 * 2961 2962 2963 2964 2965 2966 2967 2968 2969 2970 2971 2972	JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READR D. R.WRITE D. R.CDE D. R.DTS D. R.SDT D.	MOUNT XOK ABORT XIT READ READR WRITE CDE
037.152 037.155 037.160 037.163 037.166 037.171 037.174 037.177 037.202 037.205 037.210 037.213	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034 303 321 034 303 336 034 303 136 035 303 172 035 303 225 035 303 251 035 303 254 035	2960 * 2961 2962 2964 2965 2966 2966 2967 2968 2969 2970 2971 2972 2973	JMP	R.SYDD D. R.MOUNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READR D. R.READR D. R.CDE D. R.DTS D. R.SDT D. R.MAI D.	MOUNT XOK ABORT XIT READ READR WRITE CDE DTS
037.152 037.155 037.160 037.163 037.166 037.171 037.177 037.177 037.202 037.205 037.210 037.213	303 345 033 303 374 033 303 366 033 303 375 033 303 077 034 303 321 034 303 336 034 303 136 035 303 172 035 303 255 035 303 251 035 303 254 035	2960 * 2961 2962 2963 2964 2965 2966 2967 2968 2969 2970 2971 2972	JMP	R.SYDD D. R.MODNT D. R.XOK D. R.ABORT D. R.XIT D. R.READ D. R.READR D. R.WRITE D. R.CDE D. R.DTS D. R.SDT D. R.MAI D. R.MAO D.	MOUNT XOK ABORT XIT READ READR WRITE CDE DTS SDT

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	037,227	.3039%5		2077			R.SDP	D.SDF			
	037.232	303 165	036	2978			R.STS	D.STS			
	037.235	303 254	039	2979			R.STZ	D.STZ			
	037,240	303 302	036	2980			R.UDLY	D.UDLY			
	037.243	303 307	036	2981			R.WSC	D.WSC			
	037.246			2982 7983		JMP JMP	R.WSP R.WNB	D.WSP D.WNB		• • • • • • • • • • • • • • • • • • • •	
	037.254			2984			R.ERRT	D.ERRT			
• • • • • • • • • • • • • • • • • • • •	~037~257	303 303	035	2985	•••••	"UMP"""	RIDLY	D.DLY			
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SYI DD)	IAG.H.INI	T.J.A.L.	.DRIVE1	UAGNOS	18				HEATH H8ASM V1.4 01/20/7810:00:3102~AFR~80	PAGE	61
		<i></i>									
				298	9 ***	DDIAG	THELTHE DRIVE	: ULAGNOSIS			
	037,262	• • • • • •	• • • • • • • • • • • • • • • • • • • •		0						
	937.+262		4 031		1 DDIAG	ERO	<b>♣</b>				
	037,264	3.2	?	299. 299		uxi	A.DF. MOLDF. IS	32+DF			
	037.266			299 299		TUO	ne. • ne	UN UISK			
	037.270			<u>47.</u> . 299		YZ	61250				
	037,271		5 303 03	5 299		CALL					
	037.274	17	1	299		\4846 MOV					
	037,275			5 299:							
	037.300	36		299°		DI	K+UUX	DELAY. 1. SECOND.	In Ta		
	037.301			7300	-						
			1.848.X4	300		riting.	YATA 960	ЛО. СНЕДК., . RETUF	CN. IF. ERROR		
					2 <b>*</b>						
				300			100.EKKUK				
	037.304 037.305	373	\$	300							
	~~037.305	166		300		ΉĹΤ	· · · · · · · · · · · · · · · · · · ·	NEPTHEE TWIFKET	PIS		
				3006	5						
				300	······································	TEST D	TSK	• • • • • • • • • • • • • • • • • • • •			
				3008		12.07	2.010				
	037,306	315	355 03	6 3009	DDIAGO	CALL	WSP1	WRITE SYNC PATT	······································	•• • • • • • • • • • • • • • • • • • • •	
	037.311	. 001	134 01		)	LXI		WATIE SING PALL	EKN		
	037.314	076	107	3011	DDIAGI	MVÎ	A* 'G'	*******************			
	037.316	315	373 03	6 3012	2	CALL		WRITE BYTE			
	037.321	013		3013	,	DCX	В			• • • • • • • • • • • • • • • • • • • •	
	.037.322.	1.79		3014		MOV	A.B		•		
	03/+323	261		3015	;	ORA	C			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •
	.037,324	302	. 314. 03	73016	S	JŅZ	DDTAG1				
	037.327	076	030	3017	,	MVI	A,30Q			• • • • • • • • • • • • • • • • • • • •	
	.037,331	323	1.7.7	3018		gyr	DF • DC	OFF WRITE SELEC	π		
				3019	)						
				3020		NOW.TR:	Y.READ				
	^=======			3021							
	037.333	. 076	. 333	3022		MVI	A,219				
	037.335	0.62	125 04	0 3023		0111	T-1400CH	WALL FUR AR CHA.	E'C MAV		
	037.340	313	39./93.			CALL	R.WSC	WAIT. FOR SYNC. D	ETECI		
	037.343			3025		RC					
• • • • • • • • • • •	037.347	715	132 01 044 03			LXI	B.•3164-2	ALLOW.USARTTO.	GORBLE. TWO DURING WRITE		
	037.352		107			CALL	R.RDB	READ BYTE		•••••••	
	037.354	37.0	<del></del> 4	3028 3029		ÇP.I					
	037.355			3029				ERRUN			
	037,356		• • • • • • • • • • •	3031		DCX	···k··				
	037.357	261		3031							
	037,360		347 03	2924 7 3033		ORA	U				
	037.343	777	J-7/ V.	3034							
	037.364	166		3035		ቴ.አ HLT		RESTORE INTERRU	ाइ		
				3033				UN			
• • • • • • • • • • •	037,365	000	112 10	3037	• • • • • • • • • • • • • • • • • • • •		0, 'JGL',0				
	037,372	110	105 101	3038		DB DB					
	037,377	000		3039	• • • • • • • • • • • • • • • • • • • •	DB	:/# <b>EAIH</b> ( 0	• • • • • • • • • • • • • • • • • • • •	OLING CODE		
				3040		A. L.	•				
			•••••	3041	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •				<i></i>
	377,377	- · · · · ·		3043	• • • • • • • • • • • • • • • • • • • •	ERRPL.	*~40001A		······		
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g	SYDD - SYSTEM DEVI DDIAG - INITIAL DR	CE / DEVICE DRIVER IVE DIAGNOSIS		 HEATH HBASM V1.4 01/20/78 10:00:22 02-AFR-80	PAGE 62
	040.000 ASSEMBLY COMPLETE 3045 STATEMENTS 1 ERRORS DETEC 11072 BYTES FREE	3045 TED	END	 	
	TIONS BILES EKEE	· .		 	
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CROSS	REFERENCE	CE / DEVICE	THIVEK		XREF V1.1 PAGE 63
		e ataras produpe pod, a a a a a a a a a a			FAGE 63
\$CDEH	030216	708	720	0041	
\$CHL	030224	918L	1798	· · · · · · · • • • · · · · ·	<u>L</u>
\$COMP	03,00,60				
\$DADA	030072	773L	1302		
\$DADA	939191				
\$DU66	030106	805L	1308		
*HLIH					· · · · · · · · · · · · · · · · · · ·
\$1NDL	030234	942L			
\$MOVE \$MUTO	030252	979E	287.3		
\$MU66	030324	1036L		0.0	
*MU86	030337	1058L		,	
	L 031047	1102L			
#ROTHL	L 031047	1140L	17.46	19.83	
\$TBL1	031113	1158L	***	# 7 O L	
\$TBL2	031133	1245L	1251		
\$TBLS	031133	1247 1243L	****		
*TERA		1214E			
\$TJMF	031061	1182L			
\$TUMP.	031062	1184E	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
\$TYPTX	031136	1.275L			
**************************************	031144	1276	1280L	1285	
\$UDD	031157		O O C	1 200	
\$WDR	031222	1350L			
\$WDR1	031231		1373		
*WER	031241	1369L			
\$ZERO	031212	1.333L	2879.		
4 T-11-0 T	036302	20618	2478S	2545S	
ABUSS	040024	100E			
ALARM					
	040013	98E			
+CLEAR		222L			
CLEAR	000056	219L			
• CLOSE	000046	220L			
· CLRCO		212L 199L		• • • • • • • • • • • • • • • • • • • •	······
.CONSL		198L			
-¢R¢	002347	81E	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •	
• CRCSUM	040027	101E			
• CTC	002172	75E		• • • • • • • • • • • •	
•CTLC	000041	207L			
• CTLFLG	040011	97E		• • • • • • • • • • • • •	
PECODE	000053	21.7L			
	000050				
DISMT	000061	223L			
.DLEDS	040021				
	000053	70E			
• DODA	003122	84E			
DSPMOD	003356	86E			
• DSPROT	040004	95E			
DUMP	001374	ንብ <b>ະ</b>			
• ERROR	000057	72E 221L			
EXIT.	000000	4414 192L	• • • • • • • • • • • • • • • •		
• HORN	002140	74E			
IDENT	000000		• • • • • • • • • • • • • • • • • • • •		
	040002	92E			
LINK	000040	206L	• • • • • • • • • • • • • • • • • • • •		
+ r" T 141/					

	FERENCE T	E'/ DEVICE	RKIAFK					XREF V1						
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	*************							. ! . ! ! ! ! ! ! !	Υ					
• LOAD	001267	71E												
• MFLAG	040010	96E	2887									,		
+ NAME	000054	218L												
		2111		• • • • • • • • • • •										
OPENC	000045													
OPENR	.000042	208L									. <b>. </b>			
•OPENU	000044	210L												
OPENW	.000043	209L												
PCHL	002264	77E		•.•••••			• • • • • • • • • • • • • • • • • • • •							
		213L		. ,										
.PRINT	000003	195L		·										
	.003260	85E												
READ	000004	196L												
		93E												
REGI				• • • • • • • • • •							<i></i>			
•REGPTR		104E												
	000051	215L												
•RNB	002331	80E												
RNP		79E												
	.002325			• • • • • • • • • •				• • • • • • • • • • • •				· · · · · · · · · · · · · · ·		
SCIN	000001	193L												
• SCOUT	.000002	194L	1,282											
.SETTP	000052	216L												
• SRS	002265	78E												
START	040000	91E						• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			· · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
sysres		200L												
.TICCNT	040033	103E	2087	2489	2676									
. TPERR	002205	76E												
.TPERRX		102E		• • • • • • • • • • •										
			0000											
		105E	2889	2992					. <b></b>					
.WNB	003024	83E												
	003017	82E												
.WRITE		197L				• • • • • • • • • • • •	• • • • • • • • • • • • •							
			1500	1507	1505	1557	1/44	1/40	1740	1077	1050			
AIO.CGN		6 <u>66</u> L	¥374	4848	1343	185V	+875	+87R	4 P.47	4 <i>P.</i> 7.7	<del>1</del> 7.7 <b>6</b>	• • • • • • • • • • •	• • • • • • • • • • • • •	
AIO.CHA	041116	681L												
AIQCNT.	.041111	67.7L	1507	1542	1890									
AIO.CSI	041050	667L	1503	1509	1530	1538	1649	1877	1962					
AIO.DDA		6.62E												
			• • • • • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • •			• • • • • • • • • • • •			• • • • • • • • • • • •		
AIO.DES		671L												
AIQ∙DEY	. 041057	672L												
AIO.DIR	041062	675L	1618											
AIO.DIA		67.0L												
AIO.EOF			1506											
		679L	1300											
AIQ,EQM	. 941112	, 6.78L	<b>.</b>											
AIO.FLG	041043	663L												
AID.GRT		664L	1588	1643										
AIO.LGN		668L	1476	1479	1481	1523	1524	1956	1957					
AIQ.LSI		649L	1481	1524	1.957								<i></i>	
AIO.SPG	041046	665L	1511	1528	1878									
AIO.TFP	041114	680L	1504	1876										
AIO.UNI		673L	1395	1411	1415	1419	1436	1439	2602	2880				
			2070		* 120	4"147	1400	1407	LOVE	2000				
AID∙XEC			• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • •				· · · · · · · · · · · · · · ·					• • • • • • • • • • • • • • • •
BELL	000007	160E												
BKSP	000010	162E												
BOOT	037014	688	2868L	2917										
BOQT2		2890L	289.7			· · · · · · · · · · · · · ·								
BOOT3	037075	2901L												
BQQTA	937132	2871	2925E.	2927	2929	2931	2933	2935	2937	2939	2941	2943	2945	
		2947	2949	2951	2986									
BQQTAL.	000130	2870	2986E											
	000375	318E	2783	2833	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •		••••••	• • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • •		

	FERENCE T	E 7 DEVICE	PICTACK					"XREF"V			7		• • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
				• • • • • • • • • • • • • • • • • • • •				PAGE							
•STX	000002	164E	* \$	**											
	000026	163E				• • • • • • • • • • • • •									
B,CLI		39E	54			•									
B.MTL	000040	38E	• • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •		• • • • • • • • • • • •							
B.SPK	000200	40E													
B.SSI	000020	37E				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •			• • • • • • • • • • • • •					
DB. H84		585E													
DB.H85	000000	584E							• • • • • • • • • • • • •	• • • • • • • • • • • • • •	• • • • • • • • • • • • • •				
FE	031354	1471L													
LOCK	034031	2087L	2701							• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • •			<b></b> .
	034070	2092	2095	2097	2102L										
	000001	562E						• • • • • • • • • • • • •				• • • • • • • • • • • •	• • • • • • • • • • •		
R Amaniam	000015	156E													
S.FLG		563E										• • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·
SL . CHR		540E		<i></i>											
SL.ECH SL.WRF		538E 539E											• • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
TLA	0000001	171E													
TLB	000002	172E									• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
TLC	000003														
TLD	000004	174E												• • • • • • • • • • • • • • • • • • • •	
TLO	000017	·····i/5E····													
TLF	000020	176E													
TLQ	000021		• • • • • • • • • • • • • • • • • • • •												
TLS	000023	178E													
ŤĽŻ	000032	179E	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • •		· · · · · · · · · · · · · · ·								
TP.2SB	000010	548E													
TF . BKM	000002	549E	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •		• • • • • • • • • • • •			• • • • • • • • • • • • •				
TF . BKS	000200	545E													
TF.MLI		546E				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •						
TF.MLO		547E													
TP.TAB		550É						• • • • • • • • • • • •	• • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	<b></b>		
• ABORT		447L	2030												
	040160	452L	5228	2357						• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • •	
· CON	040110	398L	417	2872	2927	2929	2931	2933	2935	2937	2939	2941	2943		
ni v	04007E	2945	2747	2949	2951										
.DLY .DLYHS	040235	467L 485L	2692 2068	2078											
DLYMO		484L	2008	2078	2103	2516	2617	2627						• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
DRVTB		490L	5638	2076	2091	2103	2627								
	040163	453L	2147	2296										• • • • • • • • • • • • •	
DVCTL		482L	·····î352···	1354	1371	2072	2075	2098	2100						
· E · CHK		501L	2225	100	10,1	2072	2073	2076	2100	ಪರಿರವ	·····2468 ··	5903	7877		
·E·HCK	040270	502L	2543												
.E.HSY		500L	2557												
.E.MIS	040265	499L	2221												
.E.TRK	040272	504L	2563												
·E.VOL	040271	503L	2560		• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • •	· · · · · · · · · · · · · · · ·						
• ERR	040265	498L	2544	2545											
• ERRL		505L	2546	• • • • • • • • • • • •				• • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •					
	040232	466L	2222	2226	2547										
•ERTS		433L		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •				• • • • • • • • • •		
HECNT		492L	2391												
	040177	457L	2154	2304				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	••••••		• • • • • • • • • • • • •			
	040116	424L	2514	2937											
	040171	455L	2434										• • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
	040115	423L	2477	2935		*********								,	
• MAO	040174	456L	2446	```2725```				· · · · · · · · · · · · · ·							

	TEM DEVIC FERENCE T	E / DEVICE	DRIVER					PAGE	66	
			2071							
TANOMAG.	040133	445L 494L	2031 2384	2601						
D.OECNT			2125	2127						
	040273	509L 510L	2123	···2272						
	040275	401L	477		2877					
<i>.</i>	040240	512E	2878	512	2877					
	000037	458L	2175	2186	2190	2524	2528	2533	2540	
	040202	449L	2020				<del></del>			
	040147	450L	2026							
D.READR	040205	459L	2046	2059	2124	2251	5292		· · · · · · · · · · · · · · · · · · ·	
		425L	2624	2939						
D.SDPA		426L	2633	2941						
	040120		2216	2352	2379					
D.SDT		454L	2381	2383	2391					
D.SECNT		493L	2440	2512	2551					
D.STS	040210	460L	<u>2770</u>	2943						
D.STSA		427L 428L	2691	2945						
D.STSB	040122	461L	····· 2047···	2080	2378					
D.STZ	040213	444L	2047	2000	20,0					
D.SYDD D.TRKPT	040130	487L	2437	2641	··· 2730···					
	040243	480L	2204	2212	2337	2347	2418	2531		
D.TS		479L		2347	2415	2438	2527	2531	• • • • • • • • • • • • • • • • • • • •	
D.TT	040240	462L	2153	2302		2.100				
	040216	400L	442		2711					
D.VEC	040130	488L	2048	2253	2523	2643				
D. VOLPT		429L	2710	2947						
D.WHDA	040123	465L	2319	2324	2329	2330	2331	2830	2835	
	040227	430L	2747	2949						
D.WNHA		420L	2308	2929						
D.WRITA.		421L	2311	2931	<b>. </b>					
D.WRITB										
D.WRITC.		422L 451L	2313 2023	2933						,
D.WRITE		463L	2170	2521						
D.WSC	040221	431L	2786	2951	3023	· · · · · · · · · · · · · · · · · · ·				
D.WSCA		464L	2314	2701	0020					
D.WSP	040224 040144	448L	2233	2361		• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • •		
D.XIT		419L	2076	2927						
<u>D.XIT</u> A		446L	2028	2050	2238	····2335		• • • • • • • • • • • • • • • • • • • •		
D.XOK	040136	371L	2027	2029	22.00	2000				
DC.ABT.	000007	370L	£Y£(				• • • • • • • • • • • •			
DC.CLO		370L 372L	2029							
DC+MQU	.000010	367L	· · · · · · · · · · · · · · · · · · ·							***************************************
DC+OFR	000003	369L								
DC.√OPU		368L	• • • • • • • • • • • • • • • • • • • •							
DC.OFW	000004	364L	1391	1414	2018					
DC.REA.	000002	366L	2024		<del></del> ٢					
DC.RER DC.WRI	000002	365L	1387	1440	2021					
DCA	032002	1502L								
	031377	1502L	1513							
DCA1	032035	1517L	1563			• • • • • • • • • • • • • • • • • • • •				
DCA2 DCA3	032055	1527	1529L							
DCA4	032071	1325	***************************************							
	000000	1707	100/L							
J DD.ENT		2991E								,
DDIAG	037262	3000	3009L							
DDIAGO.	037306		3016				• • • • • • • • • • • • • • • • • • • •			
DDIAG1	037314	3011L	3016							
DDJAG2. DEV.DDA		3027L	1737	• • • • • • • • • • • • •						
DE U . H3ΙΔ	000004	262L	1/3/							

ŚYĎĎ – SÝSTE CROSS REFE	RENCE TAE							XREF V1	.+1 .67					
DEU DID AA	0011										• • • • • • • • • • • •		••••••••	• • • • • • • • • • • • • • • • • • • •
DEV-DIR 00		274L												
DEV.DVG 00 DEV.DVL 00		273L												
DEV.FLG 00		272L 263L				<i></i> .								
DELL COT AS														
DEV.GTS 00		268L 275L	• • • • • • • • • • • • •	• • • • • • • • • • • •										
TIETH DEE AA		261L												
DEV.MNU 00		271L	• • • • • • • • • • • • • • •			• • • • • • • • • • • •		· · · · · · · · · · · · ·						
DEV.MUM 00		270L												
DEV.NAM 00		256L		• • • • • • • • • • • •		• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • •					
DEV.RES 00		257L	1737											
DEV.SFG 00		269L		,	• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • •	• • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·			• • • • • • • • • • • • • • • • • • • •	
DEVELEN 00		277E												
DF.CLR 00		232E		• • • • • • • • • • • • •				• • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
DF.DI 00	00'40	294E	2461	2469										
DF.DSO QO	0002	290E	2606		• • • • • • • • • • • • • • • • • • • •				• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • •	• • • • • • • • • • • •		• • • • • • • • • • • • • •
	0004	291E	2607											
	0010	292E	2992							• • • • • • • • • • • • •		• • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •
· • • • • • • • • • • • • • • • • • • •	0377	231E												
	0001	284E	2669	2680	2707	2744						• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
	0.020	293E	2073	2613	2992									
	0010	287E	2789								• • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •
· · · · · · · · · · · · · · · · · · ·	0100	295E	2469	2473	2475									
	0002	285E	2728											
DF.WG 00	0001	289E	2823	2992										
	0004	286E	2274											
	0200	29.6E	1,3,5,3	137.2	2073	29.99	2611							
DIR.ALD 00		247L												
DIR.CLU 00 DIR.CRD 00		240L	1618											
DID EVE AA		246L 235L												
DIR-FGN 00		243L	• • • • • • • • • • • • •	<i>.</i>										
DIE ELG OO		241L												
DIR.LGN 00		244L			• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • •		• • • • • • • • • • •		· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·
DIR.LSI 00		245L												
DIR.NAM 00		234L	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •								
DIR.FRO 00		236L												
DIR.VER 00		237L					• • • • • • • • • • • • •	• • • • • • • • • • • • • •	• • • • • • • • • •					
DIRELEN OO		249E	675											
DIRIDL 00		238E	· · · · · · · · · · · · · · · · · · ·				• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • •		
DLY1 03	5310	2491L	2492											
	0000	44E				• • • • • • • • • • • • • • • • • • • •								· · · · · · · · · · · · · · · ·
OO WM·MII	0001	45E												
	0002	46E			• • • • • • • • • • • • •							• • • • • • • • • • • • • • • • • • • •		
	0,003	47E												
DP.DC 00	0177	282E	1355	2074	2101	2273	2333	2471	2474	2476	2615	2668	2678	• • • • • • • • • • • • • • • • • • • •
***************		.2706	2727	2743	2788	2825		2993	3018	_ /			20/0	
	0001	258E	1733											
<u> </u>	2002	259E												
	1256	1389L											•••••	• • • • • • • • • • • • • • • •
	0002	265E		• • • • • • • • • • • • •										
	0004 0001	266E												
	5177	264E												
	0123	2412L	2414											
	2449 )143	822L 825	831	• • • • • • • • • • • • • • • • • • • •					. <b>.</b>					
	2150	843L	840L 870											
	2163	845	870 852L		· · · · · · · · · · · · ·									
		J-10	002.1.											

SYDD - SYSTEM DEVICE	/ DEVICE DRIVER	XREF V1.1
CROSS REFERENCE TAB	_E	FAGE 68
DU665 030205	814 871L	
DWRITE 031253	1387L	
EC.CNA 000004	328L	
EC.DDA 000027	347L	
EC.DIF 000017	339L	
EC.DIW 000035	353L	
EC.DNS 000005	329L	
EC.EDF 000001	325L 1966	
EC.EDM 000002	326L	
EC.FAO 000031	349L	
EC+FAP 000026	346L	
EC.FL 000030	348L	
EC.FNF 000014	336L	
EC.FNG 000011	333L 1448	
EC.FNR 000034	352L	
EC.FUC 000013	335L	
EC.ICN 000016	338L	
EC.1DN 00006	330L	
EC.1FC 000020	340L	
EC.1FN 000007	331L	
EC.ILC 000003	327L	
EC.ILD 000040	356L	
EC.ILR 000012	334L 1454	
EC. 1 LV 000037	355L	
EC.1S 000032	350L	
EC.NEM 000021	341	•••••••••••••••••••••••••••••••••••••••
EC.NRD 000010	332L	
EC.RF 000022	342L	
EC.UNA 000036	354L	
EC.UND 000015	337L	
EC 11111 000077	351L	
EC.WF 000023	343L 2359	
EC.WP 000025	345L 2276	
EC.WFV 000024	344L	2004
EIXIT 034027	2080L 2892	2894
ENL 000212	169E	0/00
ERFTCHT 000012	18E 2388	2600
ERR.FNO 031344	1448L	
ERR.ILR 031350	.1454L	
ESC 000033	167E	
FF 000014	170E	
FFB 032133	1588L	
FFB4 032145	1599L 1606	
FFB5 032161	1602 1612L	
FFB6 032165	1616L 1623	
FFL 032205	1500 1560	1643L
I.CONFL 000004	565E 566	
I.CONTY 000001	552E 553	
I.CDNWI 000003	. 558E 559	
I.CSLMD 000000	542E	
I.CUSOR 000002	555E 556	
1F.FAD 000360	30E.	
LDD 032223	.1672L	
LDD2 032252	1693L 1700	
LDD3 032271	.1708L 1725	
LDD4 032323	1714 1729L	
LDD8 032362	1693 1708	1710 1759L
C N. C.	1792L	
LPO 033012	1774.	

	STEM DEVI			·····	XRÉF VI.1 PAGE 69
LD01	033073	1811	10711		
LF	000012	157E	1831L		
LPSO	035316	2512L	2518		
LPS1	035334	2520L	2553	• • • • • • • • • • •	
LP\$1.5	036007	2544L	2558	2541	25.4.4
LPS2	036014	2535		2561	2564
LPS3	036025		2551L		
		2522	2557L		
LPS4	036032	2526	2560L		
LPS5	036037	2530	2563L		
M.FOX		64E			
M.FAM8	000021	63E		,	
MEM1	030017	706L	709		
MEM2	030032	715L	731		
MEM3	030036	718L	730		
MEM4	030046	72 <u>1,.</u>	<u>728</u> L		
MI.CPI	000376	17E	1388	2463	
MOV1 MOV2	.030272 .030311	998L	1005	**********	
MU661	030344	1062L	1014[	1021	
			1080	1084	
MU662	030364	1068	1070	1074L	
MU663	031005	1076	1086L		
MU860		1105L	1119		
MU861	.031015	1107L	1117		
MU862	031026	1108	1110	1112L	
MU863	.031044	1113	1121L		
NL	000012	168E	169		
NUL2	000000	159E			
NULL	000200	158E			
OP.CTL	000360	31E			
OP.DIG	000360	32E			
OF.SEG	.000361	33E			
	000001	608E	1678	1838	1990
	000002 000200	609E			3848
		610E	1822	1988	1440
PCHL	032361	1745	1748L		
PDI	033145	1876L			
PDI1	033161	1887L	1889	, ,	
	000006	384L	1844	1849	
	000000	379L			
		381L	1040		
QUOTE	000004	382L	1849		
		165E	2007	2015	
	033366	2058E	2907	2965	
R.CDE	035136	2377L	2970	2005	0007
R.DLY R.DTS	035303 035172	2478	2488L	2985	2996 2998
R.ERRT	037150	2409L	2971		
R+LPS	035321	2957L 2514L	2984		
R.MAI	035251	2461L	2975		
R.MAO	035254	2464L	2973 2974		
	033345	2043E	2974 2963		
RARDB	036044	2576L	<u>2703</u>	2976	3027
R.READ	034077	2123L			3027
	034321	2250L	2911 2968	2967	
R.SDP	034062	2600L			, , , , , , , , , , , , , , , , , , , ,
R.SDT	035225	2420	2977	2447	2673
R.STS	036165	2666L	2437L	2447	2972
R.STZ	036254		2978		
11 + 21 4	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2727L	2979		

	FERENCE T	E / DEVICE	T-11/ T A PT-1/			XREF Vi.1 PAGE 70
R.SYDD		2017E	<u>27</u> 62	2765		
R.UDLY	036302	2748	2764L		2980	
R.WNB R.WRITE		2848L	2983 2969	3012		
	036307	2267E 2783L	2981	3024		
	036343	2817L	2818	2982		
	033375	2067L	2966			
	033374	2061	2066L	2964		
READ1		2135L	2254			
READ1.5	034122	2139	2146L			
READ2	034126	2148L	2217	2229	, <i></i>	
READ2+4	034130	2153L	2210			
READ3	034143	216.1L				
READ3.5		2167	2169L			
READ4		2175L	21.79			
	034205	2186L	2188			
	.03.421.4	2182	2189L	2228L	<b></b>	
	034300 034261	2155 2171	2223 2221L			
	034272	2192	<u>4641</u> 5 2225L		· · · · · · · · · · · · · · · ·	
	034315	2163	2198	22371		
	033177	1910L	1939			
	033175	1856	1907L			
	033213	1917	1926L			
ROMBOOT	030000	393E				
RUBOUT	000177	161E				
RUC	033257	1982L				
S.BAUD	040346	586L				
S.CAADR	.04.0333	569L				
S.CACC		623L				
\$CCTA₽.		57.QL				
	040345	583L				
S.CEWA		592L				
S.CODE		624L				
S.CONFL.		567L				•••••••••••••••••••••••••••••••••••••••
S.CONTY		554L				
S.CONWI.		560L 543L	553	556	559	
S.CUSOR		PT PT - TS 4				566
S.DATC		525L		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
S.DATE		524L				
S.DCS		635L				
S.DDDTA		603L	1731			
S.DDGRP		600L	1670			
S.DDLDA.		598L		1729	17.43	
S.DDLEN	040362	599L	1683			
S.DDOFC		604L	1744			
S.DDSEC		1670E	1769	1771		
S. DEWA		593L				
S.DIREA		631L				•
S.DLINK		<u>591</u> L		<u></u>		
S.FASER		630L	1397	1417		
S.FCI		632L				
	024000 •	390E				
S.GRT1		391E	• • • • • • • • • • • • • • • • • • • •			•••••••••••••••••••••••••••••••••••••••
S.HIMEM		527L	E20			
TMI,R SAMUL.2		403L	5.79	· · · · · · · · · · · · · · · ·		
0+JUIT 5	O41010	628L				

CROSS R		CE / DEVICE : TABLE			XREF V1.1
				• • • • • • • • • • • • • • • • • • • •	
S. MOUNT		63.4L			
	040324	533L			
หะณะส	.041004	619L	1834		
S.OVLE	041000	616L	1848		
S.O.VLF.L	040371		1.67.6	1821	1836 1985
S.OVLS	040376	615L	1797	1831	
S.OVSTK	041032	641L			
S.RFWA	040356	594L			
S.SIDIS	041034	645L			
S.SIGRT	041036	646L		••••••	
	.041024	633L			
S.SDD	041010	629L		• • • • • • • • • • • •	
\$.\$QVR.		405L	407		
S.SSN	041002	618L	1819	2000	
				2000	
S.SY.SM. S.TIME	040312	529.L 526L	1.89.Q		
S.UCSF		613L	1002	1047	1000
S.UCSL		614L	1802 1816	1843 1995	1998
S.USRM	040322	531L		1773	
S.VAL	040277	· · · · · · · · · · · · · · · · · · ·	1804	• • • • • • • • • • •	
		402L	522		
SC. UART		<u>117E</u>		· • • • • • • • • • • • • • • • • • • •	
SDP1	036130	2623	2626L		
\$DF2	036145	2632	2635L		
SDT1	035242	2445L			
<u>SDT3</u>	035221	2433L	2441		
SECSCR	026000	392E	1689		
SREAD	031275	1411L	1.7.7.3	1835	2001
SREAD1	031305	1416L	1442		
	042200		2869		
STACKL	001032	407E			
\$7.\$1	036201	2678L	2685		
STS2	036222	2671	2681	2690L	
\$T.\$3	036233	2686	2693L		
STZO	036251	2725L	2729		
SWRITE	031330	1436L	1820		
SYDD	040130	399E	1392	1416	
SYSCALL	000377	186E	1282		
TAB	000011	166E			
TF.E	.033233	1505	1956L		
UCI.ER		139E			
UCI.IE		141E			
UCI.IR		137E	• • • • • • • • • • • • • • • • • • • •		
UCI.RE		140E			
UCI.RO	000040	138E	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • •	
VEI.TE.		142E			
UDD1	031163	1305L	1318	• • • • • • • • • • • • • • • • • • • •	
VDR	000000		1310		
UF.FCT	000100	114E 311E		• • • • • • • • • • •	
UF - RDA	000001	308E	2577		
UF.ROR		309E		• • • • • • • • • • • •	
UF.RPE		310E			
UF.TBM		312E	2054	• • • • • • • • • • •	
UMI.16X			2851		
		132E	· · · · · · · · · · · · · · · ·		
UMI.1B		122E			
UMI.1X.		131E			
UMI.2B		124E			
UMI64X		133E			
HMT.HR	000200	123E			

*j* ' )

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SYDD - SYSTEM DEVICE / D CROSS REFERENCE TABLE	SEATCE DRIVER	XREF V1.1 PAGE 72
UMI.L5 000000 1	27E	
UMI.L6 000004 1	28E	
UMI.L7 000010 1	129E	
UMI.LB 000014 1	130E	
UMI.PA 000020 1	26E	
UMI.PE 000040 1	25E	
UD:CLK 000001	56E 2885	
UO.DDU 000002	55E	
UQ,HLT 000200	53E	
UD.NFR 000100	54E	
UF+DF 000174 3	302E 2580	2801 2854
UF • FC 000175 3	303E	
UF • SC 000176 3	305E 2784	
	306E 2785	
UF-ST 000175 3	304E 2576	2849
USERFWA 042200 4	110E 2908	2912
	15E	
USR.FE 000040 1	146E	
	147E	
	48E	
	150E	
	149E	
	151E	
	706L 2709	
	3 <b>49</b> L 2852	
	590 2743L	2746
	302L 2343	
	289L	
	297L2353	2358
	309L 2310	
	318L 2322	
	306 2357L	
	277 2360L	<u>:</u>
	788L 2792	
	790 2801L	3009
	329L 2832	3009
	06BL 2070	
	424L 2252	
ZR01 031213 13	334L 1337	***************************************
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