

SP-35
PH-37 "MEND" on-line security.

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Step	Instruction	Address	Comment	Octal	Step
00			→ Copy Mem. 3000-		00
01					01
02					02
03	Offset				03
04	Addresses.				04
05					05
06					06
07					07
10	JSBR	IZ 1652	PUT title *MEND		10
11	R=2700-				11
12	JSBR	IZ 1670	FETCH Copy Overlay. (Insert only 3000-)		12
13	R=000002				13
14	R=0/0205		Module No. 005		14
15	NOOP				15
16	" NOOP				16
17	JSBR	0400	Display Status of processor.		17
20	JSBR	IZ 1670	SP1 ST "PROCESSOR"		20
21	R1=2776-				21
22	JUMP	0017	No.		22
23	JSBR	IZ 1635	GET PASSWORD		23
24	R=0/1300				24
25	LDB	Z 0032	→ DIS complete.		25
26	BNP				26
27	JUMP	0035	No central block.		27
30	LDA	IZ B	= No. of Disc Pairs in System.		30
31	APOS				31
32	JUMP	0035			32
33	H=0				33
34	JUMP	0040	Restart.		34
35	JSBR	IZ 1652	PUT "NO PROCESSOR"		35
36	R1=2736-				36
37	JUMP	Z 1402	to "PROCESSOR"		37
40	STA	0076	No. of Disc Pairs.		40
41	STA	0077	Counter		41
42	LDA	Z 0040	Restart Task No.		42
43	CHSA/COMPSA				43
44	STA	IZ B	Indicate "MEND" in progress.		44
45	INCB				45
46	STB	0061	→ 1st Field in Central Block.		46
47	JUMP	0060			47
50					50
51					51
52					52
53					53
54					54
55					55
56					56
57					57
60	JSBR	0100	Process this job * NEXT PHIR		60
61	R1=				61
62	LDA	0061			62
63	ADP	Z 0203			63
64	STA	0061			64
65	DESZ	0077	Counter		65
66	JUMP	0060	Auto Restart		66
67	NOOP				67
70	LDA	0076			70
	STA	IZ 0032			71
72	JSBR	IZ 1667	Start Central S...		72
73	JSBR	IZ 1653	PUT "Programmer Completed"		73
74	R1=27204-				74
75	JUMP	Z 1402	to "PROCESSOR"		75
76			No. of Disc Pairs in system (See Prod)		76
77			Counter		77

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Step	Instruction	Address	Comment	Octal	Step
00	*ENTRY		Process Vice Proc	←ISA→	00
01	LDB	I 0100	→ Word 1 of Field		01
02	LDA	I2 B	= Word 1 of Field		02
03	ANEG				03
04	JUMP	0130	Slave is O.K.		04
05	STB	0177	→ Fault Indicator + SHAVE Faulty		05
06	STA	0115	Master Data No.		06
07	INCB				07
10	LDA	I2 B	= Word 2 of Field		10
11	APOS				11
12	JSR	I2 1777	HALT (Master Slave both read fault)		12
13	STA	0116	Slave Data No.		13
14	JSR	0200	Copy Master → Slave		14
15	P1 = /		Master Data No.		15
16	P2 = /		Slave Data No.		16
17	JUMP	0160			17
20					20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
30	STA	0141	Master Data No.		30
31	INCB				31
32	LDA	I2 B	= Word 2 of Field		32
33	ANEG				33
34	JUMP	0163	Master is O.K. for		34
35	STB	0177	→ Fault Indicator - MASTER Faulty		35
36	STA	0140	Slave Data No.		36
37	JSR	0200	Copy Slave → Master		37
40	P1 = /		Slave Data No.		40
41	P2 = /		Master Data No.		41
42	JUMP	0160			42
43					43
44					44
45					45
46					46
47					47
50					50
51					51
52					52
53					53
54					54
55					55
56					56
57					57
60	LDA	I 0177	at end of copy.		60
61	ANSA		Clear fault indicator		61
62	STA	I 0177			62
63	INSZ	0100			63
64	JUMP	I 0100	Return.		64
65					65
66					66
67					67
70					70
71					71
72					72
73					73
74					74
75					75
76					76
77			→ Fault Indicator	/	77

Step	Instruction	Address	Comment	Octal	Step
00	* ENTRY		COPY		
01	LDA	I 0200	= Source Disc No.	← BA →	00
02	ANDA	Z 1752	Bottom Byte		01
03	STA	0256			02
04	STA	0254			03
05	STA	0272			04
06	INSZ	0200			05
07	LDA	I 0200	= Target Disc No.		06
10	JUMP	0253	Patch		07
11	STA	0260			10
12	STA	0266			11
13	JUMP	0250			12
14	JSBR	JL 1612	Octal = 0501		13
15	P ₁ = 2761-				14
16	JSBR	JL 1653	Flash "Regard" disk		15
17	P ₁ = 2747-				16
20	JSBR	1000	Copy (Data 0 → 37)		17
21	P ₁ = 2256-				20
22	JSBR	1000	Copy (Sector 41 → 47)		21
23	P ₁ = 2264-				22
24	JSBR	1000	Copy (Sector 50 → end)		23
25	P ₁ = 2272-				24
26	INSZ	0200			25
27	JUMP	I 0200	System		26
30	"				27
31					30
32					31
33					32
34					33
35					34
36					35
37					36
40					37
41					40
42					41
43					42
44					43
45					44
46					45
47					46
50	STA	0274			47
51	CASA			(Jump 0213)	50
52	JUMP	0214			51
53	ANDA	Z 1752	Bottom Byte	(Jump 0210)	52
54	CASA/CONASA		(Protection Overlap)		53
55	JUMP	0211			54
56					55
57					56
60			Copy 0 → 37	MIETER DEC Start Sector 000000	57
61				Copy DEC Start Sector 000000	60
62				Start Sector 000000	61
63				Start Sector 000000	62
64				Start Sector 000040	63
65				Start Sector 000041	64
66			Copy 41 → 47	Start Sector 000041	65
67				Start Sector 000041	66
70				Start Sector 000041	69
71				Start Sector 000041	70
72				Start Sector 000041	71
73				Start Sector 000041	72
74			Copy 50 → end	Start Sector 000050	73
75				Start Sector 000050	74
76				Start Sector 000050	75
77				Start Sector 000050	76
				Start Sector 031230	77

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Step	Instruction	Address	Comment	Octal	Step
00	*ENTRY		Display Status rfu.	← BA →	00
01	LDA	I2 0032	= No. of Discs in System.		01
02	APOS				02
03	JUMP	I 0400	Return.		03
04	→ ANP				04
05	JUMP	I 0400	Return.		05
06	→ STA	0476	Counter		06
07	JSBR	I2 1652	PUT heady low.		07
10	P=2500-				10
11	LDA	Z 0032	→ Control Block		11
12	INCA				12
13	STA	0477			13
14	JSBR	0420	Display	*NEXT field.	14
15	DESZ	0476	Counter		15
16	JUMP	0414	disc head		16
17	→ JUMP	I 0400	Return.		17
20	*ENTRY		Display	← BA →	20
21	LDA	I 0477	= 1st word		21
22	LDB	0474	→ "IN"		22
23	APOS				23
24	LDB	0475	→ "OUT"		24
25	→ STB	0450	Slave Status		25
26	CHSA				26
27	JSBR	I2 1612	Master Disc No. → ASCII		27
30	P=2520-				30
31	INVSZ	0477			31
32	LDA	I 0477	= 2 nd word		32
33	LDB	0474	→ "IN"		33
34	APOS				34
35	LDB	0475	→ "OUT"		35
36	→ STB	0444	Master Status		36
37	CHSA				37
40	JSBR	I2 1612	Slave Disc No. → ASCII		40
41	P=2526-				41
42	INVSZ	0477			42
43	JSBR	I2 1741	Block 6 Head Master Status		43
44	P=				44
45	P=2523½-				45
46	P=3 char.				46
47	JSBR	I2 1741	Block 6 Head Slave Status		47
50	P=				50
51	P=2531½-				51
52	P=3 char.				52
53	JUMP	0471	patch.		53
54	LDA	I 0477	= 3 rd word		54
55	INVSZ	0477	→ Next field.		55
56	ANP		Null.		56
57	JUMP	I 0420	Return, No. in line.		57
60	→ JSBR	I2 1605	Yes. Vector Address → ASCII		60
61	P=2541-				61
62	JSBR	I2 1652	PUT Vector Address.		62
63	P=2540-				63
64	JUMP	I 0420	Return.		64
65					65
66					66
67					67
70					70
71	JSBR	I2 1652	PUT Status (Jump 0453)		71
72	P=2517½-				72
73	JUMP	0454			73
74			→ "IN"	2575-	74
75			→ "OUT"	2576½-	75
76			Counter		76
77			→ 10th word.		77

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Step	Instruction	Address	Comment	Octal	Step
00			CR LF		00
01			- -		01
02			M A		02
03			S T		03
04			E R		04
05			- -		05
06			SP SP		06
07			- -		07
10			- S		10
11			L A		11
12			V E		12
13			- -		13
14			MUL		14
15					15
16					16
17			CR		17
20					20
21			stack		21
22					22
23			SP		23
24			in/out		24
25			SP SP		25
26					26
27			store		27
30					30
31			SP		31
32			in/out.		32
33			MUL		33
34					34
35					35
36					36
37					37
40			SP SP		40
41					41
42					42
43			Vector Addr.		43
44					44
45			MUL		45
46					46
47					47
50					50
51					51
52					52
53					53
54					54
55					55
56					56
57					57
60					60
61					61
62					62
63					63
64					64
65					65
66					66
67					67
70					70
71					71
72					72
73					73
74					74
75			S I N		75
76			SP O		76
77			U T		77

Programmer:-

