

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

LAST CHG:08 01 74

ERR LJC OBJECT CODE ADDR STMT SOURCE STATEMENT

```

2 *
3 DECK 4
4 SEQ 0
0000 5 L3741 START 0
6 TREP
0A00 7 ORG X'A00'
8 *****
9 * 3741 FUNCTION TEST WITHOUT DIAGNOSTIC CONNECTOR *
10 *****
11 * SECTION PREFACE *
12 *****
0A00 4011 0A01 13 DC XL2'4011' PROGRAM ID AND REVISION LEVEL
0A02 00 0A02 14 DC XL1'00' SECTION FLAGS
0A03 01 0A03 15 DC YL1'01' CURRENT ROUTINE NUMBER
0A04 0000 0A05 16 DC XL2'0000' RESERVED
0A06 0A0D 0A07 17 DC AL2(BEGIN) FIRST ROUTINE ADDRESS
0A08 FFFF 0A09 18 DC XL2'FFFF' RESERVED
0A0A 405000 0A0C 19 DC XL3'405000' SECTION PREFACE UNIT DEF. TABLE
20
21 *****
22 * INTRODUCTION TELL OPERATOR TO DO SYSTEM RESET *
23 *****
0A0D 01 0A0D 24 BEGIN DC XL1'01' DUMMY ROUTINE PREFIX.
0A0E 00 0A0E 25 DC XL1'00'
0A0F 0A51 0A10 26 DC AL2(RTN01)
27
0A11 28 BEGINN EQU *
29 B PRINT PRINT BEGINNING INSTRUCTIONS
0A15 41 0A15 30 DC XL1'41'
0A16 77 0A16 31 DC AL1(MSG1-MSG1B)
0A17 1A03 0A18 32 DC AL2(MSG1)
0A19 40E0 0A1A 33 DC XL2'40E0'
0A1B C0 87 021A 34 B PRINT
0A1F 06 0A1F 35 DC XL1'06'
0A20 50 0A20 36 DC AL1(MSG2-MSG2B)
0A21 1A53 0A22 37 DC AL2(MSG2)
38
0A23 3C 40 1F4A 39 MVI PRT+1,X'40' BUILD 'CLEARING' BYTE.
0A27 0C 5A 1F49 1F4A 40 MVC PRT(91),PRT+1 CLEAR PRINT AREA.
0A2D C2 01 0A51 41 LA RTN01,IR1 RESTORE RTN01 ADDRESS.
0A31 34 01 0A07 42 ST FRTN,IR1
0A35 3D E0 0A4C 43 CLI HPLXX,X'E0' CURRENT HALT A -E0- ?
0A39 F2 81 07 44 JE ALTER JUMP IF SO.
0A3C 3C E0 0A4C 45 MVI HPLXX,X'E0' SET UP FOR A -E0- HALT.
0A40 F2 87 04 46 J **7
0A43 3C E1 0A4C 47 ALTER MVI HPLXX,X'E1' SET UP FOR A -E1- HALT.
48
0A47 C0 87 0222 49 B HALT PROGRAM HALT -E0- OR -E1-.
0A4B 40E1 0A4C 50 HPLXX DC XL2'40E1'
51
0A4D C0 87 0A11 52 B BEGINN REPEAT MESSAGE IF NO SYSTEM RESET.

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

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54 *****
55 * RTN01 *
56 *****
57 *
58 *          ROUTINE 01          TEST 3741 FOR NOT READY.
59 *
60 *****
0A51 01          0A51 61 RTN01 DC   XL1'01'          ROUTINE NUMBER
0A52 00          0A52 62          DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED
0A53 0A6E       0A54 63          DC   AL2(RTN02)        ROUTINE 02 ADDRESS
64
0A55 C0 87 021A 65          B    PRINT          PRINT NOT READY TEST HEADING.
0A59 45          0A5A 66          DC   XL1'45'
0A5A 18          0A5A 67          DC   IL1'24'
0A5B 1CDD       0A5C 68          DC   AL2(TORDY)
0A5D 40A1       0A5E 69          DC   XL2'40A1'
70
0A5F C0 87 175D 71          B    QUES          TEST FOR SSW 10.
0A63 F0 3C 3C   72          HPL  X'3C',X'3C'        HALT -FF- IF ON.
73
0A66 C1 40 0216 74          YIO  LINK,X'40'        BRANCH TO DCP IF NOT READY.
75
0A6A C0 87 1787 76          B    TIOERD        BRANCH TO RDY ERROR IF NOT ON.
77
78
79 *****
80 * RTN02 *
81 *****
82 *
83 *          ROUTINE 02          TEST 3741 FOR NOT BUSY.
84 *
85 *****
0A6E 02          0A6E 86 RTN02 DC   XL1'02'          ROUTINE NUMBER
0A6F 00          0A6F 87          DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED
0A70 0A8B       0A71 88          DC   AL2(RTN03)        ROUTINE 03 ADDRESS
89
0A72 C0 87 021A 90          B    PRINT          PRINT BUSY TEST HEADING.
0A76 45          0A76 91          DC   XL1'45'
0A77 17          0A77 92          DC   IL1'23'
0A78 1CC5       0A79 93          DC   AL2(TOBSY)
0A7A 40A2       0A7B 94          DC   XL2'40A2'
95
0A7C C0 87 175D 96          B    QUES          TEST FOR SSW 10.
0A80 F0 3C 3C   97          HPL  X'3C',X'3C'        HALT -FF- IF ON.
98
0A83 C1 42 17BF 99          TIO  TIOERB,X'42'        BRANCH OUT ON ERROR IF BUSY.
100
0A84 C0 87 0216 101         B    LINK          RETURN TO DCP.
102
103
104 *****
105 * RTN03 *
106 *****
107 *
108 *          ROUTINE 03          SENSE THE STATUS-LENGTH COUNT REGISTERS.
109 *
110 *****
0A8B 03          0A8B 111 RTN03 DC   XL1'03'          ROUTINE NUMBER
0A8C 00          0A8C 112          DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED.
0A8D 0AFD       0A8E 113          DC   AL2(RTN04)        ROUTINE 04 ADDRESS.
114
0A8F 38 80 0208 115         TBN  SBYT0,SSW00        TEST FOR LOOP ON SECTION SWITCH.
0A93 C0 10 0216 116         BT   LINK          SKIP THIS ROUTINE IF ON.
117
0A97 0C 09 1EP8 1E66 118        MVC  PRT-81(10),SNTHE    BUILD UP TEST HEADING FOR PRINTING.
0A9D 0C 20 1F19 1AC4 119        MVC  PRT-48(33),STLCR
0AA3 3C 4B 1F1A 120        MVI  PRT-47,X'4B'
0AA7 C0 87 021A 121         B    PRINT          GO PRINT TEST HEADING.

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	
	0AAB 46	0AAB	122	DC	XL1'46'	
	0AAC 5B	0AAC	123	DC	IL1'91'	
	0AAD 1F49	0AAE	124	DC	AL2 (PRT)	
	0AAF 40A3	0AB0	125	DC	XL2'40A3'	
	0AB1 0C 5A 1F49 1F4A		126	MVC	PRT(91),PRT+1	CLEAR PRINT AREA.
			127			
	0AB7 31 41 18CE		128	LIO	H0000,X'41'	ZERO FUNCTION REG.
	0ABB C1 42 17BF		129	TIO	DROPD,X'42'	BRANCH IF 3741 WENT BUSY.
	0ABF 31 45 18CE		130	LIO	H0000,X'45'	ZERO DATA TRANS REG.
	0AC3 30 43 0B3D		131	SNS	TRL,X'43'	SENSE TO RESET 6USEC DELAY CIRCUIT.
	0AC7 C1 42 17BF		132	TIO	DROPD,X'42'	BRANCH IF 3741 WENT BUSY.
	0ACB 31 44 18E8		133	LIO	H0F55,X'44'	PRESET DATA ADDRESS REG.
			134			
	0ACP C0 87 175D		135	B	QUES	TEST FOR SSW 10.
	0AD3 F0 3C 3C		136	HPL	X'3C',X'3C'	HALT -PF- IF ON.
			137			
	0AD6 30 42 0AEB		138	SNS	LCR,X'42'	SENSE STATUS-LENGTH COUNT FOR -8000-
	0ADA 0D 01 0AEB 0AE9		139	CLC	LCR(2),LCR-2	SENSED DATA AS EXPECTED?
	0AE0 C0 81 0216		140	BE	LINK	RETURN TO DCP IF OK.
			141			
			142		* ROUTINE 03 ERROR MESSAGE *	
			143			
	0AE4 C0 87 13BB		144	B	SNSERR	GO PRINT SENSE ERROR.
	0AEB 8000	0AE9	145	DC	XL2'8000'	-EXPECTED.
	0AEA 0000	0AEB	146	DC	XL2'0000'	-ACTUAL.
	0AEC 03	0AEC	147	DC	XL1'03'	-ERROR ID.
	0AED C0 87 17D9		148	B	MAPS	POINT TO MAP CHART.
	0AF1 8741	0AF2	149	DC	XL2'8741'	-PAGE 874, ENTRY 1.
			150			
	0AF3 C0 87 0222		151	B	HALT	ERROR HALT -03--.
	0AF7 4003	0AF8	152	DC	XL2'4003'	
	0AF9 C0 87 0216		153	B	LINK	RETURN TO DCP.
			154			
			155			
			156		*****	
			157		* RTN04 *	
			158		*****	
			159		*	
			160		* ROUTINE 04	
			161		SENSE THE I/O TRANSFER LINES.	
			162		*****	
	0AFD 04	0AFD	163	DC	XL1'04'	ROUTINE NUMBER
	0AFE 00	0AFE	164	DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED.
	0AFP 0B4F	0B00	165	DC	AL2 (RTN05)	ROUTINE 05 ADDRESS.
			166			
	0B01 0C 09 1EP8 1E66		167	MVC	PRT-81 (10),SNTHE	BUILD UP TEST HEADING FOR PRINTING.
	0B07 0C 11 1FOA 1AD6		168	MVC	PRT-63 (18),IOTRL	
	0B0D 3C 4B 1FOB		169	MVI	PRT-62,X'4B'	
	0B11 C0 87 021A		170	B	PRINT	GO PRINT TEST HEADING.
	0B15 46	0B15	171	DC	XL1'46'	
	0B16 5B	0B16	172	DC	XL1'91'	
	0B17 1F49	0B18	173	DC	AL2 (PRT)	
	0B19 40A4	0B1A	174	DC	XL2'40A4'	
	0B1B 0C 5A 1F49 1F4A		175	MVC	PRT(91),PRT+1	CLEAR PRINT AREA.
			176			
	0B21 C0 87 175D		177	B	QUES	TEST FOR SSW 10.
	0B25 F0 3C 3C		178	HPL	X'3C',X'3C'	HALT -PF- IF ON.
			179			
	0B28 30 43 0B3D		180	SNS	TRL,X'43'	SENSE I/O TRANSFER LINES FOR 0000.
	0B2C 0D 01 0B3D 0B3B		181	CLC	TRL(2),TRL-2	SENSED DATA AS EXPECTED ?
	0B32 C0 81 0216		182	BE	LINK	RETURN TO DCP IF OK.
			183			
			184		* ROUTINE 04 ERROR MESSAGE *	
			185			
	0B36 C0 87 13BB		186	B	SNSERR	GO PRINT SENSE ERROR.
	0B3A 0000	0B3B	187	DC	XL2'0000'	-EXPECTED.
	0B3C 0000	0B3D	188	DC	XL2'0000'	-ACTUAL.
	0B3E 04	0B3E	189	DC	XL1'04'	-ERROR ID.

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
OB3F	C0 87 17D9		190	B	MAPS POINT TO MAP CHART.
OB43	8781	OB44	191	DC	XL2'8781' -PAGE 878, ENTRY
			192		
OB45	C0 87 0222		193	B	HALT ERROR HALT -04-
OB49	4004	OB4A	194	DC	XL2'4004'
OB4B	C0 87 0216		195	B	LINK RETURN TO DCP.
			196		
			197		
			198	*****	
			199	* RTN05 *	
			200	*****	
			201	*	
			202	* ROUTINE 05 SENSE THE DIAGNOSTIC BYTE.	
			203	*	
			204	*****	
OB4F	05	OB4F	205	RTN05 DC	XL1'05' ROUTINE NUMBER
OB50	00	OB50	206	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED.
OB51	0BA9	OB52	207	DC	AL2(RTN06) ROUTINE 06 ADDRESS.
			208		
OB53	38 80 0208		209	TBM	SBYTE0,SSW00 TEST FOR LOOP ON SECTION SWITCH.
OB57	C0 10 0216		210	BT	LINK SKIP THIS ROUTINE IF ON.
			211		
OB5B	0C 09 1E68 1E66		212	MVC	PRT-81(10),SNTHS BUILD UP TEST HEADING FOR PRINTING.
OB61	0C 0E 1F07 1BCA		213	MVC	PRT-66(15),DIAG
OB67	3C 4E 1F08		214	MVI	PRT-65,X'4B'
OB6B	C0 87 021A		215	B	PRINT GO PRINT TEST HEADING.
OB6F	46	OB6F	216	DC	XL1'46'
OB70	5B	OB70	217	DC	IL1'91'
OB71	1F49	OB72	218	DC	AL2(PRT)
OB73	40A5	OB74	219	DC	AL2'40A5'
OB75	0C 5A 1F49 1F4A		220	MVC	PRT(91),PRT+1 CLEAR PRINT AREA.
			221		
OB7B	C0 87 175D		222	B	QUES TEST FOR SSW 10.
OB7F	F0 3C 3C		223	HPL	X'3C',X'3C' HALT -PP- IF ON.
			224		
OB82	30 45 0B97		225	SFS	DUG,X'45' SENSE DIAGNOSTIC BYTE FOR 00.
OB86	0D 00 0B96 0B94		226	CLC	DUG-1(1),DUG-3 SENSED DATA AS EXPECTED ?
OB8C	C0 81 0216		227	BE	LINK RETURN TO DCP IF OK.
			228		
			229	* ROUTINE 05 ERROR MESSAGE *	
			230		
OB90	C0 87 138B		231	B	SNSERR GO PRINT SENSE ERROR.
OB94	0000	OB95	232	DC	XL2'0000' -EXPECTED.
OB96	0000	OB97	233	DUG DC	XL2'0000' -ACTUAL.
OB98	05	OB98	234	DC	XL1'05' -ERROR ID.
OB99	C0 87 17D9		235	B	MAPS POINT TO MAP CHART.
OB9D	8811	OB9E	236	DC	XL2'8811' -PAGE 881, ENTRY 1.
			237		
OB9F	C0 87 0222		238	B	HALT ERROR HALT -05-
OBA3	4005	OBA4	239	DC	XL2'4005'
OBA5	C0 87 0216		240	B	LINK RETURN TO DCP.
			241		
			242		
			243	*****	
			244	* RTN06 *	
			245	*****	
			246	*	
			247	* ROUTINE 06 CHECK EB CYCLES FOR PROPER	
			248	* DATA TRANSMISSION.	
			249	*	
			250	*****	
OBA9	06	OBA9	251	RTN06 DC	XL1'06' ROUTINE NUMBER
OBAA	00	OBAA	252	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
OBAB	0D37	OBAC	253	DC	AL2(RTN07) ROUTINE 07 ADDRESS
			254		
OBAD	C0 87 021A		255	B	PRINT PRINT EB CYCLE TEST HEADING.
OBBI	45	OBBI	256	DC	XL1'45'
OBBI	24	OBBI	257	DC	IL1'36'

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ERR LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
OBB3 18BB	OBB4	258	DC AL2(TSCYC)	
OBB5 40A6	OBB6	259	DC XL2'40A6'	
		260		
OBB7 C1 42 17BF		261	TIO DROPD,X'42'	JUMP OUT IF 3741 IS BUSY.
		262		
OBBB C0 87 175D		263	B QUES	TEST FOR SSW 10.
OBBF F0 3C 3C		264	HPL X'3C',X'3C'	HALT -FF- IF ON.
		265		
OBC2 31 41 18F2		266	LIO HFF55,X'41'	LOAD FUNCTION REG. WITH -FF55-
OBC6 31 42 18F2		267	LIO HFF55,X'42'	LOAD LENGTH COUNT REG WITH -55-
OBCA 31 44 18F2		268	LIO HFF55,X'44'	LOAD DATA ADRS REG WITH -FF55-
ORCE 31 45 18F2		269	LIO HFF55,X'45'	LOAD DATA TRANS REG WITH -55-
		270		
OBD2 30 41 190F		271	SNS LS-6,X'41'	SENSE FUNCTION REGISTER.
OBD6 30 42 1911		272	SNS LS-4,X'42'	SENSE STATUS AND LCR.
OBDA 30 44 1913		273	SNS LS-2,X'44'	SENSE DATA ADRS REGISTER.
OBDE 30 45 1915		274	SNS LS,X'45'	SENSE DIAG AND DATA TRANS REG.
		275		
OBE2 C2 01 1915		276	LA LS,XR1	INITIALIZE SENSE STORAGE ADDRESS.
OBE6 34 01 0BF5		277	ST CKBIT+3,XR1	
OBEA 3C 00 191D		278	MVI EBFLAG,X'00'	CLEAR EB FLAG.
OBEF 3C 01 0BFB		279	MVI STBN+1,X'01'	INITIALIZE FLAG BIT POINTER.
		280		
OBF2 3D 00 0000		281	CKBYT CLI *-*,X'00'	TEST CURRENT SENSE BYTE.
OBF6 C0 01 0BFE		282	BNE *-*	BRANCH IF BYTE NOT ZERO.
OBFA 3A 00 191D		283	STBN SBN EBFLAG,X'00'	TURN ON FLAG BIT IF ZERO.
OBFE 0E 00 0BFB	OBFB	284	ALC STBN+1(1),STBN+1	SHIFT BIT POINTER.
OC04 0F 01 0BFF	18D0	285	SLC CKBIT+3(2),N001	DECREMENT SENSE ADDRESS.
OC0A 39 FF 0BFB		286	TBF STBN+1,X'FF'	POINTER GONE TO ZERO ?
OC0E C0 90 0BF2		287	BF CKBYT	CONTINUE TO LOOP IF NOT SO.
		288		
		289	* ANALYZE THE EB FLAG BYTE.	
		290		
OC12 3D F3 191D		291	CLI EBFLAG,X'F3'	
OC16 C0 81 0C94		292	BE EBERR	BRANCH IF BOTH EB1 AND EB2 FAILED.
OC1A 3D 53 191D		293	CLI EBFLAG,X'53'	
OC1E C0 81 0C7E		294	BE EB1ERR	BRANCH IF EB1 FAILED.
OC22 3D A2 191D		295	CLI EBFLAG,X'A2'	
OC26 C0 81 0C86		296	BE EB2ERR	BRANCH IF EB2 FAILED.
		297		
OC2A 3D C0 191D		298	CLI EBFLAG,X'C0'	
OC2E C0 81 0C9E		299	BE NCOD1	BRANCH IF BOTH EB'S OF N=1 FAILED.
OC32 3D 30 191D		300	CLI EBFLAG,X'30'	
OC36 C0 81 0CA5		301	BE NCOD2	* 2 *
OC3A 3D 0C 191D		302	CLI EBFLAG,X'0C'	
OC3E C0 81 0CAC		303	BE NCOD4	* 4 *
		304		
OC42 38 40 191D		305	TBN EBFLAG,X'40'	
OC46 C0 10 0CBA		306	BT NCODD1	BRANCH IF EB1 OF N=1 FAILED.
OC4A 38 80 191D		307	TBN EBFLAG,X'80'	
OC4E C0 10 0CBA		308	BT NCODD1	* 2 1 *
OC52 38 10 191D		309	TBN EBFLAG,X'10'	
OC56 C0 10 0CD5		310	BT NCODD2	* 1 2 *
OC5A 38 20 191D		311	TBN EBFLAG,X'20'	
OC5E C0 10 0CD5		312	BT NCODD2	* 2 2 *
OC62 38 04 191D		313	TBN EBFLAG,X'04'	
OC66 C0 10 0CF0		314	BT NCODD4	* 1 4 *
OC6A 38 08 191D		315	TBN EBFLAG,X'08'	
OC6E C0 10 0CF0		316	BT NCODD4	* 2 4 *
OC72 38 01 191D		317	TBN EBFLAG,X'01'	
OC76 C0 10 0D0B		318	BT NCODD5	* 1 5 *
		319		
OC7A C0 87 0216		320	B LINK	RETURN TO DCP.
		321		
		322	* ROUTINE 06 ERROR MESSAGES *	
		323		
OC7E 3C F1 1888		324	EB1ERR MVI ALEBX-15,C'1'	SET UP FOR EB 1 ERROR.
OC82 C0 87 0C8A		325	B **8	

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0C86	3C F2 1B88	326	EB2ERR	MVI	ALEBX-15,C'2'	SET UP FOR EB 2 ERROR.
0C8A	0C 17 1F06 1B97	327		MVC	PRT-67(24),ALEBX	
0C90	C0 87 0D19	328		B	BIGEB	PRINT ERROR HEADING.
		329				
0C94	0C 16 1F05 1B7F	330	EBERR	MVC	PRT-68(23),ALEB	SET UP FOR ALL EB FAILURE.
0C9A	C0 87 0D19	331		B	BIGEB	PRINT ERROR HEADING.
		332				
0C9E	3C F1 1B67	333	NCOD1	MVI	EB12-1,C'1'	SET UP FOR BOTH EB'S, N = 1.
0CA2	F2 87 0B	334		J	FINEB	GO PRINT ERROR.
0CA5	3C F2 1B67	335	NCOD2	MVI	EB12-1,C'2'	SET UP FOR BOTH EB'S, N = 2.
0CA9	F2 87 04	336		J	FINEB	GO PRINT ERROR.
0CAC	3C F4 1B67	337	NCOD4	MVI	EB12-1,C'4'	SET UP FOR BOTH EB'S, N = 4.
0CB0	0C 21 1F10 1B68	338	FINEB	MVC	PRT-57(34),EB12	
0CB6	C0 87 0D19	339		B	BIGEB	GO PRINT ERROR HEADING.
		340				
0CBA	3C F1 1B45	341	NCODD1	MVI	EBX-1,C'1'	SET UP FOR N CODE 1 ERROR.
0CBE	38 40 191D	342		TBN	EBFLAG,X'40'	
0CC2	C0 10 0CCE	343		BT	**12	
0CC6	3C F2 1B2E	344		MVI	EBX-24,C'2'	* EB2 CYCLE.
0CCA	C0 87 0CD2	345		B	**8	
0CCE	3C F1 1B2E	346		MVI	EBX-24,C'1'	* EB1 CYCLE.
0CD2	F2 87 3E	347		J	EBXX	GO PRINT ERROR.
0CD5	3C F2 1B45	348	NCODD2	MVI	EBX-1,C'2'	SET UP FOR N CODE 2 ERROR.
0CD9	38 10 191D	349		TBN	EBFLAG,X'10'	
0CDD	C0 10 0CE9	350		BT	**12	
0CE1	3C F2 1B2E	351		MVI	EBX-24,C'2'	* EB2 CYCLE.
0CE5	C0 87 0CED	352		B	**8	
0CE9	3C F1 1B2E	353		MVI	EBX-24,C'1'	* EB1 CYCLE.
0CRD	F2 87 23	354		J	EBXX	GO PRINT ERROR.
0CF0	3C F4 1B45	355	NCODD4	MVI	EBX-1,C'4'	SET UP FOR N CODE 4 ERROR.
0CF4	38 04 191D	356		TBN	EBFLAG,X'04'	
0CF8	C0 10 0D04	357		BT	**12	
0CFC	3C F2 1B2E	358		MVI	EBX-24,C'2'	* EB2 CYCLE.
0D00	C0 87 0D08	359		B	**8	
0D04	3C F1 1B2E	360		MVI	EBX-24,C'1'	* EB1 CYCLE.
0D08	F2 87 08	361		J	EBXX	GO PRINT ERROR.
		362				
0D0B	3C F5 1B45	363	NCODD5	MVI	EBX-1,C'5'	SET UP FOR N CODE 5 ERROR.
0D0F	3C F1 1B2E	364		MVI	EBX-24,C'1'	* EB1 CYCLE.
0D13	0C 1C 1F0B 1B46	365	EBXX	MVC	PRT-62(29),EBX	
		366				
0D19	C0 87 021A	367	BIGEB	B	PRINT	PRINT EB CYCLE ERROR HEADING.
0D1D	C2	0D1D 368		DC	XL1'C2'	
0D1E	18	0D1E 369		DC	IL1'24'	
0D1F	1B29	0D20 370		DC	AL2(BIGGEB)	
0D21	4006	0D22 371		DC	XL2'4006'	
0D23	C0 87 1BA7	372		B	EPRNT2	PRINT SPECIAL ERROR ID.
0D27	C0 87 17D9	373		B	MAPS	POINT TO MAP CHARTS.
0D2B	8851	0D2C 374		DC	XL2'8851'	-PAGE 885, ENTRY 1.
0D2D	C0 87 0222	375		B	HALT	ERROR HALT -06--.
0D31	4006	0D32 376		DC	XL2'4006'	
0D33	C0 87 0216	377		B	LINK	RETURN TO DCP.
		378				
		379				
		380			*****	
		381			* RTN07 *	
		382			*****	
		383			*	
		384			* ROUTINE 07 LIO & SNS FUNCTION REG WITH AA55.	
		385			*	
		386			*****	
0D37	07	0D37 387	RTN07	DC	XL1'07'	ROUTINE NUMBER
0D38	00	0D38 388		DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED
0D39	0D6F	0D3A 389		DC	AL2(RTN08)	ROUTINE 08 ADDRESS
		390				
0D3B	0C 01 1919 18E0	391		MVC	PATRN(2),HAA55	STORE TEST PATTERN.
0D41	C0 87 1800	392		B	CODE	PRINT TEST HEADING.
0D45	F1	0D45 393		DC	CL1'1'	

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ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
				394		
		OD46 C0 87 175D		395	B	QUES TEST FOR SSW 10.
		OD4A F0 3C 3C		396	HPL	X'3C',X'3C' HALT -PF- IF ON.
				397		
		OD4D 31 41 1919		398	LIO	PATRN,X'41'
		OD51 30 41 1917		399	SNS	LSCK,X'41'
				400		
		OD55 C0 87 1488		401	B	LIOSNS GO COMPARE RESULT WITH EXPECTED.
		OD59 07	OD59	402	DC	XL1'07' -ERROR ID.
		OD5A F1	OD5A	403	DC	CL1'1' -N CODE.
		OD5B C0 87 0216		404	B	LINK RETURN TO DCP IF OK.
				405		
		OD5F C0 87 17D9		406	B	MAPS POINT TO MAP CHART.
		OD63 8891	OD64	407	DC	XL2'8891' -PAGE 889, ENTRY 1.
		OD65 C0 87 0222		408	B	HALT ERROR HALT -07-.
		OD69 4007	OD6A	409	DC	XL2'4007'
		OD6B C0 87 0216		410	B	LINK RETURN TO DCP.
				411		
				412		
				413	*****	
				414	* RTN08 *	
				415	*****	
				416	*	
				417	* ROUTINE 08	LIO & SNS FUNCTION REG WITH 55AA. *
				418	*	
				419	*****	
		OD6F 08	OD6F	420	RTN08 DC	XL1'08' ROUTINE NUMBER
		OD70 00	OD70	421	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
		OD71 ODA7	OD72	422	DC	AL2 (RTN09) ROUTINE 09 ADDRESS
				423		
		OD73 0C 01 1919 18E2		424	MVC	PATRN(2),H55AA STORE TEST PATTERN.
		OD79 C0 87 1800		425	B	CODE PRINT TEST HEADING.
		OD7D F1	OD7D	426	DC	CL1'1'
				427		
		OD7E C0 87 175D		428	B	QUES TEST FOR SSW 10.
		OD82 F0 3C 3C		429	HPL	X'3C',X'3C' HALT -PF- IF ON.
				430		
		OD85 31 41 1919		431	LIO	PATRN,X'41'
		OD89 30 41 1917		432	SNS	LSCK,X'41'
				433		
		OD8D C0 87 1488		434	B	LIOSNS GO COMPARE RESULT WITH EXPECTED.
		OD91 08	OD91	435	DC	XL1'08' -ERROR ID.
		OD92 F1	OD92	436	DC	CL1'1' -N CODE.
		OD93 C0 87 0216		437	B	LINK RETURN TO DCP IF OK.
				438		
		OD97 C0 87 17D9		439	B	MAPS POINT TO MAP CHART.
		OD9B 8891	OD9C	440	DC	XL2'8891' -PAGE 889, ENTRY 1.
		OD9D C0 87 0222		441	B	HALT ERROR HALT -08-.
		ODA1 4008	ODA2	442	DC	XL2'4008'
		ODA3 C0 87 0216		443	B	LINK RETURN TO DCP.
				444		
				445		
				446	*****	
				447	* RTN09 *	
				448	*****	
				449	*	
				450	* ROUTINE 09	LIO & SNS LENGTH COUNT REG WITH 55. *
				451	*	
				452	*****	
		ODA7 09	ODA7	453	RTN09 DC	XL1'09' ROUTINE NUMBER
		ODA8 00	ODA8	454	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
		ODA9 ODE3	ODAA	455	DC	AL2 (RTN0A) ROUTINE 0A TEST
				456		
		ODAB 0C 01 1919 18E6		457	MVC	PATRN(2),H0055 STORE TEST PATTERN.
		ODB1 C0 87 1800		458	B	CODE PRINT TEST HEADING.
		ODB5 F2	ODB5	459	DC	CL1'2'
				460		
		ODB6 C0 87 175D		461	B	QUES TEST FOR SSW 10.

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ERR LJC OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
ODBA F0 3C 3C	462	HPL	X'3C',X'3C'	HALT -PP- IF ON.
	463			
ODBD 31 42 1919	464	LIO	PATRN,X'42'	LOAD LENGTH COUNT REG WITH -55--.
ODC1 30 42 1917	465	SNS	LSCK,X'42'	SENSE STATUS AND LCR FOR -R055--.
	466			
ODC5 3C 00 1916	467	MVI	LSCK-1,X'00'	CLEAR STATUS BYTE.
	468			
ODC9 C0 87 1488	469	B	LIOSNS	GO COMPARE RESULT WITH EXPECTED.
ODCD 09	470	DC	XL1'09'	-ERROR ID.
ODCE F2	471	DC	CL1'2'	-N CODE.
ODCF C0 87 0216	472	B	LINK	RETURN TO DCP IF OK.
	473			
ODD3 C0 87 17D9	474	B	MAPS	POINT TO MAP CHART.
ODD7 8911	475	DC	XL2'8911'	-PAGE 891, ENTRY 1.
ODD9 C0 87 0222	476	B	HALT	ERROR HALT -09--.
ODDD 4009	477	DC	XL2'4009'	
ODDF C0 87 0216	478	B	LINK	RETURN TO DCP.
	479			
	480			
	481		*****	
	482		* RTNOA *	
	483		*****	
	484		*	
	485		* ROUTINE 0A	LIO & SNS LENGTH COUNT REG WITH AA.
	486		*	
	487		*****	
ODE3 0A	488	RTNOA DC	XL1'0A'	ROUTINE NUMBER
ODE4 00	489	DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED
ODE5 0E42	490	DC	AL2(RTNOB)	ROUTINE 0B ADDRESS
	491			
ODE7 0C 01 1919 18EA	492	MVC	PATRN(2),H00AA	STORE TEST PATTERN.
ODED C0 87 1800	493	B	CODE	PRINT TEST HEADING.
ODF1 F2	494	DC	CL1'2'	
	495			
ODF2 C0 87 175D	496	B	QUES	TEST FOR SSW 10.
ODF6 F0 3C 3C	497	HPL	X'3C',X'3C'	HALT -PP- IF ON.
	498			
ODF9 31 42 1919	499	LIO	PATRN,X'42'	LOAD LENGTH COUNT REG WITH -AA--.
ODFD 30 42 1917	500	SNS	LSCK,X'42'	SENSE STATUS & LCR FOR -80AA--.
	501			
OE01 0D 00 18EE 1917	502	CLC	HEFFFF(1),LSCK	WAS OLD PATTERN ERASED ?
OE07 F2 81 1E	503	JE	EROA	JUMP IF NOT ERASED.
	504			
OE0A 3C 00 1916	505	MVI	LSCK-1,X'00'	CLEAR STATUS BYTE.
	506			
OE0E C0 87 1488	507	B	LIOSNS	GO COMPARE RESULT WITH EXPECTED.
OE12 0A	508	DC	XL1'0A'	-ERROR ID.
OE13 F2	509	DC	CL1'2'	-N CODE.
OE14 C0 87 0216	510	B	LINK	RETURN TO DCP IF OK.
	511			
OE18 C0 87 17D9	512	B	MAPS	POINT TO MAP CHART.
OE1C 8911	513	DC	XL2'8911'	-PAGE 891, ENTRY 1.
OE1E C0 87 0222	514	B	HALT	ERROR HALT -0A--.
OE22 400A	515	DC	XL2'400A'	
OE24 C0 87 0216	516	B	LINK	RETURN TO DCP.
	517			
	518		* ROUTINE 0A ERROR MESSAGE *	
	519			
OE28 C0 87 021A	520	EROA B	PRINT	PRINT LENGTH COUNT NOT RESET.
OE2C C2	521	DC	XL1'C2'	
OE2D 2B	522	DC	IL1'43'	
OE2E 1C0B	523	DC	AL2(LIORST)	
OE30 400C	524	DC	XL2'400C'	
OE32 C0 87 17D9	525	B	MAPS	POINT TO MAP CHART.
OE36 8912	526	DC	XL2'8912'	-PAGE 891, ENTRY 2.
OE38 C0 87 0222	527	B	HALT	ERROR HALT -0C--.
OE3C 400C	528	DC	XL2'400C'	
OE3E C0 87 0216	529	B	LINK	RETURN TO DCP.



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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
			531	*****	
			532	* RTNOB *	
			533	*****	
			534	*	
			535	* ROUTINE OB	LIO & SNS DATA ADDRESS REG WITH EVEN TEST
			536	*	PATTERNS, -55AA- AND -AA55-.
			537	*	
			538	*****	
OE42	OB	OE42	539	RTNOB DC	XL1'0'
OE43	00	OE43	540	DC	XL1'00'
OE44	OE98	OE45	541	DC	AL2(RTNOC)
			542		
OE46	0C 03 1C7D 1C8F		543	MVC	VNOD(4), EVEN
OE4C	CO 87 021A		544	B	PRINT
OE50	46	OE50	545	DC	XL1'46'
OE51	38	OE51	546	DC	IL1'56'
OE52	1C8B	OE53	547	DC	AL2(LSDAR)
OE54	40AB	OE55	548	DC	XL2'40AB'
			549		
OE56	CO 87 175D		550	B	QUES
OE5A	FO 3C 3C		551	HPL	X'3C',X'3C'
			552		
OE5D	31 44 18E2		553	LIO	H55AA,X'44'
OE61	30 44 1917		554	SNS	LSCK,X'44'
OE65	0D 01 18E2 1917		555	CLC	H55AA(2),LSCK
OE6B	F2 01 12		556	JNE	DARCK
			557		
OE6E	31 44 18E0		558	LIO	HAA55,X'44'
OE72	30 44 1917		559	SNS	LSCK,X'44'
OE76	0D 01 18E0 1917		560	CLC	HAA55(2),LSCK
OE7C	CO 81 0216		561	BE	LINK
			562		
OE80	CO 87 021A		563	DARCK B	PRINT
OE84	C6	OE84	564	DC	XL1'C6'
OE85	50	OE85	565	DC	AL1(MSG4-MSG4B)
OE86	1AA3	OE87	566	DC	AL2(MSG4)
			567		
OE88	CO 87 17D9		568	B	MAPS
OE8C	8913	OE8D	569	DC	XL2'8913'
			570		
OE8E	CO 87 0222		571	B	HALT
OE92	4067	OE93	572	DC	XL2'4067'
			573		
OE94	CO 87 0216		574	B	LINK
			575		
			576		
			577	*****	
			578	* RTNOC *	
			579	*****	
			580	*	
			581	* ROUTINE OC	LIO & SNS DATA ADDRESS REG WITH ODD TEST
			582	*	PATTERNS, -1000- AND -0001-.
			583	*	
			584	*****	
OE98	0C	OE98	585	RTNOC DC	XL1'0C'
OE99	00	OE99	586	DC	XL1'00'
OE9A	OE9C7	OE9B	587	DC	AL2(RTNOD)
			588		
OE9C	0C 03 1C7D 1C93		589	MVC	VNOD(4),ODD
OEAA	CO 87 021A		590	B	PRINT
OEAA	46	OEAA	591	DC	XL1'46'
OEAB	38	OEAB	592	DC	IL1'56'
OEAB	1C8B	OEAB	593	DC	AL2(LSDAR)
OEAA	40AC	OEAB	594	DC	XL2'40AC'
			595		
OEAC	CO 87 175D		596	B	QUES
OEBO	FO 3C 3C		597	HPL	X'3C',X'3C'
			598		

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
0EB3	31 44 18E4	599	LIO	H1000,X'44'	LOAD DATA ADRS REG WITH -1000-.
0EB7	30 44 1917	600	SNS	LSCK,X'44'	SENSE DATA ADRS REGISTER.
		601			
0EBB	31 44 18D0	602	LIO	H0001,X'44'	LOAD DATA ADRS REG WITH -0001-.
0EBF	30 44 1917	603	SNS	LSCK,X'44'	SENSE DATA ADRS REGISTER.
		604			
0EC3	C0 87 0216	605	B	LINK	RETURN TO DCP.

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ERR	LJC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT
			607		*****
			608		* RTNOD *
			609		*****
			610		*
			611		* ROUTINE OD LIO & SNS DATA TRANSFER REG WITH 55. *
			612		*
			613		*****
OEC7	OD		614	RTNOD DC	XL1'0D' ROUTINE NUMBER
OEC8	00	OEC8	615	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
OEC9	OF03	OECA	616	DC	AL2(RTNOE) ROUTINE OE ADDRESS
			617		
OECB	OC 01 1919 18E6		618	MVC	PATRN(2),H0055 STORE TEST PATTERN.
OED1	CO 87 1800		619	B	CODE PRINT TEST HEADING.
OED5	F5	OED5	620	DC	CL1'5'
			621		
OED6	CO 87 175D		622	B	QUES TEST FOR SSW 10.
OEDA	PO 3C 3C		623	HPL	X'3C',X'3C' HALT -PP- IF ON.
			624		
OEDD	31 45 1919		625	LIO	PATRN,X'45' LOAD DATA TRANS REG WITH -55-.
OEE1	30 45 1917		626	SNS	LSCK,X'45' SENSE DIAG AND DTR FOR -0055-.
			627		
OEE5	3C 00 1916		628	MVI	LSCK-1,X'00' CLEAR DIAGNOSTIC BYTE.
			629		
OEE9	CO 87 1488		630	B	LIOSNS GO COMPARE RESULT WITH EXPECTED.
OEEB	10	OEEB	631	DC	XL1'10' -ERROR ID.
OEEE	F5	OEEE	632	DC	CL1'5' -N CODE.
OEEF	CO 87 0216		633	B	LINK RETURN TO DCP IF OK.
			634		
OEP3	CO 87 17D9		635	B	MAPS POINT TO MAP CHART.
OEF7	8931	OEP8	636	DC	XL2'8931' -PAGE 893, ENTRY 1.
OEF9	CO 87 0222		637	B	HALT ERROR HALT -10-.
OEPD	4010	OEPF	638	DC	XL2'4010'
OEPF	CO 87 0216		639	B	LINK RETURN TO DCP.
			640		
			641		
			642		*****
			643		* RTNOE *
			644		*****
			645		*
			646		* ROUTINE OE LIO & SNS DATA TRANSFER REG WITH AA. *
			647		*
			648		*****
OP03	OE	OP03	649	RTNOE DC	XL1'0E' ROUTINE NUMBER
OP04	00	OP04	650	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
OP05	OF3F	OP06	651	DC	AL2(RTNOF) ROUTINE OF ADDRESS
			652		
OP07	OC 01 1919 18EA		653	MVC	PATRN(2),H00AA STORE TEST PATTERN.
OP0D	CO 87 1800		654	B	CODE PRINT TEST HEADING.
OP11	F5	OP11	655	DC	CL1'5'
			656		
OP12	CO 87 175D		657	B	QUES TEST FOR SSW 10.
OP16	PO 3C 3C		658	HPL	X'3C',X'3C' HALT -PP- IF ON.
			659		
OP19	31 45 1919		660	LIO	PATRN,X'45' LOAD DATA TRANS REG WITH -AA-.
OP1D	30 45 1917		661	SNS	LSCK,X'45' SENSE DIAG & DTR FOR -00AA-.
			662		
OP21	3C 00 1916		663	MVI	LSCK-1,X'00' CLEAR DIAGNOSTIC BYTE.
			664		
OP25	CO 87 1488		665	B	LIOSNS GO COMPARE RESULT WITH EXPECTED.
OP29	11	OP29	666	DC	XL1'11' -ERROR ID.
OP2A	F5	OP2A	667	DC	CL1'5' -N CODE.
OP2B	CO 87 0216		668	B	LINK RETURN TO DCP IF OK.
			669		
OP2F	CO 87 17D9		670	B	MAPS POINT TO MAP CHART.
OP33	8931	OP34	671	DC	XL2'8931' -PAGE 893, ENTRY 1.
OP35	CO 87 0222		672	B	HALT ERROR HALT -11-.
OP39	4011	OP3A	673	DC	XL2'4011'
OP3B	CO 87 0216		674	B	LINK RETURN TO DCP.

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT
		676		*****
		677		* RTN0F *
		678		*****
		679		*
		680		* ROUTINE 0F ISSUE A SIO ENABLE INTERRUPT. *
		681		*
		682		*****
0F3F	0F	683	RTN0F DC	XL1'0F' ROUTINE NUMBER
0F40	00	684	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
0F41	0FC1	685	DC	AL2(RTN10) ROUTINE 10 ADDRESS
		686		
0F43	C0 87 1576	687	B	SIOHD PRINT TEST HEADING.
0F47	AF	688	DC	XL1'AF' MESSAGE ID.
0F48	E2C5E340C5D5C1C2	689	DC	CL29'SET ENABLE INTERRUPT LATCH.'
0F50	D3C540C9D5E3C5D9	689		
0F58	D9E4D7E340D3C1E3	689		
0F60	C3C84B4040	689		
0F65	C1 42 17BF	690	TIO	DROPD,X'42' MAKE SURE 3741 IS NOT BUSY.
0F69	35 84 18FA	691	L	INTR5,IAR5 LOAD IAR 5 REGISTER.(IN CASE OF INT)
0F6D	3B 01 18C1	692	SBF	FLAG,X'01' RESET ERROR FLAG
0F71	C0 87 17D0	693	B	QUES TEST FOR SSW 10.
0F75	F0 3C 3C	694	HPL	X'3C',X'3C' HALT -PP- IF ON.
		695		
0F78	31 41 18DE	696	LIO	H0080,X'41' SET FUNC REG TO DIAG MODE.
0F7C	F 40 02	697	SIO	X'02',X'40' ISSUE ENABLE INTERRUPT.
0F7F	30 45 18FC	698	SNS	DTR,X'45' SENSE DIAG BYTE FOR -10-
0F83	38 01 18C1	699	TBM	FLAG,X'01' ERROR FLAG SET ?
0F87	F2 10 1D	700	JT	BADINT JUMP IF SO.
0F8A	3C 10 191C	701	MVI	XPCT,X'10' STORE EXPECTED RESULT.
0F8E	C0 87 15B0	702	B	CKSIO GO CHECK EXPECTED WITH RESULT.
0F92	12	703	DC	XL1'12' ERROR ID.
0F93	C0 87 0216	704	B	LINK RETURN TO DCP IF OK.
		705		
0F97	C0 87 17D9	706	B	MAPS POINT TO MAP CHART.
0F9B	8951	707	DC	XL2'8951' -PAGE 895, ENTRY 1.
0F9D	C0 87 0222	708	B	HALT ERROR HALT -12-
0FA1	4012	709	DC	XL2'4012'
0FA3	C0 87 0216	710	B	LINK RETURN TO DCP.
		711		
0FA7	C0 87 021A	712	BADINT B	PRINT PRINT INTERRUPT CHECK.
0FAB	C2	713	DC	XL1'C2'
0FAC	15	714	DC	IL1'21'
0FAD	1EEE	715	DC	AL2(SIOC4)
0FAF	401A	716	DC	XL2'401A'
0FB1	C0 87 17D9	717	B	MAPS PRINT MAP CHART REFERENCE.
0FB5	8952	718	DC	XL2'8952' -PAGE 895, ENTRY 2.
0FB7	C0 87 0222	719	B	HALT ERROR HALT -1A-
0FBB	401A	720	DC	XL2'401A'
0FBD	C0 87 0216	721	B	LINK RETURN TO DCP.
		722		*****
		723		* RTN10 *
		724		*****
		725		*
		726		* ROUTINE 10 ISSUE A RESET INTERRUPT. *
		727		*
		728		*****
0FC1	10	729	RTN10 DC	XL1'10' ROUTINE NUMBER
0FC2	00	730	DC	XL1'00' NO INTERVENTION REQUIRED
0FC3	1022	731	DC	AL2(RTN11) ROUTINE 11 ADDRESS
		732		
0FC5	C0 87 1576	733	B	SIOHD PRINT TEST HEADING.
0FC9	B0	734	DC	XL1'B0' MESSAGE ID.
0FCA	D9C5E2C5E340C5D5	735	DC	CL29'RESET ENABLE INTERRUPT LATCH.'
0FD2	C1C2D3C540C9D5E3	735		
0FDA	C5D9D9E4D7E340D3	735		
0FE2	C1E3C3C843	735		
0FE7	C1 42 17BF	736	TIO	DROPD,X'42' MAKE SURE 3741 IS NOT BUSY.
		737		

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
0FEB	C0 87 175D		738	B	QUES TEST FOR SSW 10.
0FEP	F0 3C 3C		739	HPL	X'3C',X'3C' HALT -FF- IF ON.
			740		
OFF2	31 41 18DE		741	LIO	H0080,X'41' SET TO DIAGNOSTIC MODE.
OFF6	F3 40 02		742	SIO	X'02',X'40' ISSUE ENABLE INTERRUPT.
OFF9	F3 40 04		743	SIO	X'04',X'40' ISSUE INTERRUPT RESET.
OFFC	30 45 18FC		744	SNS	DTR,X'45' SENSE DIAG BYTE FOR -00-.
			745		
1000	38 10 18FB		746	TBN	DTR-1,X'10' DID ENABLE BIT GET RESET ?
1004	C0 90 0216		747	BF	LINK RETURN TO DCP IF YES.
			748		
			749		* ROUTINE 10 ERROR MESSAGE *
			750		
1008	C0 87 021A		751	B	PRINT PRINT RESET CHECK.
100C	C2	100C	752	DC	XL1'C2'
100D	1B	100D	753	DC	IL1'29'
100E	1D48	100F	754	DC	AL2(INTR)
1010	4013	1011	755	DC	XL2'4013'
1012	C0 87 17D9		756	B	MAPS POINT TO MAP CHART.
1016	8971	1017	757	DC	XL2'8971' -PAGE 897, ENTRY 1.
			758		
1018	C0 87 0222		759	B	HALT ERROR HALT -13-.
101C	4013	101D	760	DC	XL2'4013'
101E	C0 87 0216		761	B	LINK RETURN TO DCP.
			762		
			763		
			764		*****
			765		* RTN11 *
			766		*****
			767		*
			768		* ROUTINE 11 ISSUE A READ COMMAND. *
			769		*
			770		*****
1022	11	1022	771	RTN11 DC	XL1'11' ROUTINE NUMBER
1023	00	1023	772	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
1024	108A	1025	773	DC	AL2(RTN12) ROUTINE 12 ADDRESS
			774		
1026	C0 87 1576		775	B	SIOHD PRINT TEST HEADING.
102A	B1	102A	776	DC	XL1'B1' MESSAGE ID.
102B	E2C5E340D9C5C1C4	1047	777	DC	CL29'SET READ CALL LATCH.'
1033	40C3C1D3D340D3C1		777		
103B	E3C3C84B40404040		777		
1043	4040404040		777		
1048	C1 42 17BF		778	TIO	DROFD,X'42' MAKE SURE 3741 IS NOT BUSY.
			779		
104C	C0 87 175D		780	B	QUES TEST FOR SSW 10.
1050	F0 3C 3C		781	HPL	X'3C',X'3C' HALT -FF- IF ON.
			782		
1053	31 41 18DE		783	LIO	H0080,X'41' SET TO DIAGNOSTIC MODE.
1057	F3 41 00		784	SIO	X'00',X'41' ISSUS A READ CALL.
105A	C1 42 17BF		785	TIO	TIOERB,X'42' BRANCH IF 3741 BUSY.
105E	30 45 18FC		786	SNS	DTR,X'45' SENSE DIAG BYTE FOR -03-.
			787		
1062	3C 03 191C		788	AVI	XPCT,X'03' STORE EXPECTED RESULT.
1066	C0 87 15B0		789	B	CKSIO GO CHECK EXPECTED WITH RESULT.
106A	14	106A	790	DC	XL1'14' ERROR ID.
106B	C0 87 107F		791	B	DORST GO CHECK FOR RESET IF OK.
			792		
106F	C0 87 17D9		793	B	MAPS POINT TO MAP CHART.
1073	8991	1074	794	DC	XL2'8991' -PAGE 899, ENTRY 1.
1075	C0 87 0222		795	B	HALT ERROR HALT -14-.
1079	4014	107A	796	DC	XL2'4014'
107B	C0 87 0216		797	B	LINK RETURN TO DCP.
			798		
107F	F3 40 08		799	DORST SIO	X'08',X'40' DO A READ CALL RESET.
1082	30 45 18FE		800	SNS	TEMP,X'45' SENSE DIAG BYTE FOR -00-.
1086	C0 87 10EA		801	B	CKRST GO CHECK DIAG BYTE FOR RESRT.
			802		

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
			803		
			804	*****	
			805	* RTN12 *	
			806	*****	
			807	*	
			808	* ROUTINE 12	ISSUE A WRITE COMMAND.
			809	*	
			810	*****	
108A	12	108A	811	RTN12 DC	XL1'12' ROUTINE NUMBER
108B	00	108B	812	DC	XL1'00' NO MANUAL INTERVENTION
108C	1118	108D	813	DC	AL2(RTN13) ROUTINE 13 ADDRESS
			814		
108E	C0 87 1576		815	B	SIOHD PRINT TEST HEADING.
1092	B2	1092	816	DC	XL1'B2' MESSAGE ID.
1093	E2C5E340E6D9C9E3	10AF	817	DC	CL29'SET WRITE CALL LATCH.'
109B	C540C3C1D3D340D3		817		
10A3	C1E3C3C94B404040		817		
10AB	4040404040		817		
10B0	C1 42 17BF		818	TIO	DROPD,X'42' MAKE SURE 3741 IS NOT BUSY.
			819		
10B4	C0 87 175D		820	B	QUES TEST FOR SSW 10.
10B8	F0 3C 3C		821	HPL	X'3C',X'3C' HALT -FF- IF ON.
			822		
10BB	31 41 18DE		823	LIO	H0080,X'41' SET TO DIAGNOSTIC MODE.
10BF	F3 42 00		824	SIO	X'00',X'42' ISSUE A WRITE CALL.
10C2	30 45 18FC		825	SNS	DTR,X'45' SENSE DIAG BYTE FOR -05-.
			826		
10C6	3C 05 191C		827	MVI	XPCT,X'05' STORE EXPECTED RESULT.
10CA	C0 87 15B0		828	B	CKSIO GO CHECK EXPECTED WITH RESULT.
10CE	15	10CE	829	DC	XL1'15' ERROR ID.
10CF	C0 87 10E3		830	B	CKRSTT GO DO RESET IF OK.
			831		
10D3	C0 87 17D9		832	B	MAPS POINT TO MAP CHART.
10D7	9031	10D8	833	DC	XL2'9031' -PAGE 903, ENTRY 1.
10D9	C0 87 0222		834	B	HALT ERROR HALT -15-.
10DD	4015	10DE	835	DC	XL2'4015'
10DF	C0 87 0216		836	B	LINK RETURN TO DCP.
			837		
10E3	F3 40 08		838	CKRSTT SIO	X'08',X'40' DO WRITE CALL RESET.
10E6	30 45 18FE		839	SNS	TEMP,X'45' SENSE DIAG BYTE FOR -00-.
			840		
10EA	3D 00 18FD		841	CKRST CLI	TEMP-1,X'00' DIAG BYTE RESET TO -00- ?
10EE	F2 01 0D		842	JNE	ERST JUMP IF NOT.
10F1	3D 15 0A03		843	CLI	RTN#,X'15' CHECKING RESET FROM RTN15?
10F5	C0 01 0216		844	BNE	LINK RETURN TO DCP IF NOT.
			845		
10F9	C0 87 022A		846	B	LOAD BRANCH TO DCP TO TERMINATE SECTION.
10FD	00	10FD	847	DC	XL1'00'
			848		
			849	* 3741 RESET ERROR MESSAGE *	
			850		
10FE	C0 87 021A		851	ERST B	PRINT PRINT 3741 NOT RESETTING MESSAGE.
1102	C2	1102	852	DC	XL1'C2'
1103	1B	1103	853	DC	IL1'27'
1104	1D2B	1105	854	DC	AL2(NTRST)
1106	4016	1107	855	DC	XL2'4016'
1108	C0 87 17D9		856	B	MAPS POINT TO MAP CHART.
110C	8992	110D	857	DC	XL2'8992' -PAGE 899, ENTRY 2.
110E	C0 87 0222		858	B	HALT ERROR HALT -16-.
1112	4016	1113	859	DC	XL2'4016'
1114	C0 87 0216		860	B	LINK RETURN TO DCP.

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ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
				862	*****	
				863	* RTN13 *	
				864	*****	
				865	*	
				866	* ROUTINE 13	ISSUE A CONTROL 1 SIO.
				867	*	
				868	*****	
1118	13		1118	869	RTN13 DC	XL1'13' ROUTINE NUMBER
1119	00		1119	870	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
111A	1154		111B	871	DC	AL2(RTN14) ROUTINE 14 ADDRESS
				872		
111C	C0 87 1576			873	B	SIOHD PRINT TEST HEADING.
1120	B3		1120	874	DC	XL1'B3' MESSAGE ID.
1121	C4D640C3D6D5E3D9	113D		875	DC	CL29'DO CONTROL 1 START I/O.'
1129	D6D340F140E2E3C1			875		
1131	D9E340C961D64E40			875		
1139	4040404040			875		
113E	C1 42 17BF			876	TIO	DROPD,X'42' MAKE SURE 3741 IS NOT BUSY.
				877		
1142	C0 87 175D			878	B	QUES TEST FOR SSW 10.
1146	F0 3C 3C			879	HPL	X'3C',X'3C' HALT -PP- IF ON.
				880		
1149	31 41 18D1			881	LIO	H0080,X'41' SET TO DIAGNOSTIC MODE.
114D	F3 43 FF			882	SIO	X'FF',X'43' ISSUE CONTROL 1 SIO.
				883		
1150	C0 87 0216			884	B	LINK RETURN TO DCP.
				885		
				886		
				887	*****	
				888	* RTN14 *	
				889	*****	
				890	*	
				891	* ROUTINE 14	ISSUE CONTROL 2 SIO.
				892	*	
				893	*****	
1154	14		1154	894	RTN14 DC	XL1'14' ROUTINE NUMBER
1155	00		1155	895	DC	XL1'00' NO MANUAL INTERVENTION REQUIRED
1156	1190		1157	896	DC	AL2(RTN15) ROUTINE 15 ADDRESS
				897		
1158	C0 87 1576			898	B	SIOHD PRINT TEST HEADING.
115C	B4		115C	899	DC	XL1'B4' MESSAGE ID.
115D	C4D640C3D6D5E3D9	1179		900	DC	CL29'DO CONTROL 2 START I/O.'
1165	D6D340F240E2E3C1			900		
116D	D9E340C961D64B40			900		
1175	4040404040			900		
117A	C0 87 175D			901	B	QUES TEST FOR SSW 10.
117E	F0 3C 3C			902	HPL	X'3C',X'3C' HALT -PP- IF ON.
				903		
1181	31 41 18CE			904	LIO	H0000,X'41' REMOVE FROM DIAGNOSTIC MODE.
1185	C1 42 17BF			905	TIO	DROPD,X'42' MAKE SURE 3741 IS NOT BUSY.
1189	F3 44 FF			906	SIO	X'FF',X'44' ISSUE CONTROL 2 SIO.
				907		
118C	C0 87 0216			908	B	LINK RETURN TO DCP.
				909		
				910		
				911	*****	
				912	* RTN15 *	
				913	*****	
				914	*	
				915	* ROUTINE 15	ISSUE A SIO TO SET/RESET THE NO-OP LATCH.
				916	*	
				917	*****	
1190	15		1190	918	RTN15 DC	XL1'15' ROUTINE NUMBER
1191	00		1191	919	DC	XL1'00' NO INTERVENTION REQUIRED
1192	1223		1193	920	DC	AL2(RTN16) ROUTINE 16 ADDRESS
				921		
1194	C0 87 1576			922	B	SIOHD PRINT TEST HEADING.
1198	B5		1198	923	DC	XL1'B5' MESSAGE ID.

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ERA	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
	1199	E2C5E340C1D5C440	11B5	924	DC	CL29'SET AND RESET NO-OP LATCH.'
	11A1	D9C5E2C5E340D5D6		924		
	11A9	60D6D740D3C1E3C3		924		
	11B1	C84B404040		924		
	11B6	C1 42 17BF		925	TIO	DROPD,X'42'
				926		MAKE SURE 3741 IS NOT BUSY.
	11BA	C0 87 175D		927	B	QUES
	11BE	F0 3C 3C		928	HPL	X'3C',X'3C'
				929		TEST FOR SSW 10.
				929		HALT -FF- IF ON.
	11C1	31 41 18CE		930	LIO	H0000,X'41'
	11C5	3 41 00		931	SIO	X'00',X'41'
	11C8	30 42 0AEB		932	SNS	LCR,X'42'
	11CC	38 04 0AEA		933	TBN	LCR-1,X'04'
	11D0	F2 90 35		934	JF	E13
				935		REMOVE FROM DIAG NODE.
	11D3	30 42 190D		936	SNS	WORK,X'42'
	11D7	38 04 190C		937	TBN	WORK-1,X'04'
	11DB	F2 10 0F		938	JT	E13A
	11DE	C1 42 17BF		939	TIO	TIOERB,X'42'
				940		SENSE STATUS FOR -80-.
	11E2	F3 40 08		941	SIO	X'08',X'40'
	11E5	30 45 18FE		942	SMS	TEMP,X'45'
	11E9	C0 87 10EA		943	B	CKRST
				944		NO-OP BIT ON IN FIRST STATUS ?
				945		BRANCH IF NO-OP NOT ON.
				945		SENSE STATUS FOR -80-.
				945		NO-OP BIT RESET ?
				945		BRANCH IF NO-OP NOT RESET.
				945		BRANCH OUT IF 3741 BUSY.
				945		DO READ CALL RESET.
				945		SENSE DIAG BYTE FOR -00-.
				945		GO CHECK RESET RESULTS.
				945		* ROUTINE 15 ERROR MESSAGES *
	11ED	C0 87 021A		947	E13A	B
	11F1	C2	11F1	948	DC	XL1'C2'
	11F2	1B	11F2	949	DC	IL1'27'
	11F3	1D7C	11F4	950	DC	AL2(NORES)
	11F5	4018	11F6	951	DC	XL2'4018'
	11F7	C0 87 17D9		952	B	MAPS
	11FB	9052	11FC	953	DC	XL2'9052'
	11FD	C0 87 0222		954	B	HALT
	1201	4018	1202	955	DC	XL2'4018'
	1203	C0 87 022A		956	B	LOAD
	1207	00	1207	957	DC	XL1'00'
				958		POINT TO MAP CHART.
				958		-PAGE 905, ENTRY 2.
				958		ERROR HALT -18-.
				958		GO TERMINATE SECTION.
	1208	C0 87 021A		959	E13	B
	120C	C2	120C	960	DC	XL1'C2'
	120D	19	120D	961	DC	IL1'25'
	120E	1D61	120F	962	DC	AL2(NOSEE)
	1210	4017	1211	963	DC	XL2'4017'
	1212	C0 87 17D9		964	B	MAPS
	1216	9051	1217	965	DC	XL2'9051'
	1218	C0 87 0222		966	B	HALT
	121C	4017	121D	967	DC	XL2'4017'
	121E	C0 87 022A		968	B	LOAD
	1222	00	1222	969	DC	XL1'00'
				970		POINT TO MAP CHART.
				970		-PAGE 905, ENTRY 1.
				970		ERROR HALT -17-.
				970		GO TERMINATE SECTION.
				971		PRINT LATCH SET CHECK.
				972		PRINT NO RESET ERROR.
				973		* BTN16 *
				974		*****
				975		*
				976		ROUTINE 16 TEST ALL INVALID N CODE COMMANDS.
				977		(DIAL IN ONLY)
				978		*****
	1223	16	1223	979	BTN16	DC
	1224	80	1224	980	DC	XL1'80'
	1225	FFFF	1226	981	DC	XL2'FFFF'
				982		ROUTINE NUMBER
	1227	0C 03 190D 0003		983	MVC	WORK(4),3
	122D	0C 03 0003 18F6		984	MVC	3(4),BRNCH
				985		SAVE BOTTOM CORE OF DCP.
				985		STORE SPECIAL 'BRANCH BACK' CMND.
	1233	C0 87 021A		986	B	PRINT
	1237	42	1237	987	DC	XL1'42'
	1238	33	1238	988	DC	IL1'51'
						PRINT TEST HEADING.



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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	
1239	1DDD	123A	989	DC	AL2(INVAL)	
123B	40B6	123C	990	DC	XL2'40B6'	
123D	C0 87 021A		991	REPIT	B PRINT	PRINT REST OF INSTRUCTIONS.
1241	02	1241	992	DC	XL1'02'	
1242	24	1242	993	DC	IL1'36'	
1243	1E01	1244	994	DC	AL2(INVL)	
1245	C0 87 021A		995	B	PRINT	
1249	06	1249	996	DC	XL1'06'	
124A	37	124A	997	DC	IL1'55'	
124B	1E38	124C	998	DC	AL2(IVL)	
			999			
124D	C0 87 0222		1000	B	HALT	OPERATOR HALT --EE--.
1251	40EE	1252	1001	DC	XL2'40EE'	
			1002			
1253	C0 87 123D		1003	B	REPIT	REPEAT IF NO SYSTEM RESET.
			1004			
			1005	*	INVALID SENSE I/O CODES.	
1257	0E 01 0003 18DA	1006	RTRN	ALC	3(2),N019	INCR RETURN ADDRESS.
125D	30 40 18FE	1007		SNS	TEMP,X'40'	N = 0.
1261	C0 87 137B	1008		B	ER14	BRANCH IF CMND ACCEPTED.
1265	E2D5E240F0	1269	1009	DC	CL5'SNS 0'	
			1010			
126A	0E 01 0003 18DA	1011		ALC	3(2),N019	INCR RETURN ADDRESS.
1270	30 46 1' FE	1012		SNS	TEMP,X'46'	N = 6.
1274	C0 87 137B	1013		B	ER14	BRANCH IF CMND ACCEPTED.
1278	E2D5E240F6	127C	1014	DC	CL5'SNS 6'	
			1015			
127D	0E 01 0003 18DA	1016		ALC	3(2),N019	INCR RETURN ADDRESS.
1283	30 47 18FE	1017		SNS	TEMP,X'47'	N = 7.
1287	C0 87 137B	1018		B	ER14	BRANCH IF CMND ACCEPTED.
128B	E2D5E240F7	128F	1019	DC	CL5'SNS 7'	
			1020			
			1021	*	INVALID LOAD I/O CODES.	
1290	0E 01 0003 18DA	1022		ALC	3(2),N019	INCR RETURN ADDRESS.
1296	31 40 18CE	1023		LIO	H0000,X'40'	N = 0.
129A	C0 87 137B	1024		B	ER14	BRANCH IF CMND ACCEPTED.
129E	D3C9D640F0	12A2	1025	DC	CL5'LIO 0'	
			1026			
12A3	0E 01 0003 18DA	1027		ALC	3(2),N019	INCR RETURN ADDRESS.
12A9	31 43 18CE	1028		LIO	H0000,X'43'	N = 3.
12AD	C0 87 137B	1029		B	ER14	BRANCH IF CMND ACCEPTED.
12B1	D3C9D640F3	12B5	1030	DC	CL5'LIO 3'	
			1031			
12B6	0E 01 0003 18DA	1032		ALC	3(2),N019	INCR RETURN ADDRESS.
12BC	31 46 18CE	1033		LIO	H0000,X'46'	N = 6.
12C0	C0 87 137B	1034		B	ER14	BRANCH IF CMND ACCEPTED.
12C4	D3C9D640F6	12C8	1035	DC	CL5'LIO 6'	
			1036			
12C9	0E 01 0003 18DA	1037		ALC	3(2),N019	INCR RETURN ADDRESS.
12CF	31 47 18CE	1038		LIO	H0000,X'47'	N = 7.
12D3	C0 87 137B	1039		B	ER14	BRANCH IF CMND ACCEPTED.
12D7	D3C9D640F7	12DB	1040	DC	CL5'LIO 7'	
			1041			
			1042	*	INVALID TIO N CODES.	
12DC	0E 01 0003 18DA	1043		ALC	3(2),N019	INCR RETURN ADDRESS.
12E2	C1 41 12E6	1044		TIO	**4,X'41'	N = 1.
12E6	C0 87 137B	1045		B	ER14	BRANCH IF CMND ACCEPTED.
12EA	E3C9D640F7	12EE	1046	DC	CL5'TIO 1'	
			1047			
12EF	0E 01 0003 18DA	1048		ALC	3(2),N019	INCR RETURN ADDRESS.
12F5	C1 44 12F9	1049		TIO	**4,X'44'	N = 4.
12F9	C0 87 137B	1050		B	ER14	BRANCH IF CMND ACCEPTED.
12FD	E3C9D640F4	1301	1051	DC	CL5'TIO 4'	
			1052			
1302	0E 01 0003 18DA	1053		ALC	3(2),N019	INCR RETURN ADDRESS.
1308	C1 45 130C	1054		TIO	**4,X'45'	N = 5.
130C	C0 87 137B	1055		B	ER14	BRANCH IF CMND ACCEPTED.
1310	E3C9D640F5	1314	1056	DC	CL5'TIO 5'	

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
			1057		
1315	0E 01 0003 18DA		1058	ALC 3(2),N019	INCR RETURN ADDRESS.
131B	C1 46 131F		1059	TIO **9,X'46'	N = 6.
131F	C0 87 137B		1060	B ER14	BRANCH IF CMD ACCEPTED.
1323	E3C9D640F6	1327	1061	DC CL5'TIO 6'	
			1062		
1328	0E 01 0003 18DA		1063	ALC 3(2),N019	INCR RETURN ADDRESS.
132E	C1 47 1332		1064	TIO **4,X'47'	N = 7.
1332	C0 87 137B		1065	B ER14	BRANCH IF CMD ACCEPTED.
1336	E3C9D640F7	133A	1066	DC CL5'TIO 7'	
			1067		
			1068 *	INVALID SIO N CODES.	
133B	0E 01 0003 18D8		1069	ALC 3(2),N018	INCR RETURN ADDRESS.
1341	F3 45 00		1070	SIO X'00',X'45'	N = 5.
1344	C0 87 137B		1071	B ER14	BRANCH IF CMD ACCEPTED.
1348	E2C9D640F5	134C	1072	DC CL5'SIO 5'	
			1073		
134D	0E 01 0003 18D8		1074	ALC 3(2),N018	INCR RETURN ADDRESS.
1353	F3 46 00		1075	SIO X'00',X'46'	N = 6.
1356	C0 87 137B		1076	B ER14	BRANCH IF CMD ACCEPTED.
135A	E2C9D640F6	135E	1077	DC CL5'SIO 6'	
			1078		
135F	0E 01 0003 18D8		1079	ALC 3(2),N018	INCR RETURN ADDRESS.
1365	F3 47 00		1080	SIO X'00',X'47'	N = 7.
1368	C0 87 137B		1081	B ER14	BRANCH IF CMD ACCEPTED.
136C	E2C9D640F7	1370	1082	DC CL5'SIO 7'	
			1083		
1371	0C 03 0003 190D		1084	PUTBAK MVC 3(4),WORK	RESTORE BOTTOM CORE OF DCP.
1377	C0 87 0216		1085	B LINK	RETURN TO DCP.
			1086		
			1087	* ROUTINE 16 ERROR MESSAGE *	
			1088		
137B	36 08 18D6		1089	ER14 A N004,ARR	
137F	34 08 1388		1090	ST **9,ARR	
1383	0C 04 1E5C 0000		1091	MVC PLWNG(5),***	STORE PAILING CMD ID.
1389	0C 23 1F12 1E5C		1092	MVC PRT-55(36),PLWNG	SET UP ERROR MESSAGE.
138F	0C 00 1CE5 1E5C		1093	MVC TRD-1(1),PLWNG	
1395	0C 08 1F1A 1CE6		1094	MVC PRT-47(9),TRD	
139B	C0 87 021A		1095	B PRINT	PRINT ERROR MESSAGE.
139F	C2	139F	1096	DC X11'C2'	
13A0	5B	13A0	1097	DC I11'91'	
13A1	1F49	13A2	1098	DC AL2(PRT)	
13A3	4019	13A4	1099	DC AL2'4019'	
13A5	0C 5A 1F49 1F4A		1100	MVC PRT(91),PRT+1	CLEAR PRINT YIELD.
13AB	C0 87 17D9		1101	B MAPS	POINT TO MAP CHART.
13AP	9053	13B0	1102	DC X12'9053'	-PAGE 905, ENTRY 3.
13B1	C0 87 0222		1103	B HALT	ERROR HALT -19-
13B5	4019	13B6	1104	DC X12'4019'	
13B7	C0 87 1371		1105	B PUTBAK	GO RETURN TO DCP.

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR	LJC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT
				1107	*****
				1108	* SNSERR *
				1109	*****
				1110	*
				1111	*
				1112	*
				1113	*
				1114	*
				1115	*
				1116	*
				1117	*
				1118	*****
				1119	SNSERR A N001,ARR
				1120	ST **9,ARR
				1121	MVC XPT(2),*--
				1122	A N002,ARR
				1123	ST **9,ARR
				1124	MVC ACT(2),*--
				1125	A N001,ARR
				1126	ST **9,ARR
				1127	MVC SNRID(1),*--
				1128	A N001,ARR
				1129	ST ERSN+3,ARR
				1130	
				1131	B PRINT
				1132	DC XL1'C2'
				1133	DC IL1'12'
				1134	DC AL2(SNCKMS)
				1135	DC SNRID XL2'4000'
				1136	
				1137	CLI RTN#,X'03'
				1138	JNE **15
				1139	MVC PRT-69(11),STLCR-22
				1140	MVC PRT-46(16),STLCR-5
				1141	CLI RTN#,X'04'
				1142	JNE **9
				1143	MVC PRT-55(18),IOTRL
				1144	CLI RTN#,X'05'
				1145	JNE **9
				1146	MVC PRT-67(15),DIAG
				1147	B EPRNT2
				1148	
				1149	LA PRT-67,XR2
				1150	CLI RTN#,X'05'
				1151	JNE NORH
				1152	LA WORK,XR1
				1153	J **7
				1154	NORH LA PRT-47,XR1
				1155	
				1156	MVC PRT-70(10),EB2
				1157	CLI RTN#,X'05'
				1158	JE **9
				1159	MVC PRT-50(10),EB1
				1160	B EPRNT1
				1161	
				1162	MVC PRT-67(15),BITS
				1163	CLI RTN#,X'05'
				1164	JE **9
				1165	MVC PRT-47(15),BITS
				1166	B EPRNT2
				1167	
				1168	B BITSNF
				1169	DC AL2(ACT)
				1170	B EPRNT1
				1171	B CMPARE
				1172	MVC PRT-84(7),ERORS
				1173	B EPRNT2
				1174	ERSN B **-
13BB	36	08	18D0		
13BF	34	08	13C8		
13C3	0C	01	163C 0000		
13C9	36	08	18D2		
13CD	34	08	13D6		
13D1	0C	01	163E 0000		
13D7	36	08	18D0		
13DB	34	08	13E4		
13DF	0C	00	13F6 0000		
13E5	36	08	18D0		
13E9	34	08	1487		
13ED	00	87	021A		
13F1	C2		13F1 1132		
13F2	0C		13F2 1133		
13F3	1E72		13F4 1134		
13F5	4000		13F6 1135		
13F7	3D	03	0A03		
13FB	F2	01	0C		
13FE	0C	0A	1F04 1AAE		
1404	0C	0F	1F1B 1ABF		
140A	3D	04	0A03		
140E	F2	01	05		
1411	0C	11	1F12 1AD6		
1417	3D	05	0A03		
141B	F2	01	06		
141E	0C	0E	1F06 1BCA		
1424	C0	87	18A7		
1428	C2	02	1F06		
142C	3D	05	0A03		
1430	F2	01	07		
1433	C2	01	190D		
1437	F2	87	04		
143A	C2	01	1F1A		
143E	00	09	1F03 1D09		
1444	3D	05	0A03		
1448	F2	81	06		
144B	0C	09	1F17 1CPF		
1451	C0	87	189C		
1455	0C	0E	1F0E 1CF5		
145B	3D	05	0A03		
145F	F2	81	06		
1462	0C	0E	1F1A 1CF5		
1468	C0	87	18A7		
146C	C0	87	16E1		
1470	163E		1471 1169		
1472	C0	87	189C		
1476	C0	87	163F		
147A	0C	06	1EF5 1D10		
1480	C0	87	18A7		
1484	C0	87	0000		

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE ADDR SYMT SOURCE STATEMENT

ERR	LOC	OBJECT CODE	ADDR	SYMT	SOURCE STATEMENT
			1176		*****
			1177		* LIOSNS *
			1178		*****
			1179		THE EXPECTED AND ACTUAL SNS PATTERNS
			1180		ARE COMPARED FROM ROUTINES 07-0E.
			1181		*****
1488	36 08	18D0	1182	LIOSNS A	N001,ARR
148C	34 08	1495	1183	ST	**9,ARR
1490	0C 01	191B 0000	1184	MVC	NID(2),*-- SAVE THE N CODE, ERROR ID.
1496	36 08	18D0	1185	A	N001,ARR
149A	34 08	14AA	1186	ST	CKKLS+3,ARR SAVE RETURN ADDRESS.
			1187		
149E	0D 01	1917 1919	1188	CLC	LSCK(2),PATRN EXPECTED AND ACTUAL EQUAL ?
14A4	F2 01	04	1189	JNE	**7 JUMP IF NOT.
14A7	C0 87	0000	1190	CKKLS B	*-- RETURN TO ROUTINE.
			1191		
14AB	0C 00	14BA 191A	1192	MVC	LSID(1),NID-1 STORE CURRENT ERROR ID.
14B1	C0 87	021A	1193	B	PRINT PRINT ERROR HEADING.
14B5	C2	14B5 1194	1194	DC	XL1'C2'
14B6	16	14B6 1195	1195	DC	IL1'22'
14B7	1BE0	14B8 1196	1196	DC	AL2(LSCKK)
14B9	4000	14BA 1197	1197	DC	XL2'4000'
14BB	3D F1	191B	1198	CLI	NID,X'F1'
14BF	F2 01	06	1199	JNE	**9 JUMP IF NOT.
14C2	0C 10	1F12 198C	1200	MVC	PRT-55(17),FNCT MOVE IN N 1 ID.
14C8	3D F2	191B	1201	CLI	NID,X'F2'
14CC	F2 01	06	1202	JNE	**9 JUMP IF NOT.
14CF	0C 0F	1F07 1ABF	1203	MVC	PRT-66(16),STLCR-5 MOVE IN N 2 ID.
14D5	3D F4	191B	1204	CLI	NID,X'F4'
14D9	F2 01	06	1205	JNE	**9 JUMP IF NOT.
14DC	0C 14	1F13 1AEB	1206	MVC	PRT-54(21),DADR MOVE IN N 4 ID.
14E2	3D F5	191B	1207	CLI	NID,X'F5'
14E6	F2 01	06	1208	JNE	**9 JUMP IF NOT.
14E9	0C 10	1F07 1B0C	1209	MVC	PRT-66(17),DIGTR-5 MOVE IN N 5 ID.
14EF	C0 87	18A7	1210	B	EPRNT2 PRINT HEADING.
14F3	3D F2	191B	1211	CLI	NID,X'F2'
14F7	F2 81	32	1212	JE	SPL2 JUMP IF SO.
14FA	3D F5	191B	1213	CLI	NID,X'F5'
14FE	F2 81	2B	1214	JE	SPL2 JUMP IF SO.
1501	0C 09	1E03 1D09	1215	MVC	PRT-70(10),EB2 SET UP BYTE LABLES.
1507	0C 09	1F17 1CPF	1216	MVC	PRT-50(10),EB1
150D	C0 87	189C	1217	B	EPRNT1 PRINT BYTE LABLES.
1511	0C 0E	1F06 1CF5	1218	MVC	PRT-67(15),BITS SET UP BIT LABLES.
1517	0C 0E	1F1A 1CF5	1219	MVC	PRT-47(15),BITS
151D	C0 87	18A7	1220	B	EPRNT2 PRINT BIT LABLES.
1521	C2 02	1F06	1221	LA	PRT-67,XR2 LOAD OUTPUT ADDRESS.
1525	C2 01	1F1A	1222	LA	PRT-47,XR1
1529	F2 87	1C	1223	J	CALC
152C	0C 09	1F03 1CPF	1224	SPL2 MVC	PRT-70(10),EB1
1532	C0 87	189C	1225	B	EPRNT1 PRINT EB1 HEADING.
1536	0C 0E	1F06 1CF5	1226	MVC	PRT-67(15),BITS
153C	C0 87	18A7	1227	B	EPRNT2 PRINT BIT HEADINGS.
1540	C2 01	1F06	1228	LA	PRT-67,XR1 STORE OUTPUT ADDRESSES.
1544	C2 02	190D	1229	LA	WORK,XR2
1548	C0 87	15E1	1230	CALC B	BITSNF CALCULATE BIT STATUS OF BYTES.
154C	1917	154D 1231	1231	DC	AL2(LSCK)
154E	C0 87	189C	1232	B	EPRNT1 PRINT BIT STATUS.
1552	0C 01	163C 1919	1233	MVC	XPT(2),PATRN STORE EXPECTED PATTERN.
1558	0C 01	163E 1917	1234	MVC	ACT(2),LSCK STORE ACTUAL PATTERN.
155E	C0 87	163F	1235	B	CMPARE CALCULATE ERROR BITS.
1562	0C 06	1E05 1D10	1236	MVC	PRT-84(7),ERORS MOVE ERROR LABLE IN.
1568	C0 87	18A7	1237	B	EPRNT2 PRINT ERROR BITS.
			1238		
156C	0E 01	14AA 18D6	1239	ADDIT ALC	CKKLS+3(2),N004 INCR RETURN ADDRESS TO BRANCH
1572	C0 87	14A7	1240	B	CKKLS TO ERROR HALT IN ROUTINE.

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EPR	LJC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
			1242		*****	*****
			1243		* SIOHD *	*
			1244		*****	TEST HEADINGS AND ERROR MESSAGES
			1245		*	ARE PRINTED FOR ROUTINES 0D - 13.
			1246		*	*
			1247		*****	*****
1576	34 08	157F	1248	SIOHD	ST	**9,ARR
157A	0C 00	15A5 0000	1249	MVC	SID(1),*--	STORE MESSAGE HEADING ID.
1580	36 08	18DC	1250	A	N029,ARR	
1584	34 08	158D	1251	ST	**9,ARR	
1588	0C 1C	1F1B 0000	1252	MVC	PRT-46(29),*--	STORE ROUTINE HEADING.
158E	36 08	18D0	1253	A	N001,ARR	
1592	34 08	15AF	1254	ST	SHDD+3,ARR	STORE RETURN ADDRESS.
			1255			
1596	0C 0F	1EPE 1C31	1256	MVC	PRT-75(16),TSIO	BUILD UP REST OF HEADING.
159C	C0 87	021A	1257	B	PRINT	PRINT ROUTINE TEST HEADING.
15A0	45		15A0 1258	DC	XL1'45'	
15A1	5B		15A1 1259	DC	IL1'91'	
15A2	1F49		15A3 1260	DC	AL2(PRT)	
15A4	4000		15A5 1261	SID DC	XL2'4000'	
15A6	0C 5A	1F49 1F4A	1262	MVC	PRT(91),PRT+1	CLEAR PRINT AREA.
15AC	C0 87	0000	1263	SHDD	B	**--
			1264			RETURN TO ROUTINE.
			1265		* ROUTINE 0D-13 ERROR MESSAGE *	
			1266			
15B0	34 08	15B9	1267	CKSIO	ST	**9,ARR
15B4	0C 00	15D4 0000	1268	MVC	SERID(1),*--	STORE ERROR ID.
15BA	36 08	18D0	1269	A	N001,ARR	
15BE	34 08	163A	1270	ST	CKS+3,ARR	STORE RETURN ADDRESS.
			1271			
15C2	0D 00	191C 18FB	1272	CLC	XPCT(1),DTR-1	EXPECTED AND ACTUAL EQUAL ?
15C8	F2 81	6C	1273	JE	CKS	JUMP IF SO.
			1274			
15CB	C0 87	021A	1275	B	PRINT	PRINT ERROR HEADING.
15CF	C2		15CF 1276	DC	XL1'C2'	
15D0	16		15D0 1277	DC	IL1'22'	
15D1	1C21		15D2 1278	DC	AL2(SIOCK)	
15D3	4005		15D4 1279	SERID DC	XL2'4005'	
			1280			
15D5	0C 5A	1F49 1F4A	1281	MVC	PRT(91),PRT+1	
15DB	0C 0E	1F06 1BCA	1282	MVC	PRT-67(15),DIAG	MOVE IN DIAG BYTE LABEL.
15E1	C0 87	18A7	1283	B	EPRNT2	PRINT LABEL.
15E5	0C 09	1F03 1D09	1284	MVC	PRT-70(10),EB2	BRING IN EB2 LABEL.
15EB	C0 87	189C	1285	B	EPRNT1	PRINT LABEL.
15EF	0C 0E	1F06 1CP5	1286	MVC	PRT-67(15),BITS	MOVE IN BIT HEADINGS.
15F5	C0 87	18A7	1287	B	EPRNT2	PRINT HEADINGS.
			1288			
15F9	C2 02	1F06	1289	LA	PRT-67,IR2	LOAD OUTPUT ADDRESSES.
15FD	C2 01	1F1A	1290	LA	PRT-47,IR1	
1501	C0 87	16E1	1291	B	BITSWP	CALCULATE STATUS OF ALL BITS.
1605	18FC		1606 1292	DC	AL2(DTR)	
1607	0C 0E	1F1A 1F1B	1293	MVC	PRT-47(15),PRT-46	CLEAR EB1 STATUS.
160D	C0 87	189C	1294	B	EPRNT1	PRINT BIT STATUS OF DIAG BYTE.
			1295			
1611	0C 00	163B 191C	1296	MVC	XPCT-1(1),XPCT	STORE EXPECTED PATTERN.
1617	0C 01	163E 18FC	1297	MVC	ACT(2),DTR	STORE ACTUAL PATTERN.
161D	C0 87	163F	1298	B	CHNPRE	CALCULATE ERROR BITS.
1621	0C 06	1EP5 1D10	1299	MVC	PRT-84(7),ERORS	MOVE IN ERROR LABEL.
1627	0C 0E	171A 1F1B	1300	MVC	PRT-47(15),PRT-46	
162D	C0 87	18A7	1301	B	EPRNT2	PRINT ERROR BITS.
			1302			
1631	0E 01	163A 18D6	1303	ALC	CKS+3(2),N004	INCR RETURN ADDRESS TO RETURN
1637	C0 87	0000	1304	CKS B	**--	TO ERROR HALT.

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT
		1306	*****
		1307	* CHPARE *
		1308	*****
		1309	EXPECTED EB1 & EB2 BYTES IN 'XPT' ARE
		1310	COMPARED AGAINST ACTUAL EB1 & EB2 BYTES
		1311	IN 'ACT'. ERROR BITS ARE IDENTIFIED BY
		1312	A --*-- IN THE OUTPUT AREA.
		1313	*****
163B 0000	163C	1314	XPT DC XL2'0000' EXPECTED EB1 & EB2 BYTES.
163D 0000	163E	1315	ACT DC XL2'0000' ACTUAL EB1 & EB2 BYTES.
		1316	
163F 34 08 169A		1317	CHPARE ST CMPR+3,ARR STORE RETURN ADDRESS.
1643 34 02 16D2		1318	ST TAERR+3,XR2 INITIALIZE OUTPUT ADDRESSES.
1647 34 01 16DA		1319	ST TBERR+3,XR1
164B 3C 01 1664		1320	MVI TA3+1,X'01' INITIALIZE BIT POINTERS.
164F 3C 01 166B		1321	MVI TA2+1,X'01'
1653 3C 01 1675		1322	MVI TA1+1,X'01'
1657 3C 01 167C		1323	MVI TB3+1,X'01'
165B 3C 01 1683		1324	MVI TB2+1,X'01'
165P 3C 01 168D		1325	MVI TB1+1,X'01'
		1326	
1663 38 01 163B		1327	TA3 TBN XPT-1,X'01' EXPECTED BIT ON IN EB2 BYTE ?
1667 F2 10 0A		1328	JT TA1 JUMP IF YES.
166A 38 01 163D		1329	TA2 TBN ACT-1,X'01' ACTUAL BIT ON IN EB2 BYTE ?
166E F2 10 5E		1330	JT TAERR GO PUT AN --*-- IN OUTPUT IF ON.
1671 F2 87 07		1331	J TB3 CHECK EB1 BYTE.
		1332	
1674 38 01 163D		1333	TA1 TBN ACT-1,X'01' ACTUAL BIT ON IN EB2 BYTE ?
1678 F2 90 54		1334	JF TAERR GO PUT AN --*-- IN OUTPUT IF OFF.
		1335	
167B 38 01 163C		1336	TB3 TBN XPT,X'01' EXPECTED BIT ON IN EB1 BYTE ?
167F F2 10 0A		1337	JT TB1 JUMP IF SO.
1682 38 01 163E		1338	TB2 TBN ACT,X'01' ACTUAL BIT ON IN EB1 BYTE ?
1686 F2 10 4E		1339	JT TBERR GO PUT AN --*-- IN OUTPUT IF SO.
1689 F2 87 07		1340	J TC CONTINUE ANALYSIS.
		1341	
168C 38 01 163E		1342	TB1 TBN ACT,X'01' ACTUAL BIT ON IN EB1 BYTE ?
1690 F2 90 44		1343	JF TBERR GO PUT AN --*-- IN OUTPUT IF OFF.
		1344	
1693 38 80 168D		1345	TC TBN TB1+1,X'80' BIT 0 BEEN TESTED ?
1697 C0 10 0000		1346	CMPR BT --*-- RETURN IF SO.
169B 0E 00 1675 1675		1347	ALC TA1+1(1),TA1+1 INCREMENT BIT POINTERS.
16A1 0E 00 166B 166B		1348	ALC TA2+1(1),TA2+1
16A7 0E 00 1664 1664		1349	ALC TA3+1(1),TA3+1
16AD 0E 00 168D 168D		1350	ALC TB1+1(1),TB1+1
16B3 0E 00 1683 1683		1351	ALC TB2+1(1),TB2+1
16B9 0E 00 167C 167C		1352	ALC TB3+1(1),TB3+1
16BF 0F 01 16D2 18D2		1353	SLC TAERR+3(2),N002 DECREMENT OUTPUT ADDRESSES.
16C5 0F 01 16DA 18D2		1354	SLC TBERR+3(2),N002
16CB C0 87 1663		1355	B TA3 GO CHECK NEW BIT.
		1356	
16CF 3C 5C 0000		1357	TAERR MVI --*,X'5C' PUT --*-- IN EB2 OUTPUT.
16D3 C0 87 167B		1358	B TB3 CONTINUE CHECK.
16D7 3C 5C 0000		1359	TBERR MVI --*,X'5C' PUT --*-- IN EB1 OUTPUT.
16DB C0 87 1693		1360	B TC CONTINUE CHECK.
		1361	
		1362	*****
		1363	* BITSNF *
		1364	*****
		1365	THE EB1 & EB2 BYTES ARE CONVERTED
		1366	TO A PRINTABLE BINARY FORM.
		1367	*****
16DF 00	16DF	1368	EB2T DC XL1'00' TEMPORARY STORAGE FOR EB2 & EB1
16E0 00	16E0	1369	EB1T DC XL1'00' BYTES.
		1370	
16E1 36 08 18D0		1371	BITSNF A N001,ARR
16E5 34 08 16EE		1372	ST **9,ARR
16E9 0C 01 16F4 0000		1373	MVC **11(2),*--

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	
	16E	OC	01	16E0	0000	1374	MVC EB1T(2),*--	STORE EB1 & EB2 BYTES.
	16F5	36	08	18D0		1375	A NO01,ARR	
	16F9	34	08	1740		1376	ST BTNF+3,ARR	STORE RETURN ADDRESS.
	16FD	3C	01	170E		1377	MVI TNF+1,X'01'	INITIALIZE BIT POINTERS.
	1701	3C	01	1724		1378	MVI TNFF+1,X'01'	
	1705	34	02	1722		1379	ST NF+3,XR2	INITIALIZE OUTPUT ADDRESSES.
	1709	34	01	1738		1380	ST NFF+3,XR1	
						1381		
	170D	38	00	16DF		1382	TNF TBN EB2T,X'00'	THIS BIT ON IN EB2 ?
	1711	F2	10	07		1383	JT ITSON	JUMP IF SO.
	1714	3C	F0	1720		1384	MVI NF+1,X'F0'	MOVE IN A 0.
	1718	F2	87	04		1385	J NF	
	171B	3C	F1	1720		1386	ITSON MVI NF+1,X'F1'	MOVE IN A 1.
	171F	3C	00	0000		1387	NF MVI *-*,X'00'	PUT 1/0 IN OUTPUT.
						1388		
	1723	38	00	16E0		1389	TNFF TBN EB1T,X'00'	THIS BIT ON IN EB1 ?
	1727	F2	10	07		1390	JT ITON	JUMP IF SO.
	172A	3C	F0	1736		1391	MVI NFF+1,X'F0'	MOVE IN A 0.
	172E	F2	87	04		1392	J NFF	
	1731	3C	F1	1736		1393	ITON MVI NFF+1,X'F1'	MOVE IN A 1.
	1735	3C	00	0000		1394	NFF MVI *-*,X'00'	PUT 1/0 IN OUTPUT.
						1395		
	1739	38	80	170E		1395	TBN TNF+1,X'80'	CHECKED BIT 0 ?
	173D	C0	10	0000		1397	BTNF BT *-*	RETURN IF SO.
	1741	0E	00	170E	170E	1398	ALC TNF+1(1),TNF+1	INCREMENT BIT POINTER.
	1747	0E	00	1724	1724	1399	ALC TNFF+1(1),TNFF+1	
	174D	0F	01	1722	18D2	1400	SLC NF+3(2),N002	DECREMENT OUTPUT ADRS.
	1753	0F	01	1738	18D2	1401	SLC NFF+3(2),N002	
	1759	C0	87	170D		1402	B TNF	CONTINUE CHECK.
						1403		
						1404	*****	*****
						1405	* QUES *	*
						1406	*****	*****
						1407		*
						1408	*****	*****
	175D	34	08	1771		1409	QUES ST QS+3,ARR	STORE RETURN ADDRESS.
	1761	38	80	020A		1410	TBN SBYTE2,SSW10	SSW 10 ON ?
	1765	F2	10	0A		1411	JT QST	RETURN TO PRGM HALT IF SO.
	1768	0E	01	1771	18D4	1412	ALC QS+3(2),N003	INCR RETURN TO SKIP HALT.
	176E	C0	87	0000		1413	QS B *-*	RETURN TO ROUTINE.
						1414		
	1772	3D	C2	0200		1415	QST CLI X'0200',X'C2'	IS THIS A MODEL 'B' SYSTEM ?
	1776	C0	01	176E		1416	BNE QS	GO DO NORMAL HALT IF NOT.
	177A	35	01	1771		1417	L QS+3,XR1	
	177E	4C	01	02	18F0	1418	MVC 2(2,XR1),HFFP8	SET UP MODEL B HALT.
	1783	C0	87	176E		1419	B QS	NOW GO HALT.
						1420		
						1421	*****	*****
						1422	* TIOERX *	*
						1423	*****	*****
						1424		*
						1425	*****	*****
	1737	C0	87	021A		1426	TIOERD B PRINT	PRINT 3741 IS READY ERROR MESSAGE.
	173B	C2			178B	1427	DC XL1'C2'	
	178C	0E			178C	1428	DC IL1'14'	
	172D	1CAE			178E	1429	DC AL2(RDY)	
	178F	4001			1790	1430	DC XL2'4001'	
	1791	0C	28	1F17	1E9B	1431	MVC PRT-50(41),CNCTR	
	1797	C0	87	189C		1432	B EPRNT1	PRINT IS CONNECTOR ON ?
	179B	0C	24	1F1C	1ECO	1433	MVC PRT-45(37),RMOV	
	17A1	C0	87	18A7		1434	B EPRNT2	PRINT OPERATOR TO REMOVE IT IF SO.
	17A5	0C	18	1F07	1ED9	1435	MVC PRT-66(25),IFOFF	
	17AB	C0	87	189C		1436	B EPRNT1	PRINT OTHERWISE.
						1437		
	17AF	C0	87	17D9		1438	B MAPS	POINT TO MAP CHART.
	17B3	8702			17B4	1439	DC XL2'8702'	-PAGE 870, ENTRY 2.
	17B5	C0	87	0222		1440	B HALT	ERROR HALT -01-.
	17B9	4001			17BA	1441	DC XL2'4001'	

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LDC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
17BB	CO 87 0A11	1442	B	BEGINN	TELL TO DO SYSTEM RESET, START.
		1443			
17BF	CO 87 021A	1444	TIOERB B	PRINT	PRINT 3741 IS BUSY ERROR MESSAGE.
17C3	CD	17C3 1445	DC	XL1'C2'	
17C4	OD	17C4 1446	DC	IL1'13'	
17C5	1CA0	17C6 1447	DC	AL2(BUSSY)	
17C7	4002	17C8 1448	DC	XL2'4002'	
17C9	CO 87 17D9	1449	B	MAPS	POINT TO MAP CHART.
17CD	8721	17CE 1450	DC	XL2'8721'	-PAGE 872, ENTRY 1.
17CF	CO 87 0222	1451	B	HALT	ERROR HALT -02-
17D3	4002	17D4 1452	DC	XL2'4002'	
17D5	CO 87 0216	1453	B	LINK	RETURN TO DCP.
		1454			
		1455			*****
		1456		* MAPS *	*
		1457		*****	
		1458			THE MAP CHART REFERENCE IS PRINTED. CALL
		1459			SUBROUTINE BY -
		1460			*
		1461		B MAPS	*
		1462		DC XL2'PAGE NUMBER/ENTRY NUMBER'	*
		1463		*****	*
17D9	34 08 18FE	1464	MAPS ST	TEMP,ARR	STORE THE ARR.
17DD	35 01 18FE	1465	L	TEMP,XR1	LOAD ARR INTO XR1.
17E1	13 02 1C48 00	1466	MNZ	MAPSS-11,0(,XR1)	STORE HUNDREDS DIGIT.
17E6	18 03 1C49 00	1467	MNN	MAPSS-10,0(,XR1)	STORE TENS DIGIT.
17EB	18 02 1C4A 01	1468	MNZ	MAPSS-9,1(,XR1)	STORE UNITS DIGIT.
17FD	18 03 1C52 01	1469	MNN	MAPSS-1,1(,XR1)	STORE ENTRY NUMBER.
		1470			
17F5	CO 87 021A	1471	B	PRINT	PRINT- GO TO MAP CHART XX.
17F9	86	17F9 1472	DC	XL1'86'	
17FA	22	17FA 1473	DC	IL1'34'	
17FB	1C53	17FC 1474	DC	AL2(MAPSS)	
		1475			
17FD	DO 87 02	1476	B	2(,XR1)	RETURN TO ROUTINE.
		1477			
		1478			*****
		1479		* CODE *	*
		1480		*****	
		1481			TEST HEADINGS ARE PRINTED FOR RTN07-0E.
		1482		*****	*
1800	34 08 1809	1483	CODE ST	COD+5,ARR	
1804	0C 00 1CE5 0000	1484	COD MVC	THD-1(1),*-*	STORE N CODE ID.
180A	36 08 18D0	1485	A	N001,ARR	
1807	34 08 189B	1486	ST	CODD+3,ARR	STORE RETURN ADDRESS.
		1487			
1812	3D F1 1CE5	1488	CLI	THD-1,X'F1'	N CODE 1?
1816	CO 01 1824	1489	BNE	**14	BRANCH IF NOT.
181A	OC 10 1F27 198C	1490	MVC	PRT-34(17),FNCT	LOAD N CODE 1 MEANING.
1820	3C 4B 1F28	1491	MVI	PRT-33,X'4B'	
1824	3D F2 1CE5	1492	CLI	THD-1,X'F2'	N CODE 2?
1828	CO 01 1836	1493	BNE	**14	BRANCH IF NOT.
182C	OC 14 1F2B 1AC4	1494	MVC	PRT-30(21),STLCH	BRING IN N CODE 2 MEANING.
1832	3C 4B 1F2C	1495	MVI	PRT-29,X'4B'	
1836	3D F3 1CE5	1496	CLI	THD-1,X'F3'	N CODE 3?
183A	CO 01 1848	1497	BNE	**14	BRANCH IF NOT.
183E	OC 11 1F28 1AD6	1498	MVC	PRT-33(18),IOTRL	BRING IN N CODE 3 MEANING.
1844	3C 4B 1F29	1499	MVI	PRT-32,X'4B'	
1848	3D F5 1CE5	1500	CLI	THD-1,X'F5'	N CODE 5?
184C	CO 01 185A	1501	BNE	**14	BRANCH IF NOT.
1850	OC 15 1F2C 1B11	1502	MVC	PRT-29(22),DIGTR	BRING IN N CODE 5 MEANING.
1856	3C 4B 1F2D	1503	MVI	PRT-28,X'4B'	
		1504			
185A	CO 87 021E	1505	B	UNPACK	UNPACK CURRENT TEST PATTERN.
185E	02	185E 1506	DC	IL1'2'	
185F	1919	1860 1507	DC	AL2(PATRN)	
1861	1D9E	1862 1508	DC	AL2(TSPAT-6)	
1863	OC 27 1F16 1DA4	1509	MVC	PRT-51(40),TSPAT	BRING REST OF HEADING.



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ERR	L3C	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
		1869 0D 01 1D9C 18F8		1510	CLC TSPAT-8(2),C00	LCR OR DTR TEST ?
		186F F2 01 12		1511	JNE GORD	JUMP IF NOT.
		1872 0C 01 1DA8 1D9E		1512	MVC SHORT-2(2),TSPAT-6	MOVE IN SPECIAL PATTERN.
		1878 0C 05 1F11 1DAA		1513	MVC PRT-56(6),SHORT	
				1514		
		187E 08 03 188D 0A03		1515	MVN HDNGID,RTN#	MOVE IN ROUTINE ID HEADING.
		1884 C0 87 021A		1516	GORD B PRINT	PRINT HEADINGS FOR RTN 05 - 0C.
		1888 45	1888	1517	DC XL1'45'	
		1889 5B	1889	1518	DC IL1'91'	
		188A 1F49	188B	1519	DC AL2(PRT)	
		188C 40A0	188D	1520	HDNGID DC XL2'40A0'	
		188E 0C 5A 1F49 1F4A		1521	MVC PRT(91),PRT+1	CLEAR PRINT AREA.
		1894 C1 42 17BF		1522	TIO DROPD,X'42'	BRANCH IF 3741 IS BUSY.
		1898 C0 87 0000		1523	CODD B **	RETURN TO MAIN ROUTINE.
				1524		
				1525	*****	
				1526	* EPRNTX *	
				1527	*****	
				1528		DCP ERROR PRINTING SUBROUTINES.
				1529	*	
				1529	*****	
		189C 34 08 18C0		1530	EPRNT1 ST PRT+3,ARR	STORE RETURN ADDRESS.
		18A0 3C 81 18B3		1531	MVI LINE,X'81'	SET TO SPACE 1 LINE.
		18A4 F2 87 05		1532	J PRNT	GO PRINT.
		18A7 34 08 18C0		1533	EPRNT2 ST PRT+3,ARR	STORE RETURN ADDRESS.
		18AB 3C 82 18B3		1534	MVI LINE,X'82'	SET TO SPACE 2 LINES.
				1535		
		18AF C0 87 021A		1536	PRNT B PRINT	PRINT THE DATA STORED IN -PRT-.
		18B3 00	18B3	1537	LINE DC XL1'00'	DO CORRESPONDING SPACE OPERATION.
		18B4 5B	18B4	1538	DC IL1'91'	
		18B5 1F49	18B6	1539	DC AL2(PRT)	
		18B7 0C 5A 1F49 1F4A		1540	MVC PRT(91),PRT+1	CLEAR PRINT AREA.
		18BD C0 87 0000		1541	PRNT B **	RETURN TO ROUTINE.
				1542		
				1543	*****	
				1544	* INT4 *	
				1545	*****	
				1546	*	BRANCH HERE IF INTERRUPT IS ERRONEOUSLY
				1547	*	CAUSED IN ROUTINE 0P.
				1548	*****	
		18C1 00	18C1	1549	PIAG DC XL1'00'	
		18C2 3A 01 18C1		1550	INT5 SBN PIAG,X'01'	TURN ON ERROR FLAG.
		18C6 F3 40 0D		1551	SIO X'0D',X'40'	RESET THE INTERRUPT.
		18C9 C0 87 18C2		1552	B INT5	
				1553		
				1554	*****	
				1555	* CONSTANTS *	
				1556	*****	
		18CD 0000	18CE	1557	N000 DC IL2'0'	
		18CF 0001	18D0	1558	N001 DC IL2'1'	
		18D1 0002	18D2	1559	N002 DC IL2'2'	
		18D3 0003	18D4	1560	N003 DC IL2'3'	
		18D5 0004	18D6	1561	N004 DC IL2'4'	
		18D7 0012	18D8	1562	N018 DC IL2'18'	
		18D9 0013	18DA	1563	N019 DC IL2'19'	
		18DB 001D	18DC	1564	N029 DC IL2'29'	
		18DD 0080	18DE	1565	H0080 DC XL2'0080'	
		18DF AA55	18E0	1566	HAA55 DC XL2'AA55'	
		18E1 55AA	18E2	1567	H55AA DC XL2'55AA'	
		18E3 1000	18E4	1568	H1000 DC XL2'1000'	
		18E5 0055	18E6	1569	H0055 DC XL2'0055'	
		18E7 0F55	18E8	1570	H0F55 DC XL2'0F55'	
		18E9 00AA	18EA	1571	H00AA DC XL2'00AA'	
		18EB AAAA	18EC	1572	HAAAA DC XL2'AAAA'	
		18ED FFFF	18EE	1573	HFFF DC XL2'FFFF'	
		18EF FFF8	18F0	1574	HFFF8 DC XL2'FFF8'	
		18F1 FFF5	18F2	1575	HFFF5 DC XL2'FFF5'	
		18F3 C087	18F4	1576	DC XL2'C087'	
		18F5 125''	18F6	1577	BRNCH DC AL2(RTRN)	

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
18F7	FOFO	18F8	1578	C00 DC	CL2'00'
18F9	18C2	18FA	1579	INTR5 DC	AL2(JNT5)
			1580		INTERRUPT ROUTINE ADDRESS.
			1581	*****	
			1582	* RESERVED AREAS *	
			1583	*****	
18FB	0000	18FC	1584	DTR DC	XL2'0000'
18FD	0000	18FE	1585	TEMP DC	XL2'00'
18FF	0000000000000000	190D	1586	WORK DC	15XL1'00'
1907	0000000000000000		1586		WORK AREA.
190E	0000000000000000	1915	1587	LS DC	8XL1'00'
1916	0000	1917	1588	L5CK DC	XL2'0000'
1918	0000	1919	1589	PATRN DC	XL2'0000'
191A	00	191A	1590	DC	XL1'00'
191B	00	191B	1591	NID DC	XL1'00'
191C	00	191C	1592	XPCT DC	XL1'00'
			1593		LI0/SNS STORAGE AREA.
			1594	*****	ACTUAL SENSED DATA STORAGE AREA.
			1595	* FLAG *	CURRENT TEST PATTERN STORAGE AREA.
			1596	*****	CURRENT ERROR ID.
191D	00	191D	1597	EBFLAG DC	XL1'00'
			1598	* BIT #	N CODE
			1599	* 0	1
			1600	* 1	1
			1601	* 2	2
			1602	* 3	2
			1603	* 4	4
			1604	* 5	4
			1605	* 6	5
			1606	* 7	5
			1607	*****	EB CYCLE FAILURE FLAG.
			1608		
			1609		
			1610	*****	
			1611	* MESSAGES *	
			1612	*****	
191E	D9C5D4D6E5C540E6	194E	1613	RSIOC DC	CL49'REMOVE WRAP CONNECTOR NOTE - CPU MAY DROP POWER.'
1926	D9C1D740C3D6D5D5		1613		
192E	C5C3E3D6D94040D5		1613		
1936	D6E3C5406040C3D7		1613		
193E	E440D4C1E840C4D9		1613		
1946	D6D740D7D6E6C5D9		1613		
194E	4B		1613		
194F	C9C640E2D66B40E3	197B	1614	IPSO DC	CL45'IF SO, TURN POWER BACK ON AND RELOAD PROGRAM.'
1957	E4D9D540D7D6E6C5		1614		
195F	D940C2C1C3D240D6		1614		
1967	D540C1D5C440D9C5		1614		
196F	D3D6C1C440D7D9D6		1614		
1977	C7D9C1D44B		1614		
197C	C6E4D5C3E3C9D6D5	198C	1615	FNCT DC	CL17'FUNCTION REGISTER'
1984	40D9C5C7C9E2E3C5		1615		
198C	D9		1615		
		198C	1616	MSG1B EQU	*-1
198D	D9C5D4D6E5C540F3	19B3	1617	DC	CL39'REMOVE 3741 I/O CABLE. ALSO REMOVE THE'
1995	F7F4F140C961D640		1617		
199D	C3C1C2D3C54E4040		1617		
19A5	C1D3E2D640D9C5D4		1617		
19AD	D6E5C540E3C8C5		1617		
19B4	40E6D9C1D740C3D5	19DB	1618	DC	CL40' WRAP CONNECTOR. THEN PERFORM A SYSTEM
19BC	D5D5C5C3E3D6D94B		1618		
19C4	40E3C8C5D540D7C5		1618		
19CC	D9C6D6D9D440C140		1618		
19D4	E2E8E2E3C5D44040		1618		
19DC	4040404040404040	1A03	1619	MSG1 DC	CL40'
19E4	4040404040404040		1619		
19EC	4040404040404040		1619		
19F4	4040404040404040		1619		
19FC	4040404040404040		1619		

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ERR	LJC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
			1A03	1620	MSG2B	EQU *-1
1A04	D9C5E2C5E340C1D5		1A2B	1621	DC	CL40'RESET AND START.
1A0C	C440E2E3C1D9E34B			1621		
1A14	4040404040404040			1621		
1A1C	4040404040404040			1621		
1A24	4040404040404040			1621		
1A2C	4040404040404040	1A53	1622	MSG2	DC	CL40'
1A34	4040404040404040		1622			
1A3C	4040404040404040		1622			
1A44	4040404040404040		1622			
1A4C	4040404040404040		1622			
			1623			
			1A53	1624	MSG4B	EQU *-1
1A54	C4C1E3C140C1C4C4	1A7B	1625	DC		CL40'DATA ADDRESS REGISTER FAILURE.
1A5C	D9C5E2E240D9C5C7		1625			
1A64	C9E2E3C5D940C6C1		1625			
1A6C	C9D3E4D9C54B4040		1625			
1A74	4040404040404040		1625			
1A7C	4040404040404040	1AA3	1626	MSG4	DC	CL40'
1A84	4040404040404040		1626			
1A8C	4040404040404040		1626			
1A94	4040404040404040		1626			
1A9C	4040404040404040		1626			
			1627			
1AA4	E2E3C1E3E4E240C2	1AC4	1628	SPLCR	DC	CL33'STATUS BYTE-LENGTH COUNT REGISTER'
1AAC	E8E3C560D3C5D5C7		1628			
1AB4	E3C840C3D6E4D5E3		1628			
1ABC	40D9C5C7C9E2E3C5		1628			
1AC4	D9		1628			
1AC5	C961D640E3D9C1D5	1AD6	1629	IOTRL	DC	CL18'I/O TRANSFER LINES'
1ACD	E2C6C5D940D3C9D5		1629			
1AD5	C5E2		1629			
1AD7	C4C1E3C140C1C4C4	1AE8	1630	DADR	DC	CL21'DATA ADDRESS REGISTER'
1ADF	D9C5E2E240D9C5C7		1630			
1AE7	C9E2E3C5D9		1630			
1AEC	C4C9C1C7D5D6E2E3	1B11	1631	DIGTR	DC	CL38'DIAGNOSTIC BYTE-DATA TRANSFER REGISTER'
1AF4	C9C340C2E8E3C560		1631			
1AFC	C4C1E3C140E3D9C1		1631			
1B04	D5E2C6C5D940D9C5		1631			
1B0C	C7C9E2E3C5D9		1631			
1B12	C5C240C3E8C3D3C5	1B29	1632	BIGGEB	DC	CL28'EB CYCLE ANALYSIS CHECK.'
1B1A	40C1D5C1D3E8E2C9		1632			
1B22	E240C3C8C5C3D24B		1632			
1B2A	5C5CC5C2E740C3E8	1B46	1633	EBX	DC	CL29'***EBX CYCLE FAILED. N CODE X.'
1B32	C3D3C540C6C1C9D3		1633			
1B3A	C5C44B40D540C3D6		1633			
1B42	C4C540E74B		1633			
1B47	5C5CC2D6E3C840C5	1B68	1634	EB12	DC	CL34'***BOTH EB CYCLES FAILED. N CODE X.'
1B4F	C240C3E8C3D3C5E2		1634			
1B57	40C6C1C9D3C5C44B		1634			
1B5F	40D540C3D6C4C540		1634			
1B67	E74B		1634			
1B69	5C5CC1D3D340C5C2	1B7F	1635	ALEB	DC	CL23'***ALL EB CYCLES FAILED.'
1B71	40C3E8C3D3C5E240		1635			
1B79	C6C1C9D3C5C44B		1635			
1B90	5C5CC1D3D340C5C2	1B97	1636	ALEBX	DC	CL24'***ALL EBX CYCLES FAILED.'
1B88	E740C3E8C3D3C5E2		1636			
1B90	40C6C1C9D3C5C44B		1636			
1B98	E3C5E2E340C4C1E3	1BBB	1637	TSCYC	DC	CL36'TEST DATA TRANSFER DURING EB CYCLES.'
1BA0	C140E3D9C1D5E2C6		1637			
1BA3	C5D940C4E4D9C9D5		1637			
1BB0	C740C5C240C3E8C3		1637			
1BB8	D3C5E24B		1637			
1BBC	C4C9C1C7D5D6E2E3	1BCA	1638	DIAG	DC	CL15'DIAGNOSTIC BYTE'
1BC4	C9C340C2E8E3C5		1638			
1BCB	D3C9D661E2D5E240	1BE0	1639	LSCKK	DC	CL22'LID/SMS COMPARE CHECK.'
1BD3	C3D6C4D7C1D9C540		1639			
1BDB	C3C8C5C3D24B		1639			

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ERR	LJC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
1BE1	D3C9D640C6C1C9D3	1C0B	1640	LIRST	DC	CL43'LIO FAILED TO RESET LENGTH COUNT REGISTER.'
1BE9	C5C440E3D640D9C5		1640			
1BF1	E2C5E340D3C5D5C7		1640			
1BF9	E3C840C3D6E4D5E3		1640			
1C01	40D9C5C7C9E2E3C5		1640			
1C09	D94B40		1640			
1C0C	C4C9C1C7D5D6E2E3	1C21	1641	SI0CK	DC	CL22'DIAGNOSTIC BYTE CHECK.'
1C14	C9C340C2E8E3C540		1641			
1C1C	C3C8C5C3D24B		1641			
1C22	E3C5E2E340C1C2C9	1C31	1642	TSIO	DC	CL16'TEST ABILITY TO'
1C2A	D3C9E3E840E3D640		1642			
1C32	C7D640E3D640F3F7	1C53	1643	MAPSS	DC	CL34'GO TO 3741 MAPS, PAGE 000 ENTRY 0.'
1C3A	F4F140D4C1D7E26B		1643			
1C42	40D7C1C7C540F0F0		1643			
1C4A	F040C5D5E3D9E840		1643			
1C52	F04B		1643			
1C54	D3D6C1C461E2C5D5	1C7D	1644	VNOD	DC	CL42'LOAD/SENSE DATA ADDRESS REGISTER WITH'
1C5C	E2C540C4C1E3C140		1644			
1C64	C1C4C4D9C5E2E240		1644			
1C6C	D9C5C7C9E2E3C5D9		1644			
1C74	40E6C9E3C8404040		1644			
1C7C	4040		1644			
1C7E	40C2C9E340D7C1E3	1C8B	1645	LSDAR	DC	CL14' BIT PATTERNS.'
1C86	E3C5D9D5E24B		1645			
1C8C	C5E5C5D5	1C8F	1646	EVEN	DC	CL4'EVEN'
1C90	D6C4C440	1C93	1647	ODD	DC	CL4'ODD'
1C94	F3F7F4F140C9E240	1CA0	1648	BUSSY	DC	CL13'3741 IS BUSY.'
1C9C	C2E4E2E84B		1648			
1CA1	F3F7F4F140C9E240	1CAE	1649	RDY	DC	CL14'3741 IS READY.'
1CA9	D9C5C1C4E84B		1649			
1CAF	E3C5E2E340F3F7F4	1CC5	1650	TOBSY	DC	CL23'TEST 3741 FOR NOT BUSY.'
1CB7	F140C6D6D940D5D6		1650			
1CBF	E340C2E4E2E84B		1650			
1CC6	E3C5E2E340F3F7F4	1CDD	1651	TORDY	DC	CL24'TEST 3741 FOR NOT READY.'
1CC8	F140C6D6D940D5D6		1651			
1CD6	E340D9C5C1C4E84B		1651			
1CDE	D540C3D6C4C540E7	1CE6	1652	THD	DC	CL9'N CODE X.'
1CE6	4B		1652			
1CE7	F040F140F240F340	1CF5	1653	BITS	DC	CL15'0 1 2 3 4 5 6 7'
1CEP	F440F540F640F7		1653			
1CF6	60C5C2F140C2E8E3	1CFP	1654	EB1	DC	CL10'-EB1 BYTE-'
1CFE	C560		1654			
1D00	60C5C2F240C2E8E3	1D09	1655	EB2	DC	CL10'-EB2 BYTE-'
1D08	C560		1655			
1D0A	5CC5D9D9D6D95C	1D10	1656	ERRORS	DC	CL7'*ERROR*'
1D11	D9C5C1C461E6D9C9	1D2B	1657	NTRST	DC	CL27'READ/WRITE LATCH NOT RESET.'
1D19	E3C540D3C1E3C3C8		1657			
1D21	40D5D6E340D9C5E2		1657			
1D29	C5E34B		1657			
1D2C	C9D5E3C5D9D9E4D7	1D48	1658	INTR	DC	CL29'INTERRUPT ENABLE RESET CHECK.'
1D34	E340C5D5C1C2D3C5		1658			
1D3C	40D9C5E2C5E340C3		1658			
1D44	C8C5C3D24B		1658			
1D49	D5D660D6D740D3C1	1D61	1659	NOSEE	DC	CL25'NO-OP LATCH FAILS TO SET.'
1D51	E3C3C840C6C1C9D3		1659			
1D59	E240E3D640E2C5E3		1659			
1D61	4B		1659			
1D62	D5D660D6D740D3C1	1D7C	1660	NORES	DC	CL27'NO-OP LATCH FAILS TO RESET.'
1D6A	E3C3C840C6C1C9D3		1660			
1D72	E240E3D640D9C5E2		1660			
1D7A	C5E34B		1660			
1D7D	D3D6C1C461E2C5D5	1DA4	1661	TSPAT	DC	CL40'LOAD/SENSE WITH TEST PATTERN -XXXX- THE'
1D85	E2C540E6C9E3C840		1661			
1D8D	E3C5E2E340D7C1E3		1661			
1D95	E3C5D9D54060E7E7		1661			
1D9D	E7E76040E3C8C540		1661			
1DA5	4060E7E76040	1DAA	1662	SHORT	DC	CL6' -XX- '
1DAB	E3C5E2E340C1C2C9	1DDD	1663	INVAL	DC	CL51'TEST ABILITY OF 3741 TO REJECT 15 INVALID COMMANDS.'

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
	1DB3	D3C9E3E840D6C640		1663		
	1DBB	F3F7F4F140E3D640		1663		
	1DC3	D9C5D1C5C3E340F1		1663		
	1DCB	F540C9D5E5C1D3C9		1663		
	1DD3	C440C3D6D4D4C1D5		1663		
	1DDB	C4E24B		1663		
	1DDE	C4D640E2E8E2E3C5	1E01	1664	INVL DC	CL36'DO SYSTEM RESET AND START, 16 TIMES.'
	1DE6	D440D9C5E2C5E340		1664		
	1DEE	C1D5C440E2E3C1D9		1664		
	1DP6	E36B40F1F640E3C9		1664		
	1DPE	D4C5E24B		1664		
	1E02	C5E7D7C5C3E340D7	1E32	1665	DC	CL49'EXPECT PROCESS CHECK AFTER EACH SYSTEM RESET AND '
	1E0A	D9D6C3C5E2E240C3		1665		
	1E12	C8C5C3D240C1C6E3		1665		
	1E1A	C5D940C5C1C3C840		1665		
	1E22	E2E8E2E3C5D440D9		1665		
	1E2A	C5E2C5E340C1D5C4		1665		
	1E32	40		1665		
	1E33	E2E3C1D9E34B	1E38	1666	IVL DC	CL6'START.'
	1E39	C9D5E5C1D3C9C440	1E5C	1667	PLWNG DC	CL36'INVALID COMMAND WAS ACCEPTED. XXX N'
	1E41	C3D6D4D4C1D5C440		1667		
	1E49	E6C1E240C1C3C3C5		1667		
	1E51	D7E3C5C44B4040E7		1667		
	1E59	E7E740D5		1667		
	1E5D	E2C5D5E2C540E3C8	1E66	1668	SMTHE DC	CL10'SENSE THE '
	1E65	C540		1668		
	1E67	E2C5D5E2C540C3C8	1E72	1669	SNCKMS DC	CL12'SENSE CHECK.'
	1E6F	C5C3D24B		1669		
	1E73	5C5CD5D6E3C55C5C	1E9B	1670	CNCTR DC	CL41'***NOTE** IF A WRAP CONNECTOR IS ATTACHED.'
	1E7B	40C9C640C140E6D9		1670		
	1E83	C1D740C3D6D5D5C5		1670		
	1E8B	C3E3D6D940C9E240		1670		
	1E93	C1E3E3C1C3C8C5C4		1670		
	1E9B	6B		1670		
	1E9C	D9C5D4D6E5C540C9	1EC0	1671	RM0V DC	CL37'REMOVE IT AND DO SYSTEM RESET, START.'
	1EA4	E340C1D5C440C4D6		1671		
	1EAC	40E2E8E2E3C5D440		1671		
	1EB4	D9C5E2C5E36B40E2		1671		
	1EBC	E3C1D9E34B		1671		
	1EC1	C9C640C3D6D5D5C5	1ED9	1672	IPOFF DC	CL25'IF CONNECTOR IS OFF THEN, '
	1EC9	C3E3D6D940C9E240		1672		
	1ED1	D6C6C640E3C8C5D5		1672		
	1ED9	6B		1672		
	1EDA	F3F7F4F140C9D5E3	1EEE	1673	SI0C4 DC	CL21'3741 INTERRUPT CHECK.'
	1EE2	C5D9D9E4D7E340C3		1673		
	1EEA	C8C5C3D24B		1673		
	1EEF		1F49	1674	PRT DS	CL91 PRINT FIELD.
	1F4A	40	1F4A	1675	DC	XL1'40' CLEARING BYTE.
				1676		
				1677	*****	
				1678	* EQUATES *	
				1679	*****	
	0008	1680	ARR	EQU	X'08'	
	0222	1681	HALT	EQU	X'222'	
	0216	1682	LINK	EQU	X'216'	
	022A	1683	LOAD	EQU	X'22A'	
	021A	1684	PRINT	EQU	X'21A'	
	021E	1685	UNPACK	EQU	X'21E'	
	0001	1686	XR1	EQU	X'01'	
	0002	1687	XR2	EQU	X'02'	
	0084	1688	IAR5	EQU	X'84'	
	0A03	1689	RTW#	EQU	X'0A03'	
	0080	1690	SSW10	EQU	X'80'	
	0080	1691	SSW00	EQU	X'80'	
	0208	1692	SBYTE0	EQU	X'0208'	
	020A	1693	SBYTE2	EQU	X'020A'	
	0A07	1694	FRTN	EQU	X'0A07'	
	18CE	1695	H0000	EQU	N000	

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT
	18D0	1696	H0001	EQU N001
	17BF	1697	DROPD	EQU TIOERB
	1EC0	1698	INTRO	EQU RMOV
	0A11	1699	END	BEGINN

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEFN	REFERENCES
ACT	A	002	163E	1315	1124* 1169 1234* 1297* 1329 1333 1338 1342
ADDIT	A	006	156C	1239	
ALEB	A	023	1B7F	1635	0330
ALEBX	A	024	1B97	1636	0324* 0326* 0327
ALTER	A	004	0A43	0047	0044
ARR	C	001	0008	1680	1089* 1090 1119* 1120 1122* 1123 1125* 1126 1128* 1129 1182* 1183 1185* 1186 1248 1250* 1251 1253* 1254 1267 1269* 1270 1317 1371* 1372 1375* 1376 1409 1464 1483 1485* 1486 1530 1533
BADINT	A	004	0FA7	0712	0700
BEGIN	A	001	0A0D	0024	0017
BEGINN	A	001	0A11	0028	0052 1442 1699
BIGEB	A	004	0D19	0367	0328 0331 0339
BIGGEB	A	024	1B29	1632	0370
BITS	A	015	1CF5	1653	1162 1165 1218 1219 1226 1286
BITSNF	A	004	16E1	1371	1168 1230 1291
BRNCH	A	002	18F6	1577	0984
BTNP	A	004	173D	1397	1376*
BUSSY	A	013	1CA0	1648	1447
CALC	A	004	1548	1230	1223
CKBYT	A	004	0B72	0281	0277* 0285* 0287
CKKLS	A	004	14A7	0190	1186* 1239* 1240
CKRST	A	004	10EA	0841	0801 0943
CKRSTT	A	003	10E3	0838	0830
CKS	A	004	1637	1304	1270* 1273 1303*
CKSID	A	004	15B0	1267	0702 0789 0628
CHPAP	A	004	162F	1317	1171 1235 1298
CHPR	A	004	1697	1346	1317*
CNCTR	A	041	1E9B	1670	1431
COD	A	006	1804	1484	1483*
CODD	A	004	1898	1523	1486*
CODE	A	004	1800	1483	0392 0425 0458 0493 0619 0654
COD	A	002	18F8	1578	1510
DADR	A	021	1AEB	1630	1206
DARCK	A	004	0E80	0563	0556
DIAG	A	015	1BCA	1638	0213 1146 1282
DI3TR	A	038	1B11	1631	1209 1502
DORST	A	003	107F	0799	0791
DROPD	A	004	17BF	1697	0129 0132 0261 0690 0736 0778 0818 0876 0905 0925 1522
DTR	A	002	18FC	1584	0698* 0744* 0746 0786* 0825* 1272 1292 1297
DUS	A	002	0B97	0233	0225* 0226 0226
EBERR	A	006	0C94	0330	0292
EBFLAG	A	001	191D	1597	0278* 0283* 0291 0293 0295 0298 0300 0302 0305 0307 0309 0311 0313 0315 0317 0342 0349 0356 0341* 0344* 0346* 0348* 0351* 0353* 0355* 0358* 0360* 0363* 0364* 0365 0347 0354 0361
EBK	A	029	1B46	1633	1159 1216 1224
EBKX	A	006	0D13	0365	0294
EB1	A	010	1CFE	1654	1374* 1389
EB1ERR	A	004	0C7E	0324	0333* 0335* 0337* 0338
EB1T	A	001	16E0	1369	1156 1215 1284
EB12	A	034	1B68	1634	0296
EB2	A	010	1D09	1655	1382
EB2ERR	A	004	0C86	0326	1160 1170 1217 1225 1232 1285 1294 1432 1436
EB2T	A	001	16DF	1368	0372 1147 1166 1173 1210 1220 1227 1237 1283 1287 1301 1434
EPRNT1	A	004	189C	1530	1172 1236 1299
EPRNT2	A	004	18A7	1533	1129*
ERORS	A	007	1D10	1656	0842
ERSN	A	004	1484	1174	0503
ERST	A	004	10FE	0851	1008 1013 1018 1024 1029 1034 1039 1045 1050 1055 1060 1065
ERDA	A	004	0E28	0520	1071 1076 1081
ER14	A	004	137B	1089	0543
EVEN	A	004	1C8F	1646	0934
E13	A	004	1208	0959	0938
E13A	A	004	11ED	0947	0334 0336
FLNEB	A	006	0CB0	0338	0692* 0699 1550*
FLAG	A	001	18C1	1549	1091* 1092 1093
PLRNG	A	036	1E5C	1667	

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEFN	REFERENCES
FNCT	A	017	198C	1615	1200 1490
PRTN	C	001	0A07	1694	0042*
GOHD	A	004	1884	1516	1511
HAAAA	A	002	18EC	1572	
HAA55	A	002	18E0	1566	0391 0558 0560
HALT	C	001	0222	1681	0049 0151 0193 0238 0375 0408 0441 0476 0514 0527 0571 0637 0672 0708 0719 0759 0795 0834 0858 0954 0966 1000 1103 1440 1451
HDNGID	A	002	188D	1520	1515*
HFFFF	A	002	18EE	1573	0502
HFFF8	A	002	18F0	1574	1418
HFF55	A	002	18F2	1575	0266 0267 0268 0269
HPLXX	A	002	0A4C	0050	0043 0045* 0047*
HOP55	A	002	18E8	1570	0133
H00AA	A	002	18EA	1571	0492 0653
H0000	A	002	18CE	1695	0128 0130 0904 0930 1023 1028 1033 1038
H0001	A	002	18D0	1696	0602
H0055	A	002	18E6	1569	0457 0618
H0080	A	002	18DE	1565	0696 0741 0783 0823 0881
H1000	A	002	18E4	1568	0599
H55AA	A	002	18E2	1567	0424 0553 0555
IARS	C	001	0084	1688	0691*
IPOFF	A	025	1ED9	1672	1435
IPSO	A	045	197B	1614	
INTR	A	029	1D48	1658	0754
INTRO	A	037	1EC0	1698	
INTR5	A	002	18FA	1579	0691
INT5	A	004	18C2	1550	1552 1579
INVAL	A	051	1DDD	1663	0989
INVL	A	030	1E01	1664	0994
ISTRL	A	018	1AD6	1629	0168 1143 1498
ITOM	A	004	1731	1393	1390
ITSON	A	004	171B	1386	1383
IVL	A	006	1E38	1666	0998
LCP	A	002	0AEB	0146	0138* 0139 0139 0932* 0933
LINE	A	001	18B3	1537	1531* 1534*
LINK	C	001	0216	1682	0074 0101 0116 0140 0153 0182 0195 0210 0227 0240 0320 0377 0404 0410 0437 0443 0472 0478 0510 0516 0529 0561 0574 0605 0633 0639 0668 0674 0704 0710 0721 0747 0761 0797 0836 0844 0860 0884 0908 1085 1453
LIOPST	A	043	1C0B	1640	0523
LIOSNS	A	004	1488	1182	0401 0434 0469 0507 0630 0665
LJAD	C	001	022A	1693	0846 0956 0968
LS	A	001	1915	1587	0271* 0272* 0273* 0274* 0276
LSCK	A	002	1917	1588	0399* 0432* 0465* 0467* 0500* 0502 0505* 0554* 0555 0559* 0560 0600* 0603* 0626* 0628* 0661* 0663* 1188 1231 1234
LSCKK	A	022	1BE0	1639	1196
LSDAR	A	014	1C8B	1645	0547 0593
LSID	A	002	14BA	1197	1192*
L3741	A	001	0000	0005	
MAPS	A	002	17D9	1464	0148 0190 0235 0373 0406 0439 0474 0512 0525 0568 0635 0670 0706 0717 0756 0793 0832 0856 0952 0964 1101 1438 1449
MAPSS	A	034	1C53	1643	1466* 1467* 1468* 1469* 1474
MSG1	A	040	1A03	1619	0031 0032
MSG1B	A	001	196C	1616	0031
MSG2	A	040	1A53	1622	0036 0037
MSG2B	A	001	1A03	1620	0036
MSG4	A	040	1AA3	1626	0565 0566
MSG4B	A	001	1A53	1624	0565
NCODD1	A	004	0CBA	0341	0306 0308
NCODD2	A	004	0CD5	0348	0310 0312
NCODD4	A	004	0CF0	0355	0314 0316
NCODD5	A	004	0D0B	0363	0318
NCOD1	A	004	0C9E	0333	0299
NCOD2	A	004	0CA5	0335	0301
NCOD4	A	004	0CAC	0337	0303



4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEPN	REFERENCES
NP	A	004	171F	1387	1379* 1384* 1385 1386* 1400*
NPF	A	004	1735	1394	1380* 1391* 1392 1393* 1401*
NID	A	001	191B	1591	1184* 1192 1198 1201 1204 1207 1211 1213
NORES	A	027	1D7C	1660	0950
NORM	A	004	143A	1154	1151
NJSEE	A	025	1D61	1659	0962
NTRST	A	027	1D2B	1657	0854
N000	A	002	18CE	1557	1695
N001	A	002	18D0	1558	0285 1119 1125 1128 1182 1185 1253 1269 1371 1375 1485 1696
N002	A	002	18D2	1559	1122 1353 1354 1400 1401
N003	A	002	18D4	1560	1412
N004	A	002	18D6	1561	1089 1239 1303
N018	A	002	18D8	1562	1069 1074 1079
N019	A	002	18DA	1563	1006 1011 1016 1022 1027 1032 1037 1043 1048 1053 1058 1063
N029	A	002	18DC	1564	1250
ODD	A	004	1C93	1647	0589
PATRN	A	002	1919	1589	0391* 0398 0424* 0431 0457* 0464 0492* 0499 0618* 0625 0653* 0660
PRINT	C	001	021A	1684	1188 1233 1507
PRNT	A	004	18AF	1536	0029 0034 0065 0090 0121 0170 0215 0255 0367 0520 0544 0563
PAT	A	091	1P49	1674	0590 0712 0751 0851 0947 0959 0986 0991 0995 1095 1131 1193
					1257 1275 1426 1444 1471 1516 1536
					1532
					0039* 0040 0040* 0118* 0119* 0120* 0124 0126 0126* 0167* 0168* 0169*
					0173 0175 0175* 0212* 0213* 0214* 0218 0220 0220* 0327* 0330* 0338*
					0365* 1092* 1094* 1098 1100 1100* 1139* 1140* 1143* 1146* 1149 1154
					1156* 1159* 1162* 1165* 1172* 1200* 1203* 1206* 1209* 1215* 1216* 1218*
					1219* 1221 1222 1224* 1226* 1228 1236* 1252* 1256* 1260 1262 1262*
					1281 1281* 1282* 1284* 1286* 1289 1290 1293 1293* 1299* 1300 1300*
					1431* 1433* 1435* 1490* 1491* 1494* 1495* 1498* 1499* 1502* 1503* 1509*
					1513* 1519 1521 1521* 1539 1540 1540*
					1530* 1533*
PITT	A	004	18BD	1541	1105
PUTBAK	A	005	1371	1084	1409* 1412* 1416 1417 1419
QS	A	004	176E	1413	1411
QST	A	004	1772	1415	0071 0096 0135 0177 0222 0263 0326 0428 0461 0496 0550 0596
QJES	A	004	175D	1409	0622 0657 0693 0738 0780 0820 0878 0901 0927
					1429
RDY	A	014	1CAE	1649	1003
REPIT	A	004	123D	0991	1433 1698
ENOV	A	037	1EC0	1671	
RSICC	A	049	194E	1613	
RTN#	C	001	0A03	1689	0843 1137 1141 1144 1150 1157 1163 1515
RTNOA	A	001	0DE3	0488	0455
RTNOB	A	001	0E42	0539	0490
RTNOC	A	001	0E98	0585	0541
RTNOD	A	001	0EC7	0614	0587
RTNOE	A	001	0F03	0649	0616
RTNOF	A	001	0F3F	0683	0651
RTN01	A	001	0A51	0061	0026 0041
RTN02	A	001	0A6E	0086	0063
RTN03	A	001	0A8B	0111	0088
RTN04	A	001	0AFD	0163	0113
RTN05	A	001	0B4F	0205	0165
RTN06	A	001	0BA9	0251	0207
RTN07	A	001	0D37	0387	0253
RTN08	A	001	0D6F	0420	0389
RTN09	A	001	0DA7	0453	0422
RTN10	A	001	0FC1	0729	0685
RTN11	A	001	1022	0771	0731
RTN12	A	001	108A	0811	0772
RTN13	A	001	1118	0869	0813
RTN14	A	001	1154	0894	0871
RTN15	A	001	119C	0918	0896
RTN16	A	001	1223	0979	0920
RYRN	A	006	1257	1006	1577
SBYTE0	C	001	0208	1692	0115 0209
SBYTE2	C	001	020A	1693	1410

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEFN	REFERENCES
SERID	A	002	15D4	1279	1268*
SHDD	A	004	15AC	1263	1254*
SHORT	A	006	1DAA	1662	1512* 1513
SID	A	002	15A5	1261	1249*
SIOCK	A	022	1C21	1641	1278
SIOCK4	A	021	1EEE	1673	0715
SIOHD	A	004	1576	1248	0687 0733 0775 0815 0873 0898 0922
SNCKMS	A	012	1E72	1669	1134
SNRID	A	002	13P6	1135	1127*
SNSERR	A	004	13BB	1119	0144 0186 0231
SNTHE	A	010	1E66	1668	0118 0167 0212
SPL2	A	006	152C	1224	1212 1214
SSW00	C	001	0080	1691	0115 0209
SSW10	C	001	0080	1690	1410
STBN	A	004	0BPA	0283	0279* 0284 0284* 0286
STLCR	A	033	1AC4	1628	0119 1139 1140 1203 1494
TAERR	A	004	16CF	1357	1318* 1330 1334 1353*
TA1	A	004	1674	1333	1322* 1328 1347 1347*
TA2	A	004	166A	1329	1321* 1348 1348*
TA3	A	004	1663	1327	1320* 1349 1349* 1355
TBERR	A	004	16D7	1359	1319* 1339 1343 1354*
TB1	A	004	168C	1342	1325* 1337 1345 1350 1350*
TB2	A	004	1682	1338	1324* 1351 1351*
TB3	A	004	167B	1336	1323* 1331 1352 1352* 1358
TC	A	004	1693	1345	1340 1360
TEMP	A	002	18FE	1585	0800* 0839* 0841 0942* 1007* 1012* 1017* 1464* 1465
THD	A	009	1CE6	1652	1093* 1094 1484* 1488 1492 1496 1500
TIDERB	A	004	17BF	1444	0099 0785 0939 1697
TIDERD	A	004	1787	1426	0076
TNF	A	004	170D	1382	1377* 1396 1398 1398* 1402
TNPF	A	004	1723	1389	1378* 1399 1399*
TOBSY	A	023	1CC5	1650	0093
TORDY	A	024	1CDD	1651	0068
TRL	A	002	0B3D	0188	0131* 0180* 0181 0181
TSCYC	A	036	1BBB	1637	0258
TSIO	A	016	1C31	1642	1256
TSPAT	A	040	1DA4	1661	1508 1509 1510 1512
UNPACK	C	001	021E	1685	1505
VHDD	A	042	1C7D	1644	0543* 0589*
WORK	A	001	190D	1586	0936* 0937 0983* 1084 1152 1229
XPCT	A	001	191C	1592	0701* 0788* 0827* 1272 1296
XPT	A	002	163C	1314	1121* 1233* 1296* 1327 1336
IR1	C	001	0001	1686	0041* 0042 0276* 0277 1152* 1154* 1222* 1228* 1290* 1319 1380 1417*
					1418 1465* 1466 1467 1468 1469 1476
IR2	C	001	0002	1687	1149* 1221* 1229* 1289* 1318 1379

TOTAL STATEMENTS FLAGGED IN THIS ASSEMBLY = 0

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

OBJECT CARD LISTING

THE CHARACTER INDICATES A BLANK COLUMN AND THE CHARACTERS D P H INDICATE NUMERIC SHIFT.

CL 1 THROUGH 16 CL 17 THROUGH 32 CL 33 THROUGH 48 CL 49 THROUGH 64 CL 65 THROUGH 80 CL 81 THROUGH 96

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GBK GBD   PN 55  58420 EC 824870  3741 ATT TEST W/  O WRAP CONNECTOR  84008400  ..... 40110000
T+-Y: 6AD  &  B-,  ""4A&  D BVG /OH  E6P*E 4C-0H*BF-R  8FV<@EA'HCEY-KJ'  HO-DHML&AB-''8 Z  <@YD E 040110001
I+-Z5A33-B032/0&  @86Z<0H*BHUC/OH*  HD&D BW# /OHEJJ-  *7MB/OH*PP- @|<E  ''/S /1;G -HS&B  G /Y 6 M40110002
I+-D0JJ**1HBSOH*  PP- @|<EBE#'' /OH  O O H'LS -T D H  OC U;=A9WCB -FJ,  DID%-P%BG /ZFO1'  IEHC :6440110003
I+-,,CEY-KJ'H<ND  Q3%EBE#@1JNT+<D<  .|*EBE#@1JATYOH*  PP- @|CABB>% ( E,  ,B>X -&HOOH*L>8  ..... 1:040110004
T+-XW @BGE'WGE*B  G SI  @BG /QD  _  |C U;=A9WCAD-B/,  O|D%-B@BG /ZFO1'  IEHE<O/'IG4, /1)  )@C0 43<40110005
I+-_/|CACB34( 6%  'B3? -&HOOH*L>0  .....  DOH*P6Q;A0H*  BHU DOH*BE-M B:U  8- HRGA BE-OIG?- ;R-0 6K@0110006
T+->*C/@GFA@K1@  HOH*BFUR$G4Y Z&1  EG4U-%BGE570|C0  OJS>PC& .V->H0HD  BE%BGD#% ..... A*B  GE'U $B 40110007
T+-?PSAG /OHSE P  /OHOA- ((@BG /Z  EIA>#5H$A&/;''OH*  PP- @|CEAF|H16/T  2<H&Q@TEEF|H0&JU  |<DH RJ-40110008
I+-OKFJDOJAUL<DH  RE*HAPJH4 6?5|  ..  RGL0AB''% ..... 0 D  ."TY FJ4+  ?#B''%  | 6?5P( 9''0?#0I  .@T4 EK840110009
I+-1(@1U)OHD<VC5  LFPJ7 -&1=|EHRG*B  ACHQ'0AU)OHD<XT4  OPJ7 -&2V|&0RG*B  ACH08&AU)0A <>TS  PJ4 LI-40110010
I+-2HDA <>T-8FJ7  D 3N+B RG* 6C(M  8AAU)0A <@C-HFJ7  D 30+ DRG* 6CE?  /OHO|D$S<BGCHY  @@/% JQ440110011
I+-3CS 0PGQ$V@B  GJNU<E/@EP7'' /04  R|D$R'HGB332F6-  2/0&@'A_XCBD-DA_  YOH*(PL31F4M8&AU  )0A'' RRQ40110012
I+-3=C<8@@/%>OH*  <4T31F2#2/38@@/_  E+A RG* 6C+U@@/%  >OH*<#L31F2#2/2<  @'A_E+ &RG* 6CE&  @@/% S-Y40110013
I+-49.%BGC&-@JJA  >@Y*H|JMSJL31F2&  <GA@.P4$ /OHE0/-  $HM FOH*QZ@BGE'W  HM*BG SI A%BG /Q  G '' 4 ;B<40110014
I+-54$00AFJUQ8<B  GF C10H*PP- @|CE  AFJU0&JUP0H*MS -  10H*BE%BE'WHU*B  G SI A&BG /QH '' 6  XC D PLH40110015
I+-6?FJUQ8%BGF C  JH*PP- @|CEAFJU  O&JUP0H*MS T10H*  BE%BG'WHU*BG SI  B<BG /QI '' 7TC D  RPJ- :YD40110016
I+-7D9%BGF C20H*  PP- @|CEBFJU0&/U  P|  RE%BGER-1@%B  G /S /1-RS3G /OH  S& Y /OHOB- +&-0  AFJU 3-B@0110017
I+-8VF+, /1- @%B  GE570|C01&/UR<DH  RE04 P+8RE'HAGTO  FJS /1KHB? /OH  OOH*P6QUJOH*BHU  HOH* JR@40110018
I+-9- /S /OHEOS%  *B4 <OH*P6QUKOH*  BHU <OH*BE-% CZ-  < 11'GH'' /OHEJT-  *S4B,OH*PP- @|CE  DF+H :ED40110019
I+-:;$<DSRE04AF+H  RE'HADTEDF+ OJAU  PC&DQ8AUP0HDBE%B  G /,PMA'DOH*P6QU  LOH*BHUAXOH*BE-0  C%'' .<40110020

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4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

OBJECT CARD LISTING

CL 1 THROUGH 16	CL 17 THROUGH 32	CL 33 THROUGH 48	CL 49 THROUGH 64	CL 65 THROUGH 80	CL 81 THROUGH 96
T+@OC <*J2L0H*	BPUQ8GH_ <RGE57	O C01JATE<D&E3E	DP( OJAUP05-PE-4	CO<< JBRP*3 /1-	1040110021
T+@J/1) @C0@<MM	BFLAEPJ*2 AU00H*	MSAC50H*BE%BE%W	1<*BG SI <K&G /O	*C DFFOTDOR*	0 1040110022
T+<OH*PP- @ CE	EPJU0JJUP  RE%B	GER-J*BG /\$ /1-	BGLG /OHS&G /OH	000 10*BGEPE2&K	7&K NE*40110023
T+@G5*GB4@N 2) P	T1) XR9 (-T& (1A&	HK4A OMHP?3ODP Y	* JTAGH*PP- @ CE	AP (#36 H0JJ7@* D	00-5 01 40110024
T+@BDA@DAU*OH*	N%& /OH00H*P6QV	JOH*BHU KOH*BE%B	G /, BEJ>6A, /1-	H&M. /OHS&A, /OH	00 0,040110025
T+@DB. /1H6%(X	B&XPTS<PNO*.L1HC	I5; E6) X05=( 4&G	T0@/.OMHP?2&E57	O C016JT;24 B&4	0&K& 35*40110026
T+ / 8F 08DAT*OI	BE%BG /, BGJ5H&A	/1-RSPG /OHS&A	/OHODE 0S%&GPE	1&XPT& (TE0*J 0&G	L44 5P*40110027
T+ /A3@GT0> /-EDA	EDA EDA OMHP?2&B	GE570 C01&JT;24D	OMHP?3&E7 02 10	*OH*N&AL /1L*OH*	8P00 48*40110028
T+ /B>U*BG SI E<B	G /\$3& -OJJT=OH*	6:/H DJT /1H6%>.	E84C&6*XT1HCCO)	LE((1A& HK4A 0DA	50 1 40110029
T+ /CZS<EBE* /1)	@C0@<MDQ7? (B CA	EP 0&AJU*OH*N&AP	/1CTOH*P6R 1OH*	BHU NOH*BE? (BCA	EP E 48*40110030
T+ /DU  & Q"-HACL4	NB-  " &HO0H*BH-C	/OH&O/%) H4 00H*	P6QWKOH*DHU 00H*	BE/< DNL /1H6%&L	05<< 10*40110031
T+ /E-5_PT6) \$L& E	8> A6; ( 2OGOK4A	EDA &<EBE* /1)	@C0@<MDQ7? (C&B	G /OH AP&OH*N; ,L	D50 6, 40110032
T+ /PE0 'N&8' X044C	2&+.TJ) XT&<V/5U_	EDA &DC /1) @C0	@<MDQ3*EBE*73 "	/OHODE KH&BGEPE	5&K& 8D*40110033
T+ /GN84CA5*J 6*P	S1; ( 5) R-5_) 4&G	T0@/.EDA OMHP?2&B	GE570 C01&JT+24D	<D&H:3-DB>,20CM	05/D )1040110034
T+ /H&CL-DF&32D "	A&/; "04 H<DMQ"%B	G5+, /OH&O/%) -D	QOH*P6RAKOH*BHU	QOH*BH-C /OH&O/D	10M 5&K&40110035
T+ /I. E&BGE'W&M*B	G SI E&BG SY ZYC	"00CP&4 " 00C <	Q'XBG /ZB<17) &.S	/OH& S&; *BG /Y	F 1& 8/<40110036
T+ /HP+<BG SI %&B	GDT4+ & CP (Y0&AT	=0H*L;=.N8UCOC-D	" 1TE<DQQ"%&GD7?	S5;I '1-8A" <Q&TA	GF E 45*40110037
T+ /A0H*L;=.N8UC	7C-D " 1TE<H Q3%&B	GD7?L2) R @ 8A" <	Q6TECP<@ /1(#4&I	05 <+ & CP (Y1J/T	+0H* 30*40110038
T+ /@D7?L2) R '1-8	A " Q6TEGP<@ /1(	#4&X0& *+ & CP (,	A&J.WOH*L;= I5DC	1C-D " 1TEOH&K*+B	6D7& 0&5*40110039
T+ /<78&X0& &+ &	CP (,AJJ<<OH*L;=	I5UC5C-D " 1TE0MQ	LG&B&GD7?T2) R '1-8	A " <Q6%&GD3. /1(	#8&0 K&X&40110040
T+ / (25UC7C-D " 1T	Q&4H OH*L;=.I5UC	5C-D " 1TQ&4Q OH*	L;=.I5UC6C-D " 1T	Q&4* OH*L;=.I5UC	7C < Q&4&40110041
T+ /+ " <RC*BG /Q	6BATO{ -LS 0DGY0	" " OTG1H;P 0 G+M	;P 0&G1Y*9X&B /,	B01 I&AUCO/'I&4, /1*	10040110042

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

OBJECT CARD LISTING

CL 1 THROUGH 16	CL 17 THROUGH 32	CL 33 THROUGH 48	CL 49 THROUGH 64	CL 65 THROUGH 80	CL 81 THROUGH 96
T+/IY6RALOH*BHU	R0H*L*LQHF( 4BA	HC DO  --- (--Q4TE	HD*Q< JQ= --- 6BAT	E(-L9 0 D*Q --- CQ	HF( --- QCD40110043
T+/5T(-H/@BG /,	BCA92E --- * OYC@-D	<C Y-AAAD>C @-P1D	" E6H "HAA-0JG1H	E5T4EB- 2 EQC/@	PPAY MLX40110044
T+/J;0H*QZ@H8GQ2	'A6YC@-DGO-DRC-H	GA<HAG1Y<BJ@CGEU	'A6YC@YDFC U-E13	"0H*QX 0+GOQ*+L4	EB-< L.440110045
T+/KR@YDFC 8-F/3	50H*QZ@BGE>DO XB	GFI3 /1Q"C Q; J4	60H*QZ@BG --- 6BAT	E(-MV@QAFJ% --- CQ	HF( --- 0JH40110046
T+/LM(-MD-4AFJ*	RF-HAA<EG --- < AK	:PJ, /OHEO/Q\$8D	DRF"HAA-0EG1H	RTC72FJ22 EQC<1@	GF, @ -Z-40110047
T+/M    -6RF"HAA-0	HG1<E: 375FJ22 EQ	<DA@GPO3 /1SX  -H	RF"HA<T75FJ22-KX	<BJ@CGEU<BJ@EG "	/1- HOM40110048
T+/NHK 0+GOQ*+E0	+G1Y**BGFH-E /@	F0-D-P7HGG 0IG0<	**@BGFIO<C/@ZG P	/1SX0-D-A%HBFE7	/1Q \$TM40110049
T+/OE8JUPOH*QX 0	AETORF60AETBRE@B	GET@<A/#5GJC /1S	XC-DND/TOOH*MZ3E	HEP@< AOV --- 6BAT	*(- 'YD40110050
T+/P EQ4CGA@S ---	6BATE(-N,00 G78	*<*BG /ZED1'IE ---	<O/'IG4, /0 --- (-	N>E0 E)E --- CQHF(	4BAQ "S<40110051
T+/P#+-4 PJ0Q="H	A\$<BG /,BE/0/E H	<O/'IG4Y<C/@PFA,	/1SXC U- 14IOH*	QX 0+GOQ*+BGFH-	B /@ *AU40110052
T+/Q6AXHAG1, /1\$	/F 0C/&EG 1? /1S	*C --- 0+1U*C DO /T	60H*O 00PG?M) D 0	+G1Y-F@BGFH*+ JQ	:F(Q 32-40110053
T+/R10H* -----	4BAEE( HO4TEAE_Y	@ JRUI DOE30AEXH	@ JR@  DO-30AEX4	8 JQ#@ / H+ DO  -H	EP?H N@Q40110054
T+/EX/0*6 JQ@ZA	H+ DO   HEBT-AET#	2DD#2/0*8 JQ=@ZA	D+H OT* E --- + AR	5EXH+ AR,EW%+ AR	UEW% *E*40110055
T+/\$XC- OTJE(C-	0-1ECC- 0-AR@COD	04/TKC0B06,TK0H*	0Q31* --- C /1R# EG	---<BGEZ< --- CQHF(	4BAQ \$9-40110056
T+/\$S*-0AE7E --- 0	AE> --- CQHF( 4BA)	DPCT0AE2E4 /*	S( DP+C- E_2D *	@@A*-@Y*D   DPHC0	----- Q#U40110057
T+/) + --- 08 HEA33	0E3\$2/0E@J*6	--- CS E0# D C-	PC/*+C- PIA*UCOD	PH/TKC0BP+ATK0H*	PCLE : ,440110058
T+/:QBA) 1+H BB?H	EB-8AE7DQ5<BG ---	'0-H 0 DP\$TMAE7E	< GHQ@<BGE6# /OH	E0-8*,U ACB--E1:	\$0H* @.840110059
T+/-LFIO<IA@*GXC	/1SXCA--A1#R0H*	QX<BGE*WG %BG SI	---*BGB/G /OHE0-4	*YD BOH*P6Q*/OH*	BHU --- 3 040110060
T+/-+ %BG /Q4BAT	=(EDQ"/-BGD- F <	*K@ Q /1H J-CGEH	A0H*BFYQSGE E/OH	4BA-IC --- *9E --- (--	Q4CE 9S 40110061
T+//IBAS\$ -D*9*	APB@<DA@XFQ@K1@	Y  -H*9* APCQ<EA@	,%E@K1@%  -<*9*	APD-<DJ@YF_Q@K1@	Z  -M NDQ40110062
T+/SD3+P --- J/ECAN	-A%J D%-. *BG /8	BFJU) X-0XG1Q) Z 4	AGROQ= HAD-0AGE-	)X-0EG1D) D--CFH4	H @ --- -840110063
T+/S"/OH@JN%-KMB	-CBY-KJ'HOMHP?@B	G --- 4BAT   HDQ%*H	GBC6HF< @-/S30H*	BF-A\$G4U<O/'IG4,	/0 --- 0--40110064

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

OBJECT CARD LISTING

CL 1 THROUGH 16	CL 17 THROUGH 32	CL 33 THROUGH 48	CL 49 THROUGH 64	CL 65 THROUGH 80	CL 81 THROUGH 96
T+/T: : JTA04	(0H*Q0- D -	C & D- L A4 -HZ	NNY8 ANC5M DDD	D""""= 'NOH*KN"C	OP<H -1%40110065
T+/U5			CR1) L09*N 9_X	A54CC5_PN1* T5_V	& (H 1- 40110066
T+/V05> E6FA 0'~	UE (LA:DCD6)\$PE (~	09%PRK@XPE+.OE4C	T9 (XN6 (~09%PRE<	A0'I 5_N 0) PDE (X	E4'Q 7:U40110067
T+/W,0*J 5'X01'X	A5D?P9 (PC8@X05MC	R1*~I8> E6) XE5(\$	V1MC3*"L1E<V/SUC	C0*.L1M_ &GL8_R	6*M 4/<40110068
T+/XW5 (\$V1NCT2<N	9_XA54CC5_PN1*	T5_V. & H1) N 5@P	R1_\$R5DCA&+.Y8>	E5DA EDA EDA EDA	ED KBF40110069
T+/Y/EDA EDA EDA	EDA EDA EDA EDA	EDA EDA EDCR1;.	E84CA5*J 8> A6; (	.EDA EDA EDA EDA	ED 'A040110070
T+/Z*EDA EDA EDA	EDA EDA EDA EDA	EDA EDA EDA EDA	EDA EDA EDA EDA	EDA EDCD0; AE<G	D1(U 1-U40110071
T+/DP1; .SE (XE1@X	S8@PR6<\$A2)  U6*N	.EDA EDA EDA EDA	EDA EDA EDA EDA	EDA EDA EDA EDA	ED "2040110072
T+/,K@EDA EDA EDA	EDA 8> A8=LSE<.	Y8@N-4@PN1= H6<	09 (PTE (XE1@XS8@P	R20GOE+ RO) PS1%P	RE (< 4R-40110073
T+/%(2) PE8%LA8@E	0*LD6*PS8UCR1*~	I8> E6*LI0*~N5>.	T2* ( 0>TT10CD0;	A&+ RO) PS1%PRE (X	E1@U JR440110074
T+/_H8> E6*PB6<	Y0'  E5<GNO)  Y8%X	S6< H1* KK51*1*.	X6< Y0'  E6<\$A2)	E1D_ 5MCC5%LEE+)	.PE0 EH840110075
T+/>CO_\$T2DCE0UC	C:< L1;I 1%GI4@P	DK4CN6< O1<N 94_	*P<GL44CE0UCC:<	L1;I 1%GI4@PDK51	*0)< 25%40110076
T+/>=44CE0>) 0=T	C4@PS6<\$A2)  E1D?	T1;.T6<LA8@E 8'X	A5;.F1) V 1+LR2) P	G6<PB6< Y0'  E8U?	D2*D RZ640110077
T+/291'P08> I04C	B: + E4@XOQ;.N8UC	C5_LP0) XE6< H1*	KK'  I5UCF0*XL1*J	8'R 6*PS1; ( 4@P	N1=< :KY40110078
T+/042DCC5>LN84C	R1*~I8> E6M_ 1<X	A1'P08> I04CB: +;	E6< H1* KK= E8> (	0*.I4@XT: DCT5UC	G5U JYH40110079
T+/178'R @~4@MC	M0) ~SE4CP0*~EE C	0@DCES;  R: DCOK'	00*J/8%PN8%N 1<G	TOMCA 1<LR1;.SE (X	E'@U ;T640110080
T+/2DB> E6NCW2;	HEDA EDA 0%XT6 (~	AB= E6) PSK@PV1) P	01<J @~4@MCI8UC	B9+.YK"  7'  E 2;I	6*H 6S*40110081
T+/3VD*LYK= E8> (	@~4@MCF5_V 5)\$	TE<.UB>/.8@PS84C	3' "L1E<\$06MCN5> (	6*PA1+/.5MCC5%L	E&*+ JY640110082
T+/'-K" @HC2E  (	'DC5E R '6CE0?E	0>TT10A-1*.26<.	Y8@N-P<PR6) \$RP (X	E0*J/9_XI8@N 4?G	T0@- ELQ40110083
T+/5\$E (P084CR1;. .	E84?I5;  E6) XU5= (	1) PA0_  EE (XE8%P	TE< H1* KK' POQ (\$	PE ( A8@ H5<\$A2)	S6< 5A-40110084
T+/605UCS1; (-5) R	-5_) 4@GTO@/ 1%G	I4=I 8'R 6*PS1; (	.4'\$A1FGS1) PS1MC	W2;  H6+ E8> ( 5@G	T8@M *K<40110085
T+/7J6) N Q+~X9=)	-E+ H1MA Q+~XQDC	T1;.T6<GB2)  I8=/	5XR @~4@MCT5UC	R1) GE0= ( @~N 2) P	V0) < 6CU40110086

4011 3741 FUNCTION TEST WITHOUT THE WBAP CONNECTOR

OBJECT CARD LISTING

CL 1 THROUGH 16	CL 17 THROUGH 32	CL 33 THROUGH 48	CL 49 THROUGH 64	CL 65 THROUGH 80	CL 81 THROUGH 96
T+/R<2*J 0'SM5<G	M1+I.1(R 9>TS8@P	M5 (XPR%PT6<GN1DC	S8@GRB6_ 3~R B@X	M1;I.1;~P1*IT6 (~	R5X< JI440110087
T+/9G1; .S6< H1*	K8<GP8@PR6<PA0@/	9>TS8@PH6 (XPR%P	T6<GN1DCS8@GR84?	I5;PA4@XD6< 05 (L	A5*E KK*40110088
T+/:B5+\$A8UC20@	E5= E1D_ 6+-X9QC	M8XPN8XN 8@TE6+.	E5; .E6< H1* KK51	*5) \$T1M1*S<XPR6<E	9_D :-@40110089
T+/: '0) ) 0'SM5*P	CR'SR6<XS6<GT8@G	C2<PD6'XES (\$V1MC	I84CA5*J 1 (R 8>T	S8@PH6 (XPR%PT64C	S8@D E9*40110090
T<A#>6; (-2*B 0'S	N5*PC8'SR6<XSE (\$	F1UCT2<PN6' 7' E	2) PT1) XR9 (~T6<	H1* KK0	28440110091
T A'8E					KB840110092
EB/E*E7*=-DC*PH\$	=*7M6P	C	PX ASC P A S0 Q		11350908741 1217458840110093

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