

OPTIONS NODECK,LIST,XREF,REL,OBJ(P)

THE LIST OF OPTIONS USED DURING THIS ASSEMBLY IS-- NODECK,LIST,XREF,REL,OBJ

##0TRK BIS - CYL 0, TRACK 0, SECTOR 00

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 20/09/15 PAGE 2

0000	2		PRINT ON,NODATA
	3	##0TRK	START
	4	*	@SYS EXP-Y
	6+		PRINT ON
0000	459		ORG X'0000'

##0TRK - BOOTSTRAP LOADER

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 20/09/15 PAGE 12
			0000	461	IPLSRT EQU *	FIRST BYTE OF PROGRAM	
				462	*****		
				463	* TITLE: IPL BOOTSTRAP LOADER		*
				464	*		*
				465	* STATUS: CHANGE LEVEL 0		*
				466	*		*
				467	* FUNCTION: A SECTOR OF DISK IS READ INTO CORE AT		*
				468	* LOCATION X'0000', FROM C/S 0000 WHEN THE PROGRAM-LOAD		*
				469	* IS PRESSED. THIS SECTOR CONTAINS THE IPL BOOTSTRAP		*
				470	* PROGRAM. THIS PROGRAM (IPLBOOT) CONTAINS AN INDICATOR		*
				471	* FOR THE IPL PACK AT X'00FF'.		*
				472	* X'A0' -> R1		*
				473	* X'A8' -> F1		*
				474	* THIS PROGRAM ALSO CONTAINS AN INDICATOR FOR THE		*
				475	* PROGRAM SYSTEM.		*
				476	* BYTE X'00FE':		*
				477	* X'01' IF BIS (BASIC)		*
				478	* X'00' IF DSM (COMMERCIAL)		*
				479	* THIS PROGRAM RELOCATES ITSELF TO X'1200' AND		*
				480	* READS INTO CORE THE CORRECT NUCLEUS		*
				481	* INITIALIZATION PROGRAM.		*
				482	* IF BIS, READS MOPPET FROM C/S 0080 INTO CORE AT		*
				483	* LOCATION X'0000'		*
				484	* IF DSN, READS IPLNIP FROM C/S 00B8 INTO CORE AT		*
				485	* LOCATION X'1800'		*
				486	* IT THEN SETS AN INDICATOR AT X'05FF' TO INDICATE		*
				487	* THE IPL PACK: IF F1, SET X'01'; IF R1, SET X'00'.		*
				488	*		*
				489	* ENTRY POINTS: -IPLBOT- PERFORM THE ABOVE FUNCTIONS.		*
				490	*		*
				491	* INPUT: CODE FROM DISK		*
				492	*		*
				493	* OUTPUT: IPL Q CODE		*
				494	*		*
				495	* EXITS-NORMAL: TO X'0000' IF BIS; TO X'1800' IF DSM		*
				496	* -ERROR: IF A DISK ERROR OCCURS, THE READ IS RETRIED 16		*
				497	* TIMES, IF ERROR STILL OCCURS, A HALT - 0- WILL		*
				498	* BE DISPLAYED IN THE HALT LIGHTS.		*
				499	*		*
				500	* TABLES/WORK AREAS: N/A		*
				501	*		*
				502	* ATTRIBUTES: N/A.		*
				503	*		*
				504	* CHARACTER CODE DEPENDENCY: A		*
				505	*		*
				506	* NOTES: ANY CHANGE MADE TO IPLBOT MUST ALSO BE MADE HERE.		*
				507	* ORIGINAL IBM CODE MODIFIED TO BYPASS OUT OF SEQUENCE		*
				508	* ERROR MESSAGE ('P 20) DURING LINK-EDIT. (HJS 2015)		*
				509	* THIS CHECK CAN BE SUPPRESSED WITH PTF100. (HJS 2020)		*
				510	*		*
				511	*****		
			1200	513	IPLREL EQU X'1200'	RELOCATION START ADDR	
			0000	514	IPLCSA EQU 0	DEVC ADDR OF CONSOLE SWITCHES	
			0001	515	IPLSKF EQU X'01'	BIT FOR FORWARD SEEL IN DCF	
			0000	516	IPLSTA EQU X'0000'	BIS CADDR AND EXEC ADDR	

##0TRK - BOOTSTRAP LOADER

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	20/09/15	PAGE 13
				0007	517	IPLCNT	EQU 7			SECTOR COUNT FOR READ
				0000	518	IPLBAS	EQU *			BASE ADDR
				0000	519		USING IPLBAS,@BR			BASE REGISTER VALUE
					520	*				
					521	*	THE FOLLOWING TBN INSTRUCTION IS A DUMMY TO PREVENT			
					522	*	AN IPL OF A SYSTEM/3 PACK ON AN IBM SYSTEM/7			
					523	*				
0000	38	FF	0000		524	TBN	IPLBAS,IPLIPQ			DUMMY X'38FF' 1-4
0004	F2	90	00		525	JF	IPL050			RESET FALSE INDICATOR 1-4
0007	3D	00	0000		526	IPL050	CLI @ZERO,@ZERO			LOAD PSR 1-4
000B	3D	00	0000		527	CLI	@ZERO,@ZERO			LOAD PSR
000F	C2	01	1200		528	LA	IPLREL,@BR			SET BASE REG TO RELOCATION AREA
0013	4C	FF	FF 00FF		529	MVC	@SCTSZ-@B1(@SCTSZ,@BR),IPLEND-1			RELOCATE TO X'1200'
0018	D0	87	1B		530	B	IPLSTT(,@BR)			BRANCH TO RE-LOCATED PROGRAM
					531	*				
				0001	532	IPLBIS	EQU X'01'			BIS SYSTEM
				00FE	533	IPLIDR	EQU X'FE'			DISP BIS/DSM INDR
				00FF	534	IPLIPQ	EQU X'FF'			DISP DISK DRIVE INDR
					535	*				
				001B	536	IPLSTT	EQU *			CONTINUE OF IPL (AT X'121B')
001B	5E	00	27 FF		537	ALC	IPL110+@Q(@B1,@BR),IPLIPQ(,@BR)			SET SIO FOR READ
001F	5E	00	42 FF		538	ALC	IPL150+@Q(@B1,@BR),IPLIPQ(,@BR)			SET SIO FOR READ
0023	71	A6	72		539	IPL100	LIO IPLDFC(,@BR),@SPINA+@DFCR			LOAD FOR SEEK
0026	F3	00	00		540	IPL110	SIO @SKCTL,@DSEEK			SEEK
					541	*				
0029	7D	01	FE		542	CLI	IPLIDR(,@BR),IPLBIS			DSM OR BIS IPL ?
002C	F2	81	0C		543	JE	IPL140			YES - CONTINUE BIS IPL
					544	*				
					545	***	DSM IPL PROCEDURE			
					546	*				
002F	5C	01	6B 6D		547	MVC	IPLCOR(@CADDR,@BR),IPL180(,@BR)			DSM CADDR
0033	5C	00	75 6E		548	MVC	IPLCRF+@DSAD(@B1,@BR),IPL0BC(,@BR)			DSM DADDR
0037	5C	01	57 6D		549	MVC	IPL170+@OP1(@CADDR,@BR),IPL180(,@BR)			DSM EXEC ADDR
					550	*				
003B	71	A6	70		551	IPL140	LIO IPLFCR(,@BR),@SPINA+@DFCR			LOAD DFCDR
003E	71	A4	6B		552	LIO	IPLCOR(,@BR),@SPINA+@DFDR			LOAD DFCDR FOR READ
0041	F3	01	00		553	IPL150	SIO @DCTRW,@DREAD			READ
0044	D1	A4	44		554	IPL160	TIO IPL160(,@BR),@SPINA+@DFDR			WAIT FOR COMPLETION
0047	D1	A0	58		555	TIO	IPLERR(,@BR),@SPINA+@DERR			BRANCH IF ERRORS
004A	7D	A8	FF		556	CLI	IPLIPQ(,@BR),X'A8'			IPL FROM FIXED DISK ?
004D	F2	01	04		557	JNE	IPL170			NO - EXIT
0050	3C	01	05FF		558	MVI	X'05FF',X'01'			SET FIXED DISK IPL INDR
0054	C0	87	0000		559	IPL170	B IPLSTA			START EXECUTION OF PROGRAM
					560	*				
					561	***	ERROR PROCESSING			
					562	*				
				0058	563	IPLERR	EQU *			ENTRY FROM ERROR DETECTION
0058	5E	00	69 68		564	ALC	IPLCTR(@B1,@BR),IPLONE(,@BR)			COUNT OF TRY'S
005C	7D	10	69		565	CLI	IPLCTR(,@BR),X'10'			16 TRY'S ?
005F	D0	82	23		566	BL	IPL100(,@BR)			NO - TRY IT AGAIN
					567	*				
0062	F0	6C	02		568	IPLHPL	HPL @CADDR,@HIPLE			HARD ERROR
0065	D0	87	62		569	B	IPLHPL(,@BR)			SORRY, HARD HALT
					570	*				
0068	01			0068	571	IPLONE	DC XL1'01'			INCREMENT
0069				0069	572	IPLCTR	DS XL1			COUNTER

##0TRK - BOOTSTRAP LOADER

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	20/09/15	PAGE 14
	0069				573	ORG	*-1			RESET
	0069	00		0069	574	DC	XL1'00'			INITIALIZE TO ZERO
	006A	0000		006B	575	IPLCOR	DC XL2'0000'			DFDCR ADDR
					576	*				
	006C	1800		006D	577	IPL180	DC XL2'1800'			DSM CADDR & EXEC ADDR
	006E	BC		006E	578	IPL0BC	DC XL1'BC'			DSM DADDR (0/0/15)
					579	*				
	006F	1273		0070	580	IPLFCR	DC AL2(IPLCRF+IPLREL-IPLBAS)			RELOCATED DPL
	0071	1277		0072	581	IPLDFC	DC AL2(IPLDCF+IPLREL-IPLBAS)			RELOCATED DPL
				0073	582	IPLCRF	EQU *			PSEUDO DPL
	0073	000080		0075	583		DC XL3'000080'			CYL 0, TRK 1, SCTR 0
	0076	07		0076	584		DC AL1(IPLCNT)			7 SCTRS
				0077	585	IPLDCF	EQU *			PSEUDO DPL
	0077	00008000		007A	586		DC XL4'00008000'			
					587	*				
	00FE				588	ORG	IPLBAS+X'00FE'			FORCE TO SECTOR 0 END
	00FE			00FE	589	DS	XL1			DSM OR BIS SELECTOR INDR
	00FE				590	ORG	*-1			RESET
	00FE	01		00FE	591	DC	XL1'01'			INITIALIZE FOR BIS SYSTEM
					592	*				
	00FF			00FF	593	DS	XL1			DISK DRIVE R1 OR F1 INDR
	00FF				594	ORG	*-1			RESET
	00FF	A8		00FF	595	DC	XL1'A8'			INITIALIZE FOR FIXED DISK
					596	*				
				0100	597	IPLXXX	EQU *			END OF IPL BOOTSTRAP LOADER
				0100	598	IPLENG	EQU IPLXXX-IPLBAS			LENGTH OF RELOCATED SEGMENT
				0100	599	IPLEND	EQU *-IPLSRT			REAL END LOCATION
					600	*				
	0100				601	ORG	*,256,0			

##0TRK BIS - CYL 0, TRACK 0, SECTOR 01

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603 *
604 * THIS MODULE CONTAINS THE 3.7 SOURCE CODE
605 * TO INITIALIZE THE CONFIGURATION RECORD
606 *
0100 000000000000000000 01FF 607 DC 256XL1'00' INITIALIZE TO ZEROS
608 *

##0TRK PID PACK VOLUME LABEL - CYL 0, TRACK 0, SECTOR 02

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 20/09/15 PAGE 16
			610	*			
			611	*		THIS MODULE CONTAINS THE 3.7 SOURCE CODE	
			612	*		TO CREATE THE INITIAL 3.7 BIS VOLUME LABEL	
			613	*			
0200	E5D6D3	0202	614	DC	CL3'VOL'	VOLUME LABEL RECORD IDENTIFIER	
0203	E5D6D3C6F140	0208	615	DC	CL6'VOLF1 '	USER SUPPLIED VOLUME LABEL	
0209	0024	020A	616	DC	XL2'0024'	VTOC POINTER	
020B	FF	020B	617	DC	XL1'FF'	SCP NOT ON SYSTEM BYTE	
020C	000000000000000000	0224	618	DC	XL25'00'	RESERVED FOR SCP	
0225	FF	0225	619	DC	XL1'FF'	SCP NOT ON SYSTEM BYTE	
0226	000000000000000000	0251	620	DC	XL44'00'	RESERVED FOR SCP	
0252	4040404040404040	025B	621	DC	10CL1' '	USER SUPPLIED OWNER ID	
025C	CB	025C	622	DC	XL1'CB'	NO. CYLINDERS	
			623	*		DEVICE CONSTANTS	
025D	02	025D	624	DC	XL1'02'	* 2 TRACKS/CYLINDER	
025E	18	025E	625	DC	XL1'18'	* 24 SECTORS/TRACK	
025F	0100	0260	626	DC	XL2'0100'	* 256 BYTES/SECTOR	
0261	000000000000000000	0269	627	DC	9XL1'00'	* RESERVED	
026A	000000000000000000	0275	628	DC	6XL2'0000'	ALTERNATE TRACK ASSIGNMENTS	
			629	*			
			630	*		TRACK USAGE MASK	
			631	*			
0276	C0	0276	632	DC	XL1'C0'	CYL'S 200-202 OPEN END OF DISK	
0277	000000000000	027B	633	DC	5XL1'00'	CYL'S 180-199 OPEN	
027C	000000000000000000	0295	634	DC	26XL1'00'	CYL'S 074-179 OPEN	
0296	0F	0296	635	DC	XL1'0F'	CYL'S 059-073 HELPTTEXT	
0297	FFFFFF	0299	636	DC	3XL1'FF'	CYL'S 059-073 HELPTTEXT	
029A	C0	029A	637	DC	XL1'C0'	CYL'S 059-073 HELPTTEXT	
029B	0003	029C	638	DC	XL2'0003'	CYL'S 049-058 OPEN	
029D	FF	029D	639	DC	XL1'FF'	CYL'S 012-048 SYS.PROG. FILE	
029E	FFFFFFFFFFFFFFFFFFFF	02A5	640	DC	8XL1'FF'	*	
02A6	F000	02A7	641	DC	XL2'F000'	CYL'S 004-009 OPEN, 010&011 SPF	
02A8	FF	02A8	642	DC	XL1'FF'	CYL'S 000-003 RESERVED	
02A9	000000000000000000	02C0	643	DC	24XL1'00'	RESERVED DES	
02C1	000000000000000000	02D7	644	DC	23XL1'00'	RESERVED	
02D8	FFFFFFFFFFFFFFFFFFFF	02EF	645	DC	24XL1'FF'	SUSPECTED DEFECTIVE TRACKS	
			646	*			
			647	*		BIS FILES INFORMATION AREA	
			648	*			
02F0	02	02F0	649	DC	XL1'02'	HELP FILE VTOC TAG NO.	
02F1	3B00	02F2	650	DC	XL2'3B00'	HELP FILE DADDR	
02F3	00	02F3	651	DC	XL1'00'	PTF DATA FILE VTOC TAG NO.	
02F4	00	02F4	652	DC	XL1'00'	PTF DATA FILE SIZE IN CYL'S	
02F5	0000	02F6	653	DC	XL2'0000'	PTF DATA FILE STARTING DADDR	
02F7	00	02F7	654	DC	XL1'00'	FILE LIB. SIZE IN CYL'S	
02F8	00	02F8	655	DC	XL1'00'	FILE LIB. VTOC TAG NO.	
02F9	00	02F9	656	DC	XL1'00'	WORK AREA VTOC TAG NO.	
02FA	01	02FA	657	DC	XL1'01'	SYS.PROG.FILE VTOC TAG NO.	
02FB	0A00	02FC	658	DC	XL2'0A00'	SYS.PROG.FILE STARTING DADDR	
			659	*			
			660	*		OVERLAY WITH TEMPORARY SPF DADDR	
			661	*			
02FB			662	ORG	*-2		
02FB	0A00	02FC	663	DC	XL2'0A00'	SYS.PROG.FILE	
02FD	0000	02FE	664	DC	XL2'0000'	FILE LIB. STARTING DISK ADDR.	
02FF	80	02FF	665	DC	XL1'80'	BIS FILES INDICATOR	

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	20/09/15	PAGE	17
02FF			666	ORG	*-1				OVERLAY FILES INDICATOR
02FF 84		02FF	667	DC	XL1 '84'				SPECIFY SPF AND HELP FILE
			668 *						

0300	000000000000000000	06FF	670	DC	4XL256'00'	SDR AREA
			671 *		CYL 0, TRACK 0, SECTOR 10 - 13	
0700	01FF01FF	0703	672	DC	XL4'01FF01FF'	OBR INITIAL POINTERS
0704	000000000000000000	08FF	673	DC	2XL254'00'	OBR AREA
			674 *			

##0TRK PID PACK VTOC INDEX - CYL 0, TRACK 0, SECTOR 09-10

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 20/09/15 PAGE 19

			676 *			
			677 *			
			678 *		THIS MODULE CONTAINS THE 3.7 SOURCE CODE	
			679 *		TO CREATE THE INITIAL VTOC INDEX	
0900	00000000000000	0905	680	DC	6XL1'00'	FIRST 6 BYTES UNUSED
0906	E2E8E2E3C5D44040	090D	682	DC	CL8'SYSTEM '	SPF FILE NAME
090E	5C	090E	683	DC	XL1'5C'	SECTOR NUMBER
090F	7F	090F	684	DC	XL1'7F'	DISPLACEMENT WITHIN SECTOR
			685 *			
0910	C8C5D3D7E3C5E7E3	0917	686	DC	CL8'HELPTTEXT'	HELPTTEXT FILE NAME
0918	5C	0918	687	DC	XL1'5C'	SECTOR NUMBER
0919	3F	0919	688	DC	XL1'3F'	DISPLACEMENT WITHIN SECTOR
			689 *			
091A	0000000000000000	0921	690	DC	8XL1'00'	SPF FILE NAME
0922	58	0922	691	DC	XL1'58'	SECTOR NUMBER
0923	FF	0923	692	DC	XL1'FF'	DISPLACEMENT WITHIN SECTOR
			693 *			
0924	0000000000000000	092B	694	DC	8XL1'00'	SPF FILE NAME
092C	58	092C	695	DC	XL1'58'	SECTOR NUMBER
092D	BF	092D	696	DC	XL1'BF'	DISPLACEMENT WITHIN SECTOR
			697 *			
092E	0000000000000000	0935	698	DC	8XL1'00'	SPF FILE NAME
0936	58	0936	699	DC	XL1'58'	SECTOR NUMBER
0937	7F	0937	700	DC	XL1'7F'	DISPLACEMENT WITHIN SECTOR
			701 *			
0938	0000000000000000	093F	702	DC	8XL1'00'	SPF FILE NAME
0940	58	0940	703	DC	XL1'58'	SECTOR NUMBER
0941	3F	0941	704	DC	XL1'3F'	DISPLACEMENT WITHIN SECTOR
			705 *			
0942	0000000000000000	0949	706	DC	8XL1'00'	SPF FILE NAME
094A	54	094A	707	DC	XL1'54'	SECTOR NUMBER
094B	FF	094B	708	DC	XL1'FF'	DISPLACEMENT WITHIN SECTOR
			709 *			
094C	0000000000000000	0953	710	DC	8XL1'00'	SPF FILE NAME
0954	54	0954	711	DC	XL1'54'	SECTOR NUMBER
0955	BF	0955	712	DC	XL1'BF'	DISPLACEMENT WITHIN SECTOR
			713 *			
0956	0000000000000000	095D	714	DC	8XL1'00'	SPF FILE NAME
095E	54	095E	715	DC	XL1'54'	SECTOR NUMBER
095F	7F	095F	716	DC	XL1'7F'	DISPLACEMENT WITHIN SECTOR
			717 *			
0960	0000000000000000	0967	718	DC	8XL1'00'	SPF FILE NAME
0968	54	0968	719	DC	XL1'54'	SECTOR NUMBER
0969	3F	0969	720	DC	XL1'3F'	DISPLACEMENT WITHIN SECTOR
			721 *			
096A	0000000000000000	0971	722	DC	8XL1'00'	SPF FILE NAME
0972	50	0972	723	DC	XL1'50'	SECTOR NUMBER
0973	FF	0973	724	DC	XL1'FF'	DISPLACEMENT WITHIN SECTOR
			725 *			
0974	0000000000000000	097B	726	DC	8XL1'00'	SPF FILE NAME
097C	50	097C	727	DC	XL1'50'	SECTOR NUMBER
097D	BF	097D	728	DC	XL1'BF'	DISPLACEMENT WITHIN SECTOR
			729 *			
097E	0000000000000000	0985	730	DC	8XL1'00'	SPF FILE NAME
0986	50	0986	731	DC	XL1'50'	SECTOR NUMBER

##0TRK PID PACK VTOC INDEX - CYL 0, TRACK 0, SECTOR 09-10

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	20/09/15	PAGE	20
0987	7F		0987	732	DC	XL1'7F'				DISPLACEMENT WITHIN SECTOR
				733 *						
0988	000000000000000000	098F	734	DC	8XL1'00'					SPF FILE NAME
0990	50	0990	735	DC	XL1'50'					SECTOR NUMBER
0991	3F	0991	736	DC	XL1'3F'					DISPLACEMENT WITHIN SECTOR
				737 *						
0992	000000000000000000	0999	738	DC	8XL1'00'					SPF FILE NAME
099A	4C	099A	739	DC	XL1'4C'					SECTOR NUMBER
099B	FF	099B	740	DC	XL1'FF'					DISPLACEMENT WITHIN SECTOR
				741 *						
099C	000000000000000000	09A3	742	DC	8XL1'00'					SPF FILE NAME
09A4	4C	09A4	743	DC	XL1'4C'					SECTOR NUMBER
09A5	BF	09A5	744	DC	XL1'BF'					DISPLACEMENT WITHIN SECTOR
				745 *						
09A6	000000000000000000	09AD	746	DC	8XL1'00'					SPF FILE NAME
09AE	4C	09AE	747	DC	XL1'4C'					SECTOR NUMBER
09AF	7F	09AF	748	DC	XL1'7F'					DISPLACEMENT WITHIN SECTOR
				749 *						
09B0	000000000000000000	09B7	750	DC	8XL1'00'					SPF FILE NAME
09B8	4C	09B8	751	DC	XL1'4C'					SECTOR NUMBER
09B9	3F	09B9	752	DC	XL1'3F'					DISPLACEMENT WITHIN SECTOR
				753 *						
09BA	000000000000000000	09C1	754	DC	8XL1'00'					SPF FILE NAME
09C2	48	09C2	755	DC	XL1'48'					SECTOR NUMBER
09C3	FF	09C3	756	DC	XL1'FF'					DISPLACEMENT WITHIN SECTOR
				757 *						
09C4	000000000000000000	09CB	758	DC	8XL1'00'					SPF FILE NAME
09CC	48	09CC	759	DC	XL1'48'					SECTOR NUMBER
09CD	BF	09CD	760	DC	XL1'BF'					DISPLACEMENT WITHIN SECTOR
				761 *						
09CE	000000000000000000	09D5	762	DC	8XL1'00'					SPF FILE NAME
09D6	48	09D6	763	DC	XL1'48'					SECTOR NUMBER
09D7	7F	09D7	764	DC	XL1'7F'					DISPLACEMENT WITHIN SECTOR
				765 *						
09D8	000000000000000000	09DF	766	DC	8XL1'00'					SPF FILE NAME
09E0	48	09E0	767	DC	XL1'48'					SECTOR NUMBER
09E1	3F	09E1	768	DC	XL1'3F'					DISPLACEMENT WITHIN SECTOR
				769 *						
09E2	000000000000000000	09E9	770	DC	8XL1'00'					SPF FILE NAME
09EA	44	09EA	771	DC	XL1'44'					SECTOR NUMBER
09EB	FF	09EB	772	DC	XL1'FF'					DISPLACEMENT WITHIN SECTOR
				773 *						
09EC	000000000000000000	09F3	774	DC	8XL1'00'					SPF FILE NAME
09F4	44	09F4	775	DC	XL1'44'					SECTOR NUMBER
09F5	BF	09F5	776	DC	XL1'BF'					DISPLACEMENT WITHIN SECTOR
				777 *						
09F6	000000000000000000	09FD	778	DC	8XL1'00'					SPF FILE NAME
09FE	44	09FE	779	DC	XL1'44'					SECTOR NUMBER
09FF	7F	09FF	780	DC	XL1'7F'					DISPLACEMENT WITHIN SECTOR
				781 *						
0A00	000000000000000000	0A07	782	DC	8XL1'00'					SPF FILE NAME
0A08	44	0A08	783	DC	XL1'44'					SECTOR NUMBER
0A09	3F	0A09	784	DC	XL1'3F'					DISPLACEMENT WITHIN SECTOR
				785 *						
0A0A	000000000000000000	0A11	786	DC	8XL1'00'					SPF FILE NAME
0A12	40	0A12	787	DC	XL1'40'					SECTOR NUMBER

##0TRK PID PACK VTOC INDEX - CYL 0, TRACK 0, SECTOR 09-10

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	20/09/15	PAGE	21
	0A13	FF	0A13	788		DC	XL1'FF'			DISPLACEMENT WITHIN SECTOR
				789	*					
	0A14	0000000000000000	0A1B	790		DC	8XL1'00'			SPF FILE NAME
	0A1C	40	0A1C	791		DC	XL1'40'			SECTOR NUMBER
	0A1D	BF	0A1D	792		DC	XL1'BF'			DISPLACEMENT WITHIN SECTOR
				793	*					
	0A1E	0000000000000000	0A25	794		DC	8XL1'00'			SPF FILE NAME
	0A26	40	0A26	795		DC	XL1'40'			SECTOR NUMBER
	0A27	7F	0A27	796		DC	XL1'7F'			DISPLACEMENT WITHIN SECTOR
				797	*					
	0A28	0000000000000000	0A2F	798		DC	8XL1'00'			SPF FILE NAME
	0A30	40	0A30	799		DC	XL1'40'			SECTOR NUMBER
	0A31	3F	0A31	800		DC	XL1'3F'			DISPLACEMENT WITHIN SECTOR
				801	*					
	0A32	0000000000000000	0A39	802		DC	8XL1'00'			SPF FILE NAME
	0A3A	3C	0A3A	803		DC	XL1'3C'			SECTOR NUMBER
	0A3B	FF	0A3B	804		DC	XL1'FF'			DISPLACEMENT WITHIN SECTOR
				805	*					
	0A3C	0000000000000000	0A43	806		DC	8XL1'00'			SPF FILE NAME
	0A44	3C	0A44	807		DC	XL1'3C'			SECTOR NUMBER
	0A45	BF	0A45	808		DC	XL1'BF'			DISPLACEMENT WITHIN SECTOR
				809	*					
	0A46	0000000000000000	0A4D	810		DC	8XL1'00'			SPF FILE NAME
	0A4E	3C	0A4E	811		DC	XL1'3C'			SECTOR NUMBER
	0A4F	7F	0A4F	812		DC	XL1'7F'			DISPLACEMENT WITHIN SECTOR
				813	*					
	0A50	0000000000000000	0A57	814		DC	8XL1'00'			SPF FILE NAME
	0A58	3C	0A58	815		DC	XL1'3C'			SECTOR NUMBER
	0A59	3F	0A59	816		DC	XL1'3F'			DISPLACEMENT WITHIN SECTOR
				817	*					
	0A5A	0000000000000000	0A61	818		DC	8XL1'00'			SPF FILE NAME
	0A62	38	0A62	819		DC	XL1'38'			SECTOR NUMBER
	0A63	FF	0A63	820		DC	XL1'FF'			DISPLACEMENT WITHIN SECTOR
				821	*					
	0A64	0000000000000000	0A6B	822		DC	8XL1'00'			SPF FILE NAME
	0A6C	38	0A6C	823		DC	XL1'38'			SECTOR NUMBER
	0A6D	BF	0A6D	824		DC	XL1'BF'			DISPLACEMENT WITHIN SECTOR
				825	*					
	0A6E	0000000000000000	0A75	826		DC	8XL1'00'			SPF FILE NAME
	0A76	38	0A76	827		DC	XL1'38'			SECTOR NUMBER
	0A77	7F	0A77	828		DC	XL1'7F'			DISPLACEMENT WITHIN SECTOR
				829	*					
	0A78	0000000000000000	0A7F	830		DC	8XL1'00'			SPF FILE NAME
	0A80	38	0A80	831		DC	XL1'38'			SECTOR NUMBER
	0A81	3F	0A81	832		DC	XL1'3F'			DISPLACEMENT WITHIN SECTOR
				833	*					
	0A82	0000000000000000	0A89	834		DC	8XL1'00'			SPF FILE NAME
	0A8A	34	0A8A	835		DC	XL1'34'			SECTOR NUMBER
	0A8B	FF	0A8B	836		DC	XL1'FF'			DISPLACEMENT WITHIN SECTOR
				837	*					
	0A8C	0000000000000000	0A93	838		DC	8XL1'00'			SPF FILE NAME
	0A94	34	0A94	839		DC	XL1'34'			SECTOR NUMBER
	0A95	BF	0A95	840		DC	XL1'BF'			DISPLACEMENT WITHIN SECTOR
				841	*					
	0A96	0000000000000000	0A9D	842		DC	8XL1'00'			SPF FILE NAME
	0A9E	34	0A9E	843		DC	XL1'34'			SECTOR NUMBER

##0TRK PID PACK VTOC INDEX - CYL 0, TRACK 0, SECTOR 09-10

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	20/09/15	PAGE 22
	0A9F	7F	0A9F	844		DC XL1'7F'			DISPLACEMENT WITHIN SECTOR
				845	*				
	0AA0	0000000000000000	0AA7	846		DC 8XL1'00'			SPF FILE NAME
	0AA8	34	0AA8	847		DC XL1'34'			SECTOR NUMBER
	0AA9	3F	0AA9	848		DC XL1'3F'			DISPLACEMENT WITHIN SECTOR
				849	*				
	0AAA	0000000000000000	0AB1	850		DC 8XL1'00'			SPF FILE NAME
	0AB2	30	0AB2	851		DC XL1'30'			SECTOR NUMBER
	0AB3	FF	0AB3	852		DC XL1'FF'			DISPLACEMENT WITHIN SECTOR
				853	*				
	0AB4	0000000000000000	0ABB	854		DC 8XL1'00'			SPF FILE NAME
	0ABC	30	0ABC	855		DC XL1'30'			SECTOR NUMBER
	0ABD	BF	0ABD	856		DC XL1'BF'			DISPLACEMENT WITHIN SECTOR
				857	*				
	0ABE	0000000000000000	0AC5	858		DC 8XL1'00'			SPF FILE NAME
	0AC6	30	0AC6	859		DC XL1'30'			SECTOR NUMBER
	0AC7	7F	0AC7	860		DC XL1'7F'			DISPLACEMENT WITHIN SECTOR
				861	*				
	0AC8	0000000000000000	0ACF	862		DC 8XL1'00'			SPF FILE NAME
	0AD0	30	0AD0	863		DC XL1'30'			SECTOR NUMBER
	0AD1	3F	0AD1	864		DC XL1'3F'			DISPLACEMENT WITHIN SECTOR
				865	*				
	0AD2	0000000000000000	0AD9	866		DC 8XL1'00'			SPF FILE NAME
	0ADA	2C	0ADA	867		DC XL1'2C'			SECTOR NUMBER
	0ADB	FF	0ADB	868		DC XL1'FF'			DISPLACEMENT WITHIN SECTOR
				869	*				
	0ADC	0000000000000000	0AE3	870		DC 8XL1'00'			SPF FILE NAME
	0AE4	2C	0AE4	871		DC XL1'2C'			SECTOR NUMBER
	0AE5	BF	0AE5	872		DC XL1'BF'			DISPLACEMENT WITHIN SECTOR
				873	*				
	0AE6	0000000000000000	0AED	874		DC 8XL1'00'			SPF FILE NAME
	0AEE	2C	0AEE	875		DC XL1'2C'			SECTOR NUMBER
	0AEF	7F	0AEF	876		DC XL1'7F'			DISPLACEMENT WITHIN SECTOR
				877	*				
	0AF0	0000000000000000	0AF7	878		DC 8XL1'00'			SPF FILE NAME
	0AF8	2C	0AF8	879		DC XL1'2C'			SECTOR NUMBER
	0AF9	3F	0AF9	880		DC XL1'3F'			DISPLACEMENT WITHIN SECTOR
				881	*				
	0AFA	0000000000	0AFE	882		DC 5XL1'00'			NOT USED
	0AFF	30	0AFF	883		DC XL1'30'			NO. OF FREE TAGS AVAILABLE
				884	*				

886 *
 887 * THIS MODULE CONTAINS THE 3.7 SOURCE CODE
 888 * TO INITIALIZE THE FORMAT 1 ENTRIES
 889 *

0B00 32 0B00 890 DC XL1'32' INITIALIZE TAG
 0B01 0000000000000000 0B3F 891 DC 63XL1'00' INITIALIZE ENTRY

892 *
 0B40 31 0B40 893 DC XL1'31' INITIALIZE TAG
 0B41 0000000000000000 0B7F 894 DC 63XL1'00' INITIALIZE ENTRY

895 *
 0B80 30 0B80 896 DC XL1'30' INITIALIZE TAG
 0B81 0000000000000000 0BBF 897 DC 63XL1'00' INITIALIZE ENTRY

898 *
 0BC0 2F 0BC0 899 DC XL1'2F' INITIALIZE TAG
 0BC1 0000000000000000 0BFF 900 DC 63XL1'00' INITIALIZE ENTRY

901 *
 0C00 2E 0C00 902 DC XL1'2E' INITIALIZE TAG
 0C01 0000000000000000 0C3F 903 DC 63XL1'00' INITIALIZE ENTRY

904 *
 0C40 2D 0C40 905 DC XL1'2D' INITIALIZE TAG
 0C41 0000000000000000 0C7F 906 DC 63XL1'00' INITIALIZE ENTRY

907 *
 0C80 2C 0C80 908 DC XL1'2C' INITIALIZE TAG
 0C81 0000000000000000 0CBF 909 DC 63XL1'00' INITIALIZE ENTRY

910 *
 0CC0 2B 0CC0 911 DC XL1'2B' INITIALIZE TAG
 0CC1 0000000000000000 0CFF 912 DC 63XL1'00' INITIALIZE ENTRY

913 *
 0D00 2A 0D00 914 DC XL1'2A' INITIALIZE TAG
 0D01 0000000000000000 0D3F 915 DC 63XL1'00' INITIALIZE ENTRY

916 *
 0D40 29 0D40 917 DC XL1'29' INITIALIZE TAG
 0D41 0000000000000000 0D7F 918 DC 63XL1'00' INITIALIZE ENTRY

919 *
 0D80 28 0D80 920 DC XL1'28' INITIALIZE TAG
 0D81 0000000000000000 0DBF 921 DC 63XL1'00' INITIALIZE ENTRY

922 *
 0DC0 27 0DC0 923 DC XL1'27' INITIALIZE TAG
 0DC1 0000000000000000 0DFC 924 DC 63XL1'00' INITIALIZE ENTRY

925 *
 0E00 26 0E00 926 DC XL1'26' INITIALIZE TAG
 0E01 0000000000000000 0E3F 927 DC 63XL1'00' INITIALIZE ENTRY

928 *
 0E40 25 0E40 929 DC XL1'25' INITIALIZE TAG
 0E41 0000000000000000 0E7F 930 DC 63XL1'00' INITIALIZE ENTRY

931 *
 0E80 24 0E80 932 DC XL1'24' INITIALIZE TAG
 0E81 0000000000000000 0EBF 933 DC 63XL1'00' INITIALIZE ENTRY

934 *
 0EC0 23 0EC0 935 DC XL1'23' INITIALIZE TAG
 0EC1 0000000000000000 0EFF 936 DC 63XL1'00' INITIALIZE ENTRY

937 *
 0F00 22 0F00 938 DC XL1'22' INITIALIZE TAG
 0F01 0000000000000000 0F3F 939 DC 63XL1'00' INITIALIZE ENTRY

940 *
 0F40 21 0F40 941 DC XL1'21' INITIALIZE TAG

##0TRK PID PACK FORMAT 1 - CYL 0, TRACK 0, SECTOR 11-24

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 20/09/15 PAGE 24

0F41	0000000000000000	0F7F	942		DC	63XL1'00'	INITIALIZE ENTRY
			943	*			
0F80	20	0F80	944		DC	XL1'20'	INITIALIZE TAG
0F81	0000000000000000	0FBF	945		DC	63XL1'00'	INITIALIZE ENTRY
			946	*			
0FC0	1F	0FC0	947		DC	XL1'1F'	INITIALIZE TAG
0FC1	0000000000000000	0FFF	948		DC	63XL1'00'	INITIALIZE ENTRY
			949	*			
1000	1E	1000	950		DC	XL1'1E'	INITIALIZE TAG
1001	0000000000000000	103F	951		DC	63XL1'00'	INITIALIZE ENTRY
			952	*			
1040	1D	1040	953		DC	XL1'1D'	INITIALIZE TAG
1041	0000000000000000	107F	954		DC	63XL1'00'	INITIALIZE ENTRY
			955	*			
1080	1C	1080	956		DC	XL1'1C'	INITIALIZE TAG
1081	0000000000000000	10BF	957		DC	63XL1'00'	INITIALIZE ENTRY
			958	*			
10C0	1B	10C0	959		DC	XL1'1B'	INITIALIZE TAG
10C1	0000000000000000	10FF	960		DC	63XL1'00'	INITIALIZE ENTRY
			961	*			
1100	1A	1100	962		DC	XL1'1A'	INITIALIZE TAG
1101	0000000000000000	113F	963		DC	63XL1'00'	INITIALIZE ENTRY
			964	*			
1140	19	1140	965		DC	XL1'19'	INITIALIZE TAG
1141	0000000000000000	117F	966		DC	63XL1'00'	INITIALIZE ENTRY
			967	*			
1180	18	1180	968		DC	XL1'18'	INITIALIZE TAG
1181	0000000000000000	11BF	969		DC	63XL1'00'	INITIALIZE ENTRY
			970	*			
11C0	17	11C0	971		DC	XL1'17'	INITIALIZE TAG
11C1	0000000000000000	11FF	972		DC	63XL1'00'	INITIALIZE ENTRY
			973	*			
1200	16	1200	974		DC	XL1'16'	INITIALIZE TAG
1201	0000000000000000	123F	975		DC	63XL1'00'	INITIALIZE ENTRY
			976	*			
1240	15	1240	977		DC	XL1'15'	INITIALIZE TAG
1241	0000000000000000	127F	978		DC	63XL1'00'	INITIALIZE ENTRY
			979	*			
1280	14	1280	980		DC	XL1'14'	INITIALIZE TAG
1281	0000000000000000	12BF	981		DC	63XL1'00'	INITIALIZE ENTRY
			982	*			
12C0	13	12C0	983		DC	XL1'13'	INITIALIZE TAG
12C1	0000000000000000	12FF	984		DC	63XL1'00'	INITIALIZE ENTRY
			985	*			
1300	12	1300	986		DC	XL1'12'	INITIALIZE TAG
1301	0000000000000000	133F	987		DC	63XL1'00'	INITIALIZE ENTRY
			988	*			
1340	11	1340	989		DC	XL1'11'	INITIALIZE TAG
1341	0000000000000000	137F	990		DC	63XL1'00'	INITIALIZE ENTRY
			991	*			
1380	10	1380	992		DC	XL1'10'	INITIALIZE TAG
1381	0000000000000000	13BF	993		DC	63XL1'00'	INITIALIZE ENTRY
			994	*			
13C0	0F	13C0	995		DC	XL1'0F'	INITIALIZE TAG
13C1	0000000000000000	13FF	996		DC	63XL1'00'	INITIALIZE ENTRY
			997	*			

##0TRK PID PACK FORMAT 1 - CYL 0, TRACK 0, SECTOR 11-24

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 20/09/15 PAGE 25

1400	0E	1400	998	DC	XL1'0E'	INITIALIZE TAG
1401	000000000000000000	143F	999	DC	63XL1'00'	INITIALIZE ENTRY
			1000	*		
1440	0D	1440	1001	DC	XL1'0D'	INITIALIZE TAG
1441	000000000000000000	147F	1002	DC	63XL1'00'	INITIALIZE ENTRY
			1003	*		
1480	0C	1480	1004	DC	XL1'0C'	INITIALIZE TAG
1481	000000000000000000	14BF	1005	DC	63XL1'00'	INITIALIZE ENTRY
			1006	*		
14C0	0B	14C0	1007	DC	XL1'0B'	INITIALIZE TAG
14C1	000000000000000000	14FF	1008	DC	63XL1'00'	INITIALIZE ENTRY
			1009	*		
1500	0A	1500	1010	DC	XL1'0A'	INITIALIZE TAG
1501	000000000000000000	153F	1011	DC	63XL1'00'	INITIALIZE ENTRY
			1012	*		
1540	09	1540	1013	DC	XL1'09'	INITIALIZE TAG
1541	000000000000000000	157F	1014	DC	63XL1'00'	INITIALIZE ENTRY
			1015	*		
1580	08	1580	1016	DC	XL1'08'	INITIALIZE TAG
1581	000000000000000000	15BF	1017	DC	63XL1'00'	INITIALIZE ENTRY
			1018	*		
15C0	07	15C0	1019	DC	XL1'07'	INITIALIZE TAG
15C1	000000000000000000	15FF	1020	DC	63XL1'00'	INITIALIZE ENTRY
			1021	*		
1600	06	1600	1022	DC	XL1'06'	INITIALIZE TAG
1601	000000000000000000	163F	1023	DC	63XL1'00'	INITIALIZE ENTRY
			1024	*		
1640	05	1640	1025	DC	XL1'05'	INITIALIZE TAG
1641	000000000000000000	167F	1026	DC	63XL1'00'	INITIALIZE ENTRY
			1027	*		
1680	04	1680	1028	DC	XL1'04'	INITIALIZE TAG
1681	000000000000000000	16BF	1029	DC	63XL1'00'	INITIALIZE ENTRY
			1030	*		
16C0	03	16C0	1031	DC	XL1'03'	INITIALIZE TAG
16C1	000000000000000000	16FF	1032	DC	63XL1'00'	INITIALIZE ENTRY

1034 *
1035 *
1036 *
HELP FILE LABEL

1700	020000	1702	1037	DC	XL3'020000'	INITLZ TAG AND SCP RESERVED AREA
1703	C8C5D3D7E3C5E7E3	170A	1038	DC	CL8'HELPTXT'	FILE LABEL
170B	0000000000000000	1711	1039	DC	7XL1'00'	SCP
1712	00	1712	1040	DC	XL1'00'	FILE TYPE
1713	000000000000000000	171E	1041	DC	12XL1'00'	SCP

171F	3B00	1720	1043	DC	XL2'3B00'	STARTING DADDR OF FILE
1721	4980	1722	1044	DC	XL2'4980'	END DADDR OF FILE
1723	000000000000000000	173F	1045	DC	29XL1'00'	USED BY COMMERCIAL SYSTEM

1046 *
1047 *
1048 *
SYSTEM PROGRAM FILE LABEL

1740	010000	1742	1049	DC	XL3'010000'	INITLZ TAG AND SCP RESERVED AREA
1743	E2E8E2E3C5D44040	174A	1050	DC	CL8'SYSTEM '	FILE LABEL
174B	0000000000000000	1751	1051	DC	7XL1'00'	SCP
1752	00	1752	1052	DC	XL1'00'	FILE TYPE
1753	000000000000000000	175E	1053	DC	12XL1'00'	SCP

##0TRK PID PACK FORMAT 1 - CYL 0, TRACK 0, SECTOR 11-24									
ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	20/09/15	PAGE	26
175F	0A00	1760	1055	DC	XL2'0A00'			STARTING DADDR OF FILE	
1761	3080	1762	1056	DC	XL2'3080'			END DADDR OF FILE	
1763	000000000000000000	177F	1057	DC	29XL1'00'			USED BY COMMERCIAL SYSTEM	
			1058	*					
1780	000000000000000000	17FF	1059	DC	128XL1'00'			REMAINDER OF SECTOR	
			1060	*					
		FFFF	1061		END				
TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 0									

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$DOLAR	001	005B	0069	
##0TRK	001	0000	0003	
@ALTFL	001	0001	0251	
@ARR	001	0008	0018	
@ASIGN	001	007C	0072	
@ASTER	001	005C	0070	
@BCRDL	001	0050	0089	
@BE	001	0081	0044	
@BF	001	0090	0053	
@BH	001	0084	0042	
@BKSPC	001	0010	0347	
@BL	001	0082	0043	
@BLANK	001	0040	0066	
@BM	001	0082	0055	
@BNE	001	0001	0047	
@BNH	001	0004	0045	
@BNL	001	0002	0046	
@BNM	001	0002	0058	
@BNOL	001	0020	0051	
@BNOZ	001	0008	0050	
@BNP	001	0004	0057	
@BNZ	001	0001	0059	
@BOL	001	00A0	0049	
@BOZ	001	0088	0048	
@BP	001	0084	0054	
@BR	001	0001	0015	0519 0528* 0529 0530 0537 0537 0538 0538 0539 0542 0547 0547 0548 0548 0549 0549 0551 0552 0554 0555 0556 0564 0564 0565 0566 0569
@BT	001	0010	0052	
@BZ	001	0081	0056	
@BZ37B	001	00F2	0360	
@B1	001	0001	0064	0529* 0537 0538 0548 0564
@CADDR	001	0002	0142	0547 0549 0568
@CARDL	001	0060	0088	
@CC37B	001	0000	0356	
@CD37B	001	00F0	0374	
@CHARA	001	00C1	0073	
@CHARF	001	00C6	0074	
@CHARR	001	00D9	0075	
@CHARZ	001	00E9	0076	
@CKY01	001	0001	0309	
@CKY02	001	0002	0310	
@CKY03	001	0003	0311	
@CKY04	001	0004	0312	
@CKY05	001	0005	0313	
@CKY06	001	0006	0314	
@CKY07	001	0007	0315	
@CKY08	001	0008	0316	
@CKY09	001	0009	0317	
@CKY10	001	000A	0318	
@CKY11	001	000B	0319	
@CKY12	001	000C	0320	
@CKY13	001	000D	0321	
@CKY14	001	000E	0322	
@CKY15	001	000F	0323	
@CKY16	001	0010	0324	

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@CLOFF	001	0010	0095	
@CLON	001	0011	0094	
@CMLON	001	0001	0327	
@CMOFF	001	0000	0326	
@COMMA	001	006B	0067	
@CPLUS	001	004E	0080	
@CP37B	001	0004	0387	
@CRERR	001	0090	0342	
@CRPRY	001	0004	0346	
@CRTDS	001	0092	0339	
@CRTQ	001	0090	0341	
@CURSR	001	0040	0343	
@DADDR	001	0002	0140	
@DBFR1	001	0004	0129	
@DBFR2	001	0005	0130	
@DBUSY	001	0002	0245	
@DCALK	001	0001	0082	
@DCBCY	001	0009	0115	
@DCBT1	001	0050	0117	
@DCFLN	001	0004	0229	
@DCNT	001	0003	0128	
@DCRID	001	0001	0243	
@DCST1	001	0040	0116	
@DCTRL	001	0000	0125	
@DCTRW	001	0000	0242	0553
@DCWID	001	0001	0239	
@DCYL	001	0001	0126	
@DCYMV	001	0001	0230	
@DD2	001	0003	0031	
@DEFLG	001	0002	0252	
@DERCE	001	0020	0282	
@DERD2	001	0008	0275	
@DEREQ	001	0010	0274	
@DERIN	001	0040	0272	
@DERMA	001	0020	0273	
@DERNR	001	0004	0276	
@DERR	001	0000	0246	0555
@DERSC	001	0001	0278	
@DERTC	001	0002	0277	
@DFCR	001	0006	0232	0539* 0551*
@DFDR	001	0004	0233	0552* 0554
@DGET	001	0001	0134	
@DHARD	001	0000	0260	
@DLNCT	001	000F	0345	
@DLNLG	001	0040	0344	
@DOP2	001	0004	0029	
@DPLNG	001	0006	0132	
@DPOS	001	0000	0133	
@DPUT	001	0002	0135	
@DREAD	001	0001	0236	0553
@DSAD	001	0002	0127	0548*
@DSBCY	001	0004	0106	
@DSBSY	001	0092	0340	
@DSCS1	001	0000	0107	
@DSEEK	001	0000	0235	0540
@DSIVF	001	0003	0138	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 20/09/15 PAGE 29

@DSPIN 001 0002 0131
@DTRSZ 001 0018 0086
@DUNSF 001 0080 0271
@DVBCY 001 0007 0108
@DVERY 001 0003 0241
@DVRFY 001 0031 0136
@DVST1 001 0002 0247
@DVST2 001 0003 0248
@DWAIT 001 00FF 0137
@DWBCY 001 0005 0103
@DWRIT 001 0002 0237
@DWSIZ 001 00C0 0105
@DWTB1 001 0003 0104
@DZERO 001 00F0 0065
@D1 001 0002 0027
@EOF 001 001C 0078
@EOFTC 001 0075 0161
@EOS 001 001E 0077
@ER37B 001 00F0 0361
@FDDBC 001 0000 0194
@FDE1 001 000C 0199
@FDFNA 001 000B 0197
@FDHLN 001 0002 0207
@FDLNC 001 0002 0192
@FDNSC 001 0003 0209
@FDSD 001 0000 0205
@FLACE 001 0009 0196
@FLDBC 001 0001 0195
@FLDIN 001 0012 0334
@FLENT 001 0004 0200
@FLFNA 001 0002 0198
@FLHLN 001 0002 0208
@FLLNC 001 0002 0193
@FLNSC 001 0001 0210
@FLSD 001 0001 0206
@HCEPK 001 003C 0430
@HCOPS 001 001C 0437
@HCOPY 001 081C 0432
@HCRHE 001 7858 0453
@HDNRY 001 1008 0418
@HDRHE 001 7854 0451
@HDRLN 001 0007 0093
@HDRV1 001 7840 0443
@HDRV2 001 7844 0445
@HDTRD 001 1040 0414
@HDTRJ 001 1010 0416
@HERPG 001 087C 0420
@HFEHT 001 0804 0435
@HIPLE 001 006C 0427
@HKBER 001 2040 0410
@HKBHE 001 7848 0447
@HLOGE 001 1844 0422
@HPRER 001 0070 0412
@HPRHE 001 784C 0449
@HSTAD 001 0009 0258
@HSTEN 001 0007 0257

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@HSTPE 001 0006 0256
@HSTQR 001 0001 0254
@HSTSN 001 0005 0255
@HSTVI 001 000F 0259
@HUNSF 001 1850 0425
@IAR 001 0010 0019
@ID37B 001 0040 0397
@INDEX 001 0001 0155 0156
@INST3 001 0003 0033
@INST4 001 0004 0034
@INST5 001 0005 0035
@INST6 001 0006 0036
@IP37B 001 00C0 0396
@I1IAR 001 00C0 0021
@KCMDK 001 0020 0308
@KELOK 001 001B 0307
@KENAB 001 001E 0305
@KEXIT 001 001F 0306
@KEYBD 001 0010 0325
@KFUNK 001 0010 0328
@KHARD 001 0011 0333
@KLEAR 001 000D 0329
@LINSZ 001 00F4 0085
@LO37B 001 00F0 0365
@MAPEN 001 0005 0090
@MINCR 001 2000 0084
@MINUS 001 0060 0081
@NOP 001 0080 0041
@NORFL 001 0000 0253
@NTRDY 001 00A0 0389
@NUMBR 001 007B 0071
@OPD2 001 0004 0030
@OP1 001 0003 0028 0549*
@OP2 001 0005 0032
@OVRUN 001 0004 0283
@PBUSY 001 00E2 0295
@PCAR 001 00E6 0292
@PCNT 001 0003 0227
@PCTRL 001 0000 0148
@PCYL 001 0001 0225
@PC37B 001 00F2 0381
@PDAR 001 00E4 0291
@PDATA 001 0003 0150
@PD37B 001 0080 0395
@PERR 001 00E0 0298
@PFLAG 001 0000 0224
@PFORM 001 00E1 0296
@PGCSZ 001 0020 0083 0084
@PLITE 001 00E2 0297
@PLNGH 001 0004 0288
@PMGCK 001 0020 0299
@PN37B 001 00F0 0380
@PPLNG 001 0004 0147
@PRCNT 001 0001 0149
@PRETR 001 00C0 0153
@PRINT 001 0040 0151 0153

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@PRITY	001	0080	0332	
@PSAD	001	0002	0226	
@PSIOQ	001	00E0	0294	
@PSIOR	001	0000	0293	
@PSNSQ	001	00E2	0300	
@PSR	001	0004	0017	
@PWAIT	001	00FF	0157	
@PLIAR	001	0020	0020	
@Q	001	0001	0025	0537* 0538*
@RD37B	001	00F1	0375	
@REGL	001	0002	0014	
@RETRN	001	0080	0152	0153
@RLDWN	001	004F	0158	
@RTCNT	001	0003	0290	
@RTRNC	001	0080	0160	
@RT37B	001	0005	0388	
@SBLNL	001	0002	0183	
@SCTSZ	001	0100	0100	0529 0529*
@SDFLN	001	0007	0091	
@SDF0	001	0000	0165	
@SDF1	001	0001	0166	
@SDF2	001	0002	0167	
@SDF3	001	0003	0168	
@SDLN	001	0005	0169	
@SECCY	001	0030	0087	
@SIST	001	0001	0180	
@SKCTL	001	0000	0240	0540
@SLASH	001	0061	0068	
@SLAST	001	0002	0182	
@SMIDL	001	0003	0181	
@SNSB0	001	0000	0264	
@SNSB1	001	0001	0265	
@SNSB2	001	0002	0266	
@SNSB3	001	0003	0267	
@SNULL	001	0080	0172	
@SN37B	001	00F2	0369	
@SONLY	001	0000	0179	
@SPINA	001	00A0	0249	0539* 0551* 0552* 0554 0555
@SPINB	001	00B0	0250	
@STEXT	001	0007	0171	
@STYPE	001	0006	0170	
@SYCNT	001	0002	0289	
@TBCNT	001	0000	0159	
@TBLEF	001	0010	0154	0156
@TBLIX	001	0011	0156	
@TJ37B	001	0040	0386	
@TYPAM	001	0002	0331	
@TYPO	001	001C	0330	
@UCB	001	0087	0040	
@UPARW	001	005A	0079	
@VADDR	001	0002	0141	
@VENTA	001	0056	0113	
@VMDDV	001	00FE	0114	
@VMFD1	001	0000	0109	
@VMFD2	001	0001	0110	
@VMRS3	001	0002	0112	

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SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 20/09/15 PAGE 32

@VMTRL	001	0001	0111						
@VOLID	001	0006	0092						
@VQ	001	0001	0026						
@WA37B	001	00FF	0394						
@WSFIT	001	0500	0101						
@WSTBL	001	0503	0102						
@XR	001	0002	0016						
@ZERO	001	0000	0063	0526	0526	0527	0527		
@4K	001	0010	0348						
HPL	001	00F0	0455						
IPLBAS	001	0000	0518	0519	0524	0580	0581	0588	0598
IPLBIS	001	0001	0532	0542					
IPLCNT	001	0007	0517	0584					
IPLCOR	002	006B	0575	0547*	0552				
IPLCRF	001	0073	0582	0548*	0580				
IPLCSA	001	0000	0514						
IPLCTR	001	0069	0572	0564*	0565				
IPLDCF	001	0077	0585	0581					
IPLDFC	002	0072	0581	0539					
IPLEND	001	0100	0599	0529					
IPLENG	001	0100	0598						
IPLERR	001	0058	0563	0555					
IPLFCR	002	0070	0580	0551					
IPLHPL	003	0062	0568	0569					
IPLIDR	001	00FE	0533	0542					
IPLIPQ	001	00FF	0534	0524	0537	0538	0556		
IPLONE	001	0068	0571	0564					
IPLREL	001	1200	0513	0528	0580	0581			
IPLSKF	001	0001	0515						
IPLSRT	001	0000	0461	0599					
IPLSTA	001	0000	0516	0559					
IPLSTT	001	001B	0536	0530					
IPLXXX	001	0100	0597	0598					
IPL0BC	001	006E	0578	0548					
IPL050	004	0007	0526	0525					
IPL100	003	0023	0539	0566					
IPL110	003	0026	0540	0537*					
IPL140	003	003B	0551	0543					
IPL150	003	0041	0553	0538*					
IPL160	003	0044	0554	0554					
IPL170	004	0054	0559	0549*	0557				
IPL180	002	006D	0577	0547	0549				

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 0

OL105 I THE CODE LENGTH OF ##0TRK IS 6144 DECIMAL.
OL103 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 28
NAME-##0TRK,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH HEXADECIMAL	DECIMAL
0000	0	##0TRK	1800	6144
OL100	I	THE TOTAL CORE USED BY ##0TRK IS 6144 DECIMAL.		
OL101	I	THE START CONTROL ADDRESS OF THIS MODULE IS 0000.		
OL104	I	TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 25		
		NAME-##0TRK,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-O		