

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

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

EXTERNAL SYMBOL LIST

SYMBOL TYPE

VER 15, MOD 00 03/12/21 PAGE 1

\$BDXM1 MODULE  
\$MFRD EXTRN

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

VER 15, MOD 00 03/12/21 PAGE 2

1200		1	\$BDXM1	START X'1200'	START ADDRESS.
		72		PRINT ON,NODATA	

WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT                VER 15, MOD 00  03/12/21  PAGE  3
74 *****
75 * 5703-XM1  COPYRIGHT HJS CORP. 2022                *
76 *          REFER TO HJS COPYRIGHT BOOKLET FORM NO. 120-2083. *
77 *                                                                 *
78 *****
79 *STATUS                                              *
80 *   VERSION 3 MODIFICATION 0                          *
81 *                                                                 *
82 *TITLE  $BDXM1 - WRITE OBJECT MODULES TO NEW 5703-XM1 SYSTEM PACK. *
83 *                                                                 *
84 *FUNCTION/OPERATION                                  *
85 *   $BDXM1 WILL CREATE A NEW 5703-XM1 SYSTEM PACK.    *
86 *   IT WILL READ CONTROL CARDS SPECIFYING THE OBJ-FILES LOCATED *
87 *   (ON THE PROGRAM PACK) TO BE WRITTEN TO THE NEW PACK. *
88 *   $BDXM1 HAS TWO MODES OF TRANSFERING THE OBJ FILE  *
89 *   * XFER01 - OBJECT FILES LINKED AT AN 256 BYTE BOUNDARY WILL BE *
90 *   TRANSFERED ONE DISK SECTOR AT THE TIME.  MAX MODULE SIZE IS 256 *
91 *   SECTORS (64K). *
92 *   * XFER02 - NOT AT AN 256 BYTE BOUNDARY, THE OBJECT FILE IS READ *
93 *   COMPLETELY IN CORE BEFORE WRITTEN TO THE NEW PACK. *
94 *   MAX MODULE SIZE IS 84 SECTOR (24K). *
95 *                                                                 *
96 *ENTRY POINTS  $BDXM1 *
97 *                                                                 *
98 *INPUT *
99 *   CONTROL CARDS *
100 *   COL 1-6   - OBJECT FILE NAME *
101 *   COL 8     - '+' *
102 *   COL 10-11 - OBJECT READ OFFSET (HIGH) *
103 *   COL 12-13 - OBJECT READ OFFSET (LOW) @01 *
104 *   COL 15-16 - '->' (NOT CHECKED, ONLY FOR CLARITY) *
105 *   COL 18-21 - START DADDR OF SDF (SYSTEM PROGRAM FILE) *
106 *   COL 23-24 - Q-BYTE TARGET DISK (X'A0', X'B0' OR X'B8') *
107 *   COL 26-29 - CYL/SCTR (X'00'-X'C7' / X'00'-X'5C', X'80'-X'DC') *
108 *   COL 31-33 - NR OF SECTORS (01-255) *
109 *                                                                 *
110 *OUTPUT *
111 *   OBJECT FILES WRITTEN TO 5444 PACK SPECIFIED BY Q-BYTE *
112 *                                                                 *
113 *EXTERNAL REFERENCES *
114 *   $$MFRD *
115 *                                                                 *
116 *EXITS, NORMAL  EOI *
117 *   -ERROR  MSG ON CONSOLE WHEN AN ERROR OCCURS. *
118 *   VF 4NF  - OBJECT FILE NOT FOUND. *
119 *                                                                 *
120 *TABLES/WORK AREAS *
121 *   IOB, DTFU, I/O BUFFERS *
122 *                                                                 *
123 *ATTRIBUTES *
124 *   NOT REUSABLE *
125 *                                                                 *
126 *NOTES *
127 *   SPECIALLY WRITTEN FOR THE 5703-XM1 RESTORATION PROJECT. *
128 *                                                                 *
129 *HISTORY  07/02/22 INITIAL VERSION 3.0 (REVISED VERSION 2) *

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WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	03/12/21	PAGE	4
		130	*	07/02/22 ADD READ BYTE OBJ OFFSET (FOR #KSVLA)			@01*	
		131	*				*	
		132	*	*****				

WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	03/12/21	PAGE	5
1200	F2 87 10	0001	134	EXTRN	\$\$MFRD				
			135	J	START				
									READ FROM EITHER CARD HOPPERS JUMP OVER EYE CATCHER.
1203	405BC2C4E7D4F140	120A	137	DC	CL8' \$BDXM1 '				MODULE NAME.
120B	F1F061F0F261F2F2	1212	138	DC	CL8'10/02/22'				DATE OF LAST UPDATE. @01
1213	C0 87 1602	1213	140	START	EQU *				
			141	B	CRLF				
			142	*	\$PRNT NAME-MESS00,LEN-23				\$BDXM1 VX.X STARTED...
			143+	*	PRINT A MESSAGE ON SYSLOG				RELEASE-7
1217	F2 87 05		144+	J	\$\$S004				JUMP AROUND PARAMETER TABLE
		121A	145+	\$S004	EQU *				GENERATE MACRO LABEL
121A	0000	121B	146+	DC	XL2'0000'				PRINT WITH WAIT COMMAND
121C	17	121C	147+	DC	AL1(23)				LENGTH OF OUTPUT MESSAGE
121D	161B	121E	148+	DC	AL2(MESS00)				OUTPUT MESSAGE ADDRESS
121F	C2 02 121A		149+	\$S004	LA \$004,\$PARM				LOAD PARM TABLE @ IN REG 2
1223	C0 87 0004		150+	B	4				GO TO GENERAL ENTRY
1227	85	1227	151+	DC	XL1'85'				RIB - PRINT
1228	C0 87 1602		152	B	CRLF				
			153	***	ALLOCATE AND OPEN MFCU CARD READER.				
			154	*	\$ALOC DTF-DTFU01				ALLOCATE MFCU.
			155+	*	DEVICE ALLOCATE LINKAGE				RELEASE-7
122C	C2 02 175C		156+	LA	DTFU01,\$DTF				SET ADDRESS OF DTF IN REGISTER 2
1230	C0 87 0004		157+	B	4				BRANCH TO GENERAL ENTRY
1234	8B	1234	158+	DC	XL1'8B'				RIB - ALLOCATE SPACE
			160	*	\$OPEN DTF-DTFU01				OPEN IT.
			161+	*	DEVICE OPEN LINKAGE				RELEASE-7
1235	C2 02 175C		162+	LA	DTFU01,\$DTF				LOAD DTF ADDRESS IN REGISTER 2
1239	C0 87 0004		163+	B	4				GO TO GENERAL ENTRY
123D	82	123D	164+	DC	XL1'82'				RIB - OPEN

WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 03/12/21 PAGE 6
			166	*****	
			167	* READ CONTROL CARDS *	
			168	*****	
		123E	169	NEXTCC EQU *	
			170	* \$GPU DEV-MFCU,OPC-READ,DTF-DTFU01,	X
			171	* ERR-ERR03,MODUL-\$\$MFRD,EOF-EXIT	
			172+	* UNIT RECORD GET/PUT LINKAGE	RELEASE-7
123E	C2 02 175C		173+	LA DTFU01,\$DTF	LOAD DTF ADDRESS IN REGISTER 2
1242	BC 80 0F		174+	MVI \$RDOPR(,\$DTF),X'80'	MOVE OP CODE TO DTF
1245	C0 87 0001		175+	B \$\$MFRD	BRANCH TO DATA MANAGEMENT
1249	BD 41 0E		176+	CLI \$RDCMP(,\$DTF),X'41'	WAS OPERATION IN ERROR
124C	C0 81 14A8		177+	BE ERR03	BRANCH TO ERROR ROUTINE
1250	BD 42 0E		178+	CLI \$RDCMP(,\$DTF),X'42'	WAS THERE END OF FILE
1253	C0 81 14FA		179+	BE EXIT	BRANCH TO END OF FILE ROUTINE
1257	C2 02 1800		180	LA CCBUFF,XR2	GET BUFFER ADDRESS
			181	*** PRINT CONTROL CARD	
125B	3C 40 161B		182	MVI MESS00,C' '	CLEAR 1ST POSITION
125F	2C 4F 166B 4F		183	MVC MESS00+80(80),79(,XR2)	MOVE CC TO PRINT BUFFER
			184	* \$PRNT NAME-MESS00,LEN-78	CONTROL INPUT CARD INPUT
			185+	* PRINT A MESSAGE ON SYSLOG	RELEASE-7
1264	F2 87 05		186+	J \$\$S008	JUMP AROUND PARAMETER TABLE
		1267	187+	\$S008 EQU *	GENERATE MACRO LABEL
1267	0000	1268	188+	DC XL2'0000'	PRINT WITH WAIT COMMAND
1269	4E	1269	189+	DC AL1(78)	LENGTH OF OUTPUT MESSAGE
126A	161B	126B	190+	DC AL2(MESS00)	OUTPUT MESSAGE ADDRESS
126C	C2 02 1267		191+	\$S008 LA \$008,\$PARM	LOAD PARM TABLE @ IN REG 2
1270	C0 87 0004		192+	B 4	GO TO GENERAL ENTRY
1274	85	1274	193+	DC XL1'85'	RIB - PRINT
1275	3D 5C 1800		194	CLI CCBUFF,C' '*'	COMMENT CARD ?
1279	C0 81 123E		195	BE NEXTCC	NEXT CARD PLEASE...
			196	*****	
			197	* CHECK IF OBJECT-FILE IS LINKED AT 256 BYTE BOUNDARY *	
			198	*****	
127D	0D 01 180C 17E4		199	CLC CCBUFF+CCOL(2),EBC00	AT 256 BOUNDARY ?
1283	F2 81 04		200	JE XFER01	YES
1286	C0 87 13B6		201	B XFER02	NO

WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT                VER 15, MOD 00  03/12/21  PAGE  7
128A 203 XFER01 EQU      *
204 *****
205 *      READ AND WRITE ONE SECTOR (256 BYTES) AT A TIME.      *
206 *      CONVERT & VALIDATE CONTROL CARD INPUT FOR DISK IOB.   *
207 *****
208 *
128A C2 01 17B0          209      LA      IOB02,$IOB          POINT TO TARGET IOB
210 *
211 ***      DISK ADDRESS (Q-BYTE)
212 *
128E C2 02 181E          213      LA      CCBUFF+CCDK-1,XR2      LOAD DISK ADDR ADDR
1292 C0 87 1543          214      B        DG2HEX                CONVERT TO HEX
1296 6C 00 03 00        215      MVC      $DIQB(1,$IOB),0(,XR2)  MOVE DISK ADDR TO IOB
216 ***      CHECK SPECIFIED VALUES
129A 7D A0 03           217      CLI      $DIQB(,$IOB),X'A0'      R1 DISK ?
129D F2 81 10           218      JE        QBOKE1
12A0 7D B0 03           219      CLI      $DIQB(,$IOB),X'B0'      R2 DISK ?
12A3 F2 81 0A           220      JE        QBOKE1
12A6 7D B8 03           221      CLI      $DIQB(,$IOB),X'B8'      F2 DISK ?
12A9 F2 81 04           222      JE        QBOKE1
12AC C0 87 14BC          223      B        ERR05                INVALID Q-BYTE
224 *
225 ***      CYLINDER AND SECTOR
226 *
12B0 C2 02 1819          227 QBOKE1 LA      CCBUFF+CCCY-1,XR2      LOAD CYLINDER ADDR ADDR
12B4 C0 87 1543          228      B        DG2HEX                CONVERT TO HEX
12B8 6C 00 05 00        229      MVC      $DICB(1,$IOB),0(,XR2)  MOVE CYL TO IOB
230 *
12BC C2 02 181B          231      LA      CCBUFF+CCCS-1,XR2      LOAD SECTOR ADDR ADDR
12C0 C0 87 1543          232      B        DG2HEX                CONVERT TO HEX
12C4 6C 00 06 00        233      MVC      $DISB(1,$IOB),0(,XR2)  MOVE SCTR TO IOB
234 *
235 ***      ADD OFFSET OF SYSTEM PROGRAM FILE (SPF)
236 *
12C8 C2 02 1813          237      LA      CCBUFF+CCPF-1,XR2      LOAD SPF ADDR L ADDR
12CC C0 87 1543          238      B        DG2HEX                CONVERT TO HEX
12D0 6E 00 06 00        239      ALC      $DISB(1,$IOB),0(,XR2)  ADD START SPF ADDR(L) TO C/S
240 *
12D4 C2 02 1811          241      LA      CCBUFF+CCPF-3,XR2      LOAD SPF ADDR H ADDR
12D8 C0 87 1543          242      B        DG2HEX                CONVERT TO HEX
12DC 6E 00 05 00        243      ALC      $DICB(1,$IOB),0(,XR2)  ADD START SPF ADDR(H) TO C/S
244 *
245 ***      NUMBER OF SECTORS
246 *
12E0 C2 02 181E          247      LA      CCBUFF+CC##-1,XR2      LOAD NR OF SCTR ADDR
12E4 C0 87 1595          248      B        DG2INT                CONVERT TO INTEGER
12E8 2C 00 17DC 00      249      MVC      SCTRCT(1),0(,XR2)        SAVE NR OF SECTORS
250 ***      CHECK SPECIFIED VALUES
12ED 3D 00 17DC          251      CLI      SCTRCT,X'00'              NR OF SECTORS = 00 ?
12F1 C0 81 14BC          252      BE        ERR05                INVALID NR OF SECTORS
12F5 0F 00 17DC 17DD    253      SLC      SCTRCT,HEX01            SUBTRACT ONE
254 *
255 ***      FIND OBJECT FILE ON PROGRAM DISK
256 *
12FB C2 02 17C6          257 *      $FIND NAME-##T1HE,FIND-FDPARM,PACK-P
258      LA      FDPARM,XR2          GET ADDR OF LOAD PARM LIST

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WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	03/12/21	PAGE	8
	12FF	BC D6 00		259		MVI FDLB(,XR2),C'O'				O-LIBRARY
	1302	8C 05 06 1805		260		MVC FDNM(6,XR2),CCBUFF+CCNM				MOVE O-FILE NAME FOR FIND
	1307	BC D7 07		261		MVI FDPS(,XR2),C'P'				SEARCH ON P-PACK
	130A	C0 87 0004		262		B 0004				GOTO GENERAL ENTRY
	130E	81	130E	263		DC XL1'81'				RIB - FIND OBJECT MODULE
				264	***	MODULE FOUND ? (NOT FOUND IF NO				CHANGE IN FDPARM)
	130F	8D 05 06 1805		265		CLC FDNM(6,XR2),CCBUFF+CCNM				FOUND ?
	1314	C0 81 14DB		266		BE ERR06				NO - ISSUE ERROR MSG
				267	*					
				268	***	PREP SOURCE IOB				
				269	*					
	1318	C2 01 179A		270		LA IOB01,\$IOB				GET ADDR OF SOURCE IOB
	131C	4C 01 06 17C7		271		MVC \$DISB(2,\$IOB),FDPARM+FDDAS				MOVE C&S
	1321	7C A0 03		272		MVI \$DIQB(,\$IOB),X'A0'				SET Q-BYTE
				273	***	ADD OFFSET TO C/S LOCATION OF OBJECT MODULE.				
	1324	C2 02 1809		274		LA CCBUFF+CCOH-1,XR2				LOAD ADDR READ OFFSET
	1328	C0 87 1543		275		B DG2HEX				CONVERT TO HEX
	132C	3D 00 180A		276	LOOP03	CLI CCBUFF+CCOH,X'00'				CC INPUT ZERO ?
	1330	F2 81 0E		277		JE LOOP02				JUMP IF ZERO
	1333	C0 87 151D		278		B CSUPD				INCR C&S IN SOURCE IOB
	1337	0F 00 180A 17DD		279		SLC CCBUFF+CCOH(1),HEX01				SUBTRACT ONE.
	133D	C0 87 132C		280		B LOOP03				LOOP TILL ZERO

WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT                                VER 15, MOD 00  03/12/21  PAGE  9
      282 *****
      283 *          COPY OBJECT FILE FROM P PACK TO PACK SPECIFIED IN CC CARD.      *
      284 *****
1341 285 LOOP02 EQU      *
      286 ***      READ 1 SECTOR FROM OBJECT FILE AT SPECIFIED CYL/SECTOR.
      287 *          $RDD  IOB-IOB01,DISK-5444,
1341 C2 01 179A      288          LA      IOB01,$IOB          POINT TO SOURCE IOB
1345 4C 01 09 1861  289          MVC      $DIDAT(2,$IOB),OBJADR      SET BUFFER ADDR
134A 7C 00 07      290          MVI      $DINB(,$IOB),X'00'          ONLY 1 SECTOR AT THE TIME...
134D 7A 01 03      291          SBN      $DIQB(,$IOB),X'01'          READ OPERATION
1350 C0 87 0008    292          B          0008          BRANCH TO DISK I/O
      293 *          $WAIT IOB-IOB01,ERR-ERR02
      294+*        WAIT FOR IOS COMPLETION          RELEASE-7
1354 C2 01 179A    295+         LA      IOB01,$IOB          SET ADDRESS OF IOB IN REGISTER 1
1358 C0 87 000C    296+         B          12          GO TO IOS WAIT ROUTINE
135C 7D 41 02      297+         CLI      $DICMP(,$IOB),X'41'          WAS BUFFER IN ERROR
135F C0 81 148E    298+         BE      ERR02          GO TO ERROR HANDLER
1363 C0 87 151D    299          B          CSUPD          UPDATE C&S IN SOURCE IOB

      301 ***      WRITE 1 SECTOR TO OBJECT FILE AT SPECIFIED CYL/SECTOR.
      302 *          $WRTD IOB-IOB02,DISK-5444,
1367 C2 01 17B0    303          LA      IOB02,$IOB          POINT TO TARGET IOB
136B 4C 01 09 1861  304          MVC      $DIDAT(2,$IOB),OBJADR      SET BUFFER ADDR
1370 7C 00 07      305          MVI      $DINB(,$IOB),X'00'          ONLY 1 SECTOR AT THE TIME...
1373 7A 02 03      306          SBN      $DIQB(,$IOB),X'02'          WRITE OPERATION
1376 C0 87 0008    307          B          0008          BRANCH TO DISK I/O
      308 *          $WAIT IOB-IOB02,ERR-ERR02
      309+*        WAIT FOR IOS COMPLETION          RELEASE-7
137A C2 01 17B0    310+         LA      IOB02,$IOB          SET ADDRESS OF IOB IN REGISTER 1
137E C0 87 000C    311+         B          12          GO TO IOS WAIT ROUTINE
1382 7D 41 02      312+         CLI      $DICMP(,$IOB),X'41'          WAS BUFFER IN ERROR
1385 C0 81 148E    313+         BE      ERR02          GO TO ERROR HANDLER
1389 C0 87 151D    314          B          CSUPD          UPDATE C&S IN TARGET IOB

      316 *          DECR SECTOR COUNTER, LOOP IF NOT ZERO.
138D 0F 00 17DC 17DD  317          SLC      SCTRCT(1),HEX01
1393 C0 01 1341    318          BNZ      LOOP02          IF NOT ZERO LOOP

      320          MVC      MESS01+7(6),CCBUFF+CCNM      MOVE FILE NAME TO MSG
1397 0C 05 1672 1805  321 *          $PRNT NAME-MESS01,LEN-40          SUCCESFULLY WRITTEN...
      322+*        PRINT A MESSAGE ON SYSLOG          RELEASE-7
139D F2 87 05      323+         J          $$S011          JUMP AROUND PARAMETER TABLE
      13A0      324+$011 EQU      *          GENERATE MACRO LABEL
13A0 0000      13A1 325+         DC      XL2'0000'          PRINT WITH WAIT COMMAND
13A2 28      13A2 326+         DC      AL1(40)          LENGTH OF OUTPUT MESSAGE
13A3 166B      13A4 327+         DC      AL2(MESS01)          OUTPUT MESSAGE ADDRESS
13A5 C2 02 13A0    328+$S011 LA      $011,$PARM          LOAD PARM TABLE @ IN REG 2
13A9 C0 87 0004    329+         B          4          GO TO GENERAL ENTRY
13AD 85      13AD 330+         DC      XL1'85'          RIB - PRINT
13AE C0 87 1602    331          B          CRLF
13B2 C0 87 123E    332          B          NEXTCC          NEXT OBJ FILE PLEASE...

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ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 03/12/21 PAGE 10
			13B6	334	XFER02 EQU *	
				335	*****	
				336	* READ AND WRITE THE COMPLETE OBJECT FILE.	*
				337	* CONVERT & VALIDATE CONTROL CARD INPUT FOR DISK IOB.	*
				338	*****	
				339	*	
13B6	C2	02 17D2		340	LA LDPARM, XR2	GET ADDR OF LOAD PARM LIST
				341	*	
				342	*** LOAD OBJECT FILE INTO STORAGE	
				343	*	
13BA	BC	D6 00		344	MVI LDLB(, XR2), C'O'	O-LIBRARY
13BD	8C	05 06 1805		345	MVC LDNM(6, XR2), CCBUFF+CCNM	MOVE O-FILE NAME FOR LOAD
13C2	C0	87 0004		346	B 0004	GOTO GENERAL ENTRY
13C6	49		13C6	347	DC XL1'49'	RIB - LOAD FROM PROGRAM DISK
				349	*	
				350	*** CONVERT & VALIDATE CONTROL CARD INPUT FOR DISK IOB USE.	
				351	*	
13C7	C2	01 179A		352	LA IOB01, \$IOB	POINT TO IOB
				353	*** OBJECT WRITE OFFSET	
13CB	C2	02 180B		354	LA CCBUFF+CCOL-1, XR2	LOAD WRITE OFFSET L ADDR
13CF	C0	87 1543		355	B DG2HEX	CONVERT TO HEX
13D3	6C	00 09 00		356	MVC \$DIDAT-0(1, \$IOB), 0(, XR2)	MOVE OFFSET(L) TO IOB
				357	*	
13D7	C2	02 1809		358	LA CCBUFF+CCOH-1, XR2	LOAD WRITE OFFSET H ADDR
13DB	C0	87 1543		359	B DG2HEX	CONVERT TO HEX
13DF	6C	00 08 00		360	MVC \$DIDAT-1(1, \$IOB), 0(, XR2)	MOVE OFFSET(H) TO IOB
13E3	4E	01 09 17DB		361	ALC \$DIDAT(2, \$IOB), LDPARM+LDLA	ADD OBJECT LOAD POINT
				362	*** DISK ADDRESS (Q-BYTE)	
13E8	C2	02 1816		363	LA CCBUFF+CCDK-1, XR2	LOAD DISK ADDR ADDR
13EC	C0	87 1543		364	B DG2HEX	CONVERT TO HEX
13F0	6C	00 03 00		365	MVC \$DIQB(1, \$IOB), 0(, XR2)	MOVE DISK ADDR TO IOB
				366	*** CHECK SPECIFIED VALUES	
13F4	7D	A0 03		367	CLI \$DIQB(, \$IOB), X'A0'	R1 DISK ?
13F7	F2	81 10		368	JE QBOKE2	
13FA	7D	B0 03		369	CLI \$DIQB(, \$IOB), X'B0'	R2 DISK ?
13FD	F2	81 0A		370	JE QBOKE2	
1400	7D	B1 03		371	CLI \$DIQB(, \$IOB), X'B1'	F2 DISK ?
1403	F2	81 04		372	JE QBOKE2	
1406	C0	87 14BC		373	B ERR05	INVALID Q-BYTE
				375	*** CYLINDER AND SECTOR	
140A	C2	02 1819		376	QBOKE2 LA CCBUFF+CCCY-1, XR2	LOAD CYLINDER ADDR ADDR
140E	C0	87 1543		377	B DG2HEX	CONVERT TO HEX
1412	6C	00 05 00		378	MVC \$DICB(1, \$IOB), 0(, XR2)	MOVE CYL TO IOB
				379	*	
1416	C2	02 181B		380	LA CCBUFF+CCCS-1, XR2	LOAD SECTOR ADDR ADDR
141A	C0	87 1543		381	B DG2HEX	CONVERT TO HEX
141E	6C	00 06 00		382	MVC \$DISB(1, \$IOB), 0(, XR2)	MOVE SCTR TO IOB
				384	*** NUMBER OF SECTORS	
1422	C2	02 181E		385	LA CCBUFF+CC##-1, XR2	LOAD NR OF SCTR ADDR
1426	C0	87 1595		386	B DG2INT	CONVERT TO INTEGER
142A	6C	00 07 00		387	MVC \$DINB(1, \$IOB), 0(, XR2)	MOVE NR OF SCTR TO IOB
				388	*** CHECK SPECIFIED VALUES	
142E	7D	00 07		389	CLI \$DINB(, \$IOB), X'00'	NR OF SECTORS = 00 ?

WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 03/12/21 PAGE 11
1431	C0	81	14BC		390	BE	ERR05	INVALID NR OF SECTORS
1435	7D	18	07		391	CLI	\$DINB(,\$IOB),X'18'	NR OF SECTORS > 24 ?
1438	C0	84	14BC		392	BH	ERR05	INVALID NR OF SECTORS
143C	4F	00	07 17DD		393	SLC	\$DINB(1,\$IOB),HEX01	SUBTRACT ONE
					394	***	START ADDRESS SYSTEM PROGRAM FILE (SPF)	
1441	C2	02	1813		395	LA	CCBUFF+CCPF-1,XR2	LOAD SPF ADDR L ADDR
1445	C0	87	1543		396	B	DG2HEX	CONVERT TO HEX
1449	6E	00	06 00		397	ALC	\$DISB(1,\$IOB),0(,XR2)	ADD START SPF ADDR(L) TO C/S
					398	*		
144D	C2	02	1811		399	LA	CCBUFF+CCPF-3,XR2	LOAD SPF ADDR H ADDR
1451	C0	87	1543		400	B	DG2HEX	CONVERT TO HEX
1455	6E	00	05 00		401	ALC	\$DICB(1,\$IOB),0(,XR2)	ADD START SPF ADDR(H) TO C/S
					403	***	WRITE OBJECT FILE TO DISK AT SPECIFIED CYL/SECTOR.	
					404	*	\$WRTD IOB-IOB01,DISK-5444,	
1459	7A	02	03		405	SBN	\$DIQB(,\$IOB),X'02'	WRITE OPERATION
145C	C0	87	0008		406	B	0008	BRANCH TO DISK I/O
					407	*	\$WAIT IOB-IOB01,ERR-ERR02	
					408+	*	WAIT FOR IOS COMPLETION	RELEASE-7
1460	C2	01	179A		409+	LA	IOB01,\$IOB	SET ADDRESS OF IOB IN REGISTER 1
1464	C0	87	000C		410+	B	12	GO TO IOS WAIT ROUTINE
1468	7D	41	02		411+	CLI	\$DICMP(,\$IOB),X'41'	WAS BUFFER IN ERROR
146B	C0	81	148E		412+	BE	ERR02	GO TO ERROR HANDLER
146F	0C	05	1672 1805		414	MVC	MESS01+7(6),CCBUFF+CCNM	MOVE FILE NAME TO MSG
					415	*	\$PRNT NAME-MESS01,LEN-40	SUCCESSFULLY WRITTEN...
					416+	*	PRINT A MESSAGE ON SYSLOG	RELEASE-7
1475	F2	87	05		417+	J	\$S013	JUMP AROUND PARAMETER TABLE
				1478	418+	\$013	EQU	*
1478	0000			1479	419+	DC	XL2'0000'	GENERATE MACRO LABEL
147A	28			147A	420+	DC	AL1(40)	PRINT WITH WAIT COMMAND
147B	166B			147C	421+	DC	AL2(MESS01)	LENGTH OF OUTPUT MESSAGE
147D	C2	02	1478		422+	\$S013	LA	\$013,\$PARM
1481	C0	87	0004		423+	B	4	OUTPUT MESSAGE ADDRESS
1485	85			1485	424+	DC	XL1'85'	LOAD PARM TABLE @ IN REG 2
1486	C0	87	1602		425	B	CRLF	GO TO GENERAL ENTRY
148A	C0	87	123E		426	B	NEXTCC	RIB - PRINT
								NEXT OBJ FILE PLEASE...

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 03/12/21 PAGE 12
			428	*	*****	
			429	*	ERROR MESSAGES	*
			430	*	*****	
148E	0C 05 169A 1805		431	ERR02	MVC MESS02+7(6),CCBUFF+CCNM	MOVE FILE NAME TO MSG
			432	*	\$PRNT NAME-MESS02,LEN-36	ERROR R/W TO DISK
			433+	*	PRINT A MESSAGE ON SYSLOG	RELEASE-7
1494	F2 87 05		434+	J	\$S014	JUMP AROUND PARAMETER TABLE
		1497	435+	\$014	EQU *	GENERATE MACRO LABEL
1497	0000	1498	436+	DC	XL2'0000'	PRINT WITH WAIT COMMAND
1499	24	1499	437+	DC	AL1(36)	LENGTH OF OUTPUT MESSAGE
149A	1693	149B	438+	DC	AL2(MESS02)	OUTPUT MESSAGE ADDRESS
149C	C2 02 1497		439+	\$S014	LA \$014,\$PARM	LOAD PARM TABLE @ IN REG 2
14A0	C0 87 0004		440+	B	4	GO TO GENERAL ENTRY
14A4	85	14A4	441+	DC	XL1'85'	RIB - PRINT
14A5	F2 87 67		442	J	CLOSE	
			443	*		
			444	*RR03	\$PRNT NAME-MESS03,LEN-31	ERROR RD FROM CARD
			445+	*	PRINT A MESSAGE ON SYSLOG	RELEASE-7
14A8	F2 87 05	14A8	446+	ERR03	EQU *	GENERATE USER LABEL
			447+	J	\$S015	JUMP AROUND PARAMETER TABLE
		14AB	448+	\$015	EQU *	GENERATE MACRO LABEL
14AB	0000	14AC	449+	DC	XL2'0000'	PRINT WITH WAIT COMMAND
14AD	1F	14AD	450+	DC	AL1(31)	LENGTH OF OUTPUT MESSAGE
14AE	16BB	14AF	451+	DC	AL2(MESS03)	OUTPUT MESSAGE ADDRESS
14B0	C2 02 14AB		452+	\$S015	LA \$015,\$PARM	LOAD PARM TABLE @ IN REG 2
14B4	C0 87 0004		453+	B	4	GO TO GENERAL ENTRY
14B8	85	14B8	454+	DC	XL1'85'	RIB - PRINT
14B9	F2 87 53		455	J	CLOSE	
			456	*		
14BC	0C 05 16EA 1805		457	ERR05	MVC MESS05+7(6),CCBUFF+CCNM	MOVE FILE NAME TO MSG
			458	*	\$PRNT NAME-MESS05,LEN-38	INVALID DISK ADDRESS
			459+	*	PRINT A MESSAGE ON SYSLOG	RELEASE-7
14C2	F2 87 05		460+	J	\$S016	JUMP AROUND PARAMETER TABLE
		14C5	461+	\$016	EQU *	GENERATE MACRO LABEL
14C5	0000	14C6	462+	DC	XL2'0000'	PRINT WITH WAIT COMMAND
14C7	26	14C7	463+	DC	AL1(38)	LENGTH OF OUTPUT MESSAGE
14C8	16E3	14C9	464+	DC	AL2(MESS05)	OUTPUT MESSAGE ADDRESS
14CA	C2 02 14C5		465+	\$S016	LA \$016,\$PARM	LOAD PARM TABLE @ IN REG 2
14CE	C0 87 0004		466+	B	4	GO TO GENERAL ENTRY
14D2	85	14D2	467+	DC	XL1'85'	RIB - PRINT
14D3	C0 87 1602		468	B	CRLF	
14D7	C0 87 123E		469	B	NEXTCC	
			470	*		
14DB	0C 05 1712 1805		471	ERR06	MVC MESS06+7(6),CCBUFF+CCNM	MOVE FILE NAME TO MSG
			472	*	\$PRNT NAME-MESS06,LEN-40	OBJECT MODULE NOT FOUND
			473+	*	PRINT A MESSAGE ON SYSLOG	RELEASE-7
14E1	F2 87 05		474+	J	\$S017	JUMP AROUND PARAMETER TABLE
		14E4	475+	\$017	EQU *	GENERATE MACRO LABEL
14E4	0000	14E5	476+	DC	XL2'0000'	PRINT WITH WAIT COMMAND
14E6	28	14E6	477+	DC	AL1(40)	LENGTH OF OUTPUT MESSAGE
14E7	170B	14E8	478+	DC	AL2(MESS06)	OUTPUT MESSAGE ADDRESS
14E9	C2 02 14E4		479+	\$S017	LA \$017,\$PARM	LOAD PARM TABLE @ IN REG 2
14ED	C0 87 0004		480+	B	4	GO TO GENERAL ENTRY
14F1	85	14F1	481+	DC	XL1'85'	RIB - PRINT
14F2	C0 87 1602		482	B	CRLF	
14F6	C0 87 123E		483	B	NEXTCC	

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 03/12/21 PAGE 13
			484 *			
14FA	C0 87 1602		485	EXIT B	CRLF	
			486 *		\$PRNT NAME-MESS09,LEN-16	\$BDXM1 ENDED.
			487+*	PRINT A	MESSAGE ON SYSLOG	RELEASE-7
14FE	F2 87 05		488+	J	\$\$018	JUMP AROUND PARAMETER TABLE
		1501	489+	\$018 EQU	*	GENERATE MACRO LABEL
1501	0000	1502	490+	DC	XL2'0000'	PRINT WITH WAIT COMMAND
1503	10	1503	491+	DC	AL1(16)	LENGTH OF OUTPUT MESSAGE
1504	1733	1505	492+	DC	AL2(MESS09)	OUTPUT MESSAGE ADDRESS
1506	C2 02 1501		493+	\$S018 LA	\$018,\$PARM	LOAD PARM TABLE @ IN REG 2
150A	C0 87 0004		494+	B	4	GO TO GENERAL ENTRY
150E	85	150E	495+	DC	XL1'85'	RIB - PRINT
		150F	496	CLOSE EQU	*	
			497 *		\$CLOS DTF-DTFU01	CLOSE DTF
			498+*	DEVICE	CLOSE LINKAGE	RELEASE-7
150F	C2 02 175C		499+	LA	DTFU01,\$DTF	SET ADDR OF DTF IN REGISTER 2.
1513	C0 87 0004		500+	B	4	BRANCH TO GENERAL ENTRY
1517	83	1517	501+	DC	XL1'83'	RIB - CLOSE
			502 *		\$EOJ	THAT'S ALL FOLKS
			503+*	END OF	JOB LINKAGE	RELEASE-7
1518	C0 87 0004		504+	B	4	BRANCH TO GENERAL ENTRY
151C	84	151C	505+	DC	XL1'84'	END OF JOB



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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT                                VER 15, MOD 00  03/12/21  PAGE  14
      507 *****
      508 *
      509 *          SUB-ROUTINE TO UPDATE CYL & SECT ADDR IN IOB POINTED BY $IOB *
      510 *
      511 *****
151D 151D 34 08 1542      512 CSUPD  EQU *
1521 1521 4E 00 06 17DE  513          ST   CSURTN+3,ARR          SAVE RETURN ADDR
1526 1526 7D 60 06      514          ALC  $DISB(1,$IOB),HEX04      NEXT SECTOR
1529 1529 F2 01 05      515          CLI  $DISB(,$IOB),X'60'        END OF TRACK ?
152C 152C 4E 00 06 17E1  516          JNE  CSUPD1                JUMP IF NOT
1531 1531 7D E0 06      517          ALC  $DISB(,$IOB),HEX20      SKIP TO NEXT TRACK
1534 1534 F2 01 08      518 CSUPD1 CLI  $DISB(,$IOB),X'E0'        END OF CYLINDER ?
1537 1537 7C 00 06      519          JNE  CSURTN                NO - JUMP
153A 153A 4E 00 05 17DD  520          MVI  $DISB(,$IOB),X'00'      RESET SECTOR ADDR
153F 153F C0 87 0000     521          ALC  $DICB(1,$IOB),HEX01      NEXT CYLINDER
      522 CSURTN B          *-*          RETURN TO CALLER

      524 *****
      525 *
      526 *          SUB-ROUTINE TO CONVERT 2 EBCDIC CHAR TO 8 BITS HEX. *
      527 *
      528 *****
1543 1543 34 08 155E      529 DG2HEX EQU *
1547 1547 34 02 155A      530          ST   DGHRTN+3,ARR          SAVE RETURN ADDR
154B 154B C0 87 155F      531          ST   DGMNZI+4,XR2          MODIFY MNZ INSTR
154F 154F E2 02 01      532          B    DG1HEX                CONVERT HIGH ORDER
1552 1552 C0 87 155F      533          LA   1(,XR2),XR2          POINT TO NEXT
1556 1556 88 01 00 0000  534          B    DG1HEX                CONVERT LOW ORDER
155B 155B C0 87 0000     535 DGMNZI MZN  0(,XR2),*-*          MOVE H TO L HEX
      536 DGHRTN B          *-*          RETURN TO CALLER

155F 155F 34 08 1594      538 DG1HEX EQU *
1563 1563 BD 40 00      539          ST   DG1RTN+3,ARR          SAVE RETURN ADDR
1566 1566 C0 81 1591      540          CLI  0(,XR2),C' '          SPACE ?
      541          BE  DG1RTN                IF YES - SKIP IT
      542 *
156A 156A BD F0 00      543          CLI  0(,XR2),X'F0'        0 - 9 ?
156D 156D C0 82 157B      544          BL  DG1A2F                CHECK FOR POSSIBLE A-F
1571 1571 BD F9 00      545          CLI  0(,XR2),X'F9'        *
1574 1574 C0 84 14BC      546          BH  ERR05                *
1578 1578 F2 87 13      547          J    DG1EXT                EXIT
      548 *
157B 157B BD C0 00      549 DG1A2F CLI  0(,XR2),X'C0'        A - F ?
157E 157E C0 82 14BC      550          BL  ERR05                *
1582 1582 BD C6 00      551          CLI  0(,XR2),X'C6'        *
1585 1585 C0 84 14BC      552          BH  ERR05                *
1589 1589 8E 00 00 17DF  553          ALC  0(,XR2),HEX09        ADD HEX CORRECTION
      554 *
158E 158E BB F0 00      555 DG1EXT SBF  0(,XR2),X'F0'        REMOVE HIGH ORDER BITS
1591 1591 C0 87 0000     556 DG1RTN B          *-*          RETURN TO CALLER

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ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 03/12/21 PAGE 15
				558	*****	
				559	*	*
				560	* SUB-ROUTINE TO CONVERT 3 DEC DIGITS TO 1 BYTE.	*
				561	*	*
				562	*****	
			1595	563	DG2INT EQU *	
1595	34 08	1601		564	ST DG2RTN+3,ARR	SAVE RETURN ADDR
1599	BD 40	00		565	CLI 0(,XR2),C' '	SPACE ?
159C	C0 81	15FB		566	BE DG2EXT	IF YES - SKIP IT
				567	* LEFT DIGIT (HUNDERD)	
15A0	BD F0	00		568	CLI 0(,XR2),X'F0'	0 - 9 ?
15A3	C0 82	14BC		569	BL ERR05	*
15A7	BD F9	00		570	CLI 0(,XR2),X'F9'	*
15AA	C0 84	14BC		571	BH ERR05	*
				572	* MIDDLE DIGIT (TEN)	
15AE	BD F0	01		573	CLI 1(,XR2),X'F0'	0 - 9 ?
15B1	C0 82	14BC		574	BL ERR05	*
15B5	BD F9	01		575	CLI 1(,XR2),X'F9'	*
15B8	C0 84	14BC		576	BH ERR05	*
				577	* RIGHT DIGIT (ONE)	
15BC	BD F0	02		578	CLI 2(,XR2),X'F0'	0 - 9 ?
15BF	C0 82	14BC		579	BL ERR05	*
15C3	BD F9	02		580	CLI 2(,XR2),X'F9'	*
15C6	C0 84	14BC		581	BH ERR05	*
				583	SBF 0(,XR2),X'F0'	REMOVE HIGH ORDER BITS
15CD	BB F0	01		584	SBF 1(,XR2),X'F0'	*
15D0	BB F0	02		585	SBF 2(,XR2),X'F0'	*
				586	*	
15D3	BD 00	00		587	DBDLP1 CLI 0(,XR2),X'00'	ZERO ?
15D6	F2 81	0E		588	JE DBDLP2	IF YES, END OF CONVER.
15D9	8E 00	02 17E2		589	ALC 2(,XR2),HEX64	ADD 100.
15DE	8F 00	00 17DD		590	SLC 0(,XR2),HEX01	SUBTRACT 1.
15E3	C0 87	15D3		591	B DBDLP1	LOOP...
				592	*	
15E7	BD 00	01		593	DBDLP2 CLI 1(,XR2),X'00'	ZERO ?
15EA	F2 81	0E		594	JE DG2EXT	IF YES, END OF CONVER.
15ED	8E 00	02 17E0		595	ALC 2(,XR2),HEX0A	ADD 10.
15F2	8F 00	01 17DD		596	SLC 1(,XR2),HEX01	SUBTRACT 1.
15F7	C0 87	15D3		597	B DBDLP1	LOOP...
				598	*	
15FB	E2 02	02		599	DG2EXT LA 2(,XR2),XR2	POINT TO RESULT
15FE	C0 87	0000		600	DG2RTN B *-*	RETURN TO CALLER
				602	*****	
				603	*	*
				604	* SUB-ROUTINE CARRIAGE RETURN AND LINE FEED	*
				605	*	*
				606	*****	
			1602	607	CRLF EQU *	
1602	34 08	161A		608	ST CRLRTN+3,ARR	SAVE RETURN ADDR
				609	* \$PRNT NAME-MESSCR,LEN-1	PRINT IT
				610+*	PRINT A MESSAGE ON SYSLOG	RELEASE-7
1606	F2 87	05		611+	J \$\$021	JUMP AROUND PARAMETER TABLE
			1609	612+\$021	EQU *	GENERATE MACRO LABEL



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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 03/12/21 PAGE 16

1609	0000	160A	613+	DC	XL2'0000'	PRINT WITH WAIT COMMAND
160B	01	160B	614+	DC	AL1(1)	LENGTH OF OUTPUT MESSAGE
160C	175B	160D	615+	DC	AL2(MESSCR)	OUTPUT MESSAGE ADDRESS
160E	C2 02 1609		616+\$S021	LA	\$021,\$PARM	LOAD PARM TABLE @ IN REG 2
1612	C0 87 0004		617+	B	4	GO TO GENERAL ENTRY
1616	85	1616	618+	DC	XL1'85'	RIB - PRINT
1617	C0 87 0000		619 CRLRTN	B	*-*	RETURN TO CALLER

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT                VER 15, MOD 00  03/12/21  PAGE  17
        621 *****
        622 *
        623 *      CONSTANTS, TEXT MESSAGES, IOB, DTF AND I/O BUFFERS.
        624 *
        625 *****
        161B 626 MESS00 EQU *
        627 *      .....1.....2.....3.....4 -> 80
161B 5BC2C4E7D4F140E5 166A 628      DC      CL80 '$BDXM1 V3.0 STARTED...' @01
        166B 630 MESS01 EQU *
        631 *      .....1.....2.....3.....4
166B 40407C7C7C7C7C7C 1692 632      DC      CL40 ' @@@@ SUCCESSFULLY WRITTEN TO DISK.'
        1693 634 MESS02 EQU *
        635 *      .....1.....2.....3.....4
1693 40407C7C7C7C7C7C 16BA 636      DC      CL40 ' @@@@ READ/WRITE ERROR ON DISK.'
        16BB 638 MESS03 EQU *
        639 *      .....1.....2.....3.....4
16BB 4040C5D9D9D6D940 16E2 640      DC      CL40 ' ERROR READING CONTROL CARD. '
        16E3 642 MESS05 EQU *
        643 *      .....1.....2.....3.....4
16E3 40407C7C7C7C7C7C 170A 644      DC      CL40 ' @@@@ INVALID DISK ADDR SPECIFIED. '
        170B 646 MESS06 EQU *
        647 *      .....1.....2.....3.....4
170B 40407C7C7C7C7C7C 1732 648      DC      CL40 ' @@@@ OBJECT MODULE NOT FOUND ON R1!'
        1733 650 MESS09 EQU *
        651 *      .....1.....2
1733 5BC2C4E7D4F140C5 175A 652      DC      CL40 '$BDXM1 ENDED.'
        175B 654 MESSCR EQU *
175B 40      175B 655      DC      CL1 ' '
    
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ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 03/12/21 PAGE 18
				657	*TFU01	\$DTFU DEV-MFCU,FTYP-I,RDA1-CCBUFF	
				658+	*	DEFINE THE FILE FOR UNIT RECORD DEVICES	RELEASE-7
			175C	659+	DTFU01	EQU *	GENERATE USER LABEL
175C	F0		175C	660+	DC	XL1'F0'	DEVICE ADDRESS
175D	00		175D	661+	DC	BL1'0'	UPSI MASK
175E	80		175E	662+	DC	AL1(X'80')	ATTRIBUTE BYTE 1 -- FILE TYPE
175F	00		175F	663+	DC	AL1(X'0'+X'0')	ATTRIBUTE BYTE 2
1760	0000		1761	664+	DC	AL2(0)	LOGICAL RECORD LENGTH
1762	FFFF		1763	665+	DC	AL2(X'FFFF')	DTF CHAINING ADDRESS
1764	00000000		1767	666+	DC	XL4'00'	REGISTER SAVE AREA
1768	FFFF		1769	667+	DC	AL2(X'FFFF')	LOGICAL RECORD ADDRESS
176A	1786		176B	668+	DC	AL2(*+28)	ADDRESS OF 2ND READ IOB
176C	FFFF		176D	669+	DC	AL2(X'FFFF')	ADDRESS OF 2ND READ BUFFER
176E	1781		176F	670+	DC	AL2(*+19)	FOR POST OPEN DTF USE
1770	0000		1771	671+	DC	AL2(0)	RESERVED FOR POST OPEN DTF
1772	00		1772	672+	DC	XL1'00'	RESERVED FOR POST OPEN DTF
1773	178B		1774	673+	DC	AL2(*+24)	ADDRESS OF IOS/ERP SAVE AREA
1775	1781		1776	674+	DC	AL2(*+12)	ADDRESS OF 1ST READ IOB
1777	1800		1778	675+	DC	AL2(CCBUFF)	ADDRESS OF 1ST READ BUFFER
1779	1786		177A	676+	DC	AL2(*+13)	ADDRESS OF 1ST PUNCH IOB
177B	FFFF		177C	677+	DC	AL2(X'FFFF')	ADDRESS OF 1ST PUNCH BUFFER
177D	FFFF		177E	678+	DC	AL2(X'FFFF')	ADDRESS OF MFCU PRINT BUFFER)
177F	0000		1780	679+	DC	XL2'00'	RESERVED FOR POST OPEN DTF
1781	0000000000		1785	680+	DC	XL5'00'	RESERVED FOR POST OPEN DTF
1786	0000000000		178A	681+	DC	XL5'00'	RESERVED FOR POST OPEN DTF
178B	0000000000000000		1799	682+	DC	XL15'00'	RESERVED FOR POST OPEN DTF
				684	*OB01	\$IOBD BUFF-OBJECT	'FROM' DISK IOB
				685+	*	INPUT/OUTPUT BLOCK OF DISK	RELEASE 7
			179A	686+	IOB01	EQU *	GENERATE USERS LABEL
179A	0000		179B	687+	DC	XL2'0000'	IOS CHAIN POINTER
179C	40		179C	688+	DC	XL1'40'	COMPLETION CODE
179D	FF		179D	689+	DC	AL1(X'FF')	Q-BYTE
179E	00		179E	690+	DC	XL1'00'	R-BYTE
179F	FF		179F	691+	DC	AL1(X'FF')	CYLINDER
17A0	18		17A0	692+	DC	AL1(X'FF'*4+28)	SECTOR NUMBER 5444
17A1	FF		17A1	693+	DC	AL1(X'00'-1)	NUMBER OF SECTORS
17A2	1900		17A3	694+	DC	AL2(OBJECT)	LIO ADDRESS
17A4			17A5	695+	DS	CL2	SENSE
17A6			17A6	696+	DS	CL1	ERROR COUNT
17A7	08		17A7	697+	DC	AL1(0+0+0+8)	FLAG BYTE
17A8	0000		17A9	698+	DC	XL2'0000'	ARR SAVE AREA
17AA	0000		17AB	699+	DC	XL2'0000'	XR2 SAVE AREA
17AC			17AD	700+	DS	CL2	RESERVED
17AE			17AF	701+	DS	CL2	RESERVED
				703	*OB02	\$IOBD BUFF-OBJECT	'TO' DISK IOB
				704+	*	INPUT/OUTPUT BLOCK OF DISK	RELEASE 7
			17B0	705+	IOB02	EQU *	GENERATE USERS LABEL
17B0	0000		17B1	706+	DC	XL2'0000'	IOS CHAIN POINTER
17B2	40		17B2	707+	DC	XL1'40'	COMPLETION CODE
17B3	FF		17B3	708+	DC	AL1(X'FF')	Q-BYTE
17B4	00		17B4	709+	DC	XL1'00'	R-BYTE
17B5	FF		17B5	710+	DC	AL1(X'FF')	CYLINDER
17B6	18		17B6	711+	DC	AL1(X'FF'*4+28)	SECTOR NUMBER 5444
17B7	FF		17B7	712+	DC	AL1(X'00'-1)	NUMBER OF SECTORS

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ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	03/12/21	PAGE 19
17B8	1900		17B9	713+	DC	AL2(OBJECT)			LIO ADDRESS
17BA			17BB	714+	DS	CL2			SENSE
17BC			17BC	715+	DS	CL1			ERROR COUNT
17BD	08		17BD	716+	DC	AL1(0+0+0+8)			FLAG BYTE
17BE	0000		17BF	717+	DC	XL2'0000'			ARR SAVE AREA
17C0	0000		17C1	718+	DC	XL2'0000'			XR2 SAVE AREA
17C2			17C3	719+	DS	CL2			RESERVED
17C4			17C5	720+	DS	CL2			RESERVED
17C6	D6		17C6	722	FDPARM DC	CL1'O'			LIBRARY
17C7	7C7C7C7C7C7C		17CC	723	DC	CL6'@@@@@'			MODULE NAME
17CD	D7		17CD	724	DC	CL1'P'			P OR S PACK
17CE	00000000		17D1	725	DC	XL4'00'			FILLED BY \$FIND
				726	*				
			17D2	727	LDPARM EQU	*			LOAD O-FILE PARM LIST
17D2	D6		17D2	728	DC	CL1'O'			OBJECT FILE
17D3	7C7C7C7C7C7C		17D8	729	DC	CL6'@@@@@'			FILE NAME
17D9			17D9	730	DS	XL1			USED BY LOAD
17DA	1900		17DB	731	DC	AL2(OBJECT)			LOAD ADDRESS
				732	*				
17DC	00		17DC	733	SCTRCT DC	XL1'00'			NR OF SCTRS TO COPY COUNTER
				734	*				
17DD	01		17DD	735	HEX01 DC	XL1'01'			HEX 01
17DE	04		17DE	736	HEX04 DC	XL1'04'			HEX 04
17DF	09		17DF	737	HEX09 DC	XL1'09'			HEX 09
17E0	0A		17E0	738	HEX0A DC	XL1'0A'			HEX 0A (DEC 10)
17E1	20		17E1	739	HEX20 DC	XL1'20'			HEX 20
17E2	64		17E2	740	HEX64 DC	XL1'64'			HEX 64 (DEC 100)
				741	*				
17E3	F0F0		17E4	742	EBC00 DC	CL2'00'			EBCDIC 00
				743	*				
1800				744	ORG	*,128,0			128 BYTE BOUNDARY
			1800	745	CCBUFF EQU	*			
1800			185F	746	DS	XL96			INPUT BUFF FOR CNTL CARDS
				747	*				
1860	1900		1861	748	OBJADR DC	AL2(OBJECT)			OBJECT BUFFER ADDRESS
1900				749	ORG	*,256,0			256 BYTE BOUNDARY
			1900	750	OBJECT EQU	*			STORAGE FOR OBJECT FILE, MAX
1900			6CFF	751	DS	84XL256			* SIZE 21248 BYTES
				752	*				
				753	***	EQUATES			
				754	*				
				755	*	CONTROL CARD LAYOUT			
			0005	756	CCNM EQU	5			OBJECT FILE NAME
			000A	757	CCOH EQU	10			OBJECT READ OFFSET (HIGH) @01
			000C	758	CCOL EQU	12			OBJECT READ OFFSET (LOW) @01
			000F	759	CCAR EQU	15			ARROW
			0014	760	CCPF EQU	20			LOC SYSTEM PROGRAM FILE
			0017	761	CCDK EQU	23			REL DISK ADDRESS IN SPF
			001A	762	CCCY EQU	26			CYLINDER
			001C	763	CCCS EQU	28			CYL/SECTOR
			001F	764	CC## EQU	31			NR OF SECTORS
				765	*				
				766	*	FIND REQUEST PARM LIST LAYOUT			
			0000	767	FDLB EQU	0			R/O LIBRARY INDR
			0006	768	FDNM EQU	6			OBJECT MODULE NAME

WRITE 5703-XM1 OBJECT FILES TO NEW BASIC PACK

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	03/12/21	PAGE 20
		0007	769	FDPS	EQU 7			
			770	*				P OR S PACK INDR
			771	*	LOAD PARM LIST LAYOUT			
		0000	772	LDLB	EQU 0			R/O LIBRARY INDR
		0006	773	LDNM	EQU 6			FILE NAME
		0009	774	LDLA	EQU 9			LOAD ADDRESS
			775	*				
			776	*	FIND RESULT PARM LIST LAYOUT			
		0000	777	FDDAC	EQU 0			MODULE DISK ADDR (CYL)
		0001	778	FDDAS	EQU 1			MODULE DISK ADDR (SCTR)
		0002	779	FDTSL	EQU 2			TEXT SECTOR LENGTH
		0004	780	FDLEA	EQU 4			LINK EDIT ADDRESS
		0005	781	FDRLD	EQU 5			DISP OF RLD'S
		0007	782	FDEPA	EQU 7			ENTRY POINT ADDRESS
		0008	783	FDSIZ	EQU 8			STORAGE SIZE
		000A	784	FDATT	EQU 10			MODULE ATTRIBUTES
			785	*				
			786	*	GENERAL EQUATES			
		0001	787	XR1	EQU 1			INDEX REGISTERS
		0002	788	XR2	EQU 2			*
		0001	789	DTF	EQU 1			DTF REGISTER
		0008	790	ARR	EQU 8			ADDRESS RECALL REG.
		0010	791	IAR	EQU 16			
			792	*				
		FFFF	793		END			

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 0

CROSS REFERENCE

VER 15, MOD 00 03/12/21 PAGE 21

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$MFRD	001	0001	0134	0175
\$ARR	001	0008	0063	
\$BDXM1	001	1200	0001	
\$DIARR	001	000F	0046	
\$DICB	001	0005	0039	0229* 0243* 0378* 0401* 0521*
\$DICC	001	0016	0053	
\$DICHN	001	0001	0035	
\$DICMP	001	0002	0036	0297 0312 0411
\$DIDAD	001	0007	0052	
\$DIDAT	001	0009	0042	0289* 0304* 0356* 0360* 0361*
\$DIDCH	001	0013	0048	
\$DIDTF	001	0015	0049	
\$DIERR	001	000C	0044	
\$DIFLG	001	000D	0045	
\$DIFL2	001	0005	0051	
\$DIHH	001	0017	0054	
\$DIN	001	0019	0056	
\$DINB	001	0007	0041	0290* 0305* 0387* 0389 0391 0393*
\$DIQB	001	0003	0037	0215* 0217 0219 0221 0272* 0291* 0306* 0365* 0367 0369 0371 0405*
\$DIR	001	0018	0055	
\$DIRB	001	0004	0038	
\$DISB	001	0006	0040	0233* 0239* 0271* 0382* 0397* 0514* 0515 0517* 0518 0520*
\$DISNS	001	000B	0043	
\$DIXR2	001	0011	0047	
\$DTF	001	0002	0060	0156* 0162* 0173* 0174 0176 0178 0499*
\$EQ	001	0001	0069	
\$FLS	001	0090	0066	
\$HI	001	0004	0067	
\$IAR	001	0010	0064	
\$IOB	001	0001	0059	0209* 0215 0217 0219 0221 0229 0233 0239 0243 0270* 0271 0272 0288* 0289 0290 0291 0295* 0297 0303* 0304 0305 0306 0310* 0312 0352* 0356 0360 0361 0365 0367 0369 0371 0378 0382 0387 0389 0391 0393 0397 0401 0405 0409* 0411 0514 0515 0517 0518 0520 0521
\$LDADR	001	0002	0061	
\$LO	001	0002	0068	
\$OVFB	001	0020	0070	
\$OVFD	001	0008	0071	
\$PARM	001	0002	0062	0149* 0191* 0328* 0422* 0439* 0452* 0465* 0479* 0493* 0616*
\$RDARR	001	0009	0014	
\$RDAT1	001	0002	0010	
\$RDAT2	001	0003	0011	
\$RDCHA	001	0005	0012	
\$RDCHB	001	0007	0013	
\$RDCMP	001	000E	0017	0176 0178
\$RDDAT	001	0001	0005	
\$RDDCH	001	0004	0007	
\$RDDEV	001	0000	0008	
\$RDERP	001	001A	0026	
\$RDFLG	001	0002	0006	
\$RDLRA	001	000D	0016	
\$RDOPR	001	000F	0018	0174*
\$RDPTB	001	0022	0030	
\$RDPTL	001	0023	0031	
\$RDPUB	001	0020	0029	
\$RDPUL	001	0024	0032	

CROSS REFERENCE

VER 15, MOD 00 03/12/21 PAGE 22

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$RDQ	001	0011	0020	
\$RDR	001	0012	0021	
\$RDRI0	001	001C	0027	
\$RDSNS	001	0015	0023	
\$RDSTA	001	0013	0022	
\$RDSTS	001	0010	0019	
\$RDSVA	001	0018	0025	
\$RDUI0	001	001E	0028	
\$RDUPS	001	0001	0009	
\$RDWKA	001	0016	0024	
\$RDXR1	001	000B	0015	
\$S004	004	121F	0149	0144
\$S008	004	126C	0191	0186
\$S011	004	13A5	0328	0323
\$S013	004	147D	0422	0417
\$S014	004	149C	0439	0434
\$S015	004	14B0	0452	0447
\$S016	004	14CA	0465	0460
\$S017	004	14E9	0479	0474
\$S018	004	1506	0493	0488
\$S021	004	160E	0616	0611
\$TRU	001	0010	0065	
\$004	001	121A	0145	0149
\$008	001	1267	0187	0191
\$011	001	13A0	0324	0328
\$013	001	1478	0418	0422
\$014	001	1497	0435	0439
\$015	001	14AB	0448	0452
\$016	001	14C5	0461	0465
\$017	001	14E4	0475	0479
\$018	001	1501	0489	0493
\$021	001	1609	0612	0616
ARR	001	0008	0790	0513 0530 0539 0564 0608
CC##	001	001F	0764	0247 0385
CCAR	001	000F	0759	
CCBUFF	001	1800	0745	0180 0194 0199 0213 0227 0231 0237 0241 0247 0260 0265 0274 0276 0279* 0320 0345 0354 0358 0363 0376 0380 0385 0395 0399 0414 0431 0457 0471 0675
CCCS	001	001C	0763	0231 0380
CCCY	001	001A	0762	0227 0376
CCDK	001	0017	0761	0213 0363
CCNM	001	0005	0756	0260 0265 0320 0345 0414 0431 0457 0471
CCOH	001	000A	0757	0274 0276 0279* 0358
CCOL	001	000C	0758	0199 0354
CCPF	001	0014	0760	0237 0241 0395 0399
CLOSE	001	150F	0496	0442 0455
CRLF	001	1602	0607	0141 0152 0331 0425 0468 0482 0485
CRLRTN	004	1617	0619	0608*
CSUPD	001	151D	0512	0278 0299 0314
CSUPD1	003	1531	0518	0516
CSURTN	004	153F	0522	0513* 0519
DBDLP1	003	15D3	0587	0591 0597
DBDLP2	003	15E7	0593	0588
DGHRTN	004	155B	0536	0530*
DGMNZI	005	1556	0535	0531*
DG1A2F	003	157B	0549	0544

CROSS REFERENCE

VER 15, MOD 00 03/12/21 PAGE 23

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DG1EXT	003	158E	0555	0547
DG1HEX	001	155F	0538	0532 0534
DG1RTN	004	1591	0556	0539* 0541
DG2EXT	003	15FB	0599	0566 0594
DG2HEX	001	1543	0529	0214 0228 0232 0238 0242 0275 0355 0359 0364 0377 0381 0396 0400
DG2INT	001	1595	0563	0248 0386
DG2RTN	004	15FE	0600	0564*
DTF	001	0001	0789	
DTFU01	001	175C	0659	0156 0162 0173 0499
EBC00	002	17E4	0742	0199
ERR02	006	148E	0431	0298 0313 0412
ERR03	001	14A8	0446	0177
ERR05	006	14BC	0457	0223 0252 0373 0390 0392 0546 0550 0552 0569 0571 0574 0576 0579 0581
ERR06	006	14DB	0471	0266
EXIT	004	14FA	0485	0179
FDATT	001	000A	0784	
FDDAC	001	0000	0777	
FDDAS	001	0001	0778	0271
FDEPA	001	0007	0782	
FDLB	001	0000	0767	0259*
FDLEA	001	0004	0780	
FDNM	001	0006	0768	0260* 0265
FDPARM	001	17C6	0722	0258 0271
FDPS	001	0007	0769	0261*
FDRLD	001	0005	0781	
FDSIZ	001	0008	0783	
FDTSL	001	0002	0779	
HEX0A	001	17E0	0738	0595
HEX01	001	17DD	0735	0253 0279 0317 0393 0521 0590 0596
HEX04	001	17DE	0736	0514
HEX09	001	17DF	0737	0553
HEX20	001	17E1	0739	0517
HEX64	001	17E2	0740	0589
IAR	001	0010	0791	
IOB01	001	179A	0686	0270 0288 0295 0352 0409
IOB02	001	17B0	0705	0209 0303 0310
LDLA	001	0009	0774	0361
LDLB	001	0000	0772	0344*
LDNM	001	0006	0773	0345*
LDPARM	001	17D2	0727	0340 0361
LOOP02	001	1341	0285	0277 0318
LOOP03	004	132C	0276	0280
MESSCR	001	175B	0654	0615
MESS00	001	161B	0626	0148 0182* 0183* 0190
MESS01	001	166B	0630	0320* 0327 0414* 0421
MESS02	001	1693	0634	0431* 0438
MESS03	001	16BB	0638	0451
MESS05	001	16E3	0642	0457* 0464
MESS06	001	170B	0646	0471* 0478
MESS09	001	1733	0650	0492
NEXTCC	001	123E	0169	0195 0332 0426 0469 0483
OBJADR	002	1861	0748	0289 0304
OBJECT	001	1900	0750	0694 0713 0731 0748
QBOKE1	004	12B0	0227	0218 0220 0222



CROSS REFERENCE

VER 15, MOD 00 03/12/21 PAGE 24

SYMBOL	LEN	VALUE	DEFN	REFERENCES
QBOKE2	004	140A	0376	0368 0370 0372
SCTRCT	001	17DC	0733	0249* 0251 0253* 0317*
START	001	1213	0140	0135
XFER01	001	128A	0203	0200
XFER02	001	13B6	0334	0201
XR1	001	0001	0787	
XR2	001	0002	0788	0180* 0183 0213* 0215 0227* 0229 0231* 0233 0237* 0239 0241* 0243 0247* 0249 0258* 0259 0260 0261 0265 0274* 0340* 0344 0345 0354* 0356 0358* 0360 0363* 0365 0376* 0378 0380* 0382 0385* 0387 0395* 0397 0399* 0401 0531 0533 0533* 0535 0540 0543 0545 0549 0551 0553 0555 0565 0568 0570 0573 0575 0578 0580 0583 0584 0585 0587 0589 0590 0593 0595 0596 0599 0599*

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 0

OL105 I THE CODE LENGTH OF \$BDXM1 IS 23296 DECIMAL.  
 OL103 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 9  
 NAME-\$BDXM1,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH	
			HEXADECIMAL	DECIMAL

1200	0	\$BDXM1	5B00	23296
6D00	6	\$\$MFRD	0145	325

OL100 I THE TOTAL CORE USED BY \$BDXM1 IS 23621 DECIMAL.

OL101 I THE START CONTROL ADDRESS OF THIS MODULE IS 1200.

OL104 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 94

NAME-\$BDXM1,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-O

002 0062 0147\* 0189\* 0326\* 0420\* 0437\* 0450\* 0463\* 0477\* 0491\* 0614\*

\$RDARR 001 0009 0014

\$RDAT1 001 0002 0010

\$RDAT2 001 0003 0011

\$RDCHA 001 0005 0012

\$RDCHB 001 0007 0013

\$RDCMP 001 000E 0017 0174 0176

\$RDDAT 001 0001 0005

\$RDDCH 001 0004 0007

\$RDDEV 001 0000 0008

\$RDERP 001 001A 0026

\$RDFLG 001 0002 0006

\$RDLRA 001 000D 0016

\$RDOPR 001 000F 0018 0172\*

\$RDPTB 001 0022 0030

\$RDPTL 001 0023 0031

\$RDPUB 001 0020 0029

\$RDPUL 001 0024 0032

CROSS REFERENCE

VER 15, MOD 00 03/12/21 PAGE 23

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$RDQ	001	0011	0020	
\$RDR	001	0012	0021	
\$RDRI0	001	001C	0027	
\$RDSNS	001	0015	0023	
\$RDSTA	001	0013	0022	
\$RDSTS	001	0010	0019	
\$RDSVA	001	0018	0025	
\$RDUI0	001	001E	0028	
\$RDUPS	001	0001	0009	
\$RDWKA	001	0016	0024	
\$RDXR1	001	000B	0015	
\$S004	004	121F	0147	0142
\$S008	004	126C	0189	0184
\$S011	004	13A5	0326	0321
\$S013	004	147D	0420	0415
\$S014	004	149C	0437	0432
\$S015	004	14B0	0450	0445
\$S016	004	14CA	0463	0458
\$S017	004	14E9	0477	0472
\$S018	004	1506	0491	0486
\$S021	004	160E	0614	0609
\$TRU	001	0010	0065	
\$004	001	121A	0143	0147
\$008	001	1267	0185	0189
\$011	001	13A0	0322	0326
\$013	001	1478	0416	0420
\$014	001	1497	0433	0437
\$015	001	14AB	0446	0450
\$016	001	14C5	0459	0463
\$017	001	14E4	0473	0477
\$018	001	1501	0487	0491
\$021	001	1609	0610	0614
ARR	001	0008	0788	0511 0528 0537 0562 0606
CC##	001	001F	0762	0245 0383
CCAR	001	000F	0757	
CCBUFF	001	1800	0743	0178 0192 0197 0211 0225 0229 0235 0239 0245 0258 0263 0272 0274 0277* 0318 0343 0352 0356 0361 0374 0378 0383 0393 0397 0412 0429 0455 0469 0673
CCCS	001	001C	0761	0229 0378
CCCY	001	001A	0760	0225 0374
CCDK	001	0017	0759	0211 0361
CCNM	001	0005	0754	0258 0263 0318 0343 0412 0429 0455 0469
CCOH	001	000A	0755	0272 0274 0277* 0356
CCOL	001	000C	0756	0197 0352
CCPF	001	0014	0758	0235 0239 0393 0397
CLOSE	001	150F	0494	0440 0453
CRLF	001	1602	0605	0139 0150 0329 0423 0466 0480 0483
CRLRTN	004	1617	0617	0606*
CSUPD	001	151D	0510	0276 0297 0312
CSUPD1	003	1531	0516	0514
CSURTN	004	153F	0520	0511* 0517
DBDLP1	003	15D3	0585	0589 0595
DBDLP2	003	15E7	0591	0586
DGHRTN	004	155B	0534	0528*
DGMNZI	005	1556	0533	0529*
DG1A2F	003	157B	0547	0542

CROSS REFERENCE

VER 15, MOD 00 03/12/21 PAGE 24

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DG1EXT	003	158E	0553	0545
DG1HEX	001	155F	0536	0530 0532
DG1RTN	004	1591	0554	0537* 0539
DG2EXT	003	15FB	0597	0564 0592
DG2HEX	001	1543	0527	0212 0226 0230 0236 0240 0273 0353 0357 0362 0375 0379 0394 0398
DG2INT	001	1595	0561	0246 0384
DG2RTN	004	15FE	0598	0562*
DTF	001	0001	0787	
DTFU01	001	175C	0657	0154 0160 0171 0497
EBC00	002	17E4	0740	0197
ERR02	006	148E	0429	0296 0311 0410
ERR03	001	14A8	0444	0175
ERR05	006	14BC	0455	0221 0250 0371 0388 0390 0544 0548 0550 0567 0569 0572 0574 0577 0579
ERR06	006	14DB	0469	0264
EXIT	004	14FA	0483	0177
FDATT	001	000A	0782	
FDDAC	001	0000	0775	
FDDAS	001	0001	0776	0269
FDEPA	001	0007	0780	
FDLB	001	0000	0765	0257*
FDLEA	001	0004	0778	
FDNM	001	0006	0766	0258* 0263
FDPARM	001	17C6	0720	0256 0269
FDPS	001	0007	0767	0259*
FDRLD	001	0005	0779	
FDSIZ	001	0008	0781	
FDTSL	001	0002	0777	
HEX0A	001	17E0	0736	0593
HEX01	001	17DD	0733	0251 0277 0315 0391 0519 0588 0594
HEX04	001	17DE	0734	0512
HEX09	001	17DF	0735	0551
HEX20	001	17E1	0737	0515
HEX64	001	17E2	0738	0587
IAR	001	0010	0789	
IOB01	001	179A	0684	0268 0286 0293 0350 0407
IOB02	001	17B0	0703	0207 0301 0308
LDLA	001	0009	0772	0359
LDLB	001	0000	0770	0342*
LDNM	001	0006	0771	0343*
LDPARM	001	17D2	0725	0338 0359
LOOP02	001	1341	0283	0275 0316
LOOP03	004	132C	0274	0278
MESSCR	001	175B	0652	0613
MESS00	001	161B	0624	0146 0180* 0181* 0188
MESS01	001	166B	0628	0318* 0325 0412* 0419
MESS02	001	1693	0632	0429* 0436
MESS03	001	16BB	0636	0449
MESS05	001	16E3	0640	0455* 0462
MESS06	001	170B	0644	0469* 0476
MESS09	001	1733	0648	0490
NEXTCC	001	123E	0167	0193 0330 0424 0467 0481
OBJADR	002	1861	0746	0287 0302
OBJECT	001	1900	0748	0692 0711 0729 0746
QBOKE1	004	12B0	0225	0216 0218 0220

CROSS REFERENCE

VER 15, MOD 00 03/12/21 PAGE 25

SYMBOL	LEN	VALUE	DEFN	REFERENCES
QBOKE2	004	140A	0374	0366 0368 0370
SCTRCT	001	17DC	0731	0247* 0249 0251* 0315*
START	001	1213	0138	0134
XFER01	001	128A	0201	0198
XFER02	001	13B6	0332	0199
XR1	001	0001	0785	
XR2	001	0002	0786	0178* 0181 0211* 0213 0225* 0227 0229* 0231 0235* 0237 0239* 0241 0245* 0247 0256* 0257 0258 0259 0263 0272* 0338* 0342 0343 0352* 0354 0356* 0358 0361* 0363 0374* 0376 0378* 0380 0383* 0385 0393* 0395 0397* 0399 0529 0531 0531* 0533 0538 0541 0543 0547 0549 0551 0553 0563 0566 0568 0571 0573 0576 0578 0581 0582 0583 0585 0587 0588 0591 0593 0594 0597 0597*

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 0

OL105 I THE CODE LENGTH OF \$BDXM1 IS 23296 DECIMAL.  
 OL103 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 9  
 NAME-\$BDXM1,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH	
			HEXADECIMAL	DECIMAL
1200	0	\$BDXM1	5B00	23296
6D00	6	\$\$MFRD	0145	325

OL100 I THE TOTAL CORE USED BY \$BDXM1 IS 23621 DECIMAL.  
OL101 I THE START CONTROL ADDRESS OF THIS MODULE IS 1200.  
OL104 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 94  
NAME-\$BDXM1,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-O